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25 July 2013
File No. 37290-009

USEPA REGION 5
77 West Jackson Boulevard
Mail Code: LU-9J
Chicago, IL 60604-3507

Attention: Gregory A. Rudloff, P.G.

Subject: RFI Report (Revised) for the Former General Motors Powertrain (GMPT) – Livonia Site
12200 Middlebelt, Livonia, Michigan
USEPA ID #MID000718874

Dear Mr. Rudloff:

Enclosed on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) please find a compact disk containing Adobe® Acrobat® Reader files pertaining to the RCRA Facility Investigation Report (Revised) involving the referenced property. Two hardcopies of this document are also enclosed.

The enclosed document was first submitted to you on 15 March 2013. You provided comments via electronic mail on 21 May 2013. Draft revisions to the 15 March version of the document were submitted to you via electronic mail on 17 June 2013. You approved these revisions via electronic mail on 10 July 2013. The enclosed document represents a finalized report incorporating the approved 17 June 2013 revisions.

If you have any questions concerning this information, or would like to discuss these matters in more detail, please do not hesitate to call us.

Sincerely yours,
HALEY & ALDRICH OF MICHIGAN, INC.

Derek C. Kaiding, P.E
Senior Project Manager - Vice President

Enclosures:

RCRA Facility Investigation Report (Revised)
Former GM Powertrain Division Livonia
12200 Middlebelt Road, Livonia, Michigan, USEPA ID #MID000718874

c:

Livonia Civic Center Library; Attn.: Mr. Carl Katafiasz
RACER Trust; Attn.: Mr. Grant Trigger
RACER Trust; Attn.: Mr. David Favero
Haley & Aldrich, Inc.; Attn.: Mr. James W. Little

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RCRA FACILITY INVESTIGATION REPORT
FORMER GM POWERTRAIN DIVISION LIVONIA
12200 MIDDLEBELT ROAD, LIVONIA, MICHIGAN

USEPA ID #MID000718874

by

Haley & Aldrich of Michigan, Inc.
Ann Arbor, Michigan

for

Revitalizing Auto Communities
Environmental Response Trust
Ypsilanti, Michigan

File No. 37290
Revised 25 July 2013
15 March 2013

HALEY & ALDRICH

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LIST OF ACRONYMS AND ABBREVIATIONS

AOI	Area of Interest
BGS	Below Ground Surface
GM	General Motors
GMPT	General Motors Powertrain
GPR	Ground Penetrating Radar
GWP	Groundwater Protection
GPRA	Government Performance Results Act
Haley & Aldrich	Haley & Aldrich of Michigan, Inc.

LIST OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

mg/kg	Milligrams per Kilogram
mg/L	Milligrams per Liter
mL/min	Milliliters per minute
MDEQ	Michigan Department of Environmental Quality
MDNR	Michigan Department of Natural Resources
MDNRE	Michigan Department of Natural Resources and Environment
MI	Michigan
Michigan 10 Metals	Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Selenium, Silver, and Zinc
MNREPA	Natural Resources and Environmental Protection Act Public Act 451 of 1994
NTU	Nephelometric Turbidity Units
Part 201	Part 201 of Michigan's Natural Resources and Environmental Protection Act of 1994 (as amended)
Part 201 Criteria	Nonresidential Screening Criteria included in Part 201 of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended
PAHs	Polycyclic Aromatic Hydrocarbons
RCRA	Resource Conservation and Recovery Act
RDW	Residential Drinking Water
RfC	Reference Concentration
RfD	Reference Dose
RME	Reasonable Maximum Exposure
QAPP	Quality Assurance Project Plan
RFI	RCRA Facility Investigation
TCL	Target Compound List
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds
WWTP	Wastewater Treatment Plant

1. INTRODUCTION

1.1 General

Haley & Aldrich, of Michigan Inc. (Haley & Aldrich) has prepared this *Resource Conservation and Recovery Act (RCRA) Facility Investigation Report* (RFI Report) on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER) of Ypsilanti, Michigan. This RFI Report covers work performed during 2012 at the former General Motors (GM) Powertrain property located at 12200 Middlebelt Road, Livonia, Wayne County, Michigan (the Site) (Figure 1). The Site owner is referred to as RACER in this document, regardless of the time frame discussed.

Despite no history of hazardous waste being stored at the Site for more than 90 days and the Site not being subject to RCRA interim status, RACER has entered into a Performance Based Corrective Action Agreement with Region 5 of the United States Environmental Protection Agency (USEPA) for the Site.

This RFI Report describes the procedures, methods and results of the field investigations conducted during implementation of the RCRA Facility Investigation (RFI) activities proposed in the *RCRA Current Conditions Summary/RFI Work Plan* (Haley & Aldrich, December 2011; Revised May 2012) ("RFI Work Plan") and covers data collected through end of 2012.

The RFI Work Plan was approved by the USEPA via electronic mail on 11 May 2012. Proposed modifications to the scope of the RFI activities were communicated to USEPA via electronic mail dated 3 July 2012. The proposed modifications were approved by USEPA via electronic mail dated 9 July 2012. The scope of the RFI activities was again modified via electronic mail on 12 November 2012, and was approved by USEPA via electronic mail dated 13 November 2012.

The data collected to date have been evaluated to characterize the nature and extent of hazardous constituents in the environmental media at the Site. Human health and ecological risk evaluations are included in this RFI Report to provide a basis for determining whether the presence of hazardous constituents poses an unacceptable risk to human health and the environment that would warrant corrective measures.

1.2 Report Organization

This RFI Report is organized as follows:

- Section 1 provides an introduction to this report and an outline of its organization.
- Section 2 provides a brief overview of RFI activities and modifications made to the scope of work covered by the RFI Work Plan.
- Section 3 discusses the environmental setting of the Site, updated from the RFI Work Plan as appropriate, including land use, water supply/groundwater use, demographics, climate, geology, hydrogeology, surface water/drainage, and conceptual Site models for human and ecological exposures.

- Section 4 presents a discussion of the RFI results with respect to Nonresidential Screening Criteria included in Part 201 of the Michigan Natural Resources and Environmental Protection Act (MNREPA), 1994 PA 451, as amended (Part 201).
- Section 5 presents a human health risk evaluation concerning the significance of hazardous constituents in affected environmental media at the investigated areas and whether corrective measures are warranted.
- Section 6 summarizes the conclusions of the RFI.
- Section 7 lists associated references.

The tables, figures, and appendices referenced throughout this report provide supporting information pertaining to the RFI activities conducted for the Site.

2. OVERVIEW OF THE RFI

2.1 Site Description and History

As previously described in the RFI Work Plan, the Site is located at 12200 Middlebelt Road in Livonia, Michigan and is approximately 40 acres. It is generally a square-shaped tract of land situated in a mixed industrial/commercial/residential area (Figure 2). The Site is located east of Middlebelt Road between Industrial Road and Plymouth Road, in Wayne County, Michigan. It is bordered on the north by CSX Railroad tracks. Commercial property is located beyond the railroad tracks to the north. The Site is bordered to the east and to the south by residential and commercial areas and to the west by a City of Livonia Fire Station and Middlebelt Road. Beyond Middlebelt Road, to the west, is a large industrial property.

The main structure at the Site is a single story building, which until June 2010, was used for machining and assembly operations associated with automotive manufacturing. Approximately 1.2 million square feet is under roof. Former onsite activities were associated with automotive engine manufacturing and assembly, warehousing, and operation of an air compressor building, as well as an onsite wastewater treatment plant (WWTP) used for management and treatment of process wastewater. An electric utility substation operated by DTE Energy is located on the northeast portion of the Site.

The original Site building was constructed in 1971 and operated as Livonia Machining, which encompassed approximately 20 percent of the existing floor space. In 1984, the facility was expanded to accommodate engine manufacturing operations and a new warehouse.

Section 2 of the RFI Work Plan summarized individual areas of the Site which had the potential for a release of hazardous waste or hazardous constituent to the environment. These areas are referred to as Areas of Interest (AOIs). A total of 42 AOIs were identified, 36 of which were identified for further investigation. The remaining 6 AOIs warranted no further action and are not being carried forward through the Corrective Action process. The 36 AOIs subject to investigation in the RFI are summarized in Table I of this report. Further details concerning the 42 AOIs identified are provided in Table I of the RFI Work Plan.

2.2 Summary of RFI Activities and Work Plan Modifications

Section 3 of the RFI Work Plan described the scope of work that was initially planned for the Site, including discussions regarding RFI Goals and Objectives, RFI Approach, and Sampling and Analysis Plan for Areas of Interest (soil, groundwater, and non-aqueous phase liquid [NAPL]). Section 4 of the RFI Work Plan discussed plans for the evaluation of the resulting RFI data.

Field activities were conducted at the Site pursuant to the RFI Work Plan, as amended, as well as the associated *Field Sampling Plan*, and *Quality Assurance Project Plan* (QAPP) (Haley & Aldrich, December 2011; Revised May 2012).

The field activities associated with the initial phase of implementation of the RFI Work Plan were described in Table 1 of the RFI Work Plan and generally included identifying soil boring locations and clearing utilities for those locations, inspecting accessible trenches and subsurface process conveyances as specified in the Plan, conducting ground-penetrating radar (GPR) surveys of areas specified in the Plan, installing soil borings, installing temporary monitoring wells, and collecting samples of soil and samples of groundwater for laboratory analysis.

The initial phase of the RFI was undertaken at the Site during the period of 4 June 2012 through 31 August 2012, and included the following activities:

- Drilling of 70 test borings, with continuous interval sampling to depths of up to 35 feet below the ground surface (bgs);
- Photoionization detector (PID) screening, visual characterization, and soil/water shake testing of soil samples;
- Collection and laboratory analysis of 61 soil samples (including QA/QC samples) from 53 locations;
- Installation of 13 temporary monitoring wells;
- Collection and laboratory analysis of 11 groundwater water samples from 11 of the 13 temporary monitoring wells;
- Inspection and video recording, where possible, of Below-Grade Process Flumes (AOI 27) and Below-Grade Process Waste Conveyances Lines (AOI 28) for the purpose of selecting locations for soil borings to be drilled along those units; and
- Conducting GPR surveys at AOI-08, AOI -17, and AOI -26;

All soil samples subject to laboratory analysis were analyzed for the following:

- Target Compound List (TCL) volatile organic compounds (VOCs);
- TCL polycyclic aromatic hydrocarbons (PAHs);
- TCL polychlorinated biphenyls; and
- Michigan 10 metals (Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Selenium, Silver, and Zinc).

All groundwater samples were submitted for laboratory analysis of the following analytes:

- TCL VOCs;
- TCL PAHs; and
- Michigan 10 metals.

Groundwater samples collected were also analyzed for the following parameters in the field:

- Dissolved Oxygen (DO);
- Oxidation-reduction potential (ORP);
- Alkalinity/acidity (pH);
- Temperature;
- Conductivity; and
- Turbidity.

Groundwater samples exhibiting turbidity reading exceeding 10 Nephelometric Turbidity Units (NTUs) were submitted for both total (unfiltered) and dissolved (filtered) metals analysis.

As agreed by USPEA, a second phase of the RFI was initiated in November 2012 to facilitate collection of additional groundwater data to further evaluate groundwater quality and groundwater stability at the Site. This work targeted 11 of the 13 Site wells. Nine of the 11 targeted wells were developed and sampled. The remaining 2 targeted were dry and could not be developed or sampled. The wells were developed in November 2012 via gentle surging and low-rate purging, and were sampled on 10 December 2012 through 12 December 2012 using ultra-low-flow sampling techniques. These samples were analyzed for arsenic and lead (both filtered and unfiltered).

Tables II through V summarize the following information pertaining to the RFI field investigation, respectively:

- Soil Boring Inventory and Completion Summary;
- Temporary Monitoring Well Inventory and Completion Summary;
- Soil Sample Collection Summary; and
- Groundwater Sample Collection Summary.

2.3 RFI Work Plan Modifications

A total of 79 soil borings were initially planned for investigation pursuant to the RFI Work Plan, and each of these borings was anticipated to be converted to a temporary monitoring well. Groundwater grab samples were to be collected from each temporary monitoring well and submitted for laboratory analyses. The results of these groundwater analyses were to be assessed for whether evidence of release of hazardous constituents was observed for the respective AOI, and subsequent soil samples and/or groundwater samples would be collected as follow-up actions, if warranted based on evidence of impact. Only a limited number of soil samples were planned to be collected during the initial phase of the RFI.

The work completed during the initial phase of the RFI represented a modification to the RFI Work Plan. These modifications resulted from conditions encountered at the Site, and were conducted with concurrence from the USEPA. The following modifications were implemented:

- Reduced number of soil borings locations due to their proximity to building features, proximity to other boring locations, the inability to clear associated utilities, negative results of GPR surveys, and/or refusal encountered during drilling (70 actual versus 79 planned);
- Reduced number of wells (13 actual versus 79 planned) and only limited groundwater being encountered due to the presence of a thick, dense clay layer observed during drilling (water at only 11 of 13 locations); and
- Increased number of soil samples (61 soil samples actual versus 30 planned) collected and analyzed to offset the anticipated reduction in groundwater data that would serve as a surrogate for identification of release at the majority of the AOIs.

Additionally, the RFI Work Plan called for the first round of groundwater samples to be collected as grab samples using a peristaltic pump, with no pre-sampling well development efforts to be performed. However, prior to sampling each of the monitoring wells in August 2012, to the extent possible depending upon well yield, each well was purged at a rate of approximately 200 to 300 mL/min, until readings of field indicator parameters (pH, temperature, conductivity, ORP, DO, and turbidity) stabilized. Stabilization was considered to be achieved when the final groundwater flow rate was achieved, and three consecutive readings for each of the parameters were within the following limits:

- pH = ±0.1 pH units of the average value of the three readings;
- Temperature = ±3 percent of the average value of the three readings;
- Conductivity = ±0.005 milliSiemen per centimeter (mS/cm) of the average value of the three readings for conductivity <1 mS/cm and ±0.01 mS/cm of the average value of the three readings for conductivity >1 mS/cm;
- ORP = ±10 millivolts (mV) of the average value of the three readings;
- DO = ±10 percent of the average value of the three readings; and
- Turbidity = ±10 percent of the average value of the three readings, or a final value of less than 5 NTU.

Only 11 of the 13 monitoring wells yielded a sustained flow of groundwater sufficient to facilitate sampling. Sampling withdrawal rates ranged approximately 100 to 200 mL/min.

As further detailed in Section 4.2, the initial round of groundwater samples exhibited the presence of only arsenic and lead at concentrations exceeding screening criteria which are discussed in Section 4.1.

Based on these findings, it was proposed to and agreed with USEPA that a second round of groundwater sample collection would be performed to further assess the presence of these constituents in Site groundwater.

It is well known that these constituents are commonly linked to the presence of sediments suspended and/or dissolved in the groundwater. Evidence of this is observed with respect to the initial round of Site groundwater results, as filtered sample results are lower than the unfiltered results. Specifically, in all but one case of comparable data sets in which one of these constituents were exceeded in the unfiltered sample, the corresponding filtered concentration was shown to be either "non-detect" or below criteria.

In cases where constituent presence in groundwater is believed to be attributed to suspended and/or dissolved sediment, conditions for obtaining groundwater samples that are more representative and appropriate for risk evaluation are often improved with well surging and further purging, and the employment of ultra-low-flow sampling techniques.

As such, on 13 November 2012 through 15 November 2012 the previously sampled monitoring wells were subject to gentle surging using a polyethylene well bailer, and approximately 10 well volumes of groundwater were removed. These wells were allowed to rest for approximately two weeks, and were then subject to additional purging at an approximate rate of approximately 100 to 150 mL/min until stabilization was achieved. These wells were again allowed to rest for approximately two weeks, and on 10 December 2012 through 12 December 2012 samples were collected from 9 of the 11 wells for analyses of arsenic and lead (both filtered and unfiltered analyses). These samples were collected using ultra-low-flow sampling techniques involving sampling withdrawal rates of approximately 75 to 80 mL/min. The results of these efforts are discussed in Section 4.2.

It is also appropriate to note that during the initial phase of RFI implementation, approximately 2.5 gallons of diesel fuel was spilled into a blind (no outlet) concrete and steel constructed storm trench located along the south side of the building at one of the loading docks (exterior – Teal Dock). This incident occurred on 19 June 2012 while drilling subcontractors were re-fueling their drilling equipment. The subcontractor immediately used oil booms and pumps to remove the diesel fuel and impacted water contained in the blind trench, and then removed impacted solids from the base of the trench. The subcontractor containerized all wastes from these activities in drums and disposed of the wastes off-site.

3. ENVIRONMENTAL SETTING

This section describes the environmental setting at the Site, including land use, water supply/groundwater use, demographics, climate, geology, hydrogeology, surface water/drainage, and conceptual Site models for human and ecological exposures.

3.1 Land Use

The Site is located in a mixed industrial, residential and commercial area. Residential neighborhoods are adjacent to the southern boundary of the Site and in the areas east of the Site. Towards the north and west the land is developed with light industrial and commercial properties.

3.2 Groundwater Use/ Water Supply

The City of Livonia prohibits groundwater well installations and potable use of groundwater through its City Ordinance 13.40.030 (Ord. 2823, § 1, 2009). This Ordinance governs groundwater use for more than 6 miles down gradient of the Site. The State of Michigan requires licensure of all groundwater well drillers operating in the State, and Wayne County requires permits be issued for all drinking water well installations. These various overlapping requirements provided strict control over drinking water well installations in this area.

Groundwater use near the Site was explored by reviewing publically available information gathered from the Internet. This groundwater use survey was conducted for more than a one-mile radius of the Site in October 2012 (http: // deq.state.mi.us / well-ogs / default.asp and http: // wellviewer.rsgis.msu.edu / viewer.htm). Of the 61 wells identified in the Township and Range of the Site, 12 private wells were identified in the sections adjacent to, or within a one mile radius, of the Site. Of the 12 private wells, 3 were identified as domestic wells, only 1 of which appears to be located downgradient of the Site (approximately 5,500 feet). Drinking water is supplied to the Site by the City of Livonia through the Detroit Water and Sewage Department, with the ultimate source of drinking water to the Site being the Detroit River.

3.3 Climate

The Wayne County climate is influenced by the Great Lakes and has a continental climate. It has a temperate climate with well-defined seasons. Frequent weather changes come from the passing of weather fronts and associated low and high centers of air pressure across the region. Winds are typically from the southwest, but during the winter months are dominantly from the northwest. The average January low temperature is 17^{o} F, and the average July high temperature is 84^{o} F (http://www.bestplaces.net/climate/county/michigan/wayne). The total annual rainfall and snowfall for the county are each approximately 32 inches (http: // www.bestplaces.net / climate / county / Michigan / wayne).

3.4 Demographics

As presented at: http://www.city-data.com/city/Livonia-Michigan.html, the City of Livonia, Michigan measures approximately 36 square miles, and is comprised of mostly urban area, with a population density of approximately 2,700 people per square mile. Its overall population is approximately 96,000 people, with the man/women ratio being about 48/52. The median age of this population is about 45 years old, and its estimated median annual household income in 2009 was about $66,500.

3.5 Surface Water Hydrology

Topographically, the Site is flat. The general area has a gradual gradient from west to east/southeast. On-site surface drainage appears to be primarily controlled by a storm water sewer system and likely historically affected by an abandoned tributary of the Shaw Drain. Storm water south and northeast of the Site is conveyed to Outfall 001 at the west-southwest property boundary. Storm water in the vicinity of the Site's WWTP that is located in the northeast corner of the Site is discharged to Outfall 002. The receiving waters of Outfall 001 and Outfall 002 are conveyed to the Lower Rouge River via the Shaw Drain (the nearest active surface water drainage channel). The Lower Rouge River empties into the Rouge River, which then flows southeast to the Detroit River, located more than 15 miles south east of the Site. The Detroit River eventually empties into Lake Erie.

3.6 Site Geology and Hydrogeology

Site Geologic conditions were characterized during the RFI to a depth of approximately 35 feet bgs. Descriptions of soil encountered at the 70 RFI boring locations are presented on boring logs included on compact disk in Appendix A. The focus of the RFI was to characterize the nature and extent of any release(s) of hazardous waste and/or hazardous constituents at the Site which may pose an unacceptable risk to human health and the environment. Investigation locations were selected based on field conditions, and were biased based on historical process information, Site-specific physical parameters, observed potential evidence of contamination, and observed potential evidence of preferential pathways.

Stratigraphic correlations of on-site investigative locations are illustrated in cross-sections included as Figures 4, 5, and 6, with orientations as illustrated on Figure 3. Soil descriptions and stratigraphy observed at the Site are consistent with published regional information (see Section 1.2 of RFI Work Plan). The Site and surrounding area is flat with layered lacustrine deposits consistent with a lake plain depositional environment. Below a surface dominated by concrete, fill material consists of sandy to clayey-sand. The surface fill material (dominated by sand) is generally encountered less than 10 feet bgs; however, it extends deeper adjacent to subgrade/basement structures. Across the Site, the fill material is underlain by a thick clay/silty-clay layer. Soil descriptions of the clay identify sand and gravel lenses, consistent with glacial tills.

Temporary monitoring wells were installed in soil borings with evidence of sufficient soil moisture likely to yield representative groundwater samples pursuant to the USEPA-approved modifications to the RFI Work Plan collectively discussed in Sections 1.1 and 2.3 of this report. As previously noted, only 13 of the 70 soil borings were converted to temporary monitoring wells, as only these 13 borings

exhibited evidence of wet soil conditions during drilling. Figures 3 through 7 each illustrate the location of these temporary monitoring wells. One of the 13 temporary monitoring wells was observed to be dry during the second phase RFI activities conducted in November and December 2012. One other temporary monitoring well does not consistently yield groundwater volumes sufficient for sampling. Two of the temporary monitoring wells are installed 10 feet deeper than the other wells due to adjacent building conditions (existing basement).

Consistent with previous reports, the shallow groundwater encountered at the Site is on average less than 10 feet below ground surface. Shallow groundwater potentiometric surface elevations recorded in December 2012 ranged approximately from 629 to 631 feet above mean sea level (AMSL) in the northeastern portion of the Site near the WWTP, approximately from 627 to 628 in the southwestern portion of the Site, and were nearly flat within the center of the Site at about 626 AMSL. These potentiometric surface gradient trends indicate flow toward the center of the Site. Although this is plausible, since subsurface structures (e.g., sewers) could be influencing the flow of shallow Site groundwater, it is believed that the flow of shallow Site groundwater would be limited by low hydraulic conductivity of the clay-rich glacial till layer.

3.7 Conceptual Site Model for Human Exposures

As previously discussed, the Site occupies approximately 40 acres in Livonia, Michigan that are zoned for light and heavy industry. Future land use at the Site is expected to remain commercial/industrial. As part of the final remedy for the Site, a deed restriction to maintain continued commercial/industrial use is planned for the Site, and will be pursued following the completion of the RFI. As such, workers comprise the main receptor population at the Site under both current and reasonably expected future land use.

Under current and reasonably expected future conditions, the populations with potentially significant on-site exposures are routine workers, maintenance workers, construction workers, and trespassers. It is anticipated that any subsurface maintenance work at the Site would be conducted in accordance with Due Care requirements under Section 20107a of MNREPA, and a Site Health and Safety Plan, which would contain provisions for preventing significant exposures of such workers to environmental media.

The off-site areas around the Site consist of a mixture of commercial/industrial and residential land use. Current zoning for these areas is expected to remain unchanged. As such, the largest potentially exposed populations around the Site are residents, routine workers and maintenance workers.

In summary, the potentially exposed populations at and around the Site under current and reasonably expected future land use include the following:

Onsite:

- Routine workers,
- Maintenance workers,
- Construction workers, and
- Trespassers

Off-site:

- Residents,
- Routine workers, and
- Maintenance workers

3.8 Conceptual Site Model for Ecological Exposures

The Site and the immediate surrounding area have been significantly developed with much of the ground surface covered by buildings and pavement and consisting of commercial and industrial development, residential development, and public roadways. Nearly the entire Site is covered by buildings or pavement. The limited areas along Middlebelt Road that are not covered by buildings or pavement are maintained landscaping areas. Vegetation is also present near the DTE substation.

The Site does not provide naturalized areas for wildlife. Potential receptors are limited to urban wildlife (raccoons, gophers, rodents and various avian species) or transitory presence. The Site does not provide any quality habitat for ecological receptors. Based on current and foreseeable land use of the Site and area, terrestrial and/or aquatic exposure of ecological receptors is considered nominal and/or incomplete. Therefore, further ecological assessment is not required to document no significant risk to ecological receptors.

4. INVESTIGATION RESULTS AND DISCUSSION

This section presents a summary of the results of the field investigations of the 36 AOIs considered during this RFI. As previously discussed in Section 2.2, these investigations included, the drilling of 70 test borings, collection and analysis of 61 soil samples, installation of 13 temporary monitoring wells, and collection and analysis of 11 groundwater water samples.

Section 4.1 describes the MDEQ screening criteria used during this investigation, and Section 4.2 discusses the results of investigations. The associated analytical data and screening results are presented/summarized both in table and figure formats as follows:

- Table VI– Summary of Part 201 Screening Criteria for Soil;
- Table VII – Summary of Part 201 Screening Criteria for Groundwater;
- Figure 7 – Soil and Groundwater Analytical Data;
- Appendix B-1 – Summary of Soil Analytical Data; and
- Appendix B-2 – Summary of Groundwater Analytical Data.

Additionally, GPR surveys were conducted at three of 36 AOIs (AOI-08, AOI -17, and AOI -26) to assess for the possible presence of underground storage tanks (USTs). The GPR surveys were conducted coincidently with the GPR surveys for the clearing of underground utilities, which facilitated the selection of boring locations on a real-time basis. Field event personnel accompanied the GPR surveyors for clearing of utilities and for review of the areas identified as AOI-08, AOI-17 and AOI-26. The GPR surveys were not electronically recorded, nor were documents generated by the GPR surveyor. Based on the observed response of the GPR equipment, no subsurface anomalies were detected at AOI-08, AOI-17 and AOI-26 to suggest the presence of any USTs; therefore, no borings were installed in these areas.

Also, as specified in the RFI Work Plan, Below-Grade Process Flumes (AOI 27) and Below-Grade Process Waste Conveyances Lines (AOI 28) were subject to internal videotape inspections for the purpose of selecting locations for soil borings to be drilled along those units. It was anticipated that this inspection would facilitate the identification of any potential integrity problems with the units (e.g., wall abrading, cracking, or splitting and/or joint disconnections, etc.), and if any such integrity problems were to be identified, a soil boring/temporary groundwater monitoring well would be located at the point of the identified problem. However, no such problems were identified; therefore, these units were each investigated using a random selection of sampling locations. The videotape documentation of these inspections is represented on DVDs included in Appendix E.

4.1 Identification of Potentially Significant Releases

Analytical results for soil and groundwater samples collected at the Site were compared to conservative screening criteria to determine if potentially significant releases to the environment have occurred, and if the field investigation adequately characterized these potentially significant releases. The screening

criteria for each medium are summarized below and have been identified to be applicable to the Site based on the conceptual Site model for human exposures discussed in Section 3.7.
The soil characterization data were compared with screening criteria that are developed by the MDEQ to facilitate implementation of Part 201 (Part 201 Criteria).

The following are the Part 201 Criteria* were used to evaluate the Site characterization data:

- Part 201 Nonresidential Drinking Water Protection Criteria;
- Part 201 Nonresidential Indoor and Ambient Air Criteria; and
- Part 201 Nonresidential Direct Contact Criteria;

As previously noted, groundwater samples were intended to be collected from all initial soil borings to assist in the assessment of potential groundwater impact and in the placement of future groundwater monitoring wells, if needed. However, water accumulated in only 12 of the 13 temporary monitoring wells, and volumes of groundwater sufficient for sampling were found in only 11 of the 13 temporary monitoring wells. These wells were sampled on two occasions, once in August 2012 and once in December 2012. In November 2012, prior to initiating the second round of groundwater sample collection, the targeted wells were carefully developed using gentle surging and low purge rates to remove soil particles from the wells, as discussed in Section 2.3. Following this development, the December 2012 groundwater samples were collected using ultra-low-flow sampling techniques (sample withdrawal rates less than 80 milliliters per minute or less), as a further measure to obtain representative groundwater samples for laboratory analysis of arsenic and lead.

All of the RFI groundwater data have been compared with the following Part 201 Criteria:

- Part 201 Nonresidential Drinking Water Criteria;
- Part 201 Nonresidential Volatilization to Indoor Air Inhalation Criteria;
- Part 201 Nonresidential Groundwater Contact Criteria;
- Water Solubility Levels;
- Flammability and Explosivity Levels; and
- Acute Inhalation Levels.

Constituents with at least one concentration exceeding the screening criteria anywhere at the Site were selected for display on a "data-box" figure (Figure 7).

A potentially significant release of hazardous constituents to the environment at an area is considered when the highest site-related concentrations of constituents detected in soil or groundwater at the area are higher than any of the screening criteria. The presence of constituent concentrations higher than the

* Updated by MDEQ on 28 September 2012.

screening criteria may not mean that the media necessarily poses a significant risk to human health or the environment. It only means that the potential to pose a significant risk should be further evaluated with consideration for additional site-specific factors.

4.2 RFI Results and Discussion

4.2.1 Overview

As discussed in Section 2, 36 AOIs were subject to investigation based on evidence of a past release, historic operations, visual observations, and/or file review results. Tables B-1 and B-2 of Appendix B summarize the soil and groundwater data generated as part of the RFI with respect to each AOI. These tables present the analytical results for all analytes for the soil and groundwater samples collected during the RFI. As previously noted, Figure 7 also illustrates analyte exceedences across the Site. Validation of all soil and groundwater data collected at the Site as part of the RFI was performed in accordance with the QAPP. A summary of this validation is provided in Appendix C. The Site characterization data obtained for each of the AOIs investigated during this RFI are judged to be adequate and appropriate for RCRA Corrective Action decision-making. The laboratory reports are included on compact disk in Appendix D.

4.2.2 Analyte Detections and Criteria Exceedances

As shown in Tables B-1 and B-2 of Appendix B, constituents detected at the Site as part of the RFI include primarily select metals at various locations, PAHs at one location, and select VOCs at seven locations. Of the Part 201 Criteria discussed in Section 4.1, only the following were exceeded when compared to the RFI analytical data for the Site:

- Part 201 Nonresidential Drinking Water Protection Criteria (soil); and
- Part 201 Nonresidential Drinking Water Criteria (water).

4.2.2.1 Soil Criteria Exceedances

Two soil samples exceeded the Nonresidential Drinking Water Protection Criteria of 4.6 mg/kg for arsenic:

AOI	Soil Sample ID	Interval (ft.)	Arsenic Concentration (mg/kg)
AOI-04	SB-04-157	8-10	8.58
AOI-06	SB-06-137	22-24	7.03

These arsenic concentrations also exceed the Part 201 State Default Background Screening Criteria for arsenic, which is 5.8 mg/kg. No other soil data exceeded screening criteria.

These two arsenic in soil exceedances have been further assessed in the context of the MDEQ's *Michigan Background Soil Survey 2005* (2005 Soil Survey [MDEQ, 2005]). The 2005 Soil Survey publishes ranges of background values for arsenic (among other inorganic constituents) in soil in Michigan across assigned regions (i.e., glacial lobes) and soil types (i.e., topsoil, sand, and clay), and offers a general range of background values for arsenic (among other inorganic constituents) in soil across all soil types and regions in Michigan. The Site is located the 2005 Soil Survey-assign region of the Huron-Erie Glacial Lobe. Both of the above-listed soil samples are characterized as clay, and their corresponding arsenic concentrations each fall just below the local geometric mean for Huron-Erie Glacial Lobe for clay (9 mg/kg), as per the 2005 Soil Survey. These concentrations also both fall well below the State-wide maximum arsenic background level for combined soil types (27.7 mg/kg).

Accordingly, the above-listed arsenic in soil exceedances are believed to be present as a result of natural conditions (i.e., types of soil deposits), and are not believed to be attributed to Site operations, since arsenic is not known to be have been used at the Site, nor is likely to have been a component of Site-related activities.

4.2.2.2 Groundwater Criteria Exceedances

The Nonresidential Drinking Water Criteria of 0.01 mg/L for arsenic was exceeding at six locations, as summarized below:

AOI	Temp. Well ID	August 2012 Arsenic Concentration (mg/L)		December 2012 Arsenic Concentration (mg/L)	
		Unfiltered	Filtered	Unfiltered	Filtered
AOI-06	MW-06-139	0.028/0.037	0.006/0.011	0.036	0.008
AOI-10	MW-10-124	0.071	0.007	0.091	0.009
AOI-27	MW-27-158	0.018	0.003	0.019/0.019	0.01/0.009
AOI-28	MW-28-152	0.027	Not Analyzed	0.035	0.038
AOI-33	MW-33-105	0.015	0.008	0.0072	0.004
AOI-40	MW-40-135	0.011/0.011	0.009/0.009	0.015	0.006

Note: shaded values represent criteria exceedances, and duplicate results are separated with a "/".

The only other screening criteria exceedences for groundwater involved lead (0.004 mg/L) at six locations, as summarized below:

AOI	Temp. Well ID	August 2012 Lead Concentration (mg/L)		December 2012 Lead Concentration (mg/L)	
		Unfiltered	Filtered	Unfiltered	Filtered
AOI-02	MW-02-129	0.005	0.022	0.003 U	0.003 U
AOI-06	MW-06-137	0.005	Not Analyzed	0.003 U	0.003 U
AOI-10	MW-10-124	0.006	0.003 U	0.003 U	0.003 U
AOI-27	MW-27-158	0.012	0.003 U	0.003 U / 0.003 U	0.003 U / 0.003 U
AOI-33	MW-33-105	0.029	0.003 U	0.003 U	0.003 U
AOI-38	MW-38-101	0.007	0.003 U	0.003 U	0.003 U

Note: shaded values represent criteria exceedances; U – indicates that the analyte was not detected, and the value shown is the reporting limit.

Upon comparing corresponding data for the August 2012 groundwater sampling event to the December 2012 groundwater sampling event, it is observed that in most cases, the concentrations of arsenic increased slightly within the relative same order of magnitude on a well-to-well comparison. It is further observed that lead exceeded the noted criteria in the samples collected in August 2012; however, lead was not detected in the groundwater samples collected from these wells in December 2012. It is believed that the sampling methods, including careful well development techniques and ultra-low-flow sampling, employed in the December 2012 event produced data most representative of the conditions at the Site.

The December 2012 data indicate Site groundwater is not contaminated with lead above the associated screening criterion, and all but one unfiltered groundwater sample exceeded the Nonresidential Drinking Water Criterion for arsenic. However, like noted above regarding soil, the concentrations of arsenic detected in groundwater are believed to be present as a result of natural conditions (i.e., types of soil deposits), and are not believed to be attributed to Site operations. This conclusion is based on the following points:

- Arsenic is not known to be have been used at the Site, nor is likely to have been a component of Site-related activities;
- All but one exceedance of the Nonresidential Drinking Water Criterion for arsenic are associated unfiltered samples, indicating the presence of arsenic in Site groundwater is associated nearly exclusively with filterable soil particulates;
- Variability of arsenic concentrations between sampling events and among samples of each event is low (i.e., similar order of magnitude on a well-to-well comparison);
- All exceedances of Nonresidential Drinking Water Criteria for arsenic are within the collective range of concentrations typical of well water of Wayne

County and the adjacent Washtenaw County (greater than 0.05 mg/L), as described in MDEQ public outreach information[†].

[†] http://www.michigan.gov/documents/deq/deq-wd-gws-wcu-arsenicwellwater_270592_7.pdf.

5. HUMAN HEALTH RISK EVALUATION

As previously explained, the RFI field investigation was designed to determine if a release of hazardous waste or hazardous constituents had occurred, and where a potentially significant release was identified, to characterize the nature and extent of hazardous constituents in the environmental media.

During the implementation of the RFI, the Site characterization data collected for each AOI were compared with conservative risk-based screening criteria to identify whether a potentially significant release of hazardous constituents to the environment may have occurred. Section 4 concluded that adequate data had been collected from each AOI to support a risk evaluation.

The significance of potential exposures to Site-related concentrations of constituents in potential exposure media was evaluated based on current and reasonably expected future land use at and around the Site. Potential exposure media include soil and groundwater. There is no exposure to surface water and/or sediment, since there are no surface water bodies on the property and no significant impact on off-site surface water bodies.

Soil characterization data pertaining to the Site were compared with Part 201 Criteria as discussed in Section 4.1, and as detailed in Section 4.2.2, only a limited number of exceedances of the following criteria were found:

- Part 201 Nonresidential Drinking Water Protection Criteria (soil); and
- Part 201 Nonresidential Drinking Water Criteria (groundwater).

The only potential pathways of concern involving these screening criteria include potable use of groundwater at or in the vicinity of the Site (i.e., on-site and off-site routine workers, maintenance workers, and construction workers, as well as local residents and Site trespassers).

Currently there is no evidence of exposure as these pathways are incomplete due to the following reasons:

- No current use of groundwater at the Site;
- Drinking water is supplied to the Site and the surrounding area by the City of Livonia through the Detroit Water and Sewage Department, with the ultimate source of drinking water to the Site being the Detroit River;
- No water wells present within ½-mile radius of the Site;
- City of Livonia prohibits groundwater well installations and potable use of groundwater through its City Ordinance 13.40.030 (Ord. 2823, § 1, 2009);
- Wayne County requires permits be issued for all drinking water well installations; and
- State of Michigan requires licensure of all groundwater well drillers operating in the State.

Concern for the future state of the potable use of groundwater at or in the vicinity of the Site is collectively addressed by Due Care compliance under Section 20107a of MNREPA, and the fact that State and County permits are needed for well installations regionally surrounding the Site, as well as the City of Livonia's prohibition of drinking water well installations within the City limits. As noted previously, these overlapping requirements provide strict control over drinking water well installations in this area.

Additionally, as noted in Section 4.2.2, the levels of arsenic found in groundwater at the Site are believed to be present as a result of natural conditions (i.e., types of soil deposits), and are not attributed to Site-related activities.

Also, baseline institutional controls, involving land and groundwater use restrictions, are planned for this Site. It is expected that these controls will adequately address any concerns for potential future use of Site groundwater. These controls will be established through deed restrictions, and are expected to include restrictions that will maintain continued nonresidential, commercial/industrial use of the Site, and will prohibit any future use of groundwater at the Site for any purpose, beyond sampling and other related investigatory testing. These restrictions will run with the property in perpetuity, unless USEPA approves the removal of these restrictions.

6. SUMMARY AND CONCLUSIONS

An RFI of the Site has been conducted to determine whether the AOIs identified in the RFI Work Plan have released hazardous waste or hazardous constituents that pose a significant risk to human health or the environment. As a result of the extensive RFI, potentially significant releases to on-site soil and groundwater were identified and characterized at the Site. The nature and extent of hazardous constituents in the environmental media characterized during the RFI are discussed in Section 4.

As discussed in Section 4, the site characterization data obtained for each of the areas investigated during the RFI and discussed herein are judged to be adequate and appropriate for RCRA Corrective Action decision-making.

All Site data were compared to applicable criteria identified in Section 4.1, consistent with the conceptual Site model for human exposures discussed in Section 3.7. The only applicable Part 201 Criteria found to be exceeded when compared to the RFI analytical data for the Site involved arsenic in soil only at two locations above the Part 201 Nonresidential Drinking Water Protection Criteria; and arsenic and lead in groundwater at select locations above the Part 201 Nonresidential Drinking Water Criteria. Each of these exceedances was within the same order of magnitude of the corresponding criteria.

Well development and ultra-low-flow sampling techniques affected the concentrations of both lead and arsenic, relative to samples collected in August 2012 versus December 2012. In most cases, the arsenic concentrations increased slightly within the relative same order of magnitude on a well-to-well comparison. While lead was previously detected in amounts that exceeded the noted criteria in August 2012, none of the unfiltered groundwater samples collected in December 2012 showed detections of lead.

Additionally, as noted in Section 4.2.2, the levels of arsenic found in groundwater at the Site are believed to present as a result of natural conditions (i.e., types of soil deposits), and are not attributed to Site-related activities.

The only potential pathways of concern involving these screening criteria include the potable use of groundwater at or in the vicinity of the Site. Currently, groundwater at or in the vicinity of the Site is not being used, and the future state of these pathways is addressed by the restrictions discussed in Sections 3.2 and 6. Additionally, it is expected that further concerns for potential future use of Site groundwater will be addressed through Due Care compliance and deed restrictions that will prohibit future use of Site groundwater.

Per the conceptual Site model for ecological exposures presented in Section 3.8, terrestrial and/or aquatic exposure of ecological receptors is considered nominal and/or incomplete. Therefore, further action pertaining to ecological receptors is not warranted.

7. PRIMARY REFERENCES

1. ARCADIS-US, Inc., Phase I Environmental Site Assessment, MLC ID 1195 General Motors Powertrain (GMPT) - Livonia 12200 Middlebelt Livonia, Michigan 48150, 8 April 2010.

2. ARCADIS-US, Inc., Remediation Cost Estimate Summary, 30 October 2009, Revised May 2010.

3. Environmental Data Recourses, Inc., Aerial Photo Decade Package, Inquiry Number 3176438.7, 3 October 2011, GMC-Powertrain Livonia Engine, 12200 Middlebelt Road, Livonia, MI 48150.

4. Environmental Data Recourses, Inc., Aerial Building Permit Report, Inquiry Number 3176438.11, 3 October 2011, GMC-Powertrain Livonia Engine, 12200 Middlebelt Road, Livonia, MI 48150.

5. Environmental Data Recourses, Inc., Sanborn Map Report, Inquiry Number 3176438.3, 3 October 2011, GMC-Powertrain Livonia Engine, 12200 Middlebelt Road, Livonia, MI 48150 (No maps available).

6. Environmental Data Recourses, Inc., City Directory Abstract, Inquiry Number 3176438.6, 4 October 2011, GMC-Powertrain Livonia Engine, 12200 Middlebelt Road, Livonia, MI 48150.

7. Environmental Data Recourses, Inc., Lien-Search Report, Inquiry Number 3176438.7, 3 October 2011, GMC-Powertrain Livonia Engine, 12200 Middlebelt Road, Livonia, MI 48150.

8. Environmental Data Recourses, Inc., Topographic Map Permit Report, Inquiry Number 3176438.4, 30 September 2011, GMC-Powertrain Livonia Engine, 12200 Middlebelt Road, Livonia, MI 48150.

9. Environmental Data Recourses, Inc., Property Tax Map, Inquiry Number 3176438.8, 29 September 2011, GMC-Powertrain Livonia Engine, 12200 Middlebelt Road, Livonia, MI 48150

10. Environmental Data Recourses, Inc., Radius Map Report With GeoCheck, Inquiry Number 3176438.2s, 30 September 2011, GMC-Powertrain Livonia Engine, 12200 Middlebelt Road, Livonia, MI 48150.

11. GM Engine Division, Initial Abatement Steps as Follow-up to a Confirmed Regulated Substance Release, 28 January 1991.

12. Haley & Aldrich of Michigan, Inc., Resource Conservation and Recovery Act Current Conditions Summary / Facility Investigation Work Plan For The Former GM Powertrain Division Livonia 12200 Middlebelt Road, Livonia, Michigan, USEPA ID #MID000718874, 29 December 2011; Revised 31 May 2012).

13. Haley & Aldrich of Michigan, Inc., Resource Conservation and Recovery Act Facility Investigation Field Sampling Plan For The Former GM Powertrain Division Livonia 12200

Middlebelt Road, Livonia, Michigan, USEPA ID #MID000718874, 29 December 2011; Revised 31 May 2012).

14. Haley & Aldrich of Michigan, Inc., Resource Conservation and Recovery Act Facility Investigation Quality Assurance Project Plan For The Former GM Powertrain Division Livonia 12200 Middlebelt Road, Livonia, Michigan, USEPA ID #MID000718874, 29 December 2011; Revised 31 May 2012).

15. Michigan Department of Environmental Quality, Arsenic in Well Water, http://www.michigan.gov/documents/deq/deq-wd-gws-wcu-arsenicwellwater_270592_7.pdf.

16. Michigan Department of Environmental Quality, Hazardous Waste Technical Support Unit Hazardous Waste Section Waste and Hazardous Materials Division, *Michigan Background Soil Survey 2005*, MDEQ – MBSS 2005.

17. The Avendt Group, Inc. Engineers and Scientists, Site Assessment Related to Underground Storage Tank Removal BOC Powertrain – Livonia Engine, 26 October 1989.

18. The Chester Engineers, Site Assessment for UST Nos. 4, 5, 6, and 7 Removal, 22 February 1991.

19. The Chester Engineers, Work Plan for Hydrogeological Site Investigation in the Area of USTs 1, 2, 4, 5, 6, 7, 15 May 1991.

20. The Traverse Group, Leaking Underground Storage Tank Closure Report, 11 June 1996.

21. The Traverse Group, Leaking Underground Storage Tank Closure Report, 23 August 1996.

TABLE I
SUMMARY OF AOIS SUBJECT TO RFI
RACER GMPT LIVONIA
LIVONIA, MI

AOI #	AOI Title	Location Column/Bay	Description / Components
01	Teal Dock/Former Rail/Truck Bay/Chip Bunkers	South wall, D24-J24	Former rail line for loading/unloading raw material, waste/recycling material
02	South Gallery	D23-M23 x D2-M20	Management of metal grinding, coolant, lubricant, cutting fluid
04	East Gallery	M14-P14	Management of metal grindings, coolant, lubricants, cutting fluid
05	Wash/Dump station	K14-L14	Process waste, oily waste, floor cleaning
06	West Gallery	D3-E13	Management of metal grindings, coolant, lubricants, cutting fluid
07	Dump station	Near West Gallery, F15-G15	Process waste, oily waste, floor cleaning
08	Former paint shop/shed	K12/L12	Environmental/Emergency Response Plan describes shed with 825-gallon containment sump installed below shed, no floor drains in proximity. Paints, thinners, paint reducer (xylenes). Arcadis report identifies "Tank 8" as a 100-gallon paint reserve tank. Location is not described.
09	Oil sump	L8-M8	May have been associated with operation of East Gallery. Oil sump near columns L8/M8 is approximately five feet in diameter. Oil Pit near 8N maybe associated with Oil sump near L8/M8, contains oily material.
10	Equipment pit	L7-M7	Containment for heavy equipment. Equipment Pit contains approximately 3 feet of oily / coolant water.
11	Dump station	J6-K6	Process waste, floor cleaning. Dump Station near Columns J5/K5 pit is filled with oily / coolant sludge.
12	Equipment pits (2) - containment beneath heavy equipment	F5-D5	Currently contains oily waste liquid. Oil-filled trench/flume located approximately 25 feet from equipment pit, extending approximately 100 feet north of the pit. Oil-filled trench / flume system, may be associated with equipment pit. Oil-filled pit near Column G4.
13	Wash/Dump station	B4-C4	Large wash and process waste station. Lines for cold water, hot water, compressed air and process waste observed at this station. Floor drain located approximately 6 ft. east of this pit.
14	Equipment pit - containment beneath heavy equipment	A3-B3	Containment beneath heavy equipment. Slopes downward toward south end of feature. Approximately 6" of oily/coolant water toward south end, 2-4" of oil/coolant water at north end of feature. Outlets located in south and east corners. Poured concrete. Minor cracking in side walls. A shallow trench drain is located south of this AOI.
15	Equipment pit - containment beneath heavy equipment	D2-E2	Containment beneath heavy equipment. Oil/coolant observed in trough connected to adjacent flume. Poured concrete. Minor chipping, minor delamination observed at southeast end.
16	Dump station	M1A-N1A	Process waste, oily waste, floor cleaning. Associated with process waste system. Oily/coolant sludge observed in pit.
17	Former 750-gallon UST	WP5-WR5	Note: ARCADIS REC - former underground oil storage tank. Use unknown
18	Dump station	K3A-L3A	Process waste, oily waste, floor cleaning. Associated with process waste system. Approximately 1 ft. deep. Note: this unit appeared to be deeper than other dump stations observed during the October 2011 site reconnaissance.

TABLE I
SUMMARY OF AOIS SUBJECT TO RFI
RACER GMPT LIVONIA
LIVONIA, MI

AOI #	AOI Title	Location Column/Bay	Description / Components
19	Trash compactor and oil pump station	N5A-P5A	Dark staining and oily residue observed in compactor area interior and exterior. Storm drain and process waste drain observed at compactor area exterior. Dark staining and oily residue observed on concrete berm providing containment around oil pump station and on floor in proximity to station.
22	Dump station	H6A-J6A	Process waste, oily waste, floor cleaning. Associated with process waste system. Station was dry at time of October 2011 site reconnaissance.
23	Dump station	WR2-WS2	Process waste, oily waste, floor cleaning. Associated with process waste system.
26	Paint booth area	D20/D21	Paint booth observed with signage "Only aerosol can spraying". No floor drains observed in area. Sump covers located approximately 20' west of booth, 18' east of booth. Arcadis report refers to paint reserve "Tank 8". Location is not described.
27	Below grade process flumes	J14-J18, M19-M-20	Conveyed fluidized metal chips, metal filing debris for galleries
28	Below grade process waste conveyances	wP15-wP17, wT10-wT11	Conveyed process waste from operations, sumps, trenches to onsite WWTP
29	Former Railroad Spur	G5A-H4A	Located in north-central portion of existing building.
30	12434 Middlebelt - possible former gas station	wAA1A-wD4	Building Department records indicate the following: 1,000-gallon buried UST removed 04/20/1965; 2,000-gallon UST removal 04/21/1965; septic system disconnected 10/06/1970; inspection of 220-gallon heating oil tank 1954. Building Dept. inspector stated a gas station was formerly located at 12434 Middlebelt. The property was acquired by GM for plant expansion.
31	Fire pump house (post 1989)	wG6-wG10	3 fire pump generators, 3 184-gallon diesel fuel ASTs. Evidence of staining associated with the oldest (as reported by Securitas) of the three diesel fire pump engines. Floor drains located in building. Blow down/condensate drains from engines. Staining in proximity to drains.
32	Former fire pump house (pre-1989)	wP4-wT4	Building Department records refer to relocation of fire pump house and equipment.
33	WWTP main building and exterior wash pad	Northeast portion of site	Basement constructed beneath majority of WWTP main building. Basement may extend 20' below grade. Sumps are constructed in basement

TABLE I
SUMMARY OF AOIS SUBJECT TO RFI
RACER GMPT LIVONIA
LIVONIA, MI

AOI #	AOI Title	Location Column/Bay	Description / Components
34	Less than 90-day HW storage area	Interior location, west of WWTP main building	Less than 90-day storage of hazardous wastes. Facility plans (Livonia Fire Dept) describe as bermed, enamel coated floor. Secondary containment provided by containment pallets and poly overpack drums
36	Oil Storage Building	Adjacent to WWTP main building, west side	Bulk storage of oil products, lubricants, hydraulic oils. Building signage: "Fluid Storage Building". Area outside of building to west is identified on Site Plan and Material Storage Areas drawing as loading and unloading area. Sump pit and pump located within secondary containment area, 4ft x 4ft x 5ft. Evidence of release from bulk tank labeled: 3,250 gallons Product SP 735 (caustic).
37	ASTs (2)	West of WWTP	1 800-gallon unleaded gasoline tank and 1 200-gallon diesel fuel tank. Both tanks located within containment area. Fuel used for vehicles. Dispensing hoses extend beyond containment area.
38	Detroit Edison Substation	East of WWTP	Main electrical transformer and switching yard for the plant.
39	Equipment pit	A15/A14	Containment for heavy equipment. Poured concrete, 4 concrete berms for equipment elevation. Feature is sloped downward toward south end. Two outlets approximately 18" bgs at south and east corners. Oily sludge with miscellaneous debris remaining in pit. Material is approximately 2" deep at south end.
40	Sump for equipment pit	A11/A12	Sump may have operated for management of materials contained in equipment pit. Steel construction. At time of site reconnaissance, contained debris and equipment, possibly from decommissioning.
41	Equipment pit	A7/A6	Containment for heavy equipment. Poured concrete. Return coolant lines observed over pit. Several inches of oil/coolant water at south end of pit. Inlet/outlet observed in southeast corner of pit. Floor drain located adjacent to pit, south of pit.
42	Dump station	G2	Process waste, oily waste, floor cleaning. Oily sludge observed in the pit.

TABLE II
SOIL BORING INVENTORY AND COMPLETION SUMMARY
RACER GMPT LIVONIA
LIVONIA, MICHIGAN

Boring ID	Associated AOI	Completion Date	APPROXIMATE LOCATION		Surface Elevation (NAD 83)	Boring Total Depth (ft below grade)
			Northing	Easting		
02-128	AOI-02	7/18/2012	319893.78	13403583.74	632.44	35
02-129	AOI-02	6/20/2012	319868.05	13403266.62	632.86	25
02-131	AOI-02	6/20/2012	319858.66	13403424.01	632.11	25
02-132	AOI-02	7/18/2012	319976.54	13403317.48	633.12	30
02-133	AOI-02	7/18/2012	319978.14	13403403.63	633.12	30
02-154	AOI-02	6/18/2012	320011.73	13403706.41	633.13	34
02-155	AOI-02	6/18/2012	319994.71	13403600.64	633.12	30
02-156	AOI-02	6/20/2012	319996.63	13403496.28	633.13	25
04-125	AOI-04	7/17/2012	320314.90	13403811.21	633.06	35
04-126	AOI-04	7/25/2012	320276.17	13403852.11	631.97	35
04-157	AOI-04	7/17/2012	320242.66	13403757.19	633.05	35
05-127	AOI-05	6/18/2012	320292.12	13403723.55	633.15	30
06-136	AOI-06	7/23/2012	320302.45	13403228.50	633.16	35
06-137	AOI-06	7/23/2012	320325.50	13403263.30	633.08	35
06-138	AOI-06	7/19/2012	320299.97	13403321.95	633.03	35
06-139	AOI-06	7/24/2012	320268.70	13403267.24	633.03	35
07-140	AOI-07	7/19/2012	320223.55	13403395.32	633.16	15
09-123	AOI-09	7/16/2012	320512.73	13403757.67	633.13	10
10-124	AOI-10	7/16/2012	320567.03	13403779.92	633.09	10
11-122	AOI-11	6/18/2012	320609.45	13403597.98	633.17	30
12-120	AOI-12	7/26/2012	320617.67	13403417.49	633.03	10
12-121	AOI-12	6/25/2012	320624.48	13403373.67	633.14	20
13-144	AOI-13	7/20/2012	320657.75	13403142.00	633.06	15
14-145	AOI-14	7/27/2012	320681.28	13403085.78	633.14	12
14-146	AOI-14	6/21/2012	320731.13	13403074.42	633.13	25
15-150	AOI-15	7/20/2012	320733.18	13403268.03	633.11	10
16-116	AOI-16	6/25/2012	320799.00	13403782.33	633.12	20
18-117	AOI-18	7/16/2012	320916.46	13403608.69	633.07	10
19-115	AOI-19	7/17/2012	321004.82	13403750.96	633.04	10
19-153	AOI-19	7/2582012	320998.70	13403811.30	632.66	10
22-118	AOI-22	7/16/2012	321061.25	13403514.19	633.13	5
23-149	AOI-23	6/21/2012	321038.06	13403311.22	633.15	25
26-130	AOI-26	7/18/2012	320004.98	13403316.08	633.15	20
27-158	AOI-27	7/19/2012	320305.75	13403537.42	633.09	10
27-159	AOI-27	7/19/2012	320128.51	13403578.28	633.06	13
27-160	AOI-27	7/17/2012	320047.24	13403594.96	633.05	10
27-161	AOI-27	7/17/2012	320162.85	13403782.50	633.08	10
28-152	AOI-28	7/24/2012	320162.85	13403782.50	633.08	10
28-164	AOI-28	6/21/2012	320447.70	13403333.54	633.00	25
28-165	AOI-28	6/21/2012	320132.55	13403171.87	633.00	25
28-166	AOI-28	7/24/2012	320215.51	13403217.95	632.97	10
28-167	AOI-28	7/24/2012	320342.48	13403351.61	633.03	12
28-168	AOI-28	7/23/2012	320444.85	13403424.52	632.96	12
28-169	AOI-28	7/26/2012	320474.23	13403275.31	633.11	10
29-103	AOI-29	7/30/2012	320624.48	13403236.54	633.09	10
29-114	AOI-29	7/31/2012	321129.47	13404202.53	632.67	10
30-162	AOI-30	7/31/2012	321112.79	13403815.59	631.85	10
30-163	AOI-30	7/31/2012	320711.86	13403380.56	633.07	10
30-170	AOI-30	6/25/2012	321011.57	13402704.82	633.42	20
30-171	AOI-30	7/20/2012	321048.59	13402803.47	632.88	15
31-142	AOI-31	8/1/2012	320926.32	13402744.44	633.15	10
32-147	AOI-32	7/20/2012	320839.18	13402744.48	633.11	15
32-148	AOI-32	7/20/2012	320471.64	13402962.99	632.45	4.5
33-104	AOI-33	7/30/2012	320921.25	13403297.08	633.16	40
33-105	AOI-33	7/30/2012	320965.15	13403272.18	633.11	22
33-106	AOI-33	7/29/2012	321088.38	13404210.33	633.33	40

TABLE II
SOIL BORING INVENTORY AND COMPLETION SUMMARY
RACER GMPT LIVONIA
LIVONIA, MICHIGAN

Boring ID	Associated AOI	Completion Date	APPROXIMATE LOCATION		Surface Elevation (NAD 83)	Boring Total Depth (ft below grade)
			Northing	Easting		
33-108	AOI-33	6/25/2012	321018.68	13404236.68	633.27	20
34-109	AOI-34	7/31/2012	320941.24	13404205.77	633.03	10
36-110	AOI-36	7/25/2012	321059.64	13404134.87	633.35	10
36-111	AOI-36	7/25/2012	320965.16	13404140.35	633.57	10
36-112	AOI-36	7/31/2012	320933.66	13404024.71	633.31	10
36-113	AOI-36	7/31/20012	320961.74	13403989.74	633.38	10
37-107	AOI-37	7/25/2012	321016.50	13404036.33	633.31	10
38-100	AOI-38	7/27/2012	320987.86	13404067.05	633.60	10
38-101	AOI-38	7/31/2012	320978.09	13403940.60	633.66	10
38-102	AOI-38	7/31/2012	321079.23	13404435.25	634.42	10
39-134	AOI-39	6/21/2012	321033.24	13404362.16	634.64	5.5
40-135	AOI-40	7/24/2012	320933.11	13404417.49	634.27	10
41-141	AOI-41	6/22/2012	320197.86	13403105.31	632.94	25
42-119	AOI-42	7/26/2012	320305.55	13403093.07	633.15	10

TABLE III
TEMPORARY MONITORING WELL INVENTORY AND COMPLETION SUMMARY
RACER GMPT LIVONIA
LIVONIA, MICHIGAN

Well ID	AOI Location	Date Installed	Approximate Location		Ground Elevation AMSL	Top of Riser Elevation AMSL	Well Diameter (inches)	Installed Depth of Well from ground surface	Screened Interval feet BGS	Screen Elevation feet AMSL	Measured Depth to Bottom from Ground Surface (8/8/12)	Depth to Water (ft below TOR) (8/8/12)	Groundwater Elevation (feet AMSL) (8/8/12)
			Northing	Easting									
02-129	AOI-02	6/20/2012	319868.05	13403266.62	632.86	632.94	1.25	10	5 - 10	627.86 - 622.86	10.07	5.43	627.51
06-137	AOI-06	7/23/2012	320325.50	13403263.30	633.08	636.91	1.5	21	16 - 21	617.08 - 612.08	21.27	19.48	617.43
06-139	AOI-06	7/24/2012	320268.70	13403267.24	633.03	634.46	1.5	23.5	18.5 - 23.5	614.53 - 609.53	23.94	17.01	617.45
10-124	AOI-10	7/16/2012	320567.03	13403779.92	633.09	634.97	1.5	8	3 - 8	630.09 - 625.09	8.46	7.29	627.68
15-150	AOI-15	7/20/2012	320733.18	13403268.03	633.11	636.96	1.5	6	1 - 6	632.11 - 627.11	6.15	NA	NA
18-117	AOI-18	7/16/2012	320916.46	13403608.69	633.07	634.97	1.5	8	3 - 8	630.07 - 625.07	8.13	8.11	626.86
19-115	AOI-19	7/17/2012	321004.82	13403750.96	633.04	634.46	1.5	9	4 - 9	629.04 - 624.04	8.61	6.66	627.80
27-158	AOI-27	7/19/2012	320305.75	13403537.42	633.09	633.35	1.5	10	5 - 10	628.09 - 623.09	9.74	9.48	623.87
28-152	AOI-28	7/24/2012	320447.70	13403333.54	633.00	633.83	1.5	10	5 - 10	628.00 - 623.00	9.50	7.19	626.64
28-165	AOI-28	6/22/2012	320215.51	13403217.95	632.97	635.34	2	10	5-10	627.97 - 622.97	10.35	6.22	629.12
33-105	AOI-33	7/30/2012	321018.68	13404236.68	633.27	634.23	1.5	9.5	4-9	629.27 - 624.27	9.35	4.46	629.77
38-101	AOI-38	7/31/2012	321033.24	13404362.16	634.64	636.68	1.5	8	2.5-7.5	631.89 - 627.14	7.98	6.23	630.45
40-135	AOI-40	7/24/2012	320305.55	13403093.07	633.15	633.63	1.5	10	5 - 10	628.15 - 623.15	9.54	5.18	628.45

Notes:
AMSL = Above Mean Sea Level
BGS = Below Ground Surface
TOR = Top of Riser
NA = Not Applicable
NT = Not Taken

TABLE IV
SOIL SAMPLE COLLECTION SUMMARY
RACER GMPT LIVONIA
LIVONIA, MICHIGAN

AOI	Location ID	Sample Depth (ft bgs)	Sample Date	Sample Name	Sample Type	Location Type	Analyzed Parameters			
							VOCs	SVOCs (PAHs)	PCBs	MI 10 Metals
AOI-02	02-131	1-2	6/20/2012	SB131(06-20-2012)(1-2)	N	SOIL BORING	x	x	x	x
AOI-02	02-132	20-22	7/18/2012	SB132(07-18-2012)(20-22)	N	SOIL BORING	x	x	x	x
AOI-04	04-126	24-26	7/25/2012	SB126(07-25-12)(24-26)	N	SOIL BORING	x	x	x	x
AOI-04	04-157	3-5	7/1/2012	SB157(07-17-12)(3-5)	N	SOIL BORING	x	x	x	x
AOI-04	04-157	8-10	7/17/2012	SB157(07-17-12)(8-10)	N	SOIL BORING	x	x	x	x
AOI-05	05-127	3-5	6/18/2012	SB127(06-18-2012)(3-5)	N	SOIL BORING	x	x	x	x
AOI-06	06-136	22-24	7/23/2012	SB136(07-23-12)(22-24)	N	SOIL BORING	x	x	x	x
AOI-06	06-137	22-24	7/23/2012	SB137(07-23-12)(22-24)	N	SOIL BORING	x	x	x	x
AOI-06	06-138	22.5-24.5	7/19/2012	SB138(07-19-12)(22.5-24.5)	N	SOIL BORING	x	x	x	x
AOI-06	06-139	10-12	7/24/2012	SB139(07-24-12)(22-24)	N	SOIL BORING	x	x	x	x
AOI-07	07-140	6-8	7/18/2012	SB140(07-19-12)(10-12)	N	SOIL BORING	x	x	x	x
AOI-09	09-123	6-8	7/16/2012	SB123(07-16-12)(6-8)	N	SOIL BORING	x	x	x	x
AOI-10	10-124	4-6	7/16/2012	SB124(07-16-12)(4-6)	N	SOIL BORING	x	x	x	x
AOI-12	12-120	4-6	7/26/2012	SB120(07-26-12)(4-6)	N	SOIL BORING	x	x	x	x
AOI-12	12-121	3-5	6/25/2012	SB121(06-25-12)(3-5)	N	SOIL BORING	x	x	x	x
AOI-13	13-144	1.5-3.5	7/26/2012	SB144(07-26-12)(1.5-3.5)	N	SOIL BORING	x	x	x	x
AOI-13	13-144	7.5-9.5	7/26/2012	SB144(07-26-12)(7.5-9.5)	N	SOIL BORING	x	x	x	x
AOI-14	14-145	2-4	7/27/2012	SB145(07-27-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-14	14-145	6-8	7/27/2012	SB145(07-27-12)(6-8)	N	SOIL BORING	x	x	x	x
AOI-14	14-146	4-5	6/21/2012	SB146(06-21-2012)(4-5)	N	SOIL BORING	x	x	x	x
AOI-15	15-150	2-4	7/20/2012	SB150(07-20-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-15	15-150	2-4	7/20/2012	DUP 2(07-20-12)	FD	SOIL BORING	x	x	x	x
AOI-16	16-116	1-2	6/25/2012	SB116(06-25-12)(1-2)	N	SOIL BORING	x	x	x	x
AOI-18	18-117	2-4	7/16/2012	SB117(07-16-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-19	19-153	3.5-5.5	7/25/2012	SB153(07-25-12)(3.5-5.5)	N	SOIL BORING	x	x	x	x
AOI-22	22-118	2-4	7/19/2012	SB118(07-19-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-26	26-130	16-18	7/18/2012	SB130(07-18-12)(16-18)	N	SOIL BORING	x	x	x	x
AOI-27	27-158	3-5	7/19/2012	SB158(07-19-12)(3-5)	N	SOIL BORING	x	x	x	x
AOI-27	27-159	7-9	7/19/2012	SB159(07-19-12)(7-9)	N	SOIL BORING	x	x	x	x
AOI-28	28-152	4-6	7/24/2012	SB152(07-24-12)(4-6)	N	SOIL BORING	x	x	x	x
AOI-28	28-166	4-6	7/24/2012	SB166(07-24-12)(4-6)	N	SOIL BORING	x	x	x	x
AOI-28	28-166	4-6	7/23/2012	DUP 3(07-24-12)	FD	SOIL BORING	x	x	x	x
AOI-28	28-167	2-4	7/24/2012	SB167(07-24-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-28	28-168	6-8	7/23/2012	SB168(07-23-12)(6-8)	N	SOIL BORING	x	x	x	x
AOI-28	28-169	1.5-3.5	7/26/2012	SB169(07-26-12)(1.5-3.5)	N	SOIL BORING	x	x	x	x
AOI-29	29-103	0-2	7/30/2012	SB103(07-30-12)(0-2)	N	SOIL BORING	x	x	x	x
AOI-29	29-114	2-4	7/31/2012	SB114(07-31-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-30	30-162	2-4	7/31/2012	SB162(07-31-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-30	30-163	8-10	7/31/2012	SB163(07-31-12)(8-10)*	N	SOIL BORING	x	x	x	x
AOI-30	30-171	10-12	7/20/2012	SB171(07-20-12)(10-12)	N	SOIL BORING	x	x	x	x
AOI-30	30-171	10-12	7/20/2012	DUP 1(07-20-12)	FD	SOIL BORING	x	x	x	x

TABLE IV
SOIL SAMPLE COLLECTION SUMMARY
RACER GMPT LIVONIA
LIVONIA, MICHIGAN

		Sample	Sample		Sample		Analyzed Parameters			
								SVOCs		MI 10
AOI-31	31-142	0-2	8/1/2012	SB142(08-01-12)(0-2)	N	SOIL BORING	x	x	x	x
AOI-32	32-147	8-10	7/20/2012	SB147(07-20-12)(8-10)	N	SOIL BORING	x	x	x	x
AOI-32	32-148	2-4	7/20/2012	SB148(07-20-12)(2.5-4.5)	N	SOIL BORING	x	x	x	x
AOI-33	33-104	0-2	7/30/2012	SB104(07-30-12)(0-2)	N	SOIL BORING	x	x	x	x
AOI-33	33-105	0-2	7/30/2012	SB105(07-30-12)(0-2)	N	SOIL BORING	x	x	x	x
AOI-33	33-106	8-10	7/27/2012	SB106(07-27-12)(8-10)	N	SOIL BORING	x	x	x	x
AOI-33	33-106	32-34	7/27/2012	SB106(07-27-12)(32-34)	N	SOIL BORING	x	x	x	x
AOI-34	34-109	0-2	7/31/2012	SB109(07-31-12)(0-2)	N	SOIL BORING	x	x	x	x
AOI-36	36-110	0.5-2.5	7/25/2012	SB110(07-25-12)(0.5-2.5)	N	SOIL BORING	x	x	x	x
AOI-36	36-111	0.5-2.5	7/25/2012	SB111(07-25-12)(0.5-2.5)	N	SOIL BORING	x	x	x	x
AOI-36	36-112	0-2	7/31/2012	SB112(07-31-12)(0-2)	N	SOIL BORING	x	x	x	x
AOI-36	36-112	0-2	7/31/2012	DUP 4(07-31-12)	FD	SOIL BORING	x	x	x	x
AOI-36	36-113	3-5	7/31/2012	SB113(07-31-12)(3-5)	N	SOIL BORING	x	x	x	x
AOI-37	37-107	3-5	7/25/2012	SB107(07-25-12)(3-5)	N	SOIL BORING	x	x	x	x
AOI-38	38-100	2-4	7/27/2012	SB100(07-27-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-38	38-101	2.5-4.5	7/27/2012	SB101(07-27-12)(2.5-4.5)	N	SOIL BORING	x	x	x	x
AOI-38	38-102	2-4	7/31/2012	SB102(07-31-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-40	40-135	2-4	7/24/2012	SB135(07-24-12)(2-4)	N	SOIL BORING	x	x	x	x
AOI-41	41-141	3-5	6/22/2012	SB141(06-22-2012)(3-5)	N	SOIL BORING	x	x	x	x
AOI-42	42-119	3-5	7/26/2012	SB119(07-26-12)(3-5)	N	SOIL BORING	x	x	x	x

Notes and Abbreviations:
1. Sample type codes: N - Normal, FD, Field Duplicate
2. ft bgs: Feet below ground surface
* Sample SB163(07-31-12)(8-10) was misnamed in the field, its original name was SB165(07-31-12)(8-10)

TABLE V
GROUNDWATER SAMPLE COLLECTION SUMMARY
RACER GMPT LIVONIA
LIVONIA, MICHIGAN

						Sample Parameters							
Location Type	AOI	Location	Sample Date	Sample Name	Sample Type	VOCs	PAHs	Unfiltered MI 10 Metals	Filtered MI 10 Metals	Unfiltered Lead	Filtered Lead	Unfiltered Arsenic	Filtered Arsenic
Temporary Monitoring Well	AOI-02	02-129	8/8/2012	MW129(0-08-2012)(1250)	N	x	x	x	x				
Temporary Monitoring Well	AOI-06	06-137	8/9/2012	MW137(08-09-2012)(1215)	N	x	x	x					
Temporary Monitoring Well	AOI-06	06-139	8/8/2012	MW139(08-09-2012)(0915)	N	x	x	x	x				
Temporary Monitoring Well	AOI-06	06-139	8/8/2012	DUP-01(08-09-12)	FD	x	x	x					
Temporary Monitoring Well	AOI-10	10-124	8/9/2012	MW124(08-09-2012)(1630)	N	x	x	x	x				
Temporary Monitoring Well	AOI-19	19-115	8/10/2012	MW115(08-10-2012)(0845)	N	x	x	x					
Temporary Monitoring Well	AOI-27	27-158	8/9/2012	MW158(08-09-2012)(1630)	N	x	x	x	x				
Temporary Monitoring Well	AOI-28	28-152	8/10/2012	MW152(08-10-2012)(1035)	N	x	x	x					
Temporary Monitoring Well	AOI-28	28-165	8/9/2012	MW165(08-09-2012)(0825)	N	x	x	x					
Temporary Monitoring Well	AOI-33	33-105	8/8/2012	MW105(08-08-2012)(1445)	N	x	x	x	x				
Temporary Monitoring Well	AOI-38	38-101	8/8/2012	MW101(08-08-2012)(1615)	N	x	x	x	x				
Temporary Monitoring Well	AOI-40	40-135	8/9/2012	MW135(08-09-2012)(1320)	N	x	x	x	x				
Temporary Monitoring Well	AOI-40	40-135	8/9/2012	DUP-02(08-09-12)	FD	x	x	x	x				
Temporary Monitoring Well	AOI-15	15-150	8/10/2012	Insufficient volume of water for sampling									
Temporary Monitoring Well	AOI-18	18-117	8/10/2012	Insufficient volume of water for sampling									
Temporary Monitoring Well	AOI-02	02-129	12/11/2012	TW129(12-11-2012)(1305)	N					x	x		
Temporary Monitoring Well	AOI-06	06-137	12/12/2012	TW137(12-12-2012)(1445)	N					x	x		
Temporary Monitoring Well	AOI-06	06-139	12/12//2012	TW139(12-12-2012)(1650)	N							x	x
Temporary Monitoring Well	AOI-10	10-124	12/12/2013	TW124(12-12-2012)(1340)	N					x	x	x	x
Temporary Monitoring Well	AOI-19	19-115	Not Sampled										
Temporary Monitoring Well	AOI-27	27-158	12/11/2012	TW158(12-11-2012)(1610)	N					x	x	x	x
Temporary Monitoring Well	AOI-27	27-158	12/11/2012	DUP-01(12-11-2012)	FD					x	x	x	x
Temporary Monitoring Well	AOI-28	28-152	12/11/2012	TW152(12-11-2012)(1410)	N							x	x
Temporary Monitoring Well	AOI-28	28-165	Not Sampled										
Temporary Monitoring Well	AOI-33	33-105	12/10/2012	TW105(12-10-2012)(1415)	N					x	x	x	x
Temporary Monitoring Well	AOI-38	38-101	12/12/2012	TW101(12-12-2012)(1100)	N					x	x		
Temporary Monitoring Well	AOI-40	40-135	12/10/2012	TW135(12-10-2012)(1600)	N							x	x
Temporary Monitoring Well	AOI-15	15-150	12/10/2012	Insufficient volume of water for sampling									
Temporary Monitoring Well	AOI-18	18-117	12/10/2012	Insufficient volume of water for sampling									

Notes and Abbreviations:
1. Sample type codes: N - Normal, FD - Field Duplicate, VOCs - Volatile Organic Constituents, PAHs - Polycyclic Aromatic Hydrocarbons
2. Miscellaneous analytes include one or more of the following:
   Alkalinity, Total (As CaCO3)
   Ammonia
   Ammonia-N
   Chloride
   Dissolved Organic Carbon (DOC)
   Ethane
   Ethene
   Hardness
   Hardness (Filtered)

TABLE VI
SUMMARY OF PART 201 SCREENING CRITERIA FOR SOIL
RACER GMPT LIVONIA
LIVONIA, MI

	Statewide Default Background Levels {A}	Groundwater Contact Protection Criteria {B}	Soil Saturation Conc. Screening Levels {C}	Non-residential Drinking Water Protection Criteria {D}	Non-residential Soil Volatilization to Indoor Air Inhalation Criteria {E}	Non-residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) {F}	Non-residential Particulate Soil Inhalation Criteria {G}	Non-residential Direct Contact Criteria {H}
Inorganic Compounds (mg/kg)								
Arsenic, Total	5.8	2000	-	4.6	-	-	910.0001	37
Barium, Total	75	1000000	-	1300	-	-	150000	130000
Cadmium, Total	1.2	230000	-	6	-	-	2200	2100
Chromium, Total	-	140000	-	30	-	-	240	9200
Copper, Total	32	1000000	-	5800	-	-	59000	73000
Lead, Total	21	-	-	700	-	-	44000	900.0001
Mercury, Total	0.13	47	-	1.7	89.00001	62	8800	580
Selenium, Total	0.41	78000	-	4	-	-	59000	9600
Silver, Total	1	200000	-	13	-	-	2900	9000
Zinc, Total	47	1000000	-	5000	-	-	-	630000
PCBs (mg/kg)								
Total PCBs	-	-	-	-	16000	810	6500	16
Semi-Volatile Organic Compounds (mg/kg)								
1-Methylnaphthalene	-							
2-Methylnaphthalene	-	5500	-	170	4900	1800	290000	26000
Acenaphthene	-	970	-	880	350000	97000	6200000	130000
Acenaphthylene	-	440	-	17	3000	2700	1000000	5200
Anthracene	-	41	-	41	1000000	1600000	29000000	730000
Benzo(a)anthracene	-	-	-	-	-	-	-	80
Benzo(a)pyrene	-	-	-	-	-	-	1900	8
Benzo(b)fluoranthene	-	-	-	-	-	-	-	80
Benzo(g,h,i)perylene	-	-	-	-	-	-	350000	7000
Benzo(k)fluoranthene	-	-	-	-	-	-	-	800
Chrysene	-	-	-	-	-	-	-	8000
Dibenz(a,h)anthracene	-	-	-	-	-	-	-	8
Fluoranthene	-	730	-	730	1000000	890000	4100000	130000
Fluorene	-	890	-	890	1000000	150000	4100000	87000
Indeno(1,2,3-cd)pyrene	-	-	-	-	-	-	-	80
Naphthalene	-	2100	-	100	470	350	88000	52000
Phenanthrene	-	1100	-	160	5100	190	2900	5200
Pyrene	-	480	-	480	1000000	780000	2900000	84000
Volatile Organic Compounds (mg/kg)								
1,1,1,2-Tetrachloroethane	-	440	440	6.4	33	120	530000	440
1,1,1-Trichloroethane	-	460	460	4	460	4500	29000000	460
1,1,2,2-Tetrachloroethane	-	94	870	0.7	23	34	68000	240
1,1,2-Trichloroethane	-	420	920	0.1	24	57	250000	840
1,1-Dichloroethane	-	890	890	50	430	2500	15000000	890
1,1-Dichloroethene	-	220	570	0.14	0.33	3.7	78000	570
1,2,3-Trichlorobenzene	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	-	830	830	2.4	7.5	11	8800	830
1,2,3-Trimethylbenzene	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	-	1100	1100	4.2	1100	34000	11000000	1100
1,2,4-Trimethylbenzene	-	110	110	2.1	110	25000	36000000	110
1,2-Dibromo-3-chloropropane (DBCP)	-	1.2	1.2	0.01	1.2	0.9	700	1.2
1,2-Dibromoethane (Ethylene Dibromide)	-	0.5	890	0.02	3.6	5.8	18000	0.43
1,2-Dichlorobenzene	-	210	210	14	210	46000	44000000	210
1,2-Dichloroethane	-	380	1200	0.1	11	21	150000	420
1,2-Dichloropropane	-	320	550	0.1	7.4	30	120000	550
1,3,5-Trimethylbenzene	-	94	94	1.8	94	19000	36000000	94
1,3-Dichlorobenzene	-	51	170	0.48	48	94	88000	170
1,4-Dichlorobenzene	-	140	-	1.7	100	260	570000	1900
2-Butanone (Methyl Ethyl Ketone)	-	27000	27000	760	27000	35000	29000000	27000
2-Hexanone	-	2500	2500	58	1800	1300	1200000	2500
2-Methylnaphthalene	-	5500	-	170	4900	1800	290000	26000
2-Phenylbutane (sec-Butylbenzene)	-	88	10000	4.6	-	-	180000	8000
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	-	2700	2700	100	2700	53000	60000000	2700
Acetone	-	110000	110000	42	110000	160000	170000000	73000
Acrylonitrile	-	280	8300	0.22	35	17	58000	74

TABLE VI
SUMMARY OF PART 201 SCREENING CRITERIA FOR SOIL
RACER GMPT LIVONIA
LIVONIA, MI

	Statewide Default Background Levels {A}	Groundwater Contact Protection Criteria {B}	Soil Saturation Conc. Screening Levels {C}	Non-residential Drinking Water Protection Criteria {D}	Non-residential Soil Volatilization to Indoor Air Inhalation Criteria {E}	Non-residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) {F}	Non-residential Particulate Soil Inhalation Criteria {G}	Non-residential Direct Contact Criteria {H}
Volatile Organic Compounds (mg/kg) (con't)								
Benzene	-	220	400	0.1	8.4	45	470000	400
Bromobenzene	-	360	760	1.5	580	540	240000	760
Bromodichloromethane	-	280	1500	1.6	6.4	31	110000	490
Bromoform	-	870	870	1.6	770	3100	3600000	870
Bromomethane (Methyl Bromide)	-	1400	2200	0.58	1.6	13	150000	1000
Carbon disulfide	-	280	280	46	140	1600	21000000	280
Carbon tetrachloride	-	92	390	0.1	0.99	12	170000	390
Chlorobenzene	-	260	260	2	220	920	2100000	260
Chlorobromomethane	-	-	-	-	-	-	-	-
Chloroethane	-	950	950	34	950	36000	290000000	950
Chloroform (Trichloromethane)	-	1500	1500	1.6	38	150	1600000	1500
Chloromethane (Methyl Chloride)	-	1100	1100	22	10	120	2600000	1100
cis-1,2-Dichloroethene	-	640	640	1.4	41	210	1000000	640
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-
Cyclohexane	-	-	-	-	-	-	-	-
Cymene (p-Isopropyltoluene)	-	-	-	-	-	-	-	-
Dibromochloromethane	-	360	610	1.6	21	80	160000	500
Dibromomethane	-	2000	2000	4.6	-	-	-	2000
Dichlorodifluoromethane (CFC-12)	-	1000	1000	270	1700	63000	1500000000	1000
Ethyl Ether	-	7400	7400	0.2	7400	100000	350000000	7400
Ethylbenzene	-	140	140	1.5	140	2400	13000000	140
Hexachloroethane	-	110	-	1.2	79	660	100000	730
Iodomethane	-	-	-	-	-	-	-	-
Isopropylbenzene	-	390	390	260	390	2000	2600000	390
Methyl acetate	-	-	-	-	-	-	-	-
Methyl cyclohexane	-	-	-	-	-	-	-	-
Methyl Tert Butyl Ether	-	5900	5900	0.8	5900	30000	88000000	5900
Methylene chloride	-	2300	2300	0.1	240	700	8300000	2300
Naphthalene	-	2100	-	100	470	350	88000	52000
n-Butylbenzene	-	120	10000	4.6	-	-	880000	8000
n-Propylbenzene	-	300	10000	4.6	-	-	590000	8000
Styrene	-	270	520	2.7	520	3300	6900000	520
tert-Butylbenzene	-	180	10000	4.6	-	-	290000	8000
Tetrachloroethene	-	88	88	0.1	21	210	1200000	88
Tetrahydrofuran	-	32000	120000	5.4	2400	15000	170000000	9500
Toluene	-	250	250	16	250	3300	12000000	250
trans-1,2-Dichloroethene	-	1400	1400	2	43	330	2100000	1400
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	-	-	-	-	-	-	-	-
Trichloroethene	-	440	500	0.1	1.9	14	59000	500
Trichlorofluoromethane (CFC-11)	-	560	560	150	560	110000	1700000000	560
Trifluorotrichloroethane (Freon 113)	-	550	550	550	550	210000	2300000000	550
Vinyl chloride	-	20	490	0.04	2.8	29	890000	34
Xylene (total)	-	5.6	150	5.6	150	54000	130000000	150

Notes:
1. Michigan Part 201 Generic Cleanup Criteria, dated 9/28/2012.

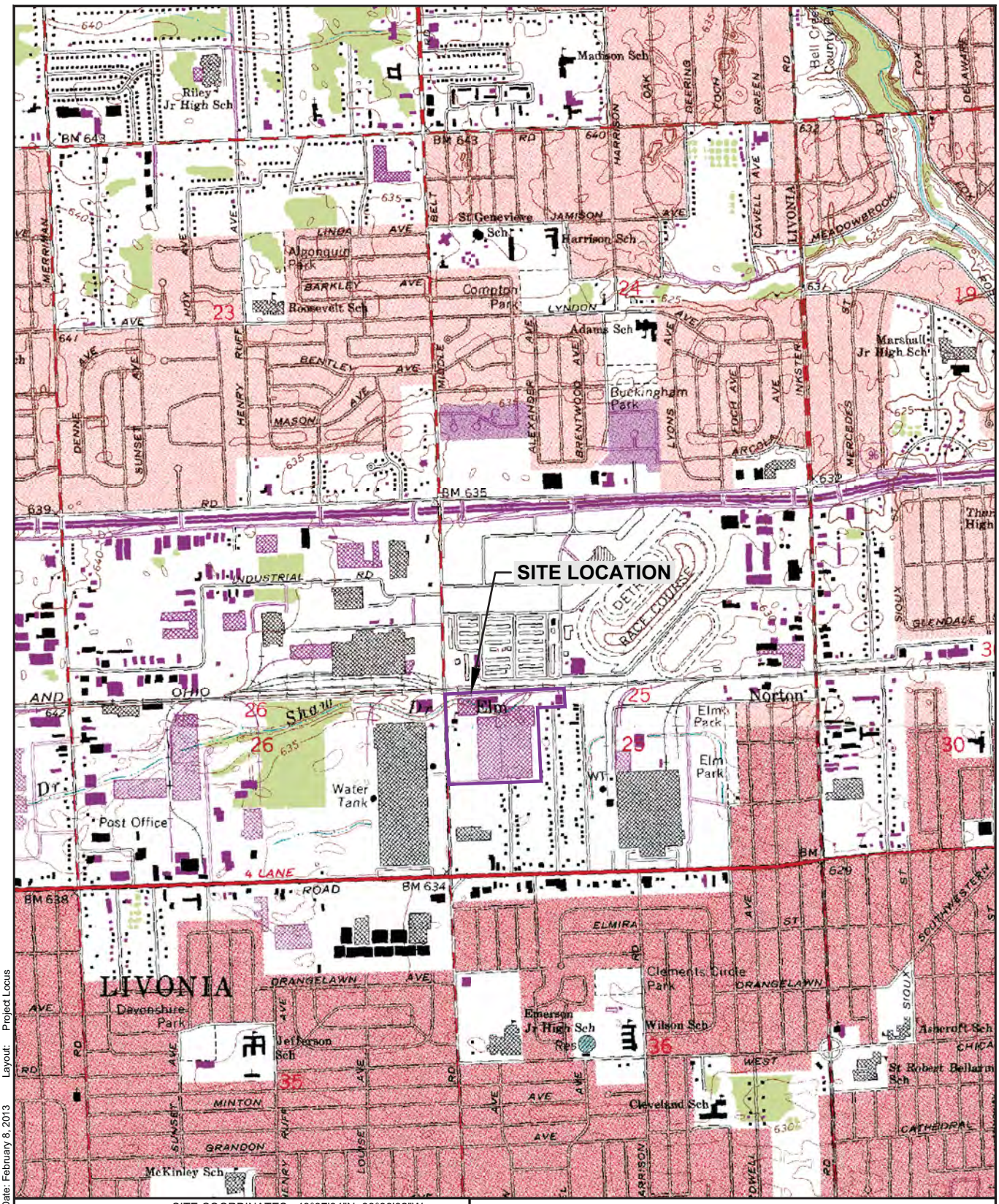
TABLE VII
SUMMARY OF PART 201 SCREENING CRITERIA FOR GROUNDWATER
RACER GMPT LIVONIA
LIVONIA, MI

	Non-residential Drinking Water Criteria {A}	Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria {B}	Groundwater Contact Criteria {C}	Water Solubility {D}	Flammability and Explosivity Screening Level {E}	Acute Inhalation Screening Level {F}
Inorganic Compounds (mg/L)						
Arsenic, Dissolved	0.01	-	4.3	-	-	-
Arsenic, Total	0.01	-	4.3	-	-	-
Barium, Dissolved	2	-	14000	-	-	-
Barium, Total	2	-	14000	-	-	-
Cadmium, Dissolved	0.005	-	190	-	-	-
Cadmium, Total	0.005	-	190	-	-	-
Chromium, Dissolved	0.1	-	460	-	-	-
Chromium, Total	0.1	-	460	-	-	-
Copper, Dissolved	1	-	7400	-	-	-
Copper, Total	1	-	7400	-	-	-
Lead, Dissolved	0.004	-	-	-	-	-
Lead, Total	0.004	-	-	-	-	-
Mercury, Dissolved	0.002	0.056	0.056	0.056	-	-
Mercury, Total	0.002	0.056	0.056	0.056	-	-
Selenium, Dissolved	0.05	-	970	-	-	-
Selenium, Total	0.05	-	970	-	-	-
Silver, Dissolved	0.098	-	1500	-	-	-
Silver, Total	0.098	-	1500	-	-	-
Zinc, Dissolved	5	-	110000	-	-	-
Zinc, Total	5	-	110000	-	-	-
Semi-Volatile Organic Compounds (mg/L)						
1-Methylnaphthalene	-	-	-	-	-	-
2-Methylnaphthalene	0.75	25	25	24.6	-	-
Acenaphthene	3.8	4.2	4.2	4.24	-	-
Acenaphthylene	0.15	3.9	3.9	3.93	-	-
Anthracene	0.043	0.043	0.043	0.0434	-	-
Benzo(a)anthracene	0.0085	-	0.0094	0.0094	-	-
Benzo(a)pyrene	0.005	-	0.001	0.00162	-	-
Benzo(b)fluoranthene	0.0015	-	0.0015	0.0015	-	-
Benzo(g,h,i)perylene	0.001	-	0.001	0.00026	-	-
Benzo(k)fluoranthene	0.001	-	0.001	0.0008	-	-
Chrysene	0.0016	-	0.0016	0.0016	-	-
Dibenz(a,h)anthracene	0.002	-	0.002	0.00249	-	-
Fluoranthene	0.21	0.21	0.21	0.206	-	-
Fluorene	2	2	2	1.98	-	-
Indeno(1,2,3-cd)pyrene	0.002	-	0.002	0.000022	-	-
Naphthalene	1.5	31	31	31	-	31
Phenanthrene	0.15	1	1	1	-	-
Pyrene	0.14	0.14	0.14	0.135	-	-
Volatile Organic Compounds (mg/L)						
1,1,1-Trichloroethane	0.2	1300	1300	1330	-	1300
1,1,2,2-Tetrachloroethane	0.035	77	4.7	2970	-	-
1,1,2-Trichloroethane	0.005	110	21	4420	-	-
1,1-Dichloroethane	2.5	2300	2400	5060	380	-
1,1-Dichloroethene	0.007	1.3	11	2250	97	140
1,2,4-Trichlorobenzene	0.07	300	19	300	-	300
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	1.2	0.39	1.23	-	-
1,2-Dibromoethane (Ethylene Dibromide)	0.00005	15	0.025	4200	-	-
1,2-Dichlorobenzene	0.6	160	160	156	-	160
1,2-Dichloroethane	0.005	59	19	8520	2500	-
1,2-Dichloropropane	0.005	36	16	2800	550	2800
1,3-Dichlorobenzene	0.019	41	2	111	-	-
1,4-Dichlorobenzene	0.075	74	6.4	73.8	-	-
2-Butanone (Methyl Ethyl Ketone)	38	240000	240000	240000	-	240000
2-Hexanone	2.9	8700	5200	16000	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	5.2	20000	13000	20000	-	20000

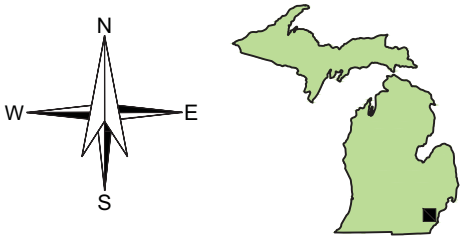
TABLE VII
SUMMARY OF PART 201 SCREENING CRITERIA FOR GROUNDWATER
RACER GMPT LIVONIA
LIVONIA, MI

	Non-residential Drinking Water Criteria {A}	Nonresidential Groundwater Volatilization to Indoor Air Inhalation Criteria {B}	Groundwater Contact Criteria {C}	Water Solubility {D}	Flammability and Explosivity Screening Level {E}	Acute Inhalation Screening Level {F}
Volatile Organic Compounds (mg/L) (con't)						
Acetone	2.1	1000000	31000	1000000	15000	1000000
Benzene	0.005	35	11	1750	68	67
Bromodichloromethane	0.08	37	14	6740	-	-
Bromoform	0.08	3100	140	3100	-	-
Bromomethane (Methyl Bromide)	0.029	9	70	14500	-	-
Carbon disulfide	2.3	550	1200	1190	13	-
Carbon tetrachloride	0.005	2.4	4.6	793	-	96
Chlorobenzene	0.1	470	86	472	160	-
Chloroethane	1.7	5700	440	5740	110	-
Chloroform (Trichloromethane)	0.08	180	150	7920	-	-
Chloromethane (Methyl Chloride)	1.1	45	490	6340	36	210
cis-1,2-Dichloroethene	0.07	210	200	3500	530	-
cis-1,3-Dichloropropene	-	-	-	-	-	-
Cyclohexane	-	-	-	-	-	-
Dibromochloromethane	0.08	110	18	2600	-	-
Dichlorodifluoromethane (CFC-12)	4.8	300	300	300	-	-
Ethylbenzene	0.074	170	170	169	43	170
Isopropylbenzene	2.3	56	56	56	29	-
Methyl acetate	-	-	-	-	-	-
Methyl cyclohexane	-	-	-	-	-	-
Methyl Tert Butyl Ether	0.04	47000	610	46800	-	-
Methylene chloride	0.005	1400	220	17000	-	-
Styrene	0.1	310	9.7	310	140	310
Tetrachloroethene	0.005	170	12	200	-	200
Toluene	0.79	530	530	526	61	-
trans-1,2-Dichloroethene	0.1	200	220	6300	230	-
trans-1,3-Dichloropropene	-	-	-	-	-	-
Trichloroethene	0.005	4.9	22	1100	-	1100
Trichlorofluoromethane (CFC-11)	7.3	1100	1100	1100	-	1100
Trifluorotrichloroethane (Freon 113)	170	170	170	170	-	170
Vinyl chloride	0.002	13	1	2760	33	-
Xylene (total)	0.28	190	190	186	70	190

Notes:
1. Michigan Part 201 Generic Cleanup Criteria, dated 9/28/2012.



SITE COORDINATES: 43°37'34"N 83°33'32"W



U.S.G.S. QUADRANGLES: REDFORD AND INKSTER, MI.

HALEY & ALDRICH

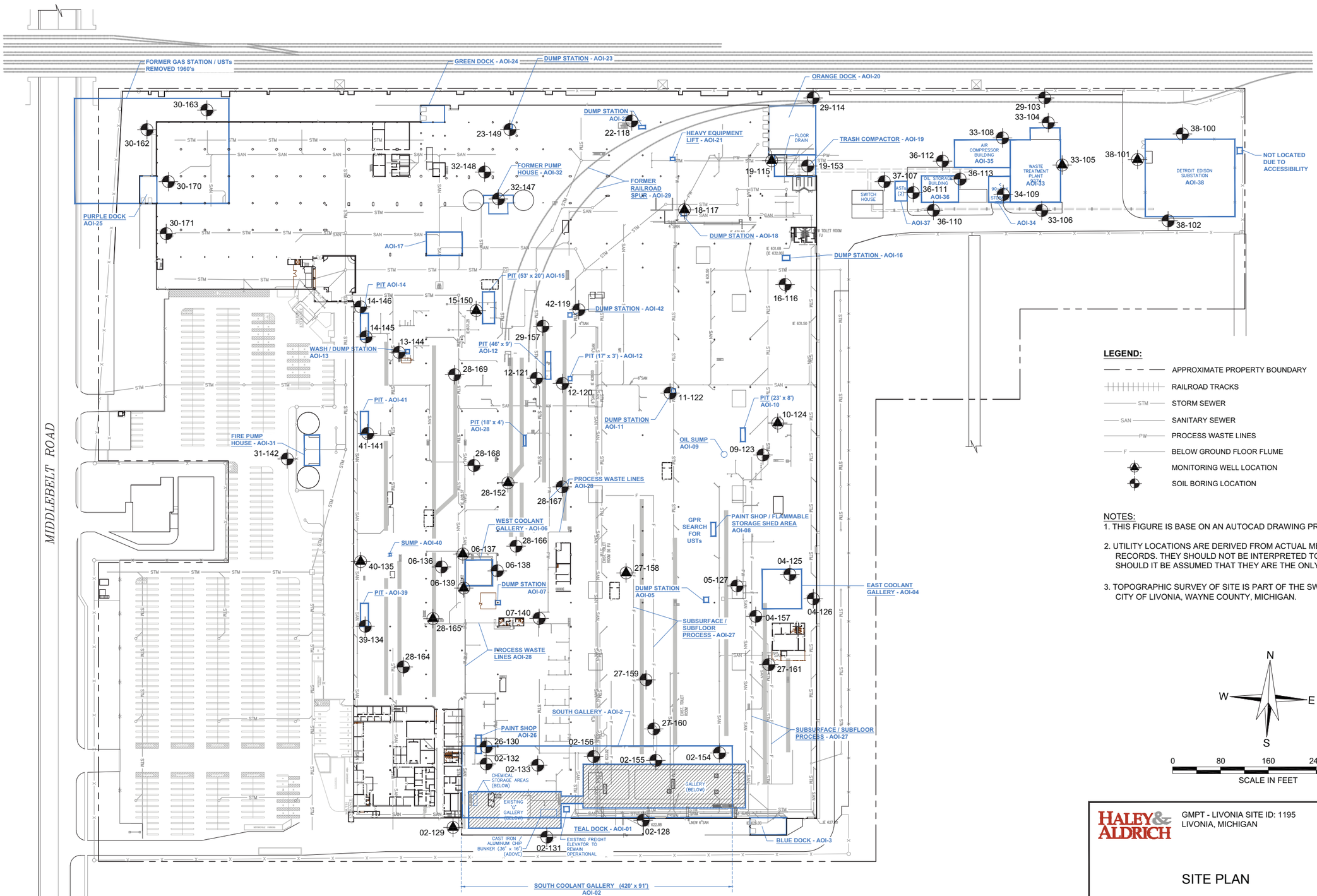
GMPT - LIVONIA SITE ID: 1195
LIVONIA, MICHIGAN

PROJECT LOCUS

SCALE: 1:24000
FEBRUARY 2013

FIGURE 1

Drawing Name: G:\37290-GMPTLivonia\000\CAD\37290-001-Locus.dwg Layout: Project Locus
Operator Name: LUCIDO, SAM Plot Date: February 8, 2013



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD TRACKS
- STM — STORM SEWER
- SAN — SANITARY SEWER
- PW — PROCESS WASTE LINES
- F — BELOW GROUND FLOOR FLUME
- MONITORING WELL LOCATION
- SOIL BORING LOCATION

NOTES:

1. THIS FIGURE IS BASE ON AN AUTOCAD DRAWING PROVIDED BY NEDERVELD.
2. UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.
3. TOPOGRAPHIC SURVEY OF SITE IS PART OF THE SW $\frac{1}{4}$ OF SECTION 25, T1S, R9E, CITY OF LIVONIA, WAYNE COUNTY, MICHIGAN.

N W E S

0 80 160 240 320

SCALE IN FEET

HALEY & ALDRICH

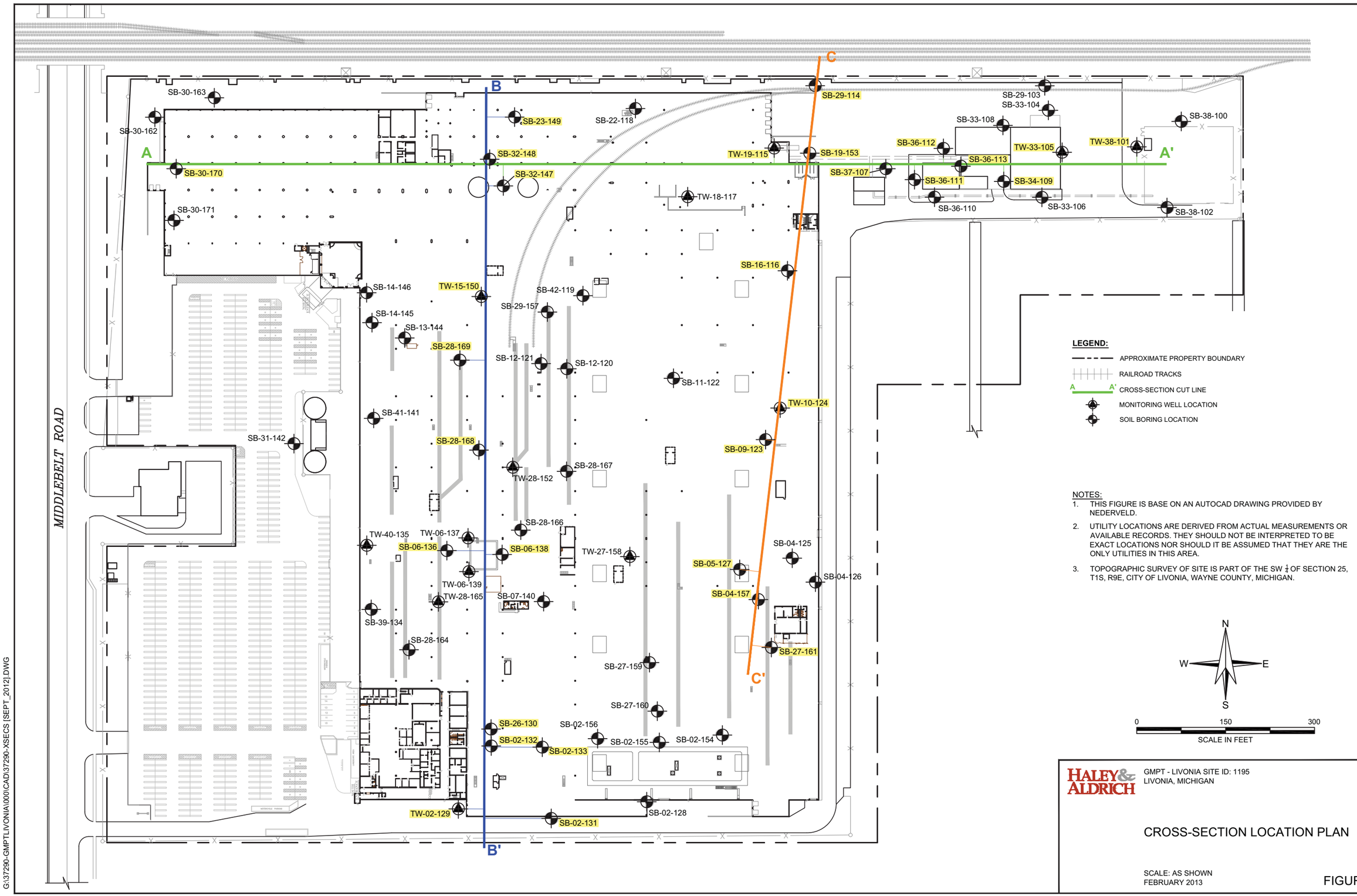
GMPT - LIVONIA SITE ID: 1195
LIVONIA, MICHIGAN

SITE PLAN

SCALE: AS SHOWN
FEBRUARY 2013

FIGURE 2

G:\37290-GMPTLIVONIA\000\CAD\37290-SITE_PLAN.DWG



NOTES:

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3. TOPOGRAPHIC SURVEY OF SITE IS PART OF THE SW $\frac{1}{4}$ OF SECTION 25, T1S, R9E, CITY OF LIVONIA, WAYNE COUNTY, MICHIGAN.

HALEY & ALDRICH

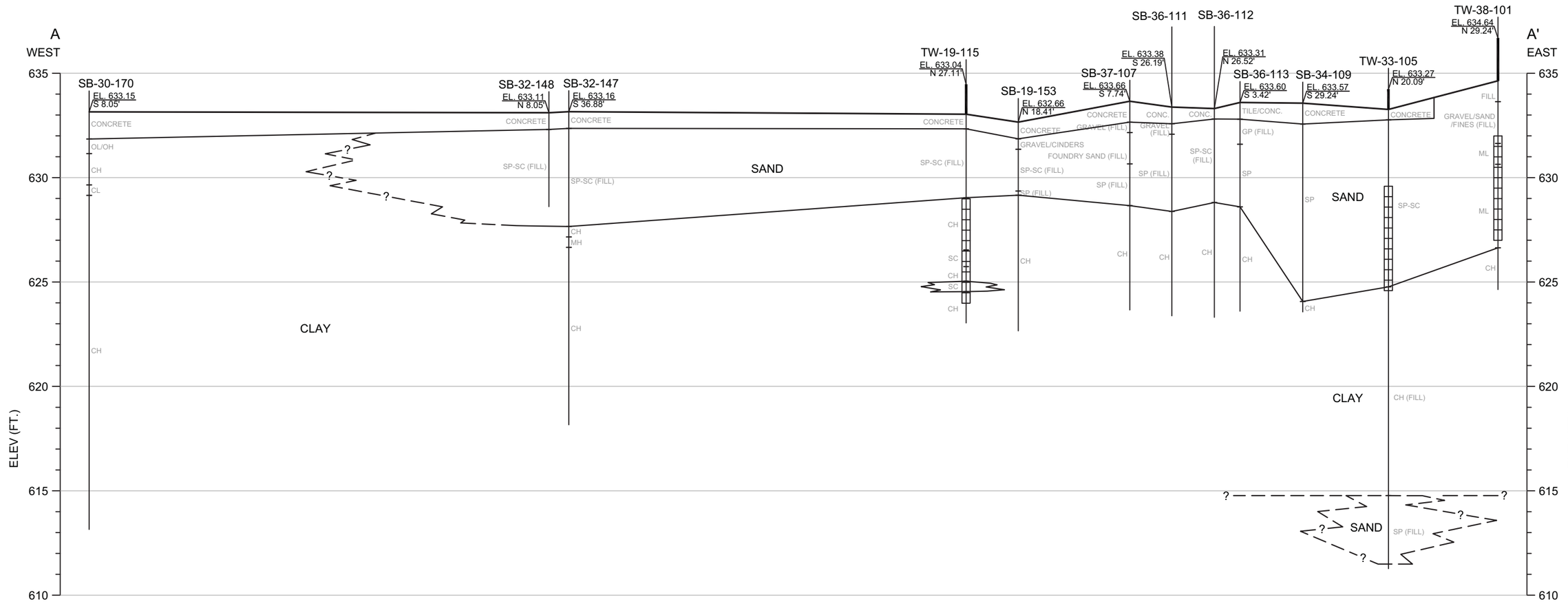
GMPT - LIVONIA SITE ID: 1195
LIVONIA, MICHIGAN

CROSS-SECTION LOCATION PLAN

SCALE: AS SHOWN
FEBRUARY 2013

FIGURE 3

G:\37290-GMPTLIVONIA\000\CAD\37290-XSECS [SEPT_2012].DWG



EXPLORATION LEGEND

TW-19-115 — EXPLORATION DESIGNATION
EL. 633.04 / N 27.11 — GROUND SURFACE ELEVATION; DIRECTION AND DISTANCE FROM CROSS-SECTION CUT LINE
DENOTES PRESENCE OF STAND-UP PIPE
GROUND SURFACE
POINT OF STRATAGRAPHIC CHANGE
CL — USCS SOIL DESIGNATION
SCREENED INTERVAL

HORIZ. 0 120 240
VERT. 0 5 10
APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

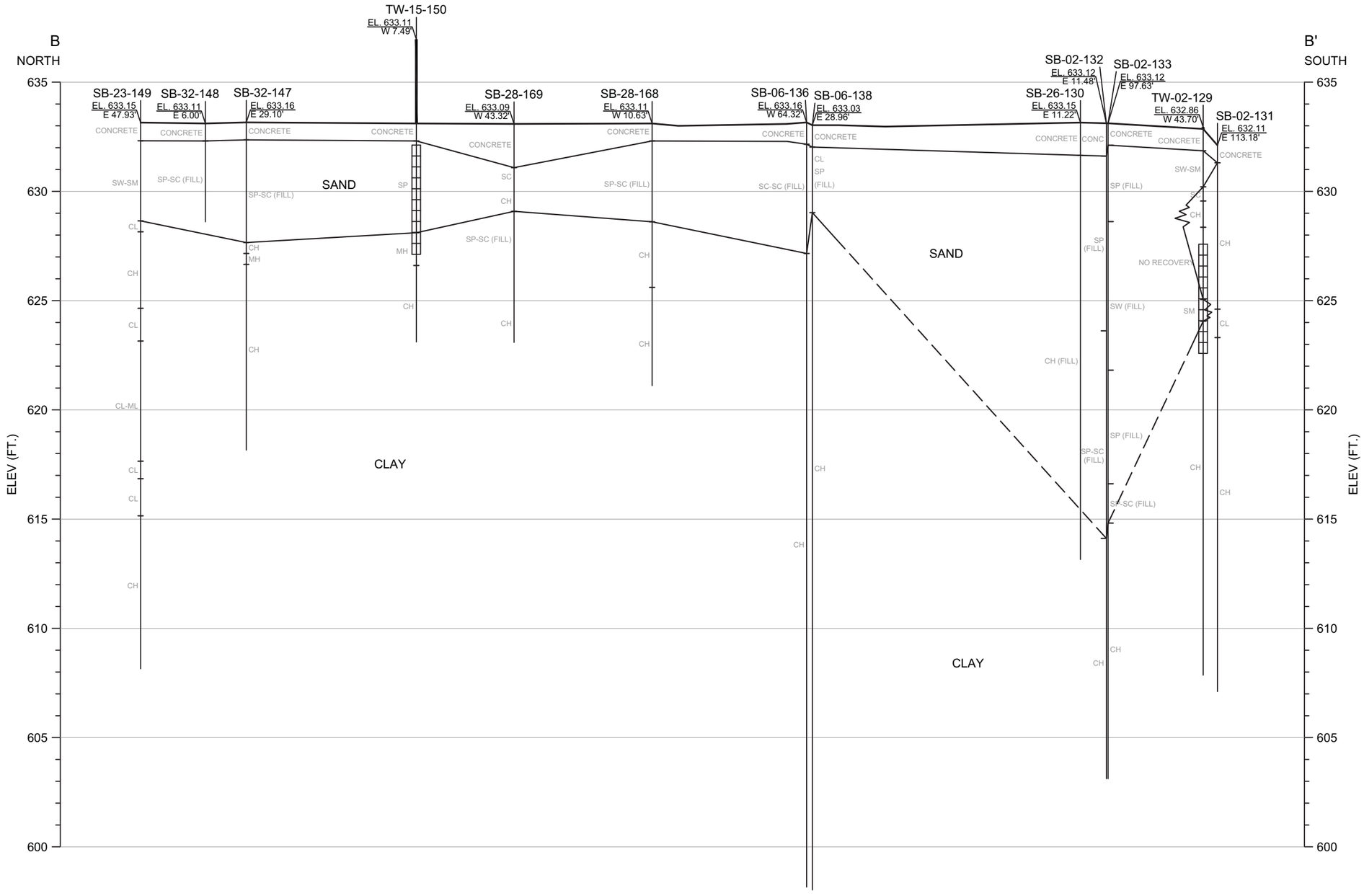
GMPT - LIVONIA SITE ID: 1195
LIVONIA, MICHIGAN

CROSS-SECTION A-A'

SCALE: AS SHOWN
FEBRUARY 2013

FIGURE 4

G:\37290-GMPT\LIVONIA\000\CAD\37290-XSECS [SEPT_2012].DWG



EXPLORATION LEGEND

TW-19-115 — EXPLORATION DESIGNATION

EL. 633.04
N 27.11 — GROUND SURFACE ELEVATION; DIRECTION AND DISTANCE FROM CROSS-SECTION CUT LINE

DENOTES PRESENCE OF STAND-UP PIPE

GROUND SURFACE

POINT OF STRATAGRAPHIC CHANGE

CL — USCS SOIL DESIGNATION

SCREENED INTERVAL

HORIZ.	0	120	240
VERT.	0	5	10

APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

GMPT - LIVONIA SITE ID: 1195
LIVONIA, MICHIGAN

CROSS-SECTION B-B'

SCALE: AS SHOWN
FEBRUARY 2013

FIGURE 5

G:\37290-GMPT\LIVONIA\000\CAD\37290-XSECS [SEPT_2012].DWG

C
NORTH

C'
SOUTH

ELEV (FT.)

635
630
625
620
615
610
605
600

SB-29-114
EL. 631.85
W 2.01'
CONCRETE/GRAVEL
SAND
SP-SC
CH
CLAY

SB-19-153
EL. 632.66
E 2.01'
CONCRETE
GRAVEL/CINDERS
SP-SC (FILL)
SP (FILL)
CH

SB-16-116
EL. 633.12
W 12.36'
CONCRETE
SW-SM
OH
CLAY
SW-SM
CL-ML
CH

TW-10-124
EL. 633.09
E 2.12'
CONCRETE
SAND
SP
CH
CLAY

SB-09-123
EL. 633.13
W 16.13'
CONCRETE
CLAY
CL (FILL)
SW
CH
CLAY

SB-05-127
EL. 633.15
W 34.10'
CONCRETE
SAND
SM
SW-SM
CH
CL-ML
CH
CLAY

SB-04-157
EL. 633.05
E 3.05'
CONCRETE
SAND
SP-SC
MH
CH
SC
SAND
CH
CLAY

SB-27-161
EL. 633.08
E 34.10'
CONCRETE
CLAY
CL-ML (FILL)
SP-SC (FILL)
CLAY
CH (FILL)
SP-SC (FILL)
CH

EXPLORATION LEGEND

TW-19-115 — EXPLORATION DESIGNATION
EL. 633.04
N 27.11 — GROUND SURFACE ELEVATION; DIRECTION AND DISTANCE FROM CROSS-SECTION CUT LINE
DENOTES PRESENCE OF STAND-UP PIPE
GROUND SURFACE
POINT OF STRATAGRAPHIC CHANGE
CL — USCS SOIL DESIGNATION
SCREENED INTERVAL

HORIZ. 0 80 160
VERT. 0 5 10
APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

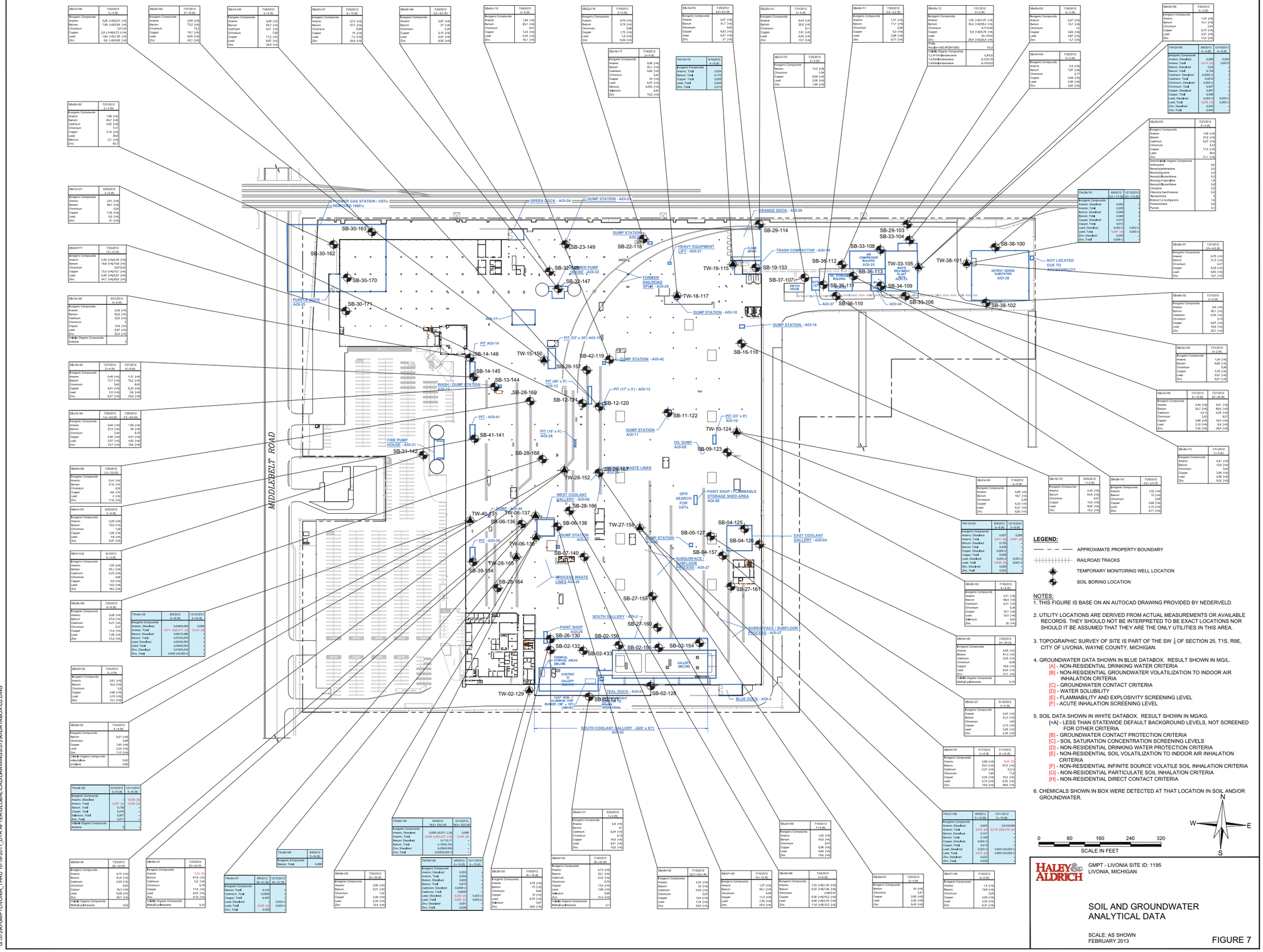
GMPT - LIVONIA SITE ID: 1195
LIVONIA, MICHIGAN

CROSS-SECTION C-C'

SCALE: AS SHOWN
FEBRUARY 2013

FIGURE 6

G:\37290-GMPTLIVONIA\000\CAD\37290-XSECS [SEPT_2012].DWG


FORMER GAS STATION / UST+ REMOVED 1960's
GREEN DOCK - AOI-24
DUMP STATION - AOI-23
ORANGE DOCK - AOI-20
PURPLE DOCK AOI-25
DUMP STATION AOI-22
HEAVY EQUIPMENT LIFT - AOI-21
FLOOR DRAIN
TRASH COMPACTOR - AOI-19
FORMER RAILROAD SPUR - AOI-29
DUMP STATION - AOI-18
DUMP STATION - AOI-16
AOI-17
PIT AOI-14
PIT (53' x 20') AOI-15
WASH / DUMP STATION AOI-13
PIT (46' x 9') AOI-12
PIT (17' x 3') - AOI-12
PIT - AOI-41
PIT (18' x 4') AOI-28
DUMP STATION AOI-11
PIT (23' x 8') AOI-10
OIL SUMP AOI-09
FIRE PUMP HOUSE - AOI-31
PROCESS WASTE LINES
GPR SEARCH FOR USTs
PAINT SHOP / FLAMMABLE STORAGE SHED AREA AOI-08
WEST COOLANT GALLERY - AOI-06
RAMP - AOI-40
PIT - AOI-39
DUMP STATION AOI-07
DUMP STATION AOI-05
EAST COOLANT GALLERY - AOI-04
SUBSURFACE / SUBFLOOR PROCESS - AOI-27
PROCESS WASTE LINES AOI-26
SOUTH GALLERY - AOI-2
PAINT SHOP AOI-26
CHEMICAL STORAGE AREAS (BELOW)
EXISTING GALLERY (BELOW)
GALLERY (BELOW)
TEAL DOCK - AOI-4
BLUE DOCK - AOI-3
CAST IRON SUMMER DUCT BUNKER (36" x 16") (ABOVE)
NOT IN USE - NO LONGER OPERATIONAL
SOUTH COOLANT GALLERY (420' x 91') AOI-02
MIDDLEBELT ROAD
AIR COMPRESSOR BUILDING AOI-35
OIL STORAGE BUILDING
SWITCH HOUSE
WASTE TREATMENT PLANT AOI-33
AOI-37
AOI-34
DETROIT EDISON SUBSTATION AOI-38
NOT LOCATED DUE TO ACCESSIBILITY
SB-30-163
SB-30-162
SB-30-170
SB-30-171
SB-23-149
SB-32-148
SB-32-147
SB-22-118
TW-19-115
SB-19-153
SB-29-114
SB-36-112
SB-37-107
SB-36-111
SB-36-110
SB-36-113
SB-33-108
SB-29-103
SB-33-104
SB-34-111
SB-38-101
SB-38-100
SB-38-102
TW-38-101
TW-18-117
TW-15-150
SB-29-157
SB-42-119
SB-16-116
SB-14-146
SB-14-145
SB-13-144
SB-28-169
SB-12-121
SB-12-120
SB-11-122
TW-10-124
SB-09-123
SB-41-141
SB-31-142
SB-28-168
SB-28-167
SB-28-161
TW-28-152
SB-09-122
TW-40-135
SB-06-136
TW-06-137
SB-06-138
TW-06-139
TW-27-158
SB-04-125
SB-04-126
SB-05-127
SB-04-157
SB-27-161
SB-07-140
TW-28-165
SB-39-154
SB-28-164
SB-27-159
SB-27-160
SB-26-130
SB-02-132
SB-02-433
SB-02-156
SB-02-154
SB-02-129
SB-02-128
SB-02-127
SB-02-126
TW-02-129
SB-09-110
SB-09-111
SB-09-112
SB-09-113
SB-34-109
SB-34-106
SB-34-105
SB-33-105
SB-33-104
SB-33-103
SB-36-114
SB-36-115
SB-36-116
SB-36-117
SB-36-118
SB-36-119
SB-36-120
SB-36-121
SB-36-122
SB-36-123
SB-36-124
SB-36-125
SB-36-126
SB-36-127
SB-36-128
SB-36-129
SB-36-130
SB-36-131
SB-36-132
SB-36-133
SB-36-134
SB-36-135
SB-36-136
SB-36-137
SB-36-138
SB-36-139
SB-36-140
SB-36-141
SB-36-142
SB-36-143
SB-36-144
SB-36-145
SB-36-146
SB-36-147
SB-36-148
SB-36-149
SB-36-150
SB-36-151
SB-36-152
SB-36-153

APPENDIX A

Soil Boring and Temporary Monitoring Well Logs

(On CD)

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-128

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 18, 2012
Finish July 18, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 632.4
Datum
Location See Plan
N 319,894
E 13,403,584

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 48/60	0.0 5.0	631.4		CONCRETE										
				1.0	CL	Medium, stiff, dark brown, sandy lean CLAY (CL), mps = 20mm, no odor -FILL- PID = ND ppm		TR		10	10	80	N	M	H	M
				628.9		PID = ND ppm										
				3.5 628.4	SP-SC	Dense, brown, poorly graded SAND with clay (SP-SC), mps = 5mm, no odor, dry		TR			90	10				
				4.0	CH	-FILL-		TR			TR	99	N	H	H	H
5		S2 44/60	5.0 10.0			Stiff, brown, fat CLAY (CH), mps = 5mm, no odor, moist -TILL- PID = ND ppm PID = ND ppm										
					CH	PID = ND ppm Similiar as above, gray at 9', occasional silt lens (< 2") present										
10		S3 50/60	10.0 15.0			PID = ND ppm										
					CH	Similiar as above, gray, fat clay PID = ND ppm										
15		S4 54/60	15.0 20.0			PID = ND ppm PID = ND ppm										
					CH	Similiar as above PID = ND ppm										
20						PID = ND ppm										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 35
Rock Cored (ft)
Samples 7S

Boring No. SB-02-128

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-128
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 53/60	20.0 25.0			PID = ND ppm										
					CH	Similiar as above										
						PID = ND ppm										
25		S6 52/60	25.0 30.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above										
						PID = ND ppm										
30		S7 58/60	30.0 35.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above										
						PID = ND ppm										
35				597.4 35.0		PID = ND ppm										
						Bottom of exploration at 35 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-02-128

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-129

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 20, 2012
Finish June 20, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 632.9
Datum
Location See Plan
N 319,868
E 13,403,267

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 38	0.0 5.0	631.9		CONCRETE										
				1.0	SW-SM	Loose brown well-graded sand with silt and gravel (SW-SM), mps=25 mm, no odor, dry PID = ND ppm	5	10	20	40	15	10				
				630.1 2.8	SC	PID = ND ppm				50	25	25				
				629.6 3.3	CH	Dense brown clayey sand (SC), mps=2 mm, no odor, dry PID = ND ppm	3	2				95	N	H	H	H
				628.4 4.5		Stiff brown fat clay (CH), mps=20 mm, no odor, dry PID = ND ppm										
5		S2 26	5.0 10.0			No recovery from 5.0 ft to 7.75 ft PID = ND ppm										
				625.1 7.8	SM	Dense silty sand (SM), mps=4 mm, no odor, wet			15	35	20	30				
				624.1 8.8	CH	Stiff gray-brown fat clay (CH), mps=20 mm, no odor, dry PID = ND ppm	2	3				95	N	H	H	H
10		S3 56	10.0 15.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above PID = ND ppm										
15		S4 59	15.0 20.0			PID = ND ppm										
					CH	Similar as above except, clay and slightly softer from 18.0 ft to 18.5 ft PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above PID = ND ppm										
20						PID = ND ppm										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 25
Rock Cored (ft) -
Samples 5S

Boring No. SB-02-129

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-129
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5	20.0 25.0		CH	Similar as above PID = ND ppm										
					CH	Similar as above PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above PID = ND ppm										
						PID = ND ppm										
25				607.9 25.0		Bottom of exploration at 25.0 ft 2-inch temporary PVC well screened 5 to 10 ft bgs.										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-02-129

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-131

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 20, 2012
Finish June 20, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation Datum 632.1
Location See Plan
N 319,859
E 13,403,424

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 48	0.0 5.0	631.4 0.8		CONCRETE										
					CH	Stiff to very stiff gray with black discoloration from 1.0 ft to 2.0 ft, fat CLAY (CH), mps = >0.25 mm, no odor, dry						100	N	H	H	H
						Analytical soil sample collected from 1 to 2 ft bgs. PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
5		S2 59	5.0 10.0		CH	PID = ND ppm	2	3				95	N	H	H	H
						Similar as above except, brown, mps=20 mm PID = ND ppm										
					CH	Similar as above PID = ND ppm										
				624.6 7.5	CL	Soft brown lean CLAY (CL), no odor, dry PID = ND ppm						100	N	M	M	M
				623.4 8.8	CH	Stiff to very stiff brown fat CLAY (CH), mps=20 mm, no odor, dry PID = ND ppm	2	3				95	N	H	H	H
10		S3 57	10.0 15.0		CH	PID = ND ppm										
						Similar as above except, black/gray-brown to gray PID = ND ppm										
					CH	Similar as above except, gray PID = ND ppm										
15		S4 60	15.0 20.0													
					CH	Similar as above PID = ND ppm										
					CH	Similar as above PID = ND ppm										
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 25
Rock Cored (ft) -
Samples 5S

Boring No. SB-02-131

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-131
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60	20.0 25.0		CH	Similar as above PID = ND ppm										
					CH	Similar as above PID = ND ppm										
25				607.1 25.0		Bottom of exploration at 25.0 ft PID = ND ppm										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-02-131

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-132

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 18, 2012
Finish July 18, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 319,977
E 13,403,317

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 31/60	0.0 5.0			CONCRETE										
				631.6 1.5	SP	PID = ND ppm Dense, brown, poorly graded SAND (SP), mps = fine sand, no odor, dry -FILL-					99	TR				
						PID = ND ppm										
						PID = ND ppm										
5		S2 30/60	5.0 10.0			PID = ND ppm										
					SP	Similiar as above										
						PID = ND ppm										
				623.6 9.5	SP-SC	Dense, brown, poorly graded SAND with clay (SP-SC), mps = 5mm, no odor, moist -FILL-		TR	TR		90	10				
10		S3 47/60	10.0 15.0			PID = ND ppm										
						PID = ND ppm										
					SP-SC	Similiar as above, more fine gravel		5			85	10				
						PID = ND ppm										
15		S4 47/60	15.0 20.0			PID = ND ppm										
					SP-SC	Similiar as above										
						PID = ND ppm										
				614.1 19.0	CH	Stiff, gray, fat CLAY (CH), mps = 5mm, no odor, moist -TILL-		TR			TR	99				
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 30
Rock Cored (ft)
Samples 6S

Boring No. SB-02-132

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-132
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 54/60	20.0 25.0			PID = ND ppm Analytical soil sample collected from 20 to 22 ft bgs. PID = ND ppm										
					CH	PID = ND ppm Similiar as above										
25		S6 52/60	25.0 30.0			PID = ND ppm										
					CH	PID = ND ppm Similiar as above										
30				603.1 30.0		PID = ND ppm Bottom of exploration at 30 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-02-132

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-133

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 18, 2012
Finish July 18, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 319,978
E 13,403,404

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 31/60	0.0 5.0	632.1		CONCRETE										
				1.0	SP	Dense, brown, poorly graded SAND (SP), mps = 3mm, no odor, dry -FILL- PID = ND ppm PID = ND ppm PID = ND ppm		TR			95	5				
				628.6 4.5	SW	Dense, brown, well graded SAND (SW), mps = coarse sand, no odor, dry -FILL- PID = ND ppm		TR	20	60	20	TR				
5		S2 57/60	5.0 10.0			PID = ND ppm PID = ND ppm PID = ND ppm										
10		S3 51/60	10.0 15.0	621.9 11.3	SP	Dense, light brown, poorly graded SAND (SP), mps = fine sand, no odor, dry -FILL- PID = ND ppm PID = ND ppm PID = ND ppm			TR	TR	99	TR				
15		S4 43/60	15.0 20.0	616.6 16.5	SP-SC	Dense, brown, poorly graded SAND with clay (SP-SC), mps = fine sand, no odor, dry -FILL-					90	10				
				614.9 18.3	CH	Stiff, gray, fat CLAY (CH), mps = 5mm, no odor, moist -TILL- PID = ND ppm		TR			TR	99	N	H	H	H
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 30
Rock Cored (ft)
Samples 6S

Boring No. SB-02-133

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-133
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 56/60	20.0 25.0			PID = ND ppm										
						PID = ND ppm										
					CH	PID = ND ppm Similar as above - occasional thin (< 1") silt lens present										
						PID = ND ppm										
25		S6 55/60	25.0 30.0			PID = ND ppm										
					CH	Similar as above PID = ND ppm										
30				603.1 30.0		PID = ND ppm Bottom of exploration at 30 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-02-133

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-154

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 18, 2012
Finish June 18, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation Datum 633.1
Location See Plan
N 320,012
E 13,403,706

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 37	0.0 5.0	631.6		CONCRETE										
				1.5	SW-SM	Loose light brown well-graded SAND with silt and gravel (SW-SM), mps=35 mm, no odor, dry -FILL- PID = 0.2 ppm PID = 0.1 ppm	5	10	10	40	25	10				
				628.9 4.3												
				628.6 4.5		PID = 0.1 ppm										
5		S2 36	5.0 10.0		SC	CONCRETE Dense gray-brown clayey SAND with gravel (SC), mps=25 mm, no odor, dry	3	12	10	40	20	20				
				625.6 7.5	SC	Similar as above PID = 0.1 ppm										
					SC	Similar as above except, 1.0 in. long black organic wood clast at ~9.0 ft -TILL- PID = 0.1 ppm										
10		S3 49	10.0 15.0	621.9 11.3	CH	PID = ND ppm PID = ND ppm		2				98	N	H	H	H
						Medium stiff gray-brown fat CLAY (CH), mps=5 mm, no odor, dry -TILL- PID = ND ppm										
15		S4 50	15.0 20.0			PID = ND ppm PID = ND ppm PID = ND ppm										
					CH	PID = ND ppm Similar as above PID = ND ppm PID = ND ppm PID = ND ppm										
				614.4 18.8	CL	PID = ND ppm Medium stiff to soft gray-brown lean CLAY (CL), mps=5 mm, no odor, dry -TILL-		2			3	95	N	M	M	H
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 34
Rock Cored (ft) -
Samples 7S

Boring No. SB-02-154

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-154
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 58	20.0 25.0			PID = ND ppm										
						PID = ND ppm										
					CL	PID = ND ppm										
						Similar as above										
						PID = ND ppm										
				609.4												
				23.8	CH	PID = ND ppm / Medium dense stiff gray-brown fat CLAY (CH), mps=30 mm, no odor, dry -TILL-	2	3				95	N	H	H	H
25		S6 59	25.0 30.0			PID = ND ppm										
						PID = ND ppm										
					CH		5	3				92	N	H	H	H
						PID = ND ppm										
						Similar as above except, more coarse grain gravel										
						PID = ND ppm										
					CH	PID = ND ppm										
						Similar as above										
30		S7 48	30.0 34.0		CH	PID = ND ppm	5	3				92	N	H	H	H
						Similar as above										
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
				599.1												
				34.0		Bottom of exploration at 34.0 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-02-154

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-155

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 18, 2012
Finish June 18, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 633.1
Datum
Location See Plan
N 319,995
E 13,403,601

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 24/60	0.0 5.0			CONCRETE										
				631.6 1.5	SW-SM	Loose light brown well-graded SAND with silt and gravel (SW-SM), mps=25 mm, no odor, dry -FILL- PID = 0.3 ppm	5	10	10	40	25	10				
						PID = 0.3 ppm										
						PID = 0.3 ppm										
5		S2 28/60	5.0 10.0													
				624.6 8.5		CONCRETE										
				624.4 8.8	SW-SM	PID = 0.3 ppm Loose light brown well-graded SAND with silt and gravel (SW-SM), mps=25 mm, no odor, dry -FILL-										
10		S3 40/60	10.0 15.0			PID = 0.3 ppm										
						PID = 0.2 ppm										
					SW-SM	Similar as above										
						PID = 0.2 ppm										
				618.1 15.0		PID = 0.2 ppm No recovery from 15 to 18 ft		5	5	40	25	25				
15		S4 25/60	15.0 20.0													
						PID = 0.2 ppm										
						PID = 0.3 ppm										
				615.1 18.0	SM	Loose gray-brown silty SAND (SM), mps=15 mm, no odor, dry -TILL-		5	5	40	25	25				
20						PID = 0.3 ppm										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 30
Rock Cored (ft) -
Samples 6S

Boring No. SB-02-155

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-155
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60/60	20.0 25.0	612.6 20.5	CH	Medium dense stiff gray-brown fat CLAY (CH), mps=15 mm, no odor, dry -TILL-		5				95	N	H	H	H
						PID = 0.2 ppm										
						PID = 0.2 ppm										
						PID = 0.3 ppm										
						PID = 0.3 ppm										
25		S6 59/60	25.0 30.0			PID = 0.2 ppm										
					CH	Similar as above except, mps=30 mm	2	3				95	N	H	H	H
						PID = 0.2 ppm										
						PID = 0.2 ppm										
						PID = 0.2 ppm										
30				603.1 30.0		PID = 0.2 ppm										
						Bottom of exploration at 34.0 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-02-155

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-156

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 20, 2012
Finish June 20, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation Datum 633.1
Location See Plan
N 319,997
E 13,403,496

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 52/60	0.0 5.0	631.6 1.5		CONCRETE										
					SW-SM	Loose, light brown, well graded SAND with silt and gravel (SW-SM), mps = 35mm, dry, no odor	5	10	15	40	20	10				
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
5		S2 49/60	5.0 10.0			PID = ND ppm										
						PID = ND ppm										
					SW-SM	Similiar as above										
				624.6 8.5		PID = ND ppm										
				624.4 8.8	SW-SM	CONCRETE										
				623.6 9.5	SC	Similiar as above	5	15	10	40	10	20				
10		S3 50/60	10.0 15.0			PID = ND ppm										
				621.6 11.5	CH	Dense, brown, clayey SAND with gravel (SC), mps = 20mm, dry, no odor	2	3				95	N	H	H	H
						PID = ND ppm										
						PID = ND ppm										
						Medium stiff, gray-brown CLAY (CH), mps = 40mm, dry, no odor										
						PID = ND ppm										
15		S4 60/60	15.0 20.0			PID = ND ppm										
					CH	PID = ND ppm										
						PID = ND ppm										
						Similiar as above										
						PID = ND ppm										
						PID = ND ppm										
					CH	PID = ND ppm										
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 25
Rock Cored (ft) -
Samples 5S

Boring No. SB-02-156

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-02-156
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 48/60	20.0 25.0			PID = ND ppm										
						Similiar as above										
					CH	PID = ND ppm										
				611.1 22.0	CL-ML	Similiar as above		2				98	N	M	M	M
						PID = ND ppm										
				609.6 23.5	CH	Soft to medium stiff, gray-brown, lean CLAY (CL), mps = 4mm, dry, no odor	2	3				95	N	H	H	H
						PID = ND ppm										
25				608.1 25.0		Similiar as 11.5 to 22 ft bgs.										
						PID = ND ppm										
						Bottom of exploration at 25.0 ft										
						PID = ND ppm										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-02-156

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-04-125

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 17, 2012
Finish July 17, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,315
E 13,403,811

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe 6620 DT.
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 37/60	0.0 5.0			CONCRETE										
				631.6 1.5	CL	PID = ND ppm Medium, stiff to stiff, gray and brown, sandy lean CLAY (CL), mps = 20mm, no odor, moist -FILL-		TR		10	10	80				
				629.6 3.5	SP-SC	PID = ND ppm/ Dense, brown, poorly graded sand with CLAY (SP-SC), mps = 5mm, no odor, dry		TR			90	10				
				628.6 4.5	CH	PID = ND ppm/ Stiff, brown, fat CLAY (CH), mps = 10mm, no odor, moist -TILL-		TR			TR	99	N	H	H	
5		S2 41/60	5.0 10.0			PID = ND ppm										
					CH	Similar as above, fine sand present, elastic silt (MH) lens 6.5' - 7.0', gray at 8.5', moist PID = ND ppm										
10		S3 40/60	10.0 15.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above, very plastic PID = ND ppm										
15		S4 39/60	15.0 20.0			PID = ND ppm										
					CH	Similar as above PID = ND ppm										
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 35
Rock Cored (ft)
Samples 7S

Boring No. SB-04-125

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-04-125
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 54/60	20.0 25.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
						PID = ND ppm										
25		S6 51/60	25.0 30.0			PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
						PID = ND ppm										
30		S7 50/60	30.0 35.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above, fat gray clay										
						PID = ND ppm										
						PID = ND ppm										
35				598.1 35.0		Bottom of exploration at 35 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-04-125

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-04-126

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 25, 2012
Finish July 25, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 632.0
Datum
Location See Plan
N 320,276
E 13,403,852

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 44/60	0.0 5.0	631.0		GRAVEL										
				1.0	CL	PID = ND ppm			5	10	10	95	R	M	L	M
				630.0		Soft, dark brown, sandy lean CLAY (CL), mps = 10mm, no odor, moist -FILL-										
				2.0	CH	Soft, gray, fat CLAY (CH), mps = 10mm, no odor, moist -FILL-				5	5	90	S	M	H	H
						PID = ND ppm										
						PID = ND ppm										
5		S2 50/60	5.0 10.0	626.0												
				6.0	CH	Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -Soft 7' - 8' -Wet, clayey sand lens 8' - 8.25' -TILL-		TR			TR	99	N	H	H	H
						PID = ND ppm										
						PID = ND ppm										
10		S3 58/60	10.0 15.0													
						PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
						PID = ND ppm										
15		S4 46/60	15.0 20.0													
						PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
						PID = ND ppm										
20						PID = ND ppm										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 35
Rock Cored (ft)
Samples 7S

Boring No. SB-04-126

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-04-126
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 25/60	20.0 25.0			PID = ND ppm										
					CH	Similar as above PID = ND ppm										
						Analytical soil sample collected from 24 to 26 ft bgs. PID = ND ppm										
25		S6 60/60	25.0 30.0			PID = ND ppm										
					CH	Similar as above PID = ND ppm										
						PID = ND ppm										
30		S7 60/60	30.0 35.0			PID = ND ppm										
					CH	Similar as above PID = ND ppm										
35				597.0 35.0		PID = ND ppm Bottom of exploration at 35 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-04-126

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-04-157

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 17, 2012
Finish July 17, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,243
E 13,403,757

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)
0		S1 28/60	0.0 5.0	631.6 1.5	SP-SC	CONCRETE PID = ND ppm Dense, brown, poorly graded SAND with clay (SP-SC), mps = fine sand, burnt soapy/greasy odor 3 to 5 ft, black staining 4.5 to 5.0 ft, dry Analytical soil samples collected from 3 to 5 ft bgs. PID = 1.2 ppm
5		S2 43/60	5.0 10.0	628.1 5.0 626.6 6.5	MH CH	PID = 3.7 ppm Medium stiff, gray, elastic SILT (MH), mps = silt, burnt soapy/greasy odor, moist PID = ND ppm Stiff, gray, fat CLAY (CH), mps = 5mm, burnt soapy/greasy odor to 7.5 ft, no odor 7.5 to 10 ft, moist -TILL- PID = ND ppm Analytical soil samples collected from 8 to 10 ft bgs.
10		S3 41/60	10.0 15.0	623.1 10.0 622.6 10.5	SC	PID = ND ppm Dense, gray, clayey SAND (SC), mps = fine sand, burnt soapy/greasy odor, wet -ALLUVIUM- PID = ND ppm
15		S4 44/60	15.0 20.0		CH	Similar as 6.5 - 10 feet PID = ND ppm PID = ND ppm PID = ND ppm
20					CH	Similar as, gray, fat clay PID = ND ppm PID = ND ppm

Gravel		Sand				Field Test			
% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 35
Rock Cored (ft)
Samples 7S

Boring No. SB-04-157

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-04-157
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 56/60	20.0 25.0			PID = ND ppm										
					CH	Similar as above PID = ND ppm										
25		S6 53/60	25.0 30.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above, hard PID = ND ppm										
30		S7 60/60	30.0 35.0			PID = ND ppm										
					CH	Similar as above										
35				598.1 35.0		Bottom of exploration at 35 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-04-157

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-05-127

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 18, 2012
Finish June 18, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 633.2
Datum
Location See Plan
N 320,292
E 13,403,724

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 36/60	0.0 5.0	631.7		CONCRETE										
				1.5	SM	Loose gray-brown, silty SAND (SM), mps=1mm, dry, solvent / oily-like odor, black discoloration			10	50	20	20				
						Analytical soil sample collected from 3 to 5 ft bgs. PID = 0.5 ppm										
						PID = 1.2 ppm										
5		S2 41/60	5.0 10.0			PID = 0.6 ppm										
				627.2 6.0	SW-SM	Loose, gray, well graded SAND with silt (SW-SM), mps = 4mm, moist, no odor			20	60	10	10				
				626.2 7.0	CH	Medium stiff, gray-brown, fat CLAY (CH), mps = 5mm, dry, no odor PID = 0.2 ppm						100	N	H	H	H
				625.2 8.0	CL	Soft to medium stiff, gray-brown, lean CLAY (CL), mps = 0.75mm, dry PID = ND ppm						100	N	M	M	M
				624.2 9.0	CH	Same as above but mps = 30mm PID = ND ppm	3	3				94	N	H	H	H
10		S3 27/60	10.0 15.0			PID = ND ppm										
					CH	Similar as above PID = ND ppm										
15		S4 60/60	15.0 20.0		CH	Similar as above PID = ND ppm										
						Similar as above PID = ND ppm										
20					CH	PID = ND ppm										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 30
Rock Cored (ft) -
Samples 6S

Boring No. SB-05-127

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-05-127
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 58/60	20.0 25.0	612.7 20.5		Similar as above										
						PID = ND ppm										
					CH	PID = ND ppm										
						Similar as above										
						PID = ND ppm										
						PID = ND ppm										
					CH	PID = ND ppm										
25		S6 60/60	25.0 30.0			Similar as above										
					CH	PID = ND ppm										
						Similar as above										
					CH	PID = ND ppm										
						Similar as above										
						PID = ND ppm										
					CH	PID = ND ppm										
						Similar as above										
30				603.2 30.0		PID = ND ppm										
						Bottom of exploration at 30.0 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-05-127

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-06-136

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 23, 2012
Finish July 23, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.2
Datum
Location See Plan
N 320,302
E 13,403,228

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 43/60	0.0 5.0	632.2		CONCRETE										
				1.0	SP-SC	Dense, brown, poorly graded SAND with clay (SP-SC), mps = 20mm, no odor, dry -FILL- PID = ND ppm PID = ND ppm		TR			90	10				
5		S2 50/60	5.0 10.0	627.2		PID = ND ppm										
				6.0	CH	Stiff, gray, fat CLAY (CH), mps = 20mm, occasional silt parting present, no odor, moist -TILL- PID = ND ppm PID = ND ppm		TR			TR	99	N	H	H	H
10		S3 60/60	10.0 15.0			PID = ND ppm PID = ND ppm										
					CH	Similiar as above PID = ND ppm										
15		S4 49/60	15.0 20.0			PID = ND ppm										
					CH	Similiar as above PID = ND ppm										
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 35
Rock Cored (ft)
Samples 7S

Boring No. SB-06-136

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-06-136
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60/60	20.0 25.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above										
						Analytical soil sample collected from 22 to 24 ft bgs. PID = ND ppm										
25		S6 60/60	25.0 30.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above										
						PID = ND ppm										
30		S7 60/60	30.0 35.0			PID = ND ppm										
					CH	Similiar as above										
						PID = ND ppm										
35				598.2 35.0		PID = ND ppm										
						Bottom of exploration at 35 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-06-136

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-06-137

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 23, 2012
Finish July 23, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,325
E 13,403,263

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 42/60	0.0 5.0	632.3 0.8		CONCRETE										
					SP-SC	Dense, brown, poorly graded SAND with clay (SP-SC), mps = 20mm, no odor, dry		TR			90	10				
						PID = ND ppm										
						PID = ND ppm										
5		S2 47/60	5.0 10.0			PID = ND ppm										
						PID = ND ppm										
					SP-SC	Similar as above										
						PID = ND ppm										
10		S3 49/60	10.0 15.0			PID = ND ppm										
						PID = ND ppm										
					SP-SC	Similar as above, moist										
						PID = ND ppm										
15		S4 43/60	15.0 20.0			PID = ND ppm										
					SP-SC	Similar as above, wet										
						PID = ND ppm										
20						PID = ND ppm										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 35
Rock Cored (ft)
Samples 7S

Boring No. SB-06-137

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-06-137
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 42/60	20.0 25.0		SP-SC	Similar as above, wet PID = ND ppm		TR			TR	99	N	H	H	H
				611.6 21.5	CH	Stiff, gray, fat CLAY (CH), mps = 20mm, no odor, moist -TILL- Analytical soil sample collected from 22 to 24 ft bgs. PID = ND ppm										
						PID = ND ppm										
25		S6 60/60	25.0 30.0			PID = ND ppm										
					CH	Similar as above PID = ND ppm										
30		S7 60/60	30.0 35.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above PID = ND ppm										
35				598.1 35.0		PID = ND ppm										
						Bottom of exploration at 35 ft										
						1.5-inch temporary PVC well screened from 16 to 21 ft bgs.										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-06-137

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-06-138

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 19, 2012
Finish July 19, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.0
Datum
Location See Plan
N 320,300
E 13,403,322

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0						CONCRETE										
		S1 37/60	0.0 5.0	632.0 1.0	CL/SP	PID = ND ppm		TR			99	TR				
						Brown to black, interberdded CLAY (CL) and poorly graded SAND (SP) -FILL-		TR			TR	99				
						PID = ND ppm										
				629.0 4.0	CH	Stiff, gray, fat CLAY (CH), mps = 5mm, no odor, moist, occasional silt parting present -TILL-		TR			TR	99	N	H	H	H
5		S2 53/60	5.0 10.0			PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
10		S3 48/60	10.0 15.0			PID = ND ppm										
					CH	PID = ND ppm Similar as above										
						PID = ND ppm										
15		S4 60/60	15.0 20.0			PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 35
Rock Cored (ft)
Samples 7S

Boring No. SB-06-138

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-06-138
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60/60	20.0 25.0			PID = ND ppm										
						PID = ND ppm										
						Analytical soil sample collected 22.5 to 24.5 ft bgs.										
					CH	Similar as above										
						PID = ND ppm										
25		S6 60/60	25.0 30.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
30		S7 60/60	30.0 35.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
35				598.0 35.0		PID = ND ppm										
						Bottom of exploration at 35.0 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-06-138

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-06-139

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 24, 2012
Finish July 24, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.0
Datum
Location See Plan
N 320,269
E 13,403,267

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 33/60	0.0 5.0	632.9 0.1	SP-SC	CONCRETE										
						Dense, brown, poorly graded SAND with clay (SP-SC), mps = 5mm, no odor, dry -FILL-		TR			90	10				
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
5		S2 52/60	5.0 10.0													
						PID = ND ppm										
					SP-SC	Similar as above										
						PID = ND ppm										
						PID = ND ppm										
10		S3 55/60	10.0 15.0													
						PID = ND ppm										
					SP-SC	Similar as above										
						PID = ND ppm										
						PID = ND ppm										
15		S4 46/60	15.0 20.0													
						PID = ND ppm										
					SP-SC	Similar as above, wet										
						PID = ND ppm										
						PID = ND ppm										
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
08/01/12				23.77	15.54

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 35
Rock Cored (ft)
Samples 7S

Boring No. SB-06-139

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-06-139
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60/60	20.0 25.0		SP-SC	PID = ND ppm Similar as above, Slight stagnant odor										
				609.5 23.5		Analytical soil sample collected from 22 to 24 ft bgs.										
					CH	PID = ND ppm Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL-		TR			TR	99	N	H	H	H
25		S6 60/60	25.0 30.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
30		S7 60/60	30.0 35.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similar as above										
						PID = ND ppm										
35				598.0 35.0		PID = ND ppm Bottom of exploration at 35 ft										

1.5-inch temporary PVC well screened from 18.5 to 23.5 ft bgs.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-06-139

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-07-140

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 20, 2012
Finish July 20, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.2
Datum
Location See Plan
N 320,224
E 13,403,395

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 50/60	0.0 5.0	632.4		CONCRETE										
				0.8 631.7	SP-SC	Brown, poorly graded SAND with clay (SP-SC) -FILL-										
				1.5	CH	PID = ND ppm										
				629.7		Medium stiff, gray-brown, sandy, fat CLAY (CH), mps = 10mm, no odor, moist										
				3.5 629.2	SP	-FILL-										
				4.0	CH	PID = ND ppm		TR			TR	99	N	H	H	H
5		S2 48/60	5.0 10.0			PID = ND ppm Similar to 0.75 - 1.5 ft PID = ND ppm Stiff, gray, fat CLAY (CH), mps = 5mm, no odor, moist, occasional silt, parting present -TILL- PID = ND ppm PID = ND ppm PID = ND ppm										
10		S3 50/60	10.0 15.0		CH	Similiar as above Analytical soil sample collected from 10 to 12 ft bgs. PID = ND ppm PID = ND ppm										
15				618.2 15.0		PID = ND ppm Bottom of exploration at 15 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 15
Rock Cored (ft)
Samples 3S

Boring No. SB-07-140

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-09-123

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 16, 2012
Finish July 16, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,513
E 13,403,758

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 29/60	0.0 5.0	632.1		CONCRETE										
				1.0	CL	Medium stiff, gray-brown, sandy lean CLAY (CL), mps = 20mm, no odor, dry -FILL- PID = ND ppm		TR	5	10	10	75	N	L	L	M
				629.6 3.5	SW	Loose, brown, well graded SAND (SW), mps = 5mm, no odor, dry PID = ND ppm		TR	30	50	15	5				
5		S2 49/60	5.0 10.0	628.1 5.0	CH	Stiff, gray, fat CLAY (CH), mps = 5mm, no odor, moist -TILL- Analytical soil sample collected from 6 to 8 ft bgs. PID = ND ppm PID = ND ppm PID = ND ppm		TR			TR	99	N	H	H	H
10		S3 24/24	10.0 12.0	621.1 12.0	CH	Similiar as above PID = ND ppm Bottom of exploration at 12 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 12
Rock Cored (ft)
Samples 3S

Boring No. SB-09-123

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-10-124

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 16, 2012
Finish July 16, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation Datum 633.1
Location See Plan
N 320,567
E 13,403,780

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 27/60	0.0 5.0	632.1		CONCRETE										
				1.0	SP	Dense, brown, poorly graded SAND (SP), mps = 10mm, no odor, dry -FILL- PID = ND ppm PID = ND ppm		TR			100	TR				
					SP	Similar as above, black staining, slight petroleum-like odor, wet Analytical soil sample collected from 4 to 6 ft bgs. PID = ND ppm										
5		S2 60/60	5.0 10.0	627.6 5.5	CH	Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL- PID = ND ppm PID = ND ppm		TR			TR	99	N	H	H	H
10				623.1 10.0		PID = ND ppm Bottom of exploration at 10 ft										

1.5-inch temporary PVC well screened from 3 to 8 ft bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
07/16/12				8.27	5.28

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-10-124

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-11-122

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 18, 2012
Finish June 18, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 633.2
Datum
Location See Plan
N 320,609
E 13,403,598

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 31/60	0.0 5.0	631.7		CONCRETE										
				1.5	OL	Loose dark brown, sandy organic soil, OL/OH, mps=1mm, no odor, dry			10	20	20	50				
				630.2 3.0	SP-SM	Loose, tan, poorly graded SAND with silt (SP-SM), mps = 2mm, no odor, dry				80	10	10				
				629.2 4.0	CH	PID = ND ppm Medium stiff, tan, fat CLAY (CH), with lens of SP-SM like above at 4.5' that is 2" thick (CH), mps = 0.75mm, no odor, dry						100	N	H	H	H
5		S2 50/60	5.0 10.0			PID = ND ppm										
				627.2 6.0	CH	PID = ND ppm Medium stiff, gray-brown, fat CLAY (CH), mps = 20mm, no odor, dry	2	3				95	N	H	H	H
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
10		S3 58/60	10.0 15.0		CH	PID = ND ppm Similiar as above										
						PID = ND ppm										
					CH	PID = ND ppm Similiar as above										
						PID = ND ppm										
						PID = ND ppm										
15		S4 55/60	15.0 20.0		CH	PID = ND ppm Similiar as above										
						PID = ND ppm										
					CH	Similiar as above										
					CH	PID = ND ppm Similiar as above										
						PID = ND ppm										
20				620.0	CH											

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 30
Rock Cored (ft) -
Samples 6S

Boring No. SB-11-122

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-11-122
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60/60	20.0 25.0		CL-ML	Similiar as above PID = ND ppm	3	3				94	N	M	M	M
						Medium to soft, gray-brown, lean CLAY (CL-ML), mps = 35mm, no odor, dry PID = ND ppm PID = ND ppm PID = ND ppm										
25		S6 58/60	25.0 30.0	608.2 25.0	CH	PID = ND ppm Similiar as above		5				95	N	H	H	H
						Medium stiff to stiff, gray-brown, fat CLAY (CH), mps = 15mm, no odor, dry PID = ND ppm PID = ND ppm PID = ND ppm										
30				603.2 30.0	CH	PID = ND ppm Similiar as above Bottom of exploration at 30.0 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-11-122

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-120

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 26, 2012
Finish July 26, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.0
Datum
Location See Plan
N 320,618
E 13,403,417

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 51/60	0.0 5.0	631.7		CONCRETE										
				1.3	SC	PID = 0.5 ppm Dense, brown, clayey SAND (SC), mps = medium sand, petroleum/ammonia-like odor, moist -FILL-				30	40	30				
				629.5												
				3.5		PID = 0.9 ppm										
				629.0												
				4.0	CH	CONCRETE		TR			TR	99	N	H	H	H
5		S2 60/60	5.0 10.0			Stiff, gray, fat CLAY (CH), mps = 10mm, petroleum/ammonia-like odor, 4.0' - 5.5'; no odor 5.5' - 10.0', moist -TILL- Analytical soil sample collected from 4 to 6 ft bgs. PID = 0.8 ppm										
					CH	PID = 2.2 ppm Similiar as above PID = ND ppm										
						PID = ND ppm										
10				623.0 10.0		Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-12-120

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-121

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 25, 2012
Finish June 25, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 633.1
Datum
Location See Plan
N 320,624
E 13,403,374

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 20/60	0.0 5.0	631.9 1.3		CONCRETE										
						No Recovery from 1.25' to 3.5'										
						Analytical soil sample collected from 3 to 5 ft bgs.										
				628.6 4.5	SW-SM	Loose, tan, well graded SAND with silt, gravel (SW-SM), mps = 20mm, dry, oil-like odor	5	10	15	40	20	10				
5		S2 50/60	5.0 10.0		CL	Analytical soil sample collected from 3 to 5 ft bgs. PID = 0.8 ppm Medium stiff to soft, light brown, lean CLAY (CL), mps = 0.75mm, dry, oil-like odor						100	N	M	M	M
				625.4 7.8	CL	PID = 0.9 ppm										
					CL	PID = ND ppm Similiar as above, has 3" moist seam from about 7.25' to 7.5', no odor						100	N	M	M	M
10		S3 40/60	10.0 15.0			PID = ND ppm Soft, gray-brown, lean CLAY (CL), mps = 0.75mm, dry, no odor PID = ND ppm										
				620.9 12.3	CL	PID = ND ppm										
					CH	PID = 0.2 ppm Similiar as above						100	N	M	M	M
15		S4 60/60	15.0 20.0			PID = ND ppm Stiff, gray-brown, fat CLAY (CH), mps = 0.75mm, dry, no odor PID = ND ppm PID = ND ppm										
				616.4 16.8	CH CL	PID = ND ppm	3	2				95	N	M	M	M
						PID = ND ppm Similiar as above										
20				613.0		Soft to medium stiff, gray-brown, lean CLAY (CL), mps = 30mm, moist outside, dry inside										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 20
Rock Cored (ft) -
Samples 4S

Boring No. SB-12-121

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-12-121
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
						PID = ND ppm										
						PID = ND ppm										
						PID = 0.2 ppm										
						Bottom of exploration at 20 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-12-121

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-13-144

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 26, 2012
Finish July 26, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,658
E 13,403,142

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 42/60	0.0 5.0	632.1		CONCRETE										
				1.0	SP-SC	Dense, brown, poorly graded SAND with clay (SP-SC), mps = 5mm, petroleum-like odor, oily appearance 2.5' - 3.5', moist -FILL-		TR			90	10				
						Analytical soil sample collected from 1.5 to 3.5 ft bgs. PID = ND ppm										
				629.6 3.5	CH	PID = 1.4 ppm		TR			TR	99	N	H	H	H
5		S2 60/60	5.0 10.0			Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist PID = ND ppm										
						PID = ND ppm										
						Analytical soil sample collected from 7.5 to 9.5 ft bgs. PID = ND ppm										
					CH	Similiar as above										
10		S3 60/60	10.0 15.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above										
						PID = ND ppm										
15				618.1 15.0		Bottom of exploration at 15 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 15
Rock Cored (ft)
Samples 3S

Boring No. SB-13-144

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-14-145

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 27, 2012
Finish July 27, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,681
E 13,403,086

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 42/60	0.0 5.0	632.1		CONCRETE										
				1.0	SP-SC	Loose/stiff, brown, interbedded poorly graded SAND with clay (SP-SC)/fat CLAY (CH), mps = 10mm, petroleum-like odor, moist					90	10				
				631.1 2.0	CH	PID = ND ppm										
				630.1 3.0	SP-SC	Analytical soil samples collected from 2 to 4 ft bgs. -FILL-					5	95				
				629.1 4.0	CH	PID = ND ppm Stiff, brown, fat CLAY (CH), mps = 10mm, no odor, moist -TILL-										
5		S2 60/60	5.0 10.0			Similiar as above, soft at 6 to 8 ft Analytical soil samples collected from 6 to 8 ft bgs. PID = ND ppm PID = ND ppm										
10		S3 24/24	10.0 12.0			PID = ND ppm PID = ND ppm										
				621.1 12.0	CH	Similiar as above PID = ND ppm Bottom of exploration at 12 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 12
Rock Cored (ft)
Samples 3S

Boring No. SB-14-145

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-14-146

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 21, 2012
Finish June 12, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 633.1
Datum
Location See Plan
N 320,731
E 13,403,074

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type:
Hammer Weight (lb)		-	-	Drill Mud: None
Hammer Fall (in.)		-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 49/60	0.0 5.0	632.4		CONCRETE										
				0.8	SW-SM	Loose, light brown, well-graded SAND with silt and gravel (SW-SM), mps=15 mm, dry	5	10	15	40	20	10				
				631.1												
				2.0	CH	Very stiff, brown-yellow-brown, fat CLAY (CH), mps = 0.75mm, dry, no odor until 4.5 feet, hydrocarbon-like odor						100	N	H	H	H
						PID = ND ppm										
						PID = ND ppm										
						Analytical soil sample collected from 4 to 5 ft bgs.										
5				628.1		PID = ND ppm										
		S2 58/60	5.0 10.0	5.0	CH	Similiar as above, except a solvent-like odor						100	N	H	H	H
						PID = 0.4 ppm										
						PID = ND ppm										
						PID = ND ppm										
				624.4		PID = ND ppm										
				8.8	CH	Similiar as above, except no odor						100	N	H	H	H
				623.1		PID = ND ppm										
10		S3 60/60	10.0 15.0	10.0	CL	Soft, gray, lean CLAY (CL), mps = 0.75mm, dry, no odor						100	N	M	M	M
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
				620.1												
				13.0	CL	Similiar as above, mps = 15mm, brachiopeds	3	7				90	N	M	M	M
						PID = ND ppm										
						PID = ND ppm										
				618.1												
15		S4 46/60	15.0 20.0	15.0	CL	Soft, gray, lean CLAY (CL), mps = 0.75mm, moist, no odor										
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
				614.4		PID = ND ppm										
				18.8	CL	Medium stiff to soft, lean CLAY (CL), mps = 10mm, dry, no odor		10				90	N	M	M	M
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 25
Rock Cored (ft)
Samples 5S

Boring No. SB-14-146

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-14-146
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 48/60	20.0 25.0			PID = ND ppm										
						PID = ND ppm										
					CL	PID = ND ppm										
						Similiar as above										
						PID = ND ppm										
						PID = ND ppm										
25				608.1 25.0	CL	PID = ND ppm										
						Similiar as above, but softer										
						Bottom of exploration at 25.0 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-14-146

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-15-150

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 20, 2012
Finish July 20, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation Datum 633.1
Location See Plan
N 320,733
E 13,403,268

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 30/60	0.0 5.0	632.4		CONCRETE										
				0.8	SP	PID = 3.9 ppm Dense, brown, poorly graded SAND (SP), mps = 5mm, slight petroleum-like odor, moist Black at 3.5 feet, strong petroleum-like odor Analytical soil sample collected from 2 to 4 ft bgs. PID = 1.3 ppm					95	5				
5		S2 60/60	5.0 10.0	628.1 5.0	MH	PID = 2.3 ppm Soft, gray, elastic SILT (MH), mps = fine sand, slight petroleum-like odor, moist					TR	100	R	M	M	M
				626.6 6.5	CH	PID = 2.5 ppm Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL- PID = ND ppm		TR			TR	99	N	H	H	H
10				623.1 10.0		PID = ND ppm Bottom of exploration at 10 ft										

1.5-inch temporary PVC well screened from 1 to 6 ft bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-15-150

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-16-116

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 25, 2012
Finish June 25, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation Datum 633.1
Location See Plan
N 320,799
E 13,403,782

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 43/60	0.0 5.0	631.9 1.3		CONCRETE										
						Analytical soil sample collected from 1 to 2 ft bgs.			10	50	30	10				
				631.6 1.5	SW-SM	Loose, brown, well-graded SAND with silt (SW-SM), mps = 4mm, hydrocarbon like odor, dry				10	10	80				
						PID = 1.1 ppm										
				630.1 3.0	OL/OH	Very stiff, dark brown, organic SOIL, (OL-OH), mps = 2mm, no odor, dry			15	50	25	10				
					SW-SM	PID = 0.2 ppm										
				628.4 4.8		Loose, light brown, well graded SAND with silt (SW-SM), mps = 4mm, no odor, dry										
5		S2 39/60	5.0 10.0		CL	PID = 0.1 ppm	2	5				95	N	M	M	M
						PID = 0.1 ppm										
						Medium stiff to soft, gray-brown, lean CLAY (CL), mps = 30mm, no odor, dry										
						PID = 0.1 ppm										
				624.4 8.8		PID = ND ppm										
					CH	PID = ND ppm	2	5				95	N	H	H	H
10		S3 59/60	10.0 15.0			Stiff, gray-brown, fat CLAY (CH), mps = 20mm, no odor, dry										
						PID = ND ppm										
						PID = ND ppm										
					CH	PID = ND ppm										
						PID = ND ppm										
						Similiar as above										
15		S4 60/60	15.0 20.0		CH	PID = ND ppm										
						PID = ND ppm										
						Similiar as above										
					CH	PID = ND ppm										
						PID = ND ppm										
						Similiar as above										
						PID = ND ppm										
20				620.0	CH											

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 20
Rock Cored (ft) -
Samples 4S

Boring No. SB-16-116

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-16-116
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
						PID = ND ppm										
						PID = ND ppm										
						Similiar as above										
						Bottom of exploration at 20 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-16-116

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-18-117

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 16, 2012
Finish July 16, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,916
E 13,403,609

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 48/60	0.0 5.0	632.3												
				0.8	SP	Dense, brown, poorly graded SAND (SP), mps = 10mm, no odor, dry -FILL- PID = ND ppm										
				630.1		Analytical soil sample collected from 2 to 4 ft bgs.										
				3.0	CL	PID = ND ppm Soft, black to gray, sandy lean CLAY (CL), mps = fine sand, slight soapy odor, moist PID = ND ppm										
5		S2 51/60	5.0 10.0	627.6												
				5.5	SC	Dense, gray clayey SAND (SC), mps = 10mm, no odor, wet										
				627.1		-FILL-										
				6.0	CH	Stiff, gray, lean CLAY (CH), mps = 10mm, no odor, moist PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
10				623.1												
				10.0		Bottom of exploration at 10 ft										
						1.5-inch temporary PVC well screened from 3 to 8 ft bgs.										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-18-117

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-19-115

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 17, 2012
Finish July 17, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.0
Datum
Location See Plan
N 321,005
E 13,403,751

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 37/60	0.0 5.0	632.4		CONCRETE										
				0.7	SP-SC	Dense, brown, poorly graded SAND with clay (SP-SC), mps =5mm, no odor, dry -FILL- PID = ND ppm PID = ND ppm					90	10				
				629.0 4.0	CH	Medium stiff to stiff, brown to gray at 4.5 feet, fat CLAY (CH), mps = 5mm, no odor, moist, thin sand stringer at 5 feet(<1"thick) PID = ND ppm PID = ND ppm				2	3	95	N	H	H	H
5		S2 48/60	5.0 10.0	626.5 6.5	SC	Dense, brown, clayey SAND (SC), mps = fine sand, no odor, wet -ALLUVIUM-					60	40				
				625.8 7.3	CH	Similar as 4.0 feet - 6.5 feet										
				625.0 8.0	SC	PID = ND ppm										
				624.5 8.5	CH	Similar as 6.5 feet - 7.25 feet, wet										
						Similar as 4.0 feet - 6.5 feet, gray fat clay										
10				623.0 10.0		PID = ND ppm										
						Bottom of exploration at 10 ft										
						1.5-inch temporary well screened from 4 to 9 ft bgs.										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-19-115

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-19-153

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 25, 2012
Finish July 25, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 632.7
Datum
Location See Plan
N 320,999
E 13,403,811

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 42/60	0.0 5.0	631.9		CONCRETE										
				631.4 0.8		PID = ND ppm										
				1.3	SP-SC	GRAVEL/CINDERS Loose, red, poorly graded SAND with clay (SP-SC), mps = fine sand, no odor, wet					90	10				
				629.4 3.3		-FILL-										
				629.2 3.5	SP	PID = ND ppm		TR			100 TR	99	N	H	H	H
					CH	Fine SAND (SP), wet -FILL-										
5		S2 44/60	5.0 10.0			Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL- Analytical soil sample collected from 3.5 to 5.5 ft bgs.										
					CH	PID = ND ppm PID = ND ppm Similiar as above PID = ND ppm										
10				622.7 10.0		PID = ND ppm Bottom of exploration at 10 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-19-153

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-22-118

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 16, 2012
Finish July 16, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 321,061
E 13,403,514

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 32/60	0.0 5.0	632.1		CONCRETE										
				1.0	SP	Dense, brown, poorly graded SAND (SP), mps = fine sand, no odor, dry -FILL- PID = ND ppm					100	TR				
						Analytical soil sample collected from 2 to 4 feet bgs. PID = ND ppm										
						Concrete Present										
5		S2 14/18	5.0 6.5													
				626.6 6.5	SP	Similiar as above, concrete at 6.5 ft PID = ND ppm										
						Bottom of exploration at 6.5 ft (Refusal)										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 6.5
Rock Cored (ft)
Samples 2S

Boring No. SB-22-118

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-23-149

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 21, 2012
Finish June 21, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation Datum 633.2
Location See Plan
N 321,038
E 13,403,311

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 36/60	0.0 5.0	633.1 0.1	SW-SM	CONCRETE (10.0 Inches)	10	15	15	40	10	10				
						Loose, well graded SAND with silt and gravel (SW-SM), brown, mps = 50mm, no odor, dry										
						PID = ND ppm										
						PID = ND ppm										
				628.7		PID = ND ppm										
				4.5 628.2	CL					10	15	75	N	H	H	H
5		S2 44/60	5.0 10.0	5.0	CH	Soft, sandy lean CLAY (CL), brown with black discoloration, mps = 4mm, no odor, dry						100	N	H	H	H
						PID = ND ppm										
						Very stiff, yellow-brown to gray brown, fat CLAY (CH), mps = 0.75mm, no odor, dry Soft from 7.25 - 7.5 ft										
						PID = ND ppm										
				624.7		PID = ND ppm										
				8.5	CL		3	2				95	N	M	M	M
						PID = ND ppm										
				623.2												
10		S3 59/60	10.0 15.0	10.0	CL	Soft, gray-brown, lean CLAY (CL), mps = 15mm, no odor, dry	2	3				95	N	H	H	H
						PID = ND ppm										
						Very stiff, gray-brown, fat CLAY (CL), mps = 25mm, no odor, dry										
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
15						PID = ND ppm										
		S4 51/60	15.0 20.0	617.7 15.5	CL			5		10	15	70	N	M	M	M
				616.9		PID = ND ppm										
				16.3	CL	Soft, gray-brown, sandy lean CLAY (CL), mps = 10mm, no odor, dry		10				90	N	M	M	M
						Soft to medium stiff, gray-brown, lean CLAY (CL), mps = 10mm, no odor, moist on outside, dry inside,										
				615.2												
				18.0	CH	PID = ND ppm	3	2				95	N	N	H	H
						Stiff, gray-brown, fat CLAY (CH), mps = 20mm, no odor, dry										
						PID = ND ppm										
20				613.2												

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 25
Rock Cored (ft) -
Samples 5S

Boring No. SB-23-149

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-23-149
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60/60	20.0 25.0		CH	PID = ND ppm Medium stiff, gray-brown, fat CLAY (CH) PID = ND ppm PID = ND ppm PID = ND ppm PID = ND ppm										
25				608.2 25.0		PID = ND ppm Bottom of exploration at 25.0 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-23-149

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-26-130

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 18, 2012
Finish July 18, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.2
Datum
Location See Plan
N 320,005
E 13,403,316

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 27/60	0.0 5.0			CONCRETE										
				631.7 1.5		PID = ND ppm										
					CH	Medium stiff, dark brown, fat CLAY (CH), mps = 5mm, no odor, moist -FILL-		TR	TR		5	95				
						PID = ND ppm										
						PID = ND ppm										
5		S2 52/60	5.0 10.0			PID = ND ppm										
					CH	Similiar as above, less sand		TR			TR	99				
						PID = ND ppm										
10		S3 51/60	10.0 15.0			PID = ND ppm										
					CH	Similiar as above, gray										
						PID = ND ppm										
15		S4 60/60	15.0 20.0			PID = ND ppm										
						Analytical soil sample collected from 16 to 18 ft bgs.										
					CH	Similiar as above										
						PID = ND ppm										
						PID = ND ppm										
20				613.0												

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 20
Rock Cored (ft)
Samples 4S

Boring No. SB-26-130

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-26-130
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
						Bottom of exploration at 20 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-26-130

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-27-158

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 19, 2012
Finish July 19, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,306
E 13,403,537

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 37/60	0.0 5.0	631.8		CONCRETE (16")										
				1.3	SP	PID = ND ppm Dense, light brown, poorly graded SAND (SP), mps = 5mm, no odor, dry -FILL- PID = ND ppm		TR			99	TR				
				628.6												
5		S2 50/60	5.0 10.0	4.5	SP-SC	Dense, brown, poorly graded SAND with clay (SP-SC), mps = 5mm, no odor, moist -FILL- PID = ND ppm PID = ND ppm Wet at 8 ft PID = ND ppm		TR			90	10				
				623.6												
10				9.5 623.1 10.0	CH	Stiff, brown, fat CLAY (CH), mps = 5mm, no odor, moist -TILL- PID = ND ppm Bottom of exploration at 10 ft		TR			TR	99	N	H	H	H

1.5-inch temporary PVC well screened from 5 to 10 ft bgs.

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-27-158

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-27-159

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 19, 2012
Finish July 19, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,129
E 13,403,578

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 25/60	0.0 5.0	632.1 1.0		CONCRETE										
					SP	PID = ND ppm Dense, brown, poorly graded SAND (SP), mps = 3mm, petroleum odor, dry -FILL-			TR		95	5				
						PID = ND ppm										
						PID = ND ppm										
5		S2 52/60	5.0 10.0	627.6 5.5	CH	Stiff, brown with gray mottling, fat CLAY (CH), mps = 10mm, no odor, moist -TILL-		TR			TR	99	N	H	H	H
						PID = ND ppm Analytical soil sample collected from 7 to 9 ft bgs.										
						PID = ND ppm										
10		S3 36/36	10.0 23.0			PID = ND ppm										
					CH	PID = ND ppm Similiar as above, gray										
						PID = ND ppm										
				620.1 13.0		Bottom of exploration at 13 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 13
Rock Cored (ft)
Samples 3S

Boring No. SB-27-159

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-27-159
File No. 37290-014
Sheet No. 2 of 1

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-27-159

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-27-160

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 17, 2012
Finish July 17, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,047
E 13,403,595

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 36/60	0.0 5.0			CONCRETE										
				631.6 1.5	SP-SC	PID = ND ppm Dense, brown, poorly graded SAND with clay (SP-SC), mps = 5mm, no odor, dry		TR			90	10				
						PID = ND ppm										
						PID = ND ppm										
5		S2 52/60	5.0 10.0	628.1 5.0	CH	Stiff, brown, fat CLAY (CH), mps = 10mm, no odor, moist, gray at 8'		TR			TR	99				
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
10				623.1 10.0		Bottom of exploration at 10 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-27-160

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-27-161

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 17, 2012
Finish July 17, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,163
E 13,403,783

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 38/60	0.0 5.0			CONCRETE										
				631.6 1.5	CL	PID = ND ppm Medium stiff, brown, sandy lean CLAY (CL), mps = 5mm, no odor, dry -FILL-		TR	TR	10	10	80	S	M	L	M
				630.1 3.0	SP-SC	PID = ND ppm					65	35				
				629.6 3.5		PID = ND ppm					TR	99	N	H	H	H
				628.6 4.5	CH	Brown interbedded poorly graded SAND (SP-SC) with fat CLAY (CH), no odor, moist, mps = fine sand -FILL-		TR			TR	99	N	H	H	H
5		S2 54/60	5.0 10.0			PID = ND ppm Stiff, brown, fat CLAY (CH), mps = 5mm, no odor, moist -TILL-										
						PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above, gray at 8', hard										
						PID = ND ppm										
10				623.1 10.0		Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-27-161

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-152

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 24, 2012
Finish July 24, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.0
Datum
Location See Plan
N 320,448
E 13,403,334

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 21/60	0.0 5.0	632.8 0.2	SP-SC	CONCRETE (20 inches)					90	10				
						PID = 3.3 ppm										
						Dense, brown to gray, poorly graded SAND with clay (SP-SC), mps = 20mm, ammonia / petroleum-like odor, moist -FILL-										
						PID = 4.8 ppm										
						Analytical soil collected from 4 to 6 ft bgs.										
5		S2 33/60	5.0 10.0			PID = 6.7 ppm										
						PID = 7.7 ppm										
					SP-SC	Similiar as above, wet at 6.5 feet										
						PID = 8.1 ppm										
				623.5 9.5		CONCRETE										
10				623.0 10.0		PID = 7.3 ppm										
						Bottom of exploration at 10 ft										
						1.5-inch temporary PVC well screened from 5 to 10 ft bgs.										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
08/01/12				9.28	6.19

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-28-152

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-164

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 21, 2012
Finish June 21, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 633.0
Datum
Location See Plan
N 320,474
E 13,403,275

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 35/60	0.0 5.0			CONCRETE- (2.66')										
				630.3 2.7	SW-SM	Loose well graded brown SAND with silt and gravel (SW-SM), mps=25 mm, no odor, dry	2	13	10	40	15	10				
				629.3 3.8	CH	PID = 0.4 ppm										
						PID = ND ppm						100	N	H	H	H
5		S2 50/60	5.0 10.0			Medium stiff, brown, fat CLAY (CH), mps = 0.75mm, no odor, dry										
						PID = ND ppm										
				626.5 6.5	CL	PID = ND ppm						100	N	M	M	M
				625.5 7.5	CH	Soft, brown, lean CLAY (CL), mps = 0.75mm, no odor, dry										
						PID = ND ppm	5	15				80	N	H	H	H
				624.0 9.0	CH	Stiff, brown, fat CLAY with gravel (CH), mps = 25mm, no odor, dry										
						PID = ND ppm						100	N	H	H	H
10		S3 54/60	10.0 15.0	623.0 10.0	CL	Stiff, brown, fat CLAY (CH), mps = 0.75mm, no odor										
						PID = ND ppm						100	N	M	M	M
						Medium stiff to soft, brown, lean CLAY (CL), mps = 0.75mm, moist on outside of clay core, dry on inside, no odor										
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
15				618.0 15.0	CL	PID = ND ppm										
		S4 60/60	15.0 20.0		CH	Similiar as above		2				98	N	H	H	H
						Medium stiff, gray-brown, fat CLAY (CH), mps = 15mm, dry, no odor										
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
20					CH	PID = ND ppm										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 25
Rock Cored (ft) -
Samples 5S

Boring No. SB-28-164

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-164
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 48/60	20.0 25.0		CH	Similiar as above Similar as above, more gravel PID = ND ppm PID = ND ppm PID = ND ppm PID = ND ppm PID = ND ppm		8				92	N	H	H	H
25				608.0 25.0	CH	Similiar as above Bottom of exploration at 25.0 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-28-164

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-165

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 31, 2012
Finish July 31, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.0
Datum
Location See Plan
N 320,216
E 13,403,218

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		HSA	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		9	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 33/60	0.0 5.0	632.2 0.8		CONCRETE										
				631.5 1.5		PID = ND ppm										
					CH	GRAVEL -FILL										
						Stiff, brown, fat CLAY (CH), mps = 10mm, no odor, moist -TILL-		TR			TR	99	N	H	H	H
						PID = ND ppm										
						PID = ND ppm										
5		S2 60/60	5.0 10.0			PID = ND ppm										
					CH	Similiar as above, gray at 7ft										
						Analytical soil sample collected from 8 to 10 ft bgs.										
						PID = ND ppm										
						PID = ND ppm										
10				623.0 10.0		Bottom of exploration at 10 ft										
						2-inch temporary PVC well installed from 5 to 10 ft bgs.										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-28-165

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-166

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 24, 2012
Finish July 24, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.0
Datum
Location See Plan
N 320,342
E 13,403,352

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 31/60	0.0 5.0	631.5		CONCRETE										
				1.5	SP-SC	PID = ND ppm Dense, brown, poorly graded SAND (SP-SC), mps = 20mm, slight greasy odor, moist -FILL- PID = ND ppm Analytical soil sample collected from 4 to 6 ft bgs. PID = ND ppm		TR			90	10				
5		S2 50/60	5.0 10.0	627.0												
				6.0	CH	Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL- PID = ND ppm PID = ND ppm PID = ND ppm		TR			TR	99	N	H	H	H
10				623.0 10.0		Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-28-166

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-167

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 24, 2012
Finish July 24, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.0
Datum
Location See Plan
N 320,445
E 13,403,425

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 36/60	0.0 5.0			CONCRETE (20")										
				631.6 1.3	SW-SC	PID = 3.3 ppm Dense, brown to gray poorly graded SAND with clay (SW-SC), mps= 10mm, petroleum like odor, oily appearance, moist -FILL- Analytical soil sample collected from 2 to 4 ft bgs.		TR			90	10				
				629.0 4.0	CH	PID = ND ppm Stiff, gray, fat CLAY (CH) mps = 10mm, no odor, moist -TILL-		TR			TR	99	N	H	H	H
5		S2 60/60	5.0 10.0			PID = ND ppm PID = ND ppm										
					CH	Similiar as above PID = ND ppm										
10		S3 24/24	10.0 12.0			PID = ND ppm PID = ND ppm										
				621.0 12.0	CH	Similiar as above PID = ND ppm Bottom of exploration at 12 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 12
Rock Cored (ft)
Samples 3S

Boring No. SB-28-167

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-168

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 23, 2012
Finish July 23, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,474
E 13,403,275

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 41/60	0.0 5.0	632.4 0.8		CONCRETE										
					SP-SC	Medium dense, brown, poorly graded SAND with clay (SP-SC), mps = 10mm, no odor, dry -FILL- PID = ND ppm PID = ND ppm										
				628.6 4.5	CH	PID = ND ppm Stiff, gray, fat CLAY (CH), mps = 5mm, no odor, moist -TILL-		TR			TR	99	N	H	H	H
5		S2 60/60	5.0 10.0			Analytical soil sample collected from 6 to 8 ft bgs. PID = ND ppm										
					CH	Similiar as above, soft at 7 ft - 8 ft PID = ND ppm PID = ND ppm										
10		S3 24/24	10.0 12.0			PID = ND ppm										
				621.1 12.0	CH	Similiar as above, stiff PID = ND ppm										
						Bottom of exploration at 12 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 12
Rock Cored (ft)
Samples 3S

Boring No. SB-28-168

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-28-169

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 26, 2012
Finish July 26, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,624
E 13,403,237

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 42/60	0.0 5.0			CONCRETE (17.5")										
						PID = 1.1 ppm										
				631.1 2.0	SC/CH	Analytical soil sample collected from 1.5 to 3.5 ft bgs.				40 5	30 5 90	30 90 10	N	M	M	M
					SP-SC	Loose, medium stiff, interbedded clayey SAND (SP-SC) and fat CLAY (CH), poorly graded										
				629.1 4.0		PID = 2.0 ppm										
						Sand with CLAY (SP-SC), mps = 10mm, petroleum-like odor, moist -FILL-										
5		S2 60/60	5.0 10.0			PID = 0.3 ppm										
					CH	PID = 0.3 ppm		TR			TR	99	N	H	H	H
						PID = ND ppm										
						Stiff, brown to gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL-										
					CH	PID = ND ppm										
						Similiar as above										
10				623.1 10.0		PID = ND ppm										
						Bottom of exploration at 10 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-28-169

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-29-103

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 30, 2012
Finish July 30, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 632.7
Datum
Location See Plan
N 321,129
E 13,404,203

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro		Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75		Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 40/60	0.0 5.0	631.9 0.8		CONCRETE										
					SP-SC	Analytical soil sample collected from 0 to 2 ft bgs. Dense, tan to black, poorly graded SAND with clay (SP-SC), mps = 10mm, no odor, moist -FILL- PID = ND ppm PID = ND ppm		TR			90	10				
				628.2 4.5	MH	Soft, gray, elastic SILT (MH), mps = silt, no odor, moist PID = ND ppm						100	S	M	M	M
5		S2 54/60	5.0 10.0	626.2 6.5	CH	PID = ND ppm Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist PID = ND ppm		TR			TR	39	N	H	H	H
10				622.7 10.0		PID = ND ppm Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S
Boring No. SB-29-103

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-29-114

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 31, 2012
Finish July 31, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 631.9
Datum
Location See Plan
N 321,113
E 13,403,816

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 42/60	0.0 5.0	630.9		CONCRETE/GRAVEL										
				1.0	SP-SC	Dense, brown to black, poorly graded SAND with clay (SP-SC), mps = 5mm, slight sulfur odor at 2ft - 4ft, wet at 3ft - 4ft (from surface water) -FILL- PID = ND ppm Analytical soil sample collected from 2 to 4 ft bgs. PID = ND ppm					90	10				
5		S2 60/60	5.0 10.0	626.9 5.0	CH	PID = ND ppm Stiff, gray, fat CLAY, mps = 10mm, no odor, moist -TILL- PID = ND ppm PID = ND ppm		TR			TR	99	N	H	H	H
10				621.9 10.0		PID = ND ppm Bottom of exploration at 10 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-29-114

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-30-162

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 31, 2012
Finish July 31, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.4
Datum
Location See Plan
N 321,012
E 13,402,705

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 40/60	0.0 5.0	632.7 0.8		CONCRETE										
				631.9 1.5	CL	PID = ND ppm Crushed Gravel -FILL-		TR		10	10	80	S	M	M	H
				630.4 3.0	SP-SC	PID = ND ppm Soft, black, sandy, lean CLAY (CL), mps = 20mm, no odor, moist -FILL- Analytical soil sample collected from 2 to 4 ft bgs.					90	10				
5		S2 60/60	5.0 10.0	627.9 5.5	CH	PID = ND ppm Dense, gray, poorly graded SAND with clay (SP-SC), mps = 10mm, no odor, moist FILL										
						PID = ND ppm Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL-										
						PID = ND ppm										
						PID = ND ppm										
10				623.4 10.0		PID = ND ppm Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-30-162

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-30-163

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 21, 2012
Finish June 21, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 632.9
Datum
Location See Plan
N 321,049
E 13,402,803

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 26/60	0.0 5.0	631.9		CONCRETE										
				1.0	SW-SM	Loose, light brown, well graded SAND with silt and gravel (SW-SM), mps = 25mm, no odor, dry PID = ND ppm	5	15	15	40	15	10				
				628.6 4.3	CL	Soft brown, sandy lean CLAY (CL), mps = mm, no odor, dry PID = ND ppm			5	20	10	65	N	M	M	M
5		S2 39/60	5.0 10.0													
				625.9 7.0	SC	Loose, brown, clayey SAND with gravel (SC), mps = 15mm, no odor, wet PID = ND ppm	5	10	10	35	10	30				
				624.9 8.0	CL	Soft, sandy, lean CLAY (CL), mps = 4mm, no odor, moist			5	20	10	65	N	H	H	H
				623.9 9.0	CH	Stiff, gray-brown, fat CLAY (CH), mps = 0.75mm, no odor, dry PID = ND ppm						100	N	H	H	H
10		S3 53/60	10.0 15.0			PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above, mps = 10mm PID = ND ppm										
15		S4 35/60	15.0 20.0			PID = ND ppm										
					CH	Similiar as above, slightly softer, altough not enough to be considered lean clay PID = ND ppm										
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 25
Rock Cored (ft) -
Samples 5S

Boring No. SB-30-163

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-30-163
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 50/60	20.0 25.0			PID = ND ppm										
						PID = ND ppm										
						PID = ND ppm										
					CH	Stiff, gray-brown, fat CLAY (CH), mps = 10mm, no odor, dry		2				98	N	H	H	H
						PID = ND ppm										
						PID = ND ppm										
					CH	PID = ND ppm										
25				607.9 25.0		Similiar as above										
						Bottom of exploration at 25.0 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-30-163

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-30-170

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 25, 2012
Finish June 25, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 633.2
Datum
Location See Plan
N 320,926
E 13,402,744

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 41/60	0.0 5.0	631.9		CONCRETE										
				1.3 631.2	OL/ OH	Loose, dark brown, gravely, organic soil with SAND (OL/OH), mps = 30mm,	5	10	10	10	10	55				
				2.0	CH	Stiff, dark brown to dark gray, fat clay (CH), mps = 1mm, no odor, dry PID = 1.1 ppm				3	3	94	N	H	H	H
				629.7 3.5 629.2	CL	PID = 0.6 ppm				5	15	80	N	M	M	M
				4.0	CH	Soft, gray, lean CLAY with sand (CL), dry, no odor						100	N	H	H	H
						Very stiff, gray-brown, fat CLAY, CH, mps = 0.75mm, no odor, dry PID = 0.5 ppm										
5		S2 43/60	5.0 10.0			PID = 0.1 ppm										
						PID = ND ppm										
					CH	PID = ND ppm Similiar as above										
10		S3 45/60	10.0 15.0			PID = ND ppm										
					CH	PID = ND ppm Similiar as above, mps = 20mm	5	3				92	N	H	H	H
						PID = ND ppm										
					CH	PID = ND ppm Similiar as above, mps = 20mm	5	3				92	N	H	H	H
15		S4 60/60	15.0 20.0		CH	PID = ND ppm Similiar as above, mps = 20mm	5	3				92	N	H	H	H
					CH	PID = ND ppm Similiar as above, mps = 20mm	5	3				92	N	H	H	H
					CH	PID = ND ppm Similiar as above, mps = 20mm	5	3				92	N	H	H	H
20				620.0	CH		5	3				92	N	H	H	H

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 20
Rock Cored (ft) -
Samples 4S

Boring No. SB-30-170

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-30-170
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
						PID = ND ppm										
						Similiar as above, mps = 20mm										
						Bottom of exploration at 20 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-30-170

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-30-171

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 20, 2012
Finish July 20, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,839
E 13,402,744

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 43/60	0.0 5.0	632.4		CONCRETE										
				0.8	SP-SC	Dense, brown, poorly graded SAND (SP-SC), mps = 5mm, no odor, dry -FILL- PID = ND ppm		TR			90	10				
				630.1 3.0	CH	Stiff, brown, fat CLAY (CH), mps = 3mm, no odor, moist -TILL- PID = ND ppm		TR			TR	99	N	H	H	H
5		S2 60/60	5.0 10.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above, occasional silt partings present PID = ND ppm										
10		S3 60/60	10.0 15.0			PID = ND ppm Analytical soil sample collected from 10 to 12 ft bgs.										
						PID = ND ppm										
					CH	Similiar as above PID = ND ppm										
15				618.1 15.0		PID = ND ppm Bottom of exploration at 15 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 15
Rock Cored (ft)
Samples 3S

Boring No. SB-30-171

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-31-142

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start August 1, 2012
Finish August 1, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 632.5
Datum
Location See Plan
N 320,472
E 13,402,963

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 42/60	0.0 5.0	632.0 0.5		ASPHALT Analytical soil sample collected from 0 to 2 ft bgs										
				631.5 1.0	SM	GRAVEL Dense, black, silty SAND (SM), mps = fine sand, no odor -FILL-					60	40				
				630.0 2.5	CL	PID = ND ppm Medium stiff, gray, sandy lean CLAY (CL), mps = 10mm, no odor, moist		TR	10	10	5	75	S	M	M	M
				629.0 3.5	CH	-FILL- PID = ND ppm/ Stiff, brown, fat CLAY (CH), mps = 10mm, no odor, moist, gray at 5ft		TR			TR	99	N	H	H	H
5		S2 60/60	5.0 10.0			-TILL- PID = ND ppm PID = ND ppm PID = ND ppm PID = ND ppm										
10				622.5 10.0		PID = ND ppm Bottom of exploration at 10 ft										

Water Level Data						Sample ID	Well Diagram	Summary
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water	O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Split Spoon Sample	Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft) 10 Rock Cored (ft) Samples 2S **Boring No. SB-31-142**

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-32-147

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 20, 2012
Finish July 20, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.2
Datum
Location See Plan
N 320,921
E 13,403,297

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 37/60	0.0 5.0	632.4		CONCRETE										
				0.8	SP-SC	Dense, light brown to brown, poorly graded SAND with clay (SP-SC), mps = 10mm, no odor, moist -FILL- PID = ND ppm PID = ND ppm PID = ND ppm		TR		10	80	10				
5		S2 60/60	5.0 10.0	627.7												
				5.5 627.2	CH	Stiff, brown, fat CLAY (CH), mps = 5mm, no odor, moist		TR			TR	99	N	H	H	H
				6.0 626.7	MH	-TILL-						100	S	M	H	M
				6.5		Stiff, brown with gray mottling, elastic SILT (MH), mps = silt, no odor, moist, PID = ND ppm PID = ND ppm Analytical soil sample collected from 8 to 10 ft bgs										
					CH	Stiff, gray-brown, fat CLAY (CH), mps = 5mm, no odor, moist -TILL-		TR			TR	99	N	H	H	H
10		S3 60/60	10.0 15.0			PID = ND ppm PID = ND ppm										
					CH	Similiar as above, gray PID = ND ppm PID = ND ppm										
15				618.2 15.0		Bottom of exploration at 15 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 15
Rock Cored (ft)
Samples 3S

Boring No. SB-32-147

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-32-148

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 20, 2012
Finish July 20, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.1
Datum
Location See Plan
N 320,965
E 13,403,272

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 50/54	0.0 5.0	632.4 0.8	SP-SC	CONCRETE PID = ND ppm Dense, brown, poorly graded SAND with clay (SP-SC), mps = 5mm, no odor, moist -FILL- Analytical soil sample collected from 2.5 to 4.5 ft bgs. PID = ND ppm		TR			90	10				
				628.6 4.5		PID = ND ppm Bottom of exploration at 4.5 ft (refusal)										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 4.5
Rock Cored (ft)
Samples 1S

Boring No. SB-32-148

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-33-104

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 30, 2012
Finish July 30, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.3
Datum
Location See Plan
N 321,088
E 13,404,210

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 42/60	0.0 5.0	632.6		CONCRETE Analytical soil sample collected from 0 to 2 ft bgs.										
				0.8	SP	PID = ND ppm		TR			99	TR				
						Dense, brown, poorly graded SAND (SP), mps = fine sand, no odor, moist Dark brown 1.5' - 2', slight sulfur odor -FILL-										
						PID = ND ppm										
						PID = ND ppm										
5		S2 44/60	5.0 10.0	627.8												
				5.5	CH	Soft, gray, fat clay, mps = 10mm, no odor, moist, re-worked material				5	5	90	N	H	H	H
						PID = ND ppm										
				626.3 7.0	CH	Stiff, gray, fat clay, mps = 10mm, no odor, moist -TILL-		TR			TR	99	N	H	H	H
						PID = ND ppm										
10		S3 39/60	10.0 15.0			PID = ND ppm										
						PID = ND ppm										
					CH	SAA										
						PID = ND ppm										
15		S4 60/60	15.0 20.0			PID = ND ppm										
						PID = ND ppm										
					CH	SAA										
						PID = ND ppm										
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 40
Rock Cored (ft)
Samples 8S

Boring No. SB-33-104

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-33-104
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 51/60	20.0 25.0			PID = ND ppm										
						PID = ND ppm										
					CH	SAA										
25		S6 60/60	25.0 30.0			PID = ND ppm										
						PID = ND ppm										
					CH	SAA										
						PID = ND ppm										
30		S7 60/60	30.0 35.0			PID = ND ppm										
						PID = ND ppm										
					CH	SAA										
35		S8 60/60	35.0 40.0			PID = ND ppm										
						PID = ND ppm										
					CH	SAA										
						PID = ND ppm										
40				593.3 40.0		PID = ND ppm										
						Bottom of exploration at 40 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-33-104

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-33-105

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 30, 2012
Finish July 30, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.3
Datum
Location See Plan
N 321,019
E 13,404,237

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 40/60	0.0 5.0	632.8		CONCRETEAnalytical soil sample collected from 0 to 5 ft bgs.										
				0.5	SP-SC	Dense, brown, poorly graded SAND with clay (SP-SC), mps = 10mm, slight petroleum-like odor, moist -FILL- PID = 28.9 ppm PID = 22.4 ppm		TR			90	10				
5		S2 48/60	5.0 10.0			PID = 16.7 ppm										
					SP-SC	Similiar as above, wet PID = 1.2 ppm PID = 0.5 ppm										
				624.8 8.5	CH	Soft, gray-brown, fat CLAY (CH), mps = 10mm, no odor, moist -FILL- PID = ND ppm		TR		5	5	90	S	M	H	M
10		S3 60/60	10.0 15.0			PID = ND ppm										
					CH	Similiar as above PID = ND ppm										
15		S4 48/60	15.0 20.0			PID = ND ppm										
					CH	Similiar as above PID = ND ppm										
				614.8 18.5	SP	Dense, brown, poorly graded SAND (SP), mps = fine sand, no odor, moist -FILL-					100					
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water
08/01/2012				9.23	3.25

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 22
Rock Cored (ft)
Samples 5S

Boring No. SB-33-105

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-33-105
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 24/24	20.0 22.0			PID = ND ppm										
						PID = ND ppm										
				611.3 22.0		Bottom of exploration at 22 ft (refusal)										
						1.5-inch temporary PVC well screened from 4 to 9 ft bgs.										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-33-105

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-33-106

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start July 27, 2012
Finish July 27, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.0
Datum
Location See Plan
N 320,941
E 13,404,206

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 33/60	0.0 5.0	632.5 0.5		GRAVEL										
					CH	Soft to medium stiff, brown with gray mottling, fat CLAY with sand (CH), mps = 20mm, no odor, moist PID = ND ppm		TR		5	10	85	S	H	H	M
						PID = ND ppm										
						PID = ND ppm										
5		S2 42/60	5.0 10.0			PID = ND ppm										
					CH	Similiar as above -FILL- PID = ND ppm Analytical soil sample collected from 8 to 10 ft bgs.										
				623.5 9.5	SP-SC	Medium dense, brown, poorly graded sand with clay, mps = 10mm, slight petroleum-like odor, moist -FILL- PID = 1.5 ppm		TR			90	10				
10		S3 36/60	10.0 15.0			PID = ND ppm										
					SP-SC	Similiar as above, moist PID = ND ppm										
						PID = ND ppm										
15		S4 50/60	15.0 20.0		SP-SC	Similiar as above, wet at 17 ft PID = ND ppm										
				615.5 17.5	CH	Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL- PID = ND ppm										
20																

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 40
Rock Cored (ft)
Samples 8S

Boring No. SB-33-106

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-33-106
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 60/60	20.0 25.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above										
25		S6 60/60	25.0 30.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above										
						PID = ND ppm										
30		S7 60/60	30.0 35.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above Analytical soil samples collected from 32-34 ft bgs.										
						PID = ND ppm										
35		S8 60/60	35.0 40.0			PID = ND ppm										
						PID = ND ppm										
					CH	Similiar as above										
						PID = ND ppm										
40				593.0 40.0		PID = ND ppm Bottom of exploration at 40 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-33-106

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-33-108

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 25, 2012
Finish June 25, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation 633.4
Datum
Location See Plan
N 321,060
E 13,404,135

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 20/60	0.0 5.0	632.4		CONCRETE										
				1.0		No Recovery 1' - 3'										
					SW-SM	PID = ND ppm Loose, brown, well graded SAND, with silt and gravel (SW-SM), mps = 25mm, no odor, wet	5	10	15	40	20	10				
5		S2 30/60	5.0 10.0			PID = ND ppm No Recovery 5' - 7.5' PID = 0.1 ppm										
				625.9 7.5		Similiar as above	5	10	15	40	20	10				
					CH	PID = ND ppm Similiar as above										
					SW-SM	PID = ND ppm										
10		S3 25/60	10.0 15.0			Similiar as above, except moist from 9' - 10' No Recovery 10' - 13' PID = ND ppm										
				620.4 13.0	CL	Soft, brown, lean CLAY (CL), mps = 20mm, no odor, moist	2	3				95	N	M	M	M
				619.4 14.0		PID = ND ppm										
					CH	Stiff, brown, fat CLAY (CH), mps = 20mm, no odor, dry PID = ND ppm	2	3				95	N	H	H	H
15		S4 29/60	15.0 20.0			No Recovery 15' - 17.5'										
				615.1 18.3	CH	Similiar as above										
					SW-SM	PID = ND ppm Dense, brown, well graded SAND, with silt and gravel (SW-SM), mps = 40mm, no odor, dry	10	10	15	35	20	10				
20				613.4 20.0												

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 20
Rock Cored (ft) -
Samples 4S

Boring No. SB-33-108

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-33-108
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
						PID = ND ppm										
						Bottom of exploration at 20 ft										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-33-108

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-34-109

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 31, 2012
Finish July 31, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.6
Datum
Location See Plan
N 320,965
E 13,404,140

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 24/60	0.0 5.0	632.6		CONCRETE Analytical soil sample collected from 0 to 2 ft bgs.										
				1.0	SP	Dense, brown, fine SAND (SP), mps = 3mm, no odor, moist -FILL- PID = ND ppm PID = ND ppm		TR			100	TR				
5		S2 49/60	5.0 10.0			PID = ND ppm										
					SP	Similiar as above PID = ND ppm PID = ND ppm										
				624.1 9.5		PID = ND ppm										
10				623.6 10.0	CH	Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL- Bottom of exploration at 10 ft		TR			TR	99	N	H	H	H

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-34-109

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-36-110

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 25, 2012
Finish July 25, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.3
Datum
Location See Plan
N 320,934
E 13,404,025

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 30/60	0.0 5.0	632.6		CONCRETE Analytical soil sample collected from 0.5 to 2.5 ft bgs.										
				0.8 632.1		GRAVEL										
				1.3	SP	-FILL- PID = ND ppm		TR			99	TR				
						Dense, brown, poorly graded SAND (SP), mps = 10mm, no odor, moist to wet		99			TR					
						-FILL- PID = ND ppm Pea gravel at 4-5' - 5'										
5		S2 49/60	5.0 10.0	628.3 5.0	CH	PID = ND ppm PID = ND ppm Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL- PID = ND ppm PID = ND ppm		TR			TR	99				
10				623.3 10.0		PID = ND ppm Bottom of exploration at 10 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-36-110

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-36-111

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 25, 2012
Finish July 25, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation Datum 633.4
Location See Plan
N 320,962
E 13,403,990

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 30/60	0.0 5.0	632.6		CONCRETE Analytical soil sample collected from 0.5 to 2.5 ft bgs.										
				0.8 632.1		GRAVEL										
				1.3	SP	-FILL-					100					
						PID = ND ppm										
						Dense, red, poorly graded SAND (SP), mps = fine sand, no odor, wet (from surface water)										
						-FILL-										
						PID = ND ppm										
5				628.4												
		S2 48/60	5.0 10.0	5.0	CH	PID = ND ppm		TR		TR	99	N	H	H	H	
						Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist										
						-TILL-										
						PID = ND ppm										
						PID = ND ppm										
10				623.4												
				10.0		PID = ND ppm										
						Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-36-111

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-36-112

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 31, 2012
Finish July 31, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.3
Datum
Location See Plan
N 321,017
E 13,404,036

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 33/60	0.0 5.0	632.8 0.5	SP-SC	CONCRETE Analytical soil sample collected from 0 to 2 ft bgs. Dense, brown to black, poorly graded SAND with clay (SP-SC), mps = 10mm, no odor, moist -FILL- PID = ND ppm PID = ND ppm					90	10				
5		S2 60/60	5.0 10.0	628.8 4.5	CH	Stiff, brown to gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL- PID = ND ppm PID = ND ppm PID = ND ppm PID = ND ppm		TR			TR	99	N	H	H	H
10				623.3 10.0		Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-36-112

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-36-113

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 31, 2012
Finish July 31, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation Datum 633.6
Location See Plan
N 320,988
E 13,404,067

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 40/60	0.0 5.0	632.9		TILE/CONCRETE										
				0.8	GP	Loose, red-brown, poorly graded, gravel with SAND (GP), mps = 10mm, no odor, moist		70	10	10	5	5				
				631.6		-FILL-										
				2.0	SP	PID = ND ppm					100	TR				
						Dense, brown, poorly graded SAND (SP), mps = 3mm, no odor, moist, black, petroleum like odor at 4.5ft - 5ft										
						PID = ND ppm										
						PID = 1.7 ppm										
5				628.6		Analytical soil sample collected from 3 to 5 ft bgs.										
		S2 60/60	5.0 10.0	5.0	CH	Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist		TR			TR	99	N	H	H	H
						-TILL-										
						PID = ND ppm										
						Occasional silt lens (<1") present										
						PID = ND ppm										
10				623.6 10.0		PID = ND ppm										
						Bottom of exploration at 10 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-36-113

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-37-107

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 25, 2012
Finish July 25, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.4
Datum
Location See Plan
N 320,978
E 13,403,941

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 33/60	0.0 5.0	632.4		CONCRETE										
				631.9 1.0		Gravel										
				1.5		-FILL- PID = ND ppm										
				630.4 3.0		Black foundry sand, wet -FILL-										
					SP	Dense, gray, poorly graded SAND (SP), mps = fine sand, slight stagnant odor, wet (from surface water) -FILL- Analytical soil sample collected from 3 to 5 ft bgs.					100					
5		S2 60/60	5.0 10.0	628.4 5.0	CH	PID = ND ppm PID = ND ppm Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist PID = ND ppm PID = ND ppm		TR			TR	99	N	H	H	H
10				623.4 10.0		Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-37-107

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-38-100

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 27, 2012
Finish July 27, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 634.4
Datum
Location See Plan
N 321,079
E 13,404,435

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 48/60	0.0 5.0	633.9		TOPSOIL ORGANICS										
				0.5		GRAVEL/FINES/SAND -FILL- PID = ND ppm										
				632.4 2.0	CL	Medium stiff, brown to black, sandy lean CLAY (CL), mps = 10mm, slight petroleum like odor, moist -FILL-		TR		15	15	70				
				630.9 3.5	SP	PID = ND ppm					100					
				629.9 4.5	CH	Dense, brown, poorly graded SAND (SP), no odor, moist -FILL-		TR			TR	99	N	H	H	H
5		S2 60/60	5.0 10.0			PID = ND ppm										
				627.9 6.5	MH	Stiff, brown, with gray mottling, fat CLAY (CH), mps = 10mm, no odor, moist -TILL-						100	S	M	M	M
				626.9 7.5	CH	PID = ND ppm Soft, red-brown, elastic SILT (MH), mps = silt, no odor, wet PID = ND ppm										
10				624.4 10.0		Similar as 4.5 feet to 6.5 feet PID = ND ppm										
						Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-38-100

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-38-101

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 31, 2012
Finish July 31, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 634.6
Datum
Location See Plan
N 321,033
E 13,404,362

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 48/60	0.0 5.0	633.6	CL	Soft, brown, sandy lean CLAY (CL), mps=10mm, no odor, moist -FILL-		TR	10	10	10	70	S	M	M	H
				1.0		Gravel/sand/fines -FILL- PID = ND ppm										
				631.6 3.0	ML	Analytical soil sample collected from 2.5 to 4.5 ft bgs. Soft, black, sandy SILT (ML), mps=fine sand, sulfur odor, moist					30	70	R	L	L	L
				630.6 4.0	ML	Similar as above - brown, no odor, wet PID = ND ppm										
5		S2 50/60	5.0 10.0			PID = ND ppm										
				626.6 8.0	CH	Stiff, gray, fat CLAY (CH), mps=10mm, no odor, moist -TILL- PID = ND ppm		TR			TR	99	N	H	H	H
10				624.6 10.0		Bottom of exploration at 10 ft										
						1.5-inch temporary PVC well screened from 2.5 to 7.5 ft bgs.										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-38-101

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-38-102

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 31, 2012
Finish July 31, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 634.3
Datum
Location See Plan
N 320,933
E 13,404,417

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 45/60	0.0 5.0			Soft, brown, sandy lean CLAY (CL), MPS = 10mm, no odor, moist -FILL-		TR	10	10	10	70	S	M	M	H
						PID = ND ppm										
						Analytical soil sample collected from 2 to 4 ft bgs.										
				631.3 3.0	ML	PID = ND ppm					20	80	R	L	L	L
				630.3 4.0	ML	Soft, black, sandy SILT (ML), mps = fine sand, sulfur odor, moist -FILL-										
						Similiar as above - brown, no odor, wet										
5		S2 54/60	5.0 10.0			PID = ND ppm										
						PID = ND ppm										
				627.3 7.0	CH	Stiff, gray, fat CLAY (CH), mps = 10mm, no odor, moist -TILL-		TR			TR	97	N	H	H	H
						PID = ND ppm										
						PID = ND ppm										
10				624.3 10.0		PID = ND ppm										
						Bottom of exploration at 10 ft										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID

O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram

Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-38-102

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-39-134

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 21, 2012
Finish June 21, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation Datum 632.9
Location See Plan
N 320,198
E 13,403,105

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 24/60	0.0 5.0	631.9 1.0		CONCRETE										
					SW-SM	Loose, brown, well graded SAND with silt, gravel (SW-SM), mps = 50mm, no odor, dry	10	10	15	40	15	10				
5				627.9 5.0		PID = 0.2 ppm										
		S2	5.0 10.0	627.4 5.5		Concrete, no odor										
						PID = ND ppm										
						Bottom of exploration at 5.5 ft (refusal)										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 5.5
Rock Cored (ft) -
Samples 2S

Boring No. SB-39-134

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-40-135

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 24, 2012
Finish July 24, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.2
Datum
Location See Plan
N 320,306
E 13,403,093

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 45/60	0.0 5.0	632.4		CONCRETE										
				0.8	SP	Dense, brown, poorly graded SAND (SP), mps = fine sand, no odor, dry -FILL-					100					
				631.2												
				2.0		PID = ND ppm										
				630.7												
				2.5	SP	CONCRETE					100					
						Analytical soil sample collected from 2 to 4 ft bgs.										
						Similar as 0.75' - 2', poorly graded sand, slight greasy odor										
						PID = ND ppm										
5		S2 50/60	5.0 10.0			PID = ND ppm										
						PID = ND ppm										
					SP	Similiar as above, wet										
						PID = ND ppm										
10				623.2 10.0		PID = ND ppm										
						Bottom of exploration at 10 ft										

1.5-inch temporary PVC well screened from 5 to 10 feet bgs.

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-40-135

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-41-141

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 2
Start June 22, 2012
Finish June 22, 2012
Driller L. Weiss
H&A Rep. M. Castles-Humphrey
Elevation Datum 633.1
Location See Plan
N 320,520
E 13,403,096

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	Macro	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	1.75	-	Bit Type: N/A
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: N/A
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 19/60	0.0 5.0			CONCRETE (3.33 ft)										
				629.7 3.3	SM	Analytical soil sample collected from 3 to 5 ft bgs. Loose, gray with black discoloration at 3.5' - 4', silty SAND (SM), mps = 2mm, moist on outside, dry inside, strong hydrocarbon like odor				40	30	30				
				628.6 4.5	CH	PID = 0.6 ppm						100				
5		S2 48/60	5.0 10.0			Very stiff, gray, fat CLAY, (CL), mps = 0.75mm, dry, slight hydrocarbon like odor										
						PID = 0.8 ppm										
						PID = ND ppm										
					CH	Similiar as above, no odor after 5 ft										
						PID = ND ppm										
						PID = ND ppm										
10		S3 44/60	10.0 15.0			PID = ND ppm										
						PID = ND ppm										
					CH	PID = ND ppm										
				620.6 12.5	CL	Similiar as above						100	N	M	M	M
						PID = ND ppm										
				619.6 13.5	CH	Medium stiff to soft gray, lean CLAY (CL), mps = 0.75mm, dry inside, a little moist outside, no odor						100	N	H	H	H
						PID = ND ppm										
15		S4 48/60	15.0 20.0			PID = ND ppm										
						Stiff, gray, fat CLAY (CH), mps = 0.75mm, dry, no odor										
						PID = ND ppm										
					CH	PID = ND ppm	3	2				95	N	H	H	H
						Similiar as above, mps = 20mm										
						PID = ND ppm										
					CH	PID = ND ppm										
20						Similiar as above										

Water Level Data

Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary

Overburden (ft)	25
Rock Cored (ft)	-
Samples	5S

Boring No. SB-41-141

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None **Toughness**: L - Low M - Medium H - High **Plasticity**: N - Nonplastic L - Low M - Medium H - High **Dry Strength**: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-41-141
File No. 37290-014
Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
20		S5 54/60	20.0 25.0			PID = ND ppm										
					CH	Similiar as above PID = ND ppm										
					CH	Similiar as above PID = ND ppm										
25				608.1 25.0		Bottom of exploration at 25.0 ft PID = ND ppm										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. SB-41-141

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

HALEY & ALDRICH

TEST BORING REPORT

Boring No. SB-42-119

Project Former GMPT Livonia, 12200 Middlebelt Road, Livonia, MI
Client RACER Trust
Contractor Boart Longyear

File No. 37290-014
Sheet No. 1 of 1
Start July 26, 2012
Finish July 26, 2012
Driller M. Hefferan
H&A Rep. Corey Barnett
Elevation 633.2
Datum
Location See Plan
N 320,742
E 13,403,439

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type		Macro	--	Rig Make & Model: Geoprobe
Inside Diameter (in.)		1.75	--	Bit Type: Cutting Head
Hammer Weight (lb)			-	Drill Mud: None
Hammer Fall (in.)			-	Casing:
				Hoist/Hammer: Winch Automatic Hammer
				PID Make & Model:

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Density/consistency, color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test Dilatancy	Field Test Toughness	Field Test Plasticity	Field Test Strength
0		S1 48/60	0.0 5.0	632.2 1.0		CONCRETE										
					CH	PID = ND ppm Soft/loose, interbedded fat CLAY and poorly graded SAND (CH), mps = 10mm, no odor, moist						100				
				631.2 2.0	SP	-FILL-										
				630.2 3.0	CH	Analytical soil sample collected from 3 to 5 ft bgs.					5	95				
				629.2 4.0	SP											
				628.7 4.5	CH	Stiff, brown to gray, fat CLAY (CH), mps = 10mm, no odor, moist, occasional silt lens present		TR			TR	99	N	H	H	H
5		S2 60/60	5.0 10.0			PID = ND ppm -TILL- PID = ND ppm PID = ND ppm										
10				623.2 10.0		PID = ND ppm Bottom of exploration at 10 ft										

Water Level Data					
Date	Time	Elapsed Time (hr.)	Depth (ft) to: Bottom of Casing	Bottom of Hole	Water

Sample ID
O - Open End Rod
T - Thin Wall Tube
U - Undisturbed Sample
S - Split Spoon Sample

Well Diagram
Riser Pipe
Screen
Filter Sand
Cuttings
Grout
Concrete
Bentonite Seal

Summary
Overburden (ft) 10
Rock Cored (ft)
Samples 2S

Boring No. SB-42-119

Field Tests: **Dilatancy**: R - Rapid S - Slow N - None
Toughness: L - Low M - Medium H - High
Plasticity: N - Nonplastic L - Low M - Medium H - High
Dry Strength: N - None L - Low M - Medium H - High V - Very High

***Note: Maximum particle size is determined by direct observation within the limitations of sampler size.**

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

H&A-TEST BORING-07-1 HA-LIB07-1NEWROC.GLB HA-TB+CORE+WELL-07-1.GDT G:\PROJECTS\37290_RACER_LIVONIA\GINT LOGS\37290-014TB.GPJ Feb 5, 13

APPENDIX B

Summary of Soil and Groundwater Analytical Data

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-02	AOI-02	AOI-04	AOI-04	AOI-04	AOI-05	AOI-06	AOI-06
Location Name		SB-02-131	SB-02-132	SB-04-126	SB-04-157	SB-04-157	SB-05-127	SB-06-136	SB-06-137
Sample Name		SB131(06-20-2012)(1-2)	SB132(07-18-12)(20-22)	SB126-(07-25-12) (24-26)	SB157(07-17-12)(3-5)	SB157(07-17-12)(8-10)	SB127(06-18-2012)(3-5)	SB136-(07-23-12) (22-24)	SB137-(07-23-12) (22-24)
Sample Date		6/20/2012	7/18/2012	7/25/2012	7/17/2012	7/17/2012	6/18/2012	7/23/2012	7/23/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	1 - 2 (ft)	20 - 22 (ft)	24 - 26 (ft)	3 - 5 (ft)	8 - 10 (ft)	3 - 5 (ft)	22 - 24 (ft)	22 - 24 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Inorganic Compounds (mg/kg)									
Arsenic, Total	SW6020	**0.8**	**4.73**	**4.55**	**0.98**	**8.58**	**0.42**	**4.75**	**7.03**
Barium, Total	SW6020	**81**	**32.1**	**61.3**	**20.3**	**67.2**	**21.3**	**61.8**	**47.6**
Cadmium, Total	SW6020	**0.24**	**0.22**	**0.25**	**0.21**	0.2 U	0.2 U	**0.25**	**0.2**
Chromium, Total	SW6020	**4.14**	**5.76**	**9.39**	**1.85**	**11.4**	**1.43**	**6.83**	**5.79**
Copper, Total	SW6020	**14.5**	**17.9**	**19.8**	**5.54**	**18.3**	**2.73**	**16.3**	**17.5**
Lead, Total	SW6020	**8.61**	**7.96**	**8.34**	**2.72**	**8.52**	**2.26**	**9.09**	**9.04**
Mercury, Total	SW7471A	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Selenium, Total	SW6020	0.5 U	**0.66**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Silver, Total	SW6020	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U
Zinc, Total	SW6020	**15.5**	**31.4**	**37.1**	**13.6**	**38.6**	**4.36**	**39.1**	**31.6**
Other (%)									
Total Solids	SM2540B	**82**	**86**	**85**	**91**	**81**	**91**	**85**	**86**
PCBs (mg/kg)									
Aroclor-1016 (PCB-1016)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1221 (PCB-1221)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1232 (PCB-1232)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1242 (PCB-1242)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1248 (PCB-1248)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1254 (PCB-1254)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1260 (PCB-1260)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Semi-Volatile Organic Compounds (mg/kg)									
1-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthylene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Anthracene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(b)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(g,h,i)perylene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(k)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Chrysene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Dibenz(a,h)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluorene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Naphthalene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Pyrene	SW8270C	0.3 U	0.3 U	0.3 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Volatile Organic Compounds (mg/kg)									
1,1,1,2-Tetrachloroethane	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
1,1,1-Trichloroethane	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
1,1,2,2-Tetrachloroethane	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
1,1,2-Trichloroethane	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
1,1-Dichloroethane	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
1,1-Dichloroethene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
1,2,3-Trichlorobenzene	SW8260	0.47 U	-	-	-	-	0.39 U	-	-
1,2,3-Trichloropropane	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
1,2,3-Trimethylbenzene	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
1,2,4-Trichlorobenzene	SW8260	0.47 U	0.1 U	0.1 U	0.1 U	0.1 U	0.39 U	0.1 U	0.1 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-02	AOI-02	AOI-04	AOI-04	AOI-04	AOI-05	AOI-06	AOI-06
Location Name		SB-02-131	SB-02-132	SB-04-126	SB-04-157	SB-04-157	SB-05-127	SB-06-136	SB-06-137
Sample Name		SB131(06-20-2012)(1-2)	SB132(07-18-12)(20-22)	SB126-(07-25-12) (24-26)	SB157(07-17-12)(3-5)	SB157(07-17-12)(8-10)	SB127(06-18-2012)(3-5)	SB136-(07-23-12) (22-24)	SB137-(07-23-12) (22-24)
Sample Date		6/20/2012	7/18/2012	7/25/2012	7/17/2012	7/17/2012	6/18/2012	7/23/2012	7/23/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	1 - 2 (ft)	20 - 22 (ft)	24 - 26 (ft)	3 - 5 (ft)	8 - 10 (ft)	3 - 5 (ft)	22 - 24 (ft)	22 - 24 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
1,2,4-Trimethylbenzene	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
1,2-Dibromo-3-chloropropane (DBCP)	SW8260	0.4 U	0.07 U	0.07 U	0.06 U	0.07 U	0.3 U	0.07 U	0.07 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260	0.03 U	0.07 U	0.07 U	0.06 U	0.07 U	0.02 U	0.07 U	0.07 U
1,2-Dichlorobenzene	SW8260	0.1 U	0.07 U	0.07 U	0.06 U	0.07 U	0.1 U	0.07 U	0.07 U
1,2-Dichloroethane	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
1,2-Dichloropropane	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
1,3,5-Trimethylbenzene	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
1,3-Dichlorobenzene	SW8260	0.1 U	0.07 U	0.07 U	0.06 U	0.07 U	0.1 U	0.07 U	0.07 U
1,4-Dichlorobenzene	SW8260	0.1 U	0.07 U	0.07 U	0.06 U	0.07 U	0.1 U	0.07 U	0.07 U
2-Butanone (Methyl Ethyl Ketone)	SW8260	1.1 U	0.99 U	1 U	0.9 U	1.1 U	0.89 U	1 U	0.98 U
2-Hexanone	SW8260	4 U	3 U	3 U	3 U	4 U	3 U	3 U	3 U
2-Methylnaphthalene	SW8260	0.47 U	-	-	-	-	0.39 U	-	-
2-Phenylbutane (sec-Butylbenzene)	SW8260	0.07 U	-	-	-	-	0.06 U	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260	4 U	3 U	3 U	3 U	4 U	3 U	3 U	3 U
Acetone	SW8260	1 U	0.99 U	1 U	0.9 U	1.1 U	1 U	1 U	0.98 U
Acrylonitrile	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
Benzene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
Bromobenzene	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
Bromodichloromethane	SW8260	0.1 U	0.07 U	0.07 U	0.06 U	0.07 U	0.1 U	0.07 U	0.07 U
Bromoform	SW8260	0.1 U	0.07 U	0.07 U	0.06 U	0.07 U	0.1 U	0.07 U	0.07 U
Bromomethane (Methyl Bromide)	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.2 U	0.3 U	0.3 U
Carbon disulfide	SW8260	0.4 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U
Carbon tetrachloride	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
Chlorobenzene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
Chlorobromomethane	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
Chloroethane	SW8260	0.4 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U
Chloroform (Trichloromethane)	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
Chloromethane (Methyl Chloride)	SW8260	0.4 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U
cis-1,2-Dichloroethene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
cis-1,3-Dichloropropene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
Cyclohexane	SW8260	-	0.07 U	0.07 U	0.06 U	0.07 U	-	0.07 U	0.07 U
Cymene (p-Isopropyltoluene)	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
Dibromochloromethane	SW8260	0.1 U	0.07 U	0.07 U	0.06 U	0.07 U	0.1 U	0.07 U	0.07 U
Dibromomethane	SW8260	0.4 U	-	-	-	-	0.3 U	-	-
Dichlorodifluoromethane (CFC-12)	SW8260	0.4 U	0.07 U	0.07 U	0.06 U	0.07 U	0.3 U	0.07 U	0.07 U
Ethyl Ether	SW8260	0.3 U	-	-	-	-	0.2 U	-	-
Ethylbenzene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
Hexachloroethane	SW8260	0.4 U	-	-	-	-	0.4 U	-	-
Iodomethane	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
Isopropylbenzene	SW8260	0.4 U	0.07 U	0.07 U	0.06 U	0.07 U	0.3 U	0.07 U	0.07 U
m&p-Xylene	SW8260	0.1 U	0.07 U	0.07 U	0.06 U	0.07 U	0.1 U	0.07 U	0.07 U
Methyl acetate	SW8260	-	3 U	3 U	3 U	4 U	-	3 U	3 U
Methyl cyclohexane	SW8260	-	**0.1**	**0.19**	0.06 U	0.07 U	-	**0.22**	**0.15**
Methyl Tert Butyl Ether	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.2 U	0.3 U	0.3 U
Methylene chloride	SW8260	0.1 U	0.3 U	0.3 U	0.3 U	0.4 U	0.1 U	0.3 U	0.3 U
Naphthalene	SW8260	0.47 U	-	-	-	-	0.39 U	-	-
n-Butylbenzene	SW8260	0.07 U	-	-	-	-	0.06 U	-	-
n-Propylbenzene	SW8260	0.1 U	-	-	-	-	0.1 U	-	-
o-Xylene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
Styrene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
tert-Butylbenzene	SW8260	0.07 U	-	-	-	-	0.06 U	-	-
Tetrachloroethene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
Tetrahydrofuran	SW8260	1 U	-	-	-	-	1 U	-	-
Toluene	SW8260	0.1 U	0.07 U	0.07 U	0.06 U	0.07 U	0.1 U	0.07 U	0.07 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-02	AOI-02	AOI-04	AOI-04	AOI-04	AOI-05	AOI-06	AOI-06
Location Name		SB-02-131	SB-02-132	SB-04-126	SB-04-157	SB-04-157	SB-05-127	SB-06-136	SB-06-137
Sample Name		SB131(06-20-2012)(1-2)	SB132(07-18-12)(20-22)	SB126-(07-25-12) (24-26)	SB157(07-17-12)(3-5)	SB157(07-17-12)(8-10)	SB127(06-18-2012)(3-5)	SB136-(07-23-12) (22-24)	SB137-(07-23-12) (22-24)
Sample Date		6/20/2012	7/18/2012	7/25/2012	7/17/2012	7/17/2012	6/18/2012	7/23/2012	7/23/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	1 - 2 (ft)	20 - 22 (ft)	24 - 26 (ft)	3 - 5 (ft)	8 - 10 (ft)	3 - 5 (ft)	22 - 24 (ft)	22 - 24 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
trans-1,2-Dichloroethene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
trans-1,3-Dichloropropene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
trans-1,4-Dichloro-2-butene	SW8260	0.07 U	-	-	-	-	0.06 U	-	-
Trichloroethene	SW8260	0.07 U	0.07 U	0.07 U	0.06 U	0.07 U	0.06 U	0.07 U	0.07 U
Trichlorofluoromethane (CFC-11)	SW8260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Trifluorotrichloroethane (Freon 113)	SW8260	-	0.1 U	0.1 U	0.1 U	0.1 U	-	0.1 U	0.1 U
Vinyl chloride	SW8260	0.07 U	0.1 U	0.1 U	0.1 U	0.1 U	0.06 U	0.1 U	0.1 U

Notes and Abbreviations:

1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-06	AOI-06	AOI-07	AOI-09	AOI-10	AOI-12	AOI-12	AOI-13
Location Name		SB-06-138	SB-06-139	SB-07-140	SB-09-123	SB-10-124	SB-12-120	SB-12-121	SB-13-144
Sample Name		SB138(07-19-12)(22.5-24.5)	SB139-(07-24-12) (22-24)	SB140(07-19-12)(10-12)	SB123(07-16-12)(6-8)	SB124(07-16-12)(4-6)	SB120 (07-26-12) (4-6)	SB121(06-25-2012)(3-5)	SB144 (07-26-12) (1.5-3.5)
Sample Date		7/19/2012	7/24/2012	7/19/2012	7/16/2012	7/16/2012	7/26/2012	6/25/2012	7/26/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	22.5 - 24.5 (ft)	22 - 24 (ft)	10 - 12 (ft)	6 - 8 (ft)	4 - 6 (ft)	4 - 6 (ft)	3 - 5 (ft)	1.5 - 3.5 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Inorganic Compounds (mg/kg)									
Arsenic, Total	SW6020	**4.34**	**0.94**	**1.27**	**2.21**	**0.95**	**3.49**	**2.01**	**0.44**
Barium, Total	SW6020	**53**	**5.51**	**54.1**	**58.9**	**18.7**	**54.7**	**49.7**	**27.5**
Cadmium, Total	SW6020	**0.22**	0.2 U	0.2 U	**0.31**	0.2 U	**0.21**	0.2 U	0.2 U
Chromium, Total	SW6020	**5.93**	**1.32**	**4.94**	**5.38**	**2.39**	**7.59**	**4.24**	**3.04**
Copper, Total	SW6020	**15.9**	**3.36**	**11.2**	**19.7**	**4.33**	**17.2**	**7.35**	**4.95**
Lead, Total	SW6020	**7.34**	**2.35**	**7.38**	**10.5**	**6.27**	**8.97**	**6.8**	**3.57**
Mercury, Total	SW7471A	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Selenium, Total	SW6020	0.5 U	0.5 U	0.5 U	**0.64**	0.5 U	0.5 U	0.5 U	0.5 U
Silver, Total	SW6020	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U
Zinc, Total	SW6020	**30.5**	**12.4**	**22.5**	**30**	**8.82**	**34.8**	**21**	**10.7**
Other (%)									
Total Solids	SM2540B	**86**	**79**	**79**	**80**	**84**	**81**	**84**	**92**
PCBs (mg/kg)									
Aroclor-1016 (PCB-1016)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1221 (PCB-1221)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1232 (PCB-1232)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1242 (PCB-1242)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1248 (PCB-1248)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1254 (PCB-1254)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1260 (PCB-1260)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Semi-Volatile Organic Compounds (mg/kg)									
1-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
2-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Acenaphthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Acenaphthylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Benzo(a)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Benzo(a)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Benzo(b)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Benzo(g,h,i)perylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Benzo(k)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Chrysene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Dibenz(a,h)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Fluorene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Indeno(1,2,3-cd)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Naphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Phenanthrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.4 U
Volatile Organic Compounds (mg/kg)									
1,1,1,2-Tetrachloroethane	SW8260	-	-	-	-	-	-	0.1 U	-
1,1,1-Trichloroethane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
1,1,2,2-Tetrachloroethane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
1,1,2-Trichloroethane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
1,1-Dichloroethane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
1,1-Dichloroethene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
1,2,3-Trichlorobenzene	SW8260	-	-	-	-	-	-	0.46 U	-
1,2,3-Trichloropropane	SW8260	-	-	-	-	-	-	0.1 U	-
1,2,3-Trimethylbenzene	SW8260	-	-	-	-	-	-	0.1 U	-
1,2,4-Trichlorobenzene	SW8260	0.1 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.46 U	0.1 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-06	AOI-06	AOI-07	AOI-09	AOI-10	AOI-12	AOI-12	AOI-13
Location Name		SB-06-138	SB-06-139	SB-07-140	SB-09-123	SB-10-124	SB-12-120	SB-12-121	SB-13-144
Sample Name		SB138(07-19-12)(22.5-24.5)	SB139-(07-24-12) (22-24)	SB140(07-19-12)(10-12)	SB123(07-16-12)(6-8)	SB124(07-16-12)(4-6)	SB120 (07-26-12) (4-6)	SB121(06-25-2012)(3-5)	SB144 (07-26-12) (1.5-3.5)
Sample Date		7/19/2012	7/24/2012	7/19/2012	7/16/2012	7/16/2012	7/26/2012	6/25/2012	7/26/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	22.5 - 24.5 (ft)	22 - 24 (ft)	10 - 12 (ft)	6 - 8 (ft)	4 - 6 (ft)	4 - 6 (ft)	3 - 5 (ft)	1.5 - 3.5 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
1,2,4-Trimethylbenzene	SW8260	-	-	-	-	-	-	0.1 U	-
1,2-Dibromo-3-chloropropane (DBCP)	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.4 U	0.06 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.03 U	0.06 U
1,2-Dichlorobenzene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.1 U	0.06 U
1,2-Dichloroethane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
1,2-Dichloropropane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
1,3,5-Trimethylbenzene	SW8260	-	-	-	-	-	-	0.1 U	-
1,3-Dichlorobenzene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.1 U	0.06 U
1,4-Dichlorobenzene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.1 U	0.06 U
2-Butanone (Methyl Ethyl Ketone)	SW8260	1 U	1.2 U	1.1 U	1.1 U	1 U	1.1 U	1.1 U	0.9 U
2-Hexanone	SW8260	3 U	4 U	4 U	4 U	3 U	4 U	4 U	3 U
2-Methylnaphthalene	SW8260	-	-	-	-	-	-	0.46 U	-
2-Phenylbutane (sec-Butylbenzene)	SW8260	-	-	-	-	-	-	0.07 U	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260	3 U	4 U	4 U	4 U	3 U	4 U	4 U	3 U
Acetone	SW8260	1 U	1.2 U	1.1 U	1.1 U	1 U	1.1 U	1 U	0.9 U
Acrylonitrile	SW8260	-	-	-	-	-	-	0.1 U	-
Benzene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
Bromobenzene	SW8260	-	-	-	-	-	-	0.1 U	-
Bromodichloromethane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.1 U	0.06 U
Bromoform	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.1 U	0.06 U
Bromomethane (Methyl Bromide)	SW8260	0.3 U	0.4 U	0.4 U	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U
Carbon disulfide	SW8260	0.3 U	0.4 U	0.4 U	0.4 U	0.3 U	0.4 U	0.4 U	0.3 U
Carbon tetrachloride	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
Chlorobenzene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
Chlorobromomethane	SW8260	-	-	-	-	-	-	0.1 U	-
Chloroethane	SW8260	0.3 U	0.4 U	0.4 U	0.4 U	0.3 U	0.4 U	0.4 U	0.3 U
Chloroform (Trichloromethane)	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
Chloromethane (Methyl Chloride)	SW8260	0.3 U	0.4 U	0.4 U	0.4 U	0.3 U	0.4 U	0.4 U	0.3 U
cis-1,2-Dichloroethene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
cis-1,3-Dichloropropene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
Cyclohexane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	-	0.06 U
Cymene (p-Isopropyltoluene)	SW8260	-	-	-	-	-	-	0.1 U	-
Dibromochloromethane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.1 U	0.06 U
Dibromomethane	SW8260	-	-	-	-	-	-	0.4 U	-
Dichlorodifluoromethane (CFC-12)	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.4 U	0.06 U
Ethyl Ether	SW8260	-	-	-	-	-	-	0.3 U	-
Ethylbenzene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
Hexachloroethane	SW8260	-	-	-	-	-	-	0.4 U	-
Iodomethane	SW8260	-	-	-	-	-	-	0.1 U	-
Isopropylbenzene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.4 U	0.06 U
m&p-Xylene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.1 U	0.06 U
Methyl acetate	SW8260	3 U	4 U	4 U	4 U	3 U	4 U	-	3 U
Methyl cyclohexane	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	-	0.06 U
Methyl Tert Butyl Ether	SW8260	0.3 U	0.4 U	0.4 U	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U
Methylene chloride	SW8260	0.3 U	0.4 U	0.4 U	0.4 U	0.3 U	0.4 U	0.1 U	0.3 U
Naphthalene	SW8260	-	-	-	-	-	-	0.46 U	-
n-Butylbenzene	SW8260	-	-	-	-	-	-	0.07 U	-
n-Propylbenzene	SW8260	-	-	-	-	-	-	0.1 U	-
o-Xylene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
Styrene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
tert-Butylbenzene	SW8260	-	-	-	-	-	-	0.07 U	-
Tetrachloroethene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
Tetrahydrofuran	SW8260	-	-	-	-	-	-	1 U	-
Toluene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.1 U	0.06 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-06	AOI-06	AOI-07	AOI-09	AOI-10	AOI-12	AOI-12	AOI-13
Location Name		SB-06-138	SB-06-139	SB-07-140	SB-09-123	SB-10-124	SB-12-120	SB-12-121	SB-13-144
Sample Name		SB138(07-19-12)(22.5-24.5)	SB139-(07-24-12) (22-24)	SB140(07-19-12)(10-12)	SB123(07-16-12)(6-8)	SB124(07-16-12)(4-6)	SB120 (07-26-12) (4-6)	SB121(06-25-2012)(3-5)	SB144 (07-26-12) (1.5-3.5)
Sample Date		7/19/2012	7/24/2012	7/19/2012	7/16/2012	7/16/2012	7/26/2012	6/25/2012	7/26/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	22.5 - 24.5 (ft)	22 - 24 (ft)	10 - 12 (ft)	6 - 8 (ft)	4 - 6 (ft)	4 - 6 (ft)	3 - 5 (ft)	1.5 - 3.5 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
trans-1,2-Dichloroethene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
trans-1,3-Dichloropropene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
trans-1,4-Dichloro-2-butene	SW8260	-	-	-	-	-	-	0.07 U	-
Trichloroethene	SW8260	0.07 U	0.08 U	0.08 U	0.08 U	0.07 U	0.07 U	0.07 U	0.06 U
Trichlorofluoromethane (CFC-11)	SW8260	0.1 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U
Trifluorotrichloroethane (Freon 113)	SW8260	0.1 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	-	0.1 U
Vinyl chloride	SW8260	0.1 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.07 U	0.1 U

Notes and Abbreviations:
1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-13	AOI-14	AOI-14	AOI-15	AOI-15	AOI-15	AOI-16	AOI-18
Location Name		SB-13-144	SB-14-145	SB-14-145	SB-14-146	SB-15-150	SB-15-150	SB-16-116	SB-18-117
Sample Name		SB144 (07-26-12) (7.5-9.5)	SB145 (07-27-12) (2-4)	SB145 (07-27-12) (6-8)	SB146(06-21-2012)(4-5)	DUP2(07-20-12)	SB150(07-20-12)(2-4)	SB116(06252012)(1-2)	SB117(07-16-12)(2-4)
Sample Date		7/26/2012	7/27/2012	7/27/2012	6/21/2012	7/20/2012	7/20/2012	6/25/2012	7/16/2012
Sample Type		Normal	Normal	Normal	Normal	Field Duplicate	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	7.5 - 9.5 (ft)	2 - 4 (ft)	6 - 8 (ft)	4 - 5 (ft)	2 - 4 (ft)	2 - 4 (ft)	1 - 2 (ft)	2 - 4 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Inorganic Compounds (mg/kg)									
Arsenic, Total	SW6020	**1.59**	**0.48**	**1.31**	**2.02**	**0.26**	**0.57**	**2.45**	**0.95**
Barium, Total	SW6020	**58**	**17.7**	**72.2**	**62.6**	**5.94**	**7.58**	**64.8**	**50.1**
Cadmium, Total	SW6020	0.2 U	0.2 U	0.2 U	**0.23**	0.2 U	0.2 U	0.2 U	**0.62**
Chromium, Total	SW6020	**6.78**	**3.65**	**8.93**	**5**	**1.03**	**1.5**	**4.07**	**3.42**
Copper, Total	SW6020	**5.91**	**4.51**	**6.23**	**12.6**	**2.8 J**	**4.72 J**	**10.6**	**24**
Lead, Total	SW6020	**4.92**	**2.5**	**5.6**	**8.87**	**1.55**	**1.84**	**9.02**	**8.97**
Mercury, Total	SW7471A	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.053**
Selenium, Total	SW6020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.62**
Silver, Total	SW6020	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.2 U	0.1 U
Zinc, Total	SW6020	**19.6**	**8.27**	**23.8**	**22.4**	**5.65**	**6.6**	**18.3**	**10.2**
Other (%)									
Total Solids	SM2540B	**87**	**89**	**82**	**80**	**97**	**97**	**91**	**85**
PCBs (mg/kg)									
Aroclor-1016 (PCB-1016)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1221 (PCB-1221)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1232 (PCB-1232)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1242 (PCB-1242)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1248 (PCB-1248)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1254 (PCB-1254)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1260 (PCB-1260)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Semi-Volatile Organic Compounds (mg/kg)									
1-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(b)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(g,h,i)perylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(k)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chrysene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dibenz(a,h)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluorene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Naphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Volatile Organic Compounds (mg/kg)									
1,1,1,2-Tetrachloroethane	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
1,1,1-Trichloroethane	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
1,1,2,2-Tetrachloroethane	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
1,1,2-Trichloroethane	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
1,1-Dichloroethane	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
1,1-Dichloroethene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
1,2,3-Trichlorobenzene	SW8260	-	-	-	0.5 U	-	-	0.4 U	-
1,2,3-Trichloropropane	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
1,2,3-Trimethylbenzene	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
1,2,4-Trichlorobenzene	SW8260	0.1 U	0.1 U	0.09 U	0.5 U	0.1 U	0.1 U	0.4 U	0.1 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-13	AOI-14	AOI-14	AOI-15	AOI-15	AOI-15	AOI-16	AOI-18
Location Name		SB-13-144	SB-14-145	SB-14-145	SB-14-146	SB-15-150	SB-15-150	SB-16-116	SB-18-117
Sample Name		SB144 (07-26-12) (7.5-9.5)	SB145 (07-27-12) (2-4)	SB145 (07-27-12) (6-8)	SB146(06-21-2012)(4-5)	DUP2(07-20-12)	SB150(07-20-12)(2-4)	SB116(06252012)(1-2)	SB117(07-16-12)(2-4)
Sample Date		7/26/2012	7/27/2012	7/27/2012	6/21/2012	7/20/2012	7/20/2012	6/25/2012	7/16/2012
Sample Type		Normal	Normal	Normal	Normal	Field Duplicate	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	7.5 - 9.5 (ft)	2 - 4 (ft)	6 - 8 (ft)	4 - 5 (ft)	2 - 4 (ft)	2 - 4 (ft)	1 - 2 (ft)	2 - 4 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
1,2,4-Trimethylbenzene	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
1,2-Dibromo-3-chloropropane (DBCP)	SW8260	0.06 U	0.06 U	0.04 U	0.4 U	0.05 U	0.05 U	0.3 U	0.07 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260	0.06 U	0.06 U	0.04 U	0.03 U	0.05 U	0.05 U	0.02 U	0.07 U
1,2-Dichlorobenzene	SW8260	0.06 U	0.06 U	0.04 U	0.2 U	0.05 U	0.05 U	0.1 U	0.07 U
1,2-Dichloroethane	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
1,2-Dichloropropane	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
1,3,5-Trimethylbenzene	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
1,3-Dichlorobenzene	SW8260	0.06 U	0.06 U	0.04 U	0.2 U	0.05 U	0.05 U	0.1 U	0.07 U
1,4-Dichlorobenzene	SW8260	0.06 U	0.06 U	0.04 U	0.2 U	0.05 U	0.05 U	0.1 U	0.07 U
2-Butanone (Methyl Ethyl Ketone)	SW8260	0.96 U	0.94 U	0.67 U	1.1 U	0.82 U	0.78 U	0.91 U	1 U
2-Hexanone	SW8260	3 U	3 U	2 U	4 U	3 U	3 U	3 U	3 U
2-Methylnaphthalene	SW8260	-	-	-	0.5 U	-	-	0.4 U	-
2-Phenylbutane (sec-Butylbenzene)	SW8260	-	-	-	0.08 U	-	-	0.06 U	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260	3 U	3 U	2 U	4 U	3 U	3 U	3 U	3 U
Acetone	SW8260	0.96 U	0.94 U	0.67 U	**2**	0.82 U	0.78 U	1 U	1 U
Acrylonitrile	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
Benzene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
Bromobenzene	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
Bromodichloromethane	SW8260	0.06 U	0.06 U	0.04 U	0.2 U	0.05 U	0.05 U	0.1 U	0.07 U
Bromoform	SW8260	0.06 U	0.06 U	0.04 U	0.2 U	0.05 U	0.05 U	0.1 U	0.07 U
Bromomethane (Methyl Bromide)	SW8260	0.3 U	0.3 U	0.2 U	0.3 U	0.3 U	0.3 U	0.2 U	0.3 U
Carbon disulfide	SW8260	0.3 U	0.3 U	0.2 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U
Carbon tetrachloride	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
Chlorobenzene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
Chlorobromomethane	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
Chloroethane	SW8260	0.3 U	0.3 U	0.2 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloroform (Trichloromethane)	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
Chloromethane (Methyl Chloride)	SW8260	0.3 U	0.3 U	0.2 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U
cis-1,2-Dichloroethene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
cis-1,3-Dichloropropene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
Cyclohexane	SW8260	0.06 U	0.06 U	0.04 U	-	0.05 U	0.05 U	-	0.07 U
Cymene (p-Isopropyltoluene)	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
Dibromochloromethane	SW8260	0.06 U	0.06 U	0.04 U	0.2 U	0.05 U	0.05 U	0.1 U	0.07 U
Dibromomethane	SW8260	-	-	-	0.4 U	-	-	0.3 U	-
Dichlorodifluoromethane (CFC-12)	SW8260	0.06 U	0.06 U	0.04 U	0.4 U	0.05 U	0.05 U	0.3 U	0.07 U
Ethyl Ether	SW8260	-	-	-	0.3 U	-	-	0.2 U	-
Ethylbenzene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
Hexachloroethane	SW8260	-	-	-	0.5 U	-	-	0.4 U	-
Iodomethane	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
Isopropylbenzene	SW8260	0.06 U	0.06 U	0.04 U	0.4 U	0.05 U	0.05 U	0.3 U	0.07 U
m&p-Xylene	SW8260	0.06 U	0.06 U	0.04 U	0.2 U	0.05 U	0.05 U	0.1 U	0.07 U
Methyl acetate	SW8260	3 U	3 U	2 U	-	3 U	3 U	-	3 U
Methyl cyclohexane	SW8260	0.06 U	0.06 U	0.04 U	-	0.05 U	0.05 U	-	0.07 U
Methyl Tert Butyl Ether	SW8260	0.3 U	0.3 U	0.2 U	0.3 U	0.3 U	0.3 U	0.2 U	0.3 U
Methylene chloride	SW8260	0.3 U	0.3 U	0.2 U	0.2 U	0.3 U	0.3 U	0.1 U	0.3 U
Naphthalene	SW8260	-	-	-	0.5 U	-	-	0.4 U	-
n-Butylbenzene	SW8260	-	-	-	0.08 U	-	-	0.06 U	-
n-Propylbenzene	SW8260	-	-	-	0.2 U	-	-	0.1 U	-
o-Xylene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
Styrene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
tert-Butylbenzene	SW8260	-	-	-	0.08 U	-	-	0.06 U	-
Tetrachloroethene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
Tetrahydrofuran	SW8260	-	-	-	2 U	-	-	1 U	-
Toluene	SW8260	0.06 U	0.06 U	0.04 U	0.2 U	0.05 U	0.05 U	0.1 U	0.07 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-13	AOI-14	AOI-14	AOI-15	AOI-15	AOI-15	AOI-16	AOI-18
Location Name		SB-13-144	SB-14-145	SB-14-145	SB-14-146	SB-15-150	SB-15-150	SB-16-116	SB-18-117
Sample Name		SB144 (07-26-12) (7.5-9.5)	SB145 (07-27-12) (2-4)	SB145 (07-27-12) (6-8)	SB146(06-21-2012)(4-5)	DUP2(07-20-12)	SB150(07-20-12)(2-4)	SB116(06252012)(1-2)	SB117(07-16-12)(2-4)
Sample Date		7/26/2012	7/27/2012	7/27/2012	6/21/2012	7/20/2012	7/20/2012	6/25/2012	7/16/2012
Sample Type		Normal	Normal	Normal	Normal	Field Duplicate	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	7.5 - 9.5 (ft)	2 - 4 (ft)	6 - 8 (ft)	4 - 5 (ft)	2 - 4 (ft)	2 - 4 (ft)	1 - 2 (ft)	2 - 4 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
trans-1,2-Dichloroethene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
trans-1,3-Dichloropropene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
trans-1,4-Dichloro-2-butene	SW8260	-	-	-	0.08 U	-	-	0.06 U	-
Trichloroethene	SW8260	0.06 U	0.06 U	0.04 U	0.08 U	0.05 U	0.05 U	0.06 U	0.07 U
Trichlorofluoromethane (CFC-11)	SW8260	0.1 U	0.1 U	0.09 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U
Trifluorotrichloroethane (Freon 113)	SW8260	0.1 U	0.1 U	0.09 U	-	0.1 U	0.1 U	-	0.1 U
Vinyl chloride	SW8260	0.1 U	0.1 U	0.09 U	0.08 U	0.1 U	0.1 U	0.06 U	0.1 U

Notes and Abbreviations:
1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-19	AOI-22	AOI-26	AOI-27	AOI-27	AOI-28	AOI-28	AOI-28
Location Name		SB-19-153	SB-22-118	SB-26-130	SB-27-158	SB-27-159	SB-28-152	SB-28-166	SB-28-166
Sample Name		SB153-(07-25-12) (3.5-5.5)	SB118(07-19-12)(2-4)	SB130(07-18-12)(16-18)	SB158(07-19-12)(3-5)	SB159(07-19-12)(7-9)	SB152-(07-24-12) (4-6)	DUP3-(07-24-12)	SB166-(07-24-12) (4-6)
Sample Date		7/25/2012	7/19/2012	7/18/2012	7/19/2012	7/19/2012	7/24/2012	7/24/2012	7/24/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Field Duplicate	Normal
Sample Depth (bgs)	Analyical	3.5 - 5.5 (ft)	2 - 4 (ft)	16 - 18 (ft)	3 - 5 (ft)	7 - 9 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Inorganic Compounds (mg/kg)									
Arsenic, Total	SW6020	**2.07**	**0.79**	**3.78**	**1.4**	**1.83**	0.2 U	**1.52**	**1.43**
Barium, Total	SW6020	**51.7**	**5.78**	**70**	**12.8**	**40.6**	**9.21**	**9.32**	**7.46**
Cadmium, Total	SW6020	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chromium, Total	SW6020	**4.63**	**0.98**	**6.85**	**2.09**	**5.47**	**2.89**	**2.08**	**2.47**
Copper, Total	SW6020	**8.63**	**1.73**	**19**	**3.95**	**5.98**	**1.65**	**6.56**	**16.2**
Lead, Total	SW6020	**5.21**	**1.6**	**8.76**	**3.32**	**5.84**	**2.24**	**4.08**	**3.75**
Mercury, Total	SW7471A	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Selenium, Total	SW6020	0.5 U	0.5 U	**0.67**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Silver, Total	SW6020	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Zinc, Total	SW6020	**21**	**5.94**	**28.6**	**8.31**	**19.6**	**11.3**	**11.8**	**12.3**
Other (%)									
Total Solids	SM2540B	**80**	**92**	**80**	**92**	**85**	**89**	**88**	**94**
PCBs (mg/kg)									
Aroclor-1016 (PCB-1016)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1221 (PCB-1221)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1232 (PCB-1232)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1242 (PCB-1242)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1248 (PCB-1248)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1254 (PCB-1254)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1260 (PCB-1260)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Semi-Volatile Organic Compounds (mg/kg)									
1-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
2-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Acenaphthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Acenaphthylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Benzo(a)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Benzo(a)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Benzo(b)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Benzo(g,h,i)perylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Benzo(k)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Chrysene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Dibenz(a,h)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Fluorene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Naphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Phenanthrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.7 U	0.3 U	0.3 U
Volatile Organic Compounds (mg/kg)									
1,1,1,2-Tetrachloroethane	SW8260	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,1,2,2-Tetrachloroethane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,1,2-Trichloroethane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,1-Dichloroethane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,1-Dichloroethene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,2,3-Trichlorobenzene	SW8260	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	SW8260	-	-	-	-	-	-	-	-
1,2,3-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	SW8260	0.2 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-19	AOI-22	AOI-26	AOI-27	AOI-27	AOI-28	AOI-28	AOI-28
Location Name		SB-19-153	SB-22-118	SB-26-130	SB-27-158	SB-27-159	SB-28-152	SB-28-166	SB-28-166
Sample Name		SB153-(07-25-12) (3.5-5.5)	SB118(07-19-12)(2-4)	SB130(07-18-12)(16-18)	SB158(07-19-12)(3-5)	SB159(07-19-12)(7-9)	SB152-(07-24-12) (4-6)	DUP3-(07-24-12)	SB166-(07-24-12) (4-6)
Sample Date		7/25/2012	7/19/2012	7/18/2012	7/19/2012	7/19/2012	7/24/2012	7/24/2012	7/24/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Field Duplicate	Normal
Sample Depth (bgs)	Analyical	3.5 - 5.5 (ft)	2 - 4 (ft)	16 - 18 (ft)	3 - 5 (ft)	7 - 9 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
1,2,4-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,2-Dichlorobenzene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,2-Dichloroethane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,2-Dichloropropane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,3,5-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
1,4-Dichlorobenzene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
2-Butanone (Methyl Ethyl Ketone)	SW8260	1.1 U	0.88 U	1.1 U	0.88 U	1 U	0.96 U	0.94 U	0.86 U
2-Hexanone	SW8260	4 U	3 U	4 U	3 U	3 U	3 U	3 U	3 U
2-Methylnaphthalene	SW8260	-	-	-	-	-	-	-	-
2-Phenylbutane (sec-Butylbenzene)	SW8260	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260	4 U	3 U	4 U	3 U	3 U	3 U	3 U	3 U
Acetone	SW8260	1.1 U	0.88 U	1.1 U	0.88 U	1 U	0.96 U	0.94 U	0.86 U
Acrylonitrile	SW8260	-	-	-	-	-	-	-	-
Benzene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Bromobenzene	SW8260	-	-	-	-	-	-	-	-
Bromodichloromethane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Bromoform	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Bromomethane (Methyl Bromide)	SW8260	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Carbon disulfide	SW8260	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Carbon tetrachloride	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Chlorobenzene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Chlorobromomethane	SW8260	-	-	-	-	-	-	-	-
Chloroethane	SW8260	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloroform (Trichloromethane)	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Chloromethane (Methyl Chloride)	SW8260	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
cis-1,2-Dichloroethene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
cis-1,3-Dichloropropene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Cyclohexane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Cymene (p-Isopropyltoluene)	SW8260	-	-	-	-	-	-	-	-
Dibromochloromethane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Dibromomethane	SW8260	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Ethyl Ether	SW8260	-	-	-	-	-	-	-	-
Ethylbenzene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Hexachloroethane	SW8260	-	-	-	-	-	-	-	-
Iodomethane	SW8260	-	-	-	-	-	-	-	-
Isopropylbenzene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
m&p-Xylene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	**0.22**	0.06 U	0.06 U
Methyl acetate	SW8260	4 U	3 U	4 U	3 U	3 U	3 U	3 U	3 U
Methyl cyclohexane	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Methyl Tert Butyl Ether	SW8260	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Methylene chloride	SW8260	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Naphthalene	SW8260	-	-	-	-	-	-	-	-
n-Butylbenzene	SW8260	-	-	-	-	-	-	-	-
n-Propylbenzene	SW8260	-	-	-	-	-	-	-	-
o-Xylene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	**0.08**	0.06 U	0.06 U
Styrene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
tert-Butylbenzene	SW8260	-	-	-	-	-	-	-	-
Tetrachloroethene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Tetrahydrofuran	SW8260	-	-	-	-	-	-	-	-
Toluene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-19	AOI-22	AOI-26	AOI-27	AOI-27	AOI-28	AOI-28	AOI-28
Location Name		SB-19-153	SB-22-118	SB-26-130	SB-27-158	SB-27-159	SB-28-152	SB-28-166	SB-28-166
Sample Name		SB153-(07-25-12) (3.5-5.5)	SB118(07-19-12)(2-4)	SB130(07-18-12)(16-18)	SB158(07-19-12)(3-5)	SB159(07-19-12)(7-9)	SB152-(07-24-12) (4-6)	DUP3-(07-24-12)	SB166-(07-24-12) (4-6)
Sample Date		7/25/2012	7/19/2012	7/18/2012	7/19/2012	7/19/2012	7/24/2012	7/24/2012	7/24/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Field Duplicate	Normal
Sample Depth (bgs)	Analyical	3.5 - 5.5 (ft)	2 - 4 (ft)	16 - 18 (ft)	3 - 5 (ft)	7 - 9 (ft)	4 - 6 (ft)	4 - 6 (ft)	4 - 6 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
trans-1,2-Dichloroethene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
trans-1,3-Dichloropropene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
trans-1,4-Dichloro-2-butene	SW8260	-	-	-	-	-	-	-	-
Trichloroethene	SW8260	0.08 U	0.06 U	0.08 U	0.06 U	0.07 U	0.06 U	0.06 U	0.06 U
Trichlorofluoromethane (CFC-11)	SW8260	0.2 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Trifluorotrichloroethane (Freon 113)	SW8260	0.2 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Vinyl chloride	SW8260	0.2 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Notes and Abbreviations:
1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-28	AOI-28	AOI-28	AOI-29	AOI-29	AOI-30	AOI-30	AOI-30
Location Name		SB-28-167	SB-28-168	SB-28-169	SB-29-103	SB-29-114	SB-30-162	SB-30-163	SB-30-171
Sample Name		SB167-(07-24-12) (2-4)	SB168-(07-23-12) (6-8)	SB169 (07-26-12) (1.5-3.5)	SB103 (07-30-12) (0-2)	SB114 (07-31-12) (2-4)	SB162 (07-31-12) (2-4)	SB165 (07-31-12) (8-10)	DUP1(07-20-12)
Sample Date		7/24/2012	7/23/2012	7/26/2012	7/30/2012	7/31/2012	7/31/2012	7/31/2012	7/20/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Field Duplicate
Sample Depth (bgs)	Analyical	2 - 4 (ft)	6 - 8 (ft)	1.5 - 3.5 (ft)	0 - 2 (ft)	2 - 4 (ft)	2 - 4 (ft)	8 - 10 (ft)	10 - 12 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Inorganic Compounds (mg/kg)									
Arsenic, Total	SW6020	0.2 U	**2.28**	**0.44**	**0.47**	**0.44**	**1.98**	**4.59**	**4.05**
Barium, Total	SW6020	**24**	**47.9**	**31.5**	**12.7**	**26.8**	**64.7**	**72.2**	**19.8**
Cadmium, Total	SW6020	0.2 U	**0.21**	0.2 U	0.2 U	0.2 U	**0.82**	0.2 U	0.2 U
Chromium, Total	SW6020	**3.61**	**6.47**	**3.52**	**1.2**	**3.11**	**7.31**	**15.3**	**3.67**
Copper, Total	SW6020	**2.56**	**11.6**	**4.8**	**3.64**	**7.91**	**31.6**	**19.1**	**15.1**
Lead, Total	SW6020	**2.36**	**7.24**	**4**	**4.87**	**5.45**	**35.9**	**9.05**	**5.59**
Mercury, Total	SW7471A	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.1**	0.05 U	0.05 U
Selenium, Total	SW6020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Silver, Total	SW6020	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Zinc, Total	SW6020	**8.42**	**31.2**	**11.8**	**5.7**	**12.7**	**62.7**	**42.1**	**24.7**
Other (%)									
Total Solids	SM2540B	**79**	**79**	**89**	**91**	**87**	**85**	**82**	**92**
PCBs (mg/kg)									
Aroclor-1016 (PCB-1016)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1221 (PCB-1221)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1232 (PCB-1232)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1242 (PCB-1242)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1248 (PCB-1248)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1254 (PCB-1254)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1260 (PCB-1260)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Semi-Volatile Organic Compounds (mg/kg)									
1-Methylnaphthalene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylnaphthalene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthylene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Anthracene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)anthracene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)pyrene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(b)fluoranthene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(g,h,i)perylene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(k)fluoranthene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chrysene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dibenz(a,h)anthracene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluoranthene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluorene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Naphthalene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pyrene	SW8270C	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Volatile Organic Compounds (mg/kg)									
1,1,1,2-Tetrachloroethane	SW8260	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,1,2,2-Tetrachloroethane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,1,2-Trichloroethane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,1-Dichloroethane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,1-Dichloroethene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,2,3-Trichlorobenzene	SW8260	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	SW8260	-	-	-	-	-	-	-	-
1,2,3-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	SW8260	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-28	AOI-28	AOI-28	AOI-29	AOI-29	AOI-30	AOI-30	AOI-30
Location Name		SB-28-167	SB-28-168	SB-28-169	SB-29-103	SB-29-114	SB-30-162	SB-30-163	SB-30-171
Sample Name		SB167-(07-24-12) (2-4)	SB168-(07-23-12) (6-8)	SB169 (07-26-12) (1.5-3.5)	SB103 (07-30-12) (0-2)	SB114 (07-31-12) (2-4)	SB162 (07-31-12) (2-4)	SB165 (07-31-12) (8-10)	DUP1(07-20-12)
Sample Date		7/24/2012	7/23/2012	7/26/2012	7/30/2012	7/31/2012	7/31/2012	7/31/2012	7/20/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Field Duplicate
Sample Depth (bgs)	Analyical	2 - 4 (ft)	6 - 8 (ft)	1.5 - 3.5 (ft)	0 - 2 (ft)	2 - 4 (ft)	2 - 4 (ft)	8 - 10 (ft)	10 - 12 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
1,2,4-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,2-Dichlorobenzene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,2-Dichloroethane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,2-Dichloropropane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,3,5-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
1,4-Dichlorobenzene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
2-Butanone (Methyl Ethyl Ketone)	SW8260	1.1 U	1.2 U	0.93 U	0.88 U	0.98 U	1 U	1.1 U	0.87 U
2-Hexanone	SW8260	4 U	4 U	3 U	3 U	3 U	3 U	4 U	3 U
2-Methylnaphthalene	SW8260	-	-	-	-	-	-	-	-
2-Phenylbutane (sec-Butylbenzene)	SW8260	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260	4 U	4 U	3 U	3 U	3 U	3 U	4 U	3 U
Acetone	SW8260	1.1 U	1.2 U	0.93 U	0.88 U	0.98 U	1 U	1.1 U	0.87 U
Acrylonitrile	SW8260	-	-	-	-	-	-	-	-
Benzene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Bromobenzene	SW8260	-	-	-	-	-	-	-	-
Bromodichloromethane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Bromoform	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Bromomethane (Methyl Bromide)	SW8260	0.4 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Carbon disulfide	SW8260	0.4 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Carbon tetrachloride	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Chlorobenzene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Chlorobromomethane	SW8260	-	-	-	-	-	-	-	-
Chloroethane	SW8260	0.4 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Chloroform (Trichloromethane)	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Chloromethane (Methyl Chloride)	SW8260	0.4 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
cis-1,2-Dichloroethene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
cis-1,3-Dichloropropene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Cyclohexane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Cymene (p-Isopropyltoluene)	SW8260	-	-	-	-	-	-	-	-
Dibromochloromethane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Dibromomethane	SW8260	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Ethyl Ether	SW8260	-	-	-	-	-	-	-	-
Ethylbenzene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Hexachloroethane	SW8260	-	-	-	-	-	-	-	-
Iodomethane	SW8260	-	-	-	-	-	-	-	-
Isopropylbenzene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
m&p-Xylene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Methyl acetate	SW8260	4 U	4 U	3 U	3 U	3 U	3 U	4 U	3 U
Methyl cyclohexane	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Methyl Tert Butyl Ether	SW8260	0.4 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Methylene chloride	SW8260	0.4 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Naphthalene	SW8260	-	-	-	-	-	-	-	-
n-Butylbenzene	SW8260	-	-	-	-	-	-	-	-
n-Propylbenzene	SW8260	-	-	-	-	-	-	-	-
o-Xylene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Styrene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
tert-Butylbenzene	SW8260	-	-	-	-	-	-	-	-
Tetrachloroethene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Tetrahydrofuran	SW8260	-	-	-	-	-	-	-	-
Toluene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-28	AOI-28	AOI-28	AOI-29	AOI-29	AOI-30	AOI-30	AOI-30
Location Name		SB-28-167	SB-28-168	SB-28-169	SB-29-103	SB-29-114	SB-30-162	SB-30-163	SB-30-171
Sample Name		SB167-(07-24-12) (2-4)	SB168-(07-23-12) (6-8)	SB169 (07-26-12) (1.5-3.5)	SB103 (07-30-12) (0-2)	SB114 (07-31-12) (2-4)	SB162 (07-31-12) (2-4)	SB165 (07-31-12) (8-10)	DUP1(07-20-12)
Sample Date		7/24/2012	7/23/2012	7/26/2012	7/30/2012	7/31/2012	7/31/2012	7/31/2012	7/20/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Field Duplicate
Sample Depth (bgs)	Analyical	2 - 4 (ft)	6 - 8 (ft)	1.5 - 3.5 (ft)	0 - 2 (ft)	2 - 4 (ft)	2 - 4 (ft)	8 - 10 (ft)	10 - 12 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
trans-1,2-Dichloroethene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
trans-1,3-Dichloropropene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
trans-1,4-Dichloro-2-butene	SW8260	-	-	-	-	-	-	-	-
Trichloroethene	SW8260	0.08 U	0.08 U	0.06 U	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U
Trichlorofluoromethane (CFC-11)	SW8260	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Trifluorotrichloroethane (Freon 113)	SW8260	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Vinyl chloride	SW8260	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Notes and Abbreviations:
1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-30	AOI-31	AOI-32	AOI-32	AOI-33	AOI-33	AOI-33	AOI-33
Location Name		SB-30-171	SB-31-142	SB-32-147	SB-32-148	SB-33-104	SB-33-105	SB-33-106	SB-33-106
Sample Name		SB171(07-20-12)(10-12)	SB142 (08-01-12) (0-2)	SB147(07-20-12)(8-10)	SB148(07-20-12)(2.5-4.5)	SB104 (07-30-12) (0-2)	SB105 (07-30-12) (0-2)	SB106 (07-27-12) (32-34)	SB106 (07-27-12) (8-10)
Sample Date		7/20/2012	8/1/2012	7/20/2012	7/20/2012	7/30/2012	7/30/2012	7/27/2012	7/27/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	10 - 12 (ft)	0 - 2 (ft)	8 - 10 (ft)	2.5 - 4.5 (ft)	0 - 2 (ft)	0 - 2 (ft)	32 - 34 (ft)	8 - 10 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Inorganic Compounds (mg/kg)									
Arsenic, Total	SW6020	**4.48**	**1.55**	**3.12**	**0.97**	**0.4**	**1.43**	**5.41**	**0.44**
Barium, Total	SW6020	**19.8**	**25.1**	**27.7**	**27**	**7.97**	**10.1**	**66.6**	**25.7**
Cadmium, Total	SW6020	0.2 U	**0.23**	0.2 U	0.2 U	0.2 U	0.2 U	**0.25**	0.2 U
Chromium, Total	SW6020	**2.83**	**4.45**	**5.99**	**2.26**	**2.17**	**2.44**	**9.27**	**2.83**
Copper, Total	SW6020	**13.3**	**5.9**	**15**	**5.15**	**2.44**	**5.73**	**16.4**	**2.88**
Lead, Total	SW6020	**5.87**	**12.9**	**7.3**	**4.87**	**2.36**	**3.07**	**8.4**	**3.18**
Mercury, Total	SW7471A	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Selenium, Total	SW6020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Silver, Total	SW6020	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Zinc, Total	SW6020	**29.5**	**19.5**	**24.8**	**8.05**	**3.62**	**13.4**	**34.8**	**7.45**
Other (%)									
Total Solids	SM2540B	**90**	**83**	**85**	**86**	**88**	**91**	**83**	**89**
PCBs (mg/kg)									
Aroclor-1016 (PCB-1016)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1221 (PCB-1221)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1232 (PCB-1232)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1242 (PCB-1242)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1248 (PCB-1248)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1254 (PCB-1254)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1260 (PCB-1260)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Semi-Volatile Organic Compounds (mg/kg)									
1-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
2-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Acenaphthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Acenaphthylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Benzo(a)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Benzo(a)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Benzo(b)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Benzo(g,h,i)perylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Benzo(k)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Chrysene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Dibenz(a,h)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Fluorene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Naphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Phenanthrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	1.8 U	0.3 U	0.3 U
Volatile Organic Compounds (mg/kg)									
1,1,1,2-Tetrachloroethane	SW8260	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,1,2,2-Tetrachloroethane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,1,2-Trichloroethane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,1-Dichloroethane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,1-Dichloroethene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,2,3-Trichlorobenzene	SW8260	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	SW8260	-	-	-	-	-	-	-	-
1,2,3-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	SW8260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

AOI		AOI-30	AOI-31	AOI-32	AOI-32	AOI-33	AOI-33	AOI-33	AOI-33
Location Name		SB-30-171	SB-31-142	SB-32-147	SB-32-148	SB-33-104	SB-33-105	SB-33-106	SB-33-106
Sample Name		SB171(07-20-12)(10-12)	SB142 (08-01-12) (0-2)	SB147(07-20-12)(8-10)	SB148(07-20-12)(2.5-4.5)	SB104 (07-30-12) (0-2)	SB105 (07-30-12) (0-2)	SB106 (07-27-12) (32-34)	SB106 (07-27-12) (8-10)
Sample Date		7/20/2012	8/1/2012	7/20/2012	7/20/2012	7/30/2012	7/30/2012	7/27/2012	7/27/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	10 - 12 (ft)	0 - 2 (ft)	8 - 10 (ft)	2.5 - 4.5 (ft)	0 - 2 (ft)	0 - 2 (ft)	32 - 34 (ft)	8 - 10 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
1,2,4-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,2-Dichlorobenzene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,2-Dichloroethane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,2-Dichloropropane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,3,5-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
1,4-Dichlorobenzene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
2-Butanone (Methyl Ethyl Ketone)	SW8260	0.91 U	1.1 U	1 U	1 U	0.97 U	0.91 U	1.1 U	0.94 U
2-Hexanone	SW8260	3 U	4 U	3 U	3 U	3 U	3 U	4 U	3 U
2-Methylnaphthalene	SW8260	-	-	-	-	-	-	-	-
2-Phenylbutane (sec-Butylbenzene)	SW8260	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260	3 U	4 U	3 U	3 U	3 U	3 U	4 U	3 U
Acetone	SW8260	0.91 U	1.1 U	1 U	1 U	0.97 U	0.91 U	1.1 U	0.94 U
Acrylonitrile	SW8260	-	-	-	-	-	-	-	-
Benzene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Bromobenzene	SW8260	-	-	-	-	-	-	-	-
Bromodichloromethane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Bromoform	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Bromomethane (Methyl Bromide)	SW8260	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Carbon disulfide	SW8260	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Carbon tetrachloride	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Chlorobenzene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Chlorobromomethane	SW8260	-	-	-	-	-	-	-	-
Chloroethane	SW8260	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Chloroform (Trichloromethane)	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Chloromethane (Methyl Chloride)	SW8260	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
cis-1,2-Dichloroethene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
cis-1,3-Dichloropropene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Cyclohexane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Cymene (p-Isopropyltoluene)	SW8260	-	-	-	-	-	-	-	-
Dibromochloromethane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Dibromomethane	SW8260	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Ethyl Ether	SW8260	-	-	-	-	-	-	-	-
Ethylbenzene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Hexachloroethane	SW8260	-	-	-	-	-	-	-	-
Iodomethane	SW8260	-	-	-	-	-	-	-	-
Isopropylbenzene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
m&p-Xylene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Methyl acetate	SW8260	3 U	4 U	3 U	3 U	3 U	3 U	4 U	3 U
Methyl cyclohexane	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Methyl Tert Butyl Ether	SW8260	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Methylene chloride	SW8260	0.3 U	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.3 U
Naphthalene	SW8260	-	-	-	-	-	-	-	-
n-Butylbenzene	SW8260	-	-	-	-	-	-	-	-
n-Propylbenzene	SW8260	-	-	-	-	-	-	-	-
o-Xylene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Styrene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
tert-Butylbenzene	SW8260	-	-	-	-	-	-	-	-
Tetrachloroethene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Tetrahydrofuran	SW8260	-	-	-	-	-	-	-	-
Toluene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-30	AOI-31	AOI-32	AOI-32	AOI-33	AOI-33	AOI-33	AOI-33
Location Name		SB-30-171	SB-31-142	SB-32-147	SB-32-148	SB-33-104	SB-33-105	SB-33-106	SB-33-106
Sample Name		SB171(07-20-12)(10-12)	SB142 (08-01-12) (0-2)	SB147(07-20-12)(8-10)	SB148(07-20-12)(2.5-4.5)	SB104 (07-30-12) (0-2)	SB105 (07-30-12) (0-2)	SB106 (07-27-12) (32-34)	SB106 (07-27-12) (8-10)
Sample Date		7/20/2012	8/1/2012	7/20/2012	7/20/2012	7/30/2012	7/30/2012	7/27/2012	7/27/2012
Sample Type		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	10 - 12 (ft)	0 - 2 (ft)	8 - 10 (ft)	2.5 - 4.5 (ft)	0 - 2 (ft)	0 - 2 (ft)	32 - 34 (ft)	8 - 10 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
trans-1,2-Dichloroethene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
trans-1,3-Dichloropropene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
trans-1,4-Dichloro-2-butene	SW8260	-	-	-	-	-	-	-	-
Trichloroethene	SW8260	0.06 U	0.07 U	0.07 U	0.07 U	0.06 U	0.06 U	0.07 U	0.06 U
Trichlorofluoromethane (CFC-11)	SW8260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Trifluorotrichloroethane (Freon 113)	SW8260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Vinyl chloride	SW8260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Notes and Abbreviations:
1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-34	AOI-36	AOI-36	AOI-36	AOI-36	AOI-36	AOI-37	AOI-38
Location Name		SB-34-109	SB-36-110	SB-36-111	SB-36-112	SB-36-112	SB-36-113	SB-37-107	SB-38-100
Sample Name		SB109 (07-31-12) (0-2)	SB110-(07-25-12) (0.5-2.5)	SB111-(07-25-12) (0.5-2.5)	DUP 4 (07-31-12)	SB112 (07-31-12) (0-2)	SB113 (07-31-12) (3-5)	SB107-(07-25-12) (3-5)	SB100 (07-27-12) (2-4)
Sample Date		7/31/2012	7/25/2012	7/25/2012	7/31/2012	7/31/2012	7/31/2012	7/25/2012	7/27/2012
Sample Type		Normal	Normal	Normal	Field Duplicate	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	0 - 2 (ft)	0.5 - 2.5 (ft)	0.5 - 2.5 (ft)	0 - 2 (ft)	0 - 2 (ft)	3 - 5 (ft)	3 - 5 (ft)	2 - 4 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Inorganic Compounds (mg/kg)									
Arsenic, Total	SW6020	**1.34**	**1.32**	**1.31**	**1.02**	**1.47**	**0.41**	0.2 U	**1.09**
Barium, Total	SW6020	**6.65**	**13**	**11.1**	**36.4**	**38.4**	**12.8**	**14.2**	**27.8**
Cadmium, Total	SW6020	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.27**
Chromium, Total	SW6020	**2.26**	**2.58**	**2.06**	**4.17**	**4.29**	**3.64**	**1.04**	**3.14**
Copper, Total	SW6020	**3.78**	**3.89**	**3.3**	**5.9**	**6.76**	**3.96**	**0.58**	**17.4**
Lead, Total	SW6020	**2.57**	**3.13**	**2.66**	**22.1**	**43.8**	**2.56**	**2.06**	**38.4**
Mercury, Total	SW7471A	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Selenium, Total	SW6020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Silver, Total	SW6020	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Zinc, Total	SW6020	**9.07**	**9.71**	**9.71**	**28.6**	**24.9**	**9.52**	**1.89**	**31.1**
Other (%)									
Total Solids	SM2540B	**97**	**92**	**94**	**88**	**81**	**81**	**88**	**85**
PCBs (mg/kg)									
Aroclor-1016 (PCB-1016)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1221 (PCB-1221)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1232 (PCB-1232)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1242 (PCB-1242)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1248 (PCB-1248)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1254 (PCB-1254)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1260 (PCB-1260)	SW8082	0.33 U	0.33 U	0.33 U	**1**	**0.4**	0.33 U	0.33 U	0.33 U
Semi-Volatile Organic Compounds (mg/kg)									
1-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**0.6**
Benzo(a)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**2.5**
Benzo(a)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**3.4**
Benzo(b)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**5.3**
Benzo(g,h,i)perylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**1.9**
Benzo(k)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**5.8**
Chrysene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**2.6**
Dibenz(a,h)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**0.5**
Fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**5**
Fluorene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**1.6**
Naphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**2.6**
Pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	**4.7**
Volatile Organic Compounds (mg/kg)									
1,1,1,2-Tetrachloroethane	SW8260	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,1,2,2-Tetrachloroethane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,1,2-Trichloroethane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,1-Dichloroethane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,1-Dichloroethene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,2,3-Trichlorobenzene	SW8260	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	SW8260	-	-	-	-	-	-	-	-
1,2,3-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	SW8260	0.1 U	0.1 U	0.1 U	**0.4**	**0.6**	0.1 U	0.1 U	0.1 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-34	AOI-36	AOI-36	AOI-36	AOI-36	AOI-36	AOI-37	AOI-38
Location Name		SB-34-109	SB-36-110	SB-36-111	SB-36-112	SB-36-112	SB-36-113	SB-37-107	SB-38-100
Sample Name		SB109 (07-31-12) (0-2)	SB110-(07-25-12) (0.5-2.5)	SB111-(07-25-12) (0.5-2.5)	DUP 4 (07-31-12)	SB112 (07-31-12) (0-2)	SB113 (07-31-12) (3-5)	SB107-(07-25-12) (3-5)	SB100 (07-27-12) (2-4)
Sample Date		7/31/2012	7/25/2012	7/25/2012	7/31/2012	7/31/2012	7/31/2012	7/25/2012	7/27/2012
Sample Type		Normal	Normal	Normal	Field Duplicate	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	0 - 2 (ft)	0.5 - 2.5 (ft)	0.5 - 2.5 (ft)	0 - 2 (ft)	0 - 2 (ft)	3 - 5 (ft)	3 - 5 (ft)	2 - 4 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
1,2,4-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,2-Dichlorobenzene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,2-Dichloroethane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,2-Dichloropropane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
1,3,5-Trimethylbenzene	SW8260	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	SW8260	0.05 U	0.06 U	0.06 U	**0.12**	**0.18**	0.07 U	0.06 U	0.07 U
1,4-Dichlorobenzene	SW8260	0.05 U	0.06 U	0.06 U	**0.15**	**0.23**	0.07 U	0.06 U	0.07 U
2-Butanone (Methyl Ethyl Ketone)	SW8260	0.81 U	0.89 U	0.84 U	0.94 U	1.1 U	1.1 U	0.96 U	1 U
2-Hexanone	SW8260	3 U	3 U	3 U	3 U	4 U	4 U	3 U	3 U
2-Methylnaphthalene	SW8260	-	-	-	-	-	-	-	-
2-Phenylbutane (sec-Butylbenzene)	SW8260	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260	3 U	3 U	3 U	3 U	4 U	4 U	3 U	3 U
Acetone	SW8260	0.81 U	0.89 U	0.84 U	0.94 U	1.1 U	1.1 U	0.96 U	1 U
Acrylonitrile	SW8260	-	-	-	-	-	-	-	-
Benzene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Bromobenzene	SW8260	-	-	-	-	-	-	-	-
Bromodichloromethane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Bromoform	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Bromomethane (Methyl Bromide)	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.4 U	0.3 U	0.3 U
Carbon disulfide	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.4 U	0.3 U	0.3 U
Carbon tetrachloride	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Chlorobenzene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Chlorobromomethane	SW8260	-	-	-	-	-	-	-	-
Chloroethane	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.4 U	0.3 U	0.3 U
Chloroform (Trichloromethane)	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Chloromethane (Methyl Chloride)	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.4 U	0.3 U	0.3 U
cis-1,2-Dichloroethene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
cis-1,3-Dichloropropene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Cyclohexane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Cymene (p-Isopropyltoluene)	SW8260	-	-	-	-	-	-	-	-
Dibromochloromethane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Dibromomethane	SW8260	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Ethyl Ether	SW8260	-	-	-	-	-	-	-	-
Ethylbenzene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Hexachloroethane	SW8260	-	-	-	-	-	-	-	-
Iodomethane	SW8260	-	-	-	-	-	-	-	-
Isopropylbenzene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
m&p-Xylene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Methyl acetate	SW8260	3 U	3 U	3 U	3 U	4 U	4 U	3 U	3 U
Methyl cyclohexane	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Methyl Tert Butyl Ether	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.4 U	0.3 U	0.3 U
Methylene chloride	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.4 U	0.4 U	0.3 U	0.3 U
Naphthalene	SW8260	-	-	-	-	-	-	-	-
n-Butylbenzene	SW8260	-	-	-	-	-	-	-	-
n-Propylbenzene	SW8260	-	-	-	-	-	-	-	-
o-Xylene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Styrene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
tert-Butylbenzene	SW8260	-	-	-	-	-	-	-	-
Tetrachloroethene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Tetrahydrofuran	SW8260	-	-	-	-	-	-	-	-
Toluene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-34	AOI-36	AOI-36	AOI-36	AOI-36	AOI-36	AOI-37	AOI-38
Location Name		SB-34-109	SB-36-110	SB-36-111	SB-36-112	SB-36-112	SB-36-113	SB-37-107	SB-38-100
Sample Name		SB109 (07-31-12) (0-2)	SB110-(07-25-12) (0.5-2.5)	SB111-(07-25-12) (0.5-2.5)	DUP 4 (07-31-12)	SB112 (07-31-12) (0-2)	SB113 (07-31-12) (3-5)	SB107-(07-25-12) (3-5)	SB100 (07-27-12) (2-4)
Sample Date		7/31/2012	7/25/2012	7/25/2012	7/31/2012	7/31/2012	7/31/2012	7/25/2012	7/27/2012
Sample Type		Normal	Normal	Normal	Field Duplicate	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	0 - 2 (ft)	0.5 - 2.5 (ft)	0.5 - 2.5 (ft)	0 - 2 (ft)	0 - 2 (ft)	3 - 5 (ft)	3 - 5 (ft)	2 - 4 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)									
trans-1,2-Dichloroethene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
trans-1,3-Dichloropropene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
trans-1,4-Dichloro-2-butene	SW8260	-	-	-	-	-	-	-	-
Trichloroethene	SW8260	0.05 U	0.06 U	0.06 U	0.06 U	0.07 U	0.07 U	0.06 U	0.07 U
Trichlorofluoromethane (CFC-11)	SW8260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Trifluorotrichloroethane (Freon 113)	SW8260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Vinyl chloride	SW8260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

Notes and Abbreviations:
1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-38	AOI-38	AOI-40	AOI-41	AOI-42
Location Name		SB-38-101	SB-38-102	SB-40-135	SB-41-141	SB-42-119
Sample Name		SB101 (07-27-12) (2.5-4.5)	SB102 (07-31-12) (2-4)	SB135-(07-24-12) (2-4)	SB141(06-22-2012)(3-5)	SB119-(07-26-12) (3-5)
Sample Date		7/27/2012	7/31/2012	7/24/2012	6/22/2012	7/26/2012
Sample Type		Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	2.5 - 4.5 (ft)	2 - 4 (ft)	2 - 4 (ft)	3 - 5 (ft)	3 - 5 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil
Inorganic Compounds (mg/kg)						
Arsenic, Total	SW6020	**0.75**	**0.6**	**2.01**	**0.29**	**1.64**
Barium, Total	SW6020	**31.5**	**50.1**	**16.2**	**10.8**	**26.1**
Cadmium, Total	SW6020	0.2 U	**0.35**	0.2 U	0.2 U	0.2 U
Chromium, Total	SW6020	**4.37**	**3.75**	**2.8**	**1.29**	**4.51**
Copper, Total	SW6020	**9.39**	**6.97**	**4.56**	**1.24**	**7.24**
Lead, Total	SW6020	**9.83**	**18.8**	**3.19**	**1.8**	**5.43**
Mercury, Total	SW7471A	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Selenium, Total	SW6020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Silver, Total	SW6020	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U
Zinc, Total	SW6020	**15.7**	**25.1**	**14.1**	**5.97**	**16.1**
Other (%)						
Total Solids	SM2540B	**90**	**83**	**91**	**91**	**85**
PCBs (mg/kg)						
Aroclor-1016 (PCB-1016)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1221 (PCB-1221)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1232 (PCB-1232)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1242 (PCB-1242)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1248 (PCB-1248)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1254 (PCB-1254)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Aroclor-1260 (PCB-1260)	SW8082	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Semi-Volatile Organic Compounds (mg/kg)						
1-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Methylnaphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Acenaphthylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(a)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(b)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(g,h,i)perylene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Benzo(k)fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chrysene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dibenz(a,h)anthracene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluoranthene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Fluorene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Indeno(1,2,3-cd)pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Naphthalene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Phenanthrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Pyrene	SW8270C	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Volatile Organic Compounds (mg/kg)						
1,1,1,2-Tetrachloroethane	SW8260	-	-	-	0.1 U	-
1,1,1-Trichloroethane	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
1,1,2,2-Tetrachloroethane	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
1,1,2-Trichloroethane	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
1,1-Dichloroethane	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
1,1-Dichloroethene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
1,2,3-Trichlorobenzene	SW8260	-	-	-	0.39 U	-
1,2,3-Trichloropropane	SW8260	-	-	-	0.1 U	-
1,2,3-Trimethylbenzene	SW8260	-	-	-	0.1 U	-
1,2,4-Trichlorobenzene	SW8260	0.1 U	0.1 U	0.1 U	0.39 U	0.1 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-38	AOI-38	AOI-40	AOI-41	AOI-42
Location Name		SB-38-101	SB-38-102	SB-40-135	SB-41-141	SB-42-119
Sample Name		SB101 (07-27-12) (2.5-4.5)	SB102 (07-31-12) (2-4)	SB135-(07-24-12) (2-4)	SB141(06-22-2012)(3-5)	SB119-(07-26-12) (3-5)
Sample Date		7/27/2012	7/31/2012	7/24/2012	6/22/2012	7/26/2012
Sample Type		Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	2.5 - 4.5 (ft)	2 - 4 (ft)	2 - 4 (ft)	3 - 5 (ft)	3 - 5 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)						
1,2,4-Trimethylbenzene	SW8260	-	-	-	0.1 U	-
1,2-Dibromo-3-chloropropane (DBCP)	SW8260	0.06 U	0.07 U	0.06 U	0.3 U	0.07 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260	0.06 U	0.07 U	0.06 U	0.02 U	0.07 U
1,2-Dichlorobenzene	SW8260	0.06 U	0.07 U	0.06 U	0.1 U	0.07 U
1,2-Dichloroethane	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
1,2-Dichloropropane	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
1,3,5-Trimethylbenzene	SW8260	-	-	-	0.1 U	-
1,3-Dichlorobenzene	SW8260	0.06 U	0.07 U	0.06 U	0.1 U	0.07 U
1,4-Dichlorobenzene	SW8260	0.06 U	0.07 U	0.06 U	0.1 U	0.07 U
2-Butanone (Methyl Ethyl Ketone)	SW8260	0.92 U	1 U	0.9 U	0.89 U	1 U
2-Hexanone	SW8260	3 U	3 U	3 U	3 U	3 U
2-Methylnaphthalene	SW8260	-	-	-	0.39 U	-
2-Phenylbutane (sec-Butylbenzene)	SW8260	-	-	-	0.06 U	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260	3 U	3 U	3 U	3 U	3 U
Acetone	SW8260	0.92 U	1 U	0.9 U	1 U	1 U
Acrylonitrile	SW8260	-	-	-	0.1 U	-
Benzene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
Bromobenzene	SW8260	-	-	-	0.1 U	-
Bromodichloromethane	SW8260	0.06 U	0.07 U	0.06 U	0.1 U	0.07 U
Bromoform	SW8260	0.06 U	0.07 U	0.06 U	0.1 U	0.07 U
Bromomethane (Methyl Bromide)	SW8260	0.3 U	0.3 U	0.3 U	0.2 U	0.3 U
Carbon disulfide	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Carbon tetrachloride	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
Chlorobenzene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
Chlorobromomethane	SW8260	-	-	-	0.1 U	-
Chloroethane	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloroform (Trichloromethane)	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
Chloromethane (Methyl Chloride)	SW8260	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
cis-1,2-Dichloroethene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
cis-1,3-Dichloropropene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
Cyclohexane	SW8260	0.06 U	0.07 U	0.06 U	-	0.07 U
Cymene (p-Isopropyltoluene)	SW8260	-	-	-	0.1 U	-
Dibromochloromethane	SW8260	0.06 U	0.07 U	0.06 U	0.1 U	0.07 U
Dibromomethane	SW8260	-	-	-	0.3 U	-
Dichlorodifluoromethane (CFC-12)	SW8260	0.06 U	0.07 U	0.06 U	0.3 U	0.07 U
Ethyl Ether	SW8260	-	-	-	0.2 U	-
Ethylbenzene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
Hexachloroethane	SW8260	-	-	-	0.4 U	-
Iodomethane	SW8260	-	-	-	0.1 U	-
Isopropylbenzene	SW8260	0.06 U	0.07 U	0.06 U	0.3 U	0.07 U
m&p-Xylene	SW8260	0.06 U	0.07 U	0.06 U	0.1 U	0.07 U
Methyl acetate	SW8260	3 U	3 U	3 U	-	3 U
Methyl cyclohexane	SW8260	0.06 U	0.07 U	0.06 U	-	0.07 U
Methyl Tert Butyl Ether	SW8260	0.3 U	0.3 U	0.3 U	0.2 U	0.3 U
Methylene chloride	SW8260	0.3 U	0.3 U	0.3 U	0.1 U	0.3 U
Naphthalene	SW8260	-	-	-	0.39 U	-
n-Butylbenzene	SW8260	-	-	-	0.06 U	-
n-Propylbenzene	SW8260	-	-	-	0.1 U	-
o-Xylene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
Styrene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
tert-Butylbenzene	SW8260	-	-	-	0.06 U	-
Tetrachloroethene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
Tetrahydrofuran	SW8260	-	-	-	1 U	-
Toluene	SW8260	0.06 U	0.07 U	0.06 U	0.1 U	0.07 U

APPENDIX B-1
SUMMARY OF SOIL ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-38	AOI-38	AOI-40	AOI-41	AOI-42
Location Name		SB-38-101	SB-38-102	SB-40-135	SB-41-141	SB-42-119
Sample Name		SB101 (07-27-12) (2.5-4.5)	SB102 (07-31-12) (2-4)	SB135-(07-24-12) (2-4)	SB141(06-22-2012)(3-5)	SB119-(07-26-12) (3-5)
Sample Date		7/27/2012	7/31/2012	7/24/2012	6/22/2012	7/26/2012
Sample Type		Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analyical	2.5 - 4.5 (ft)	2 - 4 (ft)	2 - 4 (ft)	3 - 5 (ft)	3 - 5 (ft)
Sample Matrix	Method	Soil	Soil	Soil	Soil	Soil
Volatile Organic Compounds (mg/kg) (con't)						
trans-1,2-Dichloroethene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
trans-1,3-Dichloropropene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
trans-1,4-Dichloro-2-butene	SW8260	-	-	-	0.06 U	-
Trichloroethene	SW8260	0.06 U	0.07 U	0.06 U	0.06 U	0.07 U
Trichlorofluoromethane (CFC-11)	SW8260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Trifluorotrichloroethane (Freon 113)	SW8260	0.1 U	0.1 U	0.1 U	-	0.1 U
Vinyl chloride	SW8260	0.1 U	0.1 U	0.1 U	0.06 U	0.1 U

Notes and Abbreviations:
1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-2
SUMMARY OF GROUNDWATER ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-02	AOI-02	AOI-06	AOI-06	AOI-06	AOI-06	AOI-06	AOI-10
Location Name		TW-02-129	TW-02-129	TW-06-137	TW-06-137	TW-06-139	TW-06-139	TW-06-139	TW-10-124
Sample Name		MW129(08-08-2012)(1250)	TW129(12-11-2012)(1305)	MW137(08-09-2012)(1215)	TW137(12-12-2012)(1445)	DUP-01(08-09-12)	MW139(08-09-2012)(0915)	TW139(12-12-2012)(1650)	MW124(08-09-2012)(1630)
Sample Date		8/8/2012	12/11/2012	8/9/2012	12/12/2012	8/9/2012	8/9/2012	12/12/2012	8/9/2012
Sample Type		Normal	Normal	Normal	Normal	Field Duplicate	Normal	Normal	Normal
Sample Depth (bgs)	Analytical	5 - 10 (ft)	5 - 10 (ft)	16 - 21 (ft)	16 - 21 (ft)	18.5 - 23.5 (ft)	18.5 - 23.5 (ft)	18.5 - 23.5 (ft)	3 - 8 (ft)
Sample Matrix	Method	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Inorganic Compounds (mg/L)									
Arsenic, Dissolved	E200.8	**0.003**	-	-	-	**0.011 J**	**0.006 J**	**0.008**	**0.007**
Arsenic, Total	E200.8	**0.004**	-	0.002 U	-	**0.037 J**	**0.028 J**	**0.036**	**0.071**
Barium, Dissolved	E200.8	**0.602**	-	-	-	**0.11**	**0.11**	-	**0.193**
Barium, Total	E200.8	**0.614**	-	**0.316**	-	**0.154**	**0.154**	-	**0.238**
Cadmium, Dissolved	E200.8	0.0005 U	-	-	-	0.0005 U	0.0005 U	-	0.0005 U
Cadmium, Total	E200.8	**0.0005**	-	**0.0006**	-	0.0005 U	0.0005 U	-	0.0005 U
Chromium, Dissolved	E200.8	0.005 U	-	-	-	0.005 U	0.005 U	-	0.005 U
Chromium, Total	E200.8	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-	0.005 U
Copper, Dissolved	E200.8	0.004 U	-	-	-	0.004 U	0.004 U	-	0.004 U
Copper, Total	E200.8	0.004 U	-	**0.035**	-	0.004 U	0.004 U	-	**0.008**
Lead, Dissolved	E200.8	**0.022**	0.003 U	-	0.003 U	0.003 U	0.003 U	-	0.003 U
Lead, Total	E200.8	**0.005**	0.003 U	**0.005**	0.003 U	0.003 U	0.003 U	-	**0.006**
Mercury, Dissolved	E245.1	0.0002 U	-	-	-	0.0002 U	0.0002 U	-	0.0002 U
Mercury, Total	E245.1	0.0002 U	-	0.0002 U	-	0.0002 U	0.0002 U	-	0.0002 U
Selenium, Dissolved	E200.8	0.005 U	-	-	-	0.005 U	0.005 U	-	0.005 U
Selenium, Total	E200.8	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-	0.005 U
Silver, Dissolved	E200.8	0.0002 U	-	-	-	0.0002 U	0.0002 U	-	0.0002 U
Silver, Total	E200.8	0.0002 U	-	0.0002 U	-	0.0002 U	0.0002 U	-	0.0002 U
Zinc, Dissolved	E200.8	**0.051**	-	-	-	**0.029**	**0.036**	-	**0.026**
Zinc, Total	E200.8	**0.008**	-	**0.028**	-	0.005 U	**0.005**	-	**0.024**
Semi-Volatile Organic Compounds (mg/L)									
1-Methylnaphthalene	SW8270C	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-	0.005 U
2-Methylnaphthalene	SW8270C	0.005 UJ	-	0.005 U	-	0.005 UJ	0.005 UJ	-	0.005 U
Acenaphthene	SW8270C	0.005 UJ	-	0.005 U	-	0.005 UJ	0.005 UJ	-	0.005 U
Acenaphthylene	SW8270C	0.005 UJ	-	0.005 U	-	0.005 UJ	0.005 UJ	-	0.005 U
Anthracene	SW8270C	0.005 UJ	-	0.005 U	-	0.005 UJ	0.005 UJ	-	0.005 U
Benzo(a)anthracene	SW8270C	0.001 UJ	-	0.001 U	-	0.001 UJ	0.001 UJ	-	0.004 U
Benzo(a)pyrene	SW8270C	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.004 U
Benzo(b)fluoranthene	SW8270C	0.001 UJ	-	0.001 U	-	0.001 UJ	0.001 UJ	-	0.004 U
Benzo(g,h,i)perylene	SW8270C	0.001 UJ	-	0.001 U	-	0.001 UJ	0.001 UJ	-	0.004 U
Benzo(k)fluoranthene	SW8270C	0.001 UJ	-	0.001 U	-	0.001 UJ	0.001 UJ	-	0.004 U
Chrysene	SW8270C	0.001 UJ	-	0.001 U	-	0.001 UJ	0.001 UJ	-	0.004 U
Dibenz(a,h)anthracene	SW8270C	0.002 UJ	-	0.002 U	-	0.002 UJ	0.002 UJ	-	0.004 U
Fluoranthene	SW8270C	0.001 UJ	-	0.001 U	-	0.001 UJ	0.001 UJ	-	0.004 U
Fluorene	SW8270C	0.005 UJ	-	0.005 U	-	0.005 UJ	0.005 UJ	-	0.005 U
Indeno(1,2,3-cd)pyrene	SW8270C	0.002 UJ	-	0.002 U	-	0.002 UJ	0.002 UJ	-	0.004 U
Naphthalene	SW8270C	0.005 UJ	-	0.005 U	-	0.005 UJ	0.005 UJ	-	0.005 U
Phenanthrene	SW8270C	0.002 UJ	-	0.002 U	-	0.002 UJ	0.002 UJ	-	0.004 U
Pyrene	SW8270C	0.005 UJ	-	0.005 U	-	0.005 UJ	0.005 UJ	-	0.005 U
Volatile Organic Compounds (mg/L)									
1,1,1-Trichloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,1,2,2-Tetrachloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,1,2-Trichloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,1-Dichloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,1-Dichloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,2,4-Trichlorobenzene	SW8260B	0.002 U	-	0.002 U	-	0.002 U	0.002 U	-	0.002 U
1,2-Dibromo-3-chloropropane (DBCP)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,2-Dichlorobenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,2-Dichloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,2-Dichloropropane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
1,3-Dichlorobenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U

APPENDIX B-2
SUMMARY OF GROUNDWATER ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-02	AOI-02	AOI-06	AOI-06	AOI-06	AOI-06	AOI-06	AOI-10
Location Name		TW-02-129	TW-02-129	TW-06-137	TW-06-137	TW-06-139	TW-06-139	TW-06-139	TW-10-124
Sample Name		MW129(08-08-2012)(1250)	TW129(12-11-2012)(1305)	MW137(08-09-2012)(1215)	TW137(12-12-2012)(1445)	DUP-01(08-09-12)	MW139(08-09-2012)(0915)	TW139(12-12-2012)(1650)	MW124(08-09-2012)(1630)
Sample Date		8/8/2012	12/11/2012	8/9/2012	12/12/2012	8/9/2012	8/9/2012	12/12/2012	8/9/2012
Sample Type		Normal	Normal	Normal	Normal	Field Duplicate	Normal	Normal	Normal
Sample Depth (bgs)	Analytical	5 - 10 (ft)	5 - 10 (ft)	16 - 21 (ft)	16 - 21 (ft)	18.5 - 23.5 (ft)	18.5 - 23.5 (ft)	18.5 - 23.5 (ft)	3 - 8 (ft)
Sample Matrix	Method	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Volatile Organic Compounds (mg/L) (con't)									
1,4-Dichlorobenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
2-Butanone (Methyl Ethyl Ketone)	SW8260B	0.02 U	-	0.02 U	-	0.02 U	0.02 U	-	0.02 U
2-Hexanone	SW8260B	0.05 U	-	0.05 U	-	0.05 U	0.05 U	-	0.05 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260B	0.01 U	-	0.01 U	-	0.01 U	0.01 U	-	0.01 U
Acetone	SW8260B	0.02 U	-	0.02 U	-	0.02 U	0.02 U	-	0.02 U
Benzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Bromodichloromethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Bromoform	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Bromomethane (Methyl Bromide)	SW8260B	0.002 U	-	0.002 U	-	0.002 U	0.002 U	-	0.002 U
Carbon disulfide	SW8260B	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-	0.005 U
Carbon tetrachloride	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Chlorobenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Chloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Chloroform (Trichloromethane)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Chloromethane (Methyl Chloride)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
cis-1,2-Dichloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
cis-1,3-Dichloropropene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Cyclohexane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Dibromochloromethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Dichlorodifluoromethane (CFC-12)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Ethylbenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Isopropylbenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
m&p-Xylene	SW8260B	0.002 U	-	0.002 U	-	0.002 U	0.002 U	-	0.002 U
Methyl acetate	SW8260B	0.01 U	-	0.01 U	-	0.01 U	0.01 U	-	0.01 U
Methyl cyclohexane	SW8260B	0.02 U	-	0.02 U	-	0.02 U	0.02 U	-	0.02 U
Methyl Tert Butyl Ether	SW8260B	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-	0.005 U
Methylene chloride	SW8260B	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-	0.005 U
o-Xylene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Styrene	SW8260B	0.001 UJ	-	0.001 U	-	0.001 UJ	0.001 UJ	-	0.001 U
Tetrachloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Toluene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
trans-1,2-Dichloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
trans-1,3-Dichloropropene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Trichloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Trichlorofluoromethane (CFC-11)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U
Trifluorotrichloroethane (Freon 113)	SW8260B	0.03 U	-	0.03 U	-	0.03 U	0.03 U	-	0.03 U
Vinyl chloride	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-	0.001 U

Notes and Abbreviations:

1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-2
SUMMARY OF GROUNDWATER ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-10	AOI-19	AOI-27	AOI-27	AOI-27	AOI-28	AOI-28	AOI-28
Location Name		TW-10-124	TW-19-115	TW-27-158	TW-27-158	TW-27-158	TW-28-152	TW-28-152	TW-28-165
Sample Name		TW124(12-12-2012)(1340)	MW115(08-10-2012)(0845)	DUP-01(12-11-2012)	MW158(08-09-2012)(1515)	TW158(12-11-2012)(1610)	MW152(08-10-2012)(1035)	TW152(12-11-2012)(1410)	MW165(08-09-2012)(0825)
Sample Date		12/12/2012	8/10/2012	12/11/2012	8/9/2012	12/11/2012	8/10/2012	12/11/2012	8/9/2012
Sample Type		Normal	Normal	Field Duplicate	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analytical	3 - 8 (ft)	4 - 9 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)
Sample Matrix	Method	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Inorganic Compounds (mg/L)									
Arsenic, Dissolved	E200.8	**0.009**	-	**0.009**	**0.003**	**0.01**	-	**0.038**	-
Arsenic, Total	E200.8	**0.091**	**0.004**	**0.019**	**0.018**	**0.019**	**0.027**	**0.035**	0.002 U
Barium, Dissolved	E200.8	-	-	-	**0.137**	-	-	-	-
Barium, Total	E200.8	-	**0.172**	-	**0.169**	-	**0.138**	-	**0.266**
Cadmium, Dissolved	E200.8	-	-	-	0.0005 U	-	-	-	-
Cadmium, Total	E200.8	-	0.0005 U	-	0.0005 U	-	0.0005 U	-	0.0005 U
Chromium, Dissolved	E200.8	-	-	-	0.005 U	-	-	-	-
Chromium, Total	E200.8	-	0.005 U	-	0.005 U	-	0.005 U	-	0.005 U
Copper, Dissolved	E200.8	-	-	-	0.004 U	-	-	-	-
Copper, Total	E200.8	-	**0.005**	-	**0.013**	-	**0.016**	-	0.004 U
Lead, Dissolved	E200.8	0.003 U	-	0.003 U	0.003 U	0.003 U	-	-	-
Lead, Total	E200.8	0.003 U	**0.004**	0.003 U	**0.012**	0.003 U	0.003 U	-	0.003 U
Mercury, Dissolved	E245.1	-	-	-	0.0002 U	-	-	-	-
Mercury, Total	E245.1	-	0.0002 U	-	0.0002 U	-	0.0002 U	-	0.0002 U
Selenium, Dissolved	E200.8	-	-	-	0.005 U	-	-	-	-
Selenium, Total	E200.8	-	0.005 U	-	0.005 U	-	**0.007**	-	0.005 U
Silver, Dissolved	E200.8	-	-	-	0.0002 U	-	-	-	-
Silver, Total	E200.8	-	0.0002 U	-	0.0002 U	-	0.0002 U	-	0.0002 U
Zinc, Dissolved	E200.8	-	-	-	**0.022**	-	-	-	-
Zinc, Total	E200.8	-	**0.013**	-	**0.034**	-	**0.011**	-	0.005 U
Semi-Volatile Organic Compounds (mg/L)									
1-Methylnaphthalene	SW8270C	-	0.005 U	-	0.005 U	-	0.008 U	-	0.005 U
2-Methylnaphthalene	SW8270C	-	0.005 U	-	0.005 U	-	0.008 U	-	0.005 UJ
Acenaphthene	SW8270C	-	0.005 U	-	0.005 U	-	0.008 U	-	0.005 UJ
Acenaphthylene	SW8270C	-	0.005 U	-	0.005 U	-	0.008 U	-	0.005 UJ
Anthracene	SW8270C	-	0.005 U	-	0.005 U	-	0.008 U	-	0.005 UJ
Benzo(a)anthracene	SW8270C	-	0.001 U	-	0.001 U	-	0.008 U	-	0.001 UJ
Benzo(a)pyrene	SW8270C	-	0.001 U	-	0.001 U	-	0.008 U	-	0.001 U
Benzo(b)fluoranthene	SW8270C	-	0.001 U	-	0.001 U	-	0.008 U	-	0.001 UJ
Benzo(g,h,i)perylene	SW8270C	-	0.001 U	-	0.001 U	-	0.008 U	-	0.001 UJ
Benzo(k)fluoranthene	SW8270C	-	0.001 U	-	0.001 U	-	0.008 U	-	0.001 UJ
Chrysene	SW8270C	-	0.001 U	-	0.001 U	-	0.008 U	-	0.001 UJ
Dibenz(a,h)anthracene	SW8270C	-	0.002 U	-	0.002 U	-	0.008 U	-	0.002 UJ
Fluoranthene	SW8270C	-	0.001 U	-	0.001 U	-	0.008 U	-	0.001 UJ
Fluorene	SW8270C	-	0.005 U	-	0.005 U	-	0.008 U	-	0.005 UJ
Indeno(1,2,3-cd)pyrene	SW8270C	-	0.002 U	-	0.002 U	-	0.008 U	-	0.002 UJ
Naphthalene	SW8270C	-	0.005 U	-	0.005 U	-	0.008 U	-	0.005 UJ
Phenanthrene	SW8270C	-	0.002 U	-	0.002 U	-	0.008 U	-	0.002 UJ
Pyrene	SW8270C	-	0.005 U	-	0.005 U	-	0.008 U	-	0.005 UJ
Volatile Organic Compounds (mg/L)									
1,1,1-Trichloroethane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,1,2,2-Tetrachloroethane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,1,2-Trichloroethane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,1-Dichloroethane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,1-Dichloroethene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,2,4-Trichlorobenzene	SW8260B	-	0.002 U	-	0.002 U	-	0.1 U	-	0.002 U
1,2-Dibromo-3-chloropropane (DBCP)	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,2-Dibromoethane (Ethylene Dibromide)	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,2-Dichlorobenzene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,2-Dichloroethane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,2-Dichloropropane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
1,3-Dichlorobenzene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U

APPENDIX B-2
SUMMARY OF GROUNDWATER ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-10	AOI-19	AOI-27	AOI-27	AOI-27	AOI-28	AOI-28	AOI-28
Location Name		TW-10-124	TW-19-115	TW-27-158	TW-27-158	TW-27-158	TW-28-152	TW-28-152	TW-28-165
Sample Name		TW124(12-12-2012)(1340)	MW115(08-10-2012)(0845)	DUP-01(12-11-2012)	MW158(08-09-2012)(1515)	TW158(12-11-2012)(1610)	MW152(08-10-2012)(1035)	TW152(12-11-2012)(1410)	MW165(08-09-2012)(0825)
Sample Date		12/12/2012	8/10/2012	12/11/2012	8/9/2012	12/11/2012	8/10/2012	12/11/2012	8/9/2012
Sample Type		Normal	Normal	Field Duplicate	Normal	Normal	Normal	Normal	Normal
Sample Depth (bgs)	Analytical	3 - 8 (ft)	4 - 9 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)
Sample Matrix	Method	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Volatile Organic Compounds (mg/L) (con't)									
1,4-Dichlorobenzene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
2-Butanone (Methyl Ethyl Ketone)	SW8260B	-	0.02 U	-	0.02 U	-	1 U	-	0.02 U
2-Hexanone	SW8260B	-	0.05 U	-	0.05 U	-	3 U	-	0.05 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260B	-	0.01 U	-	0.01 U	-	0.5 U	-	0.01 U
Acetone	SW8260B	-	0.02 U	-	0.02 U	-	**2**	-	0.02 U
Benzene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Bromodichloromethane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Bromoform	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Bromomethane (Methyl Bromide)	SW8260B	-	0.002 U	-	0.002 U	-	0.1 U	-	0.002 U
Carbon disulfide	SW8260B	-	0.005 U	-	0.005 U	-	0.3 U	-	0.005 U
Carbon tetrachloride	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Chlorobenzene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Chloroethane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Chloroform (Trichloromethane)	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Chloromethane (Methyl Chloride)	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
cis-1,2-Dichloroethene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
cis-1,3-Dichloropropene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Cyclohexane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Dibromochloromethane	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Dichlorodifluoromethane (CFC-12)	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Ethylbenzene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Isopropylbenzene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
m&p-Xylene	SW8260B	-	0.002 U	-	0.002 U	-	0.1 U	-	0.002 U
Methyl acetate	SW8260B	-	0.01 U	-	0.01 U	-	0.5 U	-	0.01 U
Methyl cyclohexane	SW8260B	-	0.02 U	-	0.02 U	-	1 U	-	0.02 U
Methyl Tert Butyl Ether	SW8260B	-	0.005 U	-	0.005 U	-	0.3 U	-	0.005 U
Methylene chloride	SW8260B	-	0.005 U	-	0.005 U	-	0.3 U	-	0.005 U
o-Xylene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Styrene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 UJ
Tetrachloroethene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Toluene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
trans-1,2-Dichloroethene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
trans-1,3-Dichloropropene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Trichloroethene	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Trichlorofluoromethane (CFC-11)	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U
Trifluorotrichloroethane (Freon 113)	SW8260B	-	0.03 U	-	0.03 U	-	2 U	-	0.03 U
Vinyl chloride	SW8260B	-	0.001 U	-	0.001 U	-	0.05 U	-	0.001 U

Notes and Abbreviations:
1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX B-2
SUMMARY OF GROUNDWATER ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-33	AOI-33	AOI-38	AOI-38	AOI-40	AOI-40	AOI-40
Location Name		TW-33-105	TW-33-105	TW-38-101	TW-38-101	TW-40-135	TW-40-135	TW-40-135
Sample Name		MW105(08-08-2012)(1445)	TW105(12-10-2012)(1415)	MW101(08-08-2012)(1615)	TW101(12-12-2012)(1100)	DUP-02(08-09-12)	MW135(08-09-2012)(1320)	TW135(12-10-2012)(1600)
Sample Date		8/8/2012	12/10/2012	8/8/2012	12/12/2012	8/9/2012	8/9/2012	12/10/2012
Sample Type		Normal	Normal	Normal	Normal	Field Duplicate	Normal	Normal
Sample Depth (bgs)	Analytical	4 - 9 (ft)	4 - 9 (ft)	2.5 - 7.5 (ft)	2.5 - 7.5 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)
Sample Matrix	Method	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Inorganic Compounds (mg/L)								
Arsenic, Dissolved	E200.8	**0.008**	**0.004**	**0.005**	-	**0.009**	**0.009**	**0.006**
Arsenic, Total	E200.8	**0.015**	**0.0072**	**0.005**	-	**0.011**	**0.011**	**0.015**
Barium, Dissolved	E200.8	**0.03**	-	**0.046**	-	**0.066**	**0.067**	-
Barium, Total	E200.8	**0.129**	-	**0.048**	-	**0.076**	**0.072**	-
Cadmium, Dissolved	E200.8	0.0005 U	-	0.0005 U	-	0.0005 U	0.0005 U	-
Cadmium, Total	E200.8	**0.0014**	-	0.0005 U	-	0.0005 U	0.0005 U	-
Chromium, Dissolved	E200.8	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-
Chromium, Total	E200.8	**0.007**	-	0.005 U	-	0.005 U	0.005 U	-
Copper, Dissolved	E200.8	**0.007**	-	**0.013**	-	0.004 U	0.004 U	-
Copper, Total	E200.8	**0.048**	-	**0.013**	-	0.004 U	0.004 U	-
Lead, Dissolved	E200.8	0.003 U	0.003 U	0.003 U	0.003 U	**0.003**	**0.003**	-
Lead, Total	E200.8	**0.029**	0.003 U	**0.007**	0.003 U	**0.003**	**0.004**	-
Mercury, Dissolved	E245.1	0.0002 U	-	0.0002 U	-	0.0002 U	0.0002 U	-
Mercury, Total	E245.1	0.0002 U	-	0.0002 U	-	0.0002 U	0.0002 U	-
Selenium, Dissolved	E200.8	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-
Selenium, Total	E200.8	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-
Silver, Dissolved	E200.8	0.0002 U	-	0.0002 U	-	0.0002 U	0.0002 U	-
Silver, Total	E200.8	0.0002 U	-	0.0002 U	-	0.0002 U	0.0002 U	-
Zinc, Dissolved	E200.8	**0.022**	-	**0.005**	-	**0.016**	**0.016**	-
Zinc, Total	E200.8	**0.044**	-	0.005 U	-	0.005 U	0.005 U	-
Semi-Volatile Organic Compounds (mg/L)								
1-Methylnaphthalene	SW8270C	**0.005 R**	-	0.005 UJ	-	0.005 U	0.005 U	-
2-Methylnaphthalene	SW8270C	**0.005 R**	-	0.005 UJ	-	0.005 U	0.005 U	-
Acenaphthene	SW8270C	**0.005 R**	-	0.005 UJ	-	0.005 U	0.005 U	-
Acenaphthylene	SW8270C	**0.005 R**	-	0.005 UJ	-	0.005 U	0.005 U	-
Anthracene	SW8270C	**0.005 R**	-	0.005 UJ	-	0.005 U	0.005 U	-
Benzo(a)anthracene	SW8270C	**0.001 R**	-	0.001 UJ	-	0.001 U	0.001 U	-
Benzo(a)pyrene	SW8270C	**0.001 R**	-	0.001 U	-	0.001 U	0.001 U	-
Benzo(b)fluoranthene	SW8270C	**0.001 R**	-	0.001 UJ	-	0.001 U	0.001 U	-
Benzo(g,h,i)perylene	SW8270C	**0.001 R**	-	0.001 UJ	-	0.001 U	0.001 U	-
Benzo(k)fluoranthene	SW8270C	**0.001 R**	-	0.001 UJ	-	0.001 U	0.001 U	-
Chrysene	SW8270C	**0.001 R**	-	0.001 UJ	-	0.001 U	0.001 U	-
Dibenz(a,h)anthracene	SW8270C	**0.002 R**	-	0.002 UJ	-	0.002 U	0.002 U	-
Fluoranthene	SW8270C	**0.001 R**	-	0.001 UJ	-	0.001 U	0.001 U	-
Fluorene	SW8270C	**0.005 R**	-	0.005 UJ	-	0.005 U	0.005 U	-
Indeno(1,2,3-cd)pyrene	SW8270C	**0.002 R**	-	0.002 UJ	-	0.002 U	0.002 U	-
Naphthalene	SW8270C	**0.005 R**	-	0.005 UJ	-	0.005 U	0.005 U	-
Phenanthrene	SW8270C	**0.002 R**	-	0.002 UJ	-	0.002 U	0.002 U	-
Pyrene	SW8270C	**0.005 R**	-	0.005 UJ	-	0.005 U	0.005 U	-
Volatile Organic Compounds (mg/L)								
1,1,1-Trichloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,1,2,2-Tetrachloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,1,2-Trichloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,1-Dichloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,1-Dichloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,2,4-Trichlorobenzene	SW8260B	0.002 U	-	0.002 U	-	0.002 U	0.002 U	-
1,2-Dibromo-3-chloropropane (DBCP)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,2-Dibromoethane (Ethylene Dibromide)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,2-Dichlorobenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,2-Dichloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,2-Dichloropropane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
1,3-Dichlorobenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-

APPENDIX B-2
SUMMARY OF GROUNDWATER ANALYTICAL
RACER GMPT LIVONIA
LIVONIA, MI

AOI		AOI-33	AOI-33	AOI-38	AOI-38	AOI-40	AOI-40	AOI-40
Location Name		TW-33-105	TW-33-105	TW-38-101	TW-38-101	TW-40-135	TW-40-135	TW-40-135
Sample Name		MW105(08-08-2012)(1445)	TW105(12-10-2012)(1415)	MW101(08-08-2012)(1615)	TW101(12-12-2012)(1100)	DUP-02(08-09-12)	MW135(08-09-2012)(1320)	TW135(12-10-2012)(1600)
Sample Date		8/8/2012	12/10/2012	8/8/2012	12/12/2012	8/9/2012	8/9/2012	12/10/2012
Sample Type		Normal	Normal	Normal	Normal	Field Duplicate	Normal	Normal
Sample Depth (bgs)	Analytical	4 - 9 (ft)	4 - 9 (ft)	2.5 - 7.5 (ft)	2.5 - 7.5 (ft)	5 - 10 (ft)	5 - 10 (ft)	5 - 10 (ft)
Sample Matrix	Method	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Volatile Organic Compounds (mg/L) (con't)								
1,4-Dichlorobenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
2-Butanone (Methyl Ethyl Ketone)	SW8260B	0.02 U	-	0.02 U	-	0.02 U	0.02 U	-
2-Hexanone	SW8260B	0.05 U	-	0.05 U	-	0.05 U	0.05 U	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	SW8260B	0.01 U	-	0.01 U	-	0.01 U	0.01 U	-
Acetone	SW8260B	0.02 U	-	0.02 U	-	0.02 U	0.02 U	-
Benzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Bromodichloromethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Bromoform	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Bromomethane (Methyl Bromide)	SW8260B	0.002 U	-	0.002 U	-	0.002 U	0.002 U	-
Carbon disulfide	SW8260B	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-
Carbon tetrachloride	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Chlorobenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Chloroethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Chloroform (Trichloromethane)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Chloromethane (Methyl Chloride)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
cis-1,2-Dichloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
cis-1,3-Dichloropropene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Cyclohexane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Dibromochloromethane	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Dichlorodifluoromethane (CFC-12)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Ethylbenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Isopropylbenzene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
m&p-Xylene	SW8260B	0.002 U	-	0.002 U	-	0.002 U	0.002 U	-
Methyl acetate	SW8260B	0.01 U	-	0.01 U	-	0.01 U	0.01 U	-
Methyl cyclohexane	SW8260B	0.02 U	-	0.02 U	-	0.02 U	0.02 U	-
Methyl Tert Butyl Ether	SW8260B	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-
Methylene chloride	SW8260B	0.005 U	-	0.005 U	-	0.005 U	0.005 U	-
o-Xylene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Styrene	SW8260B	0.001 UJ	-	0.001 UJ	-	0.001 U	0.001 U	-
Tetrachloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Toluene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
trans-1,2-Dichloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
trans-1,3-Dichloropropene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Trichloroethene	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Trichlorofluoromethane (CFC-11)	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-
Trifluorotrichloroethane (Freon 113)	SW8260B	0.03 U	-	0.03 U	-	0.03 U	0.03 U	-
Vinyl chloride	SW8260B	0.001 U	-	0.001 U	-	0.001 U	0.001 U	-

Notes and Abbreviations:

1. U - Not detected, result below shown reporting limit.
   UJ - Not detected, reporting limit estimated
   J - Estimated result
2. Result in **bold** were detected.

APPENDIX C

Analytical Data Validation Documentation

Data Usability Summary Report (DUSR)
RACER GMPT LIVONIA
Analytical Laboratory: Merit Laboratories, Inc. - East Lansing, MI
Sample Delivery Group # S53273

Analytical results for the project samples were reviewed to evaluate the data usability. Data was assessed in accordance with guidance from the following Federal and/or State guidance documents:

- USEPA National Functional Guidelines for Inorganic Data Review (EPA 540-R-04-004)
- USEPA National Functional Guidelines for Organic Data Review (EPA 540-R-08-01) and/or
  USEPA National Functional Guidelines for Low Concentration Organic Data Review (EPA 540-R-00-006)

and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996, or Standard Methods for the Examination of Water and Wastewater, Eds 18-20.

This DUSR pertains to the following samples:

Sample ID
SB132(07-18-12)(20-22)
SB130(07-18-12)(16-18)
SB159(07-19-12)(7-9)
SB158(07-19-12)(3-5)
SB138(07-19-12)(22.5-24.5)
SB140(07-19-12)(10-12)
SB118(07-19-12)(2-4)
SB171(07-20-12)(10-12)
DUP1(07-20-12)
SB147(07-20-12)(8-10)
SB148(07-20-12)(2.5-4.5)
SB150(07-20-12)(2-4)
DUP2(07-20-12)

Project Samples were analyzed according to the following analytical methods

	Parameter	Analytical Method	Holding Time Criteria
1.	Solids, Total	SM2540G	7 days
2.	ICP/MS Metals	EPA 6020	180 days
3.	Mercury	EPA 7471A	28 days
4.	PCBs	EPA 8082	14 days ext/40 days analysis
5.	VOCs	EPA 8260B	14 days
6.	PAHs	EPA 8270C	14 days ext/40 days analysis

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed

- Holding Times
- GC/MS Instrument Performance Check
- Initial Calibration Procedures
- Continuing Calibration Procedures
- Blank Sample Analysis
- System Monitoring Compound Recoveries
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Internal Standard Recoveries
- Duplicate Sample Analysis
- Field Duplicate Sample Analysis
- ICP Interference Check Sample Performance
- ICP Serial Dilution Replicate Percent Difference
- Target Compound Identification
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Preservation and Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. Nc Qualification of the data is recommended.

Continuing Calibration Procedures

Continuing calibration verification (CCV) procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. No Qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and the common organic laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target analytes were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples. No qualification of the data is recommended.

System Monitoring Compound Recoveries

System monitoring/surrogate compounds are added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. No qualification of the data is recommended.

Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria. No qualification of the data is recommended.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and – 50% of the corresponding CCV standard. No qualification of the data is recommended.

Duplicate Sample Analysis

The replicate percent difference (RPD) was evaluated for each duplicate sample pair to monitor the reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples and 50% for solid matrices, for those target analytes with sample concentrations >5X the MDL. No qualification of the data is recommended.

Field Duplicate Sample Analysis

The overall variability attributable to the sampling procedure, sample matrix, and laboratory procedures, was evaluated by assessing the relative percent difference (RPD) data from field duplicate samples. All calculated RPD values were within matrix specific data quality objectives, with the exception of results qualified "J" as shown in the table(s) below:

	Original Sample ID.	FD Sample ID.		Flag Original and FD
Target Analyte(s)	SB150(07-20-12)(2-4)	DUP2(07-20-12)	%RPD	sample results with:
Copper, Total	2.8 mg/kg	4.72 mg/kg	51%	J

Action:

If the sample matrix is solid and the %RPD is greater than 50%, the original sample results are qualified "J". If the sample matrix is water or air and the %RPD is greater than 35%, the original sample results are qualified "J".

ICP Interference Check Sample Performance

The results of the ICP Interference Check Samples analyzed concurrently with the project samples were all within the acceptance criteria +/- 20% of true value as prescribed by USEPA guidance. No qualification of the data is recommended.

ICP Serial Dilution Replicate Percent Difference

The results of the ICP Serial Dilution samples analyzed concurrently with the project samples were in accordance with the EPA QA acceptance criteria of less than 10% RPD for those target analytes with sample concentrations >50X the MDL. No qualification of the data is recommended.

Target Compound Identification

GC/MS qualitative analysis for organic parameters was performed to remove mis-identifications of the target compounds. The relative retention times (RRT) of all reported target compounds were within +/- 0.06 RRT units of the associated calibration standard RRT, and all ions present in the reference standard spectrum at a relative intensity greater than 10 percent were also present in the sample spectrum. No qualification of the data is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format or equivalent. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No qualification of the data is recommended.

Data Qualifiers

Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels. The laboratory also qualified results when target analytes were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of the data is 100%, with the few exceptions noted above.

Data Usability Summary Report (DUSR)
11950 Livonia Plant
Analytical Laboratory: Merit Laboratories, Inc. - East Lansing, MI
Sample Delivery Group # S53508

Analytical results for the project samples were reviewed to evaluate the data usability. Data was assessed in accordance with guidance from the following Federal and/or State guidance documents:

- USEPA National Functional Guidelines for Inorganic Data Review (EPA 540-R-04-004)
- USEPA National Functional Guidelines for Organic Data Review (EPA 540-R-08-01) and/or
  USEPA National Functional Guidelines for Low Concentration Organic Data Review (EPA 540-R-00-006)

and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996, or Standard Methods for the Examination of Water and Wastewater, Eds 18-20.

This DUSR pertains to the following samples:

Sample ID
MW129(08-08-2012)(1250)
2306-080812-0001
MW105(08-08-2012)(1445)
MW101(08-08-2012)(1615)
2306-080912-0001
MW165(08-09-2012)(0825)
MW139(08-09-2012)(0915)
DUP-01(08-09-12)

Project Samples were analyzed according to the following analytical methods:

	Parameter	Analytical Method	Holding Time Criteria
1.	VOCs	EPA 8260B/624	14 days
2.	ICP/MS Metals	EPA 6020/200.8	180 days
3.	Mercury	E2451.1	28 days
4.	PAHs	EPA 8270C	7 days ext/40 days analysis

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- GC/MS Instrument Performance Check
- Initial Calibration Procedures
- Continuing Calibration Procedures
- Blank Sample Analysis
- System Monitoring Compound Recoveries
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Internal Standard Recoveries
- Duplicate Sample Analysis
- Field Duplicate Sample Analysis
- ICP Interference Check Sample Performance
- ICP Serial Dilution Replicate Percent Difference
- Target Compound Identification
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Preservation and Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. No Qualification of the data is recommended.

Continuing Calibration Procedures

Continuing calibration verification (CCV) procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. No Qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and the common organic laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target analytes were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples. No qualification of the data is recommended.

System Monitoring Compound Recoveries

System monitoring/surrogate compounds are added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria, with the following exception(s):

Surrogate Percent Recovery Criteria				
Surrogate		**Aqueous Matrix (%)**	**Solid Matrix (%)**	
Nitrobenzene-d5	S04	10 - 116	low - high	Base/Neutral
2-Fluorobiphenyl	S05	10 - 114	low - high	Base/Neutral
Terphenyl-d14	S06	10 - 141	low - high	Base/Neutral

										Base/Neutral	
		S01	**S02**	**S03**	**S04**	**S05**	**S06**	**S07**	**S08**	**Positive**	**Non Detect**
Project Sample ID	**Matrix**	**%R**	**%R**	**%R**	**%R**	**%R**	**%R**	**%R**	**%R**	**Results**	**(ND)**
MW105(08-08-2012)(1445)	AQ				7	8.3	10.3			J	R

Base/Neutral Extractable

1,1-Biphenyl, 2,2'-oxybis(1-Chloropropane), 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Fluorobiphenyl, 2-Methylnaphthalene, 2-Nitroaniline, 3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Bromophenyl phenyl ether, 4-Chloroanaline, 4-Chlorophenyl phenyl ether, 4-Nitroaniline, Acenaphthene, Acenaphthylene, Acetophenone, Anthracene, Atrazine, Benzaldehyde, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, bis(2-Chloroethoxy)methane, bis(2-Chloroethyl)ether, bis(2-Ethylhexyl)phthalate, Butylbenzylphthalate, Caprolactam, Carbazole, Chrysene, Dibenz(a,h)anthracene, Dibenzofuran, Diethylphthalate, Dimethylphthalate, Di-n-butylphthalate, Di-n-octylphthalate, Fluoranthene, Fluorene, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane, Indeno(1,2,3-cd)pyrene, Isophorone, Naphthalene, Nitrobenzene, N-Nitroso-di-n-propylamine, N-Nitrosodiphenylamine, Phenanthrene, Pyrene

Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria, with the following exception(s):

LCS ID / Project Sample MS	Type	Target Analyte(s)	%R Criteria	%R	%RPD	Affected Sample(s)
MW105(08-08-2012)(1445)	MS/MSD	Styrene	70 - 127	73.4	142.6	MW129(08-08-2012)(1250) MW105(08-08-2012)(1445) MW101(08-08-2012)(1615) MW165(08-09-2012)(0825) MW139(08-09-2012)(0915) DUP-01(08-09-12)

Action:

If the LCS %R is greater than the upper acceptance limit, associated target analyte positive results are qualified "J" and non-detects should not be qualified. If the LCS %R is less than the lower acceptance limit associated target analyte positive results are qualified "J" and non-detects are qualified "R". If the MS/MSD is from a project sample and the %R greater than the upper acceptance limit, associated target analyte positive results are qualified "J" and non-detects should not be qualified. If the MS/MSD %R is >10%, but less than the lower acceptance limit, associated analyte positive results are qualified "J" and non-detects are qualified "UJ". If the MS/MSD %R is less than 10% associated target analyte positive results are qualified "J" and non-detects are qualified "R". MS/MSD qualifiers are only applied to affected samples of the same matrix. If the MS/MSD is a LAB sample do not qualify project samples.

LCS ID / Project Sample MS	Type	Target Analyte(s)	%R Criteria	%R	%RPD	Affected Sample(s)
MW105(08-08-2012)(1445)	MS	2-Methylnaphthalene	36 - 120	14.2		MW129(08-08-
	MS	Acenaphthene	23 - 114	13.6		MW105(08-08-
	MS	Acenaphthylene	35 - 128	15.6		MW101(08-08-
	MS	Anthracene	32 - 142	16.1		MW165(08-09-
	MS	Benzo(a)anthracene	37 - 135	16.7		MW139(08-09-
	MS	Benzo(b)fluoranthene	29 - 153	17.4		DUP-01(08-09-12)
	MS	Benzo(g,h,i)perylene	45 - 131	14		
	MS	Benzo(k)fluoranthene	30 - 136	14.8		
	MS	Chrysene	39 - 137	16.6		
	MS	Dibenz(a,h)anthracene	45 - 131	14.7		
	MS	Fluorene	38 - 128	16.1		
	MS	Fluoranthene	29 - 136	16.7		
	MS	Indeno(1,2,3-cd)pyrene	39 - 137	14.4		
	MS	Naphthalene	22 - 110	13.6		
	MS	Phenanthrene	36 - 143	13.6		
	MS	Pyrene	32 - 127	16.1		

Action:

If the LCS %R is greater than the upper acceptance limit, associated target analyte positive results are qualified "J" and non-detects should not be qualified. If the LCS %R is less than the lower acceptance limit associated target analyte positive results are qualified "J" and non-detects are qualified "R". If the MS/MSD is from a project sample and the %R greater than the upper acceptance limit, associated target analyte positive results are qualified "J" and non-detects should not be qualified. If the MS/MSD %R is >10%, but less than the lower acceptance limit, associated analyte positive results are qualified "J" and non-detects are qualified "UJ". If the MS/MSD %R is less than 10% associated target analyte positive results are qualified "J" and non-detects are qualified "R". MS/MSD qualifiers are only applied to affected samples of the same matrix. If the MS/MSD is a LAB sample do not qualify project samples.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and – 50% of the corresponding CCV standard. No qualification of the data is recommended.

Duplicate Sample Analysis

The replicate percent difference (RPD) was evaluated for each duplicate sample pair to monitor the reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples and 50% for solid matrices, for those target analytes with sample concentrations >5X the MDL. No qualification of the data is recommended.

Field Duplicate Sample Analysis

The overall variability attributable to the sampling procedure, sample matrix, and laboratory procedures, was evaluated by assessing the relative percent difference (RPD) data from field duplicate samples. All calculated RPD values were within matrix specific data quality objectives, with the exception of results qualified "J" as shown in the table(s) below:

	Original Sample ID.	FD Sample ID.		Flag Original and FD
Target Analyte(s)	MW139(08-09-2012)(0915)	DUP-01(08-09-12)	%RPD	sample results with:
Arsenic, Dissolved	0.006 mg/L	0.011 mg/L	59%	J

Action:

If the sample matrix is solid and the %RPD is greater than 50%, the original sample results are qualified "J". If the sample matrix is water or air and the %RPD is greater than 35%, the original sample results are qualified "J".

ICP Interference Check Sample Performance

The results of the ICP Interference Check Samples analyzed concurrently with the project samples were all within the acceptance criteria +/- 20% of true value as prescribed by USEPA guidance. No qualification of the data is recommended.

ICP Serial Dilution Replicate Percent Difference

The results of the ICP Serial Dilution samples analyzed concurrently with the project samples were in accordance with the EPA QA acceptance criteria of less than 10% RPD for those target analytes with sample concentrations >50X the MDL. No qualification of the data is recommended.

Target Compound Identification

GC/MS qualitative analysis for organic parameters was performed to remove mis-identifications of the target compounds. The relative retention times (RRT) of all reported target compounds were within +/- 0.06 RRT units of the associated calibration standard RRT, and all ions present in the reference standard spectrum at a relative intensity greater than 10 percent were also present in the sample spectrum. No qualification of the data is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format or equivalent. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No qualification of the data is recommended.

Data Qualifiers

Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels. The laboratory also qualified results when target analytes were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of the data is 100%, with the few exceptions noted above.

Data Usability Summary Report (DUSR)
RACER GMPT Livonia
Analytical Laboratory: Merit Laboratories, Inc. - East Lansing, MI
Sample Delivery Group # S54932

Analytical results for the project samples were reviewed to evaluate the data usability. Data was assessed in accordance with guidance from the following Federal and/or State guidance documents:

- USEPA National Functional Guidelines for Inorganic Data Review (EPA 540-R-04-004)

and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996, or Standard Methods for the Examination of Water and Wastewater, Eds 18-20.

This DUSR pertains to the following samples:

Sample ID
TW105(12-10-2012)(1415)
TW105(12-10-2012)(1415)MS
TW105(12-10-2012)(1415)MSD
TW135(12-10-2012)(1600)
TW129(12-11-2012)(1305)
TW152(12-11-2012)(1410)
TW158(12-11-2012)(1610)
DUP-01(12-11-2012)
TW101(12-12-2012)(1100)
TW124(12-12-2012)(1340)
TW137(12-12-2012)(1445)
TW139(12-12-2012)(1650)

Project Samples were analyzed according to the following analytical methods

	Parameter	Analytical Method	Holding Time Criteria
1.	ICP/MS Metals	EPA 6020/200.8	180 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed

- Holding Times
- Initial Calibration Procedures
- Continuing Calibration Procedures
- Blank Sample Analysis
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Duplicate Sample Analysis
- Field Duplicate Sample Analysis
- ICP Interference Check Sample Performance
- ICP Serial Dilution Replicate Percent Difference
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Preservation and Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. No Qualification of the data is recommended.

Continuing Calibration Procedures

Continuing calibration verification (CCV) procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. No Qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and the common organic laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target analytes were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples. No qualification of the data is recommended.

Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria. No qualification of the data is recommended.

Duplicate Sample Analysis

The replicate percent difference (RPD) was evaluated for each duplicate sample pair to monitor the reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples and 50% for solid matrices, for those target analytes with sample concentrations >5X the MDL. No qualification of the data is recommended.

Field Duplicate Sample Analysis

The overall variability attributable to the sampling procedure, sample matrix, and laboratory procedures, was evaluated by assessing the relative percent difference (RPD) data from field duplicate samples. All calculated RPD values were within matrix specific data quality objectives, with the exception of results qualified "J" as shown in the table(s) below:

Target Analyte(s)	Original Sample ID. TW158(12-11-2012)(1610)	FD Sample ID. DUP-01(12-11-2012)	%RPD	Flag Original and FD sample results with:
Arsenic, Dissolved	0.01 mg/L	0.009 mg/L	11%	
Arsenic, Total	0.019 mg/L	0.019 U mg/L	0%	
Lead, Dissolved	0.003 U mg/L	0.003 U mg/L	0%	
Lead, Total	0.003 U mg/L	0.003 U mg/L	0%	

Action:

If the sample matrix is solid and the %RPD is greater than 50%, the original sample results are qualified "J". If the sample matrix is water or air and the %RPD is greater than 35%, the original sample results are qualified "J".

ICP Interference Check Sample Performance

The results of the ICP Interference Check Samples analyzed concurrently with the project samples were all within the acceptance criteria +/- 20% of true value as prescribed by USEPA guidance. No qualification of the data is recommended.

ICP Serial Dilution Replicate Percent Difference

The results of the ICP Serial Dilution samples analyzed concurrently with the project samples were in accordance with the EPA QA acceptance criteria of less than 10% RPD for those target analytes with sample concentrations >50X the MDL. No qualification of the data is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format or equivalent. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No qualification of the data is recommended.

Data Qualifiers

Samples that contain results between the MDL and RL were flagged as estimated, "J", by the laboratory. The data user should be aware that there is a possibility of false positive or mis-identification at the quantitation levels. The laboratory also qualified results when target analytes were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of the data is 100%, with the few exceptions noted above.

APPENDIX D

Laboratory Analytical Data Reports (on CD)

MERIT LABORATORIES, INC.
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HALEY & ALDRICH
37290-014 GMPT LIVONIA

SDG Batch:
52902

Pages 1 - 261

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HALEY & ALDRICH

PROJECT:
37290-014 GMPT LIVONIA

SDG Batch:
52902.01

Prepared by:
Merit Laboratories, Inc.

July 11, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S52902.01 - .02

Deliverable	References		Pages		Checklist	
	Merit	CLP	From	To	Lab	Audit
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	14	☑	☐
4. **Volatiles Data**			15	91		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			92	145		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
6. **PCB Data**			146	194		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
c. Standards Data (All Instruments)						
Initial Calibration of Multicomponent Data	F. 6	F. VI			☑	☐
Chromatograms and Quantitation Reports for all IC Standards					☑	☐
Calibration Check Standard	F. 7b	F. VII			☑	☐
Chromatograms and Quantitation Reports for all CC Standards					☑	☐
d. Raw QC Data						
Chromatograms and Quantitation Reports - Column 1					☑	☐
Chromatograms and Quantitation Reports - Column 2					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
9. **Miscellaneous Data**			256	258		
Preparation / Extraction logbooks					☑	☐
11. **Shipping / Receiving Documents**			259	261		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S52902.01 - .02

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	14	☑	☐
7. **ICP/MS Metals Data**			195	242		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
8. **Mercury Data**			243	254		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
10. **Total Solids Data**			255	255		
Bench Sheet - sample and QC sample evaluation					☑	☐
11. **Shipping / Receiving Documents**			259	261		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: 37290-014 GMPT LIVONIA
Merit IDs: S52902.01-S52902.02

Field Sampling: Megan Castles-Humphrey performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (06/19/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Notes: Dilution test not applicable if measured concentration is less than 100 times MDL.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None.

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120620A3:

- The LCS had high recoveries for the compounds Acetone and 2-Hexanone.
- The blank contained 70.0 ug/kg of 2-Butanone (MEK) and 67.5 ug/kg of Tetrahydrofuran. 2-Butanone (MEK) and Tetrahydrofuran were not found in associated samples.
- The CCC had the compounds Acetone, Chloromethane, and 2-Hexanone outside of control limits.

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PCBs: The organic method utilized for this SDG was 8082A (GC/ECD). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barb Ball
QA Officer

07/12/12
Date

Analytical Laboratory Report

Report ID: S52902.01(01)
Generated on 06/22/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

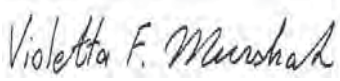
Report Summary

Lab Sample ID(s): S52902.01-S52902.02
Project: 37290-014 GMPT Livonia
Collected Date: 06/18/2012
Submitted Date/Time: 06/19/2012 11:15
Sampled by: M. Castles-Humphry
P.O. #:

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.



Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S52902.01	SB127 (06-18-2012) (3-5)	Soil	06/18/2012 15:45
S52902.02	2306-061812-0001	Methanol	06/18/2012 00:01

Analytical Laboratory Report

Lab Sample ID: S52902.01
Sample Tag: SB127 (06-18-2012) (3-5)
Collected Date/Time: 06/18/2012 15:45
Matrix: Soil
COC Reference: 69201

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	8oz Glass	None	Yes	4.6	IR
1	40ml Glass	MeOH	Yes	4.6	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	06/22/12 12:57	CCM		
Mercury Digestion	Completed			7471A	06/21/12 12:00	JRH		
Metal Digestion	Completed			3050B	06/20/12 10:00	PER		
PNA Extraction	Completed			3550B	06/19/12 21:38	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	06/21/12 13:24	RGS		
Metals								
Arsenic	0.42	mg/kg	0.20	6020	06/20/12 15:46	PER	7440-38-2	
Barium	21.3	mg/kg	1.0	6020	06/20/12 15:46	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	06/20/12 15:46	PER	7440-43-9	
Chromium	1.43	mg/kg	0.50	6020	06/20/12 15:46	PER	7440-47-3	
Copper	2.73	mg/kg	0.50	6020	06/20/12 15:46	PER	7440-50-8	
Lead	2.26	mg/kg	0.30	6020	06/20/12 15:46	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	06/21/12 14:57	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	06/20/12 15:46	PER	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	06/20/12 15:46	PER	7440-22-4	
Zinc	4.36	mg/kg	1.0	6020	06/20/12 15:46	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/22/12 11:23	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	83-32-9	

Lab Sample ID: S52902.01 (continued)
Sample Tag: SB127 (06-18-2012) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	06/21/12 19:39	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	06/20/12 16:14	WAT	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	06/20/12 16:14	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	06/20/12 16:14	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	06/20/12 16:14	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	890	8260B/5035	06/20/12 16:14	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:14	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:14	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	06/20/12 16:14	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:14	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	06/20/12 16:14	WAT	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	06/20/12 16:14	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	06/20/12 16:14	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	78-87-5	

Lab Sample ID: S52902.01 (continued)
Sample Tag: SB127 (06-18-2012) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:14	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	06/20/12 16:14	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT		
o-Xylene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	06/20/12 16:14	WAT	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:14	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	06/20/12 16:14	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	06/20/12 16:14	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:14	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	390	8260B/5035	06/20/12 16:14	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	390	8260B/5035	06/20/12 16:14	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	390	8260B/5035	06/20/12 16:14	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	390	8260B/5035	06/20/12 16:14	WAT	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S52902.02
Sample Tag: 2306-061812-0001
Collected Date/Time: 06/18/2012 00:01
Matrix: Methanol
COC Reference: 69201

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.6	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	06/20/12 16:32	WAT	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	06/20/12 16:32	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	06/20/12 16:32	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	06/20/12 16:32	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	750	8260B/5035	06/20/12 16:32	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:32	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:32	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	06/20/12 16:32	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:32	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	06/20/12 16:32	WAT	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	06/20/12 16:32	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	06/20/12 16:32	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:32	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	06/20/12 16:32	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	630-20-6	

M-Result reported to MDL not RDL

Lab Sample ID: S52902.02 (continued)
Sample Tag: 2306-061812-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT		
o-Xylene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	06/20/12 16:32	WAT	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/20/12 16:32	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	06/20/12 16:32	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:32	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	06/20/12 16:32	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	8260B/5035	06/20/12 16:32	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	8260B/5035	06/20/12 16:32	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	330	8260B/5035	06/20/12 16:32	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	330	8260B/5035	06/20/12 16:32	WAT	91-57-6	

Quality Control Cover Page

Report ID: S52902.01(01)
Report Date: 06/22/2012
Project: 37290-014 GMPT Livonia
Lab Sample ID(s): S52902.01-S52902.02

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S52902.01	SB127 (06-18-2012) (3-5)	06/18/2012 15:45	Soil	Extraction / Prep., Inorganics, Metals,
S52902.02	2306-061812-0001	06/18/2012 00:01	Methanol	Extraction / Prep., Organics

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S52902.01(01)
Generated on 07/09/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S52902.01-S52902.02
Project: 37290-014 GMPT Livonia
Submitted Date/Time: 06/19/2012 11:15
Sampled by: M. Castles-Humphry
P.O. #:

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-3)
Prep Batch Summary (Page 4)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S52902.01
Sample Tag: SB127 (06-18-2012) (3-5)
Collected Date/Time: 06/18/2012 15:45
Matrix: Soil
COC Reference: 69201

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	06/21/12 13:24	TS120620A	TS120620A	No	BLK/LCS/DUP
Metals						
Arsenic	6020	06/20/12 15:46	MT2-12-0620A	MTD-062012-4	No	LCS/BLK/MS/MSD
Barium	6020	06/20/12 15:46	MT2-12-0620A	MTD-062012-4	No	LCS/BLK/MS/MSD
Cadmium	6020	06/20/12 15:46	MT2-12-0620A	MTD-062012-4	No	LCS/BLK/MS/MSD
Chromium	6020	06/20/12 15:46	MT2-12-0620A	MTD-062012-4	No	LCS/BLK/MS/MSD
Copper	6020	06/20/12 15:46	MT2-12-0620A	MTD-062012-4	No	LCS/BLK/MS/MSD
Lead	6020	06/20/12 15:46	MT2-12-0620A	MTD-062012-4	No	LCS/BLK/MS/MSD
Mercury	7471A	06/21/12 14:57	HG2-12-0621A	HGD-062112-2	No	LCS/BLK/MS/MSD
Selenium	6020	06/20/12 15:46	MT2-12-0620A	MTD-062012-4	No	LCS/BLK/MS/MSD
Silver	6020	06/20/12 15:46	MT2-12-0620A	MTD-062012-4	No	LCS/BLK/MS/MSD
Zinc	6020	06/20/12 15:46	MT2-12-0620A	MTD-062012-4	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	8082A	06/22/12 11:23	F120622	PA120622S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	8082A	06/22/12 11:23	F120622	PA120622S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	8270C	06/21/12 19:39	T120621	SP120619S02	Yes	LCS/BLK/LCSD
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	06/20/12 16:14	120620A3	VF120620S2	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S52902.02
Sample Tag: 2306-061812-0001
Collected Date/Time: 06/18/2012 00:01
Matrix: Methanol
COC Reference: 69201

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	06/20/12 16:32	120620A3	VF120620S2	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TS120620A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52902.01	Total Solids	Std M 2540 B	06/21/12 13:24	TS120620A

Metals, Prep Batch ID: HGD-062112-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52902.01	Mercury	7471A	06/21/12 14:57	HG2-12-0621A

Metals, Prep Batch ID: MTD-062012-4

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52902.01	Arsenic	6020	06/20/12 15:46	MT2-12-0620A
S52902.01	Barium	6020	06/20/12 15:46	MT2-12-0620A
S52902.01	Cadmium	6020	06/20/12 15:46	MT2-12-0620A
S52902.01	Chromium	6020	06/20/12 15:46	MT2-12-0620A
S52902.01	Copper	6020	06/20/12 15:46	MT2-12-0620A
S52902.01	Lead	6020	06/20/12 15:46	MT2-12-0620A
S52902.01	Selenium	6020	06/20/12 15:46	MT2-12-0620A
S52902.01	Silver	6020	06/20/12 15:46	MT2-12-0620A
S52902.01	Zinc	6020	06/20/12 15:46	MT2-12-0620A

Organics - PCBs/Pesticides, Prep Batch ID: PA120622S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52902.01	TCL PCB List (Column 1)	8082A	06/22/12 11:23	F120622
S52902.01	TCL PCB List (Column 2)	8082A	06/22/12 11:23	F120622

Organics - Semi-Volatiles, Prep Batch ID: SP120619S02

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52902.01	Polynuclear Aromatics	8270C	06/21/12 19:39	T120621

Organics - Volatiles, Prep Batch ID: VF120620S2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52902.01	Volatile Organics 5035	8260B/5035	06/20/12 16:14	120620A3
S52902.02	Volatile Organics 5035	8260B/5035	06/20/12 16:32	120620A3

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb20a.d	06/20/12 11:22	50ng/bfb 1s0620 [none]	WW	IP		
spcc20a.d	06/20/12 12:04	spcc/ccc 1s0620 1v0620 [none]	WW	CV	**4**	
lcss20a.d	06/20/12 12:35	blank ms 1s0620 1m0620 vf120620s2	SO	MS	**3**	
lcss20b.d	06/20/12 12:53	blank msd 1s0620 1m0620 vf120620s2	SO	MS		
blks20a.d	06/20/12 14:06	100ul blank 1s0620 vf120620s2	SO	Bl		
5290201.d	06/20/12 16:14	100ul 1s0620 vf120620s2	SO			
5290202.d	06/20/12 16:32	100ul 1s0620 vf120620s2	SO			

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 1
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
spcc20a.d	4-Bromofluorobenzene	50.6/ 50.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	42.0/ 50.0	n/a	77.0/121.0	
	Toluene-D8	46.8/ 50.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcss20a.d	4-Bromofluorobenzene	50.9/ 50.0	101.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	42.1/ 50.0	84.3	71.0/124.0	
	Toluene-D8	47.1/ 50.0	94.1	83.0/120.0	
				Total Outliers: 0	
lcss20b.d	4-Bromofluorobenzene	51.6/ 50.0	103.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.8/ 50.0	89.5	71.0/124.0	
	Toluene-D8	46.8/ 50.0	93.6	83.0/120.0	
				Total Outliers: 0	
blks20a.d	4-Bromofluorobenzene	51.8/ 50.0	103.6	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.6/ 50.0	91.1	71.0/124.0	
	Toluene-D8	46.9/ 50.0	93.9	83.0/120.0	
				Total Outliers: 0	
5290201.d	4-Bromofluorobenzene	50.2/ 50.0	100.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.4/ 50.0	86.8	71.0/124.0	
	Toluene-D8	46.8/ 50.0	93.6	83.0/120.0	
				Total Outliers: 0	
5290202.d	4-Bromofluorobenzene	50.0/ 50.0	100.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.2/ 50.0	88.4	71.0/124.0	
	Toluene-D8	47.4/ 50.0	94.7	83.0/120.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcss20b.d			
Dup ID : LCS1			
Prep Batch: vf120620s2			
Prep Date : 06/20/12			
Parent File: lcss20a.d			
1,1,2-trichloro-1,2,2-trifluoroethane	50.20/ 49.47	1.5/25.0	SO
diethyl ether (*)	44.75/ 45.09	0.8/25.0	
acetone (*)	77.07/ 84.82	9.6/25.0	
methyl iodide (iodomethane) (*)	50.19/ 49.81	0.8/25.0	
carbon disulfide (*)	54.32/ 53.57	1.4/25.0	
methyl acetate	48.19/ 48.01	0.4/25.0	
tert-methyl butyl ether (mtbe) (*)	48.68/ 50.06	2.8/25.0	
acrylonitrile (*)	49.19/ 48.94	0.5/25.0	
2-butanone (mek) (*)	59.95/ 63.23	5.3/25.0	
dichlorodifluoromethane	51.93/ 52.71	1.5/25.0	
chloromethane (spcc)	47.01/ 47.02	0.0/25.0	
vinyl chloride (ccc)	52.74/ 52.83	0.2/25.0	
bromomethane	44.70/ 45.45	1.7/25.0	
chloroethane	43.83/ 43.65	0.4/25.0	
trichlorofluoromethane	50.67/ 50.04	1.3/25.0	
1,1-dichloroethene (ccc/ms)	44.31/ 43.88	1.0/25.0	
methylene chloride	47.22/ 47.22	0.0/25.0	
trans-1,2-dichloroethene	48.36/ 48.77	0.8/25.0	
1,1-dichloroethane (spcc)	47.48/ 47.83	0.7/25.0	
cis-1,2-dichloroethene	48.08/ 48.89	1.7/25.0	
tetrahydrofuran	47.24/ 48.22	2.1/25.0	
chloroform (ccc)	47.95/ 48.21	0.5/25.0	
bromochloromethane	47.53/ 48.05	1.1/25.0	
1,1,1-trichloroethane	49.97/ 49.86	0.2/25.0	
1,1-dichloropropene	2.44/ 2.41	1.2/25.0	
cyclohexane	40.01/ 39.52	1.2/25.0	
4-methyl-2-pentanone (mibk) (*)	53.86/ 55.24	2.5/25.0	
2-hexanone (*)	66.97/ 72.91	8.5/25.0	
carbon tetrachloride	55.34/ 56.19	1.5/25.0	
benzene (ms)	50.78/ 51.64	1.7/25.0	
1,2-dichloroethane	50.49/ 51.30	1.6/25.0	
trichloroethene (ms)	51.81/ 52.70	1.7/25.0	
1,2-dichloropropane (ccc)	50.94/ 52.14	2.3/25.0	
bromodichloromethane	53.92/ 55.25	2.4/25.0	
methyl cyclohexane	52.70/ 52.98	0.5/25.0	
dibromomethane	55.14/ 54.94	0.4/25.0	
cis-1,3-dichloropropene	54.04/ 54.90	1.6/25.0	
toluene (ccc/ms)	50.37/ 51.26	1.8/25.0	
trans-1,3-dichloropropene	56.68/ 57.11	0.8/25.0	
1,1,2-trichloroethane	51.92/ 52.62	1.3/25.0	
tetrachloroethene	51.37/ 53.22	3.5/25.0	
trans-1,4-dichloro-2-butene	53.67/ 53.35	0.6/25.0	
dibromochloromethane	54.19/ 54.14	0.1/25.0	
1,2-dibromoethane	55.20/ 54.76	0.8/25.0	
chlorobenzene (spcc/ms)	51.21/ 52.39	2.3/25.0	
1,1,1,2-tetrachloroethane	54.59/ 54.90	0.6/25.0	
ethylbenzene (ccc)	51.82/ 52.68	1.6/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
p,m-xylene	104.19/105.49	1.2/25.0	
o-xylene	52.79/ 52.23	1.1/25.0	
styrene	52.19/ 52.85	1.3/25.0	
isopropylbenzene	51.13/ 52.10	1.9/25.0	
bromoform (spcc)	55.70/ 56.29	1.1/25.0	
1,1,2,2-tetrachloroethane (spcc)	52.59/ 52.32	0.5/25.0	
1,2,3-trichloropropane	54.04/ 54.60	1.0/25.0	
n-propylbenzene	53.02/ 53.73	1.3/25.0	
bromobenzene	53.42/ 54.92	2.8/25.0	
1,3,5-trimethylbenzene	53.15/ 53.39	0.5/25.0	
tert-butylbenzene	51.80/ 52.45	1.2/25.0	
1,2,4-trimethylbenzene	53.15/ 53.65	0.9/25.0	
sec-butylbenzene	49.08/ 50.25	2.4/25.0	
p-isopropyltoluene	51.92/ 52.25	0.6/25.0	
1,3-dichlorobenzene	51.27/ 52.27	1.9/25.0	
1,4-dichlorobenzene	48.53/ 50.36	3.7/25.0	
1,2-dichlorobenzene	50.66/ 50.99	0.6/25.0	
1,2,3-trimethylbenzene	48.85/ 49.32	1.0/25.0	
n-butylbenzene	50.18/ 51.41	2.4/25.0	
hexachloroethane	54.05/ 54.02	0.1/25.0	
1,2-dibromo-3-chloropropane	55.88/ 56.27	0.7/25.0	
1,2,4-trichlorobenzene	55.28/ 55.20	0.1/25.0	
1,2,3-trichlorobenzene	54.98/ 53.87	2.0/25.0	
naphthalene	53.97/ 54.61	1.2/25.0	
2-methylnaphthalene	59.92/ 58.90	1.7/25.0	
[end of compound list]			
		Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss20a.d
Spike ID : LCS1
Prep Batch: vf120620s2
Prep Date : 06/20/12
Parent File: blks20a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	49.47/	0.00	50.00	98.9	56.9/138.1	SO
Diethyl ether	45.09/	0.00	50.00	90.2	51.7/123.0	
Acetone	84.82/	0.00	50.00	169.6*	25.3/155.1	
Methyl iodide	49.81/	0.00	50.00	99.6	56.9/110.8	
Carbon disulfide	53.57/	0.00	50.00	107.1	57.0/123.0	
Methyl acetate	48.01/	0.00	50.00	96.0	54.4/133.5	
tert-Methyl butyl ether	50.06/	0.00	50.00	100.1	67.5/123.7	
Acrylonitrile	48.94/	0.00	50.00	97.9	58.7/133.0	
2-Butanone	63.23/	1.40	50.00	126.5	38.7/136.9	
Dichlorodifluoromethane	52.71/	0.00	50.00	105.4	10.0/171.8	
Chloromethane	47.02/	0.00	50.00	94.0	30.2/152.7	
Vinyl Chloride	52.83/	0.00	50.00	105.7	45.3/138.7	
Bromomethane	45.45/	0.00	50.00	90.9	10.0/157.4	
Chloroethane	43.65/	0.00	50.00	87.3	10.0/169.1	
Trichlorofluoromethane	50.04/	0.00	50.00	100.1	25.7/157.8	
1,1-Dichloroethene	43.88/	0.00	50.00	87.8	59.2/137.5	
Methylene Chloride	47.22/	0.00	50.00	94.4	70.5/121.5	
trans-1,2-Dichloroethene	48.77/	0.00	50.00	97.5	72.5/128.8	
1,1-Dichloroethane	47.83/	0.00	50.00	95.7	72.5/123.4	
cis-1,2-Dichloroethene	48.89/	0.00	50.00	97.8	75.0/120.5	
Tetrahydrofuran	48.22/	1.35	50.00	96.4	48.2/125.7	
Chloroform	48.21/	0.00	50.00	96.4	74.6/123.2	
Bromochloromethane	48.05/	0.00	50.00	96.1	72.3/122.8	
1,1,1-Trichloroethane	49.86/	0.00	50.00	99.7	73.8/128.9	
Cyclohexane	39.52/	0.00	50.00	79.0	42.4/147.1	
4-Methyl-2-pentanone	55.24/	0.00	50.00	110.5	60.4/133.8	
2-Hexanone	72.91/	0.00	50.00	145.8*	45.7/141.9	
Carbon Tetrachloride	56.19/	0.00	50.00	112.4	70.1/132.7	
Benzene	51.64/	0.00	50.00	103.3	74.6/128.9	
1,2-Dichloroethane	51.30/	0.00	50.00	102.6	73.2/125.4	
Trichloroethene	52.70/	0.00	50.00	105.4	74.1/127.6	
1,2-Dichloropropane	52.14/	0.00	50.00	104.3	77.6/124.4	
Bromodichloromethane	55.25/	0.00	50.00	110.5	76.7/128.4	
Methyl cyclohexane	52.98/	0.00	50.00	106.0	53.7/148.2	
Dibromomethane	54.94/	0.00	50.00	109.9	72.5/127.3	
cis-1,3-Dichloropropene	54.90/	0.00	50.00	109.8	79.3/128.3	
Toluene	51.26/	0.00	50.00	102.5	74.8/129.2	
trans-1,3-Dichloropropene	57.11/	0.00	50.00	114.2	74.5/129.7	
1,1,2-Trichloroethane	52.62/	0.00	50.00	105.2	71.3/125.7	
Tetrachloroethene	53.22/	0.00	50.00	106.4	73.0/124.7	
trans-1,4-Dichloro-2-butene	53.35/	0.00	50.00	106.7	58.3/143.3	
Dibromochloromethane	54.14/	0.00	50.00	108.3	68.9/132.7	
1,2-Dibromoethane	54.76/	0.00	50.00	109.5	71.4/129.3	
Chlorobenzene	52.39/	0.00	50.00	104.8	74.2/128.1	
1,1,1,2-Tetrachloroethane	54.90/	0.00	50.00	109.8	76.6/133.0	
Ethylbenzene	52.68/	0.00	50.00	105.4	77.7/130.4	
p,m-Xylene	105.49/	0.00	100.00	105.5	79.8/132.0	
o-Xylene	52.23/	0.00	50.00	104.5	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	52.85/	0.00	50.00	105.7	71.3/119.3	
Isopropylbenzene	52.10/	0.00	50.00	104.2	70.3/128.2	
Bromoform	56.29/	0.00	50.00	112.6	54.7/137.4	
1,1,2,2-Tetrachloroethane	52.32/	0.00	50.00	104.6	65.4/134.9	
1,2,3-Trichloropropane	54.60/	0.00	50.00	109.2	67.2/154.5	
n-Propylbenzene	53.73/	0.00	50.00	107.5	77.3/135.2	
Bromobenzene	54.92/	0.00	50.00	109.8	74.0/132.4	
1,3,5-Trimethylbenzene	53.39/	0.00	50.00	106.8	75.6/137.0	
tert-Butylbenzene	52.45/	0.00	50.00	104.9	75.6/134.6	
1,2,4-Trimethylbenzene	53.65/	0.00	50.00	107.3	76.9/139.1	
sec-Butylbenzene	50.25/	0.00	50.00	100.5	72.7/135.6	
p-Isopropyltoluene	52.25/	0.00	50.00	104.5	77.1/140.9	
1,3-Dichlorobenzene	52.27/	0.00	50.00	104.5	77.3/131.0	
1,4-Dichlorobenzene	50.36/	0.00	50.00	100.7	33.1/125.8	
1,2-Dichlorobenzene	50.99/	0.00	50.00	102.0	73.5/132.7	
1,2,3-Trimethylbenzene	49.32/	0.00	50.00	98.6	70.9/130.2	
n-Butylbenzene	51.41/	0.00	50.00	102.8	75.0/138.6	
Hexachloroethane	54.02/	0.00	50.00	108.0	55.5/129.0	
1,2-Dibromo-3-Chloropropane	56.27/	0.00	50.00	112.5	54.1/156.4	
1,2,4-Trichlorobenzene	55.20/	0.00	50.00	110.4	37.1/131.3	
1,2,3-Trichlorobenzene	53.87/	0.00	50.00	107.7	59.4/157.9	
Naphthalene	54.61/	0.00	50.00	109.2	39.3/129.2	
2-Methylnaphthalene	58.90/	0.00	50.00	117.8	10.0/175.9	
					Total Outliers:	**2**

Spike File : lcss20b.d
Spike ID : LCS1
Prep Batch: vf120620s2
Prep Date : 06/20/12
Parent File: blks20a.d

1,1,2-Trichloro-1,2,2-trifluor	50.20/	0.00	50.00	100.4	56.9/138.1	SO
Diethyl ether	44.75/	0.00	50.00	89.5	51.7/123.0	
Acetone	77.07/	0.00	50.00	154.1	25.3/155.1	
Methyl iodide	50.19/	0.00	50.00	100.4	56.9/110.8	
Carbon disulfide	54.32/	0.00	50.00	108.6	57.0/123.0	
Methyl acetate	48.19/	0.00	50.00	96.4	54.4/133.5	
tert-Methyl butyl ether	48.68/	0.00	50.00	97.4	67.5/123.7	
Acrylonitrile	49.19/	0.00	50.00	98.4	58.7/133.0	
2-Butanone	59.95/	1.40	50.00	119.9	38.7/136.9	
Dichlorodifluoromethane	51.93/	0.00	50.00	103.9	10.0/171.8	
Chloromethane	47.01/	0.00	50.00	94.0	30.2/152.7	
Vinyl Chloride	52.74/	0.00	50.00	105.5	45.3/138.7	
Bromomethane	44.70/	0.00	50.00	89.4	10.0/157.4	
Chloroethane	43.83/	0.00	50.00	87.7	10.0/169.1	
Trichlorofluoromethane	50.67/	0.00	50.00	101.3	25.7/157.8	
1,1-Dichloroethene	44.31/	0.00	50.00	88.6	59.2/137.5	
Methylene Chloride	47.22/	0.00	50.00	94.4	70.5/121.5	
trans-1,2-Dichloroethene	48.36/	0.00	50.00	96.7	72.5/128.8	
1,1-Dichloroethane	47.48/	0.00	50.00	95.0	72.5/123.4	
cis-1,2-Dichloroethene	48.08/	0.00	50.00	96.2	75.0/120.5	
Tetrahydrofuran	47.24/	1.35	50.00	94.5	48.2/125.7	
Chloroform	47.95/	0.00	50.00	95.9	74.6/123.2	
Bromochloromethane	47.53/	0.00	50.00	95.1	72.3/122.8	
1,1,1-Trichloroethane	49.97/	0.00	50.00	99.9	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	40.01/	0.00	50.00	80.0	42.4/147.1	
4-Methyl-2-pentanone	53.86/	0.00	50.00	107.7	60.4/133.8	
2-Hexanone	66.97/	0.00	50.00	133.9	45.7/141.9	
Carbon Tetrachloride	55.34/	0.00	50.00	110.7	70.1/132.7	
Benzene	50.78/	0.00	50.00	101.6	74.6/128.9	
1,2-Dichloroethane	50.49/	0.00	50.00	101.0	73.2/125.4	
Trichloroethene	51.81/	0.00	50.00	103.6	74.1/127.6	
1,2-Dichloropropane	50.94/	0.00	50.00	101.9	77.6/124.4	
Bromodichloromethane	53.92/	0.00	50.00	107.8	76.7/128.4	
Methyl cyclohexane	52.70/	0.00	50.00	105.4	53.7/148.2	
Dibromomethane	55.14/	0.00	50.00	110.3	72.5/127.3	
cis-1,3-Dichloropropene	54.04/	0.00	50.00	108.1	79.3/128.3	
Toluene	50.37/	0.00	50.00	100.7	74.8/129.2	
trans-1,3-Dichloropropene	56.68/	0.00	50.00	113.4	74.5/129.7	
1,1,2-Trichloroethane	51.92/	0.00	50.00	103.8	71.3/125.7	
Tetrachloroethene	51.37/	0.00	50.00	102.7	73.0/124.7	
trans-1,4-Dichloro-2-butene	53.67/	0.00	50.00	107.3	58.3/143.3	
Dibromochloromethane	54.19/	0.00	50.00	108.4	68.9/132.7	
1,2-Dibromoethane	55.20/	0.00	50.00	110.4	71.4/129.3	
Chlorobenzene	51.21/	0.00	50.00	102.4	74.2/128.1	
1,1,1,2-Tetrachloroethane	54.59/	0.00	50.00	109.2	76.6/133.0	
Ethylbenzene	51.82/	0.00	50.00	103.6	77.7/130.4	
p,m-Xylene	104.19/	0.00	100.00	104.2	79.8/132.0	
o-Xylene	52.79/	0.00	50.00	105.6	79.4/132.3	
Styrene	52.19/	0.00	50.00	104.4	71.3/119.3	
Isopropylbenzene	51.13/	0.00	50.00	102.3	70.3/128.2	
Bromoform	55.70/	0.00	50.00	111.4	54.7/137.4	
1,1,2,2-Tetrachloroethane	52.59/	0.00	50.00	105.2	65.4/134.9	
1,2,3-Trichloropropane	54.04/	0.00	50.00	108.1	67.2/154.5	
n-Propylbenzene	53.02/	0.00	50.00	106.0	77.3/135.2	
Bromobenzene	53.42/	0.00	50.00	106.8	74.0/132.4	
1,3,5-Trimethylbenzene	53.15/	0.00	50.00	106.3	75.6/137.0	
tert-Butylbenzene	51.80/	0.00	50.00	103.6	75.6/134.6	
1,2,4-Trimethylbenzene	53.15/	0.00	50.00	106.3	76.9/139.1	
sec-Butylbenzene	49.08/	0.00	50.00	98.2	72.7/135.6	
p-Isopropyltoluene	51.92/	0.00	50.00	103.8	77.1/140.9	
1,3-Dichlorobenzene	51.27/	0.00	50.00	102.5	77.3/131.0	
1,4-Dichlorobenzene	48.53/	0.00	50.00	97.1	33.1/125.8	
1,2-Dichlorobenzene	50.66/	0.00	50.00	101.3	73.5/132.7	
1,2,3-Trimethylbenzene	48.85/	0.00	50.00	97.7	70.9/130.2	
n-Butylbenzene	50.18/	0.00	50.00	100.4	75.0/138.6	
Hexachloroethane	54.05/	0.00	50.00	108.1	55.5/129.0	
1,2-Dibromo-3-Chloropropane	55.88/	0.00	50.00	111.8	54.1/156.4	
1,2,4-Trichlorobenzene	55.28/	0.00	50.00	110.6	37.1/131.3	
1,2,3-Trichlorobenzene	54.98/	0.00	50.00	110.0	59.4/157.9	
Naphthalene	53.97/	0.00	50.00	107.9	39.3/129.2	
2-Methylnaphthalene	59.92/	0.00	50.00	119.8	10.0/175.9	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks20a.d (100ul blank 1s0620)
Blank ID : BLANK1
Prep Batch: vf120620s2
Prep Date : 06/20/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		5.6	50
Diethyl ether (*)	Not detected		7.1	50
Acetone (*)	Not detected		140	500
Methyl iodide (iodomethane) (*	Not detected		7.3	50
Carbon disulfide (*)	Not detected		8.2	50
Methyl Acetate	Not detected		15	500
tert-Methyl butyl ether (MTBE)	Not detected		8.8	50
Acrylonitrile (*)	Not detected		14	50
2-Butanone (MEK) (*)	1.40	70.0	24	500
Dichlorodifluoromethane	Not detected		12	50
Chloromethane (SPCC)	Not detected		12	50
Vinyl Chloride (CCC)	Not detected		9.2	50
Bromomethane	Not detected		10	50
Chloroethane	Not detected		8.8	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		10	50
1,1-Dichloroethene (CCC/MS)	Not detected		9.9	50
Methylene Chloride	Not detected		9.4	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		9.2	50
cis-1,2-Dichloroethene	Not detected		9.1	50
Tetrahydrofuran	1.35	67.5	49	500
Chloroform (CCC)	Not detected		7.1	50
Bromochloromethane	Not detected		6.7	50
1,1,1-Trichloroethane	Not detected		6.2	50
1,1-Dichloropropene	Not detected		10	50
Cyclohexane	Not detected		14	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		17	50
2-Hexanone (*)	Not detected		10	500
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		6.7	50
Benzene (MS)	Not detected		10	50
1,2-Dichloroethane	Not detected		9.2	50
Trichloroethene (MS)	Not detected		8.8	50
1,2-Dichloropropane (CCC)	Not detected		14	50
Bromodichloromethane	Not detected		7.0	50
Methyl Cyclohexane	Not detected		12	50
Dibromomethane	Not detected		8.3	50
cis-1,3-Dichloropropene	Not detected		8.3	50
Toluene (CCC/MS)	Not detected		9.4	50
trans-1,3-Dichloropropene	Not detected		5.3	50
1,1,2-Trichloroethane	Not detected		11	50
Tetrachloroethene	Not detected		10	50
trans-1,4-Dichloro-2-butene	Not detected		14	50
Dibromochloromethane	Not detected		7.3	50
1,2-Dibromoethane	Not detected		7.5	50
Chlorobenzene (SPCC/MS)	Not detected		9.0	50
1,1,1,2-Tetrachloroethane	Not detected		9.1	50
Ethylbenzene (CCC)	Not detected		9.8	50
p,m-Xylene	Not detected		20	50
o-Xylene	Not detected		8.2	50
Styrene	Not detected		8.2	50
Isopropylbenzene	Not detected		9.8	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks20a.d (100ul blank 1s0620)
Blank ID : BLANK1
Prep Batch: vf120620s2
Prep Date : 06/20/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		5.8	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.4	50
1,2,3-Trichloropropane	Not detected		11	50
n-Propylbenzene	Not detected		8.3	50
Bromobenzene	Not detected		10	50
1,3,5-Trimethylbenzene	Not detected		7.1	50
tert-Butylbenzene	Not detected		9.7	50
1,2,4-Trimethylbenzene	Not detected		7.6	50
sec-Butylbenzene	Not detected		9.1	50
p-Isopropyltoluene	Not detected		9.9	50
1,3-Dichlorobenzene	Not detected		11	50
1,4-Dichlorobenzene	Not detected		7.5	50
1,2-Dichlorobenzene	Not detected		8.6	50
1,2,3-Trimethylbenzene	Not detected		4.0	50
n-Butylbenzene	Not detected		9.4	50
Hexachloroethane	Not detected		3.2	50
1,2-Dibromo-3-Chloropropane	Not detected		18	50
1,2,4-Trichlorobenzene	Not detected		9.8	50
Hexachlorobutadiene	Not detected		9.8	50
1,2,3-Trichlorobenzene	Not detected		8.1	50
Naphthalene	Not detected		8.5	50
2-Methylnaphthalene	Not detected		12	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks20a.d
Method Blank Prep Date: 06/20/12
Blank/LCS Preparation Batch: vf120620s2

LCS Data File: lcss20a.d
LCS Prep Date: 06/20/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52862.08	120620A3	VF120620S2	06/20/12	Volatile Organics 5035	$58260
S52862.09	120620A3	VF120620S2	06/20/12	Volatile Organics 5035	$58260
S52862.18	120620A3	VF120620S2	06/20/12	Volatile Organics 5035	$58260
S52862.19	120620A3	VF120620S2	06/20/12	Volatile Organics 5035	$58260
S52899.05	120620A3	VF120620S2	06/20/12	Volatile Organics 5035	$58260
S52902.01	120620A3	VF120620S2	06/20/12	Volatile Organics 5035	$58260
S52902.02	120620A3	VF120620S2	06/20/12	Volatile Organics 5035	$58260
S52907.02	120620A3	VF120620S2	06/20/12	BTEX 5035	$5BTX826
S52907.03	120620A3	VF120620S2	06/20/12	BTEX 5035	$5BTX826
S52907.04	120620A3	VF120620S2	06/20/12	BTEX 5035	$5BTX826
S52907.05	120620A3	VF120620S2	06/20/12	BTEX 5035	$5BTX826
S52907.06	120620A3	VF120620S2	06/20/12	BTEX 5035	$5BTX826
S52907.07	120620A3	VF120620S2	06/20/12	BTEX 5035	$5BTX826
S52907.08	120620A3	VF120620S2	06/20/12	BTEX 5035	$5BTX826
S52907.09	120620A3	VF120620S2	06/20/12	BTEX 5035	$5BTX826

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb20a.d	06/20/12 11:22	50	95	8.0	40.0	21.7	15508	PASS
		75	95	30.0	66.0	51.9	37104	PASS
		95	95	100.0	100.0	100.0	71488	PASS
		96	95	5.0	9.0	6.5	4627	PASS
		173	174	0.0	2.0	0.6	276	PASS
		174	95	50.0	120.0	66.2	47344	PASS
		175	174	4.0	9.0	7.1	3383	PASS
		176	174	93.0	101.0	96.7	45760	PASS
		177	176	5.0	9.0	5.1	2318	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc20a.d	06/20/12 12:04	Pentafluorobenzene	533468/ 3.99	266734- 1066936	3.49- 4.49
		1,4-Difluorobenzene	947911/ 4.35	473956- 1895822	3.85- 4.85
		Chlorobenzene-D5	526926/ 5.72	263463- 1053852	5.22- 6.22
		1,4-Dichlorobenzene-D4	381089/ 6.81	190545- 762178	6.31- 7.31
				Total Outliers: N/A	
lcss20a.d	06/20/12 12:35	Pentafluorobenzene	538885/ 3.99	Ratio: 1.010	Diff.: 0.00
		1,4-Difluorobenzene	938613/ 4.35	Ratio: 0.990	Diff.: 0.00
		Chlorobenzene-D5	524803/ 5.72	Ratio: 0.996	Diff.: 0.00
		1,4-Dichlorobenzene-D4	383415/ 6.81	Ratio: 1.006	Diff.: 0.00
				Total Outliers: 0	
lcss20b.d	06/20/12 12:53	Pentafluorobenzene	546546/ 3.99	Ratio: 1.025	Diff.: 0.00
		1,4-Difluorobenzene	956928/ 4.35	Ratio: 1.010	Diff.: 0.00
		Chlorobenzene-D5	532054/ 5.72	Ratio: 1.010	Diff.: 0.00
		1,4-Dichlorobenzene-D4	394353/ 6.81	Ratio: 1.035	Diff.: 0.00
				Total Outliers: 0	
blks20a.d	06/20/12 14:06	Pentafluorobenzene	491208/ 3.99	Ratio: 0.921	Diff.: 0.00
		1,4-Difluorobenzene	895345/ 4.35	Ratio: 0.945	Diff.: 0.00
		Chlorobenzene-D5	508491/ 5.72	Ratio: 0.965	Diff.: 0.00
		1,4-Dichlorobenzene-D4	379428/ 6.81	Ratio: 0.996	Diff.: 0.00
				Total Outliers: 0	
5290201.d	06/20/12 16:14	Pentafluorobenzene	524322/ 3.99	Ratio: 0.983	Diff.: 0.00
		1,4-Difluorobenzene	933798/ 4.35	Ratio: 0.985	Diff.: 0.00
		Chlorobenzene-D5	521616/ 5.72	Ratio: 0.990	Diff.: 0.00
		1,4-Dichlorobenzene-D4	383017/ 6.80	Ratio: 1.005	Diff.: -0.01
				Total Outliers: 0	
5290202.d	06/20/12 16:32	Pentafluorobenzene	535285/ 3.99	Ratio: 1.003	Diff.: 0.00
		1,4-Difluorobenzene	961868/ 4.35	Ratio: 1.015	Diff.: 0.00
		Chlorobenzene-D5	544860/ 5.72	Ratio: 1.034	Diff.: 0.00
		1,4-Dichlorobenzene-D4	397242/ 6.80	Ratio: 1.042	Diff.: -0.01
				Total Outliers: 0	

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120620a3.3

LIMS ID: S52902.01
Data File: 5290201.d
Date Received: 06/19/12

Tag: SB127 (06-18-2012) (3-5)
Notes: 100ul 1s0620
s/50 id:vf120620s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 59

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	200	8.3	ug/kg	06/20/12	
67-64-1	Acetone	Not detected	1000	170	ug/kg		
74-88-4	Methyl iodide	Not detected	100	8.6	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.6	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	200	10	ug/kg		
107-13-1	Acrylonitrile	Not detected	100	17	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	890	29	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	300	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	60	11	ug/kg		
74-83-9	Bromomethane	Not detected	200	12	ug/kg		
75-00-3	Chloroethane	Not detected	300	10	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	12	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	12	ug/kg		
75-09-2	Methylene chloride	Not detected	100	11	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10.0	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	11	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	1000	57	ug/kg		
67-66-3	Chloroform	Not detected	60	8.4	ug/kg		
74-97-5	Bromochloromethane	Not detected	100	7.9	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.3	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	20	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	12	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	7.9	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	11	ug/kg		
79-01-6	Trichloroethene	Not detected	60	10	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	17	ug/kg		
75-27-4	Bromodichloromethane	Not detected	100	8.3	ug/kg		
74-95-3	Dibromomethane	Not detected	300	9.8	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.8	ug/kg		
108-88-3	Toluene	Not detected	100	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	6.2	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	12	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	60	16	ug/kg		
124-48-1	Dibromochloromethane	Not detected	100	8.6	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	20	8.9	ug/kg		M
108-90-7	Chlorobenzene	Not detected	60	11	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	100	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	100	23	ug/kg		
95-47-6	o-Xylene	Not detected	60	9.6	ug/kg		
100-42-5	Styrene	Not detected	60	9.7	ug/kg		
98-82-8	Isopropylbenzene	Not detected	300	12	ug/kg		
75-25-2	Bromoform	Not detected	100	6.8	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.7	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	100	13	ug/kg		
103-65-1	n-Propylbenzene	Not detected	100	9.8	ug/kg		
108-86-1	Bromobenzene	Not detected	100	12	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	100	8.3	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	60	11	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	100	8.9	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	60	11	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	100	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	100	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	100	8.9	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	100	10	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	100	4.7	ug/kg		
104-51-8	n-Butylbenzene	Not detected	60	11	ug/kg		
67-72-1	Hexachloroethane	Not detected	400	3.8	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	300	21	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	390	12	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	390	9.6	ug/kg		
91-20-3	Naphthalene	Not detected	390	10	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	390	14	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120620a3.3

LIMS ID: S52902.01
Data File: 5290201.d
Date Received: 06/19/12

Tag: SB127 (06-18-2012) (3-5)
Notes: 100ul 1s0620
s/50 id:vf120620s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 59

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Total Solids							
TSOLIDS	Total Solids	91	1		%	06/21/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/20/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (87%)				06/20/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (94%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120620a3.3

LIMS ID: S52902.02
Data File: 5290202.d
Date Received: 06/19/12

Tag: 2306-061812-0001
Notes: 100ul 1s0620
s/50 id:vf120620s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	200	7.1	ug/kg	06/20/12	
67-64-1	Acetone	Not detected	1000	140	ug/kg		
74-88-4	Methyl iodide	Not detected	100	7.3	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.2	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	200	8.8	ug/kg		
107-13-1	Acrylonitrile	Not detected	100	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	750	24	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	300	12	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	50	9.2	ug/kg		
74-83-9	Bromomethane	Not detected	200	10	ug/kg		
75-00-3	Chloroethane	Not detected	300	8.8	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	50	9.9	ug/kg		
75-09-2	Methylene chloride	Not detected	100	9.4	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	50	8.5	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	50	9.2	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	50	9.1	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	1000	49	ug/kg		
67-66-3	Chloroform	Not detected	50	7.1	ug/kg		
74-97-5	Bromochloromethane	Not detected	100	6.7	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	50	6.2	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	17	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	10	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	50	6.7	ug/kg		
71-43-2	Benzene	Not detected	50	10	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	50	9.2	ug/kg		
79-01-6	Trichloroethene	Not detected	50	8.8	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	50	14	ug/kg		
75-27-4	Bromodichloromethane	Not detected	100	7.0	ug/kg		
74-95-3	Dibromomethane	Not detected	300	8.3	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	8.3	ug/kg		
108-88-3	Toluene	Not detected	100	9.4	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	5.3	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	50	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	50	10	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	50	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	100	7.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	20	7.5	ug/kg		M
108-90-7	Chlorobenzene	Not detected	50	9.0	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	100	9.1	ug/kg		
100-41-4	Ethylbenzene	Not detected	50	9.8	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	100	20	ug/kg		
95-47-6	o-Xylene	Not detected	50	8.2	ug/kg		
100-42-5	Styrene	Not detected	50	8.2	ug/kg		
98-82-8	Isopropylbenzene	Not detected	300	9.8	ug/kg		
75-25-2	Bromoform	Not detected	100	5.8	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	7.4	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	100	11	ug/kg		
103-65-1	n-Propylbenzene	Not detected	100	8.3	ug/kg		
108-86-1	Bromobenzene	Not detected	100	10	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	100	7.1	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	50	9.7	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	100	7.6	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	50	9.1	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	100	9.9	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	100	11	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	100	7.5	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	100	8.6	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	100	4.0	ug/kg		
104-51-8	n-Butylbenzene	Not detected	50	9.4	ug/kg		
67-72-1	Hexachloroethane	Not detected	300	3.2	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	300	18	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	330	9.8	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	330	8.1	ug/kg		
91-20-3	Naphthalene	Not detected	330	8.5	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	330	12	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120620a3.3

LIMS ID: S52902.02
Data File: 5290202.d
Date Received: 06/19/12

Tag: 2306-061812-0001
Notes: 100ul 1s0620
s/50 id:vf120620s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/20/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (88%)				06/20/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (95%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
Analytical Batch: 120620a3.3
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\5290201.d Vial: 13
Acq On : 20 Jun 12 4:14 pm Operator: lbr
Sample : 100ul 1s0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:50 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

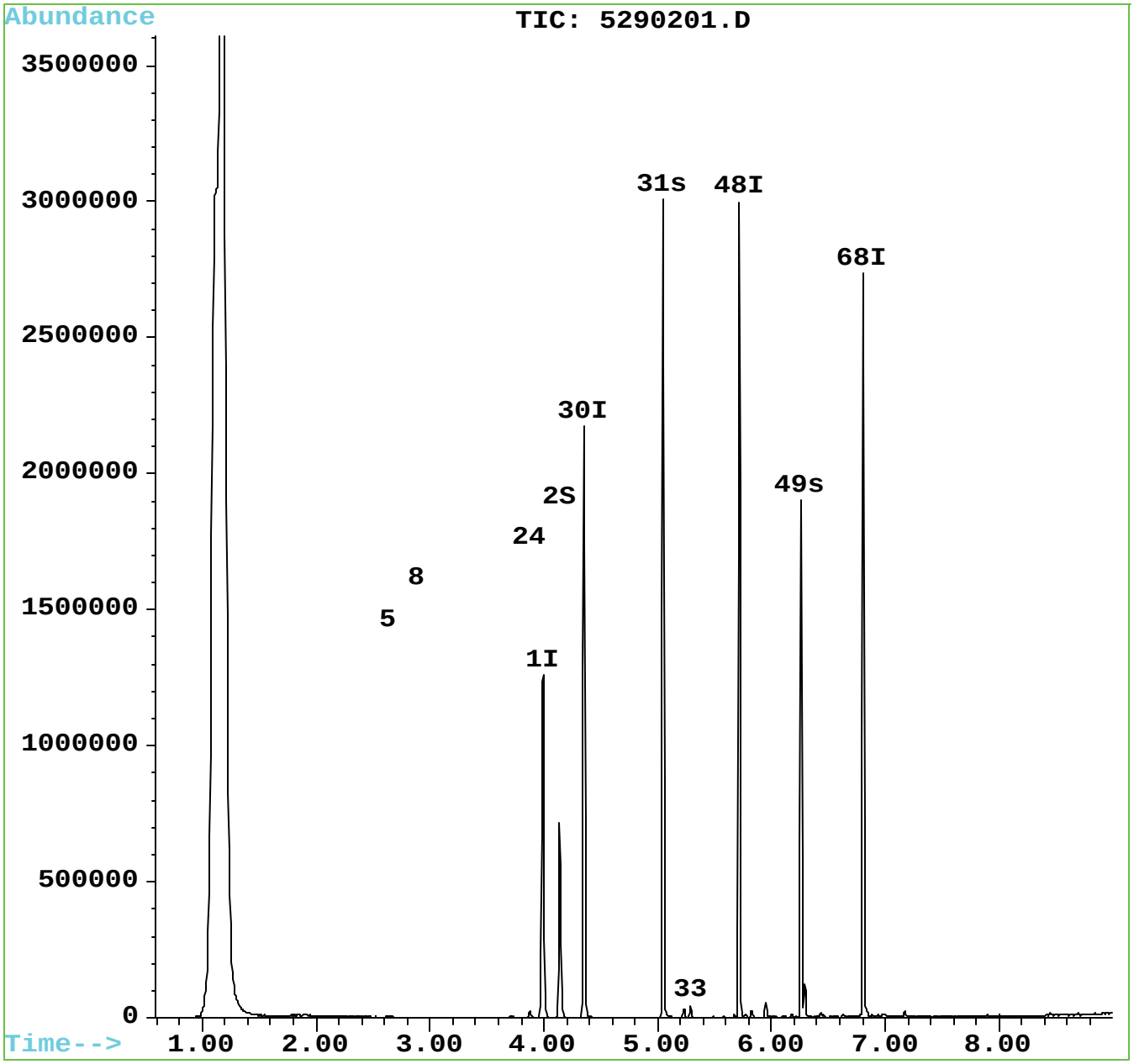
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	524322	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	933798	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	521616	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	383017	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	305278	43.38	ug/l	86.7
31) TOLUENE-D8 (S)	5.05	98	1026383	46.80	ug/l	93.6
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	258755	50.19	ug/l	100.3
Target Compounds						Qvalu
5) Acetone (*)	2.63	43	15521	4.14	ug/l	8
8) Methyl Acetate	2.88	43	4892	1.17	ug/l	6
24) Tetrahydrofuran	3.87	42	11941	3.06	ug/l #	1
33) 2-Hexanone (*)	5.29	58	6728	4.43	ug/l #	

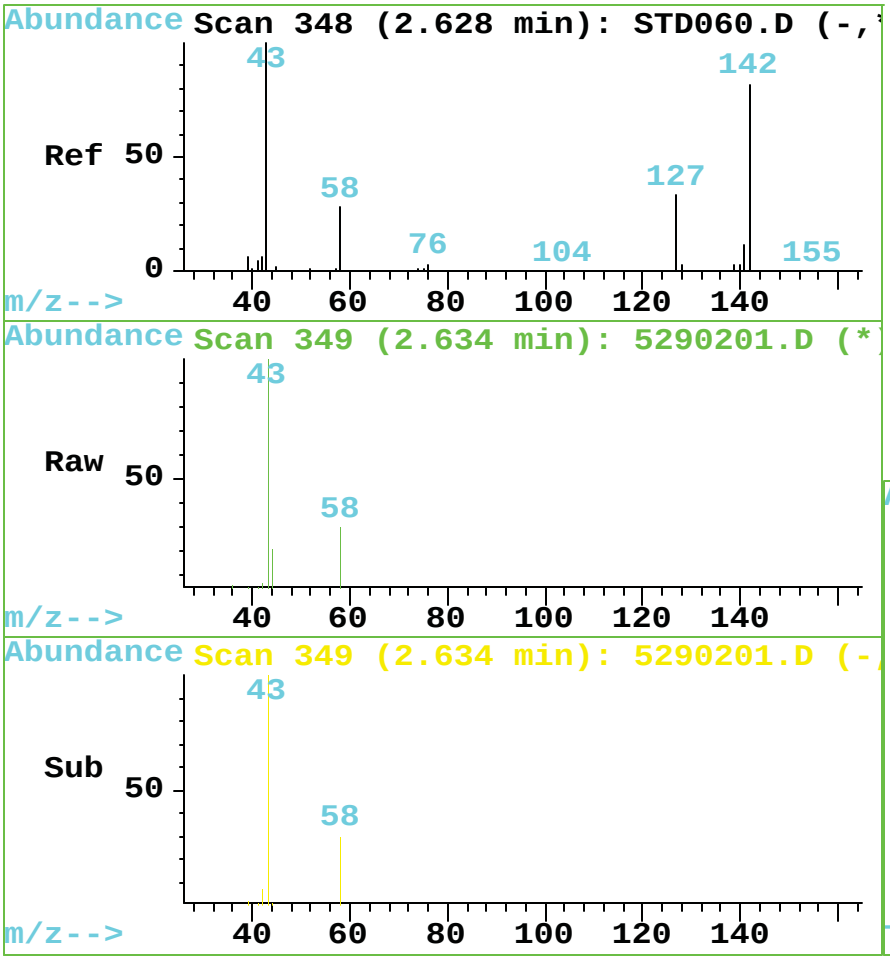
(#) = qualifier out of range (m) = manual integration
5290201.d FT120608.M Thu Jul 12 14:36:07 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\5290201.d Vial: 13
Acq On : 20 Jun 12 4:14 pm Operator: lbr
Sample : 100ul 1s0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:50 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

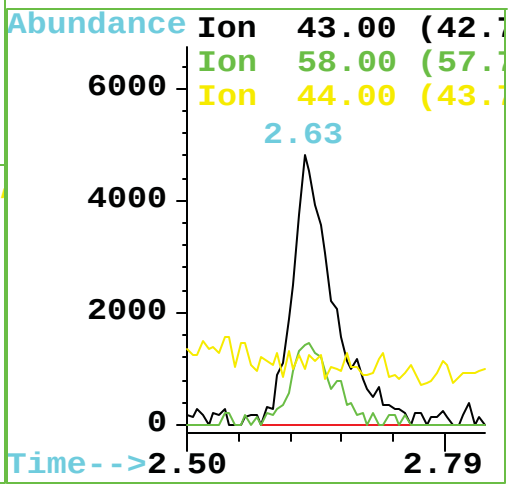


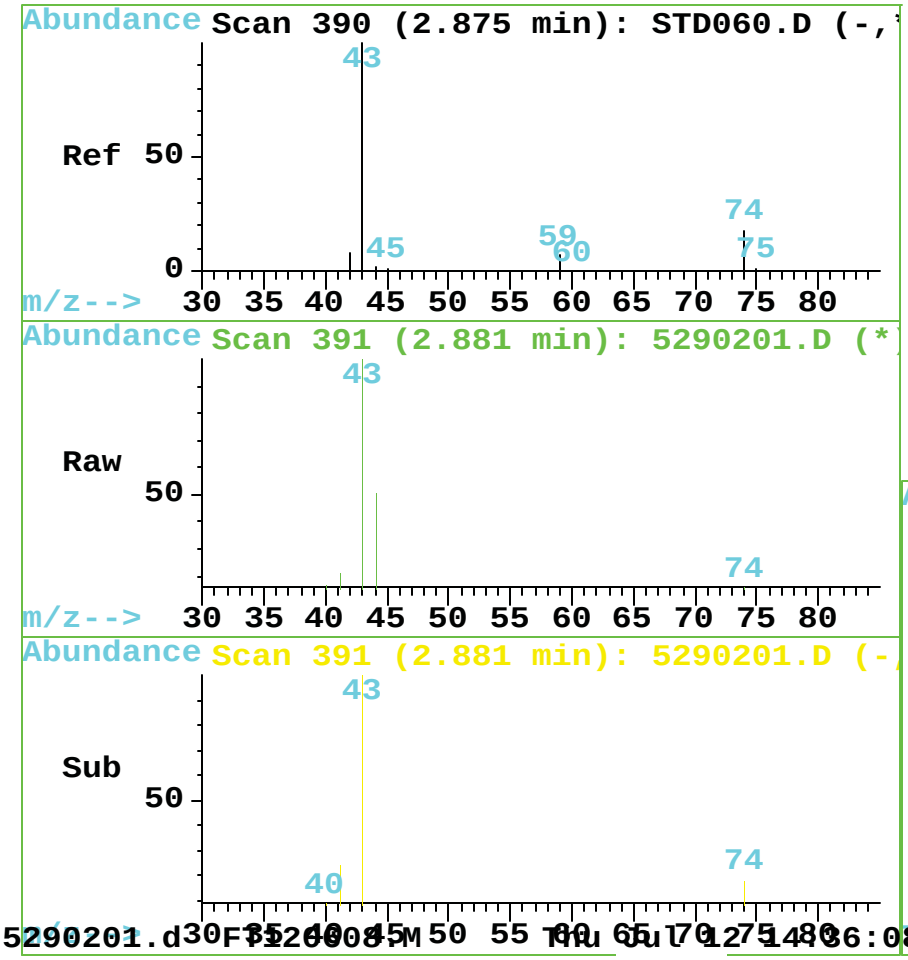


#5
Acetone (*)
Concen: 4.14 ug/l
RT: 2.63 min Scan# 349
Delta R.T. 0.01 min
Lab File: 5290201.d
Acq: 20 Jun 12 4:14 pm

Tgt Ion:43 Resp: 15521

Ion	Ratio	Lower	Upper
43	100		
58	31.8	11.0	71.0
44	2.8	0.0	33.9
0	0.0	0.0	0.0

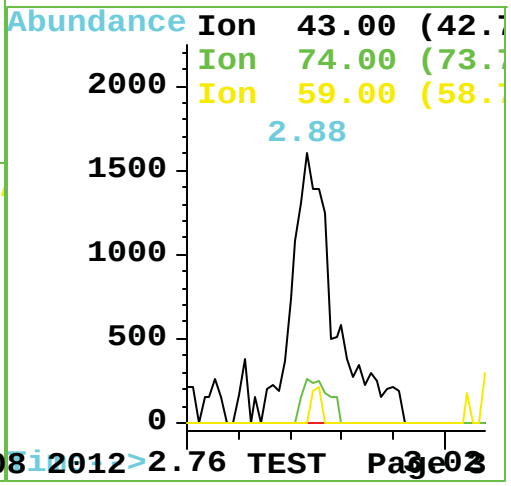


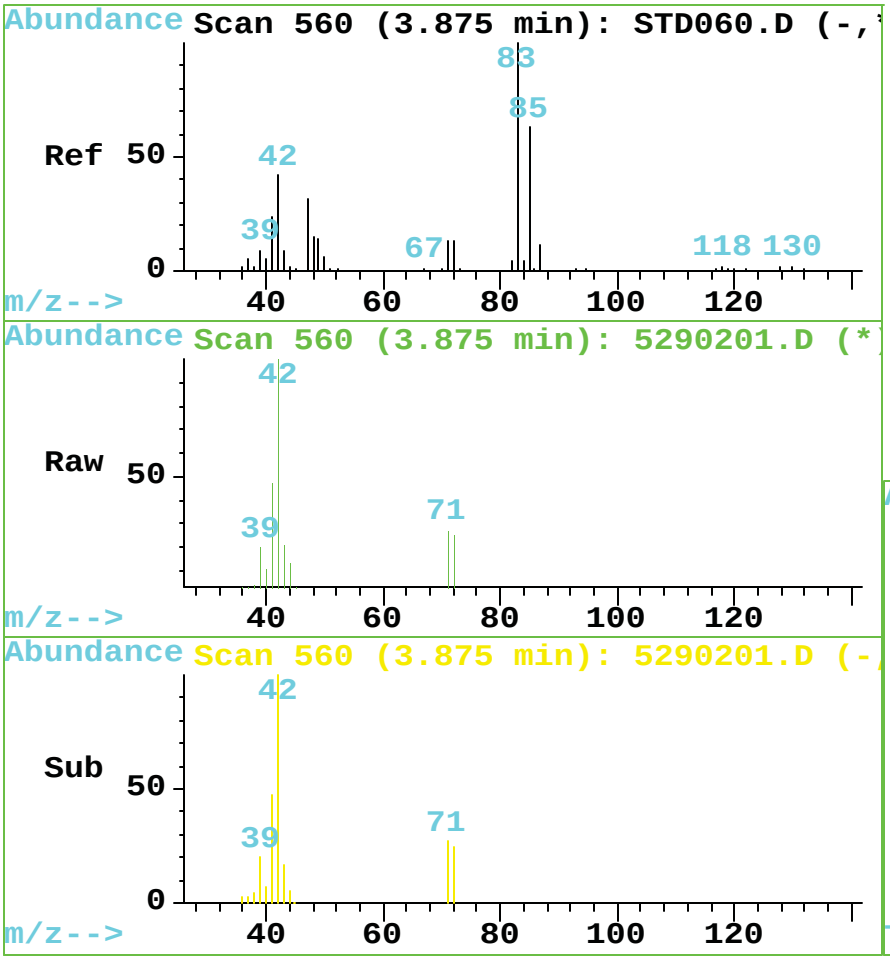


#8
Methyl Acetate
Concen: 1.17 ug/l
RT: 2.88 min Scan# 391
Delta R.T. 0.01 min
Lab File: 5290201.d
Acq: 20 Jun 12 4:14 pm

Tgt Ion:43 Resp: 4892

Ion	Ratio	Lower	Upper
43	100		
74	9.9	3.0	63.0
59	2.9	0.0	39.3
0	0.0	0.0	0.0

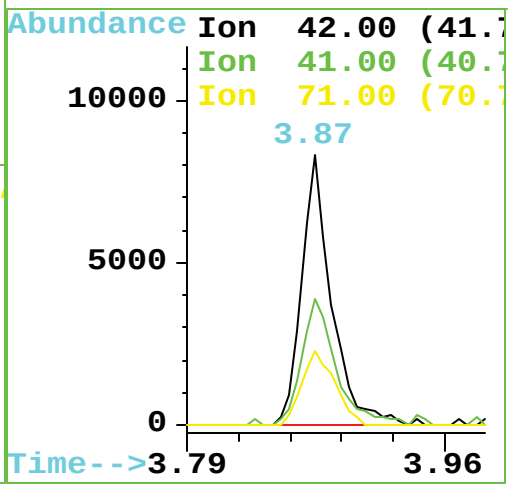


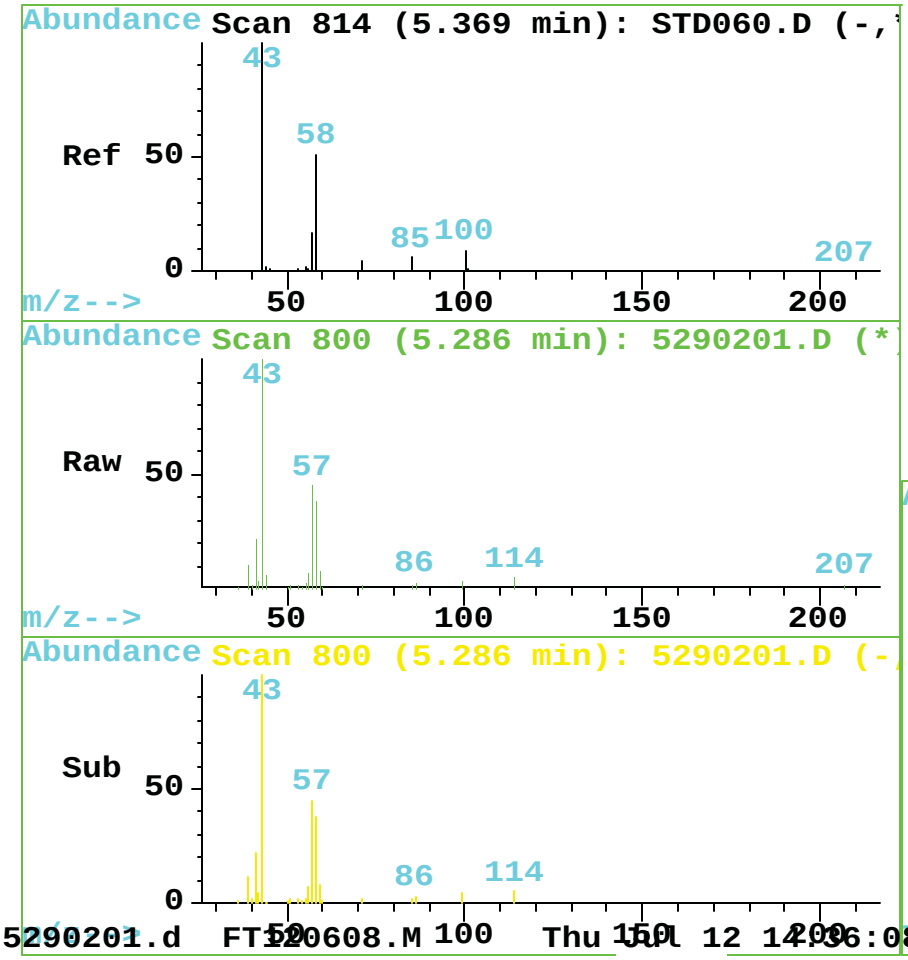


#24
Tetrahydrofuran
Concen: 3.06 ug/l
RT: 3.87 min Scan# 560
Delta R.T. 0.00 min
Lab File: 5290201.d
Acq: 20 Jun 12 4:14 pm

Tgt Ion:42 Resp: 11941

Ion	Ratio	Lower	Upper
42	100		
41	53.9	179.3	239.3#
71	30.3	14.9	74.9
0	0.0	0.0	0.0

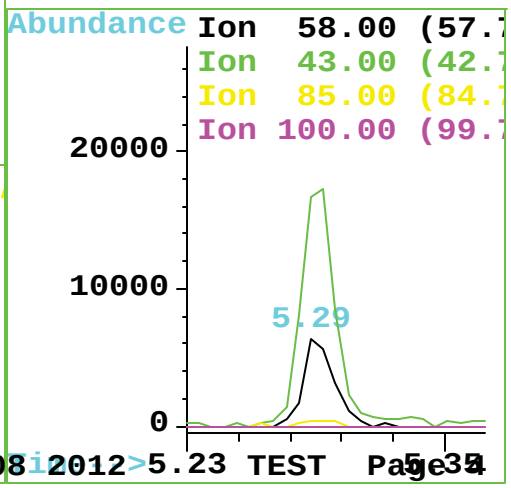




#33
2-Hexanone (*)
Concen: 4.43 ug/l
RT: 5.29 min Scan# 800
Delta R.T. -0.08 min
Lab File: 5290201.d
Acq: 20 Jun 12 4:14 pm

Tgt Ion:58 Resp: 6728

Ion	Ratio	Lower	Upper
58	100		
43	307.5	120.9	180.9#
85	6.3	0.0	48.4
100	0.0	0.5	60.5#



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\5290202.d Vial: 14
Acq On : 20 Jun 12 4:32 pm Operator: lbr
Sample : 100ul 1s0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:50 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

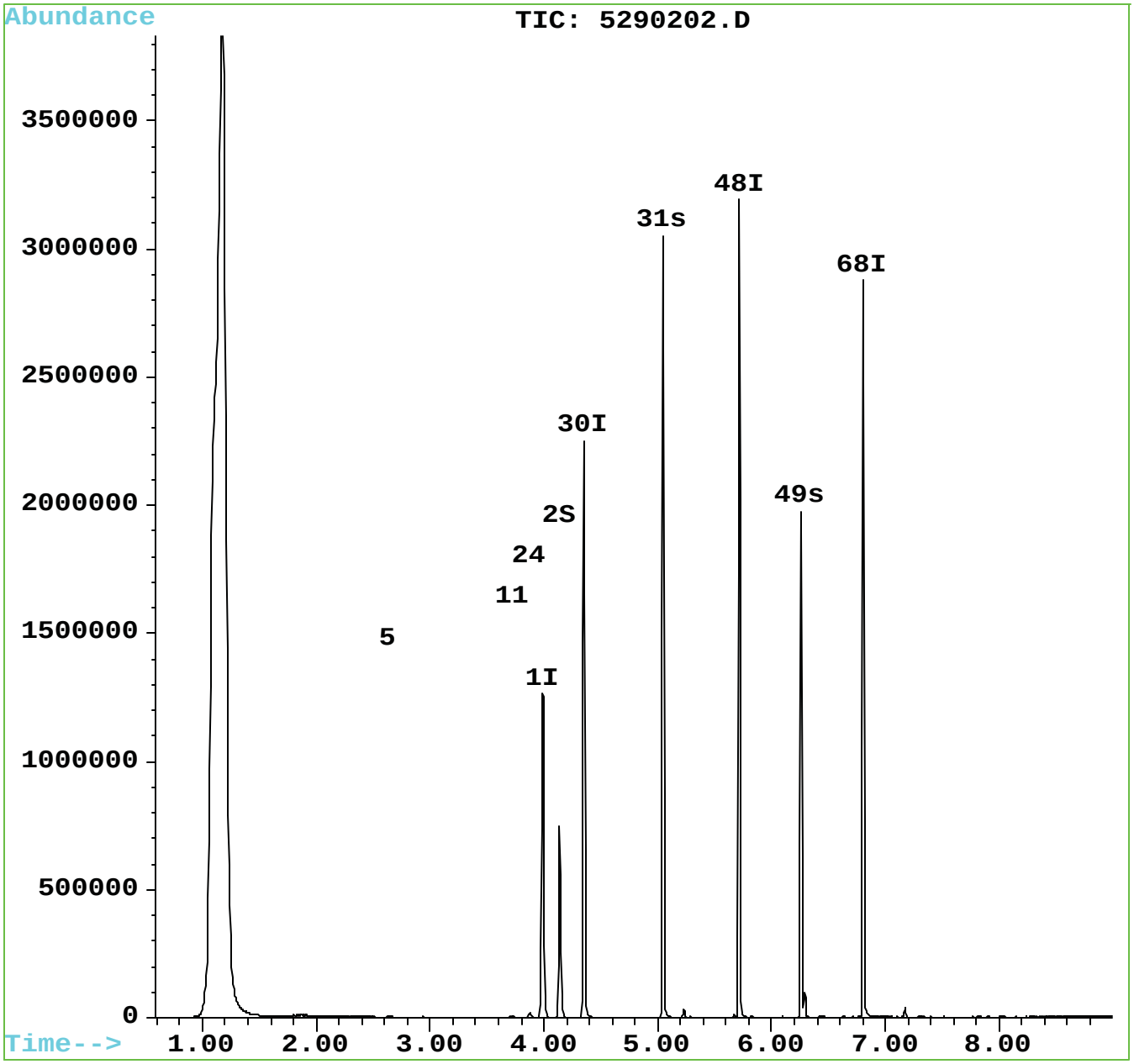
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	535285	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	961868	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	544860	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	397242	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	317605	44.21	ug/l	88.4
31) TOLUENE-D8 (S)	5.05	98	1069831	47.36	ug/l	94.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	269204	49.99	ug/l	99.9
Target Compounds						Qvalu
5) Acetone (*)	2.65	43	12031	1.61	ug/l	9
11) 2-Butanone (MEK) (*)	3.73	43	3079	1.19	ug/l	7
24) Tetrahydrofuran	3.87	42	11502	2.66	ug/l #	1

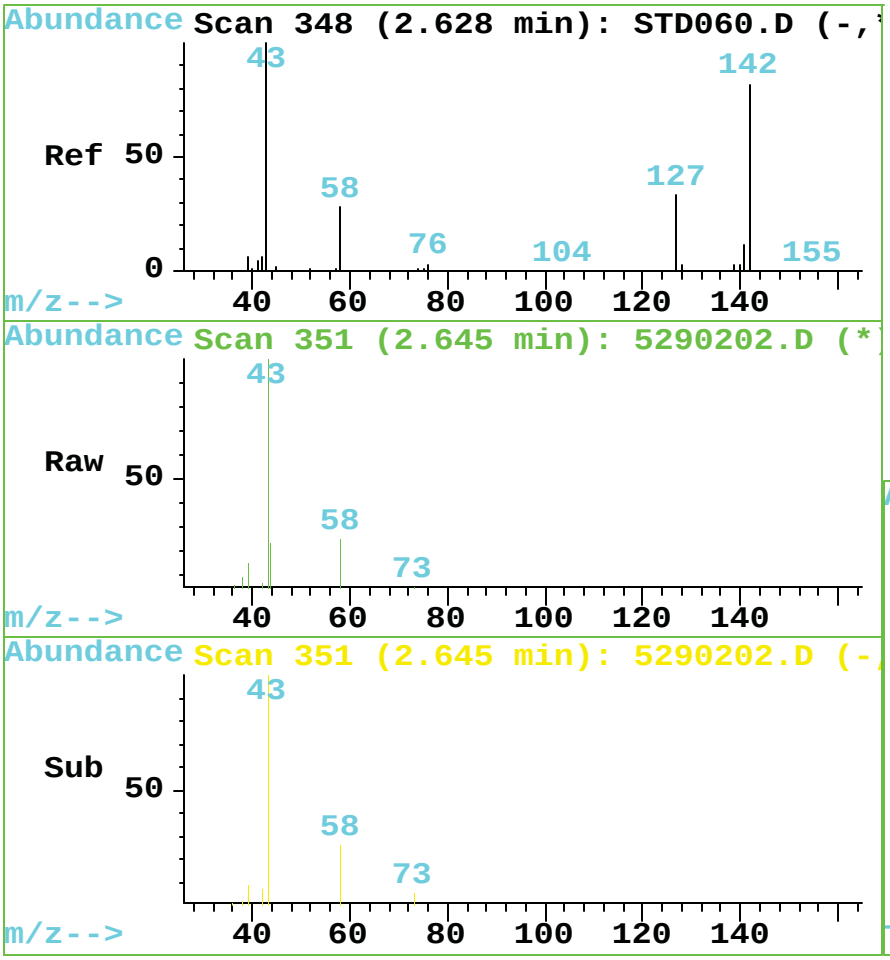
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\5290202.d Vial: 14
Acq On : 20 Jun 12 4:32 pm Operator: lbr
Sample : 100ul 1s0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:50 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

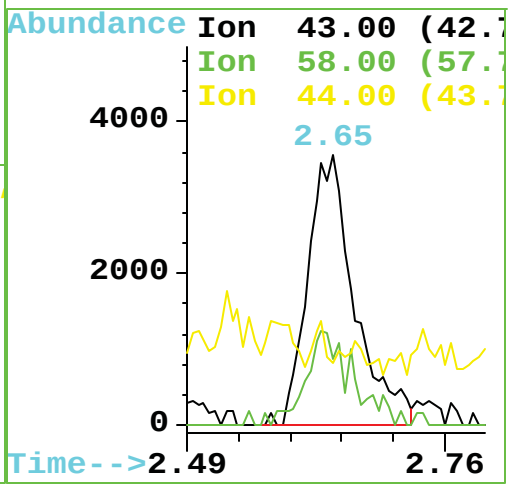


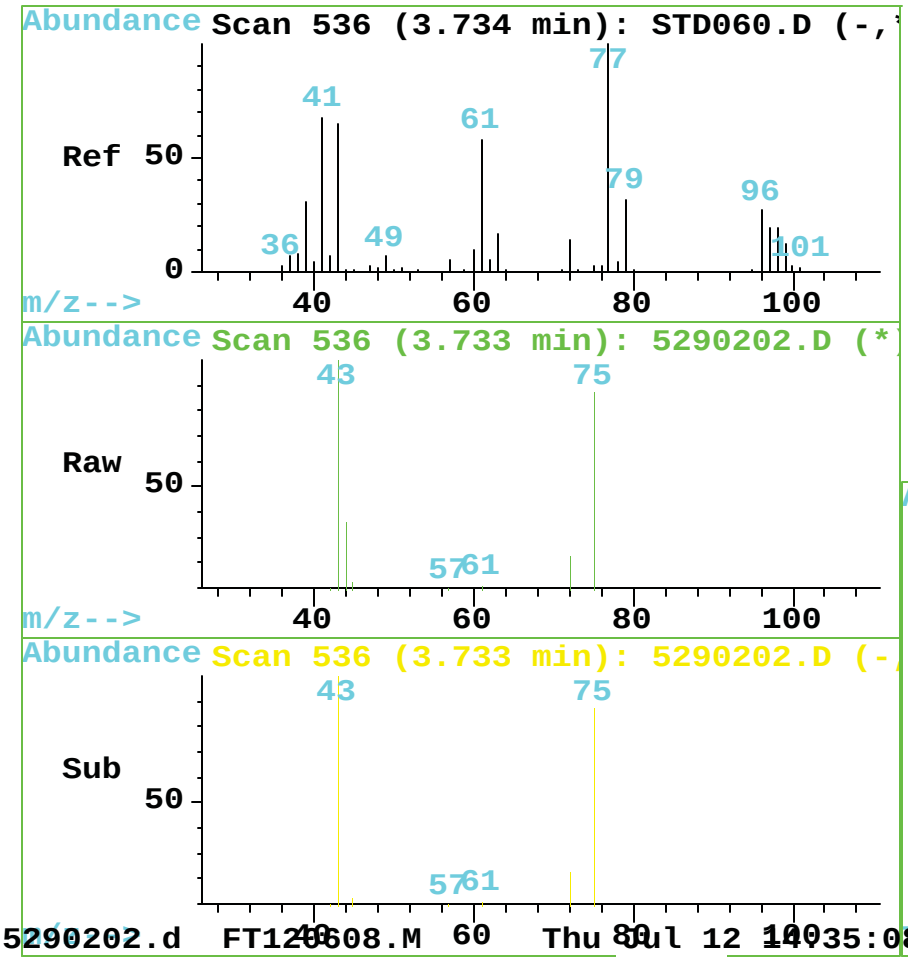


#5
Acetone (*)
Concen: 1.61 ug/l
RT: 2.65 min Scan# 351
Delta R.T. 0.02 min
Lab File: 5290202.d
Acq: 20 Jun 12 4:32 pm

Tgt Ion:43 Resp: 12031

Ion	Ratio	Lower	Upper
43	100		
58	35.7	11.0	71.0
44	4.9	0.0	33.9
0	0.0	0.0	0.0

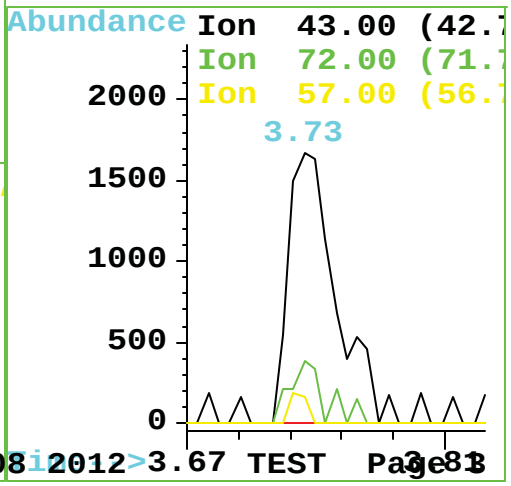


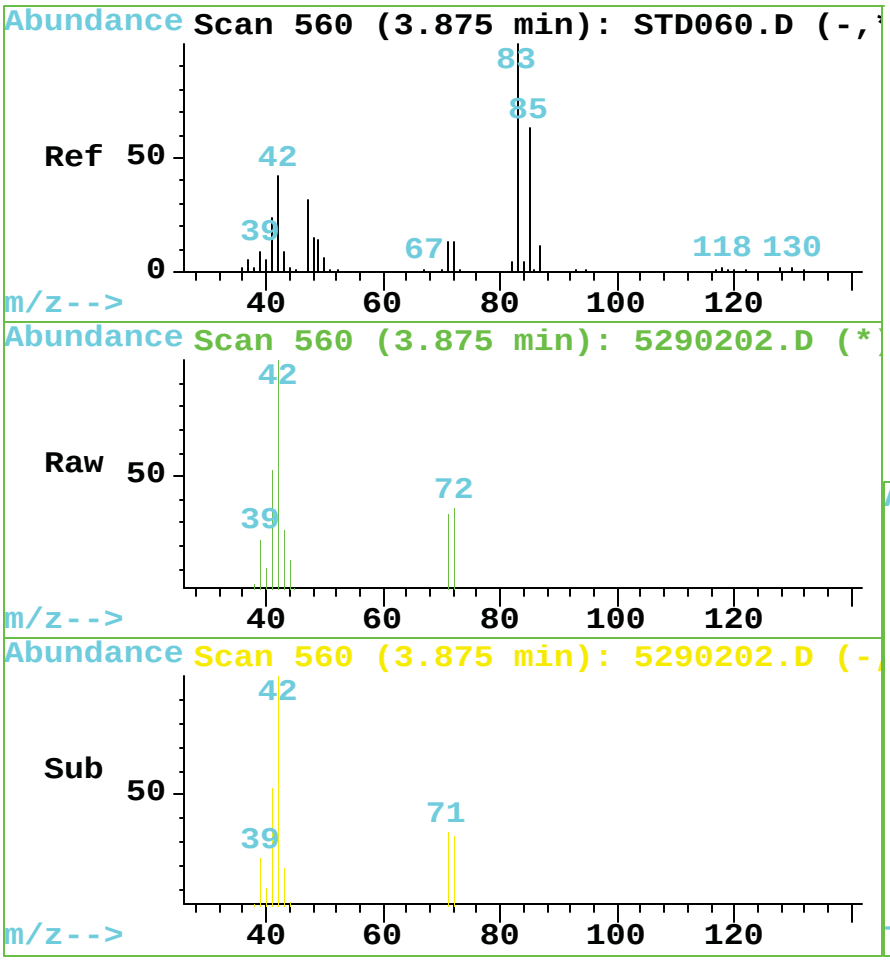


#11
2-Butanone (MEK) (*)
Concen: 1.19 ug/l
RT: 3.73 min Scan# 536
Delta R.T. -0.00 min
Lab File: 5290202.d
Acq: 20 Jun 12 4:32 pm

Tgt Ion:43 Resp: 3079

Ion	Ratio	Lower	Upper
43	100		
72	17.3	6.4	66.4
57	3.9	0.0	37.8
0	0.0	0.0	0.0

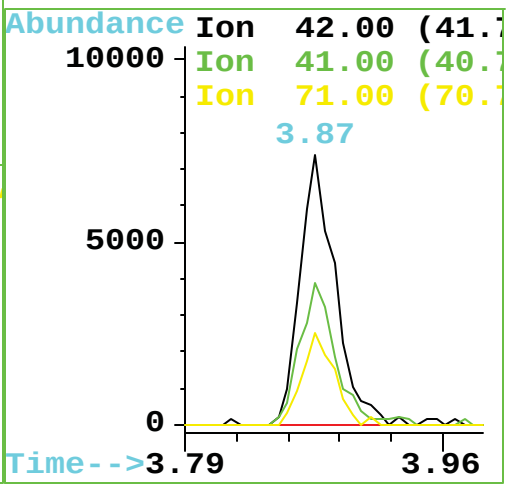




#24
Tetrahydrofuran
Concen: 2.66 ug/l
RT: 3.87 min Scan# 560
Delta R.T. 0.00 min
Lab File: 5290202.d
Acq: 20 Jun 12 4:32 pm

Tgt Ion:42 Resp: 11502

Ion	Ratio	Lower	Upper
42	100		
41	52.7	179.3	239.3#
71	31.4	14.9	74.9
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
ft120608.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.671	8.97	0.785	0.656	0.614	0.631	0.675	0.666				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.571	3.59	0.586	0.584	0.541	0.549	0.577	0.588				
	Diethyl ether (*)	A	0.236	9.93	0.276	0.232	0.209	0.217	0.241	0.239				
	Acetone (*)	L	0.168	16.99		0.214	0.171	0.147	0.165	0.142	0.99	0.01	0.143	0.00
	Methyl iodide (iodomethane) (*	A	0.742	5.91	0.801	0.715	0.685	0.714	0.760	0.774				
	Carbon disulfide (*)	A	1.814	14.49	1.482	1.639	1.665	1.879	2.071	2.149				
	Methyl Acetate	A	0.398	5.25		0.426	0.402	0.369	0.403	0.389				
	tert-Methyl butyl ether (MTBE)	A	1.444	6.94	1.622	1.407	1.342	1.366	1.465	1.461				
	Acrylonitrile (*)	A	0.212	8.40	0.243	0.211	0.195	0.194	0.214	0.213				
	2-Butanone (MEK) (*)	A	0.242	8.42		0.275	0.241	0.229	0.242	0.222				
	Dichlorodifluoromethane	A	0.475	11.88	0.412	0.447	0.416	0.512	0.527	0.535				
	Chloromethane (SPCC)	LO	1.088	21.43	1.557	1.041	0.942	0.956	1.005	1.026	1.00	0.00	1.017	0.00
	Vinyl Chloride (CCC)	A	0.760	4.19	0.715	0.745	0.739	0.779	0.782	0.799				
	Bromomethane	A	0.282	12.13	0.348	0.285	0.256	0.258	0.271	0.272				
	Chloroethane	A	0.273	11.03	0.330	0.280	0.256	0.249	0.263	0.257				
	Acrolein	A												
	Trichlorofluoromethane	A	0.798	6.00	0.877	0.797	0.733	0.769	0.806	0.808				
	1,1-Dichloroethene (CCC/MS)	A	1.089	6.84	1.208	1.091	1.000	1.022	1.091	1.123				
	Methylene Chloride	A	0.656	12.02	0.813	0.630	0.604	0.606	0.639	0.641				
	trans-1,2-Dichloroethene	A	1.101	4.59	1.180	1.086	1.045	1.053	1.126	1.117				
	1,1-Dichloroethane (SPCC)	A	1.332	6.65	1.492	1.336	1.250	1.250	1.337	1.324				
	cis-1,2-Dichloroethene	A	0.661	6.29	0.739	0.653	0.628	0.624	0.666	0.656				
	Tetrahydrofuran	L	0.186	18.71		0.245	0.191	0.163	0.169	0.163	1.00	0.01	0.161	0.00
	Chloroform (CCC)	A	1.069	7.82	1.228	1.040	1.009	0.997	1.068	1.071				
	Bromochloromethane	A	0.302	10.91	0.367	0.289	0.279	0.280	0.301	0.297				
	1,1,1-Trichloroethane	A	0.923	5.40	0.980	0.887	0.865	0.886	0.944	0.975				
	1,1-Dichloropropene	A	0.974	7.57	1.109	0.996	0.914	0.911	0.970	0.944				
	Cyclohexane	A	0.496	8.97	0.580	0.512	0.467	0.464	0.479	0.475				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.174	7.80	1.348	1.180	1.103	1.101	1.175	1.138				
	4-Methyl-2-pentanone (MIBK) (*	A	0.089	12.03	0.107	0.081	0.077	0.084	0.092	0.091				
	2-Hexanone (*)	A	0.081	4.73		0.082	0.078	0.077	0.086	0.084				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.379	8.36	0.360	0.363	0.346	0.368	0.405	0.429				
	Benzene (MS)	A	1.499	7.20	1.698	1.512	1.404	1.409	1.504	1.464				
	1,2-Dichloroethane	A	0.447	6.93	0.499	0.440	0.414	0.418	0.455	0.454				
	Trichloroethene (MS)	A	0.330	6.62	0.364	0.325	0.303	0.312	0.333	0.342				
	1,2-Dichloropropane (CCC)	A	0.389	3.55	0.402	0.400	0.373	0.371	0.398	0.390				
	Bromodichloromethane	A	0.365	9.78	0.344	0.338	0.332	0.357	0.403	0.416				
	Methyl Cyclohexane	A	0.705	5.46	0.758	0.719	0.652	0.669	0.712	0.721				
	Dibromomethane	A	0.121	6.09	0.122	0.121	0.111	0.113	0.126	0.130				
	cis-1,3-Dichloropropene	A	0.513	6.23	0.488	0.500	0.484	0.499	0.554	0.553				
	Toluene (CCC/MS)	A	1.506	7.59	1.721	1.534	1.421	1.421	1.495	1.445				
	trans-1,3-Dichloropropene	A	0.408	11.21	0.342	0.383	0.390	0.413	0.458	0.459				
	1,1,2-Trichloroethane	A	0.189	5.14	0.203	0.186	0.177	0.181	0.194	0.195				
	Tetrachloroethene	A	0.299	6.57	0.330	0.300	0.276	0.281	0.299	0.310				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.494	14.04	0.626	0.472	0.431	0.450	0.482	0.505				
	trans-1,4-Dichloro-2-butene	A	0.146	8.27	0.153	0.138	0.126	0.144	0.158	0.154				
	Dibromochloromethane	QO	0.314	19.73	0.237	0.273	0.277	0.326	0.374	0.394	1.00	0.00	0.324	0.02
	1,2-Dibromoethane	A	0.348	5.26	0.342	0.337	0.326	0.344	0.365	0.375				
	Chlorobenzene (SPCC/MS)	A	1.540	8.46	1.788	1.566	1.440	1.448	1.519	1.479				
	1,1,1,2-Tetrachloroethane	A	0.446	5.20	0.435	0.435	0.423	0.434	0.471	0.480				
	Ethylbenzene (CCC)	A	2.980	5.93	3.272	3.103	2.828	2.856	2.973	2.849				
	p,m-Xylene	A	1.085	9.04	1.248	1.152	1.049	1.044	1.046	0.973				
	o-Xylene	A	2.346	6.00	2.599	2.410	2.238	2.270	2.327	2.231				
	Styrene	A	1.706	3.33	1.769	1.761	1.674	1.676	1.732	1.625				
	Isopropylbenzene	A	2.952	5.62	3.249	3.022	2.795	2.830	2.927	2.888				
	Bromoform (SPCC)	QO	0.153	29.17	0.097	0.125	0.126	0.162	0.191	0.214	1.00	0.00	0.152	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.462	3.57	0.461	0.462	0.439	0.451	0.477	0.484				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
ft120608.m	1,2,3-Trichloropropane	A	0.126	4.16	0.128	0.129	0.116	0.124	0.128	0.130				
	n-Propylbenzene	A	3.536	5.24	3.832	3.658	3.320	3.450	3.543	3.414				
	Bromobenzene	A	0.525	6.88	0.586	0.509	0.485	0.498	0.531	0.538				
	1,3,5-Trimethylbenzene	A	1.091	4.73	1.178	1.125	1.049	1.057	1.087	1.050				
	tert-Butylbenzene	A	1.711	3.95	1.779	1.718	1.594	1.674	1.740	1.759				
	1,2,4-Trimethylbenzene	A	1.208	7.14	1.365	1.237	1.160	1.181	1.185	1.118				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	4.666	5.89	5.175	4.722	4.502	4.387	4.643	4.564				
	p-Isopropyltoluene	A	3.395	4.85	3.665	3.501	3.340	3.220	3.377	3.264				
	1,3-Dichlorobenzene	A	1.438	6.84	1.612	1.478	1.415	1.330	1.413	1.378				
	1,4-Dichlorobenzene	A	1.518	10.66	1.833	1.495	1.442	1.365	1.491	1.482				
	1,2-Dichlorobenzene	A	1.356	5.87	1.487	1.367	1.290	1.257	1.362	1.370				
	1,2,3-Trimethylbenzene	A	3.359	6.74	3.781	3.332	3.178	3.148	3.371	3.341				
	n-Butylbenzene	A	3.730	4.73	4.031	3.812	3.642	3.522	3.729	3.646				
	Hexachloroethane	QO	0.288	28.98	0.211	0.222	0.230	0.294	0.348	0.420	1.00	0.00	0.256	0.04
	1,2-Dibromo-3-Chloropropane	QO	0.070	26.01	0.042	0.059	0.065	0.075	0.084	0.092	1.00	0.00	0.071	0.01
	1,2,4-Trichlorobenzene	A	0.778	4.42	0.811	0.761	0.728	0.758	0.792	0.816				
	Hexachlorobutadiene	A	0.493	10.83	0.477	0.460	0.442	0.473	0.515	0.590				
	1,2,3-Trichlorobenzene	A	0.695	6.57	0.770	0.676	0.639	0.666	0.710	0.711				
	Naphthalene	A	1.635	5.94	1.812	1.563	1.559	1.571	1.662	1.644				
	2-Methylnaphthalene	A	0.801	8.09	0.907	0.724	0.751	0.784	0.833	0.806				

Calibration Date: 06/08/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): ft120608.M (Mean %RSD: 8.45)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\merfolk.thd\methods\ft120608.m\

Injection Time	Calibration Data File
06/08/12 15:44	bfb08a.d
06/08/12 18:36	std001.d
06/08/12 18:55	std010.d
06/08/12 19:13	std020.d
06/08/12 19:31	std060.d
06/08/12 19:49	std100.d
06/08/12 20:07	std200.d

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\bfb08a.d Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	83138	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	148488	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	83428	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	63366	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	55113	49.39	ug/l	98.7
31) TOLUENE-D8 (S)	5.05	98	179702	51.53	ug/l	103.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	41916	50.83	ug/l	101.6
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	4119	11.22	ug/l	9
7) Carbon disulfide (*)	2.70	76	147	0.05	ug/l #	
8) Methyl Acetate	2.88	43	403	0.61	ug/l #	4
11) 2-Butanone (MEK) (*)	3.73	43	1398	3.48	ug/l #	5
13) Chloromethane (SPCC)	1.40	50	811	0.48	ug/l	8
15) Bromomethane	1.77	94	59	0.13	ug/l #	
20) Methylene Chloride	2.94	84	380	0.35	ug/l #	2
22) 1,1-Dichloroethane (SPCC)	3.38	63	201	0.09	ug/l #	5
23) cis-1,2-Dichloroethene	3.70	96	73	0.07	ug/l #	2
24) Tetrahydrofuran	3.87	42	6908	21.96	ug/l #	1
25) Chloroform (CCC)	3.88	83	357	0.20	ug/l #	5
29) Cyclohexane	3.93	42	65	0.08	ug/l #	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	249	0.94	ug/l #	5
33) 2-Hexanone (*)	5.37	58	302	1.25	ug/l #	7
36) Benzene (MS)	4.16	78	641	0.14	ug/l #	
37) 1,2-Dichloroethane	4.17	62	167	0.13	ug/l #	8
38) Trichloroethene (MS)	4.49	95	55	0.06	ug/l #	4
40) Bromodichloromethane	4.72	83	77	0.07	ug/l #	3
41) Methyl Cyclohexane	4.58	55	201	0.10	ug/l #	6
44) Toluene (CCC/MS)	5.07	91	910	0.20	ug/l	7
45) trans-1,3-Dichloropropene	5.17	75	56	0.05	ug/l #	4
53) Chlorobenzene (SPCC/MS)	5.73	112	466	0.18	ug/l #	
55) Ethylbenzene (CCC)	5.77	91	722	0.15	ug/l	9
56) p,m-Xylene	5.82	106	681	0.38	ug/l	9
57) o-Xylene	6.02	91	1005	0.26	ug/l	7
58) Styrene	6.02	104	408	0.14	ug/l #	6
59) Isopropylbenzene	6.18	105	1044	0.21	ug/l	7
61) 1,1,2,2-Tetrachloroethane	6.32	83	126	0.16	ug/l #	
63) n-Propylbenzene	6.37	91	1677	0.28	ug/l	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\bfb08a.d Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

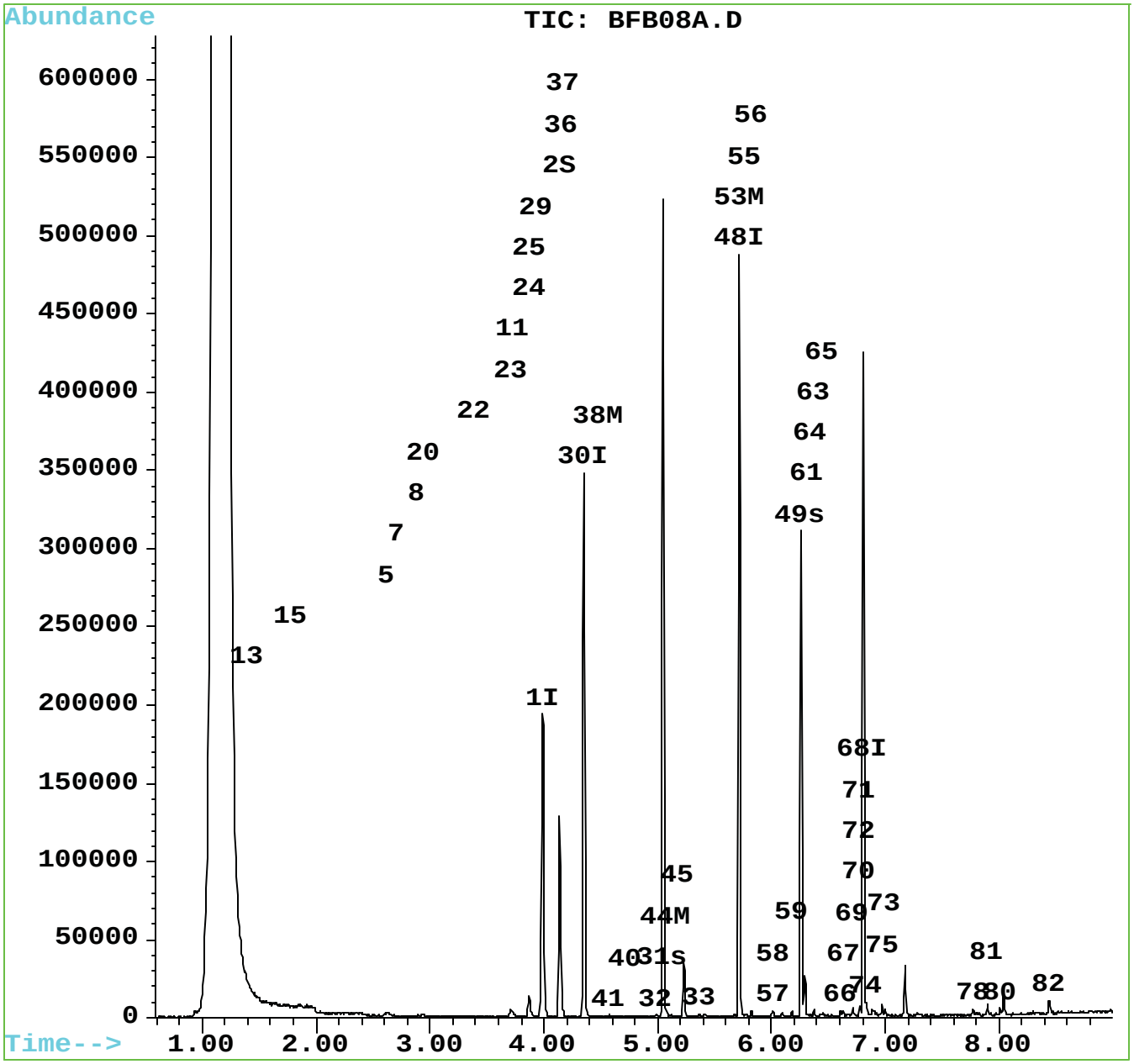
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
64)	Bromobenzene	6.34	156	201	0.23	ug/l	#	3
65)	1,3,5-Trimethylbenzene	6.45	120	448	0.25	ug/l		8
66)	tert-Butylbenzene	6.61	91	1015	0.36	ug/l	#	3
67)	1,2,4-Trimethylbenzene	6.63	120	462	0.23	ug/l	#	2
69)	sec-Butylbenzene	6.72	105	2525	0.43	ug/l		9
70)	p-Isopropyltoluene	6.77	119	1491	0.35	ug/l		7
71)	1,3-Dichlorobenzene	6.78	146	465	0.26	ug/l		8
72)	1,4-Dichlorobenzene	6.78	146	465	0.24	ug/l		8
73)	1,2-Dichlorobenzene	7.00	146	473	0.28	ug/l		8
74)	1,2,3-Trimethylbenzene	6.83	105	1432	0.34	ug/l		8
75)	n-Butylbenzene	6.97	91	2186	0.46	ug/l		9
78)	1,2,4-Trichlorobenzene	7.77	182	750	0.76	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	717	0.81	ug/l		8
81)	Naphthalene	7.90	128	3542	1.71	ug/l		9
82)	2-Methylnaphthalene	8.44	142	2825	2.78	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\bfb08a.d Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 14:42 19112

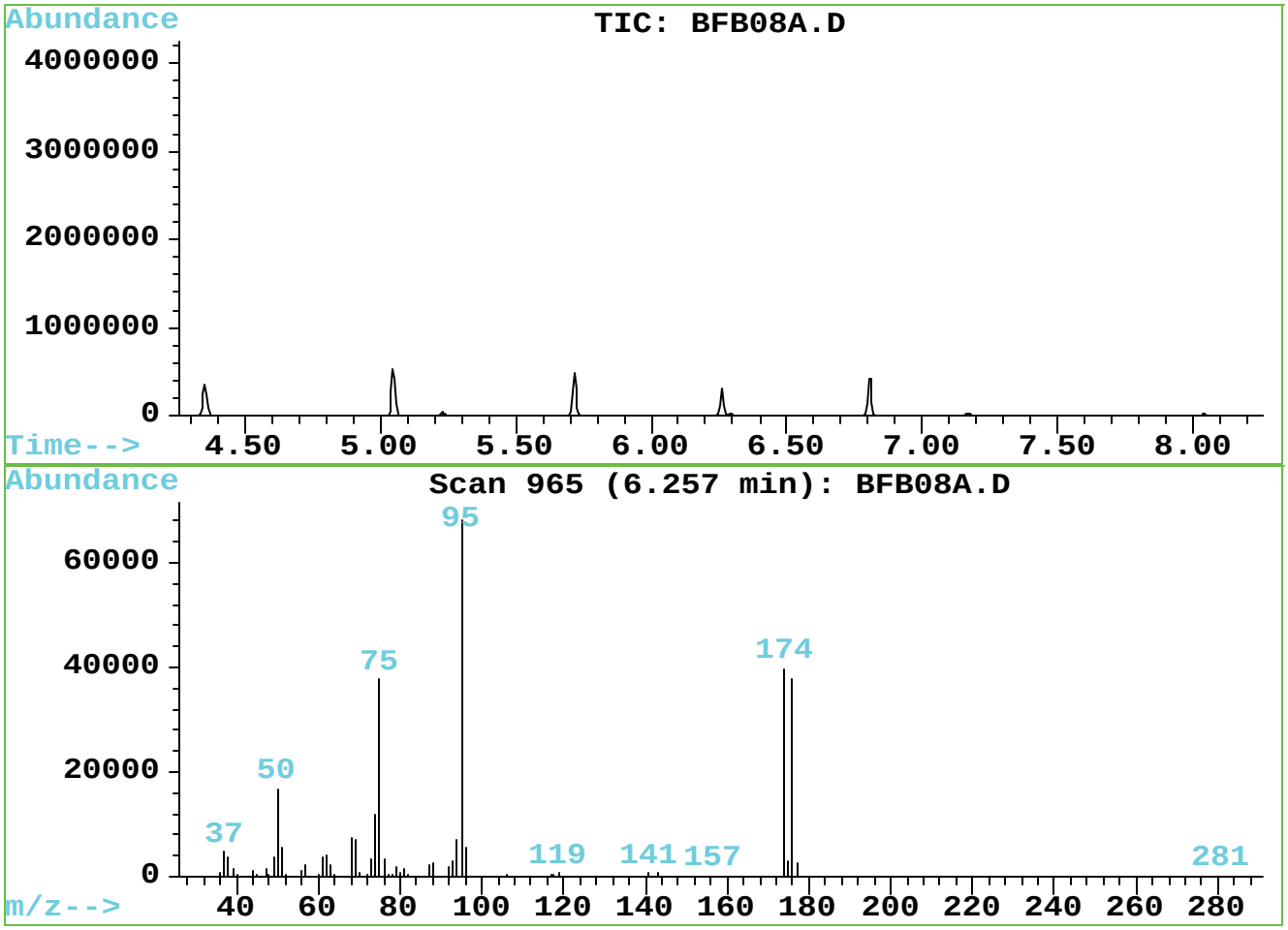
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M\BFB08A.D Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 965

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.8	16840	PASS
75	95	30	66	55.4	37672	PASS
95	95	100	100	100.0	68024	PASS
96	95	5	9	8.1	5529	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	58.5	39784	PASS
175	174	4	9	7.2	2871	PASS
176	174	93	101	94.6	37624	PASS
177	176	5	9	6.8	2562	PASS

BFB08A.D FT120608.M Thu Jul 12 14:44:24 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	379920	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	729973	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	407313	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	288018	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	5961	1.61	ug/l		3.2
31) TOLUENE-D8 (S)	5.05	98	19685	1.21	ug/l		2.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	5098	1.18	ug/l		2.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	4454	1.03	ug/l	#	6
4) Diethyl ether (*)	2.38	74	2096	1.25	ug/l	#	3
5) Acetone (*)	2.63	43	3556	5.35	ug/l		7
6) Methyl iodide (iodomethane	2.66	142	6088	1.05	ug/l		7
7) Carbon disulfide (*)	2.70	76	11261	0.88	ug/l		9
8) Methyl Acetate	2.87	43	5721	4.29	ug/l		6
9) tert-Methyl butyl ether (M	3.14	73	12325	1.72	ug/l		7
10) Acrylonitrile (*)	3.11	53	1844	2.75	ug/l	#	8
11) 2-Butanone (MEK) (*)	3.73	43	4023	4.79	ug/l	#	7
12) Dichlorodifluoromethane	1.27	85	3132	0.97	ug/l	m	8
13) Chloromethane (SPCC)	1.42	50	11831	2.64	ug/l	m	7
14) Vinyl Chloride (CCC)	1.52	62	5434	1.08	ug/l		9
15) Bromomethane	1.77	94	2647	0.74	ug/l	#	
16) Chloroethane	1.87	64	2504	0.59	ug/l	#	6
17) Acrolein	2.50	56	67	0.42	ug/l	#	9
18) Trichlorofluoromethane	2.09	101	6661	0.94	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.55	61	9178	1.39	ug/l	#	7
20) Methylene Chloride	2.93	84	6174	1.63	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	8967	1.50	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	11338	1.55	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	5613	1.27	ug/l	#	4
24) Tetrahydrofuran	3.87	42	6837	12.22	ug/l	#	1
25) Chloroform (CCC)	3.89	83	9331	1.34	ug/l		8
26) Bromochloromethane	3.84	130	2790	1.45	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	7449	0.98	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	8427	1.33	ug/l		8
29) Cyclohexane	4.01	42	4406	1.85	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	1563	2.49	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	1158	1.98	ug/l	#	3

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	5.08	63	2302	1.87	ug/l	#	
35) Carbon Tetrachloride	4.07	117	5259	0.78	ug/l		9
36) Benzene (MS)	4.17	78	24793	1.31	ug/l		8
37) 1,2-Dichloroethane	4.17	62	7291	1.46	ug/l		9
38) Trichloroethene (MS)	4.48	95	5310	1.13	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	5864	1.42	ug/l		9
40) Bromodichloromethane	4.72	83	5022	1.03	ug/l		9
41) Methyl Cyclohexane	4.57	55	11062	1.47	ug/l	#	5
42) Dibromomethane	4.65	174	1787	1.16	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	7127	1.28	ug/l		8
44) Toluene (CCC/MS)	5.07	91	25131	1.23	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	4991	1.12	ug/l		8
46) 1,1,2-Trichloroethane	5.26	83	2958	1.45	ug/l		9
47) Tetrachloroethene	5.33	166	4818	1.55	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.35	53	1247	1.65	ug/l	#	3
51) Dibromochloromethane	5.45	129	1928	0.68	ug/l		9
52) 1,2-Dibromoethane	5.51	107	2785	1.09	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	14569	1.09	ug/l	#	4
54) 1,1,1,2-Tetrachloroethane	5.76	131	3540	0.84	ug/l	#	7
55) Ethylbenzene (CCC)	5.77	91	26652	1.00	ug/l		9
56) p,m-Xylene	5.83	106	20338	2.03	ug/l	#	7
57) o-Xylene	6.02	91	21170	1.01	ug/l		9
58) Styrene	6.02	104	14408	0.95	ug/l		8
59) Isopropylbenzene	6.18	105	26468	0.98	ug/l		9
60) Bromoform (SPCC)	6.12	173	789	0.50	ug/l		8
61) 1,1,2,2-Tetrachloroethane	6.32	83	3753	1.30	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	1040	1.16	ug/l	#	3
63) n-Propylbenzene	6.37	91	31215	1.04	ug/l		8
64) Bromobenzene	6.34	156	4770	1.07	ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	9597	0.96	ug/l	#	7
66) tert-Butylbenzene	6.61	91	14495	0.90	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	11122	1.01	ug/l	#	7
69) sec-Butylbenzene	6.71	105	29812	1.04	ug/l		8
70) p-Isopropyltoluene	6.77	119	21114	0.99	ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	9288	1.06	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	10558	1.27	ug/l	m	8
73) 1,2-Dichlorobenzene	7.00	146	8563	1.12	ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	21782	1.15	ug/l		8
75) n-Butylbenzene	6.97	91	23220	1.15	ug/l		8
76) Hexachloroethane	7.12	201	1214	0.43	ug/l	#	2

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

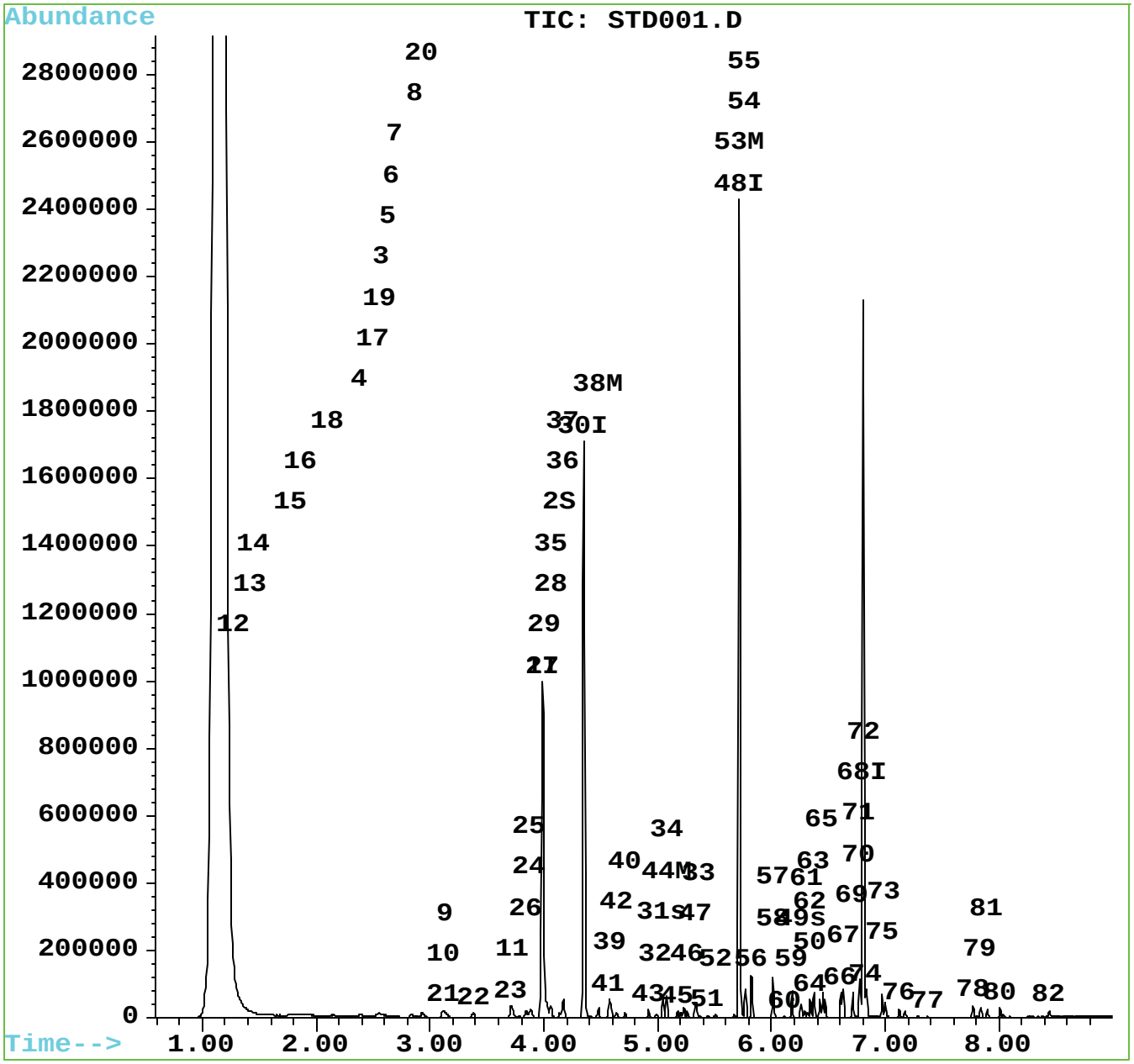
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	243	0.60	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	4670	1.25	ug/l		8
79)	Hexachlorobutadiene	7.84	225	2749	0.88	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	4433	1.33	ug/l		9
81)	Naphthalene	7.89	128	10438	1.36	ug/l		9
82)	2-Methylnaphthalene	8.44	142	5225	1.36	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	414215	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	776364	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	430828	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	309995	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	54360	13.50	ug/l		26.9
31) TOLUENE-D8 (S)	5.05	98	183265	10.56	ug/l		21.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	40688	8.93	ug/l		17.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.58	101	48359	10.27	ug/l	#	7
4) Diethyl ether (*)	2.37	74	19228	10.50	ug/l	#	3
5) Acetone (*)	2.63	43	17757	24.49	ug/l		8
6) Methyl iodide (iodomethane	2.65	142	59254	9.41	ug/l		8
7) Carbon disulfide (*)	2.69	76	135742	9.77	ug/l		8
8) Methyl Acetate	2.87	43	35329	24.30	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	116537	14.89	ug/l		8
10) Acrylonitrile (*)	3.11	53	17476	23.91	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	22782	24.88	ug/l		7
12) Dichlorodifluoromethane	1.25	85	37067	10.62	ug/l		9
13) Chloromethane (SPCC)	1.40	50	86268	17.64	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	61759	11.31	ug/l		9
15) Bromomethane	1.77	94	23646	6.10	ug/l		9
16) Chloroethane	1.85	64	23203	5.03	ug/l		8
17) Acrolein	2.47	56	55	0.32	ug/l	#	4
18) Trichlorofluoromethane	2.07	101	66046	8.52	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.54	61	90405	12.56	ug/l	#	6
20) Methylene Chloride	2.93	84	52150	12.65	ug/l	#	4
21) trans-1,2-Dichloroethene	3.10	61	89958	13.76	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	110697	13.87	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	54081	11.23	ug/l	#	5
24) Tetrahydrofuran	3.87	42	20304	33.27	ug/l		8
25) Chloroform (CCC)	3.89	83	86168	11.38	ug/l		9
26) Bromochloromethane	3.84	130	23910	11.42	ug/l	#	1
27) 1,1,1-Trichloroethane	3.98	97	73468	8.91	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	82507	11.96	ug/l		8
29) Cyclohexane	4.00	42	42410	16.32	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	12611	18.90	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	12660	20.32	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	20227	15.43 ug/l #	
35) Carbon Tetrachloride	4.06	117	56402	7.82 ug/l	9
36) Benzene (MS)	4.16	78	234714	11.65 ug/l	8
37) 1,2-Dichloroethane	4.17	62	68369	12.84 ug/l	9
38) Trichloroethene (MS)	4.47	95	50495	10.14 ug/l	7
39) 1,2-Dichloropropane (CCC)	4.59	63	62038	14.12 ug/l	9
40) Bromodichloromethane	4.72	83	52508	10.09 ug/l	9
41) Methyl Cyclohexane	4.57	55	111633	13.90 ug/l #	5
42) Dibromomethane	4.65	174	18732	11.43 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	77585	13.15 ug/l	9
44) Toluene (CCC/MS)	5.07	91	238249	10.99 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	59525	12.46 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	28952	13.36 ug/l	8
47) Tetrachloroethene	5.33	166	46508	13.12 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.34	53	11866	14.81 ug/l #	4
51) Dibromochloromethane	5.45	129	23563	7.86 ug/l	9
52) 1,2-Dibromoethane	5.51	107	29017	10.75 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	134922	9.55 ug/l	7
54) 1,1,1,2-Tetrachloroethane	5.76	131	37481	8.39 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	267347	9.49 ug/l	9
56) p,m-Xylene	5.82	106	198571	18.73 ug/l	7
57) o-Xylene	6.01	91	207662	9.34 ug/l	8
58) Styrene	6.02	104	151740	9.46 ug/l	8
59) Isopropylbenzene	6.18	105	260353	9.12 ug/l	9
60) Bromoform (SPCC)	6.12	173	10781	6.47 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	39778	13.07 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	11093	11.67 ug/l #	4
63) n-Propylbenzene	6.37	91	315185	9.89 ug/l	8
64) Bromobenzene	6.34	156	43847	9.29 ug/l #	3
65) 1,3,5-Trimethylbenzene	6.45	120	96916	9.20 ug/l #	7
66) tert-Butylbenzene	6.61	91	147998	8.69 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	106552	9.12 ug/l #	7
69) sec-Butylbenzene	6.72	105	292789	9.45 ug/l	9
70) p-Isopropyltoluene	6.77	119	217046	9.45 ug/l	9
71) 1,3-Dichlorobenzene	6.78	146	91642	9.69 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	92661	10.36 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	84739	10.31 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	206561	10.16 ug/l	8
75) n-Butylbenzene	6.97	91	236319	10.83 ug/l	9
76) Hexachloroethane	7.13	201	13783	4.55 ug/l #	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

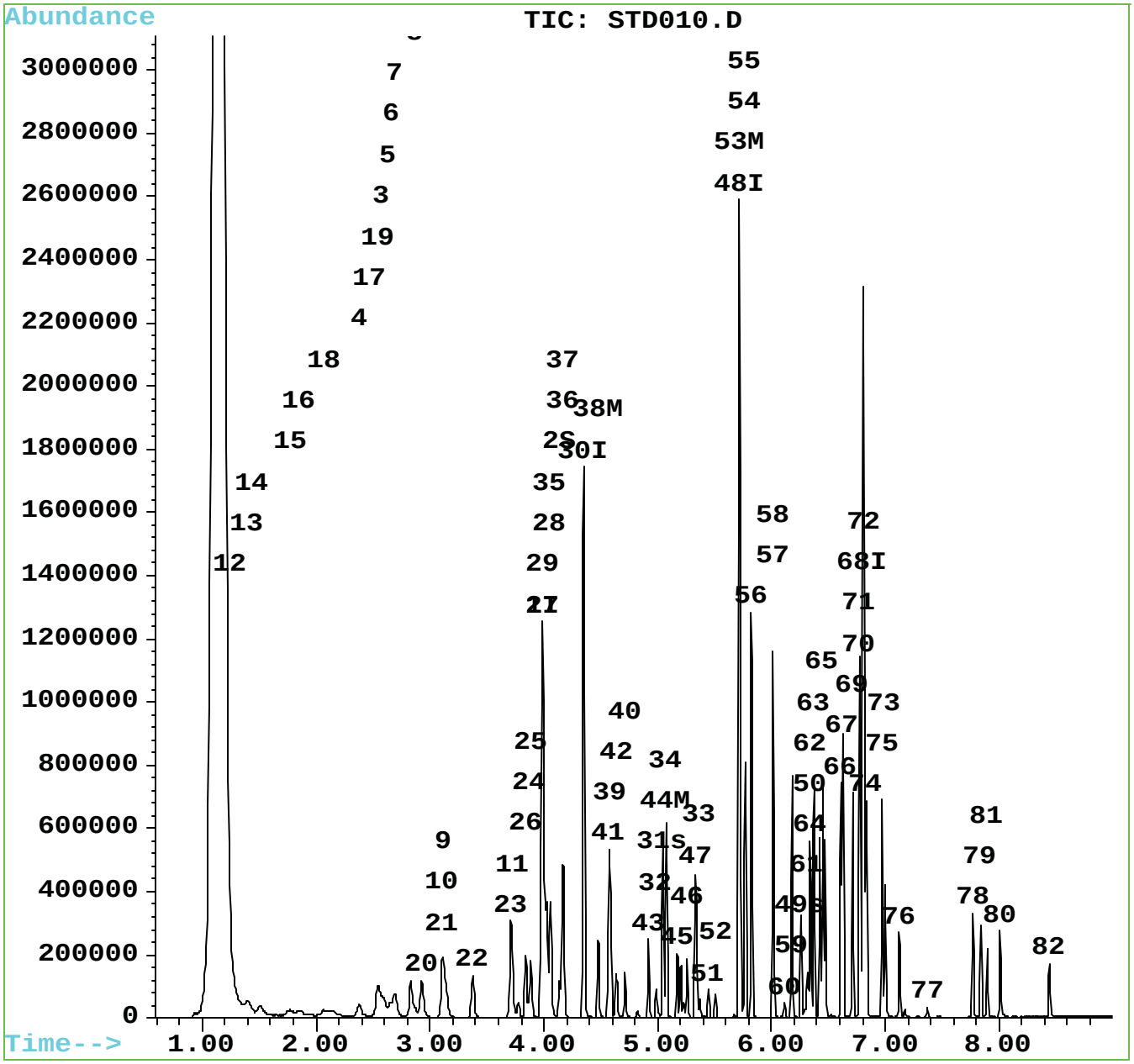
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	3655	8.33	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	47156	11.74	ug/l		9
79)	Hexachlorobutadiene	7.85	225	28546	8.49	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	41890	11.71	ug/l		9
81)	Naphthalene	7.90	128	96886	11.73	ug/l		9
82)	2-Methylnaphthalene	8.45	142	44875	10.89	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	420130	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	792518	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	447318	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	309313	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	103211	25.26	ug/l		50.5
31) TOLUENE-D8 (S)	5.05	98	349681	19.74	ug/l		39.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	77041	16.29	ug/l		32.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	90925	19.03	ug/l	#	7
4) Diethyl ether (*)	2.38	74	35199	18.95	ug/l	#	3
5) Acetone (*)	2.63	43	28760	39.10	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	115174	18.04	ug/l		8
7) Carbon disulfide (*)	2.70	76	279812	19.85	ug/l		8
8) Methyl Acetate	2.87	43	67492	45.77	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	225580	28.41	ug/l		8
10) Acrylonitrile (*)	3.11	53	32839	44.30	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	40418	43.52	ug/l		8
12) Dichlorodifluoromethane	1.26	85	69962	19.88	ug/l		9
13) Chloromethane (SPCC)	1.41	50	158248	31.90	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	124111	22.40	ug/l		9
15) Bromomethane	1.77	94	42948	11.03	ug/l		9
16) Chloroethane	1.86	64	43063	9.28	ug/l		9
17) Acrolein	2.47	56	122	0.70	ug/l	#	8
18) Trichlorofluoromethane	2.07	101	123152	15.66	ug/l	#	6
19) 1,1-Dichloroethene (CCC/MS	2.55	61	168050	23.02	ug/l	#	6
20) Methylene Chloride	2.93	84	101499	24.27	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	175637	26.49	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	210148	25.96	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	105462	21.59	ug/l	#	5
24) Tetrahydrofuran	3.87	42	32164	51.97	ug/l		9
25) Chloroform (CCC)	3.89	83	169484	22.06	ug/l		9
26) Bromochloromethane	3.85	130	46868	22.08	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	145445	17.38	ug/l		9
28) 1,1-Dichloropropene	4.06	75	153633	21.96	ug/l		8
29) Cyclohexane	4.01	42	78421	29.75	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	24456	35.91	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	24651	38.76	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	39574	29.58 ug/l #	
35) Carbon Tetrachloride	4.07	117	109780	14.91 ug/l	9
36) Benzene (MS)	4.17	78	445228	21.65 ug/l	9
37) 1,2-Dichloroethane	4.17	62	131304	24.15 ug/l	9
38) Trichloroethene (MS)	4.48	95	96196	18.93 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	118370	26.39 ug/l	9
40) Bromodichloromethane	4.72	83	105177	19.80 ug/l	9
41) Methyl Cyclohexane	4.57	55	206708	25.22 ug/l #	5
42) Dibromomethane	4.65	174	35153	21.02 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	153459	25.48 ug/l	9
44) Toluene (CCC/MS)	5.07	91	450541	20.36 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	123520	25.13 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	56132	25.38 ug/l	9
47) Tetrachloroethene	5.33	166	87415	22.87 ug/l	8
50) trans-1,4-Dichloro-2-buten	6.34	53	22500	27.05 ug/l #	5
51) Dibromochloromethane	5.45	129	49575	15.93 ug/l	9
52) 1,2-Dibromoethane	5.51	107	58251	20.78 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	257679	17.56 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	75680	16.32 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	506012	17.29 ug/l	9
56) p,m-Xylene	5.82	106	375463	34.11 ug/l #	7
57) o-Xylene	6.01	91	400432	17.34 ug/l	8
58) Styrene	6.02	104	299601	17.99 ug/l	8
59) Isopropylbenzene	6.18	105	500073	16.87 ug/l	9
60) Bromoform (SPCC)	6.12	173	22529	13.03 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	78577	24.86 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	20767	21.05 ug/l #	3
63) n-Propylbenzene	6.37	91	593963	17.96 ug/l	8
64) Bromobenzene	6.34	156	86843	17.72 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	187737	17.16 ug/l #	7
66) tert-Butylbenzene	6.61	91	285227	16.13 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	207645	17.11 ug/l #	7
69) sec-Butylbenzene	6.71	105	557010	18.01 ug/l	9
70) p-Isopropyltoluene	6.77	119	413276	18.02 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	175099	18.55 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	178399	20.00 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	159565	19.46 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	393188	19.37 ug/l	8
75) n-Butylbenzene	6.97	91	450600	20.70 ug/l	9
76) Hexachloroethane	7.12	201	28398	9.39 ug/l #	2

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

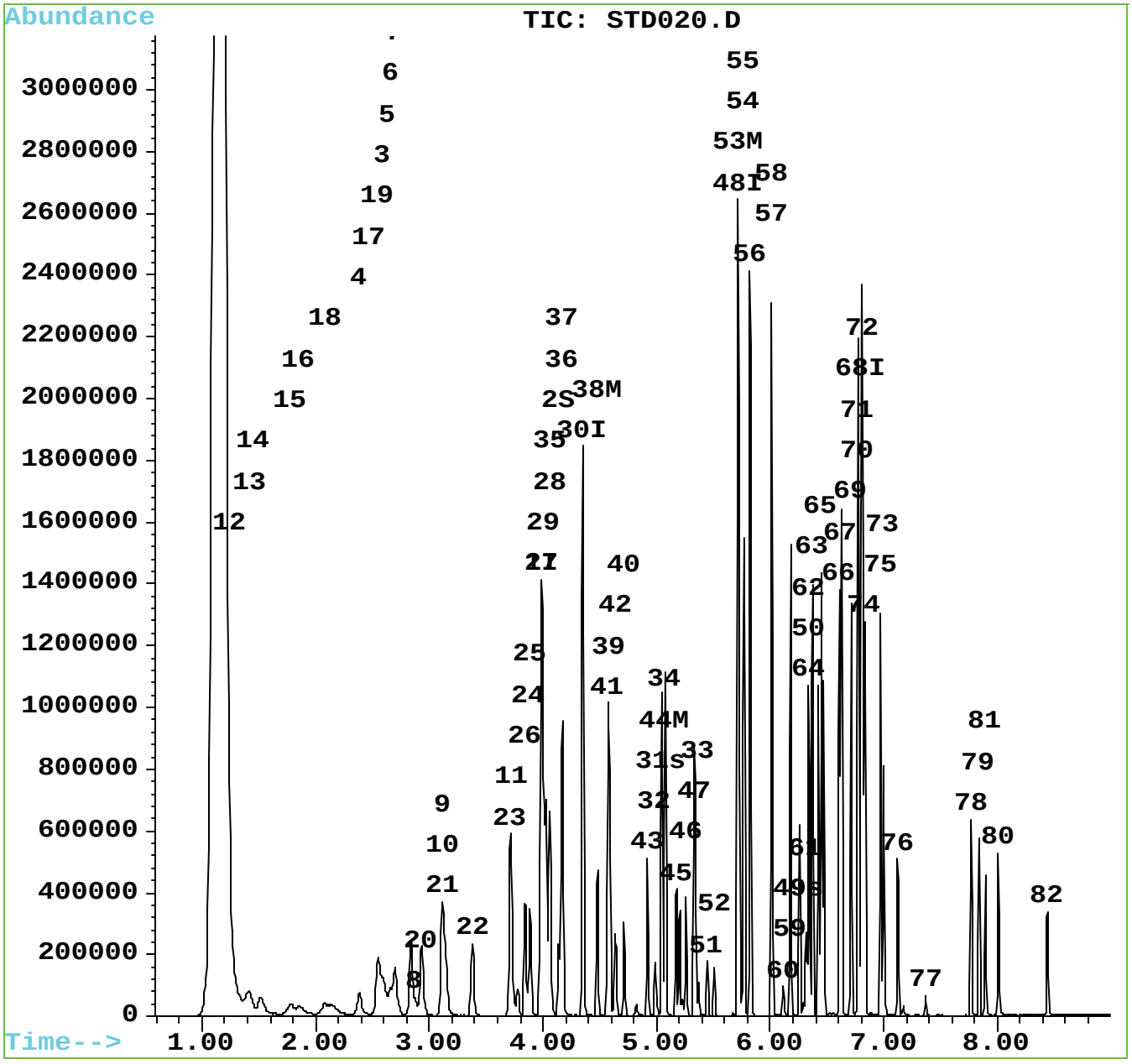
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	8005	18.28	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	90097	22.48	ug/l		9
79)	Hexachlorobutadiene	7.85	225	54744	16.32	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	79048	22.15	ug/l		9
81)	Naphthalene	7.89	128	192859	23.40	ug/l		9
82)	2-Methylnaphthalene	8.44	142	92874	22.58	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	434862	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	821084	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	460286	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	337672	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	329091	77.83	ug/l		155.6
31) TOLUENE-D8 (S)	5.05	98	1085148	59.12	ug/l		118.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	248365	51.04	ug/l		102.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	286578	57.95	ug/l	#	8
4) Diethyl ether (*)	2.38	74	113213	58.90	ug/l	#	3
5) Acetone (*)	2.63	43	76879	100.99	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	372829	56.43	ug/l		8
7) Carbon disulfide (*)	2.70	76	980354	67.20	ug/l		9
8) Methyl Acetate	2.87	43	192760	126.29	ug/l		7
9) tert-Methyl butyl ether (M	3.14	73	712924	86.75	ug/l		8
10) Acrylonitrile (*)	3.11	53	101064	131.71	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	119473	124.28	ug/l		8
12) Dichlorodifluoromethane	1.26	85	267268	76.26	ug/l		9
13) Chloromethane (SPCC)	1.42	50	498915	97.17	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	406600	70.91	ug/l		9
15) Bromomethane	1.78	94	134795	35.09	ug/l		9
16) Chloroethane	1.86	64	130008	28.00	ug/l		9
17) Acrolein	2.49	56	60	0.33	ug/l	#	
18) Trichlorofluoromethane	2.07	101	401179	49.27	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	533350	70.58	ug/l	#	6
20) Methylene Chloride	2.93	84	316015	73.01	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	549595	80.08	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	652331	77.86	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	325736	64.43	ug/l	#	5
24) Tetrahydrofuran	3.87	42	85159	132.93	ug/l	#	7
25) Chloroform (CCC)	3.89	83	520235	65.43	ug/l		9
26) Bromochloromethane	3.85	130	145918	66.41	ug/l	#	1
27) 1,1,1-Trichloroethane	3.98	97	462539	53.41	ug/l	#	3
28) 1,1-Dichloropropene	4.06	75	475212	65.62	ug/l		8
29) Cyclohexane	4.01	42	241934	88.66	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	82688	117.19	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	75849	115.12	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	126870	91.54 ug/l #	
35) Carbon Tetrachloride	4.07	117	362609	47.55 ug/l	9
36) Benzene (MS)	4.17	78	1387942	65.14 ug/l	9
37) 1,2-Dichloroethane	4.17	62	411618	73.08 ug/l	9
38) Trichloroethene (MS)	4.48	95	307280	58.36 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	365981	78.76 ug/l	9
40) Bromodichloromethane	4.72	83	351896	63.93 ug/l	9
41) Methyl Cyclohexane	4.57	55	659030	77.60 ug/l #	5
42) Dibromomethane	4.65	174	110994	64.05 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	491425	78.75 ug/l	9
44) Toluene (CCC/MS)	5.08	91	1399837	61.05 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	407305	77.40 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	178522	77.90 ug/l	8
47) Tetrachloroethene	5.33	166	276826	58.46 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.34	53	79605	93.02 ug/l #	4
51) Dibromochloromethane	5.45	129	180029	56.21 ug/l	9
52) 1,2-Dibromoethane	5.51	107	190111	65.92 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	799543	52.95 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	239443	50.18 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	1577596	52.39 ug/l	9
56) p,m-Xylene	5.82	106	1153214	101.81 ug/l #	7
57) o-Xylene	6.01	91	1253925	52.76 ug/l	8
58) Styrene	6.02	104	925863	54.03 ug/l	8
59) Isopropylbenzene	6.18	105	1563307	51.26 ug/l	9
60) Bromoform (SPCC)	6.12	173	89333	50.20 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	249170	76.61 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	68634	67.60 ug/l #	3
63) n-Propylbenzene	6.37	91	1905700	56.00 ug/l	8
64) Bromobenzene	6.34	156	274802	54.49 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	583942	51.86 ug/l #	6
66) tert-Butylbenzene	6.61	91	924565	50.80 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	652113	52.22 ug/l #	7
69) sec-Butylbenzene	6.72	105	1777535	52.64 ug/l	9
70) p-Isopropyltoluene	6.77	119	1304761	52.13 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	538909	52.29 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	553159	56.80 ug/l	9
73) 1,2-Dichlorobenzene	7.00	146	509171	56.88 ug/l	8
74) 1,2,3-Trimethylbenzene	6.83	105	1275527	57.57 ug/l	8
75) n-Butylbenzene	6.97	91	1427053	60.04 ug/l	9
76) Hexachloroethane	7.12	201	119014	36.06 ug/l #	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

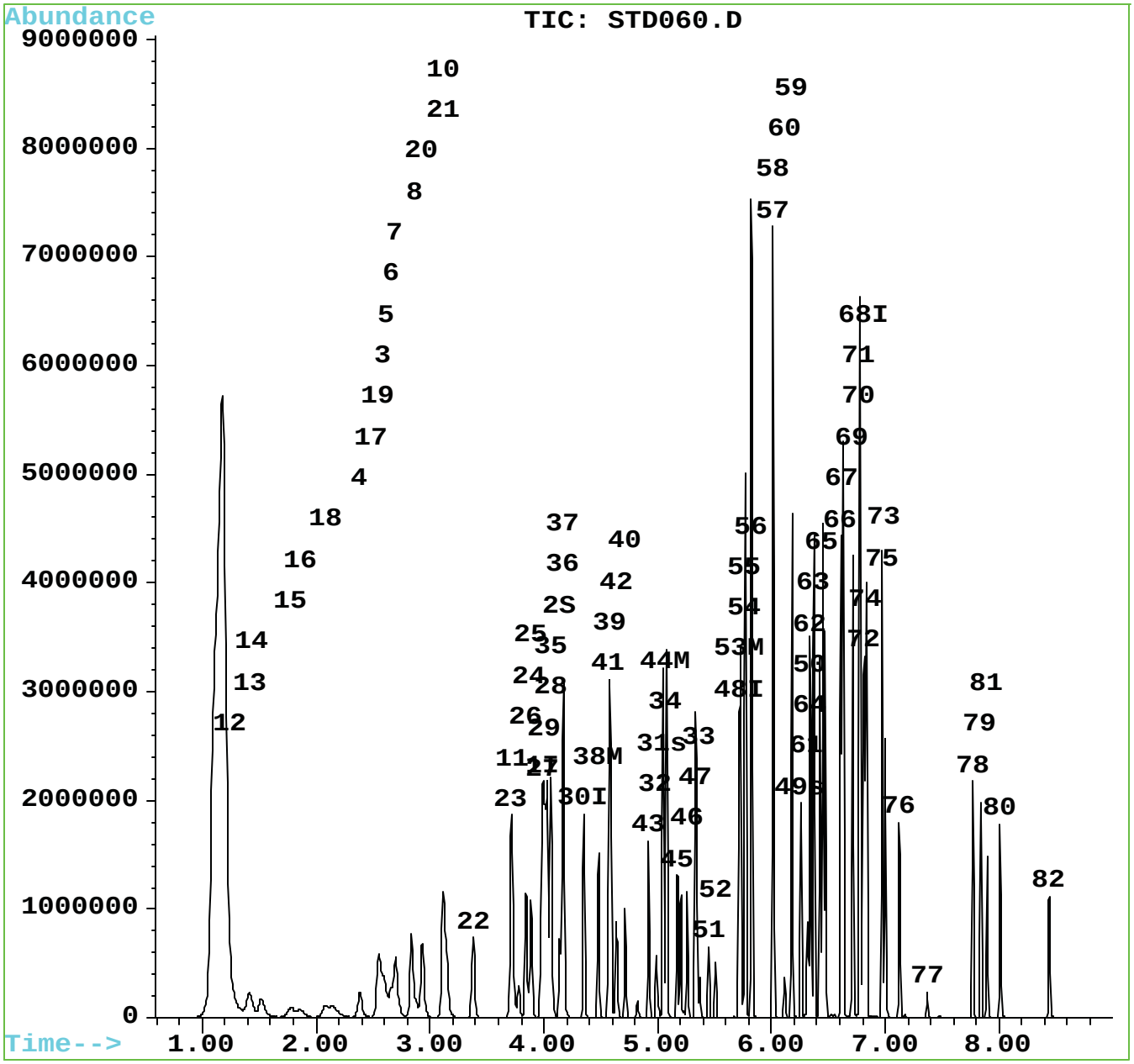
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	30355	63.50 ug/l #	7
78)	1,2,4-Trichlorobenzene	7.77	182	307171	70.19 ug/l	9
79)	Hexachlorobutadiene	7.85	225	191851	52.39 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	269916	69.29 ug/l	9
81)	Naphthalene	7.89	128	636417	70.72 ug/l	9
82)	2-Methylnaphthalene	8.45	142	317534	70.72 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	476323	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	884636	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	499781	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	348566	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	643420	138.92	ug/l		277.8
31) TOLUENE-D8 (S)	5.05	98	2078539	105.11	ug/l		210.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	481535	91.15	ug/l		182.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	549323	101.42	ug/l	#	8
4) Diethyl ether (*)	2.38	74	230018	109.25	ug/l	#	4
5) Acetone (*)	2.63	43	157288	188.63	ug/l	#	8
6) Methyl iodide (iodomethane	2.65	142	724308	100.08	ug/l		8
7) Carbon disulfide (*)	2.69	76	1973059	123.48	ug/l		9
8) Methyl Acetate	2.87	43	384369	229.90	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	1396057	155.08	ug/l		8
10) Acrylonitrile (*)	3.11	53	204265	243.03	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	230155	218.57	ug/l		8
12) Dichlorodifluoromethane	1.26	85	502391	136.62	ug/l		9
13) Chloromethane (SPCC)	1.41	50	957308	170.22	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	745188	118.65	ug/l		9
15) Bromomethane	1.78	94	258097	65.43	ug/l		9
16) Chloroethane	1.85	64	250349	51.46	ug/l		9
17) Acrolein	2.50	56	325	1.64	ug/l	#	4
18) Trichlorofluoromethane	2.08	101	767981	86.11	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.54	61	1039550	125.59	ug/l	#	7
20) Methylene Chloride	2.93	84	608910	128.44	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	1072570	142.69	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	1273397	138.75	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	634720	114.61	ug/l	#	5
24) Tetrahydrofuran	3.87	42	160564	228.82	ug/l	#	7
25) Chloroform (CCC)	3.89	83	1017334	116.81	ug/l		9
26) Bromochloromethane	3.84	130	286626	119.10	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	899371	94.81	ug/l	#	1
28) 1,1-Dichloropropene	4.06	75	924335	116.52	ug/l		8
29) Cyclohexane	4.01	42	456545	152.74	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	162745	214.09	ug/l	#	6
33) 2-Hexanone (*)	5.36	58	152849	215.32	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	242527	162.41 ug/l #	
35) Carbon Tetrachloride	4.06	117	716309	87.18 ug/l	9
36) Benzene (MS)	4.16	78	2660378	115.89 ug/l	9
37) 1,2-Dichloroethane	4.17	62	804324	132.54 ug/l	9
38) Trichloroethene (MS)	4.47	95	589875	103.99 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	705051	140.83 ug/l	9
40) Bromodichloromethane	4.72	83	712674	120.17 ug/l	9
41) Methyl Cyclohexane	4.57	55	1260400	137.75 ug/l #	5
42) Dibromomethane	4.65	174	222259	119.04 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	980374	145.82 ug/l	9
44) Toluene (CCC/MS)	5.07	91	2645203	107.08 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	811197	137.95 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	342742	138.82 ug/l	8
47) Tetrachloroethene	5.33	166	529543	90.48 ug/l	8
50) trans-1,4-Dichloro-2-buten	6.34	53	157966	170.00 ug/l #	4
51) Dibromochloromethane	5.45	129	374093	107.57 ug/l	9
52) 1,2-Dibromoethane	5.51	107	364568	116.43 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	1517952	92.57 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	471189	90.95 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	2971287	90.88 ug/l	9
56) p,m-Xylene	5.83	106	2091094	170.02 ug/l #	7
57) o-Xylene	6.01	91	2326005	90.14 ug/l	8
58) Styrene	6.02	104	1731036	93.04 ug/l	8
59) Isopropylbenzene	6.18	105	2925317	88.34 ug/l	9
60) Bromoform (SPCC)	6.12	173	190479	98.58 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	476381	134.89 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	128213	116.30 ug/l #	3
63) n-Propylbenzene	6.37	91	3541794	95.85 ug/l	8
64) Bromobenzene	6.34	156	530522	96.88 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	1086862	88.89 ug/l #	6
66) tert-Butylbenzene	6.61	91	1739014	88.00 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	1184885	87.39 ug/l #	7
69) sec-Butylbenzene	6.72	105	3236851	92.87 ug/l	9
70) p-Isopropyltoluene	6.77	119	2354350	91.12 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	985054	92.59 ug/l	8
72) 1,4-Dichlorobenzene	6.82	146	1039326	103.39 ug/l	9
73) 1,2-Dichlorobenzene	7.00	146	949748	102.79 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	2350042	102.76 ug/l	8
75) n-Butylbenzene	6.97	91	2599469	105.96 ug/l	9
76) Hexachloroethane	7.13	201	242647	71.22 ug/l #	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

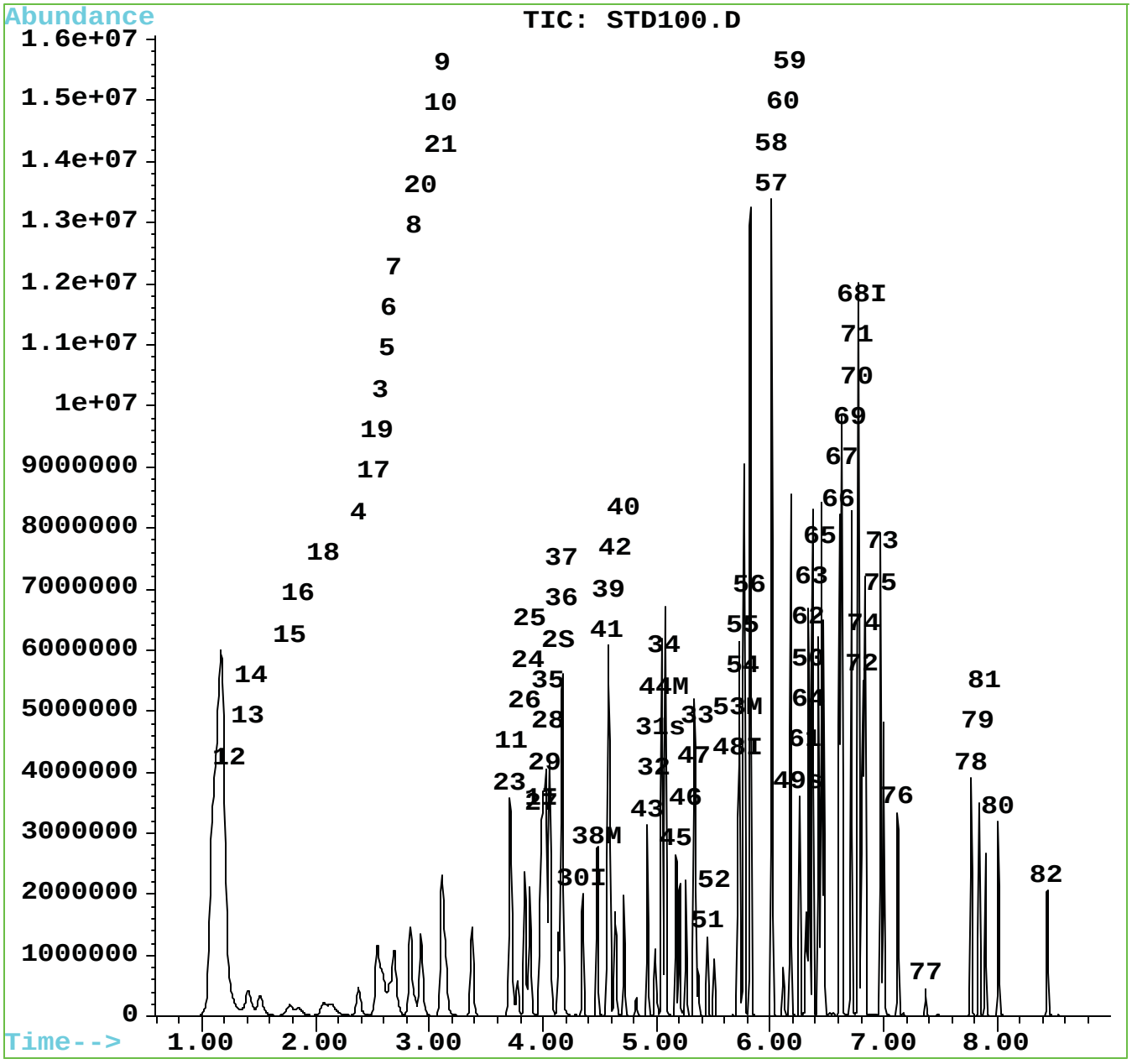
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	58366	118.28	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	552306	122.26	ug/l		9
79)	Hexachlorobutadiene	7.85	225	359104	95.00	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	494673	123.02	ug/l		9
81)	Naphthalene	7.89	128	1158588	124.72	ug/l		9
82)	2-Methylnaphthalene	8.45	142	580452	125.23	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	494818	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	905075	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	507941	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	350499	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	1317668	273.86	ug/l		547.7
31) TOLUENE-D8 (S)	5.05	98	4120092	203.64	ug/l		407.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	1026200	191.12	ug/l		382.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	1164784	207.01	ug/l		8
4) Diethyl ether (*)	2.39	74	472489	216.03	ug/l	#	4
5) Acetone (*)	2.63	43	281781	325.30	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	1531140	203.66	ug/l		8
7) Carbon disulfide (*)	2.70	76	4254437	256.30	ug/l		9
8) Methyl Acetate	2.88	43	770277	443.49	ug/l		7
9) tert-Methyl butyl ether (M	3.14	73	2891502	309.20	ug/l		8
10) Acrylonitrile (*)	3.12	53	422295	483.66	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	439588	401.86	ug/l		8
12) Dichlorodifluoromethane	1.26	85	1058691	319.83	ug/l		9
13) Chloromethane (SPCC)	1.42	50	2030242	347.52	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	1582060	242.48	ug/l		9
15) Bromomethane	1.78	94	539063	171.45	ug/l		9
16) Chloroethane	1.86	64	507993	114.44	ug/l		9
17) Acrolein	2.47	56	254	1.23	ug/l	#	2
18) Trichlorofluoromethane	2.07	101	1599091	172.60	ug/l	#	6
19) 1,1-Dichloroethene (CCC/MS	2.55	61	2222008	258.40	ug/l	#	7
20) Methylene Chloride	2.93	84	1268844	257.64	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	2210930	283.13	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	2621007	274.92	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	1298020	225.62	ug/l	#	5
24) Tetrahydrofuran	3.87	42	322303	442.15	ug/l	#	7
25) Chloroform (CCC)	3.89	83	2119978	234.33	ug/l		9
26) Bromochloromethane	3.85	130	587185	234.86	ug/l	#	2
27) 1,1,1-Trichloroethane	3.99	97	1930600	195.92	ug/l	#	1
28) 1,1-Dichloropropene	4.06	75	1868728	226.76	ug/l		8
29) Cyclohexane	4.01	42	939698	302.63	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	329618	423.81	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	304946	419.87	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.08	63	487476	319.07 ug/l #	
35) Carbon Tetrachloride	4.07	117	1552862	184.74 ug/l	9
36) Benzene (MS)	4.17	78	5299540	225.65 ug/l	9
37) 1,2-Dichloroethane	4.17	62	1641937	264.45 ug/l	9
38) Trichloroethene (MS)	4.48	95	1237072	213.16 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	1413680	275.99 ug/l	9
40) Bromodichloromethane	4.72	83	1504409	247.95 ug/l	9
41) Methyl Cyclohexane	4.57	55	2610088	278.82 ug/l #	5
42) Dibromomethane	4.65	174	472016	247.10 ug/l #	6
43) cis-1,3-Dichloropropene	4.92	75	2001763	291.01 ug/l	9
44) Toluene (CCC/MS)	5.08	91	5230255	206.94 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	1661601	257.84 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	706866	279.84 ug/l	8
47) Tetrachloroethene	5.33	166	1123684	151.02 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.35	53	313473	331.94 ug/l #	3
51) Dibromochloromethane	5.45	129	800979	226.62 ug/l	9
52) 1,2-Dibromoethane	5.51	107	762366	239.56 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	3004624	180.30 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	974858	185.15 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	5787634	174.17 ug/l	9
56) p,m-Xylene	5.83	106	3951896	316.15 ug/l #	7
57) o-Xylene	6.02	91	4533133	172.84 ug/l	8
58) Styrene	6.02	104	3301981	174.62 ug/l	8
59) Isopropylbenzene	6.18	105	5867843	174.35 ug/l	9
60) Bromoform (SPCC)	6.12	173	434281	221.14 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	982742	273.80 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	264017	235.64 ug/l #	4
63) n-Propylbenzene	6.37	91	6935771	184.67 ug/l	8
64) Bromobenzene	6.34	156	1092602	196.32 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	2133203	171.67 ug/l #	6
66) tert-Butylbenzene	6.61	91	3574801	178.00 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	2272453	164.91 ug/l #	6
69) sec-Butylbenzene	6.72	105	6398991	182.58 ug/l	9
70) p-Isopropyltoluene	6.78	119	4575823	176.12 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	1932635	180.66 ug/l	8
72) 1,4-Dichlorobenzene	6.82	146	2077563	205.54 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	1920960	206.76 ug/l	8
74) 1,2,3-Trimethylbenzene	6.84	105	4683558	203.66 ug/l	8
75) n-Butylbenzene	6.97	91	5111440	207.20 ug/l	9
76) Hexachloroethane	7.13	201	588664	171.83 ug/l #	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

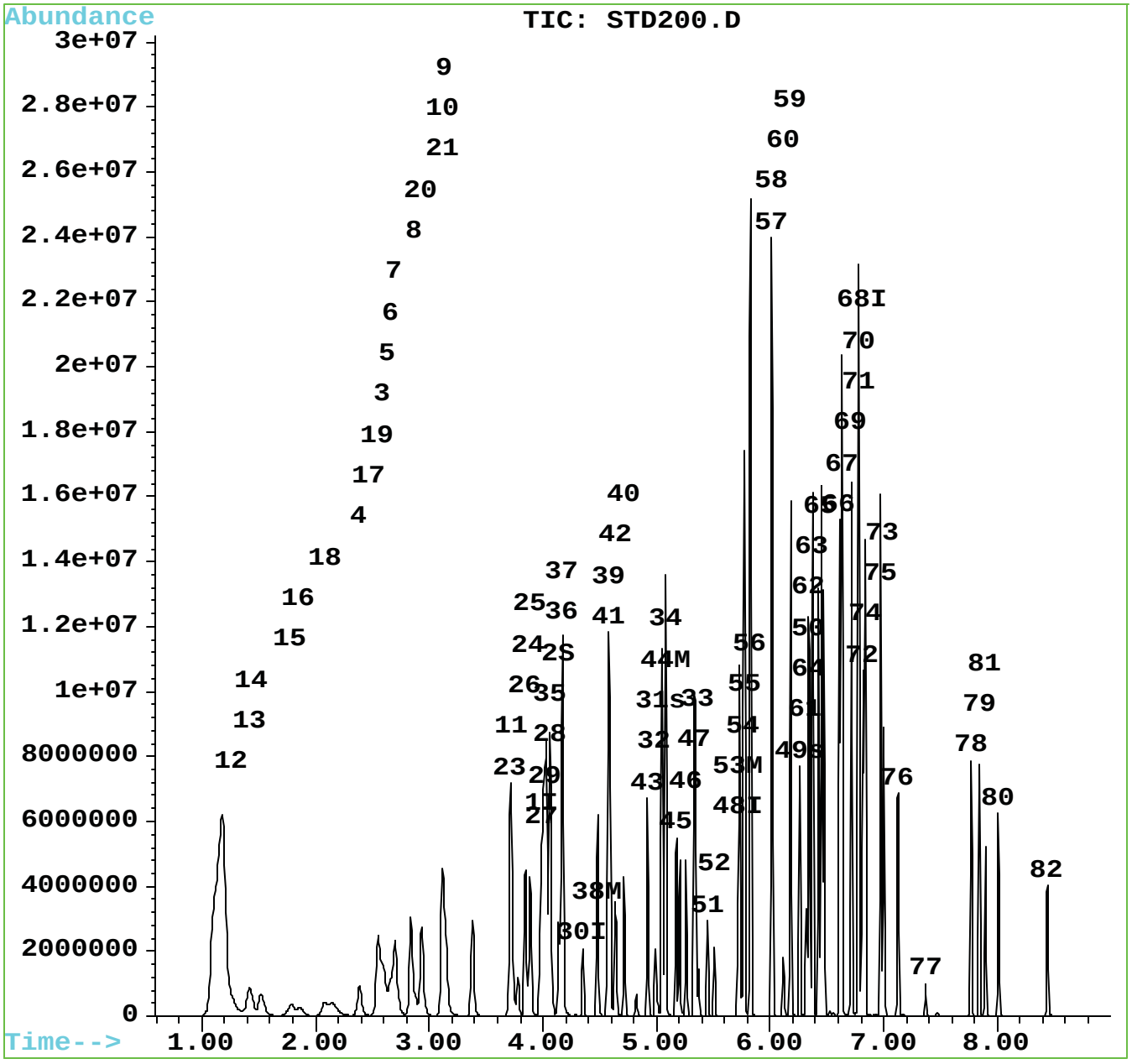
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	129017	260.01 ug/l #	6
78)	1,2,4-Trichlorobenzene	7.77	182	1143809	251.81 ug/l	9
79)	Hexachlorobutadiene	7.85	225	826896	217.55 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	996986	246.57 ug/l	9
81)	Naphthalene	7.90	128	2304350	246.70 ug/l	9
82)	2-Methylnaphthalene	8.45	142	1130364	242.53 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120620a3.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc20a.d	06/20/12 12:04	1,1,2-Trichloro-1,2,2-trifluoroethane	0.539	0.05
		Diethyl ether	0.217	0.05
		Acetone	0.221	0.01
		Methyl iodide	0.703	0.05
		Carbon disulfide	1.784	0.05
		Methyl acetate	0.383	0.05
		tert-Methyl butyl ether	1.374	0.05
		Acrylonitrile	0.201	0.01
		2-Butanone	0.277	0.01
		Dichlorodifluoromethane	0.400	0.05
		Chloromethane	0.807	0.10
		Vinyl Chloride	0.709	0.05
		Bromomethane	0.237	0.05
		Chloroethane	0.227	0.05
		Trichlorofluoromethane	0.711	0.05
		1,1-Dichloroethene	0.965	0.05
		Methylene Chloride	0.597	0.05
		trans-1,2-Dichloroethene	1.044	0.05
		1,1-Dichloroethane	1.246	0.10
		cis-1,2-Dichloroethene	0.621	0.05
		Tetrahydrofuran	0.168	0.01
		Chloroform	0.998	0.05
		Bromochloromethane	0.279	0.05
		1,1,1-Trichloroethane	0.907	0.05
		Cyclohexane	0.446	0.05
		4-Methyl-2-pentanone	0.091	0.01
		2-Hexanone	0.098	0.01
		Carbon Tetrachloride	0.407	0.05
		Benzene	1.473	0.05
		1,2-Dichloroethane	0.439	0.05
		Trichloroethene	0.332	0.05
		1,2-Dichloropropane	0.385	0.05
		Bromodichloromethane	0.384	0.05
		Methyl cyclohexane	0.700	0.05
		Dibromomethane	0.126	0.05
		cis-1,3-Dichloropropene	0.535	0.05
		Toluene	1.470	0.05
		trans-1,3-Dichloropropene	0.450	0.05
		1,1,2-Trichloroethane	0.189	0.05
		Tetrachloroethene	0.305	0.05
		trans-1,4-Dichloro-2-butene	0.155	0.05
		Dibromochloromethane	0.360	0.05
		1,2-Dibromoethane	0.364	0.05
		Chlorobenzene	1.529	0.30
		1,1,1,2-Tetrachloroethane	0.465	0.05
		Ethylbenzene	2.994	0.05
		p,m-Xylene	1.106	0.05
		o-Xylene	2.339	0.05
		Styrene	1.774	0.05
		Isopropylbenzene	2.956	0.05
		Bromoform	0.181	0.10
		1,1,2,2-Tetrachloroethane	0.469	0.30
		1,2,3-Trichloropropane	0.131	0.05
		n-Propylbenzene	3.573	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120620a3.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	0.532	0.05
		1,3,5-Trimethylbenzene	1.121	0.05
		tert-Butylbenzene	1.709	0.05
		1,2,4-Trimethylbenzene	1.204	0.05
		sec-Butylbenzene	4.526	0.05
		p-Isopropyltoluene	3.351	0.05
		1,3-Dichlorobenzene	1.414	0.05
		1,4-Dichlorobenzene	1.460	0.05
		1,2-Dichlorobenzene	1.303	0.05
		1,2,3-Trimethylbenzene	3.229	0.05
		n-Butylbenzene	3.662	0.05
		Hexachloroethane	0.321	0.05
		1,2-Dibromo-3-Chloropropane	0.078	0.05
		1,2,4-Trichlorobenzene	0.787	0.05
		1,2,3-Trichlorobenzene	0.687	0.05
		Naphthalene	1.540	0.05
		2-Methylnaphthalene	0.768	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*		*CCC %D/UCL*
spcc20a.d	06/20/12 12:04	1,1,2-Trichloro-1,2,2-trifluoroet	47.2/ 50.0		5.5/ 20.0
		Diethyl ether	46.0/ 50.0		8.1/ 20.0
		Acetone	72.1/ 50.0	*	44.1/ 20.0
		Methyl iodide	47.4/ 50.0		5.2/ 20.0
		Carbon disulfide	49.2/ 50.0		1.7/ 20.0
		Methyl acetate	48.1/ 50.0		3.9/ 20.0
		tert-Methyl butyl ether	47.6/ 50.0		4.8/ 20.0
		Acrylonitrile	47.3/ 50.0		5.4/ 20.0
		2-Butanone	57.2/ 50.0		14.5/ 20.0
		Dichlorodifluoromethane	42.1/ 50.0		15.8/ 20.0
		Chloromethane	39.7/ 50.0	*	20.7/ 20.0
		Vinyl Chloride	46.6/ 50.0		6.7/ 20.0
		Bromomethane	42.0/ 50.0		15.9/ 20.0
		Chloroethane	41.7/ 50.0		16.5/ 20.0
		Trichlorofluoromethane	44.6/ 50.0		10.9/ 20.0
		1,1-Dichloroethene	44.3/ 50.0		11.4/ 20.0
		Methylene Chloride	45.6/ 50.0		8.8/ 20.0
		trans-1,2-Dichloroethene	47.4/ 50.0		5.2/ 20.0
		1,1-Dichloroethane	46.8/ 50.0		6.4/ 20.0
		cis-1,2-Dichloroethene	47.0/ 50.0		6.1/ 20.0
		Tetrahydrofuran	48.5/ 50.0		2.9/ 20.0
		Chloroform	46.7/ 50.0		6.6/ 20.0
		Bromochloromethane	46.2/ 50.0		7.5/ 20.0
		1,1,1-Trichloroethane	49.1/ 50.0		1.8/ 20.0
		Cyclohexane	44.9/ 50.0		10.2/ 20.0
		4-Methyl-2-pentanone	51.3/ 50.0		2.7/ 20.0
		2-Hexanone	60.2/ 50.0	*	20.4/ 20.0
		Carbon Tetrachloride	53.7/ 50.0		7.4/ 20.0
		Benzene	49.1/ 50.0		1.7/ 20.0
		1,2-Dichloroethane	49.1/ 50.0		1.9/ 20.0
		Trichloroethene	50.2/ 50.0		0.5/ 20.0
		1,2-Dichloropropane	49.4/ 50.0		1.1/ 20.0
		Bromodichloromethane	52.6/ 50.0		5.2/ 20.0
		Methyl cyclohexane	49.6/ 50.0		0.7/ 20.0
		Dibromomethane	52.5/ 50.0		5.0/ 20.0
		cis-1,3-Dichloropropene	52.2/ 50.0		4.3/ 20.0
		Toluene	48.8/ 50.0		2.4/ 20.0
		trans-1,3-Dichloropropene	55.1/ 50.0		10.2/ 20.0
		1,1,2-Trichloroethane	50.0/ 50.0		0.1/ 20.0
		Tetrachloroethene	51.0/ 50.0		1.9/ 20.0
		trans-1,4-Dichloro-2-butene	53.6/ 50.0		7.1/ 20.0
		Dibromochloromethane	52.4/ 50.0		4.9/ 20.0
		1,2-Dibromoethane	52.4/ 50.0		4.7/ 20.0
		Chlorobenzene	49.6/ 50.0		0.7/ 20.0
		1,1,1,2-Tetrachloroethane	52.1/ 50.0		4.2/ 20.0
		Ethylbenzene	50.2/ 50.0		0.5/ 20.0
		p,m-Xylene	102.0/100.0		2.0/ 20.0
		o-Xylene	49.9/ 50.0		0.3/ 20.0
		Styrene	52.0/ 50.0		4.0/ 20.0
		Isopropylbenzene	50.1/ 50.0		0.1/ 20.0
		Bromoform	53.6/ 50.0		7.1/ 20.0
		1,1,2,2-Tetrachloroethane	50.8/ 50.0		1.6/ 20.0
		1,2,3-Trichloropropane	52.2/ 50.0		4.3/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120620a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	50.5/ 50.0	1.0/ 20.0
		Bromobenzene	50.7/ 50.0	1.4/ 20.0
		1,3,5-Trimethylbenzene	51.4/ 50.0	2.7/ 20.0
		tert-Butylbenzene	50.0/ 50.0	0.1/ 20.0
		1,2,4-Trimethylbenzene	49.8/ 50.0	0.3/ 20.0
		sec-Butylbenzene	48.5/ 50.0	3.0/ 20.0
		p-Isopropyltoluene	49.4/ 50.0	1.3/ 20.0
		1,3-Dichlorobenzene	49.2/ 50.0	1.7/ 20.0
		1,4-Dichlorobenzene	48.1/ 50.0	3.8/ 20.0
		1,2-Dichlorobenzene	48.1/ 50.0	3.8/ 20.0
		1,2,3-Trimethylbenzene	48.1/ 50.0	3.9/ 20.0
		n-Butylbenzene	49.1/ 50.0	1.8/ 20.0
		Hexachloroethane	53.5/ 50.0	7.1/ 20.0
		1,2-Dibromo-3-Chloropropane	51.4/ 50.0	2.8/ 20.0
		1,2,4-Trichlorobenzene	50.6/ 50.0	1.2/ 20.0
		1,2,3-Trichlorobenzene	49.4/ 50.0	1.1/ 20.0
		Naphthalene	47.1/ 50.0	5.8/ 20.0
		2-Methylnaphthalene	48.0/ 50.0	4.1/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\spcc20a.d Vial: 2
Acq On : 20 Jun 12 12:04 pm Operator: lbr
Sample : spcc/ccc 1s0620 1v0620 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	533468	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	947911	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	526926	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	381089	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	300756	42.00	ug/l		84.0
31) TOLUENE-D8 (S)	5.05	98	1041367	46.78	ug/l		93.5
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	263366	50.57	ug/l		101.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	287650	47.23	ug/l		8
4) Diethyl ether (*)	2.39	74	115580	45.95	ug/l	#	4
5) Acetone (*)	2.64	43	117813	72.06	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	375090	47.40	ug/l		8
7) Carbon disulfide (*)	2.70	76	951495	49.16	ug/l		9
8) Methyl Acetate	2.87	43	204151	48.07	ug/l		7
9) tert-Methyl butyl ether (M	3.14	73	733107	47.59	ug/l		8
10) Acrylonitrile (*)	3.12	53	106878	47.31	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	147573	57.24	ug/l		8
12) Dichlorodifluoromethane	1.26	85	213480	42.12	ug/l		9
13) Chloromethane (SPCC)	1.41	50	430248	39.66	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	378155	46.64	ug/l		9
15) Bromomethane	1.77	94	126409	42.04	ug/l		9
16) Chloroethane	1.86	64	121326	41.74	ug/l		9
18) Trichlorofluoromethane	2.13	101	379487	44.56	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	515057	44.32	ug/l	#	6
20) Methylene Chloride	2.93	84	318663	45.58	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	556996	47.41	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	664637	46.78	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	331227	46.97	ug/l	#	5
24) Tetrahydrofuran	3.87	42	89581	48.53	ug/l		8
25) Chloroform (CCC)	3.89	83	532254	46.68	ug/l		9
26) Bromochloromethane	3.84	130	148990	46.24	ug/l	#	2
27) 1,1,1-Trichloroethane	3.99	97	483734	49.12	ug/l	#	3
28) 1,1-Dichloropropene	4.06	75	497825	47.90	ug/l		8
29) Cyclohexane	4.01	42	237653	44.91	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	86339	51.33	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	92890	60.21	ug/l	#	6
35) Carbon Tetrachloride	4.07	117	385562	53.72	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\spcc20a.d Vial: 2
Acq On : 20 Jun 12 12:04 pm Operator: lbr
Sample : spcc/ccc 1s0620 1v0620 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36) Benzene (MS)	4.17	78	1395731	49.13 ug/l		9
37) 1,2-Dichloroethane	4.17	62	415499	49.07 ug/l		9
38) Trichloroethene (MS)	4.48	95	314192	50.24 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	364671	49.43 ug/l		9
40) Bromodichloromethane	4.72	83	364029	52.62 ug/l		9
41) Methyl Cyclohexane	4.57	55	663415	49.63 ug/l	#	5
42) Dibromomethane	4.65	174	119922	52.52 ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	507254	52.16 ug/l		9
44) Toluene (CCC/MS)	5.08	91	1393627	48.80 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	425707	55.09 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	179369	49.96 ug/l		8
47) Tetrachloroethene	5.33	166	289150	50.96 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	82104	53.55 ug/l	#	4
51) Dibromochloromethane	5.45	129	189264	52.43 ug/l		9
52) 1,2-Dibromoethane	5.51	107	192046	52.36 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	805514	49.64 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	244962	52.09 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	1577668	50.24 ug/l		9
56) p,m-Xylene	5.83	106	1166240	101.96 ug/l	#	7
57) o-Xylene	6.02	91	1232642	49.86 ug/l		8
58) Styrene	6.02	104	934616	51.98 ug/l		8
59) Isopropylbenzene	6.18	105	1557365	50.06 ug/l		9
60) Bromoform (SPCC)	6.12	173	95191	53.56 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	247471	50.81 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	69160	52.16 ug/l	#	3
63) n-Propylbenzene	6.37	91	1882752	50.52 ug/l		8
64) Bromobenzene	6.34	156	280270	50.72 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	590688	51.37 ug/l	#	7
66) tert-Butylbenzene	6.61	91	900532	49.95 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	634279	49.83 ug/l	#	7
69) sec-Butylbenzene	6.72	105	1724746	48.50 ug/l		9
70) p-Isopropyltoluene	6.77	119	1276905	49.35 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	538749	49.16 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	556333	48.09 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	496627	48.08 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	1230512	48.07 ug/l		8
75) n-Butylbenzene	6.97	91	1395679	49.09 ug/l		9
76) Hexachloroethane	7.13	201	122431	53.54 ug/l	#	5
77) 1,2-Dibromo-3-Chloropropan	7.37	157	29942	51.38 ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.77	182	299858	50.59 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\spcc20a.d Vial: 2
Acq On : 20 Jun 12 12:04 pm Operator: lbr
Sample : spcc/ccc 1s0620 1v0620 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

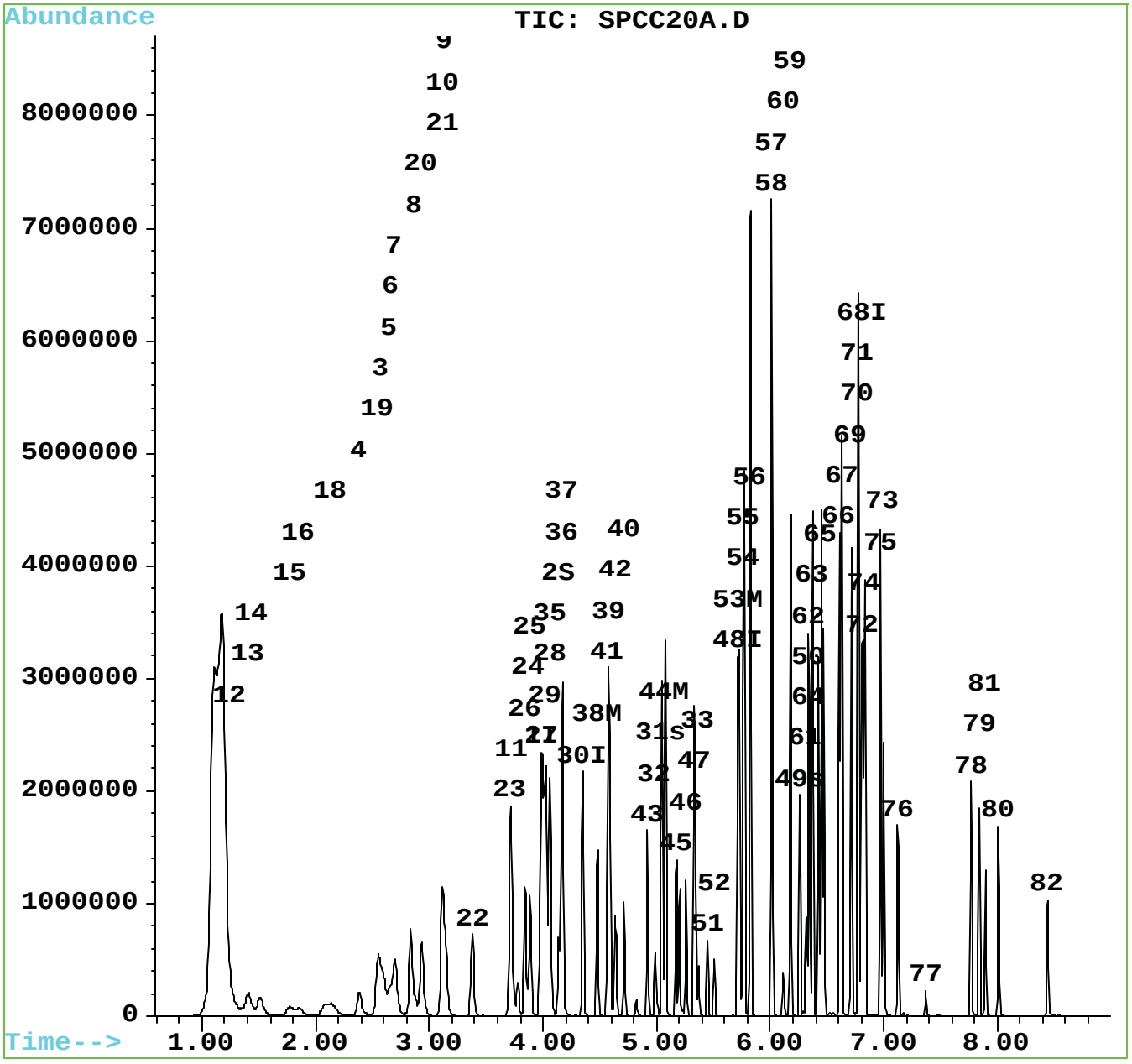
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.84	225	190110	50.59 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	261967	49.44 ug/l	9
81)	Naphthalene	7.90	128	586632	47.08 ug/l	9
82)	2-Methylnaphthalene	8.44	142	292692	47.96 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\spcc20a.d Vial: 2
Acq On : 20 Jun 12 12:04 pm Operator: lbr
Sample : spcc/ccc 1s0620 1v0620 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\bfb20a.d Vial: 1
Acq On : 20 Jun 12 11:22 am Operator: lbr
Sample : 50ng/bfb 1s0620 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 9:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

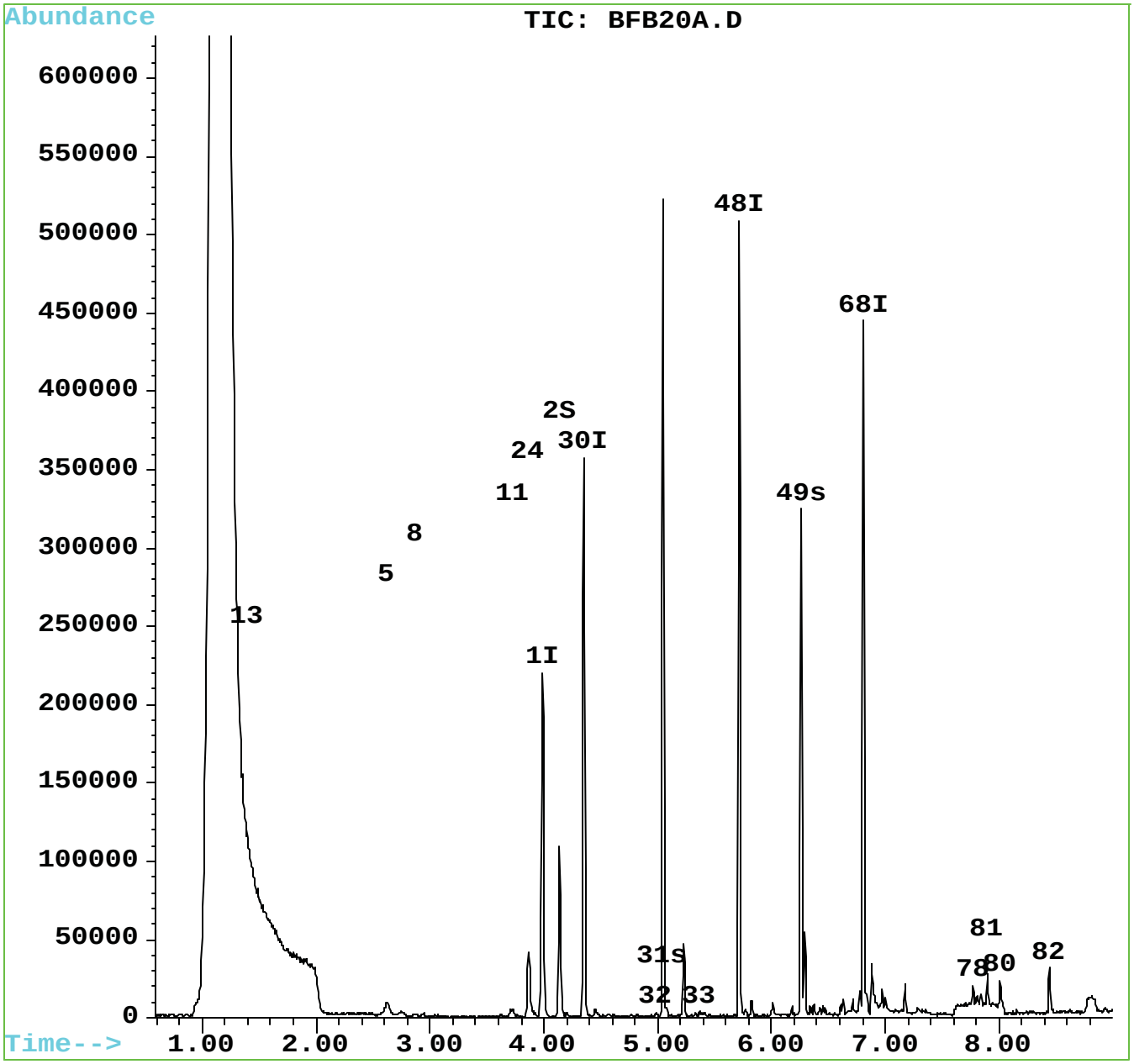
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	91085	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	160333	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	87827	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	66259	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	51155	41.84	ug/l		83.6
31) TOLUENE-D8 (S)	5.05	98	178981	47.53	ug/l		95.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	43840	50.50	ug/l		101.0
Target Compounds							Qvalu
5) Acetone (*)	2.62	43	19300	68.88	ug/l		8
8) Methyl Acetate	2.87	43	2940	4.05	ug/l	#	5
11) 2-Butanone (MEK) (*)	3.73	43	4727	10.74	ug/l		6
13) Chloromethane (SPCC)	1.40	50	3838	2.07	ug/l		8
24) Tetrahydrofuran	3.86	42	25652	84.16	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.99	58	350	1.23	ug/l	#	4
33) 2-Hexanone (*)	5.36	58	627	2.40	ug/l	#	4
78) 1,2,4-Trichlorobenzene	7.77	182	1707	1.66	ug/l		7
80) 1,2,3-Trichlorobenzene	8.01	180	2253	2.45	ug/l		9
81) Naphthalene	7.90	128	8300	3.83	ug/l		9
82) 2-Methylnaphthalene	8.45	142	7929	7.47	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\bfb20a.d Vial: 1
Acq On : 20 Jun 12 11:22 am Operator: lbr
Sample : 50ng/bfb 1s0620 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 9:51 19112

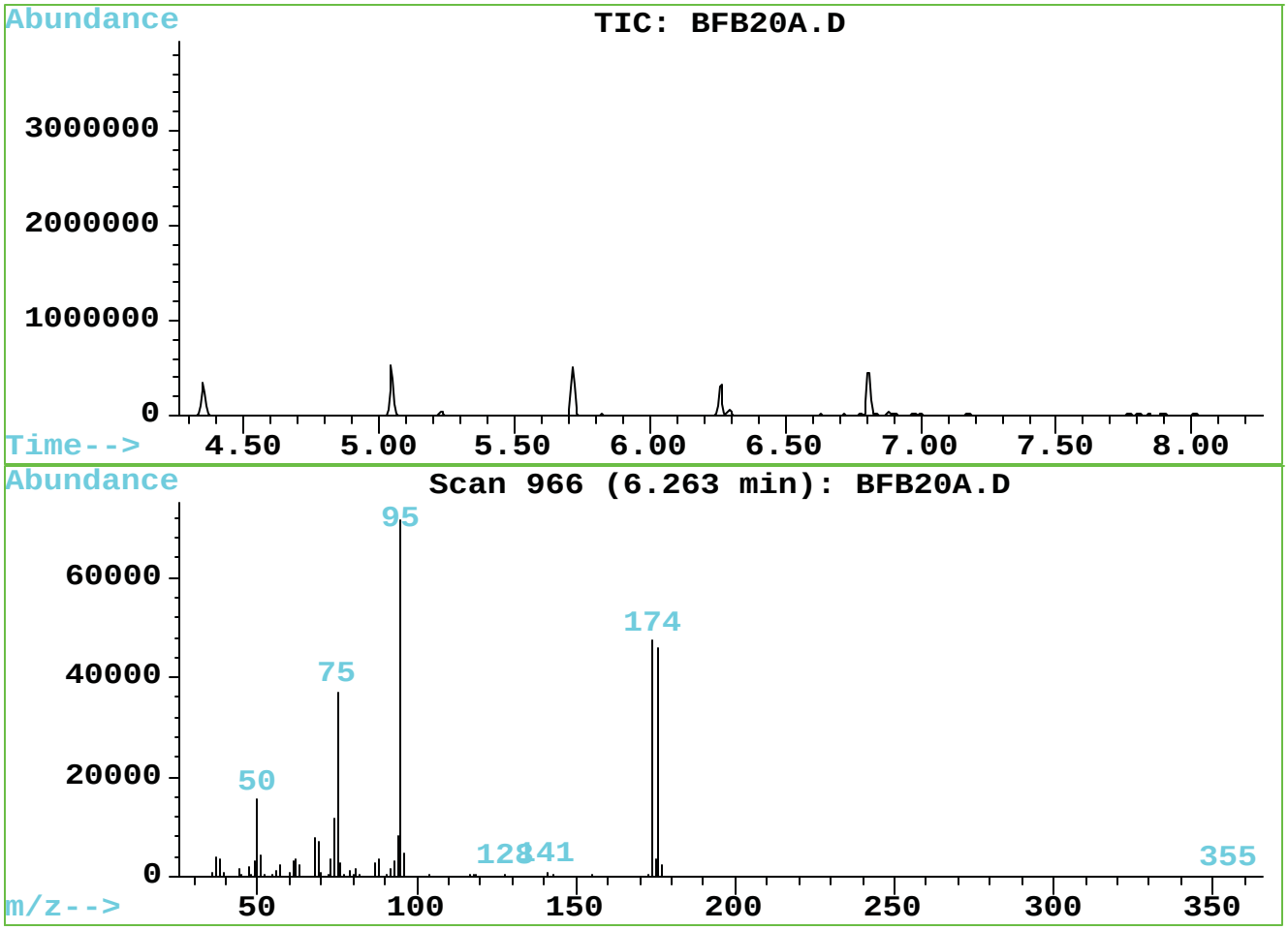
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\DATA\120620A3\BFB20A.D Vial: 1
Acq On : 20 Jun 12 11:22 am Operator: lbr
Sample : 50ng/bfb 1s0620 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270



Peak Apex is scan: 966

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	21.7	15508	PASS
75	95	30	66	51.9	37104	PASS
95	95	100	100	100.0	71488	PASS
96	95	5	9	6.5	4627	PASS
173	174	0	2	0.6	276	PASS
174	95	50	120	66.2	47344	PASS
175	174	4	9	7.1	3383	PASS
176	174	93	101	96.7	45760	PASS
177	176	5	9	5.1	2318	PASS

BFB20A.D FT120608.M Thu Jul 12 14:38:23 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\blks20a.d Vial: 6
Acq On : 20 Jun 12 2:06 pm Operator: lbr
Sample : 100ul blank 1s0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

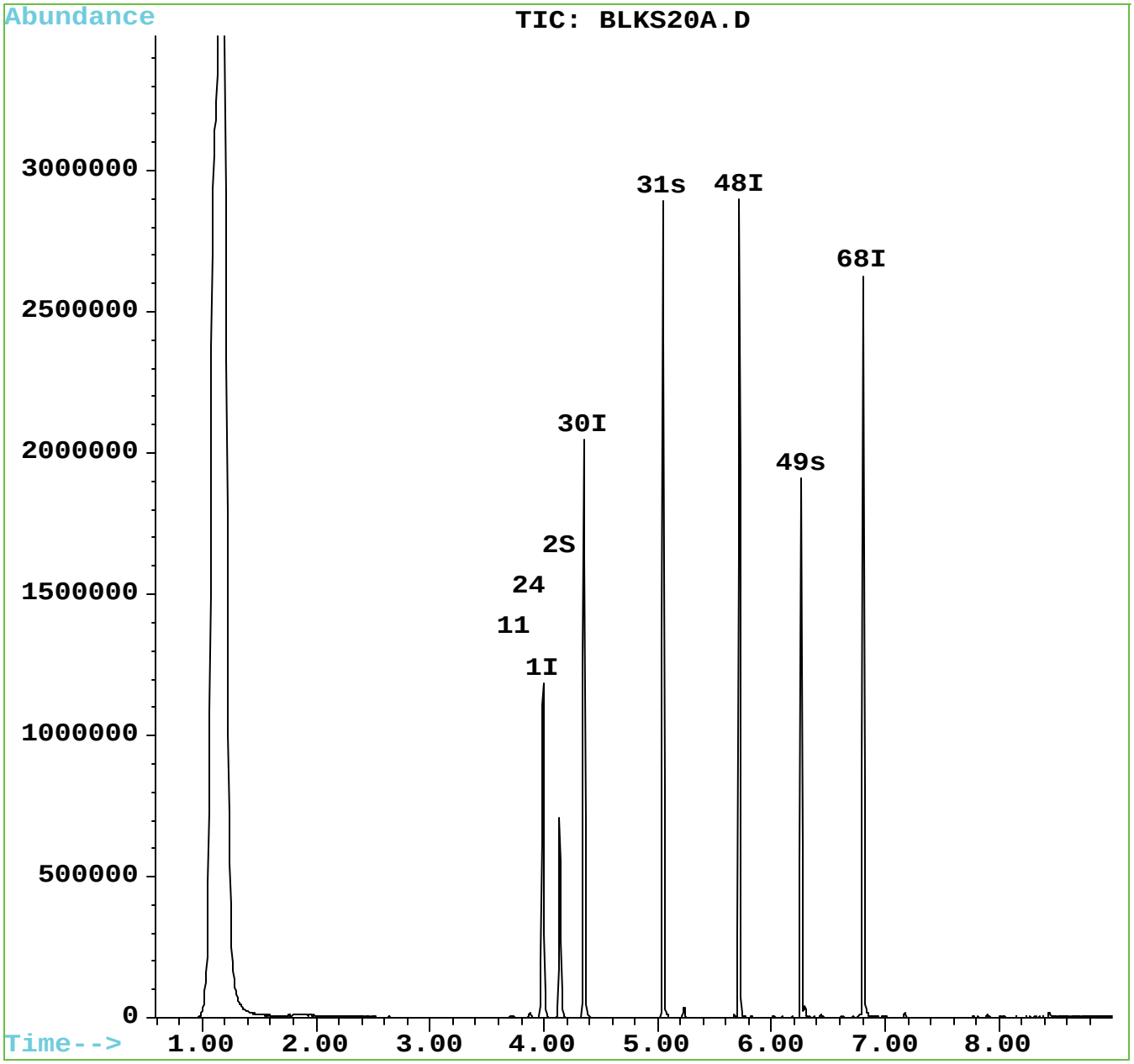
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	491208	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	895345	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	508491	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	379428	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	300364	45.56	ug/l	91.1
31) TOLUENE-D8 (S)	5.05	98	986840	46.93	ug/l	93.8
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	260289	51.79	ug/l	103.5
Target Compounds						Qvalu
11) 2-Butanone (MEK) (*)	3.73	43	3325	1.40	ug/l	7
24) Tetrahydrofuran	3.87	42	8507	1.35	ug/l #	1

(#) = qualifier out of range (m) = manual integration
blks20a.d FT120608.M Thu Jul 12 14:35:18 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\blks20a.d Vial: 6
Acq On : 20 Jun 12 2:06 pm Operator: lbr
Sample : 100ul blank 1s0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\lcss20a.d Vial: 3
Acq On : 20 Jun 12 12:35 pm Operator: lbr
Sample : blank ms 1s0620 1m0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	538885	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	938613	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	524803	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	383415	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	304737	42.13	ug/l		84.2
31) TOLUENE-D8 (S)	5.05	98	1037329	47.06	ug/l		94.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	263865	50.87	ug/l		101.7
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	304350	49.47	ug/l		8
4) Diethyl ether (*)	2.38	74	114579	45.09	ug/l	#	4
5) Acetone (*)	2.63	43	138363	84.82	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	398159	49.81	ug/l		8
7) Carbon disulfide (*)	2.70	76	1047409	53.57	ug/l		9
8) Methyl Acetate	2.88	43	205944	48.01	ug/l		7
9) tert-Methyl butyl ether (M	3.14	73	778985	50.06	ug/l		8
10) Acrylonitrile (*)	3.12	53	111689	48.94	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	164655	63.23	ug/l		8
12) Dichlorodifluoromethane	1.26	85	269880	52.71	ug/l		9
13) Chloromethane (SPCC)	1.41	50	515271	47.02	ug/l		10
14) Vinyl Chloride (CCC)	1.52	62	432733	52.83	ug/l		9
15) Bromomethane	1.77	94	138063	45.45	ug/l		9
16) Chloroethane	1.86	64	128157	43.65	ug/l		9
18) Trichlorofluoromethane	2.13	101	430532	50.04	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	515054	43.88	ug/l	#	6
20) Methylene Chloride	2.93	84	333472	47.22	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	578848	48.77	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	686486	47.83	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	348258	48.89	ug/l	#	7
24) Tetrahydrofuran	3.87	42	89942	48.22	ug/l	#	1
25) Chloroform (CCC)	3.89	83	555373	48.21	ug/l		9
26) Bromochloromethane	3.85	130	156368	48.05	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	496053	49.86	ug/l	#	3
28) 1,1-Dichloropropene	4.16	75	25260	2.41	ug/l	#	
29) Cyclohexane	4.01	42	211279	39.52	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	92010	55.24	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	111384	72.91	ug/l	#	7
35) Carbon Tetrachloride	4.07	117	399376	56.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\lcss20a.d Vial: 3
Acq On : 20 Jun 12 12:35 pm Operator: lbr
Sample : blank ms 1s0620 1m0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36) Benzene (MS)	4.17	78	1452454	51.64 ug/l		9
37) 1,2-Dichloroethane	4.17	62	430120	51.30 ug/l		9
38) Trichloroethene (MS)	4.48	95	326359	52.70 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	380948	52.14 ug/l		9
40) Bromodichloromethane	4.72	83	378463	55.25 ug/l		9
41) Methyl Cyclohexane	4.57	55	701260	52.98 ug/l	#	5
42) Dibromomethane	4.65	174	124201	54.94 ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	528630	54.90 ug/l		9
44) Toluene (CCC/MS)	5.08	91	1449511	51.26 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	437029	57.11 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	187081	52.62 ug/l		8
47) Tetrachloroethene	5.33	166	299027	53.22 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.34	53	81470	53.35 ug/l	#	4
51) Dibromochloromethane	5.45	129	194985	54.14 ug/l		9
52) 1,2-Dibromoethane	5.51	107	200060	54.76 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	846815	52.39 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	257122	54.90 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	1647690	52.68 ug/l		9
56) p,m-Xylene	5.83	106	1201755	105.49 ug/l	#	7
57) o-Xylene	6.01	91	1286111	52.23 ug/l		9
58) Styrene	6.02	104	946419	52.85 ug/l		8
59) Isopropylbenzene	6.18	105	1614006	52.10 ug/l		9
60) Bromoform (SPCC)	6.12	173	100140	56.29 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	253782	52.32 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	72110	54.60 ug/l	#	3
63) n-Propylbenzene	6.37	91	1994009	53.73 ug/l		8
64) Bromobenzene	6.34	156	302243	54.92 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	611434	53.39 ug/l	#	7
66) tert-Butylbenzene	6.61	91	941742	52.45 ug/l	#	5
67) 1,2,4-Trimethylbenzene	6.63	120	680105	53.65 ug/l	#	7
69) sec-Butylbenzene	6.72	105	1797733	50.25 ug/l		9
70) p-Isopropyltoluene	6.77	119	1359993	52.25 ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	576312	52.27 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	586175	50.36 ug/l		8
73) 1,2-Dichlorobenzene	7.00	146	529990	50.99 ug/l		8
74) 1,2,3-Trimethylbenzene	6.83	105	1270192	49.32 ug/l		8
75) n-Butylbenzene	6.97	91	1470409	51.41 ug/l		9
76) Hexachloroethane	7.13	201	124445	54.02 ug/l	#	5
77) 1,2-Dibromo-3-Chloropropan	7.37	157	33216	56.27 ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.77	182	329129	55.20 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\lcss20a.d Vial: 3
Acq On : 20 Jun 12 12:35 pm Operator: lbr
Sample : blank ms 1s0620 1m0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

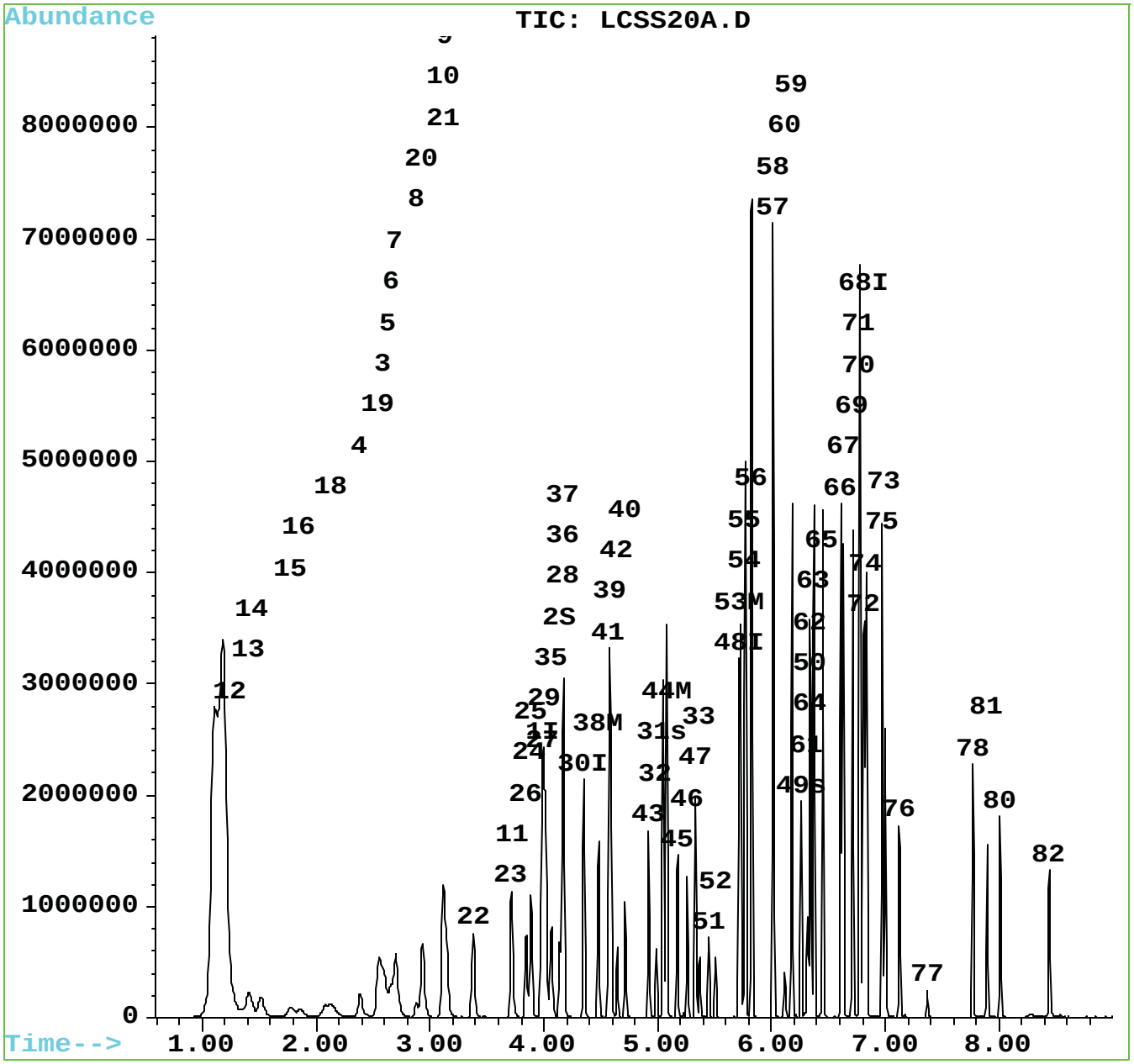
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	8.01	180	287138	53.87 ug/l	9
81)	Naphthalene	7.89	128	684683	54.61 ug/l	9
82)	2-Methylnaphthalene	8.45	142	361620	58.90 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\lcss20a.d Vial: 3
Acq On : 20 Jun 12 12:35 pm Operator: lbr
Sample : blank ms 1s0620 1m0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\lcss20b.d Vial: 4
Acq On : 20 Jun 12 12:53 pm Operator: lbr
Sample : blank msd 1s0620 1m0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	546546	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	956928	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	532054	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	394353	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	328285	44.75	ug/l		89.5
31) TOLUENE-D8 (S)	5.05	98	1051458	46.78	ug/l		93.5
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	271078	51.55	ug/l		103.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	313237	50.20	ug/l	#	8
4) Diethyl ether (*)	2.37	74	115322	44.75	ug/l	#	4
5) Acetone (*)	2.63	43	128406	77.07	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	406880	50.19	ug/l		8
7) Carbon disulfide (*)	2.69	76	1077110	54.32	ug/l		9
8) Methyl Acetate	2.87	43	209662	48.19	ug/l		7
9) tert-Methyl butyl ether (M	3.14	73	768375	48.68	ug/l		8
10) Acrylonitrile (*)	3.11	53	113864	49.19	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	158348	59.95	ug/l		8
12) Dichlorodifluoromethane	1.26	85	269647	51.93	ug/l		9
13) Chloromethane (SPCC)	1.40	50	522449	47.01	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	438150	52.74	ug/l		9
15) Bromomethane	1.77	94	137714	44.70	ug/l		9
16) Chloroethane	1.85	64	130515	43.83	ug/l		9
18) Trichlorofluoromethane	2.13	101	442138	50.67	ug/l	#	6
19) 1,1-Dichloroethene (CCC/MS	2.55	61	527577	44.31	ug/l	#	6
20) Methylene Chloride	2.93	84	338274	47.22	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	582117	48.36	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	691192	47.48	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	347307	48.08	ug/l	#	7
24) Tetrahydrofuran	3.87	42	89516	47.24	ug/l	#	1
25) Chloroform (CCC)	3.89	83	560148	47.95	ug/l		9
26) Bromochloromethane	3.84	130	156902	47.53	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	504214	49.97	ug/l	#	3
28) 1,1-Dichloropropene	4.16	75	25949	2.44	ug/l	#	
29) Cyclohexane	4.01	42	216913	40.01	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	91470	53.86	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	104311	66.97	ug/l	#	7
35) Carbon Tetrachloride	4.06	117	401007	55.34	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\lcss20b.d Vial: 4
Acq On : 20 Jun 12 12:53 pm Operator: lbr
Sample : blank msd 1s0620 1m0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36) Benzene (MS)	4.16	78	1456372	50.78 ug/l		9
37) 1,2-Dichloroethane	4.17	62	431588	50.49 ug/l		9
38) Trichloroethene (MS)	4.48	95	327130	51.81 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	379445	50.94 ug/l		9
40) Bromodichloromethane	4.72	83	376555	53.92 ug/l		9
41) Methyl Cyclohexane	4.57	55	711174	52.70 ug/l	#	5
42) Dibromomethane	4.65	174	127082	55.14 ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	530492	54.04 ug/l		9
44) Toluene (CCC/MS)	5.08	91	1452078	50.37 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	442202	56.68 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	188192	51.92 ug/l		8
47) Tetrachloroethene	5.33	166	294267	51.37 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.34	53	83092	53.67 ug/l	#	4
51) Dibromochloromethane	5.45	129	197895	54.19 ug/l		9
52) 1,2-Dibromoethane	5.51	107	204428	55.20 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	839202	51.21 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	259195	54.59 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	1643093	51.82 ug/l		9
56) p,m-Xylene	5.83	106	1203308	104.19 ug/l	#	7
57) o-Xylene	6.01	91	1317858	52.79 ug/l		8
58) Styrene	6.02	104	947502	52.19 ug/l		8
59) Isopropylbenzene	6.18	105	1605982	51.13 ug/l		9
60) Bromoform (SPCC)	6.12	173	100356	55.70 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	258603	52.59 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	72360	54.04 ug/l	#	3
63) n-Propylbenzene	6.37	91	1995125	53.02 ug/l		8
64) Bromobenzene	6.34	156	298052	53.42 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	617115	53.15 ug/l	#	7
66) tert-Butylbenzene	6.61	91	942993	51.80 ug/l	#	5
67) 1,2,4-Trimethylbenzene	6.63	120	683089	53.15 ug/l	#	7
69) sec-Butylbenzene	6.72	105	1806078	49.08 ug/l		9
70) p-Isopropyltoluene	6.77	119	1390126	51.92 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	581414	51.27 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	580937	48.53 ug/l		8
73) 1,2-Dichlorobenzene	7.00	146	541587	50.66 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	1293858	48.85 ug/l		8
75) n-Butylbenzene	6.97	91	1476437	50.18 ug/l		9
76) Hexachloroethane	7.13	201	128084	54.05 ug/l	#	5
77) 1,2-Dibromo-3-Chloropropan	7.37	157	33910	55.88 ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	339018	55.28 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\lcss20b.d Vial: 4
Acq On : 20 Jun 12 12:53 pm Operator: lbr
Sample : blank msd 1s0620 1m0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration

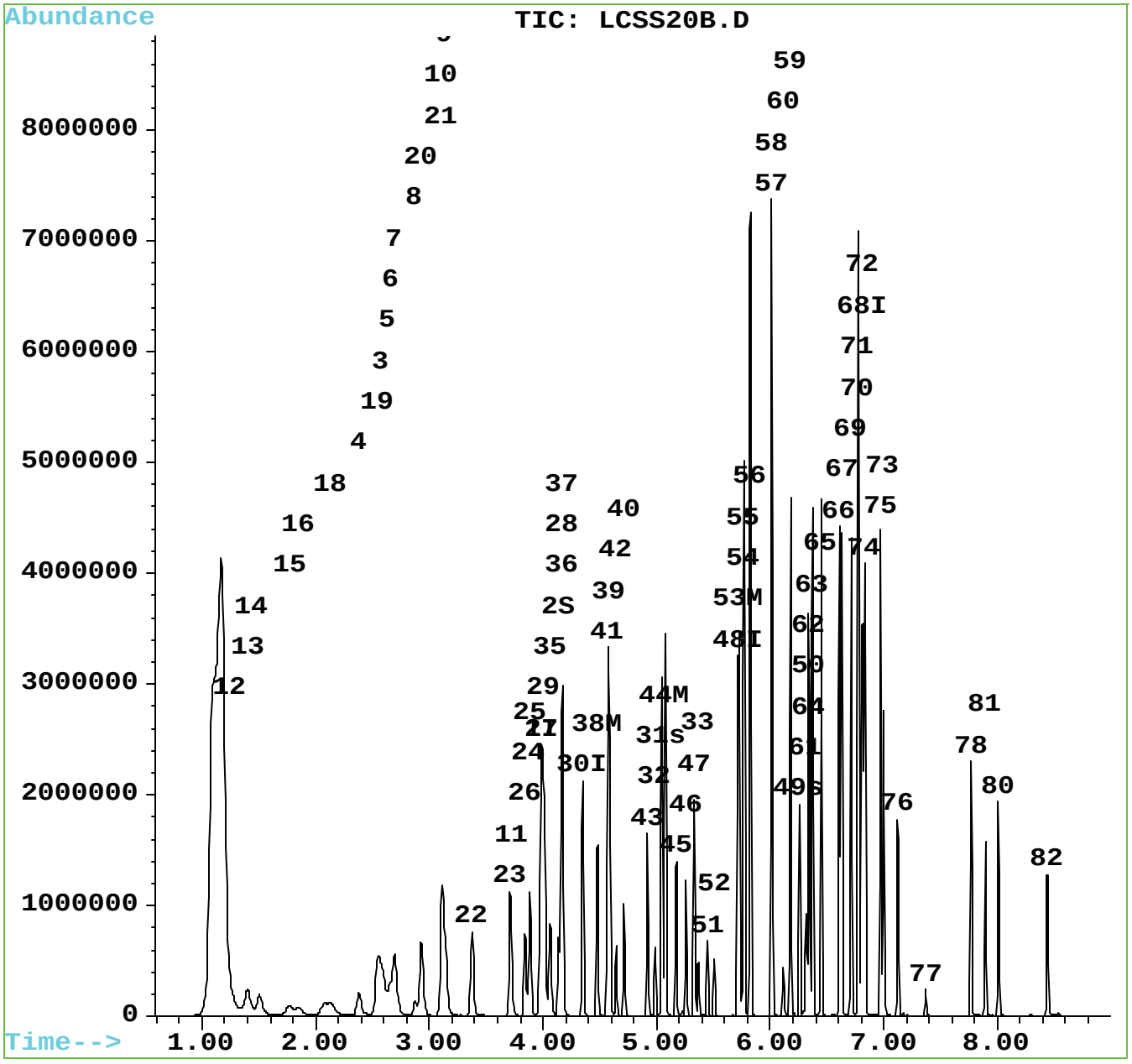
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	8.01	180	301428	54.98 ug/l	9
81)	Naphthalene	7.89	128	695952	53.97 ug/l	9
82)	2-Methylnaphthalene	8.44	142	378366	59.92 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120620a3\lcss20b.d Vial: 4
Acq On : 20 Jun 12 12:53 pm Operator: lbr
Sample : blank msd 1s0620 1m0620 Inst : Merfolk
Misc : s/50 id:vf120620s2 Multiplr: 1.00
Quant Time: Jun 21 9:52 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : BNA 8270
Last Update : Tue Jul 10 10:54:31 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d21a.d	06/21/12 10:33	dftpp std (120607) [none]	WW	IP	**1**	
spnn21a.d	06/21/12 10:55	pna std 50 (120314) [none]	WW	CV	**1**	
5291501.d	06/21/12 12:04	pna-s 30g/1ml df:6 sp120620s01	SO			
5289905.d	06/21/12 12:26	pna-s 30g/2ml df:8 sp120619s02	SO			
blks21a.d	06/21/12 12:54	pna-s 30g/1ml df:1 sp120619s02	SO	Bl	**1**	
blks21b.d	06/21/12 13:17	pna-s 30g/1ml df:1 sp120620s01	SO	Bl		
blkw21a.d	06/21/12 13:39	pna-w 1000ml/1ml df:1 sp120620w01	WW	Bl		
lcss21a.d	06/21/12 14:02	pna-s 30g/1ml df:1 sp120619s02	SO	MS	**1**	
lcsds21a.d	06/21/12 14:24	pna-s 30g/1ml df:1 sp120619s02	SO	MS	**1**	
lcss21b.d	06/21/12 14:47	pna-s 30g/1ml df:1 sp120620s01	SO	MS		
lcsds21b.d	06/21/12 15:09	pna-s 30g/1ml df:1 sp120620s01	SO	MS		
lcsw21a.d	06/21/12 15:32	pna-w 1000ml/1ml df:1 sp120620w01	WW	MS		
lcsdw21a.d	06/21/12 15:54	pna-w 1000ml/1ml df:1 sp120620w01	WW	MS		
5289901.d	06/21/12 16:17	pna-s 30g/1ml df:6 sp120619s02	SO			
5289902.d	06/21/12 16:39	pna-s 30g/1ml df:6 sp120619s02	SO			
5289903.d	06/21/12 17:01	pna-s 30g/1ml df:6 sp120619s02	SO			
5289904.d	06/21/12 17:24	pna-s 30g/1ml df:6 sp120619s02	SO			
5290308.d	06/21/12 17:47	pna-s 30g/1ml df:6 sp120619s02	SO			
5289906.d	06/21/12 18:09	pna-w 910ml/1ml df:2 sp120620w01	WW			
5289907.d	06/21/12 18:32	pna-w 940ml/1ml df:2 sp120620w01	WW			
5289908.d	06/21/12 18:54	pna-w 970ml/1ml df:2 sp120620w01	WW			
5289909.d	06/21/12 19:17	pna-w 900ml/1ml df:2 sp120620w01	WW			
5290201.d	06/21/12 19:39	pna-s 30g/1ml df:12 sp120619s02	SO		**1**	
5290302.d	06/21/12 20:02	pna-s 30g/1ml df:60 sp120619s02	SO			
5290802.d	06/21/12 20:24	pna-s 0.3957g/2ml df:50 sp120620s01	SO			

Matrix (Mtx) Summary

Water Samples:	4	Soil Samples:	10
Water Duplicates:	1	Soil Duplicates:	2
Water Spikes:	2	Soil Spikes:	4
Water Blanks:	1	Soil Blanks:	2

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spnn21a.d	2-Fluorobiphenyl	52.7/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	52.9/100.0	n/a	10.0/114.0	
	Terphenyl-D14	52.6/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
5291501.d	2-Fluorobiphenyl	62.7/100.0	62.7	10.0/115.0	SO
	Nitrobenzene-D5	58.9/100.0	58.9	18.5/120.0	
	Terphenyl-D14	70.3/100.0	70.3	10.3/137.0	
				Total Outliers: 0	
5289905.d	2-Fluorobiphenyl	49.5/100.0	49.5	10.0/115.0	SO
	Nitrobenzene-D5	49.7/100.0	49.7	18.5/120.0	
	Terphenyl-D14	49.2/100.0	49.2	10.3/137.0	
				Total Outliers: 0	
blks21a.d	2-Fluorobiphenyl	73.3/100.0	73.3	10.0/115.0	SO
	Nitrobenzene-D5	55.7/100.0	55.7	18.5/120.0	
	Terphenyl-D14	92.7/100.0	92.7	10.3/137.0	
				Total Outliers: 0	
blks21b.d	2-Fluorobiphenyl	56.2/100.0	56.2	10.0/115.0	SO
	Nitrobenzene-D5	48.4/100.0	48.4	18.5/120.0	
	Terphenyl-D14	69.8/100.0	69.8	10.3/137.0	
				Total Outliers: 0	
blkw21a.d	2-Fluorobiphenyl	60.7/100.0	60.7	10.0/116.0	WW
	Nitrobenzene-D5	58.8/100.0	58.8	10.0/114.0	
	Terphenyl-D14	69.8/100.0	69.8	10.0/141.0	
				Total Outliers: 0	
lcss21a.d	2-Fluorobiphenyl	60.0/100.0	60.0	10.0/115.0	SO
	Nitrobenzene-D5	43.2/100.0	43.2	18.5/120.0	
	Terphenyl-D14	72.9/100.0	72.9	10.3/137.0	
				Total Outliers: 0	
lcsds21a.d	2-Fluorobiphenyl	55.2/100.0	55.2	10.0/115.0	SO
	Nitrobenzene-D5	44.1/100.0	44.1	18.5/120.0	
	Terphenyl-D14	73.6/100.0	73.6	10.3/137.0	
				Total Outliers: 0	
lcss21b.d	2-Fluorobiphenyl	58.4/100.0	58.4	10.0/115.0	SO
	Nitrobenzene-D5	46.3/100.0	46.3	18.5/120.0	
	Terphenyl-D14	70.1/100.0	70.1	10.3/137.0	
				Total Outliers: 0	
lcsds21b.d	2-Fluorobiphenyl	65.8/100.0	65.8	10.0/115.0	SO
	Nitrobenzene-D5	55.6/100.0	55.6	18.5/120.0	
	Terphenyl-D14	78.7/100.0	78.7	10.3/137.0	
				Total Outliers: 0	
lcsw21a.d	2-Fluorobiphenyl	81.9/100.0	81.9	10.0/116.0	WW
	Nitrobenzene-D5	79.8/100.0	79.8	10.0/114.0	
	Terphenyl-D14	93.3/100.0	93.3	10.0/141.0	
				Total Outliers: 0	
lcsdw21a.d	2-Fluorobiphenyl	70.0/100.0	70.0	10.0/116.0	WW
	Nitrobenzene-D5	67.8/100.0	67.8	10.0/114.0	
	Terphenyl-D14	80.3/100.0	80.3	10.0/141.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
5289901.d	2-Fluorobiphenyl	60.0/100.0	60.0	10.0/115.0	SO
	Nitrobenzene-D5	57.2/100.0	57.2	18.5/120.0	
	Terphenyl-D14	69.2/100.0	69.2	10.3/137.0	
				Total Outliers: 0	
5289902.d	2-Fluorobiphenyl	54.3/100.0	54.3	10.0/115.0	SO
	Nitrobenzene-D5	50.8/100.0	50.8	18.5/120.0	
	Terphenyl-D14	62.8/100.0	62.8	10.3/137.0	
				Total Outliers: 0	
5289903.d	2-Fluorobiphenyl	61.3/100.0	61.3	10.0/115.0	SO
	Nitrobenzene-D5	60.0/100.0	60.0	18.5/120.0	
	Terphenyl-D14	68.0/100.0	68.0	10.3/137.0	
				Total Outliers: 0	
5289904.d	2-Fluorobiphenyl	62.8/100.0	62.8	10.0/115.0	SO
	Nitrobenzene-D5	59.5/100.0	59.5	18.5/120.0	
	Terphenyl-D14	74.1/100.0	74.1	10.3/137.0	
				Total Outliers: 0	
5290308.d	2-Fluorobiphenyl	58.2/100.0	58.2	10.0/115.0	SO
	Nitrobenzene-D5	53.9/100.0	53.9	18.5/120.0	
	Terphenyl-D14	68.4/100.0	68.4	10.3/137.0	
				Total Outliers: 0	
5289906.d	2-Fluorobiphenyl	62.4/100.0	62.4	10.0/116.0	WW
	Nitrobenzene-D5	60.5/100.0	60.5	10.0/114.0	
	Terphenyl-D14	70.4/100.0	70.4	10.0/141.0	
				Total Outliers: 0	
5289907.d	2-Fluorobiphenyl	56.2/100.0	56.2	10.0/116.0	WW
	Nitrobenzene-D5	54.3/100.0	54.3	10.0/114.0	
	Terphenyl-D14	62.4/100.0	62.4	10.0/141.0	
				Total Outliers: 0	
5289908.d	2-Fluorobiphenyl	44.1/100.0	44.1	10.0/116.0	WW
	Nitrobenzene-D5	52.9/100.0	52.9	10.0/114.0	
	Terphenyl-D14	40.3/100.0	40.3	10.0/141.0	
				Total Outliers: 0	
5289909.d	2-Fluorobiphenyl	58.3/100.0	58.3	10.0/116.0	WW
	Nitrobenzene-D5	55.7/100.0	55.7	10.0/114.0	
	Terphenyl-D14	70.4/100.0	70.4	10.0/141.0	
				Total Outliers: 0	
5290201.d	2-Fluorobiphenyl	59.4/100.0	59.4	10.0/115.0	SO
	Nitrobenzene-D5	54.6/100.0	54.6	18.5/120.0	
	Terphenyl-D14	64.4/100.0	64.4	10.3/137.0	
				Total Outliers: 0	
5290302.d	2-Fluorobiphenyl	80.7/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	517.7/100.0	n/a	18.5/120.0	
	Terphenyl-D14	68.5/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5290802.d	2-Fluorobiphenyl	0.0/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	0.1/100.0	n/a	18.5/120.0	
	Terphenyl-D14	0.0/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	

NOTES
*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsds21a.d			
Dup ID : LCSD1			
Prep Batch: sp120619s02			
Prep Date : 06/19/12			
Parent File: lcss21a.d			
naphthalene	21.89/ 24.38	10.8/25.0	SO
2-methylnaphthalene	23.69/ 25.71	8.2/25.0	
1-methylnaphthalene	21.26/ 23.24	8.9/25.0	
acenaphthylene	25.08/ 27.57	9.5/25.0	
acenaphthene **	25.69/ 27.84	8.0/25.0	
fluorene	26.85/ 28.19	4.9/25.0	
phenanthrene	26.98/ 27.47	1.8/25.0	
anthracene	26.73/ 27.45	2.7/25.0	
fluoranthene	27.29/ 27.55	0.9/25.0	
pyrene **	29.63/ 29.91	0.9/25.0	
benzo(a)anthracene	28.62/ 29.19	2.0/25.0	
chrysene	28.83/ 28.99	0.6/25.0	
benzo(b)fluoranthene	31.50/ 31.90	1.3/25.0	
benzo(k)fluoranthene	30.20/ 29.87	1.1/25.0	
benzo(a)pyrene	29.66/ 30.06	1.3/25.0	
indeno(1,2,3-cd)pyrene	30.08/ 30.21	0.4/25.0	
dibenzo(ah)anthracene	30.16/ 30.28	0.4/25.0	
benzo(ghi)perylene	29.13/ 29.61	1.6/25.0	
[end of compound list]			
		Total Outliers: 0	
Dup File : lcsds21b.d			
Dup ID : LCSD1			
Prep Batch: sp120620s01			
Prep Date : 06/20/12			
Parent File: lcss21b.d			
naphthalene	27.15/ 24.15	11.7/25.0	SO
2-methylnaphthalene	28.62/ 25.26	12.5/25.0	
1-methylnaphthalene	25.89/ 22.99	11.9/25.0	
acenaphthylene	29.55/ 26.15	12.2/25.0	
acenaphthene **	29.52/ 26.51	10.7/25.0	
fluorene	30.36/ 26.70	12.8/25.0	
phenanthrene	29.05/ 25.90	11.5/25.0	
anthracene	28.58/ 25.44	11.6/25.0	
fluoranthene	29.19/ 25.83	12.2/25.0	
pyrene **	31.25/ 27.95	11.1/25.0	
benzo(a)anthracene	30.24/ 27.10	11.0/25.0	
chrysene	30.72/ 27.15	12.3/25.0	
benzo(b)fluoranthene	32.21/ 29.79	7.8/25.0	
benzo(k)fluoranthene	31.91/ 27.52	14.8/25.0	
benzo(a)pyrene	31.30/ 27.75	12.0/25.0	
indeno(1,2,3-cd)pyrene	31.79/ 27.96	12.8/25.0	
dibenzo(ah)anthracene	31.98/ 28.16	12.7/25.0	
benzo(ghi)perylene	30.55/ 27.21	11.6/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsdw21a.d			
Dup ID : LCSD1			
Prep Batch: sp120620w01			
Prep Date : 06/20/12			
Parent File: lcsw21a.d			
naphthalene	36.90/ 38.37	3.9/25.0	WW
2-methylnaphthalene	38.28/ 39.76	3.8/25.0	
1-methylnaphthalene	34.44/ 35.05	1.8/25.0	
acenaphthylene	38.02/ 40.33	5.9/25.0	
acenaphthene **	38.50/ 40.67	5.5/25.0	
fluorene	38.65/ 40.77	5.3/25.0	
phenanthrene	36.81/ 38.29	3.9/25.0	
anthracene	36.34/ 38.81	6.6/25.0	
fluoranthene	37.07/ 39.00	5.1/25.0	
pyrene **	39.18/ 41.30	5.3/25.0	
benzo(a)anthracene	38.25/ 40.21	5.0/25.0	
chrysene	38.85/ 40.34	3.8/25.0	
benzo(b)fluoranthene	39.92/ 43.12	7.7/25.0	
benzo(k)fluoranthene	42.01/ 41.20	1.9/25.0	
benzo(a)pyrene	40.99/ 42.87	4.5/25.0	
indeno(1,2,3-cd)pyrene	40.11/ 41.62	3.7/25.0	
dibenzo(ah)anthracene	40.75/ 42.45	4.1/25.0	
benzo(ghi)perylene	38.23/ 39.99	4.5/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss21a.d						
Spike ID : LCS1						
Prep Batch: sp120619s02						
Prep Date : 06/19/12						
Parent File: blks21a.d						
1-Methylnaphthalene	23.24/	0.00	50.00	46.5	10.0/120.0	SO
2-Methylnaphthalene	25.71/	0.00	50.00	51.4	35.6/120.0	
Acenaphthene	27.84/	0.00	50.00	55.7	10.0/121.0	
Acenaphthylene	27.57/	0.00	50.00	55.1	35.4/127.7	
Anthracene	27.45/	0.00	50.00	54.9	32.3/142.4	
Benzo(a)anthracene	29.19/	0.00	50.00	58.4	36.7/134.7	
Benzo(a)pyrene	30.06/	0.00	50.00	60.1	10.0/140.8	
Benzo(b)fluoranthene	31.90/	0.00	50.00	63.8	29.0/152.7	
Benzo(ghi)perylene	29.61/	0.00	50.00	59.2	45.2/130.7	
Benzo(k)fluoranthene	29.87/	0.00	50.00	59.7	29.8/136.0	
Chrysene	28.99/	0.00	50.00	58.0	38.7/137.1	
Dibenzo(ah)anthracene	30.28/	0.00	50.00	60.6	45.3/130.8	
Fluorene	28.19/	0.00	50.00	56.4	37.8/127.8	
Fluoranthene	27.55/	0.00	50.00	55.1	10.0/145.8	
Indeno(1,2,3-cd)pyrene	30.21/	0.00	50.00	60.4	39.2/137.4	
Naphthalene	24.38/	0.00	50.00	48.8	10.0/110.0	
Phenanthrene	27.47/	0.00	50.00	54.9	36.4/143.0	
Pyrene	29.91/	0.00	50.00	59.8	10.0/135.8	
					Total Outliers:	**0**
Spike File : lcsds21a.d						
Spike ID : LCSD1						
Prep Batch: sp120619s02						
Prep Date : 06/19/12						
Parent File: blks21a.d						
1-Methylnaphthalene	21.26/	0.00	50.00	42.5	10.0/120.0	SO
2-Methylnaphthalene	23.69/	0.00	50.00	47.4	35.6/120.0	
Acenaphthene	25.69/	0.00	50.00	51.4	10.0/121.0	
Acenaphthylene	25.08/	0.00	50.00	50.2	35.4/127.7	
Anthracene	26.73/	0.00	50.00	53.5	32.3/142.4	
Benzo(a)anthracene	28.62/	0.00	50.00	57.2	36.7/134.7	
Benzo(a)pyrene	29.66/	0.00	50.00	59.3	10.0/140.8	
Benzo(b)fluoranthene	31.50/	0.00	50.00	63.0	29.0/152.7	
Benzo(ghi)perylene	29.13/	0.00	50.00	58.3	45.2/130.7	
Benzo(k)fluoranthene	30.20/	0.00	50.00	60.4	29.8/136.0	
Chrysene	28.83/	0.00	50.00	57.7	38.7/137.1	
Dibenzo(ah)anthracene	30.16/	0.00	50.00	60.3	45.3/130.8	
Fluorene	26.85/	0.00	50.00	53.7	37.8/127.8	
Fluoranthene	27.29/	0.00	50.00	54.6	10.0/145.8	
Indeno(1,2,3-cd)pyrene	30.08/	0.00	50.00	60.2	39.2/137.4	
Naphthalene	21.89/	0.00	50.00	43.8	10.0/110.0	
Phenanthrene	26.98/	0.00	50.00	54.0	36.4/143.0	
Pyrene	29.63/	0.00	50.00	59.3	10.0/135.8	
					Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss21b.d						
Spike ID : LCS1						
Prep Batch: sp120620s01						
Prep Date : 06/20/12						
Parent File: blks21b.d						
1-Methylnaphthalene	22.99/	0.00	50.00	46.0	10.0/120.0	SO
2-Methylnaphthalene	25.26/	0.00	50.00	50.5	35.6/120.0	
Acenaphthene	26.51/	0.00	50.00	53.0	10.0/121.0	
Acenaphthylene	26.15/	0.00	50.00	52.3	35.4/127.7	
Anthracene	25.44/	0.00	50.00	50.9	32.3/142.4	
Benzo(a)anthracene	27.10/	0.00	50.00	54.2	36.7/134.7	
Benzo(a)pyrene	27.75/	0.00	50.00	55.5	10.0/140.8	
Benzo(b)fluoranthene	29.79/	0.00	50.00	59.6	29.0/152.7	
Benzo(ghi)perylene	27.21/	0.00	50.00	54.4	45.2/130.7	
Benzo(k)fluoranthene	27.52/	0.00	50.00	55.0	29.8/136.0	
Chrysene	27.15/	0.00	50.00	54.3	38.7/137.1	
Dibenzo(ah)anthracene	28.16/	0.00	50.00	56.3	45.3/130.8	
Fluorene	26.70/	0.00	50.00	53.4	37.8/127.8	
Fluoranthene	25.83/	0.00	50.00	51.7	10.0/145.8	
Indeno(1,2,3-cd)pyrene	27.96/	0.00	50.00	55.9	39.2/137.4	
Naphthalene	24.15/	0.00	50.00	48.3	10.0/110.0	
Phenanthrene	25.90/	0.00	50.00	51.8	36.4/143.0	
Pyrene	27.95/	0.00	50.00	55.9	10.0/135.8	
					Total Outliers:	**0**
Spike File : lcsds21b.d						
Spike ID : LCSD1						
Prep Batch: sp120620s01						
Prep Date : 06/20/12						
Parent File: blks21b.d						
1-Methylnaphthalene	25.89/	0.00	50.00	51.8	10.0/120.0	SO
2-Methylnaphthalene	28.62/	0.00	50.00	57.2	35.6/120.0	
Acenaphthene	29.52/	0.00	50.00	59.0	10.0/121.0	
Acenaphthylene	29.55/	0.00	50.00	59.1	35.4/127.7	
Anthracene	28.58/	0.00	50.00	57.2	32.3/142.4	
Benzo(a)anthracene	30.24/	0.00	50.00	60.5	36.7/134.7	
Benzo(a)pyrene	31.30/	0.00	50.00	62.6	10.0/140.8	
Benzo(b)fluoranthene	32.21/	0.00	50.00	64.4	29.0/152.7	
Benzo(ghi)perylene	30.55/	0.00	50.00	61.1	45.2/130.7	
Benzo(k)fluoranthene	31.91/	0.00	50.00	63.8	29.8/136.0	
Chrysene	30.72/	0.00	50.00	61.4	38.7/137.1	
Dibenzo(ah)anthracene	31.98/	0.00	50.00	64.0	45.3/130.8	
Fluorene	30.36/	0.00	50.00	60.7	37.8/127.8	
Fluoranthene	29.19/	0.00	50.00	58.4	10.0/145.8	
Indeno(1,2,3-cd)pyrene	31.79/	0.00	50.00	63.6	39.2/137.4	
Naphthalene	27.15/	0.00	50.00	54.3	10.0/110.0	
Phenanthrene	29.05/	0.00	50.00	58.1	36.4/143.0	
Pyrene	31.25/	0.00	50.00	62.5	10.0/135.8	
					Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcsw21a.d						
Spike ID : LCS1						
Prep Batch: sp120620w01						
Prep Date : 06/20/12						
Parent File: blkw21a.d						
1-Methylnaphthalene	35.05/	0.00	50.00	70.1	10.0/120.0	WW
2-Methylnaphthalene	39.76/	0.00	50.00	79.5	35.6/120.0	
Acenaphthene	40.67/	0.00	50.00	81.3	23.4/114.1	
Acenaphthylene	40.33/	0.00	50.00	80.7	35.4/127.7	
Anthracene	38.81/	0.00	50.00	77.6	32.3/142.4	
Benzo(a)anthracene	40.21/	0.00	50.00	80.4	36.7/134.7	
Benzo(a)pyrene	42.87/	0.00	50.00	85.7	14.4/142.5	
Benzo(b)fluoranthene	43.12/	0.00	50.00	86.2	29.0/152.7	
Benzo(ghi)perylene	39.99/	0.00	50.00	80.0	45.2/130.7	
Benzo(k)fluoranthene	41.20/	0.00	50.00	82.4	29.8/136.0	
Chrysene	40.34/	0.00	50.00	80.7	38.7/137.1	
Dibenzo(ah)anthracene	42.45/	0.00	50.00	84.9	45.3/130.8	
Fluorene	40.77/	0.00	50.00	81.5	37.8/127.8	
Fluoranthene	39.00/	0.00	50.00	78.0	29.3/135.3	
Indeno(1,2,3-cd)pyrene	41.62/	0.00	50.00	83.2	39.2/137.4	
Naphthalene	38.37/	0.00	50.00	76.7	22.1/110.0	
Phenanthrene	38.29/	0.00	50.00	76.6	36.4/143.0	
Pyrene	41.30/	0.00	50.00	82.6	32.1/126.8	
					Total Outliers:	**0**
Spike File : lcsdw21a.d						
Spike ID : LCSD1						
Prep Batch: sp120620w01						
Prep Date : 06/20/12						
Parent File: blkw21a.d						
1-Methylnaphthalene	34.44/	0.00	50.00	68.9	10.0/120.0	WW
2-Methylnaphthalene	38.28/	0.00	50.00	76.6	35.6/120.0	
Acenaphthene	38.50/	0.00	50.00	77.0	23.4/114.1	
Acenaphthylene	38.02/	0.00	50.00	76.0	35.4/127.7	
Anthracene	36.34/	0.00	50.00	72.7	32.3/142.4	
Benzo(a)anthracene	38.25/	0.00	50.00	76.5	36.7/134.7	
Benzo(a)pyrene	40.99/	0.00	50.00	82.0	14.4/142.5	
Benzo(b)fluoranthene	39.92/	0.00	50.00	79.8	29.0/152.7	
Benzo(ghi)perylene	38.23/	0.00	50.00	76.5	45.2/130.7	
Benzo(k)fluoranthene	42.01/	0.00	50.00	84.0	29.8/136.0	
Chrysene	38.85/	0.00	50.00	77.7	38.7/137.1	
Dibenzo(ah)anthracene	40.75/	0.00	50.00	81.5	45.3/130.8	
Fluorene	38.65/	0.00	50.00	77.3	37.8/127.8	
Fluoranthene	37.07/	0.00	50.00	74.1	29.3/135.3	
Indeno(1,2,3-cd)pyrene	40.11/	0.00	50.00	80.2	39.2/137.4	
Naphthalene	36.90/	0.00	50.00	73.8	22.1/110.0	
Phenanthrene	36.81/	0.00	50.00	73.6	36.4/143.0	
Pyrene	39.18/	0.00	50.00	78.4	32.1/126.8	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blks21a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120619s02
Prep Date : 06/19/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Naphthalene	Not detected		0.1	20
2-Methylnaphthalene	Not detected		0.2	20
1-Methylnaphthalene	Not detected		0.4	20
Acenaphthylene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
Benzo(a)anthracene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(b)fluoranthene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Benzo(a)pyrene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(ghi)perylene	Not detected		0.5	20

BLANK FILE : blks21b.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120620s01
Prep Date : 06/20/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Naphthalene	Not detected		0.1	20
2-Methylnaphthalene	Not detected		0.2	20
1-Methylnaphthalene	Not detected		0.4	20
Acenaphthylene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
Benzo(a)anthracene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(b)fluoranthene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Benzo(a)pyrene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(ghi)perylene	Not detected		0.5	20

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blkw21a.d (pna-w 1000ml/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120620w01
Prep Date : 06/20/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
Naphthalene	Not detected		0.2	0.5
2-Methylnaphthalene	Not detected		0.1	0.5
1-Methylnaphthalene	Not detected		0.1	0.5
Acenaphthylene	Not detected		0.1	0.5
Acenaphthene **	Not detected		0.1	0.5
Fluorene	Not detected		0.1	0.5
Phenanthrene	Not detected		0.1	0.5
Anthracene	Not detected		0.1	0.5
Fluoranthene	Not detected		0.1	0.5
Pyrene **	Not detected		0.1	0.5
Benzo(a)anthracene	Not detected		0.1	0.5
Chrysene	Not detected		0.1	0.5
Benzo(b)fluoranthene	Not detected		0.1	0.5
Benzo(k)fluoranthene	Not detected		0.1	0.5
Benzo(a)pyrene	Not detected		0.1	0.5
Indeno(1,2,3-cd)pyrene	Not detected		0.2	0.5
Dibenzo(ah)anthracene	Not detected		0.5	0.5
Benzo(ghi)perylene	Not detected		0.4	0.5

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks21a.d
Method Blank Prep Date: 06/19/12
Blank/LCS Preparation Batch: sp120619s02

LCS Data File: lcss21a.d
LCS Prep Date: 06/19/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52873.08	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52873.09	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52874.01	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52874.02	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52874.03	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52874.04	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52874.05	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52874.06	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52874.07	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52874.08	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52874.09	T120622	SP120619S02	06/22/12	TPH DRO (C10-C28)	$TPHDROS
	SP120619S02		06/19/12	DRO Extraction Soil	DROEXTS
S52899.01	T120621	SP120619S02	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120619S02		06/19/12	Semi Volatile Extraction	PNAEXTS
S52899.02	T120621	SP120619S02	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120619S02		06/19/12	Semi Volatile Extraction	PNAEXTS
S52899.03	T120621	SP120619S02	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120619S02		06/19/12	Semi Volatile Extraction	PNAEXTS
S52899.04	T120621	SP120619S02	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120619S02		06/19/12	Semi Volatile Extraction	PNAEXTS
S52899.05	T120621	SP120619S02	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120619S02		06/19/12	Semi Volatile Extraction	PNAEXTS
S52902.01	T120621	SP120619S02	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120619S02		06/19/12	Semi Volatile Extraction	PNAEXTS
S52903.02	T120621	SP120619S02	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120619S02		06/19/12	Semi Volatile Extraction	PNAEXTS
S52903.08	T120621	SP120619S02	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120619S02		06/19/12	Semi Volatile Extraction	PNAEXTS

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks21b.d
Method Blank Prep Date: 06/20/12
Blank/LCS Preparation Batch: sp120620s01

LCS Data File: lcss21b.d
LCS Prep Date: 06/20/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52261.03	T120629	SP120620S01	06/29/12	TPH DRO (C10-C28)	$TPHDROS
	SP120620S01		12/06/20	DRO Extraction Soil	DROEXTS
S52261.04	T120629	SP120620S01	06/29/12	TPH DRO (C10-C28)	$TPHDROS
	SP120620S01		12/06/20	DRO Extraction Soil	DROEXTS
S52908.02	T120621	SP120620S01	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120620S01		06/21/12	Semi Volatile Extraction	PNAEXTS
S52915.01	T120621	SP120620S01	06/21/12	Polynuclear Aromatics	$PNA8270
	SP120620S01		06/20/12	Semi Volatile Extraction	PNAEXTS

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blkw21a.d
Method Blank Prep Date: 06/20/12
Blank/LCS Preparation Batch: sp120620w01

LCS Data File: lcsw21a.d
LCS Prep Date: 06/20/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52261.01	T120629	SP120620W01	06/29/12	TPH DRO (C10-C28)	$TPHDROW
	SP120620W01		06/20/12	DRO Extraction Water	DROEXTW
	SP120620W01		06/20/12	Semi Volatile Extraction	PNAEXTW
	T120629	SP120620W01	06/29/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
S52261.02	T120629	SP120620W01	06/29/12	TPH DRO (C10-C28)	$TPHDROW
	SP120620W01		06/20/12	DRO Extraction Water	DROEXTW
	SP120620W01		06/20/12	Semi Volatile Extraction	PNAEXTW
	T120629	SP120620W01	06/29/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
S52899.06	T120621	SP120620W01	06/21/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120620W01		06/20/12	Semi Volatile Extraction	PNAEXTW
S52899.07	T120621	SP120620W01	06/21/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120620W01		06/20/12	Semi Volatile Extraction	PNAEXTW
S52899.08	T120621	SP120620W01	06/21/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120620W01		06/20/12	Semi Volatile Extraction	PNAEXTW
S52899.09	T120621	SP120620W01	06/21/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120620W01		06/20/12	Semi Volatile Extraction	PNAEXTW

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d21a.d	06/21/12 10:33	51	198	30.0	80.0	41.3	51152	PASS
		68	69	0.0	2.0	1.7	731	PASS
		69	198	0.0	100.0	35.2	43632	PASS
		70	69	0.0	2.0	0.5	199	PASS
		127	198	25.0	75.0	50.6	62752	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	124000	PASS
		199	198	5.0	9.0	6.7	8342	PASS
		275	198	10.0	30.0	25.0	31048	PASS
		365	198	1.0	100.0	3.2	3946	PASS
		441	443	0.0	100.0	70.2	13553	PASS
		442	198	40.0	110.0	78.3	97056	PASS
		443	442	15.0	24.0	19.9	19312	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn21a.d	06/21/12 10:55	1,4-Dichlorobenzene-D4	107565/ 5.14	53783- 215130	4.64- 5.64
		Naphthalene-D8	444723/ 6.09	222362- 889446	5.59- 6.59
		Acenaphthalene-D10	281334/ 7.47	140667- 562668	6.97- 7.97
		Phenanthrene-D10	484977/ 8.76	242489- 969954	8.26- 9.26
		Chrysene-D12	573216/11.56	286608- 1146432	11.06-12.06
		Perylene-D12	507113/13.49	253557- 1014226	12.99-13.99
					Total Outliers: N/A
5291501.d	06/21/12 12:04	1,4-Dichlorobenzene-D4	143802/ 5.13	Ratio: 1.337	Diff.: -0.01
		Naphthalene-D8	619618/ 6.08	Ratio: 1.393	Diff.: -0.01
		Acenaphthalene-D10	383390/ 7.46	Ratio: 1.363	Diff.: -0.01
		Phenanthrene-D10	696224/ 8.75	Ratio: 1.436	Diff.: -0.01
		Chrysene-D12	774039/11.54	Ratio: 1.350	Diff.: -0.02
		Perylene-D12	686215/13.47	Ratio: 1.353	Diff.: -0.02
					Total Outliers: 0
5289905.d	06/21/12 12:26	1,4-Dichlorobenzene-D4	184468/ 5.13	Ratio: 1.715	Diff.: -0.01
		Naphthalene-D8	830604/ 6.08	Ratio: 1.868	Diff.: -0.01
		Acenaphthalene-D10	514726/ 7.46	Ratio: 1.830	Diff.: -0.01
		Phenanthrene-D10	930034/ 8.75	Ratio: 1.918	Diff.: -0.01
		Chrysene-D12	884139/11.54	Ratio: 1.542	Diff.: -0.02
		Perylene-D12	458740/13.46	Ratio: 0.905	Diff.: -0.03
					Total Outliers: 0
blks21a.d	06/21/12 12:54	1,4-Dichlorobenzene-D4	141140/ 5.13	Ratio: 1.312	Diff.: -0.01
		Naphthalene-D8	607471/ 6.08	Ratio: 1.366	Diff.: -0.01
		Acenaphthalene-D10	363475/ 7.46	Ratio: 1.292	Diff.: -0.01
		Phenanthrene-D10	668099/ 8.75	Ratio: 1.378	Diff.: -0.01
		Chrysene-D12	735360/11.54	Ratio: 1.283	Diff.: -0.02
		Perylene-D12	644599/13.47	Ratio: 1.271	Diff.: -0.02
					Total Outliers: 0
blks21b.d	06/21/12 13:17	1,4-Dichlorobenzene-D4	160121/ 5.12	Ratio: 1.489	Diff.: -0.02
		Naphthalene-D8	688718/ 6.08	Ratio: 1.549	Diff.: -0.01
		Acenaphthalene-D10	428436/ 7.46	Ratio: 1.523	Diff.: -0.01
		Phenanthrene-D10	776241/ 8.75	Ratio: 1.601	Diff.: -0.01
		Chrysene-D12	859296/11.54	Ratio: 1.499	Diff.: -0.02
		Perylene-D12	768095/13.47	Ratio: 1.515	Diff.: -0.02
					Total Outliers: 0
blkw21a.d	06/21/12 13:39	1,4-Dichlorobenzene-D4	156076/ 5.14	Ratio: 1.451	Diff.: 0.00
		Naphthalene-D8	678779/ 6.09	Ratio: 1.526	Diff.: 0.00
		Acenaphthalene-D10	419701/ 7.47	Ratio: 1.492	Diff.: 0.00
		Phenanthrene-D10	763486/ 8.76	Ratio: 1.574	Diff.: 0.00
		Chrysene-D12	843174/11.55	Ratio: 1.471	Diff.: -0.01
		Perylene-D12	737838/13.49	Ratio: 1.455	Diff.: 0.00
					Total Outliers: 0
lcss21a.d	06/21/12 14:02	1,4-Dichlorobenzene-D4	137792/ 5.13	Ratio: 1.281	Diff.: -0.01
		Naphthalene-D8	600652/ 6.08	Ratio: 1.351	Diff.: -0.01
		Acenaphthalene-D10	367269/ 7.46	Ratio: 1.305	Diff.: -0.01
		Phenanthrene-D10	674327/ 8.75	Ratio: 1.390	Diff.: -0.01
		Chrysene-D12	771070/11.55	Ratio: 1.345	Diff.: -0.01
		Perylene-D12	679201/13.47	Ratio: 1.339	Diff.: -0.02
					Total Outliers: 0
lcsds21a.d	06/21/12 14:24	1,4-Dichlorobenzene-D4	165695/ 5.13	Ratio: 1.540	Diff.: -0.01
		Naphthalene-D8	719205/ 6.08	Ratio: 1.617	Diff.: -0.01
		Acenaphthalene-D10	445765/ 7.46	Ratio: 1.584	Diff.: -0.01
		Phenanthrene-D10	808063/ 8.75	Ratio: 1.666	Diff.: -0.01
		Chrysene-D12	930688/11.55	Ratio: 1.624	Diff.: -0.01
		Perylene-D12	807735/13.48	Ratio: 1.593	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
lcss21b.d	06/21/12 14:47	1,4-Dichlorobenzene-D4	160865/ 5.13	Ratio: 1.496	Diff.: -0.01
		Naphthalene-D8	698475/ 6.08	Ratio: 1.571	Diff.: -0.01
		Acenaphthalene-D10	432782/ 7.46	Ratio: 1.538	Diff.: -0.01
		Phenanthrene-D10	784176/ 8.75	Ratio: 1.617	Diff.: -0.01
		Chrysene-D12	908648/11.55	Ratio: 1.585	Diff.: -0.01
		Perylene-D12	796791/13.47	Ratio: 1.571	Diff.: -0.02
					Total Outliers: 0
lcsds21b.d	06/21/12 15:09	1,4-Dichlorobenzene-D4	160389/ 5.13	Ratio: 1.491	Diff.: -0.01
		Naphthalene-D8	699860/ 6.08	Ratio: 1.574	Diff.: -0.01
		Acenaphthalene-D10	432471/ 7.46	Ratio: 1.537	Diff.: -0.01
		Phenanthrene-D10	796072/ 8.75	Ratio: 1.641	Diff.: -0.01
		Chrysene-D12	928363/11.55	Ratio: 1.620	Diff.: -0.01
		Perylene-D12	812996/13.47	Ratio: 1.603	Diff.: -0.02
					Total Outliers: 0
lcsw21a.d	06/21/12 15:32	1,4-Dichlorobenzene-D4	165090/ 5.13	Ratio: 1.535	Diff.: -0.01
		Naphthalene-D8	714308/ 6.08	Ratio: 1.606	Diff.: -0.01
		Acenaphthalene-D10	440382/ 7.46	Ratio: 1.565	Diff.: -0.01
		Phenanthrene-D10	804339/ 8.75	Ratio: 1.659	Diff.: -0.01
		Chrysene-D12	944473/11.55	Ratio: 1.648	Diff.: -0.01
		Perylene-D12	833133/13.48	Ratio: 1.643	Diff.: -0.01
					Total Outliers: 0
lcsdw21a.d	06/21/12 15:54	1,4-Dichlorobenzene-D4	152194/ 5.13	Ratio: 1.415	Diff.: -0.01
		Naphthalene-D8	670545/ 6.08	Ratio: 1.508	Diff.: -0.01
		Acenaphthalene-D10	420988/ 7.46	Ratio: 1.496	Diff.: -0.01
		Phenanthrene-D10	770593/ 8.75	Ratio: 1.589	Diff.: -0.01
		Chrysene-D12	898373/11.55	Ratio: 1.567	Diff.: -0.01
		Perylene-D12	784410/13.47	Ratio: 1.547	Diff.: -0.02
					Total Outliers: 0
5289901.d	06/21/12 16:17	1,4-Dichlorobenzene-D4	152669/ 5.14	Ratio: 1.419	Diff.: 0.00
		Naphthalene-D8	657134/ 6.09	Ratio: 1.478	Diff.: 0.00
		Acenaphthalene-D10	410709/ 7.47	Ratio: 1.460	Diff.: 0.00
		Phenanthrene-D10	749410/ 8.76	Ratio: 1.545	Diff.: 0.00
		Chrysene-D12	827178/11.55	Ratio: 1.443	Diff.: -0.01
		Perylene-D12	722299/13.48	Ratio: 1.424	Diff.: -0.01
					Total Outliers: 0
5289902.d	06/21/12 16:39	1,4-Dichlorobenzene-D4	137933/ 5.13	Ratio: 1.282	Diff.: -0.01
		Naphthalene-D8	596675/ 6.08	Ratio: 1.342	Diff.: -0.01
		Acenaphthalene-D10	371833/ 7.45	Ratio: 1.322	Diff.: -0.02
		Phenanthrene-D10	678671/ 8.75	Ratio: 1.399	Diff.: -0.01
		Chrysene-D12	755777/11.54	Ratio: 1.318	Diff.: -0.02
		Perylene-D12	664291/13.46	Ratio: 1.310	Diff.: -0.03
					Total Outliers: 0
5289903.d	06/21/12 17:01	1,4-Dichlorobenzene-D4	132418/ 5.14	Ratio: 1.231	Diff.: 0.00
		Naphthalene-D8	567240/ 6.09	Ratio: 1.275	Diff.: 0.00
		Acenaphthalene-D10	350311/ 7.46	Ratio: 1.245	Diff.: -0.01
		Phenanthrene-D10	633891/ 8.76	Ratio: 1.307	Diff.: 0.00
		Chrysene-D12	696260/11.55	Ratio: 1.215	Diff.: -0.01
		Perylene-D12	608880/13.49	Ratio: 1.201	Diff.: 0.00
					Total Outliers: 0
5289904.d	06/21/12 17:24	1,4-Dichlorobenzene-D4	134159/ 5.13	Ratio: 1.247	Diff.: -0.01
		Naphthalene-D8	584533/ 6.08	Ratio: 1.314	Diff.: -0.01
		Acenaphthalene-D10	368591/ 7.45	Ratio: 1.310	Diff.: -0.02
		Phenanthrene-D10	660121/ 8.75	Ratio: 1.361	Diff.: -0.01
		Chrysene-D12	732075/11.54	Ratio: 1.277	Diff.: -0.02
		Perylene-D12	636511/13.46	Ratio: 1.255	Diff.: -0.03
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5290308.d	06/21/12 17:47	1,4-Dichlorobenzene-D4	130614/ 5.14	Ratio: 1.214	Diff.: 0.00
		Naphthalene-D8	570687/ 6.09	Ratio: 1.283	Diff.: 0.00
		Acenaphthalene-D10	353932/ 7.47	Ratio: 1.258	Diff.: 0.00
		Phenanthrene-D10	643349/ 8.76	Ratio: 1.327	Diff.: 0.00
		Chrysene-D12	711474/11.55	Ratio: 1.241	Diff.: -0.01
		Perylene-D12	623313/13.48	Ratio: 1.229	Diff.: -0.01
					Total Outliers: 0
5289906.d	06/21/12 18:09	1,4-Dichlorobenzene-D4	127648/ 5.13	Ratio: 1.187	Diff.: -0.01
		Naphthalene-D8	557720/ 6.08	Ratio: 1.254	Diff.: -0.01
		Acenaphthalene-D10	346196/ 7.45	Ratio: 1.231	Diff.: -0.02
		Phenanthrene-D10	626637/ 8.75	Ratio: 1.292	Diff.: -0.01
		Chrysene-D12	696615/11.54	Ratio: 1.215	Diff.: -0.02
		Perylene-D12	609350/13.46	Ratio: 1.202	Diff.: -0.03
					Total Outliers: 0
5289907.d	06/21/12 18:32	1,4-Dichlorobenzene-D4	127653/ 5.13	Ratio: 1.187	Diff.: -0.01
		Naphthalene-D8	553889/ 6.08	Ratio: 1.245	Diff.: -0.01
		Acenaphthalene-D10	342748/ 7.45	Ratio: 1.218	Diff.: -0.02
		Phenanthrene-D10	619638/ 8.75	Ratio: 1.278	Diff.: -0.01
		Chrysene-D12	681366/11.54	Ratio: 1.189	Diff.: -0.02
		Perylene-D12	597417/13.46	Ratio: 1.178	Diff.: -0.03
					Total Outliers: 0
5289908.d	06/21/12 18:54	1,4-Dichlorobenzene-D4	121108/ 5.13	Ratio: 1.126	Diff.: -0.01
		Naphthalene-D8	521545/ 6.08	Ratio: 1.173	Diff.: -0.01
		Acenaphthalene-D10	324133/ 7.45	Ratio: 1.152	Diff.: -0.02
		Phenanthrene-D10	592553/ 8.75	Ratio: 1.222	Diff.: -0.01
		Chrysene-D12	655819/11.54	Ratio: 1.144	Diff.: -0.02
		Perylene-D12	571244/13.46	Ratio: 1.126	Diff.: -0.03
					Total Outliers: 0
5289909.d	06/21/12 19:17	1,4-Dichlorobenzene-D4	126801/ 5.13	Ratio: 1.179	Diff.: -0.01
		Naphthalene-D8	551979/ 6.08	Ratio: 1.241	Diff.: -0.01
		Acenaphthalene-D10	341175/ 7.45	Ratio: 1.213	Diff.: -0.02
		Phenanthrene-D10	614468/ 8.75	Ratio: 1.267	Diff.: -0.01
		Chrysene-D12	675554/11.54	Ratio: 1.179	Diff.: -0.02
		Perylene-D12	592038/13.46	Ratio: 1.167	Diff.: -0.03
					Total Outliers: 0
5290201.d	06/21/12 19:39	1,4-Dichlorobenzene-D4	132768/ 5.14	Ratio: 1.234	Diff.: 0.00
		Naphthalene-D8	587807/ 6.09	Ratio: 1.322	Diff.: 0.00
		Acenaphthalene-D10	370330/ 7.46	Ratio: 1.316	Diff.: -0.01
		Phenanthrene-D10	691886/ 8.76	Ratio: 1.427	Diff.: 0.00
		Chrysene-D12	785540/11.55	Ratio: 1.370	Diff.: -0.01
		Perylene-D12	689132/13.49	Ratio: 1.359	Diff.: 0.00
					Total Outliers: 0
5290302.d	06/21/12 20:02	1,4-Dichlorobenzene-D4	151022/ 5.14	Ratio: 1.404	Diff.: 0.00
		Naphthalene-D8	685921/ 6.09	Ratio: 1.542	Diff.: 0.00
		Acenaphthalene-D10	409799/ 7.47	Ratio: 1.457	Diff.: 0.00
		Phenanthrene-D10	717799/ 8.76	Ratio: 1.480	Diff.: 0.00
		Chrysene-D12	771173/11.55	Ratio: 1.345	Diff.: -0.01
		Perylene-D12	669136/13.48	Ratio: 1.320	Diff.: -0.01
					Total Outliers: 0
5290802.d	06/21/12 20:24	1,4-Dichlorobenzene-D4	158018/ 5.13	Ratio: 1.469	Diff.: -0.01
		Naphthalene-D8	689338/ 6.08	Ratio: 1.550	Diff.: -0.01
		Acenaphthalene-D10	435996/ 7.46	Ratio: 1.550	Diff.: -0.01
		Phenanthrene-D10	802682/ 8.75	Ratio: 1.655	Diff.: -0.01
		Chrysene-D12	904919/11.54	Ratio: 1.579	Diff.: -0.02
		Perylene-D12	785551/13.47	Ratio: 1.549	Diff.: -0.02
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*

KEY:

```
[Area/RT]:    Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]:   +/- 0.5 minutes of relative internal standard RT
[Ratio]:      Ratio of internal standard areas
[Diff]:       Difference in internal standard retention times (minutes)
```

CONTROL LIMITS:

```
Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT
```

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120621.2

LIMS ID: S52902.01
Data File: 5290201.d
Date Received: 06/19/12

Tag: SB127 (06-18-2012) (3-5)
Notes: pna-s 30g/1ml df:12
s/1 id:sp120619s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 12

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	06/21/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	91	1		%	06/21/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				06/19/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/21/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (59%)				06/21/12	
4165-60-0	Nitrobenzene-D5	Pass (55%)					
98904-43-9	Terphenyl-D14	Pass (64%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
Analytical Batch: t120621.2
GC Column: DB-5/L:30m/D:0.25mm

Note/Qualifier Key

A:	TIC is a suspected aldol-condensation product
B:	Compound also found in associated method blank
C:	Analyte presence confirmed by GC/MS
D:	Identified in an analysis at a secondary dilution factor
E:	Concentration exceeds calibration range
J:	Estimated value less than reporting limit, but greater than MDL
N:	Presumptive evidence of TIC
P:	Pesticide/Aroclor 2-column RPD exceeds limit
U:	Analyte not detected above reporting limit
!:	Result is outside of stated limit criteria
F:	Analysis run outside of holding time
G:	Estimated result due to extraction run outside of holding time
H:	Sample submitted and run outside of holding time
I:	Matrix interference with internal standard
K:	Elevated reporting limit due to low total solids
L:	Elevated reporting limit due to low sample amount
M:	Result reported to MDL not RDL
O:	Analysis performed by outside laboratory. See attached report.
Q:	Reported result represents most abundant aroclor
R:	Preliminary result
S:	Surrogate recovery outside of control limits
T:	No correction for total solids
V:	Accurate value not available due to presence of multiple aroclors
W:	Surrogate result not applicable due to sample dilution
X:	Elevated reporting limit due to matrix interference
Y:	Elevated reporting limit due to high target concentration
Z:	Estimated result due to matrix interference
p:	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*:	Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\5290201.d Vial: 12
Acq On : 21 Jun 12 7:39 pm Operator: PL
Sample : pna-s 30g/1ml df:12 Inst : Tempest
Misc : s/1 id:sp120619s02 Multiplr: 1.00
Quant Time: Jun 22 10:54 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration

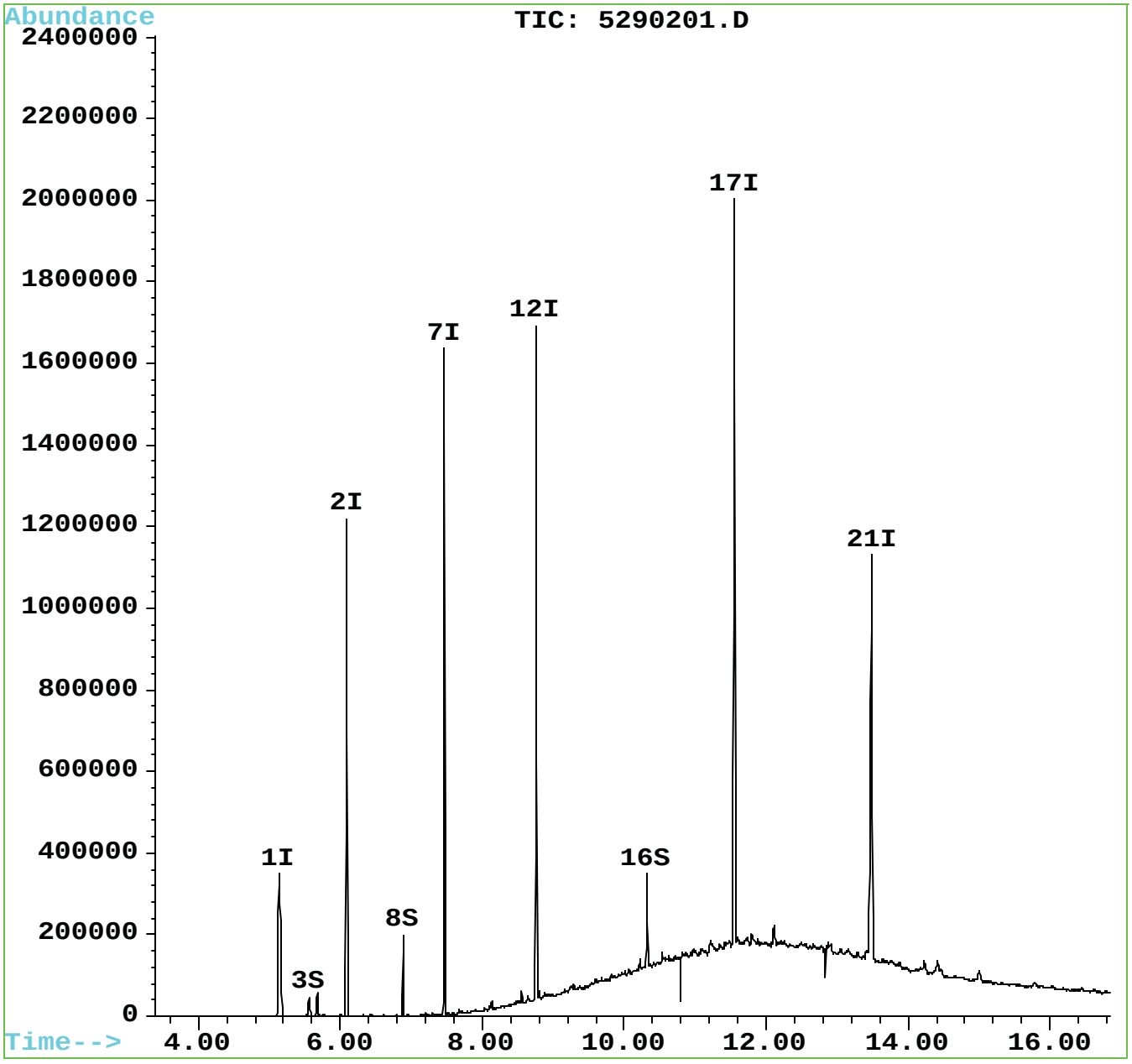
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.14	152	132768	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.09	136	587807	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	370330	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.76	188	691886	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	785540	40.00	ng/ul	0.0
21) PERYLENE-D12	13.49	264	689132	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	20000	4.55	ng/ul	4.5
8) 2-Fluorobiphenyl	6.88	172	56183	4.95	ng/ul	4.9
16) Terphenyl-D14	10.32	244	78862	5.37	ng/ul	5.3
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\5290201.d Vial: 12
Acq On : 21 Jun 12 7:39 pm Operator: PL
Sample : pna-s 30g/1ml df:12 Inst : Tempest
Misc : s/1 id:sp120619s02 Multiplr: 1.00
Quant Time: Jun 22 10:54 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120620t.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	A	0.299	3.04	0.288	0.295	0.291	0.306	0.309	0.307				
	Naphthalene	A	0.994	2.36	1.014	0.969	0.959	1.007	1.009	1.004				
	2-Methylnaphthalene	A	0.556	3.05	0.542	0.540	0.541	0.568	0.575	0.572				
	1-Methylnaphthalene	A	0.648	3.33	0.626	0.628	0.632	0.659	0.673	0.669				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.226	4.08	1.179	1.179	1.184	1.265	1.286	1.261				
	Acenaphthylene	A	1.639	7.00	1.432	1.610	1.621	1.711	1.734	1.726				
	Acenaphthene **	A	0.978	3.73	0.937	0.953	0.948	1.007	1.024	1.000				
	Fluorene	A	1.263	4.43	1.187	1.220	1.237	1.304	1.324	1.307				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	A	1.047	3.62	1.100	1.002	1.006	1.047	1.072	1.053				
	Anthracene	A	1.057	3.26	1.024	1.025	1.035	1.065	1.108	1.083				
	Fluoranthene	A	1.179	5.74	1.081	1.132	1.151	1.228	1.243	1.241				
	Terphenyl-D14	A	0.850	7.10	0.811	0.775	0.803	0.887	0.916	0.906				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	0.980	8.44	0.819	0.981	0.985	1.026	1.045	1.024				
	Benzo(a)anthracene	A	0.988	3.92	0.975	0.939	0.956	1.000	1.041	1.019				
	Chrysene	A	0.971	5.16	0.901	0.939	0.945	0.999	1.027	1.016				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	1.046	9.60	0.869	0.990	1.076	1.110	1.140	1.092				
	Benzo(k)fluoranthene	A	0.963	10.65	0.835	0.872	0.916	1.030	1.030	1.092				
	Benzo(a)pyrene	A	0.876	7.14	0.792	0.811	0.867	0.919	0.937	0.927				
	Indeno(1,2,3-cd)pyrene	A	1.175	10.15	0.969	1.106	1.184	1.256	1.267	1.269				
	Dibenzo(ah)anthracene	A	0.996	11.49	0.797	0.924	1.018	1.076	1.082	1.076				
	Benzo(ghi)perylene	A	0.950	4.75	0.889	0.904	0.944	0.986	0.993	0.984				

Calibration Date: 62/0t/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120620t.M (Mean %RSD: 5.81)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\thanatos.4\methods\p120620t.m\

Injection Time	Calibration Data File
06/20/12 14:26	d20a.d
06/20/12 14:54	pna0005.d
06/20/12 16:01	pna_020.d
06/20/12 16:23	pna_040.d
06/20/12 16:46	pna_050.d
06/20/12 17:08	pna_060.d
06/20/12 17:31	pna_080.d
06/20/12 17:53	pna_100.d

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

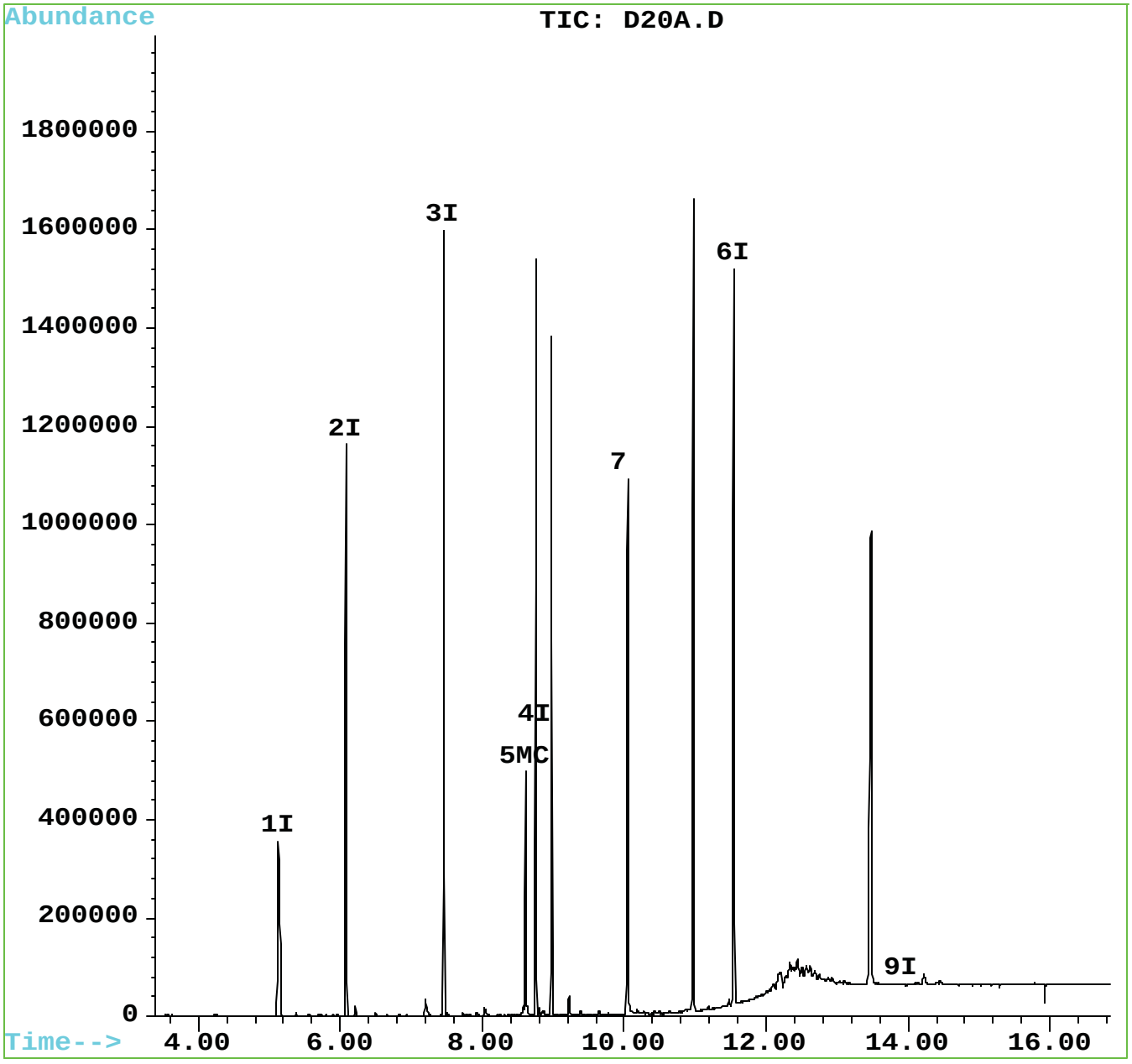
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	132678	40.00	ng/ul	-0.1
2) NAPHTHALENE-D8	6.08	136	569431	40.00	ng/ul	-0.1
3) ACENAPHTHALENE-D10	7.46	160	141248	40.00	ng/ul	-0.1
4) PHENANTHRENE-D10	8.75	188	623392	40.00	ng/ul	-0.1
6) CHRYSENE-D12	11.55	240	698034	40.00	ng/ul	-0.1
9) PERYLENE-D12	13.91	264	138	40.00	ng/ul	0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.61	266	58390	28.87	ng/ul	9
7) Benzidine	10.05	184	503493	85.56	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

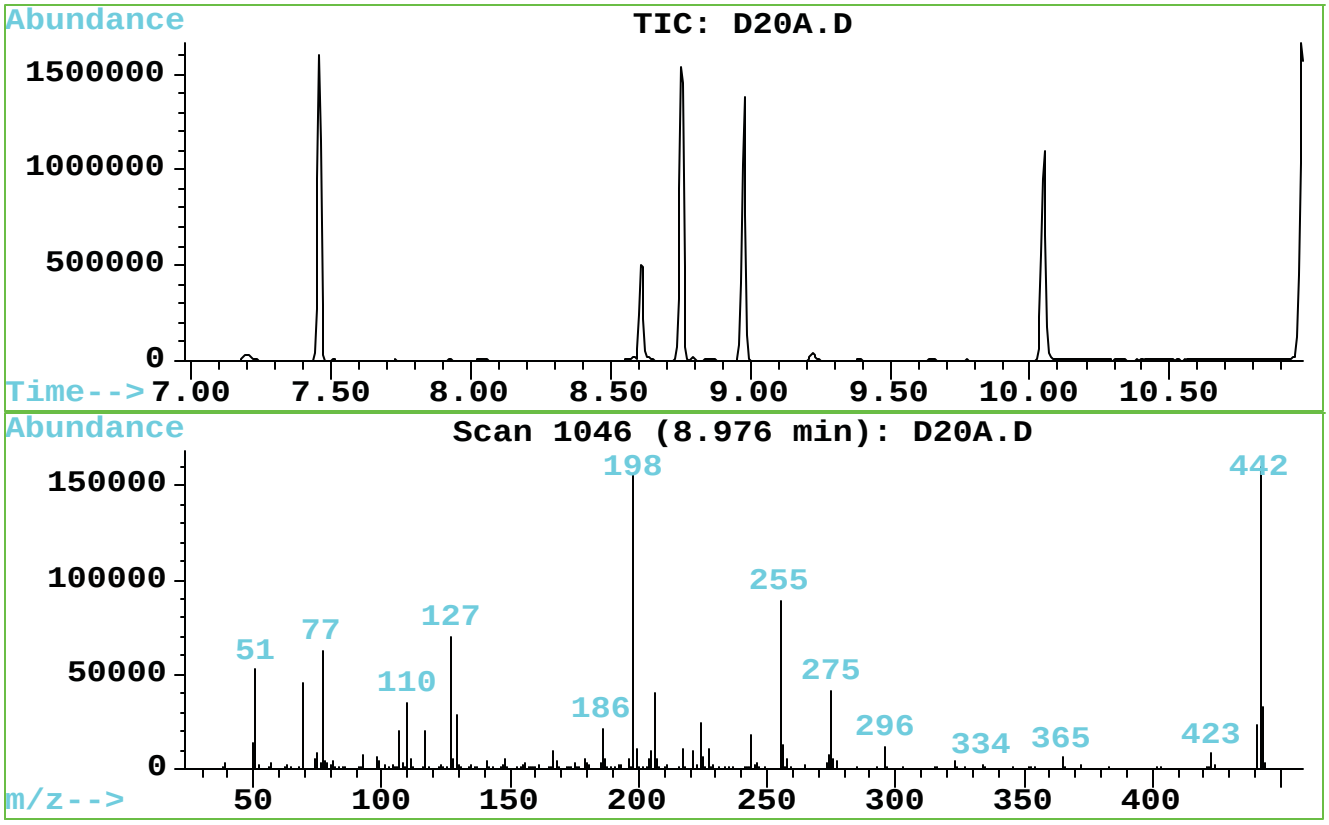
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120620.CAL\D20A.D Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270



Peak Apex is scan: 1046

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	33.7	52576	PASS
68	69	0	2	1.6	727	PASS
69	198	0	100	29.2	45504	PASS
70	69	0	2	0.6	257	PASS
127	198	25	75	45.1	70240	PASS
197	198	0	1	0.7	1032	PASS
198	198	100	100	100.0	155904	PASS
199	198	5	9	6.7	10402	PASS
275	198	10	30	26.5	41352	PASS
365	198	1	100	3.8	5941	PASS
441	443	0	100	71.5	23560	PASS
442	198	40	110	102.8	160256	PASS
443	442	15	24	20.6	32936	PASS

D20A.D P120620T.M Thu Jul 05 13:13:55 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

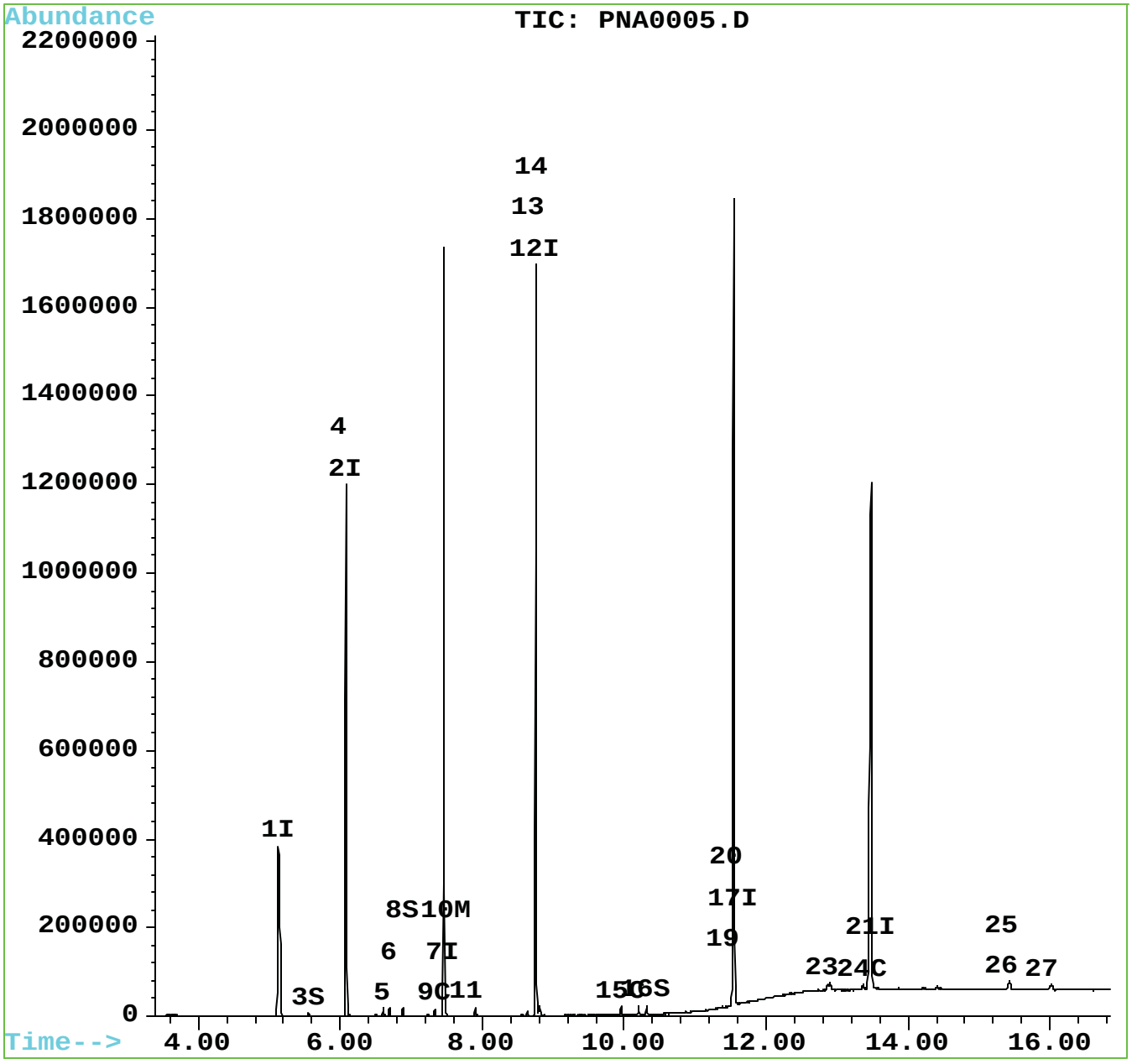
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	143390	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	584359	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	361670	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640265	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	851411	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	810081	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	2104	0.41	ng/ul	0.4
8) 2-Fluorobiphenyl	6.88	172	5332	0.49	ng/ul	0.4
16) Terphenyl-D14	10.31	244	6487	0.47	ng/ul	0.4
Target Compounds						Qvalu
4) Naphthalene	6.09	128	7409	0.50	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	3958	0.49	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	4576	0.49	ng/ul	9
9) Acenaphthylene	7.33	152	6474	0.43	ng/ul	9
10) Acenaphthene **	7.48	154	4235	0.49	ng/ul	10
11) Fluorene	7.90	166	5367	0.48	ng/ul	10
13) Phenanthrene	8.77	178	8800	0.53	ng/ul	9
14) Anthracene	8.81	178	8193	0.48	ng/ul	10
15) Fluoranthene	9.95	202	8650	0.46	ng/ul	9
19) Benzo(a)anthracene	11.52	228	10380	0.49	ng/ulm	9
20) Chrysene	11.57	228	9593	0.45	ng/ul	9
23) Benzo(k)fluoranthene	12.90	252	8460	0.41	ng/ul	9
24) Benzo(a)pyrene	13.37	252	8024	0.44	ng/ul	7
25) Indeno(1,2,3-cd)pyrene	15.43	276	9817	0.47	ng/ul	9
26) Dibenzo(ah)anthracene	15.43	278	8071	2.93	ng/ulm	
27) Benzo(ghi)perylene	16.02	276	9004	0.53	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

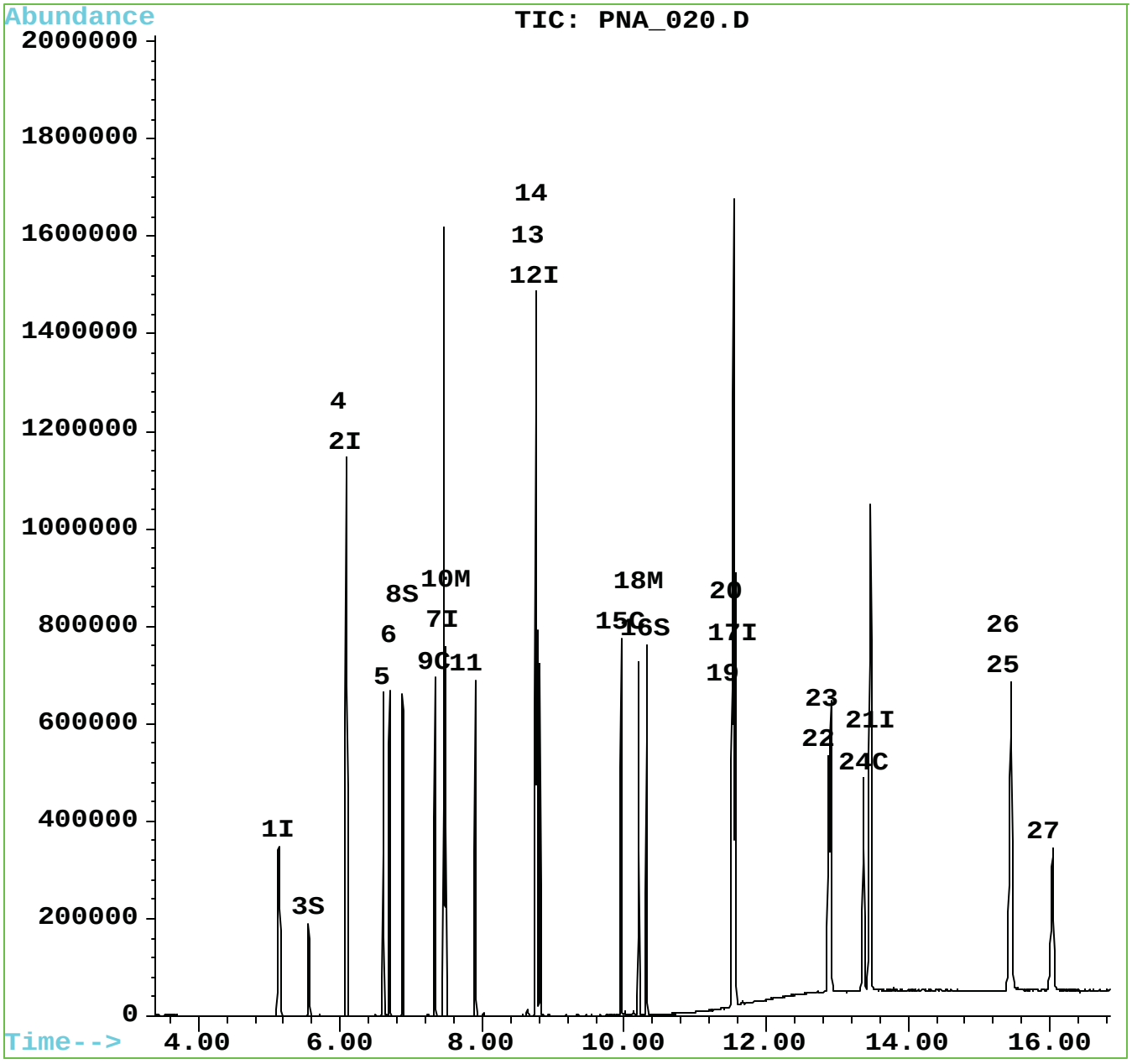
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	135615	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	556039	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	346157	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	598956	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.54	240	709363	40.00	ng/ul	0.0
21) PERYLENE-D12	13.47	264	692857	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	82003	17.37	ng/ul	17.3
8) 2-Fluorobiphenyl	6.88	172	204105	19.88	ng/ul	19.8
16) Terphenyl-D14	10.31	244	231969	19.02	ng/ul	19.0
Target Compounds						Qvalu
4) Naphthalene	6.09	128	269421	19.32	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	150167	19.85	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	174575	20.06	ng/ul	9
9) Acenaphthylene	7.33	152	278716	19.95	ng/ul	9
10) Acenaphthene **	7.48	154	164917	20.36	ng/ul	9
11) Fluorene	7.91	166	211147	19.78	ng/ul	9
13) Phenanthrene	8.77	178	300111	19.28	ng/ul	9
14) Anthracene	8.82	178	306951	19.46	ng/ul	9
15) Fluoranthene	9.95	202	339050	19.64	ng/ul	9
18) Pyrene **	10.21	202	347810	19.42	ng/ul	9
19) Benzo(a)anthracene	11.52	228	333084	19.02	ng/ul	9
20) Chrysene	11.57	228	333074	19.43	ng/ul	9
22) Benzo(b)fluoranthene	12.88	252	343106	19.00	ng/ul	9
23) Benzo(k)fluoranthene	12.91	252	301991	17.52	ng/ul	9
24) Benzo(a)pyrene	13.37	252	280817	18.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.45	276	383241	21.67	ng/ul	9
26) Dibenzo(ah)anthracene	15.45	278	320076	76.29	ng/ul#	
27) Benzo(ghi)perylene	16.04	276	313019	21.38	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

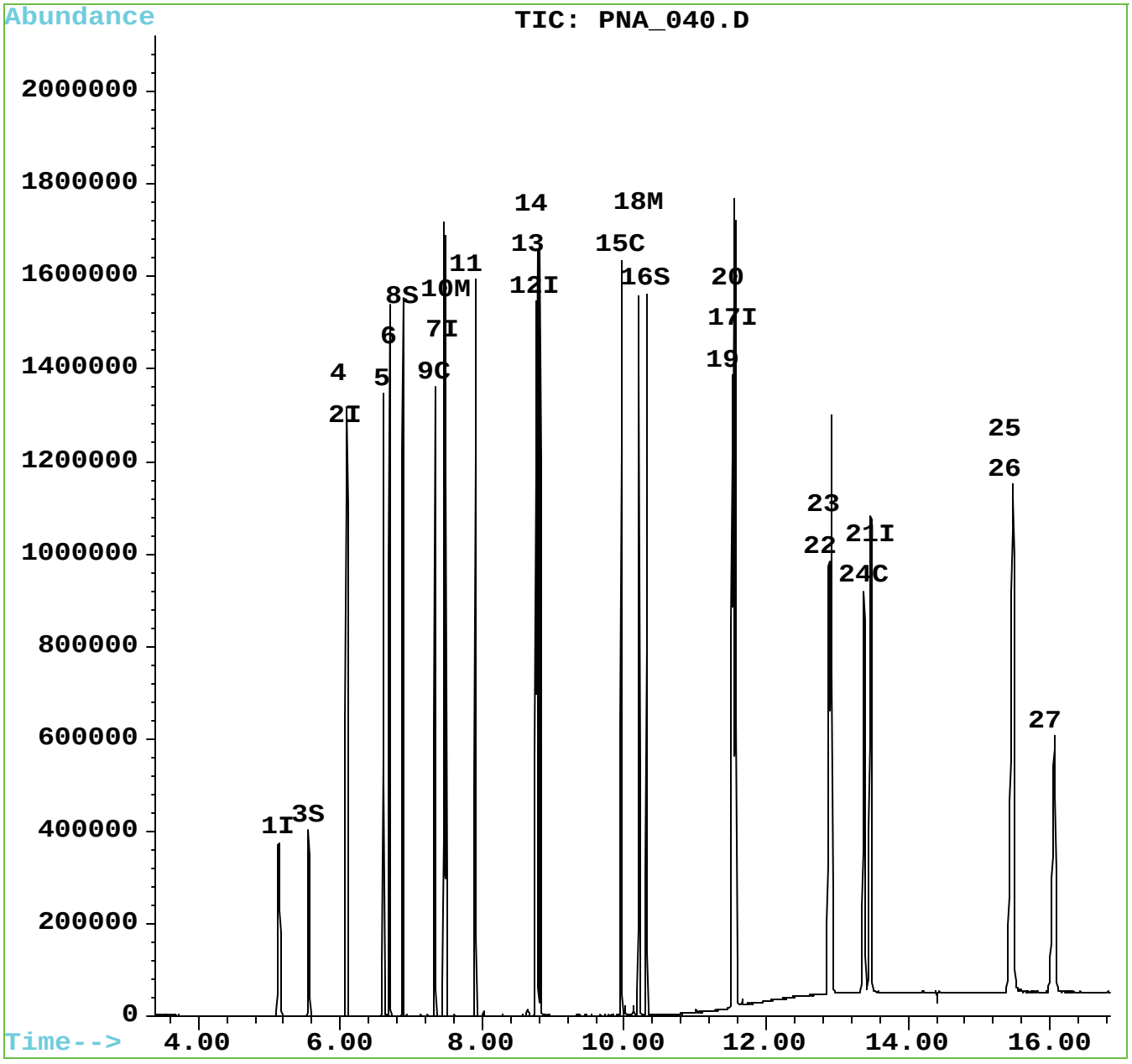
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	145174	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	600445	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	372384	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640122	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	768198	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	711428	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	174537	35.18	ng/ul	35.1
8) 2-Fluorobiphenyl	6.88	172	440917	40.11	ng/ul	40.1
16) Terphenyl-D14	10.32	244	513941	39.56	ng/ul	39.5
Target Compounds						Qvalu
4) Naphthalene	6.09	128	575604	38.59	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	325059	39.88	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	379358	40.37	ng/ul	9
9) Acenaphthylene	7.34	152	603631	40.34	ng/ul	9
10) Acenaphthene **	7.48	154	353127	40.59	ng/ul	9
11) Fluorene	7.91	166	460460	40.27	ng/ul	9
13) Phenanthrene	8.77	178	643835	38.97	ng/ul	10
14) Anthracene	8.82	178	662219	39.53	ng/ul	10
15) Fluoranthene	9.96	202	736945	40.05	ng/ul	10
18) Pyrene **	10.21	202	756635	39.53	ng/ul	10
19) Benzo(a)anthracene	11.52	228	734403	38.98	ng/ul	9
20) Chrysene	11.58	228	725802	39.40	ng/ul	9
22) Benzo(b)fluoranthene	12.89	252	765726	41.58	ng/ul	9
23) Benzo(k)fluoranthene	12.92	252	651601	37.90	ng/ulm	9
24) Benzo(a)pyrene	13.38	252	616751	39.86	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.49	276	842409	45.64	ng/ul	9
26) Dibenzo(ah)anthracene	15.48	278	724171	108.89	ng/ul#	
27) Benzo(ghi)perylene	16.07	276	671310	44.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

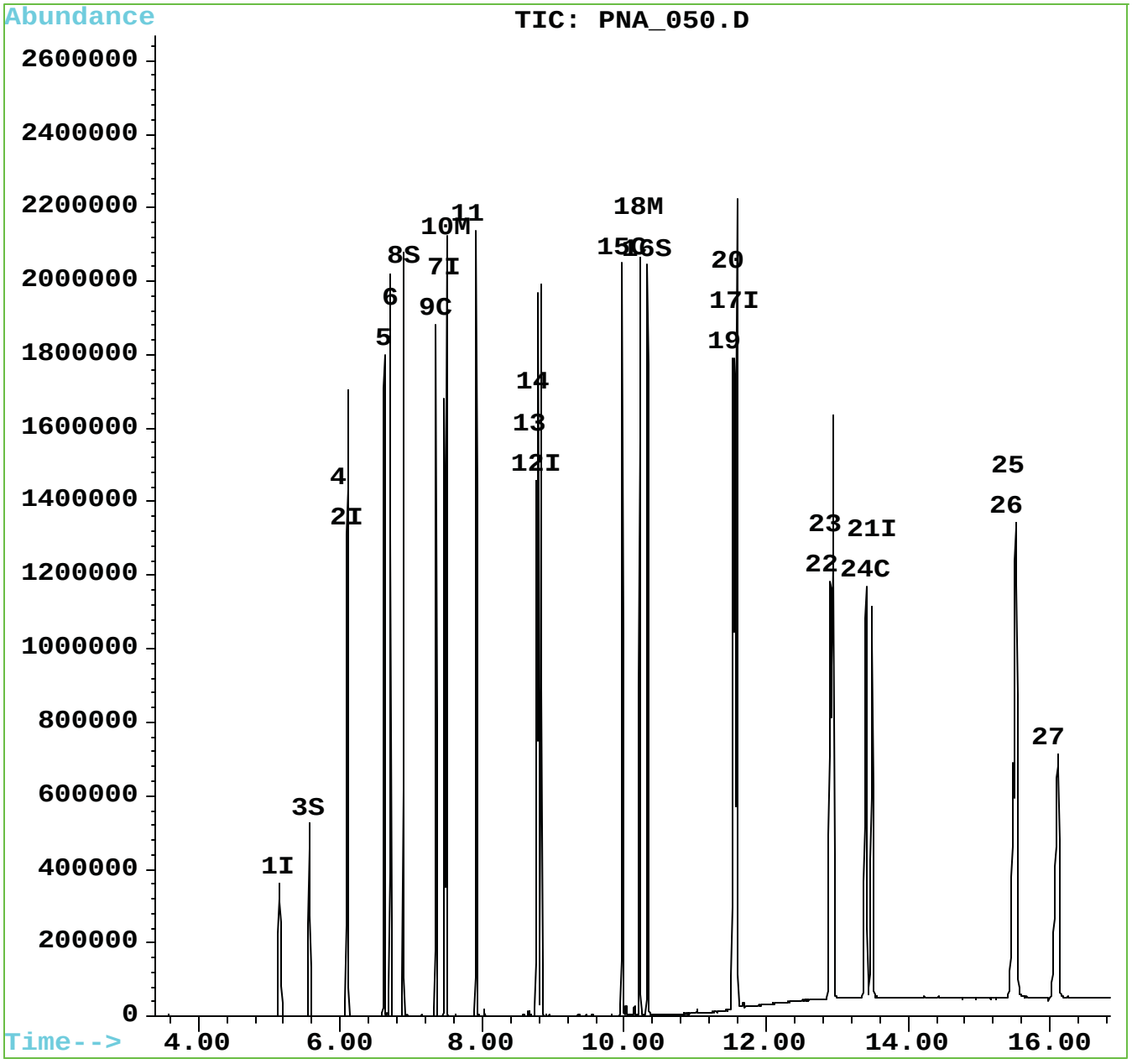
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.14	152	140598	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.09	136	584387	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.47	164	376489	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.76	188	622177	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.56	240	765174	40.00	ng/ul	0.0
21) PERYLENE-D12	13.50	264	703377	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	229947	52.60	ng/ul	52.6
8) 2-Fluorobiphenyl	6.89	172	607779	52.68	ng/ul	52.6
16) Terphenyl-D14	10.33	244	692330	52.39	ng/ul	52.3
Target Compounds						Qvalu
4) Naphthalene	6.10	128	751033	51.74	ng/ul	10
5) 2-Methylnaphthalene	6.62	141	434353	53.42	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	506957	53.57	ng/ul	9
9) Acenaphthylene	7.35	152	823667	53.39	ng/ul	9
10) Acenaphthene **	7.49	154	486187	52.81	ng/ul	9
11) Fluorene	7.92	166	607540	51.10	ng/ul	9
13) Phenanthrene	8.79	178	840726	51.65	ng/ul	10
14) Anthracene	8.83	178	824151	50.15	ng/ulm	10
15) Fluoranthene	9.98	202	961499	52.42	ng/ul	10
18) Pyrene **	10.22	202	986114	52.61	ng/ul	10
19) Benzo(a)anthracene	11.54	228	956291	50.58	ng/ul	9
20) Chrysene	11.59	228	954806	51.40	ng/ul	9
22) Benzo(b)fluoranthene	12.91	252	1007548	54.76	ng/ul	9
23) Benzo(k)fluoranthene	12.95	252	869858	51.39	ng/ulm	9
24) Benzo(a)pyrene	13.41	252	810603	52.65	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1043907	50.51	ng/ulm	8
26) Dibenzo(ah)anthracene	15.52	278	891914	50.95	ng/ul#	
27) Benzo(ghi)perylene	16.12	276	876303	52.46	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

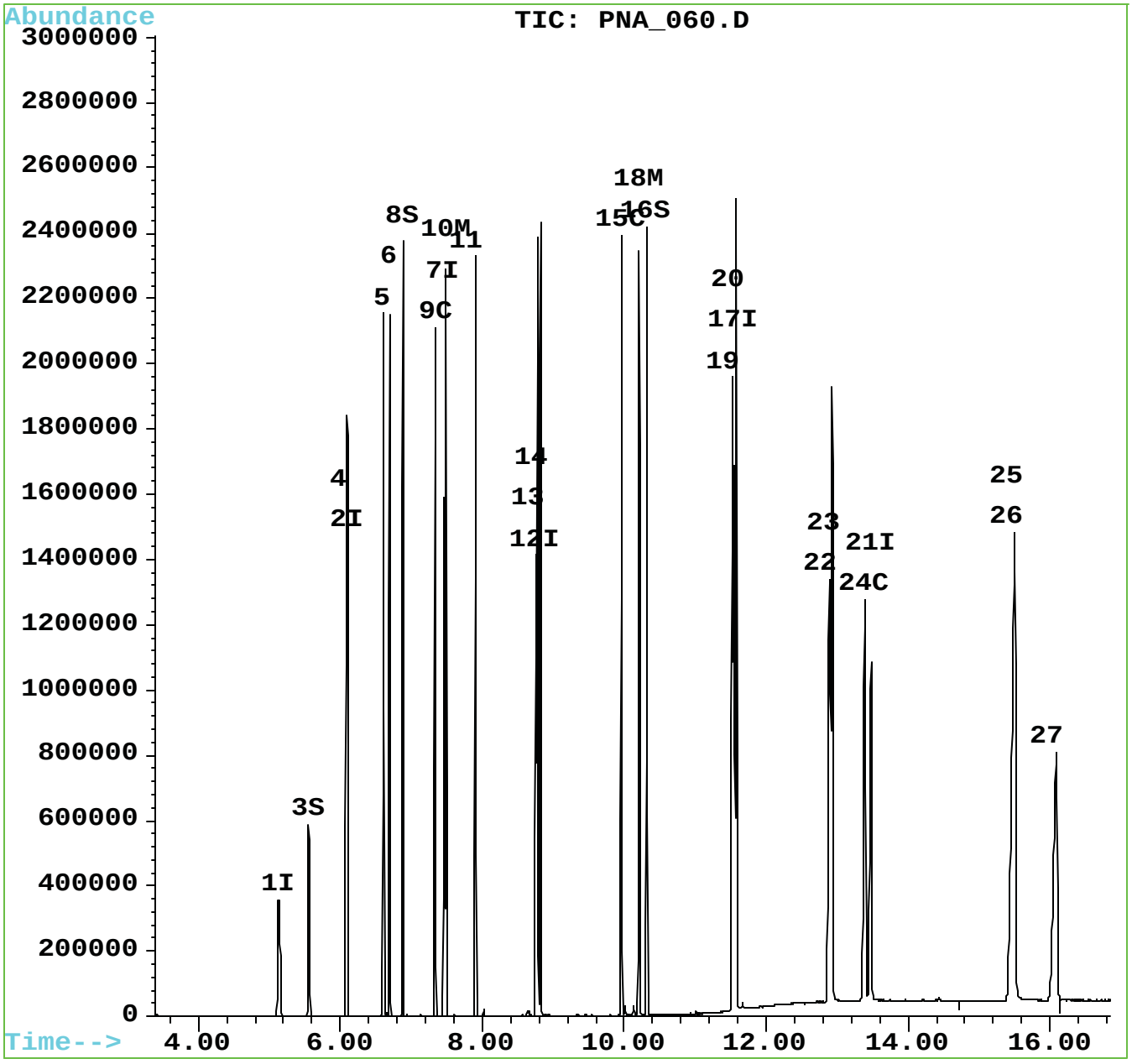
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	139447	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	575362	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	353288	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	616305	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	748003	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	682703	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	264229	57.14	ng/ul	57.1
8) 2-Fluorobiphenyl	6.88	172	670339	64.21	ng/ul	64.2
16) Terphenyl-D14	10.32	244	820095	65.45	ng/ul	65.4
Target Compounds						Qvalu
4) Naphthalene	6.10	128	868848	61.11	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	490465	62.75	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	569018	62.98	ng/ul	9
9) Acenaphthylene	7.34	152	906881	63.94	ng/ul	9
10) Acenaphthene **	7.48	154	533576	64.40	ng/ul	9
11) Fluorene	7.91	166	690907	63.53	ng/ul	9
13) Phenanthrene	8.78	178	967482	60.95	ng/ul	10
14) Anthracene	8.82	178	984460	61.22	ng/ul	10
15) Fluoranthene	9.97	202	1135196	64.07	ng/ul	10
18) Pyrene **	10.21	202	1150667	62.18	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1121641	61.16	ng/ul	9
20) Chrysene	11.59	228	1120370	62.57	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1137138	63.75	ng/ul	9
23) Benzo(k)fluoranthene	12.93	252	1055134	64.94	ng/ulm	9
24) Benzo(a)pyrene	13.39	252	941272	63.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.51	276	1286560	70.60	ng/ul	9
26) Dibenzo(ah)anthracene	15.50	278	1101876	123.88	ng/ul#	
27) Benzo(ghi)perylene	16.10	276	1009761	67.42	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

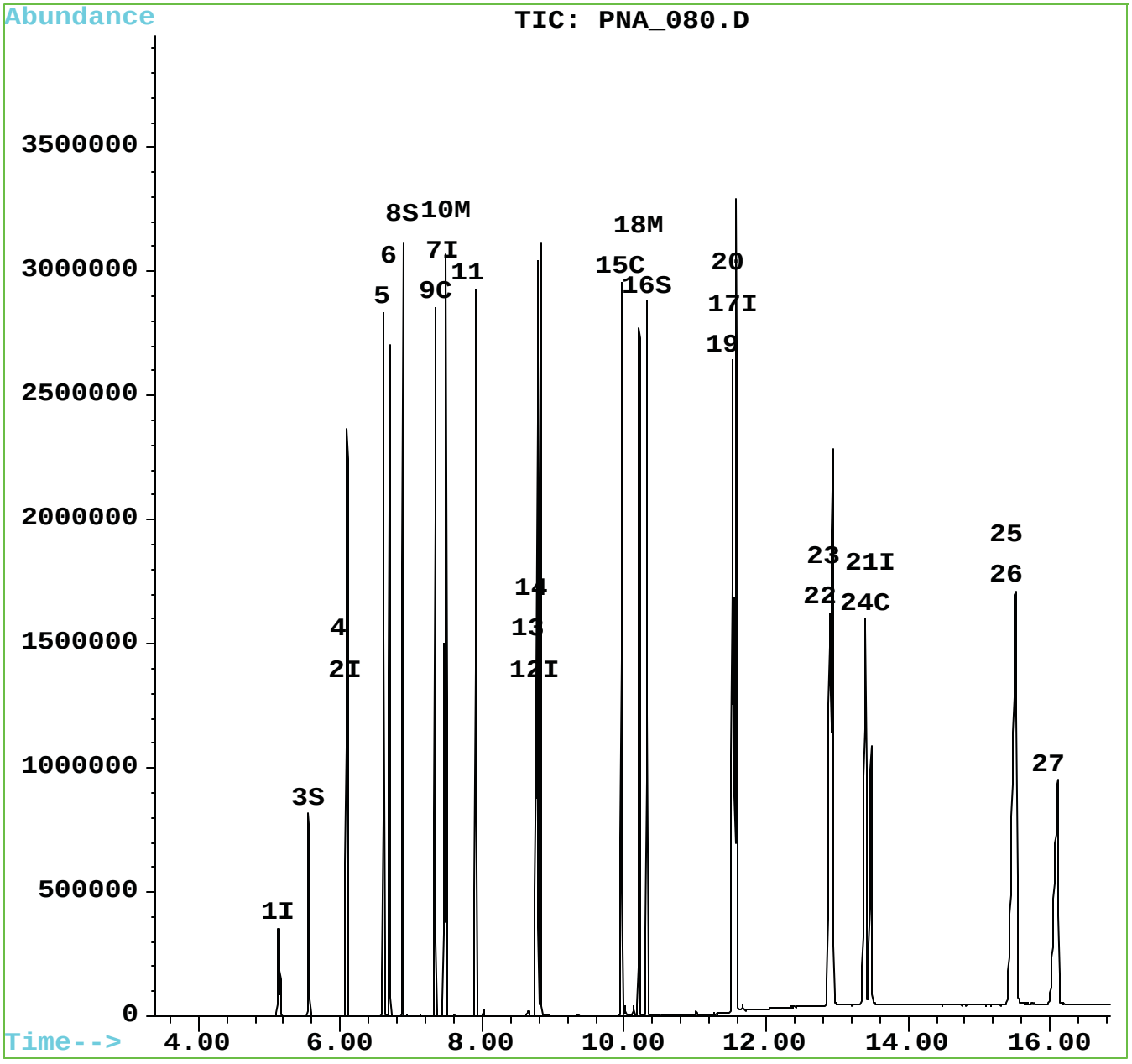
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	84162	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	560653	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	344328	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	593618	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	724268	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	668390	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	346243	78.73	ng/ul	78.7
8) 2-Fluorobiphenyl	6.88	172	885493	86.15	ng/ul	86.1
16) Terphenyl-D14	10.32	244	1087992	88.89	ng/ul	88.8
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1131267	81.69	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	644735	84.16	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	754321	85.15	ng/ul	9
9) Acenaphthylene	7.34	152	1193934	86.08	ng/ul	9
10) Acenaphthene **	7.49	154	705426	86.33	ng/ul	9
11) Fluorene	7.91	166	911878	85.55	ng/ul	10
13) Phenanthrene	8.78	178	1272975	83.14	ng/ul	9
14) Anthracene	8.82	178	1315513	84.88	ng/ul	10
15) Fluoranthene	9.97	202	1475282	85.92	ng/ul	10
18) Pyrene **	10.22	202	1513446	85.04	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1508631	85.06	ng/ul	9
20) Chrysene	11.59	228	1487020	85.85	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1523698	87.00	ng/ul	9
23) Benzo(k)fluoranthene	12.94	252	1376522	86.71	ng/ulm	9
24) Benzo(a)pyrene	13.40	252	1253005	86.05	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1693105	91.97	ng/ul	9
26) Dibenzo(ah)anthracene	15.51	278	1446162	127.51	ng/ul#	
27) Benzo(ghi)perylene	16.11	276	1327841	88.30	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

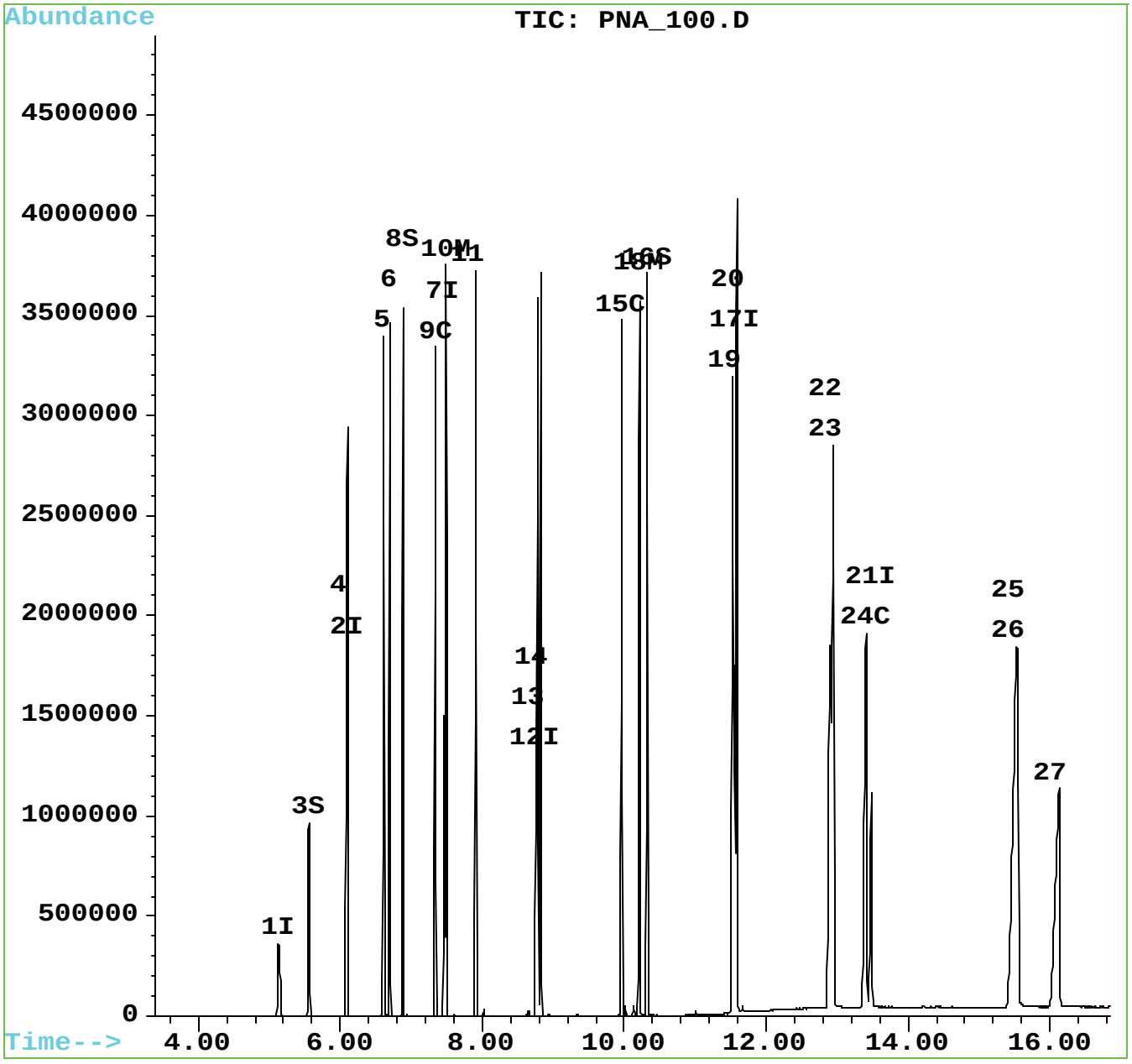
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	138171	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	568205	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	351986	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	611911	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	757963	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	692918	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	435831	100.13	ng/ul	100.1
8) 2-Fluorobiphenyl	6.88	172	1109224	104.17	ng/ul	104.1
16) Terphenyl-D14	10.32	244	1385539	108.11	ng/ul	108.1
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1425996	101.45	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	813163	103.78	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	949708	104.58	ng/ul	9
9) Acenaphthylene	7.34	152	1519026	106.44	ng/ul	9
10) Acenaphthene **	7.49	154	879645	103.79	ng/ul	9
11) Fluorene	7.91	166	1150248	104.66	ng/ul	9
13) Phenanthrene	8.78	178	1610327	101.32	ng/ul	9
14) Anthracene	8.83	178	1657005	103.19	ng/ul	10
15) Fluoranthene	9.97	202	1898025	106.43	ng/ul	9
18) Pyrene **	10.22	202	1939528	104.36	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1930239	103.53	ng/ul	9
20) Chrysene	11.59	228	1924431	105.47	ng/ul	9
22) Benzo(b)fluoranthene	12.95	252	3782432	207.76	ng/ulm	9
23) Benzo(k)fluoranthene	12.95	252	3782795	230.09	ng/ulm	10
24) Benzo(a)pyrene	13.41	252	1605543	106.12	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.55	276	2198376	111.69	ng/ul	10
26) Dibenzo(ah)anthracene	15.53	278	1864392	128.64	ng/ul#	
27) Benzo(ghi)perylene	16.13	276	1705175	106.54	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120621.2
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn21a.d	06/21/12 10:55	Acenaphthylene	1.749	0.30
		Benzo(b)fluoranthene	1.166	0.30
		Naphthalene	1.033	0.30
		Phenanthrene	1.096	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120621.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn21a.d	06/21/12 10:55	1-methylnaphthalene	53.2/ 50.0	6.4/ 20.0
		2-Methylnaphthalene	53.1/ 50.0	6.2/ 20.0
		Acenaphthene	52.9/ 50.0	5.8/ 20.0
		Acenaphthylene	53.4/ 50.0	6.7/ 20.0
		Anthracene	53.4/ 50.0	6.9/ 20.0
		Benzo(a)anthracene	52.9/ 50.0	5.8/ 20.0
		Benzo(a)pyrene	53.7/ 50.0	7.4/ 20.0
		Benzo(b)fluoranthene	55.8/ 50.0	11.5/ 20.0
		Benzo(ghi)perylene	51.2/ 50.0	2.4/ 20.0
		Benzo(k)fluoranthene	54.0/ 50.0	7.9/ 20.0
		Chrysene	52.9/ 50.0	5.7/ 20.0
		Dibenzo(ah)anthracene	52.8/ 50.0	5.6/ 20.0
		Fluorene	53.0/ 50.0	6.1/ 20.0
		Fluoranthene	53.4/ 50.0	6.7/ 20.0
		Indeno(1,2,3-cd)pyrene	52.2/ 50.0	4.5/ 20.0
		Naphthalene	51.9/ 50.0	3.9/ 20.0
		Phenanthrene	52.4/ 50.0	4.8/ 20.0
		Pyrene	55.7/ 50.0	11.4/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\spnn21a.d Vial: 2
Acq On : 21 Jun 12 10:55 am Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:25 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration

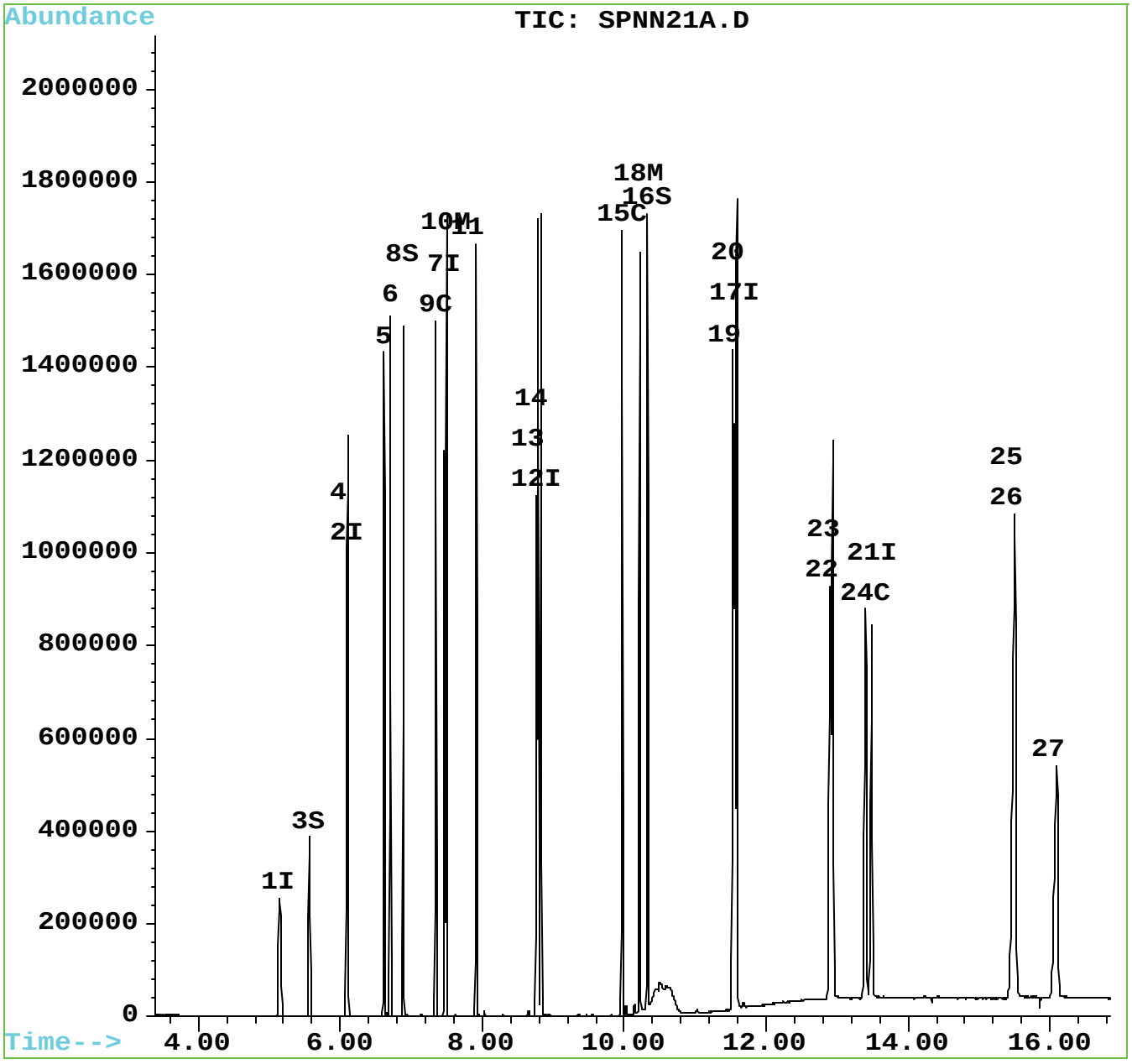
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.14	152	107565	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.09	136	444723	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.47	164	281334	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.76	188	484977	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.56	240	573216	40.00	ng/ul	0.0
21) PERYLENE-D12	13.49	264	507113	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	175855	52.86	ng/ul	52.8
8) 2-Fluorobiphenyl	6.88	172	454471	52.72	ng/ul	52.7
16) Terphenyl-D14	10.33	244	541518	52.57	ng/ul	52.5
Target Compounds						Qvalu
4) Naphthalene	6.10	128	573731	51.94	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	328419	53.08	ng/ul	10
6) 1-Methylnaphthalene	6.70	142	383332	53.22	ng/ul	10
9) Acenaphthylene	7.34	152	615189	53.36	ng/ul	10
10) Acenaphthene **	7.49	154	363970	52.91	ng/ul	10
11) Fluorene	7.92	166	471078	53.03	ng/ul	10
13) Phenanthrene	8.78	178	664689	52.39	ng/ul	10
14) Anthracene	8.83	178	684628	53.44	ng/ul	9
15) Fluoranthene	9.97	202	762908	53.36	ng/ul	10
18) Pyrene **	10.22	202	782382	55.72	ng/ul	10
19) Benzo(a)anthracene	11.53	228	749044	52.88	ng/ul	10
20) Chrysene	11.59	228	735707	52.87	ng/ul	10
22) Benzo(b)fluoranthene	12.91	252	739507	55.75	ng/ul	9
23) Benzo(k)fluoranthene	12.94	252	658362	53.95	ng/ul	9
24) Benzo(a)pyrene	13.40	252	595955	53.69	ng/ul	10
25) Indeno(1,2,3-cd)pyrene	15.51	276	778386	52.24	ng/ul	9
26) Dibenzo(ah)anthracene	15.51	278	666236	52.79	ng/ul	9
27) Benzo(ghi)perylene	16.10	276	616653	51.20	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\spnn21a.d Vial: 2
Acq On : 21 Jun 12 10:55 am Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:25 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\d21a.d Vial: 1
Acq On : 21 Jun 12 10:33 am Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 22 12:44 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration

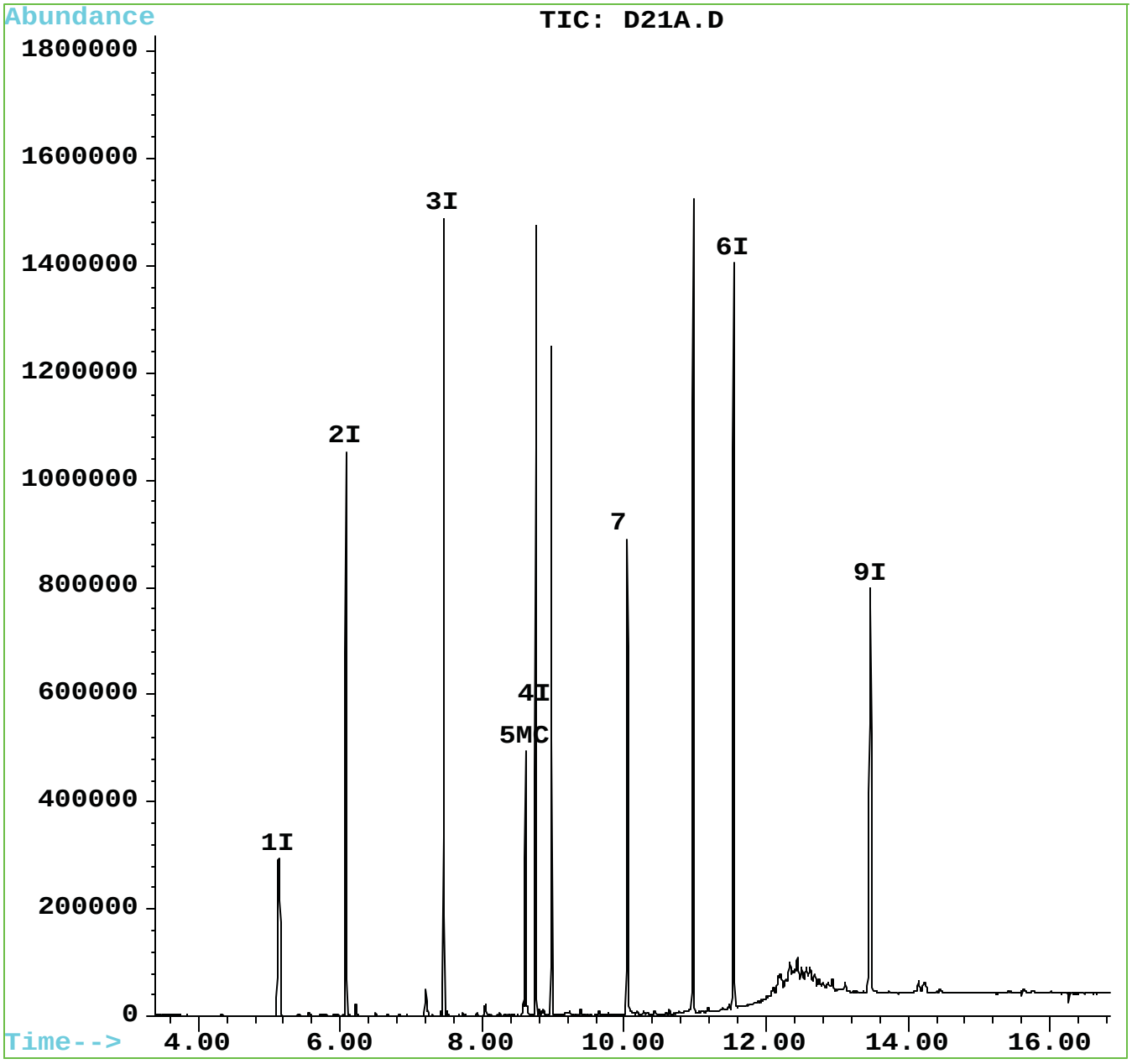
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	125051	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	529330	40.00	ng/ul	0.0
3) ACENAPHTHALENE-D10	7.46	160	129224	40.00	ng/ul	0.0
4) PHENANTHRENE-D10	8.75	188	556547	40.00	ng/ul	0.0
6) CHRYSENE-D12	11.54	240	570686	40.00	ng/ul	0.0
9) PERYLENE-D12	13.47	264	503123	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.61	266	52442	29.04	ng/ul	9
7) Benzidine	10.05	184	382917	79.59	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\d21a.d Vial: 1
Acq On : 21 Jun 12 10:33 am Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 22 12:44 19112

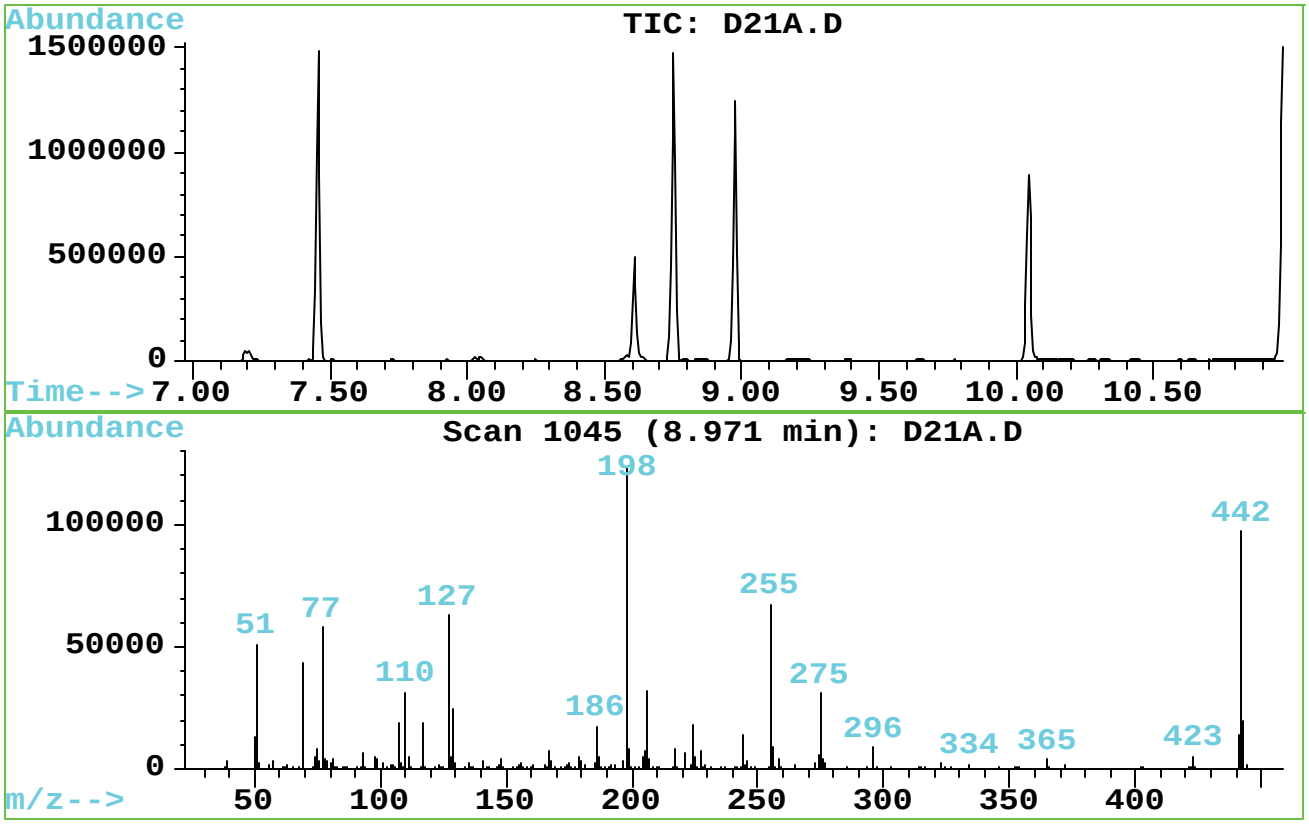
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA.PRC\T120621\D21A.D Vial: 1
Acq On : 21 Jun 12 10:33 am Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270



Peak Apex is scan: 1045

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	41.3	51152	PASS
68	69	0	2	1.7	731	PASS
69	198	0	100	35.2	43632	PASS
70	69	0	2	0.5	199	PASS
127	198	25	75	50.6	62752	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	124000	PASS
199	198	5	9	6.7	8342	PASS
275	198	10	30	25.0	31048	PASS
365	198	1	100	3.2	3946	PASS
441	443	0	100	70.2	13553	PASS
442	198	40	110	78.3	97056	PASS
443	442	15	24	19.9	19312	PASS

D21A.D P120620T.M Mon Jul 09 14:25:48 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\blks21a.d Vial: 5
Acq On : 21 Jun 12 12:54 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1 id:sp120619s02 Multiplr: 1.00
Quant Time: Jun 21 13:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration

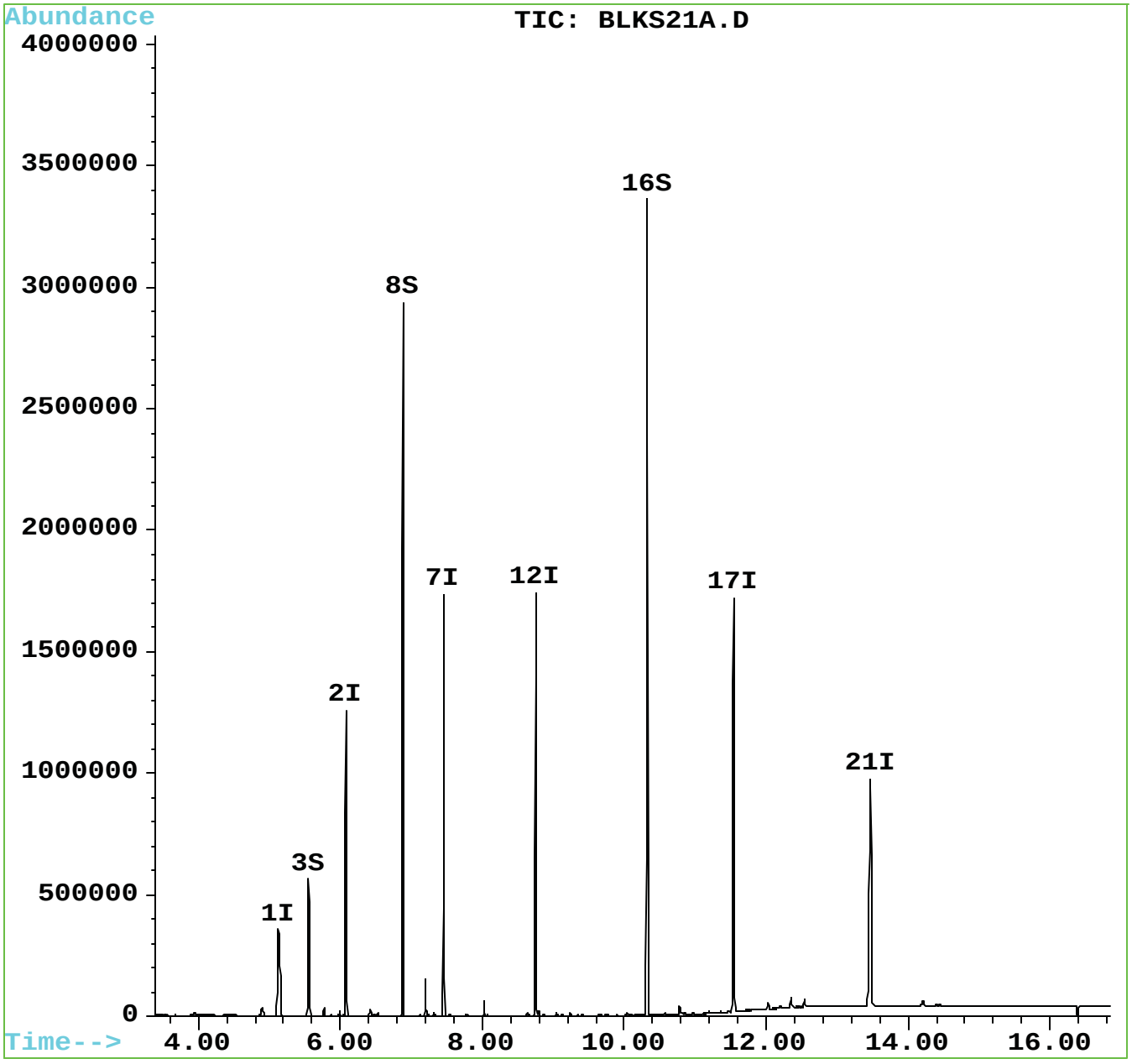
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	141140	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.08	136	607471	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.46	164	363475	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.75	188	668099	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.54	240	735360	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.47	264	644599	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	253105	55.70	ng/ul	55.7
8) 2-Fluorobiphenyl	6.88	172	816243	73.29	ng/ul	73.2
16) Terphenyl-D14	10.32	244	1314598	92.65	ng/ul	92.6
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\blks21a.d Vial: 5
Acq On : 21 Jun 12 12:54 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1 id:sp120619s02 Multiplr: 1.00
Quant Time: Jun 21 13:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\lcss21a.d Vial: 6
Acq On : 21 Jun 12 2:02 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1 id:sp120619s02 Multiplr: 1.00
Quant Time: Jun 22 10:51 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration

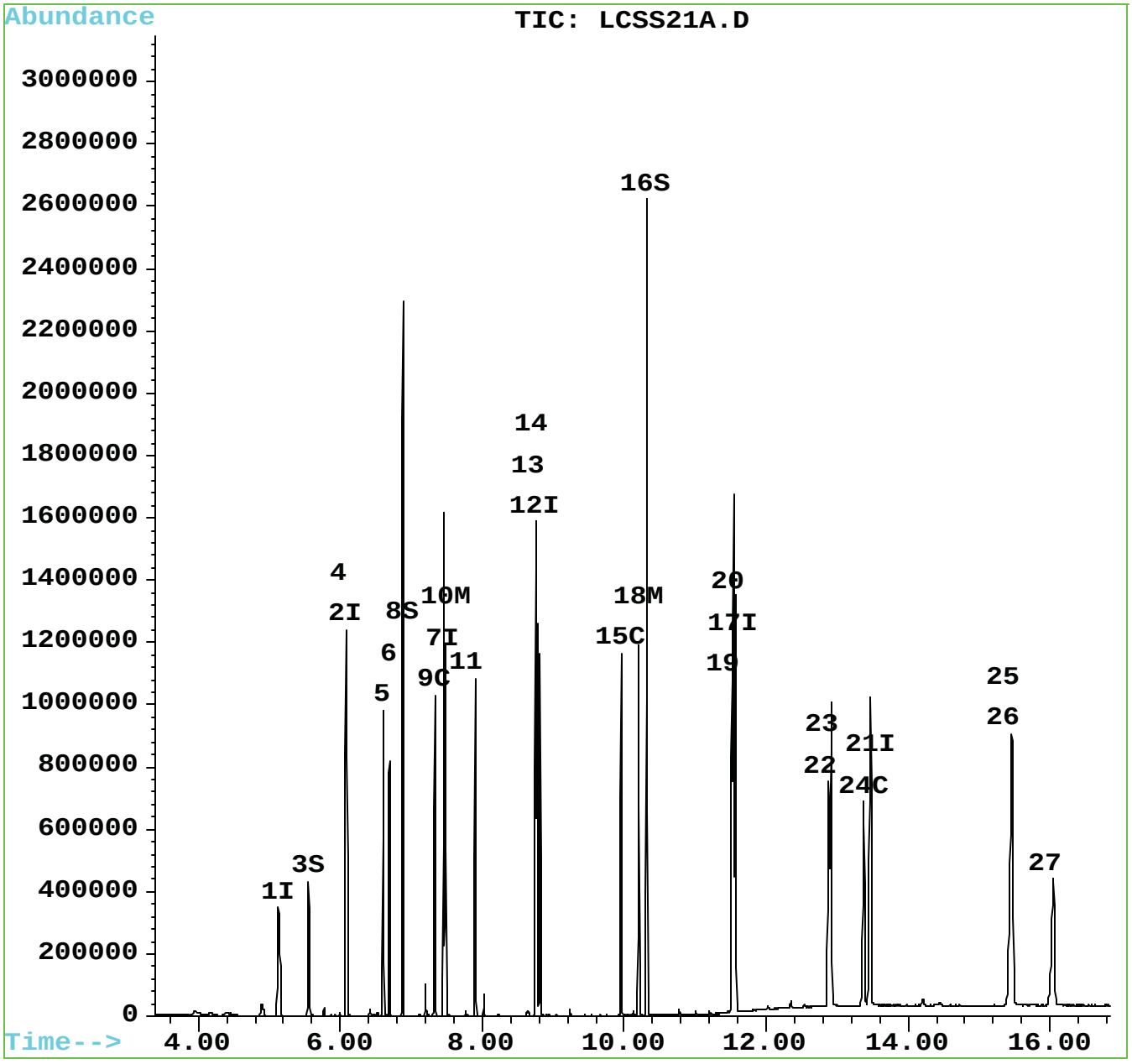
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	137792	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.08	136	600652	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.46	164	367269	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.75	188	674327	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.55	240	771070	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.47	264	679201	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	194158	43.21	ng/ul	43.2
8) 2-Fluorobiphenyl	6.88	172	674652	59.95	ng/ul	59.9
16) Terphenyl-D14	10.32	244	1043560	72.87	ng/ul	72.8
Target Compounds						Qvalu
4) Naphthalene	6.09	128	363700	24.38	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	214855	25.71	ng/ul	10
6) 1-Methylnaphthalene	6.69	142	226054	23.24	ng/ul	10
9) Acenaphthylene	7.33	152	414956	27.57	ng/ul	9
10) Acenaphthene **	7.48	154	250007	27.84	ng/ul	9
11) Fluorene	7.91	166	326968	28.19	ng/ul	9
13) Phenanthrene	8.77	178	484633	27.47	ng/ul	10
14) Anthracene	8.82	178	488941	27.45	ng/ul	9
15) Fluoranthene	9.95	202	547598	27.55	ng/ul	10
18) Pyrene **	10.21	202	564838	29.91	ng/ul	9
19) Benzo(a)anthracene	11.52	228	556179	29.19	ng/ul	10
20) Chrysene	11.58	228	542636	28.99	ng/ul	10
22) Benzo(b)fluoranthene	12.89	252	566752	31.90	ng/ulm	9
23) Benzo(k)fluoranthene	12.92	252	488218	29.87	ng/ul	9
24) Benzo(a)pyrene	13.38	252	446937	30.06	ng/ul	10
25) Indeno(1,2,3-cd)pyrene	15.47	276	602920	30.21	ng/ul	9
26) Dibenzo(ah)anthracene	15.46	278	511909	30.28	ng/ul	9
27) Benzo(ghi)perylene	16.05	276	477633	29.61	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\lcss21a.d Vial: 6
Acq On : 21 Jun 12 2:02 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1 id:sp120619s02 Multiplr: 1.00
Quant Time: Jun 22 10:51 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\lcsds21a.d Vial: 7
Acq On : 21 Jun 12 2:24 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1 id:sp120619s02 Multiplr: 1.00
Quant Time: Jun 22 10:50 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration

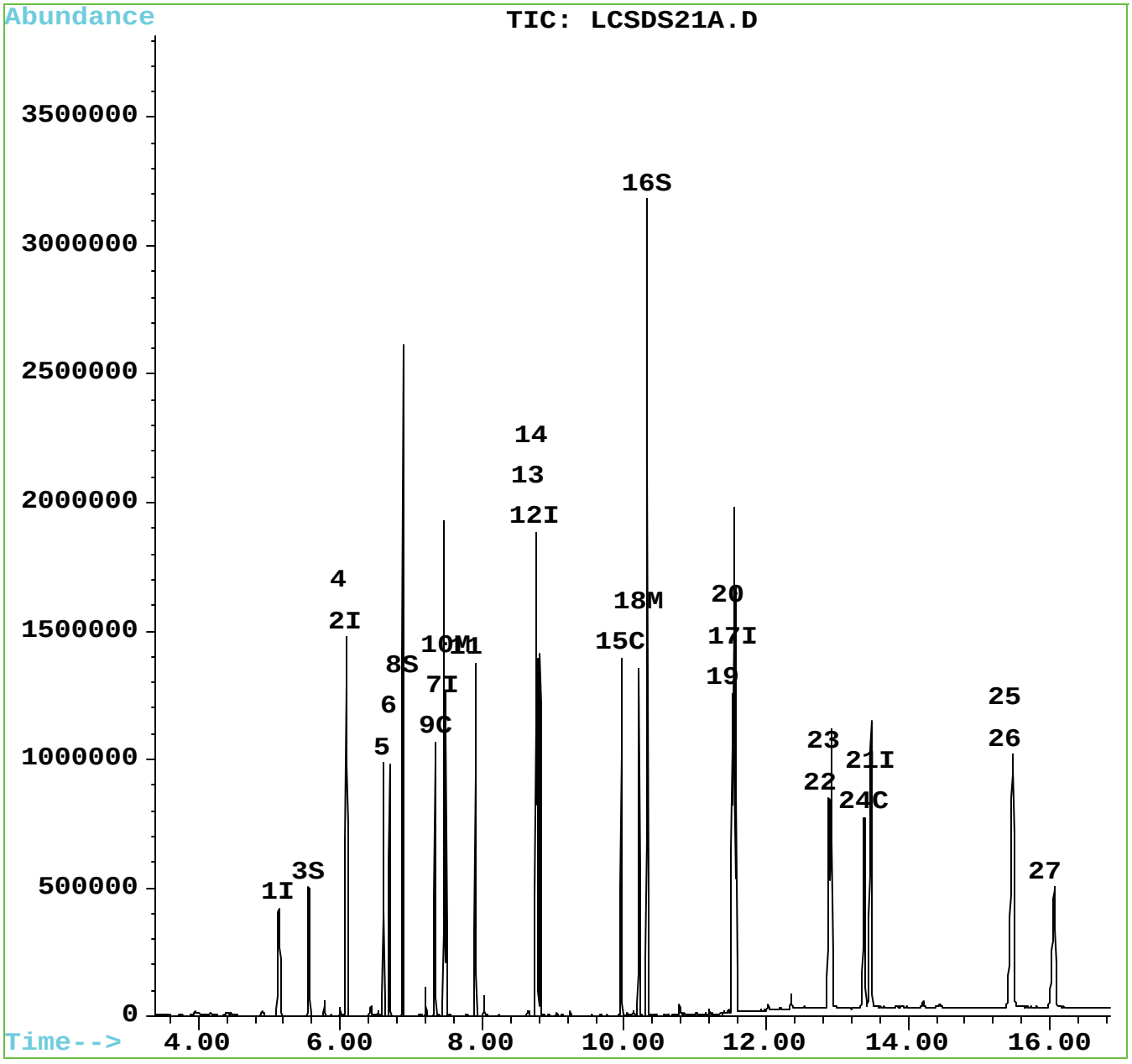
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	165695	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.08	136	719205	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	445765	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.75	188	808063	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.55	240	930688	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.48	264	807735	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	237349	44.11	ng/ul	44.1
8) 2-Fluorobiphenyl	6.88	172	754339	55.23	ng/ul	55.2
16) Terphenyl-D14	10.32	244	1262524	73.57	ng/ul	73.5
Target Compounds						Qvalu
4) Naphthalene	6.09	128	390986	21.89	ng/ul	9
5) 2-Methylnaphthalene	6.61	141	237063	23.69	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	247585	21.26	ng/ul	10
9) Acenaphthylene	7.34	152	458118	25.08	ng/ul	9
10) Acenaphthene **	7.48	154	280058	25.69	ng/ul	10
11) Fluorene	7.91	166	377972	26.85	ng/ul	10
13) Phenanthrene	8.78	178	570387	26.98	ng/ul	10
14) Anthracene	8.82	178	570517	26.73	ng/ul	9
15) Fluoranthene	9.96	202	650032	27.29	ng/ul	9
18) Pyrene **	10.21	202	675428	29.63	ng/ul	9
19) Benzo(a)anthracene	11.52	228	658278	28.62	ng/ul	10
20) Chrysene	11.58	228	651345	28.83	ng/ul	10
22) Benzo(b)fluoranthene	12.89	252	665462	31.50	ng/ulm	9
23) Benzo(k)fluoranthene	12.93	252	586907	30.20	ng/ul	9
24) Benzo(a)pyrene	13.39	252	524418	29.66	ng/ul	10
25) Indeno(1,2,3-cd)pyrene	15.49	276	713987	30.08	ng/ul	9
26) Dibenzo(ah)anthracene	15.48	278	606380	30.16	ng/ul	9
27) Benzo(ghi)perylene	16.07	276	558733	29.13	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120621\lcsds21a.d Vial: 7
Acq On : 21 Jun 12 2:24 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1 id:sp120619s02 Multiplr: 1.00
Quant Time: Jun 22 10:50 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Wed Jun 27 11:02:07 2012
Response via : Multiple Level Calibration



Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
f120622.01r	sblk-r.01	06/22/12 09:18	sBLK-R.01	WW	Bl	**4**	
f120622.02r	sc1660.01	06/22/12 09:29	SC1660.01 0.5ppm 5/31/2012	WW	CV	**4**	
f120622.06r	sblk-s.01	06/22/12 10:14	sBLK-S.01 20.0g s/1 ID:PA120622s01	SO	Bl	**4**	
f120622.07r	slcs-s.01	06/22/12 10:24	sLCS-S.01 20.0g s/1 ID:PA120622s01	SO	MS	**4**	
f120622.08r	slcs-s.01	06/22/12 10:35	sLCS-S.01D 20.0g s/1 ID:PA120622s01	SO	MS	**4**	
f120622.12r	s52902.01	06/22/12 11:23	s52902.01 20.3g s/1 ID:PA120622s01	SO		**4**	
f120622.16r	s52934.02	06/22/12 12:26	s52934.02 20.0g s/1 ID:PA120622s01	SO		**4**	
f120622.18r	ss1660.01	06/22/12 12:47	ss1660.01 0.1ppm 5/31/12	WW		**4**	
f120622.19r	sc1660.02	06/22/12 12:58	SC1660.02 0.5ppm 5/31/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120622.4

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
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Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
f120622b.01	sblk-r.01	06/22/12 09:18	sBLK-R.01	WW	Bl	**4**	
f120622b.02	sc1660.01	06/22/12 09:29	SC1660.01 0.5ppm 5/31/2012	WW	CV	**4**	
f120622b.06	sblk-s.01	06/22/12 10:14	sBLK-S.01 20.0g s/1 ID:PA120622s01	SO	Bl	**4**	
f120622b.07	slcs-s.01	06/22/12 10:24	sLCS-S.01 20.0g s/1 ID:PA120622s01	SO	MS	**4**	
f120622b.08	slcs-s.01	06/22/12 10:35	sLCS-S.01D 20.0g s/1 ID:PA120622s01	SO	MS	**4**	
f120622b.12	s52902.01	06/22/12 11:23	s52902.01 20.3g s/1 ID:PA120622s01	SO		**4**	
f120622b.16	s52934.02	06/22/12 12:26	s52934.02 20.0g s/1 ID:PA120622s01	SO		**4**	
f120622b.18	ss1660.01	06/22/12 12:47	ss1660.01 0.1ppm 5/31/12	WW		**4**	
f120622b.19	sc1660.02	06/22/12 12:58	SC1660.02 0.5ppm 5/31/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120622.01r	sblk-r.01	TCX	30.24/30.00	100.8	34.1/137.1	WW
		DCBP	29.17/30.00	97.2	30.0/138.6	
f120622.02r	sc1660.01	TCX	18.63/30.00	n/a	34.1/137.1	WW
		DCBP	15.83/30.00	n/a	30.0/138.6	
f120622.06r	sblk-s.01	TCX	20.13/30.00	67.1	33.0/135.3	SO
		DCBP	25.02/30.00	83.4	30.0/137.0	
f120622.07r	slcs-s.01	TCX	20.02/30.00	66.7	33.0/135.3	SO
		DCBP	22.48/30.00	74.9	30.0/137.0	
f120622.08r	slcs-s.01	TCX	19.04/30.00	63.5	33.0/135.3	SO
		DCBP	23.23/30.00	77.4	30.0/137.0	
f120622.12r	s52902.01	TCX	18.72/30.00	62.4	33.0/135.3	SO
		DCBP	19.82/30.00	66.1	30.0/137.0	
f120622.16r	s52934.02	TCX	16.03/30.00	53.4	33.0/135.3	SO
		DCBP	21.50/30.00	71.7	30.0/137.0	
f120622.18r	ss1660.01	TCX	3.43/30.00	n/a	34.1/137.1	WW
		DCBP	4.21/30.00	n/a	30.0/138.6	
f120622.19r	sc1660.02	TCX	17.44/30.00	n/a	34.1/137.1	WW
		DCBP	15.31/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120622.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120622b.01	sblk-r.01	TCX	35.68/30.00	118.9	34.1/137.1	WW
		DCBP	32.19/30.00	107.3	30.0/138.6	
f120622b.02	sc1660.01	TCX	20.67/30.00	n/a	34.1/137.1	WW
		DCBP	17.58/30.00	n/a	30.0/138.6	
f120622b.06	sblk-s.01	TCX	22.62/30.00	75.4	33.0/135.3	SO
		DCBP	26.98/30.00	89.9	30.0/137.0	
f120622b.07	slcs-s.01	TCX	22.04/30.00	73.5	33.0/135.3	SO
		DCBP	25.71/30.00	85.7	30.0/137.0	
f120622b.08	slcs-s.01	TCX	20.92/30.00	69.7	33.0/135.3	SO
		DCBP	25.29/30.00	84.3	30.0/137.0	
f120622b.12	s52902.01	TCX	20.29/30.00	67.6	33.0/135.3	SO
		DCBP	21.30/30.00	71.0	30.0/137.0	
f120622b.16	s52934.02	TCX	18.29/30.00	61.0	33.0/135.3	SO
		DCBP	23.09/30.00	77.0	30.0/137.0	
f120622b.18	ss1660.01	TCX	4.04/30.00	n/a	34.1/137.1	WW
		DCBP	2.77/30.00	n/a	30.0/138.6	
f120622b.19	sc1660.02	TCX	19.06/30.00	n/a	34.1/137.1	WW
		DCBP	16.20/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120622.08r	slcs-s.01	**f120622.07r**	1016-1	0.445/ 0.451	1.3	SO
			1016-2	0.440/ 0.450	2.2	
			1016-3	0.458/ 0.467	1.9	
			1016-4	0.439/ 0.451	2.7	
			1016-5	0.464/ 0.470	1.3	
			1260-1	0.451/ 0.456	1.1	
			1260-2	0.451/ 0.453	0.4	
			1260-3	0.446/ 0.450	0.9	
			1260-4	0.420/ 0.416	1.0	
			1260-5	0.444/ 0.428	3.7	
			[end of list]			

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120622.4

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120622b.08	slcs-s.01	**f120622b.07**	1016-1	0.413/ 0.446	7.7	SO
			1016-2	0.425/ 0.442	3.9	
			1016-3	0.431/ 0.441	2.3	
			1016-4	0.446/ 0.451	1.1	
			1016-5	0.449/ 0.449	0.0	
			1260-1	0.465/ 0.476	2.3	
			1260-2	0.477/ 0.489	2.5	
			1260-3	0.461/ 0.481	4.2	
			1260-4	0.451/ 0.457	1.3	
			1260-5	0.475/ 0.476	0.2	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120622.07r	slcs-s.01	**f120622.06r**	1016-1	0.451/-0.041	98.4		SO
			1016-2	0.450/-0.040	98.0		
			1016-3	0.467/ 0.000	93.4		
			1016-4	0.451/ 0.000	90.2		
			1016-5	0.470/ 0.000	94.0		
			1260-1	0.456/-0.033	97.8		
			1260-2	0.453/ 0.000	90.6		
			1260-3	0.450/ 0.000	90.0		
			1260-4	0.416/-0.023	87.8		
			1260-5	0.428/ 0.000	85.6		
				Average Recovery	**92.6**	50.0/125.0	
f120622.08r	slcs-s.01	**f120622.06r**	1016-1	0.445/-0.041	97.2		SO
			1016-2	0.440/-0.040	96.0		
			1016-3	0.458/ 0.000	91.6		
			1016-4	0.439/ 0.000	87.8		
			1016-5	0.464/ 0.000	92.8		
			1260-1	0.451/-0.033	96.8		
			1260-2	0.451/ 0.000	90.2		
			1260-3	0.446/ 0.000	89.2		
			1260-4	0.420/-0.023	88.6		
			1260-5	0.444/ 0.000	88.8		
				Average Recovery	**91.9**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120622.4

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120622b.07	slcs-s.01	**f120622b.06**	1016-1	0.446/-0.031	95.4		SO
			1016-2	0.442/-0.069	102.2		
			1016-3	0.441/ 0.000	88.2		
			1016-4	0.451/-0.065	103.2		
			1016-5	0.449/ 0.000	89.8		
			1260-1	0.476/ 0.000	95.2		
			1260-2	0.489/ 0.000	97.8		
			1260-3	0.481/ 0.013	93.6		
			1260-4	0.457/ 0.000	91.4		
			1260-5	0.476/-0.043	103.8		
				Average Recovery	**96.1**	50.0/125.0	
f120622b.08	slcs-s.01	**f120622b.06**	1016-1	0.413/-0.031	88.8		SO
			1016-2	0.425/-0.069	98.8		
			1016-3	0.431/ 0.000	86.2		
			1016-4	0.446/-0.065	102.2		
			1016-5	0.449/ 0.000	89.8		
			1260-1	0.465/ 0.000	93.0		
			1260-2	0.477/ 0.000	95.4		
			1260-3	0.461/ 0.013	89.6		
			1260-4	0.451/ 0.000	90.2		
			1260-5	0.475/-0.043	103.6		
				Average Recovery	**93.8**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-5
Level: LOW

Analytical Batch: f120622.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120622.06r.bnd
LCS Data File: f120622.07r.bnd

Blank/LCS Preparation Batch: pa120622s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52902.01	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 1)	$TCL8082C1
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 2)	$TCL8082C2
S52908.01	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52908.02	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52908.03	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52914.01	F120622	PA120622S01	06/22/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52914.02	F120622	PA120622S01	06/22/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52922.01	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52923.02	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.12	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.15	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.16	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.22	F120626	PA120622S01	06/26/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.24	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.25	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.27	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.28	F120626	PA120622S01	06/26/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.29	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.30	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.31	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52934.02	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 1)	$TCL8082C1
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 2)	$TCL8082C2

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-5
Level: LOW

Analytical Batch: f120622.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120622.01r	sblk-r.01	06/22/12 09:18	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120622.06r	sblk-s.01	06/22/12 10:14	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120622.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120622b.06r.bnd
LCS Data File: f120622b.07r.bnd

Blank/LCS Preparation Batch: pa120622s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52902.01	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 1)	$TCL8082C1
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 2)	$TCL8082C2
S52908.01	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52908.02	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52908.03	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52914.01	F120622	PA120622S01	06/22/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52914.02	F120622	PA120622S01	06/22/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52922.01	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52923.02	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.12	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.15	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.16	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.22	F120626	PA120622S01	06/26/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.24	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.25	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.27	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.28	F120626	PA120622S01	06/26/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.29	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.30	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.31	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52934.02	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 1)	$TCL8082C1
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 2)	$TCL8082C2

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120622.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120622b.01	sblk-r.01	06/22/12 09:18	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120622b.06	sblk-s.01	06/22/12 10:14	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
Analytical Batch: f120622.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Note/Qualifier Key

A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

LIMS ID: S52902.01
Data File: f120622.12r.bnd
Date Received: 06/19/12

Tag: SB127 (06-18-2012) (3-5)
Notes: s52902.01 20.3g s/1 ID:PA120622s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/22/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/22/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/22/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	06/21/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120622.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S52902.01 **Tag: SB127 (06-18-2012) (3-5)** Matrix: SO
Data File: f120622b.12r.bnd Notes: s52902.01 20.3g s/1 ID:PA120622s01 Extraction: SONC
Date Received: 06/19/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/22/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/22/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/22/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	06/21/12	

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
f66120605.cal	**TCX**	L	2.15	2.20	2.25	1.50	3.00	9.00	15.00	21.00	30.00	0.051	0.048
				22.5	1.00	0.08	0.06	0.05	0.05	0.05	0.05		
	1016-1	L	3.06	3.11	3.16	0.05	0.10	0.30	0.50	0.70	1.00	0.040	0.763
				24.8	1.00	1.45	1.08	0.92	0.87	0.83	0.79		
	1016-2	L	3.31	3.36	3.41	0.05	0.10	0.30	0.50	0.70	1.00	0.112	2.601
				26.2	1.00	4.96	3.53	2.99	2.84	2.80	2.70		
	1016-3	L	3.40	3.45	3.50	0.05	0.10	0.30	0.50	0.70	1.00	0.049	1.020
				25.0	1.00	1.93	1.39	1.21	1.14	1.11	1.05		
	1016-4	L	3.47	3.52	3.57	0.05	0.10	0.30	0.50	0.70	1.00	0.063	0.699
				46.8	1.00	2.10	1.12	0.92	0.86	0.79	0.75		
	1016-5	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.958
				27.7	1.00	1.91	1.32	1.13	1.07	1.04	0.99		
	1260-1	L	4.99	5.04	5.09	0.05	0.10	0.30	0.50	0.70	1.00	0.075	1.594
				27.6	1.00	3.14	2.22	1.85	1.75	1.72	1.66		
	1260-2	L	5.21	5.26	5.31	0.05	0.10	0.30	0.50	0.70	1.00	0.113	2.481
				27.6	1.00	4.88	3.43	2.86	2.72	2.68	2.58		
	1260-3	L	5.46	5.51	5.56	0.05	0.10	0.30	0.50	0.70	1.00	0.096	2.449
				25.7	1.00	4.57	3.27	2.75	2.64	2.62	2.53		
	1260-4	L	6.06	6.11	6.16	0.05	0.10	0.30	0.50	0.70	1.00	0.051	2.119
				29.1	1.00	4.04	2.56	2.17	2.17	2.20	2.19		
	1260-5	L	6.32	6.37	6.42	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.810
				26.0	1.00	3.44	2.46	2.08	1.98	1.95	1.87		
	DCBP	L	7.44	7.49	7.54	1.50	3.00	9.00	15.00	21.00	30.00	0.057	0.035
				27.7	1.00	0.07	0.05	0.04	0.04	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): f66120605.cal / mean %rsd: 28.0

File Name: F:\gcecd.dat\Methods\F66120605.cal
Version: 3

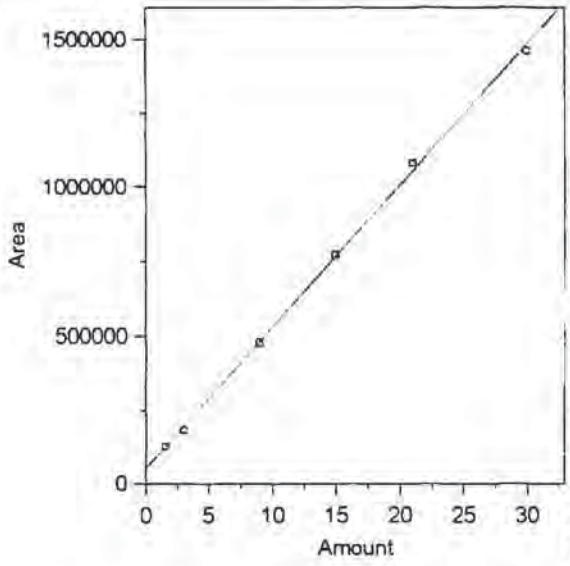
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.203 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

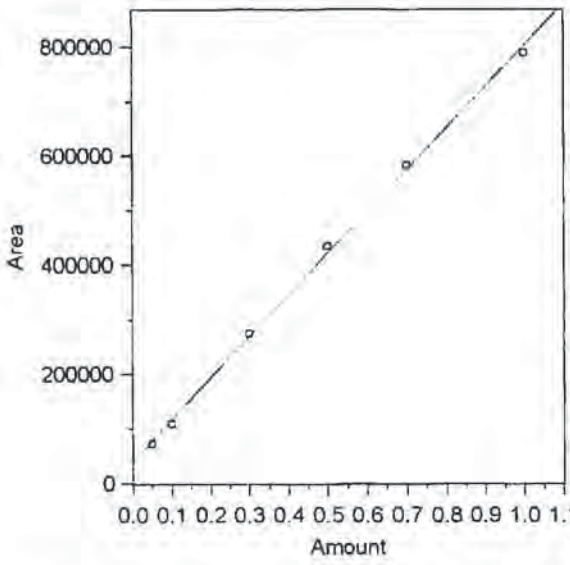
Single peak quantification by area

Y = 47656.17 X + 50931.09

Linear fit with equal weighting
Coefficient of determination: 0.9991111
Average error: 2.132%
Average CF: 58074.53
RSD: 22.469%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	125128.4	83418.93	2.216	F:\gcecd.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	181519.6	60506.53	-6.385	F:\gcecd.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	479177.3	53241.92	-0.137	F:\gcecd.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	767757.5	51183.83	0.259	F:\gcecd.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	1078491	51356.71	2.546	F:\gcecd.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1462178	48739.27	-1.245	F:\gcecd.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

2 1016-1



Expected retention time: 3.11 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 3
PCB-1016
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

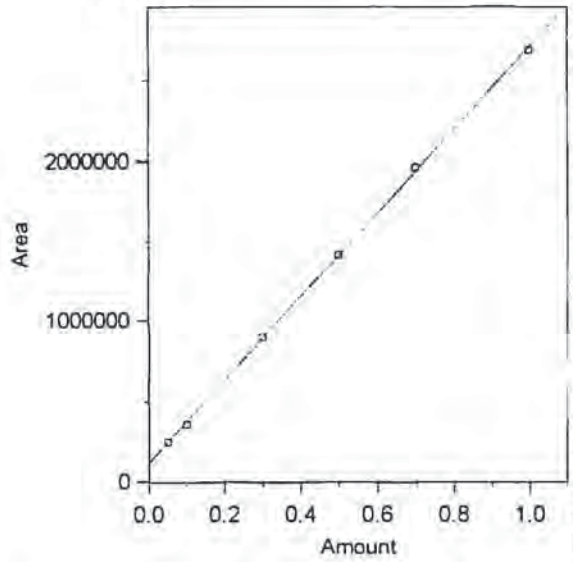
Single peak quantification by area

Y = 762932.1 X + 40053.23

Linear fit with equal weighting
Coefficient of determination: 0.9986599
Average error: 3.797%
Average CF: 989099.9
RSD: 24.802%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	72253.18	1445064	-7.604	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	108293.6	1082936	-6.921	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	275062.3	916874.3	2.279	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	433369.2	866738.4	2.811	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	583043.6	832919.5	1.557	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	790067.7	790067.7	-1.609	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

3 1016-2



Expected retention time: 3.362 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 3
PCB-1016
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

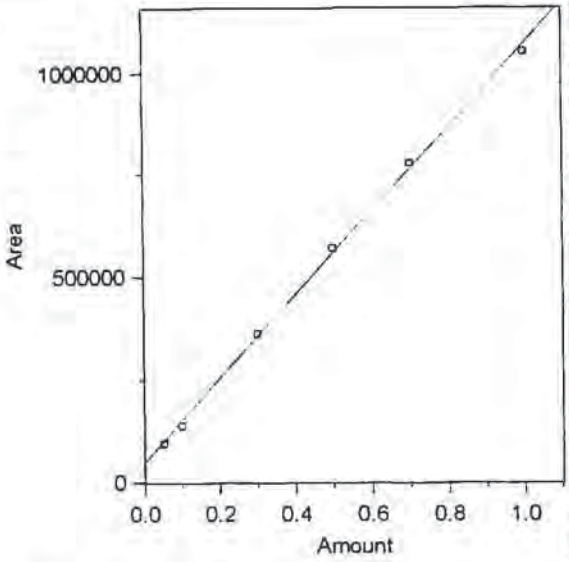
Single peak quantification by area

Y = 2601147 X + 112417.9

Linear fit with equal weighting
Coefficient of determination: 0.9997001
Average error: 1.685%
Average CF: 3300561
RSD: 26.166%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	247811	4956220	2.201	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	353161.1	3531611	-5.200	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	896735	2989117	0.445	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1417800	2835600	0.340	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1957154	2795934	1.238	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2694886	2694886	-0.688	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

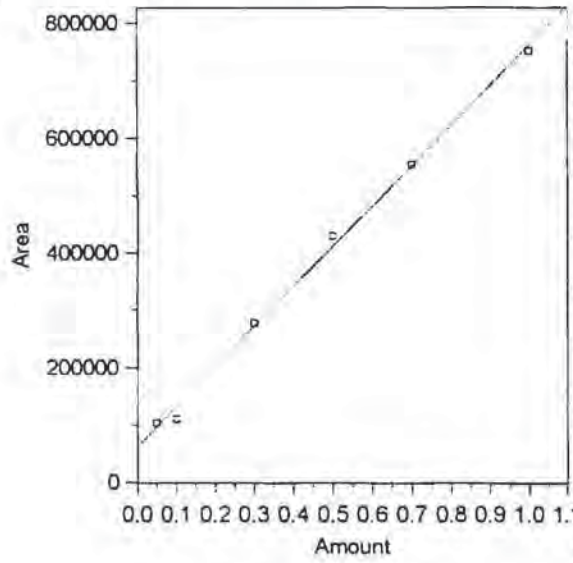
4 1016-3



Expected retention time:	3.454 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1020496 X + 49121.13	
Linear fit with equal weighting	
Coefficient of determination:	0.9988882
Average error:	3.145%
Average CF:	1305081
RSD:	24.946%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	962458	1924916	-3.894	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1393982	1393982	-7.788	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	3623616	1207872	1.996	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	5690901	1138180	1.738	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	7783863	1111981	1.954	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1053558	1053558	-1.501	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

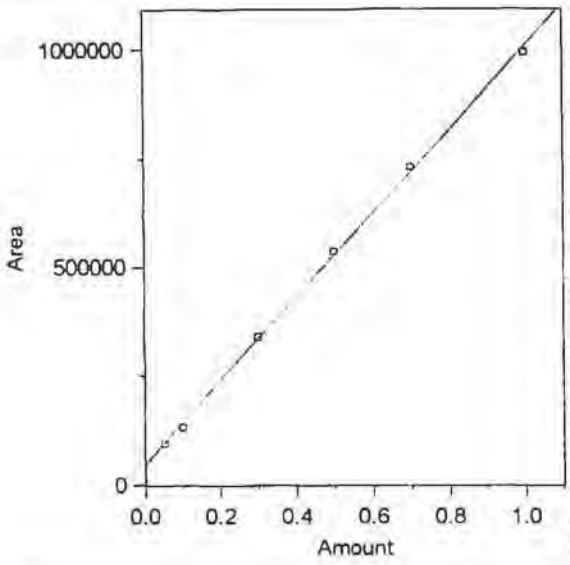
5 1016-4



Expected retention time:	3.524 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 698645 X + 62930.49	
Linear fit with equal weighting	
Coefficient of determination:	0.9971991
Average error:	5.099%
Average CF:	1089711
RSD:	46.750%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	1048121	2096242	7.101	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1116023	1116023	-15.959	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	2769628	923209.3	1.629	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	429680.3	859360.6	4.227	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	554151.1	791644.5	0.393	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	751783.6	751783.6	-1.286	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

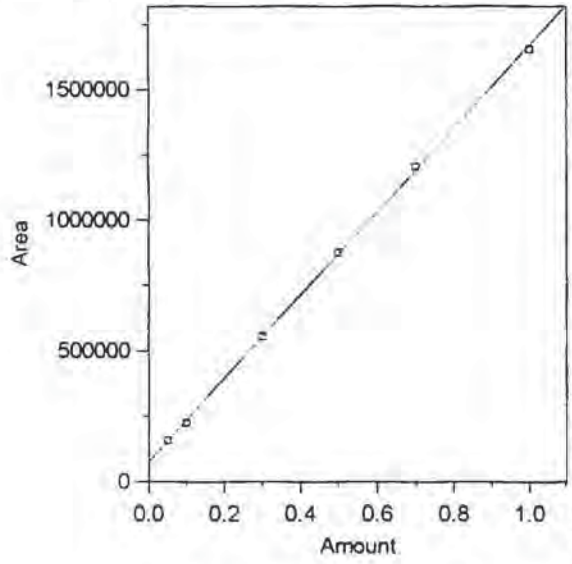
6 1016-5



Expected retention time:	3.99 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 958178.7 X + 47289.98	
Linear fit with equal weighting	
Coefficient of determination:	0.9991639
Average error:	2.277%
Average CF:	1242731
RSD:	27.702%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	95353.21	1907064	0.162	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	131689	1316890	-7.979	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	338223	1127410	1.039	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	534353.4	1068707	1.515	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	730374.4	1043392	1.721	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	992920.6	992920.6	-1.248	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

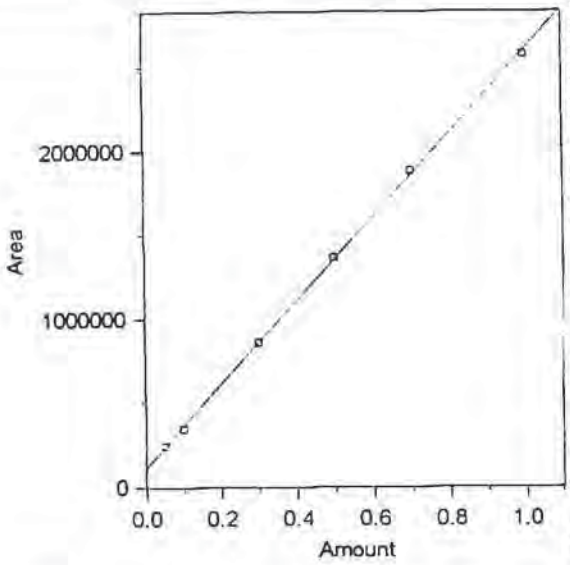
7 1260-1



Expected retention time:	5.044 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1594301 X + 74547.08	
Linear fit with equal weighting	
Coefficient of determination:	0.9996752
Average error:	1.587%
Average CF:	2057009
RSD:	27.569%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	156967.1	3139342	1.753	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	222370	2223700	-4.961	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	554058.1	1846860	0.221	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	876598.2	1753196	0.562	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1205797	1722567	1.280	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1656389	1656389	-0.747	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

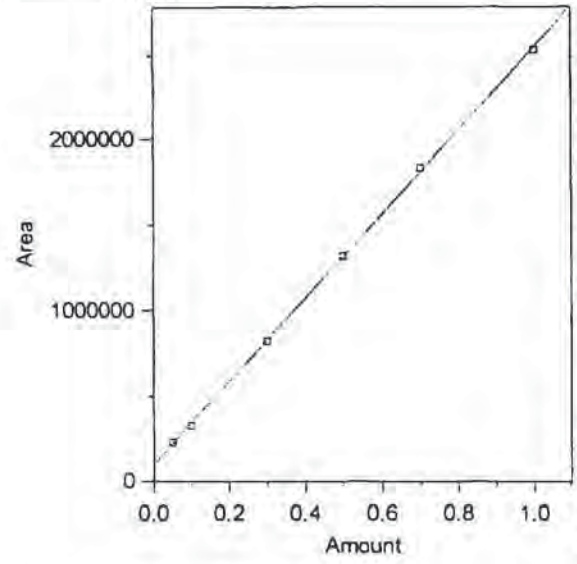
8 1260-2



Expected retention time:	5.264 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2480847 X + 112979.9	
Linear fit with equal weighting	
Coefficient of determination:	0.999669
Average error:	1.752%
Average CF:	3188669
RSD:	27.616%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	243842.2	4876844	2.877	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	342862.1	3428621	-5.041	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	856442.6	2854809	-0.092	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1359526	2719052	0.452	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1874225	2677464	1.333	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2575225	2575225	-0.717	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

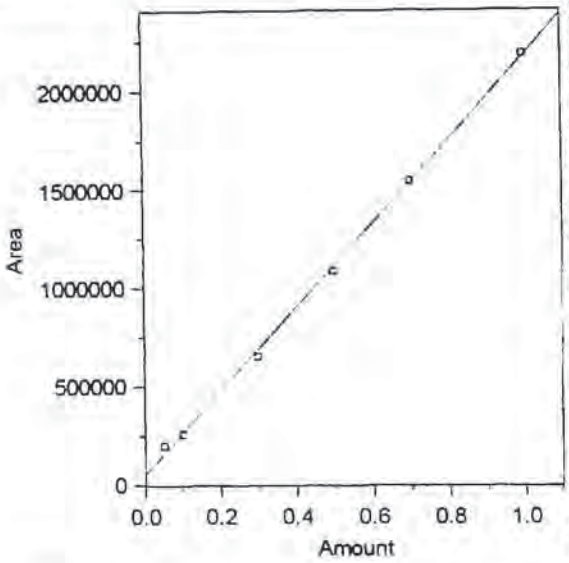
9 1260-3



Expected retention time:	5.51 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2448519 X + 95512.59	
Linear fit with equal weighting	
Coefficient of determination:	0.9997622
Average error:	1.899%
Average CF:	3062008
RSD:	25.646%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	228665.3	4573306	4.922	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	326472.3	3264723	-4.082	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	824149.5	2747165	-0.713	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1319799	2639598	0.002	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1830950	2615643	1.187	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2531615	2531615	-0.488	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

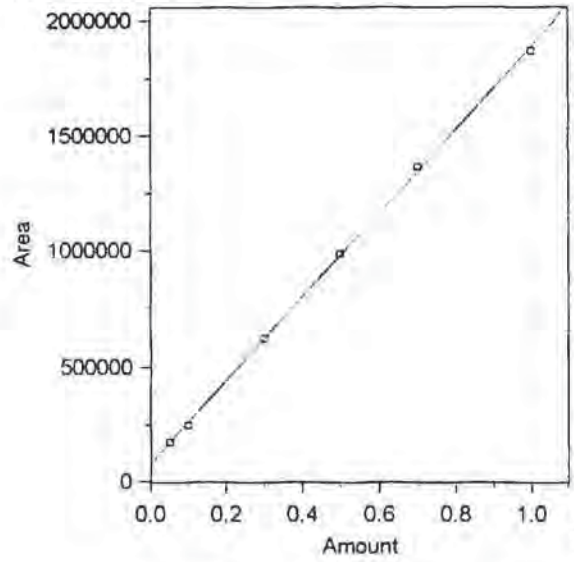
10 1260-4



Expected retention time:	6.111 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2118980 X + 51414.68	
Linear fit with equal weighting	
Coefficient of determination:	0.9985846
Average error:	6.664%
Average CF:	2554518
RSD:	29.065%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	201960.2	4039204	28.340	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	255490	2554900	-2.971	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	651378.4	2171261	-5.200	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1086010	2172020	-2.241	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1541809	2202584	0.463	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2187138	2187138	0.771	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

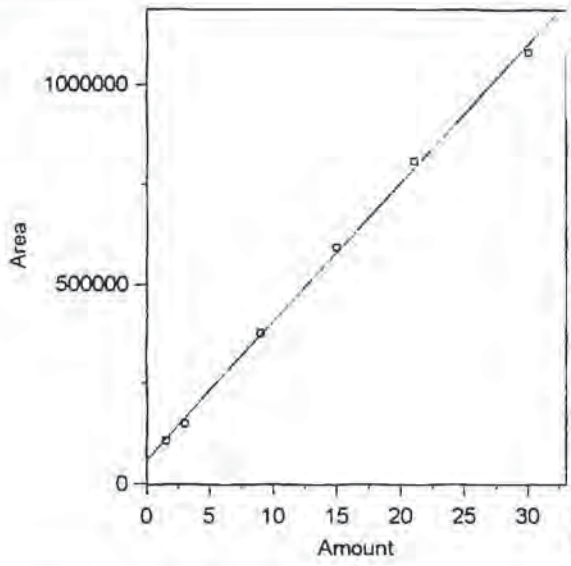
11 1260-5



Expected retention time:	6.367 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1809719 X + 78684.21	
Linear fit with equal weighting	
Coefficient of determination:	0.9995806
Average error:	1.650%
Average CF:	2296311
RSD:	25.999%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	171941.8	3438836	1.638	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	246226.6	2462266	-5.172	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	622912.1	2076374	0.211	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	987860.5	1975721	0.439	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1366743	1952490	1.580	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1872177	1872177	-0.859	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

12 DCBP



Expected retention time:	7.486 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 34817.2 X + 57301.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9984544
Average error:	3.281%
Average CF:	45923.08
RSD:	27.735%

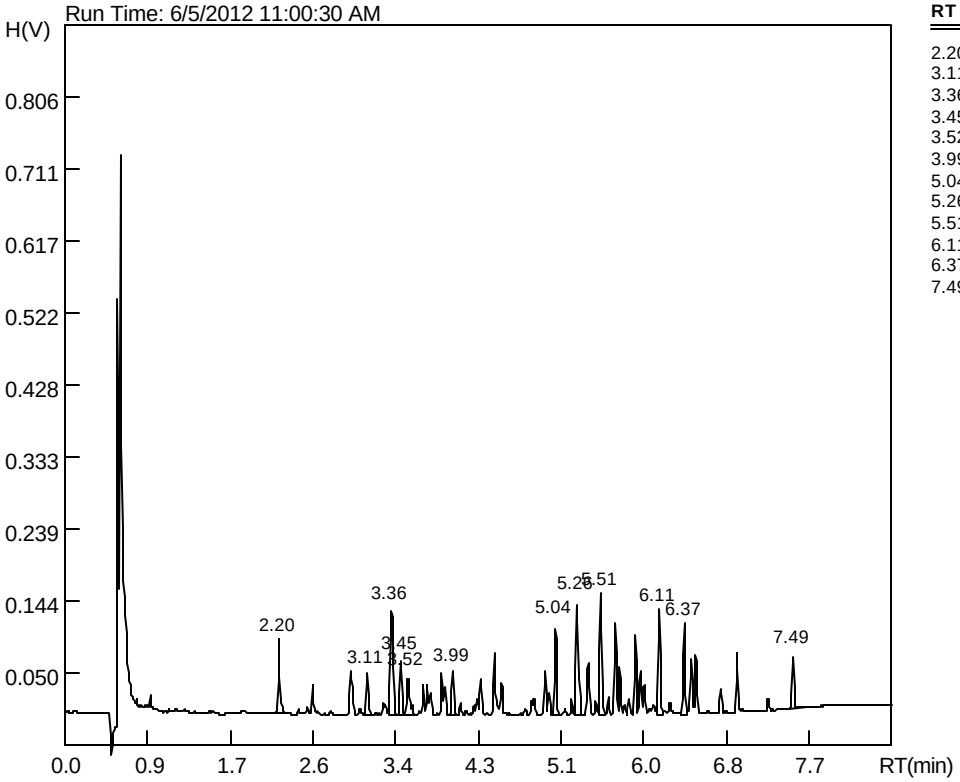
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	105176.3	70117.53	-3.972	F:\gceed dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	148972.2	49657.4	-7.901	F:\gceed dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	376072.3	41785.81	1.461	F:\gceed dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	591420.7	39428.05	2.047	F:\gceed dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	808171.9	38484.38	2.500	F:\gceed dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1081960	36065.33	-1.802	F:\gceed dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

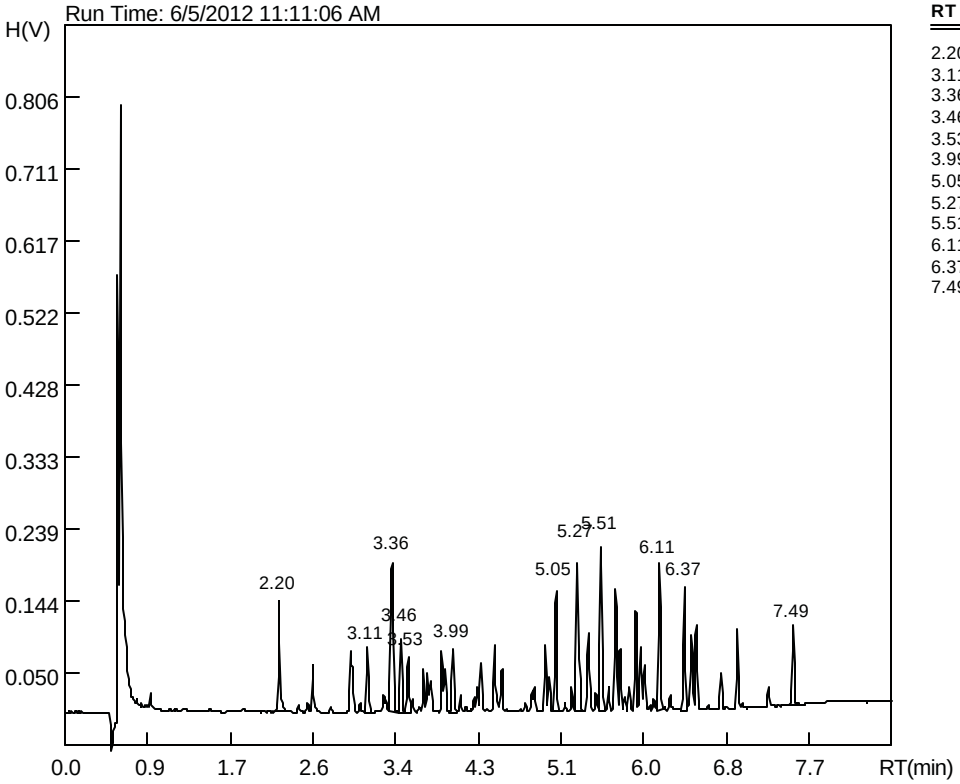
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:30 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	2.717	125128
3.11	0.00	1016-1	0.086	72253
3.36	0.00	1016-2	0.096	247811
3.45	-0.01	1016-3	0.089	96246
3.52	-0.01	1016-4	0.150	104812
3.99	0.01	1016-5	0.097	95353
5.04	0.01	1260-1	0.107	156967
5.26	0.01	1260-2	0.111	243842
5.51	0.01	1260-3	0.113	228665
6.11	0.00	1260-4	0.123	201960
6.37	0.00	1260-5	0.126	171942
7.49	0.02	DCBP	3.241	105176

File Name: F:\GCECD.DAT\F120605\F120605.03R.BND
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:06 AM



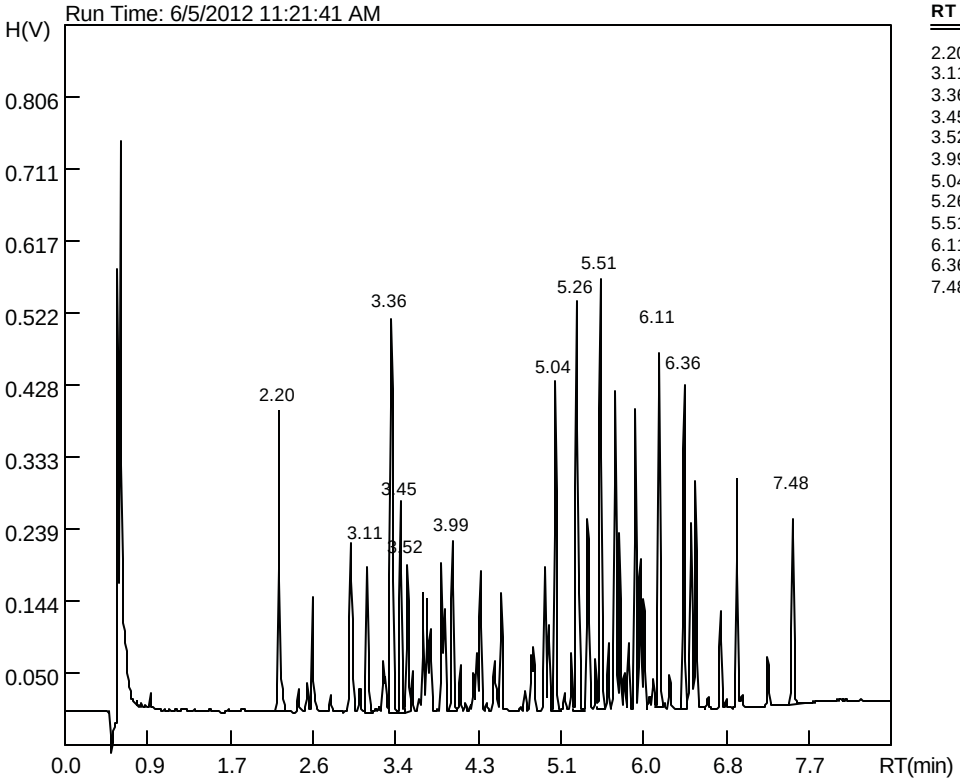
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	4.052	181520
3.11	0.00	1016-1	0.141	108294
3.36	0.00	1016-2	0.143	353161
3.46	0.00	1016-3	0.137	139398
3.53	0.00	1016-4	0.161	111602
3.99	0.02	1016-5	0.141	131689
5.05	0.02	1260-1	0.158	222370
5.27	0.02	1260-2	0.163	342862
5.51	0.02	1260-3	0.165	326472
6.11	0.00	1260-4	0.159	255490
6.37	0.00	1260-5	0.183	246227
7.49	0.02	DCBP	4.833	148972

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

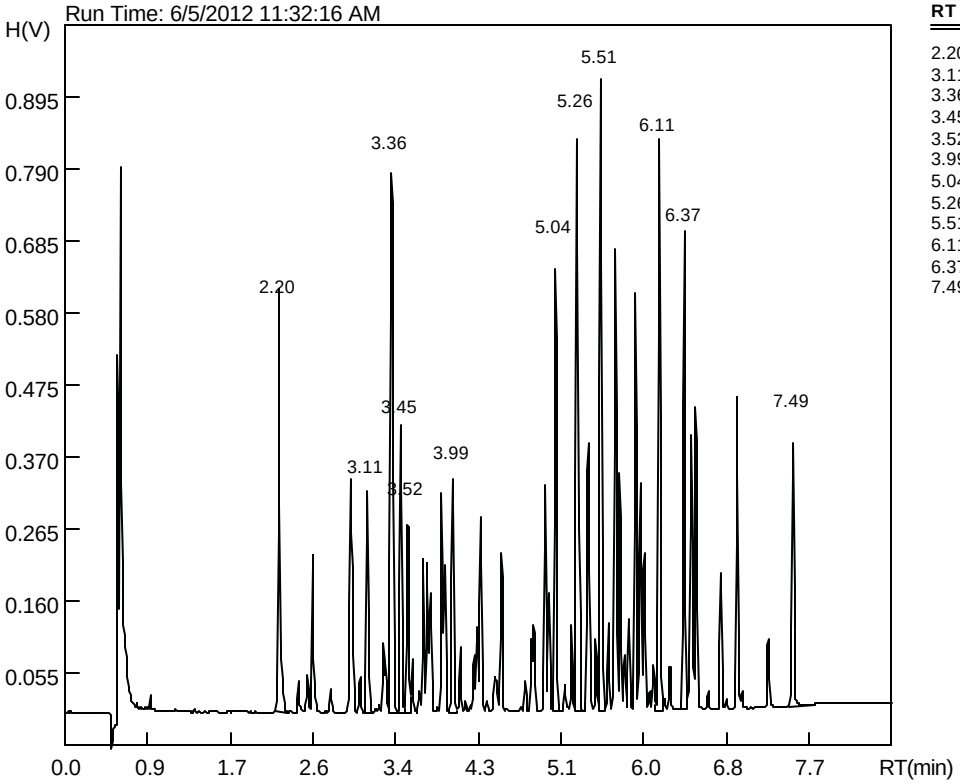
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:41 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	11.100	479177
3.11	0.00	1016-1	0.395	275062
3.36	0.00	1016-2	0.387	896735
3.45	-0.01	1016-3	0.388	362362
3.52	-0.01	1016-4	0.421	276963
3.99	0.01	1016-5	0.392	338223
5.04	0.01	1260-1	0.415	554058
5.26	0.01	1260-2	0.429	856443
5.51	0.01	1260-3	0.428	824150
6.11	0.00	1260-4	0.425	651378
6.36	-0.01	1260-5	0.472	622912
7.48	0.02	DCBP	13.089	376072

File Name: F:\GCECD.DAT\F120605\F120605.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:16 AM



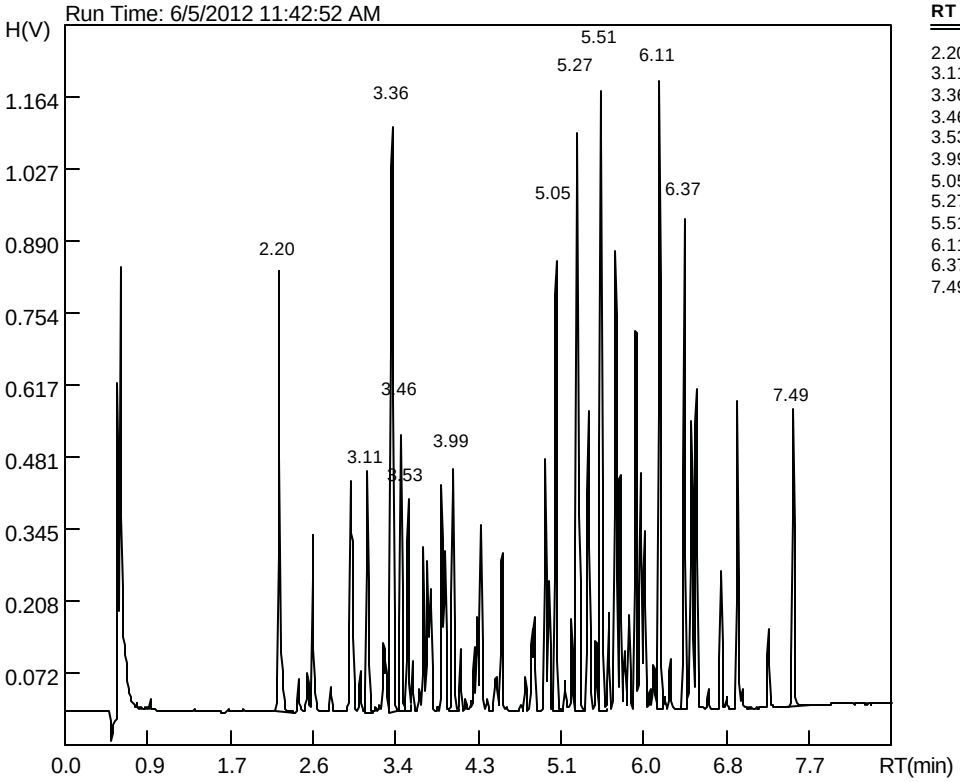
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	17.933	767758
3.11	0.00	1016-1	0.637	433369
3.36	0.00	1016-2	0.621	1417800
3.45	-0.01	1016-3	0.621	569090
3.52	-0.01	1016-4	0.661	429680
3.99	0.01	1016-5	0.629	534353
5.04	0.01	1260-1	0.665	876598
5.26	0.01	1260-2	0.689	1359526
5.51	0.01	1260-3	0.691	1319799
6.11	0.00	1260-4	0.718	1086010
6.37	0.00	1260-5	0.753	987861
7.49	0.02	DCBP	20.918	591421

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

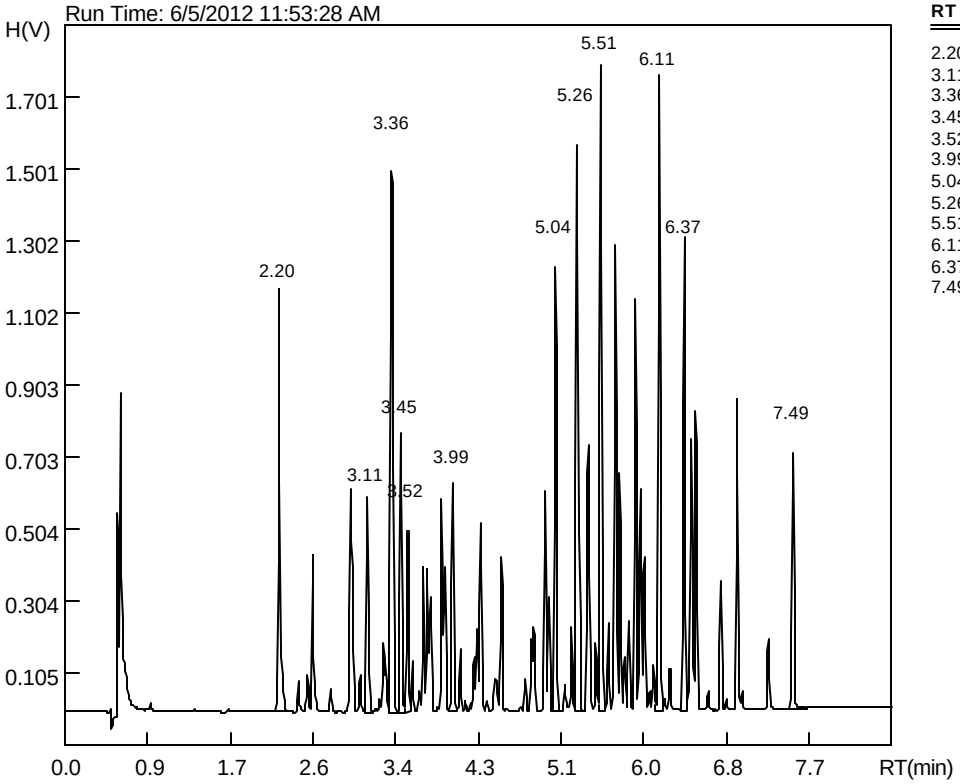
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:52 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	25.290	1078491
3.11	0.00	1016-1	0.866	583044
3.36	0.00	1016-2	0.863	1957154
3.46	0.00	1016-3	0.856	778386
3.53	0.00	1016-4	0.857	554151
3.99	0.02	1016-5	0.867	730374
5.05	0.02	1260-1	0.920	1205797
5.27	0.02	1260-2	0.956	1874225
5.51	0.02	1260-3	0.962	1830950
6.11	0.00	1260-4	1.025	1541809
6.37	0.00	1260-5	1.044	1366743
7.49	0.02	DCBP	28.798	808172

File Name: F:\GCECD.DAT\F120605\F120605.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:28 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	34.375	1462178
3.11	0.00	1016-1	1.182	790068
3.36	0.00	1016-2	1.195	2694886
3.45	-0.01	1016-3	1.166	1053558
3.52	-0.01	1016-4	1.168	751784
3.99	0.01	1016-5	1.185	992921
5.04	0.01	1260-1	1.269	1656389
5.26	0.01	1260-2	1.319	2575225
5.51	0.01	1260-3	1.333	2531615
6.11	0.00	1260-4	1.460	2187138
6.37	0.00	1260-5	1.433	1872177
7.49	0.02	DCBP	38.752	1081960

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120622.4

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
fb66120605.ca	**TCX**	L	2.31	2.36	2.41	1.50	3.00	9.00	15.00	21.00	30.00	0.058	0.040
				26.3	1.00	0.08	0.06	0.05	0.05	0.04	0.04		
	1016-1	L	3.01	3.06	3.11	0.05	0.10	0.30	0.50	0.70	1.00	0.036	0.583
				27.8	1.00	1.19	0.86	0.72	0.68	0.65	0.61		
	1016-2	L	3.44	3.49	3.54	0.05	0.10	0.30	0.50	0.70	1.00	0.086	1.183
				32.2	1.00	2.68	1.88	1.52	1.40	1.33	1.25		
	1016-3	L	3.81	3.86	3.91	0.05	0.10	0.30	0.50	0.70	1.00	0.138	2.534
				30.8	1.00	5.38	3.70	3.01	2.82	2.79	2.64		
	1016-4	L	3.97	4.02	4.07	0.05	0.10	0.30	0.50	0.70	1.00	0.066	0.946
				33.4	1.00	2.18	1.47	1.20	1.10	1.06	0.99		
	1016-5	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.721
				30.7	1.00	1.57	1.08	0.91	0.83	0.82	0.75		
	1260-1	L	5.56	5.61	5.66	0.05	0.10	0.30	0.50	0.70	1.00	0.105	1.632
				32.4	1.00	3.64	2.54	2.02	1.87	1.81	1.72		
	1260-2	L	5.64	5.69	5.74	0.05	0.10	0.30	0.50	0.70	1.00	0.104	1.712
				32.5	1.00	3.80	2.57	2.09	1.94	1.89	1.80		
	1260-3	L	6.05	6.10	6.15	0.05	0.10	0.30	0.50	0.70	1.00	0.095	1.698
				30.1	1.00	3.56	2.55	2.05	1.88	1.86	1.78		
	1260-4	L	6.54	6.59	6.64	0.05	0.10	0.30	0.50	0.70	1.00	0.048	1.827
				26.7	1.00	3.36	2.30	1.88	1.90	1.91	1.89		
	1260-5	L	6.96	7.01	7.06	0.05	0.10	0.30	0.50	0.70	1.00	0.088	1.607
				29.7	1.00	3.34	2.36	1.93	1.79	1.76	1.68		
	DCBP	L	8.11	8.16	8.21	1.50	3.00	9.00	15.00	21.00	30.00	0.070	0.032
				32.4	1.00	0.07	0.05	0.04	0.04	0.04	0.03		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): fb66120605.cal / mean %rsd: 30.4

File Name: F:\gceed.dat\Methods\Fb66120605.cal
Version: 2

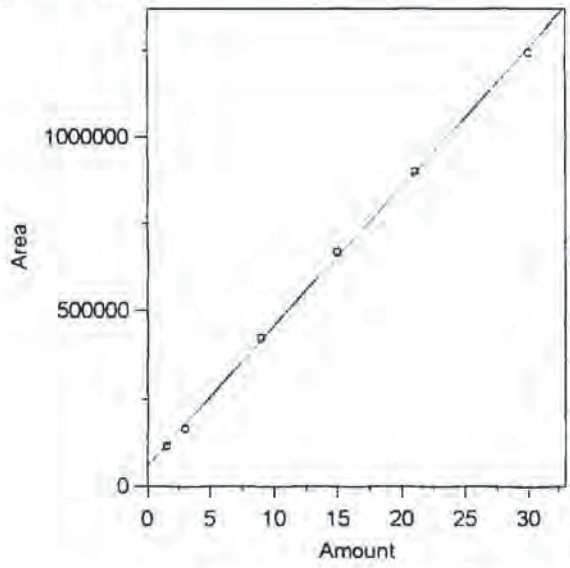
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.358 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

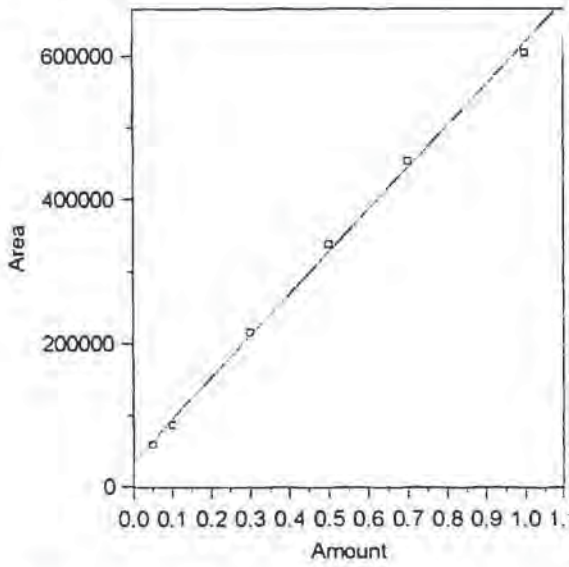
Single peak quantification by area

Y = 39870.61 X + 58053.06

Linear fit with equal weighting
Coefficient of determination: 0.9994379
Average error: 2.386%
Average CF: 51370.67
RSD: 26.263%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	115679.1	77119.4	-1.850	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	164970.6	54990.2	-7.145	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	424850.7	47205.63	1.910	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	668667.4	44577.82	1.914	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	900818.4	42896.11	0.612	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1243046	41434.87	-0.887	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

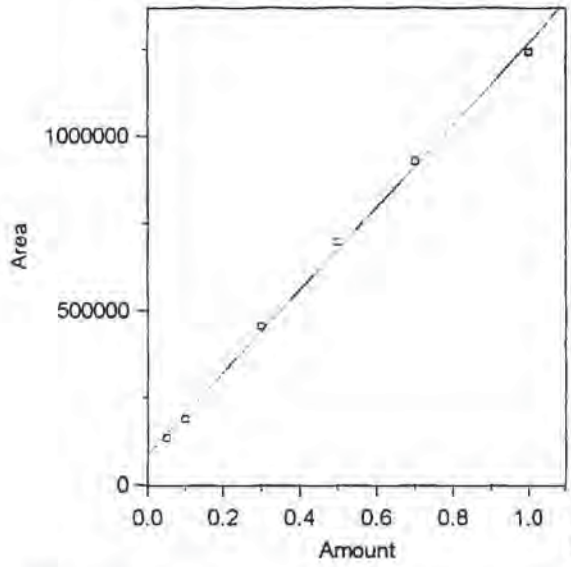
2 1016-1



Expected retention time:	3.057 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 582699.6 X + 35616.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9977939
Average error:	4.476%
Average CF:	782959.7
RSD:	27.844%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	59555.11	1191102	-8.024	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	85830.45	858304.5	-8.580	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	216043.1	720143.6	2.669	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	337309.8	674619.6	3.164	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	453779.1	648255.9	2.316	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	605332.5	605332.5	-2.100	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

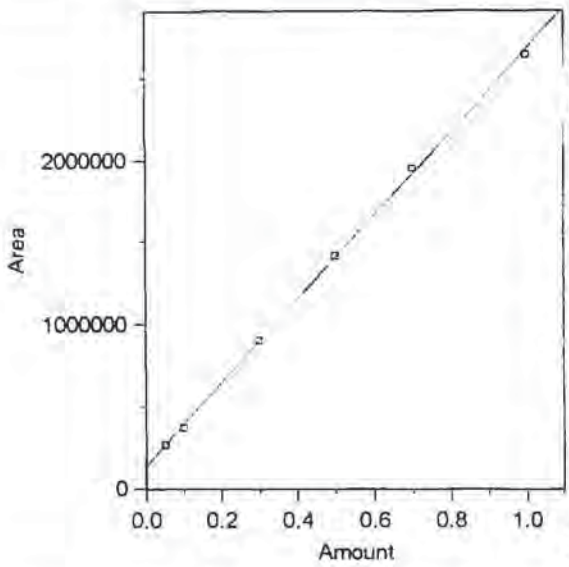
3 1016-2



Expected retention time:	3.49 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1182923 X + 86069.77	
Linear fit with equal weighting	
Coefficient of determination:	0.9980066
Average error:	4.316%
Average CF:	1674559
RSD:	32.211%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	133909.2	2678184	-7.786	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	187949.5	1879495	-8.031	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	456012.6	1520042	3.417	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	697347.2	1394694	2.925	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	930979	1329970	1.845	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1244968	1244968	-1.893	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

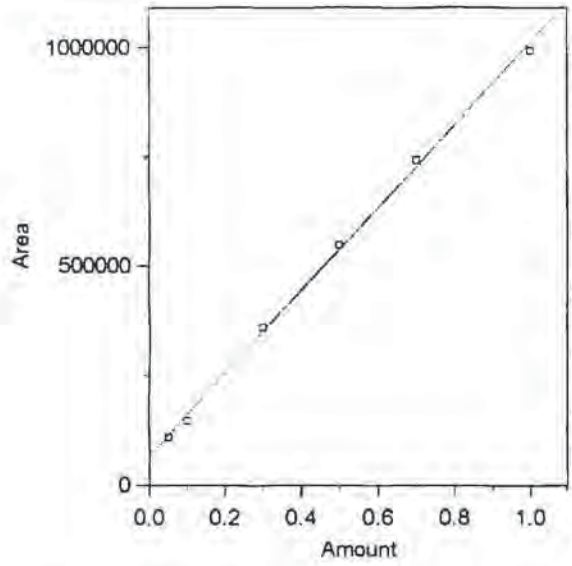
4 1016-3



Expected retention time:	3.858 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2533522 X + 138452.1	
Linear fit with equal weighting	
Coefficient of determination:	0.9993595
Average error:	1.799%
Average CF:	3389695
RSD:	30.843%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	269174.6	5383492	1.526	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	369980.5	3699805	-5.570	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	902096.4	3006988	0.399	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	1408728	2817456	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1950344	2786206	2.010	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	2644221	2644221	-1.039	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

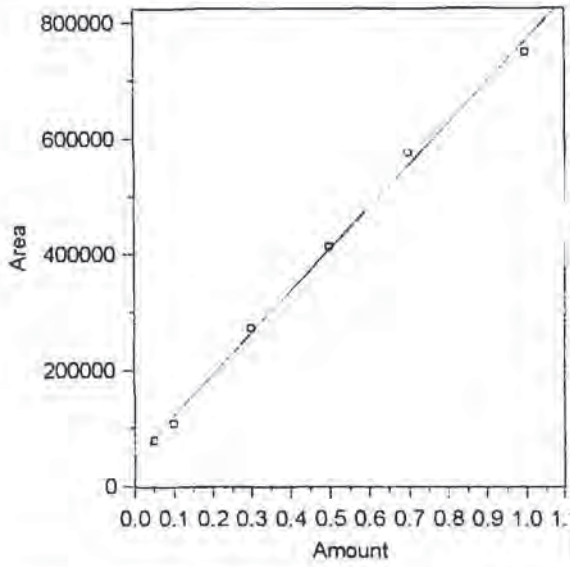
5 1016-4



Expected retention time:	4.02 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 945847.3 X + 66005.65	
Linear fit with equal weighting	
Coefficient of determination:	0.9983203
Average error:	3.567%
Average CF:	1332650
RSD:	33.355%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	108760.3	2175206	-4.005	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	146655.9	1466559	-8.677	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	359501.2	1198337	2.785	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	549015.4	1098031	1.872	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	744732.1	1063903	2.284	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	993864.6	993864.6	-1.778	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

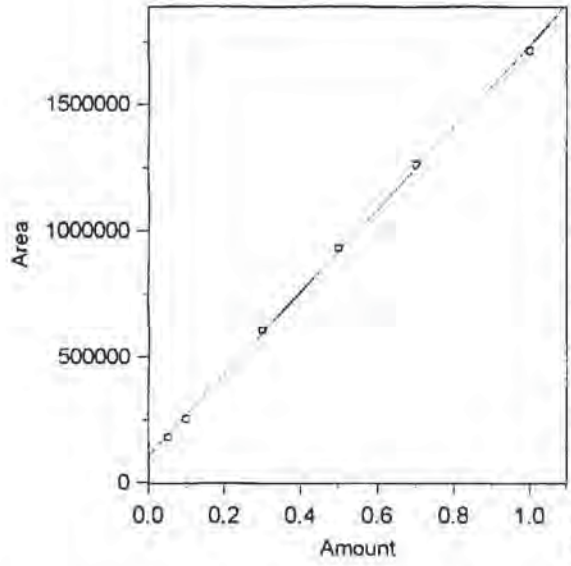
6 1016-5



Expected retention time:	4.151 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 721472.8 X + 47476.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9968299
Average error:	4.415%
Average CF:	992972
RSD:	30.730%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	78541.68	1570834	-5.995	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	108179	1081790	-9.568	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	272539	908463.3	3.266	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	412918.5	825837	1.153	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	574749.9	821071.3	4.026	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	749836.9	749836.9	-2.486	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

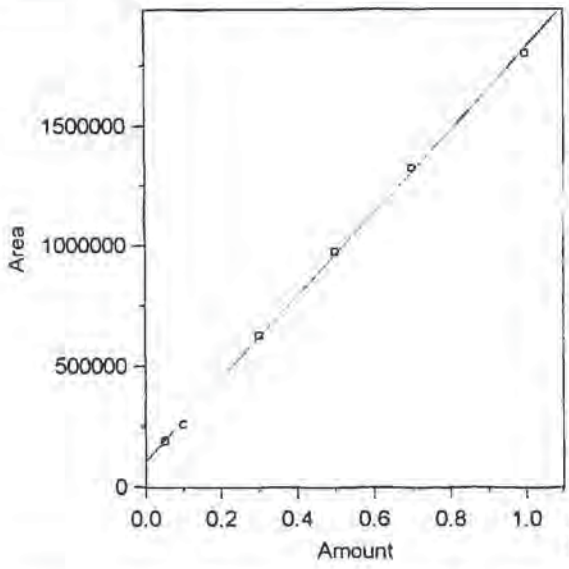
7 1260-1



Expected retention time:	5.611 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1631628 X + 105405.6	
Linear fit with equal weighting	
Coefficient of determination:	0.9994005
Average error:	2.230%
Average CF:	2264340
RSD:	32.401%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	181863.8	3637276	-2.740	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	254270.5	2542705	-5.324	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	604824.4	2016081	1.669	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	933124.7	1866249	1.292	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1263650	1805214	1.291	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1718515	1718515	-1.066	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

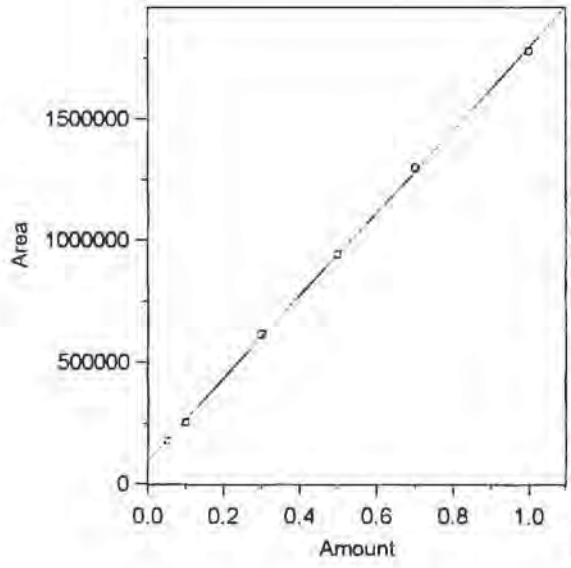
8 1260-2



Expected retention time:	5.692 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1711836 X + 104367.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9993424
Average error:	1.976%
Average CF:	2347058
RSD:	32.483%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	190027.6	3800552	0.036	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	256753.5	2567535	-6.822	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	626241.9	2087473	1.347	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	970528.4	1941057	1.067	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1322333	1889047	1.511	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1796684	1796684	-1.075	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

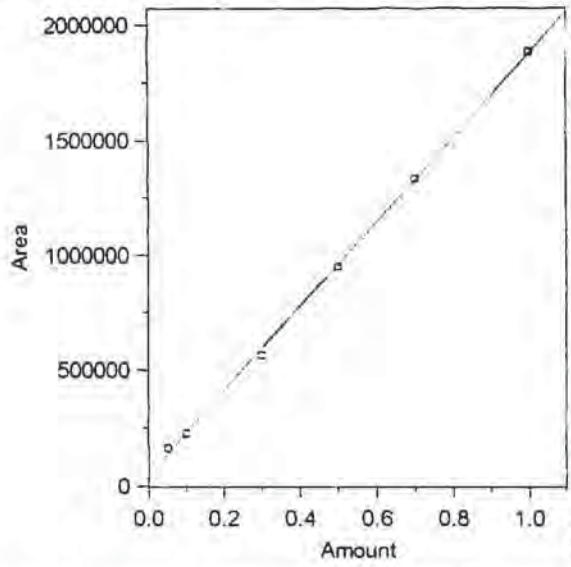
9 1260-3



Expected retention time:	6.098 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1698324 X + 94958.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9996811
Average error:	1.430%
Average CF:	2280111
RSD:	30.080%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	178024.2	3560484	-1.029	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	255083.7	2550837	-3.666	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	614370.1	2047900	1.640	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	941372.3	1882745	-0.291	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1300216	1857452	1.280	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1781245	1781245	-0.671	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

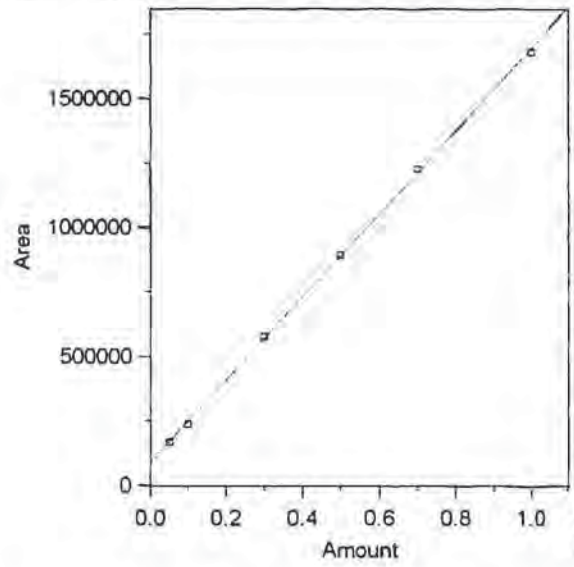
10 1260-4



Expected retention time:	6.591 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1827386 X + 48418.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9990682
Average error:	4.726%
Average CF:	2206297
RSD:	26.718%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	168141.7	3362834	20.283	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	229974.8	2299748	-0.512	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	564488.9	1881630	-5.388	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	950985.5	1901971	-1.156	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1334904	1907006	0.551	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1884593	1884593	0.468	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

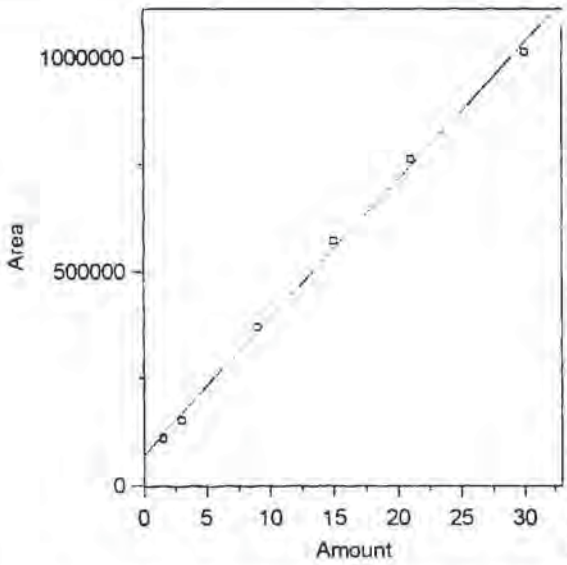
11 1260-5



Expected retention time:	7.014 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1606532 X + 87831.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9995843
Average error:	1.589%
Average CF:	2142375
RSD:	29.693%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	167108.9	3342178	-0.624	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	236188.5	2361885	-4.948	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	578119.2	1927064	1.462	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	893328.3	1786657	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1229462	1756374	1.407	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1680090	1680090	-0.842	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

12 DCBP



Expected retention time:	8.156 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 32186.62 X + 69759.48	
Linear fit with equal weighting	
Coefficient of determination:	0.9976669
Average error:	4.407%
Average CF:	45480.46
RSD:	32.426%

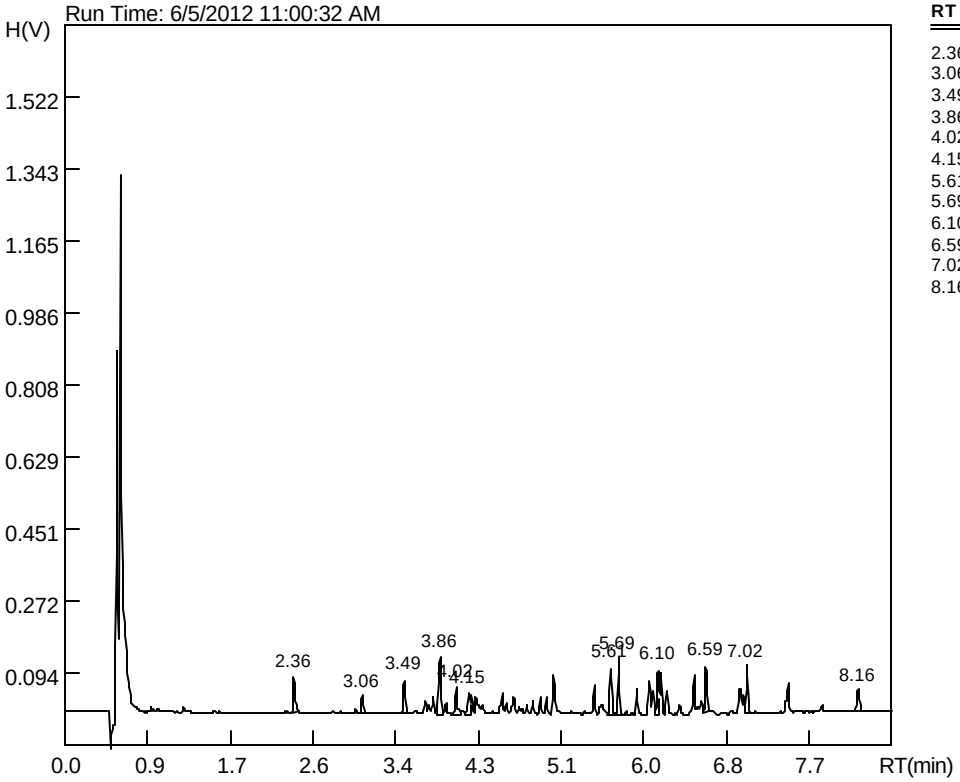
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	109747.5	73165	-7.025	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	151490.5	50496.83	-8.916	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	370306.1	41145.12	3.023	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	569490.9	37966.06	3.064	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	762846.1	36326.01	2.302	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1013512	33783.73	-2.110	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

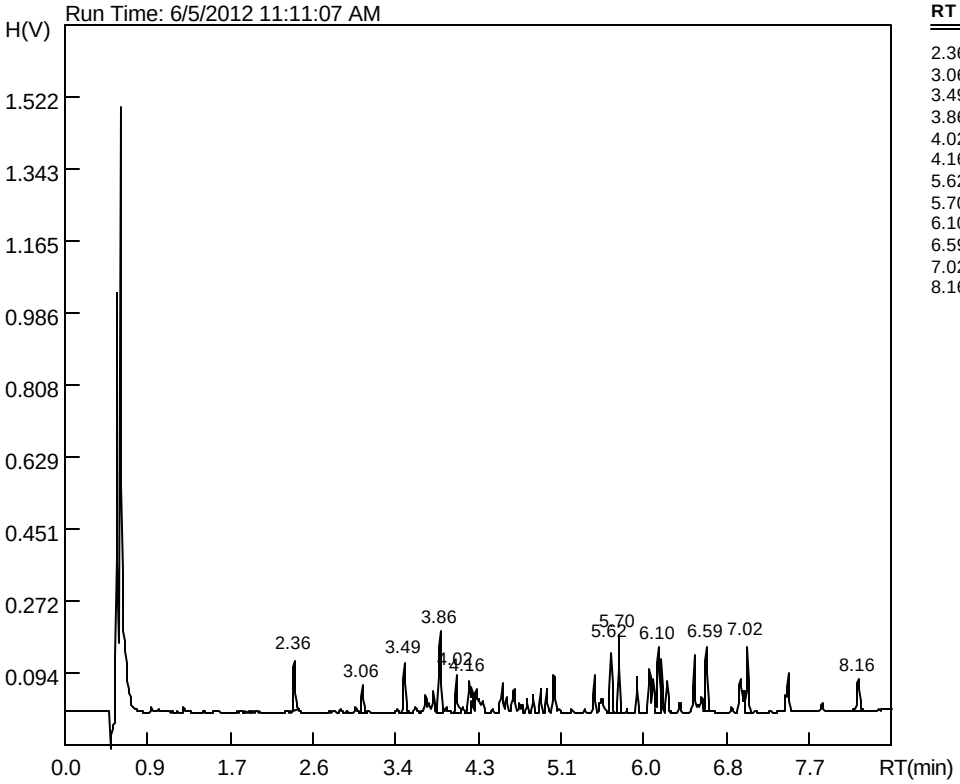
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:32 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	1.445	115679
3.06	0.00	1016-1	0.041	59555
3.49	0.00	1016-2	0.040	133909
3.86	0.00	1016-3	0.052	269175
4.02	0.00	1016-4	0.045	108760
4.15	0.00	1016-5	-0.051	78542
5.61	0.00	1260-1	0.047	181864
5.69	0.00	1260-2	0.050	190028
6.10	0.00	1260-3	0.049	178024
6.59	0.00	1260-4	0.066	168142
7.02	0.00	1260-5	0.049	167109
8.16	0.00	DCBP	1.242	109748

File Name: F:\GCECD.DAT\F120605\F120605B.03R.BND
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:07 AM



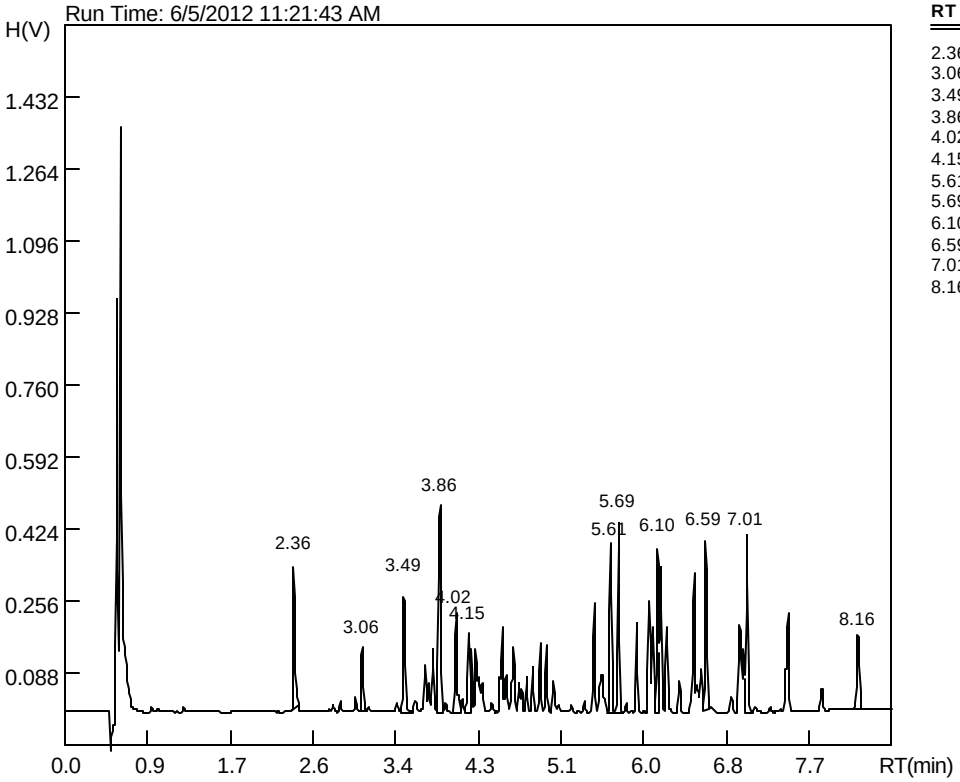
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	2.682	164971
3.06	0.00	1016-1	0.086	85830
3.49	0.00	1016-2	0.086	187950
3.86	0.00	1016-3	0.091	369981
4.02	0.00	1016-4	0.085	146656
4.16	0.01	1016-5	-0.006	108179
5.62	0.00	1260-1	0.091	254271
5.70	0.00	1260-2	0.089	256754
6.10	0.00	1260-3	0.094	255084
6.59	0.00	1260-4	0.099	229975
7.02	0.00	1260-5	0.092	236189
8.16	0.00	DCBP	2.539	151491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

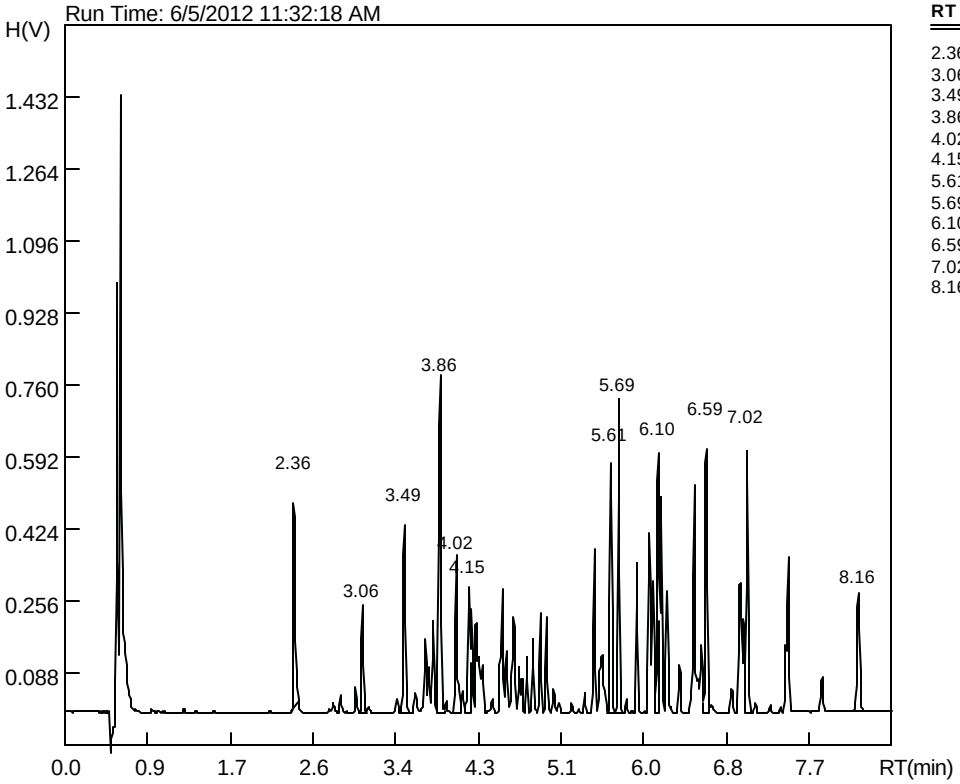
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:43 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	9.200	424851
3.06	0.00	1016-1	0.310	216043
3.49	0.00	1016-2	0.313	456013
3.86	0.00	1016-3	0.301	902096
4.02	0.00	1016-4	0.310	359501
4.15	0.00	1016-5	0.254	272539
5.61	0.00	1260-1	0.306	604824
5.69	0.00	1260-2	0.305	626242
6.10	0.00	1260-3	0.306	614370
6.59	0.00	1260-4	0.282	564489
7.01	0.00	1260-5	0.305	578119
8.16	0.00	DCBP	9.338	370306

File Name: F:\GCECD.DAT\F120605\F120605B.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:18 AM



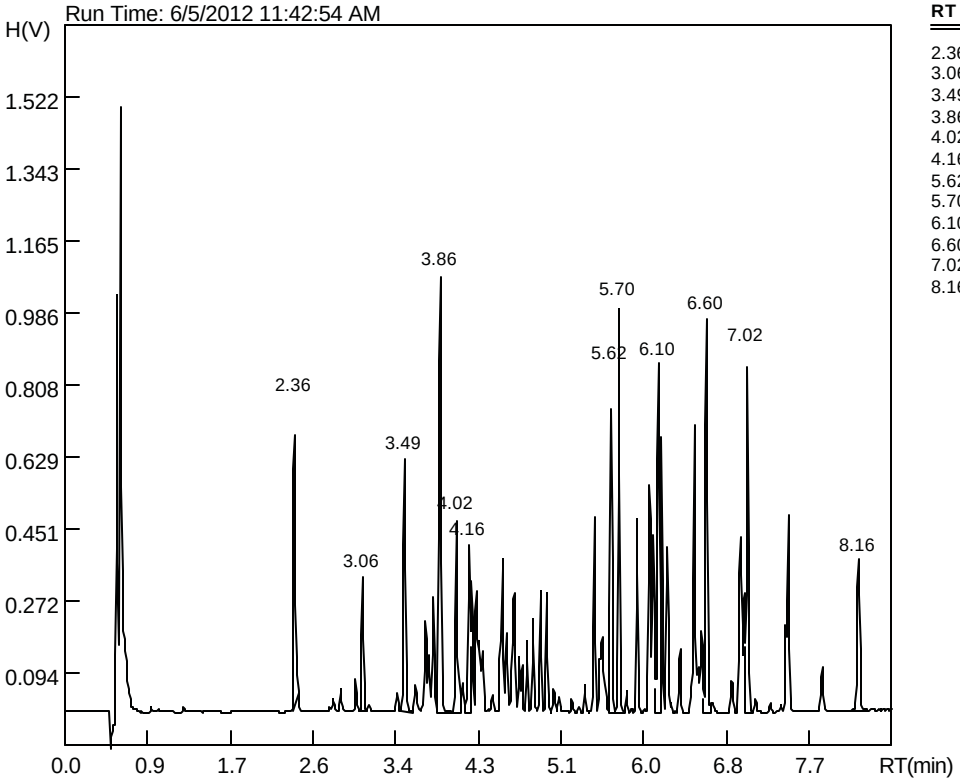
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	15.315	668667
3.06	0.00	1016-1	0.518	337310
3.49	0.00	1016-2	0.517	697347
3.86	0.00	1016-3	0.501	1408728
4.02	0.00	1016-4	0.511	549015
4.15	0.00	1016-5	0.449	412919
5.61	0.00	1260-1	0.507	933125
5.69	0.00	1260-2	0.506	970528
6.10	0.00	1260-3	0.498	941372
6.59	0.00	1260-4	0.494	950986
7.02	0.00	1260-5	0.501	893328
8.16	0.00	DCBP	15.526	569491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

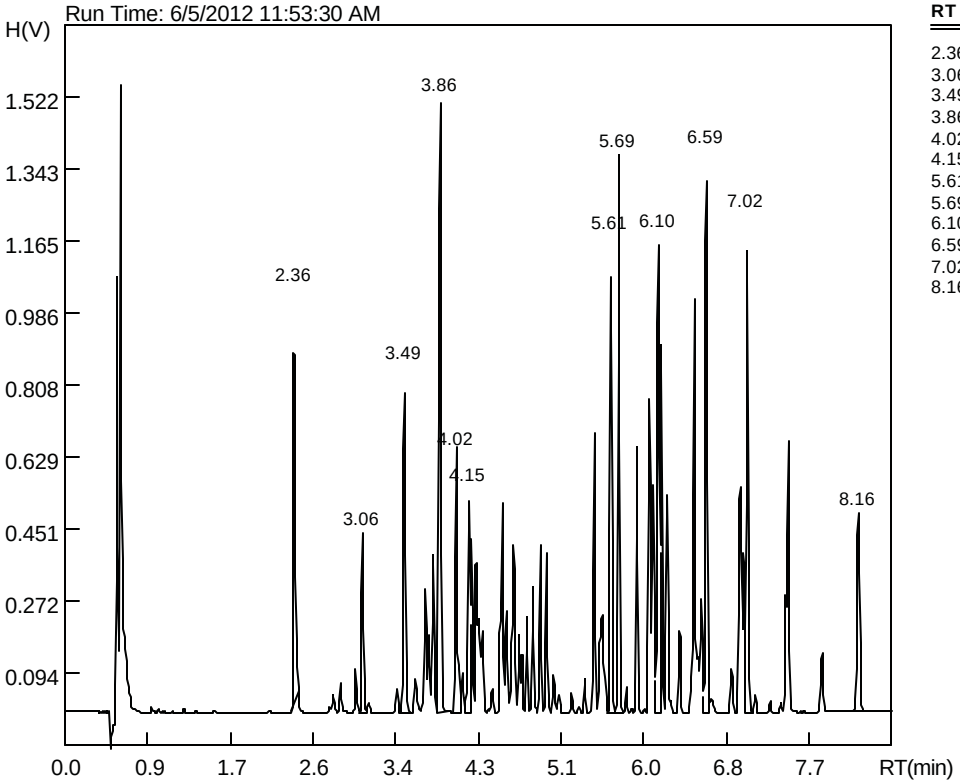
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:54 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	21.138	900818
3.06	0.00	1016-1	0.718	453779
3.49	0.00	1016-2	0.714	930979
3.86	0.00	1016-3	0.715	1950344
4.02	0.00	1016-4	0.718	744732
4.16	0.01	1016-5	0.691	574750
5.62	0.00	1260-1	0.710	1263650
5.70	0.00	1260-2	0.711	1322333
6.10	0.00	1260-3	0.710	1300216
6.60	0.00	1260-4	0.704	1334904
7.02	0.00	1260-5	0.711	1229462
8.16	0.00	DCBP	21.533	762846

File Name: F:\GCECD.DAT\F120605\F120605B.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:30 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	29.721	1243046
3.06	0.00	1016-1	0.978	605333
3.49	0.00	1016-2	0.980	1244968
3.86	0.00	1016-3	0.989	2644221
4.02	0.00	1016-4	0.981	993865
4.15	0.00	1016-5	0.952	749837
5.61	0.00	1260-1	0.989	1718515
5.69	0.00	1260-2	0.989	1796684
6.10	0.00	1260-3	0.993	1781245
6.59	0.00	1260-4	1.005	1884593
7.02	0.00	1260-5	0.991	1680090
8.16	0.00	DCBP	29.321	1013512

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

Filename	LIMS ID	Run Time	CVM Component	? RT/Win.	CVM Conc.	CVM %D/ UCL
f120622.02r	sc1660.01	06/22/12 09:29	1016-1	0.01/0.05	0.578/0.500	15.6
			1016-2	0.01/0.05	0.581/0.500	16.2
			1016-3	0.01/0.05	0.582/0.500	16.4
			1016-4	0.01/0.05	0.559/0.500	11.8
			1016-5	0.01/0.05	0.564/0.500	12.8
			1260-1	0.01/0.05	0.566/0.500	13.2
			1260-2	0.01/0.05	0.574/0.500	14.8
			1260-3	0.00/0.05	0.565/0.500	13.0
			1260-4	0.00/0.05	0.516/0.500	3.2
			1260-5	0.00/0.05	0.509/0.500	1.8
					Average	**11.9 / 20.0**
f120622.19r	sc1660.02	06/22/12 12:58	1016-1	0.00/0.05	0.548/0.500	9.6
			1016-2	0.00/0.05	0.545/0.500	9.0
			1016-3	0.01/0.05	0.547/0.500	9.4
			1016-4	0.01/0.05	0.523/0.500	4.6
			1016-5	0.00/0.05	0.533/0.500	6.6
			1260-1	0.00/0.05	0.515/0.500	3.0
			1260-2	0.00/0.05	0.519/0.500	3.8
			1260-3	0.00/0.05	0.512/0.500	2.4
			1260-4	0.00/0.05	0.471/0.500	5.8
			1260-5	-.01/0.05	0.473/0.500	5.4
					Average	**3.7 / 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120622.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
f120622b.02	sc1660.01	06/22/12 09:29	1016-1	0.01/0.05	0.589/0.500	17.8
			1016-2	0.01/0.05	0.579/0.500	15.8
			1016-3	0.01/0.05	0.580/0.500	16.0
			1016-4	0.01/0.05	0.571/0.500	14.2
			1016-5	0.01/0.05	0.583/0.500	16.6
			1260-1	0.01/0.05	0.575/0.500	15.0
			1260-2	0.01/0.05	0.590/0.500	18.0
			1260-3	0.01/0.05	0.579/0.500	15.8
			1260-4	0.01/0.05	0.545/0.500	9.0
			1260-5	0.01/0.05	0.533/0.500	6.6
					Average	**14.5/ 20.0**
f120622b.19	sc1660.02	06/22/12 12:58	1016-1	0.00/0.05	0.538/0.500	7.6
			1016-2	0.01/0.05	0.531/0.500	6.2
			1016-3	0.00/0.05	0.528/0.500	5.6
			1016-4	0.00/0.05	0.546/0.500	9.2
			1016-5	0.01/0.05	0.543/0.500	8.6
			1260-1	0.00/0.05	0.517/0.500	3.4
			1260-2	0.01/0.05	0.527/0.500	5.4
			1260-3	0.00/0.05	0.509/0.500	1.8
			1260-4	0.00/0.05	0.500/0.500	0.0
			1260-5	0.01/0.05	0.488/0.500	2.4
					Average	**4.5/ 20.0**

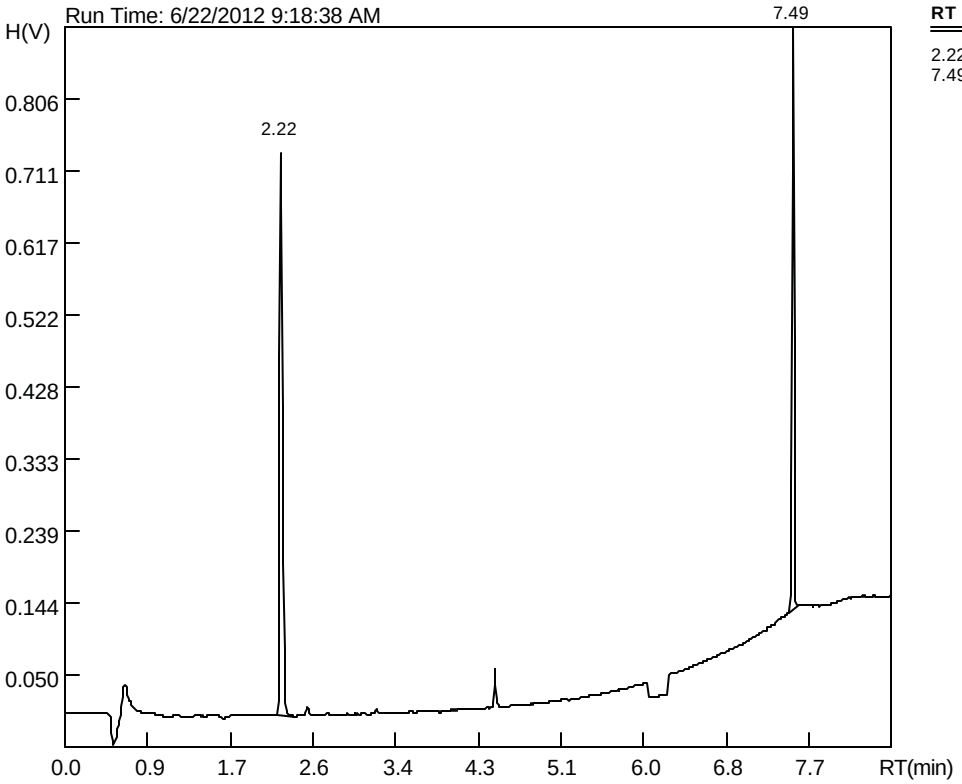
NOTES
*: Calibration check drift outside of method-established control limits

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

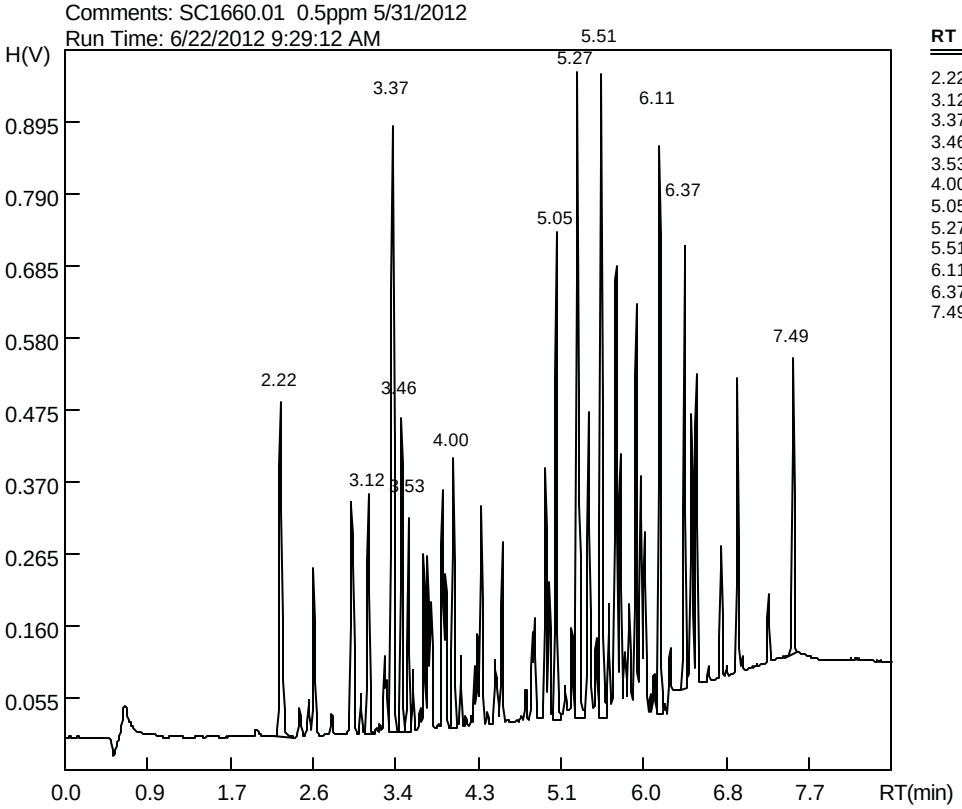
Analytical Batch: f120622.3

File Name: F:\GCECD.DAT\F120622\F120622.01R.BND
Comments: sBLK-R.01
Run Time: 6/22/2012 9:18:38 AM



RT	dT	Name	Amt.	Area
2.22	0.02	TCX	30.241	1492109
7.49	0.00	DCBP	29.170	1072909

File Name: F:\GCECD.DAT\F120622\F120622.02R.BND
Comments: SC1660.01 0.5ppm 5/31/2012
Run Time: 6/22/2012 9:29:12 AM



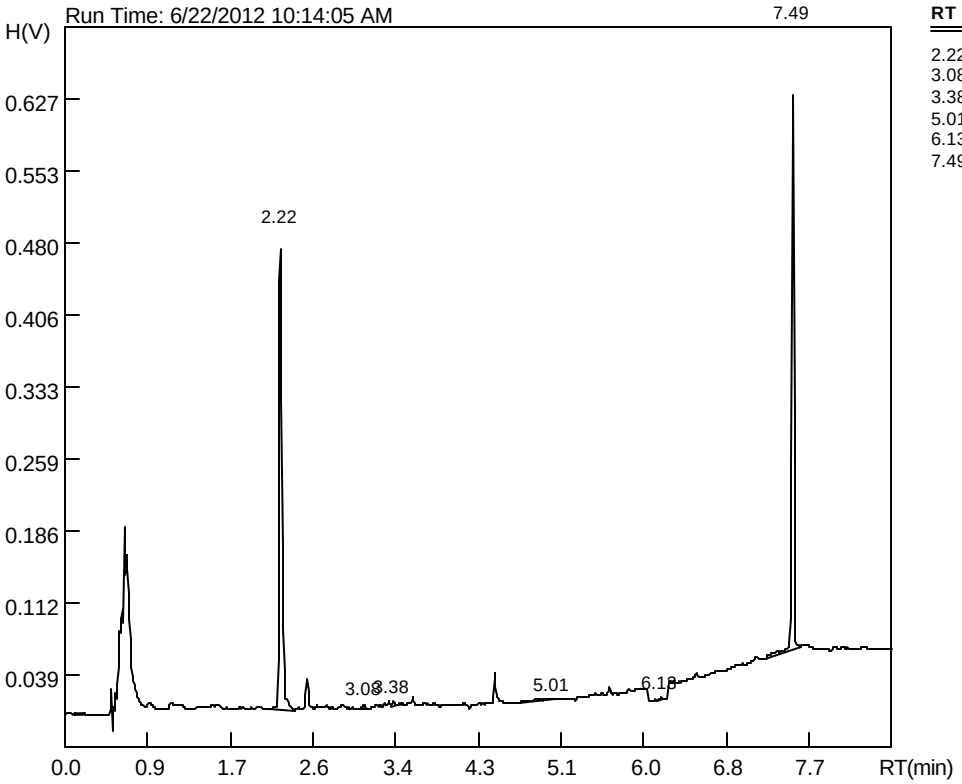
RT	dT	Name	Amt.	Area
2.22	0.01	TCX	18.626	938578
3.12	0.01	1016-1	0.578	480913
3.37	0.01	1016-2	0.581	1624149
3.46	0.01	1016-3	0.582	643233
3.53	0.01	1016-4	0.559	453804
4.00	0.01	1016-5	0.564	587481
5.05	0.00	1260-1	0.566	977474
5.27	0.01	1260-2	0.574	1537686
5.51	0.00	1260-3	0.565	1478793
6.11	0.00	1260-4	0.516	1145742
6.37	0.00	1260-5	0.509	1000067
7.49	0.00	DCBP	15.826	608310

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

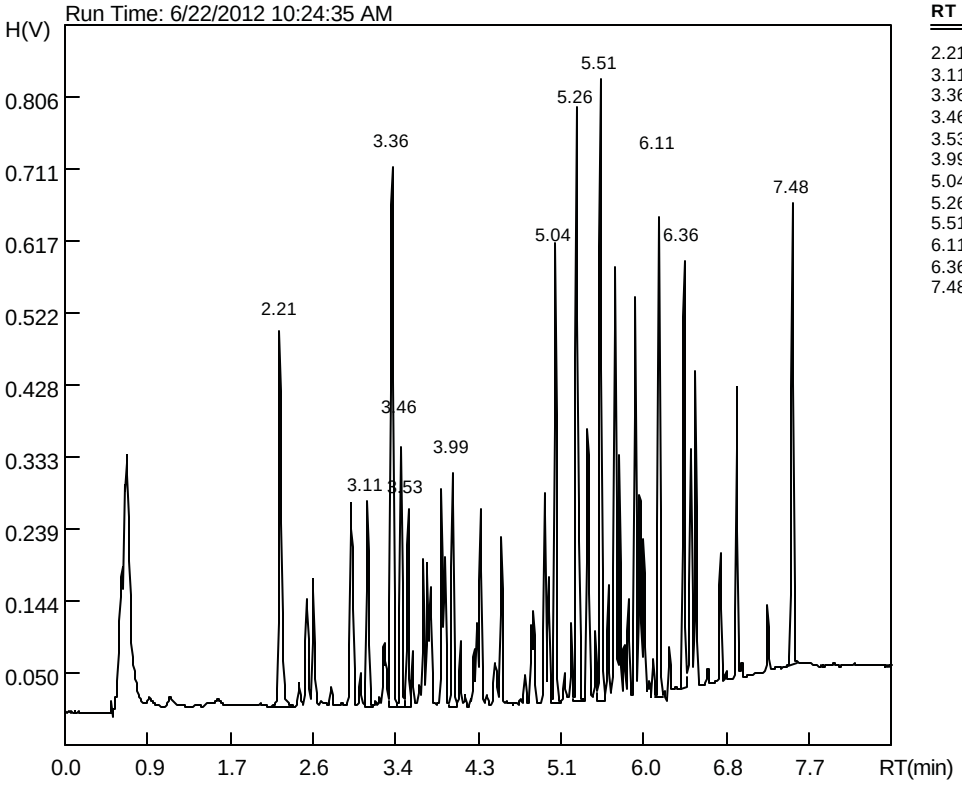
Analytical Batch: f120622.3

File Name: F:\GCECD.DAT\F120622\F120622.06R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:14:05 AM



RT	dT	Name	Amt.	Area
2.22	0.01	TCX	20.131	1010299
3.08	-0.03	1016-1	-0.041	8914
3.38	0.02	1016-2	-0.040	7635
5.01	-0.03	1260-1	-0.033	21319
6.13	0.02	1260-4	-0.023	3009
7.49	0.00	DCBP	25.015	928250

File Name: F:\GCECD.DAT\F120622\F120622.07R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:24:35 AM



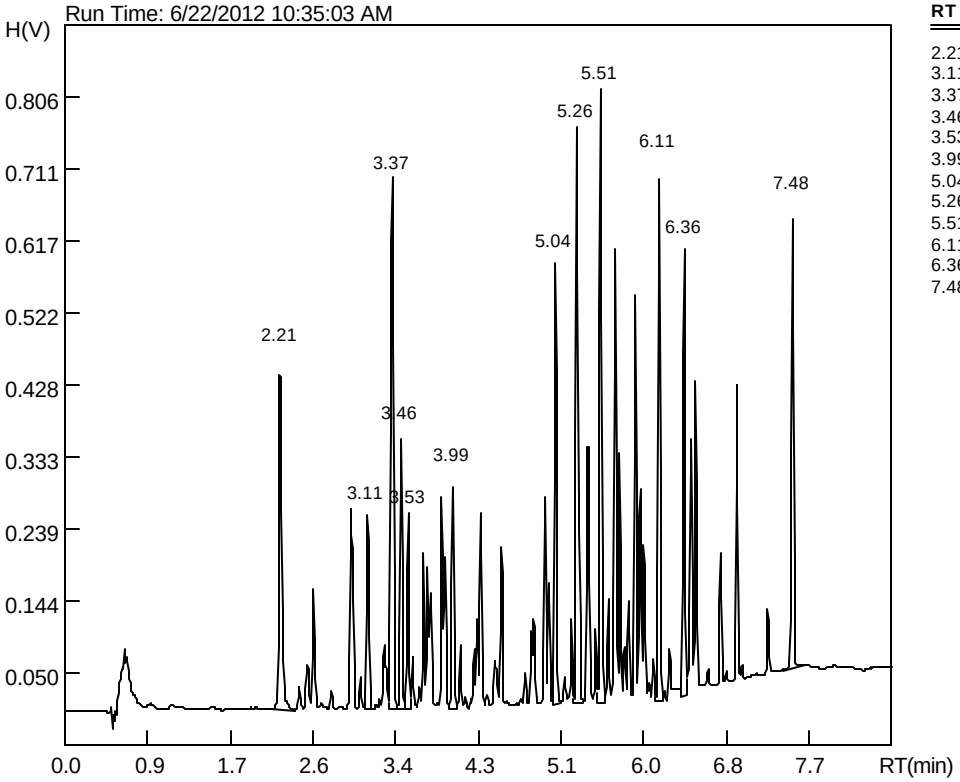
RT	dT	Name	Amt.	Area
2.21	0.01	TCX	20.015	1004756
3.11	0.00	1016-1	0.451	384211
3.36	0.00	1016-2	0.450	1283812
3.46	0.00	1016-3	0.467	525519
3.53	0.00	1016-4	0.451	378084
3.99	0.00	1016-5	0.470	497615
5.04	0.00	1260-1	0.456	801517
5.26	0.00	1260-2	0.453	1237946
5.51	0.00	1260-3	0.450	1197855
6.11	0.00	1260-4	0.416	933246
6.36	0.00	1260-5	0.428	852460
7.48	-0.01	DCBP	22.482	840067

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

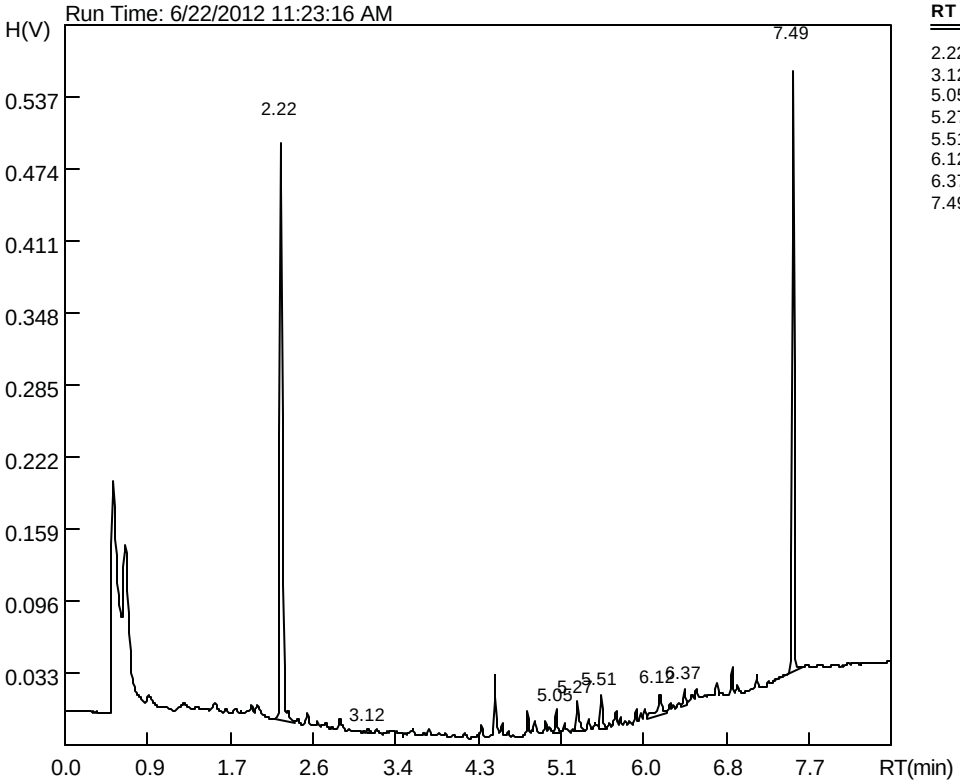
Analytical Batch: f120622.3

File Name: F:\GCECD.DAT\F120622\F120622.08R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:35:03 AM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	19.043	958444
3.11	0.00	1016-1	0.445	379841
3.37	0.00	1016-2	0.440	1257542
3.46	0.00	1016-3	0.458	516335
3.53	0.00	1016-4	0.439	369656
3.99	0.00	1016-5	0.464	492075
5.04	0.00	1260-1	0.451	792841
5.26	0.00	1260-2	0.451	1231458
5.51	0.00	1260-3	0.446	1187942
6.11	0.00	1260-4	0.420	940813
6.36	0.00	1260-5	0.444	881605
7.48	0.00	DCBP	23.231	866135

File Name: F:\GCECD.DAT\F120622\F120622.12R.BND
Comments: s52902.01 20.3g s/1 ID:PA120622s01
Run Time: 6/22/2012 11:23:16 AM



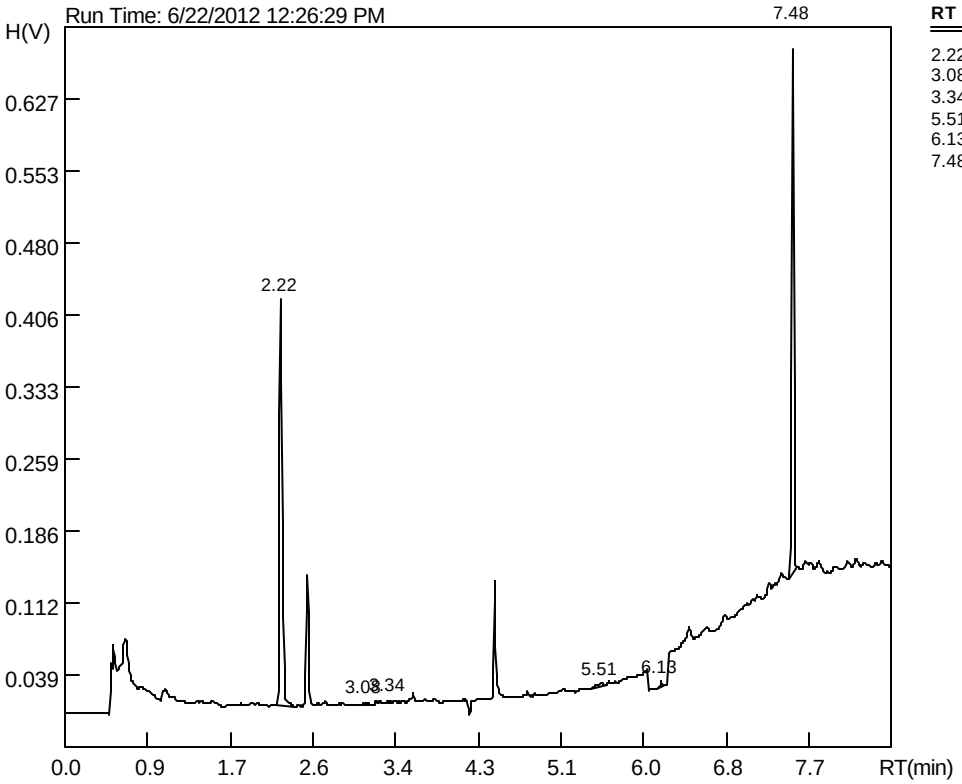
RT	dT	Name	Amt.	Area
2.22	0.02	TCX	18.717	942898
3.12	0.01	1016-1	-0.044	6113
5.05	0.01	1260-1	-0.024	36209
5.27	0.01	1260-2	-0.027	46954
5.51	0.00	1260-3	-0.019	48689
6.12	0.01	1260-4	0.006	65154
6.37	0.00	1260-5	-0.028	27945
7.49	0.00	DCBP	19.816	747233

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

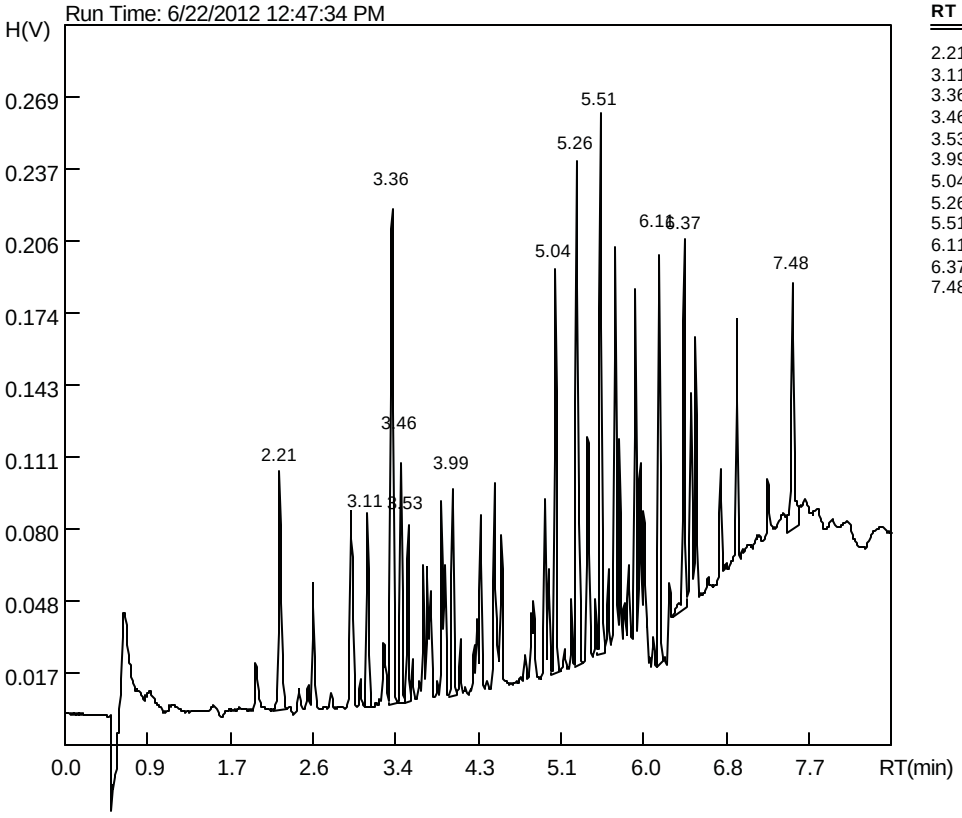
Analytical Batch: f120622.3

File Name: F:\GCECD.DAT\F120622\F120622.16R.BND
Comments: s52934.02 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 12:26:29 PM



RT	dT	Name	Amt.	Area
2.22	0.02	TCX	16.031	814902
3.08	-0.03	1016-1	-0.042	8323
3.34	-0.02	1016-2	-0.041	5893
5.51	0.00	1260-3	-0.034	11122
6.13	0.02	1260-4	-0.020	9302
7.48	0.00	DCBP	21.503	805977

File Name: F:\GCECD.DAT\F120622\F120622.18R.BND
Comments: ss1660.01 0.1ppm 5/31/12
Run Time: 6/22/2012 12:47:34 PM



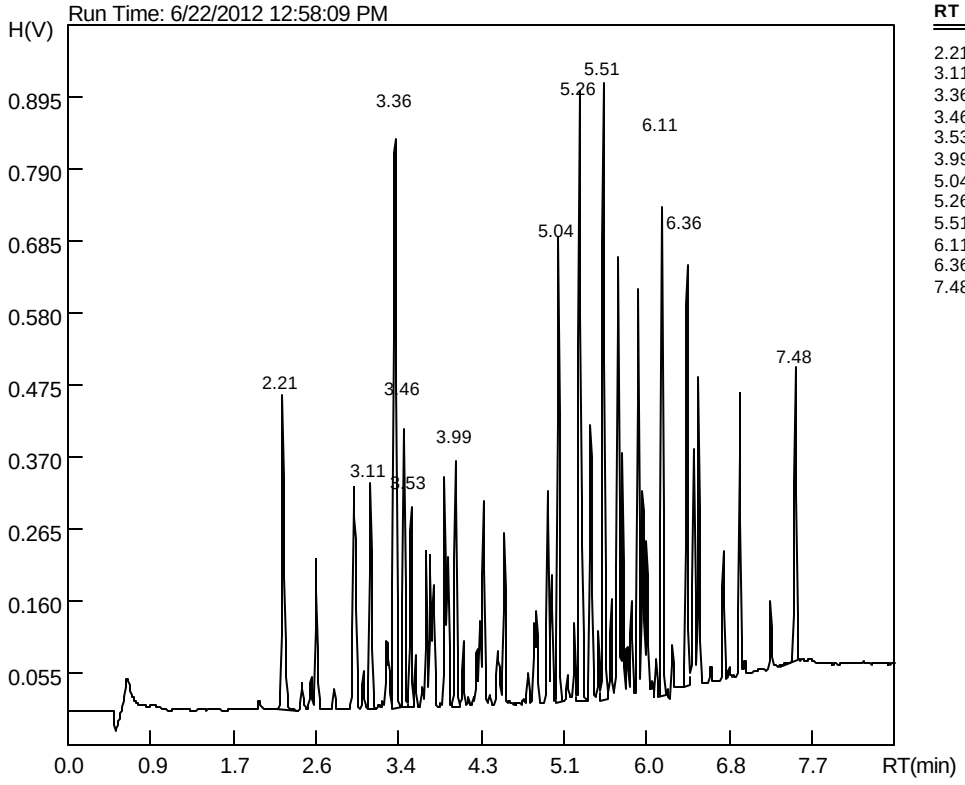
RT	dT	Name	Amt.	Area
2.21	0.01	TCX	3.429	214329
3.11	0.00	1016-1	0.104	119439
3.36	0.00	1016-2	0.109	396467
3.46	0.00	1016-3	0.107	157950
3.53	0.00	1016-4	0.065	108031
3.99	0.00	1016-5	0.099	142547
5.04	0.00	1260-1	0.101	235675
5.26	0.00	1260-2	0.099	358060
5.51	0.00	1260-3	0.100	340136
6.11	0.00	1260-4	0.098	258465
6.37	0.00	1260-5	0.098	256582
7.48	0.00	DCBP	4.206	203743

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5 Analytical Batch: f120622.3

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120622\F120622.19R.BND
Comments: SC1660.02 0.5ppm 5/31/12
Run Time: 6/22/2012 12:58:09 PM



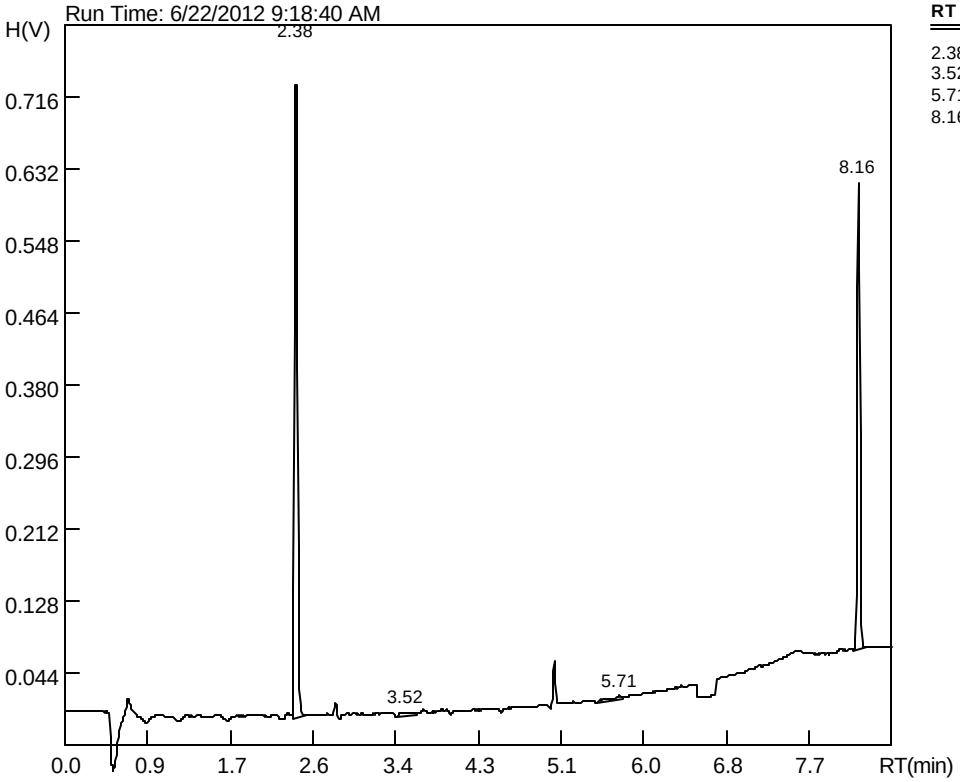
RT	dT	Name	Amt.	Area
2.21	0.01	TCX	17.436	881881
3.11	0.00	1016-1	0.548	458218
3.36	0.00	1016-2	0.545	1529778
3.46	0.00	1016-3	0.547	607335
3.53	0.00	1016-4	0.523	428096
3.99	0.00	1016-5	0.533	558171
5.04	0.00	1260-1	0.515	895871
5.26	0.00	1260-2	0.519	1401452
5.51	0.00	1260-3	0.512	1348334
6.11	0.00	1260-4	0.471	1049941
6.36	0.00	1260-5	0.473	934093
7.48	-0.01	DCBP	15.310	590369

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

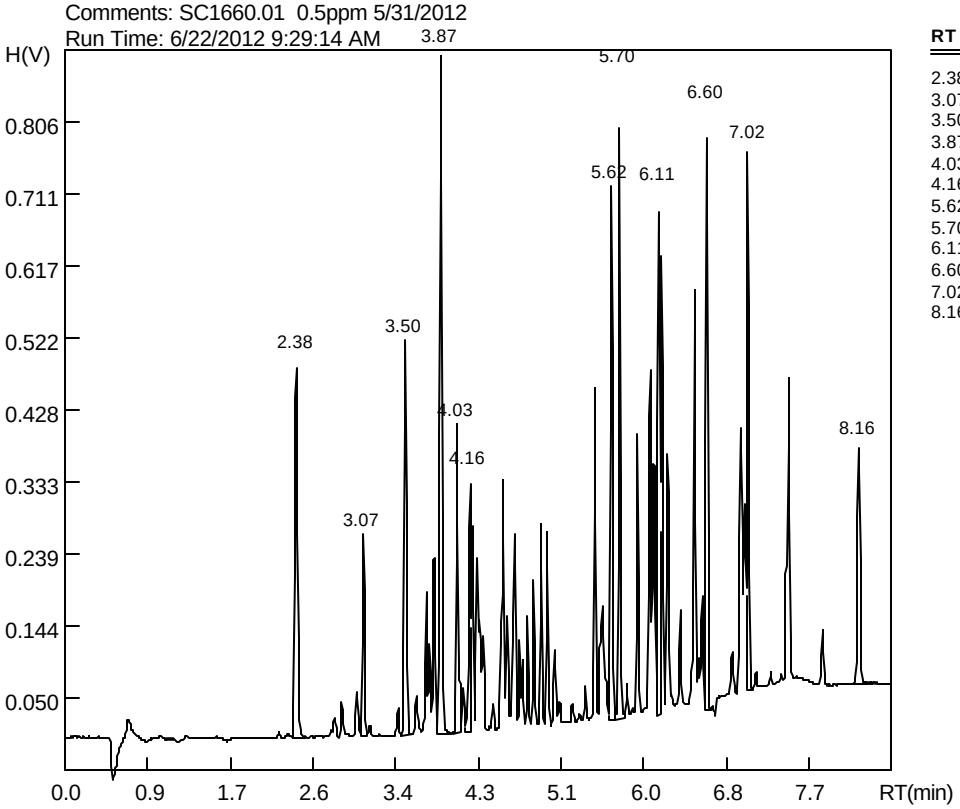
Analytical Batch: f120622.4

File Name: F:\GCECD.DAT\F120622\F120622B.01R.BND
Comments: sBLK-R.01
Run Time: 6/22/2012 9:18:40 AM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	35.679	1480586
3.52	0.03	1016-2	-0.035	44995
5.71	0.02	1260-2	-0.041	34065
8.16	0.01	DCBP	32.190	1105833

File Name: F:\GCECD.DAT\F120622\F120622B.02R.BND
Comments: SC1660.01 0.5ppm 5/31/2012
Run Time: 6/22/2012 9:29:14 AM



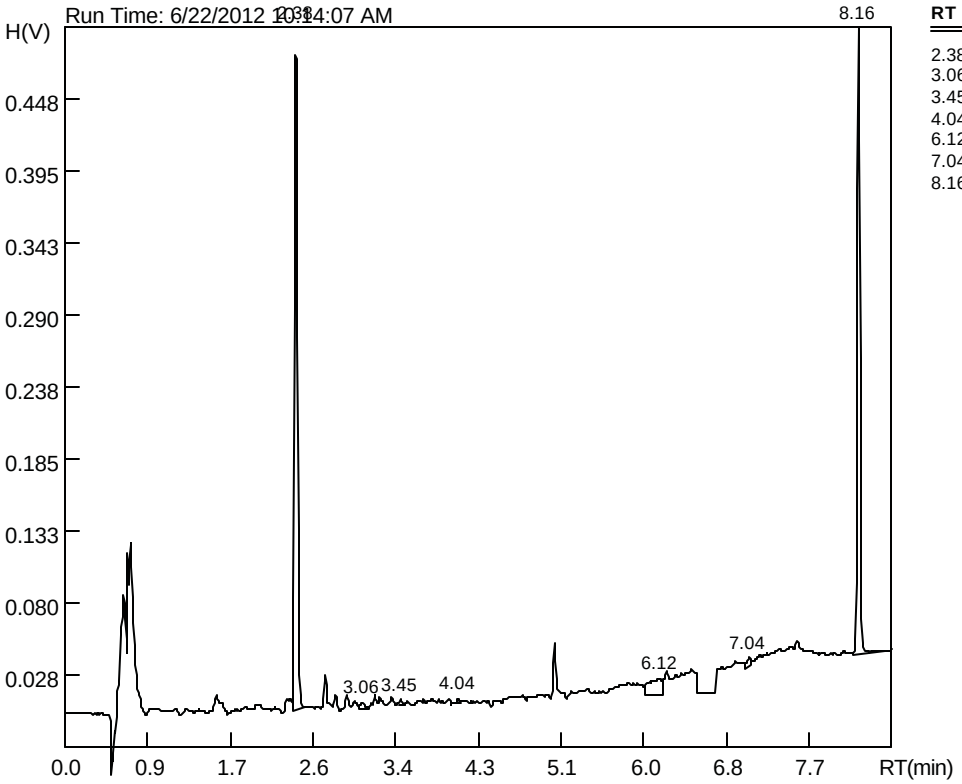
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	20.665	881965
3.07	0.01	1016-1	0.589	378972
3.50	0.01	1016-2	0.579	770475
3.87	0.01	1016-3	0.580	1609032
4.03	0.01	1016-4	0.571	606126
4.16	0.01	1016-5	0.583	467768
5.62	0.01	1260-1	0.575	1043613
5.70	0.01	1260-2	0.590	1114363
6.11	0.01	1260-3	0.579	1079133
6.60	0.01	1260-4	0.545	1045217
7.02	0.01	1260-5	0.533	944624
8.16	0.01	DCBP	17.577	635499

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

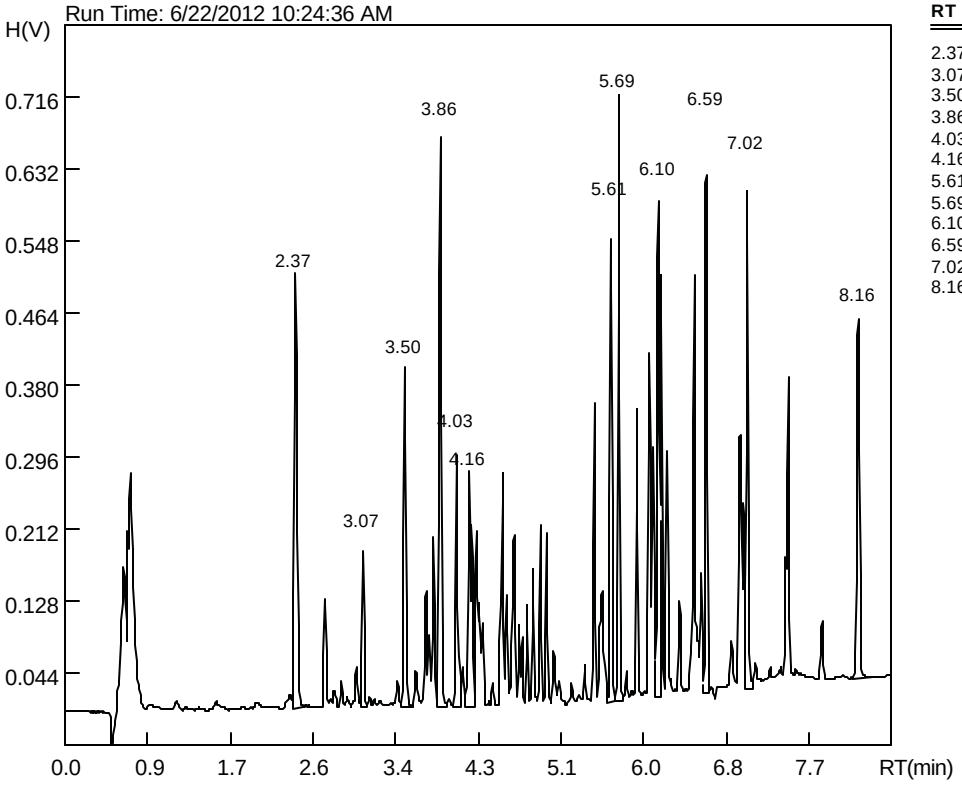
Analytical Batch: f120622.4

File Name: F:\GCECD.DAT\F120622\F120622B.06R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:24:07 AM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	22.615	959741
3.06	0.01	1016-1	-0.031	17634
3.45	-0.04	1016-2	-0.069	4096
4.04	0.02	1016-4	-0.065	4116
6.12	0.03	1260-3	0.013	117662
7.04	0.02	1260-5	-0.043	19124
8.16	0.01	DCBP	26.983	938265

File Name: F:\GCECD.DAT\F120622\F120622B.07R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:24:36 AM



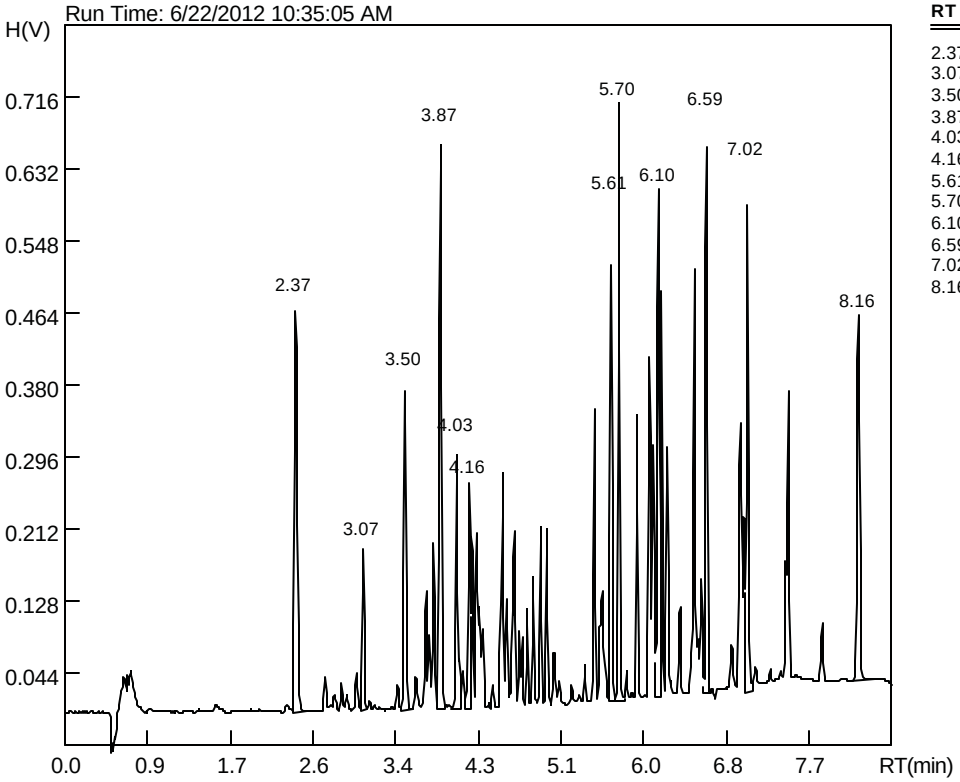
RT	dT	Name	Amt.	Area
2.37	0.01	TCX	22.038	936703
3.07	0.01	1016-1	0.446	295719
3.50	0.01	1016-2	0.442	609136
3.86	0.01	1016-3	0.443	1260326
4.03	0.01	1016-4	0.451	492870
4.16	0.01	1016-5	0.835	649556
5.61	0.00	1260-1	0.477	883063
5.69	0.00	1260-2	0.490	943396
6.10	0.00	1260-3	0.482	913047
6.59	0.00	1260-4	0.459	887603
7.02	0.00	1260-5	0.481	859917
8.16	0.00	DCBP	25.705	897121

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

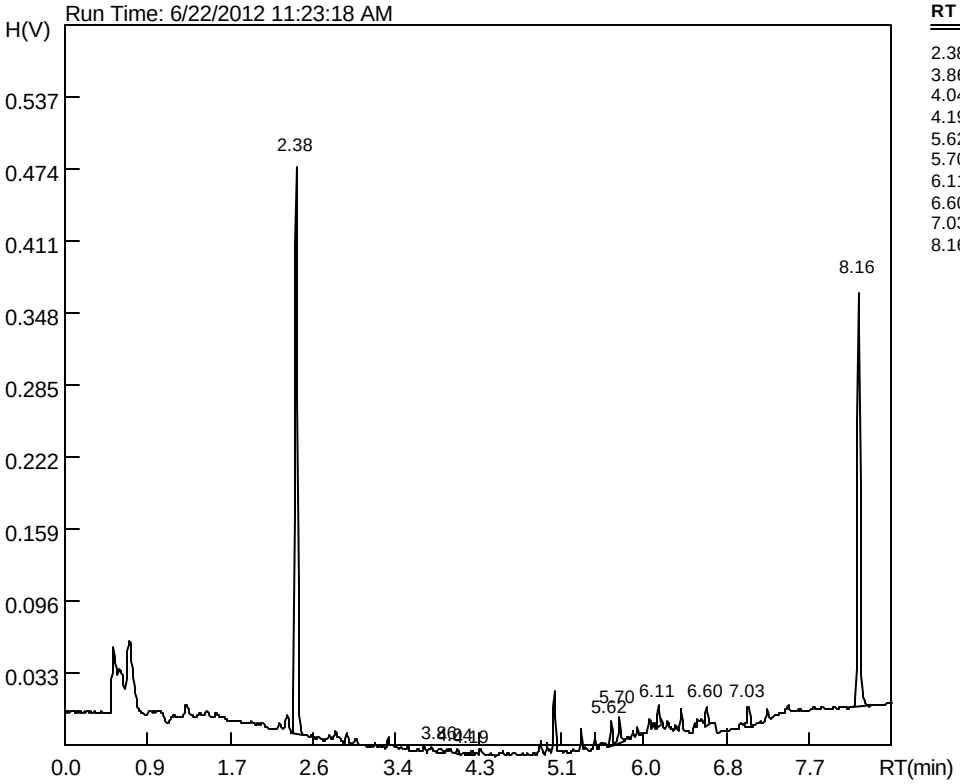
Analytical Batch: f120622.4

File Name: F:\GCECD.DAT\F120622\F120622B.08R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:35:05 AM



RT	dT	Name	Amt.	Area
2.37	0.02	TCX	20.922	892243
3.07	0.01	1016-1	0.413	276524
3.50	0.01	1016-2	0.425	589218
3.87	0.01	1016-3	0.431	1231136
4.03	0.01	1016-4	0.446	487891
4.16	0.01	1016-5	0.449	371562
5.61	0.00	1260-1	0.465	863427
5.70	0.00	1260-2	0.477	921724
6.10	0.00	1260-3	0.461	877056
6.59	0.00	1260-4	0.451	873430
7.02	0.00	1260-5	0.475	850154
8.16	0.00	DCBP	25.286	883622

File Name: F:\GCECD.DAT\F120622\F120622B.12R.BND
Comments: s52902.01 20.3g s/1 ID:PA120622s01
Run Time: 6/22/2012 11:23:18 AM



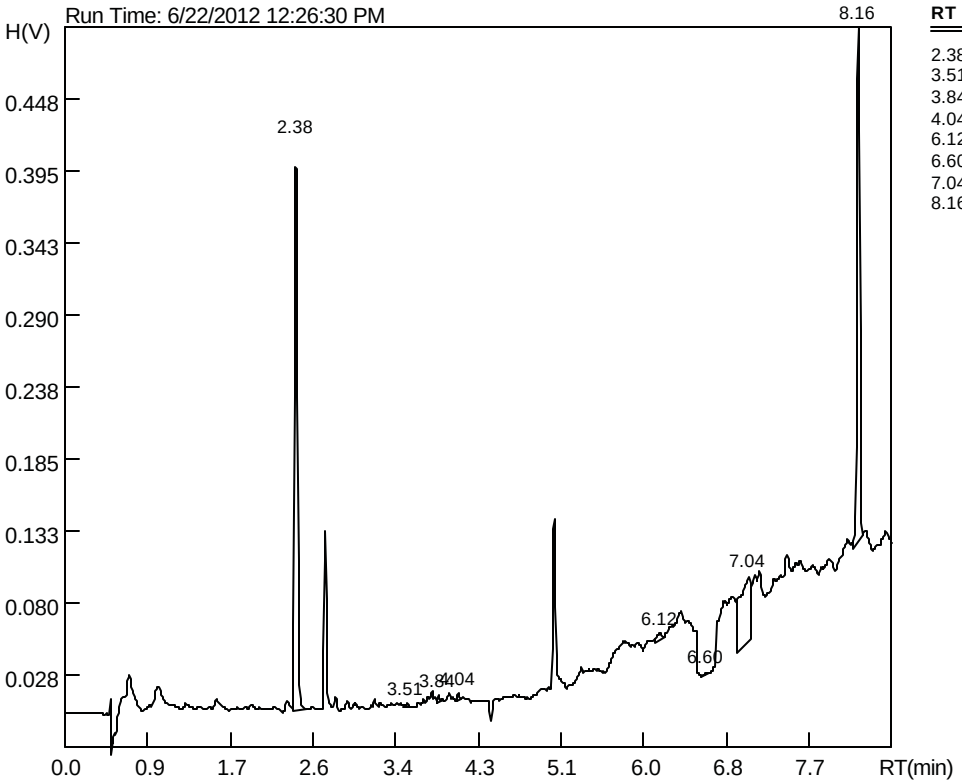
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	20.288	866966
3.86	0.00	1016-3	-0.051	9683
4.04	0.02	1016-4	-0.062	7188
4.19	0.04	1016-5	-0.053	9382
5.62	0.01	1260-1	-0.045	31470
5.70	0.01	1260-2	-0.036	42809
6.11	0.01	1260-3	-0.042	24162
6.60	0.01	1260-4	-0.011	28169
7.03	0.02	1260-5	-0.031	37751
8.16	0.01	DCBP	21.295	755166

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

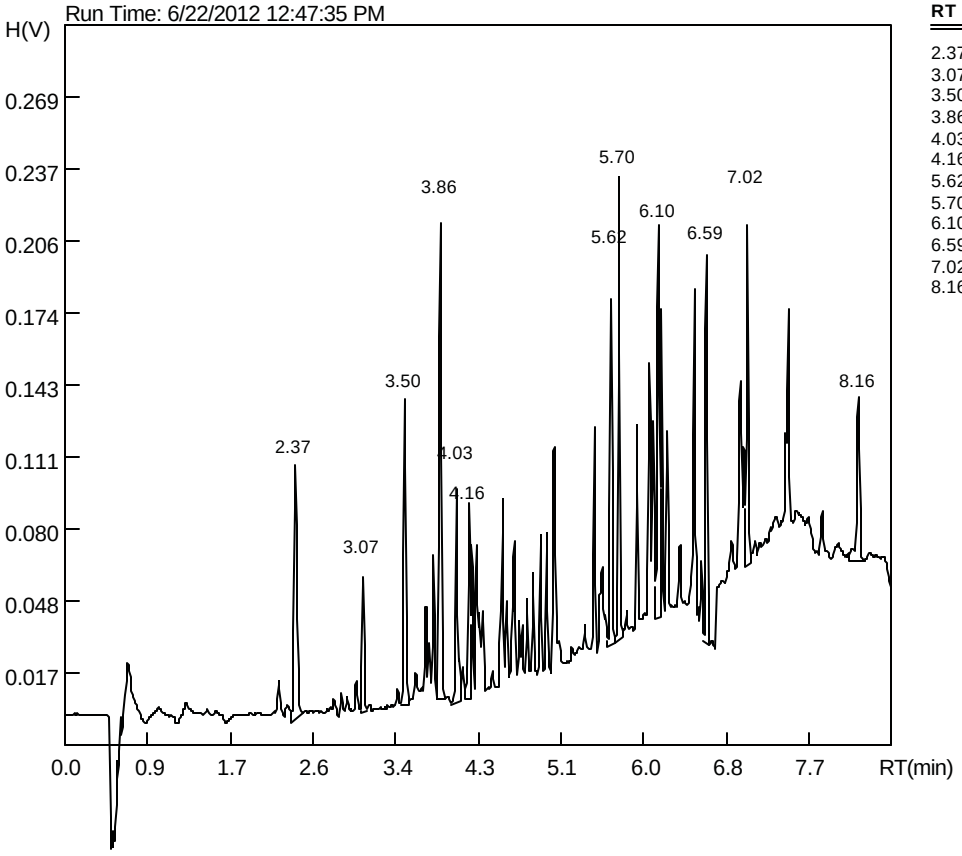
Analytical Batch: f120622.4

File Name: F:\GCECD.DAT\F120622\F120622B.16R.BND
Comments: s52934.02 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 12:26:30 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	18.294	787447
3.51	0.02	1016-2	-0.068	6208
3.84	-0.01	1016-3	-0.053	5244
4.04	0.02	1016-4	-0.062	7249
6.12	0.02	1260-3	-0.043	21170
6.60	0.01	1260-4	-0.024	4063
7.04	0.02	1260-5	0.188	389490
8.16	0.00	DCBP	23.093	813046

File Name: F:\GCECD.DAT\F120622\F120622B.18R.BND
Comments: ss1660.01 0.1ppm 5/31/12
Run Time: 6/22/2012 12:47:35 PM



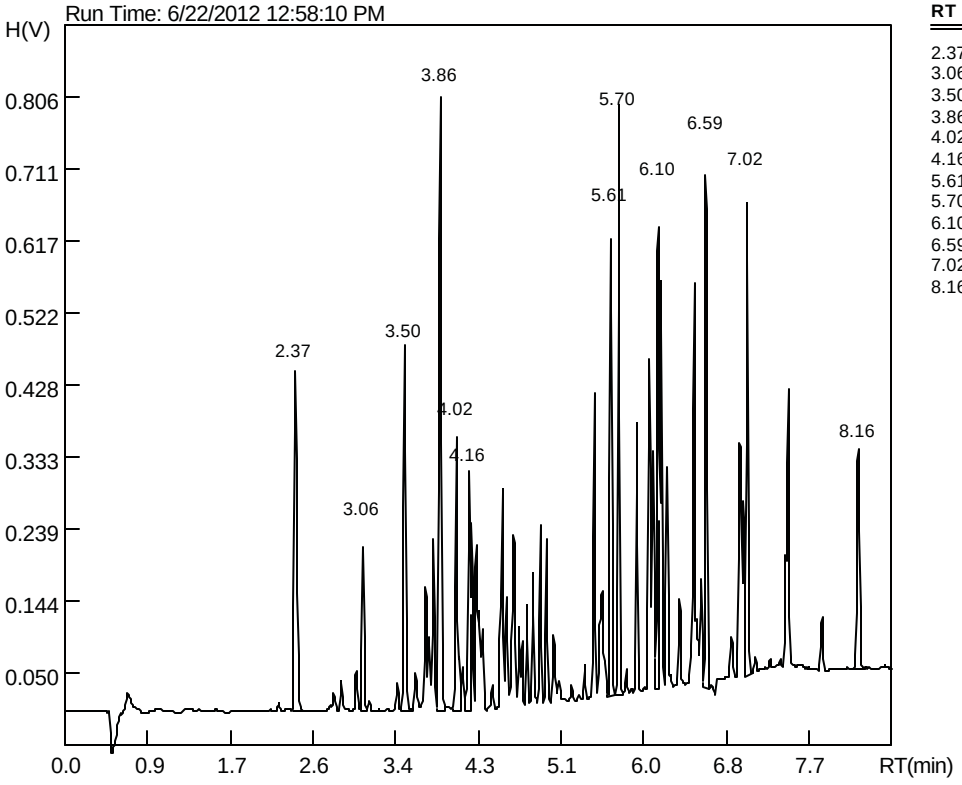
RT	dT	Name	Amt.	Area
2.37	0.01	TCX	4.039	219096
3.07	0.01	1016-1	0.104	96120
3.50	0.01	1016-2	0.099	202830
3.86	0.01	1016-3	0.101	395587
4.03	0.01	1016-4	0.100	160388
4.16	0.01	1016-5	0.094	115051
5.62	0.00	1260-1	0.095	260414
5.70	0.00	1260-2	0.101	276683
6.10	0.00	1260-3	0.095	256107
6.59	0.00	1260-4	0.101	232388
7.02	0.00	1260-5	0.081	218384
8.16	0.00	DCBP	2.768	158837

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120622.4

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120622\F120622B.19R.BND
Comments: SC1660.02 0.5ppm 5/31/12
Run Time: 6/22/2012 12:58:10 PM



RT	dT	Name	Amt.	Area
2.37	0.01	TCX	19.055	817794
3.06	0.01	1016-1	0.538	348896
3.50	0.01	1016-2	0.531	713706
3.86	0.00	1016-3	0.528	1475138
4.02	0.00	1016-4	0.546	582651
4.16	0.00	1016-5	0.543	439119
5.61	0.00	1260-1	0.517	949624
5.70	0.00	1260-2	0.527	1006962
6.10	0.00	1260-3	0.509	959689
6.59	0.00	1260-4	0.500	962045
7.02	0.00	1260-5	0.488	872090
8.16	0.00	DCBP	16.203	591275

Form 0: Sequence Log

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	13:52:06 Wed 20-Jun-12	Blank	Liquid	
002	13:54:05 Wed 20-Jun-12	std-0.000	Liquid	
003	13:56:03 Wed 20-Jun-12	std-0.0005	Liquid	
004	13:58:07 Wed 20-Jun-12	std-0.001	Liquid	
005	14:00:10 Wed 20-Jun-12	std-0.005	Liquid	
006	14:02:18 Wed 20-Jun-12	std-0.02	Liquid	
007	14:04:29 Wed 20-Jun-12	std-0.05	Liquid	
008	14:06:49 Wed 20-Jun-12	std-0.20	Liquid	
009	14:09:26 Wed 20-Jun-12	ICV-0.10	Liquid	ICV
010	14:13:07 Wed 20-Jun-12	ICB	Liquid	ICB
011	14:15:20 Wed 20-Jun-12	BS-0.0005	Liquid	BS
012	14:17:52 Wed 20-Jun-12	BS-0.001	Liquid	BS
013	14:19:58 Wed 20-Jun-12	BS-0.002	Liquid	BS
014	14:22:05 Wed 20-Jun-12	ERA-P194	Liquid	ERA
015	14:24:51 Wed 20-Jun-12	Solu-AB	Liquid	AB
016	14:30:00 Wed 20-Jun-12	Solu-AA	Liquid	AA
017	14:32:15 Wed 20-Jun-12	0620_3 LCS-0.05	Liquid	LCS
018	14:36:00 Wed 20-Jun-12	LRB_3	Liquid	LRB
019	14:40:09 Wed 20-Jun-12	52886.01 dil	Liquid	DIL
020	14:42:29 Wed 20-Jun-12	52886.01s tclp	Liquid	S
021	14:49:45 Wed 20-Jun-12	52886.01 MS-0.05	Liquid	MS
022	14:52:06 Wed 20-Jun-12	52886.01 MSD	Liquid	MSD
023	14:54:26 Wed 20-Jun-12	CCV1-0.10	Liquid	CCV
024	14:58:07 Wed 20-Jun-12	CCB1	Liquid	CCB
025	15:00:58 Wed 20-Jun-12	0620_4 LCS-0.05	Liquid	LCS
026	15:04:43 Wed 20-Jun-12	LRB_4	Liquid	LRB
027	15:16:25 Wed 20-Jun-12	52828.01s	Soil	S
028	15:18:50 Wed 20-Jun-12	52828.01 dil	Soil	
029	15:21:04 Wed 20-Jun-12	52828.02s	Soil	S
030	15:23:18 Wed 20-Jun-12	52828.03s	Soil	S
031	15:25:33 Wed 20-Jun-12	52828.04s	Soil	S
032	15:27:48 Wed 20-Jun-12	52828.05s	Soil	S
033	15:30:03 Wed 20-Jun-12	52828.06s	Soil	S
034	15:32:17 Wed 20-Jun-12	52867.01s	Soil	S
035	15:35:57 Wed 20-Jun-12	CCV2-0.10	Liquid	CCV
036	15:39:36 Wed 20-Jun-12	CCB2	Liquid	CCB
037	15:46:17 Wed 20-Jun-12	52902.01s	Soil	S
038	15:48:27 Wed 20-Jun-12	52902.01 dil	Soil	DIL
039	15:50:38 Wed 20-Jun-12	52906.01s	Soil	S
040	15:52:48 Wed 20-Jun-12	52915.01s	Soil	S
041	15:54:58 Wed 20-Jun-12	52891.01s	Soil	S
042	15:59:20 Wed 20-Jun-12	52891.02s	Soil	S
043	16:01:32 Wed 20-Jun-12	52891.02 MS-0.10	Soil	MS
044	16:04:42 Wed 20-Jun-12	52891.02 MSD	Soil	MSD
045	16:06:51 Wed 20-Jun-12	CCV3-0.10	Liquid	CCV
046	16:10:27 Wed 20-Jun-12	CCB3	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Lab Sample ID: S52902.01
Sample Tag: SB127 (06-18-2012) (3-5)
Date Collected: 06/18/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.42	0.20	mg/kg	209	06/20/2012	
7440-39-3	Barium	21.3	1.0	mg/kg	209	06/20/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	209	06/20/2012	
7440-47-3	Chromium	1.43	0.50	mg/kg	209	06/20/2012	
7440-50-8	Copper	2.73	0.50	mg/kg	209	06/20/2012	
7439-92-1	Lead	2.26	0.30	mg/kg	209	06/20/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	209	06/20/2012	
7440-22-4	Silver	Not detected	0.20	mg/kg	209	06/20/2012	
7440-66-6	Zinc	4.36	1.0	mg/kg	209	06/20/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
009 ICV-0.10	ICV	1	Cr	0.0988	0.10	99	90/110	mg/L	Liquid
			Ni	0.0990	0.10	99	90/110		
			Cu	0.0987	0.10	99	90/110		
			Zn	0.0994	0.10	99	90/110		
			As	0.0983	0.10	98	90/110		
			Se	0.0968	0.10	97	90/110		
			Ag	0.0989	0.10	99	90/110		
			Cd	0.0990	0.10	99	90/110		
			Ba	0.0992	0.10	99	90/110		
			Pb	0.0994	0.10	99	90/110		
023 CCV1-0.10	CCV	1	Cr	0.100	0.10	100	90/110	mg/L	Liquid
			Ni	0.0999	0.10	100	90/110		
			Cu	0.101	0.10	101	90/110		
			Zn	0.104	0.10	104	90/110		
			As	0.104	0.10	104	90/110		
			Se	0.101	0.10	101	90/110		
			Ag	0.104	0.10	104	90/110		
			Cd	0.102	0.10	102	90/110		
			Ba	0.100	0.10	100	90/110		
			Pb	0.100	0.10	100	90/110		
035 CCV2-0.10	CCV	1	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Ni	0.107	0.10	107	90/110		
			Cu	0.102	0.10	102	90/110		
			Zn	0.0993	0.10	99	90/110		
			As	0.0990	0.10	99	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.0995	0.10	100	90/110		
			Cd	0.0962	0.10	96	90/110		
			Ba	0.0983	0.10	98	90/110		
			Pb	0.0972	0.10	97	90/110		
045 CCV3-0.10	CCV	1	Cr	0.0997	0.10	100	90/110	mg/L	Liquid
			Ni	0.106	0.10	106	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.0991	0.10	99	90/110		
			As	0.0957	0.10	96	90/110		
			Se	0.0955	0.10	96	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.0982	0.10	98	90/110		
			Ba	0.0976	0.10	98	90/110		
			Pb	0.0991	0.10	99	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: P194

Data Set ID: MT2-12-0620A

Instrument ID: PE ELAN

Analysis Date: 06/20/12

Analyst: PER

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
014 ERA-P194	5	Cr	0.730	0.751	97	0.682	0.808	mg/L	Liquid
		Ni	0.812	0.836	97	0.767	0.895		
		Cu	0.285	0.287	99	0.262	0.312		
		Zn	0.407	0.403	101	0.370	0.444		
		As	0.514	0.528	97	0.462	0.575		
		Se	0.734	0.770	95	0.679	0.838		
		Ag	0.108	0.121	89	0.102	0.132		
		Cd	0.525	0.554	95	0.499	0.585		
		Ba	0.410	0.428	96	0.388	0.463		
		Pb	0.810	0.821	99	0.749	0.888		

Form 3: Blanks

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 ICB	ICB	1	Cr	<0.001	0.000014	mg/L	Liquid
			Ni	<0.001	-0.000005		
			Cu	<0.001	0.000022		
			Zn	<0.001	-0.000047		
			As	<0.0004	0.000090		
			Se	<0.001	0.000195		
			Ag	<0.0005	0.000028		
			Cd	<0.0001	-0.000005		
			Ba	<0.001	0.000010		
			Pb	<0.0006	0.000008		
018 LRB_3	LRB	1	Cr	<0.001	-0.000057	mg/L	Liquid
			Ni	<0.001	-0.000013		
			Cu	<0.001	-0.000010		
			Zn	<0.001	-0.000669		
			As	<0.0004	0.000151		
			Se	<0.001	0.000423		
			Ag	<0.0005	-0.000008		
			Cd	<0.0001	-0.000013		
			Ba	<0.001	0.000013		
			Pb	<0.0006	-0.000004		
024 CCB1	CCB	1	Cr	<0.001	0.000064	mg/L	Liquid
			Ni	<0.001	0.000002		
			Cu	<0.001	0.000043		
			Zn	<0.001	-0.000154		
			As	<0.0004	0.000144		
			Se	<0.001	0.000366		
			Ag	<0.0005	0.000015		
			Cd	<0.0001	0.000002		
			Ba	<0.001	0.000018		
			Pb	<0.0006	0.000009		
026 LRB_4	LRB	1	Cr	<0.001	0.000029	mg/L	Liquid
			Ni	<0.001	0.000013		
			Cu	<0.001	0.000039		
			Zn	<0.001	-0.000593		
			As	<0.0004	0.000139		
			Se	<0.001	0.000466		
			Ag	<0.0005	0.000006		
			Cd	<0.0001	0.000000		
			Ba	<0.001	0.000093		
			Pb	<0.0006	0.000010		
036 CCB2	CCB	1	Cr	<0.001	0.000181	mg/L	Liquid
			Ni	<0.001	0.000019		
			Cu	<0.001	0.000055		
			Zn	<0.001	0.000003		
			As	<0.0004	0.000121		
			Se	<0.001	0.000258		
			Ag	<0.0005	0.000016		
			Cd	<0.0001	-0.000004		
			Ba	<0.001	0.000026		
			Pb	<0.0006	0.000017		
046 CCB3	CCB	1	Cr	<0.001	0.000187	mg/L	Liquid
			Ni	<0.001	0.000020		
			Cu	<0.001	0.000025		

Form 3: Blanks

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
046 CCB3	CCB	1	Zn	<0.001	-0.000049	mg/L	Liquid
			As	<0.0004	0.000132		
			Se	<0.001	0.000400		
			Ag	<0.0005	0.000023		
			Cd	<0.0001	-0.000005		
			Ba	<0.001	0.000023		
			Pb	<0.0006	0.000015		

Form 4B: ICP Interference Check Sample

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 Solu-AB	AB	1	Cr	0.0238	0.020	119	65/135	mg/L	Liquid
			Cu	0.0258	0.020	129	65/135		
			Zn	0.0244	0.020	122	70/135		
			As	0.0257	0.020	129	65/135		
			Ag	0.0201	0.020	101	70/135		
			Cd	0.0202	0.020	101	65/135		
016 Solu-AA	AA	1	Cr	<0.005	0.0	N/A	N/A	mg/L	Liquid
			Ni	<0.005	0.0	N/A	N/A		
			Cu	<0.004	0.0	N/A	N/A		
			Zn	<0.005	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.0005	0.0	N/A	N/A		
			Cd	<0.0005	0.0	N/A	N/A		
			Ba	<0.005	0.0	N/A	N/A		
			Pb	<0.003	0.0	N/A	N/A		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
011 BS-0.0005		1	Cr	0.00052	ND	0.0005	104	70/130	mg/L	Liquid
			Ni	0.00050	ND	0.0005	100	70/130		
			Cu	0.00048	ND	0.0005	96	70/130		
			Se	0.00061	ND	0.0005	122	70/130		
			Ag	0.00049	ND	0.0005	98	70/130		
			Cd	0.00050	ND	0.0005	100	70/130		
			Ba	0.00050	ND	0.0005	100	70/130		
			Pb	0.00052	ND	0.0005	104	70/130		
012 BS-0.001		1	Cr	0.00099	ND	0.001	99	70/130	mg/L	Liquid
			Ni	0.00102	ND	0.001	102	70/130		
			Cu	0.00106	ND	0.001	106	70/130		
			Zn	0.00073	ND	0.001	73	70/130		
			As	0.00121	ND	0.001	121	70/130		
			Se	0.00124	ND	0.001	124	70/130		
			Ag	0.00097	ND	0.001	97	70/130		
			Cd	0.00094	ND	0.001	94	70/130		
			Ba	0.00102	ND	0.001	102	70/130		
			Pb	0.00100	ND	0.001	100	70/130		
013 BS-0.002		1	Cr	0.00204	ND	0.002	102	70/130	mg/L	Liquid
			Ni	0.00200	ND	0.002	100	70/130		
			Cu	0.00248	ND	0.002	124	70/130		
			Zn	0.00183	ND	0.002	92	70/130		
			As	0.00192	ND	0.002	96	70/130		
			Se	0.00233	ND	0.002	117	70/130		
			Ag	0.00195	ND	0.002	98	70/130		
			Cd	0.00195	ND	0.002	98	70/130		
			Ba	0.00202	ND	0.002	101	70/130		
			Pb	0.00201	ND	0.002	101	70/130		
021 52886.01	**020 52886.01s tclp**	25	Cr	1.40	0.12	1.25	102	75/125	mg/L	Liquid
			Ni	1.39	0.12	1.25	102	75/125		
			Cu	1.68	0.36	1.25	106	75/125		
			Zn	23.5	22.0	1.25	120	75/125		
			As	1.43	<0.02	1.25	114	75/125		
			Se	1.42	<0.05	1.25	114	75/125		
			Ag	1.24	<0.005	1.25	99	75/125		
			Cd	1.33	0.016	1.25	105	75/125		
			Ba	2.09	0.91	1.25	94	75/125		
			Pb	1.28	0.13	1.25	92	75/125		
043 52891.02	**042 52891.02s**	201	Cr	21.7	0.90	20.10	104	75/125	mg/kg	Soil
			Ni	24.7	4.42	20.10	101	75/125		
			Cu	21.5	2.52	20.10	94	75/125		
			Zn	27.2	8.19	20.10	95	75/125		
			As	20.8	1.60	20.10	96	75/125		
			Se	17.1	<0.50	20.10	85	75/125		
			Ag	19.4	<0.20	20.10	97	75/125		
			Cd	19.8	<0.20	20.10	99	75/125		
			Ba	27.3	7.52	20.10	98	75/125		
			Pb	20.8	2.50	20.10	91	75/125		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
022 52886.01 MSD	**021 52886.01 MS-0.05**	25	Cr	1.40	1.40	0	0/20	mg/L	Liquid
			Ni	1.37	1.39	1	0/20		
			Cu	1.60	1.68	5	0/20		
			Zn	23.0	23.5	2	0/20		
			As	1.45	1.43	1	0/20		
			Se	1.48	1.42	4	0/20		
			Ag	1.24	1.24	0	0/20		
			Cd	1.30	1.33	2	0/20		
			Ba	2.08	2.09	0	0/20		
			Pb	1.30	1.28	2	0/20		
044 52891.02 MSD	**043 52891.02 MS-0.10**	201	Cr	22.0	21.7	1	0/20	mg/kg	Soil
			Ni	25.3	24.7	2	0/20		
			Cu	21.6	21.5	0	0/20		
			Zn	30.3	27.2	11	0/20		
			As	20.7	20.8	0	0/20		
			Se	16.9	17.1	1	0/20		
			Ag	19.4	19.4	0	0/20		
			Cd	19.5	19.8	2	0/20		
			Ba	27.1	27.3	1	0/20		
			Pb	21.0	20.8	1	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
017 0620_3 LCS-0.05	1	Cr	0.0490	0.05	98	85/115	mg/L	Liquid
		Ni	0.0507	0.05	101	85/115		
		Cu	0.0541	0.05	108	85/115		
		Zn	0.0525	0.05	105	85/115		
		As	0.0515	0.05	103	85/115		
		Se	0.0506	0.05	101	85/115		
		Ag	0.0515	0.05	103	85/115		
		Cd	0.0502	0.05	100	85/115		
		Ba	0.0469	0.05	94	85/115		
		Pb	0.0481	0.05	96	85/115		
025 0620_4 LCS-0.05	1	Cr	0.0499	0.05	100	85/115	mg/L	Liquid
		Ni	0.0491	0.05	98	85/115		
		Cu	0.0512	0.05	102	85/115		
		Zn	0.0518	0.05	104	85/115		
		As	0.0504	0.05	101	85/115		
		Se	0.0495	0.05	99	85/115		
		Ag	0.0510	0.05	102	85/115		
		Cd	0.0506	0.05	101	85/115		
		Ba	0.0497	0.05	99	85/115		
		Pb	0.0495	0.05	99	85/115		

Form 8: Serial Dilutions

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
019 52886.01 dil	**020 52886.01s tclp**	125	Cr	0.13	0.12	8	0/10	mg/L	Liquid
			Ni	0.12	0.12	0	0/10		
			Cu	0.38	0.36	5	0/10		
			Zn	22.8	22.0	4	0/10		
			As	<0.02	<0.02	NC	0/10		
			Se	<0.05	<0.05	NC	0/10		
			Ag	0.007	<0.005	200*	0/10		
			Cd	0.014	0.016	13*	0/10		
			Ba	0.81	0.91	12*	0/10		
			Pb	0.13	0.13	0	0/10		
038 52902.01 dil	**037 52902.01s**	1045	Cr	1.46	1.43	2	0/10	mg/kg	Soil
			Ni	1.41	1.45	3	0/10		
			Cu	2.66	2.73	3	0/10		
			Zn	3.94	4.36	10	0/10		
			As	0.52	0.42	21*	0/10		
			Se	<0.50	<0.50	NC	0/10		
			Ag	<0.20	<0.20	NC	0/10		
			Cd	<0.20	<0.20	NC	0/10		
			Ba	23.9	21.3	12*	0/10		
			Pb	2.39	2.26	6	0/10		

Form 13: Analysis Run Log

Data Set ID: MT2-12-0620A
Instrument ID: PE ELAN
Analysis Date: 06/20/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
001 Blank	13:52:06 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
002 std-0.000	13:54:05 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
003 std-0.0005	13:56:03 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
004 std-0.001	13:58:07 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
005 std-0.005	14:00:10 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
006 std-0.02	14:02:18 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
007 std-0.05	14:04:29 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
008 std-0.20	14:06:49 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
009 ICV-0.10	14:09:26 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
010 ICB	14:13:07 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
011 BS-0.0005	14:15:20 Wed	Liquid	Ag,Ba,Cd,Cr,Cu,Ni,Pb,Se
012 BS-0.001	14:17:52 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
013 BS-0.002	14:19:58 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
014 ERA-P194	14:22:05 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
015 Solu-AB	14:24:51 Wed	Liquid	Ag,As,Cd,Cr,Cu,Zn
016 Solu-AA	14:30:00 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
017 0620_3 LCS-0.05	14:32:15 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
018 LRB_3	14:36:00 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
019 52886.01 dil	14:40:09 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
020 52886.01s tclp	14:42:29 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
021 52886.01 MS-0.05	14:49:45 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
022 52886.01 MSD	14:52:06 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
023 CCV1-0.10	14:54:26 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
024 CCB1	14:58:07 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
025 0620_4 LCS-0.05	15:00:58 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
026 LRB_4	15:04:43 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
027 52828.01s	15:16:25 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
028 52828.01 dil	15:18:50 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
029 52828.02s	15:21:04 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
030 52828.03s	15:23:18 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
031 52828.04s	15:25:33 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
032 52828.05s	15:27:48 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
033 52828.06s	15:30:03 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
034 52867.01s	15:32:17 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
035 CCV2-0.10	15:35:57 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
036 CCB2	15:39:36 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
037 52902.01s	15:46:17 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
038 52902.01 dil	15:48:27 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
039 52906.01s	15:50:38 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
040 52915.01s	15:52:48 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
041 52891.01s	15:54:58 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
042 52891.02s	15:59:20 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
043 52891.02 MS-0.10	16:01:32 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
044 52891.02 MSD	16:04:42 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
045 CCV3-0.10	16:06:51 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
046 CCB3	16:10:27 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, June 20, 2012 12:22:55
Sample Description:
Method File: C:\Elandata\Method\Daily-All.mth
Dataset File: C:\Elandata\DataSet\6020-200.8.tun\Daily Performance Check.2508
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Optimization File: C:\Elandata\Optimize\6020-200.8.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Li	7.0	8389.9	8389.872	242.593	2.9
	Be	9.0	3635.4	3635.352	71.727	2.0
	Mg	24.0	33699.7	33699.746	770.910	2.3
	Co	58.9	99558.0	99557.989	2760.108	2.8
	In	114.9	265155.8	265155.754	5997.649	2.3
	Tl	205.0	171870.4	171870.371	3222.671	1.9
	Pb	208.0	109291.6	109291.638	2393.199	2.2
>	Ce	139.9	298035.8	298035.798	6903.507	2.3
	Ce++	70.0	1917.4	0.006	0.000	4.5
>	Ce-1	139.9	298035.8	298035.798	6903.507	2.3
	CeO	155.9	10164.4	0.034	0.000	0.6
	Bkgd	220.0	21.0	21.000	2.887	13.7

Current Optimization File Data

Current Value	Description
0.78	Nebulizer Gas Flow
10.00	Lens Voltage
1100.00	ICP RF Power
-1985.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	13.5	4766.6
Co	59	33	14.8	108257.4
In	115	33	15.0	155883.5

SmartTune Wizard - Summary

Optimization Summary

Wizard file: C:\Elandata\Wizard\SmartTune\12-0620A.swz

Start Time: 6/20/2012 12:15:35 PM
End Time: 6/20/2012 12:24:35 PM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
- Target/Obtained mass (7.016/7.028), Target/Obtained resolution (0.7/0.677)
- Target/Obtained mass (9.0122/9.029), Target/Obtained resolution (0.7/0.689)
- Target/Obtained mass (23.985/23.979), Target/Obtained resolution (0.7/0.706)
- Target/Obtained mass (58.9332/58.979), Target/Obtained resolution (0.7/0.701)
- Target/Obtained mass (114.904/114.978), Target/Obtained resolution (0.7/0.700)
- Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.704)
- Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.706)

Daily Performance Check - [Passed] Optimum value(s): N/A
- Obtained Intensity (Be 9.0122): 3635
- Obtained Intensity (Bkgd 220): 21
- Obtained Intensity (Co 58.9332): 99558
- Obtained Intensity (In 114.904): 265156
- Obtained Intensity (Li 7.016): 8390
- Obtained Intensity (Mg 23.985): 33700
- Obtained Intensity (Pb 207.977): 109292
- Obtained Intensity (Tl 204.975): 171870
- Obtained Formula (CeO 155.9 / Ce 139.905): 0.034 (=10164 / 298036)
- Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.006 (=1917 / 298036)

SmartTune Wizard - Details

Optimization Details

Wizard file: C:\Elandata\Wizard\SmartTune\12-0620A.swz

Optimization Status

Start Time: 6/20/2012 12:15:35 PM

Mass Calibration and Resolution
- Optimization Settings:
  - Method: C:\Elandata\Method\Tuning-All.mth.
  - Tuning File: C:\Elandata\Tuning\6020-200.8.tun
  - Iterations: 4
  - Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
  - Peak height (%) for Res. Opt.: 5
- Optimization Results:
- First Pass
  - Target/Obtained mass (7.016/7.028), Target/Obtained resolution (0.7/0.725)
  - Target/Obtained mass (9.0122/9.079), Target/Obtained resolution (0.7/0.719)
  - Target/Obtained mass (23.985/24.079), Target/Obtained resolution (0.7/0.722)
  - Target/Obtained mass (58.9332/58.829), Target/Obtained resolution (0.7/0.752) - <Target not achieved>
  - Target/Obtained mass (114.904/114.829), Target/Obtained resolution (0.7/0.715)
  - Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.717)
  - Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.718)
  - [Failed]
- Retry 1
  - Target/Obtained mass (7.016/7.028), Target/Obtained resolution (0.7/0.677)
  - Target/Obtained mass (9.0122/9.029), Target/Obtained resolution (0.7/0.689)
  - Target/Obtained mass (23.985/23.979), Target/Obtained resolution (0.7/0.706)
  - Target/Obtained mass (58.9332/58.979), Target/Obtained resolution (0.7/0.701)
  - Target/Obtained mass (114.904/114.978), Target/Obtained resolution (0.7/0.700)
  - Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.704)
  - Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.706)

[Passed] Optimum value(s): N/A

Daily Performance Check
- Optimization Settings:
  - Method: C:\Elandata\Method\Daily-All.mth.
  - Intensity Criterion: Be 9.0122 > 1000
  - Intensity Criterion: Bkgd 220 <= 50
  - Intensity Criterion: Co 58.9332 > 10000
  - Intensity Criterion: In 114.904 > 40000
  - Intensity Criterion: Li 7.016 > 2500
  - Intensity Criterion: Mg 23.985 > 7000
  - Intensity Criterion: Pb 207.977 > 20000
  - Intensity Criterion: Tl 204.975 > 40000
  - Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.05
  - Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03
- Optimization Results:
- First Pass
  - Obtained Intensity (Be 9.0122): 3635
  - Obtained Intensity (Bkgd 220): 21
  - Obtained Intensity (Co 58.9332): 99558
  - Obtained Intensity (In 114.904): 265156

Obtained Intensity (Li 7.016): 8390
Obtained Intensity (Mg 23.985): 33700
Obtained Intensity (Pb 207.977): 109292
Obtained Intensity (Tl 204.975): 171870
Obtained Formula (CeO 155.9 / Ce 139.905): 0.034 (=10164 / 298036)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.006 (=1917 / 298036)
[Passed] Optimum value(s): N/A

End Time: 6/20/2012 12:24:35 PM

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0620A

Instrument ID: PE ELAN

Analysis Date: 06/20/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	285551	70-125	199886-356939	80-120	228441-342661	0
Re	234681	70-125	164277-293351	80-120	187745-281617	0

Seq ID	QC Type	Rh	Re
001		100	100
002		100	100
003		101	103
004		99	100
005		100	102
006		97	100
007		103	105
008		102	104
009	ICV	101	103
010	ICB	99	99
011	BS	99	99
012	BS	99	100
013	BS	104	106
014	ERA	108	109
015	AB	99	83
016	AA	109	98
017	LCS	110	99
018	LRB	113	98
019	DIL	105	98
020	S	99	96
021	MS	96	99
022	MSD	94	98
023	CCV	97	98
024	CCB	97	99
025	LCS	98	99
026	LRB	99	99
027	S	105	76
028	DIL	107	98
029	S	108	74
030	S	110	76
031	S	120	86
032	S	122	84
033	S	125	87
034	S	116	84
035	CCV	116	103
036	CCB	111	102
037	S	102	104

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0620A

Instrument ID: PE ELAN

Analysis Date: 06/20/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	285551	70-125	199886-356939	80-120	228441-342661	0
Re	234681	70-125	164277-293351	80-120	187745-281617	0

Seq ID	QC Type	Rh	Re
038	DIL	104	104
039	S	103	104
040	S	105	93
041	S	101	103
042	S	103	103
043	MS	102	104
044	MSD	106	101
045	CCV	109	104
046	CCB	108	102

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 001
Method: 10-mich-2is.mth
Acq Time: 13:52:06 Wed 20-Jun-12
Sample Name: Blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1668.487	0	mg/L		3
Ni	60	25.000	0	mg/L		3
Cu	65	32.500	0	mg/L		3
Zn	66	514.181	0	mg/L		3
As	75	54.043	0	mg/L		3
Se	82	-8.333	0	mg/L		3
Ag	107	108.334	0	mg/L		3
Cd	111	19.167	0	mg/L		3
Ba	137	72.500	0	mg/L		3
Pb	208	58.334	0	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 002
Method: 10-mich-2is.mth
Acq Time: 13:54:05 Wed 20-Jun-12
Sample Name: std-0.000
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1735.166	0.000026	mg/L		3
Ni	60	21.667	-0.000005	mg/L		3
Cu	65	39.167	0.000010	mg/L		3
Zn	66	477.513	-0.000094	mg/L		3
As	75	72.432	0.000037	mg/L		3
Se	82	12.667	0.000406	mg/L		3
Ag	107	90.000	-0.000007	mg/L		3
Cd	111	15.833	-0.000005	mg/L		3
Ba	137	95.834	0.000023	mg/L		3
Pb	208	55.000	-0.000001	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 003
Method: 10-mich-2is.mth
Acq Time: 13:56:03 Wed 20-Jun-12
Sample Name: std-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3118.868	0.000485	mg/L		3
Ni	60	340.006	0.000475	mg/L		3
Cu	65	409.176	0.000529	mg/L		3
Zn	66	480.013	-0.000108	mg/L		3
As	75	294.173	0.000472	mg/L		3
Se	82	22.334	0.000586	mg/L		3
Ag	107	1351.767	0.000493	mg/L		3
Cd	111	373.341	0.000551	mg/L		3
Ba	137	600.853	0.000494	mg/L		3
Pb	208	2051.065	0.000507	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 004
Method: 10-mich-2is.mth
Acq Time: 13:58:07 Wed 20-Jun-12
Sample Name: std-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4504.450	0.000991	mg/L		3
Ni	60	665.858	0.000989	mg/L		3
Cu	65	689.193	0.000946	mg/L		3
Zn	66	789.201	0.000770	mg/L		3
As	75	596.668	0.001094	mg/L		3
Se	82	42.667	0.000989	mg/L		3
Ag	107	2500.344	0.000971	mg/L		3
Cd	111	617.521	0.000954	mg/L		3
Ba	137	1119.236	0.001004	mg/L		3
Pb	208	3961.697	0.001019	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 005
Method: 10-mich-2is.mth
Acq Time: 14:00:10 Wed 20-Jun-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	16793.000	0.005179	mg/L		3
Ni	60	3346.449	0.005058	mg/L		3
Cu	65	3736.602	0.005263	mg/L		3
Zn	66	2178.594	0.004527	mg/L		3
As	75	2503.109	0.004866	mg/L		3
Se	82	253.672	0.005029	mg/L		3
Ag	107	12394.278	0.004916	mg/L		3
Cd	111	3203.899	0.005002	mg/L		3
Ba	137	5420.782	0.005059	mg/L		3
Pb	208	19701.325	0.005027	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 006
Method: 10-mich-2is.mth
Acq Time: 14:02:18 Wed 20-Jun-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	60652.508	0.020978	mg/L		3
Ni	60	13231.289	0.020859	mg/L		3
Cu	65	13885.599	0.020411	mg/L		3
Zn	66	7603.178	0.020067	mg/L		3
As	75	9487.143	0.019446	mg/L		3
Se	82	1007.729	0.020221	mg/L		3
Ag	107	50109.415	0.020753	mg/L		3
Cd	111	12628.767	0.020546	mg/L		3
Ba	137	20916.547	0.020454	mg/L		3
Pb	208	77525.845	0.020299	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 007
Method: 10-mich-2is.mth
Acq Time: 14:04:29 Wed 20-Jun-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	150726.915	0.049684	mg/L		3
Ni	60	33269.963	0.049258	mg/L		3
Cu	65	36274.731	0.050096	mg/L		3
Zn	66	19221.133	0.049526	mg/L		3
As	75	25346.312	0.048909	mg/L		3
Se	82	2667.411	0.049978	mg/L		3
Ag	107	129131.616	0.050244	mg/L		3
Cd	111	31987.022	0.048867	mg/L		3
Ba	137	54401.460	0.050012	mg/L		3
Pb	208	200671.532	0.050219	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 008
Method: 10-mich-2is.mth
Acq Time: 14:06:49 Wed 20-Jun-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	592712.315	0.199977	mg/L		3
Ni	60	133086.701	0.200098	mg/L		3
Cu	65	142544.703	0.199929	mg/L		3
Zn	66	74943.493	0.200125	mg/L		3
As	75	102125.685	0.200331	mg/L		3
Se	82	10542.865	0.199983	mg/L		3
Ag	107	505837.860	0.199866	mg/L		3
Cd	111	129076.791	0.200229	mg/L		3
Ba	137	214087.366	0.199950	mg/L		3
Pb	208	794198.483	0.199914	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 009
Method: 10-mich-2is.mth
Acq Time: 14:09:26 Wed 20-Jun-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 06/15/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	292925.037	0.098883	mg/L		3
Ni	60	65678.119	0.099080	mg/L		3
Cu	65	70179.089	0.098758	mg/L		3
Zn	66	37376.691	0.099457	mg/L		3
As	75	49972.543	0.098322	mg/L		3
Se	82	5081.788	0.096812	mg/L		3
Ag	107	249704.989	0.098987	mg/L		3
Cd	111	63636.963	0.099034	mg/L		3
Ba	137	105958.940	0.099263	mg/L		3
Pb	208	389081.686	0.099410	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 010
Method: 10-mich-2is.mth
Acq Time: 14:13:07 Wed 20-Jun-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1686.823	0.000014	mg/L		3
Ni	60	21.667	-0.000005	mg/L		3
Cu	65	47.500	0.000022	mg/L		3
Zn	66	490.847	-0.000047	mg/L		3
As	75	98.221	0.000090	mg/L		3
Se	82	1.667	0.000195	mg/L		3
Ag	107	176.668	0.000028	mg/L		3
Cd	111	15.833	-0.000005	mg/L		3
Ba	137	82.500	0.000010	mg/L		3
Pb	208	88.334	0.000008	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 011
Method: 10-mich-2is.mth
Acq Time: 14:15:20 Wed 20-Jun-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3145.544	0.000521	mg/L		3
Ni	60	349.173	0.000502	mg/L		3
Cu	65	365.007	0.000480	mg/L		3
Se	77	53.000	0.000605	mg/L		3
Ag	107	1300.093	0.000485	mg/L		3
Cd	111	331.673	0.000499	mg/L		3
Ba	137	587.519	0.000496	mg/L		3
Pb	208	2029.394	0.000523	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 012
Method: 10-mich-2is.mth
Acq Time: 14:17:52 Wed 20-Jun-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4466.097	0.000985	mg/L		3
Ni	60	686.693	0.001027	mg/L		3
Cu	65	765.866	0.001062	mg/L		3
Zn	66	770.866	0.000731	mg/L		3
As	75	652.344	0.001210	mg/L		3
Se	82	55.334	0.001247	mg/L		3
Ag	107	2482.839	0.000968	mg/L		3
Cd	111	608.354	0.000943	mg/L		3
Ba	137	1130.904	0.001021	mg/L		3
Pb	208	3887.498	0.001006	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 013
Method: 10-mich-2is.mth
Acq Time: 14:19:58 Wed 20-Jun-12
Sample Name: BS-0.002
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	7905.103	0.002042	mg/L		3
Ni	60	1385.939	0.002000	mg/L		3
Cu	65	1846.854	0.002488	mg/L		3
Zn	66	1230.917	0.001833	mg/L		3
As	75	1058.941	0.001925	mg/L		3
Se	82	117.335	0.002335	mg/L		3
Ag	107	5161.465	0.001951	mg/L		3
Cd	111	1310.928	0.001959	mg/L		3
Ba	137	2296.123	0.002029	mg/L		3
Pb	208	8207.037	0.002018	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 014
Method: 10-mich-2is.mth
Acq Time: 14:22:05 Wed 20-Jun-12
Sample Name: ERA-P194
Sample Type: Sample
Matrix: Liquid
Comments: dil 5/1
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	458979.512	0.730675	mg/L		3
Ni	60	114452.905	0.812694	mg/L		3
Cu	65	43167.269	0.285758	mg/L		3
Zn	66	32670.270	0.407918	mg/L		3
As	75	55583.979	0.514577	mg/L		3
Se	82	8199.087	0.734591	mg/L		3
Ag	107	58452.355	0.108872	mg/L		3
Cd	111	71744.519	0.525522	mg/L		3
Ba	137	93183.509	0.410837	mg/L		3
Pb	208	671263.764	0.810588	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 015
Method: 10-mich-2is.mth
Acq Time: 14:24:51 Wed 20-Jun-12
Sample Name: Solu-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	70343.615	0.023842	mg/L		3
Cu	63	37723.120	0.025873	mg/L		3
Zn	68	6825.895	0.024422	mg/L		3
As	75	12833.285	0.025725	mg/L		3
Ag	107	49862.209	0.020173	mg/L		3
Cd	114	31011.609	0.020290	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 016
Method: 10-mich-2is.mth
Acq Time: 14:30:00 Wed 20-Jun-12
Sample Name: Solu-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1710.994	-0.000033	mg/L		3
Ni	60	84.167	0.000080	mg/L		3
Cu	65	177.502	0.000187	mg/L		3
Zn	66	518.348	-0.000100	mg/L		3
As	75	69.806	0.000021	mg/L		3
Se	82	-8.333	0.000012	mg/L		3
Ag	107	85.834	-0.000012	mg/L		3
Cd	111	18.333	-0.000004	mg/L		3
Ba	137	104.167	0.000022	mg/L		3
Pb	208	101.667	0.000012	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 017
Method: 10-mich-2is.mth
Acq Time: 14:32:15 Wed 20-Jun-12
Sample Name: 0620_3 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	158151.304	0.049027	mg/L		3
Ni	60	36453.782	0.050772	mg/L		3
Cu	65	41702.099	0.054180	mg/L		3
Zn	66	21643.240	0.052546	mg/L		3
As	75	28379.040	0.051503	mg/L		3
Se	82	2876.812	0.050681	mg/L		3
Ag	107	140686.986	0.051503	mg/L		3
Cd	111	34968.819	0.050251	mg/L		3
Ba	137	54279.926	0.046929	mg/L		3
Pb	208	182091.531	0.048196	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 018
Method: 10-mich-2is.mth
Acq Time: 14:36:00 Wed 20-Jun-12
Sample Name: LRB_3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1696.825	-0.000057	mg/L		3
Ni	60	18.333	-0.000013	mg/L		3
Cu	65	28.333	-0.000010	mg/L		3
Zn	66	304.172	-0.000669	mg/L		3
As	75	145.717	0.000151	mg/L		3
Se	82	15.333	0.000423	mg/L		3
Ag	107	99.167	-0.000008	mg/L		3
Cd	111	12.500	-0.000013	mg/L		3
Ba	137	97.501	0.000013	mg/L		3
Pb	208	40.833	-0.000004	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 023
Method: 10-mich-2is.mth
Acq Time: 14:54:26 Wed 20-Jun-12
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	284862.927	0.100467	mg/L		3
Ni	60	63447.452	0.099989	mg/L		3
Cu	65	69347.687	0.101951	mg/L		3
Zn	66	37597.596	0.104594	mg/L		3
As	75	50665.674	0.104153	mg/L		3
Se	82	5088.124	0.101258	mg/L		3
Ag	107	253451.441	0.104972	mg/L		3
Cd	111	63191.377	0.102760	mg/L		3
Ba	137	102329.441	0.100168	mg/L		3
Pb	208	377265.706	0.100622	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 024
Method: 10-mich-2is.mth
Acq Time: 14:58:07 Wed 20-Jun-12
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1808.513	0.000064	mg/L		3
Ni	60	25.833	0.000002	mg/L		3
Cu	65	60.834	0.000043	mg/L		3
Zn	66	446.678	-0.000154	mg/L		3
As	75	122.793	0.000144	mg/L		3
Se	82	10.333	0.000366	mg/L		3
Ag	107	142.501	0.000015	mg/L		3
Cd	111	20.000	0.000002	mg/L		3
Ba	137	89.167	0.000018	mg/L		3
Pb	208	93.334	0.000009	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 025
Method: 10-mich-2is.mth
Acq Time: 15:00:58 Wed 20-Jun-12
Sample Name: 0620_4 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	144420.325	0.049927	mg/L		3
Ni	60	31620.731	0.049103	mg/L		3
Cu	65	35398.831	0.051279	mg/L		3
Zn	66	19166.851	0.051857	mg/L		3
As	75	24934.827	0.050459	mg/L		3
Se	82	2521.368	0.049541	mg/L		3
Ag	107	124973.330	0.051001	mg/L		3
Cd	111	31629.965	0.050690	mg/L		3
Ba	137	51621.172	0.049774	mg/L		3
Pb	208	187419.109	0.049515	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 026
Method: 10-mich-2is.mth
Acq Time: 15:04:43 Wed 20-Jun-12
Sample Name: LRB_4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1730.165	0.000029	mg/L		3
Ni	60	33.333	0.000013	mg/L		3
Cu	65	59.167	0.000039	mg/L		3
Zn	66	293.338	-0.000593	mg/L		3
As	75	122.033	0.000139	mg/L		3
Se	82	15.667	0.000466	mg/L		3
Ag	107	121.668	0.000006	mg/L		3
Cd	111	19.167	0.000000	mg/L		3
Ba	137	168.335	0.000093	mg/L		3
Pb	208	95.834	0.000010	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 035
Method: 10-mich-2is.mth
Acq Time: 15:35:57 Wed 20-Jun-12
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	344758.002	0.101822	mg/L		3
Ni	60	81245.451	0.107158	mg/L		3
Cu	65	83481.901	0.102745	mg/L		3
Zn	66	42707.757	0.099359	mg/L		3
As	75	57565.915	0.099088	mg/L		3
Se	82	6020.064	0.100306	mg/L		3
Ag	107	286978.520	0.099508	mg/L		3
Cd	111	70721.636	0.096289	mg/L		3
Ba	137	119984.535	0.098349	mg/L		3
Pb	208	383133.860	0.097232	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 036
Method: 10-mich-2is.mth
Acq Time: 15:39:36 Wed 20-Jun-12
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2427.824	0.000181	mg/L		3
Ni	60	41.667	0.000019	mg/L		3
Cu	65	79.167	0.000055	mg/L		3
Zn	66	570.018	0.000003	mg/L		3
As	75	127.313	0.000121	mg/L		3
Se	82	5.667	0.000258	mg/L		3
Ag	107	164.168	0.000016	mg/L		3
Cd	111	18.333	-0.000004	mg/L		3
Ba	137	110.834	0.000026	mg/L		3
Pb	208	126.668	0.000017	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 037
Method: 10-mich-2is.mth
Acq Time: 15:46:17 Wed 20-Jun-12
Sample Name: 52902.01s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 209

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	22094.345	1.435915	mg/kg		3
Ni	60	4660.362	1.450779	mg/kg		3
Cu	65	9386.515	2.731119	mg/kg		3
Zn	66	8319.639	4.364802	mg/kg		3
As	75	1071.379	0.415578	mg/kg		3
Se	82	3.333	0.046512	mg/kg		3
Ag	107	234.170	0.010172	mg/kg		3
Cd	111	235.836	0.069889	mg/kg		3
Ba	137	110008.707	21.380208	mg/kg		3
Pb	208	42934.490	2.264212	mg/kg		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 038
Method: 10-mich-2is.mth
Acq Time: 15:48:27 Wed 20-Jun-12
Sample Name: 52902.01 dil
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 1045

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	5952.784	1.461959	mg/kg		3
Ni	60	942.549	1.411043	mg/kg		3
Cu	65	1887.696	2.662301	mg/kg		3
Zn	66	1966.880	3.946662	mg/kg		3
As	75	314.851	0.519614	mg/kg		3
Se	82	-5.667	0.057705	mg/kg		3
Ag	107	103.334	-0.003635	mg/kg		3
Cd	111	49.167	0.046544	mg/kg		3
Ba	137	25141.386	23.971269	mg/kg		3
Pb	208	9132.085	2.397543	mg/kg		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 045
Method: 10-mich-2is.mth
Acq Time: 16:06:51 Wed 20-Jun-12
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	318202.999	0.099798	mg/L		3
Ni	60	76042.813	0.106548	mg/L		3
Cu	65	77203.974	0.100921	mg/L		3
Zn	66	40131.747	0.099188	mg/L		3
As	75	52384.378	0.095725	mg/L		3
Se	82	5398.997	0.095539	mg/L		3
Ag	107	273201.252	0.100602	mg/L		3
Cd	111	67935.454	0.098220	mg/L		3
Ba	137	112241.305	0.097688	mg/L		3
Pb	208	393663.464	0.099146	mg/L		3

Data Set: MT2-12-0620A
Run Date: 06/20/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 046
Method: 10-mich-2is.mth
Acq Time: 16:10:27 Wed 20-Jun-12
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0620A.cal
Cal Type: External Calibration
Last Calib: mtd-062012-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2377.811	0.000187	mg/L		3
Ni	60	40.833	0.000020	mg/L		3
Cu	65	54.167	0.000025	mg/L		3
Zn	66	533.349	-0.000049	mg/L		3
As	75	129.219	0.000132	mg/L		3
Se	82	13.333	0.000400	mg/L		3
Ag	107	177.502	0.000023	mg/L		3
Cd	111	17.500	-0.000005	mg/L		3
Ba	137	104.167	0.000023	mg/L		3
Pb	208	118.334	0.000015	mg/L		3

Metals Digestion

3015A (3050B)

DATE 06/20/12

TIME START 10:00

ANALYST PR

TIME FINISH 10:15

PREP BATCH MTD- 062012-4

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS - 4	----	50	50		—	1
LRB- 4	----	50	50		—	1
52828.01		0.240		dil 5/1 = 1040	100	208
02		0.262				191
03		0.259				193
04		0.263				190
05		0.256				195
06		0.259				193
52867.01		0.263			92	207
52891.01		0.269			95	196
02		0.265			94	201
02 MS		0.265				201
02 MSD		0.264				201
52902.01		0.260		5/1 = 1045 192	92	209
52906.01		0.257		194	95	205
52915.01		0.283		177	95	186

NOTES: *1) Spike values (unless otherwise stated)*

LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution

Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution

Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution

Spiking Solution - Lot # E2-MEB379078 + D2-SV02033

2) Spike values for minerals (Ca-Mg-K-Na)

LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution

Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution

High Purity Stock Solution (HM)- Lot # 1125633

3) HNO_3 Lot # 51332-OmniTrace

4) Centrifuge Tube Lot # 120201-060-1

5) Balance ID: ml

Reviewed by SR *On* 06/20/12

Form 0: Sequence Log

Data Set ID: HG2-12-0621A
Instrument ID: HG QuickTrace
Analysis Date: 06/21/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	6/21/2012 1:46:55 PM	Calibration Blank	Liquid	
002	6/21/2012 1:49:10 PM	Standard #1	Liquid	
003	6/21/2012 1:51:25 PM	Standard #2	Liquid	
004	6/21/2012 1:53:38 PM	Standard #3	Liquid	
005	6/21/2012 1:55:51 PM	Standard #4	Liquid	
006	6/21/2012 1:58:04 PM	Standard #5	Liquid	
007	6/21/2012 2:00:15 PM	Standard #6	Liquid	
008	6/21/2012 2:04:05 PM	Standard #7	Liquid	
009	6/21/2012 2:08:02 PM	CCV1-2.0 ppb	Liquid	CCV
010	6/21/2012 2:10:21 PM	CCB1	Liquid	CCB
011	6/21/2012 2:12:39 PM	ICV-5.0	Liquid	ICV
012	6/21/2012 2:15:44 PM	ICB	Liquid	ICB
013	6/21/2012 2:18:01 PM	ERA P177514 TV=25.7	Liquid	ERA
014	6/21/2012 2:21:35 PM	BS-0.10	Liquid	BS
015	6/21/2012 2:23:55 PM	06/21 LCS1-2.0 ppb	Liquid	LCS
016	6/21/2012 2:26:16 PM	06/21 LRB1	Liquid	LRB
017	6/21/2012 2:28:27 PM	52918.02s tclp	Liquid	S
018	6/21/2012 2:30:38 PM	52927.01s	Liquid	S
019	6/21/2012 2:32:50 PM	52920.02s	Liquid	S
020	6/21/2012 2:35:03 PM	52920.03s	Liquid	S
021	6/21/2012 2:37:16 PM	52920.01s	Liquid	S
022	6/21/2012 2:39:30 PM	52920.01 MS-2.0 ppb	Liquid	MS
023	6/21/2012 2:41:45 PM	52920.01 MSD	Liquid	MSD
024	6/21/2012 2:44:04 PM	CCV2-2.0 ppb	Liquid	CCV
025	6/21/2012 2:46:23 PM	CCB2	Liquid	CCB
026	6/21/2012 2:48:43 PM	06/21 LCS2-2.0 ppb	Soil	LCS
027	6/21/2012 2:51:03 PM	06/21 LRB2	Soil	LRB
028	6/21/2012 2:53:15 PM	52867.01s	Soil	S
029	6/21/2012 2:55:27 PM	52906.01s	Soil	S
030	6/21/2012 2:57:40 PM	52902.01s	Soil	S
031	6/21/2012 2:59:54 PM	52902.01 MS-2.0 ppb	Soil	MS
032	6/21/2012 3:02:08 PM	52902.01 MSD	Soil	MSD
033	6/21/2012 3:04:26 PM	CCV3-2.0 ppb	Liquid	CCV
034	6/21/2012 3:06:46 PM	CCB3	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0621A
Instrument ID: HG QuickTrace
Analysis Date: 06/21/12
Analyst: JRT

Lab Sample ID: S52902.01
Sample Tag: SB127 (06-18-2012) (3-5)
Date Collected: 06/18/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	55	06/21/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0621A
Instrument ID: HG QuickTrace
Analysis Date: 06/21/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0621A
Instrument ID: HG QuickTrace
Analysis Date: 06/21/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 CCV1-2.0 ppb	CCV	1.0	Hg	2.049	2.0	103	90/110	ug/L	Liquid
011 ICV-5.0	ICV	1.0	Hg	4.690	5.0	94	90/110	ug/L	Liquid
024 CCV2-2.0 ppb	CCV	1.0	Hg	2.051	2.0	103	90/110	ug/L	Liquid
033 CCV3-2.0 ppb	CCV	1.0	Hg	2.057	2.0	103	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: P177-514

Data Set ID: HG2-12-0621A

Instrument ID: HG QuickTrace

Analysis Date: 06/21/12

Analyst: JRT

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
013 ERA P177514 TV=25.7	5.0	Hg	27.51	25.7	107	20.2	31.1	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0621A
Instrument ID: HG QuickTrace
Analysis Date: 06/21/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0182	ug/L	Liquid
012 ICB	ICB	1.0	Hg	<0.03	-0.0172	ug/L	Liquid
016 06/21 LRB1	LRB	1.0	Hg	<0.05	0.0313	ug/L	Liquid
025 CCB2	CCB	1.0	Hg	<0.03	-0.0176	ug/L	Liquid
027 06/21 LRB2	LRB	50.0	Hg	<2.5	1.6200	ug/kg	Soil
034 CCB3	CCB	1.0	Hg	<0.03	-0.0190	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0621A
Instrument ID: HG QuickTrace
Analysis Date: 06/21/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
014 BS-0.10		1.0	Hg	0.092	ND	0.10	92	70/130	ug/L	Liquid
022 52920.01 MS-2.0	**021 52920.01s**	1.0	Hg	1.979	<0.2	2.0	99	80/120	ug/L	Liquid
031 52902.01 MS-2.0	**030 52902.01s**	55.3	Hg	136.6	22.58	110.6	103	80/120	ug/kg	Soil

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0621A
Instrument ID: HG QuickTrace
Analysis Date: 06/21/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
023 52920.01 MSD	**022 52920.01 MS-2.0**	1.0	Hg	1.973	1.979	0	0/20	ug/L	Liquid
032 52902.01 MSD	**031 52902.01 MS-2.0**	54.8	Hg	136.1	136.6	0	0/20	ug/kg	Soil

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0621A
Instrument ID: HG QuickTrace
Analysis Date: 06/21/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 06/21 LCS1-2.0 ppb	1.0	Hg	2.024	2.0	101	85/115	ug/L	Liquid
026 06/21 LCS2-2.0 ppb	50.0	Hg	101.1	100	101	85/115	ug/kg	Soil

Form 13: Analysis Run Log

Data Set ID: HG2-12-0621A
Instrument ID: HG QuickTrace
Analysis Date: 06/21/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	6/21/2012 1:46:55 PM	Liquid	Hg
002 Standard #1	6/21/2012 1:49:10 PM	Liquid	Hg
003 Standard #2	6/21/2012 1:51:25 PM	Liquid	Hg
004 Standard #3	6/21/2012 1:53:38 PM	Liquid	Hg
005 Standard #4	6/21/2012 1:55:51 PM	Liquid	Hg
006 Standard #5	6/21/2012 1:58:04 PM	Liquid	Hg
007 Standard #6	6/21/2012 2:00:15 PM	Liquid	Hg
008 Standard #7	6/21/2012 2:04:05 PM	Liquid	Hg
009 CCV1-2.0 ppb	6/21/2012 2:08:02 PM	Liquid	Hg
010 CCB1	6/21/2012 2:10:21 PM	Liquid	Hg
011 ICV-5.0	6/21/2012 2:12:39 PM	Liquid	Hg
012 ICB	6/21/2012 2:15:44 PM	Liquid	Hg
013 ERA P177514 TV=25.7	6/21/2012 2:18:01 PM	Liquid	Hg
014 BS-0.10	6/21/2012 2:21:35 PM	Liquid	Hg
015 06/21 LCS1-2.0 ppb	6/21/2012 2:23:55 PM	Liquid	Hg
016 06/21 LRB1	6/21/2012 2:26:16 PM	Liquid	Hg
017 52918.02s tclp	6/21/2012 2:28:27 PM	Liquid	Hg
018 52927.01s	6/21/2012 2:30:38 PM	Liquid	Hg
019 52920.02s	6/21/2012 2:32:50 PM	Liquid	Hg
020 52920.03s	6/21/2012 2:35:03 PM	Liquid	Hg
021 52920.01s	6/21/2012 2:37:16 PM	Liquid	Hg
022 52920.01 MS-2.0 ppb	6/21/2012 2:39:30 PM	Liquid	Hg
023 52920.01 MSD	6/21/2012 2:41:45 PM	Liquid	Hg
024 CCV2-2.0 ppb	6/21/2012 2:44:04 PM	Liquid	Hg
025 CCB2	6/21/2012 2:46:23 PM	Liquid	Hg
026 06/21 LCS2-2.0 ppb	6/21/2012 2:48:43 PM	Soil	Hg
027 06/21 LRB2	6/21/2012 2:51:03 PM	Soil	Hg
028 52867.01s	6/21/2012 2:53:15 PM	Soil	Hg
029 52906.01s	6/21/2012 2:55:27 PM	Soil	Hg
030 52902.01s	6/21/2012 2:57:40 PM	Soil	Hg
031 52902.01 MS-2.0 ppb	6/21/2012 2:59:54 PM	Soil	Hg
032 52902.01 MSD	6/21/2012 3:02:08 PM	Soil	Hg
033 CCV3-2.0 ppb	6/21/2012 3:04:26 PM	Liquid	Hg
034 CCB3	6/21/2012 3:06:46 PM	Liquid	Hg

Data Set: HG2-12-0621A
Run Date: 06/21/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	6/21/2012 1:46:55 PM	Calibration Blank	1149.0000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	6/21/2012 1:49:10 PM	Standard #1	2537.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	6/21/2012 1:51:25 PM	Standard #2	3779.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	6/21/2012 1:53:38 PM	Standard #3	7599.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	6/21/2012 1:55:51 PM	Standard #4	14180.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	6/21/2012 1:58:04 PM	Standard #5	27170.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	6/21/2012 2:00:15 PM	Standard #6	77290.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	6/21/2012 2:04:05 PM	Standard #7	127500.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	6/21/2012 2:08:02 PM	CCV1-2.0 ppb	27270.0000	2.0490	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	6/21/2012 2:10:21 PM	CCB1	1162.0000	-0.0182	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	6/21/2012 2:12:39 PM	ICV-5.0	60630.0000	4.6900	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	6/21/2012 2:15:44 PM	ICB	1175.0000	-0.0172	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	6/21/2012 2:18:01 PM	ERA P177514 TV=25.7	70900.0000	27.5150	ug/L	Liquid	5.0	1.0000	5.0000
Hg	014	6/21/2012 2:21:35 PM	BS-0.10	2547.0000	0.0915	ug/L	Liquid	1.0	1.0000	1.0000
Hg	015	6/21/2012 2:23:55 PM	06/21 LCS1-2.0 ppb	26950.0000	2.0240	ug/L	Liquid	1.0	1.0000	1.0000
Hg	016	6/21/2012 2:26:16 PM	06/21 LRB1	1787.0000	0.0313	ug/L	Liquid	1.0	1.0000	1.0000
Hg	024	6/21/2012 2:44:04 PM	CCV2-2.0 ppb	27300.0000	2.0510	ug/L	Liquid	1.0	1.0000	1.0000
Hg	025	6/21/2012 2:46:23 PM	CCB2	1169.0000	-0.0176	ug/L	Liquid	1.0	1.0000	1.0000
Hg	026	6/21/2012 2:48:43 PM	06/21 LCS2-2.0 ppb	26940.0000	101.1500	ug/kg	Soil	50.0	0.5000	25.0000
Hg	027	6/21/2012 2:51:03 PM	06/21 LRB2	1801.0000	1.6200	ug/kg	Soil	50.0	0.5000	25.0000
Hg	030	6/21/2012 2:57:40 PM	52902.01s	6542.0000	22.5866	ug/kg	Soil	55.4	0.4510	25.0000
Hg	031	6/21/2012 2:59:54 PM	52902.01 MS-2.0 ppb	32600.0000	136.6463	ug/kg	Soil	55.3	0.4520	25.0000
Hg	032	6/21/2012 3:02:08 PM	52902.01 MSD	32770.0000	136.1232	ug/kg	Soil	54.8	0.4560	25.0000
Hg	033	6/21/2012 3:04:26 PM	CCV3-2.0 ppb	27370.0000	2.0570	ug/L	Liquid	1.0	1.0000	1.0000
Hg	034	6/21/2012 3:06:46 PM	CCB3	1152.0000	-0.0190	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 12:00
TIME FINISH: 14:00 TEMP: block #1 — °C
PREP BATCH: HGD-060212-2 block #2 95 °C
BALANCE ID: MJ block #3 — °C

DATE 06/21/12
ANALYST TH
REVIEWED BY SW
REVIEW DATE 06/21/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 2	------	0.5	--------	----------	50	25g	
LRB- 2	------	0.5	--------	----------	50	25g	
52867.01		0.501	92	0.461	54		
52902.01		0.496	91	0.451	55		
01 MS		0.497	91	0.452	55		
01 MSD		0.501	91	0.456	55		
52906.01		0.510	93	0.474	53		

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 1132011 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 1132011 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 1132011 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)

Effective Date 7/20/11

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 6/20/12 Date Finished: 6/21/12 Date Checked: BB 7/9/12

Time Started: 12:00 Time Finished: 1:00 Checked By:

Analyst: AMM Temperature: 103°C Batch: TS120620A

Time in Oven: 25:00 Balance ID: 51 Oven ID: OV1

Merit #	Dish #	Dish Wt. (g)	Wet Smpl. + Dish Wt. (g)	Dry Smpl + Dish Wt. (g)	Ash Smpl + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	1	1.36	1.36	1.36		—		
LCS	2	1.32	10.26	10.26		100		
5290 2-01	3	1.32	10.2	9.76		91		
Dup 1 .01	4	1.41	11.1	9.88		87		
03.01	5	1.37	14.44	12.3		84		
.02	6	1.32	11.06	9.89		88		
.03	7	1.36	11.12	9.5		83		
.04	8	1.37	11.42	10.44		90		
.05	9	1.35	18.42	15.65		84		
.06	10	1.35	12.7	11.52		90		
.07	11	1.31	21.2	19.34		91		
.08	12	1.4	9.96	8.83		87		
.09	13	1.39	18.99	16.52		86		
.10	14	1.27	14.76	13.29		89		
Dup 2 .10	15	1.31	13.52	12.07		88		
.11	16	1.36	14.34	11.71		81		
.12	17	1.39	20.55	16.17		77		
06.01	18	1.35	15.84	14.78		93		
07.02	19	1.31	14.68	11.87		79		
.03	20	1.21	11.41	9.05		77		
.04	21	1.4	22.65	21.47		94		
.05	22	1.37	18.38	15.89		85		
.06	23	1.35	19.63	19.12		97		
.07	24	1.37	11.5	9.68		82		

% LCS Recovery: 100 Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 3.5 Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): 1.1

Method 5035A (High Level)
Extraction Sheet

Analyst: LBR
Date: 6-20-12
Batch QC ID#: _____

Merit Number	Tare wt (g)	Vial wt (g)	Sample wt.(g)	Methanol (mL)	Sonicate (min)	Time Start / End	Notes
52903.01	31.251	48.598	17.347	17	✓	12:36	
02	31.241	47.378	16.137	16	✓		
03	31.220	50.177	18.957	19	✓		
04	31.102	49.036	17.934	18	✓		
05	31.162	49.259	18.097	18	✓		
06	31.235	45.019	13.784	14	✓		
07	31.242	47.687	16.445	16	✓		
08	31.160	46.700	15.534	16	✓		
09	31.179	49.360	18.181	18	✓		
10	31.405	48.659	17.254	17	✓		
11	31.359	48.305	16.946	17	✓		
12	31.264	48.805	17541	18	✓		
16	31.203	29.307	—	11	✓		
52907.02	32.005	42.359	10.354	10	✓		
03	32.039	42.704	10.665	11	✓		
04	32.098	42.308	10.210	10	✓		
05	32.015	42.377	10.362	10	✓		
06	31.152	41.947	9.795	10	✓		
07	32.143	42.292	10.099	10	✓		
08	31.977	42.048	10.071	10	✓		
09	32.005	42.117	10.112	10	✓		
52915.01	32.033	42.480	10.447	10	✓		
52902.01	31.201	47.476	16.275	16	✓		
02	31320	31.384	—	11	✓	12:54	

Out of order *

Balance ID: V1
Methanol Lot: DD471 / DE695 / 50349
5035A High Level

Reviewed By: WAT
Date: 6-20-12
Prepared by Merit Laboratories, Inc.

Effective Date 6/14/12

Solvent Lot #: 51357
Na2SO4 Lot #: 0601C505
SSD #: PR120619
MS/LCS #: PP120619 / PP120522

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 6-19-2012
Time Started: 6:00 pm
Time Ended: 8:30 pm
Batch ID#: SP120619502

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	emr		
	LCS PNA	Sand	30.0 g					1		ev3	
	LCSD PNA	Sand	30.0 g					1			[X]
	LCS#2 DRO ~~MS~~	Sand	30.0					1			[ ]
	LCSD#2 DRO ~~MSD~~	↓	30.0					1		↓	
1	52873.08	Soil	30.0							ev2	
2	.09		30.0								
3	52874.01		30.1								
4	.02		30.0								
5	.03		30.0								
6	.04		30.0							↓	
7	.05		30.0							ev3	
8	.06		30.1								
9	.07		30.0								
10	.08		30.0								
11	.09		30.0								
12	52899.01		30.4							↓	
13	.02		30.0							ev2	
14	.03		30.0								
15	.04		29.9			↓					
16	.05		30.0			2ml					
17	52902.01		30.3			1ml					
18	52903.02		30.0								
19	.08	↓	30.0	↓	↓	↓	↓		↓	↓	
20	~~52908.02~~										→ delete emr 6-19

Reviewed by: [signature] On: 6/20 Balance ID: e2

Prepared by: Merit Laboratories, Inc.

Effective Date 8/1/2011

Hexane 51223
Ether/Hexane 51108129/51223
Na_2SO_4 1521C519
H_2SO_4 50328
SSD# 175508
PCB MS ID# 11MS03 Pest MS ID#

PCB/Pesticide Extraction
Method 3550B

Date 6-22-12
Time Started 10:00
Time Ended 13:00
Prep Batch ID# PA120622S01
Balance ID# E2

#	Merit #	Matrix	Sample Wt. (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Alumina Cleanup	Dioxin Cleanup	Turbo Vap	Notes
Initial Q.C.	BLANK	soil	20.0	Hexane	180	1	1		CM			ev2	
	LCS	↓	20.0	↓	↓	↓	↓	1	↓			↓	
	LCSD	↓	20.0	↓	↓	↓	↓	1	↓			↓	
	MS												
	MSD												
1	52902.01	soil	20.3	Hexane	180	1	1		CM			evl	
2	52908.01	oil	0.3	↓	↓	↓	↓		↓	X		↓	
3	.02	↓	0.3							X	X		
4	.03	↓	0.3							X	X		
5	52914.01	soil	20.2										
6	.02	↓	20.2										
7	52922.01	waste	2.4							X			
8	52923.02	↓	5.2							X	X	↓	
9	52929.12	sludge	5.0							X			
10	.15	conc	10.0							X			
11	.16	↓	10.0							X			
12	.22	↓	10.0							X			
13	.24	paint	2.0										
14	.25	↓	2.0										
15	.27	conc.	10.0										
16	.28	↓	10.0							X			
17	.29		10.0										
18	.30		10.0										
19	CM 6-22 .31	↓	10.0										
20	52934.02 ~~.32~~	soil	CM 6-22 ~~10.0~~ 20.0	↓	↓	↓	↓		↓			↓	

Reviewed by: ADB On: 7/9/12

Merit Laboratories, Inc.

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www.meritlabs.com

C.O.C. PAGE # _____ OF _____

69201

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Susan Hoerth
COMPANY: Haley + Aldrich
ADDRESS: 8899 Gander Creek Dr.
CITY: Miamisburg STATE: OH ZIP CODE: 45342
PHONE NO.: 937-530-1408 FAX NO.: 937-530-1458 P.O. NO.: —
E-MAIL ADDRESS: Raer GMPT Livonia QUOTE NO.: —

INVOICE TO

CONTACT NAME: Melanie Satanek ☐ SAME
COMPANY: Haley + Aldrich
ADDRESS: 5755 Granger Rd Suite ~~130~~ 320
CITY: Cleveland STATE: OH ZIP CODE: 44131
PHONE NO.: 216-706-1320 E-MAIL ADDRESS: MSatanek@haleyaldrich.com

PROJECT NO./NAME: 37290-014 GMPT Livonia
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Megan Castles-Humphrey

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications NA
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES
Project Locations
☐ Detroit ☐ New York
☒ Other Livonia, MI
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOC	PAH	Michigan 10 metals	PCBs	Special Instructions
52902.01	06/18/12	15:45	SB127 (0618-0012) ~~(0625)~~	SO	2	1					1		X	X	X	X	Normal
.02	6/18/12	—	2306-061812-0001	WQ	1						1		X				Trip blank

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
Megan Castles-Humphrey	☒ Sampler	6-19-12	7:50
Haley + Aldrich		6-19-12	7:50
Merit			
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	6-19-12	1115

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.6

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S52902
Client: HALEYALDRICH (Haley & Aldrich)
Project: 37290-014 GMPT Livonia
Submitted: 06/19/2012 11:15 Login User: ASB

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.6
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	COC says racer but bill to H&A and no Racer invoicing information
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Accounts Payable

Address: Haley & Aldrich, Inc.
70 Blanchard Rd.
Ste. 430
Burlington, MA 01803-5100

Phone: 617-886-7400 FAX: 617-886-7900

Email: Haley Aldrich Invoice Group

Set ID: S52902 Location: HALEYALDRICH (Haley & Aldrich)

Project: 37290-014 GMPT Livonia PO #:

Submitted: 06/19/2012 11:15 Due Date: 07/03/2012 Collected by: M. Castles-Humphry Login by: ASB

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S52902.01	SB127 (06-18-2012) (3-5)	Soil	06/18/2012 15:45	69201
S52902.02	2306-061812-0001	Methanol	06/18/2012 00:01	69201

Samples: S52902.01

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260	Volatile Organics 5035	8260B/5035	mg/kg	07/02/2012
$PNA8270	Polynuclear Aromatics	8270C	mg/kg	07/28/2012
2115SMS	Arsenic	6020	mg/kg	12/15/2012
2120SMS	Barium	6020	mg/kg	12/15/2012
2135SMS	Cadmium	6020	mg/kg	12/15/2012
2145SMS	Chromium	6020	mg/kg	12/15/2012
2155SMS	Copper	6020	mg/kg	12/15/2012
2165SMS	Lead	6020	mg/kg	12/15/2012
2185S	Mercury	7471A	mg/kg	07/16/2012
2205SMS	Selenium	6020	mg/kg	12/15/2012
2215SMS	Silver	6020	mg/kg	12/15/2012
2245SMS	Zinc	6020	mg/kg	12/15/2012
1605S	Metal Digestion	3050B		12/15/2012
1605HGS	Mercury Digestion	7471A		07/16/2012
METHEXT	5035 Methanol Extraction	5035		03/14/2015
PNAEXTS	Semi Volatile Extraction	3550B		07/02/2012
1120S	Extraction, PCB	3550B		07/02/2012
4605	Total Solids	Std M 2540 B	%	07/16/2012
$TCL8082C1	TCL PCB List (Column 1)	8082A	mg/kg	07/28/2012
$TCL8082C2	TCL PCB List (Column 2)	8082A	mg/kg	07/28/2012

Samples: S52902.02

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260	Volatile Organics 5035	8260B/5035	mg/kg	07/02/2012
METHEXT	5035 Methanol Extraction	5035		03/14/2015

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HALEY & ALDRICH
RACER GMPT LIVONIA

SDG Batch:
52934

Pages 1 - 259

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HALEY & ALDRICH

PROJECT:
RACER GMPT LIVONIA

SDG Batch:
52934.01

Prepared by:
Merit Laboratories, Inc.

July 12, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S52934.01 - .02

	References		Pages		Checklist	
Deliverable	**Merit**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	14	☑	☐
4. **Volatiles Data**			15	90		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			91	135		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
6. **PCB Data**			136	184		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
c. Standards Data (All Instruments)						
Initial Calibration of Multicomponent Data	F. 6	F. VI			☑	☐
Chromatograms and Quantitation Reports for all IC Standards					☑	☐
Calibration Check Standard	F. 7b	F. VII			☑	☐
Chromatograms and Quantitation Reports for all CC Standards					☑	☐
d. Raw QC Data						
Chromatograms and Quantitation Reports - Column 1					☑	☐
Chromatograms and Quantitation Reports - Column 2					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
9. **Miscellaneous Data**			254	256		
Preparation / Extraction logbooks					☑	☐
11. **Shipping / Receiving Documents**			257	259		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S52934.01 - .02

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	14	☑	☐
7. **ICP/MS Metals Data**			185	240		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
8. **Mercury Data**			241	252		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
10. **Total Solids Data**			253	253		
Bench Sheet - sample and QC sample evaluation					☑	☐
11. **Shipping / Receiving Documents**			257	259		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: RACER GMPT LIVONIA
Merit IDs: S52934.01-S52934.02

Field Sampling: Megan Castles-Humphrey performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (06/21/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Notes: Dilution test not applicable if measured concentration is less than 100 times MDL.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
- The blank had the surrogate Terphenyl-D14 outside of control limits.

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120625A3:
- The LCS/LCSD had high RPD for the compounds Acetone, Acrylonitrile, 2-Butanone (MEK), Chloroethane, and Tetrahydrofuran.

- The blank contained 86.0 ug/kg of 2-Butanone (MEK) and 66.0 ug/kg of Methylene Chloride. 2-Butanone (MEK) and Methylene Chloride were not found in associated samples.
- The CCC had the compound Acetone outside of control limits.

PCBs: The organic method utilized for this SDG was 8082A (GC/ECD). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barbara Ball

Barb Ball — 07/12/12

QA Officer — Date

Analytical Laboratory Report

Report ID: S52934.01(01)
Generated on 07/03/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S52934.01-S52934.02
Project: RACER GMPT Livonia
Collected Date: 06/20/2012
Submitted Date/Time: 06/21/2012 12:05
Sampled by: M.Castles Humphrey
P.O. #:

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S52934.01	2306-062012-0001	Methanol	06/20/2012 00:01
S52934.02	SB131 (06-20-2012) (1-2)	Soil	06/20/2012 15:00

Analytical Laboratory Report

Lab Sample ID: S52934.01
Sample Tag: 2306-062012-0001
Collected Date/Time: 06/20/2012 00:01
Matrix: Methanol
COC Reference: 69202

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	06/25/12 17:02	WAT	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	06/25/12 17:02	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	06/25/12 17:02	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	06/25/12 17:02	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	750	8260B/5035	06/25/12 17:02	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:02	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:02	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	06/25/12 17:02	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:02	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	06/25/12 17:02	WAT	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	06/25/12 17:02	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	06/25/12 17:02	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:02	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	06/25/12 17:02	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	630-20-6	

M-Result reported to MDL not RDL

Lab Sample ID: S52934.01 (continued)
Sample Tag: 2306-062012-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT		
o-Xylene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	06/25/12 17:02	WAT	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:02	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:02	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:02	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:02	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	8260B/5035	06/25/12 17:02	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	8260B/5035	06/25/12 17:02	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	330	8260B/5035	06/25/12 17:02	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	330	8260B/5035	06/25/12 17:02	WAT	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S52934.02
Sample Tag: SB131 (06-20-2012) (1-2)
Collected Date/Time: 06/20/2012 15:00
Matrix: Soil
COC Reference: 69202

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.8	IR
1	4oz Glass	None	Yes	4.8	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	06/22/12 12:57	CCM		
Mercury Digestion	Completed			7471A	06/25/12 12:30	JRH		
Metal Digestion	Completed			3050B	07/03/12 09:00	PER		
PNA Extraction	Completed			3550B	06/25/12 23:11	EMR		
Inorganics								
Total Solids	82	%	1	Std M 2540 B	06/22/12 13:30	WAR		
Metals								
Arsenic	0.80	mg/kg	0.20	6020	07/03/12 13:54	PER	7440-38-2	
Barium	81.0	mg/kg	1.0	6020	07/03/12 13:54	PER	7440-39-3	
Cadmium	0.24	mg/kg	0.20	6020	07/03/12 13:54	PER	7440-43-9	
Chromium	4.14	mg/kg	0.50	6020	07/03/12 13:54	PER	7440-47-3	
Copper	14.5	mg/kg	0.50	6020	07/03/12 13:54	PER	7440-50-8	
Lead	8.61	mg/kg	0.30	6020	07/03/12 13:54	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	06/25/12 16:02	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	07/03/12 13:54	PER	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	07/03/12 13:54	PER	7440-22-4	
Zinc	15.5	mg/kg	1.0	6020	07/03/12 13:54	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/22/12 12:26	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	83-32-9	

Lab Sample ID: S52934.02 (continued)
Sample Tag: SB131 (06-20-2012) (1-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	06/27/12 11:48	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	8260B/5035	06/25/12 17:20	WAT	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	06/25/12 17:20	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	400	8260B/5035	06/25/12 17:20	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	8260B/5035	06/25/12 17:20	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	1,100	8260B/5035	06/25/12 17:20	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	400	8260B/5035	06/25/12 17:20	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	8260B/5035	06/25/12 17:20	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:20	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	8260B/5035	06/25/12 17:20	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	06/25/12 17:20	WAT	109-99-9	
Chloroform	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	8260B/5035	06/25/12 17:20	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	8260B/5035	06/25/12 17:20	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	78-87-5	

Lab Sample ID: S52934.02 (continued)
Sample Tag: SB131 (06-20-2012) (1-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	400	8260B/5035	06/25/12 17:20	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	30	8260B/5035	06/25/12 17:20	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	630-20-6	
Ethylbenzene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT		
o-Xylene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	400	8260B/5035	06/25/12 17:20	WAT	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:20	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	70	8260B/5035	06/25/12 17:20	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	06/25/12 17:20	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	8260B/5035	06/25/12 17:20	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	470	8260B/5035	06/25/12 17:20	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	470	8260B/5035	06/25/12 17:20	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	470	8260B/5035	06/25/12 17:20	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	470	8260B/5035	06/25/12 17:20	WAT	91-57-6	

M-Result reported to MDL not RDL

Quality Control Cover Page

Report ID: S52934.01(01)
Report Date: 07/03/2012
Project: RACER GMPT Livonia
Lab Sample ID(s): S52934.01-S52934.02

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S52934.01	2306-062012-0001	06/20/2012 00:01	Methanol	Extraction / Prep., Organics
S52934.02	SB131 (06-20-2012) (1-2)	06/20/2012 15:00	Soil	Extraction / Prep., Inorganics, Metals,

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S52934.01(01)
Generated on 07/09/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S52934.01-S52934.02
Project: RACER GMPT Livonia
Submitted Date/Time: 06/21/2012 12:05
Sampled by: M.Castles Humphrey
P.O. #:

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-3)
Prep Batch Summary (Page 4)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S52934.01
Sample Tag: 2306-062012-0001
Collected Date/Time: 06/20/2012 00:01
Matrix: Methanol
COC Reference: 69202

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	06/25/12 17:02	120625A3	VF120625S2	Yes	LCS/BLK/LCSD

Lab Sample ID: S52934.02
Sample Tag: SB131 (06-20-2012) (1-2)
Collected Date/Time: 06/20/2012 15:00
Matrix: Soil
COC Reference: 69202

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	06/22/12 13:30	TS120621A	TS120621A	No	BLK/LCS/DUP
Metals						
Arsenic	6020	07/03/12 13:54	MT2-12-0703A	MTD-070312-1	No	LCS/BLK/MS/MSD
Barium	6020	07/03/12 13:54	MT2-12-0703A	MTD-070312-1	No	LCS/BLK/MS/MSD
Cadmium	6020	07/03/12 13:54	MT2-12-0703A	MTD-070312-1	No	LCS/BLK/MS/MSD
Chromium	6020	07/03/12 13:54	MT2-12-0703A	MTD-070312-1	No	LCS/BLK/MS/MSD
Copper	6020	07/03/12 13:54	MT2-12-0703A	MTD-070312-1	No	LCS/BLK/MS/MSD
Lead	6020	07/03/12 13:54	MT2-12-0703A	MTD-070312-1	No	LCS/BLK/MS/MSD
Mercury	7471A	06/25/12 16:02	HG2-12-0625A	HGD-062512-2	No	LCS/BLK/MS/MSD
Selenium	6020	07/03/12 13:54	MT2-12-0703A	MTD-070312-1	No	LCS/BLK/MS/MSD
Silver	6020	07/03/12 13:54	MT2-12-0703A	MTD-070312-1	No	LCS/BLK/MS/MSD
Zinc	6020	07/03/12 13:54	MT2-12-0703A	MTD-070312-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	8082A	06/22/12 12:26	F120622	PA120622S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	8082A	06/22/12 12:26	F120622	PA120622S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	8270C	06/27/12 11:48	U120627	SP120625S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	06/25/12 17:20	120625A3	VF120625S2	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TS120621A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52934.02	Total Solids	Std M 2540 B	06/22/12 13:30	TS120621A

Metals, Prep Batch ID: HGD-062512-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52934.02	Mercury	7471A	06/25/12 16:02	HG2-12-0625A

Metals, Prep Batch ID: MTD-070312-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52934.02	Arsenic	6020	07/03/12 13:54	MT2-12-0703A
S52934.02	Barium	6020	07/03/12 13:54	MT2-12-0703A
S52934.02	Cadmium	6020	07/03/12 13:54	MT2-12-0703A
S52934.02	Chromium	6020	07/03/12 13:54	MT2-12-0703A
S52934.02	Copper	6020	07/03/12 13:54	MT2-12-0703A
S52934.02	Lead	6020	07/03/12 13:54	MT2-12-0703A
S52934.02	Selenium	6020	07/03/12 13:54	MT2-12-0703A
S52934.02	Silver	6020	07/03/12 13:54	MT2-12-0703A
S52934.02	Zinc	6020	07/03/12 13:54	MT2-12-0703A

Organics - PCBs/Pesticides, Prep Batch ID: PA120622S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52934.02	TCL PCB List (Column 1)	8082A	06/22/12 12:26	F120622
S52934.02	TCL PCB List (Column 2)	8082A	06/22/12 12:26	F120622

Organics - Semi-Volatiles, Prep Batch ID: SP120625S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52934.02	Polynuclear Aromatics	8270C	06/27/12 11:48	U120627

Organics - Volatiles, Prep Batch ID: VF120625S2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52934.01	Volatile Organics 5035	8260B/5035	06/25/12 17:02	120625A3
S52934.02	Volatile Organics 5035	8260B/5035	06/25/12 17:20	120625A3

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb25a.d	06/25/12 13:36	25ng/bfb 1s0625 [none]	WW	IP		
spcc25a.d	06/25/12 14:03	spcc/ccc 1s0625 1m0625 [none]	WW	CV	**4**	
lcss25a.d	06/25/12 14:34	100ul blankms 1s0625 1m0625 vf120625s2	SO	MS		
lcss25b.d	06/25/12 15:12	100ul blankmsd 1s0625 1m0625 vf120625s2	SO	MS		
blks25a.d	06/25/12 16:25	100ul blank 1s0625 vf120625s2	SO	Bl		
5293401.d	06/25/12 17:02	100ul 1s0625 vf120625s2	SO			
5293402.d	06/25/12 17:20	100ul 1s0625 vf120625s2	SO			
5295901.d	06/25/12 17:57	100ul 1s0625 vf120625s2	SO			
5295902.d	06/25/12 18:16	100ul 1s0625 vf120625s2	SO			
5295903.d	06/25/12 18:34	100ul 1s0625 vf120625s2	SO			

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	5
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc25a.d	4-Bromofluorobenzene	46.8/ 50.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	53.1/ 50.0	n/a	77.0/121.0	
	Toluene-D8	51.3/ 50.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcss25a.d	4-Bromofluorobenzene	47.4/ 50.0	94.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	49.2/ 50.0	98.3	71.0/124.0	
	Toluene-D8	51.0/ 50.0	102.1	83.0/120.0	
				Total Outliers: 0	
lcss25b.d	4-Bromofluorobenzene	48.2/ 50.0	96.3	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.4/ 50.0	92.8	71.0/124.0	
	Toluene-D8	50.9/ 50.0	101.8	83.0/120.0	
				Total Outliers: 0	
blks25a.d	4-Bromofluorobenzene	46.0/ 50.0	91.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	50.8/ 50.0	101.6	71.0/124.0	
	Toluene-D8	50.9/ 50.0	101.8	83.0/120.0	
				Total Outliers: 0	
5293401.d	4-Bromofluorobenzene	46.4/ 50.0	92.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	48.1/ 50.0	96.3	71.0/124.0	
	Toluene-D8	51.1/ 50.0	102.2	83.0/120.0	
				Total Outliers: 0	
5293402.d	4-Bromofluorobenzene	46.4/ 50.0	92.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.9/ 50.0	95.9	71.0/124.0	
	Toluene-D8	50.6/ 50.0	101.3	83.0/120.0	
				Total Outliers: 0	
5295901.d	4-Bromofluorobenzene	44.9/ 50.0	89.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	49.3/ 50.0	98.6	71.0/124.0	
	Toluene-D8	50.8/ 50.0	101.6	83.0/120.0	
				Total Outliers: 0	
5295902.d	4-Bromofluorobenzene	45.6/ 50.0	91.2	81.0/124.0	SO
	1,2-Dichloroethane-D4	48.0/ 50.0	95.9	71.0/124.0	
	Toluene-D8	50.1/ 50.0	100.1	83.0/120.0	
				Total Outliers: 0	
5295903.d	4-Bromofluorobenzene	45.9/ 50.0	91.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	48.9/ 50.0	97.9	71.0/124.0	
	Toluene-D8	50.7/ 50.0	101.4	83.0/120.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcss25b.d			
Dup ID : LCS1			
Prep Batch: vf120625s2			
Prep Date : 06/25/12			
Parent File: lcss25a.d			
1,1,2-trichloro-1,2,2-trifluoroethane	53.83/ 52.46	2.6/25.0	SO
diethyl ether (*)	45.41/ 50.43	10.5/25.0	
acetone (*)	36.33/ 74.03	68.3/25.0*	
methyl iodide (iodomethane) (*)	47.32/ 52.13	9.7/25.0	
carbon disulfide (*)	58.27/ 58.16	0.2/25.0	
methyl acetate	36.69/ 48.04	26.8/25.0*	
tert-methyl butyl ether (mtbe) (*)	40.81/ 48.84	17.9/25.0	
acrylonitrile (*)	34.81/ 48.05	32.0/25.0*	
2-butanone (mek) (*)	41.27/ 54.70	28.0/25.0*	
dichlorodifluoromethane	55.09/ 53.12	3.6/25.0	
chloromethane (spcc)	51.90/ 50.40	2.9/25.0	
vinyl chloride (ccc)	55.38/ 56.18	1.4/25.0	
bromomethane	49.44/ 49.43	0.0/25.0	
chloroethane	75.72/ 53.93	33.6/25.0*	
trichlorofluoromethane	56.78/ 58.01	2.1/25.0	
1,1-dichloroethene (ccc/ms)	53.23/ 48.33	9.6/25.0	
methylene chloride	46.43/ 52.02	11.4/25.0	
trans-1,2-dichloroethene	50.20/ 52.38	4.3/25.0	
1,1-dichloroethane (spcc)	48.52/ 51.78	6.5/25.0	
cis-1,2-dichloroethene	47.54/ 51.70	8.4/25.0	
tetrahydrofuran	35.94/ 47.66	28.0/25.0*	
chloroform (ccc)	48.24/ 52.15	7.8/25.0	
bromochloromethane	44.25/ 50.09	12.4/25.0	
1,1,1-trichloroethane	52.15/ 54.23	3.9/25.0	
cyclohexane	43.26/ 44.55	2.9/25.0	
4-methyl-2-pentanone (mibk) (*)	37.00/ 44.58	18.6/25.0	
2-hexanone (*)	41.62/ 50.88	20.0/25.0	
carbon tetrachloride	53.44/ 55.02	2.9/25.0	
benzene (ms)	49.40/ 51.46	4.1/25.0	
1,2-dichloroethane	45.27/ 50.39	10.7/25.0	
trichloroethene (ms)	50.07/ 51.34	2.5/25.0	
1,2-dichloropropane (ccc)	48.75/ 52.05	6.5/25.0	
bromodichloromethane	51.16/ 53.22	3.9/25.0	
methyl cyclohexane	53.08/ 53.13	0.1/25.0	
dibromomethane	42.97/ 47.94	10.9/25.0	
cis-1,3-dichloropropene	49.26/ 53.28	7.8/25.0	
toluene (ccc/ms)	48.29/ 50.56	4.6/25.0	
trans-1,3-dichloropropene	49.26/ 54.19	9.5/25.0	
1,1,2-trichloroethane	43.85/ 49.18	11.5/25.0	
tetrachloroethene	49.42/ 47.90	3.1/25.0	
trans-1,4-dichloro-2-butene	39.82/ 45.34	13.0/25.0	
dibromochloromethane	49.61/ 52.42	5.5/25.0	
1,2-dibromoethane	47.03/ 50.91	7.9/25.0	
chlorobenzene (spcc/ms)	50.42/ 51.14	1.4/25.0	
1,1,1,2-tetrachloroethane	51.25/ 54.07	5.4/25.0	
ethylbenzene (ccc)	52.84/ 52.53	0.6/25.0	
p,m-xylene	104.37/103.58	0.8/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	*Dup/Samp Conc.*	*%RPD/UCL*	*Matrix*
o-xylene	51.26/ 52.05	1.5/25.0	
styrene	49.68/ 51.10	2.8/25.0	
isopropylbenzene	51.99/ 51.83	0.3/25.0	
bromoform (spcc)	45.17/ 48.52	7.2/25.0	
1,1,2,2-tetrachloroethane (spcc)	42.13/ 48.74	14.5/25.0	
1,2,3-trichloropropane	44.41/ 47.34	6.4/25.0	
n-propylbenzene	53.84/ 54.09	0.5/25.0	
bromobenzene	48.27/ 49.82	3.2/25.0	
1,3,5-trimethylbenzene	51.21/ 51.99	1.5/25.0	
tert-butylbenzene	53.19/ 52.50	1.3/25.0	
1,2,4-trimethylbenzene	51.36/ 52.39	2.0/25.0	
sec-butylbenzene	55.21/ 53.52	3.1/25.0	
p-isopropyltoluene	56.43/ 55.41	1.8/25.0	
1,3-dichlorobenzene	52.30/ 53.01	1.3/25.0	
1,4-dichlorobenzene	50.54/ 51.19	1.3/25.0	
1,2-dichlorobenzene	49.96/ 51.78	3.6/25.0	
1,2,3-trimethylbenzene	51.51/ 52.44	1.8/25.0	
n-butylbenzene	56.60/ 55.74	1.5/25.0	
hexachloroethane	53.79/ 53.13	1.2/25.0	
1,2-dibromo-3-chloropropane	44.39/ 50.25	12.4/25.0	
1,2,4-trichlorobenzene	49.20/ 50.58	2.8/25.0	
1,2,3-trichlorobenzene	49.11/ 49.70	1.2/25.0	
naphthalene	47.19/ 49.92	5.6/25.0	
2-methylnaphthalene	47.03/ 51.27	8.6/25.0	
[end of compound list]			
		Total Outliers:	**6**

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss25a.d
Spike ID : LCS1
Prep Batch: vf120625s2
Prep Date : 06/25/12
Parent File: blks25a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	52.46/	0.00	50.00	104.9	56.9/138.1	SO
Diethyl ether	50.43/	0.00	50.00	100.9	51.7/123.0	
Acetone	74.03/	0.00	50.00	148.1	25.3/155.1	
Methyl iodide	52.13/	0.00	50.00	104.3	56.9/110.8	
Carbon disulfide	58.16/	0.00	50.00	116.3	57.0/123.0	
Methyl acetate	48.04/	0.00	50.00	96.1	54.4/133.5	
tert-Methyl butyl ether	48.84/	0.00	50.00	97.7	67.5/123.7	
Acrylonitrile	48.05/	0.00	50.00	96.1	58.7/133.0	
2-Butanone	54.70/	1.72	50.00	109.4	38.7/136.9	
Dichlorodifluoromethane	53.12/	0.00	50.00	106.2	10.0/171.8	
Chloromethane	50.40/	0.00	50.00	100.8	30.2/152.7	
Vinyl Chloride	56.18/	0.00	50.00	112.4	45.3/138.7	
Bromomethane	49.43/	0.00	50.00	98.9	10.0/157.4	
Chloroethane	53.93/	0.00	50.00	107.9	10.0/169.1	
Trichlorofluoromethane	58.01/	0.00	50.00	116.0	25.7/157.8	
1,1-Dichloroethene	48.33/	0.00	50.00	96.7	59.2/137.5	
Methylene Chloride	52.02/	1.32	50.00	104.0	70.5/121.5	
trans-1,2-Dichloroethene	52.38/	0.00	50.00	104.8	72.5/128.8	
1,1-Dichloroethane	51.78/	0.00	50.00	103.6	72.5/123.4	
cis-1,2-Dichloroethene	51.70/	0.00	50.00	103.4	75.0/120.5	
Tetrahydrofuran	47.66/	0.00	50.00	95.3	48.2/125.7	
Chloroform	52.15/	0.00	50.00	104.3	74.6/123.2	
Bromochloromethane	50.09/	0.00	50.00	100.2	72.3/122.8	
1,1,1-Trichloroethane	54.23/	0.00	50.00	108.5	73.8/128.9	
Cyclohexane	44.55/	0.00	50.00	89.1	42.4/147.1	
4-Methyl-2-pentanone	44.58/	0.00	50.00	89.2	60.4/133.8	
2-Hexanone	50.88/	0.00	50.00	101.8	45.7/141.9	
Carbon Tetrachloride	55.02/	0.00	50.00	110.0	70.1/132.7	
Benzene	51.46/	0.00	50.00	102.9	74.6/128.9	
1,2-Dichloroethane	50.39/	0.00	50.00	100.8	73.2/125.4	
Trichloroethene	51.34/	0.00	50.00	102.7	74.1/127.6	
1,2-Dichloropropane	52.05/	0.00	50.00	104.1	77.6/124.4	
Bromodichloromethane	53.22/	0.00	50.00	106.4	76.7/128.4	
Methyl cyclohexane	53.13/	0.00	50.00	106.3	53.7/148.2	
Dibromomethane	47.94/	0.00	50.00	95.9	72.5/127.3	
cis-1,3-Dichloropropene	53.28/	0.00	50.00	106.6	79.3/128.3	
Toluene	50.56/	0.00	50.00	101.1	74.8/129.2	
trans-1,3-Dichloropropene	54.19/	0.00	50.00	108.4	74.5/129.7	
1,1,2-Trichloroethane	49.18/	0.00	50.00	98.4	71.3/125.7	
Tetrachloroethene	47.90/	0.00	50.00	95.8	73.0/124.7	
trans-1,4-Dichloro-2-butene	45.34/	0.00	50.00	90.7	58.3/143.3	
Dibromochloromethane	52.42/	0.00	50.00	104.8	68.9/132.7	
1,2-Dibromoethane	50.91/	0.00	50.00	101.8	71.4/129.3	
Chlorobenzene	51.14/	0.00	50.00	102.3	74.2/128.1	
1,1,1,2-Tetrachloroethane	54.07/	0.00	50.00	108.1	76.6/133.0	
Ethylbenzene	52.53/	0.00	50.00	105.1	77.7/130.4	
p,m-Xylene	103.58/	0.00	100.00	103.6	79.8/132.0	
o-Xylene	52.05/	0.00	50.00	104.1	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	51.10/	0.00	50.00	102.2	71.3/119.3	
Isopropylbenzene	51.83/	0.00	50.00	103.7	70.3/128.2	
Bromoform	48.52/	0.00	50.00	97.0	54.7/137.4	
1,1,2,2-Tetrachloroethane	48.74/	0.00	50.00	97.5	65.4/134.9	
1,2,3-Trichloropropane	47.34/	0.00	50.00	94.7	67.2/154.5	
n-Propylbenzene	54.09/	0.00	50.00	108.2	77.3/135.2	
Bromobenzene	49.82/	0.00	50.00	99.6	74.0/132.4	
1,3,5-Trimethylbenzene	51.99/	0.00	50.00	104.0	75.6/137.0	
tert-Butylbenzene	52.50/	0.00	50.00	105.0	75.6/134.6	
1,2,4-Trimethylbenzene	52.39/	0.00	50.00	104.8	76.9/139.1	
sec-Butylbenzene	53.52/	0.00	50.00	107.0	72.7/135.6	
p-Isopropyltoluene	55.41/	0.00	50.00	110.8	77.1/140.9	
1,3-Dichlorobenzene	53.01/	0.00	50.00	106.0	77.3/131.0	
1,4-Dichlorobenzene	51.19/	0.00	50.00	102.4	33.1/125.8	
1,2-Dichlorobenzene	51.78/	0.00	50.00	103.6	73.5/132.7	
1,2,3-Trimethylbenzene	52.44/	0.00	50.00	104.9	70.9/130.2	
n-Butylbenzene	55.74/	0.00	50.00	111.5	75.0/138.6	
Hexachloroethane	53.13/	0.00	50.00	106.3	55.5/129.0	
1,2-Dibromo-3-Chloropropane	50.25/	0.00	50.00	100.5	54.1/156.4	
1,2,4-Trichlorobenzene	50.58/	0.00	50.00	101.2	37.1/131.3	
1,2,3-Trichlorobenzene	49.70/	0.00	50.00	99.4	59.4/157.9	
Naphthalene	49.92/	0.00	50.00	99.8	39.3/129.2	
2-Methylnaphthalene	51.27/	0.00	50.00	102.5	10.0/175.9	
					Total Outliers:	**0**

Spike File : lcss25b.d
Spike ID : LCS1
Prep Batch: vf120625s2
Prep Date : 06/25/12
Parent File: blks25a.d

1,1,2-Trichloro-1,2,2-trifluor	53.83/	0.00	50.00	107.7	56.9/138.1	SO
Diethyl ether	45.41/	0.00	50.00	90.8	51.7/123.0	
Acetone	36.33/	0.00	50.00	72.7	25.3/155.1	
Methyl iodide	47.32/	0.00	50.00	94.6	56.9/110.8	
Carbon disulfide	58.27/	0.00	50.00	116.5	57.0/123.0	
Methyl acetate	36.69/	0.00	50.00	73.4	54.4/133.5	
tert-Methyl butyl ether	40.81/	0.00	50.00	81.6	67.5/123.7	
Acrylonitrile	34.81/	0.00	50.00	69.6	58.7/133.0	
2-Butanone	41.27/	1.72	50.00	82.5	38.7/136.9	
Dichlorodifluoromethane	55.09/	0.00	50.00	110.2	10.0/171.8	
Chloromethane	51.90/	0.00	50.00	103.8	30.2/152.7	
Vinyl Chloride	55.38/	0.00	50.00	110.8	45.3/138.7	
Bromomethane	49.44/	0.00	50.00	98.9	10.0/157.4	
Chloroethane	75.72/	0.00	50.00	151.4	10.0/169.1	
Trichlorofluoromethane	56.78/	0.00	50.00	113.6	25.7/157.8	
1,1-Dichloroethene	53.23/	0.00	50.00	106.5	59.2/137.5	
Methylene Chloride	46.43/	1.32	50.00	92.9	70.5/121.5	
trans-1,2-Dichloroethene	50.20/	0.00	50.00	100.4	72.5/128.8	
1,1-Dichloroethane	48.52/	0.00	50.00	97.0	72.5/123.4	
cis-1,2-Dichloroethene	47.54/	0.00	50.00	95.1	75.0/120.5	
Tetrahydrofuran	35.94/	0.00	50.00	71.9	48.2/125.7	
Chloroform	48.24/	0.00	50.00	96.5	74.6/123.2	
Bromochloromethane	44.25/	0.00	50.00	88.5	72.3/122.8	
1,1,1-Trichloroethane	52.15/	0.00	50.00	104.3	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	43.26/	0.00	50.00	86.5	42.4/147.1	
4-Methyl-2-pentanone	37.00/	0.00	50.00	74.0	60.4/133.8	
2-Hexanone	41.62/	0.00	50.00	83.2	45.7/141.9	
Carbon Tetrachloride	53.44/	0.00	50.00	106.9	70.1/132.7	
Benzene	49.40/	0.00	50.00	98.8	74.6/128.9	
1,2-Dichloroethane	45.27/	0.00	50.00	90.5	73.2/125.4	
Trichloroethene	50.07/	0.00	50.00	100.1	74.1/127.6	
1,2-Dichloropropane	48.75/	0.00	50.00	97.5	77.6/124.4	
Bromodichloromethane	51.16/	0.00	50.00	102.3	76.7/128.4	
Methyl cyclohexane	53.08/	0.00	50.00	106.2	53.7/148.2	
Dibromomethane	42.97/	0.00	50.00	85.9	72.5/127.3	
cis-1,3-Dichloropropene	49.26/	0.00	50.00	98.5	79.3/128.3	
Toluene	48.29/	0.00	50.00	96.6	74.8/129.2	
trans-1,3-Dichloropropene	49.26/	0.00	50.00	98.5	74.5/129.7	
1,1,2-Trichloroethane	43.85/	0.00	50.00	87.7	71.3/125.7	
Tetrachloroethene	49.42/	0.00	50.00	98.8	73.0/124.7	
trans-1,4-Dichloro-2-butene	39.82/	0.00	50.00	79.6	58.3/143.3	
Dibromochloromethane	49.61/	0.00	50.00	99.2	68.9/132.7	
1,2-Dibromoethane	47.03/	0.00	50.00	94.1	71.4/129.3	
Chlorobenzene	50.42/	0.00	50.00	100.8	74.2/128.1	
1,1,1,2-Tetrachloroethane	51.25/	0.00	50.00	102.5	76.6/133.0	
Ethylbenzene	52.84/	0.00	50.00	105.7	77.7/130.4	
p,m-Xylene	104.37/	0.00	100.00	104.4	79.8/132.0	
o-Xylene	51.26/	0.00	50.00	102.5	79.4/132.3	
Styrene	49.68/	0.00	50.00	99.4	71.3/119.3	
Isopropylbenzene	51.99/	0.00	50.00	104.0	70.3/128.2	
Bromoform	45.17/	0.00	50.00	90.3	54.7/137.4	
1,1,2,2-Tetrachloroethane	42.13/	0.00	50.00	84.3	65.4/134.9	
1,2,3-Trichloropropane	44.41/	0.00	50.00	88.8	67.2/154.5	
n-Propylbenzene	53.84/	0.00	50.00	107.7	77.3/135.2	
Bromobenzene	48.27/	0.00	50.00	96.5	74.0/132.4	
1,3,5-Trimethylbenzene	51.21/	0.00	50.00	102.4	75.6/137.0	
tert-Butylbenzene	53.19/	0.00	50.00	106.4	75.6/134.6	
1,2,4-Trimethylbenzene	51.36/	0.00	50.00	102.7	76.9/139.1	
sec-Butylbenzene	55.21/	0.00	50.00	110.4	72.7/135.6	
p-Isopropyltoluene	56.43/	0.00	50.00	112.9	77.1/140.9	
1,3-Dichlorobenzene	52.30/	0.00	50.00	104.6	77.3/131.0	
1,4-Dichlorobenzene	50.54/	0.00	50.00	101.1	33.1/125.8	
1,2-Dichlorobenzene	49.96/	0.00	50.00	99.9	73.5/132.7	
1,2,3-Trimethylbenzene	51.51/	0.00	50.00	103.0	70.9/130.2	
n-Butylbenzene	56.60/	0.00	50.00	113.2	75.0/138.6	
Hexachloroethane	53.79/	0.00	50.00	107.6	55.5/129.0	
1,2-Dibromo-3-Chloropropane	44.39/	0.00	50.00	88.8	54.1/156.4	
1,2,4-Trichlorobenzene	49.20/	0.00	50.00	98.4	37.1/131.3	
1,2,3-Trichlorobenzene	49.11/	0.00	50.00	98.2	59.4/157.9	
Naphthalene	47.19/	0.00	50.00	94.4	39.3/129.2	
2-Methylnaphthalene	47.03/	0.00	50.00	94.1	10.0/175.9	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks25a.d (100ul blank 1s0625)
Blank ID : BLANK1
Prep Batch: vf120625s2
Prep Date : 06/25/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		5.6	50
Diethyl ether (*)	Not detected		7.1	50
Acetone (*)	Not detected		140	500
Methyl iodide (iodomethane) (*	Not detected		7.3	50
Carbon disulfide (*)	Not detected		8.2	50
Methyl Acetate	Not detected		15	500
tert-Methyl butyl ether (MTBE)	Not detected		8.8	50
Acrylonitrile (*)	Not detected		14	50
2-Butanone (MEK) (*)	1.72	86.0	24	500
Dichlorodifluoromethane	Not detected		12	50
Chloromethane (SPCC)	Not detected		12	50
Vinyl Chloride (CCC)	Not detected		9.2	50
Bromomethane	Not detected		10	50
Chloroethane	Not detected		8.8	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		10	50
1,1-Dichloroethene (CCC/MS)	Not detected		9.9	50
Methylene Chloride	1.32	66.0	9.4	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		9.2	50
cis-1,2-Dichloroethene	Not detected		9.1	50
Tetrahydrofuran	Not detected		49	500
Chloroform (CCC)	Not detected		7.1	50
Bromochloromethane	Not detected		6.7	50
1,1,1-Trichloroethane	Not detected		6.2	50
1,1-Dichloropropene	Not detected		10	50
Cyclohexane	Not detected		14	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		17	50
2-Hexanone (*)	Not detected		10	500
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		6.7	50
Benzene (MS)	Not detected		10	50
1,2-Dichloroethane	Not detected		9.2	50
Trichloroethene (MS)	Not detected		8.8	50
1,2-Dichloropropane (CCC)	Not detected		14	50
Bromodichloromethane	Not detected		7.0	50
Methyl Cyclohexane	Not detected		12	50
Dibromomethane	Not detected		8.3	50
cis-1,3-Dichloropropene	Not detected		8.3	50
Toluene (CCC/MS)	Not detected		9.4	50
trans-1,3-Dichloropropene	Not detected		5.3	50
1,1,2-Trichloroethane	Not detected		11	50
Tetrachloroethene	Not detected		10	50
trans-1,4-Dichloro-2-butene	Not detected		14	50
Dibromochloromethane	Not detected		7.3	50
1,2-Dibromoethane	Not detected		7.5	50
Chlorobenzene (SPCC/MS)	Not detected		9.0	50
1,1,1,2-Tetrachloroethane	Not detected		9.1	50
Ethylbenzene (CCC)	Not detected		9.8	50
p,m-Xylene	Not detected		20	50
o-Xylene	Not detected		8.2	50
Styrene	Not detected		8.2	50
Isopropylbenzene	Not detected		9.8	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks25a.d (100ul blank 1s0625)
Blank ID : BLANK1
Prep Batch: vf120625s2
Prep Date : 06/25/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		5.8	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.4	50
1,2,3-Trichloropropane	Not detected		11	50
n-Propylbenzene	Not detected		8.3	50
Bromobenzene	Not detected		10	50
1,3,5-Trimethylbenzene	Not detected		7.1	50
tert-Butylbenzene	Not detected		9.7	50
1,2,4-Trimethylbenzene	Not detected		7.6	50
sec-Butylbenzene	Not detected		9.1	50
p-Isopropyltoluene	Not detected		9.9	50
1,3-Dichlorobenzene	Not detected		11	50
1,4-Dichlorobenzene	Not detected		7.5	50
1,2-Dichlorobenzene	Not detected		8.6	50
1,2,3-Trimethylbenzene	Not detected		4.0	50
n-Butylbenzene	Not detected		9.4	50
Hexachloroethane	Not detected		3.2	50
1,2-Dibromo-3-Chloropropane	Not detected		18	50
1,2,4-Trichlorobenzene	Not detected		9.8	50
Hexachlorobutadiene	Not detected		9.8	50
1,2,3-Trichlorobenzene	Not detected		8.1	50
Naphthalene	Not detected		8.5	50
2-Methylnaphthalene	Not detected		12	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks25a.d
Method Blank Prep Date: 06/25/12
Blank/LCS Preparation Batch: vf120625s2

LCS Data File: lcss25a.d
LCS Prep Date: 06/25/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52903.04	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52903.06	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52903.10	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52924.12	120625A3	VF120625S2	06/25/12	BTEX 5035	$5BTX826
S52934.01	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52934.02	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52939.01	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52959.01	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52959.02	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52959.03	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb25a.d	06/25/12 13:36	50	95	8.0	40.0	24.4	12507	PASS
		75	95	30.0	66.0	53.3	27352	PASS
		95	95	100.0	100.0	100.0	51312	PASS
		96	95	5.0	9.0	6.6	3412	PASS
		173	174	0.0	2.0	0.2	66	PASS
		174	95	50.0	120.0	58.7	30127	PASS
		175	174	4.0	9.0	7.6	2289	PASS
		176	174	93.0	101.0	93.3	28102	PASS
		177	176	5.0	9.0	6.2	1739	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc25a.d	06/25/12 14:03	Pentafluorobenzene	379689/ 3.99	189845- 759378	3.49- 4.49
		1,4-Difluorobenzene	736472/ 4.35	368236- 1472944	3.85- 4.85
		Chlorobenzene-D5	403772/ 5.72	201886- 807544	5.22- 6.22
		1,4-Dichlorobenzene-D4	276607/ 6.81	138304- 553214	6.31- 7.31
					Total Outliers: N/A
lcss25a.d	06/25/12 14:34	Pentafluorobenzene	413171/ 3.99	Ratio: 1.088	Diff.: 0.00
		1,4-Difluorobenzene	781229/ 4.35	Ratio: 1.061	Diff.: 0.00
		Chlorobenzene-D5	429066/ 5.72	Ratio: 1.063	Diff.: 0.00
		1,4-Dichlorobenzene-D4	292644/ 6.81	Ratio: 1.058	Diff.: 0.00
					Total Outliers: 0
lcss25b.d	06/25/12 15:12	Pentafluorobenzene	477473/ 3.99	Ratio: 1.258	Diff.: 0.00
		1,4-Difluorobenzene	880454/ 4.35	Ratio: 1.196	Diff.: 0.00
		Chlorobenzene-D5	463731/ 5.72	Ratio: 1.148	Diff.: 0.00
		1,4-Dichlorobenzene-D4	307877/ 6.81	Ratio: 1.113	Diff.: 0.00
					Total Outliers: 0
blks25a.d	06/25/12 16:25	Pentafluorobenzene	432376/ 3.99	Ratio: 1.139	Diff.: 0.00
		1,4-Difluorobenzene	840298/ 4.35	Ratio: 1.141	Diff.: 0.00
		Chlorobenzene-D5	468604/ 5.72	Ratio: 1.161	Diff.: 0.00
		1,4-Dichlorobenzene-D4	308841/ 6.81	Ratio: 1.117	Diff.: 0.00
					Total Outliers: 0
5293401.d	06/25/12 17:02	Pentafluorobenzene	446484/ 3.99	Ratio: 1.176	Diff.: 0.00
		1,4-Difluorobenzene	840360/ 4.35	Ratio: 1.141	Diff.: 0.00
		Chlorobenzene-D5	461309/ 5.72	Ratio: 1.142	Diff.: 0.00
		1,4-Dichlorobenzene-D4	316663/ 6.81	Ratio: 1.145	Diff.: 0.00
					Total Outliers: 0
5293402.d	06/25/12 17:20	Pentafluorobenzene	443293/ 3.99	Ratio: 1.168	Diff.: 0.00
		1,4-Difluorobenzene	834644/ 4.35	Ratio: 1.133	Diff.: 0.00
		Chlorobenzene-D5	453931/ 5.72	Ratio: 1.124	Diff.: 0.00
		1,4-Dichlorobenzene-D4	307778/ 6.81	Ratio: 1.113	Diff.: 0.00
					Total Outliers: 0
5295901.d	06/25/12 17:57	Pentafluorobenzene	444798/ 3.99	Ratio: 1.171	Diff.: 0.00
		1,4-Difluorobenzene	843355/ 4.35	Ratio: 1.145	Diff.: 0.00
		Chlorobenzene-D5	463071/ 5.72	Ratio: 1.147	Diff.: 0.00
		1,4-Dichlorobenzene-D4	306212/ 6.81	Ratio: 1.107	Diff.: 0.00
					Total Outliers: 0
5295902.d	06/25/12 18:16	Pentafluorobenzene	451952/ 3.99	Ratio: 1.190	Diff.: 0.00
		1,4-Difluorobenzene	854150/ 4.35	Ratio: 1.160	Diff.: 0.00
		Chlorobenzene-D5	465354/ 5.72	Ratio: 1.153	Diff.: 0.00
		1,4-Dichlorobenzene-D4	307064/ 6.81	Ratio: 1.110	Diff.: 0.00
					Total Outliers: 0
5295903.d	06/25/12 18:34	Pentafluorobenzene	437377/ 3.99	Ratio: 1.152	Diff.: 0.00
		1,4-Difluorobenzene	834236/ 4.35	Ratio: 1.133	Diff.: 0.00
		Chlorobenzene-D5	458147/ 5.72	Ratio: 1.135	Diff.: 0.00
		1,4-Dichlorobenzene-D4	306869/ 6.81	Ratio: 1.109	Diff.: 0.00
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52934.01
Data File: 5293401.d
Date Received: 06/21/12

Tag: 2306-062012-0001
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	200	7.1	ug/kg	06/25/12	
67-64-1	Acetone	Not detected	1000	140	ug/kg		
74-88-4	Methyl iodide	Not detected	100	7.3	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.2	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	200	8.8	ug/kg		
107-13-1	Acrylonitrile	Not detected	100	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	750	24	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	300	12	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	50	9.2	ug/kg		
74-83-9	Bromomethane	Not detected	200	10	ug/kg		
75-00-3	Chloroethane	Not detected	300	8.8	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	50	9.9	ug/kg		
75-09-2	Methylene chloride	Not detected	100	9.4	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	50	8.5	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	50	9.2	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	50	9.1	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	1000	49	ug/kg		
67-66-3	Chloroform	Not detected	50	7.1	ug/kg		
74-97-5	Bromochloromethane	Not detected	100	6.7	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	50	6.2	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	17	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	10	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	50	6.7	ug/kg		
71-43-2	Benzene	Not detected	50	10	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	50	9.2	ug/kg		
79-01-6	Trichloroethene	Not detected	50	8.8	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	50	14	ug/kg		
75-27-4	Bromodichloromethane	Not detected	100	7.0	ug/kg		
74-95-3	Dibromomethane	Not detected	300	8.3	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	8.3	ug/kg		
108-88-3	Toluene	Not detected	100	9.4	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	5.3	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	50	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	50	10	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	50	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	100	7.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	20	7.5	ug/kg		M
108-90-7	Chlorobenzene	Not detected	50	9.0	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	100	9.1	ug/kg		
100-41-4	Ethylbenzene	Not detected	50	9.8	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	100	20	ug/kg		
95-47-6	o-Xylene	Not detected	50	8.2	ug/kg		
100-42-5	Styrene	Not detected	50	8.2	ug/kg		
98-82-8	Isopropylbenzene	Not detected	300	9.8	ug/kg		
75-25-2	Bromoform	Not detected	100	5.8	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	7.4	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	100	11	ug/kg		
103-65-1	n-Propylbenzene	Not detected	100	8.3	ug/kg		
108-86-1	Bromobenzene	Not detected	100	10	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	100	7.1	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	50	9.7	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	100	7.6	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	50	9.1	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	100	9.9	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	100	11	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	100	7.5	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	100	8.6	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	100	4.0	ug/kg		
104-51-8	n-Butylbenzene	Not detected	50	9.4	ug/kg		
67-72-1	Hexachloroethane	Not detected	300	3.2	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	300	18	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	330	9.8	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	330	8.1	ug/kg		
91-20-3	Naphthalene	Not detected	330	8.5	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	330	12	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52934.01
Data File: 5293401.d
Date Received: 06/21/12

Tag: 2306-062012-0001
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/25/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (96%)				06/25/12	
460-00-4	4-Bromofluorobenzene	Pass (93%)					
2037-26-5	Toluene-D8	Pass (102%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52934.02
Data File: 5293402.d
Date Received: 06/21/12

Tag: SB131 (06-20-2012) (1-2)
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 71.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	300	10	ug/kg	06/25/12	
67-64-1	Acetone	Not detected	1000	200	ug/kg		
74-88-4	Methyl iodide	Not detected	100	10	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	12	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	13	ug/kg		
107-13-1	Acrylonitrile	Not detected	100	20	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	35	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	400	17	ug/kg		
74-87-3	Chloromethane	Not detected	400	18	ug/kg		
75-01-4	Vinyl chloride	Not detected	70	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	400	12	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	15	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	14	ug/kg		
75-09-2	Methylene chloride	Not detected	100	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	13	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	13	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	1000	69	ug/kg		
67-66-3	Chloroform	Not detected	70	10	ug/kg		
74-97-5	Bromochloromethane	Not detected	100	9.5	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.8	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	24	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.5	ug/kg		
71-43-2	Benzene	Not detected	70	14	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	13	ug/kg		
79-01-6	Trichloroethene	Not detected	70	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	20	ug/kg		
75-27-4	Bromodichloromethane	Not detected	100	10.0	ug/kg		
74-95-3	Dibromomethane	Not detected	400	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	12	ug/kg		
108-88-3	Toluene	Not detected	100	13	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	7.5	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	15	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	15	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	70	19	ug/kg		
124-48-1	Dibromochloromethane	Not detected	100	10	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	30	11	ug/kg		M
108-90-7	Chlorobenzene	Not detected	70	13	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	100	13	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	100	28	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	400	14	ug/kg		
75-25-2	Bromoform	Not detected	100	8.2	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	10	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	100	16	ug/kg		
103-65-1	n-Propylbenzene	Not detected	100	12	ug/kg		
108-86-1	Bromobenzene	Not detected	100	14	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	100	10	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	70	14	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	100	11	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	70	13	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	100	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	100	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	100	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	100	12	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	100	5.6	ug/kg		
104-51-8	n-Butylbenzene	Not detected	70	13	ug/kg		
67-72-1	Hexachloroethane	Not detected	400	4.6	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	400	25	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	470	14	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	470	12	ug/kg		
91-20-3	Naphthalene	Not detected	470	12	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	470	17	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52934.02
Data File: 5293402.d
Date Received: 06/21/12

Tag: SB131 (06-20-2012) (1-2)
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 71.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Total Solids							
TSOLIDS	Total Solids	82	1		%	06/22/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/25/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (96%)				06/25/12	
460-00-4	4-Bromofluorobenzene	Pass (93%)					
2037-26-5	Toluene-D8	Pass (101%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
Analytical Batch: 120625a3.4
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A:	TIC is a suspected aldol-condensation product
B:	Compound also found in associated method blank
C:	Analyte presence confirmed by GC/MS
D:	Identified in an analysis at a secondary dilution factor
E:	Concentration exceeds calibration range
J:	Estimated value less than reporting limit, but greater than MDL
N:	Presumptive evidence of TIC
P:	Pesticide/Aroclor 2-column RPD exceeds limit
U:	Analyte not detected above reporting limit
!:	Result is outside of stated limit criteria
F:	Analysis run outside of holding time
G:	Estimated result due to extraction run outside of holding time
H:	Sample submitted and run outside of holding time
I:	Matrix interference with internal standard
K:	Elevated reporting limit due to low total solids
L:	Elevated reporting limit due to low sample amount
M:	Result reported to MDL not RDL
O:	Analysis performed by outside laboratory. See attached report.
Q:	Reported result represents most abundant aroclor
R:	Preliminary result
S:	Surrogate recovery outside of control limits
T:	No correction for total solids
V:	Accurate value not available due to presence of multiple aroclors
W:	Surrogate result not applicable due to sample dilution
X:	Elevated reporting limit due to matrix interference
Y:	Elevated reporting limit due to high target concentration
Z:	Estimated result due to matrix interference
p:	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*:	Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5293401.d Vial: 7
Acq On : 25 Jun 12 5:02 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:13 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

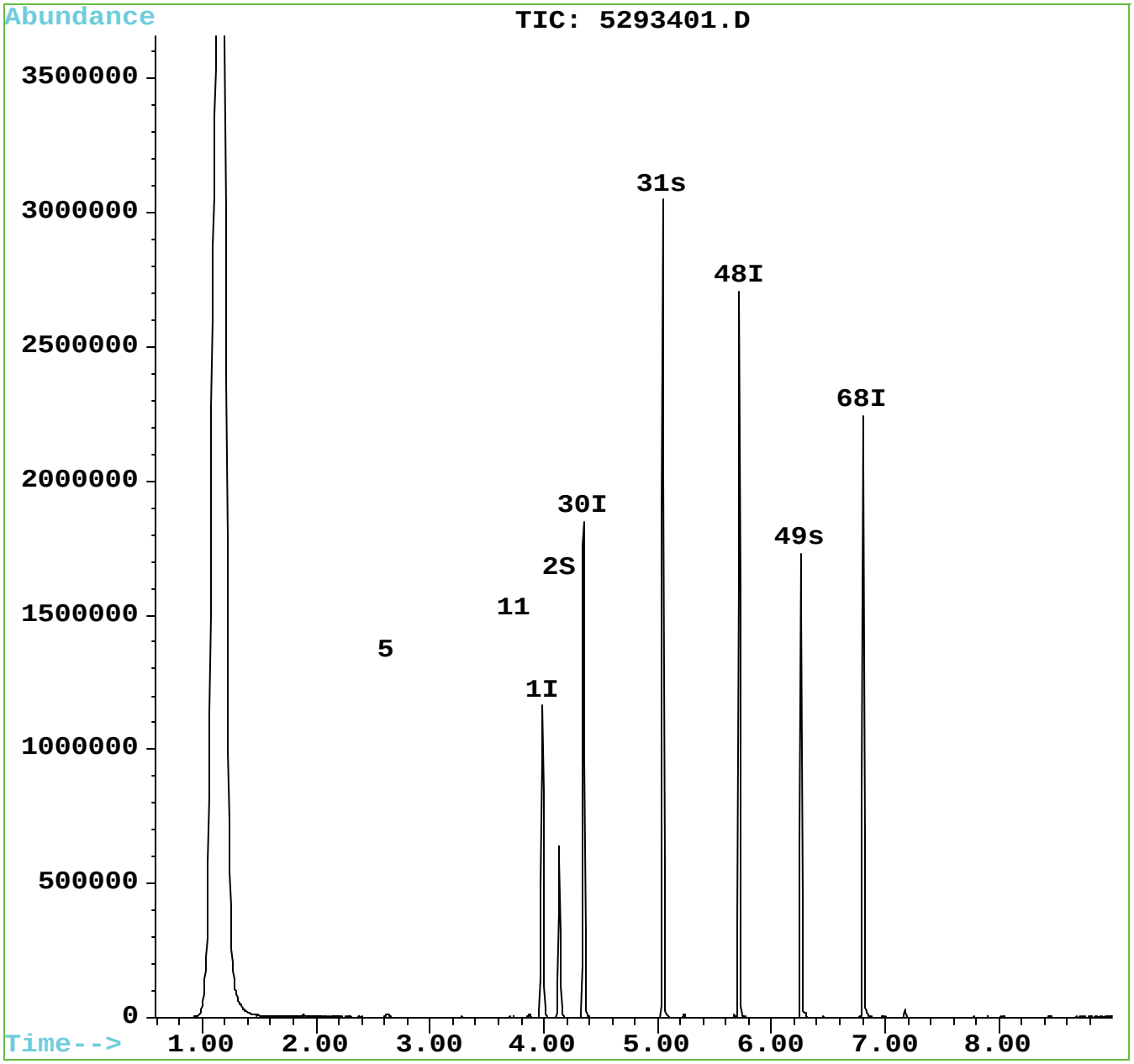
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	446484	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	840360	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	461309	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	316663	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	288418	48.13	ug/l	96.2
31) TOLUENE-D8 (S)	5.05	98	1008615	51.10	ug/l	102.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	211482	46.38	ug/l	92.7
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	22177	11.27	ug/l	8
11) 2-Butanone (MEK) (*)	3.73	43	4422	2.05	ug/l	6

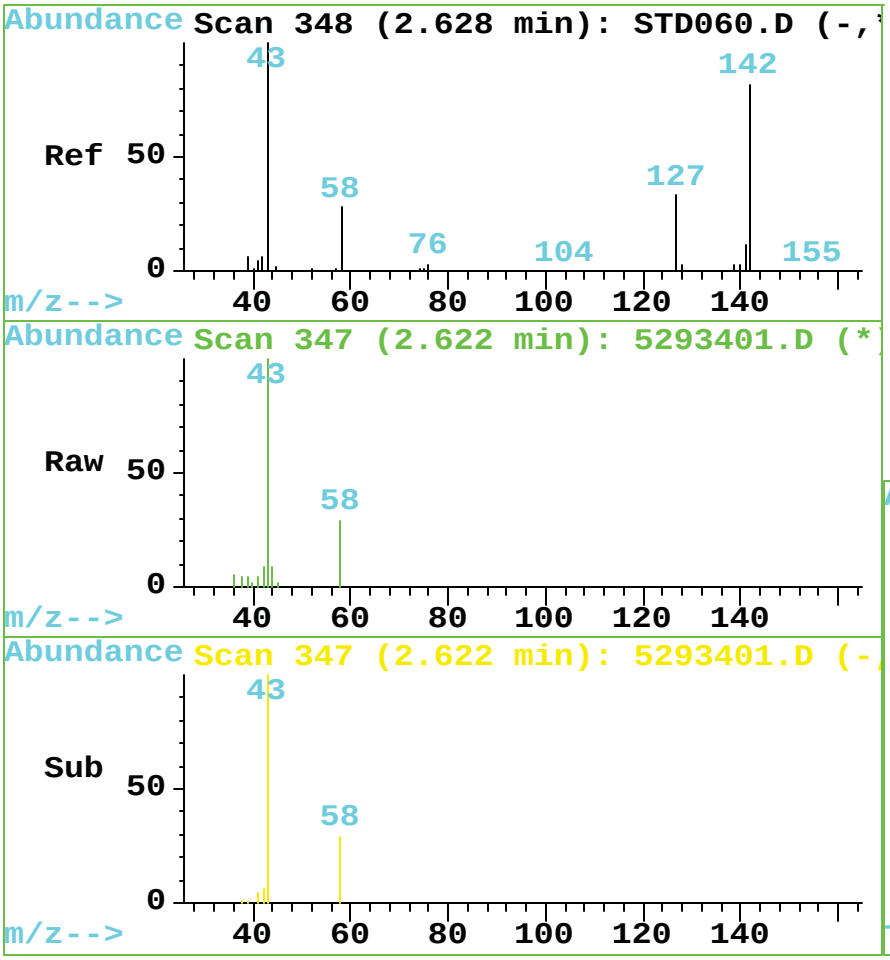
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5293401.d Vial: 7
Acq On : 25 Jun 12 5:02 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:13 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

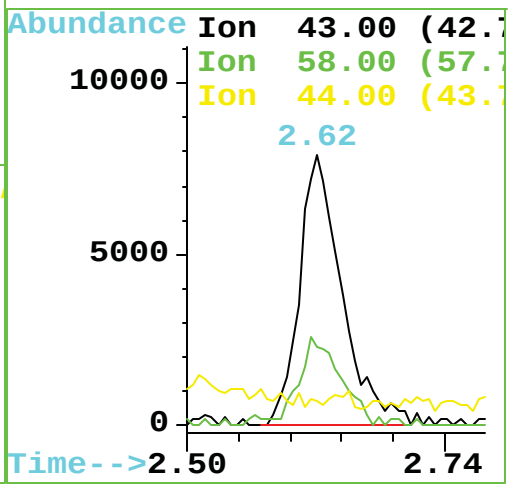


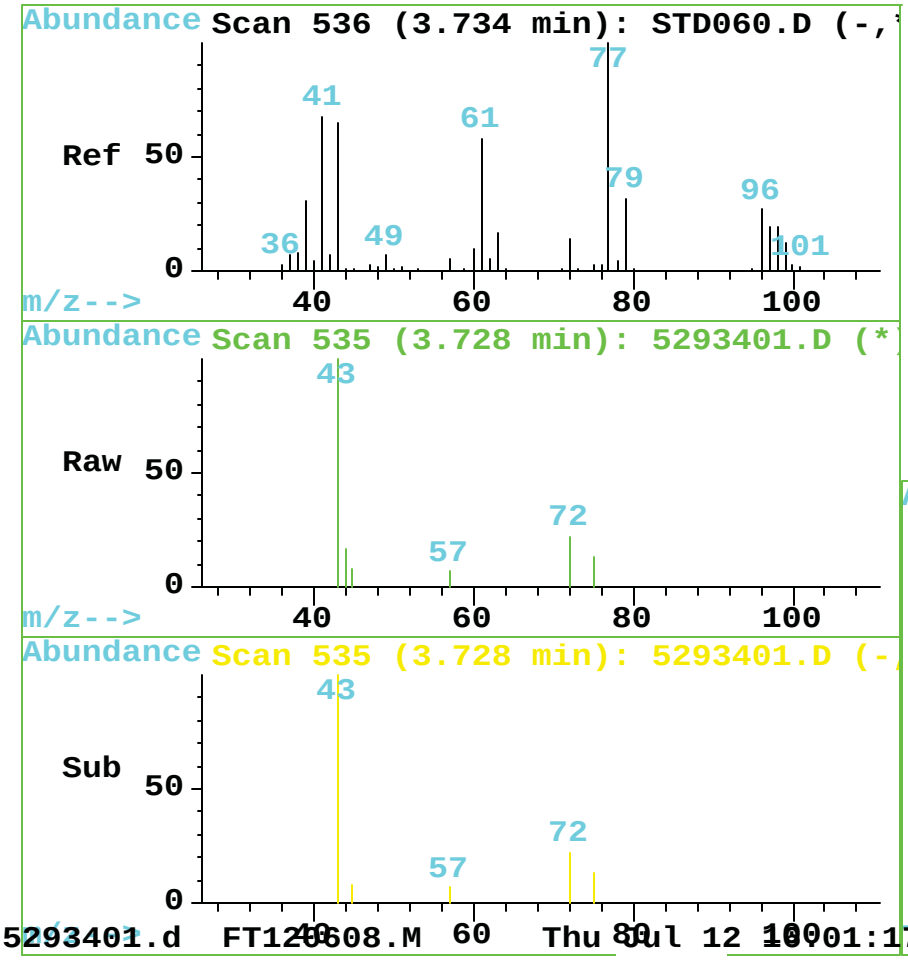


#5
Acetone (*)
Concen: 11.27 ug/l
RT: 2.62 min Scan# 347
Delta R.T. -0.00 min
Lab File: 5293401.d
Acq: 25 Jun 12 5:02 pm

Tgt Ion:43 Resp: 22177

Ion	Ratio	Lower	Upper
43	100		
58	31.5	11.0	71.0
44	1.0	0.0	33.9
0	0.0	0.0	0.0

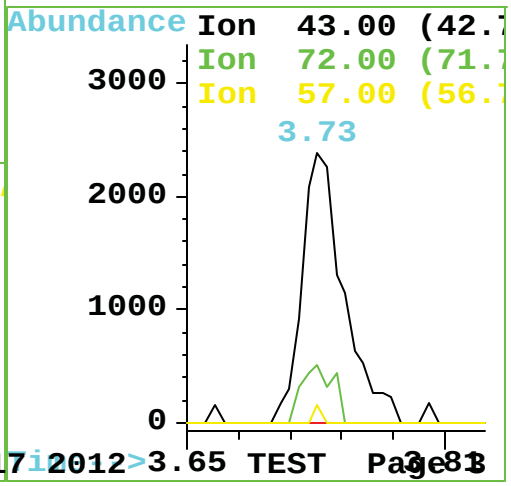




#11
2-Butanone (MEK) (*)
Concen: 2.05 ug/l
RT: 3.73 min Scan# 535
Delta R.T. -0.01 min
Lab File: 5293401.d
Acq: 25 Jun 12 5:02 pm

Tgt Ion:43 Resp: 4422

Ion	Ratio	Lower	Upper
43	100		
72	16.4	6.4	66.4
57	1.3	0.0	37.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5293402.d Vial: 8
Acq On : 25 Jun 12 5:20 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:13 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

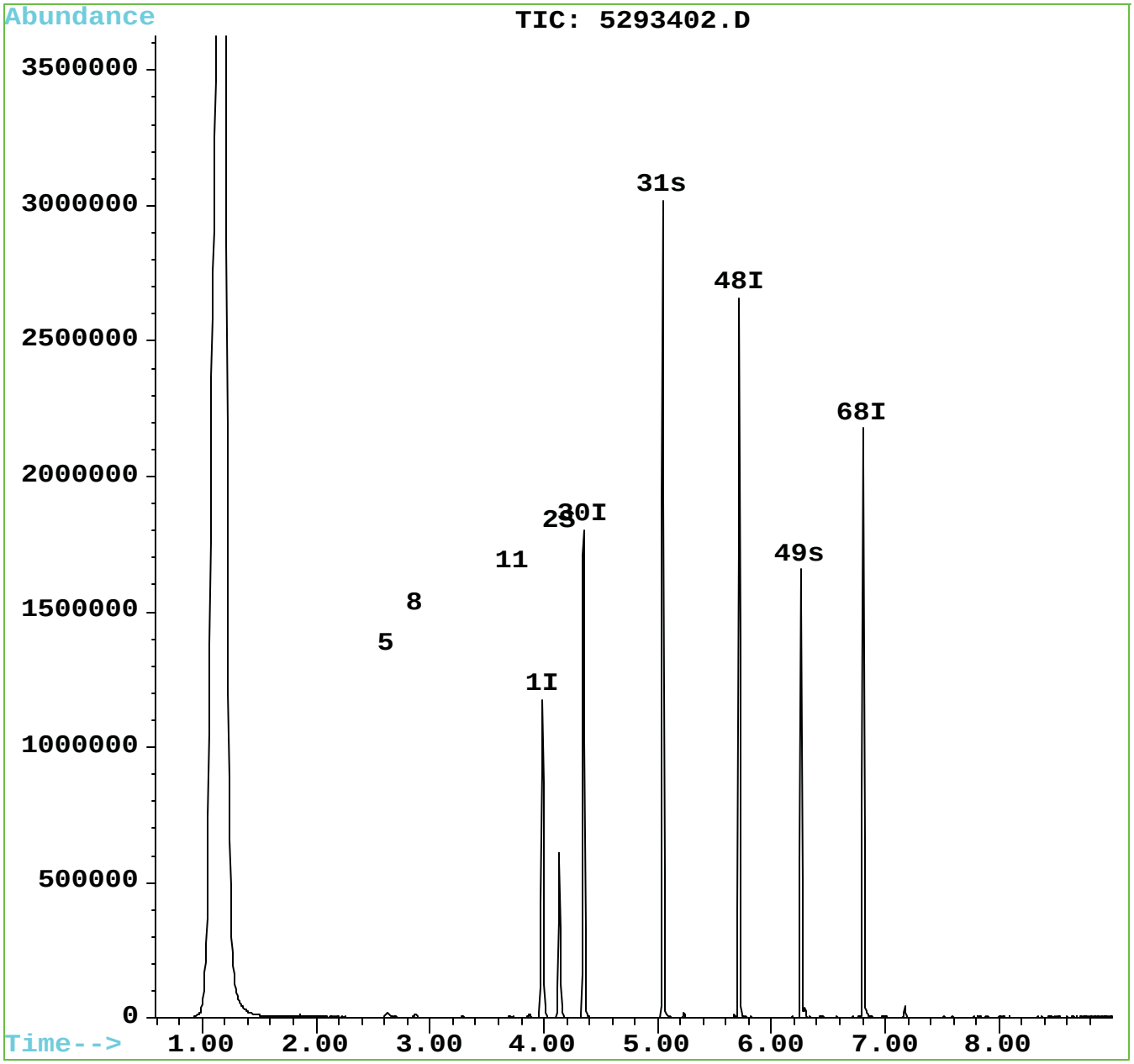
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	443293	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	834644	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	453931	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	307778	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	285196	47.93	ug/l	95.8
31) TOLUENE-D8 (S)	5.05	98	992509	50.63	ug/l	101.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	208004	46.36	ug/l	92.7
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	31991	19.26	ug/l	8
8) Methyl Acetate	2.87	43	21039	5.96	ug/l	7
11) 2-Butanone (MEK) (*)	3.73	43	3253	1.52	ug/l	7

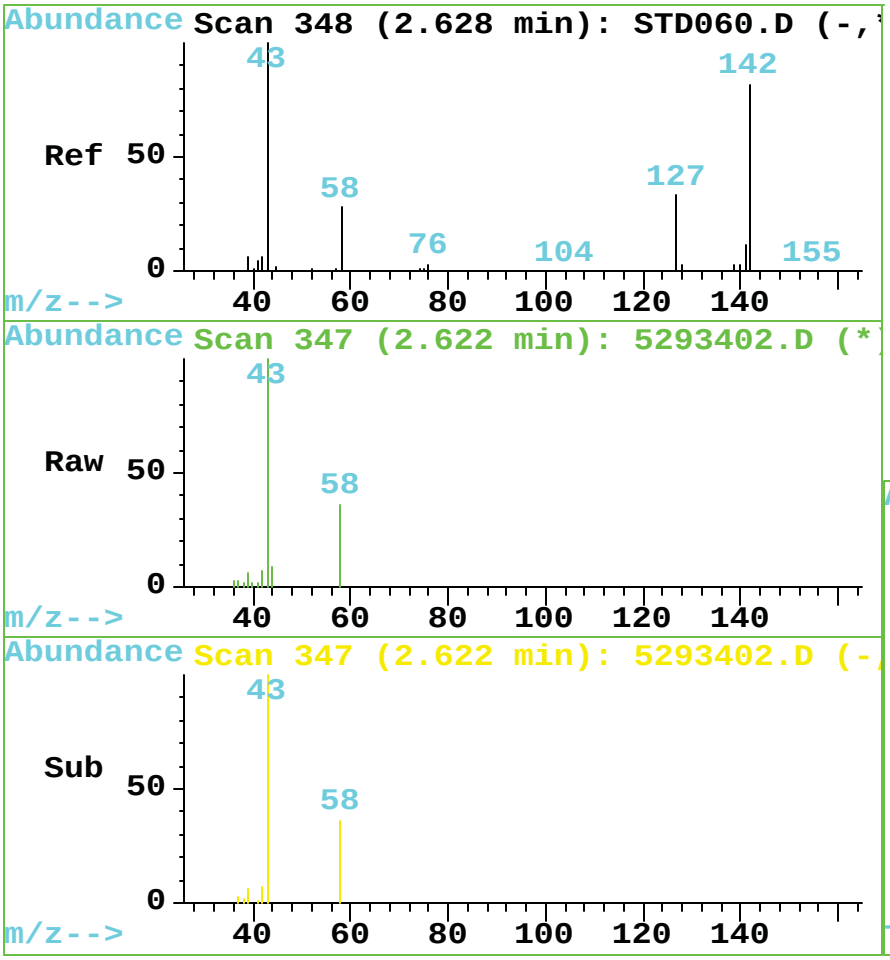
(#) = qualifier out of range (m) = manual integration
5293402.d FT120608.M Thu Jul 12 16:01:22 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5293402.d Vial: 8
Acq On : 25 Jun 12 5:20 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:13 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

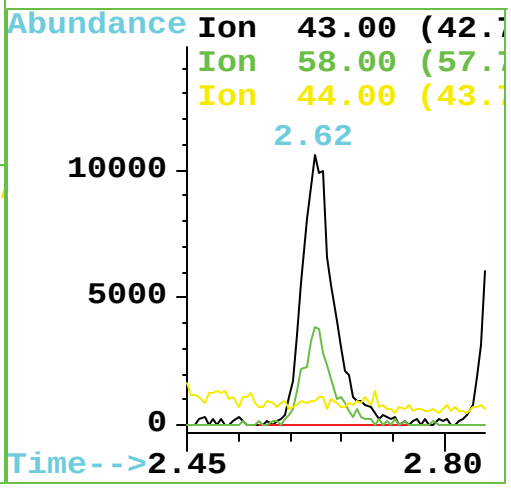


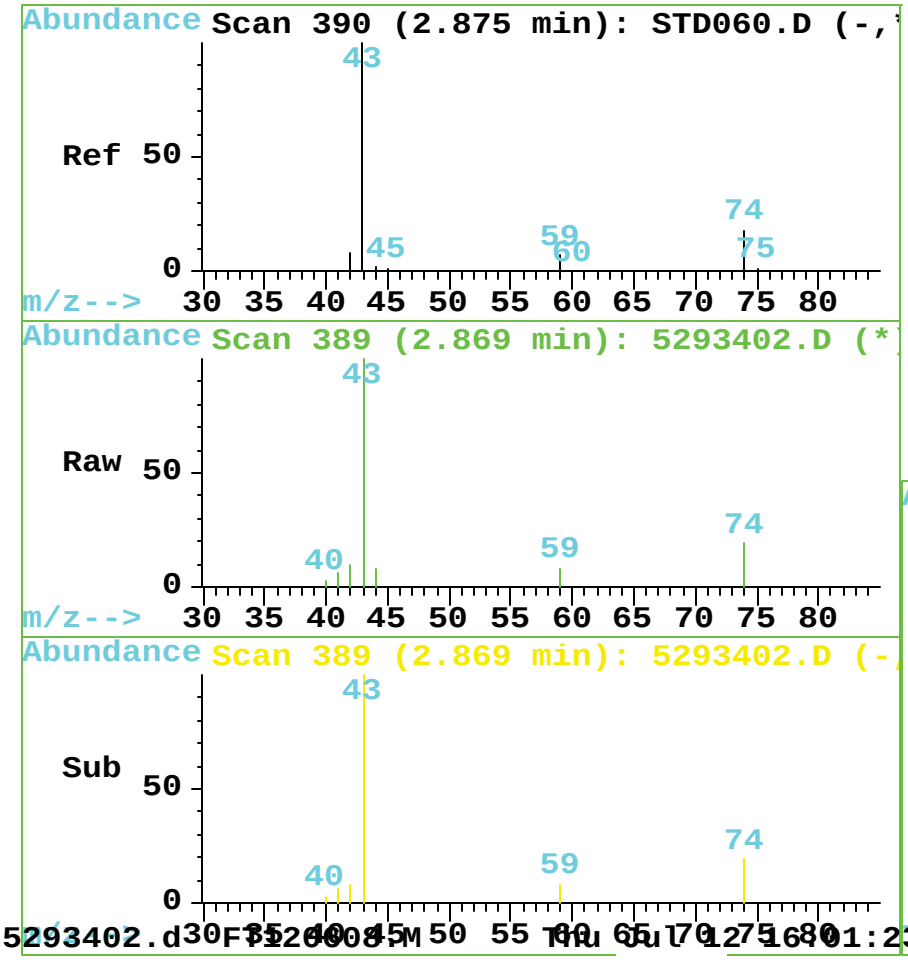


#5
Acetone (*)
Concen: 19.26 ug/l
RT: 2.62 min Scan# 347
Delta R.T. -0.01 min
Lab File: 5293402.d
Acq: 25 Jun 12 5:20 pm

Tgt Ion:43 Resp: 31991

Ion	Ratio	Lower	Upper
43	100		
58	31.9	11.0	71.0
44	2.5	0.0	33.9
0	0.0	0.0	0.0

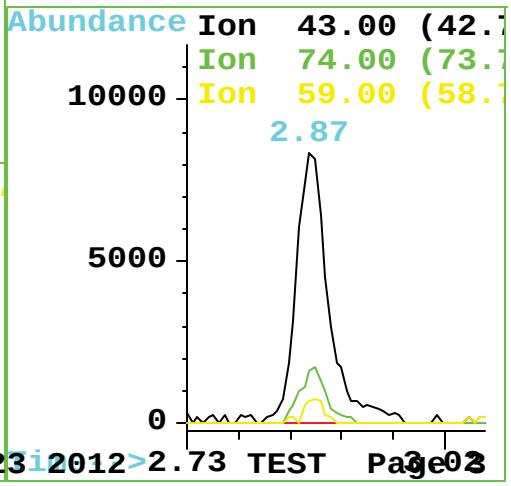


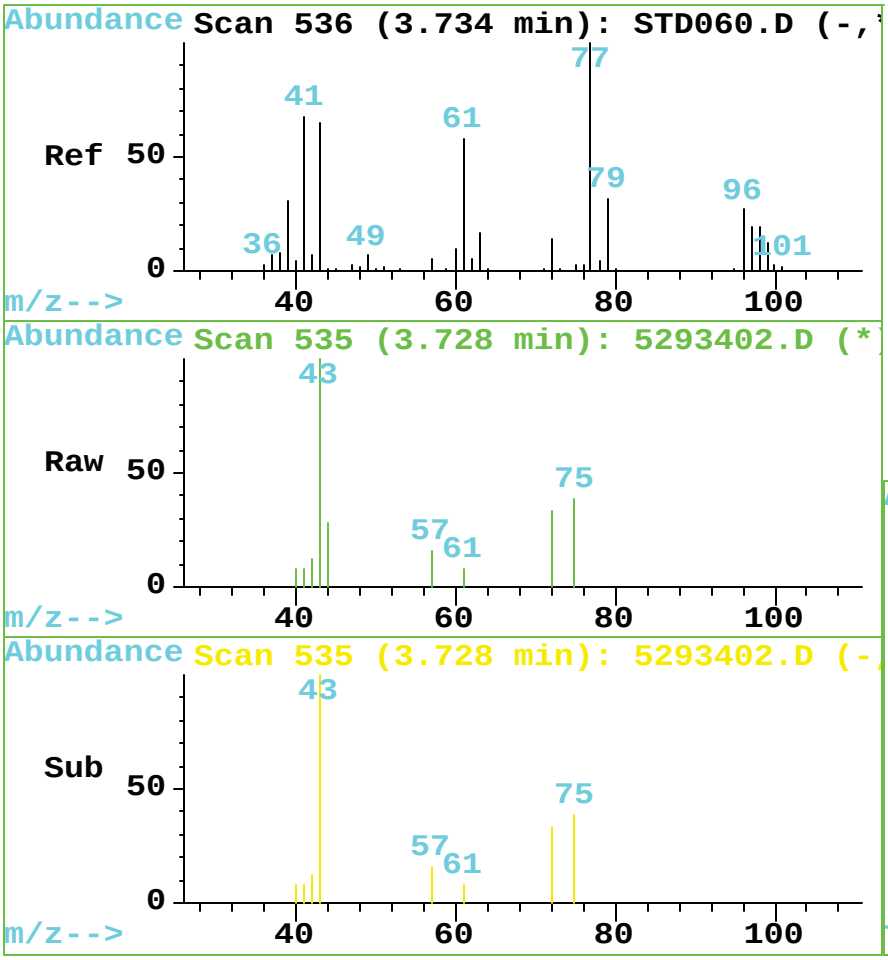


#8
Methyl Acetate
Concen: 5.96 ug/l
RT: 2.87 min Scan# 389
Delta R.T. -0.00 min
Lab File: 5293402.d
Acq: 25 Jun 12 5:20 pm

Tgt Ion:43 Resp: 21039

Ion	Ratio	Lower	Upper
43	100		
74	16.8	3.0	63.0
59	5.6	0.0	39.3
0	0.0	0.0	0.0

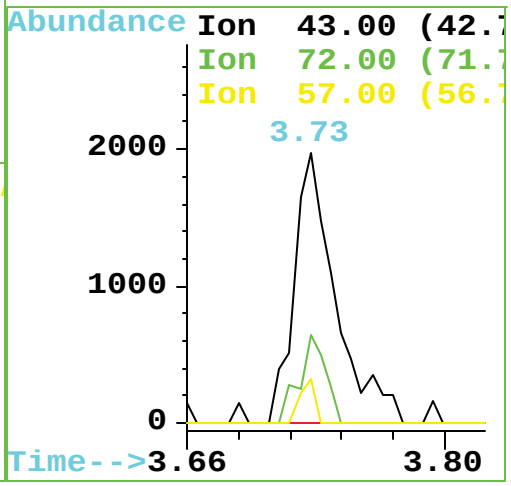




#11
2-Butanone (MEK) (*)
Concen: 1.52 ug/l
RT: 3.73 min Scan# 535
Delta R.T. -0.01 min
Lab File: 5293402.d
Acq: 25 Jun 12 5:20 pm

Tgt Ion:43 Resp: 3253

Ion	Ratio	Lower	Upper
43	100		
72	20.9	6.4	66.4
57	5.8	0.0	37.8
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
ft120608.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.671	8.97	0.785	0.656	0.614	0.631	0.675	0.666				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.571	3.59	0.586	0.584	0.541	0.549	0.577	0.588				
	Diethyl ether (*)	A	0.236	9.93	0.276	0.232	0.209	0.217	0.241	0.239				
	Acetone (*)	L	0.168	16.99		0.214	0.171	0.147	0.165	0.142	0.99	0.01	0.143	0.00
	Methyl iodide (iodomethane) (*	A	0.742	5.91	0.801	0.715	0.685	0.714	0.760	0.774				
	Carbon disulfide (*)	A	1.814	14.49	1.482	1.639	1.665	1.879	2.071	2.149				
	Methyl Acetate	A	0.398	5.25		0.426	0.402	0.369	0.403	0.389				
	tert-Methyl butyl ether (MTBE)	A	1.444	6.94	1.622	1.407	1.342	1.366	1.465	1.461				
	Acrylonitrile (*)	A	0.212	8.40	0.243	0.211	0.195	0.194	0.214	0.213				
	2-Butanone (MEK) (*)	A	0.242	8.42		0.275	0.241	0.229	0.242	0.222				
	Dichlorodifluoromethane	A	0.475	11.88	0.412	0.447	0.416	0.512	0.527	0.535				
	Chloromethane (SPCC)	LO	1.088	21.43	1.557	1.041	0.942	0.956	1.005	1.026	1.00	0.00	1.017	0.00
	Vinyl Chloride (CCC)	A	0.760	4.19	0.715	0.745	0.739	0.779	0.782	0.799				
	Bromomethane	A	0.282	12.13	0.348	0.285	0.256	0.258	0.271	0.272				
	Chloroethane	A	0.273	11.03	0.330	0.280	0.256	0.249	0.263	0.257				
	Acrolein	A												
	Trichlorofluoromethane	A	0.798	6.00	0.877	0.797	0.733	0.769	0.806	0.808				
	1,1-Dichloroethene (CCC/MS)	A	1.089	6.84	1.208	1.091	1.000	1.022	1.091	1.123				
	Methylene Chloride	A	0.656	12.02	0.813	0.630	0.604	0.606	0.639	0.641				
	trans-1,2-Dichloroethene	A	1.101	4.59	1.180	1.086	1.045	1.053	1.126	1.117				
	1,1-Dichloroethane (SPCC)	A	1.332	6.65	1.492	1.336	1.250	1.250	1.337	1.324				
	cis-1,2-Dichloroethene	A	0.661	6.29	0.739	0.653	0.628	0.624	0.666	0.656				
	Tetrahydrofuran	L	0.186	18.71		0.245	0.191	0.163	0.169	0.163	1.00	0.01	0.161	0.00
	Chloroform (CCC)	A	1.069	7.82	1.228	1.040	1.009	0.997	1.068	1.071				
	Bromochloromethane	A	0.302	10.91	0.367	0.289	0.279	0.280	0.301	0.297				
	1,1,1-Trichloroethane	A	0.923	5.40	0.980	0.887	0.865	0.886	0.944	0.975				
	1,1-Dichloropropene	A	0.974	7.57	1.109	0.996	0.914	0.911	0.970	0.944				
	Cyclohexane	A	0.496	8.97	0.580	0.512	0.467	0.464	0.479	0.475				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.174	7.80	1.348	1.180	1.103	1.101	1.175	1.138				
	4-Methyl-2-pentanone (MIBK) (*	A	0.089	12.03	0.107	0.081	0.077	0.084	0.092	0.091				
	2-Hexanone (*)	A	0.081	4.73		0.082	0.078	0.077	0.086	0.084				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.379	8.36	0.360	0.363	0.346	0.368	0.405	0.429				
	Benzene (MS)	A	1.499	7.20	1.698	1.512	1.404	1.409	1.504	1.464				
	1,2-Dichloroethane	A	0.447	6.93	0.499	0.440	0.414	0.418	0.455	0.454				
	Trichloroethene (MS)	A	0.330	6.62	0.364	0.325	0.303	0.312	0.333	0.342				
	1,2-Dichloropropane (CCC)	A	0.389	3.55	0.402	0.400	0.373	0.371	0.398	0.390				
	Bromodichloromethane	A	0.365	9.78	0.344	0.338	0.332	0.357	0.403	0.416				
	Methyl Cyclohexane	A	0.705	5.46	0.758	0.719	0.652	0.669	0.712	0.721				
	Dibromomethane	A	0.121	6.09	0.122	0.121	0.111	0.113	0.126	0.130				
	cis-1,3-Dichloropropene	A	0.513	6.23	0.488	0.500	0.484	0.499	0.554	0.553				
	Toluene (CCC/MS)	A	1.506	7.59	1.721	1.534	1.421	1.421	1.495	1.445				
	trans-1,3-Dichloropropene	A	0.408	11.21	0.342	0.383	0.390	0.413	0.458	0.459				
	1,1,2-Trichloroethane	A	0.189	5.14	0.203	0.186	0.177	0.181	0.194	0.195				
	Tetrachloroethene	A	0.299	6.57	0.330	0.300	0.276	0.281	0.299	0.310				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.494	14.04	0.626	0.472	0.431	0.450	0.482	0.505				
	trans-1,4-Dichloro-2-butene	A	0.146	8.27	0.153	0.138	0.126	0.144	0.158	0.154				
	Dibromochloromethane	QO	0.314	19.73	0.237	0.273	0.277	0.326	0.374	0.394	1.00	0.00	0.324	0.02
	1,2-Dibromoethane	A	0.348	5.26	0.342	0.337	0.326	0.344	0.365	0.375				
	Chlorobenzene (SPCC/MS)	A	1.540	8.46	1.788	1.566	1.440	1.448	1.519	1.479				
	1,1,1,2-Tetrachloroethane	A	0.446	5.20	0.435	0.435	0.423	0.434	0.471	0.480				
	Ethylbenzene (CCC)	A	2.980	5.93	3.272	3.103	2.828	2.856	2.973	2.849				
	p,m-Xylene	A	1.085	9.04	1.248	1.152	1.049	1.044	1.046	0.973				
	o-Xylene	A	2.346	6.00	2.599	2.410	2.238	2.270	2.327	2.231				
	Styrene	A	1.706	3.33	1.769	1.761	1.674	1.676	1.732	1.625				
	Isopropylbenzene	A	2.952	5.62	3.249	3.022	2.795	2.830	2.927	2.888				
	Bromoform (SPCC)	QO	0.153	29.17	0.097	0.125	0.126	0.162	0.191	0.214	1.00	0.00	0.152	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.462	3.57	0.461	0.462	0.439	0.451	0.477	0.484				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
ft120608.m	1,2,3-Trichloropropane	A	0.126	4.16	0.128	0.129	0.116	0.124	0.128	0.130				
	n-Propylbenzene	A	3.536	5.24	3.832	3.658	3.320	3.450	3.543	3.414				
	Bromobenzene	A	0.525	6.88	0.586	0.509	0.485	0.498	0.531	0.538				
	1,3,5-Trimethylbenzene	A	1.091	4.73	1.178	1.125	1.049	1.057	1.087	1.050				
	tert-Butylbenzene	A	1.711	3.95	1.779	1.718	1.594	1.674	1.740	1.759				
	1,2,4-Trimethylbenzene	A	1.208	7.14	1.365	1.237	1.160	1.181	1.185	1.118				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	4.666	5.89	5.175	4.722	4.502	4.387	4.643	4.564				
	p-Isopropyltoluene	A	3.395	4.85	3.665	3.501	3.340	3.220	3.377	3.264				
	1,3-Dichlorobenzene	A	1.438	6.84	1.612	1.478	1.415	1.330	1.413	1.378				
	1,4-Dichlorobenzene	A	1.518	10.66	1.833	1.495	1.442	1.365	1.491	1.482				
	1,2-Dichlorobenzene	A	1.356	5.87	1.487	1.367	1.290	1.257	1.362	1.370				
	1,2,3-Trimethylbenzene	A	3.359	6.74	3.781	3.332	3.178	3.148	3.371	3.341				
	n-Butylbenzene	A	3.730	4.73	4.031	3.812	3.642	3.522	3.729	3.646				
	Hexachloroethane	QO	0.288	28.98	0.211	0.222	0.230	0.294	0.348	0.420	1.00	0.00	0.256	0.04
	1,2-Dibromo-3-Chloropropane	QO	0.070	26.01	0.042	0.059	0.065	0.075	0.084	0.092	1.00	0.00	0.071	0.01
	1,2,4-Trichlorobenzene	A	0.778	4.42	0.811	0.761	0.728	0.758	0.792	0.816				
	Hexachlorobutadiene	A	0.493	10.83	0.477	0.460	0.442	0.473	0.515	0.590				
	1,2,3-Trichlorobenzene	A	0.695	6.57	0.770	0.676	0.639	0.666	0.710	0.711				
	Naphthalene	A	1.635	5.94	1.812	1.563	1.559	1.571	1.662	1.644				
	2-Methylnaphthalene	A	0.801	8.09	0.907	0.724	0.751	0.784	0.833	0.806				

Calibration Date: 06/08/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): ft120608.M (Mean %RSD: 8.45)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\merfolk.thd\methods\ft120608.m\

Injection Time	Calibration Data File
06/08/12 15:44	bfb08a.d
06/08/12 18:36	std001.d
06/08/12 18:55	std010.d
06/08/12 19:13	std020.d
06/08/12 19:31	std060.d
06/08/12 19:49	std100.d
06/08/12 20:07	std200.d

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\bfb08a.d Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	83138	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	148488	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	83428	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	63366	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	55113	49.39	ug/l		98.7
31) TOLUENE-D8 (S)	5.05	98	179702	51.53	ug/l		103.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	41916	50.83	ug/l		101.6
Target Compounds							Qvalu
5) Acetone (*)	2.62	43	4119	11.22	ug/l		9
7) Carbon disulfide (*)	2.70	76	147	0.05	ug/l	#	
8) Methyl Acetate	2.88	43	403	0.61	ug/l	#	4
11) 2-Butanone (MEK) (*)	3.73	43	1398	3.48	ug/l	#	5
13) Chloromethane (SPCC)	1.40	50	811	0.48	ug/l		8
15) Bromomethane	1.77	94	59	0.13	ug/l	#	
20) Methylene Chloride	2.94	84	380	0.35	ug/l	#	2
22) 1,1-Dichloroethane (SPCC)	3.38	63	201	0.09	ug/l	#	5
23) cis-1,2-Dichloroethene	3.70	96	73	0.07	ug/l	#	2
24) Tetrahydrofuran	3.87	42	6908	21.96	ug/l	#	1
25) Chloroform (CCC)	3.88	83	357	0.20	ug/l	#	5
29) Cyclohexane	3.93	42	65	0.08	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	249	0.94	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	302	1.25	ug/l	#	7
36) Benzene (MS)	4.16	78	641	0.14	ug/l	#	
37) 1,2-Dichloroethane	4.17	62	167	0.13	ug/l	#	8
38) Trichloroethene (MS)	4.49	95	55	0.06	ug/l	#	4
40) Bromodichloromethane	4.72	83	77	0.07	ug/l	#	3
41) Methyl Cyclohexane	4.58	55	201	0.10	ug/l	#	6
44) Toluene (CCC/MS)	5.07	91	910	0.20	ug/l		7
45) trans-1,3-Dichloropropene	5.17	75	56	0.05	ug/l	#	4
53) Chlorobenzene (SPCC/MS)	5.73	112	466	0.18	ug/l	#	
55) Ethylbenzene (CCC)	5.77	91	722	0.15	ug/l		9
56) p,m-Xylene	5.82	106	681	0.38	ug/l		9
57) o-Xylene	6.02	91	1005	0.26	ug/l		7
58) Styrene	6.02	104	408	0.14	ug/l	#	6
59) Isopropylbenzene	6.18	105	1044	0.21	ug/l		7
61) 1,1,2,2-Tetrachloroethane	6.32	83	126	0.16	ug/l	#	
63) n-Propylbenzene	6.37	91	1677	0.28	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\bfb08a.d Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

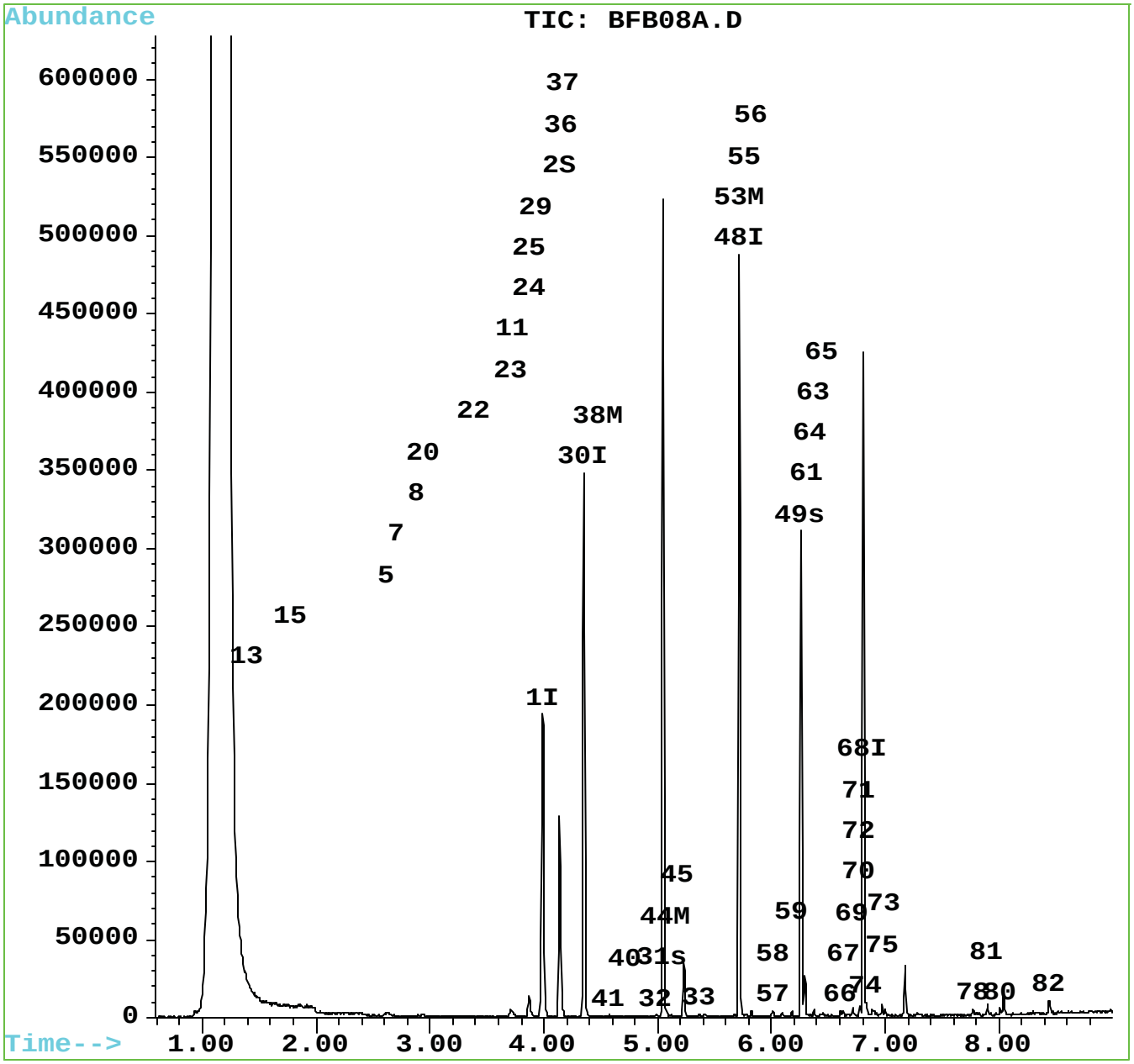
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
64)	Bromobenzene	6.34	156	201	0.23	ug/l	#	3
65)	1,3,5-Trimethylbenzene	6.45	120	448	0.25	ug/l		8
66)	tert-Butylbenzene	6.61	91	1015	0.36	ug/l	#	3
67)	1,2,4-Trimethylbenzene	6.63	120	462	0.23	ug/l	#	2
69)	sec-Butylbenzene	6.72	105	2525	0.43	ug/l		9
70)	p-Isopropyltoluene	6.77	119	1491	0.35	ug/l		7
71)	1,3-Dichlorobenzene	6.78	146	465	0.26	ug/l		8
72)	1,4-Dichlorobenzene	6.78	146	465	0.24	ug/l		8
73)	1,2-Dichlorobenzene	7.00	146	473	0.28	ug/l		8
74)	1,2,3-Trimethylbenzene	6.83	105	1432	0.34	ug/l		8
75)	n-Butylbenzene	6.97	91	2186	0.46	ug/l		9
78)	1,2,4-Trichlorobenzene	7.77	182	750	0.76	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	717	0.81	ug/l		8
81)	Naphthalene	7.90	128	3542	1.71	ug/l		9
82)	2-Methylnaphthalene	8.44	142	2825	2.78	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\bfb08a.d Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 14:42 19112

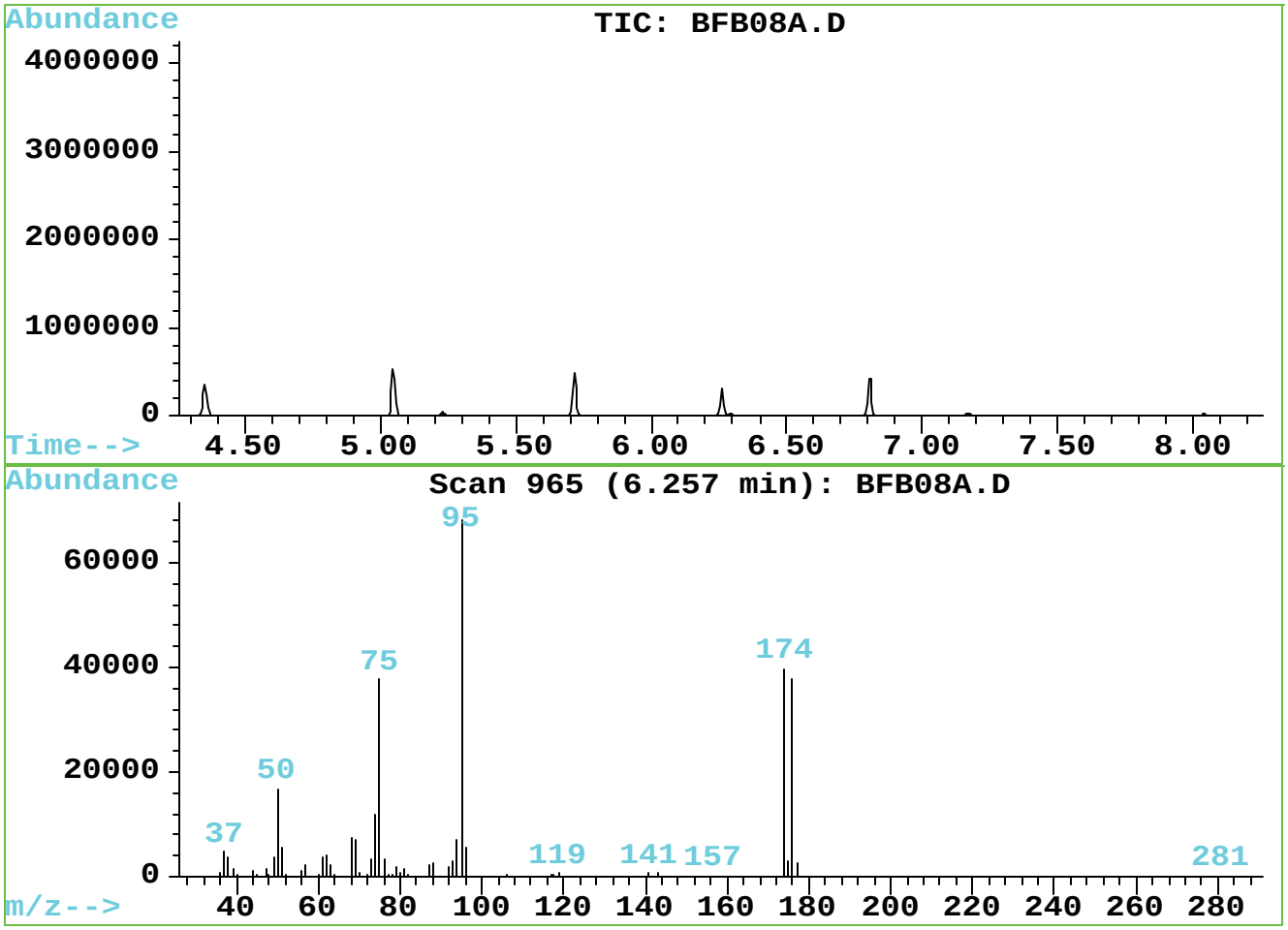
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M\BFB08A.D Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 965

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.8	16840	PASS
75	95	30	66	55.4	37672	PASS
95	95	100	100	100.0	68024	PASS
96	95	5	9	8.1	5529	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	58.5	39784	PASS
175	174	4	9	7.2	2871	PASS
176	174	93	101	94.6	37624	PASS
177	176	5	9	6.8	2562	PASS

BFB08A.D FT120608.M Thu Jul 12 14:44:24 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	379920	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	729973	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	407313	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	288018	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	5961	1.61	ug/l		3.2
31) TOLUENE-D8 (S)	5.05	98	19685	1.21	ug/l		2.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	5098	1.18	ug/l		2.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	4454	1.03	ug/l	#	6
4) Diethyl ether (*)	2.38	74	2096	1.25	ug/l	#	3
5) Acetone (*)	2.63	43	3556	5.35	ug/l		7
6) Methyl iodide (iodomethane	2.66	142	6088	1.05	ug/l		7
7) Carbon disulfide (*)	2.70	76	11261	0.88	ug/l		9
8) Methyl Acetate	2.87	43	5721	4.29	ug/l		6
9) tert-Methyl butyl ether (M	3.14	73	12325	1.72	ug/l		7
10) Acrylonitrile (*)	3.11	53	1844	2.75	ug/l	#	8
11) 2-Butanone (MEK) (*)	3.73	43	4023	4.79	ug/l	#	7
12) Dichlorodifluoromethane	1.27	85	3132	0.97	ug/l	m	8
13) Chloromethane (SPCC)	1.42	50	11831	2.64	ug/l	m	7
14) Vinyl Chloride (CCC)	1.52	62	5434	1.08	ug/l		9
15) Bromomethane	1.77	94	2647	0.74	ug/l	#	
16) Chloroethane	1.87	64	2504	0.59	ug/l	#	6
17) Acrolein	2.50	56	67	0.42	ug/l	#	9
18) Trichlorofluoromethane	2.09	101	6661	0.94	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.55	61	9178	1.39	ug/l	#	7
20) Methylene Chloride	2.93	84	6174	1.63	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	8967	1.50	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	11338	1.55	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	5613	1.27	ug/l	#	4
24) Tetrahydrofuran	3.87	42	6837	12.22	ug/l	#	1
25) Chloroform (CCC)	3.89	83	9331	1.34	ug/l		8
26) Bromochloromethane	3.84	130	2790	1.45	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	7449	0.98	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	8427	1.33	ug/l		8
29) Cyclohexane	4.01	42	4406	1.85	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	1563	2.49	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	1158	1.98	ug/l	#	3

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	5.08	63	2302	1.87	ug/l	#	
35) Carbon Tetrachloride	4.07	117	5259	0.78	ug/l		9
36) Benzene (MS)	4.17	78	24793	1.31	ug/l		8
37) 1,2-Dichloroethane	4.17	62	7291	1.46	ug/l		9
38) Trichloroethene (MS)	4.48	95	5310	1.13	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	5864	1.42	ug/l		9
40) Bromodichloromethane	4.72	83	5022	1.03	ug/l		9
41) Methyl Cyclohexane	4.57	55	11062	1.47	ug/l	#	5
42) Dibromomethane	4.65	174	1787	1.16	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	7127	1.28	ug/l		8
44) Toluene (CCC/MS)	5.07	91	25131	1.23	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	4991	1.12	ug/l		8
46) 1,1,2-Trichloroethane	5.26	83	2958	1.45	ug/l		9
47) Tetrachloroethene	5.33	166	4818	1.55	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.35	53	1247	1.65	ug/l	#	3
51) Dibromochloromethane	5.45	129	1928	0.68	ug/l		9
52) 1,2-Dibromoethane	5.51	107	2785	1.09	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	14569	1.09	ug/l	#	4
54) 1,1,1,2-Tetrachloroethane	5.76	131	3540	0.84	ug/l	#	7
55) Ethylbenzene (CCC)	5.77	91	26652	1.00	ug/l		9
56) p,m-Xylene	5.83	106	20338	2.03	ug/l	#	7
57) o-Xylene	6.02	91	21170	1.01	ug/l		9
58) Styrene	6.02	104	14408	0.95	ug/l		8
59) Isopropylbenzene	6.18	105	26468	0.98	ug/l		9
60) Bromoform (SPCC)	6.12	173	789	0.50	ug/l		8
61) 1,1,2,2-Tetrachloroethane	6.32	83	3753	1.30	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	1040	1.16	ug/l	#	3
63) n-Propylbenzene	6.37	91	31215	1.04	ug/l		8
64) Bromobenzene	6.34	156	4770	1.07	ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	9597	0.96	ug/l	#	7
66) tert-Butylbenzene	6.61	91	14495	0.90	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	11122	1.01	ug/l	#	7
69) sec-Butylbenzene	6.71	105	29812	1.04	ug/l		8
70) p-Isopropyltoluene	6.77	119	21114	0.99	ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	9288	1.06	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	10558	1.27	ug/l	m	8
73) 1,2-Dichlorobenzene	7.00	146	8563	1.12	ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	21782	1.15	ug/l		8
75) n-Butylbenzene	6.97	91	23220	1.15	ug/l		8
76) Hexachloroethane	7.12	201	1214	0.43	ug/l	#	2

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

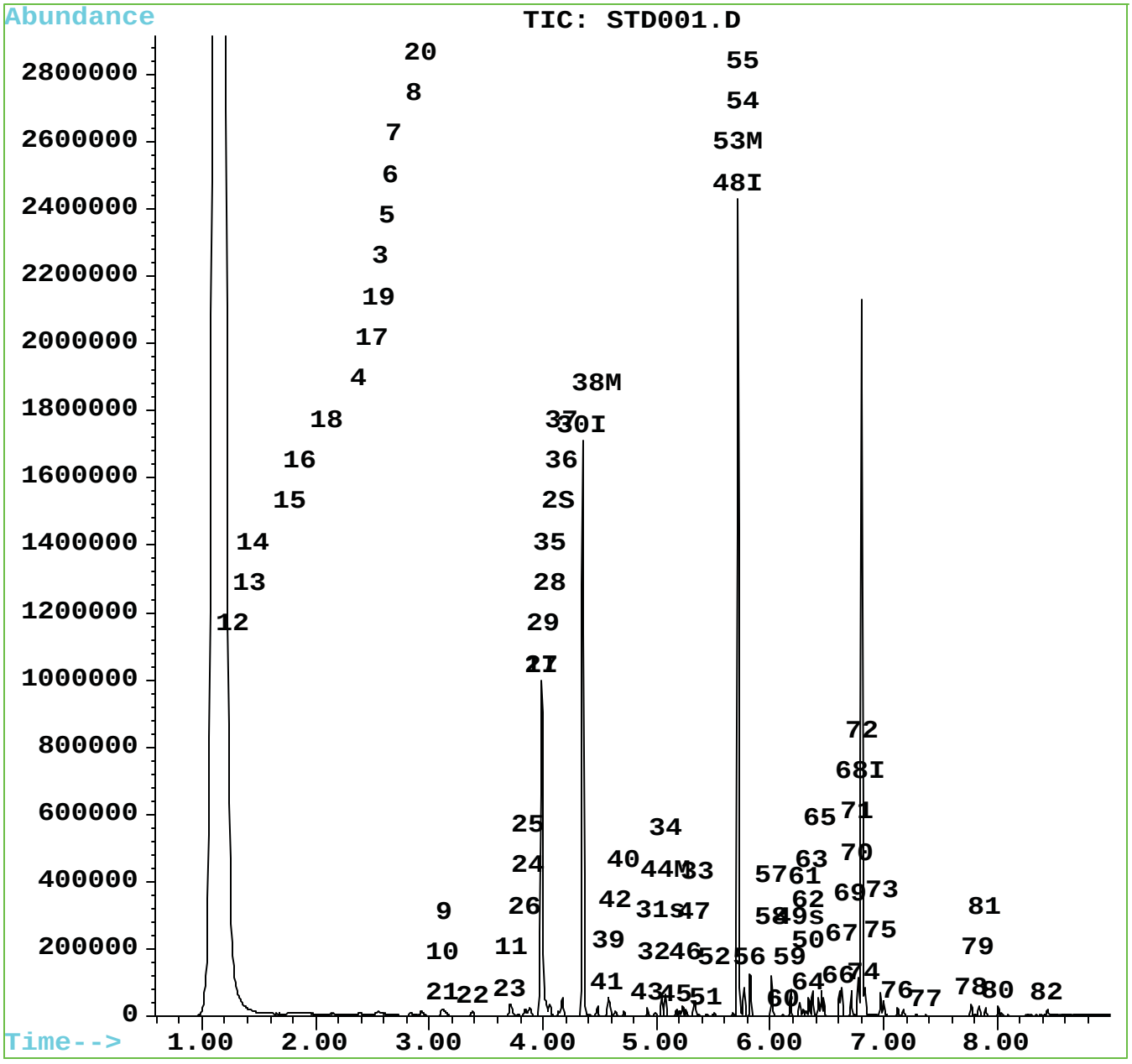
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	243	0.60	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	4670	1.25	ug/l		8
79)	Hexachlorobutadiene	7.84	225	2749	0.88	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	4433	1.33	ug/l		9
81)	Naphthalene	7.89	128	10438	1.36	ug/l		9
82)	2-Methylnaphthalene	8.44	142	5225	1.36	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	414215	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	776364	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	430828	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	309995	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	54360	13.50	ug/l		26.9
31) TOLUENE-D8 (S)	5.05	98	183265	10.56	ug/l		21.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	40688	8.93	ug/l		17.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.58	101	48359	10.27	ug/l	#	7
4) Diethyl ether (*)	2.37	74	19228	10.50	ug/l	#	3
5) Acetone (*)	2.63	43	17757	24.49	ug/l		8
6) Methyl iodide (iodomethane	2.65	142	59254	9.41	ug/l		8
7) Carbon disulfide (*)	2.69	76	135742	9.77	ug/l		8
8) Methyl Acetate	2.87	43	35329	24.30	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	116537	14.89	ug/l		8
10) Acrylonitrile (*)	3.11	53	17476	23.91	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	22782	24.88	ug/l		7
12) Dichlorodifluoromethane	1.25	85	37067	10.62	ug/l		9
13) Chloromethane (SPCC)	1.40	50	86268	17.64	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	61759	11.31	ug/l		9
15) Bromomethane	1.77	94	23646	6.10	ug/l		9
16) Chloroethane	1.85	64	23203	5.03	ug/l		8
17) Acrolein	2.47	56	55	0.32	ug/l	#	4
18) Trichlorofluoromethane	2.07	101	66046	8.52	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.54	61	90405	12.56	ug/l	#	6
20) Methylene Chloride	2.93	84	52150	12.65	ug/l	#	4
21) trans-1,2-Dichloroethene	3.10	61	89958	13.76	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	110697	13.87	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	54081	11.23	ug/l	#	5
24) Tetrahydrofuran	3.87	42	20304	33.27	ug/l		8
25) Chloroform (CCC)	3.89	83	86168	11.38	ug/l		9
26) Bromochloromethane	3.84	130	23910	11.42	ug/l	#	1
27) 1,1,1-Trichloroethane	3.98	97	73468	8.91	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	82507	11.96	ug/l		8
29) Cyclohexane	4.00	42	42410	16.32	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	12611	18.90	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	12660	20.32	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	20227	15.43 ug/l #	
35) Carbon Tetrachloride	4.06	117	56402	7.82 ug/l	9
36) Benzene (MS)	4.16	78	234714	11.65 ug/l	8
37) 1,2-Dichloroethane	4.17	62	68369	12.84 ug/l	9
38) Trichloroethene (MS)	4.47	95	50495	10.14 ug/l	7
39) 1,2-Dichloropropane (CCC)	4.59	63	62038	14.12 ug/l	9
40) Bromodichloromethane	4.72	83	52508	10.09 ug/l	9
41) Methyl Cyclohexane	4.57	55	111633	13.90 ug/l #	5
42) Dibromomethane	4.65	174	18732	11.43 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	77585	13.15 ug/l	9
44) Toluene (CCC/MS)	5.07	91	238249	10.99 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	59525	12.46 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	28952	13.36 ug/l	8
47) Tetrachloroethene	5.33	166	46508	13.12 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.34	53	11866	14.81 ug/l #	4
51) Dibromochloromethane	5.45	129	23563	7.86 ug/l	9
52) 1,2-Dibromoethane	5.51	107	29017	10.75 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	134922	9.55 ug/l	7
54) 1,1,1,2-Tetrachloroethane	5.76	131	37481	8.39 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	267347	9.49 ug/l	9
56) p,m-Xylene	5.82	106	198571	18.73 ug/l	7
57) o-Xylene	6.01	91	207662	9.34 ug/l	8
58) Styrene	6.02	104	151740	9.46 ug/l	8
59) Isopropylbenzene	6.18	105	260353	9.12 ug/l	9
60) Bromoform (SPCC)	6.12	173	10781	6.47 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	39778	13.07 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	11093	11.67 ug/l #	4
63) n-Propylbenzene	6.37	91	315185	9.89 ug/l	8
64) Bromobenzene	6.34	156	43847	9.29 ug/l #	3
65) 1,3,5-Trimethylbenzene	6.45	120	96916	9.20 ug/l #	7
66) tert-Butylbenzene	6.61	91	147998	8.69 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	106552	9.12 ug/l #	7
69) sec-Butylbenzene	6.72	105	292789	9.45 ug/l	9
70) p-Isopropyltoluene	6.77	119	217046	9.45 ug/l	9
71) 1,3-Dichlorobenzene	6.78	146	91642	9.69 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	92661	10.36 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	84739	10.31 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	206561	10.16 ug/l	8
75) n-Butylbenzene	6.97	91	236319	10.83 ug/l	9
76) Hexachloroethane	7.13	201	13783	4.55 ug/l #	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

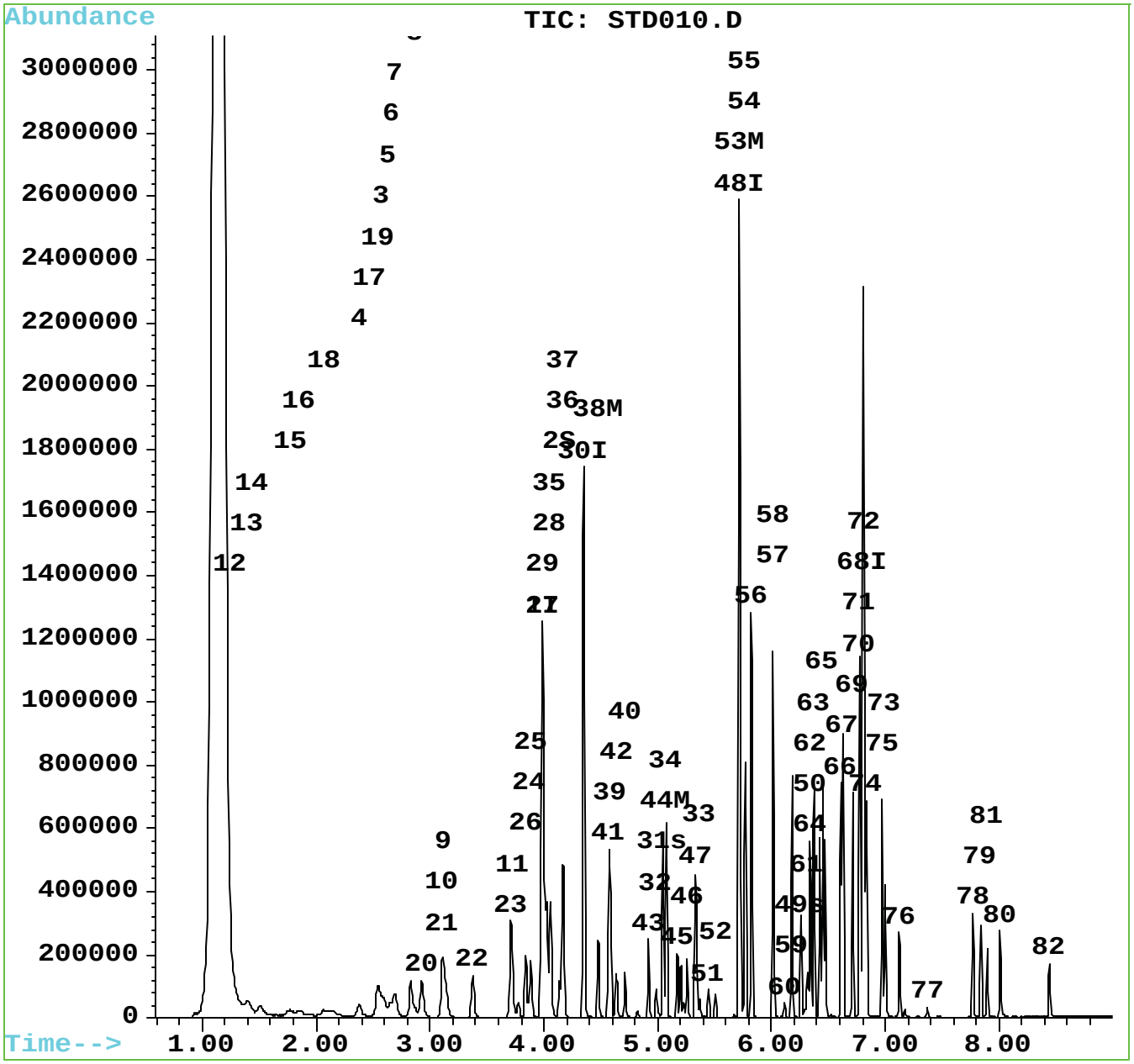
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	3655	8.33	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	47156	11.74	ug/l		9
79)	Hexachlorobutadiene	7.85	225	28546	8.49	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	41890	11.71	ug/l		9
81)	Naphthalene	7.90	128	96886	11.73	ug/l		9
82)	2-Methylnaphthalene	8.45	142	44875	10.89	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	420130	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	792518	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	447318	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	309313	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	103211	25.26	ug/l		50.5
31) TOLUENE-D8 (S)	5.05	98	349681	19.74	ug/l		39.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	77041	16.29	ug/l		32.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	90925	19.03	ug/l	#	7
4) Diethyl ether (*)	2.38	74	35199	18.95	ug/l	#	3
5) Acetone (*)	2.63	43	28760	39.10	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	115174	18.04	ug/l		8
7) Carbon disulfide (*)	2.70	76	279812	19.85	ug/l		8
8) Methyl Acetate	2.87	43	67492	45.77	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	225580	28.41	ug/l		8
10) Acrylonitrile (*)	3.11	53	32839	44.30	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	40418	43.52	ug/l		8
12) Dichlorodifluoromethane	1.26	85	69962	19.88	ug/l		9
13) Chloromethane (SPCC)	1.41	50	158248	31.90	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	124111	22.40	ug/l		9
15) Bromomethane	1.77	94	42948	11.03	ug/l		9
16) Chloroethane	1.86	64	43063	9.28	ug/l		9
17) Acrolein	2.47	56	122	0.70	ug/l	#	8
18) Trichlorofluoromethane	2.07	101	123152	15.66	ug/l	#	6
19) 1,1-Dichloroethene (CCC/MS	2.55	61	168050	23.02	ug/l	#	6
20) Methylene Chloride	2.93	84	101499	24.27	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	175637	26.49	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	210148	25.96	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	105462	21.59	ug/l	#	5
24) Tetrahydrofuran	3.87	42	32164	51.97	ug/l		9
25) Chloroform (CCC)	3.89	83	169484	22.06	ug/l		9
26) Bromochloromethane	3.85	130	46868	22.08	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	145445	17.38	ug/l		9
28) 1,1-Dichloropropene	4.06	75	153633	21.96	ug/l		8
29) Cyclohexane	4.01	42	78421	29.75	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	24456	35.91	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	24651	38.76	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	39574	29.58 ug/l #	
35) Carbon Tetrachloride	4.07	117	109780	14.91 ug/l	9
36) Benzene (MS)	4.17	78	445228	21.65 ug/l	9
37) 1,2-Dichloroethane	4.17	62	131304	24.15 ug/l	9
38) Trichloroethene (MS)	4.48	95	96196	18.93 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	118370	26.39 ug/l	9
40) Bromodichloromethane	4.72	83	105177	19.80 ug/l	9
41) Methyl Cyclohexane	4.57	55	206708	25.22 ug/l #	5
42) Dibromomethane	4.65	174	35153	21.02 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	153459	25.48 ug/l	9
44) Toluene (CCC/MS)	5.07	91	450541	20.36 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	123520	25.13 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	56132	25.38 ug/l	9
47) Tetrachloroethene	5.33	166	87415	22.87 ug/l	8
50) trans-1,4-Dichloro-2-buten	6.34	53	22500	27.05 ug/l #	5
51) Dibromochloromethane	5.45	129	49575	15.93 ug/l	9
52) 1,2-Dibromoethane	5.51	107	58251	20.78 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	257679	17.56 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	75680	16.32 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	506012	17.29 ug/l	9
56) p,m-Xylene	5.82	106	375463	34.11 ug/l #	7
57) o-Xylene	6.01	91	400432	17.34 ug/l	8
58) Styrene	6.02	104	299601	17.99 ug/l	8
59) Isopropylbenzene	6.18	105	500073	16.87 ug/l	9
60) Bromoform (SPCC)	6.12	173	22529	13.03 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	78577	24.86 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	20767	21.05 ug/l #	3
63) n-Propylbenzene	6.37	91	593963	17.96 ug/l	8
64) Bromobenzene	6.34	156	86843	17.72 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	187737	17.16 ug/l #	7
66) tert-Butylbenzene	6.61	91	285227	16.13 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	207645	17.11 ug/l #	7
69) sec-Butylbenzene	6.71	105	557010	18.01 ug/l	9
70) p-Isopropyltoluene	6.77	119	413276	18.02 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	175099	18.55 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	178399	20.00 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	159565	19.46 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	393188	19.37 ug/l	8
75) n-Butylbenzene	6.97	91	450600	20.70 ug/l	9
76) Hexachloroethane	7.12	201	28398	9.39 ug/l #	2

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

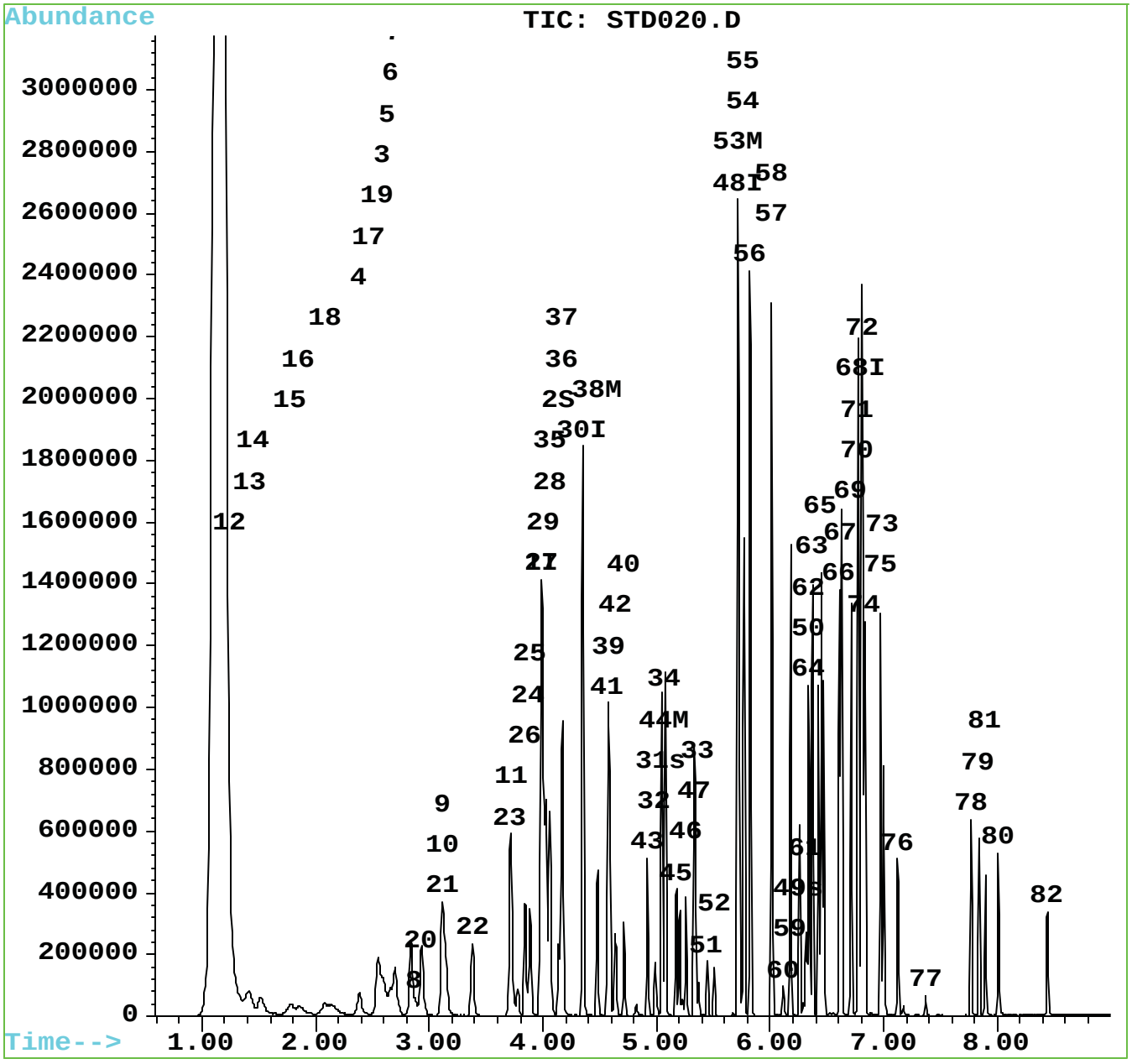
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	8005	18.28	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	90097	22.48	ug/l		9
79)	Hexachlorobutadiene	7.85	225	54744	16.32	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	79048	22.15	ug/l		9
81)	Naphthalene	7.89	128	192859	23.40	ug/l		9
82)	2-Methylnaphthalene	8.44	142	92874	22.58	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	434862	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	821084	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	460286	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	337672	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	329091	77.83	ug/l		155.6
31) TOLUENE-D8 (S)	5.05	98	1085148	59.12	ug/l		118.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	248365	51.04	ug/l		102.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	286578	57.95	ug/l	#	8
4) Diethyl ether (*)	2.38	74	113213	58.90	ug/l	#	3
5) Acetone (*)	2.63	43	76879	100.99	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	372829	56.43	ug/l		8
7) Carbon disulfide (*)	2.70	76	980354	67.20	ug/l		9
8) Methyl Acetate	2.87	43	192760	126.29	ug/l		7
9) tert-Methyl butyl ether (M	3.14	73	712924	86.75	ug/l		8
10) Acrylonitrile (*)	3.11	53	101064	131.71	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	119473	124.28	ug/l		8
12) Dichlorodifluoromethane	1.26	85	267268	76.26	ug/l		9
13) Chloromethane (SPCC)	1.42	50	498915	97.17	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	406600	70.91	ug/l		9
15) Bromomethane	1.78	94	134795	35.09	ug/l		9
16) Chloroethane	1.86	64	130008	28.00	ug/l		9
17) Acrolein	2.49	56	60	0.33	ug/l	#	
18) Trichlorofluoromethane	2.07	101	401179	49.27	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	533350	70.58	ug/l	#	6
20) Methylene Chloride	2.93	84	316015	73.01	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	549595	80.08	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	652331	77.86	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	325736	64.43	ug/l	#	5
24) Tetrahydrofuran	3.87	42	85159	132.93	ug/l	#	7
25) Chloroform (CCC)	3.89	83	520235	65.43	ug/l		9
26) Bromochloromethane	3.85	130	145918	66.41	ug/l	#	1
27) 1,1,1-Trichloroethane	3.98	97	462539	53.41	ug/l	#	3
28) 1,1-Dichloropropene	4.06	75	475212	65.62	ug/l		8
29) Cyclohexane	4.01	42	241934	88.66	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	82688	117.19	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	75849	115.12	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	126870	91.54 ug/l #	
35) Carbon Tetrachloride	4.07	117	362609	47.55 ug/l	9
36) Benzene (MS)	4.17	78	1387942	65.14 ug/l	9
37) 1,2-Dichloroethane	4.17	62	411618	73.08 ug/l	9
38) Trichloroethene (MS)	4.48	95	307280	58.36 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	365981	78.76 ug/l	9
40) Bromodichloromethane	4.72	83	351896	63.93 ug/l	9
41) Methyl Cyclohexane	4.57	55	659030	77.60 ug/l #	5
42) Dibromomethane	4.65	174	110994	64.05 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	491425	78.75 ug/l	9
44) Toluene (CCC/MS)	5.08	91	1399837	61.05 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	407305	77.40 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	178522	77.90 ug/l	8
47) Tetrachloroethene	5.33	166	276826	58.46 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.34	53	79605	93.02 ug/l #	4
51) Dibromochloromethane	5.45	129	180029	56.21 ug/l	9
52) 1,2-Dibromoethane	5.51	107	190111	65.92 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	799543	52.95 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	239443	50.18 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	1577596	52.39 ug/l	9
56) p,m-Xylene	5.82	106	1153214	101.81 ug/l #	7
57) o-Xylene	6.01	91	1253925	52.76 ug/l	8
58) Styrene	6.02	104	925863	54.03 ug/l	8
59) Isopropylbenzene	6.18	105	1563307	51.26 ug/l	9
60) Bromoform (SPCC)	6.12	173	89333	50.20 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	249170	76.61 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	68634	67.60 ug/l #	3
63) n-Propylbenzene	6.37	91	1905700	56.00 ug/l	8
64) Bromobenzene	6.34	156	274802	54.49 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	583942	51.86 ug/l #	6
66) tert-Butylbenzene	6.61	91	924565	50.80 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	652113	52.22 ug/l #	7
69) sec-Butylbenzene	6.72	105	1777535	52.64 ug/l	9
70) p-Isopropyltoluene	6.77	119	1304761	52.13 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	538909	52.29 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	553159	56.80 ug/l	9
73) 1,2-Dichlorobenzene	7.00	146	509171	56.88 ug/l	8
74) 1,2,3-Trimethylbenzene	6.83	105	1275527	57.57 ug/l	8
75) n-Butylbenzene	6.97	91	1427053	60.04 ug/l	9
76) Hexachloroethane	7.12	201	119014	36.06 ug/l #	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

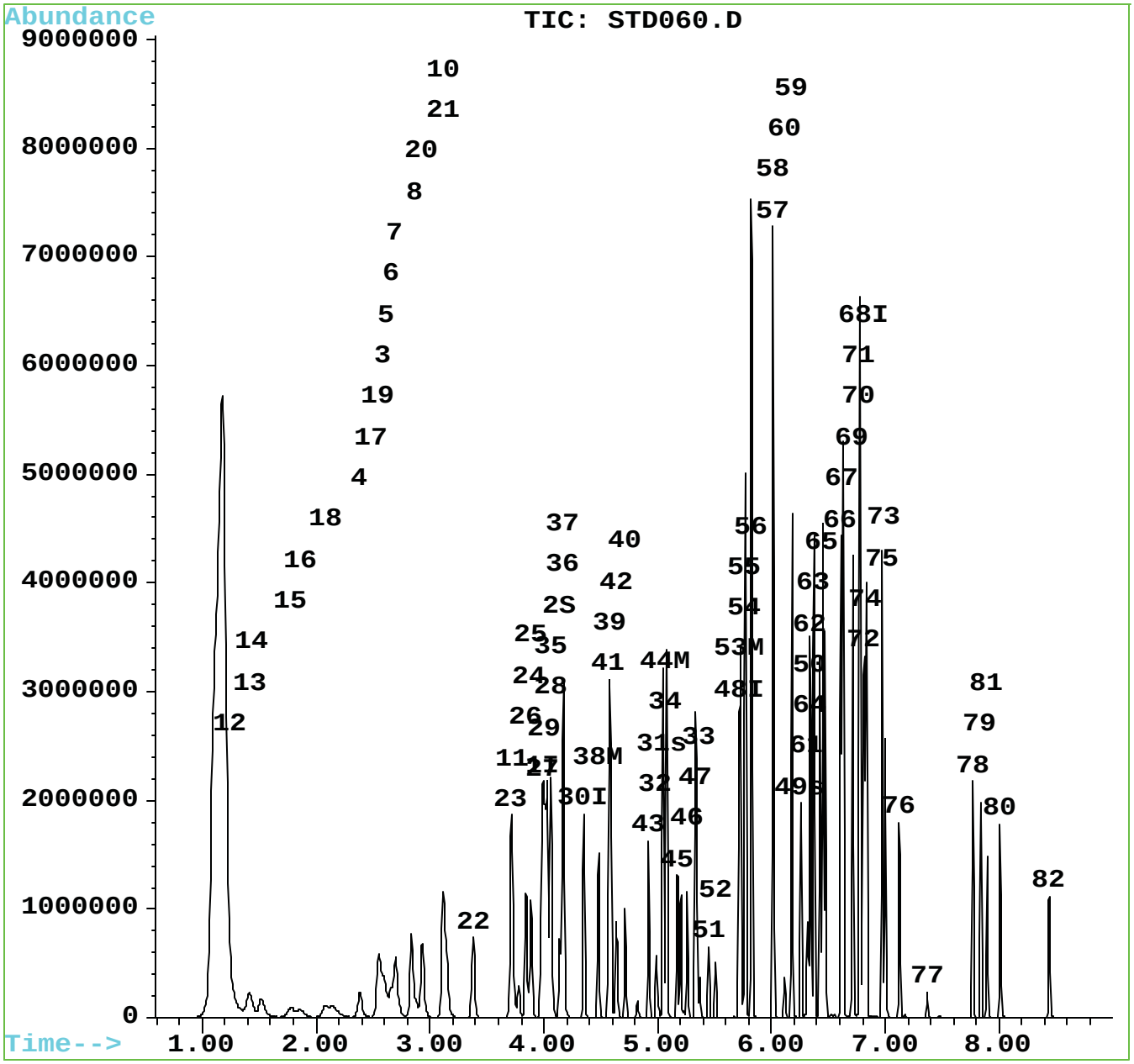
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	30355	63.50 ug/l #	7
78)	1,2,4-Trichlorobenzene	7.77	182	307171	70.19 ug/l	9
79)	Hexachlorobutadiene	7.85	225	191851	52.39 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	269916	69.29 ug/l	9
81)	Naphthalene	7.89	128	636417	70.72 ug/l	9
82)	2-Methylnaphthalene	8.45	142	317534	70.72 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	476323	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	884636	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	499781	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	348566	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	643420	138.92	ug/l		277.8
31) TOLUENE-D8 (S)	5.05	98	2078539	105.11	ug/l		210.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	481535	91.15	ug/l		182.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	549323	101.42	ug/l	#	8
4) Diethyl ether (*)	2.38	74	230018	109.25	ug/l	#	4
5) Acetone (*)	2.63	43	157288	188.63	ug/l	#	8
6) Methyl iodide (iodomethane	2.65	142	724308	100.08	ug/l		8
7) Carbon disulfide (*)	2.69	76	1973059	123.48	ug/l		9
8) Methyl Acetate	2.87	43	384369	229.90	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	1396057	155.08	ug/l		8
10) Acrylonitrile (*)	3.11	53	204265	243.03	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	230155	218.57	ug/l		8
12) Dichlorodifluoromethane	1.26	85	502391	136.62	ug/l		9
13) Chloromethane (SPCC)	1.41	50	957308	170.22	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	745188	118.65	ug/l		9
15) Bromomethane	1.78	94	258097	65.43	ug/l		9
16) Chloroethane	1.85	64	250349	51.46	ug/l		9
17) Acrolein	2.50	56	325	1.64	ug/l	#	4
18) Trichlorofluoromethane	2.08	101	767981	86.11	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.54	61	1039550	125.59	ug/l	#	7
20) Methylene Chloride	2.93	84	608910	128.44	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	1072570	142.69	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	1273397	138.75	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	634720	114.61	ug/l	#	5
24) Tetrahydrofuran	3.87	42	160564	228.82	ug/l	#	7
25) Chloroform (CCC)	3.89	83	1017334	116.81	ug/l		9
26) Bromochloromethane	3.84	130	286626	119.10	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	899371	94.81	ug/l	#	1
28) 1,1-Dichloropropene	4.06	75	924335	116.52	ug/l		8
29) Cyclohexane	4.01	42	456545	152.74	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	162745	214.09	ug/l	#	6
33) 2-Hexanone (*)	5.36	58	152849	215.32	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	242527	162.41 ug/l #	
35) Carbon Tetrachloride	4.06	117	716309	87.18 ug/l	9
36) Benzene (MS)	4.16	78	2660378	115.89 ug/l	9
37) 1,2-Dichloroethane	4.17	62	804324	132.54 ug/l	9
38) Trichloroethene (MS)	4.47	95	589875	103.99 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	705051	140.83 ug/l	9
40) Bromodichloromethane	4.72	83	712674	120.17 ug/l	9
41) Methyl Cyclohexane	4.57	55	1260400	137.75 ug/l #	5
42) Dibromomethane	4.65	174	222259	119.04 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	980374	145.82 ug/l	9
44) Toluene (CCC/MS)	5.07	91	2645203	107.08 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	811197	137.95 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	342742	138.82 ug/l	8
47) Tetrachloroethene	5.33	166	529543	90.48 ug/l	8
50) trans-1,4-Dichloro-2-buten	6.34	53	157966	170.00 ug/l #	4
51) Dibromochloromethane	5.45	129	374093	107.57 ug/l	9
52) 1,2-Dibromoethane	5.51	107	364568	116.43 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	1517952	92.57 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	471189	90.95 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	2971287	90.88 ug/l	9
56) p,m-Xylene	5.83	106	2091094	170.02 ug/l #	7
57) o-Xylene	6.01	91	2326005	90.14 ug/l	8
58) Styrene	6.02	104	1731036	93.04 ug/l	8
59) Isopropylbenzene	6.18	105	2925317	88.34 ug/l	9
60) Bromoform (SPCC)	6.12	173	190479	98.58 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	476381	134.89 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	128213	116.30 ug/l #	3
63) n-Propylbenzene	6.37	91	3541794	95.85 ug/l	8
64) Bromobenzene	6.34	156	530522	96.88 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	1086862	88.89 ug/l #	6
66) tert-Butylbenzene	6.61	91	1739014	88.00 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	1184885	87.39 ug/l #	7
69) sec-Butylbenzene	6.72	105	3236851	92.87 ug/l	9
70) p-Isopropyltoluene	6.77	119	2354350	91.12 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	985054	92.59 ug/l	8
72) 1,4-Dichlorobenzene	6.82	146	1039326	103.39 ug/l	9
73) 1,2-Dichlorobenzene	7.00	146	949748	102.79 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	2350042	102.76 ug/l	8
75) n-Butylbenzene	6.97	91	2599469	105.96 ug/l	9
76) Hexachloroethane	7.13	201	242647	71.22 ug/l #	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

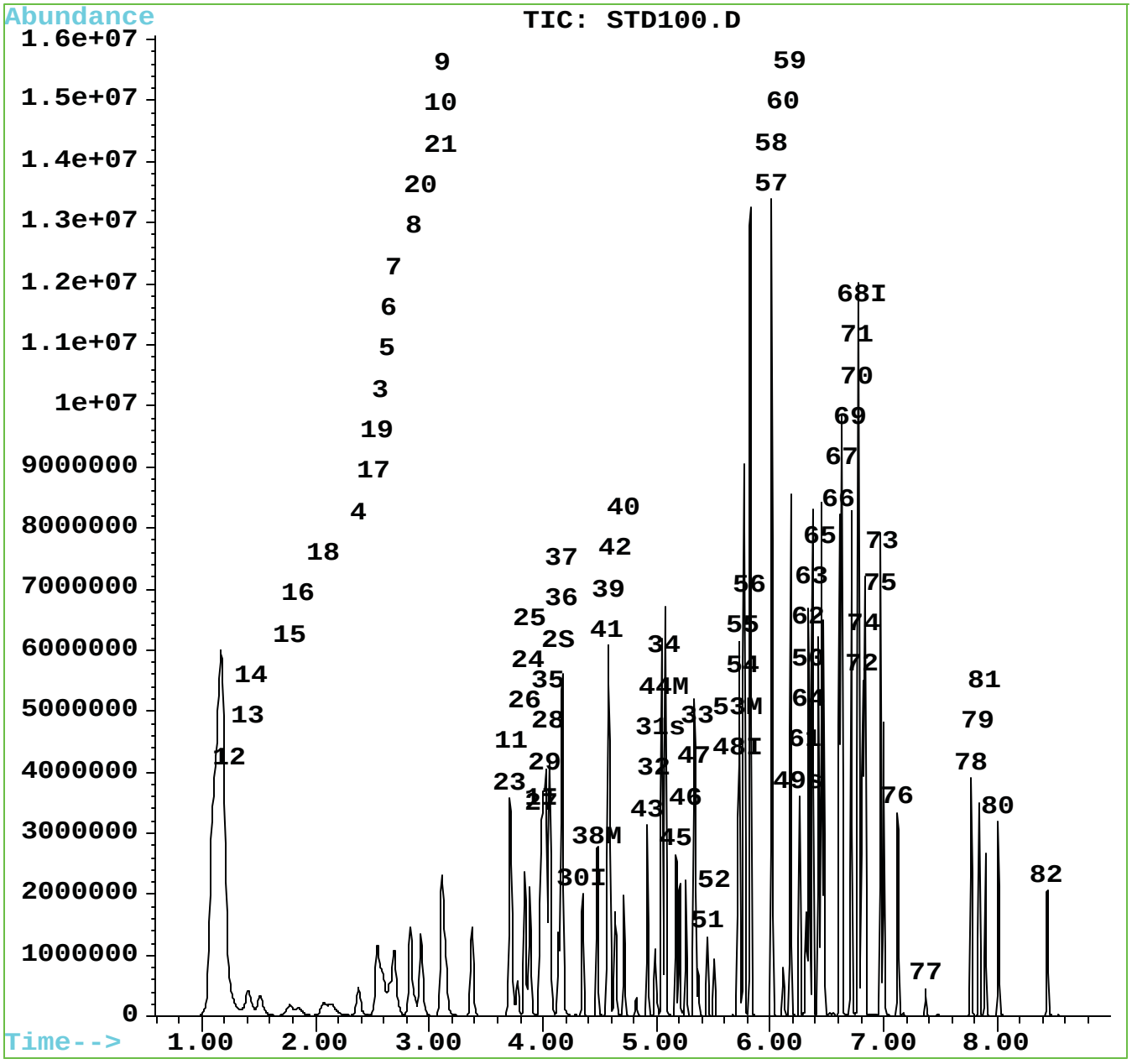
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	58366	118.28	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	552306	122.26	ug/l		9
79)	Hexachlorobutadiene	7.85	225	359104	95.00	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	494673	123.02	ug/l		9
81)	Naphthalene	7.89	128	1158588	124.72	ug/l		9
82)	2-Methylnaphthalene	8.45	142	580452	125.23	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	494818	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	905075	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	507941	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	350499	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	1317668	273.86	ug/l		547.7
31) TOLUENE-D8 (S)	5.05	98	4120092	203.64	ug/l		407.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	1026200	191.12	ug/l		382.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	1164784	207.01	ug/l		8
4) Diethyl ether (*)	2.39	74	472489	216.03	ug/l	#	4
5) Acetone (*)	2.63	43	281781	325.30	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	1531140	203.66	ug/l		8
7) Carbon disulfide (*)	2.70	76	4254437	256.30	ug/l		9
8) Methyl Acetate	2.88	43	770277	443.49	ug/l		7
9) tert-Methyl butyl ether (M	3.14	73	2891502	309.20	ug/l		8
10) Acrylonitrile (*)	3.12	53	422295	483.66	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	439588	401.86	ug/l		8
12) Dichlorodifluoromethane	1.26	85	1058691	319.83	ug/l		9
13) Chloromethane (SPCC)	1.42	50	2030242	347.52	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	1582060	242.48	ug/l		9
15) Bromomethane	1.78	94	539063	171.45	ug/l		9
16) Chloroethane	1.86	64	507993	114.44	ug/l		9
17) Acrolein	2.47	56	254	1.23	ug/l	#	2
18) Trichlorofluoromethane	2.07	101	1599091	172.60	ug/l	#	6
19) 1,1-Dichloroethene (CCC/MS	2.55	61	2222008	258.40	ug/l	#	7
20) Methylene Chloride	2.93	84	1268844	257.64	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	2210930	283.13	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	2621007	274.92	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	1298020	225.62	ug/l	#	5
24) Tetrahydrofuran	3.87	42	322303	442.15	ug/l	#	7
25) Chloroform (CCC)	3.89	83	2119978	234.33	ug/l		9
26) Bromochloromethane	3.85	130	587185	234.86	ug/l	#	2
27) 1,1,1-Trichloroethane	3.99	97	1930600	195.92	ug/l	#	1
28) 1,1-Dichloropropene	4.06	75	1868728	226.76	ug/l		8
29) Cyclohexane	4.01	42	939698	302.63	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	329618	423.81	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	304946	419.87	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.08	63	487476	319.07 ug/l #	
35) Carbon Tetrachloride	4.07	117	1552862	184.74 ug/l	9
36) Benzene (MS)	4.17	78	5299540	225.65 ug/l	9
37) 1,2-Dichloroethane	4.17	62	1641937	264.45 ug/l	9
38) Trichloroethene (MS)	4.48	95	1237072	213.16 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	1413680	275.99 ug/l	9
40) Bromodichloromethane	4.72	83	1504409	247.95 ug/l	9
41) Methyl Cyclohexane	4.57	55	2610088	278.82 ug/l #	5
42) Dibromomethane	4.65	174	472016	247.10 ug/l #	6
43) cis-1,3-Dichloropropene	4.92	75	2001763	291.01 ug/l	9
44) Toluene (CCC/MS)	5.08	91	5230255	206.94 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	1661601	257.84 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	706866	279.84 ug/l	8
47) Tetrachloroethene	5.33	166	1123684	151.02 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.35	53	313473	331.94 ug/l #	3
51) Dibromochloromethane	5.45	129	800979	226.62 ug/l	9
52) 1,2-Dibromoethane	5.51	107	762366	239.56 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	3004624	180.30 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	974858	185.15 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	5787634	174.17 ug/l	9
56) p,m-Xylene	5.83	106	3951896	316.15 ug/l #	7
57) o-Xylene	6.02	91	4533133	172.84 ug/l	8
58) Styrene	6.02	104	3301981	174.62 ug/l	8
59) Isopropylbenzene	6.18	105	5867843	174.35 ug/l	9
60) Bromoform (SPCC)	6.12	173	434281	221.14 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	982742	273.80 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	264017	235.64 ug/l #	4
63) n-Propylbenzene	6.37	91	6935771	184.67 ug/l	8
64) Bromobenzene	6.34	156	1092602	196.32 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	2133203	171.67 ug/l #	6
66) tert-Butylbenzene	6.61	91	3574801	178.00 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	2272453	164.91 ug/l #	6
69) sec-Butylbenzene	6.72	105	6398991	182.58 ug/l	9
70) p-Isopropyltoluene	6.78	119	4575823	176.12 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	1932635	180.66 ug/l	8
72) 1,4-Dichlorobenzene	6.82	146	2077563	205.54 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	1920960	206.76 ug/l	8
74) 1,2,3-Trimethylbenzene	6.84	105	4683558	203.66 ug/l	8
75) n-Butylbenzene	6.97	91	5111440	207.20 ug/l	9
76) Hexachloroethane	7.13	201	588664	171.83 ug/l #	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

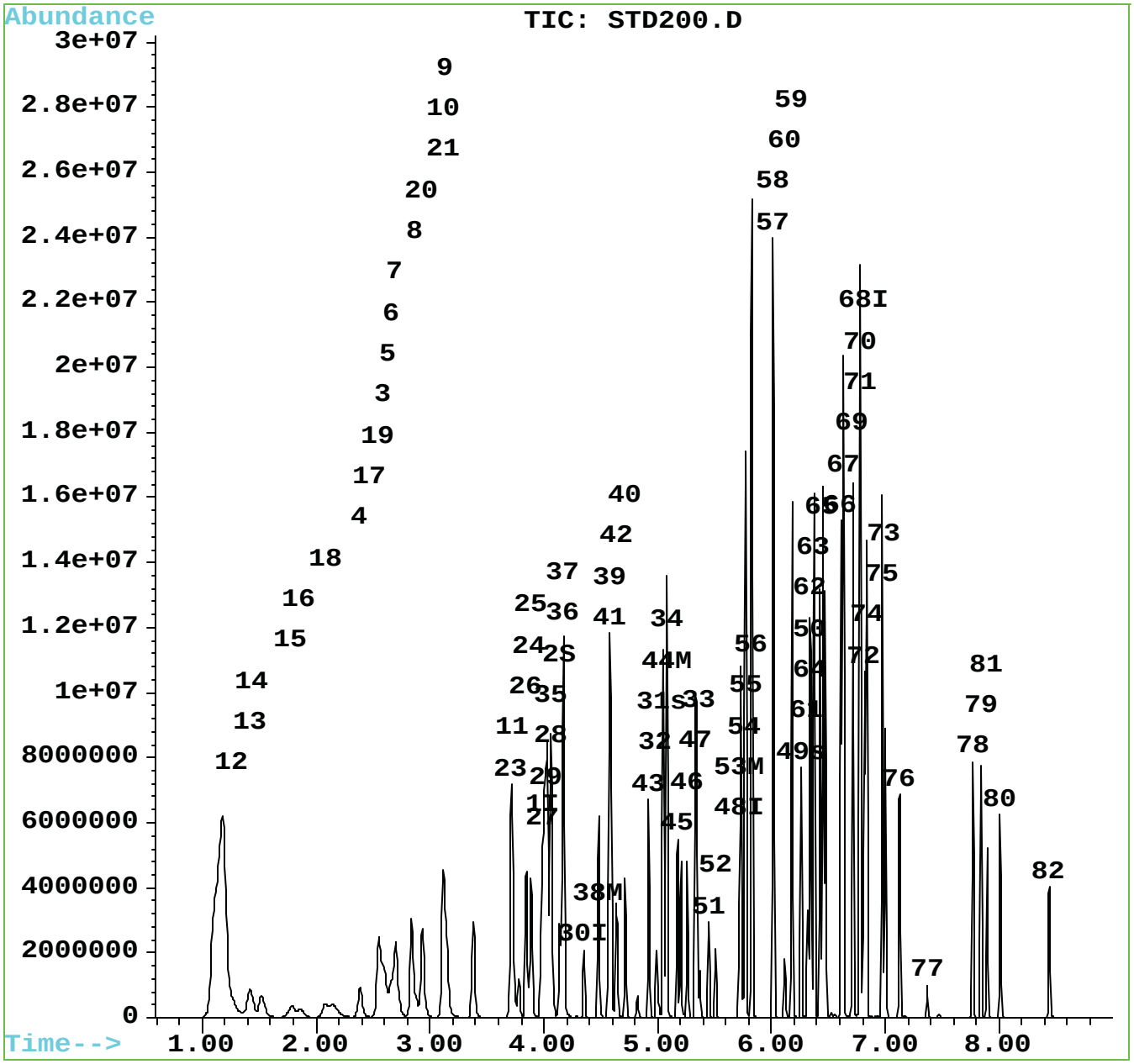
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	129017	260.01 ug/l #	6
78)	1,2,4-Trichlorobenzene	7.77	182	1143809	251.81 ug/l	9
79)	Hexachlorobutadiene	7.85	225	826896	217.55 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	996986	246.57 ug/l	9
81)	Naphthalene	7.90	128	2304350	246.70 ug/l	9
82)	2-Methylnaphthalene	8.45	142	1130364	242.53 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120625a3.4
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc25a.d	06/25/12 14:03	1,1,2-Trichloro-1,2,2-trifluoroethane	0.624	0.05
		Diethyl ether	0.261	0.05
		Acetone	0.217	0.01
		Methyl iodide	0.768	0.05
		Carbon disulfide	2.136	0.05
		Methyl acetate	0.398	0.05
		tert-Methyl butyl ether	1.406	0.05
		Acrylonitrile	0.198	0.01
		2-Butanone	0.242	0.01
		Dichlorodifluoromethane	0.525	0.05
		Chloromethane	1.018	0.10
		Vinyl Chloride	0.818	0.05
		Bromomethane	0.287	0.05
		Chloroethane	0.302	0.05
		Trichlorofluoromethane	0.883	0.05
		1,1-Dichloroethene	1.209	0.05
		Methylene Chloride	0.700	0.05
		trans-1,2-Dichloroethene	1.189	0.05
		1,1-Dichloroethane	1.422	0.10
		cis-1,2-Dichloroethene	0.696	0.05
		Tetrahydrofuran	0.168	0.01
		Chloroform	1.149	0.05
		Bromochloromethane	0.304	0.05
		1,1,1-Trichloroethane	1.002	0.05
		Cyclohexane	0.529	0.05
		4-Methyl-2-pentanone	0.078	0.01
		2-Hexanone	0.074	0.01
		Carbon Tetrachloride	0.417	0.05
		Benzene	1.530	0.05
		1,2-Dichloroethane	0.453	0.05
		Trichloroethene	0.339	0.05
		1,2-Dichloropropane	0.401	0.05
		Bromodichloromethane	0.399	0.05
		Methyl cyclohexane	0.719	0.05
		Dibromomethane	0.111	0.05
		cis-1,3-Dichloropropene	0.547	0.05
		Toluene	1.508	0.05
		trans-1,3-Dichloropropene	0.448	0.05
		1,1,2-Trichloroethane	0.187	0.05
		Tetrachloroethene	0.286	0.05
		trans-1,4-Dichloro-2-butene	0.143	0.05
		Dibromochloromethane	0.364	0.05
		1,2-Dibromoethane	0.359	0.05
		Chlorobenzene	1.560	0.30
		1,1,1,2-Tetrachloroethane	0.478	0.05
		Ethylbenzene	3.104	0.05
		p,m-Xylene	1.122	0.05
		o-Xylene	2.435	0.05
		Styrene	1.798	0.05
		Isopropylbenzene	3.045	0.05
		Bromoform	0.171	0.10
		1,1,2,2-Tetrachloroethane	0.454	0.30
		1,2,3-Trichloropropane	0.125	0.05
		n-Propylbenzene	3.733	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120625a3.4
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	0.525	0.05
		1,3,5-Trimethylbenzene	1.142	0.05
		tert-Butylbenzene	1.797	0.05
		1,2,4-Trimethylbenzene	1.255	0.05
		sec-Butylbenzene	5.025	0.05
		p-Isopropyltoluene	3.722	0.05
		1,3-Dichlorobenzene	1.519	0.05
		1,4-Dichlorobenzene	1.542	0.05
		1,2-Dichlorobenzene	1.409	0.05
		1,2,3-Trimethylbenzene	3.566	0.05
		n-Butylbenzene	4.191	0.05
		Hexachloroethane	0.335	0.05
		1,2-Dibromo-3-Chloropropane	0.076	0.05
		1,2,4-Trichlorobenzene	0.785	0.05
		1,2,3-Trichlorobenzene	0.677	0.05
		Naphthalene	1.633	0.05
		2-Methylnaphthalene	0.749	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*		*CCC %D/UCL*
spcc25a.d	06/25/12 14:03	1,1,2-Trichloro-1,2,2-trifluoroet	54.6/ 50.0		9.3/ 20.0
		Diethyl ether	55.4/ 50.0		10.8/ 20.0
		Acetone	70.9/ 50.0	*	41.7/ 20.0
		Methyl iodide	51.8/ 50.0		3.6/ 20.0
		Carbon disulfide	58.9/ 50.0		17.8/ 20.0
		Methyl acetate	49.9/ 50.0		0.1/ 20.0
		tert-Methyl butyl ether	48.7/ 50.0		2.7/ 20.0
		Acrylonitrile	46.7/ 50.0		6.6/ 20.0
		2-Butanone	50.0/ 50.0		0.0/ 20.0
		Dichlorodifluoromethane	55.3/ 50.0		10.5/ 20.0
		Chloromethane	50.0/ 50.0		0.1/ 20.0
		Vinyl Chloride	53.8/ 50.0		7.6/ 20.0
		Bromomethane	50.8/ 50.0		1.6/ 20.0
		Chloroethane	55.6/ 50.0		11.1/ 20.0
		Trichlorofluoromethane	55.3/ 50.0		10.6/ 20.0
		1,1-Dichloroethene	55.5/ 50.0		11.1/ 20.0
		Methylene Chloride	53.4/ 50.0		6.8/ 20.0
		trans-1,2-Dichloroethene	54.0/ 50.0		8.0/ 20.0
		1,1-Dichloroethane	53.4/ 50.0		6.8/ 20.0
		cis-1,2-Dichloroethene	52.7/ 50.0		5.3/ 20.0
		Tetrahydrofuran	48.5/ 50.0		2.9/ 20.0
		Chloroform	53.7/ 50.0		7.4/ 20.0
		Bromochloromethane	50.3/ 50.0		0.5/ 20.0
		1,1,1-Trichloroethane	54.3/ 50.0		8.6/ 20.0
		Cyclohexane	53.3/ 50.0		6.6/ 20.0
		4-Methyl-2-pentanone	43.6/ 50.0		12.8/ 20.0
		2-Hexanone	45.7/ 50.0		8.5/ 20.0
		Carbon Tetrachloride	55.0/ 50.0		10.0/ 20.0
		Benzene	51.1/ 50.0		2.2/ 20.0
		1,2-Dichloroethane	50.7/ 50.0		1.4/ 20.0
		Trichloroethene	51.3/ 50.0		2.6/ 20.0
		1,2-Dichloropropane	51.5/ 50.0		3.1/ 20.0
		Bromodichloromethane	54.7/ 50.0		9.3/ 20.0
		Methyl cyclohexane	51.0/ 50.0		2.0/ 20.0
		Dibromomethane	46.3/ 50.0		7.4/ 20.0
		cis-1,3-Dichloropropene	53.3/ 50.0		6.6/ 20.0
		Toluene	50.1/ 50.0		0.1/ 20.0
		trans-1,3-Dichloropropene	54.9/ 50.0		9.8/ 20.0
		1,1,2-Trichloroethane	49.3/ 50.0		1.3/ 20.0
		Tetrachloroethene	47.9/ 50.0		4.3/ 20.0
		trans-1,4-Dichloro-2-butene	49.1/ 50.0		1.8/ 20.0
		Dibromochloromethane	53.1/ 50.0		6.2/ 20.0
		1,2-Dibromoethane	51.6/ 50.0		3.2/ 20.0
		Chlorobenzene	50.7/ 50.0		1.3/ 20.0
		1,1,1,2-Tetrachloroethane	53.6/ 50.0		7.3/ 20.0
		Ethylbenzene	52.1/ 50.0		4.2/ 20.0
		p,m-Xylene	103.4/100.0		3.4/ 20.0
		o-Xylene	51.9/ 50.0		3.8/ 20.0
		Styrene	52.7/ 50.0		5.4/ 20.0
		Isopropylbenzene	51.6/ 50.0		3.2/ 20.0
		Bromoform	51.0/ 50.0		2.0/ 20.0
		1,1,2,2-Tetrachloroethane	49.1/ 50.0		1.8/ 20.0
		1,2,3-Trichloropropane	49.4/ 50.0		1.2/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	52.8/ 50.0	5.6/ 20.0
		Bromobenzene	50.1/ 50.0	0.1/ 20.0
		1,3,5-Trimethylbenzene	52.3/ 50.0	4.7/ 20.0
		tert-Butylbenzene	52.5/ 50.0	5.0/ 20.0
		1,2,4-Trimethylbenzene	52.0/ 50.0	3.9/ 20.0
		sec-Butylbenzene	53.9/ 50.0	7.7/ 20.0
		p-Isopropyltoluene	54.8/ 50.0	9.6/ 20.0
		1,3-Dichlorobenzene	52.8/ 50.0	5.7/ 20.0
		1,4-Dichlorobenzene	50.8/ 50.0	1.6/ 20.0
		1,2-Dichlorobenzene	52.0/ 50.0	4.0/ 20.0
		1,2,3-Trimethylbenzene	53.1/ 50.0	6.2/ 20.0
		n-Butylbenzene	56.2/ 50.0	12.4/ 20.0
		Hexachloroethane	55.5/ 50.0	10.9/ 20.0
		1,2-Dibromo-3-Chloropropane	50.0/ 50.0	0.0/ 20.0
		1,2,4-Trichlorobenzene	50.4/ 50.0	0.9/ 20.0
		1,2,3-Trichlorobenzene	48.7/ 50.0	2.5/ 20.0
		Naphthalene	49.9/ 50.0	0.1/ 20.0
		2-Methylnaphthalene	46.7/ 50.0	6.5/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\spcc25a.d Vial: 2
Acq On : 25 Jun 12 2:03 pm Operator: lbr
Sample : spcc/ccc 1s0625 1m0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	379689	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	736472	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	403772	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	276607	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	270443	53.07	ug/l		106.1
31) TOLUENE-D8 (S)	5.05	98	887375	51.30	ug/l		102.6
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	186915	46.84	ug/l		93.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.58	101	236817	54.63	ug/l	#	7
4) Diethyl ether (*)	2.37	74	99138	55.38	ug/l	#	3
5) Acetone (*)	2.62	43	82581	70.87	ug/l	#	8
6) Methyl iodide (iodomethane	2.65	142	291619	51.78	ug/l		8
7) Carbon disulfide (*)	2.69	76	811187	58.88	ug/l		9
8) Methyl Acetate	2.87	43	150928	49.94	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	533627	48.67	ug/l		8
10) Acrylonitrile (*)	3.10	53	75063	46.68	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	91704	49.98	ug/l		8
12) Dichlorodifluoromethane	1.25	85	199341	55.26	ug/l		9
13) Chloromethane (SPCC)	1.40	50	386218	50.03	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	310608	53.82	ug/l		9
15) Bromomethane	1.76	94	108724	50.80	ug/l		9
16) Chloroethane	1.85	64	114957	55.57	ug/l		9
18) Trichlorofluoromethane	2.09	101	335251	55.31	ug/l	#	3
19) 1,1-Dichloroethene (CCC/MS	2.54	61	459302	55.53	ug/l	#	7
20) Methylene Chloride	2.93	84	265830	53.42	ug/l	#	5
21) trans-1,2-Dichloroethene	3.10	61	451623	54.01	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	539818	53.38	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	264326	52.67	ug/l	#	5
24) Tetrahydrofuran	3.87	42	63756	48.53	ug/l	#	8
25) Chloroform (CCC)	3.89	83	436029	53.72	ug/l		9
26) Bromochloromethane	3.84	130	115270	50.27	ug/l	#	1
27) 1,1,1-Trichloroethane	3.98	97	380563	54.29	ug/l	#	3
28) 1,1-Dichloropropene	4.06	75	396961	53.67	ug/l		8
29) Cyclohexane	4.01	42	200793	53.31	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	57003	43.62	ug/l	#	5
33) 2-Hexanone (*)	5.36	58	54817	45.73	ug/l	#	6
35) Carbon Tetrachloride	4.06	117	306682	55.00	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\spcc25a.d Vial: 2
Acq On : 25 Jun 12 2:03 pm Operator: lbr
Sample : spcc/ccc 1s0625 1m0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.16	78	1127350	51.08	ug/l		9
37)	1,2-Dichloroethane	4.17	62	333634	50.71	ug/l		9
38)	Trichloroethene (MS)	4.47	95	249211	51.29	ug/l	#	7
39)	1,2-Dichloropropane (CCC)	4.59	63	295413	51.54	ug/l		9
40)	Bromodichloromethane	4.72	83	293728	54.65	ug/l		9
41)	Methyl Cyclohexane	4.57	55	529601	50.99	ug/l	#	5
42)	Dibromomethane	4.65	174	82123	46.30	ug/l	#	5
43)	cis-1,3-Dichloropropene	4.92	75	402803	53.31	ug/l		9
44)	Toluene (CCC/MS)	5.07	91	1110492	50.05	ug/l		9
45)	trans-1,3-Dichloropropene	5.17	75	329490	54.88	ug/l		9
46)	1,1,2-Trichloroethane	5.26	83	137622	49.34	ug/l		8
47)	Tetrachloroethene	5.33	166	210956	47.85	ug/l		8
50)	trans-1,4-Dichloro-2-buten	6.35	53	57717	49.12	ug/l	#	4
51)	Dibromochloromethane	5.45	129	147058	53.12	ug/l		9
52)	1,2-Dibromoethane	5.51	107	145099	51.62	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.73	112	629889	50.65	ug/l		8
54)	1,1,1,2-Tetrachloroethane	5.76	131	193260	53.63	ug/l		9
55)	Ethylbenzene (CCC)	5.77	91	1253296	52.08	ug/l		9
56)	p,m-Xylene	5.83	106	906322	103.40	ug/l	#	7
57)	o-Xylene	6.02	91	983142	51.90	ug/l		8
58)	Styrene	6.02	104	726214	52.71	ug/l		8
59)	Isopropylbenzene	6.18	105	1229552	51.58	ug/l		9
60)	Bromoform (SPCC)	6.12	173	69127	51.00	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.32	83	183291	49.11	ug/l		9
62)	1,2,3-Trichloropropane	6.35	110	50208	49.41	ug/l	#	3
63)	n-Propylbenzene	6.37	91	1507283	52.78	ug/l		8
64)	Bromobenzene	6.34	156	211965	50.06	ug/l	#	3
65)	1,3,5-Trimethylbenzene	6.45	120	461199	52.34	ug/l	#	6
66)	tert-Butylbenzene	6.61	91	725295	52.50	ug/l	#	6
67)	1,2,4-Trimethylbenzene	6.63	120	506759	51.96	ug/l	#	7
69)	sec-Butylbenzene	6.72	105	1389931	53.85	ug/l		9
70)	p-Isopropyltoluene	6.77	119	1029501	54.82	ug/l		8
71)	1,3-Dichlorobenzene	6.78	146	420240	52.83	ug/l		9
72)	1,4-Dichlorobenzene	6.82	146	426409	50.78	ug/l		8
73)	1,2-Dichlorobenzene	7.00	146	389909	52.00	ug/l		9
74)	1,2,3-Trimethylbenzene	6.84	105	986259	53.08	ug/l		8
75)	n-Butylbenzene	6.97	91	1159223	56.18	ug/l		9
76)	Hexachloroethane	7.12	201	92514	55.45	ug/l	#	4
77)	1,2-Dibromo-3-Chloropropan	7.37	157	21120	50.02	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	216926	50.43	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\spcc25a.d Vial: 2
Acq On : 25 Jun 12 2:03 pm Operator: lbr
Sample : spcc/ccc 1s0625 1m0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

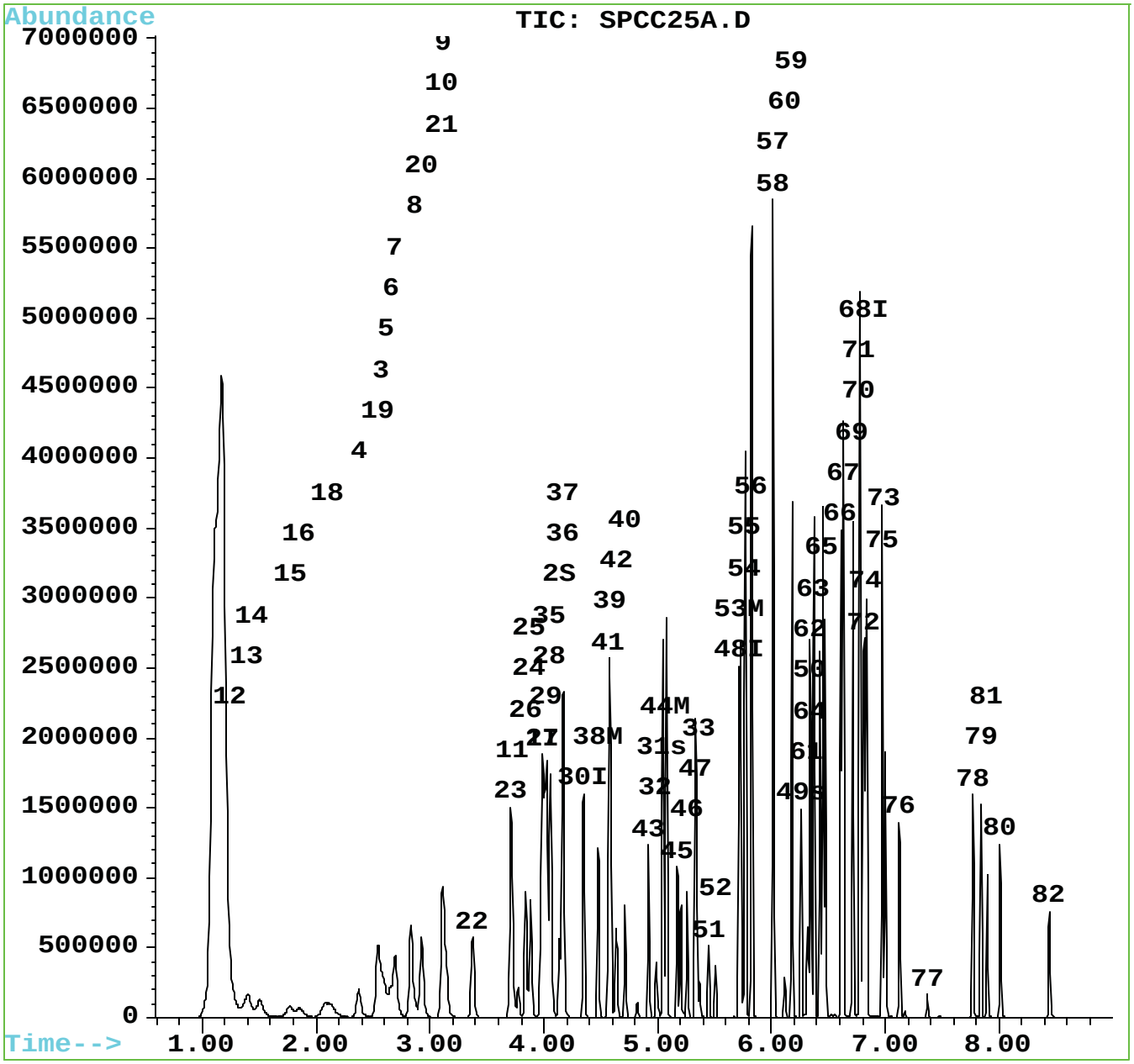
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.85	225	142357	52.19 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	187442	48.74 ug/l	9
81)	Naphthalene	7.90	128	451660	49.94 ug/l	9
82)	2-Methylnaphthalene	8.45	142	207046	46.74 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\spcc25a.d Vial: 2
Acq On : 25 Jun 12 2:03 pm Operator: lbr
Sample : spcc/ccc 1s0625 1m0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\bfb25a.d Vial: 1
Acq On : 25 Jun 12 1:36 pm Operator: lbr
Sample : 25ng/bfb 1s0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

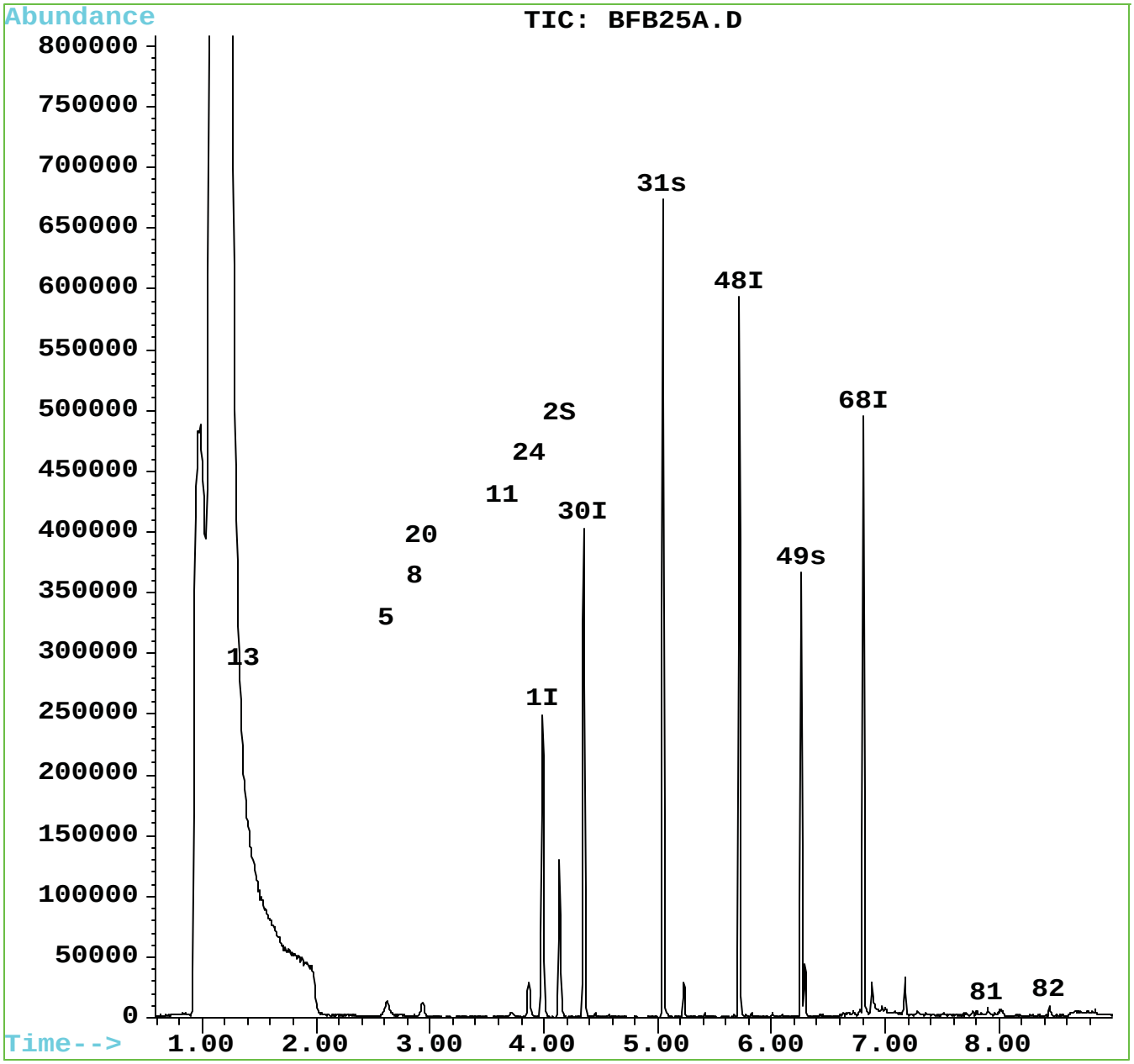
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	99028	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	182303	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	100414	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	67037	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	60205	45.30	ug/l		90.5
31) TOLUENE-D8 (S)	5.05	98	222036	51.86	ug/l		103.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	44580	44.92	ug/l		89.8
Target Compounds							Qvalu
5) Acetone (*)	2.62	43	28123	94.49	ug/l		8
8) Methyl Acetate	2.86	43	1592	2.02	ug/l		6
11) 2-Butanone (MEK) (*)	3.64	43	583	1.22	ug/l		6
13) Chloromethane (SPCC)	1.37	50	4576	2.27	ug/l		7
20) Methylene Chloride	2.93	84	5858	4.51	ug/l	#	5
24) Tetrahydrofuran	3.86	42	18431	54.24	ug/l	#	1
81) Naphthalene	7.90	128	2379	1.09	ug/l		9
82) 2-Methylnaphthalene	8.45	142	2366	2.20	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\bfb25a.d Vial: 1
Acq On : 25 Jun 12 1:36 pm Operator: lbr
Sample : 25ng/bfb 1s0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

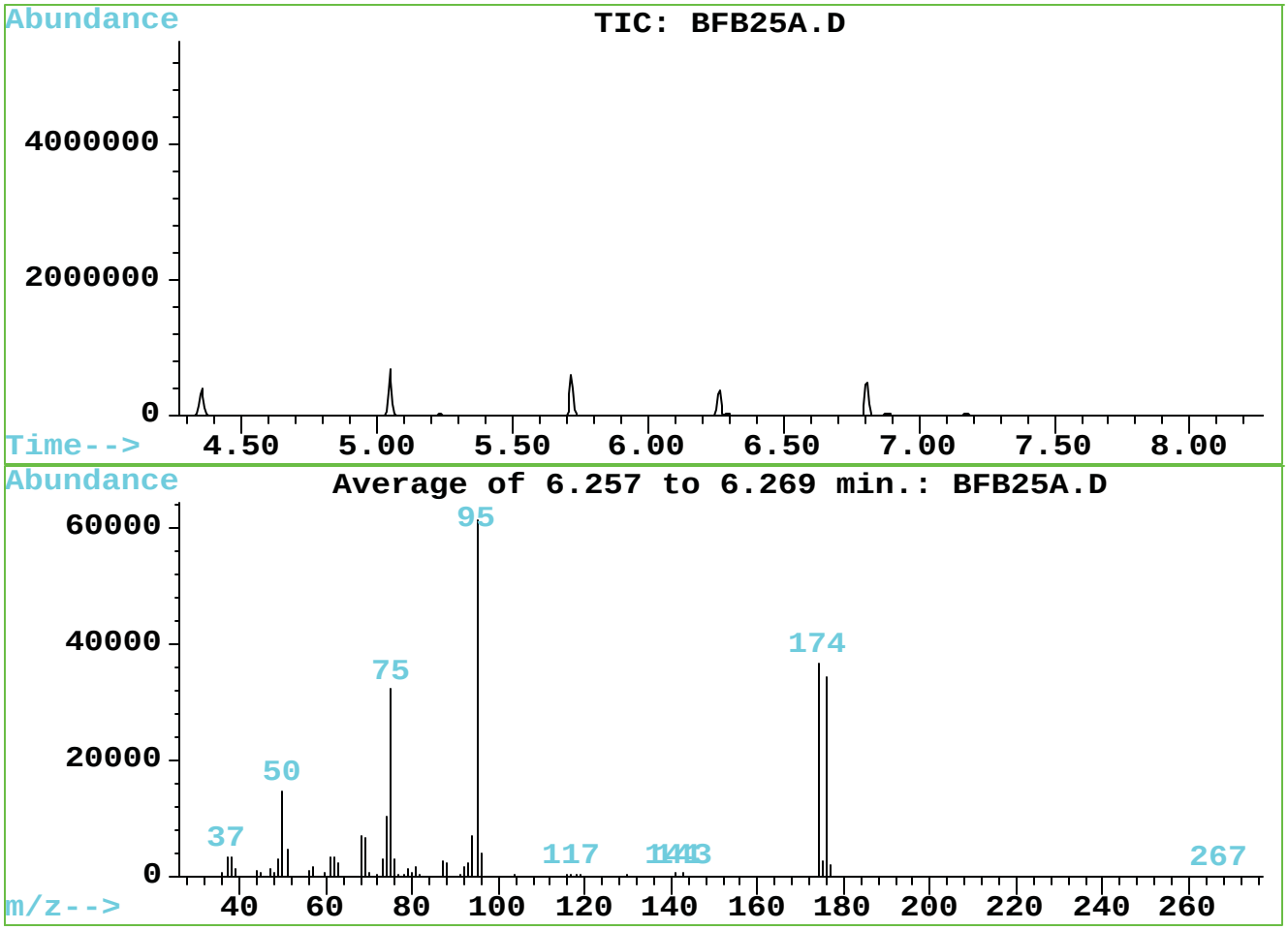
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\DATA\120625A3\BFB25A.D Vial: 1
Acq On : 25 Jun 12 1:36 pm Operator: lbr
Sample : 25ng/bfb 1s0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 967

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.2	14858	PASS
75	95	30	66	52.7	32343	PASS
95	95	100	100	100.0	61344	PASS
96	95	5	9	6.4	3922	PASS
173	174	0	2	0.2	88	PASS
174	95	50	120	59.9	36773	PASS
175	174	4	9	7.5	2776	PASS
176	174	93	101	93.7	34456	PASS
177	176	5	9	6.0	2076	PASS

BFB25A.D FT120608.M Thu Jul 12 16:03:26 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\blks25a.d Vial: 5
Acq On : 25 Jun 12 4:25 pm Operator: lbr
Sample : 100ul blank 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

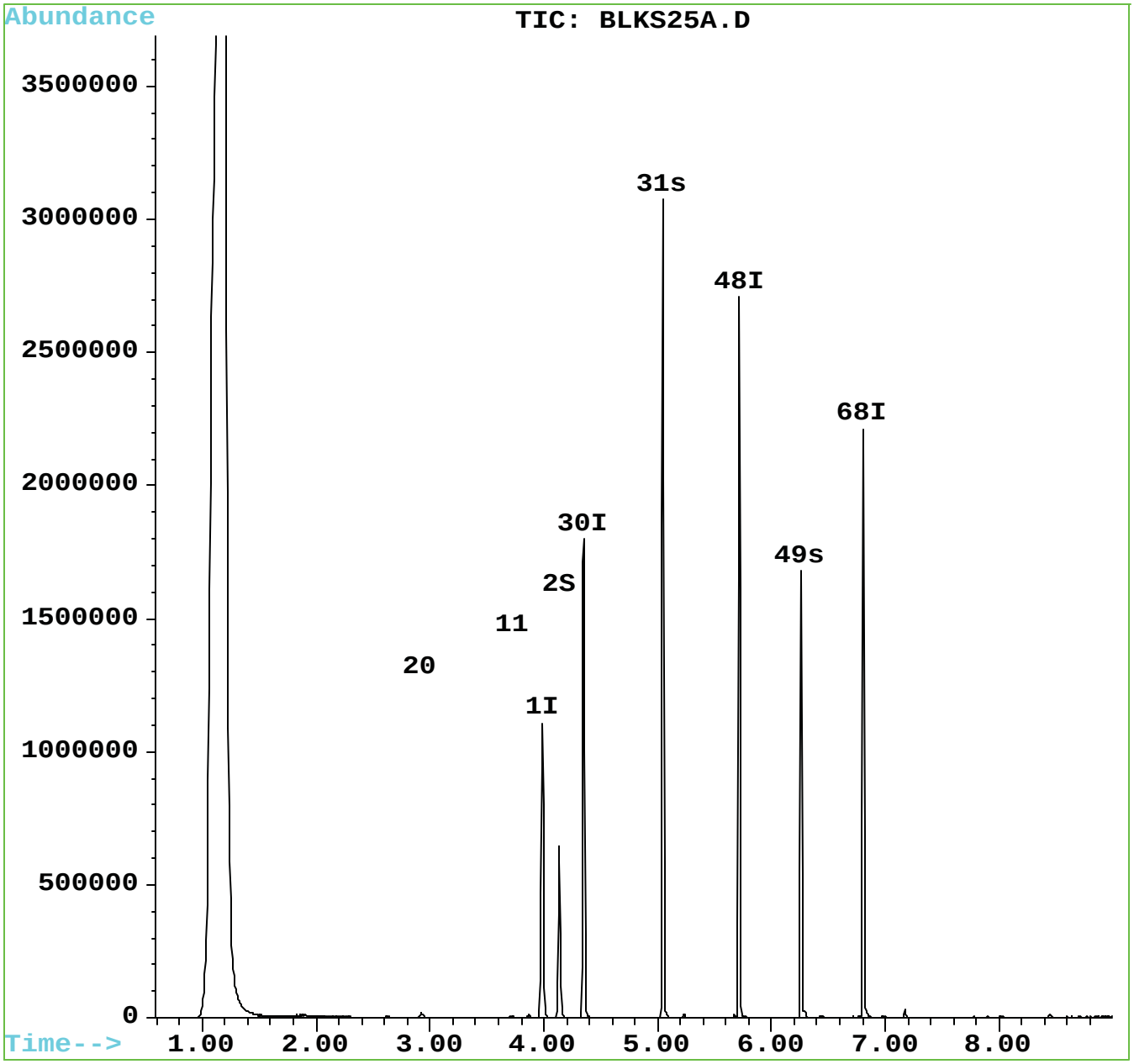
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	432376	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	840298	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	468604	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	308841	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	294773	50.79	ug/l	101.5
31) TOLUENE-D8 (S)	5.05	98	1004457	50.90	ug/l	101.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	212850	45.96	ug/l	91.9
Target Compounds						Qvalu
11) 2-Butanone (MEK) (*)	3.72	43	3601	1.72	ug/l	6
20) Methylene Chloride	2.92	84	7496	1.32	ug/l #	5

(#) = qualifier out of range (m) = manual integration
blks25a.d FT120608.M Thu Jul 12 16:01:50 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\blks25a.d Vial: 5
Acq On : 25 Jun 12 4:25 pm Operator: lbr
Sample : 100ul blank 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25a.d Vial: 3
Acq On : 25 Jun 12 2:34 pm Operator: lbr
Sample : 100ul blankms 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	413171	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	781229	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	429066	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	292644	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	272705	49.17	ug/l		98.3
31) TOLUENE-D8 (S)	5.05	98	936531	51.04	ug/l		102.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	200958	47.39	ug/l		94.7
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	247479	52.46	ug/l	#	8
4) Diethyl ether (*)	2.37	74	98247	50.43	ug/l	#	3
5) Acetone (*)	2.62	43	93537	74.03	ug/l	#	8
6) Methyl iodide (iodomethane	2.65	142	319513	52.13	ug/l		8
7) Carbon disulfide (*)	2.69	76	871897	58.16	ug/l		9
8) Methyl Acetate	2.87	43	157991	48.04	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	582743	48.84	ug/l		8
10) Acrylonitrile (*)	3.10	53	84077	48.05	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	109217	54.70	ug/l		8
12) Dichlorodifluoromethane	1.25	85	208519	53.12	ug/l		9
13) Chloromethane (SPCC)	1.40	50	423390	50.40	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	352790	56.18	ug/l		9
15) Bromomethane	1.76	94	115115	49.43	ug/l		9
16) Chloroethane	1.85	64	121398	53.93	ug/l		9
18) Trichlorofluoromethane	2.10	101	382653	58.01	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.54	61	434988	48.33	ug/l	#	6
20) Methylene Chloride	2.93	84	281676	52.02	ug/l	#	5
21) trans-1,2-Dichloroethene	3.10	61	476687	52.38	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	569785	51.78	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	282356	51.70	ug/l	#	6
24) Tetrahydrofuran	3.87	42	68222	47.66	ug/l	#	1
25) Chloroform (CCC)	3.89	83	460535	52.15	ug/l		9
26) Bromochloromethane	3.84	130	124985	50.09	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	413670	54.23	ug/l	#	3
28) 1,1-Dichloropropene	4.06	75	12014	1.49	ug/l		8
29) Cyclohexane	4.01	42	182612	44.55	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	61806	44.58	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	64691	50.88	ug/l	#	6
35) Carbon Tetrachloride	4.06	117	325466	55.02	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25a.d Vial: 3
Acq On : 25 Jun 12 2:34 pm Operator: lbr
Sample : 100ul blankms 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36) Benzene (MS)	4.16	78	1204773	51.46 ug/l		9
37) 1,2-Dichloroethane	4.17	62	351666	50.39 ug/l		9
38) Trichloroethene (MS)	4.47	95	264650	51.34 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	316515	52.05 ug/l		9
40) Bromodichloromethane	4.72	83	303411	53.22 ug/l		9
41) Methyl Cyclohexane	4.57	55	585356	53.13 ug/l	#	5
42) Dibromomethane	4.65	174	90213	47.94 ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	427011	53.28 ug/l		9
44) Toluene (CCC/MS)	5.07	91	1189892	50.56 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	345145	54.19 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	145528	49.18 ug/l		8
47) Tetrachloroethene	5.33	166	224027	47.90 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	56612	45.34 ug/l	#	5
51) Dibromochloromethane	5.45	129	154086	52.42 ug/l		9
52) 1,2-Dibromoethane	5.51	107	152055	50.91 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	675805	51.14 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	207027	54.07 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	1343373	52.53 ug/l		9
56) p,m-Xylene	5.83	106	964771	103.58 ug/l	#	7
57) o-Xylene	6.01	91	1047789	52.05 ug/l		8
58) Styrene	6.02	104	748205	51.10 ug/l		8
59) Isopropylbenzene	6.18	105	1312836	51.83 ug/l		9
60) Bromoform (SPCC)	6.12	173	69572	48.52 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	193298	48.74 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	51120	47.34 ug/l	#	3
63) n-Propylbenzene	6.37	91	1641434	54.09 ug/l		8
64) Bromobenzene	6.34	156	224133	49.82 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	486795	51.99 ug/l	#	7
66) tert-Butylbenzene	6.61	91	770655	52.50 ug/l	#	5
67) 1,2,4-Trimethylbenzene	6.63	120	543036	52.39 ug/l	#	7
69) sec-Butylbenzene	6.72	105	1461502	53.52 ug/l		9
70) p-Isopropyltoluene	6.77	119	1100962	55.41 ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	446154	53.01 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	454745	51.19 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	410784	51.78 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	1030854	52.44 ug/l		8
75) n-Butylbenzene	6.97	91	1216863	55.74 ug/l		9
76) Hexachloroethane	7.13	201	93181	53.13 ug/l	#	4
77) 1,2-Dibromo-3-Chloropropan	7.37	157	22453	50.25 ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.77	182	230195	50.58 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25a.d Vial: 3
Acq On : 25 Jun 12 2:34 pm Operator: lbr
Sample : 100ul blankms 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

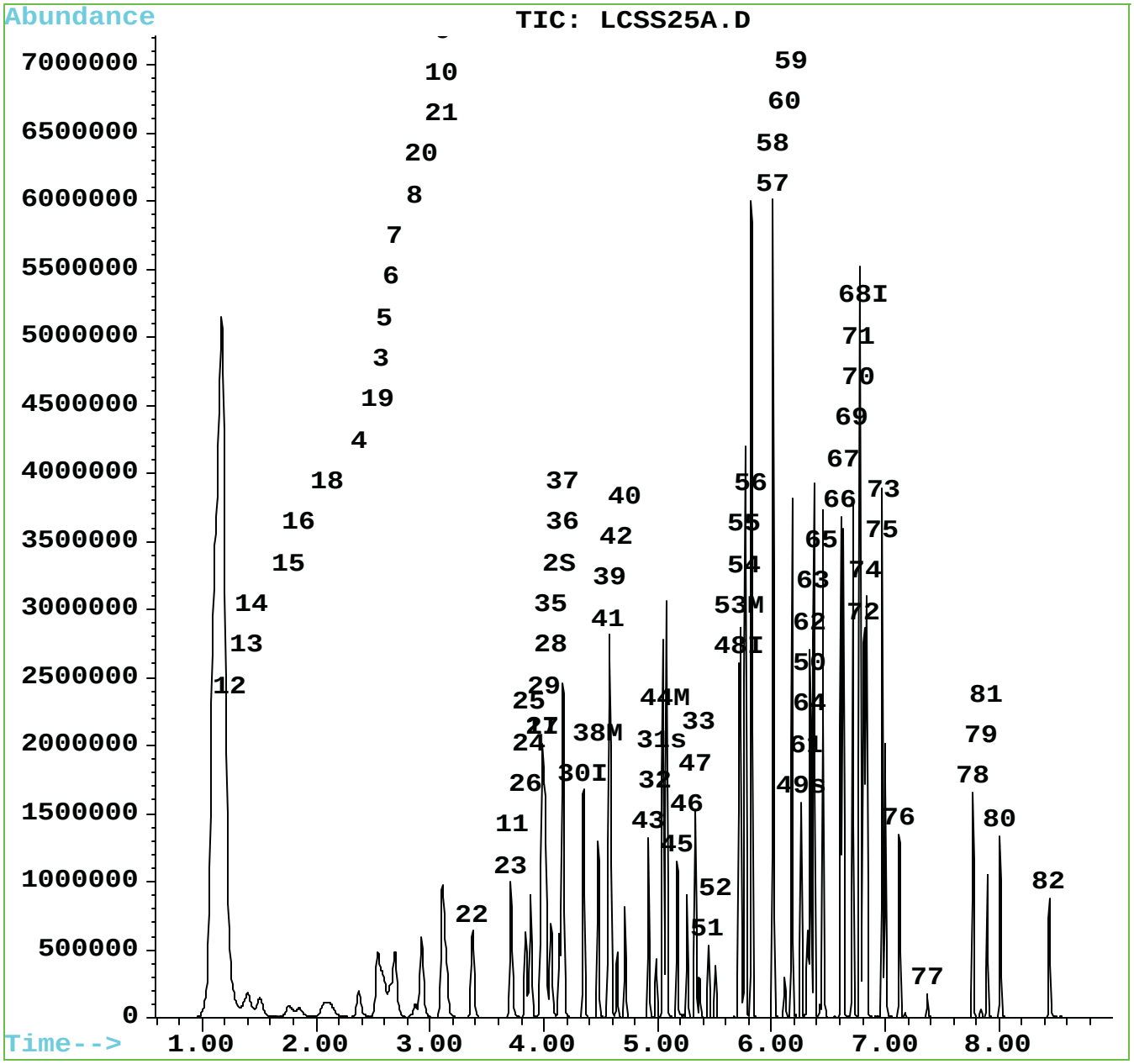
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.85	225	6351	2.20	ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	202228	49.70	ug/l	8
81)	Naphthalene	7.90	128	477711	49.92	ug/l	9
82)	2-Methylnaphthalene	8.45	142	240253	51.27	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25a.d Vial: 3
Acq On : 25 Jun 12 2:34 pm Operator: lbr
Sample : 100ul blankms 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25b.d Vial: 4
Acq On : 25 Jun 12 3:12 pm Operator: lbr
Sample : 100ul blankmsd 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jul 12 14:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	477473	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	880454	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	463731	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	307877	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	297386	46.40	ug/l		92.8
31) TOLUENE-D8 (S)	5.05	98	1052802	50.91	ug/l		101.8
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	220749	48.16	ug/l		96.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	293464	53.83	ug/l	#	7
4) Diethyl ether (*)	2.39	74	102225	45.41	ug/l	#	3
5) Acetone (*)	2.63	43	57405	36.33	ug/l	#	8
6) Methyl iodide (iodomethane	2.70	142	335140	47.32	ug/l		8
7) Carbon disulfide (*)	2.75	76	1009464	58.27	ug/l		9
8) Methyl Acetate	2.88	43	139466	36.69	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	562710	40.81	ug/l		8
10) Acrylonitrile (*)	3.12	53	70383	34.81	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	95238	41.27	ug/l		8
12) Dichlorodifluoromethane	1.26	85	249921	55.09	ug/l		9
13) Chloromethane (SPCC)	1.42	50	503928	51.90	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	401924	55.38	ug/l		9
15) Bromomethane	1.81	94	133052	49.44	ug/l		9
16) Chloroethane	1.87	64	196968	75.72	ug/l		8
18) Trichlorofluoromethane	2.16	101	432863	56.78	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.59	61	553668	53.23	ug/l	#	7
20) Methylene Chloride	2.96	84	290557	46.43	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	527883	50.20	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	617025	48.52	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	300024	47.54	ug/l	#	6
24) Tetrahydrofuran	3.87	42	60991	35.94	ug/l	#	1
25) Chloroform (CCC)	3.89	83	492308	48.24	ug/l		9
26) Bromochloromethane	3.85	130	127594	44.25	ug/l	#	2
27) 1,1,1-Trichloroethane	3.99	97	459725	52.15	ug/l	#	3
29) Cyclohexane	4.01	42	204891	43.26	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	57803	37.00	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	59642	41.62	ug/l	#	6
35) Carbon Tetrachloride	4.07	117	356278	53.44	ug/l		9
36) Benzene (MS)	4.17	78	1303465	49.40	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25b.d Vial: 4
Acq On : 25 Jun 12 3:12 pm Operator: lbr
Sample : 100ul blankmsd 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jul 12 14:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
37) 1,2-Dichloroethane	4.18	62	356069	45.27 ug/l	9
38) Trichloroethene (MS)	4.48	95	290836	50.07 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	334106	48.75 ug/l	9
40) Bromodichloromethane	4.72	83	328723	51.16 ug/l	9
41) Methyl Cyclohexane	4.57	55	659131	53.08 ug/l #	5
42) Dibromomethane	4.65	174	91119	42.97 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	444990	49.26 ug/l	9
44) Toluene (CCC/MS)	5.08	91	1280845	48.29 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	353609	49.26 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	146226	43.85 ug/l	8
47) Tetrachloroethene	5.33	166	260502	49.42 ug/l	8
50) trans-1,4-Dichloro-2-buten	6.35	53	53730	39.82 ug/l #	5
51) Dibromochloromethane	5.45	129	157155	49.61 ug/l	9
52) 1,2-Dibromoethane	5.51	107	151812	47.03 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	720167	50.42 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	212100	51.25 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	1460348	52.84 ug/l	9
56) p,m-Xylene	5.83	106	1050604	104.37 ug/l #	7
57) o-Xylene	6.02	91	1115148	51.26 ug/l	8
58) Styrene	6.02	104	786136	49.68 ug/l	8
59) Isopropylbenzene	6.18	105	1423220	51.99 ug/l	9
60) Bromoform (SPCC)	6.12	173	69564	45.17 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	180600	42.13 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	51823	44.41 ug/l #	3
63) n-Propylbenzene	6.37	91	1765719	53.84 ug/l	8
64) Bromobenzene	6.34	156	234710	48.27 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	518241	51.21 ug/l #	6
66) tert-Butylbenzene	6.61	91	843847	53.19 ug/l #	5
67) 1,2,4-Trimethylbenzene	6.63	120	575300	51.36 ug/l #	7
69) sec-Butylbenzene	6.72	105	1586245	55.21 ug/l	9
70) p-Isopropyltoluene	6.77	119	1179453	56.43 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	463009	52.30 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	472379	50.54 ug/l	9
73) 1,2-Dichlorobenzene	7.00	146	416982	49.96 ug/l	9
74) 1,2,3-Trimethylbenzene	6.84	105	1065132	51.51 ug/l	8
75) n-Butylbenzene	6.97	91	1299967	56.60 ug/l	9
76) Hexachloroethane	7.13	201	99444	53.79 ug/l #	4
77) 1,2-Dibromo-3-Chloropropan	7.37	157	20699	44.39 ug/l #	7
78) 1,2,4-Trichlorobenzene	7.77	182	235559	49.20 ug/l	8
80) 1,2,3-Trichlorobenzene	8.01	180	210232	49.11 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25b.d Vial: 4
Acq On : 25 Jun 12 3:12 pm Operator: lbr
Sample : 100ul blankmsd 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jul 12 14:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

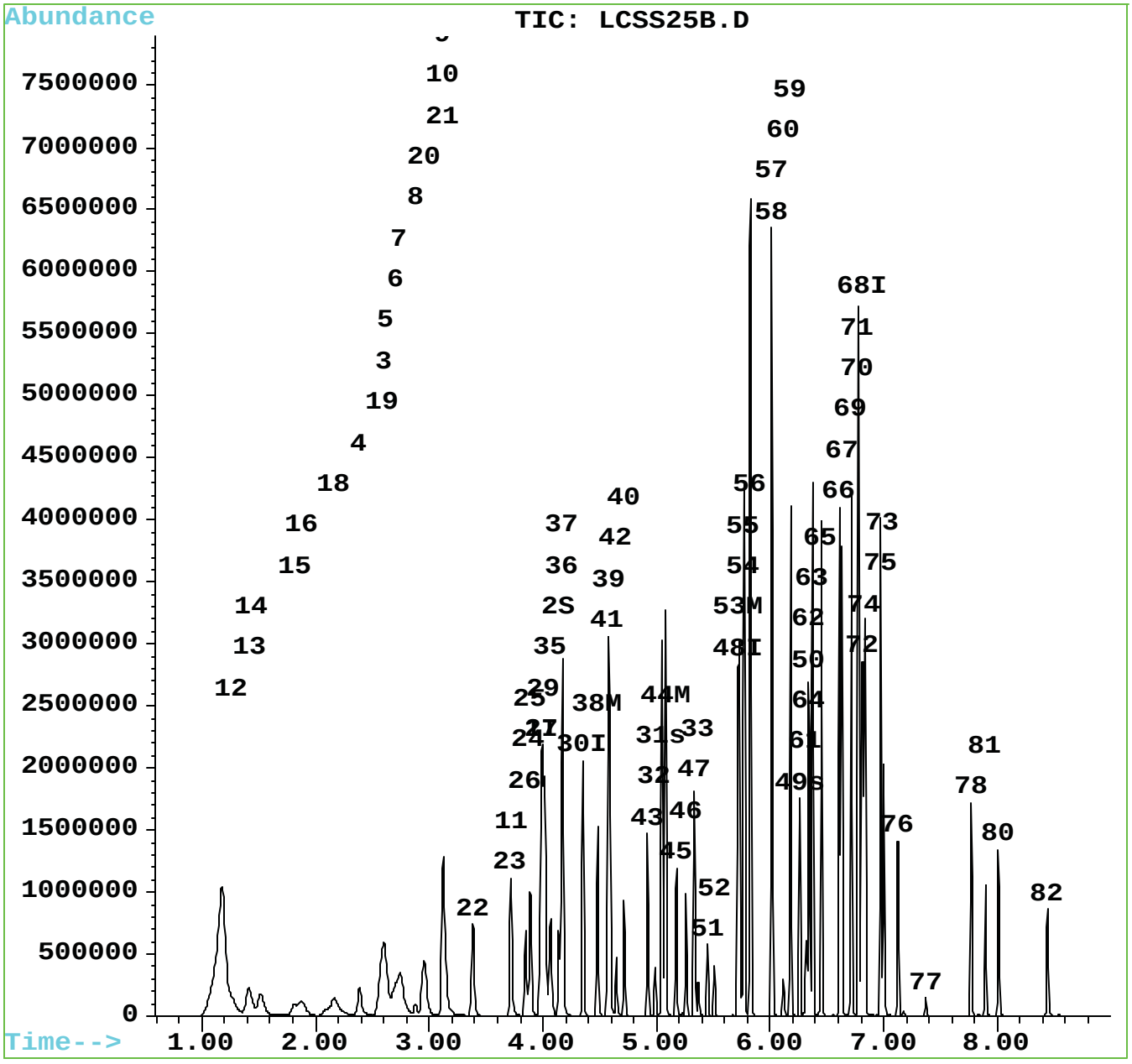
Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
81) Naphthalene	7.90	128	475121	47.19	ug/l	9
82) 2-Methylnaphthalene	8.45	142	231846	47.03	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25b.d Vial: 4
Acq On : 25 Jun 12 3:12 pm Operator: lbr
Sample : 100ul blankmsd 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jul 12 14:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d27a.d	06/27/12 09:45	dftpp std (120607) [none]	WW	IP	**1**	
spnn27a.d	06/27/12 10:09	pna std 50 (120314) [none]	WW	CV	**1**	
blks27a.d	06/27/12 10:36	pna-s 30g/1ml df:1 sp120625s01	SO	Bl	**1 2**	
lcss27a.d	06/27/12 11:00	pna-s 30g/1ml df:1 sp120625s01	SO	MS	**1**	
lcsds27a.d	06/27/12 11:24	pna-s 30g/1ml df:1 sp120625s01	SO	MS	**1**	
5293402.d	06/27/12 11:48	pna-s 30g/1ml df:6 sp120625s01	SO		**1**	
5295902.d	06/27/12 12:12	pna-s 30g/1ml df:15 sp120625s01	SO		**1**	
5295903.d	06/27/12 12:36	pna-s 30g/1ml df:10 sp120625s01	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	3
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 1
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
spnn27a.d	2-Fluorobiphenyl	2067/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	1957/100.0	n/a	10.0/114.0	
	Terphenyl-D14	2083/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blks27a.d	2-Fluorobiphenyl	51.2/100.0	51.2	10.0/115.0	SO
	Nitrobenzene-D5	44.2/100.0	44.2	18.5/120.0	
	Terphenyl-D14	163.0/100.0	163.0 *	10.3/137.0	
				Total Outliers: 1	
lcss27a.d	2-Fluorobiphenyl	85.5/100.0	85.5	10.0/115.0	SO
	Nitrobenzene-D5	63.3/100.0	63.3	18.5/120.0	
	Terphenyl-D14	97.6/100.0	97.6	10.3/137.0	
				Total Outliers: 0	
lcsds27a.d	2-Fluorobiphenyl	74.5/100.0	74.5	10.0/115.0	SO
	Nitrobenzene-D5	56.5/100.0	56.5	18.5/120.0	
	Terphenyl-D14	92.8/100.0	92.8	10.3/137.0	
				Total Outliers: 0	
5293402.d	2-Fluorobiphenyl	67.0/100.0	67.0	10.0/115.0	SO
	Nitrobenzene-D5	63.8/100.0	63.8	18.5/120.0	
	Terphenyl-D14	79.8/100.0	79.8	10.3/137.0	
				Total Outliers: 0	
5295902.d	2-Fluorobiphenyl	81.6/100.0	81.6	10.0/115.0	SO
	Nitrobenzene-D5	74.7/100.0	74.7	18.5/120.0	
	Terphenyl-D14	96.0/100.0	96.0	10.3/137.0	
				Total Outliers: 0	
5295903.d	2-Fluorobiphenyl	80.0/100.0	80.0	10.0/115.0	SO
	Nitrobenzene-D5	73.2/100.0	73.2	18.5/120.0	
	Terphenyl-D14	92.3/100.0	92.3	10.3/137.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsds27a.d			
Dup ID : LCSD1			
Prep Batch: sp120625s01			
Prep Date : 06/25/12			
Parent File: lcss27a.d			
naphthalene	32.97/ 38.33	15.0/25.0	SO
2-methylnaphthalene	35.67/ 40.48	12.6/25.0	
1-methylnaphthalene	31.85/ 35.51	10.9/25.0	
acenaphthylene	36.74/ 40.99	10.9/25.0	
acenaphthene **	36.76/ 41.75	12.7/25.0	
fluorene	38.07/ 42.68	11.4/25.0	
phenanthrene	37.79/ 41.17	8.6/25.0	
anthracene	37.22/ 39.11	5.0/25.0	
fluoranthene	39.45/ 42.48	7.4/25.0	
pyrene **	41.10/ 44.87	8.8/25.0	
benzo(a)anthracene	43.29/ 46.83	7.9/25.0	
chrysene	40.53/ 43.96	8.1/25.0	
benzo(b)fluoranthene	47.12/ 48.89	3.7/25.0	
benzo(k)fluoranthene	44.15/ 48.65	9.7/25.0	
benzo(a)pyrene	45.55/ 47.19	3.5/25.0	
indeno(1,2,3-cd)pyrene	40.34/ 44.24	9.2/25.0	
dibenzo(ah)anthracene	40.24/ 44.15	9.3/25.0	
benzo(ghi)perylene	38.69/ 42.48	9.3/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss27a.d						
Spike ID : LCS1						
Prep Batch: sp120625s01						
Prep Date : 06/25/12						
Parent File: blks27a.d						
1-Methylnaphthalene	35.51/	0.00	50.00	71.0	10.0/120.0	SO
2-Methylnaphthalene	40.48/	0.00	50.00	81.0	35.6/120.0	
Acenaphthene	41.75/	0.00	50.00	83.5	10.0/121.0	
Acenaphthylene	40.99/	0.00	50.00	82.0	35.4/127.7	
Anthracene	39.11/	0.00	50.00	78.2	32.3/142.4	
Benzo(a)anthracene	46.83/	0.00	50.00	93.7	36.7/134.7	
Benzo(a)pyrene	47.19/	0.00	50.00	94.4	10.0/140.8	
Benzo(b)fluoranthene	48.89/	0.00	50.00	97.8	29.0/152.7	
Benzo(ghi)perylene	42.48/	0.00	50.00	85.0	45.2/130.7	
Benzo(k)fluoranthene	48.65/	0.00	50.00	97.3	29.8/136.0	
Chrysene	43.96/	0.00	50.00	87.9	38.7/137.1	
Dibenzo(ah)anthracene	44.15/	0.00	50.00	88.3	45.3/130.8	
Fluorene	42.68/	0.00	50.00	85.4	37.8/127.8	
Fluoranthene	42.48/	0.00	50.00	85.0	10.0/145.8	
Indeno(1,2,3-cd)pyrene	44.24/	0.00	50.00	88.5	39.2/137.4	
Naphthalene	38.33/	0.00	50.00	76.7	10.0/110.0	
Phenanthrene	41.17/	0.00	50.00	82.3	36.4/143.0	
Pyrene	44.87/	0.00	50.00	89.7	10.0/135.8	
					Total Outliers:	**0**
Spike File : lcsds27a.d						
Spike ID : LCSD1						
Prep Batch: sp120625s01						
Prep Date : 06/25/12						
Parent File: blks27a.d						
1-Methylnaphthalene	31.85/	0.00	50.00	63.7	10.0/120.0	SO
2-Methylnaphthalene	35.67/	0.00	50.00	71.3	35.6/120.0	
Acenaphthene	36.76/	0.00	50.00	73.5	10.0/121.0	
Acenaphthylene	36.74/	0.00	50.00	73.5	35.4/127.7	
Anthracene	37.22/	0.00	50.00	74.4	32.3/142.4	
Benzo(a)anthracene	43.29/	0.00	50.00	86.6	36.7/134.7	
Benzo(a)pyrene	45.55/	0.00	50.00	91.1	10.0/140.8	
Benzo(b)fluoranthene	47.12/	0.00	50.00	94.2	29.0/152.7	
Benzo(ghi)perylene	38.69/	0.00	50.00	77.4	45.2/130.7	
Benzo(k)fluoranthene	44.15/	0.00	50.00	88.3	29.8/136.0	
Chrysene	40.53/	0.00	50.00	81.1	38.7/137.1	
Dibenzo(ah)anthracene	40.24/	0.00	50.00	80.5	45.3/130.8	
Fluorene	38.07/	0.00	50.00	76.1	37.8/127.8	
Fluoranthene	39.45/	0.00	50.00	78.9	10.0/145.8	
Indeno(1,2,3-cd)pyrene	40.34/	0.00	50.00	80.7	39.2/137.4	
Naphthalene	32.97/	0.00	50.00	65.9	10.0/110.0	
Phenanthrene	37.79/	0.00	50.00	75.6	36.4/143.0	
Pyrene	41.10/	0.00	50.00	82.2	10.0/135.8	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blks27a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120625s01
Prep Date : 06/25/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Naphthalene	Not detected		0.1	20
2-Methylnaphthalene	Not detected		0.2	20
1-Methylnaphthalene	Not detected		0.4	20
Acenaphthylene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
Benzo(a)anthracene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(b)fluoranthene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Benzo(a)pyrene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(ghi)perylene	Not detected		0.5	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks27a.d
Method Blank Prep Date: 06/25/12
Blank/LCS Preparation Batch: sp120625s01

LCS Data File: lcss27a.d
LCS Prep Date: 06/25/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52934.02	U120627	SP120625S01	06/27/12	Polynuclear Aromatics	$PNA8270
	SP120625S01		06/25/12	Semi Volatile Extraction	PNAEXTS
S52959.02	U120627	SP120625S01	06/27/12	Polynuclear Aromatics	$PNA8270
	SP120625S01		06/25/12	Semi Volatile Extraction	PNAEXTS
S52959.03	U120627	SP120625S01	06/27/12	Polynuclear Aromatics	$PNA8270
	SP120625S01		06/25/12	Semi Volatile Extraction	PNAEXTS

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d27a.d	06/27/12 09:45	51	198	30.0	80.0	32.8	132160	PASS
		68	69	0.0	2.0	0.0	0	PASS
		69	198	0.0	100.0	41.7	167872	PASS
		70	69	0.0	2.0	0.0	0	PASS
		127	198	25.0	75.0	40.3	162176	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	402624	PASS
		199	198	5.0	9.0	7.0	28352	PASS
		275	198	10.0	30.0	22.0	88544	PASS
		365	198	1.0	100.0	2.0	8146	PASS
		441	443	0.0	100.0	0.0	0	PASS
		442	198	40.0	110.0	43.7	175936	PASS
		443	442	15.0	24.0	19.4	34192	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn27a.d	06/27/12 10:09	1,4-Dichlorobenzene-D4	473651/ 4.68	236826- 947302	4.18- 5.18
		Naphthalene-D8	1851422/ 5.85	925711- 3702844	5.35- 6.35
		Acenaphthalene-D10	1052031/ 7.50	526016- 2104062	7.00- 8.00
		Phenanthrene-D10	1662070/ 9.05	831035- 3324140	8.55- 9.55
		Chrysene-D12	1531215/12.95	765608- 3062430	12.45-13.45
		Perylene-D12	1459710/15.64	729855- 2919420	15.14-16.14
					Total Outliers: N/A
blks27a.d	06/27/12 10:36	1,4-Dichlorobenzene-D4	492501/ 4.67	Ratio: 1.040	Diff.: -0.01
		Naphthalene-D8	1987633/ 5.85	Ratio: 1.074	Diff.: 0.00
		Acenaphthalene-D10	1059375/ 7.50	Ratio: 1.007	Diff.: 0.00
		Phenanthrene-D10	1764047/ 9.05	Ratio: 1.061	Diff.: 0.00
		Chrysene-D12	1513007/12.94	Ratio: 0.988	Diff.: -0.01
		Perylene-D12	1412545/15.64	Ratio: 0.968	Diff.: 0.00
					Total Outliers: 0
lcss27a.d	06/27/12 11:00	1,4-Dichlorobenzene-D4	544882/ 4.67	Ratio: 1.150	Diff.: -0.01
		Naphthalene-D8	2239533/ 5.86	Ratio: 1.210	Diff.: 0.01
		Acenaphthalene-D10	1201957/ 7.50	Ratio: 1.143	Diff.: 0.00
		Phenanthrene-D10	1988960/ 9.06	Ratio: 1.197	Diff.: 0.01
		Chrysene-D12	1778458/12.95	Ratio: 1.161	Diff.: 0.00
		Perylene-D12	1687781/15.64	Ratio: 1.156	Diff.: 0.00
					Total Outliers: 0
lcsds27a.d	06/27/12 11:24	1,4-Dichlorobenzene-D4	535987/ 4.68	Ratio: 1.132	Diff.: 0.00
		Naphthalene-D8	2174404/ 5.86	Ratio: 1.174	Diff.: 0.01
		Acenaphthalene-D10	1174430/ 7.50	Ratio: 1.116	Diff.: 0.00
		Phenanthrene-D10	1936962/ 9.05	Ratio: 1.165	Diff.: 0.00
		Chrysene-D12	1775478/12.95	Ratio: 1.160	Diff.: 0.00
		Perylene-D12	1656041/15.64	Ratio: 1.135	Diff.: 0.00
					Total Outliers: 0
5293402.d	06/27/12 11:48	1,4-Dichlorobenzene-D4	527539/ 4.68	Ratio: 1.114	Diff.: 0.00
		Naphthalene-D8	2092920/ 5.86	Ratio: 1.130	Diff.: 0.01
		Acenaphthalene-D10	1096244/ 7.51	Ratio: 1.042	Diff.: 0.01
		Phenanthrene-D10	1799813/ 9.05	Ratio: 1.083	Diff.: 0.00
		Chrysene-D12	1548568/12.94	Ratio: 1.011	Diff.: -0.01
		Perylene-D12	1463251/15.64	Ratio: 1.002	Diff.: 0.00
					Total Outliers: 0
5295902.d	06/27/12 12:12	1,4-Dichlorobenzene-D4	431836/ 4.68	Ratio: 0.912	Diff.: 0.00
		Naphthalene-D8	1709865/ 5.86	Ratio: 0.924	Diff.: 0.01
		Acenaphthalene-D10	905830/ 7.50	Ratio: 0.861	Diff.: 0.00
		Phenanthrene-D10	1481695/ 9.05	Ratio: 0.891	Diff.: 0.00
		Chrysene-D12	1398843/12.94	Ratio: 0.914	Diff.: -0.01
		Perylene-D12	1355727/15.64	Ratio: 0.929	Diff.: 0.00
					Total Outliers: 0
5295903.d	06/27/12 12:36	1,4-Dichlorobenzene-D4	473106/ 4.68	Ratio: 0.999	Diff.: 0.00
		Naphthalene-D8	1863741/ 5.86	Ratio: 1.007	Diff.: 0.01
		Acenaphthalene-D10	981311/ 7.50	Ratio: 0.933	Diff.: 0.00
		Phenanthrene-D10	1615153/ 9.05	Ratio: 0.972	Diff.: 0.00
		Chrysene-D12	1443785/12.94	Ratio: 0.943	Diff.: -0.01
		Perylene-D12	1382396/15.64	Ratio: 0.947	Diff.: 0.00
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*

KEY:

```
[Area/RT]:    Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]:   +/- 0.5 minutes of relative internal standard RT
[Ratio]:      Ratio of internal standard areas
[Diff]:       Difference in internal standard retention times (minutes)
```

CONTROL LIMITS:

```
Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT
```

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.01.Ulysses
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: u120627.1

LIMS ID: S52934.02
Data File: 5293402.d
Date Received: 06/21/12

Tag: SB131 (06-20-2012) (1-2)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120625s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	06/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	82	1		%	06/22/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				06/25/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (67%)				06/27/12	
4165-60-0	Nitrobenzene-D5	Pass (64%)					
98904-43-9	Terphenyl-D14	Pass (80%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.01.Ulysses
Analytical Batch: u120627.1
GC Column: DB-5/L:30m/D:0.25mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\5293402.d Vial: 6
Acq On : 27 Jun 112 11:48 am Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 12:06 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

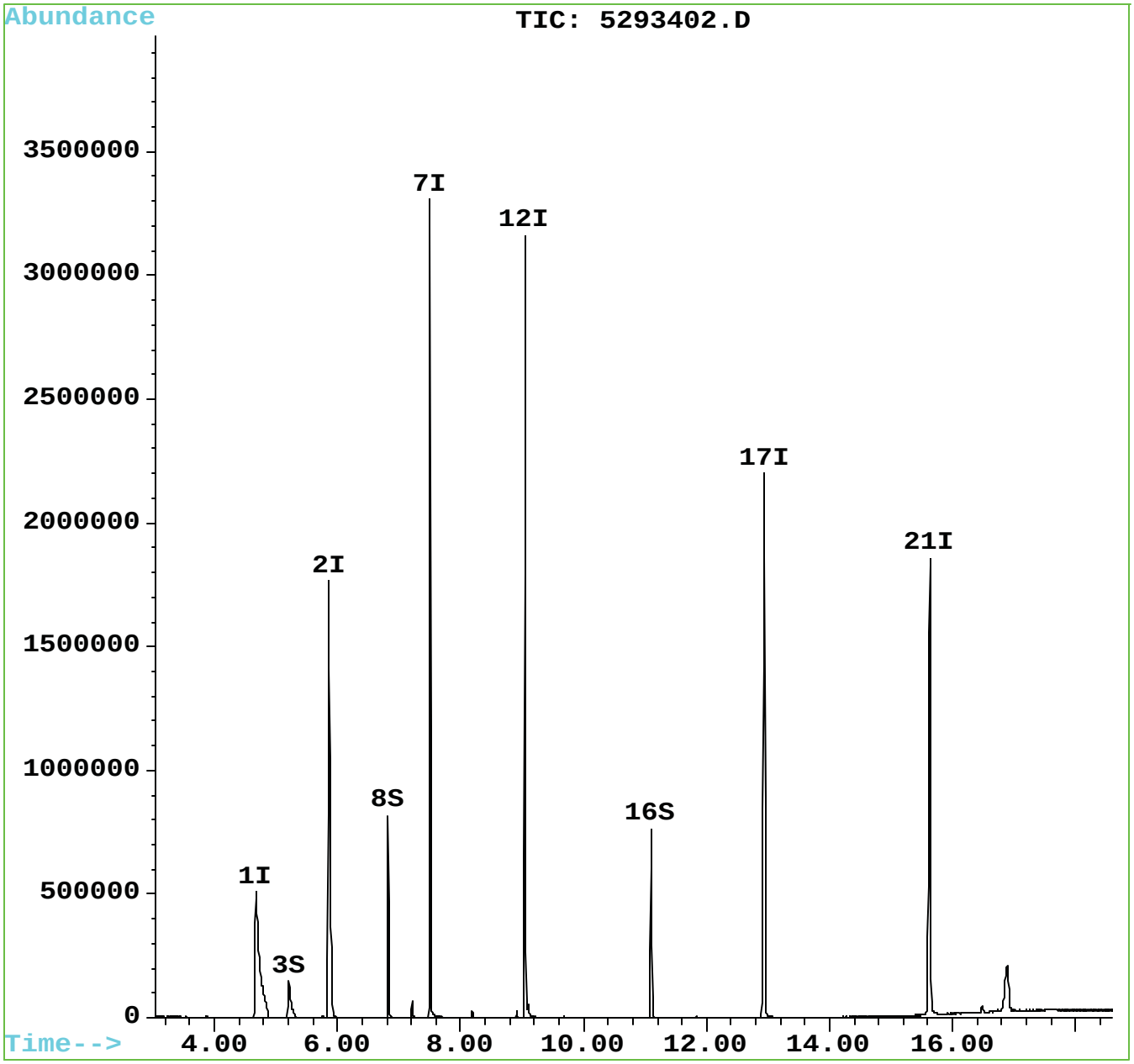
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	527539	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.86	136	2092920	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.51	164	1096244	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.05	188	1799813	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.94	240	1548568	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.64	264	1463251	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.21	82	157983	21.27	ng/ul	21.2
8) 2-Fluorobiphenyl	6.83	172	383154	22.35	ng/ul	22.3
16) Terphenyl-D14	11.10	244	423479	26.60	ng/ul	26.6
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\5293402.d Vial: 6
Acq On : 27 Jun 112 11:48 am Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 12:06 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120526u.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	A	0.284	4.70	0.260	0.299	0.285	0.289	0.291	0.280				
	Naphthalene	A	0.975	2.47	1.006	0.944	0.952	0.970	0.994	0.983				
	2-Methylnaphthalene	A	0.523	3.35	0.505	0.506	0.510	0.536	0.541	0.539				
	1-Methylnaphthalene	A	0.624	5.87	0.585	0.600	0.590	0.646	0.655	0.669				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.251	4.06	1.244	1.194	1.189	1.281	1.306	1.294				
	Acenaphthylene	A	1.686	2.72	1.657	1.629	1.654	1.707	1.746	1.723				
	Acenaphthene **	A	1.018	5.13	0.983	0.960	0.975	1.047	1.089	1.054				
	Fluorene	A	1.175	3.66	1.206	1.117	1.129	1.173	1.207	1.217				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	A	1.017	4.42	1.031	0.961	0.969	1.017	1.042	1.079				
	Anthracene	A	1.082	8.00	0.981	1.021	1.025	1.101	1.173	1.190				
	Fluoranthene	A	0.985	4.38	0.956	0.940	0.955	0.993	1.009	1.055				
	Terphenyl-D14	A	0.708	2.87	0.711	0.689	0.682	0.703	0.733	0.727				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	1.057	4.56	1.003	1.024	1.063	1.110	1.117	1.023				
	Benzo(a)anthracene	A	0.880	2.90	0.854	0.864	0.886	0.913	0.907	0.858				
	Chrysene	A	0.950	2.40	0.941	0.937	0.918	0.956	0.980	0.970				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	0.896	6.32	0.821	0.839	0.903	0.920	0.973	0.921				
	Benzo(k)fluoranthene	A	0.912	7.79	0.796	0.873	0.908	0.970	0.935	0.992				
	Benzo(a)pyrene	A	0.791	6.25	0.714	0.748	0.802	0.838	0.833	0.810				
	Indeno(1,2,3-cd)pyrene	A	1.062	8.20	0.908	1.050	1.031	1.128	1.137	1.118				
	Dibenzo(ah)anthracene	A	0.857	10.32	0.689	0.865	0.838	0.915	0.924	0.908				
	Benzo(ghi)perylene	A	0.882	4.69	0.803	0.891	0.897	0.918	0.908	0.876				

Calibration Date: 52/6u/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120526u.M (Mean %RSD: 5.00)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\ulysses.3\methods\p120526u.m\

Injection Time	Calibration Data File
05/26/12 20:12	d26a.d
05/26/12 20:36	pna0005.d
05/26/12 21:49	pna_020.d
05/26/12 22:13	pna_040.d
05/26/12 22:37	pna_050.d
05/26/12 23:01	pna_060.d
05/26/12 23:26	pna_080.d
05/26/12 23:50	pna_100.d

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\d26a.d Vial: 1
Acq On : 26 May 112 8:12 pm Operator:
Sample : dftpp std (120525) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 20:31 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

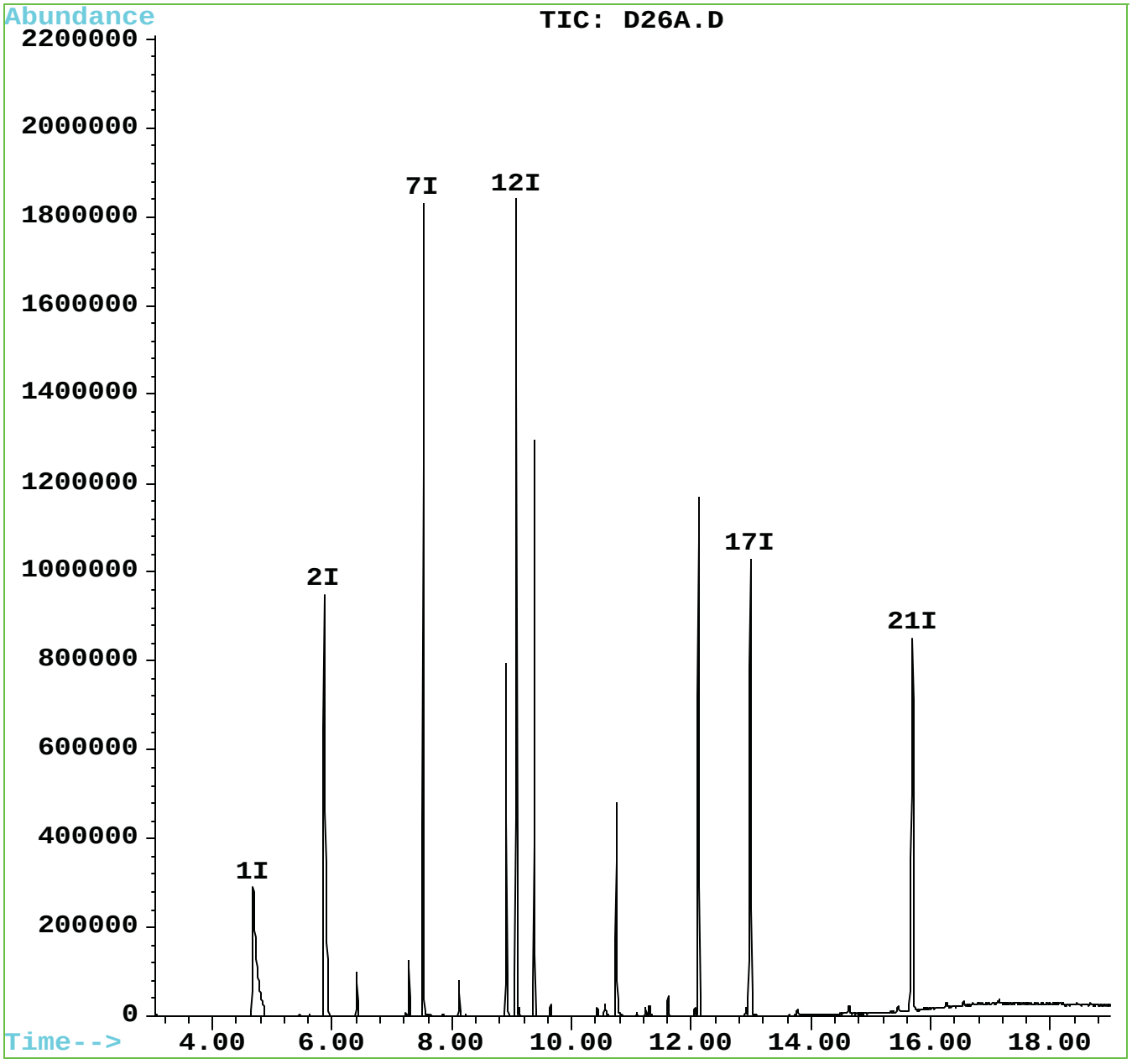
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	257755	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.87	136	1032952	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.52	164	518465	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	9.08	188	861330	40.00	ng/ul	-0.0
17) CHRYSENE-D12	12.99	240	694834	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.69	264	660571	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	0.00	82	0	0.00	ng/ul	0.0
8) 2-Fluorobiphenyl	0.00	172	0	0.00	ng/ul	0.0
16) Terphenyl-D14	0.00	244	0	0.00	ng/ul	0.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\d26a.d Vial: 1
Acq On : 26 May 112 8:12 pm Operator:
Sample : dftpp std (120525) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 20:31 19112

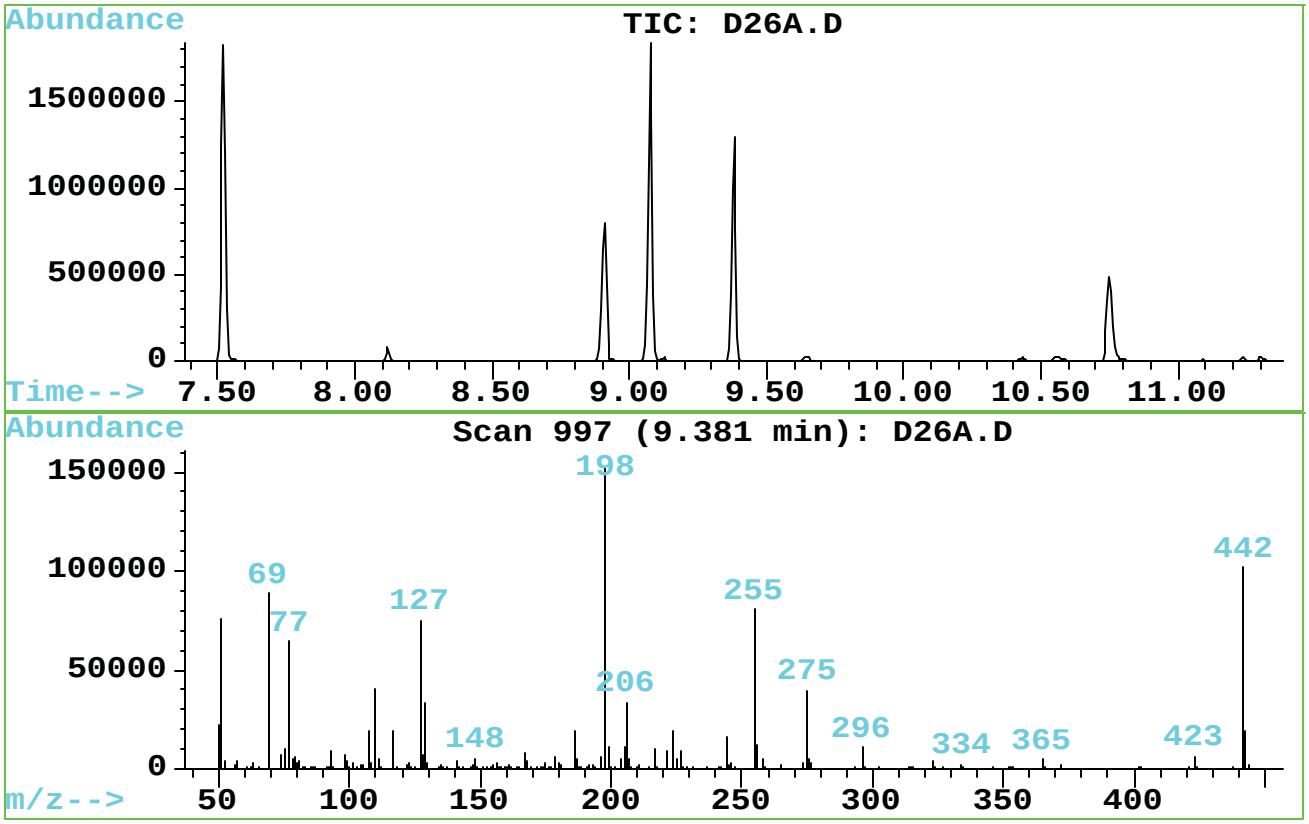
Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\ULYSSES.3\DATA\U120526\D26A.D Vial: 1
Acq On : 26 May 112 8:12 pm Operator:
Sample : dftpp std (120525) Inst : 5972 -
Misc : Multiplr: 1.00

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270



Peak Apex is scan: 997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	49.6	75840	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	57.9	88616	PASS
70	69	0	2	0.0	0	PASS
127	198	25	75	49.0	74968	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	152960	PASS
199	198	5	9	7.2	11001	PASS
275	198	10	30	25.8	39528	PASS
365	198	1	100	3.3	5007	PASS
441	443	0	100	0.0	0	PASS
442	198	40	110	66.7	101984	PASS
443	442	15	24	18.7	19072	PASS

D26A.D P120526U.M Tue Jun 19 15:16:45 2012

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna0005.d Vial: 2
Acq On : 26 May 112 8:36 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

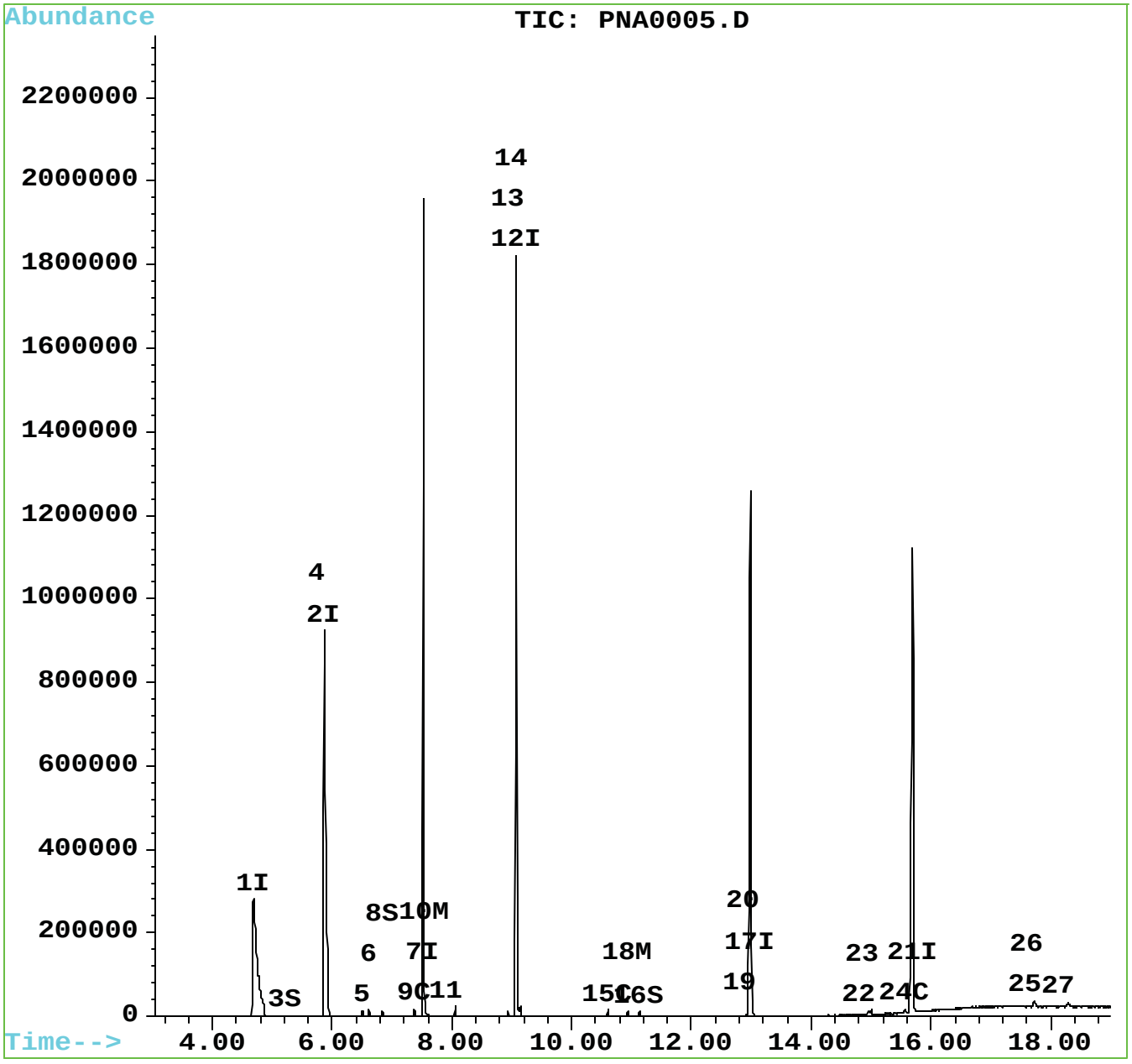
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	268137	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.87	136	1033470	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.52	164	534209	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	9.07	188	873050	40.00	ng/ul	-0.0
17) CHRYSENE-D12	12.98	240	841288	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.69	264	866472	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.22	82	3353	0.48	ng/ul	0.4
8) 2-Fluorobiphenyl	6.84	172	8310	0.52	ng/ul	0.5
16) Terphenyl-D14	11.13	244	7758	0.57	ng/ul	0.5
Target Compounds						Qvalu
4) Naphthalene	5.89	128	12998	0.92	ng/ul	9
5) 2-Methylnaphthalene	6.50	141	6526	0.48	ng/ul	9
6) 1-Methylnaphthalene	6.61	142	7551	0.49	ng/ulm	9
9) Acenaphthylene	7.38	152	11067	0.49	ng/ul	9
10) Acenaphthene **	7.55	154	6561	0.54	ng/ul	9
11) Fluorene	8.06	166	8053	0.53	ng/ul	9
13) Phenanthrene	9.09	178	11248	0.67	ng/ulm	9
14) Anthracene	9.14	178	10710	0.61	ng/ul	9
15) Fluoranthene	10.61	202	10430	0.52	ng/ul	9
18) Pyrene **	10.95	202	10552	0.44	ng/ul	9
19) Benzo(a)anthracene	12.94	228	8980	0.43	ng/ulm	8
20) Chrysene	13.02	228	9894	0.50	ng/ul	9
22) Benzo(b)fluoranthene	14.96	252	8888	0.42	ng/ulm	6
23) Benzo(k)fluoranthene	15.01	252	8616	0.43	ng/ul	6
24) Benzo(a)pyrene	15.57	252	7730	0.42	ng/ul	7
25) Indeno(1,2,3-cd)pyrene	17.72	276	9835	0.44	ng/ul	7
26) Dibenzo(ah)anthracene	17.74	278	7462	0.41	ng/ul	8
27) Benzo(ghi)perylene	18.30	276	8699	0.47	ng/ul	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna0005.d Vial: 2
Acq On : 26 May 112 8:36 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_020.d Vial: 5
Acq On : 26 May 112 9:49 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

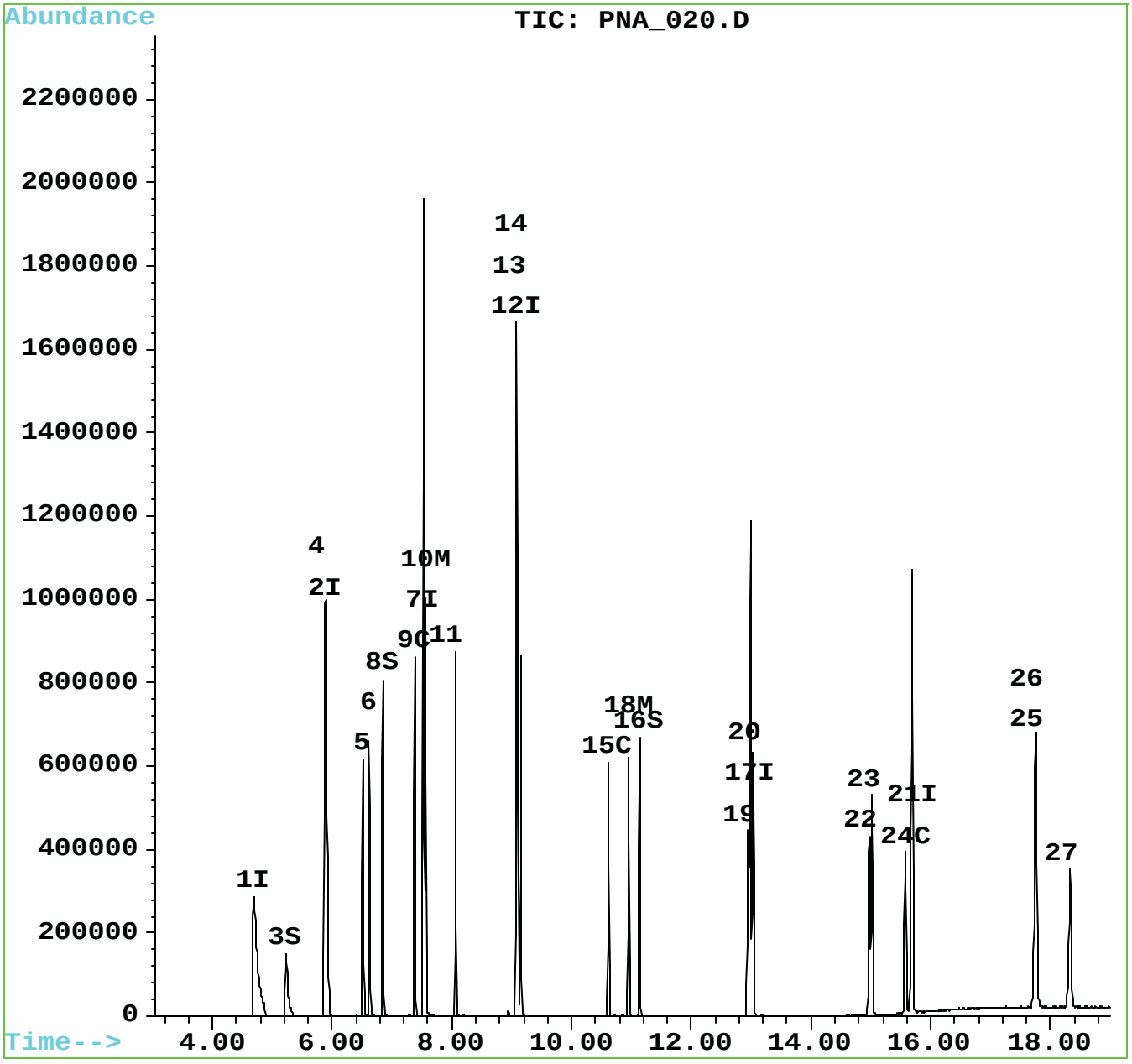
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	270946	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1028543	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	547592	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	855123	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.99	240	797754	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.70	264	814802	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	153847	22.18	ng/ul	22.1
8) 2-Fluorobiphenyl	6.85	172	326830	20.14	ng/ul	20.1
16) Terphenyl-D14	11.14	244	294701	21.79	ng/ul	21.7
Target Compounds						Qvalu
4) Naphthalene	5.90	128	485339	29.53	ng/ul	9
5) 2-Methylnaphthalene	6.51	141	260195	19.02	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	308796	20.17	ng/ul#	9
9) Acenaphthylene	7.38	152	446010	19.44	ng/ul	10
10) Acenaphthene **	7.56	154	262893	21.46	ng/ul	9
11) Fluorene	8.06	166	305797	19.62	ng/ul	9
13) Phenanthrene	9.11	178	410792	25.03	ng/ul	9
14) Anthracene	9.16	178	436745	25.47	ng/ul	9
15) Fluoranthene	10.62	202	401829	20.60	ng/ul	9
18) Pyrene **	10.96	202	408592	18.23	ng/ul	9
19) Benzo(a)anthracene	12.95	228	344571	18.18	ng/ul	9
20) Chrysene	13.03	228	373890	20.27	ng/ul	9
22) Benzo(b)fluoranthene	14.98	252	341946	17.81	ng/ulm	9
23) Benzo(k)fluoranthene	15.02	252	355820	19.61	ng/ul	9
24) Benzo(a)pyrene	15.58	252	304909	18.06	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.76	276	427570	20.56	ng/ul	7
26) Dibenzo(ah)anthracene	17.77	278	352454	20.99	ng/ul	9
27) Benzo(ghi)perylene	18.33	276	363027	20.99	ng/ul	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_020.d Vial: 5
Acq On : 26 May 112 9:49 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_040.d Vial: 6
Acq On : 26 May 112 10:13 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

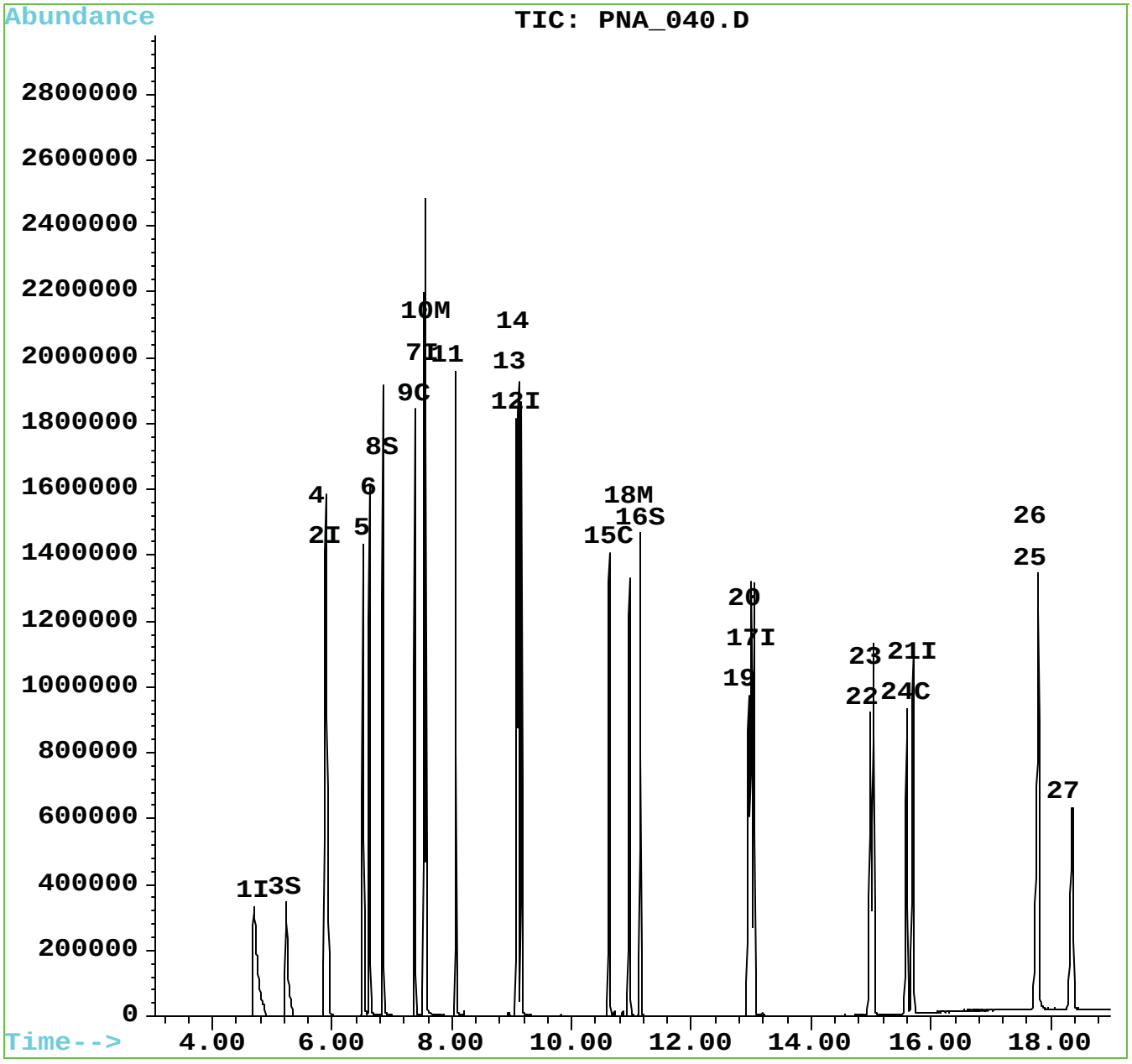
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	308639	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1196433	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	636736	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	977507	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.00	240	876703	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	877258	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	341317	42.30	ng/ul	42.3
8) 2-Fluorobiphenyl	6.85	172	757014	40.13	ng/ul	40.1
16) Terphenyl-D14	11.15	244	666498	43.12	ng/ul	43.1
Target Compounds						Qvalu
4) Naphthalene	5.90	128	1138595	53.17	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	609894	38.34	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	706143	39.65	ng/ul#	9
9) Acenaphthylene	7.38	152	1053133	39.48	ng/ul	10
10) Acenaphthene **	7.56	154	621110	43.61	ng/ul	10
11) Fluorene	8.07	166	718929	39.66	ng/ul	9
13) Phenanthrene	9.11	178	947631	50.52	ng/ul	9
14) Anthracene	9.16	178	1001649	51.10	ng/ul	10
15) Fluoranthene	10.63	202	933749	41.87	ng/ul	9
18) Pyrene **	10.96	202	931927	37.83	ng/ul	9
19) Benzo(a)anthracene	12.96	228	777093	37.30	ng/ul	10
20) Chrysene	13.05	228	805044	39.71	ng/ul	9
22) Benzo(b)fluoranthene	14.99	252	792228	38.32	ng/ul	9
23) Benzo(k)fluoranthene	15.04	252	796764	40.79	ng/ul	9
24) Benzo(a)pyrene	15.60	252	703463	38.70	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.79	276	904815	40.42	ng/ul	8
26) Dibenzo(ah)anthracene	17.80	278	735112	40.67	ng/ul	9
27) Benzo(ghi)perylene	18.37	276	787140	42.27	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_040.d Vial: 6
Acq On : 26 May 112 10:13 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_050.d Vial: 7
Acq On : 26 May 112 10:37 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:24 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

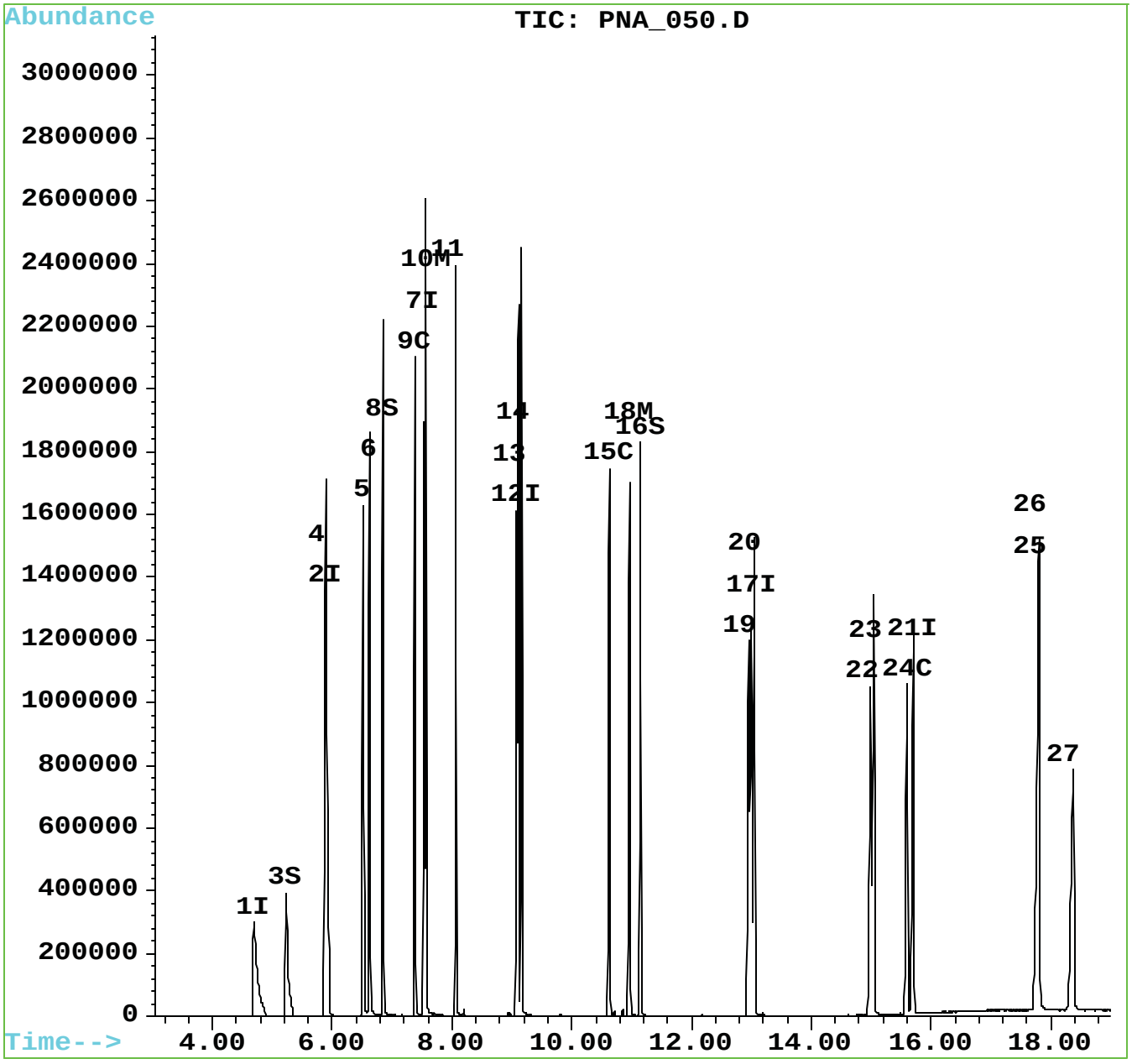
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	266255	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.88	136	1021852	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	556893	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	885025	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.00	240	820302	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	919573	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.22	82	391480	53.97	ng/ul	53.9
8) 2-Fluorobiphenyl	6.85	172	892778	51.25	ng/ul	51.2
16) Terphenyl-D14	11.15	244	815247	52.08	ng/ul	52.0
Target Compounds						Qvalu
4) Naphthalene	5.90	128	1287749	51.72	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	707297	52.96	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	828535	51.97	ng/ulm	9
9) Acenaphthylene	7.39	152	1213450	51.70	ng/ul	9
10) Acenaphthene **	7.56	154	726697	51.27	ng/ul	9
11) Fluorene	8.07	166	863082	52.77	ng/ul	9
13) Phenanthrene	9.11	178	1124772	50.01	ng/ul	9
14) Anthracene	9.16	178	1230942	51.42	ng/ul	10
15) Fluoranthene	10.63	202	1114536	51.16	ng/ul	9
18) Pyrene **	10.96	202	1144231	52.80	ng/ul	9
19) Benzo(a)anthracene	12.96	228	949112	52.57	ng/ul	9
20) Chrysene	13.05	228	982525	50.41	ng/ul	9
22) Benzo(b)fluoranthene	14.99	252	997694	48.42	ng/ul	9
23) Benzo(k)fluoranthene	15.05	252	937805	44.71	ng/ul	9
24) Benzo(a)pyrene	15.60	252	860881	47.35	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.79	276	1171973	48.00	ng/ul	8
26) Dibenzo(ah)anthracene	17.81	278	959794	48.74	ng/ul	9
27) Benzo(ghi)perylene	18.37	276	1002580	49.44	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_050.d Vial: 7
Acq On : 26 May 112 10:37 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:24 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_060.d Vial: 8
Acq On : 26 May 112 11:01 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:21 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

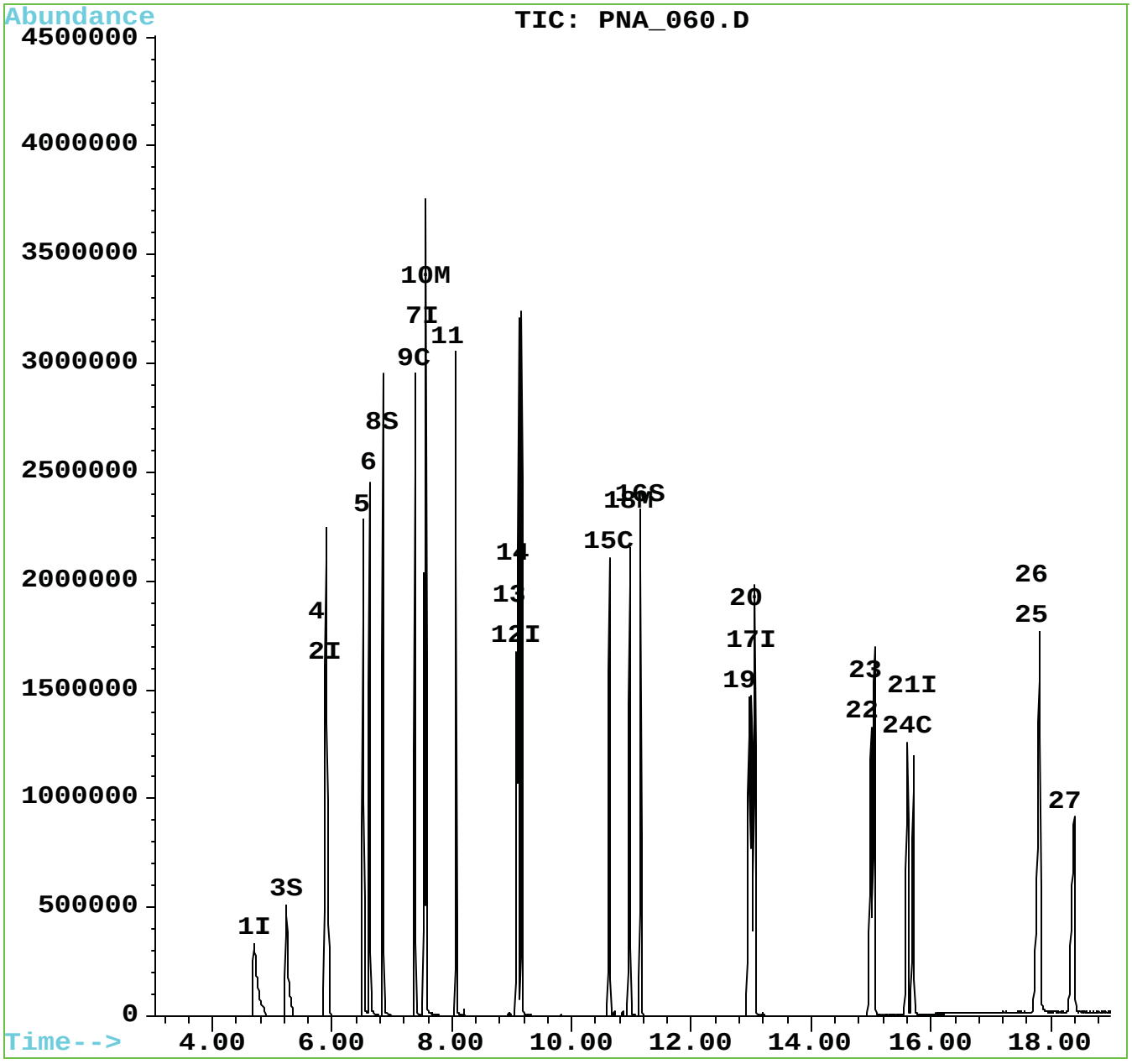
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.70	152	310144	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1204660	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	641452	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	990540	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.00	240	898311	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	878448	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	521531	64.19	ng/ul	64.1
8) 2-Fluorobiphenyl	6.85	172	1232944	64.45	ng/ul	64.4
16) Terphenyl-D14	11.15	244	1044220	68.01	ng/ul	68.0
Target Compounds						Qvalu
4) Naphthalene	5.90	128	1752554	74.20	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	968245	60.83	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	1166883	64.43	ng/ul	9
9) Acenaphthylene	7.39	152	1642462	60.97	ng/ul	9
10) Acenaphthene **	7.57	154	1007300	69.10	ng/ul	9
11) Fluorene	8.07	166	1128796	61.79	ng/ul	9
13) Phenanthrene	9.11	178	1511210	79.51	ng/ul	9
14) Anthracene	9.16	178	1635345	82.33	ng/ul	9
15) Fluoranthene	10.63	202	1475931	64.58	ng/ul	9
18) Pyrene **	10.97	202	1495771	57.80	ng/ul	9
19) Benzo(a)anthracene	12.96	228	1230077	55.62	ng/ul	10
20) Chrysene	13.06	228	1288430	61.05	ng/ul	9
22) Benzo(b)fluoranthene	15.00	252	1211910	56.07	ng/ul	9
23) Benzo(k)fluoranthene	15.06	252	1277505	63.28	ng/ulm	9
24) Benzo(a)pyrene	15.61	252	1104670	59.73	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.82	276	1486313	65.66	ng/ul	8
26) Dibenzo(ah)anthracene	17.83	278	1205391	64.88	ng/ul	9
27) Benzo(ghi)perylene	18.39	276	1209206	64.49	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_060.d Vial: 8
Acq On : 26 May 112 11:01 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:21 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_080.d Vial: 9
Acq On : 26 May 112 11:26 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 23:45 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

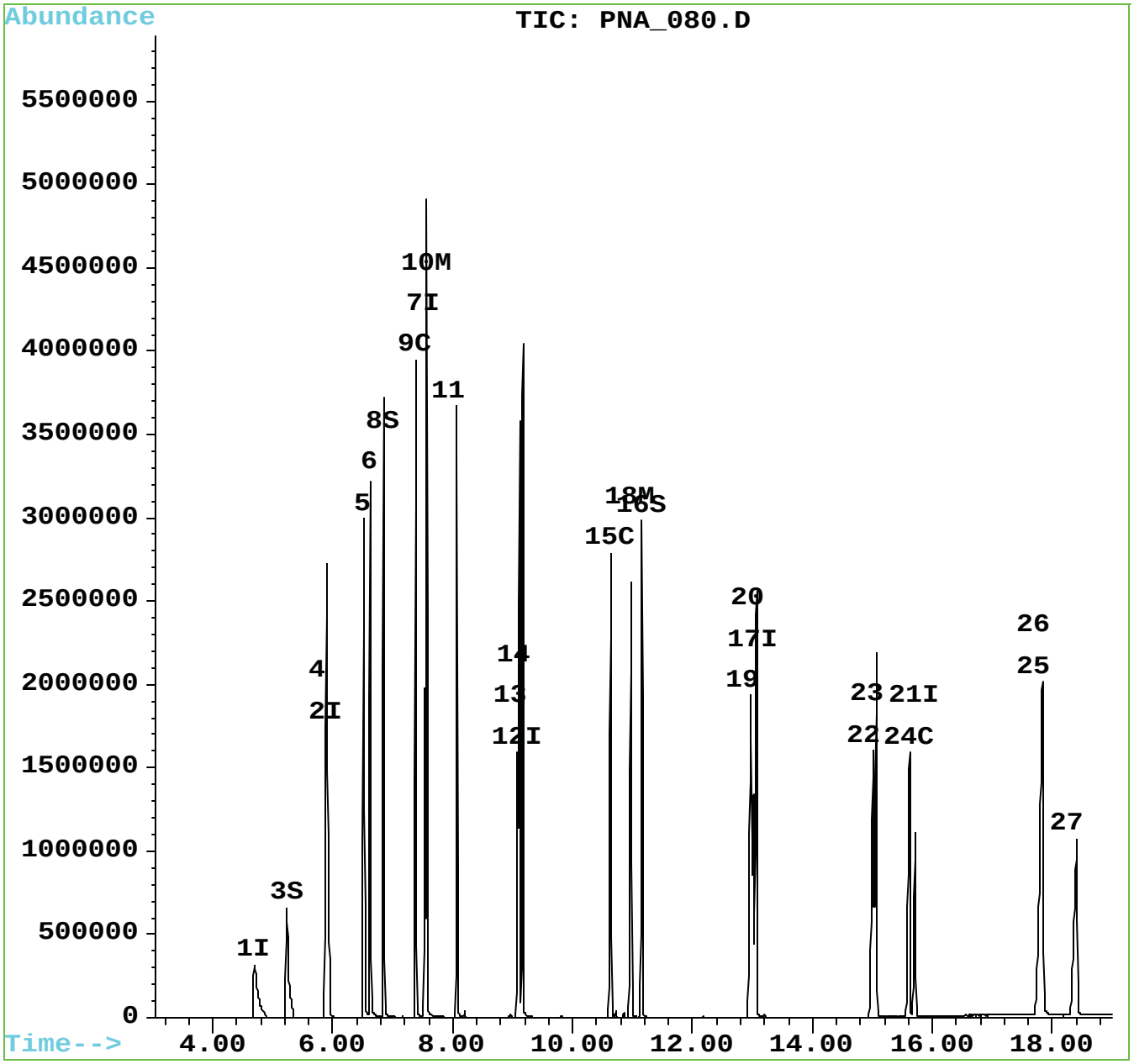
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.70	152	295851	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1145190	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	607398	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	946072	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.01	240	874983	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	844662	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	666871	86.34	ng/ul	86.3
8) 2-Fluorobiphenyl	6.85	172	1586206	87.57	ng/ul	87.5
16) Terphenyl-D14	11.16	244	1387325	94.61	ng/ul	94.6
Target Compounds						Qvalu
4) Naphthalene	5.90	128	2276222	93.78	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	1240206	81.96	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	1499600	87.10	ng/ul	9
9) Acenaphthylene	7.39	152	2120598	83.14	ng/ul	9
10) Acenaphthene **	7.57	154	1322555	95.81	ng/ul	9
11) Fluorene	8.07	166	1465979	84.75	ng/ul	9
13) Phenanthrene	9.11	178	1971918	108.62	ng/ul	9
14) Anthracene	9.17	178	2219884	117.01	ng/ul	9
15) Fluoranthene	10.63	202	1908678	87.43	ng/ul	9
18) Pyrene **	10.97	202	1954000	77.52	ng/ul	9
19) Benzo(a)anthracene	12.97	228	1587612	73.70	ng/ul	10
20) Chrysene	13.07	228	1715616	83.45	ng/ul	9
22) Benzo(b)fluoranthene	15.01	252	1644204	79.12	ng/ul	9
23) Benzo(k)fluoranthene	15.06	252	1579827	81.39	ng/ul	9
24) Benzo(a)pyrene	15.62	252	1407771	79.16	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.83	276	1920833	88.25	ng/ul	8
26) Dibenzo(ah)anthracene	17.84	278	1561713	87.42	ng/ul	9
27) Benzo(ghi)perylene	18.41	276	1533403	85.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_080.d Vial: 9
Acq On : 26 May 112 11:26 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 23:45 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_100.d Vial: 1
Acq On : 26 May 112 11:50 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 27 0:09 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

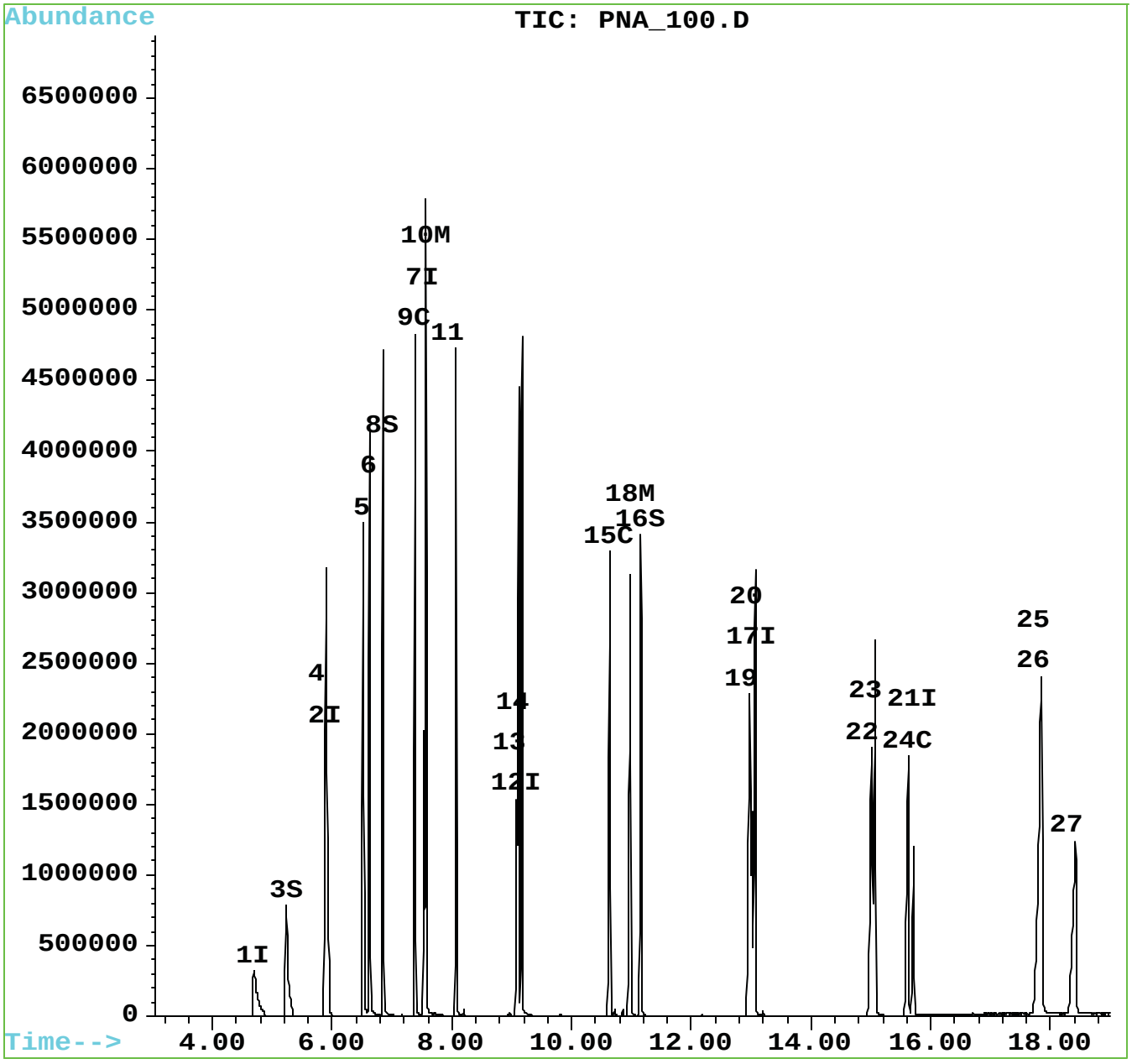
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.70	152	291498	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1145378	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	621551	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	924282	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.01	240	918995	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	857361	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	801591	103.76	ng/ul	103.7
8) 2-Fluorobiphenyl	6.85	172	2010381	108.45	ng/ul	108.4
16) Terphenyl-D14	11.16	244	1680531	117.30	ng/ul	117.3
Target Compounds						Qvalu
4) Naphthalene	5.90	128	2814041	109.37	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	1542162	101.90	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	1914938	111.20	ng/ul	9
9) Acenaphthylene	7.39	152	2676770	102.55	ng/ul	9
10) Acenaphthene **	7.57	154	1638322	115.98	ng/ul	9
11) Fluorene	8.07	166	1891614	106.87	ng/ul	9
13) Phenanthrene	9.11	178	2493597	140.60	ng/ul	9
14) Anthracene	9.17	178	2749364	148.34	ng/ul	10
15) Fluoranthene	10.64	202	2437362	114.29	ng/ul	9
18) Pyrene **	10.98	202	2351458	88.82	ng/ul	9
19) Benzo(a)anthracene	12.98	228	1971229	87.13	ng/ul	9
20) Chrysene	13.07	228	2228302	103.20	ng/ul	9
22) Benzo(b)fluoranthene	15.01	252	1974884	93.62	ng/ul	9
23) Benzo(k)fluoranthene	15.08	252	2126253	107.92	ng/ul	9
24) Benzo(a)pyrene	15.63	252	1735694	96.15	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.86	276	2397230	108.51	ng/ul#	3
26) Dibenzo(ah)anthracene	17.85	278	1945636	107.30	ng/ul	9
27) Benzo(ghi)perylene	18.42	276	1877411	102.59	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_100.d Vial: 1
Acq On : 26 May 112 11:50 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 27 0:09 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Initial Calibration Date: (see Form 6)

Analytical Batch: u120627.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn27a.d	06/27/12 10:09	Acenaphthylene	1.734	0.30
		Benzo(b)fluoranthene	1.037	0.30
		Naphthalene	1.044	0.30
		Phenanthrene	1.028	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Initial Calibration Date: (see Form 6)

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn27a.d	06/27/12 10:09	1-methylnaphthalene	54.3/ 50.0	8.6/ 20.0
		2-Methylnaphthalene	54.6/ 50.0	9.2/ 20.0
		Acenaphthene	50.3/ 50.0	0.6/ 20.0
		Acenaphthylene	51.4/ 50.0	2.9/ 20.0
		Anthracene	49.9/ 50.0	0.2/ 20.0
		Benzo(a)anthracene	54.4/ 50.0	8.9/ 20.0
		Benzo(a)pyrene	55.9/ 50.0	11.8/ 20.0
		Benzo(b)fluoranthene	57.9/ 50.0	15.7/ 20.0
		Benzo(ghi)perylene	48.9/ 50.0	2.3/ 20.0
		Benzo(k)fluoranthene	55.0/ 50.0	10.1/ 20.0
		Chrysene	51.1/ 50.0	2.2/ 20.0
		Dibenzo(ah)anthracene	51.6/ 50.0	3.1/ 20.0
		Fluorene	51.2/ 50.0	2.5/ 20.0
		Fluoranthene	53.0/ 50.0	6.0/ 20.0
		Indeno(1,2,3-cd)pyrene	51.4/ 50.0	2.7/ 20.0
		Naphthalene	53.6/ 50.0	7.1/ 20.0
		Phenanthrene	50.5/ 50.0	1.0/ 20.0
		Pyrene	53.4/ 50.0	6.8/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\spnn27a.d Vial: 2
Acq On : 27 Jun 112 10:09 am Operator: PL
Sample : pna std 50 (120314) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jun 27 10:27 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

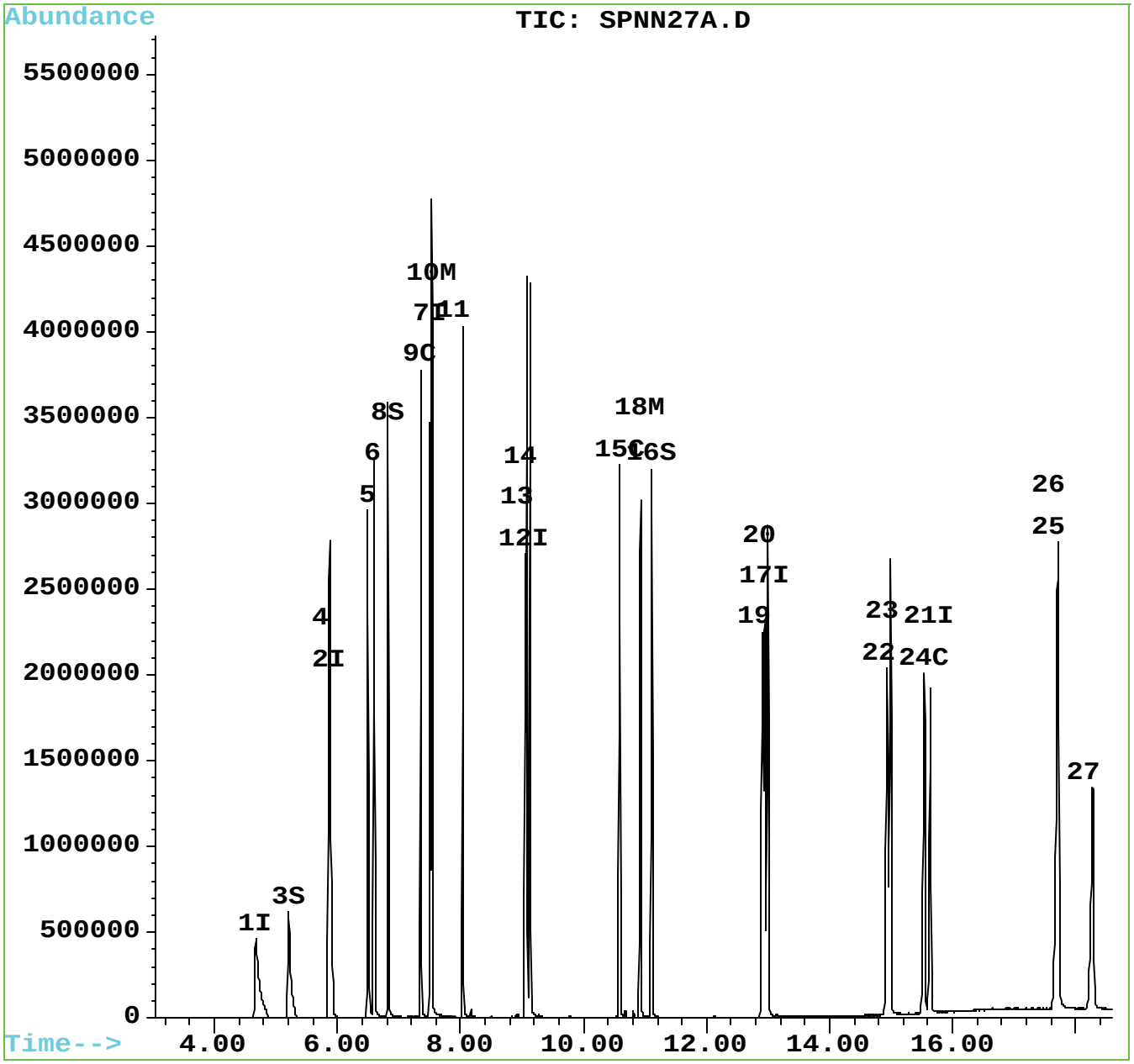
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	473651	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.85	136	1851422	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	1052031	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.05	188	1662070	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.95	240	1531215	40.00	ng/ul	0.0
21) PERYLENE-D12	15.64	264	1459710	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.20	82	643117	97.87	ng/ul	97.8
8) 2-Fluorobiphenyl	6.82	172	1700650	103.35	ng/ul	103.3
16) Terphenyl-D14	11.10	244	1531273	104.17	ng/ul	104.1
Target Compounds						Qvalu
4) Naphthalene	5.87	128	2416461	53.56	ng/ul#	9
5) 2-Methylnaphthalene	6.49	141	1321088	54.60	ng/ul	9
6) 1-Methylnaphthalene	6.59	142	1567838	54.28	ng/ul	9
9) Acenaphthylene	7.36	152	2280689	51.43	ng/ul	10
10) Acenaphthene **	7.53	154	1347407	50.32	ng/ul	9
11) Fluorene	8.04	166	1583313	51.24	ng/ul	9
13) Phenanthrene	9.08	178	2134039	50.52	ng/ul	9
14) Anthracene	9.13	178	2243198	49.90	ng/ul	9
15) Fluoranthene	10.59	202	2167987	52.99	ng/ul	9
18) Pyrene **	10.93	202	2159754	53.39	ng/ul	10
19) Benzo(a)anthracene	12.91	228	1834850	54.44	ng/ul	9
20) Chrysene	13.00	228	1859724	51.11	ng/ul	9
22) Benzo(b)fluoranthene	14.94	252	1892699	57.87	ng/ul	9
23) Benzo(k)fluoranthene	14.99	252	1832523	55.04	ng/ul	9
24) Benzo(a)pyrene	15.54	252	1613867	55.92	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.71	276	1990289	51.35	ng/ul	9
26) Dibenzo(ah)anthracene	17.72	278	1611953	51.57	ng/ul	9
27) Benzo(ghi)perylene	18.28	276	1573014	48.86	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\spnn27a.d Vial: 2
Acq On : 27 Jun 112 10:09 am Operator: PL
Sample : pna std 50 (120314) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jun 27 10:27 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\d27a.d Vial: 1
Acq On : 27 Jun 112 9:45 am Operator: PL
Sample : dftpp std (120607) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jun 27 10:03 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

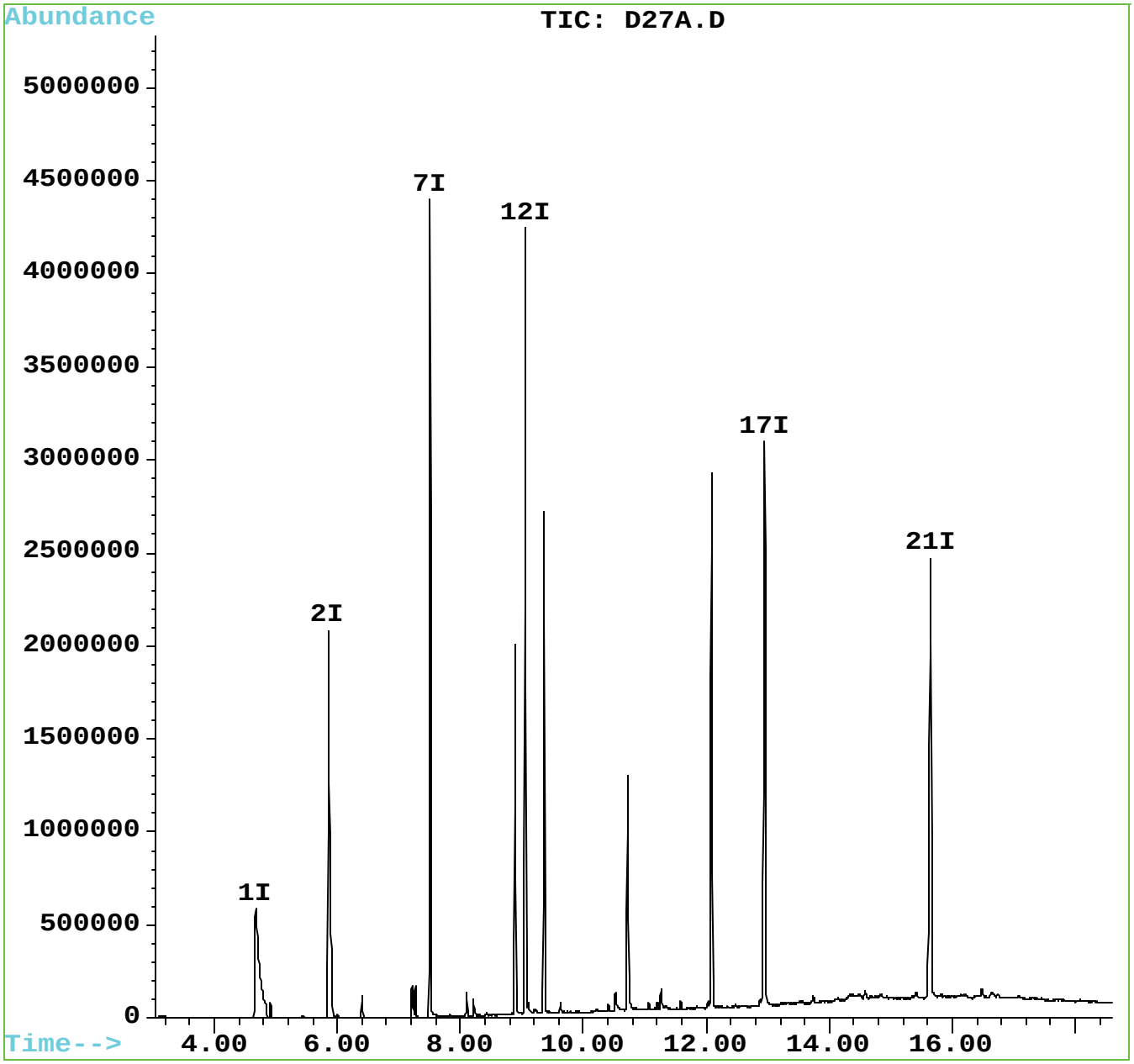
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.67	152	604926	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.86	136	2529905	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.51	164	1354503	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.06	188	2264114	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.95	240	1997017	40.00	ng/ul	0.0
21) PERYLENE-D12	15.65	264	1885342	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	0.00	82	0	0.00	ng/ul	0.0
8) 2-Fluorobiphenyl	0.00	172	0	0.00	ng/ul	0.0
16) Terphenyl-D14	11.10	244	2483	0.12	ng/ul	0.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\d27a.d Vial: 1
Acq On : 27 Jun 112 9:45 am Operator: PL
Sample : dftpp std (120607) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jun 27 10:03 19112

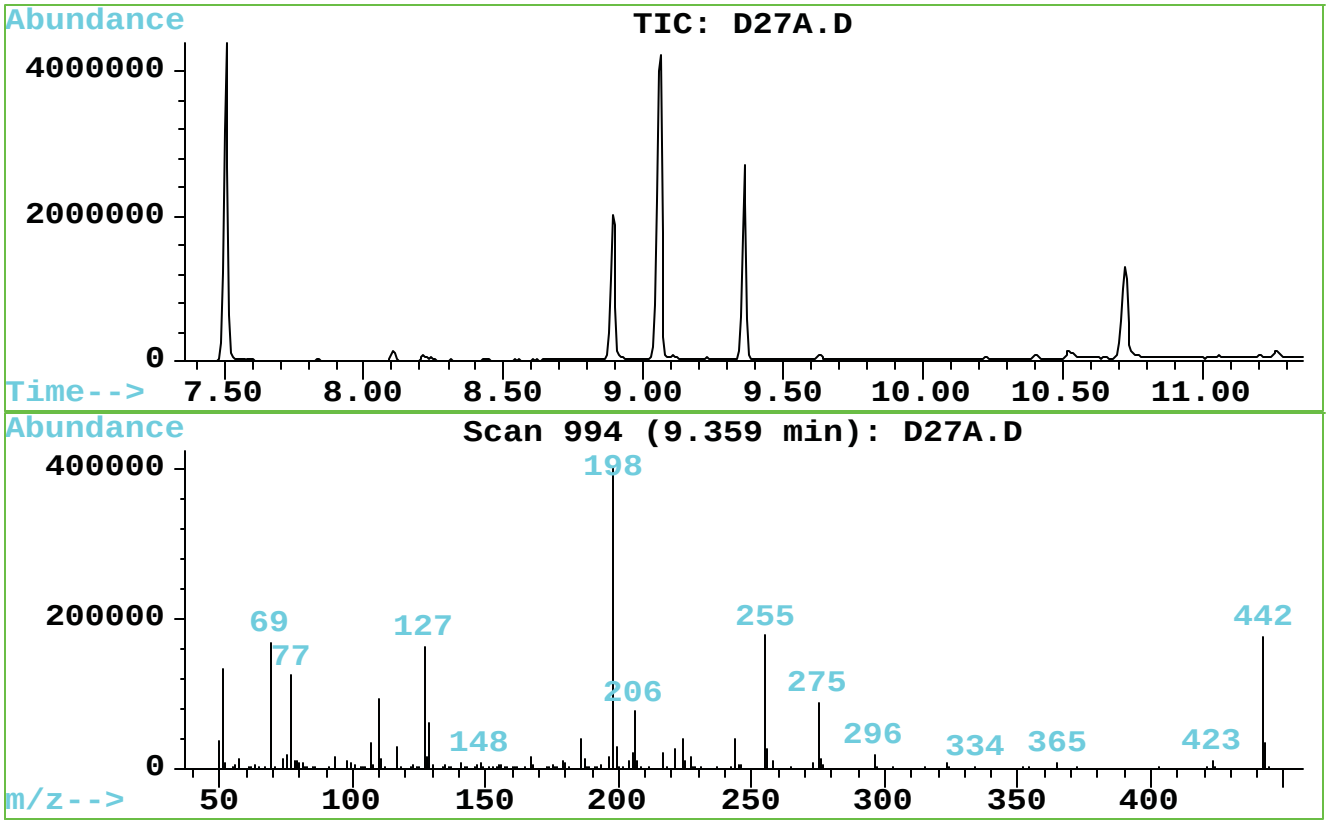
Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\ULYSSES.3\DATA\U120627\D27A.D Vial: 1
Acq On : 27 Jun 112 9:45 am Operator: PL
Sample : dftpp std (120607) Inst : 5972 -
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270



Peak Apex is scan: 994

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	32.8	132160	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	41.7	167872	PASS
70	69	0	2	0.0	0	PASS
127	198	25	75	40.3	162176	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	402624	PASS
199	198	5	9	7.0	28352	PASS
275	198	10	30	22.0	88544	PASS
365	198	1	100	2.0	8146	PASS
441	443	0	100	0.0	0	PASS
442	198	40	110	43.7	175936	PASS
443	442	15	24	19.4	34192	PASS

D27A.D P120526U.M Thu Jun 28 11:19:50 2012

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\blks27a.d Vial: 3
Acq On : 27 Jun 112 10:36 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 10:54 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

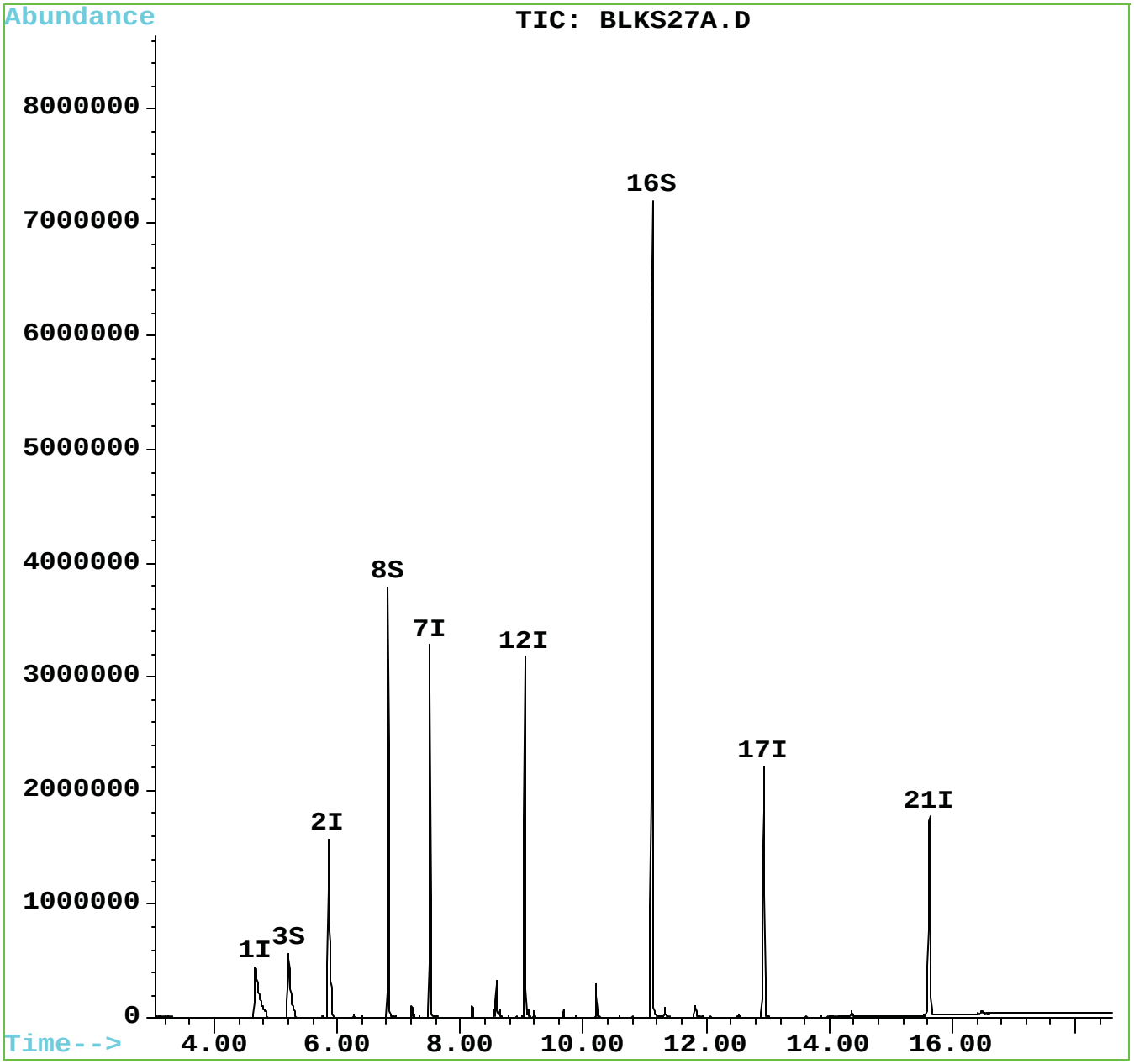
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.67	152	492501	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.85	136	1987633	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	1059375	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.05	188	1764047	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.94	240	1513007	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.64	264	1412545	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.20	82	623860	88.43	ng/ul	88.4
8) 2-Fluorobiphenyl	6.83	172	1696104	102.36	ng/ul	102.3
16) Terphenyl-D14	11.12	244	5086487	326.02	ng/ul	326.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\blks27a.d Vial: 3
Acq On : 27 Jun 112 10:36 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 10:54 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\lcss27a.d Vial: 4
Acq On : 27 Jun 112 11:00 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

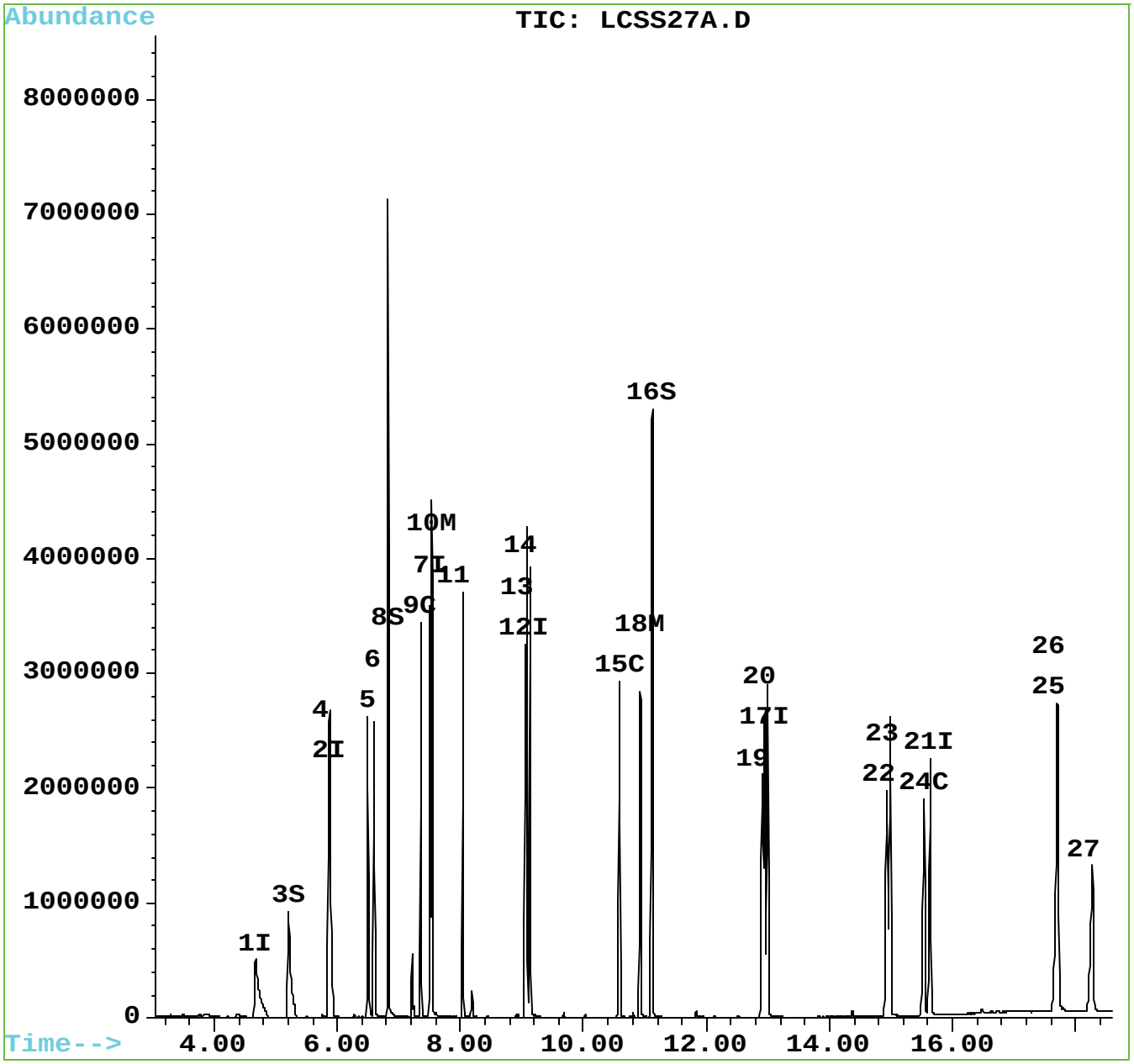
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.67	152	544882	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.86	136	2239533	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	1201957	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.06	188	1988960	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.95	240	1778458	40.00	ng/ul	0.0
21) PERYLENE-D12	15.64	264	1687781	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.21	82	1006126	126.57	ng/ul	126.5
8) 2-Fluorobiphenyl	6.83	172	3215004	171.01	ng/ul	171.0
16) Terphenyl-D14	11.12	244	3433073	195.16	ng/ul	195.1
Target Compounds						Qvalu
4) Naphthalene	5.87	128	2091748	38.33	ng/ul#	9
5) 2-Methylnaphthalene	6.49	141	1184944	40.48	ng/ul	9
6) 1-Methylnaphthalene	6.59	142	1240894	35.51	ng/ul	9
9) Acenaphthylene	7.36	152	2076413	40.99	ng/ul	10
10) Acenaphthene **	7.54	154	1277253	41.75	ng/ul	9
11) Fluorene	8.04	166	1506599	42.68	ng/ul	9
13) Phenanthrene	9.08	178	2081143	41.17	ng/ul	9
14) Anthracene	9.13	178	2103828	39.11	ng/ul	9
15) Fluoranthene	10.59	202	2079765	42.48	ng/ul	10
18) Pyrene **	10.93	202	2108499	44.87	ng/ul	9
19) Benzo(a)anthracene	12.91	228	1832983	46.83	ng/ul	9
20) Chrysene	13.00	228	1857957	43.96	ng/ul	9
22) Benzo(b)fluoranthene	14.94	252	1848840	48.89	ng/ul	9
23) Benzo(k)fluoranthene	14.99	252	1872639	48.65	ng/ul	9
24) Benzo(a)pyrene	15.54	252	1574879	47.19	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.71	276	1982590	44.24	ng/ul	9
26) Dibenzo(ah)anthracene	17.72	278	1595615	44.15	ng/ul	9
27) Benzo(ghi)perylene	18.28	276	1581142	42.48	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\lcss27a.d Vial: 4
Acq On : 27 Jun 112 11:00 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\lcsds27a.d Vial: 5
Acq On : 27 Jun 112 11:24 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 11:42 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

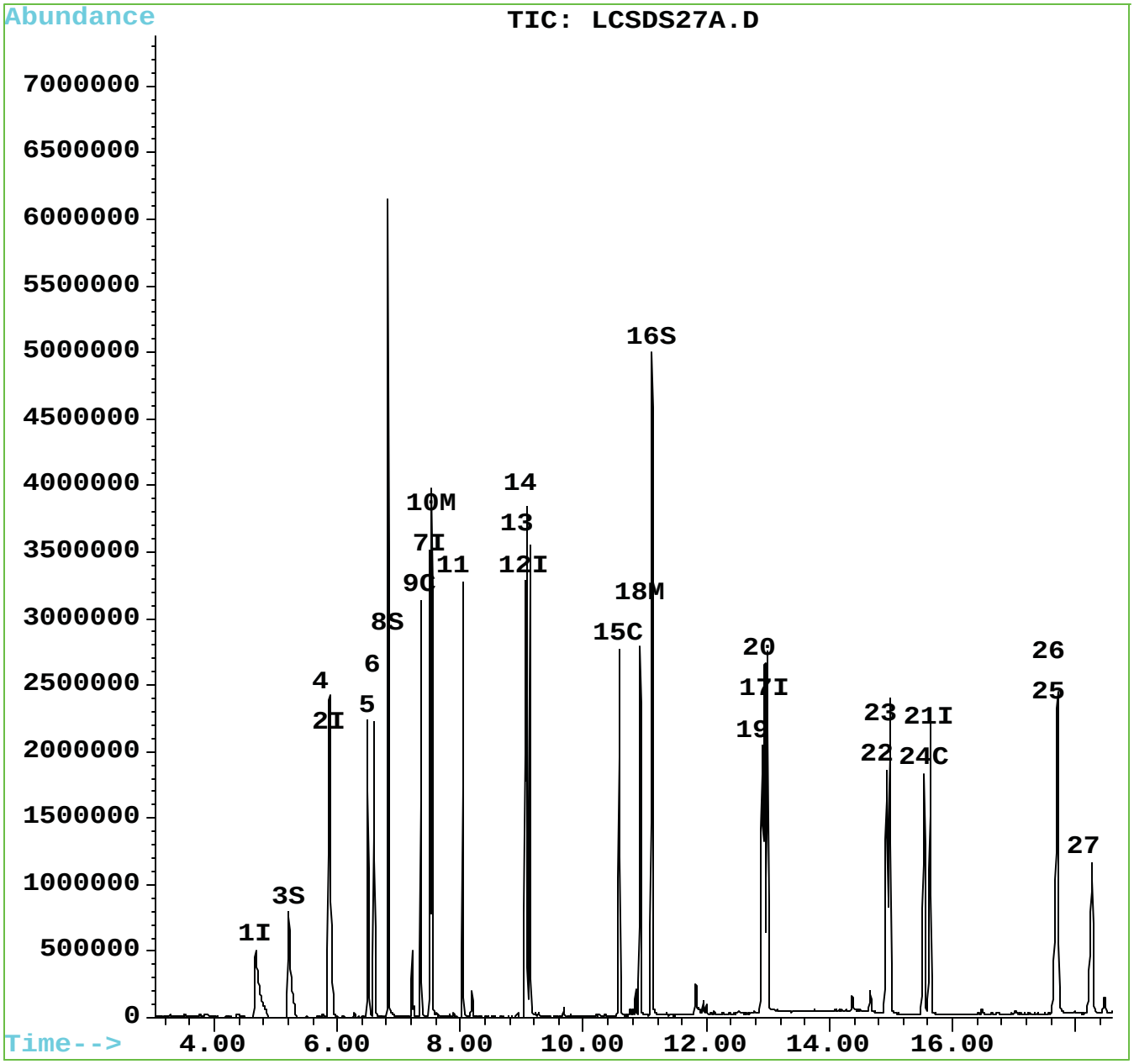
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	535987	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.86	136	2174404	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	1174430	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.05	188	1936962	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.95	240	1775478	40.00	ng/ul	0.0
21) PERYLENE-D12	15.64	264	1656041	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.21	82	872535	113.05	ng/ul	113.0
8) 2-Fluorobiphenyl	6.83	172	2738196	149.06	ng/ul	149.0
16) Terphenyl-D14	11.11	244	3179214	185.58	ng/ul	185.5
Target Compounds						Qvalu
4) Naphthalene	5.87	128	1746832	32.97	ng/ul	9
5) 2-Methylnaphthalene	6.49	141	1013831	35.67	ng/ul	9
6) 1-Methylnaphthalene	6.59	142	1080410	31.85	ng/ul	9
9) Acenaphthylene	7.36	152	1818403	36.74	ng/ul	10
10) Acenaphthene **	7.54	154	1098888	36.76	ng/ul	9
11) Fluorene	8.04	166	1313170	38.07	ng/ul	10
13) Phenanthrene	9.08	178	1860099	37.79	ng/ul	9
14) Anthracene	9.13	178	1949855	37.22	ng/ul	9
15) Fluoranthene	10.58	202	1881126	39.45	ng/ul	10
18) Pyrene **	10.92	202	1928148	41.10	ng/ul	9
19) Benzo(a)anthracene	12.91	228	1691551	43.29	ng/ul	9
20) Chrysene	13.00	228	1709854	40.53	ng/ul	9
22) Benzo(b)fluoranthene	14.94	252	1748350	47.12	ng/ul	9
23) Benzo(k)fluoranthene	14.99	252	1667737	44.15	ng/ul	10
24) Benzo(a)pyrene	15.54	252	1491433	45.55	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.70	276	1773609	40.34	ng/ul	9
26) Dibenzo(ah)anthracene	17.71	278	1427022	40.24	ng/ul	9
27) Benzo(ghi)perylene	18.27	276	1413005	38.69	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\lcsds27a.d Vial: 5
Acq On : 27 Jun 112 11:24 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 11:42 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
f120622.01r	sblk-r.01	06/22/12 09:18	sBLK-R.01	WW	Bl	**4**	
f120622.02r	sc1660.01	06/22/12 09:29	SC1660.01 0.5ppm 5/31/2012	WW	CV	**4**	
f120622.06r	sblk-s.01	06/22/12 10:14	sBLK-S.01 20.0g s/1 ID:PA120622s01	SO	Bl	**4**	
f120622.07r	slcs-s.01	06/22/12 10:24	sLCS-S.01 20.0g s/1 ID:PA120622s01	SO	MS	**4**	
f120622.08r	slcs-s.01	06/22/12 10:35	sLCS-S.01D 20.0g s/1 ID:PA120622s01	SO	MS	**4**	
f120622.12r	s52902.01	06/22/12 11:23	s52902.01 20.3g s/1 ID:PA120622s01	SO		**4**	
f120622.16r	s52934.02	06/22/12 12:26	s52934.02 20.0g s/1 ID:PA120622s01	SO		**4**	
f120622.18r	ss1660.01	06/22/12 12:47	ss1660.01 0.1ppm 5/31/12	WW		**4**	
f120622.19r	sc1660.02	06/22/12 12:58	SC1660.02 0.5ppm 5/31/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120622.4

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
f120622b.01	sblk-r.01	06/22/12 09:18	sBLK-R.01	WW	Bl	**4**	
f120622b.02	sc1660.01	06/22/12 09:29	SC1660.01 0.5ppm 5/31/2012	WW	CV	**4**	
f120622b.06	sblk-s.01	06/22/12 10:14	sBLK-S.01 20.0g s/1 ID:PA120622s01	SO	Bl	**4**	
f120622b.07	slcs-s.01	06/22/12 10:24	sLCS-S.01 20.0g s/1 ID:PA120622s01	SO	MS	**4**	
f120622b.08	slcs-s.01	06/22/12 10:35	sLCS-S.01D 20.0g s/1 ID:PA120622s01	SO	MS	**4**	
f120622b.12	s52902.01	06/22/12 11:23	s52902.01 20.3g s/1 ID:PA120622s01	SO		**4**	
f120622b.16	s52934.02	06/22/12 12:26	s52934.02 20.0g s/1 ID:PA120622s01	SO		**4**	
f120622b.18	ss1660.01	06/22/12 12:47	ss1660.01 0.1ppm 5/31/12	WW		**4**	
f120622b.19	sc1660.02	06/22/12 12:58	SC1660.02 0.5ppm 5/31/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120622.01r	sblk-r.01	TCX	30.24/30.00	100.8	34.1/137.1	WW
		DCBP	29.17/30.00	97.2	30.0/138.6	
f120622.02r	sc1660.01	TCX	18.63/30.00	n/a	34.1/137.1	WW
		DCBP	15.83/30.00	n/a	30.0/138.6	
f120622.06r	sblk-s.01	TCX	20.13/30.00	67.1	33.0/135.3	SO
		DCBP	25.02/30.00	83.4	30.0/137.0	
f120622.07r	slcs-s.01	TCX	20.02/30.00	66.7	33.0/135.3	SO
		DCBP	22.48/30.00	74.9	30.0/137.0	
f120622.08r	slcs-s.01	TCX	19.04/30.00	63.5	33.0/135.3	SO
		DCBP	23.23/30.00	77.4	30.0/137.0	
f120622.12r	s52902.01	TCX	18.72/30.00	62.4	33.0/135.3	SO
		DCBP	19.82/30.00	66.1	30.0/137.0	
f120622.16r	s52934.02	TCX	16.03/30.00	53.4	33.0/135.3	SO
		DCBP	21.50/30.00	71.7	30.0/137.0	
f120622.18r	ss1660.01	TCX	3.43/30.00	n/a	34.1/137.1	WW
		DCBP	4.21/30.00	n/a	30.0/138.6	
f120622.19r	sc1660.02	TCX	17.44/30.00	n/a	34.1/137.1	WW
		DCBP	15.31/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120622.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120622b.01	sblk-r.01	TCX	35.68/30.00	118.9	34.1/137.1	WW
		DCBP	32.19/30.00	107.3	30.0/138.6	
f120622b.02	sc1660.01	TCX	20.67/30.00	n/a	34.1/137.1	WW
		DCBP	17.58/30.00	n/a	30.0/138.6	
f120622b.06	sblk-s.01	TCX	22.62/30.00	75.4	33.0/135.3	SO
		DCBP	26.98/30.00	89.9	30.0/137.0	
f120622b.07	slcs-s.01	TCX	22.04/30.00	73.5	33.0/135.3	SO
		DCBP	25.71/30.00	85.7	30.0/137.0	
f120622b.08	slcs-s.01	TCX	20.92/30.00	69.7	33.0/135.3	SO
		DCBP	25.29/30.00	84.3	30.0/137.0	
f120622b.12	s52902.01	TCX	20.29/30.00	67.6	33.0/135.3	SO
		DCBP	21.30/30.00	71.0	30.0/137.0	
f120622b.16	s52934.02	TCX	18.29/30.00	61.0	33.0/135.3	SO
		DCBP	23.09/30.00	77.0	30.0/137.0	
f120622b.18	ss1660.01	TCX	4.04/30.00	n/a	34.1/137.1	WW
		DCBP	2.77/30.00	n/a	30.0/138.6	
f120622b.19	sc1660.02	TCX	19.06/30.00	n/a	34.1/137.1	WW
		DCBP	16.20/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120622.08r	slcs-s.01	**f120622.07r**	1016-1	0.445/ 0.451	1.3	SO
			1016-2	0.440/ 0.450	2.2	
			1016-3	0.458/ 0.467	1.9	
			1016-4	0.439/ 0.451	2.7	
			1016-5	0.464/ 0.470	1.3	
			1260-1	0.451/ 0.456	1.1	
			1260-2	0.451/ 0.453	0.4	
			1260-3	0.446/ 0.450	0.9	
			1260-4	0.420/ 0.416	1.0	
			1260-5	0.444/ 0.428	3.7	
			[end of list]			

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120622.4

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120622b.08	slcs-s.01	**f120622b.07**	1016-1	0.413/ 0.446	7.7	SO
			1016-2	0.425/ 0.442	3.9	
			1016-3	0.431/ 0.441	2.3	
			1016-4	0.446/ 0.451	1.1	
			1016-5	0.449/ 0.449	0.0	
			1260-1	0.465/ 0.476	2.3	
			1260-2	0.477/ 0.489	2.5	
			1260-3	0.461/ 0.481	4.2	
			1260-4	0.451/ 0.457	1.3	
			1260-5	0.475/ 0.476	0.2	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120622.07r	slcs-s.01	**f120622.06r**	1016-1	0.451/-0.041	98.4		SO
			1016-2	0.450/-0.040	98.0		
			1016-3	0.467/ 0.000	93.4		
			1016-4	0.451/ 0.000	90.2		
			1016-5	0.470/ 0.000	94.0		
			1260-1	0.456/-0.033	97.8		
			1260-2	0.453/ 0.000	90.6		
			1260-3	0.450/ 0.000	90.0		
			1260-4	0.416/-0.023	87.8		
			1260-5	0.428/ 0.000	85.6		
				Average Recovery	**92.6**	50.0/125.0	
f120622.08r	slcs-s.01	**f120622.06r**	1016-1	0.445/-0.041	97.2		SO
			1016-2	0.440/-0.040	96.0		
			1016-3	0.458/ 0.000	91.6		
			1016-4	0.439/ 0.000	87.8		
			1016-5	0.464/ 0.000	92.8		
			1260-1	0.451/-0.033	96.8		
			1260-2	0.451/ 0.000	90.2		
			1260-3	0.446/ 0.000	89.2		
			1260-4	0.420/-0.023	88.6		
			1260-5	0.444/ 0.000	88.8		
				Average Recovery	**91.9**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120622.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120622b.07	slcs-s.01	**f120622b.06**	1016-1	0.446/-0.031	95.4		SO
			1016-2	0.442/-0.069	102.2		
			1016-3	0.441/ 0.000	88.2		
			1016-4	0.451/-0.065	103.2		
			1016-5	0.449/ 0.000	89.8		
			1260-1	0.476/ 0.000	95.2		
			1260-2	0.489/ 0.000	97.8		
			1260-3	0.481/ 0.013	93.6		
			1260-4	0.457/ 0.000	91.4		
			1260-5	0.476/-0.043	103.8		
				Average Recovery	**96.1**	50.0/125.0	
f120622b.08	slcs-s.01	**f120622b.06**	1016-1	0.413/-0.031	88.8		SO
			1016-2	0.425/-0.069	98.8		
			1016-3	0.431/ 0.000	86.2		
			1016-4	0.446/-0.065	102.2		
			1016-5	0.449/ 0.000	89.8		
			1260-1	0.465/ 0.000	93.0		
			1260-2	0.477/ 0.000	95.4		
			1260-3	0.461/ 0.013	89.6		
			1260-4	0.451/ 0.000	90.2		
			1260-5	0.475/-0.043	103.6		
				Average Recovery	**93.8**	50.0/125.0	

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-5
Level: LOW

Analytical Batch: f120622.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120622.06r.bnd
LCS Data File: f120622.07r.bnd

Blank/LCS Preparation Batch: pa120622s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52902.01	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 1)	$TCL8082C1
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 2)	$TCL8082C2
S52908.01	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52908.02	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52908.03	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52914.01	F120622	PA120622S01	06/22/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52914.02	F120622	PA120622S01	06/22/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52922.01	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52923.02	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.12	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.15	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.16	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.22	F120626	PA120622S01	06/26/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.24	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.25	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.27	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.28	F120626	PA120622S01	06/26/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.29	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.30	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.31	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52934.02	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 1)	$TCL8082C1
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 2)	$TCL8082C2

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-5
Level: LOW

Analytical Batch: f120622.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120622.01r	sblk-r.01	06/22/12 09:18	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120622.06r	sblk-s.01	06/22/12 10:14	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120622.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120622b.06r.bnd
LCS Data File: f120622b.07r.bnd

Blank/LCS Preparation Batch: pa120622s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52902.01	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 1)	$TCL8082C1
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 2)	$TCL8082C2
S52908.01	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52908.02	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52908.03	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120625	PA120622S01	06/25/12	PCB List	$8080A
S52914.01	F120622	PA120622S01	06/22/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52914.02	F120622	PA120622S01	06/22/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52922.01	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52923.02	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.12	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.15	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.16	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.22	F120626	PA120622S01	06/26/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.24	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.25	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.27	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.28	F120626	PA120622S01	06/26/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.29	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.30	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52929.31	F120625	PA120622S01	06/25/12	PCB List	$8080A
	PA120622S01		06/22/12	Extraction, PCB	1120S
S52934.02	PA120622S01		06/22/12	Extraction, PCB	1120S
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 1)	$TCL8082C1
	F120622	PA120622S01	06/22/12	TCL PCB List (Column 2)	$TCL8082C2

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120622.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120622b.01	sblk-r.01	06/22/12 09:18	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120622b.06	sblk-s.01	06/22/12 10:14	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
Analytical Batch: f120622.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Note/Qualifier Key

A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

LIMS ID: S52934.02
Data File: f120622.16r.bnd
Date Received: 06/21/12

Tag: SB131 (06-20-2012) (1-2)
Notes: s52934.02 20.0g s/1 ID:PA120622s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/22/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/22/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/22/12	
Total Solids								
TSOLIDS	Total Solids		82	1	1	%	06/22/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120622.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S52934.02 **Tag: SB131 (06-20-2012) (1-2)** Matrix: SO
Data File: f120622b.16r.bnd Notes: s52934.02 20.0g s/1 ID:PA120622s01 Extraction: SONC
Date Received: 06/21/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/22/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/22/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/22/12	
Total Solids								
TSOLIDS	Total Solids		82	1	1	%	06/22/12	

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
f66120605.cal	**TCX**	L	2.15	2.20	2.25	1.50	3.00	9.00	15.00	21.00	30.00	0.051	0.048
				22.5	1.00	0.08	0.06	0.05	0.05	0.05	0.05		
	1016-1	L	3.06	3.11	3.16	0.05	0.10	0.30	0.50	0.70	1.00	0.040	0.763
				24.8	1.00	1.45	1.08	0.92	0.87	0.83	0.79		
	1016-2	L	3.31	3.36	3.41	0.05	0.10	0.30	0.50	0.70	1.00	0.112	2.601
				26.2	1.00	4.96	3.53	2.99	2.84	2.80	2.70		
	1016-3	L	3.40	3.45	3.50	0.05	0.10	0.30	0.50	0.70	1.00	0.049	1.020
				25.0	1.00	1.93	1.39	1.21	1.14	1.11	1.05		
	1016-4	L	3.47	3.52	3.57	0.05	0.10	0.30	0.50	0.70	1.00	0.063	0.699
				46.8	1.00	2.10	1.12	0.92	0.86	0.79	0.75		
	1016-5	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.958
				27.7	1.00	1.91	1.32	1.13	1.07	1.04	0.99		
	1260-1	L	4.99	5.04	5.09	0.05	0.10	0.30	0.50	0.70	1.00	0.075	1.594
				27.6	1.00	3.14	2.22	1.85	1.75	1.72	1.66		
	1260-2	L	5.21	5.26	5.31	0.05	0.10	0.30	0.50	0.70	1.00	0.113	2.481
				27.6	1.00	4.88	3.43	2.86	2.72	2.68	2.58		
	1260-3	L	5.46	5.51	5.56	0.05	0.10	0.30	0.50	0.70	1.00	0.096	2.449
				25.7	1.00	4.57	3.27	2.75	2.64	2.62	2.53		
	1260-4	L	6.06	6.11	6.16	0.05	0.10	0.30	0.50	0.70	1.00	0.051	2.119
				29.1	1.00	4.04	2.56	2.17	2.17	2.20	2.19		
	1260-5	L	6.32	6.37	6.42	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.810
				26.0	1.00	3.44	2.46	2.08	1.98	1.95	1.87		
	DCBP	L	7.44	7.49	7.54	1.50	3.00	9.00	15.00	21.00	30.00	0.057	0.035
				27.7	1.00	0.07	0.05	0.04	0.04	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): f66120605.cal / mean %rsd: 28.0

File Name: F:\gcecd.dat\Methods\F66120605.cal
Version: 3

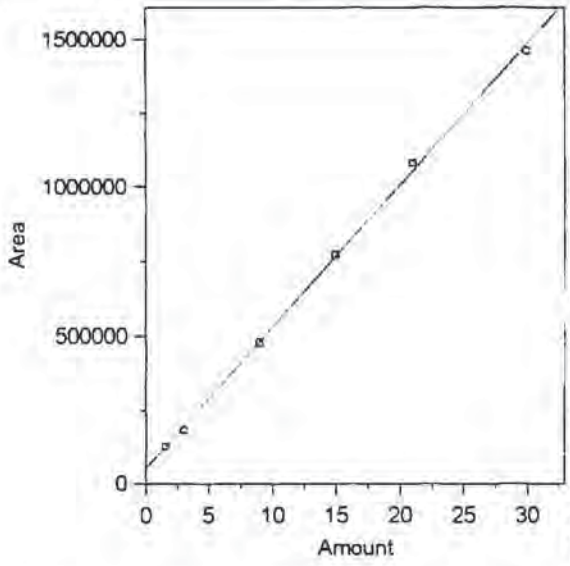
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.203 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

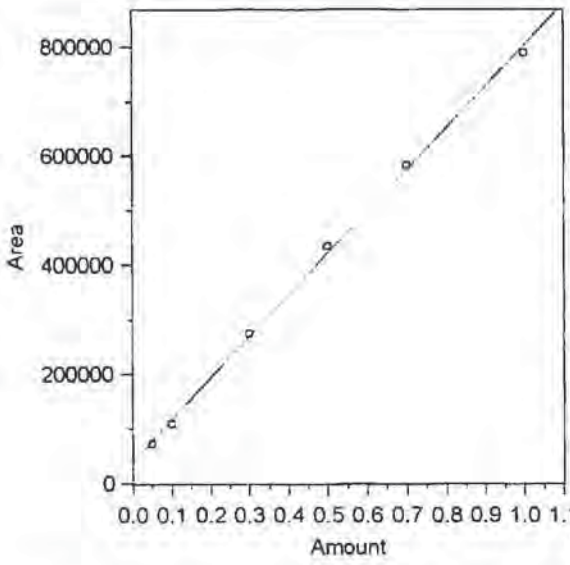
Single peak quantification by area

Y = 47656.17 X + 50931.09

Linear fit with equal weighting
Coefficient of determination: 0.9991111
Average error: 2.132%
Average CF: 58074.53
RSD: 22.469%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	125128.4	83418.93	2.216	F:\gcecd.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	181519.6	60506.53	-6.385	F:\gcecd.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	479177.3	53241.92	-0.137	F:\gcecd.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	767757.5	51183.83	0.259	F:\gcecd.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	1078491	51356.71	2.546	F:\gcecd.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1462178	48739.27	-1.245	F:\gcecd.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

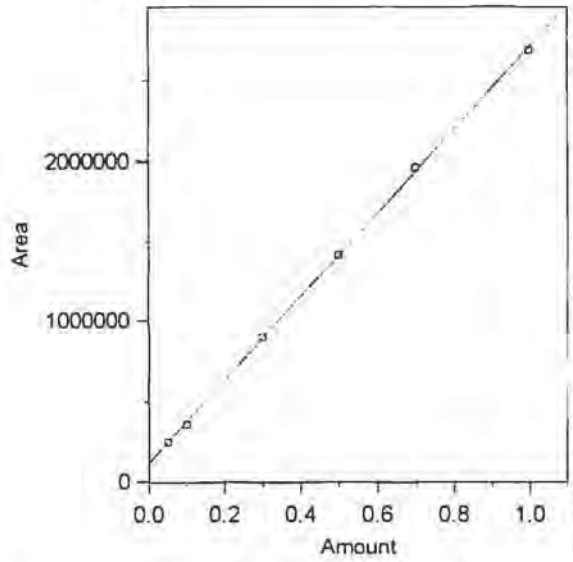
2 1016-1



Expected retention time:	3.11 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 762932.1 X + 40053.23	
Linear fit with equal weighting	
Coefficient of determination:	0.9986599
Average error:	3.797%
Average CF:	989099.9
RSD:	24.802%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	72253.18	1445064	-7.604	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	108293.6	1082936	-6.921	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	275062.3	916874.3	2.279	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	433369.2	866738.4	2.811	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	583043.6	832919.5	1.557	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	790067.7	790067.7	-1.609	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

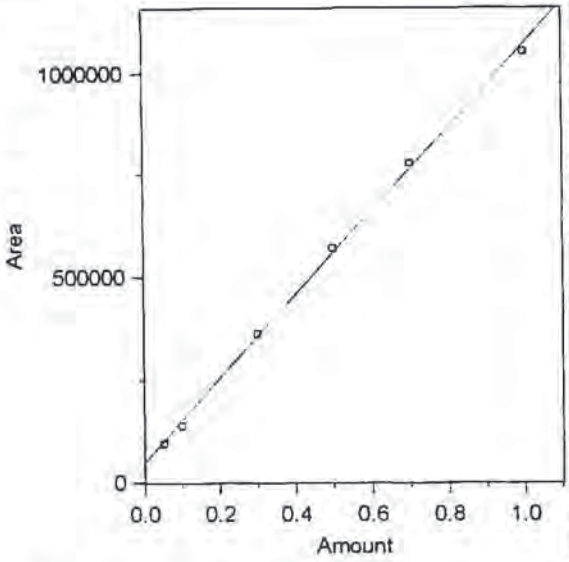
3 1016-2



Expected retention time:	3.362 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2601147 X + 112417.9	
Linear fit with equal weighting	
Coefficient of determination:	0.9997001
Average error:	1.685%
Average CF:	3300561
RSD:	26.166%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	247811	4956220	2.201	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	353161.1	3531611	-5.200	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	896735	2989117	0.445	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1417800	2835600	0.340	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1957154	2795934	1.238	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2694886	2694886	-0.688	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

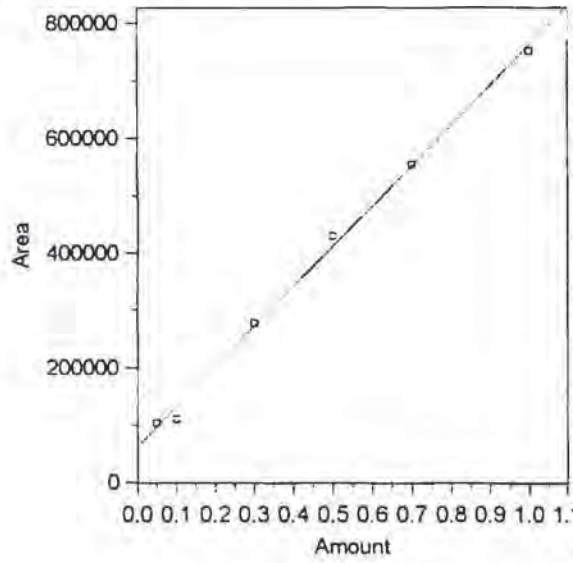
4 1016-3



Expected retention time:	3.454 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1020496 X + 49121.13	
Linear fit with equal weighting	
Coefficient of determination:	0.9988882
Average error:	3.145%
Average CF:	1305081
RSD:	24.946%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	962458	1924916	-3.894	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1393982	1393982	-7.788	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	3623616	1207872	1.996	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	5690901	1138180	1.738	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	7783863	1111981	1.954	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1053558	1053558	-1.501	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

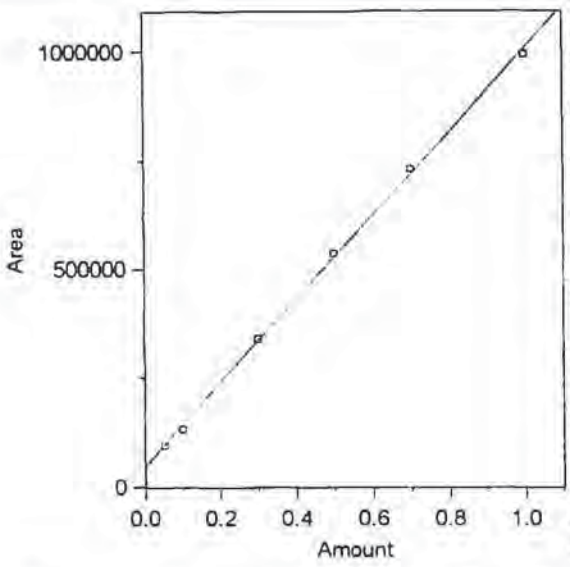
5 1016-4



Expected retention time:	3.524 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 698645 X + 62930.49	
Linear fit with equal weighting	
Coefficient of determination:	0.9971991
Average error:	5.099%
Average CF:	1089711
RSD:	46.750%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	1048121	2096242	7.101	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1116023	1116023	-15.959	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	2769628	923209.3	1.629	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	4296803	859360.6	4.227	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	5541511	791644.5	0.393	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	7517836	751783.6	-1.286	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

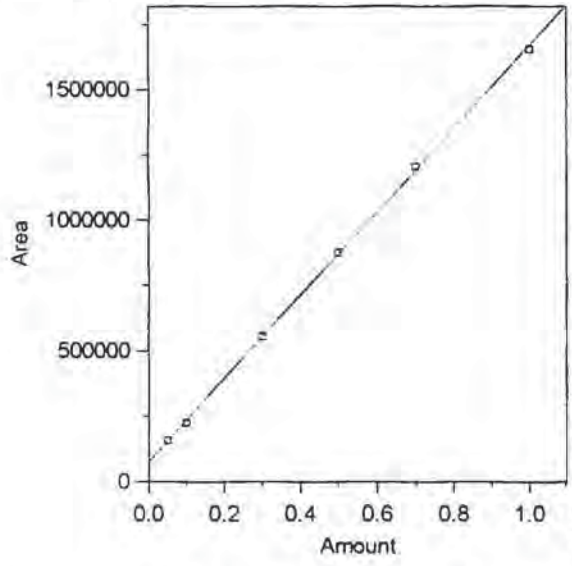
6 1016-5



Expected retention time:	3.99 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 958178.7 X + 47289.98	
Linear fit with equal weighting	
Coefficient of determination:	0.9991639
Average error:	2.277%
Average CF:	1242731
RSD:	27.702%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	95353.21	1907064	0.162	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	131689	1316890	-7.979	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	338223	1127410	1.039	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	534353.4	1068707	1.515	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	730374.4	1043392	1.721	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	992920.6	992920.6	-1.248	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

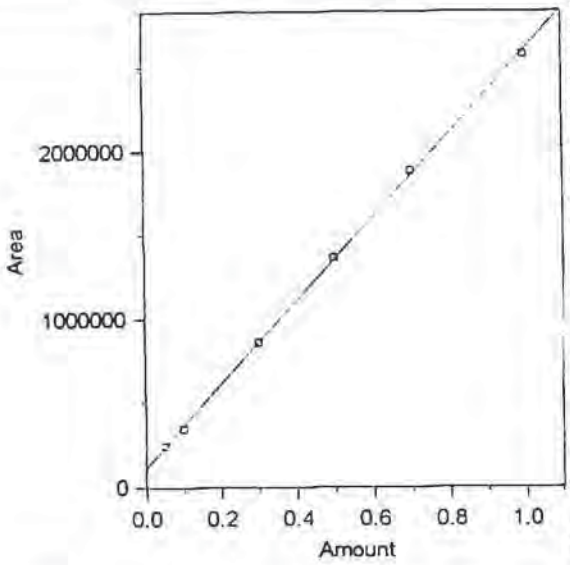
7 1260-1



Expected retention time:	5.044 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1594301 X + 74547.08	
Linear fit with equal weighting	
Coefficient of determination:	0.9996752
Average error:	1.587%
Average CF:	2057009
RSD:	27.569%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	156967.1	3139342	1.753	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	222370	2223700	-4.961	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	554058.1	1846860	0.221	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	876598.2	1753196	0.562	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1205797	1722567	1.280	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1656389	1656389	-0.747	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

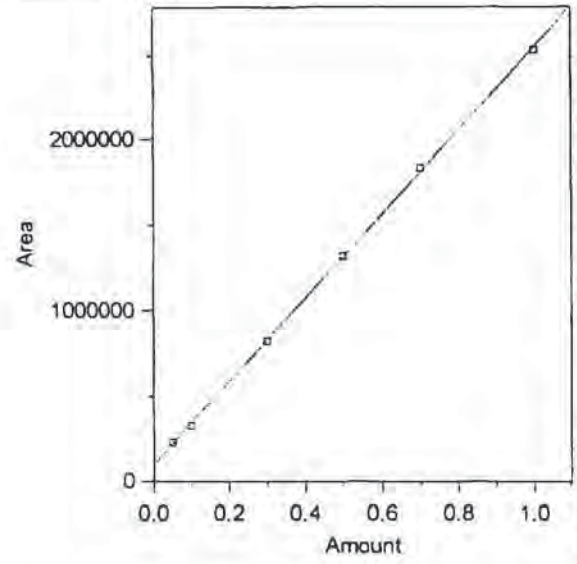
8 1260-2



Expected retention time:	5.264 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2480847 X + 112979.9	
Linear fit with equal weighting	
Coefficient of determination:	0.999669
Average error:	1.752%
Average CF:	3188669
RSD:	27.616%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	243842.2	4876844	2.877	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	342862.1	3428621	-5.041	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	856442.6	2854809	-0.092	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1359526	2719052	0.452	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1874225	2677464	1.333	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2575225	2575225	-0.717	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

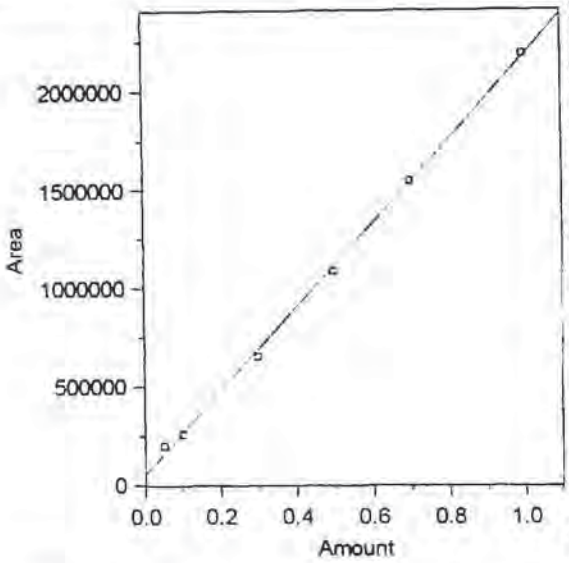
9 1260-3



Expected retention time:	5.51 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2448519 X + 95512.59	
Linear fit with equal weighting	
Coefficient of determination:	0.9997622
Average error:	1.899%
Average CF:	3062008
RSD:	25.646%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	228665.3	4573306	4.922	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	326472.3	3264723	-4.082	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	824149.5	2747165	-0.713	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1319799	2639598	0.002	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1830950	2615643	1.187	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2531615	2531615	-0.488	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

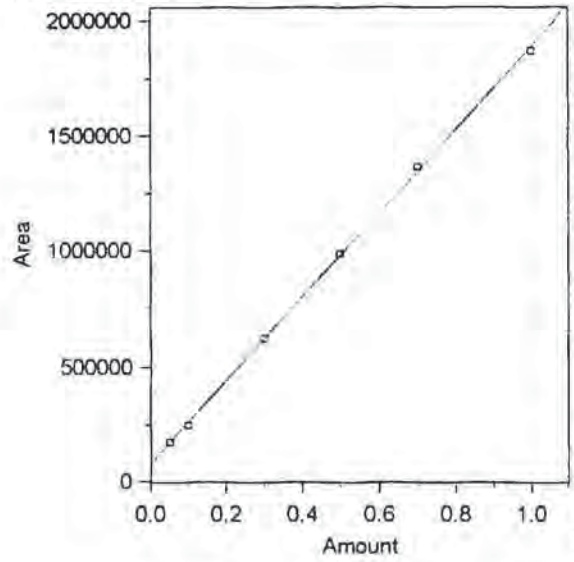
10 1260-4



Expected retention time:	6.111 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2118980 X + 51414.68	
Linear fit with equal weighting	
Coefficient of determination:	0.9985846
Average error:	6.664%
Average CF:	2554518
RSD:	29.065%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	201960.2	4039204	28.340	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	255490	2554900	-2.971	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	651378.4	2171261	-5.200	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1086010	2172020	-2.241	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1541809	2202584	0.463	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2187138	2187138	0.771	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

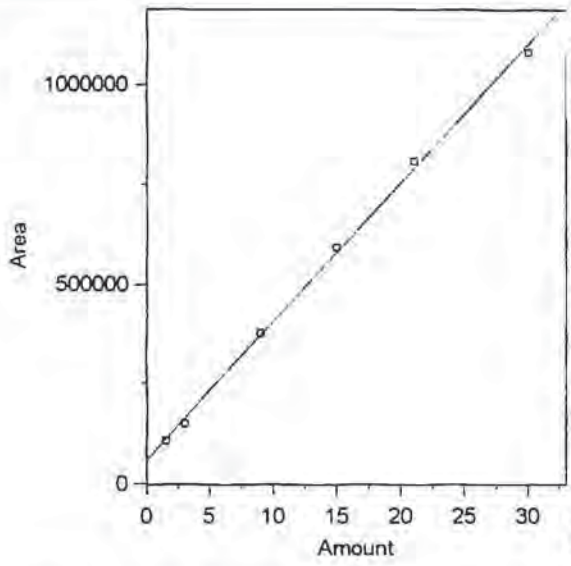
11 1260-5



Expected retention time:	6.367 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1809719 X + 78684.21	
Linear fit with equal weighting	
Coefficient of determination:	0.9995806
Average error:	1.650%
Average CF:	2296311
RSD:	25.999%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	171941.8	3438836	1.638	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	246226.6	2462266	-5.172	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	622912.1	2076374	0.211	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	987860.5	1975721	0.439	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1366743	1952490	1.580	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1872177	1872177	-0.859	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

12 DCBP



Expected retention time:	7.486 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 34817.2 X + 57301.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9984544
Average error:	3.281%
Average CF:	45923.08
RSD:	27.735%

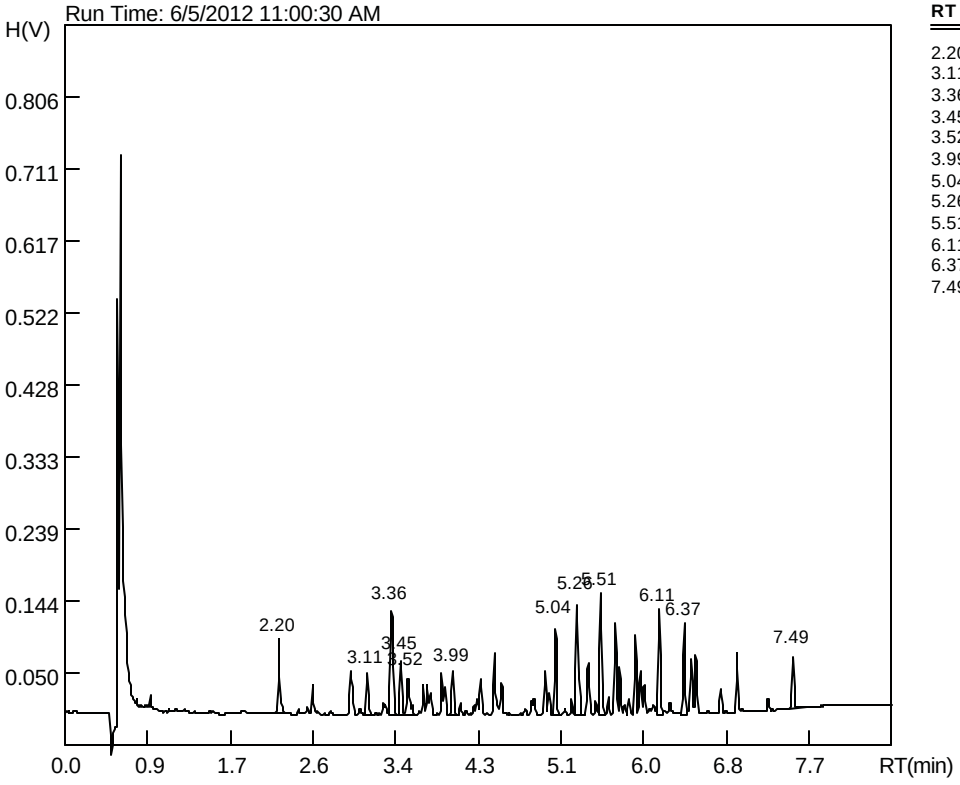
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	105176.3	70117.53	-3.972	F:\gceed dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	148972.2	49657.4	-7.901	F:\gceed dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	376072.3	41785.81	1.461	F:\gceed dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	591420.7	39428.05	2.047	F:\gceed dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	808171.9	38484.38	2.500	F:\gceed dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1081960	36065.33	-1.802	F:\gceed dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

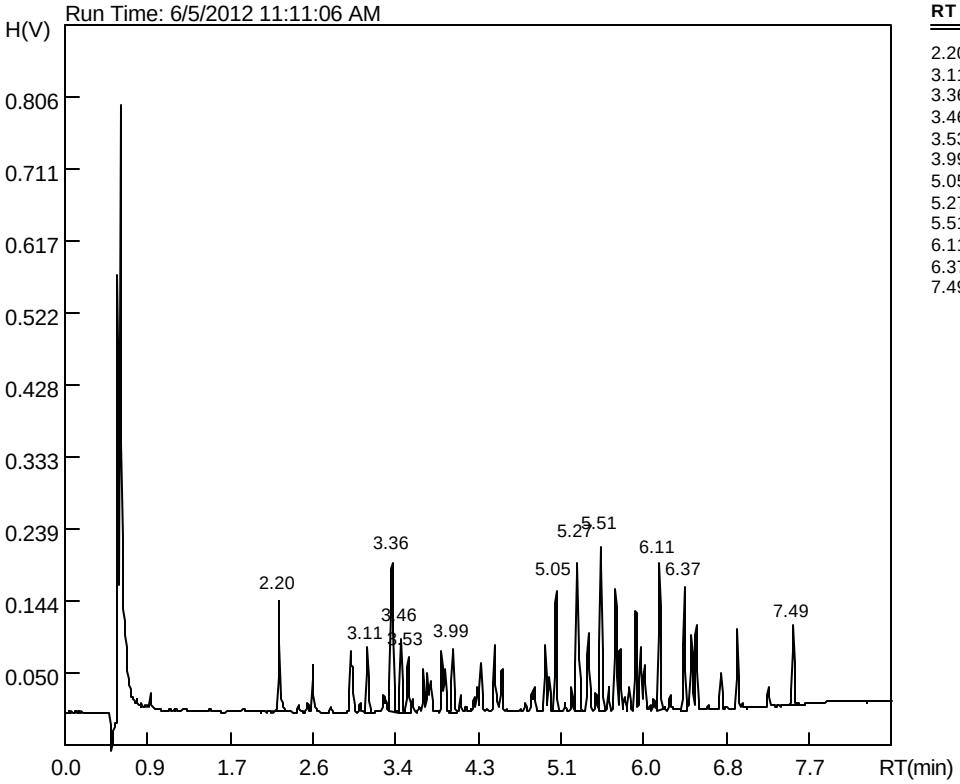
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:30 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	2.717	125128
3.11	0.00	1016-1	0.086	72253
3.36	0.00	1016-2	0.096	247811
3.45	-0.01	1016-3	0.089	96246
3.52	-0.01	1016-4	0.150	104812
3.99	0.01	1016-5	0.097	95353
5.04	0.01	1260-1	0.107	156967
5.26	0.01	1260-2	0.111	243842
5.51	0.01	1260-3	0.113	228665
6.11	0.00	1260-4	0.123	201960
6.37	0.00	1260-5	0.126	171942
7.49	0.02	DCBP	3.241	105176

File Name: F:\GCECD.DAT\F120605\F120605.03R.BND
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:06 AM



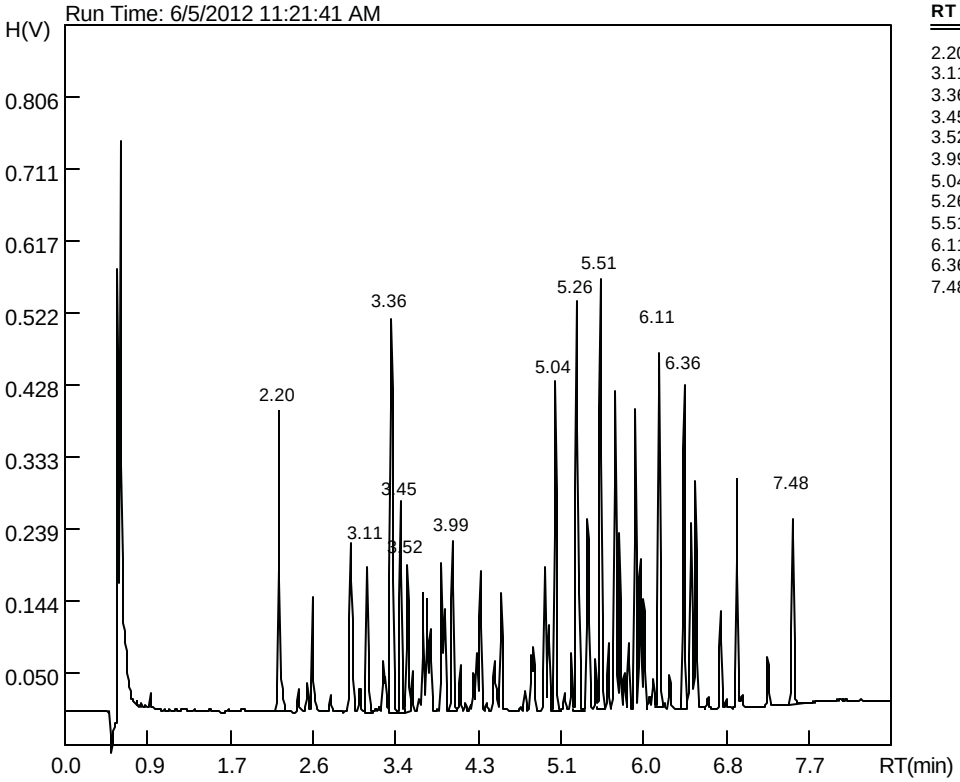
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	4.052	181520
3.11	0.00	1016-1	0.141	108294
3.36	0.00	1016-2	0.143	353161
3.46	0.00	1016-3	0.137	139398
3.53	0.00	1016-4	0.161	111602
3.99	0.02	1016-5	0.141	131689
5.05	0.02	1260-1	0.158	222370
5.27	0.02	1260-2	0.163	342862
5.51	0.02	1260-3	0.165	326472
6.11	0.00	1260-4	0.159	255490
6.37	0.00	1260-5	0.183	246227
7.49	0.02	DCBP	4.833	148972

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

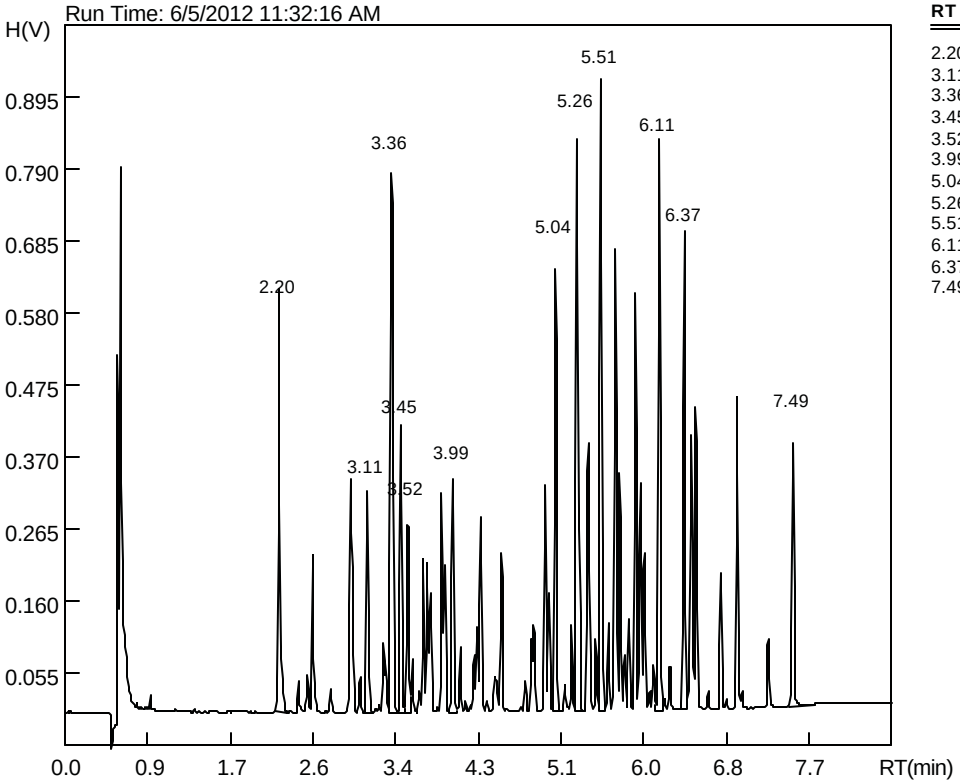
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:41 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	11.100	479177
3.11	0.00	1016-1	0.395	275062
3.36	0.00	1016-2	0.387	896735
3.45	-0.01	1016-3	0.388	362362
3.52	-0.01	1016-4	0.421	276963
3.99	0.01	1016-5	0.392	338223
5.04	0.01	1260-1	0.415	554058
5.26	0.01	1260-2	0.429	856443
5.51	0.01	1260-3	0.428	824150
6.11	0.00	1260-4	0.425	651378
6.36	-0.01	1260-5	0.472	622912
7.48	0.02	DCBP	13.089	376072

File Name: F:\GCECD.DAT\F120605\F120605.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:16 AM



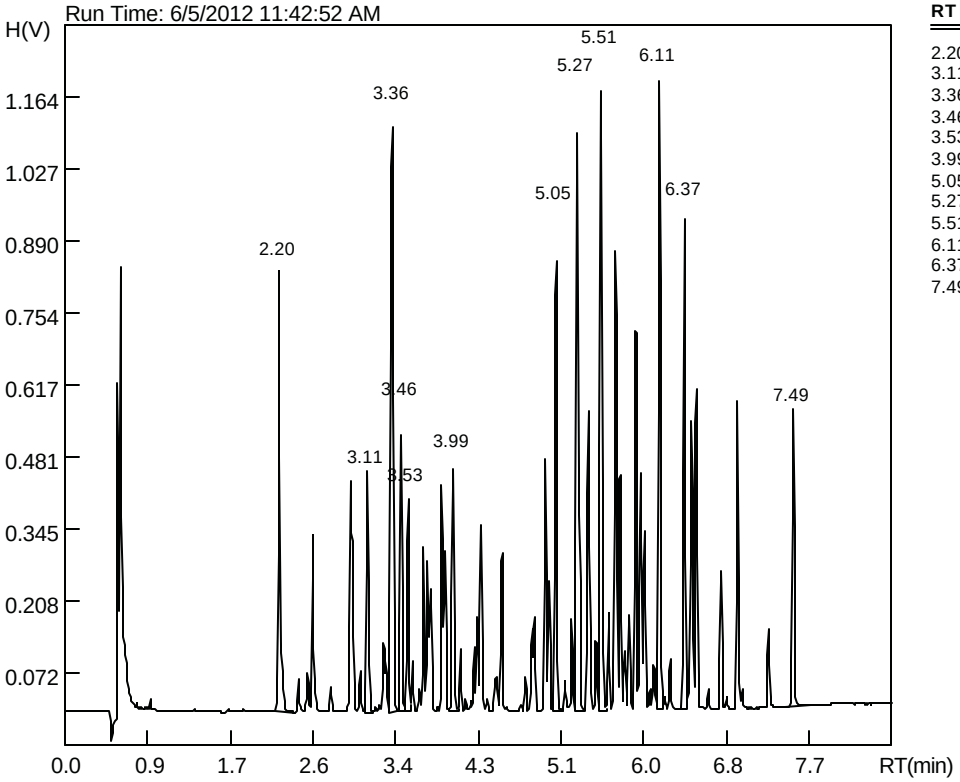
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	17.933	767758
3.11	0.00	1016-1	0.637	433369
3.36	0.00	1016-2	0.621	1417800
3.45	-0.01	1016-3	0.621	569090
3.52	-0.01	1016-4	0.661	429680
3.99	0.01	1016-5	0.629	534353
5.04	0.01	1260-1	0.665	876598
5.26	0.01	1260-2	0.689	1359526
5.51	0.01	1260-3	0.691	1319799
6.11	0.00	1260-4	0.718	1086010
6.37	0.00	1260-5	0.753	987861
7.49	0.02	DCBP	20.918	591421

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5 Analytical Batch: f120605.1

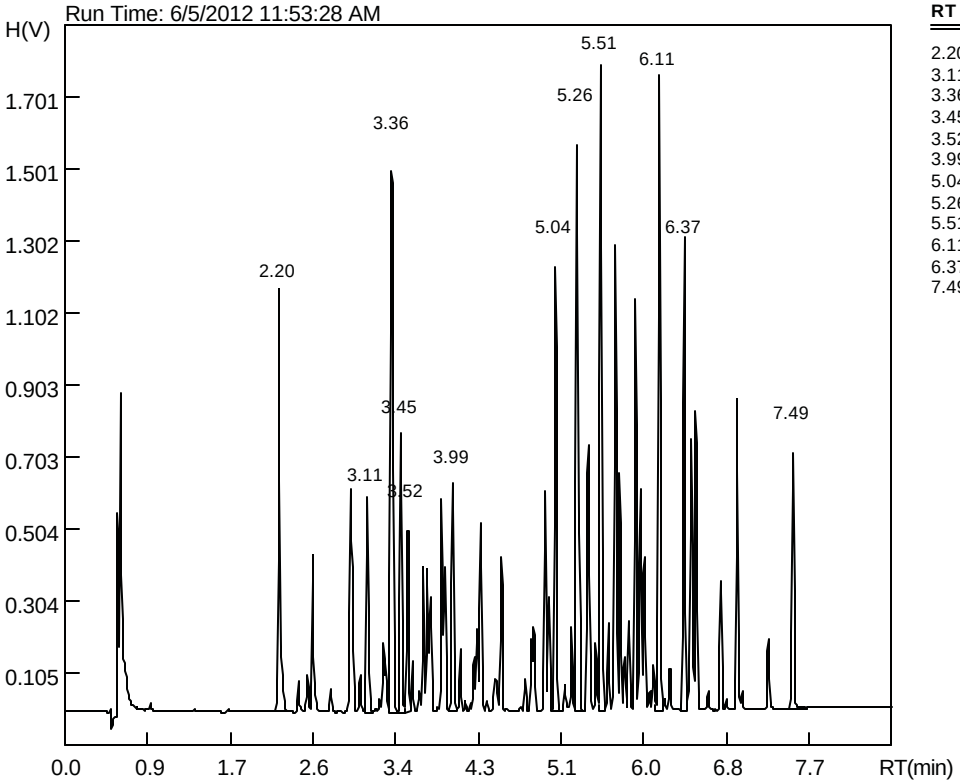
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120605\F120605.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:52 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	25.290	1078491
3.11	0.00	1016-1	0.866	583044
3.36	0.00	1016-2	0.863	1957154
3.46	0.00	1016-3	0.856	778386
3.53	0.00	1016-4	0.857	554151
3.99	0.02	1016-5	0.867	730374
5.05	0.02	1260-1	0.920	1205797
5.27	0.02	1260-2	0.956	1874225
5.51	0.02	1260-3	0.962	1830950
6.11	0.00	1260-4	1.025	1541809
6.37	0.00	1260-5	1.044	1366743
7.49	0.02	DCBP	28.798	808172

File Name: F:\GCECD.DAT\F120605\F120605.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:28 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	34.375	1462178
3.11	0.00	1016-1	1.182	790068
3.36	0.00	1016-2	1.195	2694886
3.45	-0.01	1016-3	1.166	1053558
3.52	-0.01	1016-4	1.168	751784
3.99	0.01	1016-5	1.185	992921
5.04	0.01	1260-1	1.269	1656389
5.26	0.01	1260-2	1.319	2575225
5.51	0.01	1260-3	1.333	2531615
6.11	0.00	1260-4	1.460	2187138
6.37	0.00	1260-5	1.433	1872177
7.49	0.02	DCBP	38.752	1081960

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120622.4

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
fb66120605.ca	**TCX**	L	2.31	2.36	2.41	1.50	3.00	9.00	15.00	21.00	30.00	0.058	0.040
				26.3	1.00	0.08	0.06	0.05	0.05	0.04	0.04		
	1016-1	L	3.01	3.06	3.11	0.05	0.10	0.30	0.50	0.70	1.00	0.036	0.583
				27.8	1.00	1.19	0.86	0.72	0.68	0.65	0.61		
	1016-2	L	3.44	3.49	3.54	0.05	0.10	0.30	0.50	0.70	1.00	0.086	1.183
				32.2	1.00	2.68	1.88	1.52	1.40	1.33	1.25		
	1016-3	L	3.81	3.86	3.91	0.05	0.10	0.30	0.50	0.70	1.00	0.138	2.534
				30.8	1.00	5.38	3.70	3.01	2.82	2.79	2.64		
	1016-4	L	3.97	4.02	4.07	0.05	0.10	0.30	0.50	0.70	1.00	0.066	0.946
				33.4	1.00	2.18	1.47	1.20	1.10	1.06	0.99		
	1016-5	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.721
				30.7	1.00	1.57	1.08	0.91	0.83	0.82	0.75		
	1260-1	L	5.56	5.61	5.66	0.05	0.10	0.30	0.50	0.70	1.00	0.105	1.632
				32.4	1.00	3.64	2.54	2.02	1.87	1.81	1.72		
	1260-2	L	5.64	5.69	5.74	0.05	0.10	0.30	0.50	0.70	1.00	0.104	1.712
				32.5	1.00	3.80	2.57	2.09	1.94	1.89	1.80		
	1260-3	L	6.05	6.10	6.15	0.05	0.10	0.30	0.50	0.70	1.00	0.095	1.698
				30.1	1.00	3.56	2.55	2.05	1.88	1.86	1.78		
	1260-4	L	6.54	6.59	6.64	0.05	0.10	0.30	0.50	0.70	1.00	0.048	1.827
				26.7	1.00	3.36	2.30	1.88	1.90	1.91	1.89		
	1260-5	L	6.96	7.01	7.06	0.05	0.10	0.30	0.50	0.70	1.00	0.088	1.607
				29.7	1.00	3.34	2.36	1.93	1.79	1.76	1.68		
	DCBP	L	8.11	8.16	8.21	1.50	3.00	9.00	15.00	21.00	30.00	0.070	0.032
				32.4	1.00	0.07	0.05	0.04	0.04	0.04	0.03		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): fb66120605.cal / mean %rsd: 30.4

File Name: F:\gceed.dat\Methods\Fb66120605.cal
Version: 2

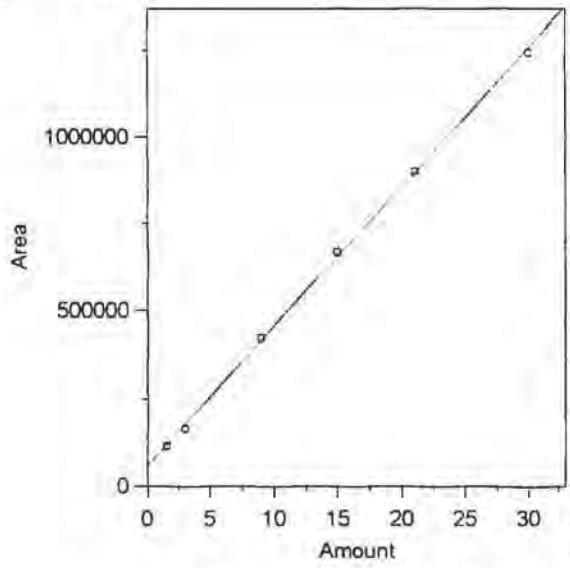
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.358 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

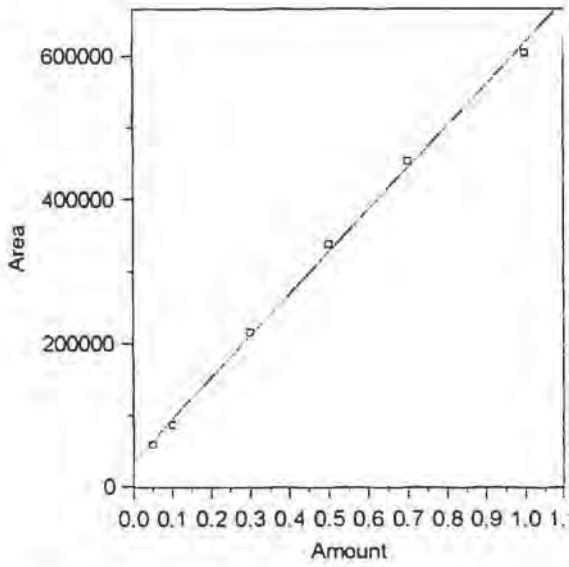
Single peak quantification by area

Y = 39870.61 X + 58053.06

Linear fit with equal weighting
Coefficient of determination: 0.9994379
Average error: 2.386%
Average CF: 51370.67
RSD: 26.263%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	115679.1	77119.4	-1.850	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	164970.6	54990.2	-7.145	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	424850.7	47205.63	1.910	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	668667.4	44577.82	1.914	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	900818.4	42896.11	0.612	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1243046	41434.87	-0.887	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

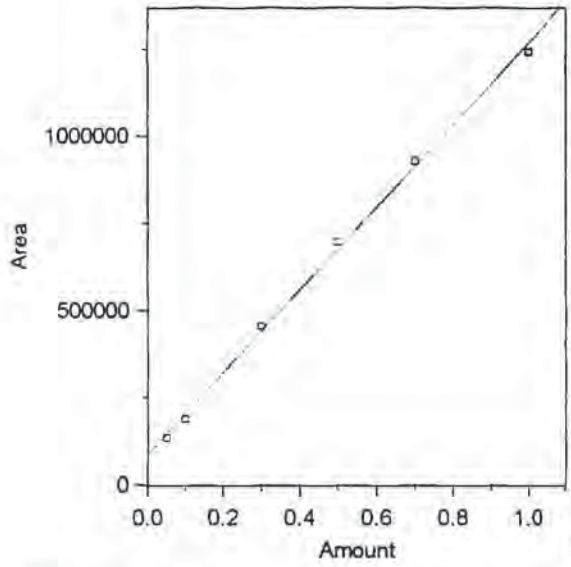
2 1016-1



Expected retention time:	3.057 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 582699.6 X + 35616.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9977939
Average error:	4.476%
Average CF:	782959.7
RSD:	27.844%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	59555.11	1191102	-8.024	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	85830.45	858304.5	-8.580	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	216043.1	720143.6	2.669	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	337309.8	674619.6	3.164	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	453779.1	648255.9	2.316	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	605332.5	605332.5	-2.100	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

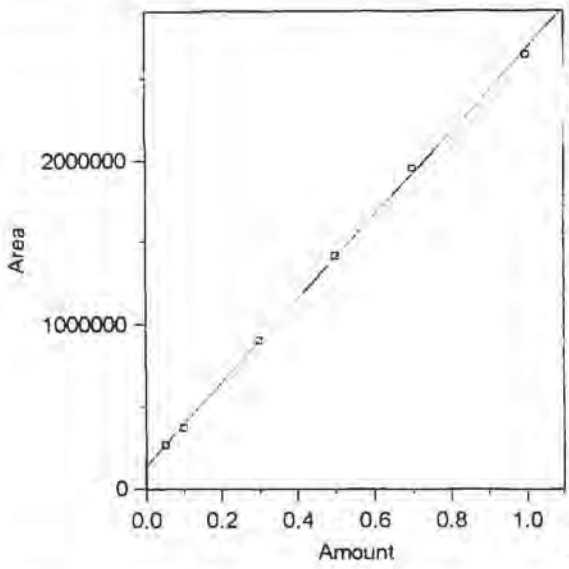
3 1016-2



Expected retention time:	3.49 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1182923 X + 86069.77	
Linear fit with equal weighting	
Coefficient of determination:	0.9980066
Average error:	4.316%
Average CF:	1674559
RSD:	32.211%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	133909.2	2678184	-7.786	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	187949.5	1879495	-8.031	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	456012.6	1520042	3.417	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	697347.2	1394694	2.925	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	930979	1329970	1.845	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1244968	1244968	-1.893	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

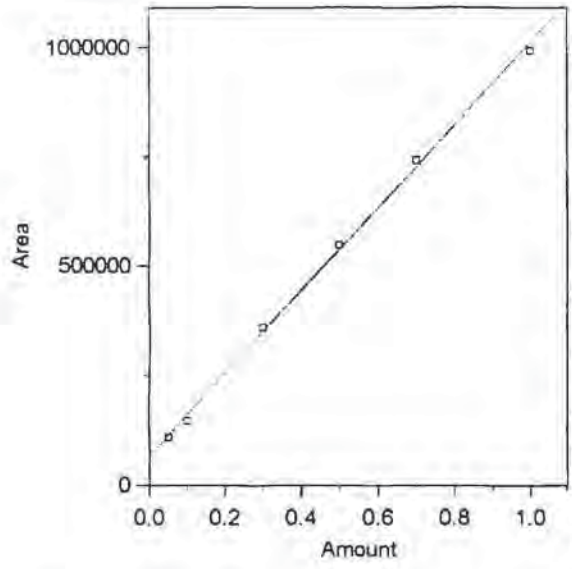
4 1016-3



Expected retention time:	3.858 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2533522 X + 138452.1	
Linear fit with equal weighting	
Coefficient of determination:	0.9993595
Average error:	1.799%
Average CF:	3389695
RSD:	30.843%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	269174.6	5383492	1.526	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	369980.5	3699805	-5.570	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	902096.4	3006988	0.399	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	1408728	2817456	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1950344	2786206	2.010	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	2644221	2644221	-1.039	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

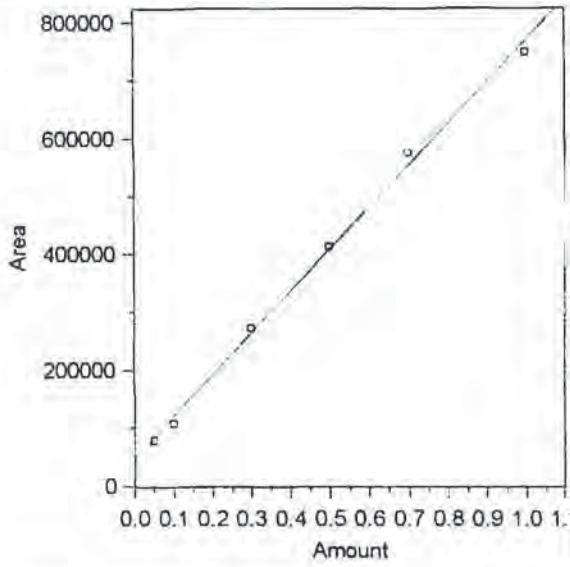
5 1016-4



Expected retention time:	4.02 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 945847.3 X + 66005.65	
Linear fit with equal weighting	
Coefficient of determination:	0.9983203
Average error:	3.567%
Average CF:	1332650
RSD:	33.355%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	108760.3	2175206	-4.005	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	146655.9	1466559	-8.677	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	359501.2	1198337	2.785	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	549015.4	1098031	1.872	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	744732.1	1063903	2.284	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	993864.6	993864.6	-1.778	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

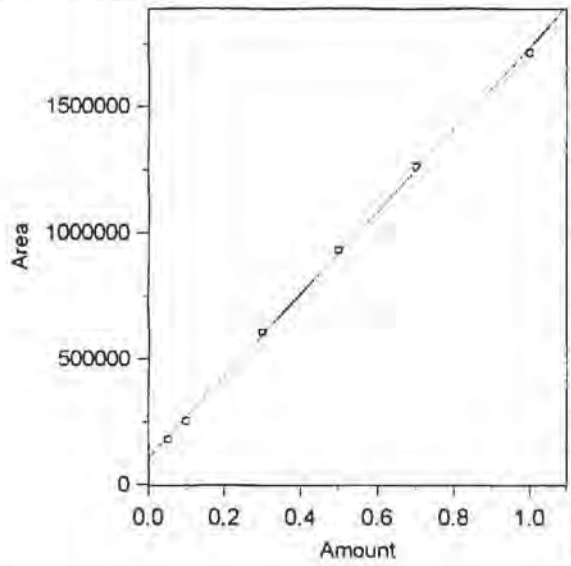
6 1016-5



Expected retention time:	4.151 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 721472.8 X + 47476.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9968299
Average error:	4.415%
Average CF:	992972
RSD:	30.730%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	78541.68	1570834	-5.995	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	108179	1081790	-9.568	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	272539	908463.3	3.266	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	412918.5	825837	1.153	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	574749.9	821071.3	4.026	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	749836.9	749836.9	-2.486	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

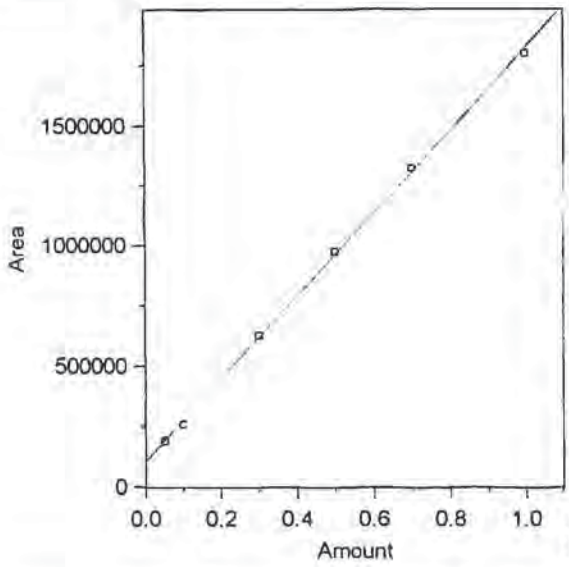
7 1260-1



Expected retention time:	5.611 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1631628 X + 105405.6	
Linear fit with equal weighting	
Coefficient of determination:	0.9994005
Average error:	2.230%
Average CF:	2264340
RSD:	32.401%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	181863.8	3637276	-2.740	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	254270.5	2542705	-5.324	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	604824.4	2016081	1.669	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	933124.7	1866249	1.292	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1263650	1805214	1.291	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1718515	1718515	-1.066	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

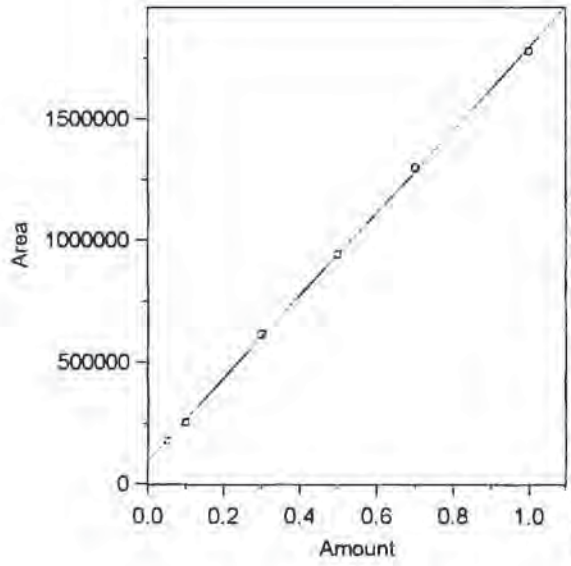
8 1260-2



Expected retention time:	5.692 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1711836 X + 104367.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9993424
Average error:	1.976%
Average CF:	2347058
RSD:	32.483%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	190027.6	3800552	0.036	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	256753.5	2567535	-6.822	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	626241.9	2087473	1.347	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	970528.4	1941057	1.067	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1322333	1889047	1.511	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1796684	1796684	-1.075	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

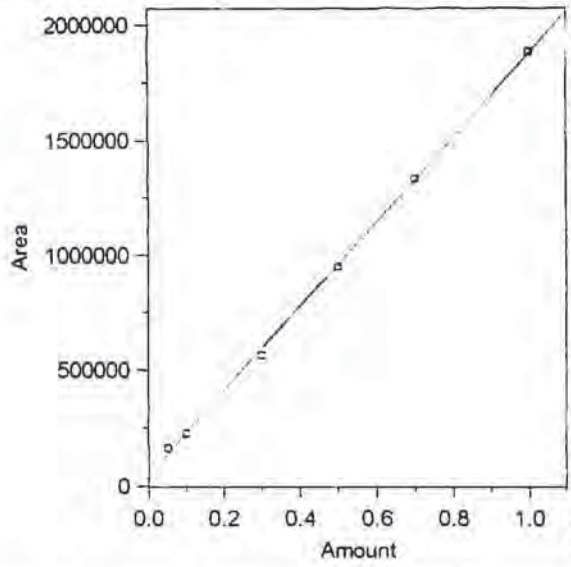
9 1260-3



Expected retention time:	6.098 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1698324 X + 94958.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9996811
Average error:	1.430%
Average CF:	2280111
RSD:	30.080%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	178024.2	3560484	-1.029	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	255083.7	2550837	-3.666	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	614370.1	2047900	1.640	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	941372.3	1882745	-0.291	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1300216	1857452	1.280	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1781245	1781245	-0.671	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

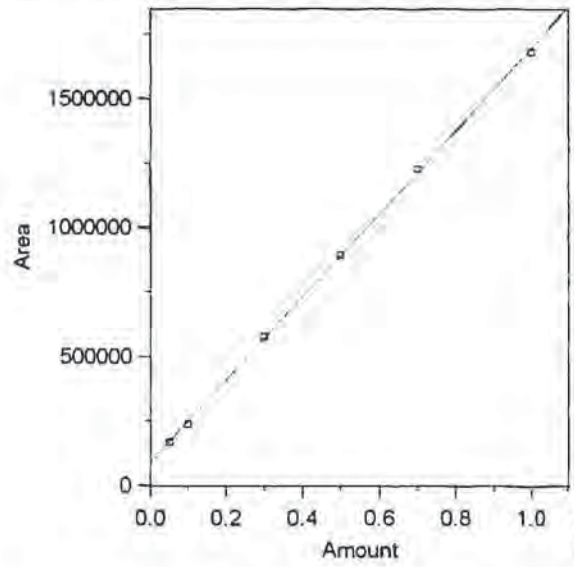
10 1260-4



Expected retention time:	6.591 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1827386 X + 48418.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9990682
Average error:	4.726%
Average CF:	2206297
RSD:	26.718%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	168141.7	3362834	20.283	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	229974.8	2299748	-0.512	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	564488.9	1881630	-5.388	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	950985.5	1901971	-1.156	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1334904	1907006	0.551	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1884593	1884593	0.468	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

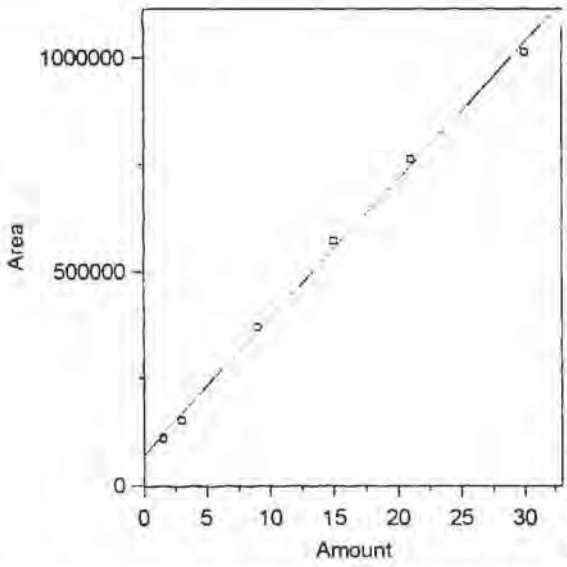
11 1260-5



Expected retention time:	7.014 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1606532 X + 87831.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9995843
Average error:	1.589%
Average CF:	2142375
RSD:	29.693%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	167108.9	3342178	-0.624	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	236188.5	2361885	-4.948	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	578119.2	1927064	1.462	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	893328.3	1786657	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1229462	1756374	1.407	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1680090	1680090	-0.842	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

12 DCBP



Expected retention time:	8.156 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 32186.62 X + 69759.48	
Linear fit with equal weighting	
Coefficient of determination:	0.9976669
Average error:	4.407%
Average CF:	45480.46
RSD:	32.426%

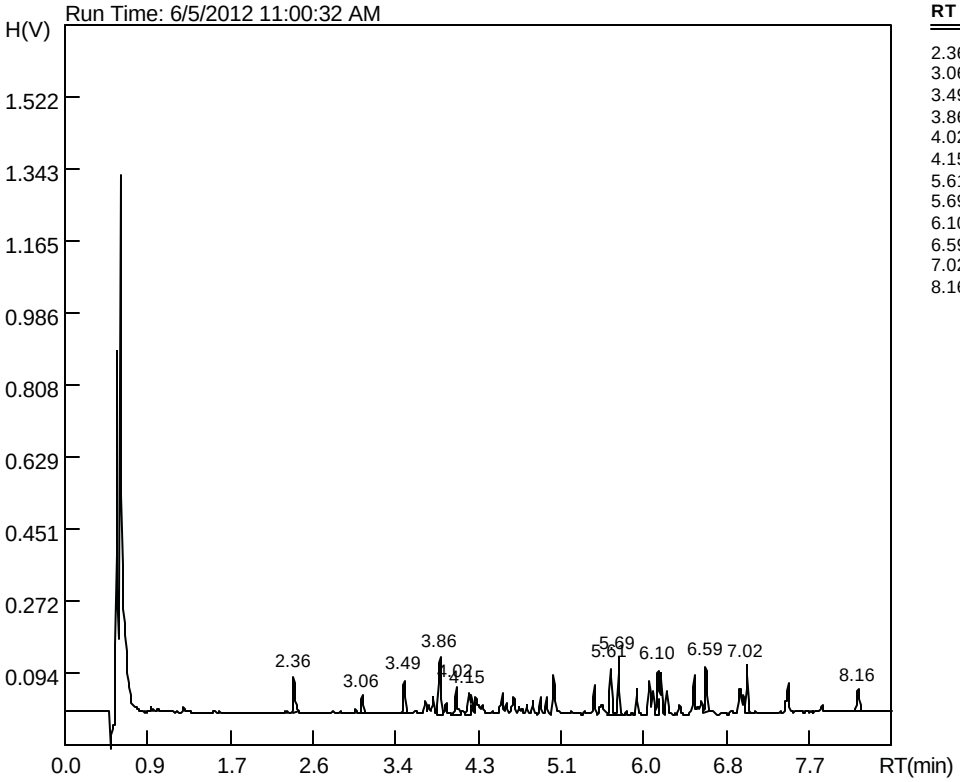
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	109747.5	73165	-7.025	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	151490.5	50496.83	-8.916	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	370306.1	41145.12	3.023	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	569490.9	37966.06	3.064	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	762846.1	36326.01	2.302	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1013512	33783.73	-2.110	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

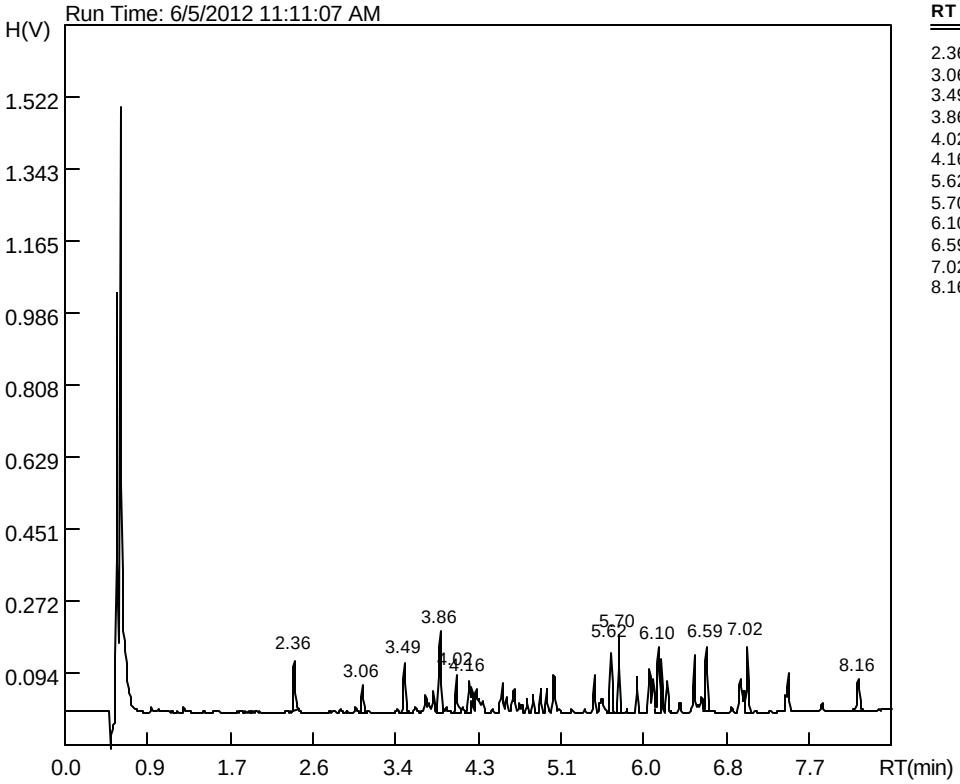
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:32 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	1.445	115679
3.06	0.00	1016-1	0.041	59555
3.49	0.00	1016-2	0.040	133909
3.86	0.00	1016-3	0.052	269175
4.02	0.00	1016-4	0.045	108760
4.15	0.00	1016-5	-0.051	78542
5.61	0.00	1260-1	0.047	181864
5.69	0.00	1260-2	0.050	190028
6.10	0.00	1260-3	0.049	178024
6.59	0.00	1260-4	0.066	168142
7.02	0.00	1260-5	0.049	167109
8.16	0.00	DCBP	1.242	109748

File Name: F:\GCECD.DAT\F120605\F120605B.03R.BND
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:07 AM



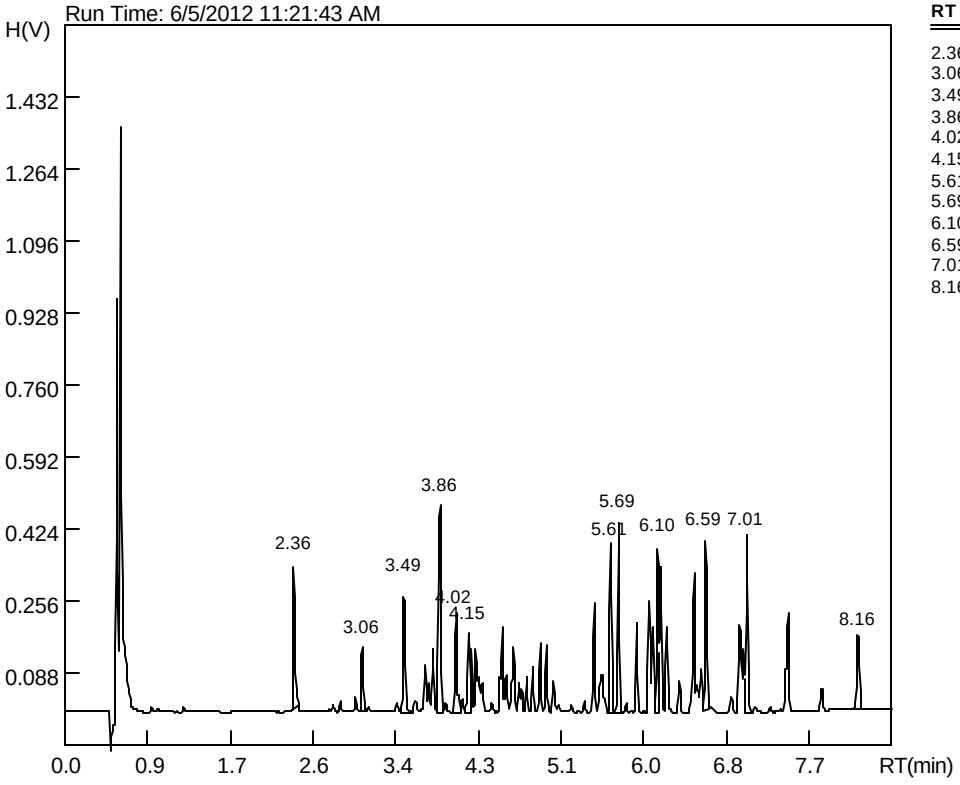
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	2.682	164971
3.06	0.00	1016-1	0.086	85830
3.49	0.00	1016-2	0.086	187950
3.86	0.00	1016-3	0.091	369981
4.02	0.00	1016-4	0.085	146656
4.16	0.01	1016-5	-0.006	108179
5.62	0.00	1260-1	0.091	254271
5.70	0.00	1260-2	0.089	256754
6.10	0.00	1260-3	0.094	255084
6.59	0.00	1260-4	0.099	229975
7.02	0.00	1260-5	0.092	236189
8.16	0.00	DCBP	2.539	151491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

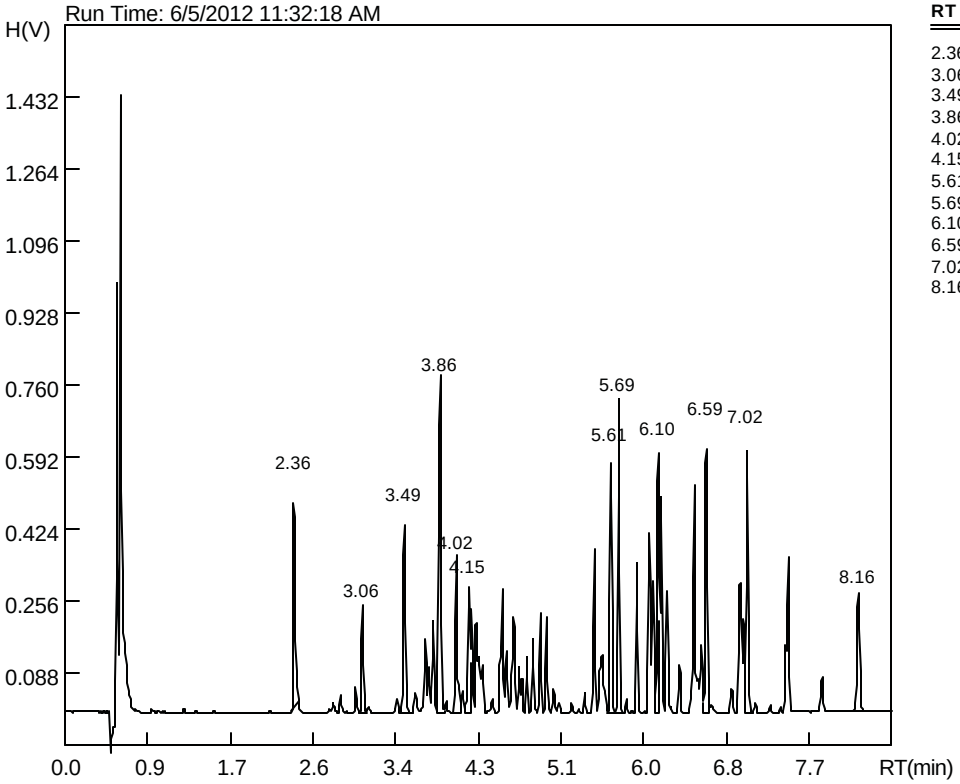
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:43 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	9.200	424851
3.06	0.00	1016-1	0.310	216043
3.49	0.00	1016-2	0.313	456013
3.86	0.00	1016-3	0.301	902096
4.02	0.00	1016-4	0.310	359501
4.15	0.00	1016-5	0.254	272539
5.61	0.00	1260-1	0.306	604824
5.69	0.00	1260-2	0.305	626242
6.10	0.00	1260-3	0.306	614370
6.59	0.00	1260-4	0.282	564489
7.01	0.00	1260-5	0.305	578119
8.16	0.00	DCBP	9.338	370306

File Name: F:\GCECD.DAT\F120605\F120605B.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:18 AM



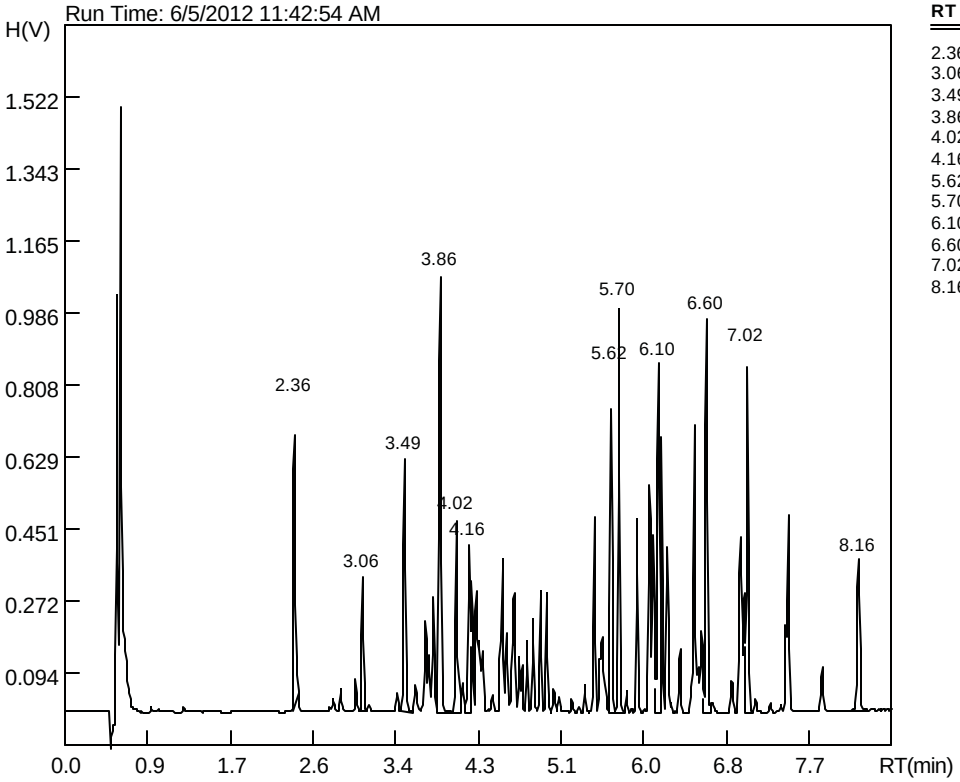
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	15.315	668667
3.06	0.00	1016-1	0.518	337310
3.49	0.00	1016-2	0.517	697347
3.86	0.00	1016-3	0.501	1408728
4.02	0.00	1016-4	0.511	549015
4.15	0.00	1016-5	0.449	412919
5.61	0.00	1260-1	0.507	933125
5.69	0.00	1260-2	0.506	970528
6.10	0.00	1260-3	0.498	941372
6.59	0.00	1260-4	0.494	950986
7.02	0.00	1260-5	0.501	893328
8.16	0.00	DCBP	15.526	569491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

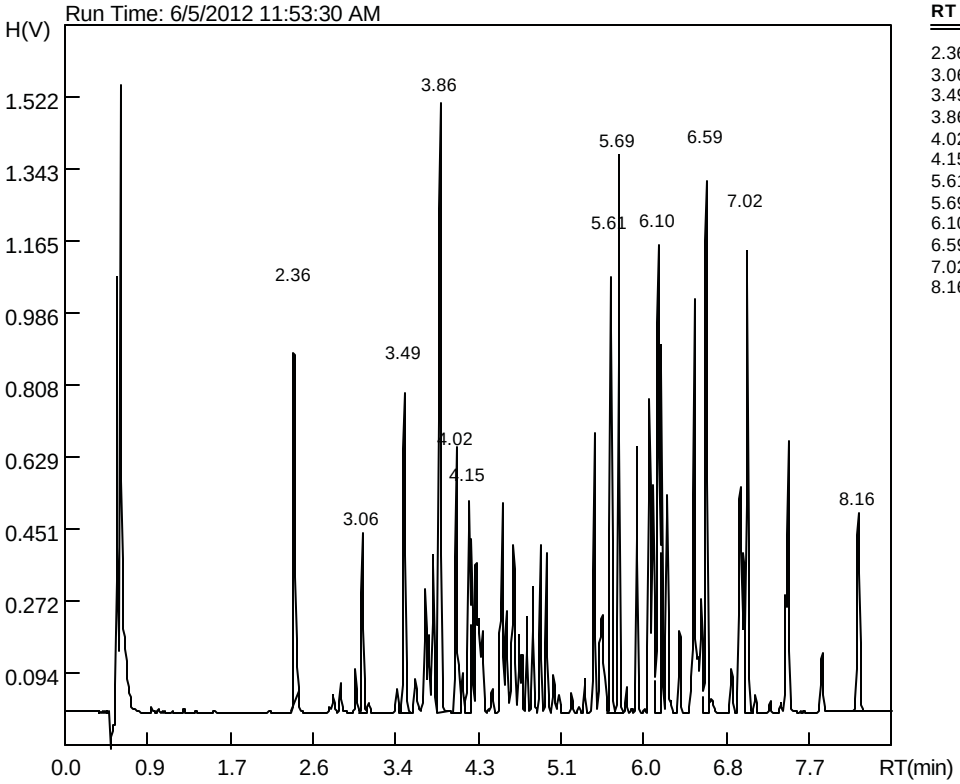
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:54 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	21.138	900818
3.06	0.00	1016-1	0.718	453779
3.49	0.00	1016-2	0.714	930979
3.86	0.00	1016-3	0.715	1950344
4.02	0.00	1016-4	0.718	744732
4.16	0.01	1016-5	0.691	574750
5.62	0.00	1260-1	0.710	1263650
5.70	0.00	1260-2	0.711	1322333
6.10	0.00	1260-3	0.710	1300216
6.60	0.00	1260-4	0.704	1334904
7.02	0.00	1260-5	0.711	1229462
8.16	0.00	DCBP	21.533	762846

File Name: F:\GCECD.DAT\F120605\F120605B.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:30 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	29.721	1243046
3.06	0.00	1016-1	0.978	605333
3.49	0.00	1016-2	0.980	1244968
3.86	0.00	1016-3	0.989	2644221
4.02	0.00	1016-4	0.981	993865
4.15	0.00	1016-5	0.952	749837
5.61	0.00	1260-1	0.989	1718515
5.69	0.00	1260-2	0.989	1796684
6.10	0.00	1260-3	0.993	1781245
6.59	0.00	1260-4	1.005	1884593
7.02	0.00	1260-5	0.991	1680090
8.16	0.00	DCBP	29.321	1013512

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

Filename	*LIMS ID*	*Run Time*	*CVM Component*	*? RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
f120622.02r	sc1660.01	06/22/12 09:29	1016-1	0.01/0.05	0.578/0.500	15.6
			1016-2	0.01/0.05	0.581/0.500	16.2
			1016-3	0.01/0.05	0.582/0.500	16.4
			1016-4	0.01/0.05	0.559/0.500	11.8
			1016-5	0.01/0.05	0.564/0.500	12.8
			1260-1	0.01/0.05	0.566/0.500	13.2
			1260-2	0.01/0.05	0.574/0.500	14.8
			1260-3	0.00/0.05	0.565/0.500	13.0
			1260-4	0.00/0.05	0.516/0.500	3.2
			1260-5	0.00/0.05	0.509/0.500	1.8
					Average	**11.9 / 20.0**
f120622.19r	sc1660.02	06/22/12 12:58	1016-1	0.00/0.05	0.548/0.500	9.6
			1016-2	0.00/0.05	0.545/0.500	9.0
			1016-3	0.01/0.05	0.547/0.500	9.4
			1016-4	0.01/0.05	0.523/0.500	4.6
			1016-5	0.00/0.05	0.533/0.500	6.6
			1260-1	0.00/0.05	0.515/0.500	3.0
			1260-2	0.00/0.05	0.519/0.500	3.8
			1260-3	0.00/0.05	0.512/0.500	2.4
			1260-4	0.00/0.05	0.471/0.500	5.8
			1260-5	-.01/0.05	0.473/0.500	5.4
					Average	**3.7 / 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120622.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
f120622b.02	sc1660.01	06/22/12 09:29	1016-1	0.01/0.05	0.589/0.500	17.8
			1016-2	0.01/0.05	0.579/0.500	15.8
			1016-3	0.01/0.05	0.580/0.500	16.0
			1016-4	0.01/0.05	0.571/0.500	14.2
			1016-5	0.01/0.05	0.583/0.500	16.6
			1260-1	0.01/0.05	0.575/0.500	15.0
			1260-2	0.01/0.05	0.590/0.500	18.0
			1260-3	0.01/0.05	0.579/0.500	15.8
			1260-4	0.01/0.05	0.545/0.500	9.0
			1260-5	0.01/0.05	0.533/0.500	6.6
					Average	**14.5/ 20.0**
f120622b.19	sc1660.02	06/22/12 12:58	1016-1	0.00/0.05	0.538/0.500	7.6
			1016-2	0.01/0.05	0.531/0.500	6.2
			1016-3	0.00/0.05	0.528/0.500	5.6
			1016-4	0.00/0.05	0.546/0.500	9.2
			1016-5	0.01/0.05	0.543/0.500	8.6
			1260-1	0.00/0.05	0.517/0.500	3.4
			1260-2	0.01/0.05	0.527/0.500	5.4
			1260-3	0.00/0.05	0.509/0.500	1.8
			1260-4	0.00/0.05	0.500/0.500	0.0
			1260-5	0.01/0.05	0.488/0.500	2.4
					Average	**4.5/ 20.0**

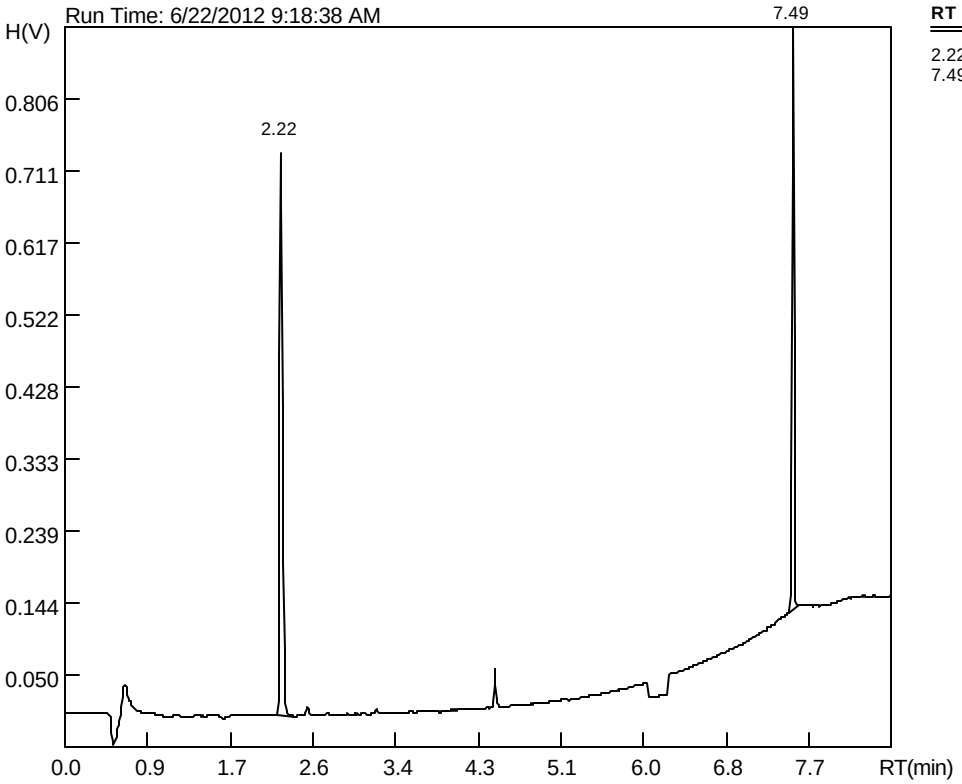
NOTES
*: Calibration check drift outside of method-established control limits

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

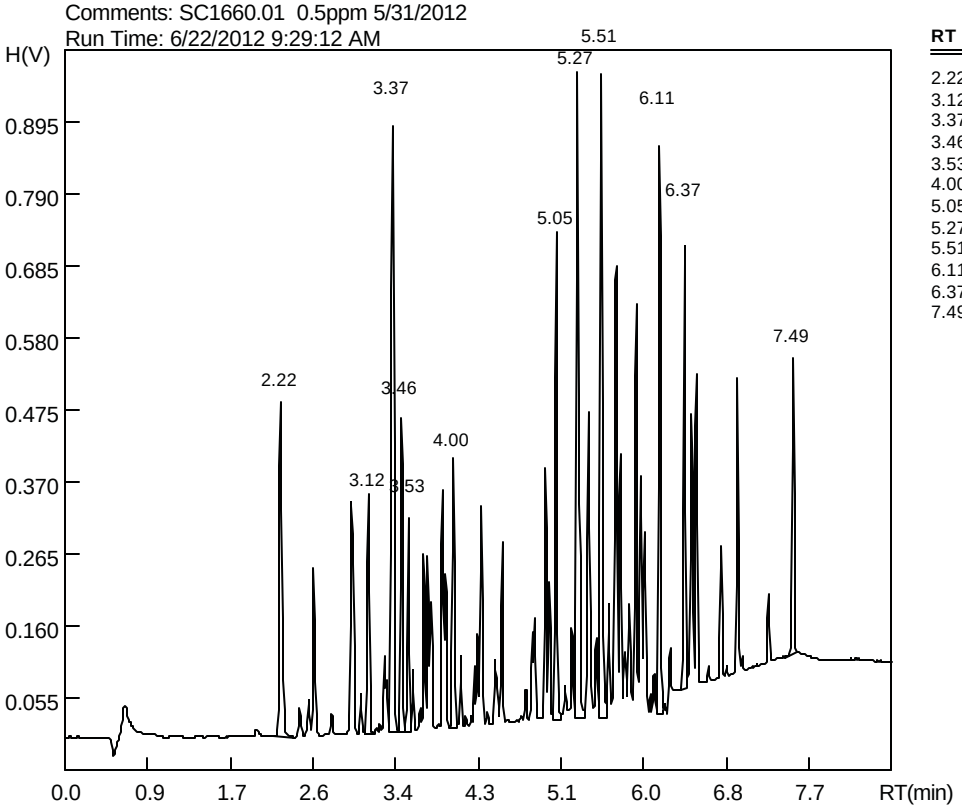
Analytical Batch: f120622.3

File Name: F:\GCECD.DAT\F120622\F120622.01R.BND
Comments: sBLK-R.01
Run Time: 6/22/2012 9:18:38 AM



RT	dT	Name	Amt.	Area
2.22	0.02	TCX	30.241	1492109
7.49	0.00	DCBP	29.170	1072909

File Name: F:\GCECD.DAT\F120622\F120622.02R.BND
Comments: SC1660.01 0.5ppm 5/31/2012
Run Time: 6/22/2012 9:29:12 AM



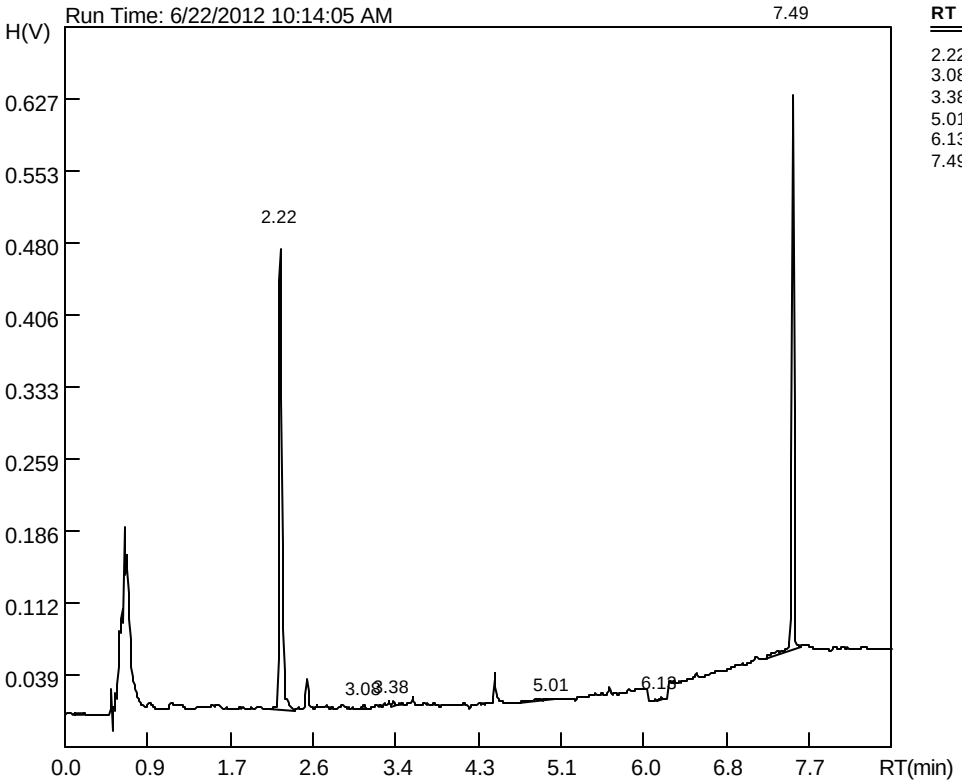
RT	dT	Name	Amt.	Area
2.22	0.01	TCX	18.626	938578
3.12	0.01	1016-1	0.578	480913
3.37	0.01	1016-2	0.581	1624149
3.46	0.01	1016-3	0.582	643233
3.53	0.01	1016-4	0.559	453804
4.00	0.01	1016-5	0.564	587481
5.05	0.00	1260-1	0.566	977474
5.27	0.01	1260-2	0.574	1537686
5.51	0.00	1260-3	0.565	1478793
6.11	0.00	1260-4	0.516	1145742
6.37	0.00	1260-5	0.509	1000067
7.49	0.00	DCBP	15.826	608310

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

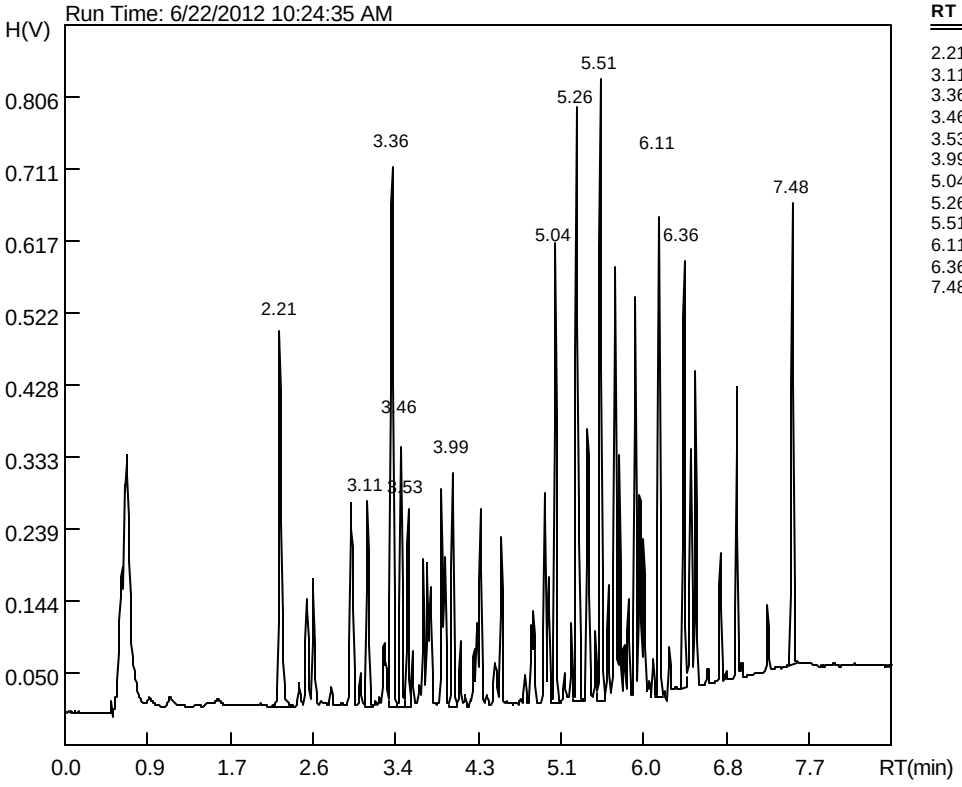
Analytical Batch: f120622.3

File Name: F:\GCECD.DAT\F120622\F120622.06R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:14:05 AM



RT	dT	Name	Amt.	Area
2.22	0.01	TCX	20.131	1010299
3.08	-0.03	1016-1	-0.041	8914
3.38	0.02	1016-2	-0.040	7635
5.01	-0.03	1260-1	-0.033	21319
6.13	0.02	1260-4	-0.023	3009
7.49	0.00	DCBP	25.015	928250

File Name: F:\GCECD.DAT\F120622\F120622.07R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:24:35 AM



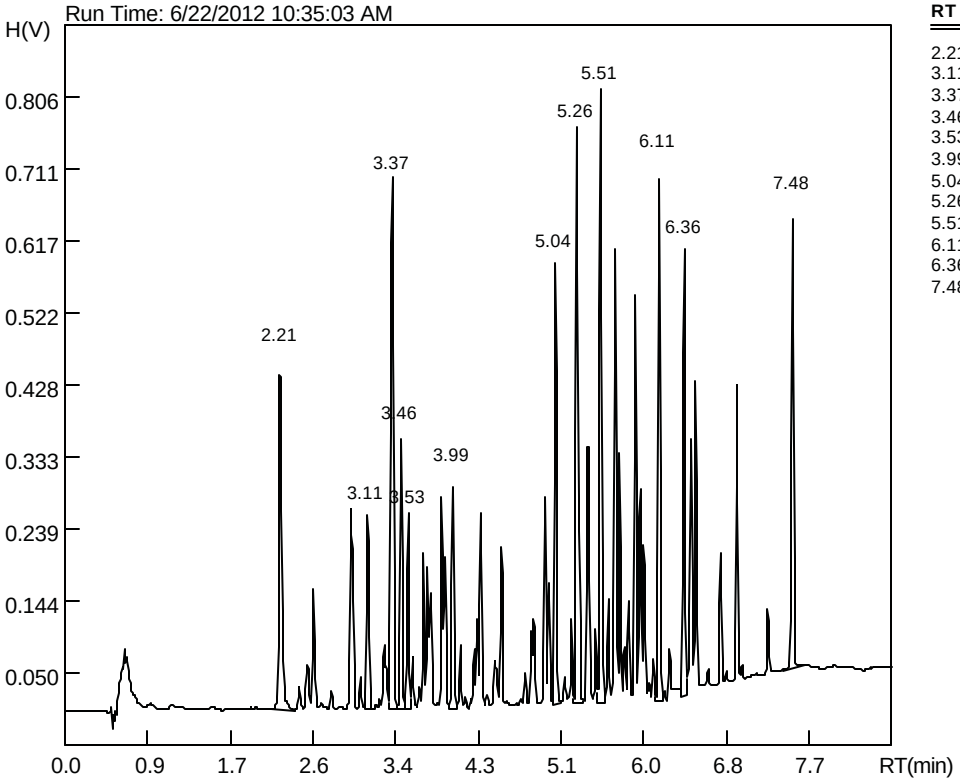
RT	dT	Name	Amt.	Area
2.21	0.01	TCX	20.015	1004756
3.11	0.00	1016-1	0.451	384211
3.36	0.00	1016-2	0.450	1283812
3.46	0.00	1016-3	0.467	525519
3.53	0.00	1016-4	0.451	378084
3.99	0.00	1016-5	0.470	497615
5.04	0.00	1260-1	0.456	801517
5.26	0.00	1260-2	0.453	1237946
5.51	0.00	1260-3	0.450	1197855
6.11	0.00	1260-4	0.416	933246
6.36	0.00	1260-5	0.428	852460
7.48	-0.01	DCBP	22.482	840067

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

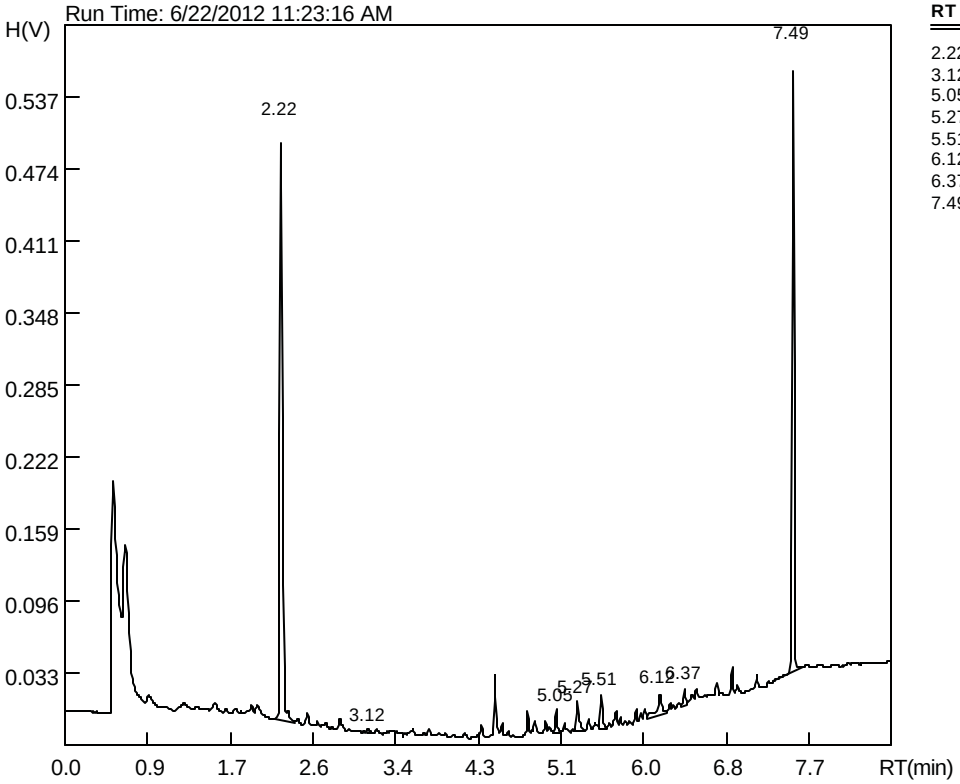
Analytical Batch: f120622.3

File Name: F:\GCECD.DAT\F120622\F120622.08R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:35:03 AM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	19.043	958444
3.11	0.00	1016-1	0.445	379841
3.37	0.00	1016-2	0.440	1257542
3.46	0.00	1016-3	0.458	516335
3.53	0.00	1016-4	0.439	369656
3.99	0.00	1016-5	0.464	492075
5.04	0.00	1260-1	0.451	792841
5.26	0.00	1260-2	0.451	1231458
5.51	0.00	1260-3	0.446	1187942
6.11	0.00	1260-4	0.420	940813
6.36	0.00	1260-5	0.444	881605
7.48	0.00	DCBP	23.231	866135

File Name: F:\GCECD.DAT\F120622\F120622.12R.BND
Comments: s52902.01 20.3g s/1 ID:PA120622s01
Run Time: 6/22/2012 11:23:16 AM



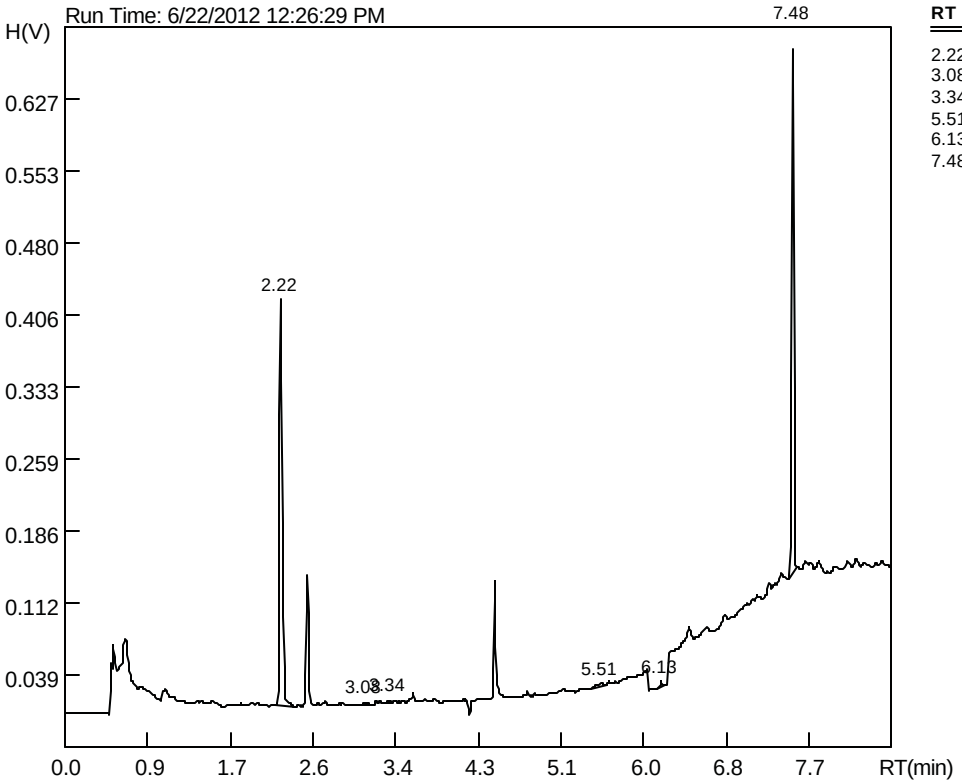
RT	dT	Name	Amt.	Area
2.22	0.02	TCX	18.717	942898
3.12	0.01	1016-1	-0.044	6113
5.05	0.01	1260-1	-0.024	36209
5.27	0.01	1260-2	-0.027	46954
5.51	0.00	1260-3	-0.019	48689
6.12	0.01	1260-4	0.006	65154
6.37	0.00	1260-5	-0.028	27945
7.49	0.00	DCBP	19.816	747233

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

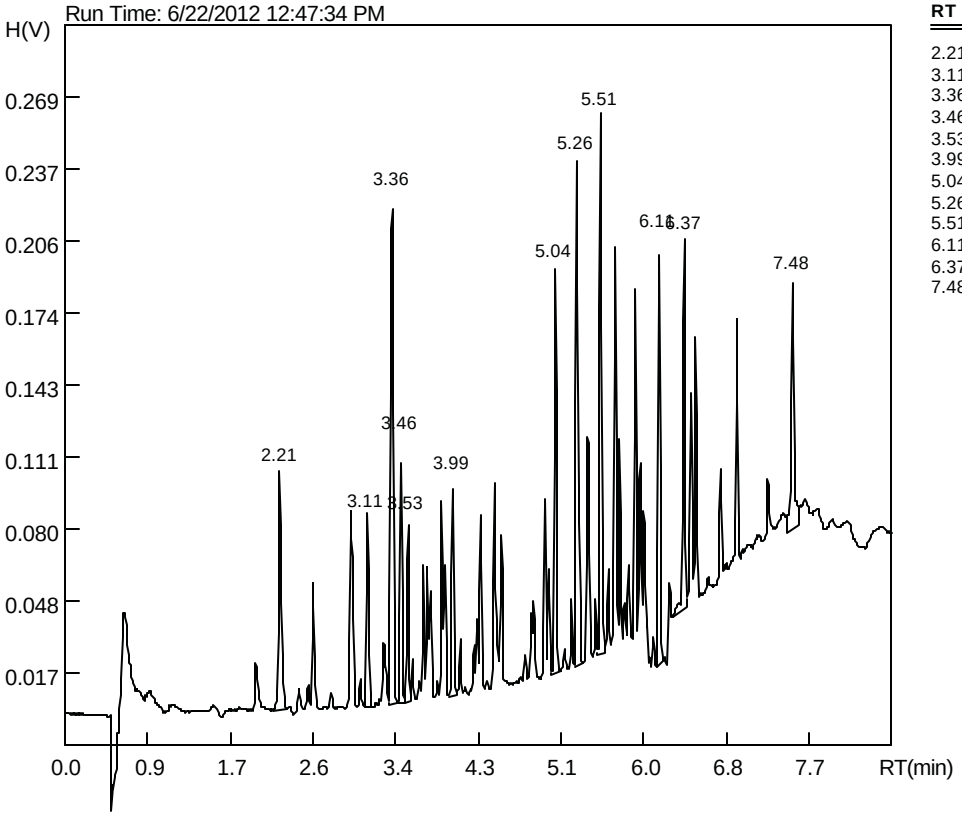
Analytical Batch: f120622.3

File Name: F:\GCECD.DAT\F120622\F120622.16R.BND
Comments: s52934.02 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 12:26:29 PM



RT	dT	Name	Amt.	Area
2.22	0.02	TCX	16.031	814902
3.08	-0.03	1016-1	-0.042	8323
3.34	-0.02	1016-2	-0.041	5893
5.51	0.00	1260-3	-0.034	11122
6.13	0.02	1260-4	-0.020	9302
7.48	0.00	DCBP	21.503	805977

File Name: F:\GCECD.DAT\F120622\F120622.18R.BND
Comments: ss1660.01 0.1ppm 5/31/12
Run Time: 6/22/2012 12:47:34 PM



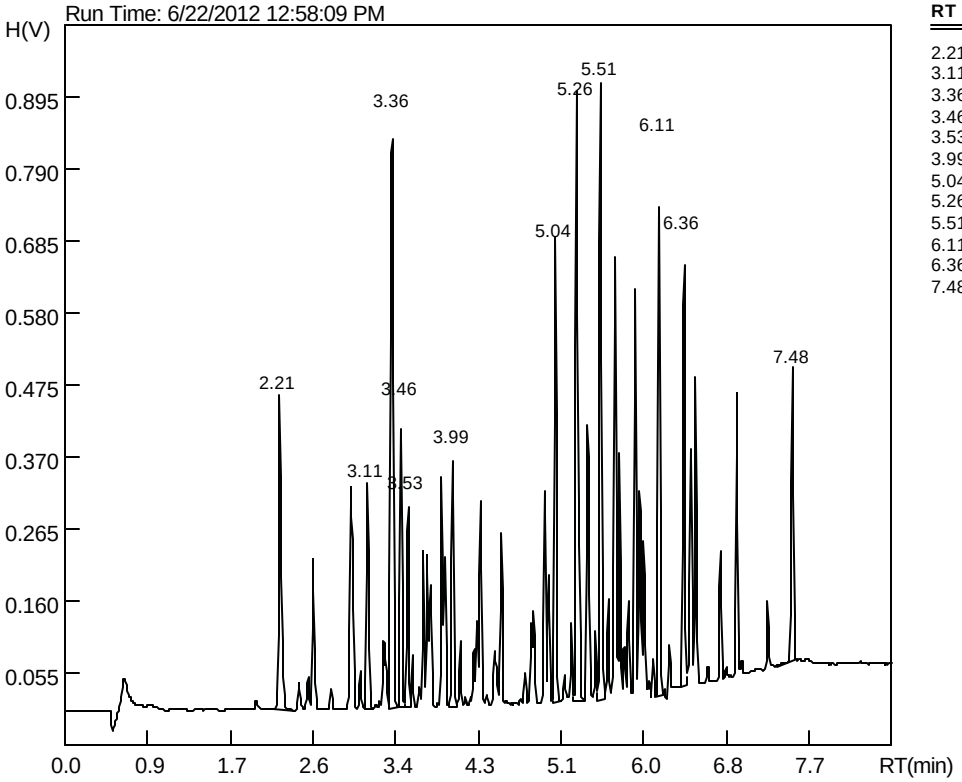
RT	dT	Name	Amt.	Area
2.21	0.01	TCX	3.429	214329
3.11	0.00	1016-1	0.104	119439
3.36	0.00	1016-2	0.109	396467
3.46	0.00	1016-3	0.107	157950
3.53	0.00	1016-4	0.065	108031
3.99	0.00	1016-5	0.099	142547
5.04	0.00	1260-1	0.101	235675
5.26	0.00	1260-2	0.099	358060
5.51	0.00	1260-3	0.100	340136
6.11	0.00	1260-4	0.098	258465
6.37	0.00	1260-5	0.098	256582
7.48	0.00	DCBP	4.206	203743

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120622.3

File Name: F:\GCECD.DAT\F120622\F120622.19R.BND
Comments: SC1660.02 0.5ppm 5/31/12
Run Time: 6/22/2012 12:58:09 PM



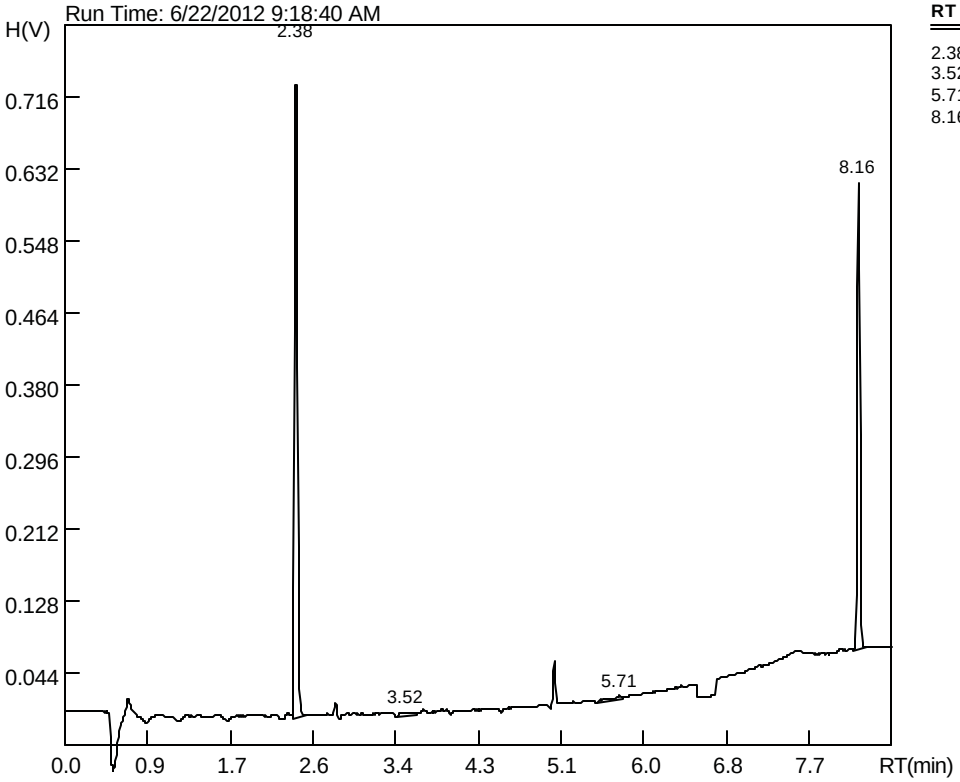
RT	dT	Name	Amt.	Area
2.21	0.01	TCX	17.436	881881
3.11	0.00	1016-1	0.548	458218
3.36	0.00	1016-2	0.545	1529778
3.46	0.00	1016-3	0.547	607335
3.53	0.00	1016-4	0.523	428096
3.99	0.00	1016-5	0.533	558171
5.04	0.00	1260-1	0.515	895871
5.26	0.00	1260-2	0.519	1401452
5.51	0.00	1260-3	0.512	1348334
6.11	0.00	1260-4	0.471	1049941
6.36	0.00	1260-5	0.473	934093
7.48	-0.01	DCBP	15.310	590369

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

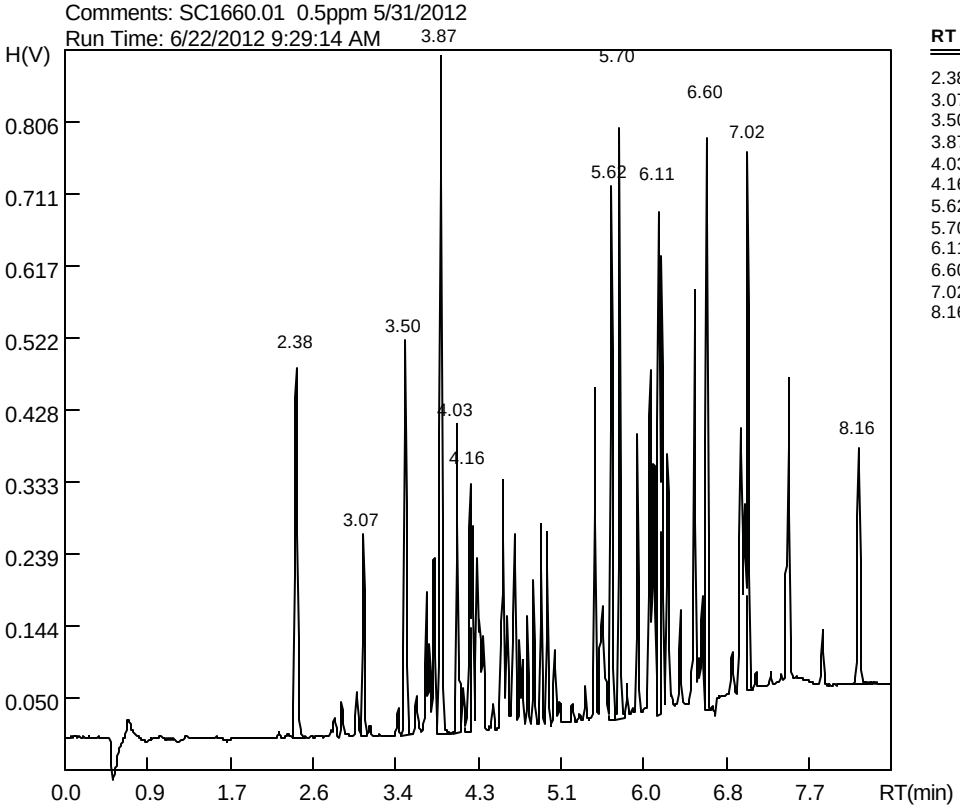
Analytical Batch: f120622.4

File Name: F:\GCECD.DAT\F120622\F120622B.01R.BND
Comments: sBLK-R.01
Run Time: 6/22/2012 9:18:40 AM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	35.679	1480586
3.52	0.03	1016-2	-0.035	44995
5.71	0.02	1260-2	-0.041	34065
8.16	0.01	DCBP	32.190	1105833

File Name: F:\GCECD.DAT\F120622\F120622B.02R.BND
Comments: SC1660.01 0.5ppm 5/31/2012
Run Time: 6/22/2012 9:29:14 AM



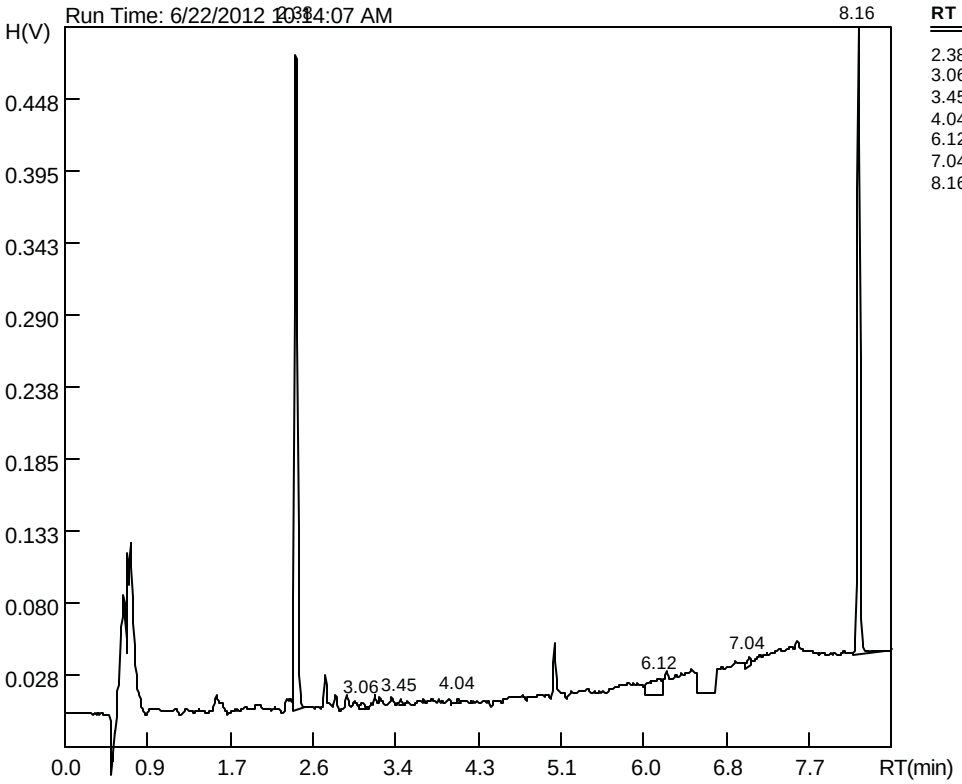
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	20.665	881965
3.07	0.01	1016-1	0.589	378972
3.50	0.01	1016-2	0.579	770475
3.87	0.01	1016-3	0.580	1609032
4.03	0.01	1016-4	0.571	606126
4.16	0.01	1016-5	0.583	467768
5.62	0.01	1260-1	0.575	1043613
5.70	0.01	1260-2	0.590	1114363
6.11	0.01	1260-3	0.579	1079133
6.60	0.01	1260-4	0.545	1045217
7.02	0.01	1260-5	0.533	944624
8.16	0.01	DCBP	17.577	635499

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

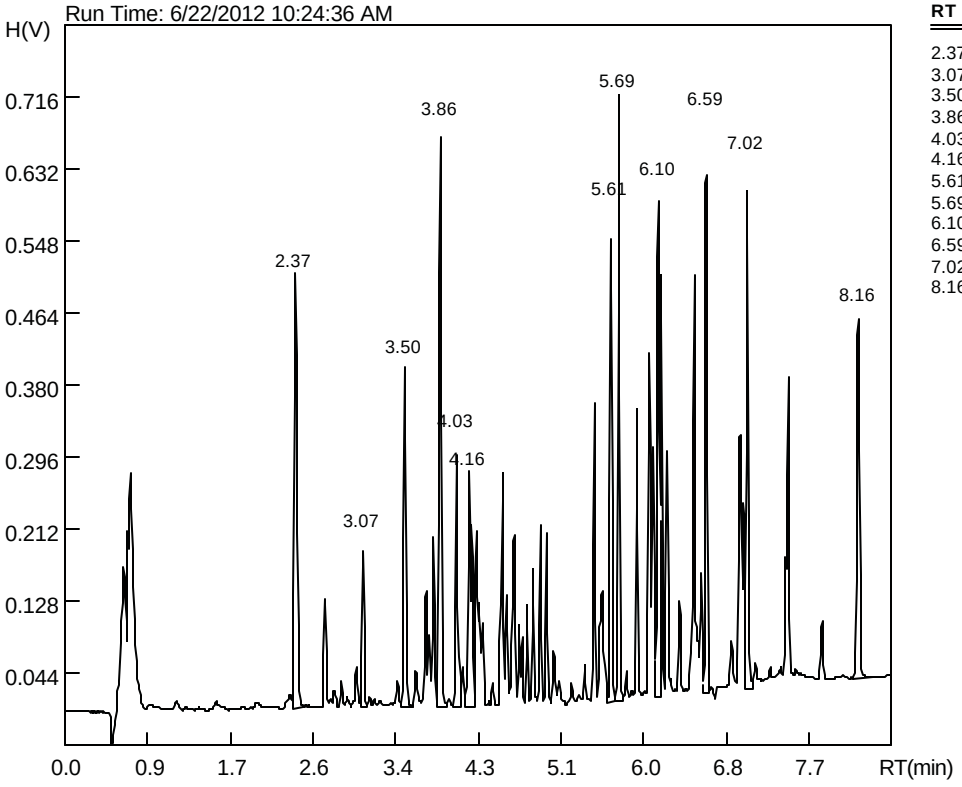
Analytical Batch: f120622.4

File Name: F:\GCECD.DAT\F120622\F120622B.06R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:24:07 AM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	22.615	959741
3.06	0.01	1016-1	-0.031	17634
3.45	-0.04	1016-2	-0.069	4096
4.04	0.02	1016-4	-0.065	4116
6.12	0.03	1260-3	0.013	117662
7.04	0.02	1260-5	-0.043	19124
8.16	0.01	DCBP	26.983	938265

File Name: F:\GCECD.DAT\F120622\F120622B.07R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:24:36 AM



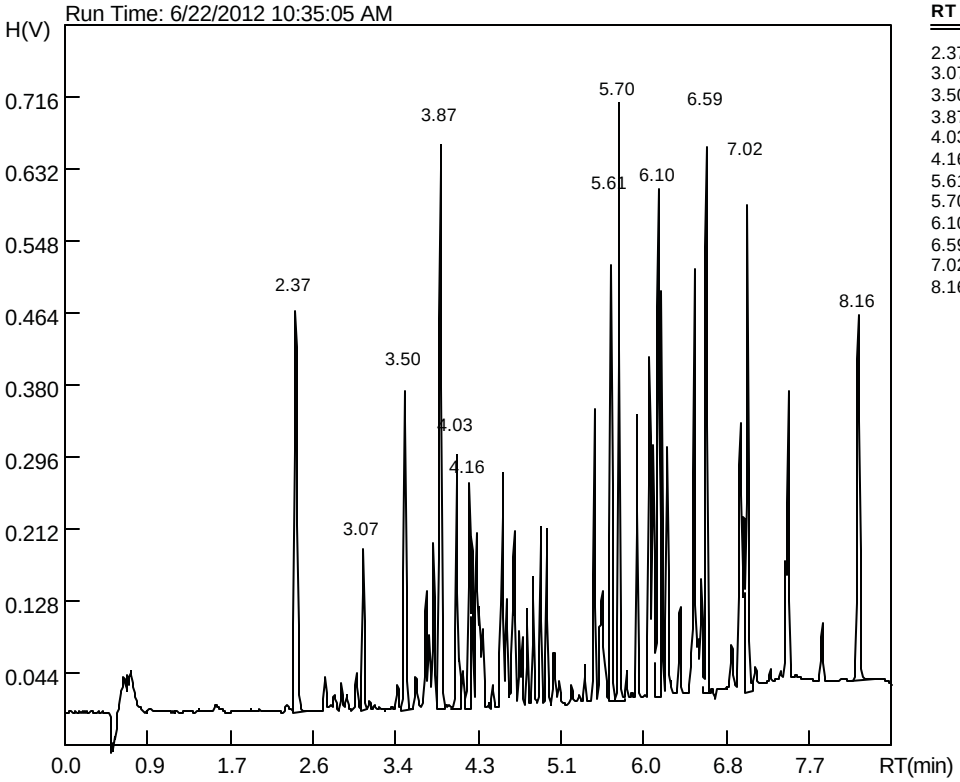
RT	dT	Name	Amt.	Area
2.37	0.01	TCX	22.038	936703
3.07	0.01	1016-1	0.446	295719
3.50	0.01	1016-2	0.442	609136
3.86	0.01	1016-3	0.443	1260326
4.03	0.01	1016-4	0.451	492870
4.16	0.01	1016-5	0.835	649556
5.61	0.00	1260-1	0.477	883063
5.69	0.00	1260-2	0.490	943396
6.10	0.00	1260-3	0.482	913047
6.59	0.00	1260-4	0.459	887603
7.02	0.00	1260-5	0.481	859917
8.16	0.00	DCBP	25.705	897121

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120622.4

File Name: F:\GCECD.DAT\F120622\F120622B.08R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 10:35:05 AM



RT	dT	Name	Amt.	Area
2.37	0.02	TCX	20.922	892243
3.07	0.01	1016-1	0.413	276524
3.50	0.01	1016-2	0.425	589218
3.87	0.01	1016-3	0.431	1231136
4.03	0.01	1016-4	0.446	487891
4.16	0.01	1016-5	0.449	371562
5.61	0.00	1260-1	0.465	863427
5.70	0.00	1260-2	0.477	921724
6.10	0.00	1260-3	0.461	877056
6.59	0.00	1260-4	0.451	873430
7.02	0.00	1260-5	0.475	850154
8.16	0.00	DCBP	25.286	883622

File Name: F:\GCECD.DAT\F120622\F120622B.12R.BND
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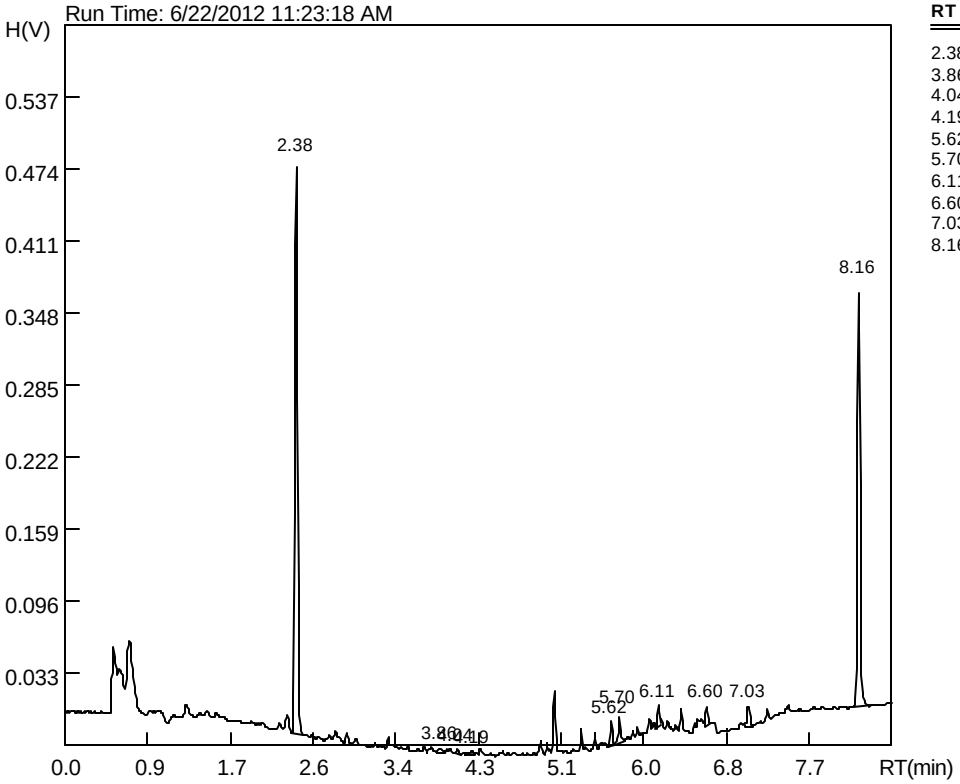
Run Time: 6/22/2012 11:23:18 AM



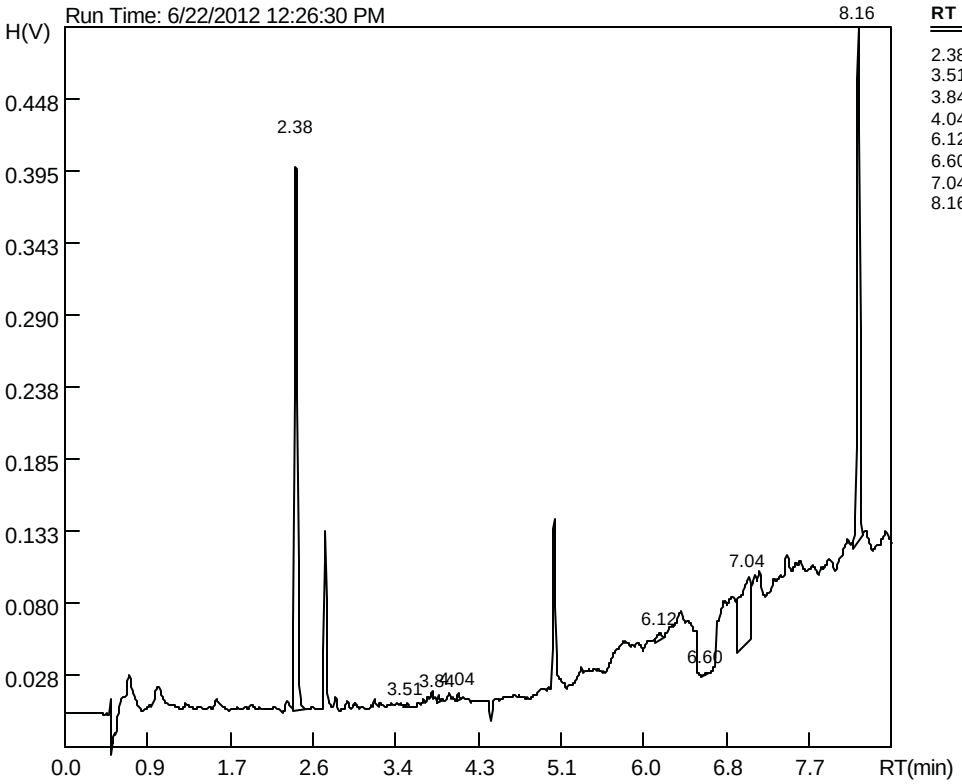
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	20.288	866966
3.86	0.00	1016-3	-0.051	9683
4.04	0.02	1016-4	-0.062	7188
4.19	0.04	1016-5	-0.053	9382
5.62	0.01	1260-1	-0.045	31470
5.70	0.01	1260-2	-0.036	42809
6.11	0.01	1260-3	-0.042	24162
6.60	0.01	1260-4	-0.011	28169
7.03	0.02	1260-5	-0.031	37751
8.16	0.01	DCBP	21.295	755166

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

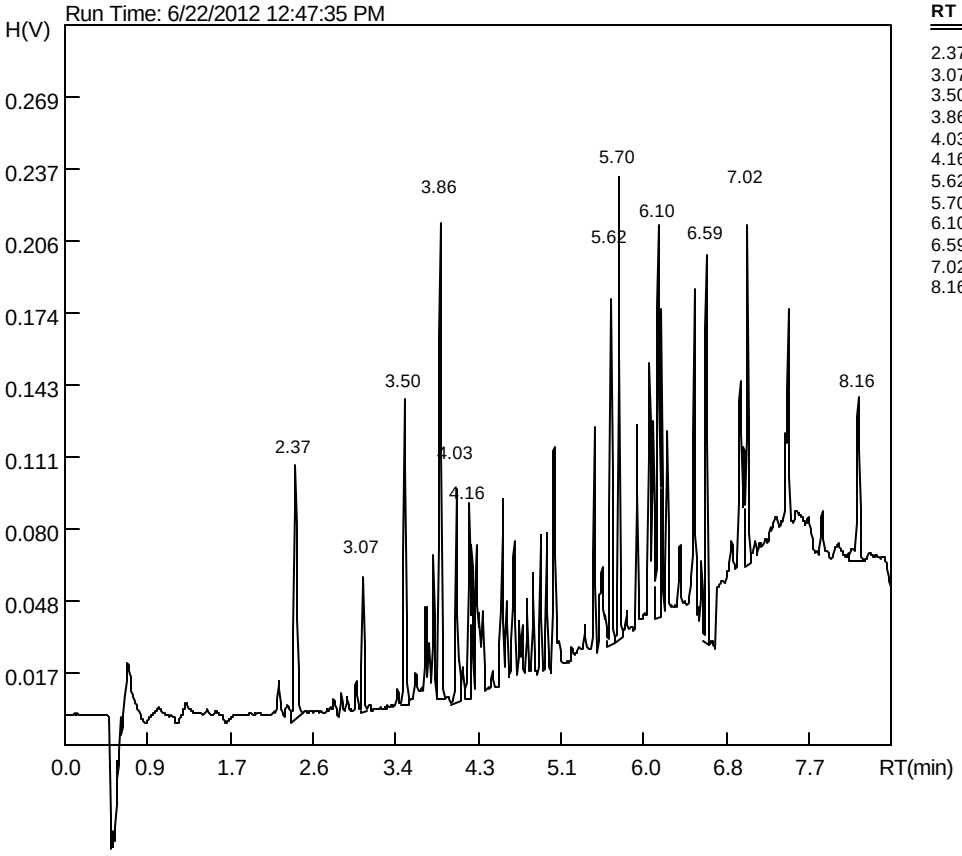
Analytical Batch: f120622.4

File Name: F:\GCECD.DAT\F120622\F120622B.16R.BND
Comments: s52934.02 20.0g s/1 ID:PA120622s01
Run Time: 6/22/2012 12:26:30 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	18.294	787447
3.51	0.02	1016-2	-0.068	6208
3.84	-0.01	1016-3	-0.053	5244
4.04	0.02	1016-4	-0.062	7249
6.12	0.02	1260-3	-0.043	21170
6.60	0.01	1260-4	-0.024	4063
7.04	0.02	1260-5	0.188	389490
8.16	0.00	DCBP	23.093	813046

File Name: F:\GCECD.DAT\F120622\F120622B.18R.BND
Comments: ss1660.01 0.1ppm 5/31/12
Run Time: 6/22/2012 12:47:35 PM



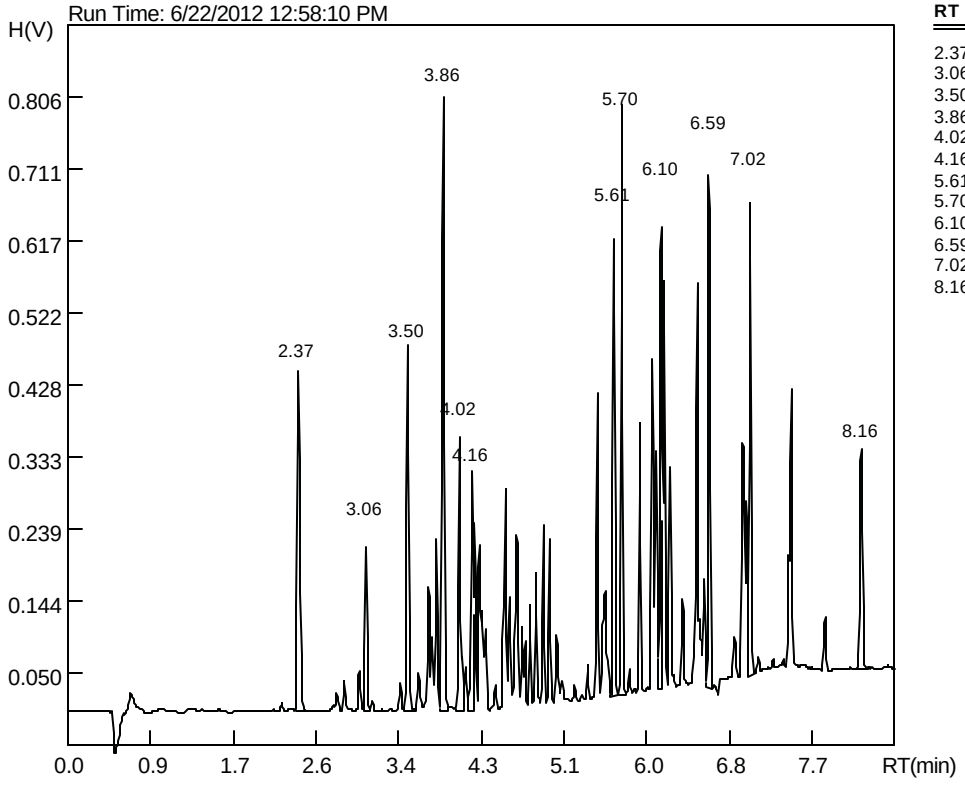
RT	dT	Name	Amt.	Area
2.37	0.01	TCX	4.039	219096
3.07	0.01	1016-1	0.104	96120
3.50	0.01	1016-2	0.099	202830
3.86	0.01	1016-3	0.101	395587
4.03	0.01	1016-4	0.100	160388
4.16	0.01	1016-5	0.094	115051
5.62	0.00	1260-1	0.095	260414
5.70	0.00	1260-2	0.101	276683
6.10	0.00	1260-3	0.095	256107
6.59	0.00	1260-4	0.101	232388
7.02	0.00	1260-5	0.081	218384
8.16	0.00	DCBP	2.768	158837

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120622.4

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120622\F120622B.19R.BND
Comments: SC1660.02 0.5ppm 5/31/12
Run Time: 6/22/2012 12:58:10 PM



RT	dT	Name	Amt.	Area
2.37	0.01	TCX	19.055	817794
3.06	0.01	1016-1	0.538	348896
3.50	0.01	1016-2	0.531	713706
3.86	0.00	1016-3	0.528	1475138
4.02	0.00	1016-4	0.546	582651
4.16	0.00	1016-5	0.543	439119
5.61	0.00	1260-1	0.517	949624
5.70	0.00	1260-2	0.527	1006962
6.10	0.00	1260-3	0.509	959689
6.59	0.00	1260-4	0.500	962045
7.02	0.00	1260-5	0.488	872090
8.16	0.00	DCBP	16.203	591275

Form 0: Sequence Log

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	13:01:22 Tue 03-Jul-12	Blank	Liquid	
002	13:03:21 Tue 03-Jul-12	std-0.000	Liquid	
003	13:05:19 Tue 03-Jul-12	std-0.0005	Liquid	
004	13:07:23 Tue 03-Jul-12	std-0.001	Liquid	
005	13:09:26 Tue 03-Jul-12	std-0.005	Liquid	
006	13:11:33 Tue 03-Jul-12	std-0.02	Liquid	
007	13:13:44 Tue 03-Jul-12	std-0.05	Liquid	
008	13:16:04 Tue 03-Jul-12	std-0.20	Liquid	
009	13:18:37 Tue 03-Jul-12	ICV-0.10	Liquid	ICV
010	13:22:12 Tue 03-Jul-12	ICB	Liquid	ICB
011	13:24:15 Tue 03-Jul-12	BS-0.0005	Liquid	BS
012	13:26:17 Tue 03-Jul-12	BS-0.001	Liquid	BS
013	13:28:18 Tue 03-Jul-12	BS-0.002	Liquid	BS
014	13:33:19 Tue 03-Jul-12	ERA-P194	Liquid	ERA
015	13:36:00 Tue 03-Jul-12	Solu-AB	Liquid	AB
016	13:41:05 Tue 03-Jul-12	Solu-AA	Liquid	AA
017	13:43:15 Tue 03-Jul-12	0703_1 LCS-0.05	Liquid	LCS
018	13:52:12 Tue 03-Jul-12	LRB_1	Liquid	LRB
019	13:49:33 Tue 03-Jul-12	52933.24s	Soil	S
020	13:54:17 Tue 03-Jul-12	52934.02s	Soil	S
021	13:56:30 Tue 03-Jul-12	52934.02 dil	Soil	DIL
022	13:58:44 Tue 03-Jul-12	53000.02s	Soil	S
023	14:01:23 Tue 03-Jul-12	53000.03s	Soil	S
024	14:05:53 Tue 03-Jul-12	53000.05s	Soil	S
025	14:08:07 Tue 03-Jul-12	53000.06s	Soil	S
026	14:13:24 Tue 03-Jul-12	53000.04s	Soil	S
027	14:15:51 Tue 03-Jul-12	53000.07s	Soil	S
028	14:18:04 Tue 03-Jul-12	53000.07 MS-0.10	Soil	MS
029	14:20:18 Tue 03-Jul-12	53000.07 MSD	Soil	MSD
030	14:22:33 Tue 03-Jul-12	CCV1-0.10	Liquid	CCV
031	14:26:09 Tue 03-Jul-12	CCB1	Liquid	CCB
032	14:28:15 Tue 03-Jul-12	53027.03s	Soil	S
033	14:30:41 Tue 03-Jul-12	53037.02s	Soil	S
034	14:33:08 Tue 03-Jul-12	53037.04s	Soil	S
035	14:35:33 Tue 03-Jul-12	53037.06s	Soil	S
036	14:37:57 Tue 03-Jul-12	53037.07s	Soil	S
037	14:40:21 Tue 03-Jul-12	53037.08s	Soil	S
038	14:43:39 Tue 03-Jul-12	53058.03s	Soil	S
039	14:46:05 Tue 03-Jul-12	53058.05s	Soil	S
040	14:48:30 Tue 03-Jul-12	CCV2-0.10	Liquid	CCV
041	14:52:07 Tue 03-Jul-12	CCB2	Liquid	CCB
042	15:01:24 Tue 03-Jul-12	0703_2 LCS-0.05	Liquid	LCS
043	14:52:07 Tue 03-Jul-12	LRB_2	Liquid	LRB
044	15:07:03 Tue 03-Jul-12	53052.02 dil	Soil	DIL
045	15:09:20 Tue 03-Jul-12	53052.02s	Soil	S
046	15:11:50 Tue 03-Jul-12	53052.03s	Soil	S
047	15:14:04 Tue 03-Jul-12	53052.04s	Soil	S
048	15:18:37 Tue 03-Jul-12	53052.05s	Soil	S
049	15:20:54 Tue 03-Jul-12	53052.05 MS-0.10	Soil	MS
050	15:23:10 Tue 03-Jul-12	53052.05 MSD	Soil	MSD
051	15:26:33 Tue 03-Jul-12	53060.01s	Soil	S
052	15:28:50 Tue 03-Jul-12	53060.02s	Soil	S
053	15:31:16 Tue 03-Jul-12	53060.03s	Soil	S

Form 0: Sequence Log

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	15:36:03 Tue 03-Jul-12	53060.03s d	Soil	S
055	15:38:39 Tue 03-Jul-12	53060.04s	Soil	S
056	15:43:35 Tue 03-Jul-12	53060.04s d	Soil	S
057	15:46:10 Tue 03-Jul-12	CCV3-0.10	Liquid	CCV
058	15:50:21 Tue 03-Jul-12	CCB3	Liquid	CCB
059	16:19:09 Tue 03-Jul-12	0703_6 LCS-0.05	Liquid	LCS
060	16:22:48 Tue 03-Jul-12	LRB_6	Liquid	LRB
061	16:31:31 Tue 03-Jul-12	tc-blk-120702tc	Liquid	
062	16:33:28 Tue 03-Jul-12	52973.01s tclp	Liquid	S
063	16:35:27 Tue 03-Jul-12	52973.01 dil	Liquid	DIL
064	16:37:26 Tue 03-Jul-12	52973.02s tclp	Liquid	S
065	16:39:25 Tue 03-Jul-12	52973.03s tclp	Liquid	S
066	16:41:24 Tue 03-Jul-12	52973.04s tclp	Liquid	S
067	16:43:25 Tue 03-Jul-12	52973.05s tclp	Liquid	S
068	16:45:25 Tue 03-Jul-12	52973.08s tclp	Liquid	S
069	16:47:23 Tue 03-Jul-12	52973.09s tclp	Liquid	S
070	16:49:22 Tue 03-Jul-12	52981.01s tclp	Liquid	S
071	16:51:22 Tue 03-Jul-12	52968.03s tclp	Liquid	S
072	16:53:22 Tue 03-Jul-12	52968.03 Dp	Liquid	DP
073	17:05:41 Tue 03-Jul-12	52981.01 MS-0.05	Liquid	MS
074	17:08:48 Tue 03-Jul-12	52981.01 MSD	Liquid	MSD
075	17:11:55 Tue 03-Jul-12	CCB4	Liquid	CCB
076	17:13:52 Tue 03-Jul-12	CCV4-0.10	Liquid	CCV

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Lab Sample ID: S52934.02
Sample Tag: SB131 (06-20-2012) (1-2)
Date Collected: 06/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.80	0.20	mg/kg	234	07/03/2012	
7440-39-3	Barium	81.0	1.0	mg/kg	234	07/03/2012	
7440-43-9	Cadmium	0.24	0.20	mg/kg	234	07/03/2012	
7440-47-3	Chromium	4.14	0.50	mg/kg	234	07/03/2012	
7440-50-8	Copper	14.5	0.50	mg/kg	234	07/03/2012	
7439-92-1	Lead	8.61	0.30	mg/kg	234	07/03/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	234	07/03/2012	
7440-22-4	Silver	Not detected	0.20	mg/kg	234	07/03/2012	
7440-66-6	Zinc	15.5	1.0	mg/kg	234	07/03/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
009 ICV-0.10	ICV	1	Cr	0.0990	0.10	99	90/110	mg/L	Liquid
			Cu	0.0995	0.10	100	90/110		
			Zn	0.0988	0.10	99	90/110		
			As	0.0992	0.10	99	90/110		
			Se	0.0990	0.10	99	90/110		
			Ag	0.0972	0.10	97	90/110		
			Cd	0.0993	0.10	99	90/110		
			Ba	0.100	0.10	100	90/110		
			Pb	0.0982	0.10	98	90/110		
030 CCV1-0.10	CCV	1	Cr	0.104	0.10	104	90/110	mg/L	Liquid
			Cu	0.102	0.10	102	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.0995	0.10	100	90/110		
			Ag	0.0998	0.10	100	90/110		
			Cd	0.0989	0.10	99	90/110		
			Ba	0.0999	0.10	100	90/110		
			Pb	0.0985	0.10	99	90/110		
040 CCV2-0.10	CCV	1	Cr	0.102	0.10	102	90/110	mg/L	Liquid
			Cu	0.105	0.10	105	90/110		
			Zn	0.0997	0.10	100	90/110		
			As	0.107	0.10	107	90/110		
			Se	0.103	0.10	103	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.100	0.10	100	90/110		
			Ba	0.0990	0.10	99	90/110		
			Pb	0.0990	0.10	99	90/110		
057 CCV3-0.10	CCV	1	Cr	0.100	0.10	100	90/110	mg/L	Liquid
			Cu	0.102	0.10	102	90/110		
			Zn	0.103	0.10	103	90/110		
			As	0.101	0.10	101	90/110		
			Se	0.0998	0.10	100	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.100	0.10	100	90/110		
			Ba	0.101	0.10	101	90/110		
			Pb	0.099	0.10	99	90/110		
076 CCV4-0.10	CCV	1	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Cu	0.106	0.10	106	90/110		
			Zn	0.101	0.10	101	90/110		
			As	0.106	0.10	106	90/110		
			Se	0.103	0.10	103	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.100	0.10	100	90/110		
			Ba	0.102	0.10	102	90/110		
			Pb	0.0980	0.10	98	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: P194

Data Set ID: MT2-12-0703A

Instrument ID: PE ELAN

Analysis Date: 07/03/12

Analyst: PER

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
014 ERA-P194	5	Cr	0.732	0.751	98	0.682	0.808	mg/L	Liquid
		Cu	0.281	0.287	98	0.262	0.312		
		Zn	0.392	0.403	97	0.370	0.444		
		As	0.520	0.528	99	0.462	0.575		
		Se	0.745	0.770	97	0.679	0.838		
		Ag	0.102	0.121	84	0.102	0.132		
		Cd	0.534	0.554	96	0.499	0.585		
		Ba	0.418	0.428	98	0.388	0.463		
		Pb	0.805	0.821	98	0.749	0.888		

Form 3: Blanks

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 ICB	ICB	1	Cr	<0.001	-0.000153	mg/L	Liquid
			Cu	<0.001	-0.000108		
			Zn	<0.001	-0.000705		
			As	<0.0004	0.000066		
			Se	<0.001	-0.000544		
			Ag	<0.0005	0.000013		
			Cd	<0.0001	-0.000038		
			Ba	<0.001	-0.000106		
			Pb	<0.0006	-0.000163		
018 LRB_1	LRB	1	Cr	<0.001	-0.000127	mg/L	Liquid
			Cu	<0.001	-0.000071		
			Zn	<0.001	0.000140		
			As	<0.0004	0.000149		
			Se	<0.001	-0.000119		
			Ag	<0.0005	-0.000018		
			Cd	<0.0001	-0.000042		
			Ba	<0.001	-0.000116		
			Pb	<0.0006	-0.000141		
031 CCB1	CCB	1	Cr	<0.001	-0.000224	mg/L	Liquid
			Cu	<0.001	-0.000109		
			Zn	<0.001	-0.000444		
			As	<0.0004	0.000116		
			Se	<0.001	0.000655		
			Ag	<0.0005	0.000024		
			Cd	<0.0001	-0.000024		
			Ba	<0.001	-0.000101		
			Pb	<0.0006	-0.000146		
041 CCB2	CCB	1	Cr	<0.001	-0.000001	mg/L	Liquid
			Cu	<0.001	-0.000109		
			Zn	<0.001	-0.000468		
			As	<0.0004	0.000239		
			Se	<0.001	-0.000016		
			Ag	<0.0005	0.000010		
			Cd	<0.0001	-0.000034		
			Ba	<0.001	-0.000089		
			Pb	<0.0006	-0.000147		
043 LRB_2	LRB	1	Cr	<0.001	-0.000001	mg/L	Liquid
			Cu	<0.001	-0.000109		
			Zn	<0.001	-0.000468		
			As	<0.0004	0.000239		
			Se	<0.001	-0.000016		
			Ag	<0.0005	0.000010		
			Cd	<0.0001	-0.000034		
			Ba	<0.001	-0.000089		
			Pb	<0.0006	-0.000147		
058 CCB3	CCB	1	Cr	<0.001	-0.000236	mg/L	Liquid
			Cu	<0.001	0.000380		
			Zn	<0.001	0.000498		
			As	<0.0004	-0.000130		
			Se	<0.001	-0.000399		
			Ag	<0.0005	0.000018		
			Cd	<0.0001	-0.000035		
			Ba	<0.001	-0.000054		

Form 3: Blanks

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
058 CCB3	CCB	1	Pb	<0.0006	-0.000017	mg/L	Liquid
060 LRB_6	LRB	1	Cr	<0.001	-0.000218	mg/L	Liquid
			Cu	<0.001	0.000062		
			Zn	<0.010	0.007131		
			As	<0.0004	-0.000047		
			Se	<0.001	0.000407		
			Ag	<0.0005	-0.000006		
			Cd	<0.0001	-0.000039		
			Ba	<0.001	-0.000090		
			Pb	<0.0006	-0.000121		
075 CCB4	CCB	1	Cr	<0.001	-0.000111	mg/L	Liquid
			Cu	<0.001	0.000108		
			Zn	<0.001	0.000083		
			As	<0.0004	-0.000023		
			Se	<0.001	0.000166		
			Ag	<0.0005	0.000015		
			Cd	<0.0001	-0.000024		
			Ba	<0.001	-0.000054		
			Pb	<0.0006	0.000040		

Form 4B: ICP Interference Check Sample

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 Solu-AB	AB	1	Cr	0.0243	0.020	122	65/135	mg/L	Liquid
			Cu	0.0241	0.020	121	65/135		
			Zn	0.0233	0.020	117	70/135		
			As	0.0245	0.020	123	65/135		
			Ag	0.0190	0.020	95	70/135		
			Cd	0.0193	0.020	97	65/135		
016 Solu-AA	AA	1	Cr	<0.005	0.0	N/A	N/A	mg/L	Liquid
			Cu	<0.004	0.0	N/A	N/A		
			Zn	<0.005	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.0005	0.0	N/A	N/A		
			Cd	<0.0005	0.0	N/A	N/A		
			Ba	<0.005	0.0	N/A	N/A		
			Pb	<0.003	0.0	N/A	N/A		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
011 BS-0.0005		1	Cr	0.00034	ND	0.0005	68	60/130	mg/L	Liquid
			Cu	0.00053	ND	0.0005	106	60/130		
			As	0.00048	ND	0.0005	96	60/130		
			Se	0.00065	ND	0.0005	130	60/130		
			Ag	0.00047	ND	0.0005	94	60/130		
			Cd	0.00049	ND	0.0005	98	60/130		
			Ba	0.00048	ND	0.0005	96	60/130		
			Pb	0.00035	ND	0.0005	70	60/130		
012 BS-0.001		1	Cr	0.00090	ND	0.001	90	60/130	mg/L	Liquid
			Cu	0.00097	ND	0.001	97	60/130		
			As	0.00105	ND	0.001	105	60/130		
			Ag	0.00095	ND	0.001	95	60/130		
			Cd	0.00103	ND	0.001	103	60/130		
			Ba	0.00095	ND	0.001	95	60/130		
			Pb	0.00086	ND	0.001	86	60/130		
013 BS-0.002		1	Cr	0.00187	ND	0.002	94	60/130	mg/L	Liquid
			Cu	0.00203	ND	0.002	102	60/130		
			Zn	0.00161	ND	0.002	81	60/130		
			As	0.00193	ND	0.002	97	60/130		
			Se	0.00168	ND	0.002	84	60/130		
			Ag	0.00191	ND	0.002	96	60/130		
			Cd	0.00190	ND	0.002	95	60/130		
			Ba	0.00196	ND	0.002	98	60/130		
			Pb	0.00177	ND	0.002	89	60/130		
028 53000.07	**027 53000.07s**	191	Cr	20.2	<0.50	19.10	106	75/125	mg/kg	Soil
			Cu	19.5	<0.50	19.10	102	75/125		
			Zn	20.1	1.26	19.10	99	75/125		
			As	19.5	<0.20	19.10	102	75/125		
			Se	18.9	<0.50	19.10	99	75/125		
			Ag	18.6	<0.20	19.10	97	75/125		
			Cd	18.7	<0.20	19.10	98	75/125		
			Ba	22.9	4.06	19.10	99	75/125		
			Pb	18.8	0.60	19.10	95	75/125		
049 53052.05	**048 53052.05s**	217	Cr	22.6	1.04	21.70	99	75/125	mg/kg	Soil
			Cu	23.2	1.25	21.70	101	75/125		
			Zn	28.5	7.05	21.70	99	75/125		
			As	23.9	0.93	21.70	106	75/125		
			Se	21.8	<0.50	21.70	101	75/125		
			Ag	21.2	<0.20	21.70	98	75/125		
			Cd	21.9	<0.20	21.70	101	75/125		
			Ba	54.3	34.6	21.70	91	75/125		
			Pb	31.9	10.2	21.70	100	75/125		
073 52981.01	**070 52981.01s tclp**	25	Cr	1.38	<0.05	1.25	110	75/125	mg/L	Liquid
			Cu	1.44	0.12	1.25	106	75/125		
			Zn	1.71	0.41	1.25	104	75/125		
			As	1.49	<0.02	1.25	119	75/125		
			Se	1.47	<0.05	1.25	118	75/125		
			Ag	1.27	<0.005	1.25	102	75/125		
			Cd	1.32	<0.005	1.25	106	75/125		
			Ba	1.42	0.11	1.25	105	75/125		
			Pb	1.25	<0.03	1.25	100	75/125		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
029 53000.07 MSD	**028 53000.07 MS-0.10**	189	Cr	20.0	20.2	1	0/20	mg/kg	Soil
			Cu	19.6	19.5	1	0/20		
			Zn	20.1	20.1	0	0/20		
			As	19.0	19.5	3	0/20		
			Se	19.1	18.9	1	0/20		
			Ag	18.8	18.6	1	0/20		
			Cd	19.1	18.7	2	0/20		
			Ba	23.1	22.9	1	0/20		
			Pb	18.6	18.8	1	0/20		
050 53052.05 MSD	**049 53052.05 MS-0.10**	217	Cr	23.1	22.6	2	0/20	mg/kg	Soil
			Cu	23.7	23.2	2	0/20		
			Zn	29.1	28.5	2	0/20		
			As	24.0	23.9	0	0/20		
			Se	22.4	21.8	3	0/20		
			Ag	21.9	21.2	3	0/20		
			Cd	22.2	21.9	1	0/20		
			Ba	54.5	54.3	0	0/20		
			Pb	29.9	31.9	6	0/20		
074 52981.01 MSD	**073 52981.01 MS-0.05**	25	Cr	1.37	1.38	1	0/20	mg/L	Liquid
			Cu	1.46	1.44	1	0/20		
			Zn	1.76	1.71	3	0/20		
			As	1.55	1.49	4	0/20		
			Se	1.49	1.47	1	0/20		
			Ag	1.29	1.27	2	0/20		
			Cd	1.36	1.32	3	0/20		
			Ba	1.43	1.42	1	0/20		
			Pb	1.28	1.25	2	0/20		

Form 6: Duplicates

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
072 52968.03 Dp	**071 52968.03s tclp**	25	Cr	0.47	0.47	0	0/20	mg/L	Liquid
			Cu	<0.04	<0.04	NC	0/20		
			Zn	95.4	101	6	0/20		
			As	0.21	0.21	0	0/20		
			Se	<0.05	<0.05	NC	0/20		
			Ag	<0.005	<0.005	NC	0/20		
			Cd	0.094	0.090	4	0/20		
			Ba	0.79	0.80	1	0/20		
			Pb	41.5	41.3	0	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
017 0703_1 LCS-0.05	1	Cr	0.0496	0.05	99	85/115	mg/L	Liquid
		Cu	0.0518	0.05	104	85/115		
		Zn	0.0530	0.05	106	85/115		
		As	0.0507	0.05	101	85/115		
		Se	0.0485	0.05	97	85/115		
		Ag	0.0492	0.05	98	85/115		
		Cd	0.0501	0.05	100	85/115		
		Ba	0.0504	0.05	101	85/115		
		Pb	0.0496	0.05	99	85/115		
042 0703_2 LCS-0.05	1	Cr	0.0501	0.05	100	85/115	mg/L	Liquid
		Cu	0.0495	0.05	99	85/115		
		Zn	0.0465	0.05	93	85/115		
		As	0.0520	0.05	104	85/115		
		Se	0.0495	0.05	99	85/115		
		Ag	0.0485	0.05	97	85/115		
		Cd	0.0480	0.05	96	85/115		
		Ba	0.0480	0.05	96	85/115		
		Pb	0.0471	0.05	94	85/115		
059 0703_6 LCS-0.05	1	Cr	0.0500	0.05	100	85/115	mg/L	Liquid
		Cu	0.0512	0.05	102	85/115		
		Zn	0.0529	0.05	106	85/115		
		As	0.0514	0.05	103	85/115		
		Se	0.0501	0.05	100	85/115		
		Ag	0.0500	0.05	100	85/115		
		Cd	0.0502	0.05	100	85/115		
		Ba	0.0500	0.05	100	85/115		
		Pb	0.0496	0.05	99	85/115		

Form 8: Serial Dilutions

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
021 52934.02 dil	**020 52934.02s**	1170	Cr	4.00	4.14	3	0/10	mg/kg	Soil
			Cu	14.7	14.5	1	0/10		
			Zn	14.9	15.5	4	0/10		
			As	0.88	0.80	10	0/10		
			Se	0.98	<0.50	200*	0/10		
			Ag	<0.20	<0.20	NC	0/10		
			Cd	0.22	0.24	9	0/10		
			Ba	82.1	81.0	1	0/10		
			Pb	9.01	8.61	5	0/10		
044 53052.02 dil	**045 53052.02s**	1065	Cr	2.27	2.30	1	0/10	mg/kg	Soil
			Cu	5.02	4.94	2	0/10		
			Zn	43.0	41.6	3	0/10		
			As	4.00	3.80	5	0/10		
			Se	<0.50	<0.50	NC	0/10		
			Ag	<0.20	<0.20	NC	0/10		
			Cd	<0.20	<0.20	NC	0/10		
			Ba	54.1	53.7	1	0/10		
			Pb	26.8	25.8	4	0/10		
063 52973.01 dil	**062 52973.01s tclp**	125	Cr	<0.05	<0.05	NC	0/10	mg/L	Liquid
			As	0.02	0.04	67*	0/10		
			Se	<0.05	<0.05	NC	0/10		
			Ag	<0.005	<0.005	NC	0/10		
			Cd	<0.005	<0.005	NC	0/10		
			Ba	0.25	0.20	22*	0/10		
			Pb	0.11	0.08	32*	0/10		

Form 13: Analysis Run Log

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
001 Blank	13:01:22 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
002 std-0.000	13:03:21 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
003 std-0.0005	13:05:19 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
004 std-0.001	13:07:23 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
005 std-0.005	13:09:26 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
006 std-0.02	13:11:33 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
007 std-0.05	13:13:44 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
008 std-0.20	13:16:04 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
009 ICV-0.10	13:18:37 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
010 ICB	13:22:12 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
011 BS-0.0005	13:24:15 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se
012 BS-0.001	13:26:17 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb
013 BS-0.002	13:28:18 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
014 ERA-P194	13:33:19 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
015 Solu-AB	13:36:00 Tue	Liquid	Ag,As,Cd,Cr,Cu,Zn
016 Solu-AA	13:41:05 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
017 0703_1 LCS-0.05	13:43:15 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
018 LRB_1	13:52:12 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
019 52933.24s	13:49:33 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
020 52934.02s	13:54:17 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
021 52934.02 dil	13:56:30 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
022 53000.02s	13:58:44 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
023 53000.03s	14:01:23 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
024 53000.05s	14:05:53 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
025 53000.06s	14:08:07 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
026 53000.04s	14:13:24 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
027 53000.07s	14:15:51 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
028 53000.07 MS-0.10	14:18:04 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
029 53000.07 MSD	14:20:18 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
030 CCV1-0.10	14:22:33 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
031 CCB1	14:26:09 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
032 53027.03s	14:28:15 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
033 53037.02s	14:30:41 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
034 53037.04s	14:33:08 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
035 53037.06s	14:35:33 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
036 53037.07s	14:37:57 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
037 53037.08s	14:40:21 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
038 53058.03s	14:43:39 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
039 53058.05s	14:46:05 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
040 CCV2-0.10	14:48:30 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
041 CCB2	14:52:07 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
042 0703_2 LCS-0.05	15:01:24 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
043 LRB_2	14:52:07 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
044 53052.02 dil	15:07:03 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
045 53052.02s	15:09:20 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
046 53052.03s	15:11:50 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
047 53052.04s	15:14:04 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
048 53052.05s	15:18:37 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
049 53052.05 MS-0.10	15:20:54 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
050 53052.05 MSD	15:23:10 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
051 53060.01s	15:26:33 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
052 53060.02s	15:28:50 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
053 53060.03s	15:31:16 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Se,Zn

Form 13: Analysis Run Log

Data Set ID: MT2-12-0703A
Instrument ID: PE ELAN
Analysis Date: 07/03/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
054 53060.03s d	15:36:03 Tue	Soil	Pb
055 53060.04s	15:38:39 Tue	Soil	Ag,As,Ba,Cd,Cr,Se
056 53060.04s d	15:43:35 Tue	Soil	Cu,Pb,Zn
057 CCV3-0.10	15:46:10 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
058 CCB3	15:50:21 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
059 0703_6 LCS-0.05	16:19:09 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
060 LRB_6	16:22:48 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
061 tc-blk-120702tc	16:31:31 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
062 52973.01s tclp	16:33:28 Tue	Liquid	Ag,As,Ba,Cd,Cr,Pb,Se
063 52973.01 dil	16:35:27 Tue	Liquid	Ag,As,Ba,Cd,Cr,Pb,Se
064 52973.02s tclp	16:37:26 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
065 52973.03s tclp	16:39:25 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
066 52973.04s tclp	16:41:24 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
067 52973.05s tclp	16:43:25 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
068 52973.08s tclp	16:45:25 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
069 52973.09s tclp	16:47:23 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
070 52981.01s tclp	16:49:22 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
071 52968.03s tclp	16:51:22 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
072 52968.03 Dp	16:53:22 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
073 52981.01 MS-0.05	17:05:41 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
074 52981.01 MSD	17:08:48 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
075 CCB4	17:11:55 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
076 CCV4-0.10	17:13:52 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Tuesday, July 03, 2012 12:24:17
Sample Description:
Method File: C:\Elandata\Method\Daily-All.mth
Dataset File: C:\Elandata\DataSet\6020-200.8.tun\Daily Performance Check.2536
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Optimization File: C:\Elandata\Optimize\6020-200.8.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Li	7.0	8058.4	8058.448	261.729	3.2
	Be	9.0	2604.4	2604.373	26.591	1.0
	Mg	24.0	26654.9	26654.906	523.498	2.0
	Co	58.9	74101.3	74101.319	990.454	1.3
	In	114.9	175571.2	175571.243	1305.305	0.7
	Tl	205.0	102079.6	102079.602	1247.027	1.2
	Pb	208.0	67069.0	67069.022	819.759	1.2
>	Ce	139.9	169792.0	169792.024	2541.708	1.5
	Ce++	70.0	882.4	0.005	0.000	2.0
>	Ce-1	139.9	169792.0	169792.024	2541.708	1.5
	CeO	155.9	5802.9	0.034	0.001	2.0
	Bkgd	220.0	22.5	22.500	3.764	16.7

Current Optimization File Data

Current Value	Description
0.74	Nebulizer Gas Flow
10.00	Lens Voltage
1100.00	ICP RF Power
-1985.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	13.5	4766.6
Co	59	33	14.8	108257.4
In	115	33	15.0	155883.5

SmartTune Wizard - Summary

Optimization Summary

Wizard file: C:\Elandata\Wizard\SmartTune\12-0703A.swz

Start Time: 7/3/2012 12:20:10 PM
End Time: 7/3/2012 12:25:57 PM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
- Target/Obtained mass (7.016/7.028), Target/Obtained resolution (0.7/0.680)
- Target/Obtained mass (9.0122/9.079), Target/Obtained resolution (0.7/0.684)
- Target/Obtained mass (23.985/24.028), Target/Obtained resolution (0.7/0.673)
- Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.675)
- Target/Obtained mass (114.904/114.929), Target/Obtained resolution (0.7/0.692)
- Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.684)
- Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.692)

Daily Performance Check - [Passed] Optimum value(s): N/A
- Obtained Intensity (Be 9.0122): 2604
- Obtained Intensity (Bkgd 220): 23
- Obtained Intensity (Co 58.9332): 74101
- Obtained Intensity (In 114.904): 175571
- Obtained Intensity (Li 7.016): 8058
- Obtained Intensity (Mg 23.985): 26655
- Obtained Intensity (Pb 207.977): 67069
- Obtained Intensity (Tl 204.975): 102080
- Obtained Formula (CeO 155.9 / Ce 139.905): 0.034 (=5803 / 169792)
- Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.005 (=882 / 169792)

SmartTune Wizard - Details

Optimization Details

Wizard file: C:\Elandata\Wizard\SmartTune\12-0703A.swz

Optimization Status

Start Time: 7/3/2012 12:20:10 PM

Mass Calibration and Resolution
Optimization Settings:
Method: C:\Elandata\Method\Tuning-All.mth.
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Iterations: 4
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 5
Optimization Results:
First Pass
Target/Obtained mass (7.016/7.028), Target/Obtained resolution (0.7/0.680)
Target/Obtained mass (9.0122/9.079), Target/Obtained resolution (0.7/0.684)
Target/Obtained mass (23.985/24.028), Target/Obtained resolution (0.7/0.673)
Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.675)
Target/Obtained mass (114.904/114.929), Target/Obtained resolution (0.7/0.692)
Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.684)
Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.692)
[Passed] Optimum value(s): N/A

Daily Performance Check
Optimization Settings:
Method: C:\Elandata\Method\Daily-All.mth.
Intensity Criterion: Be 9.0122 > 1000
Intensity Criterion: Bkgd 220 <= 50
Intensity Criterion: Co 58.9332 > 10000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: Li 7.016 > 2500
Intensity Criterion: Mg 23.985 > 7000
Intensity Criterion: Pb 207.977 > 20000
Intensity Criterion: Tl 204.975 > 40000
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.05
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03
Optimization Results:
First Pass
Obtained Intensity (Be 9.0122): 2604
Obtained Intensity (Bkgd 220): 23
Obtained Intensity (Co 58.9332): 74101
Obtained Intensity (In 114.904): 175571
Obtained Intensity (Li 7.016): 8058
Obtained Intensity (Mg 23.985): 26655
Obtained Intensity (Pb 207.977): 67069
Obtained Intensity (Tl 204.975): 102080
Obtained Formula (CeO 155.9 / Ce 139.905): 0.034 (=5803 / 169792)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.005 (=882 / 169792)
[Passed] Optimum value(s): N/A

End Time: 7/3/2012 12:25:57 PM

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0703A

Instrument ID: PE ELAN

Analysis Date: 07/03/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	296194	70-125	207336-370243	80-120	236955-355433	0
Re	251900	70-125	176330-314875	80-120	201520-302280	0

Seq ID	QC Type	Rh	Re
001		100	100
002		101	99
003		101	99
004		102	100
005		103	99
006		103	99
007		102	101
008		101	100
009	ICV	105	104
010	ICB	98	98
011	BS	100	98
012	BS	100	97
013	BS	101	99
014	ERA	101	98
015	AB	96	89
016	AA	108	102
017	LCS	104	99
018	LRB	105	99
019	S	108	107
020	S	100	100
021	DIL	104	99
022	S	107	99
023	S	107	98
024	S	107	97
025	S	108	99
026	S	104	97
027	S	106	99
028	MS	105	100
029	MSD	104	100
030	CCV	106	102
031	CCB	104	95
032	S	97	89
033	S	96	90
034	S	96	92
035	S	97	91
036	S	102	96
037	S	100	96

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0703A

Instrument ID: PE ELAN

Analysis Date: 07/03/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	296194	70-125	207336-370243	80-120	236955-355433	0
Re	251900	70-125	176330-314875	80-120	201520-302280	0

Seq ID	QC Type	Rh	Re
038	S	99	99
039	S	103	97
040	CCV	111	104
041	CCB	107	101
042	LCS	107	105
043	LRB	107	101
044	DIL	101	101
045	S	101	101
046	S	102	102
047	S	105	106
048	S	106	105
049	MS	106	103
050	MSD	103	105
051	S	100	100
052	S	111	111
053	S	101	103
054	S	113	109
055	S	107	107
056	S	108	109
057	CCV	107	108
058	CCB	107	108
059	LCS	106	106
060	LRB	110	105
061		107	106
062	S	105	105
063	DIL	108	105
064	S	96	100
065	S	94	97
066	S	92	99
067	S	91	100
068	S	92	99
069	S	95	100
070	S	92	97
071	S	95	98
072	DP	101	106
073	MS	98	99
074	MSD	98	99

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0703A

Instrument ID: PE ELAN

Analysis Date: 07/03/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	296194	70-125	207336-370243	80-120	236955-355433	0
Re	251900	70-125	176330-314875	80-120	201520-302280	0

Seq ID	QC Type	Rh	Re
075	CCB	104	102
076	CCV	107	107

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 001
Method: 10-mich-2is.mth
Acq Time: 13:01:22 Tue 03-Jul-12
Sample Name: Blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1967.713	0	mg/L		3
Cu	65	140.834	0	mg/L		3
Zn	66	497.514	0	mg/L		3
As	75	1089.770	0	mg/L		3
Se	82	-11.667	0	mg/L		3
Ag	107	115.001	0	mg/L		3
Cd	111	40.833	0	mg/L		3
Ba	137	141.668	0	mg/L		3
Pb	208	740.864	0	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 002
Method: 10-mich-2is.mth
Acq Time: 13:03:21 Tue 03-Jul-12
Sample Name: std-0.000
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1847.688	-0.000049	mg/L		3
Cu	65	225.836	0.000094	mg/L		3
Zn	66	640.023	0.000273	mg/L		3
As	75	1146.750	0.000084	mg/L		3
Se	82	-15.334	-0.000070	mg/L		3
Ag	107	116.667	0.000000	mg/L		3
Cd	111	39.167	-0.000003	mg/L		3
Ba	137	165.835	0.000022	mg/L		3
Pb	208	591.686	-0.000036	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 003
Method: 10-mich-2is.mth
Acq Time: 13:05:19 Tue 03-Jul-12
Sample Name: std-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3153.047	0.000410	mg/L		3
Cu	65	592.519	0.000512	mg/L		3
Zn	66	529.182	0.000056	mg/L		3
As	75	1496.991	0.000753	mg/L		3
Se	82	3.667	0.000293	mg/L		3
Ag	107	1271.756	0.000437	mg/L		3
Cd	111	345.840	0.000449	mg/L		3
Ba	137	594.186	0.000443	mg/L		3
Pb	208	2053.565	0.000333	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 004
Method: 10-mich-2is.mth
Acq Time: 13:07:23 Tue 03-Jul-12
Sample Name: std-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4542.802	0.000875	mg/L		3
Cu	65	968.385	0.000924	mg/L		3
Zn	66	816.703	0.000610	mg/L		3
As	75	1653.349	0.001008	mg/L		3
Se	82	4.000	0.000310	mg/L		3
Ag	107	2544.523	0.000907	mg/L		3
Cd	111	757.532	0.001041	mg/L		3
Ba	137	1080.064	0.000906	mg/L		3
Pb	208	4233.486	0.000872	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 005
Method: 10-mich-2is.mth
Acq Time: 13:09:26 Tue 03-Jul-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	15798.716	0.004703	mg/L		3
Cu	65	4613.671	0.004956	mg/L		3
Zn	66	2683.729	0.004238	mg/L		3
As	75	3643.301	0.004642	mg/L		3
Se	82	197.346	0.003928	mg/L		3
Ag	107	13409.049	0.004914	mg/L		3
Cd	111	3388.132	0.004815	mg/L		3
Ba	137	5225.668	0.004872	mg/L		3
Pb	208	20212.450	0.004880	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 006
Method: 10-mich-2is.mth
Acq Time: 13:11:33 Tue 03-Jul-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	59554.467	0.019721	mg/L		3
Cu	65	18346.840	0.020262	mg/L		3
Zn	66	18751.826	0.035729	mg/L		3
As	75	11605.793	0.019368	mg/L		3
Se	82	1010.110	0.019249	mg/L		3
Ag	107	52784.469	0.019541	mg/L		3
Cd	111	13722.851	0.019759	mg/L		3
Ba	137	21147.073	0.020212	mg/L		3
Pb	208	81386.948	0.020209	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 007
Method: 10-mich-2is.mth
Acq Time: 13:13:44 Tue 03-Jul-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	145506.913	0.049416	mg/L		3
Cu	65	44819.388	0.049971	mg/L		3
Zn	66	26090.726	0.050348	mg/L		3
As	75	27973.672	0.049863	mg/L		3
Se	82	2556.826	0.048613	mg/L		3
Ag	107	133877.040	0.049868	mg/L		3
Cd	111	34038.620	0.049338	mg/L		3
Ba	137	51114.215	0.049288	mg/L		3
Pb	208	199830.746	0.048850	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 008
Method: 10-mich-2is.mth
Acq Time: 13:16:04 Tue 03-Jul-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	579318.687	0.200182	mg/L		3
Cu	65	177685.501	0.199983	mg/L		3
Zn	66	100585.904	0.198361	mg/L		3
As	75	108140.656	0.200106	mg/L		3
Se	82	10506.304	0.200452	mg/L		3
Ag	107	533184.862	0.200082	mg/L		3
Cd	111	137091.044	0.200194	mg/L		3
Ba	137	205665.682	0.200160	mg/L		3
Pb	208	806964.646	0.200271	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 009
Method: 10-mich-2is.mth
Acq Time: 13:18:37 Tue 03-Jul-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 06/22/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	298075.672	0.099037	mg/L		3
Cu	65	91780.184	0.099567	mg/L		3
Zn	66	52213.685	0.098830	mg/L		3
As	75	56192.478	0.099272	mg/L		3
Se	82	5371.868	0.099014	mg/L		3
Ag	107	268552.659	0.097217	mg/L		3
Cd	111	70545.184	0.099397	mg/L		3
Ba	137	106631.850	0.100031	mg/L		3
Pb	208	413220.299	0.098222	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 010
Method: 10-mich-2is.mth
Acq Time: 13:22:12 Tue 03-Jul-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1502.624	-0.000153	mg/L		3
Cu	65	45.833	-0.000108	mg/L		3
Zn	66	144.168	-0.000705	mg/L		3
As	75	1102.530	0.000066	mg/L		3
Se	82	-39.002	-0.000544	mg/L		3
Ag	107	146.668	0.000013	mg/L		3
Cd	111	15.000	-0.000038	mg/L		3
Ba	137	34.167	-0.000106	mg/L		3
Pb	208	81.667	-0.000163	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 011
Method: 10-mich-2is.mth
Acq Time: 13:24:15 Tue 03-Jul-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2947.145	0.000344	mg/L		3
Cu	65	604.187	0.000529	mg/L		3
As	75	1340.286	0.000476	mg/L		3
Se	77	52.000	0.000648	mg/L		3
Ag	107	1355.101	0.000472	mg/L		3
Cd	111	369.174	0.000487	mg/L		3
Ba	137	630.855	0.000483	mg/L		3
Pb	208	2108.578	0.000351	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 012
Method: 10-mich-2is.mth
Acq Time: 13:26:17 Tue 03-Jul-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4539.467	0.000902	mg/L		3
Cu	65	987.554	0.000965	mg/L		3
As	75	1650.994	0.001057	mg/L		3
Ag	107	2613.709	0.000949	mg/L		3
Cd	111	740.030	0.001034	mg/L		3
Ba	137	1102.567	0.000947	mg/L		3
Pb	208	4089.254	0.000859	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 013
Method: 10-mich-2is.mth
Acq Time: 13:28:18 Tue 03-Jul-12
Sample Name: BS-0.002
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	7345.468	0.001879	mg/L		3
Cu	65	1931.039	0.002034	mg/L		3
Zn	66	1309.261	0.001618	mg/L		3
As	75	2122.894	0.001938	mg/L		3
Se	82	75.671	0.001682	mg/L		3
Ag	107	5160.631	0.001911	mg/L		3
Cd	111	1334.265	0.001908	mg/L		3
Ba	137	2144.420	0.001968	mg/L		3
Pb	208	7771.654	0.001773	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 014
Method: 10-mich-2is.mth
Acq Time: 13:33:19 Tue 03-Jul-12
Sample Name: ERA-P194
Sample Type: Sample
Matrix: Liquid
Comments: dil 5/1
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	424509.966	0.732199	mg/L		3
Cu	65	50139.609	0.281387	mg/L		3
Zn	66	40120.018	0.392336	mg/L		3
As	75	56812.809	0.520306	mg/L		3
Se	82	7813.774	0.745318	mg/L		3
Ag	107	55021.922	0.102999	mg/L		3
Cd	111	73185.230	0.534109	mg/L		3
Ba	137	86043.670	0.418031	mg/L		3
Pb	208	637203.921	0.805231	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 015
Method: 10-mich-2is.mth
Acq Time: 13:36:00 Tue 03-Jul-12
Sample Name: Solu-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	68138.619	0.024375	mg/L		3
Cu	65	20311.838	0.024104	mg/L		3
Zn	68	8121.128	0.023308	mg/L		3
As	75	13410.245	0.024533	mg/L		3
Ag	107	47939.410	0.019048	mg/L		3
Cd	114	29886.390	0.019384	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 016
Method: 10-mich-2is.mth
Acq Time: 13:41:05 Tue 03-Jul-12
Sample Name: Solu-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1574.303	-0.000178	mg/L		3
Cu	65	202.502	0.000054	mg/L		3
Zn	66	559.184	0.000043	mg/L		3
As	75	1100.571	-0.000130	mg/L		3
Se	82	13.334	0.000465	mg/L		3
Ag	107	110.834	-0.000005	mg/L		3
Cd	111	30.833	-0.000018	mg/L		3
Ba	137	209.169	0.000052	mg/L		3
Pb	208	527.515	-0.000056	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 017
Method: 10-mich-2is.mth
Acq Time: 13:43:15 Tue 03-Jul-12
Sample Name: 0703_1 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	148891.457	0.049626	mg/L		3
Cu	65	47396.584	0.051871	mg/L		3
Zn	66	28004.744	0.053092	mg/L		3
As	75	28998.581	0.050771	mg/L		3
Se	82	2601.522	0.048546	mg/L		3
Ag	107	134713.366	0.049249	mg/L		3
Cd	111	35224.797	0.050112	mg/L		3
Ba	137	53262.312	0.050412	mg/L		3
Pb	208	197671.441	0.049611	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 018
Method: 10-mich-2is.mth
Acq Time: 13:52:12 Tue 03-Jul-12
Sample Name: LRB_1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1686.823	-0.000127	mg/L		3
Cu	65	83.334	-0.000071	mg/L		3
Zn	66	596.687	0.000140	mg/L		3
As	75	1225.272	0.000149	mg/L		3
Se	82	-18.668	-0.000119	mg/L		3
Ag	107	71.667	-0.000018	mg/L		3
Cd	111	13.333	-0.000042	mg/L		3
Ba	137	25.000	-0.000116	mg/L		3
Pb	208	173.335	-0.000141	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 020
Method: 10-mich-2is.mth
Acq Time: 13:54:17 Tue 03-Jul-12
Sample Name: 52934.02s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 234

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	52591.687	4.148398	mg/kg		3
Cu	65	54966.532	14.594443	mg/kg		3
Zn	66	33724.947	15.561874	mg/kg		3
As	75	2893.985	0.795104	mg/kg		3
Se	82	31.002	0.192106	mg/kg		3
Ag	107	736.697	0.055112	mg/kg		3
Cd	111	722.529	0.235488	mg/kg		3
Ba	137	352377.584	81.075344	mg/kg		3
Pb	208	148874.060	8.618914	mg/kg		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 021
Method: 10-mich-2is.mth
Acq Time: 13:56:30 Tue 03-Jul-12
Sample Name: 52934.02 dil
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 1170

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	12189.002	4.007215	mg/kg		3
Cu	65	11667.486	14.781960	mg/kg		3
Zn	66	7118.620	14.906144	mg/kg		3
As	75	1547.749	0.880173	mg/kg		3
Se	82	33.002	0.978861	mg/kg		3
Ag	107	205.002	0.036386	mg/kg		3
Cd	111	172.502	0.216390	mg/kg		3
Ba	137	74188.239	82.142006	mg/kg		3
Pb	208	31423.395	9.018544	mg/kg		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 030
Method: 10-mich-2is.mth
Acq Time: 14:22:33 Tue 03-Jul-12
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	317735.270	0.104339	mg/L		3
Cu	65	95448.557	0.102307	mg/L		3
Zn	66	53954.639	0.100927	mg/L		3
As	75	58627.244	0.102403	mg/L		3
Se	82	5465.282	0.099504	mg/L		3
Ag	107	279141.949	0.099850	mg/L		3
Cd	111	71069.225	0.098941	mg/L		3
Ba	137	107819.779	0.099947	mg/L		3
Pb	208	405286.777	0.098559	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 031
Method: 10-mich-2is.mth
Acq Time: 14:26:09 Tue 03-Jul-12
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1385.939	-0.000224	mg/L		3
Cu	65	47.500	-0.000109	mg/L		3
Zn	66	288.338	-0.000444	mg/L		3
As	75	1198.220	0.000116	mg/L		3
Se	82	23.335	0.000655	mg/L		3
Ag	107	185.835	0.000024	mg/L		3
Cd	111	25.833	-0.000024	mg/L		3
Ba	137	40.833	-0.000101	mg/L		3
Pb	208	147.501	-0.000146	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 040
Method: 10-mich-2is.mth
Acq Time: 14:48:30 Tue 03-Jul-12
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	326490.218	0.102561	mg/L		3
Cu	65	103106.465	0.105764	mg/L		3
Zn	66	55738.712	0.099760	mg/L		3
As	75	64008.672	0.107051	mg/L		3
Se	82	5917.635	0.103085	mg/L		3
Ag	107	294251.471	0.100716	mg/L		3
Cd	111	75677.130	0.100802	mg/L		3
Ba	137	111640.743	0.099011	mg/L		3
Pb	208	414746.776	0.099052	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 041
Method: 10-mich-2is.mth
Acq Time: 14:52:07 Tue 03-Jul-12
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2107.745	-0.000001	mg/L		3
Cu	65	48.333	-0.000109	mg/L		3
Zn	66	284.171	-0.000468	mg/L		3
As	75	1304.632	0.000239	mg/L		3
Se	82	-13.334	-0.000016	mg/L		3
Ag	107	152.501	0.000010	mg/L		3
Cd	111	19.167	-0.000034	mg/L		3
Ba	137	55.000	-0.000089	mg/L		3
Pb	208	152.501	-0.000147	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 042
Method: 10-mich-2is.mth
Acq Time: 15:01:24 Tue 03-Jul-12
Sample Name: 0703_2 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	155161.523	0.050136	mg/L		3
Cu	65	46683.743	0.049512	mg/L		3
Zn	66	25412.145	0.046573	mg/L		3
As	75	30652.054	0.052064	mg/L		3
Se	82	2740.910	0.049571	mg/L		3
Ag	107	136983.726	0.048539	mg/L		3
Cd	111	34869.254	0.048080	mg/L		3
Ba	137	52370.415	0.048039	mg/L		3
Pb	208	199300.241	0.047136	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 043
Method: 10-mich-2is.mth
Acq Time: 14:52:07 Tue 03-Jul-12
Sample Name: LRB_2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2107.745	-0.000001	mg/L		3
Cu	65	48.333	-0.000109	mg/L		3
Zn	66	284.171	-0.000468	mg/L		3
As	75	1304.632	0.000239	mg/L		3
Se	82	-13.334	-0.000016	mg/L		3
Ag	107	152.501	0.000010	mg/L		3
Cd	111	19.167	-0.000034	mg/L		3
Ba	137	55.000	-0.000089	mg/L		3
Pb	208	152.501	-0.000147	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 057
Method: 10-mich-2is.mth
Acq Time: 15:46:10 Tue 03-Jul-12
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	307219.218	0.100332	mg/L		3
Cu	65	96115.736	0.102487	mg/L		3
Zn	66	55338.764	0.103038	mg/L		3
As	75	58626.662	0.101897	mg/L		3
Se	82	5511.322	0.099845	mg/L		3
Ag	107	281449.354	0.100162	mg/L		3
Cd	111	72762.721	0.100762	mg/L		3
Ba	137	110421.634	0.101864	mg/L		3
Pb	208	430229.318	0.098977	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 058
Method: 10-mich-2is.mth
Acq Time: 15:50:21 Tue 03-Jul-12
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1384.272	-0.000236	mg/L		3
Cu	65	505.014	0.000380	mg/L		3
Zn	66	795.868	0.000498	mg/L		3
As	75	1090.965	-0.000130	mg/L		3
Se	82	-33.335	-0.000399	mg/L		3
Ag	107	173.335	0.000018	mg/L		3
Cd	111	18.333	-0.000035	mg/L		3
Ba	137	93.334	-0.000054	mg/L		3
Pb	208	725.029	-0.000017	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 059
Method: 10-mich-2is.mth
Acq Time: 16:19:09 Tue 03-Jul-12
Sample Name: 0703_6 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-6
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	153547.105	0.050045	mg/L		3
Cu	65	47898.390	0.051247	mg/L		3
Zn	66	28566.486	0.052943	mg/L		3
As	75	30060.922	0.051484	mg/L		3
Se	82	2751.569	0.050175	mg/L		3
Ag	107	140172.435	0.050096	mg/L		3
Cd	111	36104.892	0.050211	mg/L		3
Ba	137	54041.831	0.050001	mg/L		3
Pb	208	212229.934	0.049609	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 060
Method: 10-mich-2is.mth
Acq Time: 16:22:48 Tue 03-Jul-12
Sample Name: LRB_6
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-6
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1478.454	-0.000218	mg/L		3
Cu	65	214.169	0.000062	mg/L		3
Zn	66	4441.919	0.007131	mg/L		3
As	75	1169.219	-0.000047	mg/L		3
Se	82	10.334	0.000407	mg/L		3
Ag	107	109.167	-0.000006	mg/L		3
Cd	111	15.833	-0.000039	mg/L		3
Ba	137	55.834	-0.000090	mg/L		3
Pb	208	267.504	-0.000121	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 061
Method: 10-mich-2is.mth
Acq Time: 16:31:31 Tue 03-Jul-12
Sample Name: tc-blk-120702tc
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 10

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-6
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	7397.182	0.017316	mg/L		3
Cu	65	182.502	0.000334	mg/L		3
Zn	66	855.040	0.006010	mg/L		3
As	75	1187.528	0.000315	mg/L		3
Se	82	-79.005	-0.011982	mg/L		3
Ag	107	282.504	0.000564	mg/L		3
Cd	111	10.833	-0.000456	mg/L		3
Ba	137	313.339	0.001483	mg/L		3
Pb	208	1365.103	0.001358	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 075
Method: 10-mich-2is.mth
Acq Time: 17:11:55 Tue 03-Jul-12
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-6
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1722.664	-0.000111	mg/L		3
Cu	65	245.837	0.000108	mg/L		3
Zn	66	561.684	0.000083	mg/L		3
As	75	1123.108	-0.000023	mg/L		3
Se	82	-3.000	0.000166	mg/L		3
Ag	107	161.668	0.000015	mg/L		3
Cd	111	25.833	-0.000024	mg/L		3
Ba	137	90.834	-0.000054	mg/L		3
Pb	208	920.882	0.000040	mg/L		3

Data Set: MT2-12-0703A
Run Date: 07/03/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 076
Method: 10-mich-2is.mth
Acq Time: 17:13:52 Tue 03-Jul-12
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0703A.cal
Cal Type: External Calibration
Last Calib: mtd-070312-6
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	311204.819	0.101443	mg/L		3
Cu	65	100098.160	0.106571	mg/L		3
Zn	66	54607.694	0.101447	mg/L		3
As	75	61368.672	0.106524	mg/L		3
Se	82	5704.144	0.103130	mg/L		3
Ag	107	281655.145	0.100035	mg/L		3
Cd	111	72798.747	0.100622	mg/L		3
Ba	137	110846.717	0.102045	mg/L		3
Pb	208	423641.777	0.098033	mg/L		3

Metals Digestion

3015A \ 3050B

DATE 07/03/12

TIME START 09:00

ANALYST PR

TIME FINISH 09:15

PREP BATCH MTD- 0703 12 - 1

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS - 1	----	50	50		—	1
LRB- 1	----	50	50		—	1
52933.24		0.143		wood chips	100	350
52934.02		0.260		dil 5/1 = 1170	82	234
53000.02		0.264			89	213
03		0.264			93	204
04		0.258			~~51~~93	~~380~~ 208 PR
05		0.261			93	206
06		0.264			94	201
07		0.274			96	190
07 MS		0.273			"	191
07 MSD		0.275			"	189
53027.03		0.305			95	172
53037.02		0.265			90	210
04		0.250			83	241
06		0.254			97	203
07		0.261			91	210
08		0.258			94	206
53058.03		0.258			84	231
05		0.248			87	232

NOTES: *1) Spike values (unless otherwise stated):*
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078 + D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 1125633

3) HNO_3 Lot # 51332-OmniTrace *4) Centrifuge Tube Lot # 120201-060-1*

5) Balance ID: M1 *Reviewed by SM On 07/03/12*

Form 0: Sequence Log

Data Set ID: HG2-12-0625A
Instrument ID: HG QuickTrace
Analysis Date: 06/25/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	6/25/2012 2:29:29 PM	Calibration Blank	Liquid	
002	6/25/2012 2:31:44 PM	Standard #1	Liquid	
003	6/25/2012 2:33:58 PM	Standard #2	Liquid	
004	6/25/2012 2:36:12 PM	Standard #3	Liquid	
005	6/25/2012 2:38:25 PM	Standard #4	Liquid	
006	6/25/2012 2:40:37 PM	Standard #5	Liquid	
007	6/25/2012 2:42:49 PM	Standard #6	Liquid	
008	6/25/2012 2:46:01 PM	Standard #7	Liquid	
009	6/25/2012 2:49:54 PM	CCV1-2.0 ppb	Liquid	CCV
010	6/25/2012 2:52:13 PM	CCB1	Liquid	CCB
011	6/25/2012 2:54:31 PM	ICV-5.0	Liquid	ICV
012	6/25/2012 2:57:50 PM	ICB	Liquid	ICB
013	6/25/2012 3:00:07 PM	ERA P177514 TV=25.7	Liquid	ERA
014	6/25/2012 3:03:27 PM	BS-0.10	Liquid	BS
015	6/25/2012 3:06:16 PM	06/25 LCS1-2.0 ppb	Liquid	LCS
016	6/25/2012 3:08:36 PM	06/25 LRB1	Liquid	LRB
017	6/25/2012 3:10:48 PM	52948.01s	Liquid	S
018	6/25/2012 3:12:59 PM	52948.01 MS-2.0 ppb	Liquid	MS
019	6/25/2012 3:15:11 PM	52948.01 MSD	Liquid	MSD
020	6/25/2012 3:17:30 PM	CCV2-2.0 ppb	Liquid	CCV
021	6/25/2012 3:19:49 PM	CCB2	Liquid	CCB
022	6/25/2012 3:22:02 PM	52949.01s	Liquid	S
023	6/25/2012 3:24:16 PM	52949.02s	Liquid	S
024	6/25/2012 3:26:30 PM	52893.01s	Liquid	
025	6/25/2012 3:28:44 PM	52893.02s	Liquid	
026	6/25/2012 3:30:56 PM	52893.03s	Liquid	
027	6/25/2012 3:33:14 PM	CCV3-2.0 ppb	Liquid	CCV
028	6/25/2012 3:35:34 PM	CCB3	Liquid	CCB
029	6/25/2012 3:37:54 PM	06/25 LCS2-2.0 ppb	Soil	LCS
030	6/25/2012 3:40:15 PM	06/25 LRB2	Soil	LRB
031	6/25/2012 3:42:27 PM	52910.01s	Soil	S
032	6/25/2012 3:44:40 PM	52929.12s	Soil	S
033	6/25/2012 3:46:54 PM	52929.15s	Soil	S
034	6/25/2012 3:49:08 PM	52929.16s	Soil	S
035	6/25/2012 3:51:22 PM	52929.22s	Soil	
036	6/25/2012 3:59:27 PM	52929.22s	Soil	S
037	6/25/2012 4:02:44 PM	52934.02s	Soil	S
038	6/25/2012 4:04:57 PM	52934.02 MS-2.0 ppb	Soil	MS
039	6/25/2012 4:07:10 PM	52934.02 MSD	Soil	MSD
040	6/25/2012 4:09:28 PM	CCV4-2.0 ppb	Liquid	CCV
041	6/25/2012 4:11:48 PM	CCB4	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0625A
Instrument ID: HG QuickTrace
Analysis Date: 06/25/12
Analyst: JRT

Lab Sample ID: S52934.02
Sample Tag: SB131 (06-20-2012) (1-2)
Date Collected: 06/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	60	06/25/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0625A
Instrument ID: HG QuickTrace
Analysis Date: 06/25/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0625A
Instrument ID: HG QuickTrace
Analysis Date: 06/25/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 CCV1-2.0 ppb	CCV	1.0	Hg	2.032	2.0	102	90/110	ug/L	Liquid
011 ICV-5.0	ICV	1.0	Hg	4.880	5.0	98	90/110	ug/L	Liquid
020 CCV2-2.0 ppb	CCV	1.0	Hg	2.035	2.0	102	90/110	ug/L	Liquid
027 CCV3-2.0 ppb	CCV	1.0	Hg	2.038	2.0	102	90/110	ug/L	Liquid
040 CCV4-2.0 ppb	CCV	1.0	Hg	2.039	2.0	102	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: P177-514

Data Set ID: HG2-12-0625A

Instrument ID: HG QuickTrace

Analysis Date: 06/25/12

Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
013 ERA P177514 TV=25.7	5.0	Hg	26.51	25.7	103	20.2	31.1	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0625A
Instrument ID: HG QuickTrace
Analysis Date: 06/25/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0183	ug/L	Liquid
012 ICB	ICB	1.0	Hg	<0.03	-0.0176	ug/L	Liquid
016 06/25 LRB1	LRB	1.0	Hg	<0.03	-0.0067	ug/L	Liquid
021 CCB2	CCB	1.0	Hg	<0.03	-0.0176	ug/L	Liquid
028 CCB3	CCB	1.0	Hg	<0.03	-0.0173	ug/L	Liquid
030 06/25 LRB2	LRB	50.0	Hg	<0.03	-0.3100	ug/kg	Soil
041 CCB4	CCB	1.0	Hg	<0.03	-0.0178	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0625A
Instrument ID: HG QuickTrace
Analysis Date: 06/25/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
014 BS-0.10		1.0	Hg	0.0914	ND	0.10	91	70/130	ug/L	Liquid
018 52948.01 MS-2.0	**017 52948.01s**	1.0	Hg	1.999	<0.2	2.0	100	80/120	ug/L	Liquid
038 52934.02 MS-2.0	**037 52934.02s**	60.4	Hg	170.2	42.37	120.8	106	80/120	ug/kg	Soil

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0625A
Instrument ID: HG QuickTrace
Analysis Date: 06/25/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
019 52948.01 MSD	**018 52948.01 MS-2.0**	1.0	Hg	2.002	1.999	0	0/20	ug/L	Liquid
039 52934.02 MSD	**038 52934.02 MS-2.0**	60.2	Hg	166.5	170.2	2	0/20	ug/kg	Soil

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0625A
Instrument ID: HG QuickTrace
Analysis Date: 06/25/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 06/25 LCS1-2.0 ppb	1.0	Hg	2.074	2.0	104	85/115	ug/L	Liquid
029 06/25 LCS2-2.0 ppb	50.0	Hg	102.6	100	103	85/115	ug/kg	Soil

Form 13: Analysis Run Log

Data Set ID: HG2-12-0625A
Instrument ID: HG QuickTrace
Analysis Date: 06/25/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	6/25/2012 2:29:29 PM	Liquid	Hg
002 Standard #1	6/25/2012 2:31:44 PM	Liquid	Hg
003 Standard #2	6/25/2012 2:33:58 PM	Liquid	Hg
004 Standard #3	6/25/2012 2:36:12 PM	Liquid	Hg
005 Standard #4	6/25/2012 2:38:25 PM	Liquid	Hg
006 Standard #5	6/25/2012 2:40:37 PM	Liquid	Hg
007 Standard #6	6/25/2012 2:42:49 PM	Liquid	Hg
008 Standard #7	6/25/2012 2:46:01 PM	Liquid	Hg
009 CCV1-2.0 ppb	6/25/2012 2:49:54 PM	Liquid	Hg
010 CCB1	6/25/2012 2:52:13 PM	Liquid	Hg
011 ICV-5.0	6/25/2012 2:54:31 PM	Liquid	Hg
012 ICB	6/25/2012 2:57:50 PM	Liquid	Hg
013 ERA P177514 TV=25.7	6/25/2012 3:00:07 PM	Liquid	Hg
014 BS-0.10	6/25/2012 3:03:27 PM	Liquid	Hg
015 06/25 LCS1-2.0 ppb	6/25/2012 3:06:16 PM	Liquid	Hg
016 06/25 LRB1	6/25/2012 3:08:36 PM	Liquid	Hg
017 52948.01s	6/25/2012 3:10:48 PM	Liquid	Hg
018 52948.01 MS-2.0 ppb	6/25/2012 3:12:59 PM	Liquid	Hg
019 52948.01 MSD	6/25/2012 3:15:11 PM	Liquid	Hg
020 CCV2-2.0 ppb	6/25/2012 3:17:30 PM	Liquid	Hg
021 CCB2	6/25/2012 3:19:49 PM	Liquid	Hg
022 52949.01s	6/25/2012 3:22:02 PM	Liquid	Hg
023 52949.02s	6/25/2012 3:24:16 PM	Liquid	Hg
024 52893.01s	6/25/2012 3:26:30 PM	Liquid	Hg
025 52893.02s	6/25/2012 3:28:44 PM	Liquid	Hg
026 52893.03s	6/25/2012 3:30:56 PM	Liquid	Hg
027 CCV3-2.0 ppb	6/25/2012 3:33:14 PM	Liquid	Hg
028 CCB3	6/25/2012 3:35:34 PM	Liquid	Hg
029 06/25 LCS2-2.0 ppb	6/25/2012 3:37:54 PM	Soil	Hg
030 06/25 LRB2	6/25/2012 3:40:15 PM	Soil	Hg
031 52910.01s	6/25/2012 3:42:27 PM	Soil	Hg
032 52929.12s	6/25/2012 3:44:40 PM	Soil	Hg
033 52929.15s	6/25/2012 3:46:54 PM	Soil	Hg
034 52929.16s	6/25/2012 3:49:08 PM	Soil	Hg
035 52929.22s	6/25/2012 3:51:22 PM	Soil	Hg
036 52929.22s	6/25/2012 3:59:27 PM	Soil	Hg
037 52934.02s	6/25/2012 4:02:44 PM	Soil	Hg
038 52934.02 MS-2.0 ppb	6/25/2012 4:04:57 PM	Soil	Hg
039 52934.02 MSD	6/25/2012 4:07:10 PM	Soil	Hg
040 CCV4-2.0 ppb	6/25/2012 4:09:28 PM	Liquid	Hg
041 CCB4	6/25/2012 4:11:48 PM	Liquid	Hg

Data Set: HG2-12-0625A
Run Date: 06/25/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	6/25/2012 2:29:29 PM	Calibration Blank	674.9000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	6/25/2012 2:31:44 PM	Standard #1	1998.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	6/25/2012 2:33:58 PM	Standard #2	3230.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	6/25/2012 2:36:12 PM	Standard #3	7006.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	6/25/2012 2:38:25 PM	Standard #4	13540.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	6/25/2012 2:40:37 PM	Standard #5	26420.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	6/25/2012 2:42:49 PM	Standard #6	76070.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	6/25/2012 2:46:01 PM	Standard #7	126200.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	6/25/2012 2:49:54 PM	CCV1-2.0 ppb	26330.0000	2.0320	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	6/25/2012 2:52:13 PM	CCB1	615.5000	-0.0183	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	6/25/2012 2:54:31 PM	ICV-5.0	62070.0000	4.8800	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	6/25/2012 2:57:50 PM	ICB	624.9000	-0.0176	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	6/25/2012 3:00:07 PM	ERA P177514 TV=25.7	67380.0000	26.5150	ug/L	Liquid	5.0	1.0000	5.0000
Hg	014	6/25/2012 3:03:27 PM	BS-0.10	1993.0000	0.0914	ug/L	Liquid	1.0	1.0000	1.0000
Hg	015	6/25/2012 3:06:16 PM	06/25 LCS1-2.0 ppb	26870.0000	2.0740	ug/L	Liquid	1.0	1.0000	1.0000
Hg	016	6/25/2012 3:08:36 PM	06/25 LRB1	761.6000	-0.0067	ug/L	Liquid	1.0	1.0000	1.0000
Hg	020	6/25/2012 3:17:30 PM	CCV2-2.0 ppb	26380.0000	2.0350	ug/L	Liquid	1.0	1.0000	1.0000
Hg	021	6/25/2012 3:19:49 PM	CCB2	624.2000	-0.0176	ug/L	Liquid	1.0	1.0000	1.0000
Hg	027	6/25/2012 3:33:14 PM	CCV3-2.0 ppb	26420.0000	2.0380	ug/L	Liquid	1.0	1.0000	1.0000
Hg	028	6/25/2012 3:35:34 PM	CCB3	628.1000	-0.0173	ug/L	Liquid	1.0	1.0000	1.0000
Hg	029	6/25/2012 3:37:54 PM	06/25 LCS2-2.0 ppb	26590.0000	102.6000	ug/kg	Soil	50.0	0.5000	25.0000
Hg	030	6/25/2012 3:40:15 PM	06/25 LRB2	767.3000	-0.3100	ug/kg	Soil	50.0	0.5000	25.0000
Hg	037	6/25/2012 4:02:44 PM	52934.02s	9692.0000	42.3765	ug/kg	Soil	60.1	0.4160	25.0000
Hg	038	6/25/2012 4:04:57 PM	52934.02 MS-2.0 ppb	36210.0000	170.2676	ug/kg	Soil	60.4	0.4140	25.0000
Hg	039	6/25/2012 4:07:10 PM	52934.02 MSD	35560.0000	166.5734	ug/kg	Soil	60.2	0.4150	25.0000
Hg	040	6/25/2012 4:09:28 PM	CCV4-2.0 ppb	26420.0000	2.0390	ug/L	Liquid	1.0	1.0000	1.0000
Hg	041	6/25/2012 4:11:48 PM	CCB4	622.3000	-0.0178	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 12:30
TIME FINISH: 14:35 TEMP: block #1 — °C
PREP BATCH: HGD-060512-2 block #2 — °C
BALANCE ID: 0002141 block #3 95 °C

DATE 06/25/12
ANALYST SRH
REVIEWED BY SLR
REVIEW DATE 06/25/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 2	------	0.5	--------	----------	50	25g	
LRB- 2	------	0.5	--------	----------	50	25g	
52910.01		0.520			48		
52929.12		0.537			46		
15		0.436			57		
16		0.434			58		
22		0.475			53		25/1 d.1 = 1316
52934 02		0.508	82	0.416	60		
02MS		0.505	82	0.414	60		
02MSD		0.506	82	0.415	60		

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 1132011 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 1132011 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 1132011 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)

Effective Date 7/20/11

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 6/21/12 Date Finished: 6/22/12 Date Checked: 7/9/12

Time Started: 4:00 Time Finished: 1:00 Checked By: BB

Analyst: AM Temperature: 103°C Batch: TS/2962/A

Time in Oven: 21:00 Balance ID: 51 Oven ID: OV1

Merit #	Dish #	Dish Wt. (g)	Wet Smpl. + Dish Wt. (g)	Dry Smpl + Dish Wt. (g)	Ash Smpl + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	1	1.26	1.26	1.26		—		
LCS	2	1.31	12.79	12.79		100		
52924.01	3	1.36	11.42	10.24		88		
Dup 1 .01	4	1.36	10.51	9.42		88		
.02	5	1.32	12.56	10.43		85		
.03	6	1.41	9.73	9.05		92		
.04	7	1.4	15.8	13.33		83		
.05	8	1.27	11.59	10.58		90		
.06	9	1.35	12.43	11.72		94		
.07	10	1.35	9.71	8.42		85		
.08	11	1.34	13.25	11.05		82		
.09	12	1.3	10.76	9.11		83		
.10	13	1.35	10.45	9.33		88		
.11	14	1.31	13.27	11.36		84		
Dup 2 .11	15	1.22	13.59	11.48		83		
.12	16	1.34	25.68	24.67		96		
.13	17	1.27	14.42	12.26		84		
33.02	18	1.39	Total Solids not needed for these samples 7/9/12 BB					
.08	19	1.36						
.09	20	1.35						
.11	21	1.37						
34.02	22	1.32	13.06	10.99		82		
39.01	23	1.37	11.82	11.08		93		

% LCS Recovery: 100 Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 0 Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): 1.3

Method 5035A (High Level)
Extraction Sheet

Analyst: LBR
Date: 6-25-12
Batch QC ID#: _____

Merit Number	Tare wt (g)	Vial wt (g)	Sample wt.(g)	Methanol (mL)	Sonicate (min)	Time Start / End	Notes
52934.01	31.232	31.244	–	10	✓	12:08	
02	31.129	48.348	17.219	17	✓		
52939.01	32.208	44.359	12.151	12	✓		
52951.01	31.432	42.500	11.068	11	✓		
02	31.621	41.760	10.139	10	✓		
03	31.383	41.404	10.121	10	✓		
04	31.479	41.847	10.368	10	✓		
05	31.508	42.310	10.802	11	✓		
06	31.561	42.854	11.293	11	✓		
52952.01	31.498	43.083	11.585	12	✓		
02	31.495	41.470	9.975	10	✓		
03	31.471	42.643	11.172	11	✓		
04	31.674	41.886	10.212	10	✓		
05	31.513	42.183	10.670	11	✓		
06	31.488	42.825	11.337	11	✓		
52953.01	31.641	42.242	10.601	11	✓		
52954.01	31.577	42.151	10.574	11	✓		
02	31.458	42.907	11.449	11	✓		
52955.01	31.492	42.437	10.945	11	✓		
02	31.656	42.702	11.046	11	✓		
52956.01	31.463	41.833	10.370	10	✓		
02	31.621	42.166	10.545	11	✓		
03	31.685	41.691	10.006	10	✓		
52959.01	31.359	31.332	–	10	✓		
02	31.154	50.161	19.007	19	✓	1	31.154
03	31.261	50.507	19.246	19	✓	12:18	

Balance ID: V1
Methanol Lot: DE645 / DJ471 / S0349
5035A High Level

Reviewed By: JoH
Date: 6-25-12
Prepared by Merit Laboratories, Inc.

Effective Date 6/14/12

Solvent Lot #: 51357
Na2SO4 Lot #: 060T2505
SSD #: PR120620
MS/LCS #: PP120619

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 6-25-2012
Time Started: 10:45
Time Ended: 11:30
Batch ID#: SP120625S01

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	ewr		
	LCS	Sand	30.0 g	↓	↓	↓	↓	1	↓	ew3	
	LCSD	Sand	30.0 g	↓	↓	↓	↓	1	↓	↓	[ ]
	MS							1			[ ]
	MSD							1			
1	52934.02	soil	30.1	CH_2Cl_2	180	1ml	1ml		ewr	ew5	
2	52959.02	↓	30.0	↓	↓	↓	↓		↓	↓	
3	.03	↓	30.0	↓	↓	↓	↓		↓	↓	
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Reviewed by: M On: 6/26 Balance ID: ew2

Prepared by: Merit Laboratories, Inc.

Hexane 51223
Ether/Hexane 51108129/51223
Na_2SO_4 1521C519
H_2SO_4 50328
SSD# 175508
PCB MS ID# 11MS03 Pest MS ID#

PCB/Pesticide Extraction
Method 3550B

Date 6-22-12
Time Started 10:00
Time Ended 13:00
Prep Batch ID# PA120622S01
Balance ID# E2

#	Merit #	Matrix	Sample Wt. (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Alumina Cleanup	Dioxin Cleanup	Turbo Vap	Notes
Initial Q.C.	BLANK	soil	20.0	Hexane	180	1	1		CM			ev2	
	LCS	↓	20.0	↓	↓	↓	↓	1	↓			↓	
	LCSD	↓	20.0	↓	↓	↓	↓	1	↓			↓	
	MS												
	MSD												
1	52902.01	soil	20.3	Hexane	180	1	1		CM			evl	
2	52908.01	oil	0.3	↓	↓	↓	↓		↓	X		↓	
3	.02	↓	0.3							X	X		
4	.03	↓	0.3							X	X		
5	52914.01	soil	20.2										
6	.02	↓	20.2										
7	52922.01	waste	2.4							X			
8	52923.02	↓	5.2							X	X	↓	
9	52929.12	sludge	5.0							X			
10	.15	conc	10.0							X			
11	.16	↓	10.0							X			
12	.22	↓	10.0							X			
13	.24	paint	2.0										
14	.25	↓	2.0										
15	.27	conc.	10.0										
16	.28	↓	10.0							X			
17	.29		10.0										
18	.30		10.0										
19	CM 6-22 .31	↓	10.0										
20	52934.02 ~~.32~~	soil	CM 6-22 ~~10.0~~ 20.0	↓	↓	↓	↓		↓			↓	

Reviewed by: ADB On: 7/9/12

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

69202

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Susan Hoerth
COMPANY: Haley + Aldrich
ADDRESS: 8899 Gander Creek Dr.
CITY: Miamisburg STATE: OH ZIP CODE: 45342
PHONE NO.: 937-530-1408 FAX NO.: 937-530-1458 P.O. NO.: —
E-MAIL ADDRESS: SHoerth@HaleyAldrich.com QUOTE NO.: —

INVOICE TO

CONTACT NAME: Melanie Satanek ☐ SAME
COMPANY: Haley + Aldrich
ADDRESS: 5755 ~~Gander~~ Granger Rd Suite 320
CITY: Cleveland STATE: OH ZIP CODE: 44131
PHONE NO.: 216-706-1320 E-MAIL ADDRESS: MSatanek@HaleyAldrich.com

PROJECT NO./NAME: RACER GMPT LIVONIA
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Megan Castles Humphrey

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: NA
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES
Project Locations
☐ Detroit ☐ New York
☐ Other Livonia, MI
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOC	PAHs	PCBs	Michigan 10 Metals	Special Instructions
529340	6/20/12	—	2306-062012-0001	WB	1					X			X				Trip blank
.02	6/20/12	15:00	SB131 (06-02-2012)(1-2)	SO	2	1				1			X	X	X	X	Normal

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
Megan Castles-Humphrey / Haley + Aldrich	☒ Sampler	6/21/12	08:45
Mert		6-21-12	8:45

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
Andrew Ball	21 JUN 12	1205

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.8

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S52934
Client: HALEYALDRICH (Haley & Aldrich)
Project: RACER GMPT Livonia
Submitted: 06/21/2012 12:05 Login User: PCS

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.8oC
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Accounts Payable

Address: Haley & Aldrich, Inc.
70 Blanchard Rd.
Ste. 430
Burlington, MA 01803-5100

Phone: 617-886-7400 FAX: 617-886-7900

Email: Haley Aldrich Invoice Group

Set ID: S52934 Location: HALEYALDRICH (Haley & Aldrich)

Project: RACER GMPT Livonia PO #:

Submitted: 06/21/2012 12:05 Due Date: 07/05/2012 Collected by: M.Castles Humphrey Login by: PCS

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S52934.01	2306-062012-0001	Methanol	06/20/2012 00:01	69202
S52934.02	SB131 (06-20-2012) (1-2)	Soil	06/20/2012 15:00	69202

Samples: S52934.01

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260	Volatile Organics 5035	8260B/5035	mg/kg	07/04/2012
METHEXT	5035 Methanol Extraction	5035		03/16/2015

Samples: S52934.02

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260	Volatile Organics 5035	8260B/5035	mg/kg	07/04/2012
$PNA8270	Polynuclear Aromatics	8270C	mg/kg	07/30/2012
2115SMS	Arsenic	6020	mg/kg	12/17/2012
2120SMS	Barium	6020	mg/kg	12/17/2012
2135SMS	Cadmium	6020	mg/kg	12/17/2012
2145SMS	Chromium	6020	mg/kg	12/17/2012
2155SMS	Copper	6020	mg/kg	12/17/2012
2165SMS	Lead	6020	mg/kg	12/17/2012
2185S	Mercury	7471A	mg/kg	07/18/2012
2205SMS	Selenium	6020	mg/kg	12/17/2012
2215SMS	Silver	6020	mg/kg	12/17/2012
2245SMS	Zinc	6020	mg/kg	12/17/2012
1605S	Metal Digestion	3050B		12/17/2012
1605HGS	Mercury Digestion	7471A		07/18/2012
METHEXT	5035 Methanol Extraction	5035		03/16/2015
PNAEXTS	Semi Volatile Extraction	3550B		07/04/2012
1120S	Extraction, PCB	3550B		07/04/2012
4605	Total Solids	Std M 2540 B	%	07/18/2012
$TCL8082C1	TCL PCB List (Column 1)	8082A	mg/kg	07/30/2012
$TCL8082C2	TCL PCB List (Column 2)	8082A	mg/kg	07/30/2012

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HALEY & ALDRICH
RACER GMPT LIVONIA

SDG Batch:
52959

Pages 1 - 284

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HALEY & ALDRICH

PROJECT:
RACER GMPT LIVONIA

SDG Batch:
52959.01

Prepared by:
Merit Laboratories, Inc.

July 16, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S52959.01 - .03

Deliverable	References		Pages		Checklist	
	Merit	CLP	From	To	Lab	Audit
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	19	☑	☐
4. **Volatiles Data**			20	100		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			101	148		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
6. **PCB Data**			149	199		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
c. Standards Data (All Instruments)						
Initial Calibration of Multicomponent Data	F. 6	F. VI			☑	☐
Chromatograms and Quantitation Reports for all IC Standards					☑	☐
Calibration Check Standard	F. 7b	F. VII			☑	☐
Chromatograms and Quantitation Reports for all CC Standards					☑	☐
d. Raw QC Data						
Chromatograms and Quantitation Reports - Column 1					☑	☐
Chromatograms and Quantitation Reports - Column 2					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
10. **Miscellaneous Data**			279	281		
Preparation / Extraction logbooks					☑	☐
11. **Shipping / Receiving Documents**			282	284		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S52959.01 - .03

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	19	☑	☐
7. **ICP/MS Metals Data**			200	264		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
8. **Mercury Data**			265	277		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
9. **Total Solids Data**			278	278		
Bench Sheet - sample and QC sample evaluation					☑	☐
11. **Shipping / Receiving Documents**			282	284		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: RACER GMPT LIVONIA
Merit IDs: S52959.01-S52959.03

Field Sampling: Megan Castles-Humphrey performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (06/25/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
- The blank had the surrogate Terphenyl-D14 outside of control limits.

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120625A3:
- The LCS/LCSD had high RPD for the compounds Acetone, Acrylonitrile, 2-Butanone (MEK), Chloroethane, and Tetrahydrofuran.
- The blank contained 86.0 ug/kg of 2-Butanone (MEK) and 66.0 ug/kg of Methylene Chloride. 2-Butanone (MEK) and Methylene Chloride were not found in associated samples.
- The CCC had the compound Acetone outside of control limits.

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PCBs: The organic method utilized for this SDG was 8082A (GC/ECD). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barbara Ball

Barb Ball
QA Officer

07/16/12
Date

Analytical Laboratory Report

Report ID: S52959.01(01)
Generated on 06/29/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S52959.01-S52959.03
Project: RACER GMPT Livonia
Collected Date: 06/21/2012 - 06/22/2012
Submitted Date/Time: 06/25/2012 08:00
Sampled by: M.Castles Humphrey
P.O. #:

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S52959.01	2306-062112-0001	Methanol	06/21/2012 00:01
S52959.02	SB146 (06-21-2012)(4-5)	Soil	06/21/2012 14:10
S52959.03	SB141 (06-22-2012)(3-5)	Soil	06/22/2012 12:25

Analytical Laboratory Report

Lab Sample ID: S52959.01
Sample Tag: 2306-062112-0001
Collected Date/Time: 06/21/2012 00:01
Matrix: Methanol
COC Reference: 69206

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	06/25/12 17:57	WAT	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	06/25/12 17:57	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	06/25/12 17:57	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	06/25/12 17:57	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	750	8260B/5035	06/25/12 17:57	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:57	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:57	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	06/25/12 17:57	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:57	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	06/25/12 17:57	WAT	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	06/25/12 17:57	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	06/25/12 17:57	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:57	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	06/25/12 17:57	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	630-20-6	

M-Result reported to MDL not RDL

Lab Sample ID: S52959.01 (continued)
Sample Tag: 2306-062112-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT		
o-Xylene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	06/25/12 17:57	WAT	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 17:57	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	06/25/12 17:57	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:57	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	06/25/12 17:57	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	8260B/5035	06/25/12 17:57	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	8260B/5035	06/25/12 17:57	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	330	8260B/5035	06/25/12 17:57	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	330	8260B/5035	06/25/12 17:57	WAT	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S52959.02
Sample Tag: SB146 (06-21-2012)(4-5)
Collected Date/Time: 06/21/2012 14:10
Matrix: Soil
COC Reference: 69206

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.0	IR
1	8oz Glass	None	Yes	4.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	06/27/12 09:30	CCM		
Mercury Digestion	Completed			7471A	06/28/12 11:20	JRH		
Metal Digestion	Completed			3050B	06/28/12 01:00	SLR		
PNA Extraction	Completed			3550B	06/25/12 23:11	EMR		
Inorganics								
Total Solids	80	%	1	Std M 2540 B	06/26/12 14:39	WAR		
Metals								
Arsenic	2.02	mg/kg	0.10	6020	06/28/12 17:50	SLS	7440-38-2	
Barium	62.6	mg/kg	1.0	6020	06/28/12 17:50	SLS	7440-39-3	
Cadmium	0.23	mg/kg	0.20	6020	06/28/12 17:50	SLS	7440-43-9	
Chromium	5.00	mg/kg	0.50	6020	06/28/12 17:50	SLS	7440-47-3	
Copper	12.6	mg/kg	1.0	6020	06/28/12 17:50	SLS	7440-50-8	
Lead	8.87	mg/kg	0.30	6020	06/28/12 17:50	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	06/28/12 15:45	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	06/28/12 17:50	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	06/28/12 17:50	SLS	7440-22-4	
Zinc	22.4	mg/kg	1.0	6020	06/28/12 17:50	SLS	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/27/12 17:48	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	83-32-9	

Lab Sample ID: S52959.02 (continued)
Sample Tag: SB146 (06-21-2012)(4-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	06/27/12 12:12	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	8260B/5035	06/25/12 18:16	WAT	60-29-7	
Acetone	2,000	ug/kg	2,000	8260B/5035	06/25/12 18:16	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	400	8260B/5035	06/25/12 18:16	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	8260B/5035	06/25/12 18:16	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	1,100	8260B/5035	06/25/12 18:16	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	400	8260B/5035	06/25/12 18:16	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	8260B/5035	06/25/12 18:16	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	8260B/5035	06/25/12 18:16	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	8260B/5035	06/25/12 18:16	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	2,000	8260B/5035	06/25/12 18:16	WAT	109-99-9	
Chloroform	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	8260B/5035	06/25/12 18:16	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	8260B/5035	06/25/12 18:16	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	56-23-5	
Benzene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	78-87-5	

Lab Sample ID: S52959.02 (continued)
Sample Tag: SB146 (06-21-2012)(4-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Bromodichloromethane	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	400	8260B/5035	06/25/12 18:16	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	10061-01-5	
Toluene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	30	8260B/5035	06/25/12 18:16	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	630-20-6	
Ethylbenzene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT		
o-Xylene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	95-47-6	
Styrene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	400	8260B/5035	06/25/12 18:16	WAT	98-82-8	
Bromoform	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	200	8260B/5035	06/25/12 18:16	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	80	8260B/5035	06/25/12 18:16	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	500	8260B/5035	06/25/12 18:16	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	8260B/5035	06/25/12 18:16	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	500	8260B/5035	06/25/12 18:16	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	500	8260B/5035	06/25/12 18:16	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	500	8260B/5035	06/25/12 18:16	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	500	8260B/5035	06/25/12 18:16	WAT	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S52959.03
Sample Tag: SB141 (06-22-2012)(3-5)
Collected Date/Time: 06/22/2012 12:25
Matrix: Soil
COC Reference: 69206

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.0	IR
1	8oz Glass	None	Yes	4.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	06/27/12 09:30	CCM		
Mercury Digestion	Completed			7471A	06/28/12 11:20	JRH		
Metal Digestion	Completed			3050B	06/28/12 01:00	SLR		
PNA Extraction	Completed			3550B	06/25/12 23:11	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	06/26/12 14:39	WAR		
Metals								
Arsenic	0.29	mg/kg	0.10	6020	06/28/12 17:54	SLS	7440-38-2	
Barium	10.8	mg/kg	1.0	6020	06/28/12 17:54	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	06/28/12 17:54	SLS	7440-43-9	
Chromium	1.29	mg/kg	0.50	6020	06/28/12 17:54	SLS	7440-47-3	
Copper	1.24	mg/kg	1.0	6020	06/28/12 17:54	SLS	7440-50-8	
Lead	1.80	mg/kg	0.30	6020	06/28/12 17:54	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	06/28/12 15:47	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	06/28/12 17:54	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	06/28/12 17:54	SLS	7440-22-4	
Zinc	5.97	mg/kg	1.0	6020	06/28/12 17:54	SLS	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/27/12 17:58	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	83-32-9	

Lab Sample ID: S52959.03 (continued)
Sample Tag: SB141 (06-22-2012)(3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	06/27/12 12:36	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	06/25/12 18:34	WAT	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	06/25/12 18:34	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	06/25/12 18:34	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	06/25/12 18:34	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	890	8260B/5035	06/25/12 18:34	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	06/25/12 18:34	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	06/25/12 18:34	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	06/25/12 18:34	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	06/25/12 18:34	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	06/25/12 18:34	WAT	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	06/25/12 18:34	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	06/25/12 18:34	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	78-87-5	

Lab Sample ID: S52959.03 (continued)
Sample Tag: SB141 (06-22-2012)(3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	06/25/12 18:34	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	06/25/12 18:34	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT		
o-Xylene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	06/25/12 18:34	WAT	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	06/25/12 18:34	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	06/25/12 18:34	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	06/25/12 18:34	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	06/25/12 18:34	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	390	8260B/5035	06/25/12 18:34	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	390	8260B/5035	06/25/12 18:34	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	390	8260B/5035	06/25/12 18:34	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	390	8260B/5035	06/25/12 18:34	WAT	91-57-6	

M-Result reported to MDL not RDL

Quality Control Cover Page

Report ID: S52959.01(01)
Report Date: 06/29/2012
Project: RACER GMPT Livonia
Lab Sample ID(s): S52959.01-S52959.03

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S52959.01	2306-062112-0001	06/21/2012 00:01	Methanol	Extraction / Prep., Organics
S52959.02	SB146 (06-21-2012)(4-5)	06/21/2012 14:10	Soil	Extraction / Prep., Inorganics, Metals,
S52959.03	SB141 (06-22-2012)(3-5)	06/22/2012 12:25	Soil	Extraction / Prep., Inorganics, Metals,

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S52959.01(01)
Generated on 07/10/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S52959.01-S52959.03
Project: RACER GMPT Livonia
Submitted Date/Time: 06/25/2012 08:00
Sampled by: M.Castles Humphrey
P.O. #:

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-4)
Prep Batch Summary (Pages 5-6)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S52959.01
Sample Tag: 2306-062112-0001
Collected Date/Time: 06/21/2012 00:01
Matrix: Methanol
COC Reference: 69206

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	06/25/12 17:57	120625A3	VF120625S2	Yes	LCS/BLK/LCSD

Lab Sample ID: S52959.02
Sample Tag: SB146 (06-21-2012)(4-5)
Collected Date/Time: 06/21/2012 14:10
Matrix: Soil
COC Reference: 69206

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	06/26/12 14:39	TS120625B	TS120625B	No	BLK/LCS/DUP
Metals						
Arsenic	6020	06/28/12 17:50	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Barium	6020	06/28/12 17:50	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Cadmium	6020	06/28/12 17:50	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Chromium	6020	06/28/12 17:50	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Copper	6020	06/28/12 17:50	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Lead	6020	06/28/12 17:50	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Mercury	7471A	06/28/12 15:45	HG2-12-0628B	HGD-062812-2	No	LCS/BLK/MS/MSD
Selenium	6020	06/28/12 17:50	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Silver	6020	06/28/12 17:50	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Zinc	6020	06/28/12 17:50	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	8082A	06/27/12 17:48	F120627	PA120627S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	8082A	06/27/12 17:48	F120627	PA120627S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	8270C	06/27/12 12:12	U120627	SP120625S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	06/25/12 18:16	120625A3	VF120625S2	Yes	LCS/BLK/LCSD

Lab Sample ID: S52959.03
Sample Tag: SB141 (06-22-2012)(3-5)
Collected Date/Time: 06/22/2012 12:25
Matrix: Soil
COC Reference: 69206

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	06/26/12 14:39	TS120625B	TS120625B	No	BLK/LCS/DUP
Metals						
Arsenic	6020	06/28/12 17:54	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Barium	6020	06/28/12 17:54	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Cadmium	6020	06/28/12 17:54	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Chromium	6020	06/28/12 17:54	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Copper	6020	06/28/12 17:54	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Lead	6020	06/28/12 17:54	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Mercury	7471A	06/28/12 15:47	HG2-12-0628B	HGD-062812-2	No	LCS/BLK/MS/MSD
Selenium	6020	06/28/12 17:54	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Silver	6020	06/28/12 17:54	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Zinc	6020	06/28/12 17:54	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	8082A	06/27/12 17:58	F120627	PA120627S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	8082A	06/27/12 17:58	F120627	PA120627S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	8270C	06/27/12 12:36	U120627	SP120625S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	06/25/12 18:34	120625A3	VF120625S2	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TS120625B

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52959.02	Total Solids	Std M 2540 B	06/26/12 14:39	TS120625B
S52959.03	Total Solids	Std M 2540 B	06/26/12 14:39	TS120625B

Metals, Prep Batch ID: HGD-062812-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52959.02	Mercury	7471A	06/28/12 15:45	HG2-12-0628B
S52959.03	Mercury	7471A	06/28/12 15:47	HG2-12-0628B

Metals, Prep Batch ID: MTD-062812-6

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52959.02	Arsenic	6020	06/28/12 17:50	MT3-12-0628B
S52959.02	Barium	6020	06/28/12 17:50	MT3-12-0628B
S52959.02	Cadmium	6020	06/28/12 17:50	MT3-12-0628B
S52959.02	Chromium	6020	06/28/12 17:50	MT3-12-0628B
S52959.02	Copper	6020	06/28/12 17:50	MT3-12-0628B
S52959.02	Lead	6020	06/28/12 17:50	MT3-12-0628B
S52959.02	Selenium	6020	06/28/12 17:50	MT3-12-0628B
S52959.02	Silver	6020	06/28/12 17:50	MT3-12-0628B
S52959.02	Zinc	6020	06/28/12 17:50	MT3-12-0628B
S52959.03	Arsenic	6020	06/28/12 17:54	MT3-12-0628B
S52959.03	Barium	6020	06/28/12 17:54	MT3-12-0628B
S52959.03	Cadmium	6020	06/28/12 17:54	MT3-12-0628B
S52959.03	Chromium	6020	06/28/12 17:54	MT3-12-0628B
S52959.03	Copper	6020	06/28/12 17:54	MT3-12-0628B
S52959.03	Lead	6020	06/28/12 17:54	MT3-12-0628B
S52959.03	Selenium	6020	06/28/12 17:54	MT3-12-0628B
S52959.03	Silver	6020	06/28/12 17:54	MT3-12-0628B
S52959.03	Zinc	6020	06/28/12 17:54	MT3-12-0628B

Organics - PCBs/Pesticides, Prep Batch ID: PA120627S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52959.02	TCL PCB List (Column 1)	8082A	06/27/12 17:48	F120627
S52959.02	TCL PCB List (Column 2)	8082A	06/27/12 17:48	F120627
S52959.03	TCL PCB List (Column 1)	8082A	06/27/12 17:58	F120627
S52959.03	TCL PCB List (Column 2)	8082A	06/27/12 17:58	F120627

Organics - Semi-Volatiles, Prep Batch ID: SP120625S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52959.02	Polynuclear Aromatics	8270C	06/27/12 12:12	U120627
S52959.03	Polynuclear Aromatics	8270C	06/27/12 12:36	U120627

Organics - Volatiles, Prep Batch ID: VF120625S2

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52959.01	Volatile Organics 5035	8260B/5035	06/25/12 17:57	120625A3
S52959.02	Volatile Organics 5035	8260B/5035	06/25/12 18:16	120625A3

Organics - Volatiles, Prep Batch ID: VF120625S2 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52959.03	Volatile Organics 5035	8260B/5035	06/25/12 18:34	120625A3

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb25a.d	06/25/12 13:36	25ng/bfb 1s0625 [none]	WW	IP		
spcc25a.d	06/25/12 14:03	spcc/ccc 1s0625 1m0625 [none]	WW	CV	**4**	
lcss25a.d	06/25/12 14:34	100ul blankms 1s0625 1m0625 vf120625s2	SO	MS		
lcss25b.d	06/25/12 15:12	100ul blankmsd 1s0625 1m0625 vf120625s2	SO	MS		
blks25a.d	06/25/12 16:25	100ul blank 1s0625 vf120625s2	SO	Bl		
5293401.d	06/25/12 17:02	100ul 1s0625 vf120625s2	SO			
5293402.d	06/25/12 17:20	100ul 1s0625 vf120625s2	SO			
5295901.d	06/25/12 17:57	100ul 1s0625 vf120625s2	SO			
5295902.d	06/25/12 18:16	100ul 1s0625 vf120625s2	SO			
5295903.d	06/25/12 18:34	100ul 1s0625 vf120625s2	SO			

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	5
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc25a.d	4-Bromofluorobenzene	46.8/ 50.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	53.1/ 50.0	n/a	77.0/121.0	
	Toluene-D8	51.3/ 50.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcss25a.d	4-Bromofluorobenzene	47.4/ 50.0	94.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	49.2/ 50.0	98.3	71.0/124.0	
	Toluene-D8	51.0/ 50.0	102.1	83.0/120.0	
				Total Outliers: 0	
lcss25b.d	4-Bromofluorobenzene	48.2/ 50.0	96.3	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.4/ 50.0	92.8	71.0/124.0	
	Toluene-D8	50.9/ 50.0	101.8	83.0/120.0	
				Total Outliers: 0	
blks25a.d	4-Bromofluorobenzene	46.0/ 50.0	91.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	50.8/ 50.0	101.6	71.0/124.0	
	Toluene-D8	50.9/ 50.0	101.8	83.0/120.0	
				Total Outliers: 0	
5293401.d	4-Bromofluorobenzene	46.4/ 50.0	92.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	48.1/ 50.0	96.3	71.0/124.0	
	Toluene-D8	51.1/ 50.0	102.2	83.0/120.0	
				Total Outliers: 0	
5293402.d	4-Bromofluorobenzene	46.4/ 50.0	92.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.9/ 50.0	95.9	71.0/124.0	
	Toluene-D8	50.6/ 50.0	101.3	83.0/120.0	
				Total Outliers: 0	
5295901.d	4-Bromofluorobenzene	44.9/ 50.0	89.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	49.3/ 50.0	98.6	71.0/124.0	
	Toluene-D8	50.8/ 50.0	101.6	83.0/120.0	
				Total Outliers: 0	
5295902.d	4-Bromofluorobenzene	45.6/ 50.0	91.2	81.0/124.0	SO
	1,2-Dichloroethane-D4	48.0/ 50.0	95.9	71.0/124.0	
	Toluene-D8	50.1/ 50.0	100.1	83.0/120.0	
				Total Outliers: 0	
5295903.d	4-Bromofluorobenzene	45.9/ 50.0	91.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	48.9/ 50.0	97.9	71.0/124.0	
	Toluene-D8	50.7/ 50.0	101.4	83.0/120.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcss25b.d			
Dup ID : LCS1			
Prep Batch: vf120625s2			
Prep Date : 06/25/12			
Parent File: lcss25a.d			
1,1,2-trichloro-1,2,2-trifluoroethane	53.83/ 52.46	2.6/25.0	SO
diethyl ether (*)	45.41/ 50.43	10.5/25.0	
acetone (*)	36.33/ 74.03	68.3/25.0*	
methyl iodide (iodomethane) (*)	47.32/ 52.13	9.7/25.0	
carbon disulfide (*)	58.27/ 58.16	0.2/25.0	
methyl acetate	36.69/ 48.04	26.8/25.0*	
tert-methyl butyl ether (mtbe) (*)	40.81/ 48.84	17.9/25.0	
acrylonitrile (*)	34.81/ 48.05	32.0/25.0*	
2-butanone (mek) (*)	41.27/ 54.70	28.0/25.0*	
dichlorodifluoromethane	55.09/ 53.12	3.6/25.0	
chloromethane (spcc)	51.90/ 50.40	2.9/25.0	
vinyl chloride (ccc)	55.38/ 56.18	1.4/25.0	
bromomethane	49.44/ 49.43	0.0/25.0	
chloroethane	75.72/ 53.93	33.6/25.0*	
trichlorofluoromethane	56.78/ 58.01	2.1/25.0	
1,1-dichloroethene (ccc/ms)	53.23/ 48.33	9.6/25.0	
methylene chloride	46.43/ 52.02	11.4/25.0	
trans-1,2-dichloroethene	50.20/ 52.38	4.3/25.0	
1,1-dichloroethane (spcc)	48.52/ 51.78	6.5/25.0	
cis-1,2-dichloroethene	47.54/ 51.70	8.4/25.0	
tetrahydrofuran	35.94/ 47.66	28.0/25.0*	
chloroform (ccc)	48.24/ 52.15	7.8/25.0	
bromochloromethane	44.25/ 50.09	12.4/25.0	
1,1,1-trichloroethane	52.15/ 54.23	3.9/25.0	
cyclohexane	43.26/ 44.55	2.9/25.0	
4-methyl-2-pentanone (mibk) (*)	37.00/ 44.58	18.6/25.0	
2-hexanone (*)	41.62/ 50.88	20.0/25.0	
carbon tetrachloride	53.44/ 55.02	2.9/25.0	
benzene (ms)	49.40/ 51.46	4.1/25.0	
1,2-dichloroethane	45.27/ 50.39	10.7/25.0	
trichloroethene (ms)	50.07/ 51.34	2.5/25.0	
1,2-dichloropropane (ccc)	48.75/ 52.05	6.5/25.0	
bromodichloromethane	51.16/ 53.22	3.9/25.0	
methyl cyclohexane	53.08/ 53.13	0.1/25.0	
dibromomethane	42.97/ 47.94	10.9/25.0	
cis-1,3-dichloropropene	49.26/ 53.28	7.8/25.0	
toluene (ccc/ms)	48.29/ 50.56	4.6/25.0	
trans-1,3-dichloropropene	49.26/ 54.19	9.5/25.0	
1,1,2-trichloroethane	43.85/ 49.18	11.5/25.0	
tetrachloroethene	49.42/ 47.90	3.1/25.0	
trans-1,4-dichloro-2-butene	39.82/ 45.34	13.0/25.0	
dibromochloromethane	49.61/ 52.42	5.5/25.0	
1,2-dibromoethane	47.03/ 50.91	7.9/25.0	
chlorobenzene (spcc/ms)	50.42/ 51.14	1.4/25.0	
1,1,1,2-tetrachloroethane	51.25/ 54.07	5.4/25.0	
ethylbenzene (ccc)	52.84/ 52.53	0.6/25.0	
p,m-xylene	104.37/103.58	0.8/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	*Dup/Samp Conc.*	*%RPD/UCL*	*Matrix*
o-xylene	51.26/ 52.05	1.5/25.0	
styrene	49.68/ 51.10	2.8/25.0	
isopropylbenzene	51.99/ 51.83	0.3/25.0	
bromoform (spcc)	45.17/ 48.52	7.2/25.0	
1,1,2,2-tetrachloroethane (spcc)	42.13/ 48.74	14.5/25.0	
1,2,3-trichloropropane	44.41/ 47.34	6.4/25.0	
n-propylbenzene	53.84/ 54.09	0.5/25.0	
bromobenzene	48.27/ 49.82	3.2/25.0	
1,3,5-trimethylbenzene	51.21/ 51.99	1.5/25.0	
tert-butylbenzene	53.19/ 52.50	1.3/25.0	
1,2,4-trimethylbenzene	51.36/ 52.39	2.0/25.0	
sec-butylbenzene	55.21/ 53.52	3.1/25.0	
p-isopropyltoluene	56.43/ 55.41	1.8/25.0	
1,3-dichlorobenzene	52.30/ 53.01	1.3/25.0	
1,4-dichlorobenzene	50.54/ 51.19	1.3/25.0	
1,2-dichlorobenzene	49.96/ 51.78	3.6/25.0	
1,2,3-trimethylbenzene	51.51/ 52.44	1.8/25.0	
n-butylbenzene	56.60/ 55.74	1.5/25.0	
hexachloroethane	53.79/ 53.13	1.2/25.0	
1,2-dibromo-3-chloropropane	44.39/ 50.25	12.4/25.0	
1,2,4-trichlorobenzene	49.20/ 50.58	2.8/25.0	
1,2,3-trichlorobenzene	49.11/ 49.70	1.2/25.0	
naphthalene	47.19/ 49.92	5.6/25.0	
2-methylnaphthalene	47.03/ 51.27	8.6/25.0	
[end of compound list]			
		Total Outliers:	**6**

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss25a.d
Spike ID : LCS1
Prep Batch: vf120625s2
Prep Date : 06/25/12
Parent File: blks25a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	52.46/	0.00	50.00	104.9	56.9/138.1	SO
Diethyl ether	50.43/	0.00	50.00	100.9	51.7/123.0	
Acetone	74.03/	0.00	50.00	148.1	25.3/155.1	
Methyl iodide	52.13/	0.00	50.00	104.3	56.9/110.8	
Carbon disulfide	58.16/	0.00	50.00	116.3	57.0/123.0	
Methyl acetate	48.04/	0.00	50.00	96.1	54.4/133.5	
tert-Methyl butyl ether	48.84/	0.00	50.00	97.7	67.5/123.7	
Acrylonitrile	48.05/	0.00	50.00	96.1	58.7/133.0	
2-Butanone	54.70/	1.72	50.00	109.4	38.7/136.9	
Dichlorodifluoromethane	53.12/	0.00	50.00	106.2	10.0/171.8	
Chloromethane	50.40/	0.00	50.00	100.8	30.2/152.7	
Vinyl Chloride	56.18/	0.00	50.00	112.4	45.3/138.7	
Bromomethane	49.43/	0.00	50.00	98.9	10.0/157.4	
Chloroethane	53.93/	0.00	50.00	107.9	10.0/169.1	
Trichlorofluoromethane	58.01/	0.00	50.00	116.0	25.7/157.8	
1,1-Dichloroethene	48.33/	0.00	50.00	96.7	59.2/137.5	
Methylene Chloride	52.02/	1.32	50.00	104.0	70.5/121.5	
trans-1,2-Dichloroethene	52.38/	0.00	50.00	104.8	72.5/128.8	
1,1-Dichloroethane	51.78/	0.00	50.00	103.6	72.5/123.4	
cis-1,2-Dichloroethene	51.70/	0.00	50.00	103.4	75.0/120.5	
Tetrahydrofuran	47.66/	0.00	50.00	95.3	48.2/125.7	
Chloroform	52.15/	0.00	50.00	104.3	74.6/123.2	
Bromochloromethane	50.09/	0.00	50.00	100.2	72.3/122.8	
1,1,1-Trichloroethane	54.23/	0.00	50.00	108.5	73.8/128.9	
Cyclohexane	44.55/	0.00	50.00	89.1	42.4/147.1	
4-Methyl-2-pentanone	44.58/	0.00	50.00	89.2	60.4/133.8	
2-Hexanone	50.88/	0.00	50.00	101.8	45.7/141.9	
Carbon Tetrachloride	55.02/	0.00	50.00	110.0	70.1/132.7	
Benzene	51.46/	0.00	50.00	102.9	74.6/128.9	
1,2-Dichloroethane	50.39/	0.00	50.00	100.8	73.2/125.4	
Trichloroethene	51.34/	0.00	50.00	102.7	74.1/127.6	
1,2-Dichloropropane	52.05/	0.00	50.00	104.1	77.6/124.4	
Bromodichloromethane	53.22/	0.00	50.00	106.4	76.7/128.4	
Methyl cyclohexane	53.13/	0.00	50.00	106.3	53.7/148.2	
Dibromomethane	47.94/	0.00	50.00	95.9	72.5/127.3	
cis-1,3-Dichloropropene	53.28/	0.00	50.00	106.6	79.3/128.3	
Toluene	50.56/	0.00	50.00	101.1	74.8/129.2	
trans-1,3-Dichloropropene	54.19/	0.00	50.00	108.4	74.5/129.7	
1,1,2-Trichloroethane	49.18/	0.00	50.00	98.4	71.3/125.7	
Tetrachloroethene	47.90/	0.00	50.00	95.8	73.0/124.7	
trans-1,4-Dichloro-2-butene	45.34/	0.00	50.00	90.7	58.3/143.3	
Dibromochloromethane	52.42/	0.00	50.00	104.8	68.9/132.7	
1,2-Dibromoethane	50.91/	0.00	50.00	101.8	71.4/129.3	
Chlorobenzene	51.14/	0.00	50.00	102.3	74.2/128.1	
1,1,1,2-Tetrachloroethane	54.07/	0.00	50.00	108.1	76.6/133.0	
Ethylbenzene	52.53/	0.00	50.00	105.1	77.7/130.4	
p,m-Xylene	103.58/	0.00	100.00	103.6	79.8/132.0	
o-Xylene	52.05/	0.00	50.00	104.1	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	51.10/	0.00	50.00	102.2	71.3/119.3	
Isopropylbenzene	51.83/	0.00	50.00	103.7	70.3/128.2	
Bromoform	48.52/	0.00	50.00	97.0	54.7/137.4	
1,1,2,2-Tetrachloroethane	48.74/	0.00	50.00	97.5	65.4/134.9	
1,2,3-Trichloropropane	47.34/	0.00	50.00	94.7	67.2/154.5	
n-Propylbenzene	54.09/	0.00	50.00	108.2	77.3/135.2	
Bromobenzene	49.82/	0.00	50.00	99.6	74.0/132.4	
1,3,5-Trimethylbenzene	51.99/	0.00	50.00	104.0	75.6/137.0	
tert-Butylbenzene	52.50/	0.00	50.00	105.0	75.6/134.6	
1,2,4-Trimethylbenzene	52.39/	0.00	50.00	104.8	76.9/139.1	
sec-Butylbenzene	53.52/	0.00	50.00	107.0	72.7/135.6	
p-Isopropyltoluene	55.41/	0.00	50.00	110.8	77.1/140.9	
1,3-Dichlorobenzene	53.01/	0.00	50.00	106.0	77.3/131.0	
1,4-Dichlorobenzene	51.19/	0.00	50.00	102.4	33.1/125.8	
1,2-Dichlorobenzene	51.78/	0.00	50.00	103.6	73.5/132.7	
1,2,3-Trimethylbenzene	52.44/	0.00	50.00	104.9	70.9/130.2	
n-Butylbenzene	55.74/	0.00	50.00	111.5	75.0/138.6	
Hexachloroethane	53.13/	0.00	50.00	106.3	55.5/129.0	
1,2-Dibromo-3-Chloropropane	50.25/	0.00	50.00	100.5	54.1/156.4	
1,2,4-Trichlorobenzene	50.58/	0.00	50.00	101.2	37.1/131.3	
1,2,3-Trichlorobenzene	49.70/	0.00	50.00	99.4	59.4/157.9	
Naphthalene	49.92/	0.00	50.00	99.8	39.3/129.2	
2-Methylnaphthalene	51.27/	0.00	50.00	102.5	10.0/175.9	
					Total Outliers:	**0**

Spike File : lcss25b.d
Spike ID : LCS1
Prep Batch: vf120625s2
Prep Date : 06/25/12
Parent File: blks25a.d

1,1,2-Trichloro-1,2,2-trifluor	53.83/	0.00	50.00	107.7	56.9/138.1	SO
Diethyl ether	45.41/	0.00	50.00	90.8	51.7/123.0	
Acetone	36.33/	0.00	50.00	72.7	25.3/155.1	
Methyl iodide	47.32/	0.00	50.00	94.6	56.9/110.8	
Carbon disulfide	58.27/	0.00	50.00	116.5	57.0/123.0	
Methyl acetate	36.69/	0.00	50.00	73.4	54.4/133.5	
tert-Methyl butyl ether	40.81/	0.00	50.00	81.6	67.5/123.7	
Acrylonitrile	34.81/	0.00	50.00	69.6	58.7/133.0	
2-Butanone	41.27/	1.72	50.00	82.5	38.7/136.9	
Dichlorodifluoromethane	55.09/	0.00	50.00	110.2	10.0/171.8	
Chloromethane	51.90/	0.00	50.00	103.8	30.2/152.7	
Vinyl Chloride	55.38/	0.00	50.00	110.8	45.3/138.7	
Bromomethane	49.44/	0.00	50.00	98.9	10.0/157.4	
Chloroethane	75.72/	0.00	50.00	151.4	10.0/169.1	
Trichlorofluoromethane	56.78/	0.00	50.00	113.6	25.7/157.8	
1,1-Dichloroethene	53.23/	0.00	50.00	106.5	59.2/137.5	
Methylene Chloride	46.43/	1.32	50.00	92.9	70.5/121.5	
trans-1,2-Dichloroethene	50.20/	0.00	50.00	100.4	72.5/128.8	
1,1-Dichloroethane	48.52/	0.00	50.00	97.0	72.5/123.4	
cis-1,2-Dichloroethene	47.54/	0.00	50.00	95.1	75.0/120.5	
Tetrahydrofuran	35.94/	0.00	50.00	71.9	48.2/125.7	
Chloroform	48.24/	0.00	50.00	96.5	74.6/123.2	
Bromochloromethane	44.25/	0.00	50.00	88.5	72.3/122.8	
1,1,1-Trichloroethane	52.15/	0.00	50.00	104.3	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	43.26/	0.00	50.00	86.5	42.4/147.1	
4-Methyl-2-pentanone	37.00/	0.00	50.00	74.0	60.4/133.8	
2-Hexanone	41.62/	0.00	50.00	83.2	45.7/141.9	
Carbon Tetrachloride	53.44/	0.00	50.00	106.9	70.1/132.7	
Benzene	49.40/	0.00	50.00	98.8	74.6/128.9	
1,2-Dichloroethane	45.27/	0.00	50.00	90.5	73.2/125.4	
Trichloroethene	50.07/	0.00	50.00	100.1	74.1/127.6	
1,2-Dichloropropane	48.75/	0.00	50.00	97.5	77.6/124.4	
Bromodichloromethane	51.16/	0.00	50.00	102.3	76.7/128.4	
Methyl cyclohexane	53.08/	0.00	50.00	106.2	53.7/148.2	
Dibromomethane	42.97/	0.00	50.00	85.9	72.5/127.3	
cis-1,3-Dichloropropene	49.26/	0.00	50.00	98.5	79.3/128.3	
Toluene	48.29/	0.00	50.00	96.6	74.8/129.2	
trans-1,3-Dichloropropene	49.26/	0.00	50.00	98.5	74.5/129.7	
1,1,2-Trichloroethane	43.85/	0.00	50.00	87.7	71.3/125.7	
Tetrachloroethene	49.42/	0.00	50.00	98.8	73.0/124.7	
trans-1,4-Dichloro-2-butene	39.82/	0.00	50.00	79.6	58.3/143.3	
Dibromochloromethane	49.61/	0.00	50.00	99.2	68.9/132.7	
1,2-Dibromoethane	47.03/	0.00	50.00	94.1	71.4/129.3	
Chlorobenzene	50.42/	0.00	50.00	100.8	74.2/128.1	
1,1,1,2-Tetrachloroethane	51.25/	0.00	50.00	102.5	76.6/133.0	
Ethylbenzene	52.84/	0.00	50.00	105.7	77.7/130.4	
p,m-Xylene	104.37/	0.00	100.00	104.4	79.8/132.0	
o-Xylene	51.26/	0.00	50.00	102.5	79.4/132.3	
Styrene	49.68/	0.00	50.00	99.4	71.3/119.3	
Isopropylbenzene	51.99/	0.00	50.00	104.0	70.3/128.2	
Bromoform	45.17/	0.00	50.00	90.3	54.7/137.4	
1,1,2,2-Tetrachloroethane	42.13/	0.00	50.00	84.3	65.4/134.9	
1,2,3-Trichloropropane	44.41/	0.00	50.00	88.8	67.2/154.5	
n-Propylbenzene	53.84/	0.00	50.00	107.7	77.3/135.2	
Bromobenzene	48.27/	0.00	50.00	96.5	74.0/132.4	
1,3,5-Trimethylbenzene	51.21/	0.00	50.00	102.4	75.6/137.0	
tert-Butylbenzene	53.19/	0.00	50.00	106.4	75.6/134.6	
1,2,4-Trimethylbenzene	51.36/	0.00	50.00	102.7	76.9/139.1	
sec-Butylbenzene	55.21/	0.00	50.00	110.4	72.7/135.6	
p-Isopropyltoluene	56.43/	0.00	50.00	112.9	77.1/140.9	
1,3-Dichlorobenzene	52.30/	0.00	50.00	104.6	77.3/131.0	
1,4-Dichlorobenzene	50.54/	0.00	50.00	101.1	33.1/125.8	
1,2-Dichlorobenzene	49.96/	0.00	50.00	99.9	73.5/132.7	
1,2,3-Trimethylbenzene	51.51/	0.00	50.00	103.0	70.9/130.2	
n-Butylbenzene	56.60/	0.00	50.00	113.2	75.0/138.6	
Hexachloroethane	53.79/	0.00	50.00	107.6	55.5/129.0	
1,2-Dibromo-3-Chloropropane	44.39/	0.00	50.00	88.8	54.1/156.4	
1,2,4-Trichlorobenzene	49.20/	0.00	50.00	98.4	37.1/131.3	
1,2,3-Trichlorobenzene	49.11/	0.00	50.00	98.2	59.4/157.9	
Naphthalene	47.19/	0.00	50.00	94.4	39.3/129.2	
2-Methylnaphthalene	47.03/	0.00	50.00	94.1	10.0/175.9	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks25a.d (100ul blank 1s0625)
Blank ID : BLANK1
Prep Batch: vf120625s2
Prep Date : 06/25/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		5.6	50
Diethyl ether (*)	Not detected		7.1	50
Acetone (*)	Not detected		140	500
Methyl iodide (iodomethane) (*	Not detected		7.3	50
Carbon disulfide (*)	Not detected		8.2	50
Methyl Acetate	Not detected		15	500
tert-Methyl butyl ether (MTBE)	Not detected		8.8	50
Acrylonitrile (*)	Not detected		14	50
2-Butanone (MEK) (*)	1.72	86.0	24	500
Dichlorodifluoromethane	Not detected		12	50
Chloromethane (SPCC)	Not detected		12	50
Vinyl Chloride (CCC)	Not detected		9.2	50
Bromomethane	Not detected		10	50
Chloroethane	Not detected		8.8	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		10	50
1,1-Dichloroethene (CCC/MS)	Not detected		9.9	50
Methylene Chloride	1.32	66.0	9.4	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		9.2	50
cis-1,2-Dichloroethene	Not detected		9.1	50
Tetrahydrofuran	Not detected		49	500
Chloroform (CCC)	Not detected		7.1	50
Bromochloromethane	Not detected		6.7	50
1,1,1-Trichloroethane	Not detected		6.2	50
1,1-Dichloropropene	Not detected		10	50
Cyclohexane	Not detected		14	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		17	50
2-Hexanone (*)	Not detected		10	500
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		6.7	50
Benzene (MS)	Not detected		10	50
1,2-Dichloroethane	Not detected		9.2	50
Trichloroethene (MS)	Not detected		8.8	50
1,2-Dichloropropane (CCC)	Not detected		14	50
Bromodichloromethane	Not detected		7.0	50
Methyl Cyclohexane	Not detected		12	50
Dibromomethane	Not detected		8.3	50
cis-1,3-Dichloropropene	Not detected		8.3	50
Toluene (CCC/MS)	Not detected		9.4	50
trans-1,3-Dichloropropene	Not detected		5.3	50
1,1,2-Trichloroethane	Not detected		11	50
Tetrachloroethene	Not detected		10	50
trans-1,4-Dichloro-2-butene	Not detected		14	50
Dibromochloromethane	Not detected		7.3	50
1,2-Dibromoethane	Not detected		7.5	50
Chlorobenzene (SPCC/MS)	Not detected		9.0	50
1,1,1,2-Tetrachloroethane	Not detected		9.1	50
Ethylbenzene (CCC)	Not detected		9.8	50
p,m-Xylene	Not detected		20	50
o-Xylene	Not detected		8.2	50
Styrene	Not detected		8.2	50
Isopropylbenzene	Not detected		9.8	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks25a.d (100ul blank 1s0625)
Blank ID : BLANK1
Prep Batch: vf120625s2
Prep Date : 06/25/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		5.8	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.4	50
1,2,3-Trichloropropane	Not detected		11	50
n-Propylbenzene	Not detected		8.3	50
Bromobenzene	Not detected		10	50
1,3,5-Trimethylbenzene	Not detected		7.1	50
tert-Butylbenzene	Not detected		9.7	50
1,2,4-Trimethylbenzene	Not detected		7.6	50
sec-Butylbenzene	Not detected		9.1	50
p-Isopropyltoluene	Not detected		9.9	50
1,3-Dichlorobenzene	Not detected		11	50
1,4-Dichlorobenzene	Not detected		7.5	50
1,2-Dichlorobenzene	Not detected		8.6	50
1,2,3-Trimethylbenzene	Not detected		4.0	50
n-Butylbenzene	Not detected		9.4	50
Hexachloroethane	Not detected		3.2	50
1,2-Dibromo-3-Chloropropane	Not detected		18	50
1,2,4-Trichlorobenzene	Not detected		9.8	50
Hexachlorobutadiene	Not detected		9.8	50
1,2,3-Trichlorobenzene	Not detected		8.1	50
Naphthalene	Not detected		8.5	50
2-Methylnaphthalene	Not detected		12	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks25a.d
Method Blank Prep Date: 06/25/12
Blank/LCS Preparation Batch: vf120625s2

LCS Data File: lcss25a.d
LCS Prep Date: 06/25/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52903.04	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52903.06	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52903.10	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52924.12	120625A3	VF120625S2	06/25/12	BTEX 5035	$5BTX826
S52934.01	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52934.02	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52939.01	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52959.01	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52959.02	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260
S52959.03	120625A3	VF120625S2	06/25/12	Volatile Organics 5035	$58260

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb25a.d	06/25/12 13:36	50	95	8.0	40.0	24.4	12507	PASS
		75	95	30.0	66.0	53.3	27352	PASS
		95	95	100.0	100.0	100.0	51312	PASS
		96	95	5.0	9.0	6.6	3412	PASS
		173	174	0.0	2.0	0.2	66	PASS
		174	95	50.0	120.0	58.7	30127	PASS
		175	174	4.0	9.0	7.6	2289	PASS
		176	174	93.0	101.0	93.3	28102	PASS
		177	176	5.0	9.0	6.2	1739	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc25a.d	06/25/12 14:03	Pentafluorobenzene	379689/ 3.99	189845- 759378	3.49- 4.49
		1,4-Difluorobenzene	736472/ 4.35	368236- 1472944	3.85- 4.85
		Chlorobenzene-D5	403772/ 5.72	201886- 807544	5.22- 6.22
		1,4-Dichlorobenzene-D4	276607/ 6.81	138304- 553214	6.31- 7.31
					Total Outliers: N/A
lcss25a.d	06/25/12 14:34	Pentafluorobenzene	413171/ 3.99	Ratio: 1.088	Diff.: 0.00
		1,4-Difluorobenzene	781229/ 4.35	Ratio: 1.061	Diff.: 0.00
		Chlorobenzene-D5	429066/ 5.72	Ratio: 1.063	Diff.: 0.00
		1,4-Dichlorobenzene-D4	292644/ 6.81	Ratio: 1.058	Diff.: 0.00
					Total Outliers: 0
lcss25b.d	06/25/12 15:12	Pentafluorobenzene	477473/ 3.99	Ratio: 1.258	Diff.: 0.00
		1,4-Difluorobenzene	880454/ 4.35	Ratio: 1.196	Diff.: 0.00
		Chlorobenzene-D5	463731/ 5.72	Ratio: 1.148	Diff.: 0.00
		1,4-Dichlorobenzene-D4	307877/ 6.81	Ratio: 1.113	Diff.: 0.00
					Total Outliers: 0
blks25a.d	06/25/12 16:25	Pentafluorobenzene	432376/ 3.99	Ratio: 1.139	Diff.: 0.00
		1,4-Difluorobenzene	840298/ 4.35	Ratio: 1.141	Diff.: 0.00
		Chlorobenzene-D5	468604/ 5.72	Ratio: 1.161	Diff.: 0.00
		1,4-Dichlorobenzene-D4	308841/ 6.81	Ratio: 1.117	Diff.: 0.00
					Total Outliers: 0
5293401.d	06/25/12 17:02	Pentafluorobenzene	446484/ 3.99	Ratio: 1.176	Diff.: 0.00
		1,4-Difluorobenzene	840360/ 4.35	Ratio: 1.141	Diff.: 0.00
		Chlorobenzene-D5	461309/ 5.72	Ratio: 1.142	Diff.: 0.00
		1,4-Dichlorobenzene-D4	316663/ 6.81	Ratio: 1.145	Diff.: 0.00
					Total Outliers: 0
5293402.d	06/25/12 17:20	Pentafluorobenzene	443293/ 3.99	Ratio: 1.168	Diff.: 0.00
		1,4-Difluorobenzene	834644/ 4.35	Ratio: 1.133	Diff.: 0.00
		Chlorobenzene-D5	453931/ 5.72	Ratio: 1.124	Diff.: 0.00
		1,4-Dichlorobenzene-D4	307778/ 6.81	Ratio: 1.113	Diff.: 0.00
					Total Outliers: 0
5295901.d	06/25/12 17:57	Pentafluorobenzene	444798/ 3.99	Ratio: 1.171	Diff.: 0.00
		1,4-Difluorobenzene	843355/ 4.35	Ratio: 1.145	Diff.: 0.00
		Chlorobenzene-D5	463071/ 5.72	Ratio: 1.147	Diff.: 0.00
		1,4-Dichlorobenzene-D4	306212/ 6.81	Ratio: 1.107	Diff.: 0.00
					Total Outliers: 0
5295902.d	06/25/12 18:16	Pentafluorobenzene	451952/ 3.99	Ratio: 1.190	Diff.: 0.00
		1,4-Difluorobenzene	854150/ 4.35	Ratio: 1.160	Diff.: 0.00
		Chlorobenzene-D5	465354/ 5.72	Ratio: 1.153	Diff.: 0.00
		1,4-Dichlorobenzene-D4	307064/ 6.81	Ratio: 1.110	Diff.: 0.00
					Total Outliers: 0
5295903.d	06/25/12 18:34	Pentafluorobenzene	437377/ 3.99	Ratio: 1.152	Diff.: 0.00
		1,4-Difluorobenzene	834236/ 4.35	Ratio: 1.133	Diff.: 0.00
		Chlorobenzene-D5	458147/ 5.72	Ratio: 1.135	Diff.: 0.00
		1,4-Dichlorobenzene-D4	306869/ 6.81	Ratio: 1.109	Diff.: 0.00
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52959.01
Data File: 5295901.d
Date Received: 06/25/12

Tag: 2306-062112-0001
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	200	7.1	ug/kg	06/25/12	
67-64-1	Acetone	Not detected	1000	140	ug/kg		
74-88-4	Methyl iodide	Not detected	100	7.3	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.2	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	200	8.8	ug/kg		
107-13-1	Acrylonitrile	Not detected	100	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	750	24	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	300	12	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	50	9.2	ug/kg		
74-83-9	Bromomethane	Not detected	200	10	ug/kg		
75-00-3	Chloroethane	Not detected	300	8.8	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	50	9.9	ug/kg		
75-09-2	Methylene chloride	Not detected	100	9.4	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	50	8.5	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	50	9.2	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	50	9.1	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	1000	49	ug/kg		
67-66-3	Chloroform	Not detected	50	7.1	ug/kg		
74-97-5	Bromochloromethane	Not detected	100	6.7	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	50	6.2	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	17	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	10	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	50	6.7	ug/kg		
71-43-2	Benzene	Not detected	50	10	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	50	9.2	ug/kg		
79-01-6	Trichloroethene	Not detected	50	8.8	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	50	14	ug/kg		
75-27-4	Bromodichloromethane	Not detected	100	7.0	ug/kg		
74-95-3	Dibromomethane	Not detected	300	8.3	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	8.3	ug/kg		
108-88-3	Toluene	Not detected	100	9.4	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	5.3	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	50	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	50	10	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	50	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	100	7.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	20	7.5	ug/kg		M
108-90-7	Chlorobenzene	Not detected	50	9.0	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	100	9.1	ug/kg		
100-41-4	Ethylbenzene	Not detected	50	9.8	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	100	20	ug/kg		
95-47-6	o-Xylene	Not detected	50	8.2	ug/kg		
100-42-5	Styrene	Not detected	50	8.2	ug/kg		
98-82-8	Isopropylbenzene	Not detected	300	9.8	ug/kg		
75-25-2	Bromoform	Not detected	100	5.8	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	7.4	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	100	11	ug/kg		
103-65-1	n-Propylbenzene	Not detected	100	8.3	ug/kg		
108-86-1	Bromobenzene	Not detected	100	10	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	100	7.1	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	50	9.7	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	100	7.6	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	50	9.1	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	100	9.9	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	100	11	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	100	7.5	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	100	8.6	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	100	4.0	ug/kg		
104-51-8	n-Butylbenzene	Not detected	50	9.4	ug/kg		
67-72-1	Hexachloroethane	Not detected	300	3.2	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	300	18	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	330	9.8	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	330	8.1	ug/kg		
91-20-3	Naphthalene	Not detected	330	8.5	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	330	12	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52959.01
Data File: 5295901.d
Date Received: 06/25/12

Tag: 2306-062112-0001
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/25/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (99%)				06/25/12	
460-00-4	4-Bromofluorobenzene	Pass (90%)					
2037-26-5	Toluene-D8	Pass (102%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52959.02
Data File: 5295902.d
Date Received: 06/25/12

Tag: SB146 (06-21-2012)(4-5)
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 75

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	300	11	ug/kg	06/25/12	
67-64-1	Acetone	2000	2000	220	ug/kg		
74-88-4	Methyl iodide	Not detected	200	11	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	12	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	13	ug/kg		
107-13-1	Acrylonitrile	Not detected	200	21	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	37	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	400	17	ug/kg		
74-87-3	Chloromethane	Not detected	400	19	ug/kg		
75-01-4	Vinyl chloride	Not detected	80	14	ug/kg		
74-83-9	Bromomethane	Not detected	300	15	ug/kg		
75-00-3	Chloroethane	Not detected	400	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	200	15	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	80	15	ug/kg		
75-09-2	Methylene chloride	Not detected	200	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	80	13	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	80	14	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	80	14	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	2000	73	ug/kg		
67-66-3	Chloroform	Not detected	80	11	ug/kg		
74-97-5	Bromochloromethane	Not detected	200	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	80	9.2	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	25	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	80	10	ug/kg		
71-43-2	Benzene	Not detected	80	15	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	80	14	ug/kg		
79-01-6	Trichloroethene	Not detected	80	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	80	21	ug/kg		
75-27-4	Bromodichloromethane	Not detected	200	11	ug/kg		
74-95-3	Dibromomethane	Not detected	400	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	80	12	ug/kg		
108-88-3	Toluene	Not detected	200	14	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	80	7.9	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	80	16	ug/kg		
127-18-4	Tetrachloroethene	Not detected	80	15	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	80	20	ug/kg		
124-48-1	Dibromochloromethane	Not detected	200	11	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	30	11	ug/kg		M
108-90-7	Chlorobenzene	Not detected	80	14	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	200	14	ug/kg		
100-41-4	Ethylbenzene	Not detected	80	15	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	200	30	ug/kg		
95-47-6	o-Xylene	Not detected	80	12	ug/kg		
100-42-5	Styrene	Not detected	80	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	400	15	ug/kg		
75-25-2	Bromoform	Not detected	200	8.6	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	80	11	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	200	17	ug/kg		
103-65-1	n-Propylbenzene	Not detected	200	12	ug/kg		
108-86-1	Bromobenzene	Not detected	200	15	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	200	11	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	80	15	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	200	11	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	80	14	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	200	15	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	200	16	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	200	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	200	13	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	200	5.9	ug/kg		
104-51-8	n-Butylbenzene	Not detected	80	14	ug/kg		
67-72-1	Hexachloroethane	Not detected	500	4.8	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	400	26	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	500	15	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	500	12	ug/kg		
91-20-3	Naphthalene	Not detected	500	13	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	500	17	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52959.02
Data File: 5295902.d
Date Received: 06/25/12

Tag: SB146 (06-21-2012)(4-5)
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 75

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Total Solids							
TSOLIDS	Total Solids	80	1		%	06/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/25/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (96%)				06/25/12	
460-00-4	4-Bromofluorobenzene	Pass (91%)					
2037-26-5	Toluene-D8	Pass (100%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52959.03
Data File: 5295903.d
Date Received: 06/25/12

Tag: SB141 (06-22-2012)(3-5)
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 59.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	200	8.3	ug/kg	06/25/12	
67-64-1	Acetone	Not detected	1000	170	ug/kg		
74-88-4	Methyl iodide	Not detected	100	8.6	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.6	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	200	10	ug/kg		
107-13-1	Acrylonitrile	Not detected	100	17	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	890	29	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	300	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	60	11	ug/kg		
74-83-9	Bromomethane	Not detected	200	12	ug/kg		
75-00-3	Chloroethane	Not detected	300	10	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	12	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	12	ug/kg		
75-09-2	Methylene chloride	Not detected	100	11	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	11	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	1000	58	ug/kg		
67-66-3	Chloroform	Not detected	60	8.4	ug/kg		
74-97-5	Bromochloromethane	Not detected	100	7.9	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.3	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	20	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	12	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	7.9	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	11	ug/kg		
79-01-6	Trichloroethene	Not detected	60	10	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	17	ug/kg		
75-27-4	Bromodichloromethane	Not detected	100	8.3	ug/kg		
74-95-3	Dibromomethane	Not detected	300	9.8	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.8	ug/kg		
108-88-3	Toluene	Not detected	100	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	6.2	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	12	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	60	16	ug/kg		
124-48-1	Dibromochloromethane	Not detected	100	8.6	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	20	8.9	ug/kg		M
108-90-7	Chlorobenzene	Not detected	60	11	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	100	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	100	24	ug/kg		
95-47-6	o-Xylene	Not detected	60	9.6	ug/kg		
100-42-5	Styrene	Not detected	60	9.7	ug/kg		
98-82-8	Isopropylbenzene	Not detected	300	12	ug/kg		
75-25-2	Bromoform	Not detected	100	6.8	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.7	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	100	13	ug/kg		
103-65-1	n-Propylbenzene	Not detected	100	9.8	ug/kg		
108-86-1	Bromobenzene	Not detected	100	12	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	100	8.3	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	60	11	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	100	8.9	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	60	11	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	100	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	100	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	100	8.9	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	100	10	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	100	4.7	ug/kg		
104-51-8	n-Butylbenzene	Not detected	60	11	ug/kg		
67-72-1	Hexachloroethane	Not detected	400	3.8	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	300	21	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	390	12	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	390	9.6	ug/kg		
91-20-3	Naphthalene	Not detected	390	10	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	390	14	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120625a3.4

LIMS ID: S52959.03
Data File: 5295903.d
Date Received: 06/25/12

Tag: SB141 (06-22-2012)(3-5)
Notes: 100ul 1s0625
s/50 id:vf120625s2

Matrix: SO
Injection Volume: n/a
Dilution Factor: 59.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Total Solids							
TSOLIDS	Total Solids	91	1		%	06/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/25/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (98%)				06/25/12	
460-00-4	4-Bromofluorobenzene	Pass (92%)					
2037-26-5	Toluene-D8	Pass (101%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
Analytical Batch: 120625a3.4
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5295901.d Vial: 10
Acq On : 25 Jun 12 5:57 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:13 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

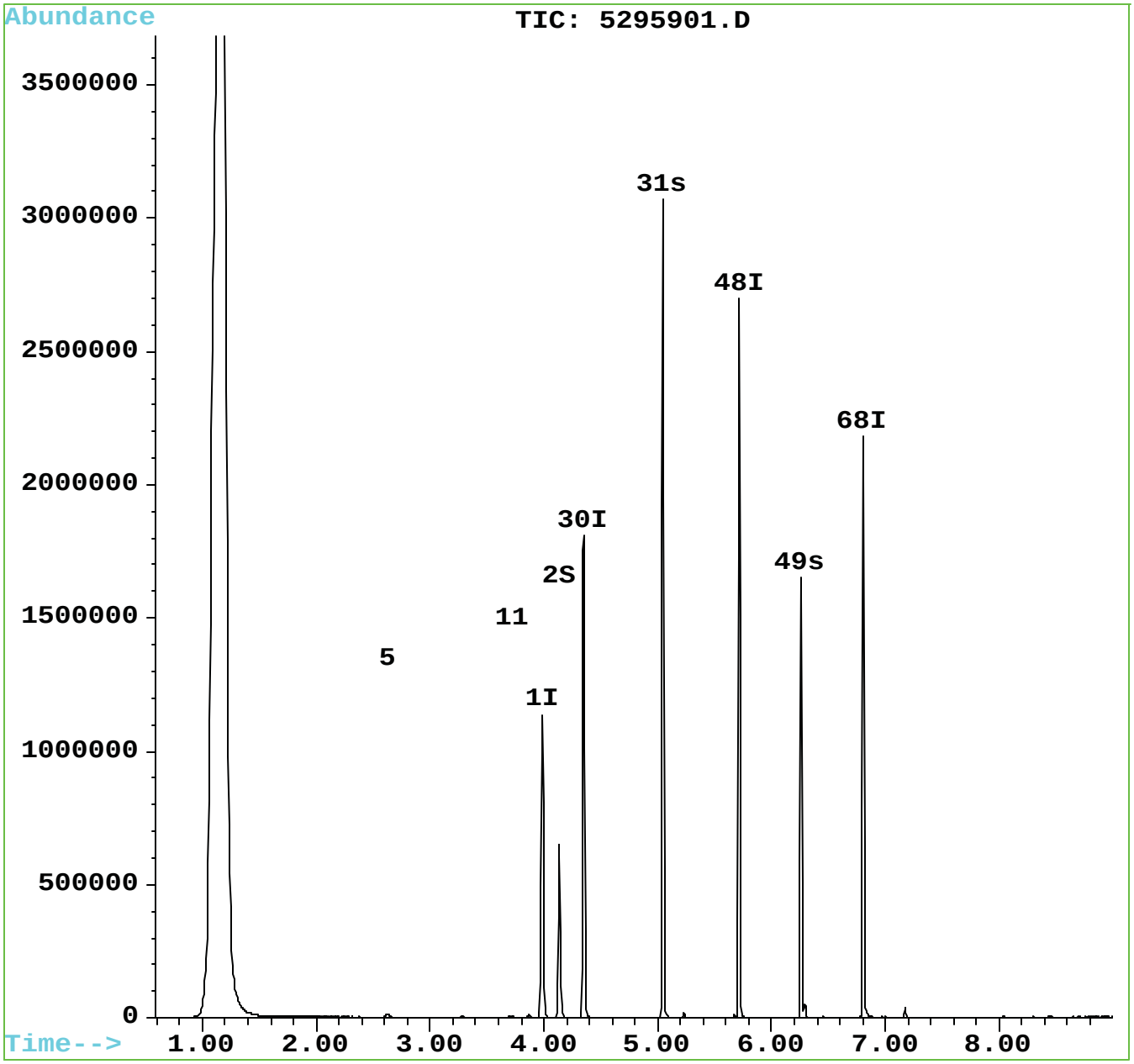
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	444798	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	843355	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	463071	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	306212	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	294271	49.29	ug/l	98.5
31) TOLUENE-D8 (S)	5.05	98	1005947	50.79	ug/l	101.5
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	205675	44.94	ug/l	89.8
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	27852	15.87	ug/l	8
11) 2-Butanone (MEK) (*)	3.73	43	3217	1.50	ug/l	7

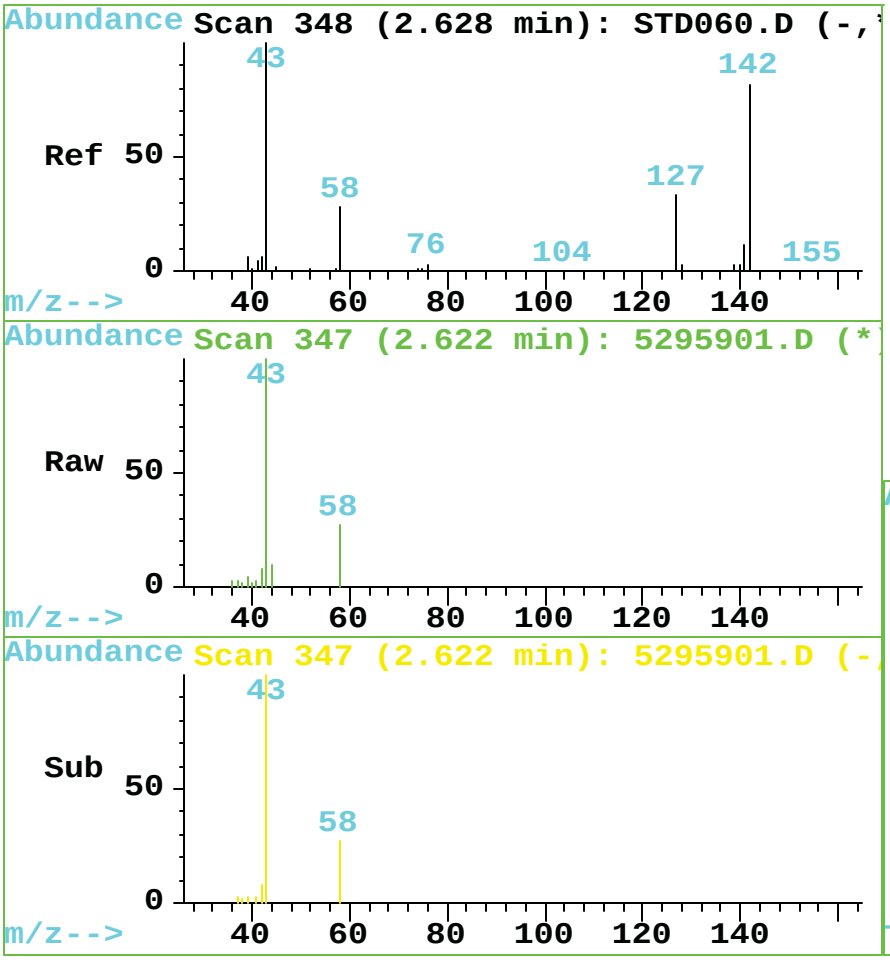
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5295901.d Vial: 10
Acq On : 25 Jun 12 5:57 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:13 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

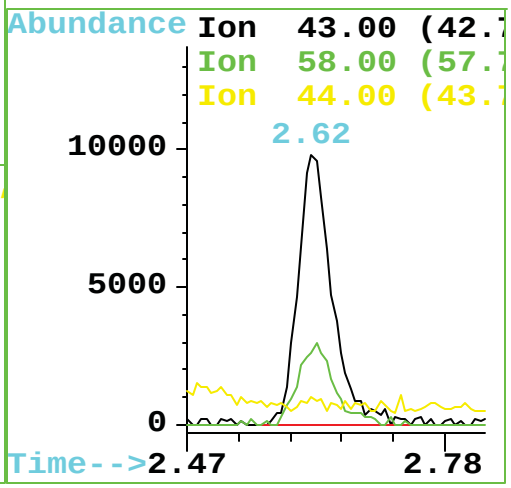


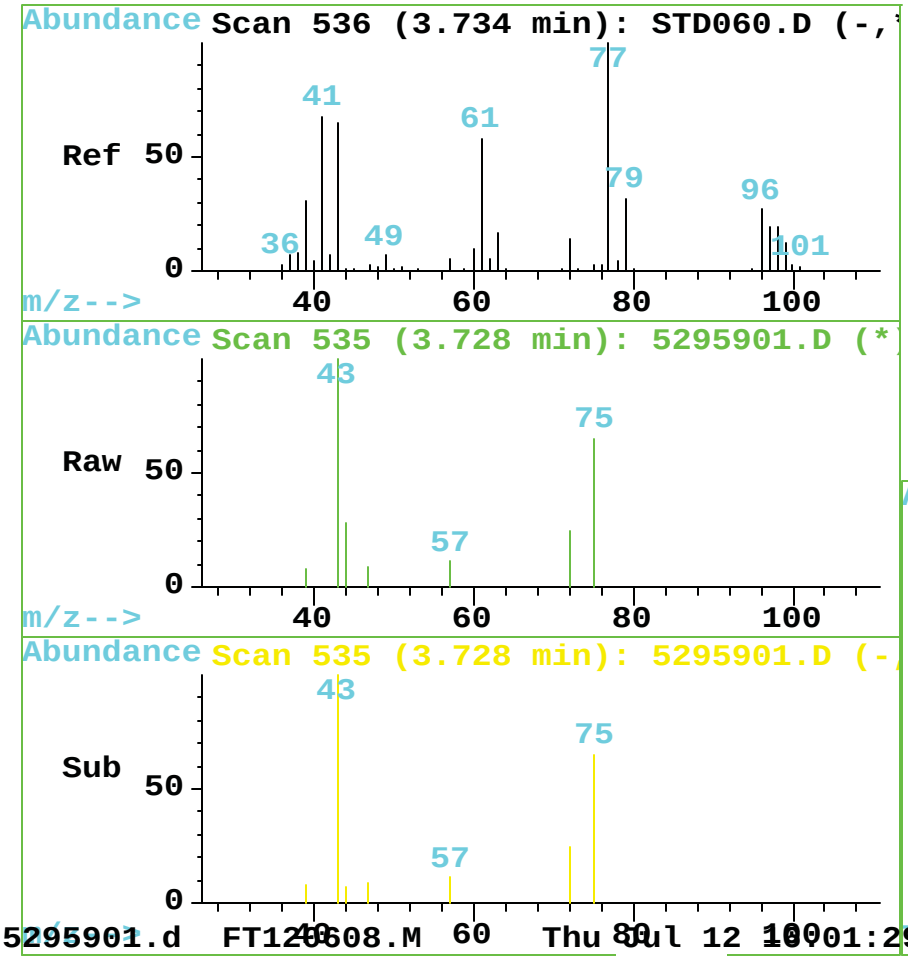


#5
Acetone (*)
Concen: 15.87 ug/l
RT: 2.62 min Scan# 347
Delta R.T. -0.01 min
Lab File: 5295901.d
Acq: 25 Jun 12 5:57 pm

Tgt Ion:43 Resp: 27852

Ion	Ratio	Lower	Upper
43	100		
58	31.6	11.0	71.0
44	3.8	0.0	33.9
0	0.0	0.0	0.0

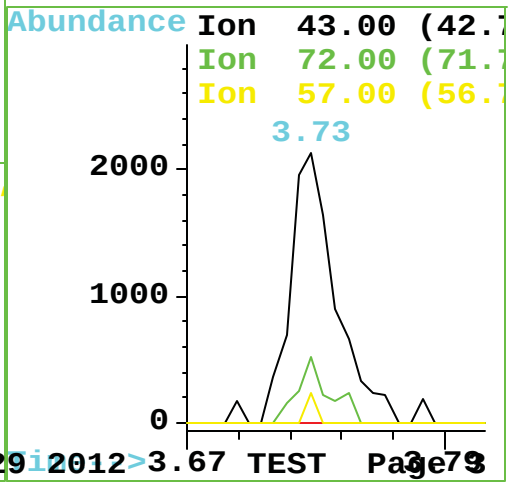




#11
2-Butanone (MEK) (*)
Concen: 1.50 ug/l
RT: 3.73 min Scan# 535
Delta R.T. -0.01 min
Lab File: 5295901.d
Acq: 25 Jun 12 5:57 pm

Tgt Ion:43 Resp: 3217

Ion	Ratio	Lower	Upper
43	100		
72	17.2	6.4	66.4
57	2.6	0.0	37.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5295902.d Vial: 11
Acq On : 25 Jun 12 6:16 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:13 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

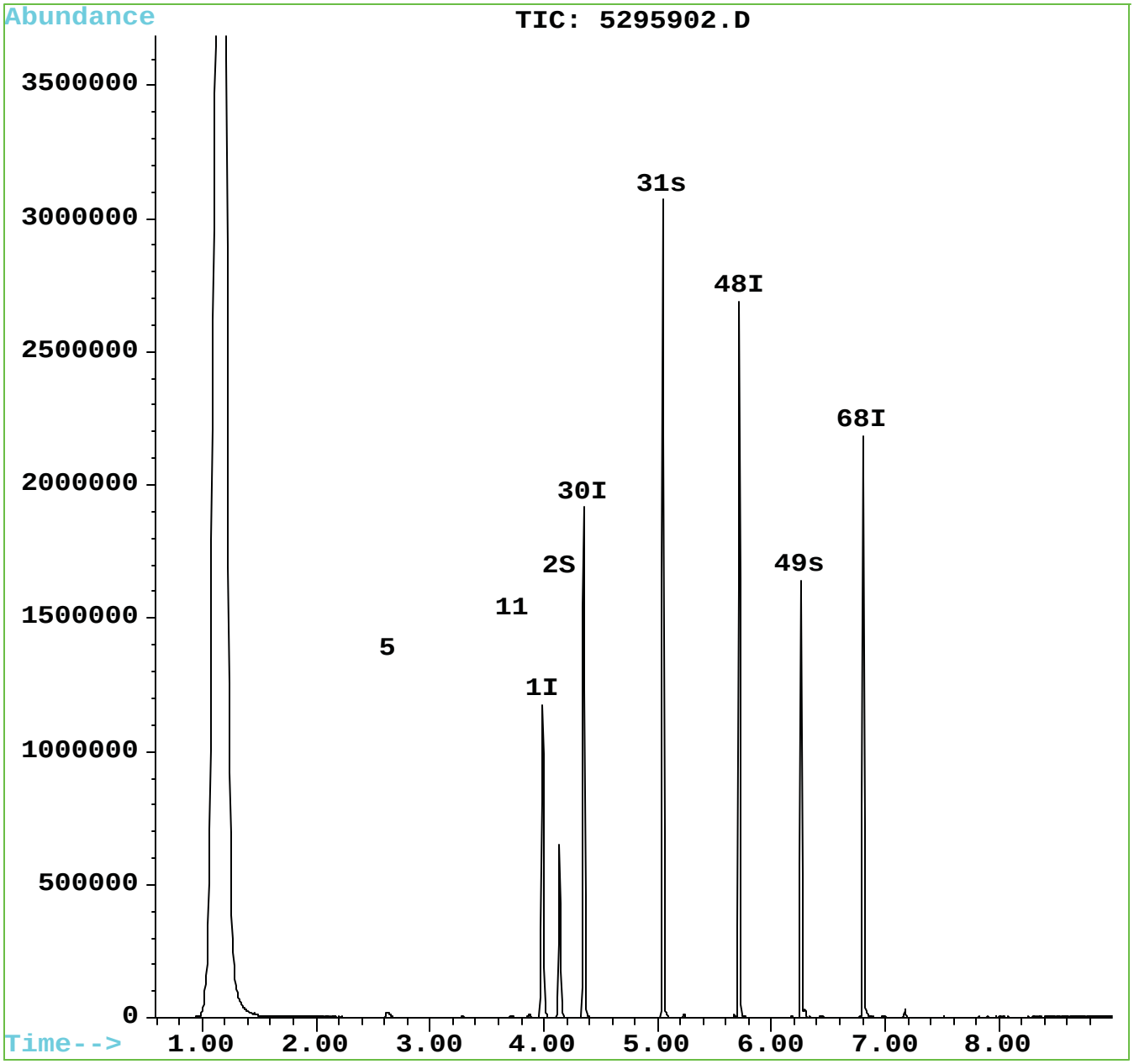
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	451952	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	854150	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	465354	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	307064	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	290864	47.95	ug/l	95.9
31) TOLUENE-D8 (S)	5.05	98	1004470	50.07	ug/l	100.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	209627	45.58	ug/l	91.1
Target Compounds						Qvalu
5) Acetone (*)	2.63	43	38736	24.07	ug/l #	3
11) 2-Butanone (MEK) (*)	3.73	43	3164	1.45	ug/l	6

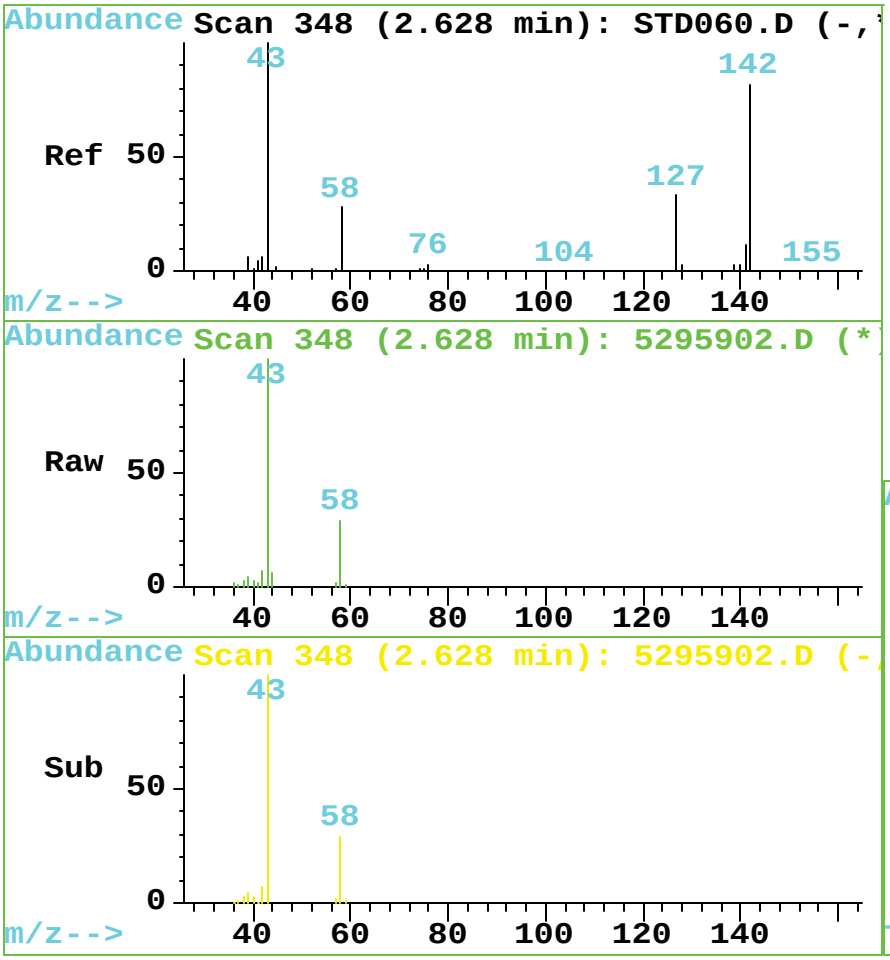
(#) = qualifier out of range (m) = manual integration
5295902.d FT120608.M Thu Jul 12 16:01:34 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5295902.d Vial: 11
Acq On : 25 Jun 12 6:16 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:13 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

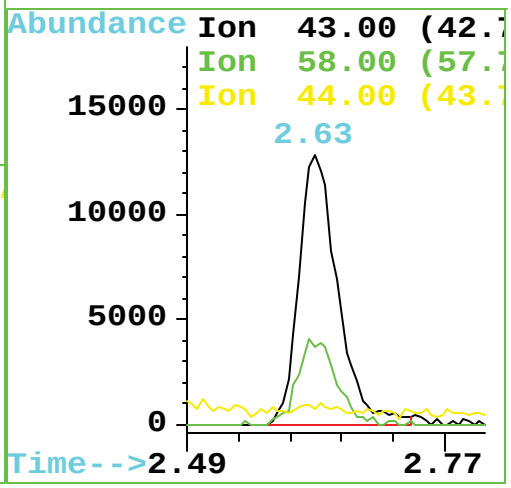


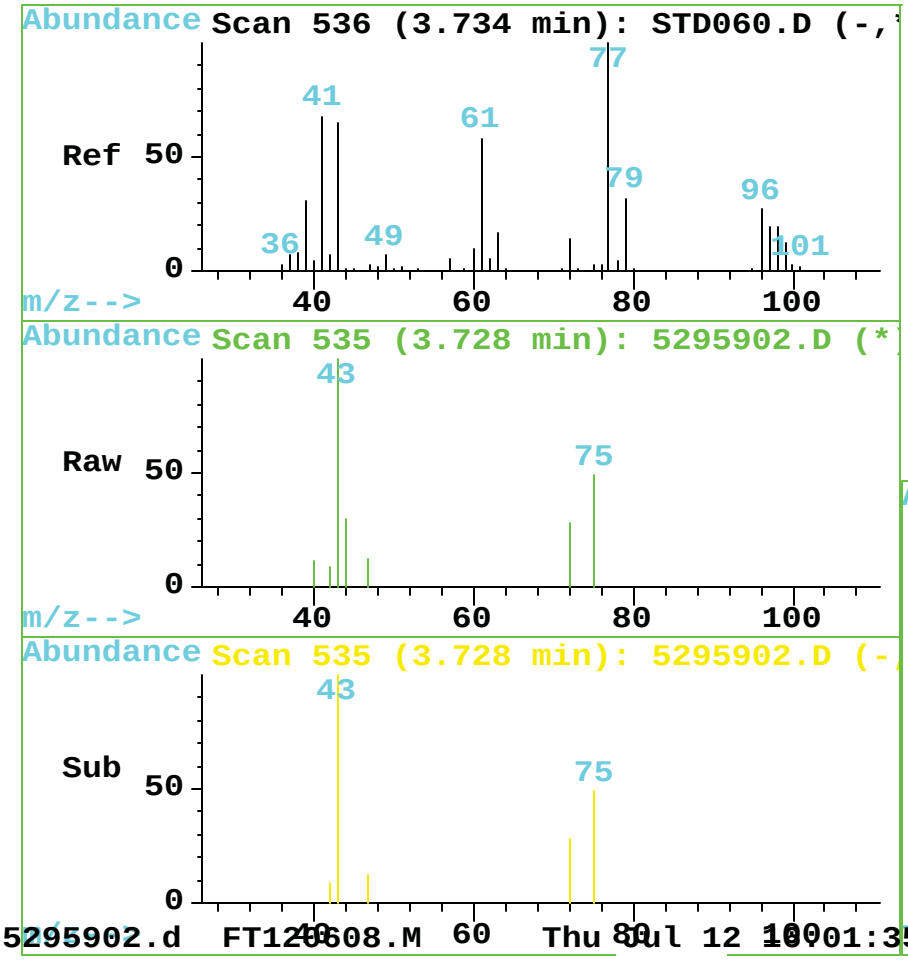


#5
Acetone (*)
Concen: 24.07 ug/l
RT: 2.63 min Scan# 348
Delta R.T. 0.00 min
Lab File: 5295902.d
Acq: 25 Jun 12 6:16 pm

Tgt Ion:43 Resp: 38736

Ion	Ratio	Lower	Upper
43	100		
58	0.0	11.0	71.0#
44	1.3	0.0	33.9
0	0.0	0.0	0.0

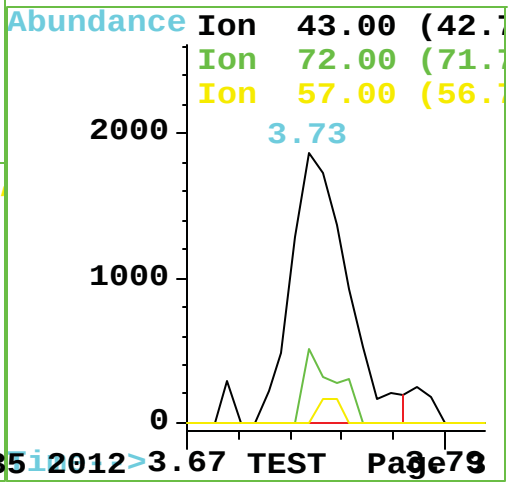




#11
2-Butanone (MEK) (*)
Concen: 1.45 ug/l
RT: 3.73 min Scan# 535
Delta R.T. -0.01 min
Lab File: 5295902.d
Acq: 25 Jun 12 6:16 pm

Tgt Ion:43 Resp: 3164

Ion	Ratio	Lower	Upper
43	100		
72	15.8	6.4	66.4
57	3.6	0.0	37.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5295903.d Vial: 12
Acq On : 25 Jun 12 6:34 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

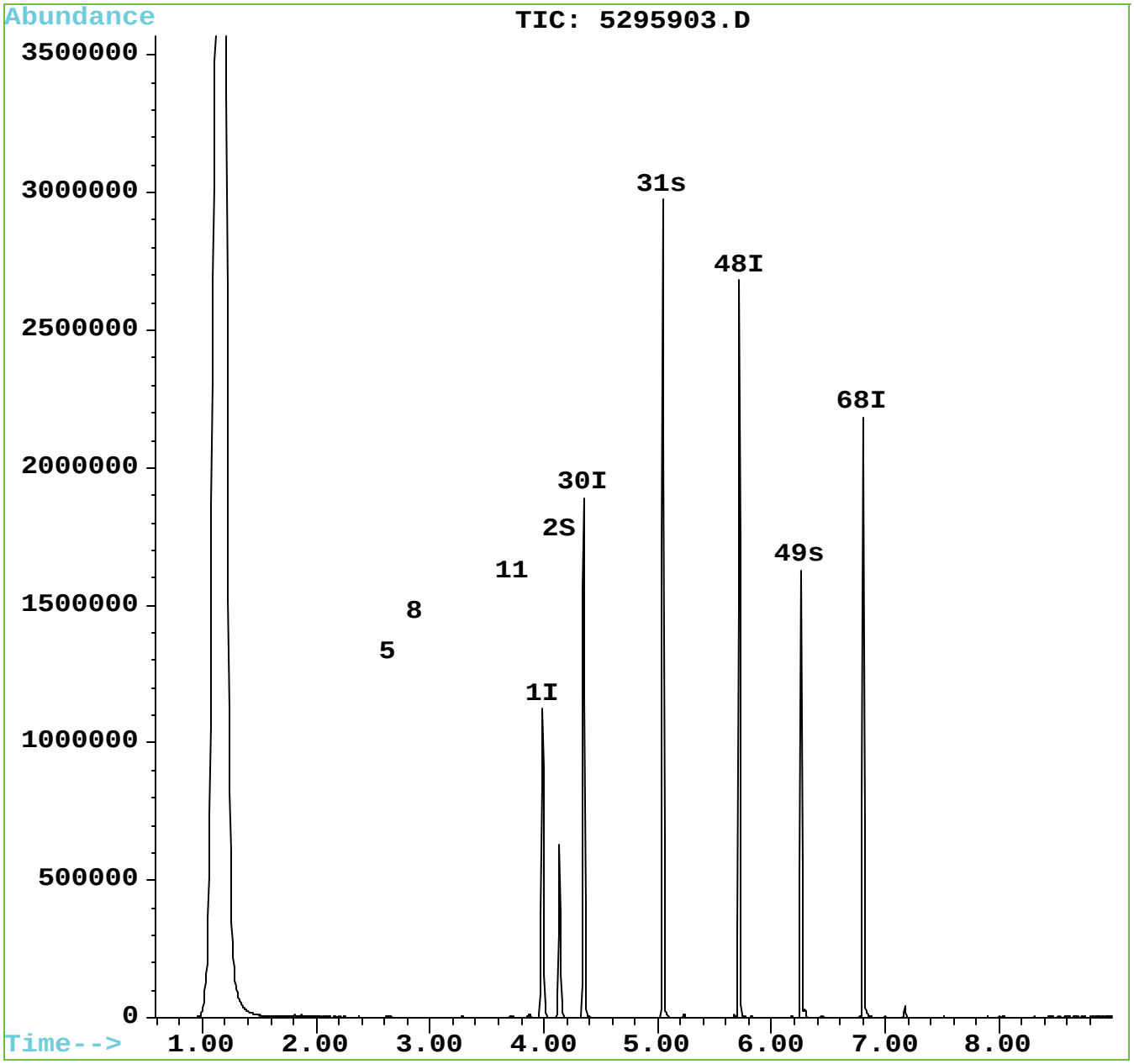
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	437377	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	834236	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	458147	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	306869	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	287261	48.93	ug/l	97.8
31) TOLUENE-D8 (S)	5.05	98	993080	50.69	ug/l	101.3
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	207649	45.86	ug/l	91.7
Target Compounds						Qvalu
5) Acetone (*)	2.63	43	13108	4.27	ug/l	8
8) Methyl Acetate	2.87	43	4794	1.38	ug/l	7
11) 2-Butanone (MEK) (*)	3.73	43	3655	1.73	ug/l	6

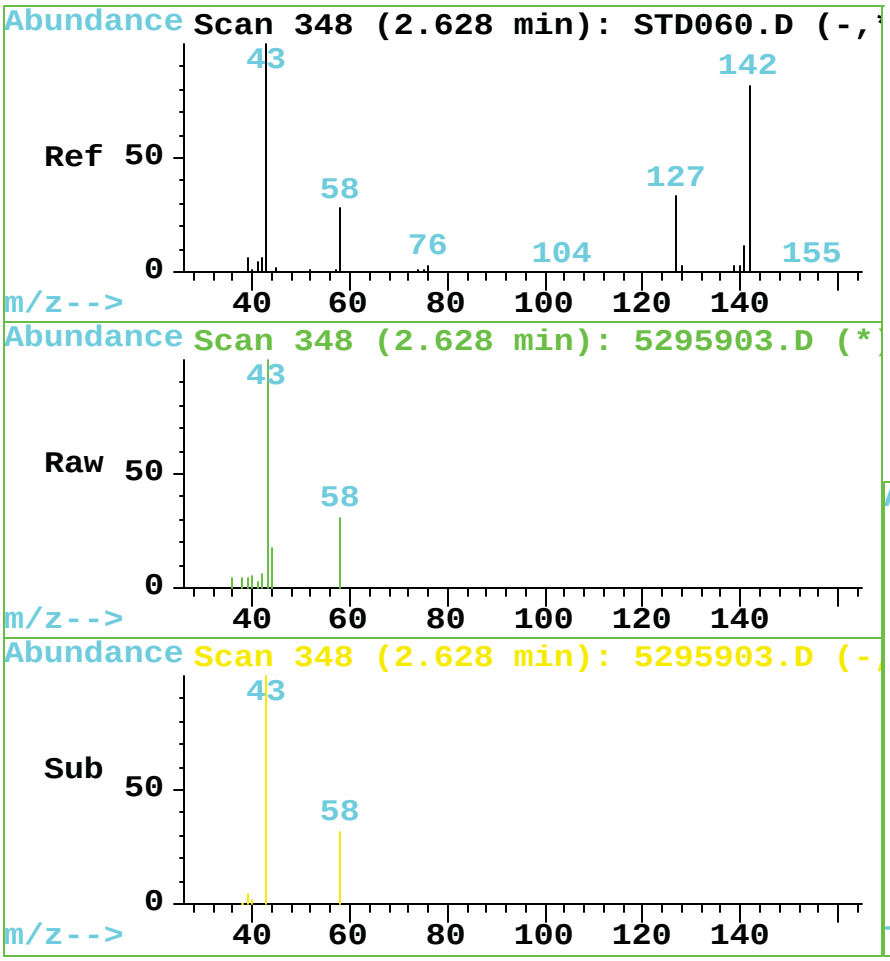
(#) = qualifier out of range (m) = manual integration
5295903.d FT120608.M Thu Jul 12 16:01:39 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\5295903.d Vial: 12
Acq On : 25 Jun 12 6:34 pm Operator: lbr
Sample : 100ul 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

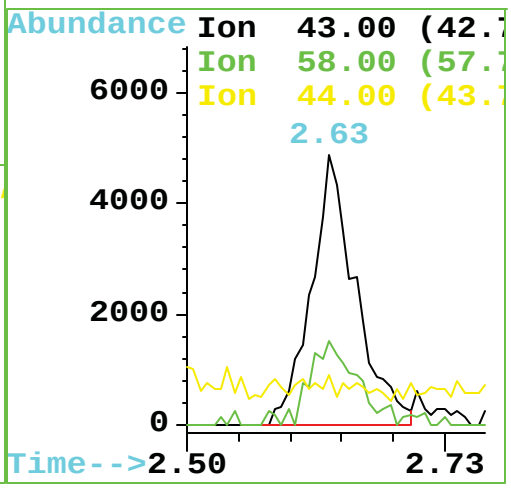


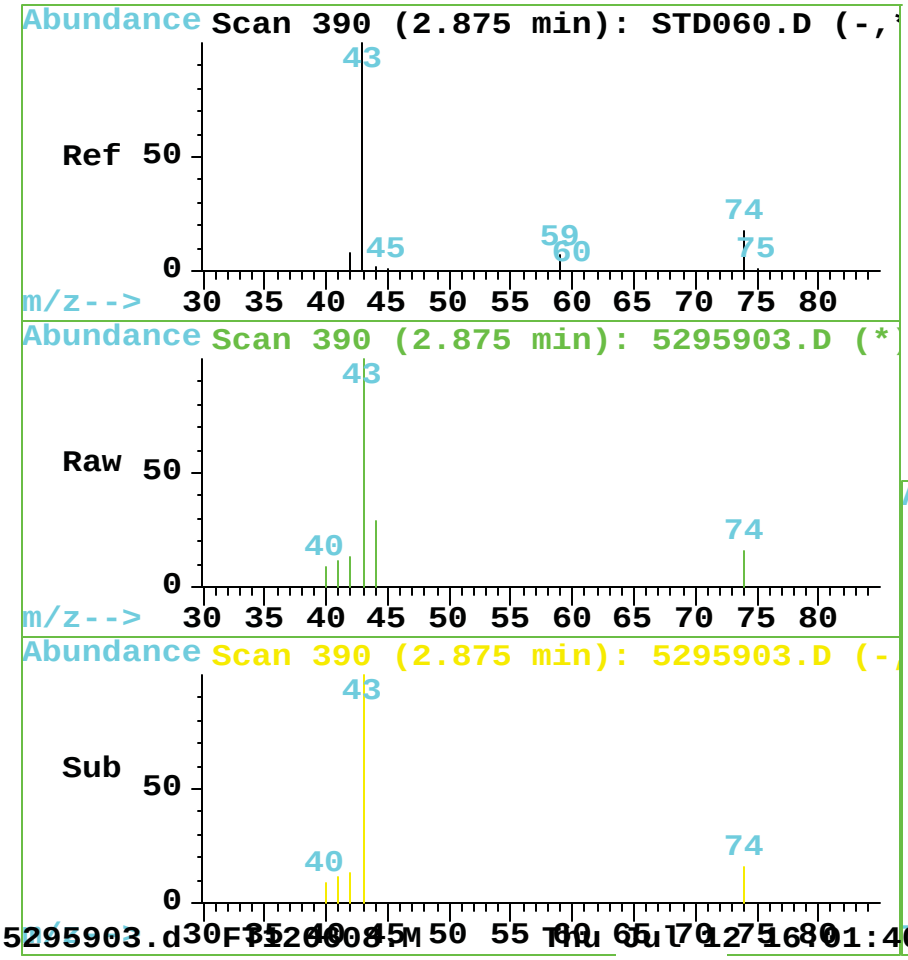


#5
Acetone (*)
Concen: 4.27 ug/l
RT: 2.63 min Scan# 348
Delta R.T. 0.00 min
Lab File: 5295903.d
Acq: 25 Jun 12 6:34 pm

Tgt Ion:43 Resp: 13108

Ion	Ratio	Lower	Upper
43	100		
58	32.5	11.0	71.0
44	2.8	0.0	33.9
0	0.0	0.0	0.0

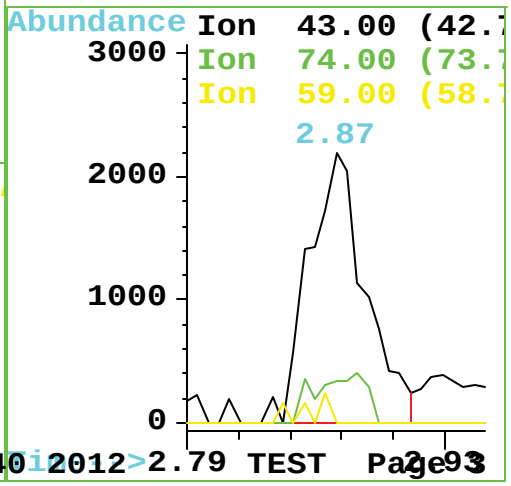


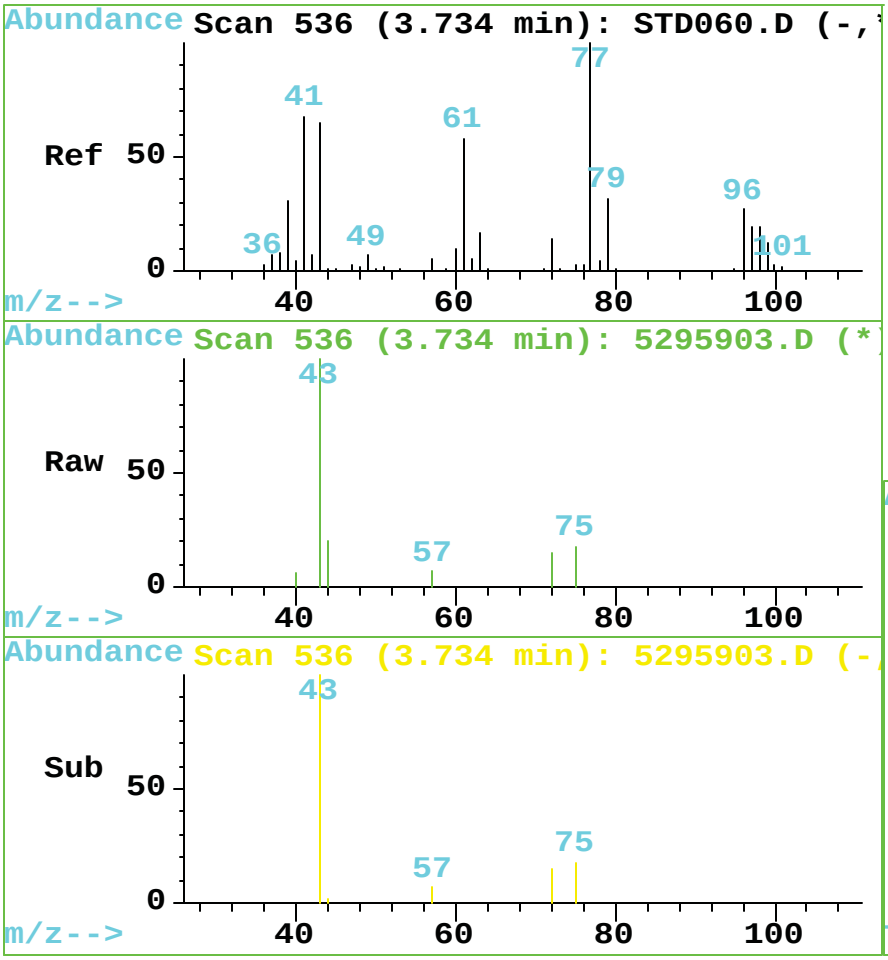


#8
Methyl Acetate
Concen: 1.38 ug/l
RT: 2.87 min Scan# 390
Delta R.T. 0.00 min
Lab File: 5295903.d
Acq: 25 Jun 12 6:34 pm

Tgt Ion:43 Resp: 4794

Ion	Ratio	Lower	Upper
43	100		
74	16.6	3.0	63.0
59	1.8	0.0	39.3
0	0.0	0.0	0.0

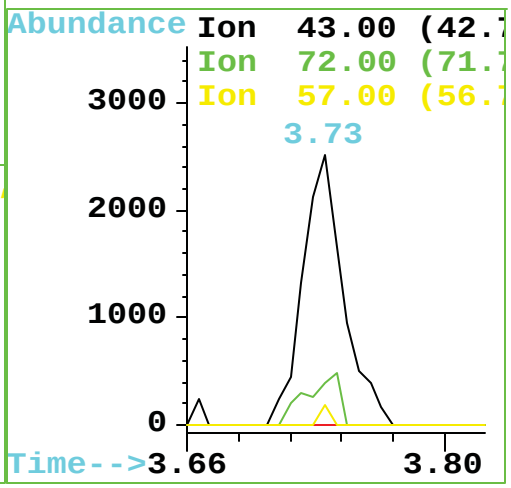




#11
2-Butanone (MEK) (*)
Concen: 1.73 ug/l
RT: 3.73 min Scan# 536
Delta R.T. -0.00 min
Lab File: 5295903.d
Acq: 25 Jun 12 6:34 pm

Tgt Ion:43 Resp: 3655

Ion	Ratio	Lower	Upper
43	100		
72	15.9	6.4	66.4
57	1.8	0.0	37.8
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
ft120608.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.671	8.97	0.785	0.656	0.614	0.631	0.675	0.666				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.571	3.59	0.586	0.584	0.541	0.549	0.577	0.588				
	Diethyl ether (*)	A	0.236	9.93	0.276	0.232	0.209	0.217	0.241	0.239				
	Acetone (*)	L	0.168	16.99		0.214	0.171	0.147	0.165	0.142	0.99	0.01	0.143	0.00
	Methyl iodide (iodomethane) (*	A	0.742	5.91	0.801	0.715	0.685	0.714	0.760	0.774				
	Carbon disulfide (*)	A	1.814	14.49	1.482	1.639	1.665	1.879	2.071	2.149				
	Methyl Acetate	A	0.398	5.25		0.426	0.402	0.369	0.403	0.389				
	tert-Methyl butyl ether (MTBE)	A	1.444	6.94	1.622	1.407	1.342	1.366	1.465	1.461				
	Acrylonitrile (*)	A	0.212	8.40	0.243	0.211	0.195	0.194	0.214	0.213				
	2-Butanone (MEK) (*)	A	0.242	8.42		0.275	0.241	0.229	0.242	0.222				
	Dichlorodifluoromethane	A	0.475	11.88	0.412	0.447	0.416	0.512	0.527	0.535				
	Chloromethane (SPCC)	LO	1.088	21.43	1.557	1.041	0.942	0.956	1.005	1.026	1.00	0.00	1.017	0.00
	Vinyl Chloride (CCC)	A	0.760	4.19	0.715	0.745	0.739	0.779	0.782	0.799				
	Bromomethane	A	0.282	12.13	0.348	0.285	0.256	0.258	0.271	0.272				
	Chloroethane	A	0.273	11.03	0.330	0.280	0.256	0.249	0.263	0.257				
	Acrolein	A												
	Trichlorofluoromethane	A	0.798	6.00	0.877	0.797	0.733	0.769	0.806	0.808				
	1,1-Dichloroethene (CCC/MS)	A	1.089	6.84	1.208	1.091	1.000	1.022	1.091	1.123				
	Methylene Chloride	A	0.656	12.02	0.813	0.630	0.604	0.606	0.639	0.641				
	trans-1,2-Dichloroethene	A	1.101	4.59	1.180	1.086	1.045	1.053	1.126	1.117				
	1,1-Dichloroethane (SPCC)	A	1.332	6.65	1.492	1.336	1.250	1.250	1.337	1.324				
	cis-1,2-Dichloroethene	A	0.661	6.29	0.739	0.653	0.628	0.624	0.666	0.656				
	Tetrahydrofuran	L	0.186	18.71		0.245	0.191	0.163	0.169	0.163	1.00	0.01	0.161	0.00
	Chloroform (CCC)	A	1.069	7.82	1.228	1.040	1.009	0.997	1.068	1.071				
	Bromochloromethane	A	0.302	10.91	0.367	0.289	0.279	0.280	0.301	0.297				
	1,1,1-Trichloroethane	A	0.923	5.40	0.980	0.887	0.865	0.886	0.944	0.975				
	1,1-Dichloropropene	A	0.974	7.57	1.109	0.996	0.914	0.911	0.970	0.944				
	Cyclohexane	A	0.496	8.97	0.580	0.512	0.467	0.464	0.479	0.475				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.174	7.80	1.348	1.180	1.103	1.101	1.175	1.138				
	4-Methyl-2-pentanone (MIBK) (*	A	0.089	12.03	0.107	0.081	0.077	0.084	0.092	0.091				
	2-Hexanone (*)	A	0.081	4.73		0.082	0.078	0.077	0.086	0.084				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.379	8.36	0.360	0.363	0.346	0.368	0.405	0.429				
	Benzene (MS)	A	1.499	7.20	1.698	1.512	1.404	1.409	1.504	1.464				
	1,2-Dichloroethane	A	0.447	6.93	0.499	0.440	0.414	0.418	0.455	0.454				
	Trichloroethene (MS)	A	0.330	6.62	0.364	0.325	0.303	0.312	0.333	0.342				
	1,2-Dichloropropane (CCC)	A	0.389	3.55	0.402	0.400	0.373	0.371	0.398	0.390				
	Bromodichloromethane	A	0.365	9.78	0.344	0.338	0.332	0.357	0.403	0.416				
	Methyl Cyclohexane	A	0.705	5.46	0.758	0.719	0.652	0.669	0.712	0.721				
	Dibromomethane	A	0.121	6.09	0.122	0.121	0.111	0.113	0.126	0.130				
	cis-1,3-Dichloropropene	A	0.513	6.23	0.488	0.500	0.484	0.499	0.554	0.553				
	Toluene (CCC/MS)	A	1.506	7.59	1.721	1.534	1.421	1.421	1.495	1.445				
	trans-1,3-Dichloropropene	A	0.408	11.21	0.342	0.383	0.390	0.413	0.458	0.459				
	1,1,2-Trichloroethane	A	0.189	5.14	0.203	0.186	0.177	0.181	0.194	0.195				
	Tetrachloroethene	A	0.299	6.57	0.330	0.300	0.276	0.281	0.299	0.310				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.494	14.04	0.626	0.472	0.431	0.450	0.482	0.505				
	trans-1,4-Dichloro-2-butene	A	0.146	8.27	0.153	0.138	0.126	0.144	0.158	0.154				
	Dibromochloromethane	QO	0.314	19.73	0.237	0.273	0.277	0.326	0.374	0.394	1.00	0.00	0.324	0.02
	1,2-Dibromoethane	A	0.348	5.26	0.342	0.337	0.326	0.344	0.365	0.375				
	Chlorobenzene (SPCC/MS)	A	1.540	8.46	1.788	1.566	1.440	1.448	1.519	1.479				
	1,1,1,2-Tetrachloroethane	A	0.446	5.20	0.435	0.435	0.423	0.434	0.471	0.480				
	Ethylbenzene (CCC)	A	2.980	5.93	3.272	3.103	2.828	2.856	2.973	2.849				
	p,m-Xylene	A	1.085	9.04	1.248	1.152	1.049	1.044	1.046	0.973				
	o-Xylene	A	2.346	6.00	2.599	2.410	2.238	2.270	2.327	2.231				
	Styrene	A	1.706	3.33	1.769	1.761	1.674	1.676	1.732	1.625				
	Isopropylbenzene	A	2.952	5.62	3.249	3.022	2.795	2.830	2.927	2.888				
	Bromoform (SPCC)	QO	0.153	29.17	0.097	0.125	0.126	0.162	0.191	0.214	1.00	0.00	0.152	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.462	3.57	0.461	0.462	0.439	0.451	0.477	0.484				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
ft120608.m	1,2,3-Trichloropropane	A	0.126	4.16	0.128	0.129	0.116	0.124	0.128	0.130				
	n-Propylbenzene	A	3.536	5.24	3.832	3.658	3.320	3.450	3.543	3.414				
	Bromobenzene	A	0.525	6.88	0.586	0.509	0.485	0.498	0.531	0.538				
	1,3,5-Trimethylbenzene	A	1.091	4.73	1.178	1.125	1.049	1.057	1.087	1.050				
	tert-Butylbenzene	A	1.711	3.95	1.779	1.718	1.594	1.674	1.740	1.759				
	1,2,4-Trimethylbenzene	A	1.208	7.14	1.365	1.237	1.160	1.181	1.185	1.118				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	4.666	5.89	5.175	4.722	4.502	4.387	4.643	4.564				
	p-Isopropyltoluene	A	3.395	4.85	3.665	3.501	3.340	3.220	3.377	3.264				
	1,3-Dichlorobenzene	A	1.438	6.84	1.612	1.478	1.415	1.330	1.413	1.378				
	1,4-Dichlorobenzene	A	1.518	10.66	1.833	1.495	1.442	1.365	1.491	1.482				
	1,2-Dichlorobenzene	A	1.356	5.87	1.487	1.367	1.290	1.257	1.362	1.370				
	1,2,3-Trimethylbenzene	A	3.359	6.74	3.781	3.332	3.178	3.148	3.371	3.341				
	n-Butylbenzene	A	3.730	4.73	4.031	3.812	3.642	3.522	3.729	3.646				
	Hexachloroethane	QO	0.288	28.98	0.211	0.222	0.230	0.294	0.348	0.420	1.00	0.00	0.256	0.04
	1,2-Dibromo-3-Chloropropane	QO	0.070	26.01	0.042	0.059	0.065	0.075	0.084	0.092	1.00	0.00	0.071	0.01
	1,2,4-Trichlorobenzene	A	0.778	4.42	0.811	0.761	0.728	0.758	0.792	0.816				
	Hexachlorobutadiene	A	0.493	10.83	0.477	0.460	0.442	0.473	0.515	0.590				
	1,2,3-Trichlorobenzene	A	0.695	6.57	0.770	0.676	0.639	0.666	0.710	0.711				
	Naphthalene	A	1.635	5.94	1.812	1.563	1.559	1.571	1.662	1.644				
	2-Methylnaphthalene	A	0.801	8.09	0.907	0.724	0.751	0.784	0.833	0.806				

Calibration Date: 06/08/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): ft120608.M (Mean %RSD: 8.45)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\merfolk.thd\methods\ft120608.m\

Injection Time	Calibration Data File
06/08/12 15:44	bfb08a.d
06/08/12 18:36	std001.d
06/08/12 18:55	std010.d
06/08/12 19:13	std020.d
06/08/12 19:31	std060.d
06/08/12 19:49	std100.d
06/08/12 20:07	std200.d

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\bfb08a.d Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	83138	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	148488	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	83428	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	63366	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	55113	49.39	ug/l		98.7
31) TOLUENE-D8 (S)	5.05	98	179702	51.53	ug/l		103.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	41916	50.83	ug/l		101.6
Target Compounds							Qvalu
5) Acetone (*)	2.62	43	4119	11.22	ug/l		9
7) Carbon disulfide (*)	2.70	76	147	0.05	ug/l	#	
8) Methyl Acetate	2.88	43	403	0.61	ug/l	#	4
11) 2-Butanone (MEK) (*)	3.73	43	1398	3.48	ug/l	#	5
13) Chloromethane (SPCC)	1.40	50	811	0.48	ug/l		8
15) Bromomethane	1.77	94	59	0.13	ug/l	#	
20) Methylene Chloride	2.94	84	380	0.35	ug/l	#	2
22) 1,1-Dichloroethane (SPCC)	3.38	63	201	0.09	ug/l	#	5
23) cis-1,2-Dichloroethene	3.70	96	73	0.07	ug/l	#	2
24) Tetrahydrofuran	3.87	42	6908	21.96	ug/l	#	1
25) Chloroform (CCC)	3.88	83	357	0.20	ug/l	#	5
29) Cyclohexane	3.93	42	65	0.08	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	249	0.94	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	302	1.25	ug/l	#	7
36) Benzene (MS)	4.16	78	641	0.14	ug/l	#	
37) 1,2-Dichloroethane	4.17	62	167	0.13	ug/l	#	8
38) Trichloroethene (MS)	4.49	95	55	0.06	ug/l	#	4
40) Bromodichloromethane	4.72	83	77	0.07	ug/l	#	3
41) Methyl Cyclohexane	4.58	55	201	0.10	ug/l	#	6
44) Toluene (CCC/MS)	5.07	91	910	0.20	ug/l		7
45) trans-1,3-Dichloropropene	5.17	75	56	0.05	ug/l	#	4
53) Chlorobenzene (SPCC/MS)	5.73	112	466	0.18	ug/l	#	
55) Ethylbenzene (CCC)	5.77	91	722	0.15	ug/l		9
56) p,m-Xylene	5.82	106	681	0.38	ug/l		9
57) o-Xylene	6.02	91	1005	0.26	ug/l		7
58) Styrene	6.02	104	408	0.14	ug/l	#	6
59) Isopropylbenzene	6.18	105	1044	0.21	ug/l		7
61) 1,1,2,2-Tetrachloroethane	6.32	83	126	0.16	ug/l	#	
63) n-Propylbenzene	6.37	91	1677	0.28	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\bfb08a.d Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

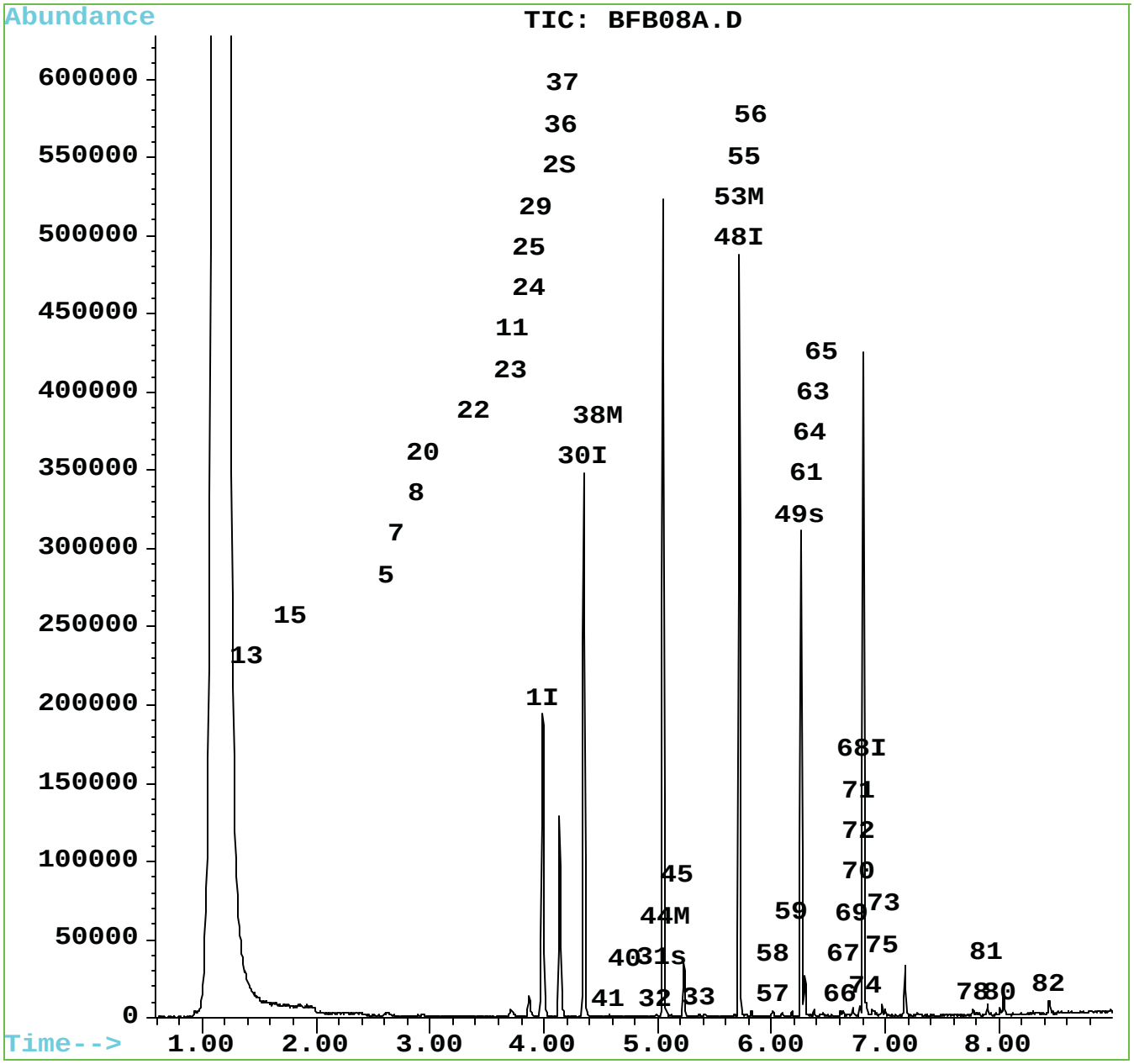
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
64)	Bromobenzene	6.34	156	201	0.23	ug/l	#	3
65)	1,3,5-Trimethylbenzene	6.45	120	448	0.25	ug/l		8
66)	tert-Butylbenzene	6.61	91	1015	0.36	ug/l	#	3
67)	1,2,4-Trimethylbenzene	6.63	120	462	0.23	ug/l	#	2
69)	sec-Butylbenzene	6.72	105	2525	0.43	ug/l		9
70)	p-Isopropyltoluene	6.77	119	1491	0.35	ug/l		7
71)	1,3-Dichlorobenzene	6.78	146	465	0.26	ug/l		8
72)	1,4-Dichlorobenzene	6.78	146	465	0.24	ug/l		8
73)	1,2-Dichlorobenzene	7.00	146	473	0.28	ug/l		8
74)	1,2,3-Trimethylbenzene	6.83	105	1432	0.34	ug/l		8
75)	n-Butylbenzene	6.97	91	2186	0.46	ug/l		9
78)	1,2,4-Trichlorobenzene	7.77	182	750	0.76	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	717	0.81	ug/l		8
81)	Naphthalene	7.90	128	3542	1.71	ug/l		9
82)	2-Methylnaphthalene	8.44	142	2825	2.78	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\bfb08a.d Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 14:42 19112

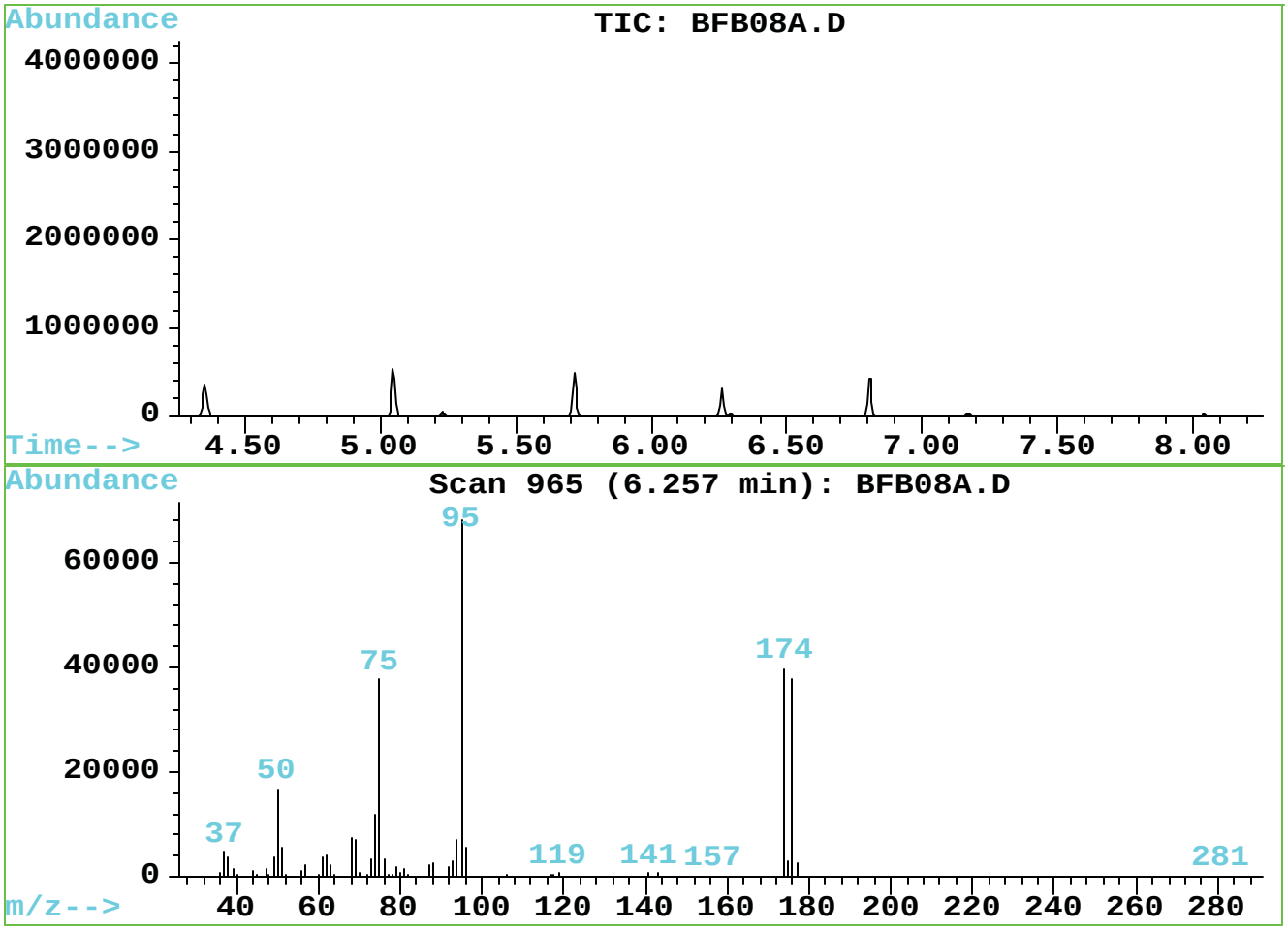
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M\BFB08A.D Vial:
Acq On : 8 Jun 12 3:44 pm Operator: lbr
Sample : 50ng bfb 2s0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 965

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.8	16840	PASS
75	95	30	66	55.4	37672	PASS
95	95	100	100	100.0	68024	PASS
96	95	5	9	8.1	5529	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	58.5	39784	PASS
175	174	4	9	7.2	2871	PASS
176	174	93	101	94.6	37624	PASS
177	176	5	9	6.8	2562	PASS

BFB08A.D FT120608.M Thu Jul 12 14:44:24 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	379920	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	729973	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	407313	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	288018	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	5961	1.61	ug/l		3.2
31) TOLUENE-D8 (S)	5.05	98	19685	1.21	ug/l		2.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	5098	1.18	ug/l		2.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	4454	1.03	ug/l	#	6
4) Diethyl ether (*)	2.38	74	2096	1.25	ug/l	#	3
5) Acetone (*)	2.63	43	3556	5.35	ug/l		7
6) Methyl iodide (iodomethane	2.66	142	6088	1.05	ug/l		7
7) Carbon disulfide (*)	2.70	76	11261	0.88	ug/l		9
8) Methyl Acetate	2.87	43	5721	4.29	ug/l		6
9) tert-Methyl butyl ether (M	3.14	73	12325	1.72	ug/l		7
10) Acrylonitrile (*)	3.11	53	1844	2.75	ug/l	#	8
11) 2-Butanone (MEK) (*)	3.73	43	4023	4.79	ug/l	#	7
12) Dichlorodifluoromethane	1.27	85	3132	0.97	ug/l	m	8
13) Chloromethane (SPCC)	1.42	50	11831	2.64	ug/l	m	7
14) Vinyl Chloride (CCC)	1.52	62	5434	1.08	ug/l		9
15) Bromomethane	1.77	94	2647	0.74	ug/l	#	
16) Chloroethane	1.87	64	2504	0.59	ug/l	#	6
17) Acrolein	2.50	56	67	0.42	ug/l	#	9
18) Trichlorofluoromethane	2.09	101	6661	0.94	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.55	61	9178	1.39	ug/l	#	7
20) Methylene Chloride	2.93	84	6174	1.63	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	8967	1.50	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	11338	1.55	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	5613	1.27	ug/l	#	4
24) Tetrahydrofuran	3.87	42	6837	12.22	ug/l	#	1
25) Chloroform (CCC)	3.89	83	9331	1.34	ug/l		8
26) Bromochloromethane	3.84	130	2790	1.45	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	7449	0.98	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	8427	1.33	ug/l		8
29) Cyclohexane	4.01	42	4406	1.85	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	1563	2.49	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	1158	1.98	ug/l	#	3

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.08	63	2302	1.87 ug/l #	
35) Carbon Tetrachloride	4.07	117	5259	0.78 ug/l	9
36) Benzene (MS)	4.17	78	24793	1.31 ug/l	8
37) 1,2-Dichloroethane	4.17	62	7291	1.46 ug/l	9
38) Trichloroethene (MS)	4.48	95	5310	1.13 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	5864	1.42 ug/l	9
40) Bromodichloromethane	4.72	83	5022	1.03 ug/l	9
41) Methyl Cyclohexane	4.57	55	11062	1.47 ug/l #	5
42) Dibromomethane	4.65	174	1787	1.16 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	7127	1.28 ug/l	8
44) Toluene (CCC/MS)	5.07	91	25131	1.23 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	4991	1.12 ug/l	8
46) 1,1,2-Trichloroethane	5.26	83	2958	1.45 ug/l	9
47) Tetrachloroethene	5.33	166	4818	1.55 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.35	53	1247	1.65 ug/l #	3
51) Dibromochloromethane	5.45	129	1928	0.68 ug/l	9
52) 1,2-Dibromoethane	5.51	107	2785	1.09 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	14569	1.09 ug/l #	4
54) 1,1,1,2-Tetrachloroethane	5.76	131	3540	0.84 ug/l #	7
55) Ethylbenzene (CCC)	5.77	91	26652	1.00 ug/l	9
56) p,m-Xylene	5.83	106	20338	2.03 ug/l #	7
57) o-Xylene	6.02	91	21170	1.01 ug/l	9
58) Styrene	6.02	104	14408	0.95 ug/l	8
59) Isopropylbenzene	6.18	105	26468	0.98 ug/l	9
60) Bromoform (SPCC)	6.12	173	789	0.50 ug/l	8
61) 1,1,2,2-Tetrachloroethane	6.32	83	3753	1.30 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	1040	1.16 ug/l #	3
63) n-Propylbenzene	6.37	91	31215	1.04 ug/l	8
64) Bromobenzene	6.34	156	4770	1.07 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	9597	0.96 ug/l #	7
66) tert-Butylbenzene	6.61	91	14495	0.90 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	11122	1.01 ug/l #	7
69) sec-Butylbenzene	6.71	105	29812	1.04 ug/l	8
70) p-Isopropyltoluene	6.77	119	21114	0.99 ug/l	9
71) 1,3-Dichlorobenzene	6.78	146	9288	1.06 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	10558	1.27 ug/l m	8
73) 1,2-Dichlorobenzene	7.00	146	8563	1.12 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	21782	1.15 ug/l	8
75) n-Butylbenzene	6.97	91	23220	1.15 ug/l	8
76) Hexachloroethane	7.12	201	1214	0.43 ug/l #	2

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

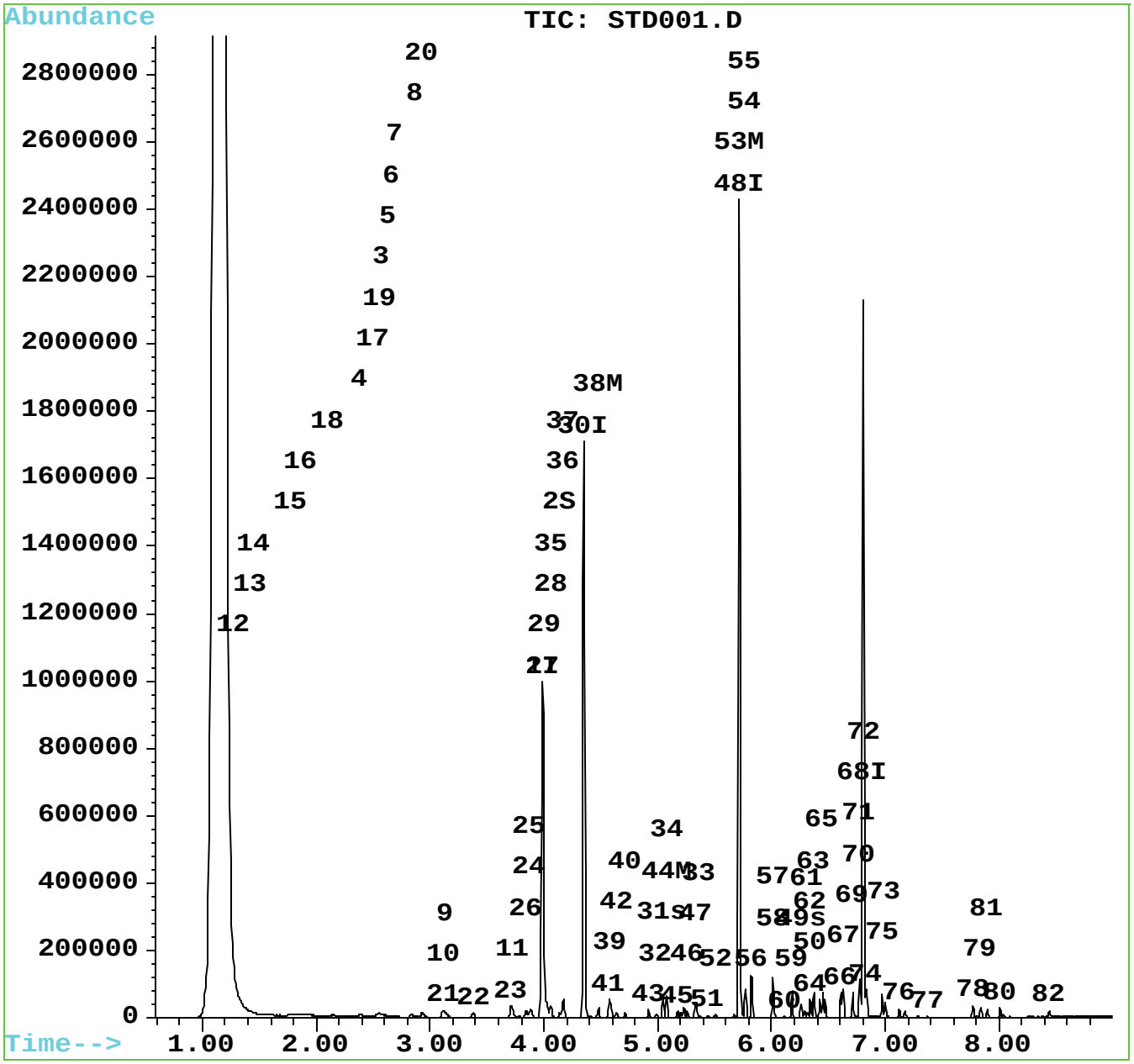
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	243	0.60	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	4670	1.25	ug/l		8
79)	Hexachlorobutadiene	7.84	225	2749	0.88	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	4433	1.33	ug/l		9
81)	Naphthalene	7.89	128	10438	1.36	ug/l		9
82)	2-Methylnaphthalene	8.44	142	5225	1.36	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std001.d Vial:
Acq On : 8 Jun 12 6:36 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:07 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	414215	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	776364	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	430828	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	309995	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	54360	13.50	ug/l		26.9
31) TOLUENE-D8 (S)	5.05	98	183265	10.56	ug/l		21.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	40688	8.93	ug/l		17.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.58	101	48359	10.27	ug/l	#	7
4) Diethyl ether (*)	2.37	74	19228	10.50	ug/l	#	3
5) Acetone (*)	2.63	43	17757	24.49	ug/l		8
6) Methyl iodide (iodomethane	2.65	142	59254	9.41	ug/l		8
7) Carbon disulfide (*)	2.69	76	135742	9.77	ug/l		8
8) Methyl Acetate	2.87	43	35329	24.30	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	116537	14.89	ug/l		8
10) Acrylonitrile (*)	3.11	53	17476	23.91	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	22782	24.88	ug/l		7
12) Dichlorodifluoromethane	1.25	85	37067	10.62	ug/l		9
13) Chloromethane (SPCC)	1.40	50	86268	17.64	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	61759	11.31	ug/l		9
15) Bromomethane	1.77	94	23646	6.10	ug/l		9
16) Chloroethane	1.85	64	23203	5.03	ug/l		8
17) Acrolein	2.47	56	55	0.32	ug/l	#	4
18) Trichlorofluoromethane	2.07	101	66046	8.52	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.54	61	90405	12.56	ug/l	#	6
20) Methylene Chloride	2.93	84	52150	12.65	ug/l	#	4
21) trans-1,2-Dichloroethene	3.10	61	89958	13.76	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	110697	13.87	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	54081	11.23	ug/l	#	5
24) Tetrahydrofuran	3.87	42	20304	33.27	ug/l		8
25) Chloroform (CCC)	3.89	83	86168	11.38	ug/l		9
26) Bromochloromethane	3.84	130	23910	11.42	ug/l	#	1
27) 1,1,1-Trichloroethane	3.98	97	73468	8.91	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	82507	11.96	ug/l		8
29) Cyclohexane	4.00	42	42410	16.32	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	12611	18.90	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	12660	20.32	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	20227	15.43 ug/l #	
35) Carbon Tetrachloride	4.06	117	56402	7.82 ug/l	9
36) Benzene (MS)	4.16	78	234714	11.65 ug/l	8
37) 1,2-Dichloroethane	4.17	62	68369	12.84 ug/l	9
38) Trichloroethene (MS)	4.47	95	50495	10.14 ug/l	7
39) 1,2-Dichloropropane (CCC)	4.59	63	62038	14.12 ug/l	9
40) Bromodichloromethane	4.72	83	52508	10.09 ug/l	9
41) Methyl Cyclohexane	4.57	55	111633	13.90 ug/l #	5
42) Dibromomethane	4.65	174	18732	11.43 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	77585	13.15 ug/l	9
44) Toluene (CCC/MS)	5.07	91	238249	10.99 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	59525	12.46 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	28952	13.36 ug/l	8
47) Tetrachloroethene	5.33	166	46508	13.12 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.34	53	11866	14.81 ug/l #	4
51) Dibromochloromethane	5.45	129	23563	7.86 ug/l	9
52) 1,2-Dibromoethane	5.51	107	29017	10.75 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	134922	9.55 ug/l	7
54) 1,1,1,2-Tetrachloroethane	5.76	131	37481	8.39 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	267347	9.49 ug/l	9
56) p,m-Xylene	5.82	106	198571	18.73 ug/l	7
57) o-Xylene	6.01	91	207662	9.34 ug/l	8
58) Styrene	6.02	104	151740	9.46 ug/l	8
59) Isopropylbenzene	6.18	105	260353	9.12 ug/l	9
60) Bromoform (SPCC)	6.12	173	10781	6.47 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	39778	13.07 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	11093	11.67 ug/l #	4
63) n-Propylbenzene	6.37	91	315185	9.89 ug/l	8
64) Bromobenzene	6.34	156	43847	9.29 ug/l #	3
65) 1,3,5-Trimethylbenzene	6.45	120	96916	9.20 ug/l #	7
66) tert-Butylbenzene	6.61	91	147998	8.69 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	106552	9.12 ug/l #	7
69) sec-Butylbenzene	6.72	105	292789	9.45 ug/l	9
70) p-Isopropyltoluene	6.77	119	217046	9.45 ug/l	9
71) 1,3-Dichlorobenzene	6.78	146	91642	9.69 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	92661	10.36 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	84739	10.31 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	206561	10.16 ug/l	8
75) n-Butylbenzene	6.97	91	236319	10.83 ug/l	9
76) Hexachloroethane	7.13	201	13783	4.55 ug/l #	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

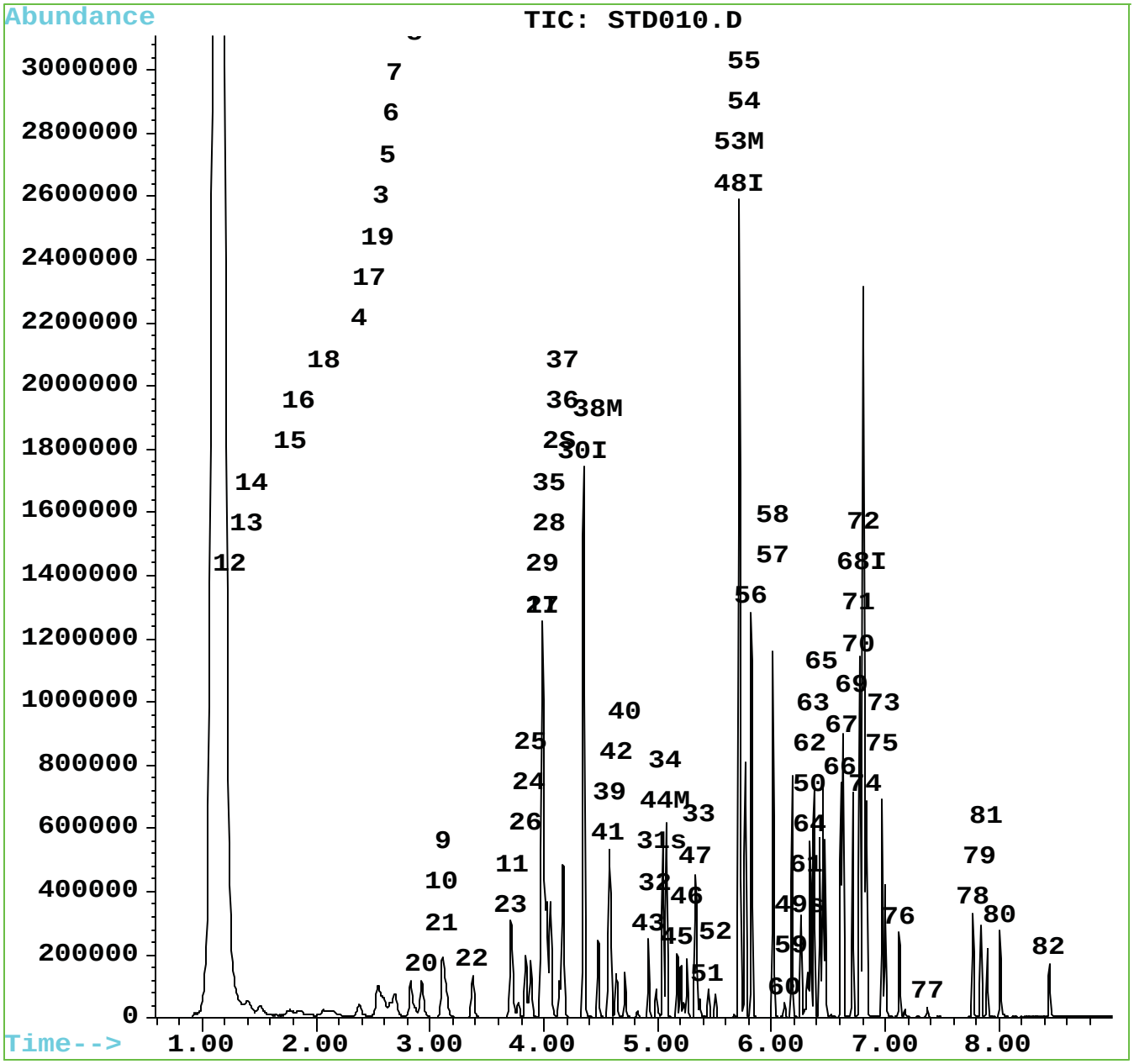
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	3655	8.33	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	47156	11.74	ug/l		9
79)	Hexachlorobutadiene	7.85	225	28546	8.49	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	41890	11.71	ug/l		9
81)	Naphthalene	7.90	128	96886	11.73	ug/l		9
82)	2-Methylnaphthalene	8.45	142	44875	10.89	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std010.d Vial:
Acq On : 8 Jun 12 6:55 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:08 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	420130	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	792518	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	447318	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	309313	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	103211	25.26	ug/l		50.5
31) TOLUENE-D8 (S)	5.05	98	349681	19.74	ug/l		39.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	77041	16.29	ug/l		32.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	90925	19.03	ug/l	#	7
4) Diethyl ether (*)	2.38	74	35199	18.95	ug/l	#	3
5) Acetone (*)	2.63	43	28760	39.10	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	115174	18.04	ug/l		8
7) Carbon disulfide (*)	2.70	76	279812	19.85	ug/l		8
8) Methyl Acetate	2.87	43	67492	45.77	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	225580	28.41	ug/l		8
10) Acrylonitrile (*)	3.11	53	32839	44.30	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	40418	43.52	ug/l		8
12) Dichlorodifluoromethane	1.26	85	69962	19.88	ug/l		9
13) Chloromethane (SPCC)	1.41	50	158248	31.90	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	124111	22.40	ug/l		9
15) Bromomethane	1.77	94	42948	11.03	ug/l		9
16) Chloroethane	1.86	64	43063	9.28	ug/l		9
17) Acrolein	2.47	56	122	0.70	ug/l	#	8
18) Trichlorofluoromethane	2.07	101	123152	15.66	ug/l	#	6
19) 1,1-Dichloroethene (CCC/MS	2.55	61	168050	23.02	ug/l	#	6
20) Methylene Chloride	2.93	84	101499	24.27	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	175637	26.49	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	210148	25.96	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	105462	21.59	ug/l	#	5
24) Tetrahydrofuran	3.87	42	32164	51.97	ug/l		9
25) Chloroform (CCC)	3.89	83	169484	22.06	ug/l		9
26) Bromochloromethane	3.85	130	46868	22.08	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	145445	17.38	ug/l		9
28) 1,1-Dichloropropene	4.06	75	153633	21.96	ug/l		8
29) Cyclohexane	4.01	42	78421	29.75	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	24456	35.91	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	24651	38.76	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	39574	29.58 ug/l #	
35) Carbon Tetrachloride	4.07	117	109780	14.91 ug/l	9
36) Benzene (MS)	4.17	78	445228	21.65 ug/l	9
37) 1,2-Dichloroethane	4.17	62	131304	24.15 ug/l	9
38) Trichloroethene (MS)	4.48	95	96196	18.93 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	118370	26.39 ug/l	9
40) Bromodichloromethane	4.72	83	105177	19.80 ug/l	9
41) Methyl Cyclohexane	4.57	55	206708	25.22 ug/l #	5
42) Dibromomethane	4.65	174	35153	21.02 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	153459	25.48 ug/l	9
44) Toluene (CCC/MS)	5.07	91	450541	20.36 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	123520	25.13 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	56132	25.38 ug/l	9
47) Tetrachloroethene	5.33	166	87415	22.87 ug/l	8
50) trans-1,4-Dichloro-2-buten	6.34	53	22500	27.05 ug/l #	5
51) Dibromochloromethane	5.45	129	49575	15.93 ug/l	9
52) 1,2-Dibromoethane	5.51	107	58251	20.78 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	257679	17.56 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	75680	16.32 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	506012	17.29 ug/l	9
56) p,m-Xylene	5.82	106	375463	34.11 ug/l #	7
57) o-Xylene	6.01	91	400432	17.34 ug/l	8
58) Styrene	6.02	104	299601	17.99 ug/l	8
59) Isopropylbenzene	6.18	105	500073	16.87 ug/l	9
60) Bromoform (SPCC)	6.12	173	22529	13.03 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	78577	24.86 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	20767	21.05 ug/l #	3
63) n-Propylbenzene	6.37	91	593963	17.96 ug/l	8
64) Bromobenzene	6.34	156	86843	17.72 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	187737	17.16 ug/l #	7
66) tert-Butylbenzene	6.61	91	285227	16.13 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	207645	17.11 ug/l #	7
69) sec-Butylbenzene	6.71	105	557010	18.01 ug/l	9
70) p-Isopropyltoluene	6.77	119	413276	18.02 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	175099	18.55 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	178399	20.00 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	159565	19.46 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	393188	19.37 ug/l	8
75) n-Butylbenzene	6.97	91	450600	20.70 ug/l	9
76) Hexachloroethane	7.12	201	28398	9.39 ug/l #	2

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

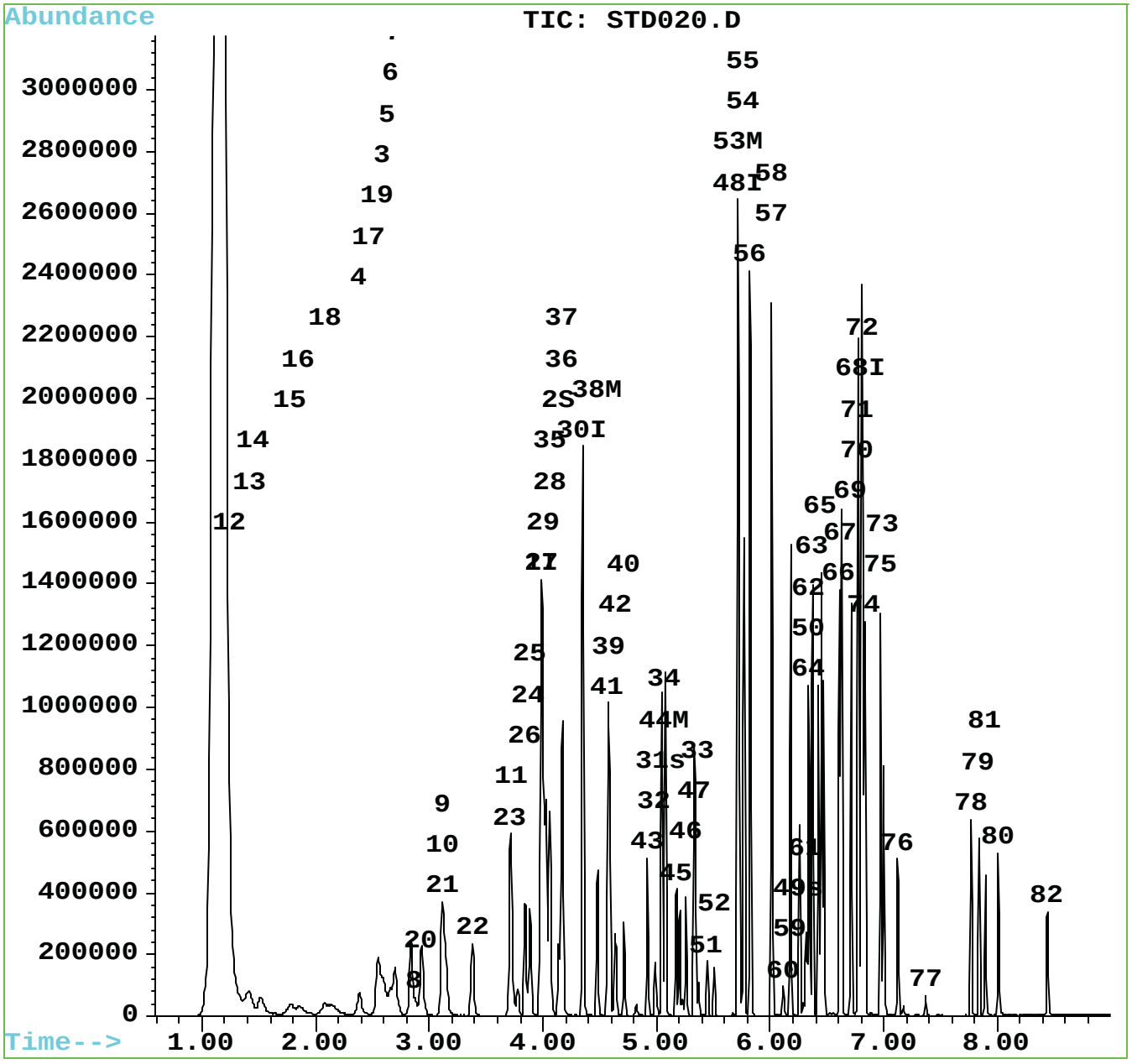
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	8005	18.28 ug/l #	6
78)	1,2,4-Trichlorobenzene	7.77	182	90097	22.48 ug/l	9
79)	Hexachlorobutadiene	7.85	225	54744	16.32 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	79048	22.15 ug/l	9
81)	Naphthalene	7.89	128	192859	23.40 ug/l	9
82)	2-Methylnaphthalene	8.44	142	92874	22.58 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std020.d Vial:
Acq On : 8 Jun 12 7:13 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:09 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	434862	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	821084	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	460286	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	337672	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	329091	77.83	ug/l		155.6
31) TOLUENE-D8 (S)	5.05	98	1085148	59.12	ug/l		118.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	248365	51.04	ug/l		102.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	286578	57.95	ug/l	#	8
4) Diethyl ether (*)	2.38	74	113213	58.90	ug/l	#	3
5) Acetone (*)	2.63	43	76879	100.99	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	372829	56.43	ug/l		8
7) Carbon disulfide (*)	2.70	76	980354	67.20	ug/l		9
8) Methyl Acetate	2.87	43	192760	126.29	ug/l		7
9) tert-Methyl butyl ether (M	3.14	73	712924	86.75	ug/l		8
10) Acrylonitrile (*)	3.11	53	101064	131.71	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	119473	124.28	ug/l		8
12) Dichlorodifluoromethane	1.26	85	267268	76.26	ug/l		9
13) Chloromethane (SPCC)	1.42	50	498915	97.17	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	406600	70.91	ug/l		9
15) Bromomethane	1.78	94	134795	35.09	ug/l		9
16) Chloroethane	1.86	64	130008	28.00	ug/l		9
17) Acrolein	2.49	56	60	0.33	ug/l	#	
18) Trichlorofluoromethane	2.07	101	401179	49.27	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	533350	70.58	ug/l	#	6
20) Methylene Chloride	2.93	84	316015	73.01	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	549595	80.08	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	652331	77.86	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	325736	64.43	ug/l	#	5
24) Tetrahydrofuran	3.87	42	85159	132.93	ug/l	#	7
25) Chloroform (CCC)	3.89	83	520235	65.43	ug/l		9
26) Bromochloromethane	3.85	130	145918	66.41	ug/l	#	1
27) 1,1,1-Trichloroethane	3.98	97	462539	53.41	ug/l	#	3
28) 1,1-Dichloropropene	4.06	75	475212	65.62	ug/l		8
29) Cyclohexane	4.01	42	241934	88.66	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	82688	117.19	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	75849	115.12	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	126870	91.54 ug/l #	
35) Carbon Tetrachloride	4.07	117	362609	47.55 ug/l	9
36) Benzene (MS)	4.17	78	1387942	65.14 ug/l	9
37) 1,2-Dichloroethane	4.17	62	411618	73.08 ug/l	9
38) Trichloroethene (MS)	4.48	95	307280	58.36 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	365981	78.76 ug/l	9
40) Bromodichloromethane	4.72	83	351896	63.93 ug/l	9
41) Methyl Cyclohexane	4.57	55	659030	77.60 ug/l #	5
42) Dibromomethane	4.65	174	110994	64.05 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	491425	78.75 ug/l	9
44) Toluene (CCC/MS)	5.08	91	1399837	61.05 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	407305	77.40 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	178522	77.90 ug/l	8
47) Tetrachloroethene	5.33	166	276826	58.46 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.34	53	79605	93.02 ug/l #	4
51) Dibromochloromethane	5.45	129	180029	56.21 ug/l	9
52) 1,2-Dibromoethane	5.51	107	190111	65.92 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	799543	52.95 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	239443	50.18 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	1577596	52.39 ug/l	9
56) p,m-Xylene	5.82	106	1153214	101.81 ug/l #	7
57) o-Xylene	6.01	91	1253925	52.76 ug/l	8
58) Styrene	6.02	104	925863	54.03 ug/l	8
59) Isopropylbenzene	6.18	105	1563307	51.26 ug/l	9
60) Bromoform (SPCC)	6.12	173	89333	50.20 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	249170	76.61 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	68634	67.60 ug/l #	3
63) n-Propylbenzene	6.37	91	1905700	56.00 ug/l	8
64) Bromobenzene	6.34	156	274802	54.49 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	583942	51.86 ug/l #	6
66) tert-Butylbenzene	6.61	91	924565	50.80 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	652113	52.22 ug/l #	7
69) sec-Butylbenzene	6.72	105	1777535	52.64 ug/l	9
70) p-Isopropyltoluene	6.77	119	1304761	52.13 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	538909	52.29 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	553159	56.80 ug/l	9
73) 1,2-Dichlorobenzene	7.00	146	509171	56.88 ug/l	8
74) 1,2,3-Trimethylbenzene	6.83	105	1275527	57.57 ug/l	8
75) n-Butylbenzene	6.97	91	1427053	60.04 ug/l	9
76) Hexachloroethane	7.12	201	119014	36.06 ug/l #	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

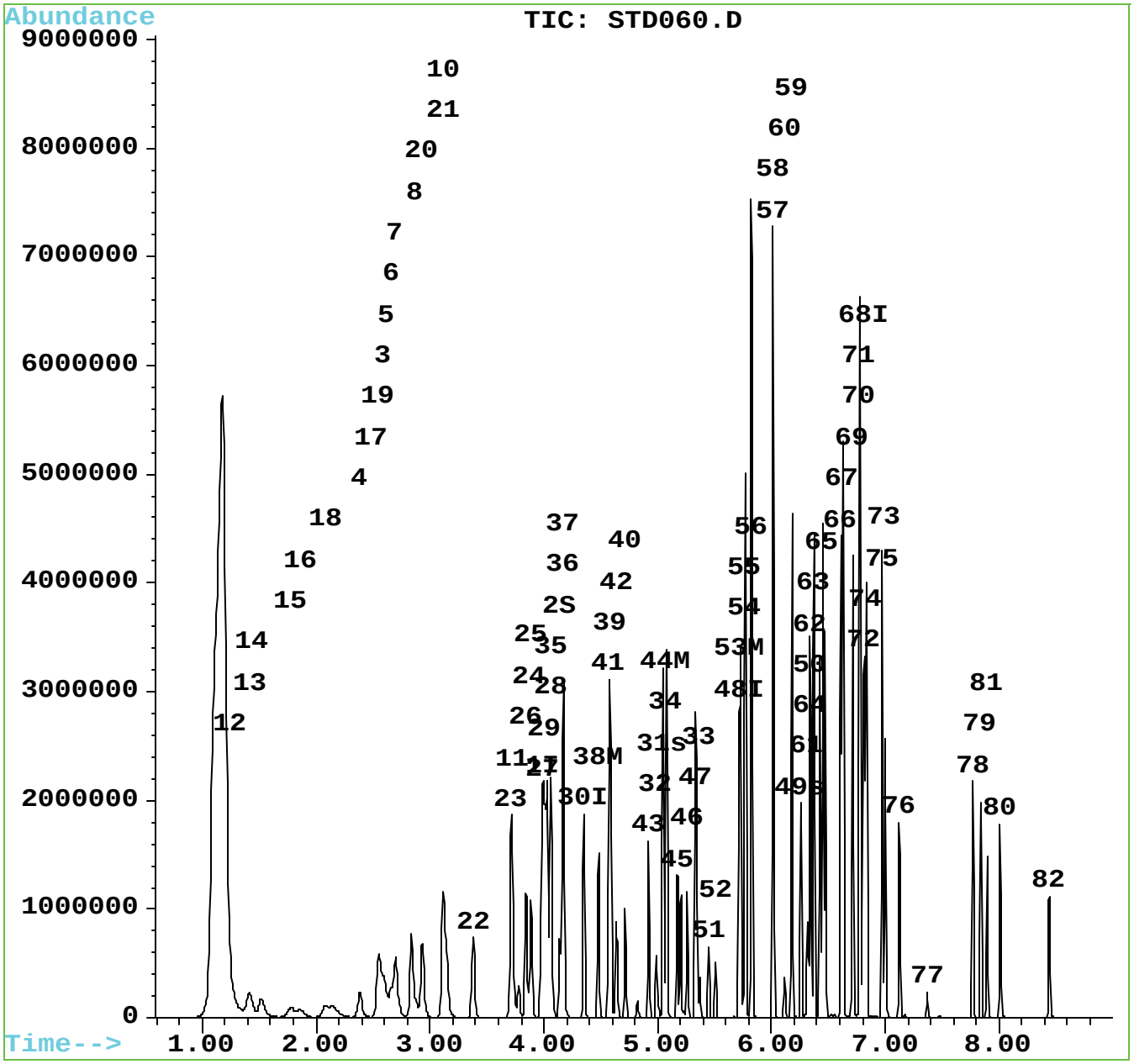
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	30355	63.50	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	307171	70.19	ug/l		9
79)	Hexachlorobutadiene	7.85	225	191851	52.39	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	269916	69.29	ug/l		9
81)	Naphthalene	7.89	128	636417	70.72	ug/l		9
82)	2-Methylnaphthalene	8.45	142	317534	70.72	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std060.d Vial:
Acq On : 8 Jun 12 7:31 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	476323	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	884636	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	499781	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	348566	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	643420	138.92	ug/l		277.8
31) TOLUENE-D8 (S)	5.05	98	2078539	105.11	ug/l		210.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	481535	91.15	ug/l		182.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	549323	101.42	ug/l	#	8
4) Diethyl ether (*)	2.38	74	230018	109.25	ug/l	#	4
5) Acetone (*)	2.63	43	157288	188.63	ug/l	#	8
6) Methyl iodide (iodomethane	2.65	142	724308	100.08	ug/l		8
7) Carbon disulfide (*)	2.69	76	1973059	123.48	ug/l		9
8) Methyl Acetate	2.87	43	384369	229.90	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	1396057	155.08	ug/l		8
10) Acrylonitrile (*)	3.11	53	204265	243.03	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	230155	218.57	ug/l		8
12) Dichlorodifluoromethane	1.26	85	502391	136.62	ug/l		9
13) Chloromethane (SPCC)	1.41	50	957308	170.22	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	745188	118.65	ug/l		9
15) Bromomethane	1.78	94	258097	65.43	ug/l		9
16) Chloroethane	1.85	64	250349	51.46	ug/l		9
17) Acrolein	2.50	56	325	1.64	ug/l	#	4
18) Trichlorofluoromethane	2.08	101	767981	86.11	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.54	61	1039550	125.59	ug/l	#	7
20) Methylene Chloride	2.93	84	608910	128.44	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	1072570	142.69	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	1273397	138.75	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	634720	114.61	ug/l	#	5
24) Tetrahydrofuran	3.87	42	160564	228.82	ug/l	#	7
25) Chloroform (CCC)	3.89	83	1017334	116.81	ug/l		9
26) Bromochloromethane	3.84	130	286626	119.10	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	899371	94.81	ug/l	#	1
28) 1,1-Dichloropropene	4.06	75	924335	116.52	ug/l		8
29) Cyclohexane	4.01	42	456545	152.74	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	162745	214.09	ug/l	#	6
33) 2-Hexanone (*)	5.36	58	152849	215.32	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.07	63	242527	162.41 ug/l #	
35) Carbon Tetrachloride	4.06	117	716309	87.18 ug/l	9
36) Benzene (MS)	4.16	78	2660378	115.89 ug/l	9
37) 1,2-Dichloroethane	4.17	62	804324	132.54 ug/l	9
38) Trichloroethene (MS)	4.47	95	589875	103.99 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	705051	140.83 ug/l	9
40) Bromodichloromethane	4.72	83	712674	120.17 ug/l	9
41) Methyl Cyclohexane	4.57	55	1260400	137.75 ug/l #	5
42) Dibromomethane	4.65	174	222259	119.04 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	980374	145.82 ug/l	9
44) Toluene (CCC/MS)	5.07	91	2645203	107.08 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	811197	137.95 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	342742	138.82 ug/l	8
47) Tetrachloroethene	5.33	166	529543	90.48 ug/l	8
50) trans-1,4-Dichloro-2-buten	6.34	53	157966	170.00 ug/l #	4
51) Dibromochloromethane	5.45	129	374093	107.57 ug/l	9
52) 1,2-Dibromoethane	5.51	107	364568	116.43 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	1517952	92.57 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	471189	90.95 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	2971287	90.88 ug/l	9
56) p,m-Xylene	5.83	106	2091094	170.02 ug/l #	7
57) o-Xylene	6.01	91	2326005	90.14 ug/l	8
58) Styrene	6.02	104	1731036	93.04 ug/l	8
59) Isopropylbenzene	6.18	105	2925317	88.34 ug/l	9
60) Bromoform (SPCC)	6.12	173	190479	98.58 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	476381	134.89 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	128213	116.30 ug/l #	3
63) n-Propylbenzene	6.37	91	3541794	95.85 ug/l	8
64) Bromobenzene	6.34	156	530522	96.88 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	1086862	88.89 ug/l #	6
66) tert-Butylbenzene	6.61	91	1739014	88.00 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	1184885	87.39 ug/l #	7
69) sec-Butylbenzene	6.72	105	3236851	92.87 ug/l	9
70) p-Isopropyltoluene	6.77	119	2354350	91.12 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	985054	92.59 ug/l	8
72) 1,4-Dichlorobenzene	6.82	146	1039326	103.39 ug/l	9
73) 1,2-Dichlorobenzene	7.00	146	949748	102.79 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	2350042	102.76 ug/l	8
75) n-Butylbenzene	6.97	91	2599469	105.96 ug/l	9
76) Hexachloroethane	7.13	201	242647	71.22 ug/l #	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

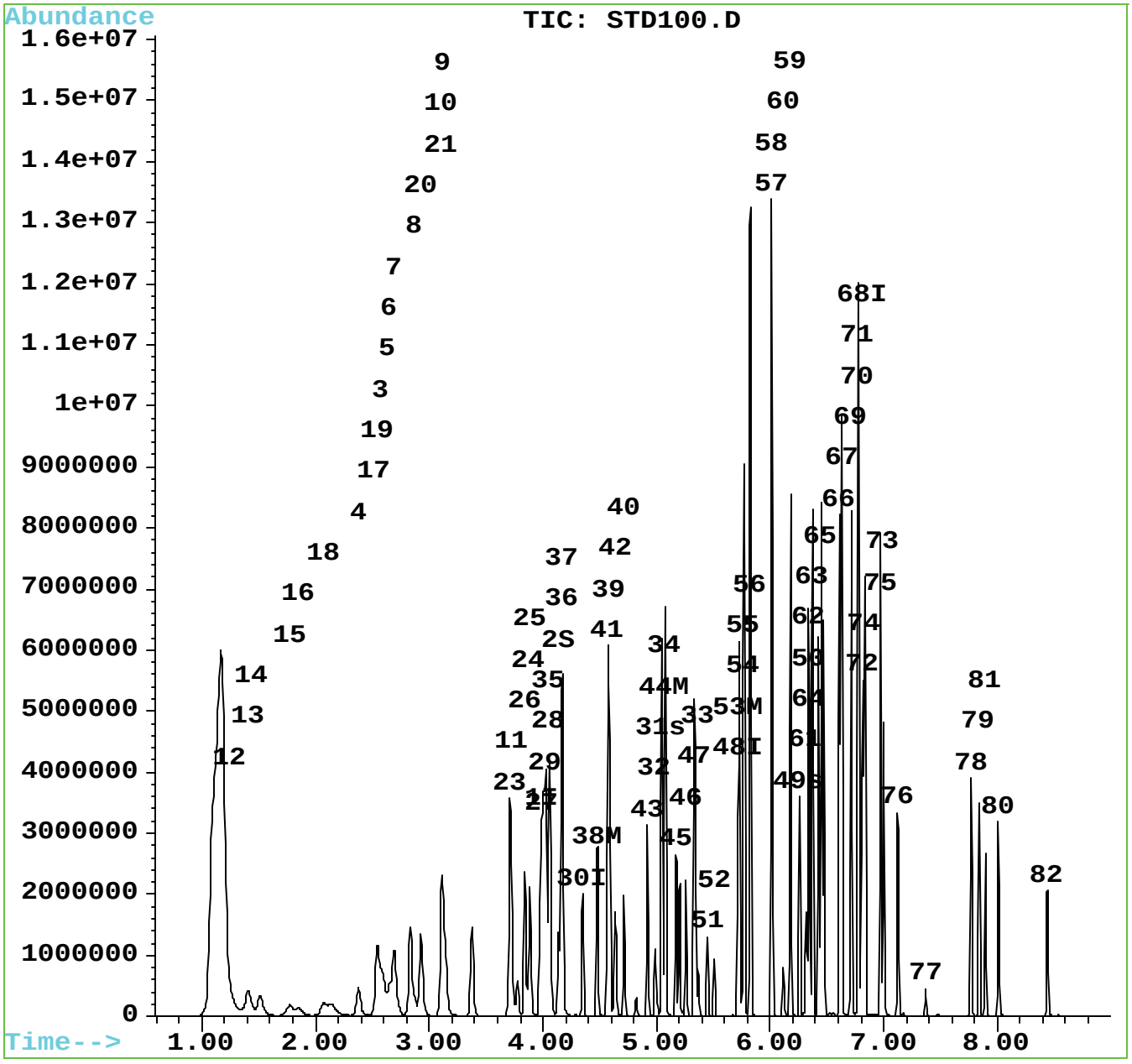
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	58366	118.28	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	552306	122.26	ug/l		9
79)	Hexachlorobutadiene	7.85	225	359104	95.00	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	494673	123.02	ug/l		9
81)	Naphthalene	7.89	128	1158588	124.72	ug/l		9
82)	2-Methylnaphthalene	8.45	142	580452	125.23	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std100.d Vial:
Acq On : 8 Jun 12 7:49 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:10 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	494818	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	905075	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	507941	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	350499	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	1317668	273.86	ug/l		547.7
31) TOLUENE-D8 (S)	5.05	98	4120092	203.64	ug/l		407.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	1026200	191.12	ug/l		382.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	1164784	207.01	ug/l		8
4) Diethyl ether (*)	2.39	74	472489	216.03	ug/l	#	4
5) Acetone (*)	2.63	43	281781	325.30	ug/l	#	8
6) Methyl iodide (iodomethane	2.66	142	1531140	203.66	ug/l		8
7) Carbon disulfide (*)	2.70	76	4254437	256.30	ug/l		9
8) Methyl Acetate	2.88	43	770277	443.49	ug/l		7
9) tert-Methyl butyl ether (M	3.14	73	2891502	309.20	ug/l		8
10) Acrylonitrile (*)	3.12	53	422295	483.66	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	439588	401.86	ug/l		8
12) Dichlorodifluoromethane	1.26	85	1058691	319.83	ug/l		9
13) Chloromethane (SPCC)	1.42	50	2030242	347.52	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	1582060	242.48	ug/l		9
15) Bromomethane	1.78	94	539063	171.45	ug/l		9
16) Chloroethane	1.86	64	507993	114.44	ug/l		9
17) Acrolein	2.47	56	254	1.23	ug/l	#	2
18) Trichlorofluoromethane	2.07	101	1599091	172.60	ug/l	#	6
19) 1,1-Dichloroethene (CCC/MS	2.55	61	2222008	258.40	ug/l	#	7
20) Methylene Chloride	2.93	84	1268844	257.64	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	2210930	283.13	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	2621007	274.92	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	1298020	225.62	ug/l	#	5
24) Tetrahydrofuran	3.87	42	322303	442.15	ug/l	#	7
25) Chloroform (CCC)	3.89	83	2119978	234.33	ug/l		9
26) Bromochloromethane	3.85	130	587185	234.86	ug/l	#	2
27) 1,1,1-Trichloroethane	3.99	97	1930600	195.92	ug/l	#	1
28) 1,1-Dichloropropene	4.06	75	1868728	226.76	ug/l		8
29) Cyclohexane	4.01	42	939698	302.63	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	329618	423.81	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	304946	419.87	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	5.08	63	487476	319.07 ug/l #	
35) Carbon Tetrachloride	4.07	117	1552862	184.74 ug/l	9
36) Benzene (MS)	4.17	78	5299540	225.65 ug/l	9
37) 1,2-Dichloroethane	4.17	62	1641937	264.45 ug/l	9
38) Trichloroethene (MS)	4.48	95	1237072	213.16 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	1413680	275.99 ug/l	9
40) Bromodichloromethane	4.72	83	1504409	247.95 ug/l	9
41) Methyl Cyclohexane	4.57	55	2610088	278.82 ug/l #	5
42) Dibromomethane	4.65	174	472016	247.10 ug/l #	6
43) cis-1,3-Dichloropropene	4.92	75	2001763	291.01 ug/l	9
44) Toluene (CCC/MS)	5.08	91	5230255	206.94 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	1661601	257.84 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	706866	279.84 ug/l	8
47) Tetrachloroethene	5.33	166	1123684	151.02 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.35	53	313473	331.94 ug/l #	3
51) Dibromochloromethane	5.45	129	800979	226.62 ug/l	9
52) 1,2-Dibromoethane	5.51	107	762366	239.56 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	3004624	180.30 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	974858	185.15 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	5787634	174.17 ug/l	9
56) p,m-Xylene	5.83	106	3951896	316.15 ug/l #	7
57) o-Xylene	6.02	91	4533133	172.84 ug/l	8
58) Styrene	6.02	104	3301981	174.62 ug/l	8
59) Isopropylbenzene	6.18	105	5867843	174.35 ug/l	9
60) Bromoform (SPCC)	6.12	173	434281	221.14 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	982742	273.80 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	264017	235.64 ug/l #	4
63) n-Propylbenzene	6.37	91	6935771	184.67 ug/l	8
64) Bromobenzene	6.34	156	1092602	196.32 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	2133203	171.67 ug/l #	6
66) tert-Butylbenzene	6.61	91	3574801	178.00 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	2272453	164.91 ug/l #	6
69) sec-Butylbenzene	6.72	105	6398991	182.58 ug/l	9
70) p-Isopropyltoluene	6.78	119	4575823	176.12 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	1932635	180.66 ug/l	8
72) 1,4-Dichlorobenzene	6.82	146	2077563	205.54 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	1920960	206.76 ug/l	8
74) 1,2,3-Trimethylbenzene	6.84	105	4683558	203.66 ug/l	8
75) n-Butylbenzene	6.97	91	5111440	207.20 ug/l	9
76) Hexachloroethane	7.13	201	588664	171.83 ug/l #	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

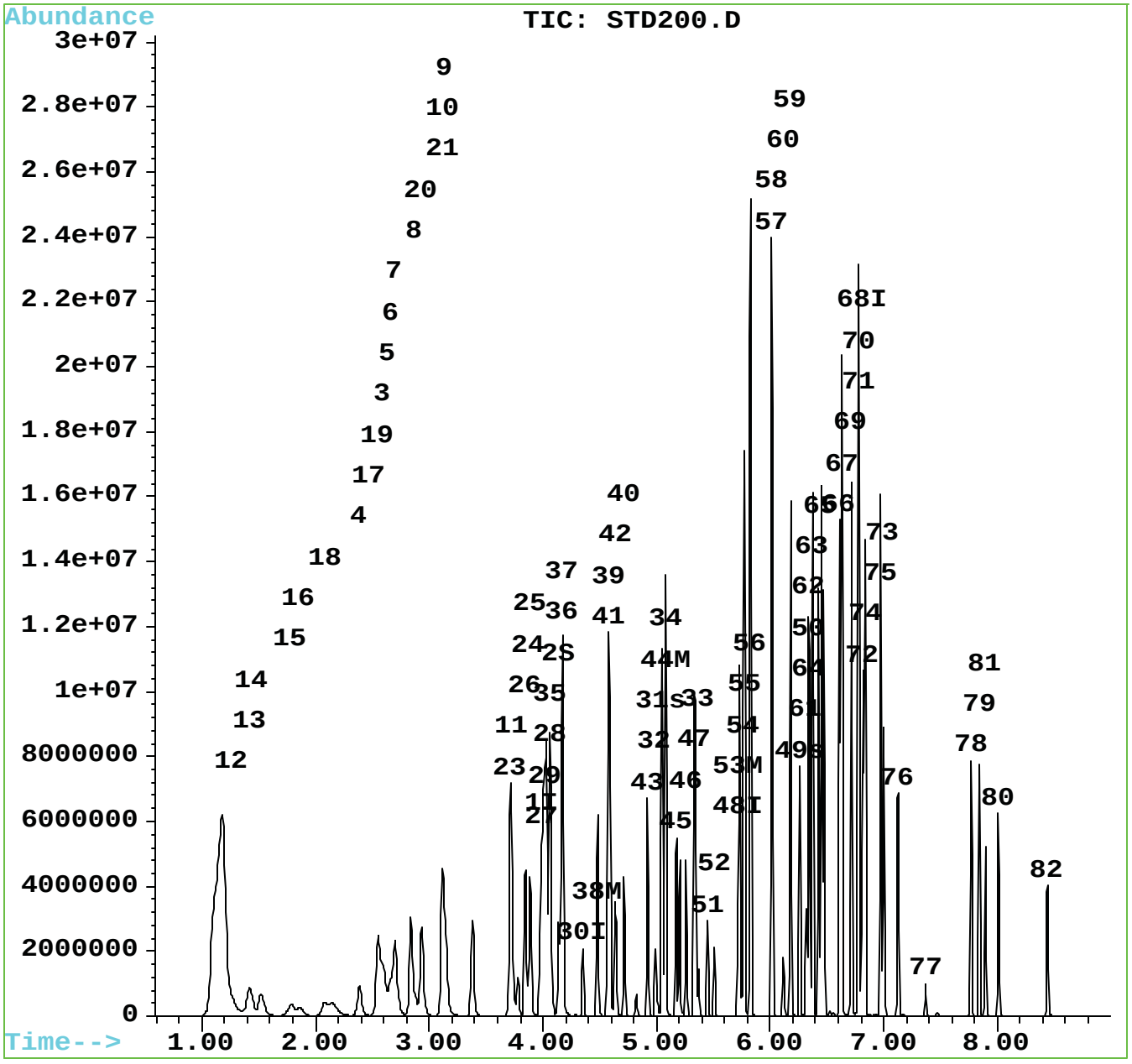
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	129017	260.01 ug/l #	6
78)	1,2,4-Trichlorobenzene	7.77	182	1143809	251.81 ug/l	9
79)	Hexachlorobutadiene	7.85	225	826896	217.55 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	996986	246.57 ug/l	9
81)	Naphthalene	7.90	128	2304350	246.70 ug/l	9
82)	2-Methylnaphthalene	8.45	142	1130364	242.53 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\ft120608.m\std200.d Vial:
Acq On : 8 Jun 12 8:07 pm Operator: lbr
Sample : 1i0608 1c0608 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 8 22:11 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120625a3.4
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc25a.d	06/25/12 14:03	1,1,2-Trichloro-1,2,2-trifluoroethane	0.624	0.05
		Diethyl ether	0.261	0.05
		Acetone	0.217	0.01
		Methyl iodide	0.768	0.05
		Carbon disulfide	2.136	0.05
		Methyl acetate	0.398	0.05
		tert-Methyl butyl ether	1.406	0.05
		Acrylonitrile	0.198	0.01
		2-Butanone	0.242	0.01
		Dichlorodifluoromethane	0.525	0.05
		Chloromethane	1.018	0.10
		Vinyl Chloride	0.818	0.05
		Bromomethane	0.287	0.05
		Chloroethane	0.302	0.05
		Trichlorofluoromethane	0.883	0.05
		1,1-Dichloroethene	1.209	0.05
		Methylene Chloride	0.700	0.05
		trans-1,2-Dichloroethene	1.189	0.05
		1,1-Dichloroethane	1.422	0.10
		cis-1,2-Dichloroethene	0.696	0.05
		Tetrahydrofuran	0.168	0.01
		Chloroform	1.149	0.05
		Bromochloromethane	0.304	0.05
		1,1,1-Trichloroethane	1.002	0.05
		Cyclohexane	0.529	0.05
		4-Methyl-2-pentanone	0.078	0.01
		2-Hexanone	0.074	0.01
		Carbon Tetrachloride	0.417	0.05
		Benzene	1.530	0.05
		1,2-Dichloroethane	0.453	0.05
		Trichloroethene	0.339	0.05
		1,2-Dichloropropane	0.401	0.05
		Bromodichloromethane	0.399	0.05
		Methyl cyclohexane	0.719	0.05
		Dibromomethane	0.111	0.05
		cis-1,3-Dichloropropene	0.547	0.05
		Toluene	1.508	0.05
		trans-1,3-Dichloropropene	0.448	0.05
		1,1,2-Trichloroethane	0.187	0.05
		Tetrachloroethene	0.286	0.05
		trans-1,4-Dichloro-2-butene	0.143	0.05
		Dibromochloromethane	0.364	0.05
		1,2-Dibromoethane	0.359	0.05
		Chlorobenzene	1.560	0.30
		1,1,1,2-Tetrachloroethane	0.478	0.05
		Ethylbenzene	3.104	0.05
		p,m-Xylene	1.122	0.05
		o-Xylene	2.435	0.05
		Styrene	1.798	0.05
		Isopropylbenzene	3.045	0.05
		Bromoform	0.171	0.10
		1,1,2,2-Tetrachloroethane	0.454	0.30
		1,2,3-Trichloropropane	0.125	0.05
		n-Propylbenzene	3.733	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120625a3.4
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	0.525	0.05
		1,3,5-Trimethylbenzene	1.142	0.05
		tert-Butylbenzene	1.797	0.05
		1,2,4-Trimethylbenzene	1.255	0.05
		sec-Butylbenzene	5.025	0.05
		p-Isopropyltoluene	3.722	0.05
		1,3-Dichlorobenzene	1.519	0.05
		1,4-Dichlorobenzene	1.542	0.05
		1,2-Dichlorobenzene	1.409	0.05
		1,2,3-Trimethylbenzene	3.566	0.05
		n-Butylbenzene	4.191	0.05
		Hexachloroethane	0.335	0.05
		1,2-Dibromo-3-Chloropropane	0.076	0.05
		1,2,4-Trichlorobenzene	0.785	0.05
		1,2,3-Trichlorobenzene	0.677	0.05
		Naphthalene	1.633	0.05
		2-Methylnaphthalene	0.749	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
spcc25a.d	06/25/12 14:03	1,1,2-Trichloro-1,2,2-trifluoroet	54.6/ 50.0		9.3/ 20.0
		Diethyl ether	55.4/ 50.0		10.8/ 20.0
		Acetone	70.9/ 50.0	*	41.7/ 20.0
		Methyl iodide	51.8/ 50.0		3.6/ 20.0
		Carbon disulfide	58.9/ 50.0		17.8/ 20.0
		Methyl acetate	49.9/ 50.0		0.1/ 20.0
		tert-Methyl butyl ether	48.7/ 50.0		2.7/ 20.0
		Acrylonitrile	46.7/ 50.0		6.6/ 20.0
		2-Butanone	50.0/ 50.0		0.0/ 20.0
		Dichlorodifluoromethane	55.3/ 50.0		10.5/ 20.0
		Chloromethane	50.0/ 50.0		0.1/ 20.0
		Vinyl Chloride	53.8/ 50.0		7.6/ 20.0
		Bromomethane	50.8/ 50.0		1.6/ 20.0
		Chloroethane	55.6/ 50.0		11.1/ 20.0
		Trichlorofluoromethane	55.3/ 50.0		10.6/ 20.0
		1,1-Dichloroethene	55.5/ 50.0		11.1/ 20.0
		Methylene Chloride	53.4/ 50.0		6.8/ 20.0
		trans-1,2-Dichloroethene	54.0/ 50.0		8.0/ 20.0
		1,1-Dichloroethane	53.4/ 50.0		6.8/ 20.0
		cis-1,2-Dichloroethene	52.7/ 50.0		5.3/ 20.0
		Tetrahydrofuran	48.5/ 50.0		2.9/ 20.0
		Chloroform	53.7/ 50.0		7.4/ 20.0
		Bromochloromethane	50.3/ 50.0		0.5/ 20.0
		1,1,1-Trichloroethane	54.3/ 50.0		8.6/ 20.0
		Cyclohexane	53.3/ 50.0		6.6/ 20.0
		4-Methyl-2-pentanone	43.6/ 50.0		12.8/ 20.0
		2-Hexanone	45.7/ 50.0		8.5/ 20.0
		Carbon Tetrachloride	55.0/ 50.0		10.0/ 20.0
		Benzene	51.1/ 50.0		2.2/ 20.0
		1,2-Dichloroethane	50.7/ 50.0		1.4/ 20.0
		Trichloroethene	51.3/ 50.0		2.6/ 20.0
		1,2-Dichloropropane	51.5/ 50.0		3.1/ 20.0
		Bromodichloromethane	54.7/ 50.0		9.3/ 20.0
		Methyl cyclohexane	51.0/ 50.0		2.0/ 20.0
		Dibromomethane	46.3/ 50.0		7.4/ 20.0
		cis-1,3-Dichloropropene	53.3/ 50.0		6.6/ 20.0
		Toluene	50.1/ 50.0		0.1/ 20.0
		trans-1,3-Dichloropropene	54.9/ 50.0		9.8/ 20.0
		1,1,2-Trichloroethane	49.3/ 50.0		1.3/ 20.0
		Tetrachloroethene	47.9/ 50.0		4.3/ 20.0
		trans-1,4-Dichloro-2-butene	49.1/ 50.0		1.8/ 20.0
		Dibromochloromethane	53.1/ 50.0		6.2/ 20.0
		1,2-Dibromoethane	51.6/ 50.0		3.2/ 20.0
		Chlorobenzene	50.7/ 50.0		1.3/ 20.0
		1,1,1,2-Tetrachloroethane	53.6/ 50.0		7.3/ 20.0
		Ethylbenzene	52.1/ 50.0		4.2/ 20.0
		p,m-Xylene	103.4/100.0		3.4/ 20.0
		o-Xylene	51.9/ 50.0		3.8/ 20.0
		Styrene	52.7/ 50.0		5.4/ 20.0
		Isopropylbenzene	51.6/ 50.0		3.2/ 20.0
		Bromoform	51.0/ 50.0		2.0/ 20.0
		1,1,2,2-Tetrachloroethane	49.1/ 50.0		1.8/ 20.0
		1,2,3-Trichloropropane	49.4/ 50.0		1.2/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120625a3.4
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	52.8/ 50.0	5.6/ 20.0
		Bromobenzene	50.1/ 50.0	0.1/ 20.0
		1,3,5-Trimethylbenzene	52.3/ 50.0	4.7/ 20.0
		tert-Butylbenzene	52.5/ 50.0	5.0/ 20.0
		1,2,4-Trimethylbenzene	52.0/ 50.0	3.9/ 20.0
		sec-Butylbenzene	53.9/ 50.0	7.7/ 20.0
		p-Isopropyltoluene	54.8/ 50.0	9.6/ 20.0
		1,3-Dichlorobenzene	52.8/ 50.0	5.7/ 20.0
		1,4-Dichlorobenzene	50.8/ 50.0	1.6/ 20.0
		1,2-Dichlorobenzene	52.0/ 50.0	4.0/ 20.0
		1,2,3-Trimethylbenzene	53.1/ 50.0	6.2/ 20.0
		n-Butylbenzene	56.2/ 50.0	12.4/ 20.0
		Hexachloroethane	55.5/ 50.0	10.9/ 20.0
		1,2-Dibromo-3-Chloropropane	50.0/ 50.0	0.0/ 20.0
		1,2,4-Trichlorobenzene	50.4/ 50.0	0.9/ 20.0
		1,2,3-Trichlorobenzene	48.7/ 50.0	2.5/ 20.0
		Naphthalene	49.9/ 50.0	0.1/ 20.0
		2-Methylnaphthalene	46.7/ 50.0	6.5/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\spcc25a.d Vial: 2
Acq On : 25 Jun 12 2:03 pm Operator: lbr
Sample : spcc/ccc 1s0625 1m0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	379689	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	736472	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	403772	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	276607	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	270443	53.07	ug/l		106.1
31) TOLUENE-D8 (S)	5.05	98	887375	51.30	ug/l		102.6
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	186915	46.84	ug/l		93.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.58	101	236817	54.63	ug/l	#	7
4) Diethyl ether (*)	2.37	74	99138	55.38	ug/l	#	3
5) Acetone (*)	2.62	43	82581	70.87	ug/l	#	8
6) Methyl iodide (iodomethane	2.65	142	291619	51.78	ug/l		8
7) Carbon disulfide (*)	2.69	76	811187	58.88	ug/l		9
8) Methyl Acetate	2.87	43	150928	49.94	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	533627	48.67	ug/l		8
10) Acrylonitrile (*)	3.10	53	75063	46.68	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	91704	49.98	ug/l		8
12) Dichlorodifluoromethane	1.25	85	199341	55.26	ug/l		9
13) Chloromethane (SPCC)	1.40	50	386218	50.03	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	310608	53.82	ug/l		9
15) Bromomethane	1.76	94	108724	50.80	ug/l		9
16) Chloroethane	1.85	64	114957	55.57	ug/l		9
18) Trichlorofluoromethane	2.09	101	335251	55.31	ug/l	#	3
19) 1,1-Dichloroethene (CCC/MS	2.54	61	459302	55.53	ug/l	#	7
20) Methylene Chloride	2.93	84	265830	53.42	ug/l	#	5
21) trans-1,2-Dichloroethene	3.10	61	451623	54.01	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	539818	53.38	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	264326	52.67	ug/l	#	5
24) Tetrahydrofuran	3.87	42	63756	48.53	ug/l	#	8
25) Chloroform (CCC)	3.89	83	436029	53.72	ug/l		9
26) Bromochloromethane	3.84	130	115270	50.27	ug/l	#	1
27) 1,1,1-Trichloroethane	3.98	97	380563	54.29	ug/l	#	3
28) 1,1-Dichloropropene	4.06	75	396961	53.67	ug/l		8
29) Cyclohexane	4.01	42	200793	53.31	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	57003	43.62	ug/l	#	5
33) 2-Hexanone (*)	5.36	58	54817	45.73	ug/l	#	6
35) Carbon Tetrachloride	4.06	117	306682	55.00	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\spcc25a.d Vial: 2
Acq On : 25 Jun 12 2:03 pm Operator: lbr
Sample : spcc/ccc 1s0625 1m0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.16	78	1127350	51.08	ug/l		9
37)	1,2-Dichloroethane	4.17	62	333634	50.71	ug/l		9
38)	Trichloroethene (MS)	4.47	95	249211	51.29	ug/l	#	7
39)	1,2-Dichloropropane (CCC)	4.59	63	295413	51.54	ug/l		9
40)	Bromodichloromethane	4.72	83	293728	54.65	ug/l		9
41)	Methyl Cyclohexane	4.57	55	529601	50.99	ug/l	#	5
42)	Dibromomethane	4.65	174	82123	46.30	ug/l	#	5
43)	cis-1,3-Dichloropropene	4.92	75	402803	53.31	ug/l		9
44)	Toluene (CCC/MS)	5.07	91	1110492	50.05	ug/l		9
45)	trans-1,3-Dichloropropene	5.17	75	329490	54.88	ug/l		9
46)	1,1,2-Trichloroethane	5.26	83	137622	49.34	ug/l		8
47)	Tetrachloroethene	5.33	166	210956	47.85	ug/l		8
50)	trans-1,4-Dichloro-2-buten	6.35	53	57717	49.12	ug/l	#	4
51)	Dibromochloromethane	5.45	129	147058	53.12	ug/l		9
52)	1,2-Dibromoethane	5.51	107	145099	51.62	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.73	112	629889	50.65	ug/l		8
54)	1,1,1,2-Tetrachloroethane	5.76	131	193260	53.63	ug/l		9
55)	Ethylbenzene (CCC)	5.77	91	1253296	52.08	ug/l		9
56)	p,m-Xylene	5.83	106	906322	103.40	ug/l	#	7
57)	o-Xylene	6.02	91	983142	51.90	ug/l		8
58)	Styrene	6.02	104	726214	52.71	ug/l		8
59)	Isopropylbenzene	6.18	105	1229552	51.58	ug/l		9
60)	Bromoform (SPCC)	6.12	173	69127	51.00	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.32	83	183291	49.11	ug/l		9
62)	1,2,3-Trichloropropane	6.35	110	50208	49.41	ug/l	#	3
63)	n-Propylbenzene	6.37	91	1507283	52.78	ug/l		8
64)	Bromobenzene	6.34	156	211965	50.06	ug/l	#	3
65)	1,3,5-Trimethylbenzene	6.45	120	461199	52.34	ug/l	#	6
66)	tert-Butylbenzene	6.61	91	725295	52.50	ug/l	#	6
67)	1,2,4-Trimethylbenzene	6.63	120	506759	51.96	ug/l	#	7
69)	sec-Butylbenzene	6.72	105	1389931	53.85	ug/l		9
70)	p-Isopropyltoluene	6.77	119	1029501	54.82	ug/l		8
71)	1,3-Dichlorobenzene	6.78	146	420240	52.83	ug/l		9
72)	1,4-Dichlorobenzene	6.82	146	426409	50.78	ug/l		8
73)	1,2-Dichlorobenzene	7.00	146	389909	52.00	ug/l		9
74)	1,2,3-Trimethylbenzene	6.84	105	986259	53.08	ug/l		8
75)	n-Butylbenzene	6.97	91	1159223	56.18	ug/l		9
76)	Hexachloroethane	7.12	201	92514	55.45	ug/l	#	4
77)	1,2-Dibromo-3-Chloropropan	7.37	157	21120	50.02	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	216926	50.43	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\spcc25a.d Vial: 2
Acq On : 25 Jun 12 2:03 pm Operator: lbr
Sample : spcc/ccc 1s0625 1m0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

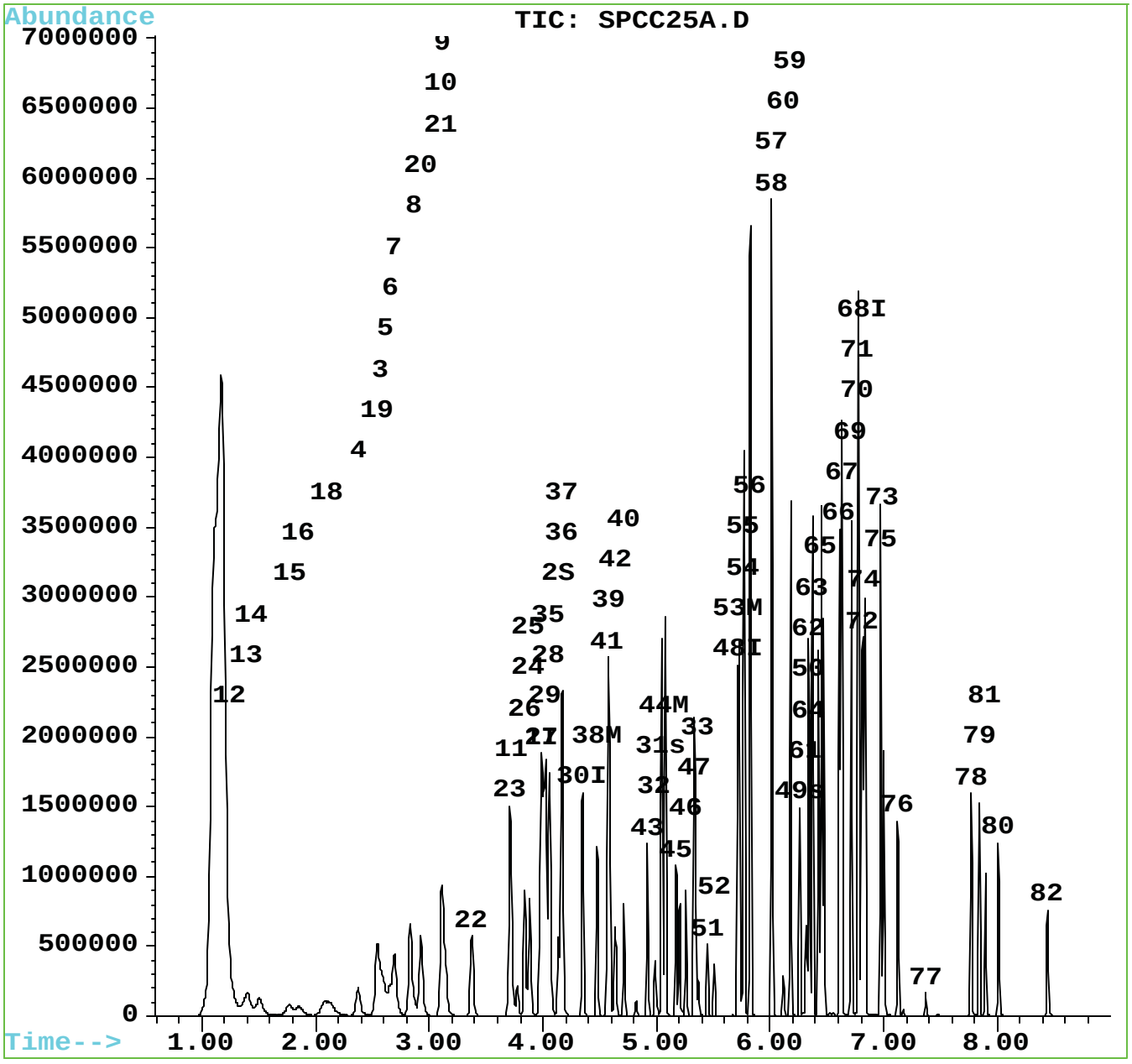
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.85	225	142357	52.19 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	187442	48.74 ug/l	9
81)	Naphthalene	7.90	128	451660	49.94 ug/l	9
82)	2-Methylnaphthalene	8.45	142	207046	46.74 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\spcc25a.d Vial: 2
Acq On : 25 Jun 12 2:03 pm Operator: lbr
Sample : spcc/ccc 1s0625 1m0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\bfb25a.d Vial: 1
Acq On : 25 Jun 12 1:36 pm Operator: lbr
Sample : 25ng/bfb 1s0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

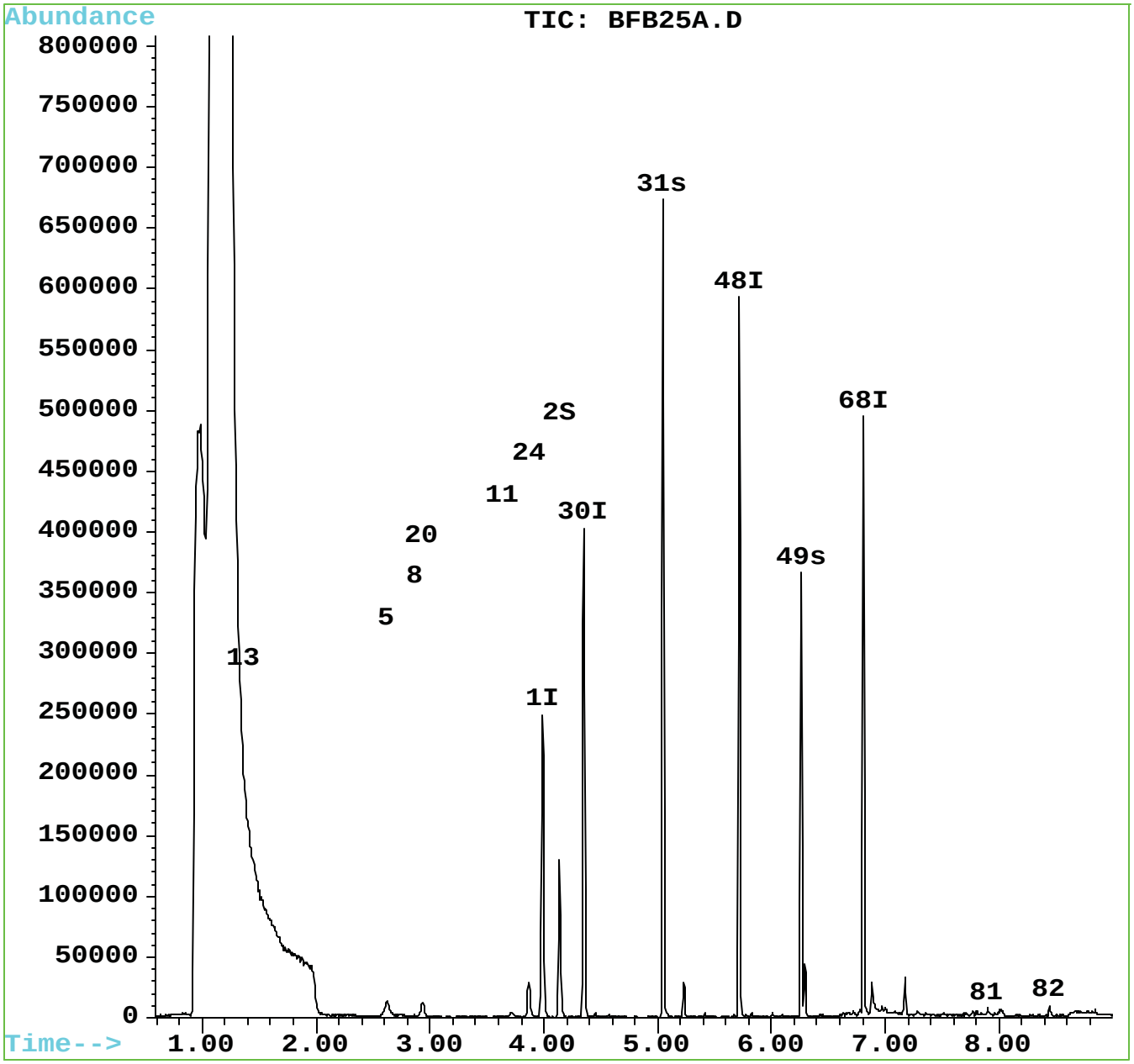
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	99028	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	182303	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	100414	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	67037	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	60205	45.30	ug/l		90.5
31) TOLUENE-D8 (S)	5.05	98	222036	51.86	ug/l		103.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	44580	44.92	ug/l		89.8
Target Compounds							Qvalu
5) Acetone (*)	2.62	43	28123	94.49	ug/l		8
8) Methyl Acetate	2.86	43	1592	2.02	ug/l		6
11) 2-Butanone (MEK) (*)	3.64	43	583	1.22	ug/l		6
13) Chloromethane (SPCC)	1.37	50	4576	2.27	ug/l		7
20) Methylene Chloride	2.93	84	5858	4.51	ug/l	#	5
24) Tetrahydrofuran	3.86	42	18431	54.24	ug/l	#	1
81) Naphthalene	7.90	128	2379	1.09	ug/l		9
82) 2-Methylnaphthalene	8.45	142	2366	2.20	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\bfb25a.d Vial: 1
Acq On : 25 Jun 12 1:36 pm Operator: lbr
Sample : 25ng/bfb 1s0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

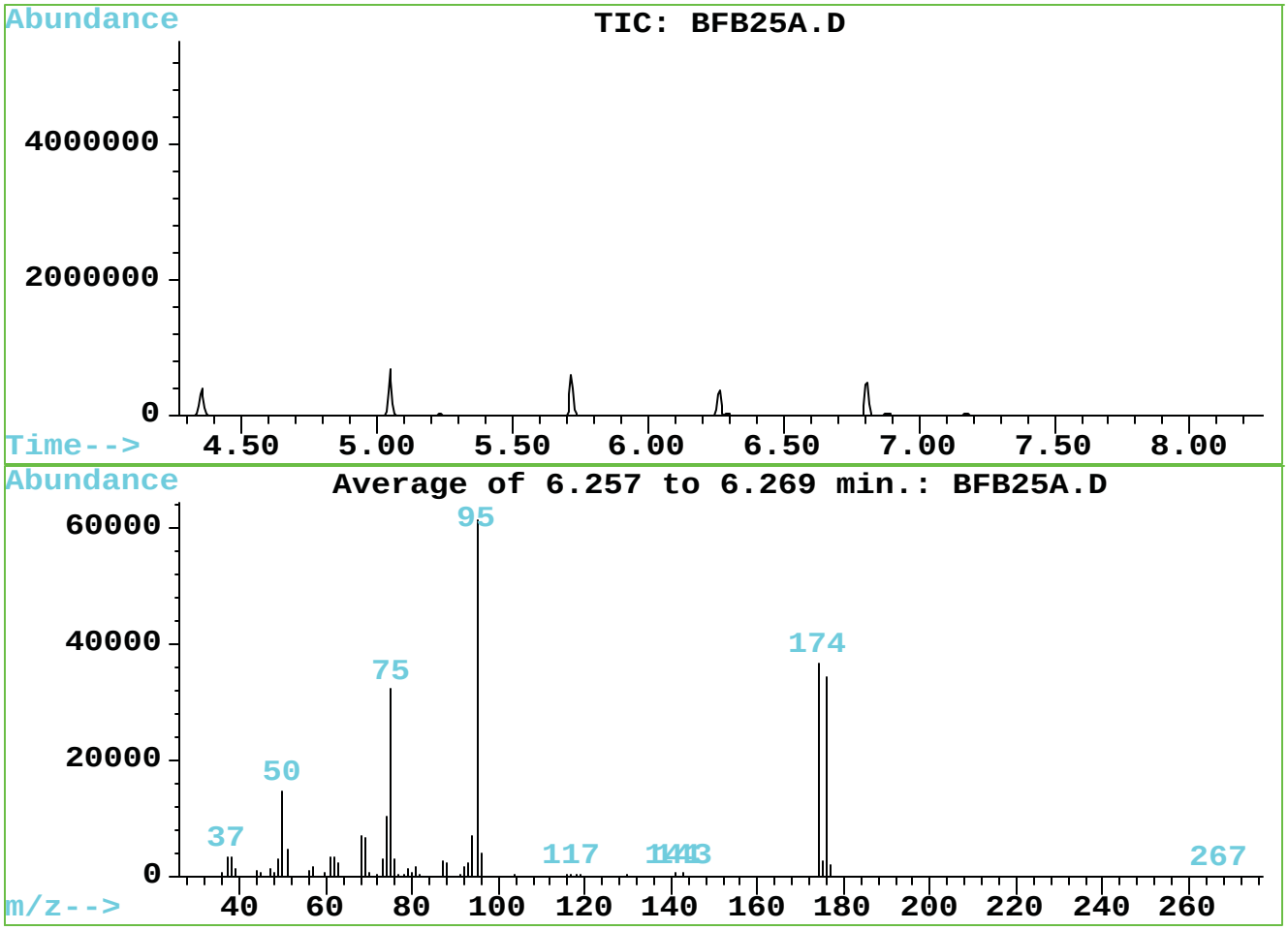
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\DATA\120625A3\BFB25A.D Vial: 1
Acq On : 25 Jun 12 1:36 pm Operator: lbr
Sample : 25ng/bfb 1s0625 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 967

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.2	14858	PASS
75	95	30	66	52.7	32343	PASS
95	95	100	100	100.0	61344	PASS
96	95	5	9	6.4	3922	PASS
173	174	0	2	0.2	88	PASS
174	95	50	120	59.9	36773	PASS
175	174	4	9	7.5	2776	PASS
176	174	93	101	93.7	34456	PASS
177	176	5	9	6.0	2076	PASS

BFB25A.D FT120608.M Thu Jul 12 16:03:26 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\blks25a.d Vial: 5
Acq On : 25 Jun 12 4:25 pm Operator: lbr
Sample : 100ul blank 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

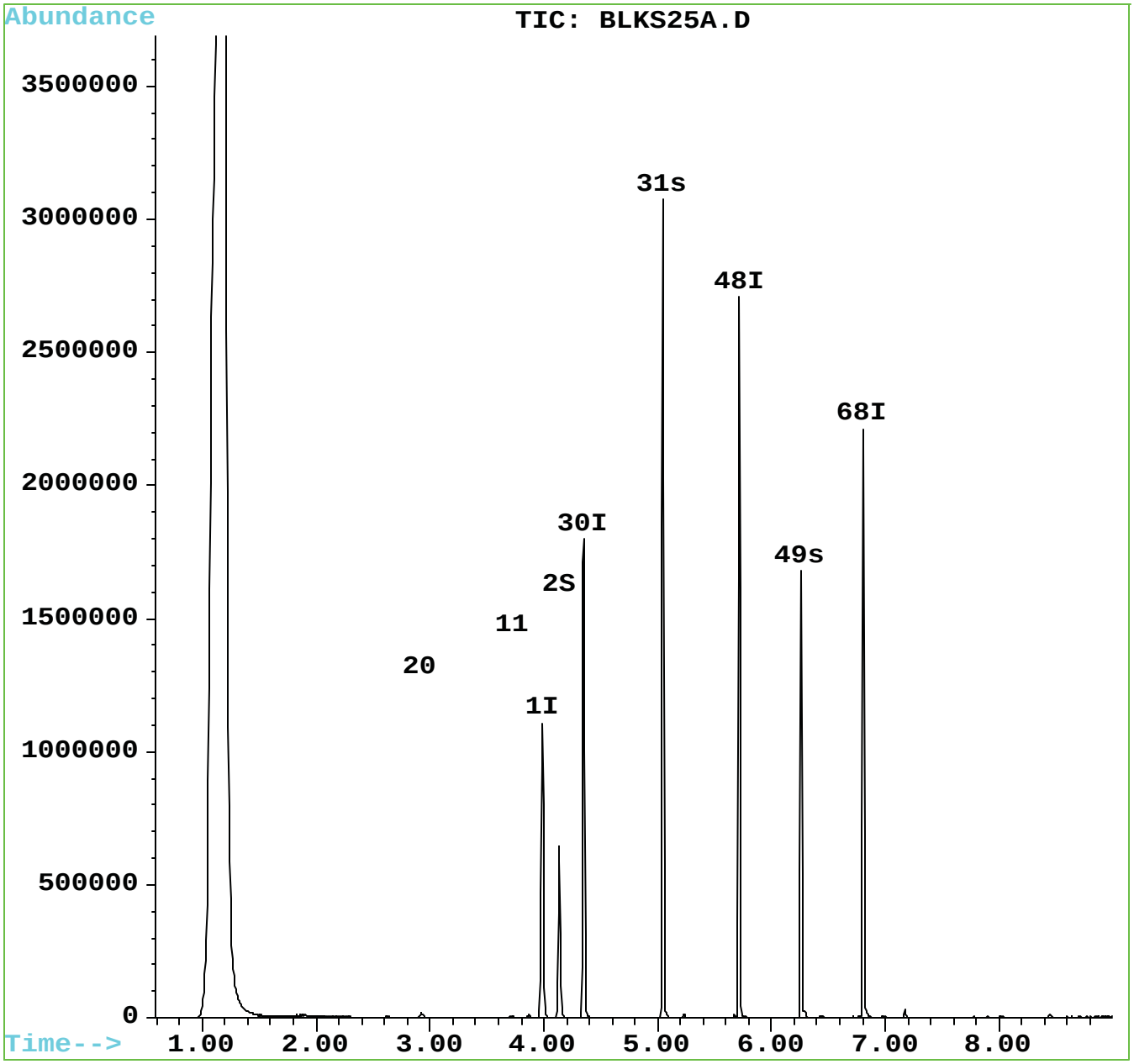
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	432376	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	840298	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	468604	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	308841	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	294773	50.79	ug/l	101.5
31) TOLUENE-D8 (S)	5.05	98	1004457	50.90	ug/l	101.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	212850	45.96	ug/l	91.9
Target Compounds						Qvalu
11) 2-Butanone (MEK) (*)	3.72	43	3601	1.72	ug/l	6
20) Methylene Chloride	2.92	84	7496	1.32	ug/l #	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\blks25a.d Vial: 5
Acq On : 25 Jun 12 4:25 pm Operator: lbr
Sample : 100ul blank 1s0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25a.d Vial: 3
Acq On : 25 Jun 12 2:34 pm Operator: lbr
Sample : 100ul blankms 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	413171	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	781229	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	429066	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	292644	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	272705	49.17	ug/l		98.3
31) TOLUENE-D8 (S)	5.05	98	936531	51.04	ug/l		102.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	200958	47.39	ug/l		94.7
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	247479	52.46	ug/l	#	8
4) Diethyl ether (*)	2.37	74	98247	50.43	ug/l	#	3
5) Acetone (*)	2.62	43	93537	74.03	ug/l	#	8
6) Methyl iodide (iodomethane	2.65	142	319513	52.13	ug/l		8
7) Carbon disulfide (*)	2.69	76	871897	58.16	ug/l		9
8) Methyl Acetate	2.87	43	157991	48.04	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	582743	48.84	ug/l		8
10) Acrylonitrile (*)	3.10	53	84077	48.05	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	109217	54.70	ug/l		8
12) Dichlorodifluoromethane	1.25	85	208519	53.12	ug/l		9
13) Chloromethane (SPCC)	1.40	50	423390	50.40	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	352790	56.18	ug/l		9
15) Bromomethane	1.76	94	115115	49.43	ug/l		9
16) Chloroethane	1.85	64	121398	53.93	ug/l		9
18) Trichlorofluoromethane	2.10	101	382653	58.01	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.54	61	434988	48.33	ug/l	#	6
20) Methylene Chloride	2.93	84	281676	52.02	ug/l	#	5
21) trans-1,2-Dichloroethene	3.10	61	476687	52.38	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	569785	51.78	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	282356	51.70	ug/l	#	6
24) Tetrahydrofuran	3.87	42	68222	47.66	ug/l	#	1
25) Chloroform (CCC)	3.89	83	460535	52.15	ug/l		9
26) Bromochloromethane	3.84	130	124985	50.09	ug/l	#	2
27) 1,1,1-Trichloroethane	3.98	97	413670	54.23	ug/l	#	3
28) 1,1-Dichloropropene	4.06	75	12014	1.49	ug/l		8
29) Cyclohexane	4.01	42	182612	44.55	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	61806	44.58	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	64691	50.88	ug/l	#	6
35) Carbon Tetrachloride	4.06	117	325466	55.02	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25a.d Vial: 3
Acq On : 25 Jun 12 2:34 pm Operator: lbr
Sample : 100ul blankms 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.16	78	1204773	51.46	ug/l		9
37) 1,2-Dichloroethane	4.17	62	351666	50.39	ug/l		9
38) Trichloroethene (MS)	4.47	95	264650	51.34	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	316515	52.05	ug/l		9
40) Bromodichloromethane	4.72	83	303411	53.22	ug/l		9
41) Methyl Cyclohexane	4.57	55	585356	53.13	ug/l	#	5
42) Dibromomethane	4.65	174	90213	47.94	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	427011	53.28	ug/l		9
44) Toluene (CCC/MS)	5.07	91	1189892	50.56	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	345145	54.19	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	145528	49.18	ug/l		8
47) Tetrachloroethene	5.33	166	224027	47.90	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	56612	45.34	ug/l	#	5
51) Dibromochloromethane	5.45	129	154086	52.42	ug/l		9
52) 1,2-Dibromoethane	5.51	107	152055	50.91	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	675805	51.14	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	207027	54.07	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	1343373	52.53	ug/l		9
56) p,m-Xylene	5.83	106	964771	103.58	ug/l	#	7
57) o-Xylene	6.01	91	1047789	52.05	ug/l		8
58) Styrene	6.02	104	748205	51.10	ug/l		8
59) Isopropylbenzene	6.18	105	1312836	51.83	ug/l		9
60) Bromoform (SPCC)	6.12	173	69572	48.52	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	193298	48.74	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	51120	47.34	ug/l	#	3
63) n-Propylbenzene	6.37	91	1641434	54.09	ug/l		8
64) Bromobenzene	6.34	156	224133	49.82	ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	486795	51.99	ug/l	#	7
66) tert-Butylbenzene	6.61	91	770655	52.50	ug/l	#	5
67) 1,2,4-Trimethylbenzene	6.63	120	543036	52.39	ug/l	#	7
69) sec-Butylbenzene	6.72	105	1461502	53.52	ug/l		9
70) p-Isopropyltoluene	6.77	119	1100962	55.41	ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	446154	53.01	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	454745	51.19	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	410784	51.78	ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	1030854	52.44	ug/l		8
75) n-Butylbenzene	6.97	91	1216863	55.74	ug/l		9
76) Hexachloroethane	7.13	201	93181	53.13	ug/l	#	4
77) 1,2-Dibromo-3-Chloropropan	7.37	157	22453	50.25	ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.77	182	230195	50.58	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25a.d Vial: 3
Acq On : 25 Jun 12 2:34 pm Operator: lbr
Sample : 100ul blankms 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

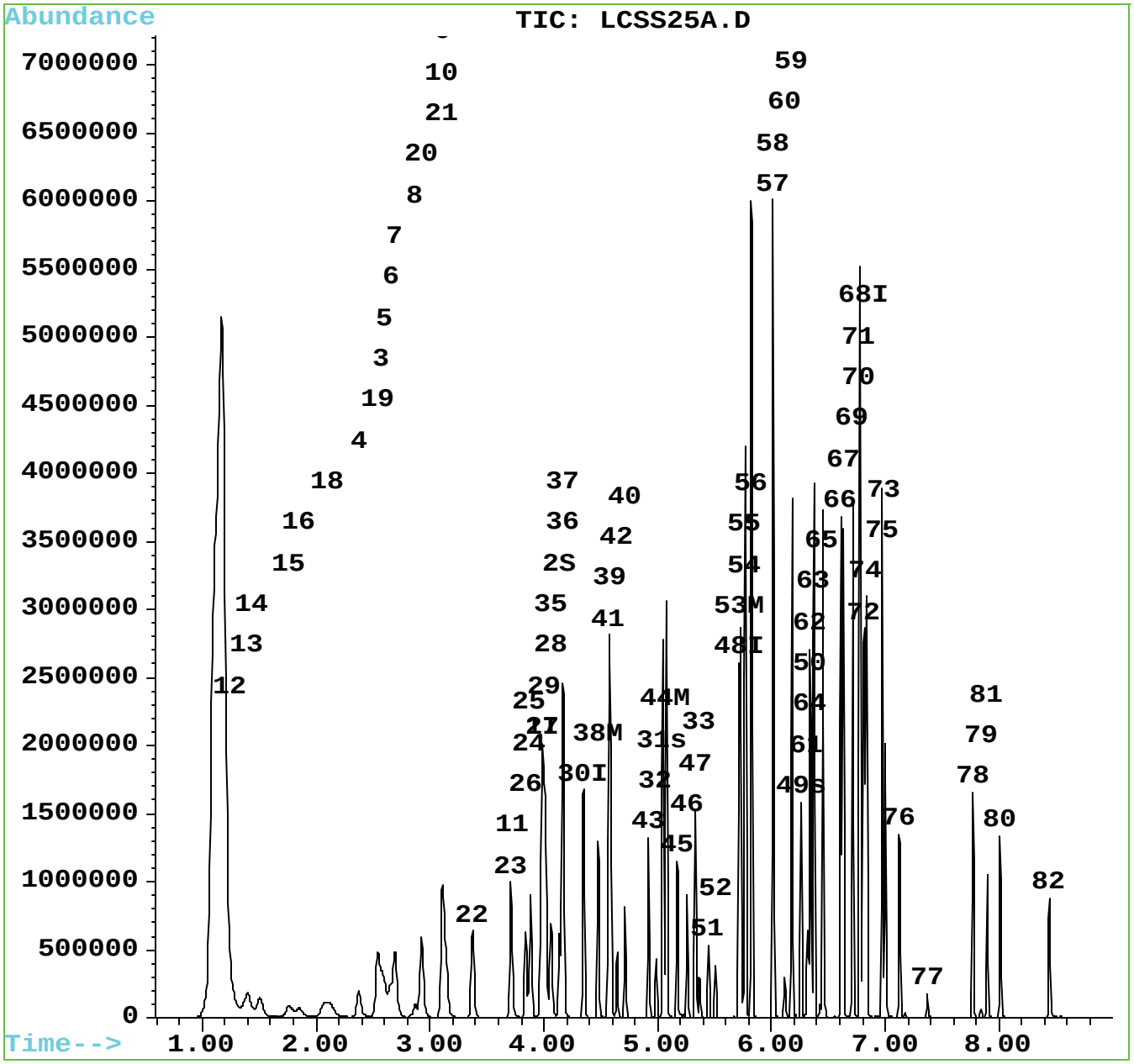
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.85	225	6351	2.20	ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	202228	49.70	ug/l	8
81)	Naphthalene	7.90	128	477711	49.92	ug/l	9
82)	2-Methylnaphthalene	8.45	142	240253	51.27	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25a.d Vial: 3
Acq On : 25 Jun 12 2:34 pm Operator: lbr
Sample : 100ul blankms 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jun 26 9:14 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25b.d Vial: 4
Acq On : 25 Jun 12 3:12 pm Operator: lbr
Sample : 100ul blankmsd 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jul 12 14:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	477473	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	880454	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	463731	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	307877	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	297386	46.40	ug/l		92.8
31) TOLUENE-D8 (S)	5.05	98	1052802	50.91	ug/l		101.8
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	220749	48.16	ug/l		96.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	293464	53.83	ug/l	#	7
4) Diethyl ether (*)	2.39	74	102225	45.41	ug/l	#	3
5) Acetone (*)	2.63	43	57405	36.33	ug/l	#	8
6) Methyl iodide (iodomethane	2.70	142	335140	47.32	ug/l		8
7) Carbon disulfide (*)	2.75	76	1009464	58.27	ug/l		9
8) Methyl Acetate	2.88	43	139466	36.69	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	562710	40.81	ug/l		8
10) Acrylonitrile (*)	3.12	53	70383	34.81	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	95238	41.27	ug/l		8
12) Dichlorodifluoromethane	1.26	85	249921	55.09	ug/l		9
13) Chloromethane (SPCC)	1.42	50	503928	51.90	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	401924	55.38	ug/l		9
15) Bromomethane	1.81	94	133052	49.44	ug/l		9
16) Chloroethane	1.87	64	196968	75.72	ug/l		8
18) Trichlorofluoromethane	2.16	101	432863	56.78	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.59	61	553668	53.23	ug/l	#	7
20) Methylene Chloride	2.96	84	290557	46.43	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	527883	50.20	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	617025	48.52	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	300024	47.54	ug/l	#	6
24) Tetrahydrofuran	3.87	42	60991	35.94	ug/l	#	1
25) Chloroform (CCC)	3.89	83	492308	48.24	ug/l		9
26) Bromochloromethane	3.85	130	127594	44.25	ug/l	#	2
27) 1,1,1-Trichloroethane	3.99	97	459725	52.15	ug/l	#	3
29) Cyclohexane	4.01	42	204891	43.26	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	57803	37.00	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	59642	41.62	ug/l	#	6
35) Carbon Tetrachloride	4.07	117	356278	53.44	ug/l		9
36) Benzene (MS)	4.17	78	1303465	49.40	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25b.d Vial: 4
Acq On : 25 Jun 12 3:12 pm Operator: lbr
Sample : 100ul blankmsd 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jul 12 14:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
37) 1,2-Dichloroethane	4.18	62	356069	45.27 ug/l	9
38) Trichloroethene (MS)	4.48	95	290836	50.07 ug/l #	7
39) 1,2-Dichloropropane (CCC)	4.59	63	334106	48.75 ug/l	9
40) Bromodichloromethane	4.72	83	328723	51.16 ug/l	9
41) Methyl Cyclohexane	4.57	55	659131	53.08 ug/l #	5
42) Dibromomethane	4.65	174	91119	42.97 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	444990	49.26 ug/l	9
44) Toluene (CCC/MS)	5.08	91	1280845	48.29 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	353609	49.26 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	146226	43.85 ug/l	8
47) Tetrachloroethene	5.33	166	260502	49.42 ug/l	8
50) trans-1,4-Dichloro-2-buten	6.35	53	53730	39.82 ug/l #	5
51) Dibromochloromethane	5.45	129	157155	49.61 ug/l	9
52) 1,2-Dibromoethane	5.51	107	151812	47.03 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	720167	50.42 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	212100	51.25 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	1460348	52.84 ug/l	9
56) p,m-Xylene	5.83	106	1050604	104.37 ug/l #	7
57) o-Xylene	6.02	91	1115148	51.26 ug/l	8
58) Styrene	6.02	104	786136	49.68 ug/l	8
59) Isopropylbenzene	6.18	105	1423220	51.99 ug/l	9
60) Bromoform (SPCC)	6.12	173	69564	45.17 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	180600	42.13 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	51823	44.41 ug/l #	3
63) n-Propylbenzene	6.37	91	1765719	53.84 ug/l	8
64) Bromobenzene	6.34	156	234710	48.27 ug/l #	4
65) 1,3,5-Trimethylbenzene	6.45	120	518241	51.21 ug/l #	6
66) tert-Butylbenzene	6.61	91	843847	53.19 ug/l #	5
67) 1,2,4-Trimethylbenzene	6.63	120	575300	51.36 ug/l #	7
69) sec-Butylbenzene	6.72	105	1586245	55.21 ug/l	9
70) p-Isopropyltoluene	6.77	119	1179453	56.43 ug/l	8
71) 1,3-Dichlorobenzene	6.78	146	463009	52.30 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	472379	50.54 ug/l	9
73) 1,2-Dichlorobenzene	7.00	146	416982	49.96 ug/l	9
74) 1,2,3-Trimethylbenzene	6.84	105	1065132	51.51 ug/l	8
75) n-Butylbenzene	6.97	91	1299967	56.60 ug/l	9
76) Hexachloroethane	7.13	201	99444	53.79 ug/l #	4
77) 1,2-Dibromo-3-Chloropropan	7.37	157	20699	44.39 ug/l #	7
78) 1,2,4-Trichlorobenzene	7.77	182	235559	49.20 ug/l	8
80) 1,2,3-Trichlorobenzene	8.01	180	210232	49.11 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25b.d Vial: 4
Acq On : 25 Jun 12 3:12 pm Operator: lbr
Sample : 100ul blankmsd 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jul 12 14:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

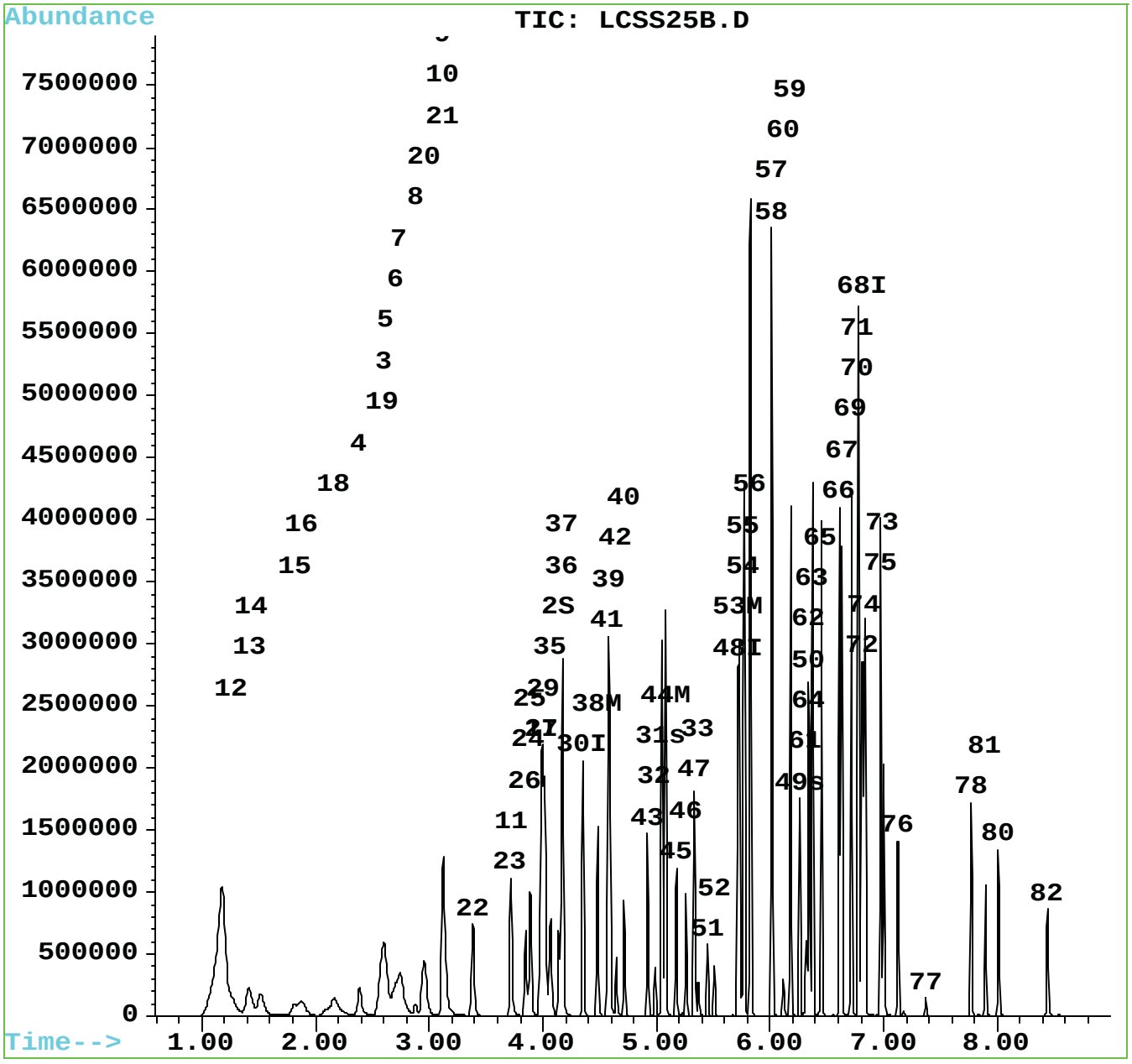
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
81)	Naphthalene	7.90	128	475121	47.19	ug/l	9
82)	2-Methylnaphthalene	8.45	142	231846	47.03	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120625a3\lcss25b.d Vial: 4
Acq On : 25 Jun 12 3:12 pm Operator: lbr
Sample : 100ul blankmsd 1s0625 1m0625 Inst : Merfolk
Misc : s/50 id:vf120625s2 Multiplr: 1.00
Quant Time: Jul 12 14:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\FT120608.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d27a.d	06/27/12 09:45	dftpp std (120607) [none]	WW	IP	**1**	
spnn27a.d	06/27/12 10:09	pna std 50 (120314) [none]	WW	CV	**1**	
blks27a.d	06/27/12 10:36	pna-s 30g/1ml df:1 sp120625s01	SO	Bl	**1 2**	
lcss27a.d	06/27/12 11:00	pna-s 30g/1ml df:1 sp120625s01	SO	MS	**1**	
lcsds27a.d	06/27/12 11:24	pna-s 30g/1ml df:1 sp120625s01	SO	MS	**1**	
5293402.d	06/27/12 11:48	pna-s 30g/1ml df:6 sp120625s01	SO		**1**	
5295902.d	06/27/12 12:12	pna-s 30g/1ml df:15 sp120625s01	SO		**1**	
5295903.d	06/27/12 12:36	pna-s 30g/1ml df:10 sp120625s01	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	3
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 1
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
spnn27a.d	2-Fluorobiphenyl	2067/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	1957/100.0	n/a	10.0/114.0	
	Terphenyl-D14	2083/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blks27a.d	2-Fluorobiphenyl	51.2/100.0	51.2	10.0/115.0	SO
	Nitrobenzene-D5	44.2/100.0	44.2	18.5/120.0	
	Terphenyl-D14	163.0/100.0	163.0 *	10.3/137.0	
				Total Outliers: 1	
lcss27a.d	2-Fluorobiphenyl	85.5/100.0	85.5	10.0/115.0	SO
	Nitrobenzene-D5	63.3/100.0	63.3	18.5/120.0	
	Terphenyl-D14	97.6/100.0	97.6	10.3/137.0	
				Total Outliers: 0	
lcsds27a.d	2-Fluorobiphenyl	74.5/100.0	74.5	10.0/115.0	SO
	Nitrobenzene-D5	56.5/100.0	56.5	18.5/120.0	
	Terphenyl-D14	92.8/100.0	92.8	10.3/137.0	
				Total Outliers: 0	
5293402.d	2-Fluorobiphenyl	67.0/100.0	67.0	10.0/115.0	SO
	Nitrobenzene-D5	63.8/100.0	63.8	18.5/120.0	
	Terphenyl-D14	79.8/100.0	79.8	10.3/137.0	
				Total Outliers: 0	
5295902.d	2-Fluorobiphenyl	81.6/100.0	81.6	10.0/115.0	SO
	Nitrobenzene-D5	74.7/100.0	74.7	18.5/120.0	
	Terphenyl-D14	96.0/100.0	96.0	10.3/137.0	
				Total Outliers: 0	
5295903.d	2-Fluorobiphenyl	80.0/100.0	80.0	10.0/115.0	SO
	Nitrobenzene-D5	73.2/100.0	73.2	18.5/120.0	
	Terphenyl-D14	92.3/100.0	92.3	10.3/137.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsds27a.d			
Dup ID : LCSD1			
Prep Batch: sp120625s01			
Prep Date : 06/25/12			
Parent File: lcss27a.d			
naphthalene	32.97/ 38.33	15.0/25.0	SO
2-methylnaphthalene	35.67/ 40.48	12.6/25.0	
1-methylnaphthalene	31.85/ 35.51	10.9/25.0	
acenaphthylene	36.74/ 40.99	10.9/25.0	
acenaphthene **	36.76/ 41.75	12.7/25.0	
fluorene	38.07/ 42.68	11.4/25.0	
phenanthrene	37.79/ 41.17	8.6/25.0	
anthracene	37.22/ 39.11	5.0/25.0	
fluoranthene	39.45/ 42.48	7.4/25.0	
pyrene **	41.10/ 44.87	8.8/25.0	
benzo(a)anthracene	43.29/ 46.83	7.9/25.0	
chrysene	40.53/ 43.96	8.1/25.0	
benzo(b)fluoranthene	47.12/ 48.89	3.7/25.0	
benzo(k)fluoranthene	44.15/ 48.65	9.7/25.0	
benzo(a)pyrene	45.55/ 47.19	3.5/25.0	
indeno(1,2,3-cd)pyrene	40.34/ 44.24	9.2/25.0	
dibenzo(ah)anthracene	40.24/ 44.15	9.3/25.0	
benzo(ghi)perylene	38.69/ 42.48	9.3/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss27a.d						
Spike ID : LCS1						
Prep Batch: sp120625s01						
Prep Date : 06/25/12						
Parent File: blks27a.d						
1-Methylnaphthalene	35.51/	0.00	50.00	71.0	10.0/120.0	SO
2-Methylnaphthalene	40.48/	0.00	50.00	81.0	35.6/120.0	
Acenaphthene	41.75/	0.00	50.00	83.5	10.0/121.0	
Acenaphthylene	40.99/	0.00	50.00	82.0	35.4/127.7	
Anthracene	39.11/	0.00	50.00	78.2	32.3/142.4	
Benzo(a)anthracene	46.83/	0.00	50.00	93.7	36.7/134.7	
Benzo(a)pyrene	47.19/	0.00	50.00	94.4	10.0/140.8	
Benzo(b)fluoranthene	48.89/	0.00	50.00	97.8	29.0/152.7	
Benzo(ghi)perylene	42.48/	0.00	50.00	85.0	45.2/130.7	
Benzo(k)fluoranthene	48.65/	0.00	50.00	97.3	29.8/136.0	
Chrysene	43.96/	0.00	50.00	87.9	38.7/137.1	
Dibenzo(ah)anthracene	44.15/	0.00	50.00	88.3	45.3/130.8	
Fluorene	42.68/	0.00	50.00	85.4	37.8/127.8	
Fluoranthene	42.48/	0.00	50.00	85.0	10.0/145.8	
Indeno(1,2,3-cd)pyrene	44.24/	0.00	50.00	88.5	39.2/137.4	
Naphthalene	38.33/	0.00	50.00	76.7	10.0/110.0	
Phenanthrene	41.17/	0.00	50.00	82.3	36.4/143.0	
Pyrene	44.87/	0.00	50.00	89.7	10.0/135.8	
					Total Outliers:	**0**
Spike File : lcsds27a.d						
Spike ID : LCSD1						
Prep Batch: sp120625s01						
Prep Date : 06/25/12						
Parent File: blks27a.d						
1-Methylnaphthalene	31.85/	0.00	50.00	63.7	10.0/120.0	SO
2-Methylnaphthalene	35.67/	0.00	50.00	71.3	35.6/120.0	
Acenaphthene	36.76/	0.00	50.00	73.5	10.0/121.0	
Acenaphthylene	36.74/	0.00	50.00	73.5	35.4/127.7	
Anthracene	37.22/	0.00	50.00	74.4	32.3/142.4	
Benzo(a)anthracene	43.29/	0.00	50.00	86.6	36.7/134.7	
Benzo(a)pyrene	45.55/	0.00	50.00	91.1	10.0/140.8	
Benzo(b)fluoranthene	47.12/	0.00	50.00	94.2	29.0/152.7	
Benzo(ghi)perylene	38.69/	0.00	50.00	77.4	45.2/130.7	
Benzo(k)fluoranthene	44.15/	0.00	50.00	88.3	29.8/136.0	
Chrysene	40.53/	0.00	50.00	81.1	38.7/137.1	
Dibenzo(ah)anthracene	40.24/	0.00	50.00	80.5	45.3/130.8	
Fluorene	38.07/	0.00	50.00	76.1	37.8/127.8	
Fluoranthene	39.45/	0.00	50.00	78.9	10.0/145.8	
Indeno(1,2,3-cd)pyrene	40.34/	0.00	50.00	80.7	39.2/137.4	
Naphthalene	32.97/	0.00	50.00	65.9	10.0/110.0	
Phenanthrene	37.79/	0.00	50.00	75.6	36.4/143.0	
Pyrene	41.10/	0.00	50.00	82.2	10.0/135.8	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blks27a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120625s01
Prep Date : 06/25/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Naphthalene	Not detected		0.1	20
2-Methylnaphthalene	Not detected		0.2	20
1-Methylnaphthalene	Not detected		0.4	20
Acenaphthylene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
Benzo(a)anthracene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(b)fluoranthene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Benzo(a)pyrene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(ghi)perylene	Not detected		0.5	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks27a.d
Method Blank Prep Date: 06/25/12
Blank/LCS Preparation Batch: sp120625s01

LCS Data File: lcss27a.d
LCS Prep Date: 06/25/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52934.02	U120627	SP120625S01	06/27/12	Polynuclear Aromatics	$PNA8270
	SP120625S01		06/25/12	Semi Volatile Extraction	PNAEXTS
S52959.02	U120627	SP120625S01	06/27/12	Polynuclear Aromatics	$PNA8270
	SP120625S01		06/25/12	Semi Volatile Extraction	PNAEXTS
S52959.03	U120627	SP120625S01	06/27/12	Polynuclear Aromatics	$PNA8270
	SP120625S01		06/25/12	Semi Volatile Extraction	PNAEXTS

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d27a.d	06/27/12 09:45	51	198	30.0	80.0	32.8	132160	PASS
		68	69	0.0	2.0	0.0	0	PASS
		69	198	0.0	100.0	41.7	167872	PASS
		70	69	0.0	2.0	0.0	0	PASS
		127	198	25.0	75.0	40.3	162176	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	402624	PASS
		199	198	5.0	9.0	7.0	28352	PASS
		275	198	10.0	30.0	22.0	88544	PASS
		365	198	1.0	100.0	2.0	8146	PASS
		441	443	0.0	100.0	0.0	0	PASS
		442	198	40.0	110.0	43.7	175936	PASS
		443	442	15.0	24.0	19.4	34192	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn27a.d	06/27/12 10:09	1,4-Dichlorobenzene-D4	473651/ 4.68	236826- 947302	4.18- 5.18
		Naphthalene-D8	1851422/ 5.85	925711- 3702844	5.35- 6.35
		Acenaphthalene-D10	1052031/ 7.50	526016- 2104062	7.00- 8.00
		Phenanthrene-D10	1662070/ 9.05	831035- 3324140	8.55- 9.55
		Chrysene-D12	1531215/12.95	765608- 3062430	12.45-13.45
		Perylene-D12	1459710/15.64	729855- 2919420	15.14-16.14
					Total Outliers: N/A
blks27a.d	06/27/12 10:36	1,4-Dichlorobenzene-D4	492501/ 4.67	Ratio: 1.040	Diff.: -0.01
		Naphthalene-D8	1987633/ 5.85	Ratio: 1.074	Diff.: 0.00
		Acenaphthalene-D10	1059375/ 7.50	Ratio: 1.007	Diff.: 0.00
		Phenanthrene-D10	1764047/ 9.05	Ratio: 1.061	Diff.: 0.00
		Chrysene-D12	1513007/12.94	Ratio: 0.988	Diff.: -0.01
		Perylene-D12	1412545/15.64	Ratio: 0.968	Diff.: 0.00
					Total Outliers: 0
lcss27a.d	06/27/12 11:00	1,4-Dichlorobenzene-D4	544882/ 4.67	Ratio: 1.150	Diff.: -0.01
		Naphthalene-D8	2239533/ 5.86	Ratio: 1.210	Diff.: 0.01
		Acenaphthalene-D10	1201957/ 7.50	Ratio: 1.143	Diff.: 0.00
		Phenanthrene-D10	1988960/ 9.06	Ratio: 1.197	Diff.: 0.01
		Chrysene-D12	1778458/12.95	Ratio: 1.161	Diff.: 0.00
		Perylene-D12	1687781/15.64	Ratio: 1.156	Diff.: 0.00
					Total Outliers: 0
lcsds27a.d	06/27/12 11:24	1,4-Dichlorobenzene-D4	535987/ 4.68	Ratio: 1.132	Diff.: 0.00
		Naphthalene-D8	2174404/ 5.86	Ratio: 1.174	Diff.: 0.01
		Acenaphthalene-D10	1174430/ 7.50	Ratio: 1.116	Diff.: 0.00
		Phenanthrene-D10	1936962/ 9.05	Ratio: 1.165	Diff.: 0.00
		Chrysene-D12	1775478/12.95	Ratio: 1.160	Diff.: 0.00
		Perylene-D12	1656041/15.64	Ratio: 1.135	Diff.: 0.00
					Total Outliers: 0
5293402.d	06/27/12 11:48	1,4-Dichlorobenzene-D4	527539/ 4.68	Ratio: 1.114	Diff.: 0.00
		Naphthalene-D8	2092920/ 5.86	Ratio: 1.130	Diff.: 0.01
		Acenaphthalene-D10	1096244/ 7.51	Ratio: 1.042	Diff.: 0.01
		Phenanthrene-D10	1799813/ 9.05	Ratio: 1.083	Diff.: 0.00
		Chrysene-D12	1548568/12.94	Ratio: 1.011	Diff.: -0.01
		Perylene-D12	1463251/15.64	Ratio: 1.002	Diff.: 0.00
					Total Outliers: 0
5295902.d	06/27/12 12:12	1,4-Dichlorobenzene-D4	431836/ 4.68	Ratio: 0.912	Diff.: 0.00
		Naphthalene-D8	1709865/ 5.86	Ratio: 0.924	Diff.: 0.01
		Acenaphthalene-D10	905830/ 7.50	Ratio: 0.861	Diff.: 0.00
		Phenanthrene-D10	1481695/ 9.05	Ratio: 0.891	Diff.: 0.00
		Chrysene-D12	1398843/12.94	Ratio: 0.914	Diff.: -0.01
		Perylene-D12	1355727/15.64	Ratio: 0.929	Diff.: 0.00
					Total Outliers: 0
5295903.d	06/27/12 12:36	1,4-Dichlorobenzene-D4	473106/ 4.68	Ratio: 0.999	Diff.: 0.00
		Naphthalene-D8	1863741/ 5.86	Ratio: 1.007	Diff.: 0.01
		Acenaphthalene-D10	981311/ 7.50	Ratio: 0.933	Diff.: 0.00
		Phenanthrene-D10	1615153/ 9.05	Ratio: 0.972	Diff.: 0.00
		Chrysene-D12	1443785/12.94	Ratio: 0.943	Diff.: -0.01
		Perylene-D12	1382396/15.64	Ratio: 0.947	Diff.: 0.00
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*

KEY:

```
[Area/RT]:    Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]:   +/- 0.5 minutes of relative internal standard RT
[Ratio]:      Ratio of internal standard areas
[Diff]:       Difference in internal standard retention times (minutes)
```

CONTROL LIMITS:

```
Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT
```

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.01.Ulysses
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: u120627.1

LIMS ID: S52959.02
Data File: 5295902.d
Date Received: 06/25/12

Tag: SB146 (06-21-2012)(4-5)
Notes: pna-s 30g/1ml df:15
s/1; id:sp120625s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 15

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	06/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	80	1		%	06/26/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				06/25/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (82%)				06/27/12	
4165-60-0	Nitrobenzene-D5	Pass (75%)					
98904-43-9	Terphenyl-D14	Pass (96%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.01.Ulysses
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: u120627.1

LIMS ID: S52959.03
Data File: 5295903.d
Date Received: 06/25/12

Tag: SB141 (06-22-2012)(3-5)
Notes: pna-s 30g/1ml df:10
s/1; id:sp120625s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 10

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	06/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	91	1		%	06/26/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				06/25/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				06/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (80%)				06/27/12	
4165-60-0	Nitrobenzene-D5	Pass (73%)					
98904-43-9	Terphenyl-D14	Pass (92%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.01.Ulysses
Analytical Batch: u120627.1
GC Column: DB-5/L:30m/D:0.25mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\5295902.d Vial: 7
Acq On : 27 Jun 112 12:12 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 12:30 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

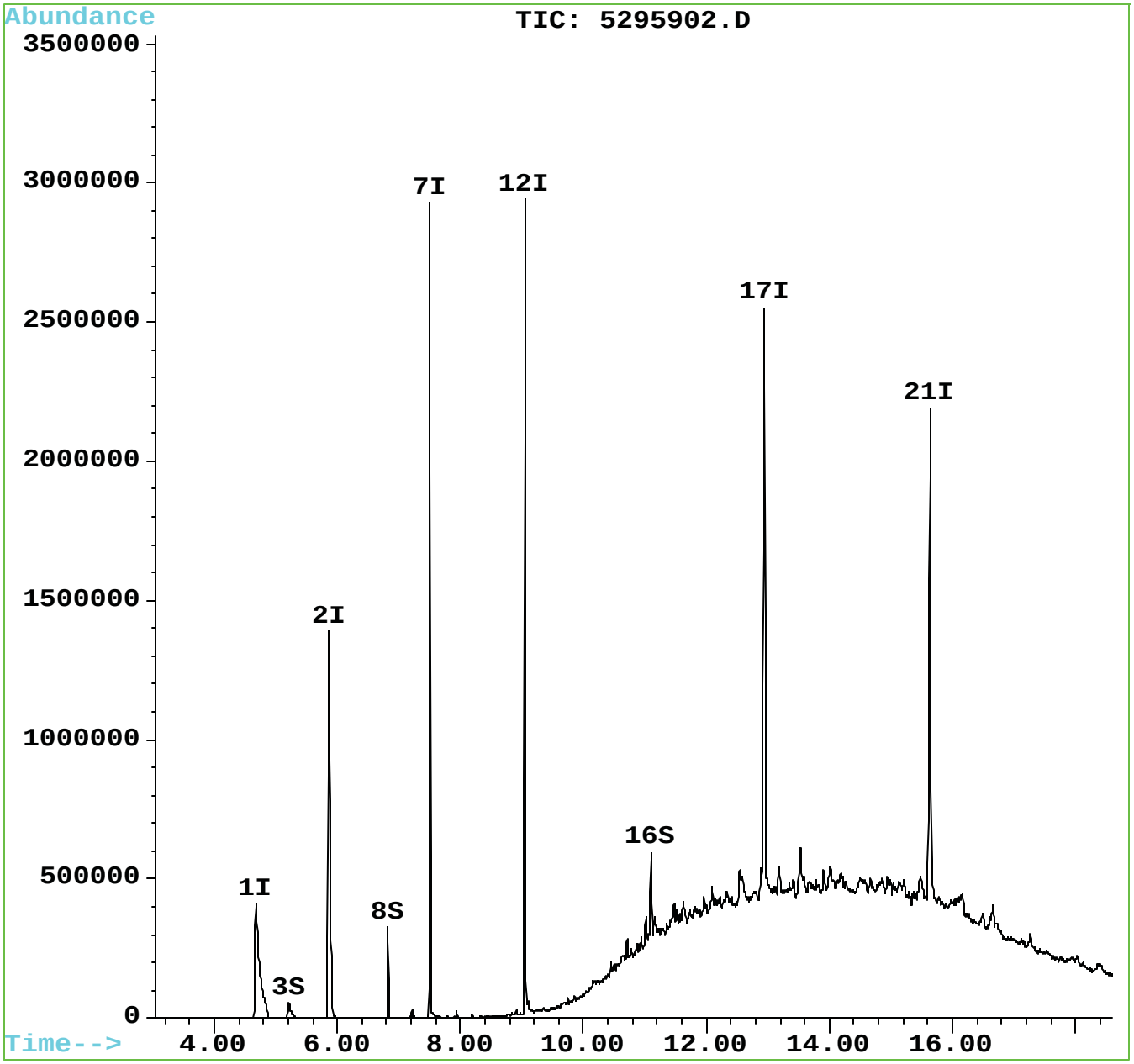
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	431836	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.86	136	1709865	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	905830	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.05	188	1481695	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.94	240	1398843	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.64	264	1355727	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.21	82	60470	9.96	ng/ul	9.9
8) 2-Fluorobiphenyl	6.82	172	154197	10.88	ng/ul	10.8
16) Terphenyl-D14	11.10	244	167754	12.80	ng/ul	12.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\5295902.d Vial: 7
Acq On : 27 Jun 112 12:12 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 12:30 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\5295903.d Vial: 8
Acq On : 27 Jun 112 12:36 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 12:54 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

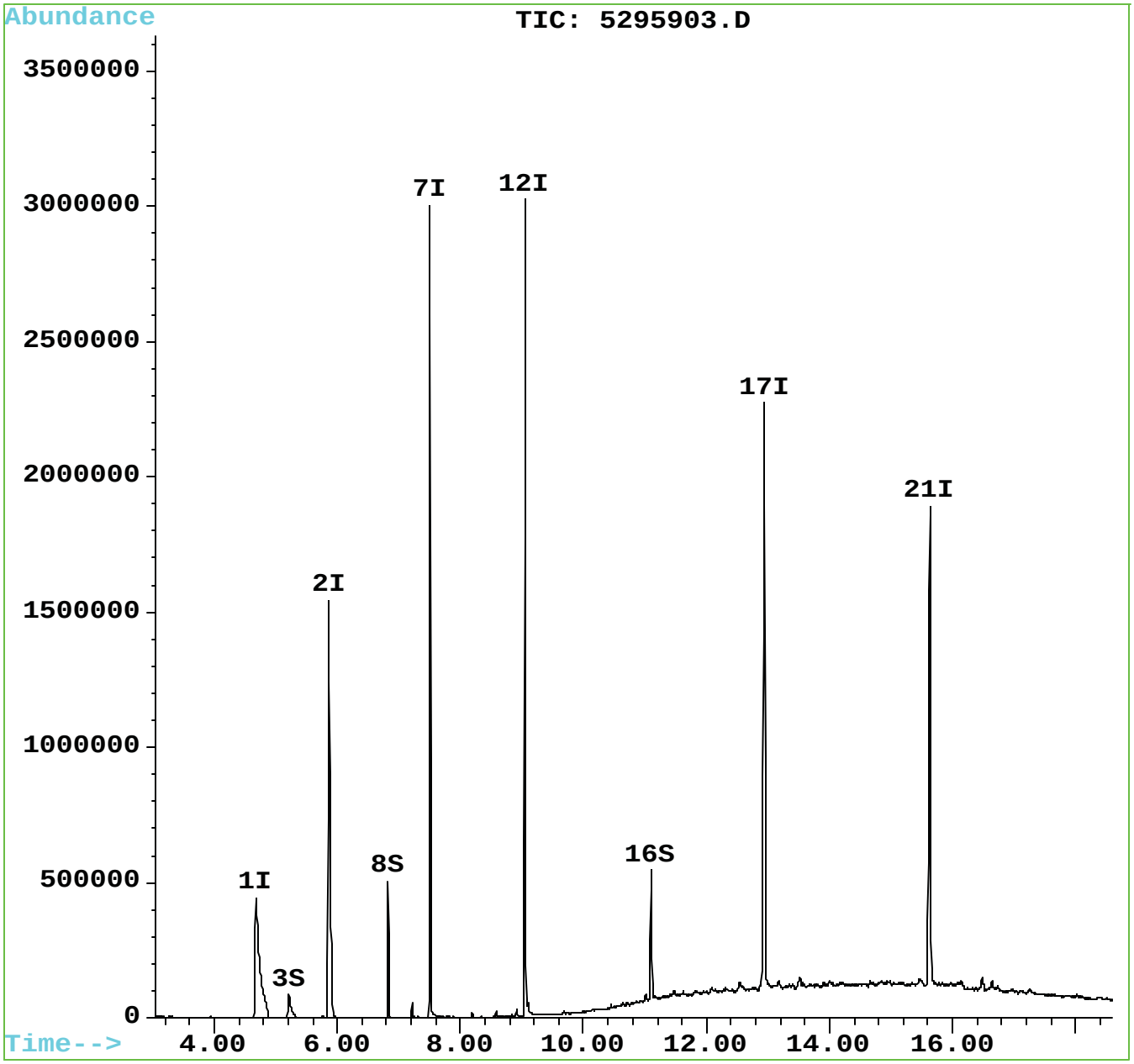
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	473106	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.86	136	1863741	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	981311	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.05	188	1615153	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.94	240	1443785	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.64	264	1382396	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.21	82	96905	14.65	ng/ul	14.6
8) 2-Fluorobiphenyl	6.83	172	245680	16.01	ng/ul	16.0
16) Terphenyl-D14	11.10	244	263810	18.47	ng/ul	18.4
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\5295903.d Vial: 8
Acq On : 27 Jun 112 12:36 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 12:54 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120526u.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	A	0.284	4.70	0.260	0.299	0.285	0.289	0.291	0.280				
	Naphthalene	A	0.975	2.47	1.006	0.944	0.952	0.970	0.994	0.983				
	2-Methylnaphthalene	A	0.523	3.35	0.505	0.506	0.510	0.536	0.541	0.539				
	1-Methylnaphthalene	A	0.624	5.87	0.585	0.600	0.590	0.646	0.655	0.669				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.251	4.06	1.244	1.194	1.189	1.281	1.306	1.294				
	Acenaphthylene	A	1.686	2.72	1.657	1.629	1.654	1.707	1.746	1.723				
	Acenaphthene **	A	1.018	5.13	0.983	0.960	0.975	1.047	1.089	1.054				
	Fluorene	A	1.175	3.66	1.206	1.117	1.129	1.173	1.207	1.217				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	A	1.017	4.42	1.031	0.961	0.969	1.017	1.042	1.079				
	Anthracene	A	1.082	8.00	0.981	1.021	1.025	1.101	1.173	1.190				
	Fluoranthene	A	0.985	4.38	0.956	0.940	0.955	0.993	1.009	1.055				
	Terphenyl-D14	A	0.708	2.87	0.711	0.689	0.682	0.703	0.733	0.727				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	1.057	4.56	1.003	1.024	1.063	1.110	1.117	1.023				
	Benzo(a)anthracene	A	0.880	2.90	0.854	0.864	0.886	0.913	0.907	0.858				
	Chrysene	A	0.950	2.40	0.941	0.937	0.918	0.956	0.980	0.970				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	0.896	6.32	0.821	0.839	0.903	0.920	0.973	0.921				
	Benzo(k)fluoranthene	A	0.912	7.79	0.796	0.873	0.908	0.970	0.935	0.992				
	Benzo(a)pyrene	A	0.791	6.25	0.714	0.748	0.802	0.838	0.833	0.810				
	Indeno(1,2,3-cd)pyrene	A	1.062	8.20	0.908	1.050	1.031	1.128	1.137	1.118				
	Dibenzo(ah)anthracene	A	0.857	10.32	0.689	0.865	0.838	0.915	0.924	0.908				
	Benzo(ghi)perylene	A	0.882	4.69	0.803	0.891	0.897	0.918	0.908	0.876				

Calibration Date: 52/6u/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120526u.M (Mean %RSD: 5.00)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\ulysses.3\methods\p120526u.m\

Injection Time	Calibration Data File
05/26/12 20:12	d26a.d
05/26/12 20:36	pna0005.d
05/26/12 21:49	pna_020.d
05/26/12 22:13	pna_040.d
05/26/12 22:37	pna_050.d
05/26/12 23:01	pna_060.d
05/26/12 23:26	pna_080.d
05/26/12 23:50	pna_100.d

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\d26a.d Vial: 1
Acq On : 26 May 112 8:12 pm Operator:
Sample : dftpp std (120525) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 20:31 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

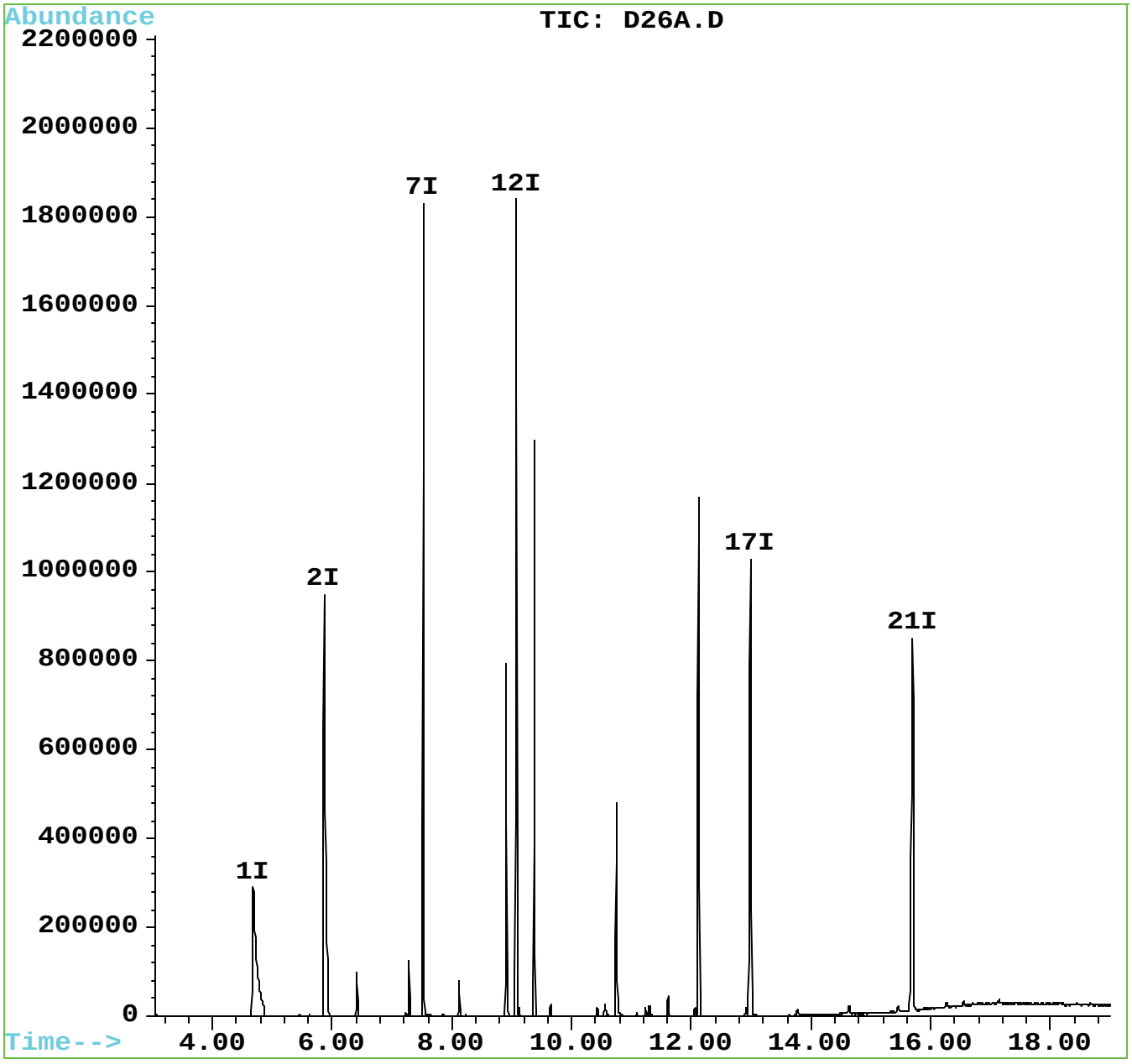
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	257755	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.87	136	1032952	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.52	164	518465	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	9.08	188	861330	40.00	ng/ul	-0.0
17) CHRYSENE-D12	12.99	240	694834	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.69	264	660571	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	0.00	82	0	0.00	ng/ul	0.0
8) 2-Fluorobiphenyl	0.00	172	0	0.00	ng/ul	0.0
16) Terphenyl-D14	0.00	244	0	0.00	ng/ul	0.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration
d26a.d P120526U.M Fri Jun 01 16:07:57 2012 Page 1

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\d26a.d Vial: 1
Acq On : 26 May 112 8:12 pm Operator:
Sample : dftpp std (120525) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 20:31 19112

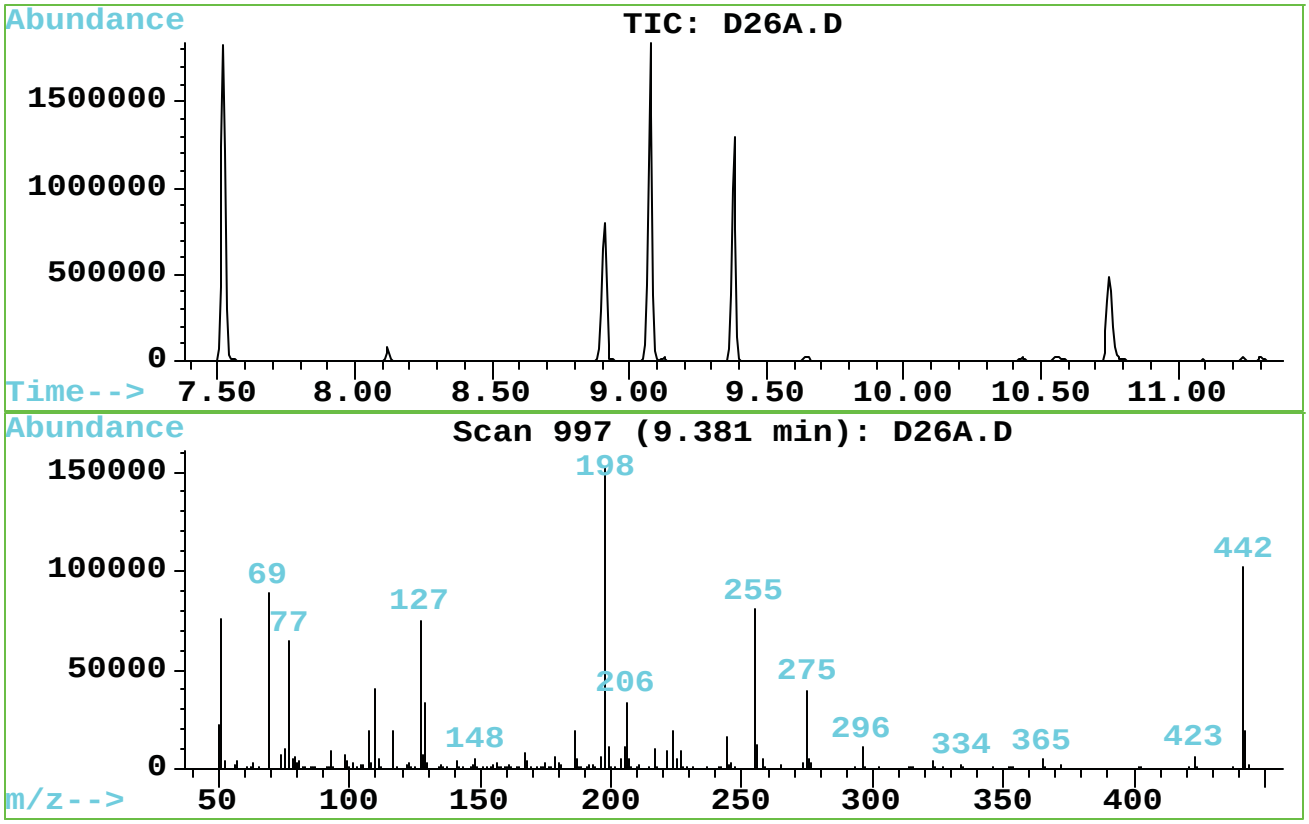
Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\ULYSSES.3\DATA\U120526\D26A.D Vial: 1
Acq On : 26 May 112 8:12 pm Operator:
Sample : dftpp std (120525) Inst : 5972 -
Misc : Multiplr: 1.00

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270



Peak Apex is scan: 997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	49.6	75840	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	57.9	88616	PASS
70	69	0	2	0.0	0	PASS
127	198	25	75	49.0	74968	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	152960	PASS
199	198	5	9	7.2	11001	PASS
275	198	10	30	25.8	39528	PASS
365	198	1	100	3.3	5007	PASS
441	443	0	100	0.0	0	PASS
442	198	40	110	66.7	101984	PASS
443	442	15	24	18.7	19072	PASS

D26A.D P120526U.M Tue Jun 19 15:16:45 2012

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna0005.d Vial: 2
Acq On : 26 May 112 8:36 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

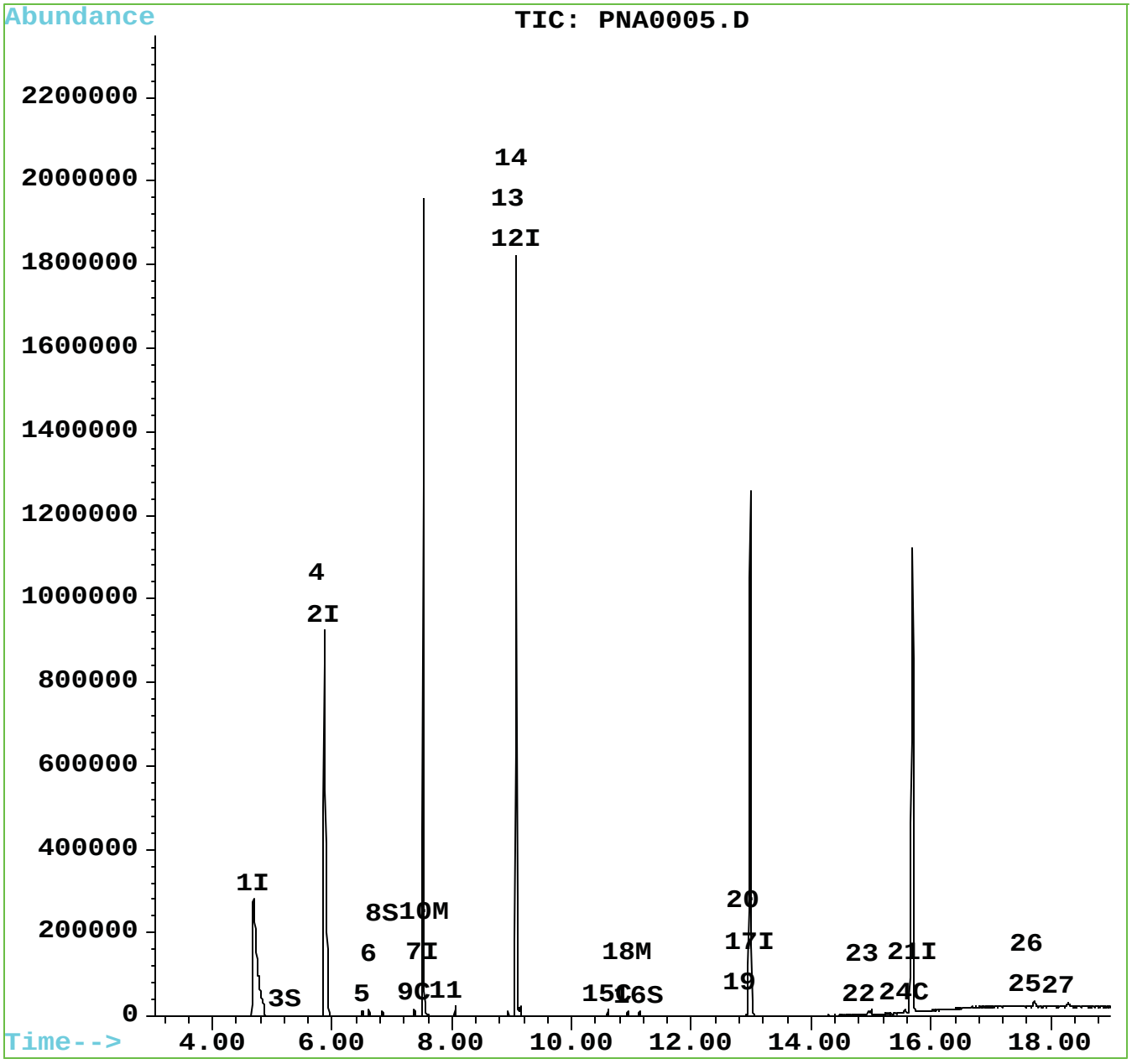
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	268137	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.87	136	1033470	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.52	164	534209	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	9.07	188	873050	40.00	ng/ul	-0.0
17) CHRYSENE-D12	12.98	240	841288	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.69	264	866472	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.22	82	3353	0.48	ng/ul	0.4
8) 2-Fluorobiphenyl	6.84	172	8310	0.52	ng/ul	0.5
16) Terphenyl-D14	11.13	244	7758	0.57	ng/ul	0.5
Target Compounds						Qvalu
4) Naphthalene	5.89	128	12998	0.92	ng/ul	9
5) 2-Methylnaphthalene	6.50	141	6526	0.48	ng/ul	9
6) 1-Methylnaphthalene	6.61	142	7551	0.49	ng/ulm	9
9) Acenaphthylene	7.38	152	11067	0.49	ng/ul	9
10) Acenaphthene **	7.55	154	6561	0.54	ng/ul	9
11) Fluorene	8.06	166	8053	0.53	ng/ul	9
13) Phenanthrene	9.09	178	11248	0.67	ng/ulm	9
14) Anthracene	9.14	178	10710	0.61	ng/ul	9
15) Fluoranthene	10.61	202	10430	0.52	ng/ul	9
18) Pyrene **	10.95	202	10552	0.44	ng/ul	9
19) Benzo(a)anthracene	12.94	228	8980	0.43	ng/ulm	8
20) Chrysene	13.02	228	9894	0.50	ng/ul	9
22) Benzo(b)fluoranthene	14.96	252	8888	0.42	ng/ulm	6
23) Benzo(k)fluoranthene	15.01	252	8616	0.43	ng/ul	6
24) Benzo(a)pyrene	15.57	252	7730	0.42	ng/ul	7
25) Indeno(1,2,3-cd)pyrene	17.72	276	9835	0.44	ng/ul	7
26) Dibenzo(ah)anthracene	17.74	278	7462	0.41	ng/ul	8
27) Benzo(ghi)perylene	18.30	276	8699	0.47	ng/ul	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna0005.d Vial: 2
Acq On : 26 May 112 8:36 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_020.d Vial: 5
Acq On : 26 May 112 9:49 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

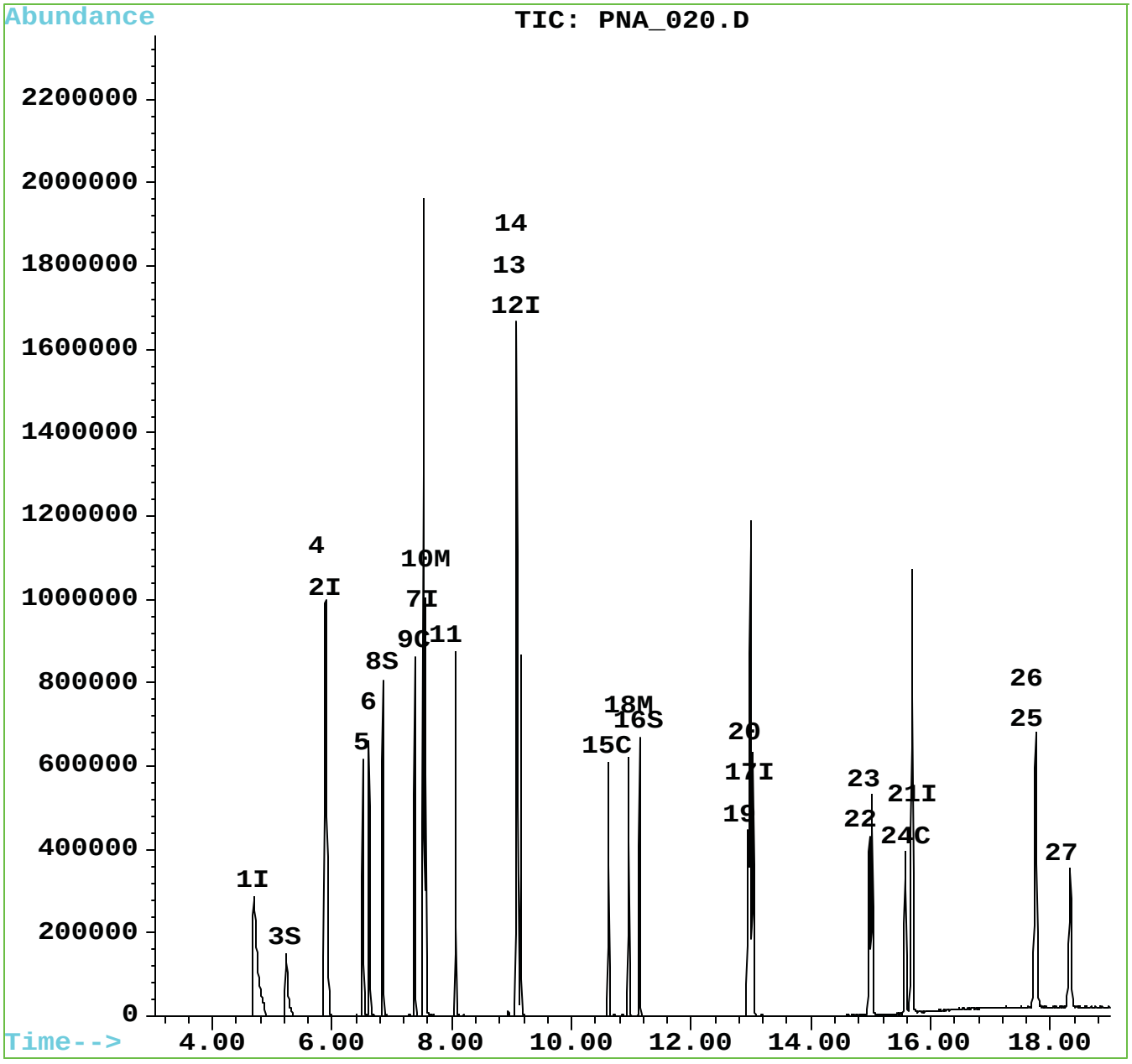
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	270946	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1028543	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	547592	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	855123	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.99	240	797754	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.70	264	814802	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	153847	22.18	ng/ul	22.1
8) 2-Fluorobiphenyl	6.85	172	326830	20.14	ng/ul	20.1
16) Terphenyl-D14	11.14	244	294701	21.79	ng/ul	21.7
Target Compounds						Qvalu
4) Naphthalene	5.90	128	485339	29.53	ng/ul	9
5) 2-Methylnaphthalene	6.51	141	260195	19.02	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	308796	20.17	ng/ul#	9
9) Acenaphthylene	7.38	152	446010	19.44	ng/ul	10
10) Acenaphthene **	7.56	154	262893	21.46	ng/ul	9
11) Fluorene	8.06	166	305797	19.62	ng/ul	9
13) Phenanthrene	9.11	178	410792	25.03	ng/ul	9
14) Anthracene	9.16	178	436745	25.47	ng/ul	9
15) Fluoranthene	10.62	202	401829	20.60	ng/ul	9
18) Pyrene **	10.96	202	408592	18.23	ng/ul	9
19) Benzo(a)anthracene	12.95	228	344571	18.18	ng/ul	9
20) Chrysene	13.03	228	373890	20.27	ng/ul	9
22) Benzo(b)fluoranthene	14.98	252	341946	17.81	ng/ulm	9
23) Benzo(k)fluoranthene	15.02	252	355820	19.61	ng/ul	9
24) Benzo(a)pyrene	15.58	252	304909	18.06	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.76	276	427570	20.56	ng/ul	7
26) Dibenzo(ah)anthracene	17.77	278	352454	20.99	ng/ul	9
27) Benzo(ghi)perylene	18.33	276	363027	20.99	ng/ul	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_020.d Vial: 5
Acq On : 26 May 112 9:49 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_040.d Vial: 6
Acq On : 26 May 112 10:13 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

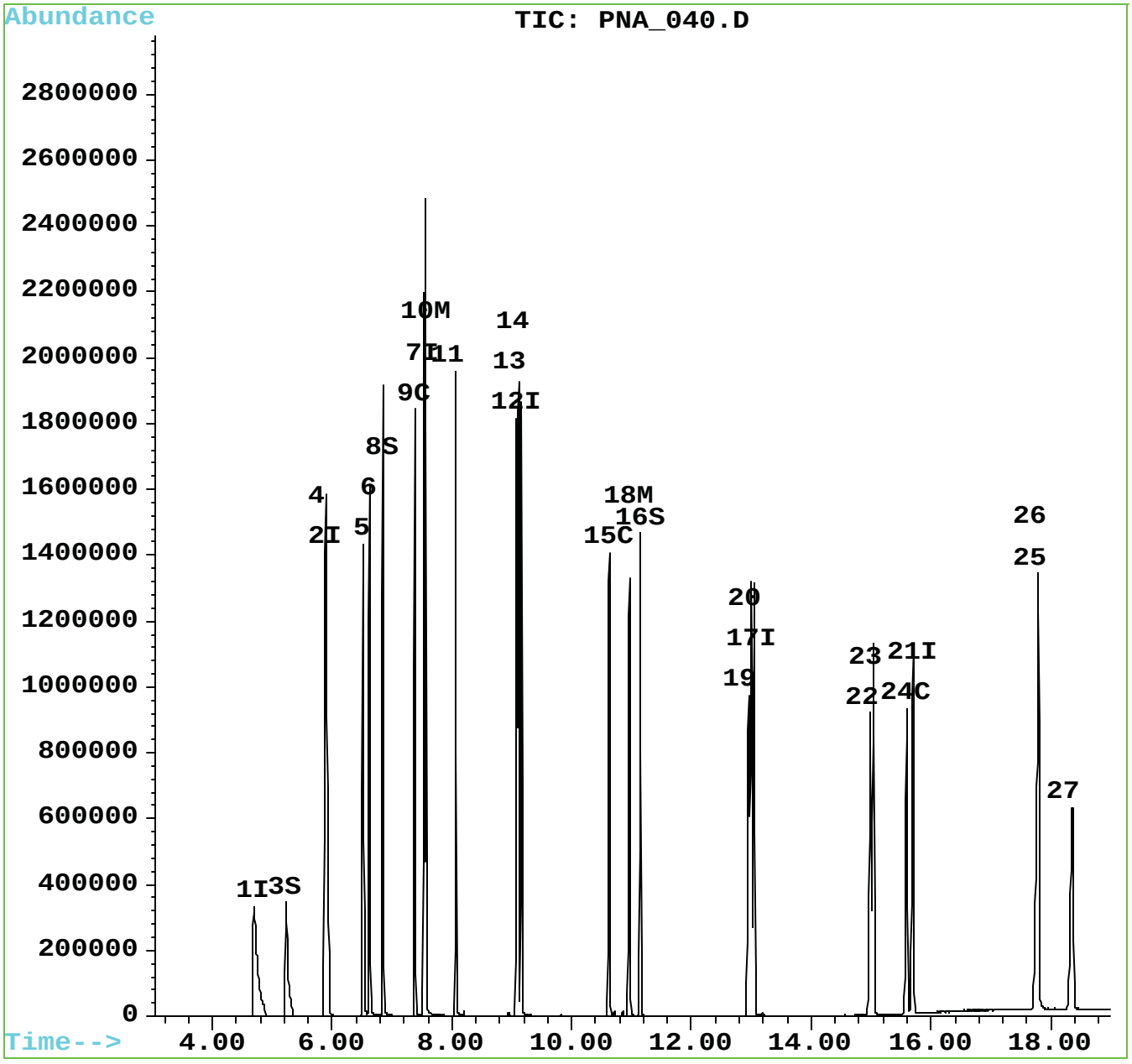
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	308639	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1196433	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	636736	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	977507	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.00	240	876703	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	877258	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	341317	42.30	ng/ul	42.3
8) 2-Fluorobiphenyl	6.85	172	757014	40.13	ng/ul	40.1
16) Terphenyl-D14	11.15	244	666498	43.12	ng/ul	43.1
Target Compounds						Qvalu
4) Naphthalene	5.90	128	1138595	53.17	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	609894	38.34	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	706143	39.65	ng/ul#	9
9) Acenaphthylene	7.38	152	1053133	39.48	ng/ul	10
10) Acenaphthene **	7.56	154	621110	43.61	ng/ul	10
11) Fluorene	8.07	166	718929	39.66	ng/ul	9
13) Phenanthrene	9.11	178	947631	50.52	ng/ul	9
14) Anthracene	9.16	178	1001649	51.10	ng/ul	10
15) Fluoranthene	10.63	202	933749	41.87	ng/ul	9
18) Pyrene **	10.96	202	931927	37.83	ng/ul	9
19) Benzo(a)anthracene	12.96	228	777093	37.30	ng/ul	10
20) Chrysene	13.05	228	805044	39.71	ng/ul	9
22) Benzo(b)fluoranthene	14.99	252	792228	38.32	ng/ul	9
23) Benzo(k)fluoranthene	15.04	252	796764	40.79	ng/ul	9
24) Benzo(a)pyrene	15.60	252	703463	38.70	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.79	276	904815	40.42	ng/ul	8
26) Dibenzo(ah)anthracene	17.80	278	735112	40.67	ng/ul	9
27) Benzo(ghi)perylene	18.37	276	787140	42.27	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_040.d Vial: 6
Acq On : 26 May 112 10:13 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_050.d Vial: 7
Acq On : 26 May 112 10:37 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:24 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

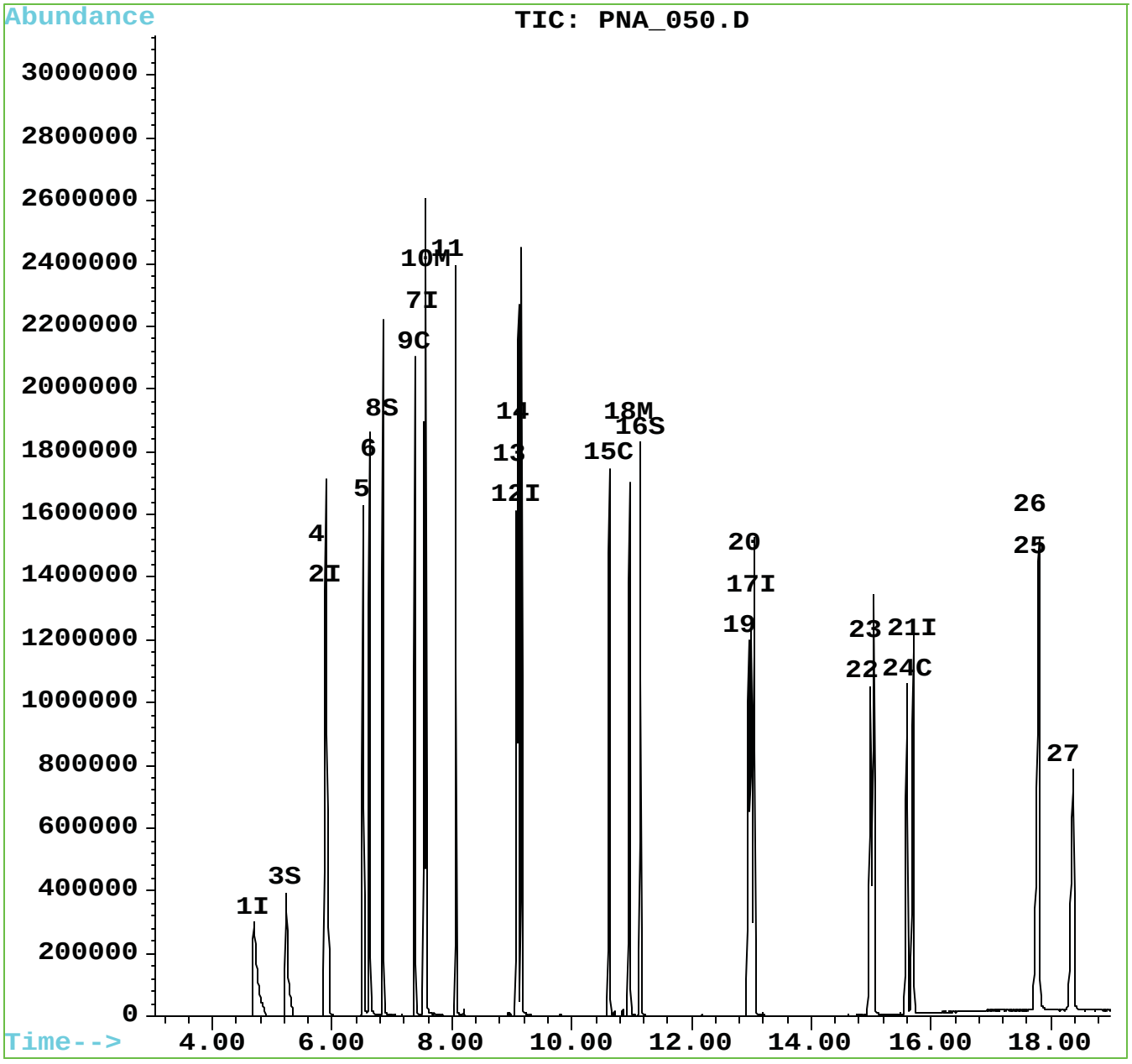
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	266255	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.88	136	1021852	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	556893	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	885025	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.00	240	820302	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	919573	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.22	82	391480	53.97	ng/ul	53.9
8) 2-Fluorobiphenyl	6.85	172	892778	51.25	ng/ul	51.2
16) Terphenyl-D14	11.15	244	815247	52.08	ng/ul	52.0
Target Compounds						Qvalu
4) Naphthalene	5.90	128	1287749	51.72	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	707297	52.96	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	828535	51.97	ng/ulm	9
9) Acenaphthylene	7.39	152	1213450	51.70	ng/ul	9
10) Acenaphthene **	7.56	154	726697	51.27	ng/ul	9
11) Fluorene	8.07	166	863082	52.77	ng/ul	9
13) Phenanthrene	9.11	178	1124772	50.01	ng/ul	9
14) Anthracene	9.16	178	1230942	51.42	ng/ul	10
15) Fluoranthene	10.63	202	1114536	51.16	ng/ul	9
18) Pyrene **	10.96	202	1144231	52.80	ng/ul	9
19) Benzo(a)anthracene	12.96	228	949112	52.57	ng/ul	9
20) Chrysene	13.05	228	982525	50.41	ng/ul	9
22) Benzo(b)fluoranthene	14.99	252	997694	48.42	ng/ul	9
23) Benzo(k)fluoranthene	15.05	252	937805	44.71	ng/ul	9
24) Benzo(a)pyrene	15.60	252	860881	47.35	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.79	276	1171973	48.00	ng/ul	8
26) Dibenzo(ah)anthracene	17.81	278	959794	48.74	ng/ul	9
27) Benzo(ghi)perylene	18.37	276	1002580	49.44	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_050.d Vial: 7
Acq On : 26 May 112 10:37 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:24 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_060.d Vial: 8
Acq On : 26 May 112 11:01 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:21 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

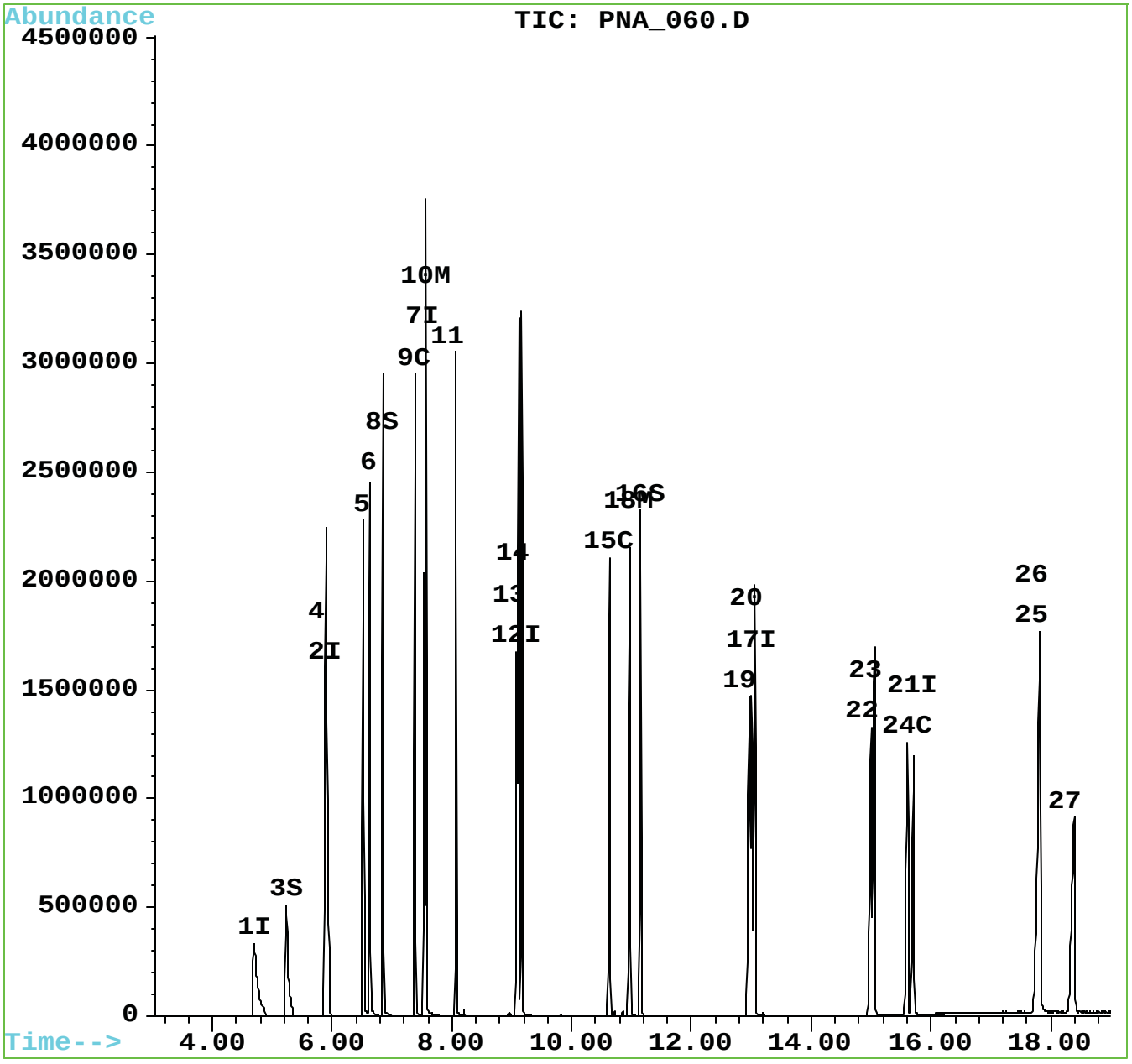
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.70	152	310144	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1204660	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	641452	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	990540	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.00	240	898311	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	878448	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	521531	64.19	ng/ul	64.1
8) 2-Fluorobiphenyl	6.85	172	1232944	64.45	ng/ul	64.4
16) Terphenyl-D14	11.15	244	1044220	68.01	ng/ul	68.0
Target Compounds						Qvalu
4) Naphthalene	5.90	128	1752554	74.20	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	968245	60.83	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	1166883	64.43	ng/ul	9
9) Acenaphthylene	7.39	152	1642462	60.97	ng/ul	9
10) Acenaphthene **	7.57	154	1007300	69.10	ng/ul	9
11) Fluorene	8.07	166	1128796	61.79	ng/ul	9
13) Phenanthrene	9.11	178	1511210	79.51	ng/ul	9
14) Anthracene	9.16	178	1635345	82.33	ng/ul	9
15) Fluoranthene	10.63	202	1475931	64.58	ng/ul	9
18) Pyrene **	10.97	202	1495771	57.80	ng/ul	9
19) Benzo(a)anthracene	12.96	228	1230077	55.62	ng/ul	10
20) Chrysene	13.06	228	1288430	61.05	ng/ul	9
22) Benzo(b)fluoranthene	15.00	252	1211910	56.07	ng/ul	9
23) Benzo(k)fluoranthene	15.06	252	1277505	63.28	ng/ulm	9
24) Benzo(a)pyrene	15.61	252	1104670	59.73	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.82	276	1486313	65.66	ng/ul	8
26) Dibenzo(ah)anthracene	17.83	278	1205391	64.88	ng/ul	9
27) Benzo(ghi)perylene	18.39	276	1209206	64.49	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_060.d Vial: 8
Acq On : 26 May 112 11:01 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:21 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_080.d Vial: 9
Acq On : 26 May 112 11:26 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 23:45 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

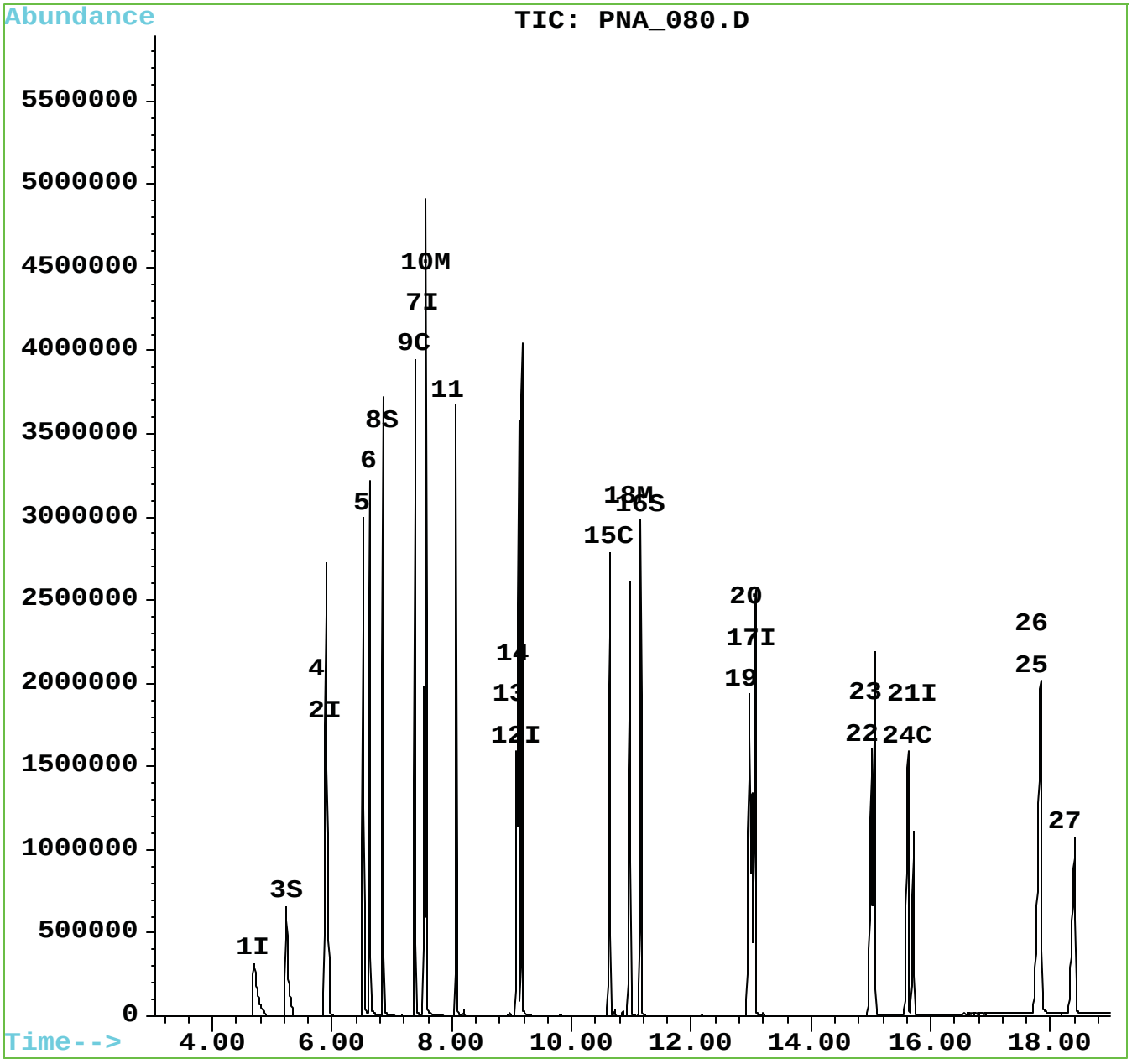
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.70	152	295851	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1145190	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	607398	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	946072	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.01	240	874983	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	844662	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	666871	86.34	ng/ul	86.3
8) 2-Fluorobiphenyl	6.85	172	1586206	87.57	ng/ul	87.5
16) Terphenyl-D14	11.16	244	1387325	94.61	ng/ul	94.6
Target Compounds						Qvalu
4) Naphthalene	5.90	128	2276222	93.78	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	1240206	81.96	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	1499600	87.10	ng/ul	9
9) Acenaphthylene	7.39	152	2120598	83.14	ng/ul	9
10) Acenaphthene **	7.57	154	1322555	95.81	ng/ul	9
11) Fluorene	8.07	166	1465979	84.75	ng/ul	9
13) Phenanthrene	9.11	178	1971918	108.62	ng/ul	9
14) Anthracene	9.17	178	2219884	117.01	ng/ul	9
15) Fluoranthene	10.63	202	1908678	87.43	ng/ul	9
18) Pyrene **	10.97	202	1954000	77.52	ng/ul	9
19) Benzo(a)anthracene	12.97	228	1587612	73.70	ng/ul	10
20) Chrysene	13.07	228	1715616	83.45	ng/ul	9
22) Benzo(b)fluoranthene	15.01	252	1644204	79.12	ng/ul	9
23) Benzo(k)fluoranthene	15.06	252	1579827	81.39	ng/ul	9
24) Benzo(a)pyrene	15.62	252	1407771	79.16	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.83	276	1920833	88.25	ng/ul	8
26) Dibenzo(ah)anthracene	17.84	278	1561713	87.42	ng/ul	9
27) Benzo(ghi)perylene	18.41	276	1533403	85.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_080.d Vial: 9
Acq On : 26 May 112 11:26 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 23:45 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_100.d Vial: 1
Acq On : 26 May 112 11:50 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 27 0:09 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

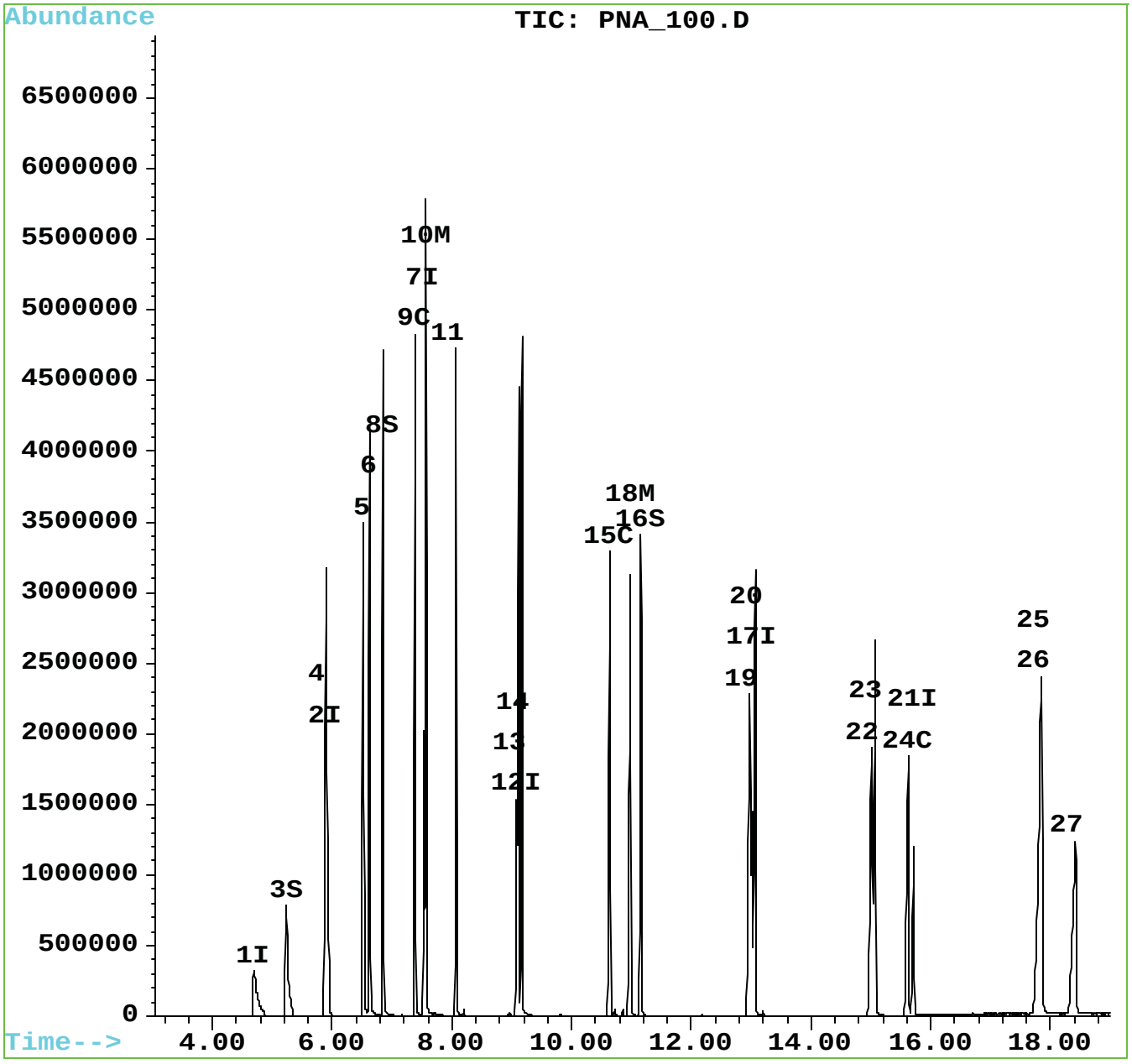
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.70	152	291498	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1145378	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	621551	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	924282	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.01	240	918995	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	857361	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	801591	103.76	ng/ul	103.7
8) 2-Fluorobiphenyl	6.85	172	2010381	108.45	ng/ul	108.4
16) Terphenyl-D14	11.16	244	1680531	117.30	ng/ul	117.3
Target Compounds						Qvalu
4) Naphthalene	5.90	128	2814041	109.37	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	1542162	101.90	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	1914938	111.20	ng/ul	9
9) Acenaphthylene	7.39	152	2676770	102.55	ng/ul	9
10) Acenaphthene **	7.57	154	1638322	115.98	ng/ul	9
11) Fluorene	8.07	166	1891614	106.87	ng/ul	9
13) Phenanthrene	9.11	178	2493597	140.60	ng/ul	9
14) Anthracene	9.17	178	2749364	148.34	ng/ul	10
15) Fluoranthene	10.64	202	2437362	114.29	ng/ul	9
18) Pyrene **	10.98	202	2351458	88.82	ng/ul	9
19) Benzo(a)anthracene	12.98	228	1971229	87.13	ng/ul	9
20) Chrysene	13.07	228	2228302	103.20	ng/ul	9
22) Benzo(b)fluoranthene	15.01	252	1974884	93.62	ng/ul	9
23) Benzo(k)fluoranthene	15.08	252	2126253	107.92	ng/ul	9
24) Benzo(a)pyrene	15.63	252	1735694	96.15	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.86	276	2397230	108.51	ng/ul#	3
26) Dibenzo(ah)anthracene	17.85	278	1945636	107.30	ng/ul	9
27) Benzo(ghi)perylene	18.42	276	1877411	102.59	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_100.d Vial: 1
Acq On : 26 May 112 11:50 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 27 0:09 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Initial Calibration Date: (see Form 6)

Analytical Batch: u120627.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn27a.d	06/27/12 10:09	Acenaphthylene	1.734	0.30
		Benzo(b)fluoranthene	1.037	0.30
		Naphthalene	1.044	0.30
		Phenanthrene	1.028	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Initial Calibration Date: (see Form 6)

Analytical Batch: u120627.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn27a.d	06/27/12 10:09	1-methylnaphthalene	54.3/ 50.0	8.6/ 20.0
		2-Methylnaphthalene	54.6/ 50.0	9.2/ 20.0
		Acenaphthene	50.3/ 50.0	0.6/ 20.0
		Acenaphthylene	51.4/ 50.0	2.9/ 20.0
		Anthracene	49.9/ 50.0	0.2/ 20.0
		Benzo(a)anthracene	54.4/ 50.0	8.9/ 20.0
		Benzo(a)pyrene	55.9/ 50.0	11.8/ 20.0
		Benzo(b)fluoranthene	57.9/ 50.0	15.7/ 20.0
		Benzo(ghi)perylene	48.9/ 50.0	2.3/ 20.0
		Benzo(k)fluoranthene	55.0/ 50.0	10.1/ 20.0
		Chrysene	51.1/ 50.0	2.2/ 20.0
		Dibenzo(ah)anthracene	51.6/ 50.0	3.1/ 20.0
		Fluorene	51.2/ 50.0	2.5/ 20.0
		Fluoranthene	53.0/ 50.0	6.0/ 20.0
		Indeno(1,2,3-cd)pyrene	51.4/ 50.0	2.7/ 20.0
		Naphthalene	53.6/ 50.0	7.1/ 20.0
		Phenanthrene	50.5/ 50.0	1.0/ 20.0
		Pyrene	53.4/ 50.0	6.8/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\spnn27a.d Vial: 2
Acq On : 27 Jun 112 10:09 am Operator: PL
Sample : pna std 50 (120314) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jun 27 10:27 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

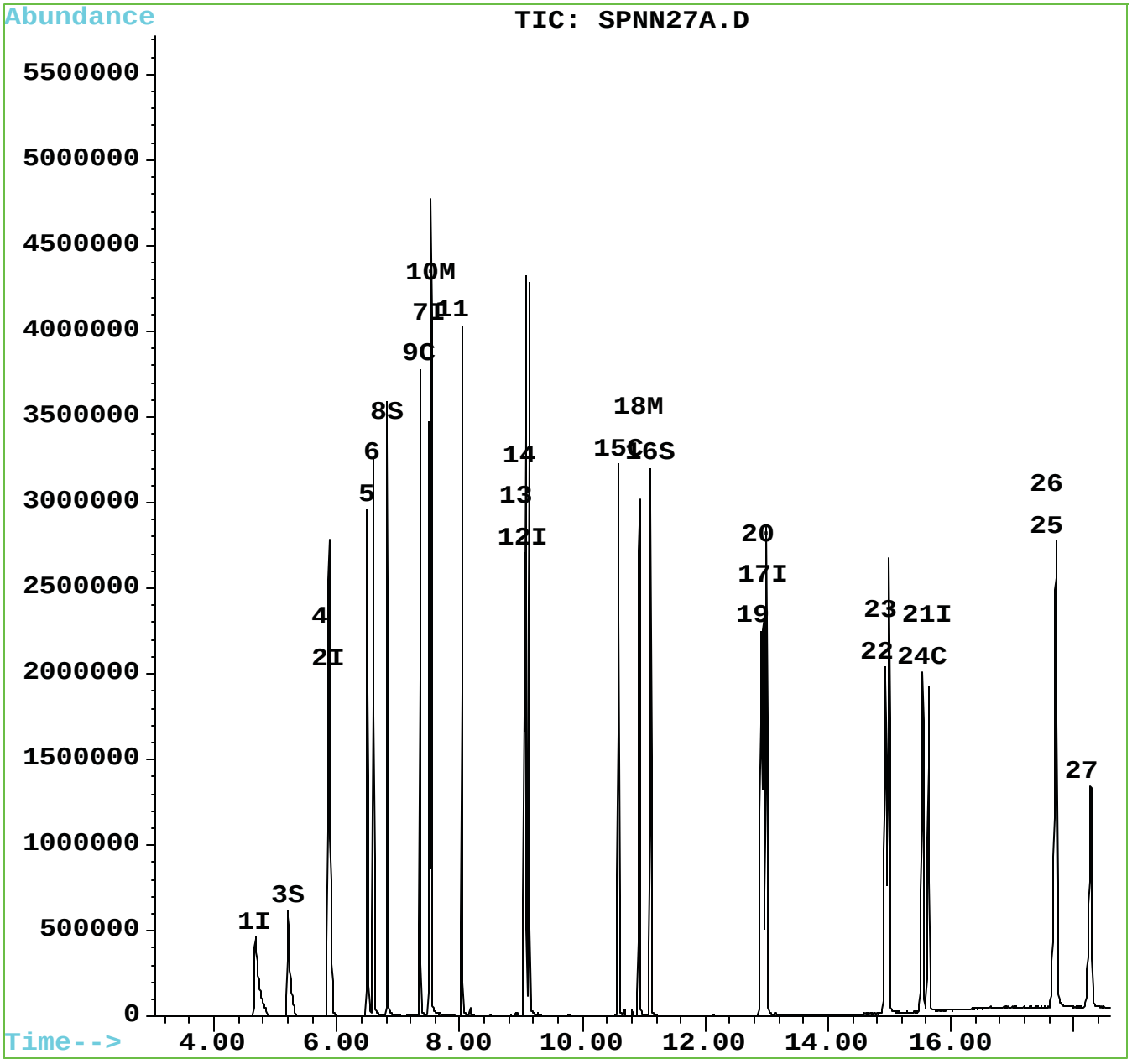
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	473651	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.85	136	1851422	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	1052031	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.05	188	1662070	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.95	240	1531215	40.00	ng/ul	0.0
21) PERYLENE-D12	15.64	264	1459710	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.20	82	643117	97.87	ng/ul	97.8
8) 2-Fluorobiphenyl	6.82	172	1700650	103.35	ng/ul	103.3
16) Terphenyl-D14	11.10	244	1531273	104.17	ng/ul	104.1
Target Compounds						Qvalu
4) Naphthalene	5.87	128	2416461	53.56	ng/ul#	9
5) 2-Methylnaphthalene	6.49	141	1321088	54.60	ng/ul	9
6) 1-Methylnaphthalene	6.59	142	1567838	54.28	ng/ul	9
9) Acenaphthylene	7.36	152	2280689	51.43	ng/ul	10
10) Acenaphthene **	7.53	154	1347407	50.32	ng/ul	9
11) Fluorene	8.04	166	1583313	51.24	ng/ul	9
13) Phenanthrene	9.08	178	2134039	50.52	ng/ul	9
14) Anthracene	9.13	178	2243198	49.90	ng/ul	9
15) Fluoranthene	10.59	202	2167987	52.99	ng/ul	9
18) Pyrene **	10.93	202	2159754	53.39	ng/ul	10
19) Benzo(a)anthracene	12.91	228	1834850	54.44	ng/ul	9
20) Chrysene	13.00	228	1859724	51.11	ng/ul	9
22) Benzo(b)fluoranthene	14.94	252	1892699	57.87	ng/ul	9
23) Benzo(k)fluoranthene	14.99	252	1832523	55.04	ng/ul	9
24) Benzo(a)pyrene	15.54	252	1613867	55.92	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.71	276	1990289	51.35	ng/ul	9
26) Dibenzo(ah)anthracene	17.72	278	1611953	51.57	ng/ul	9
27) Benzo(ghi)perylene	18.28	276	1573014	48.86	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\spnn27a.d Vial: 2
Acq On : 27 Jun 112 10:09 am Operator: PL
Sample : pna std 50 (120314) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jun 27 10:27 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\d27a.d Vial: 1
Acq On : 27 Jun 112 9:45 am Operator: PL
Sample : dftpp std (120607) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jun 27 10:03 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

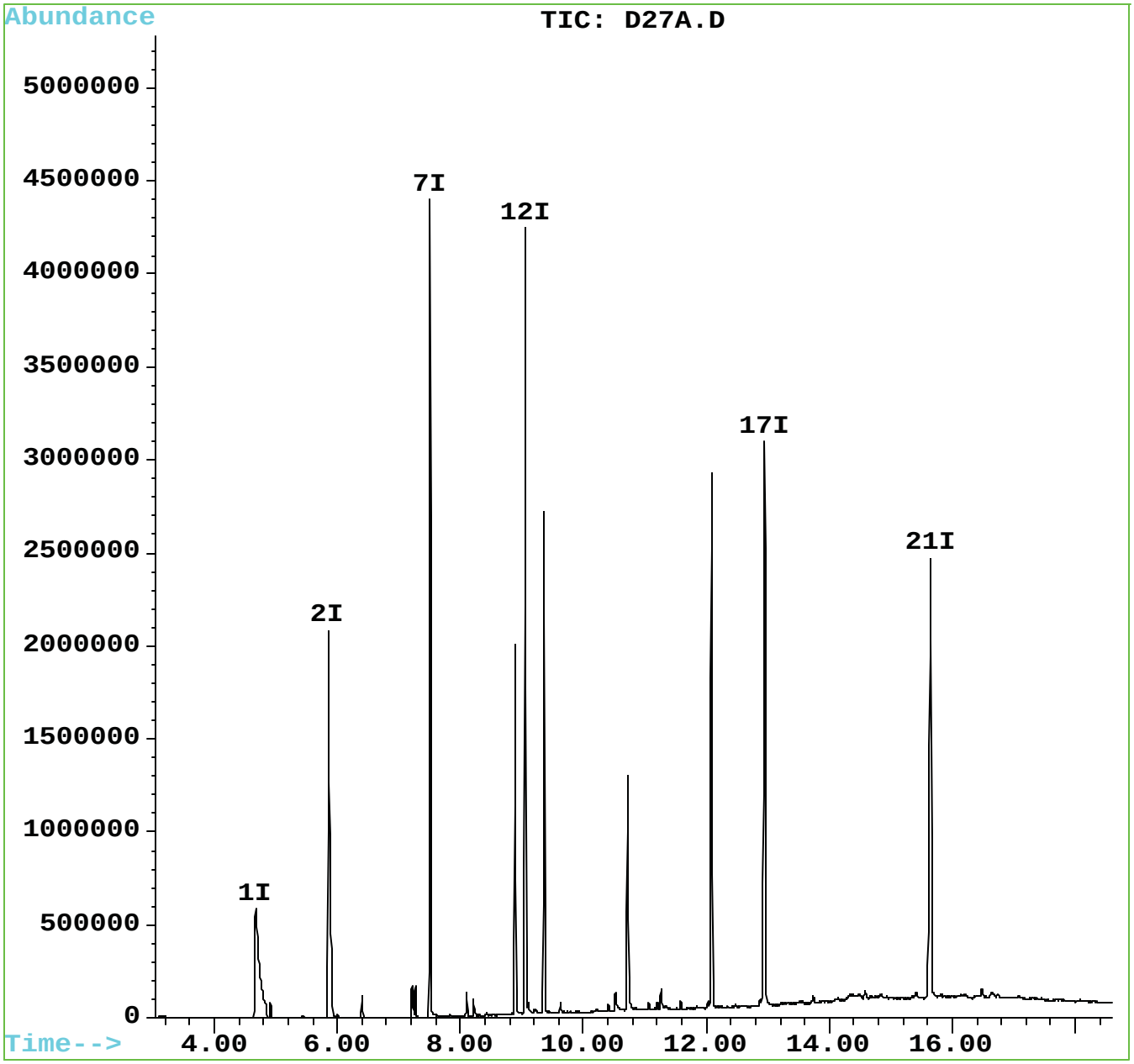
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.67	152	604926	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.86	136	2529905	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.51	164	1354503	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.06	188	2264114	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.95	240	1997017	40.00	ng/ul	0.0
21) PERYLENE-D12	15.65	264	1885342	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	0.00	82	0	0.00	ng/ul	0.0
8) 2-Fluorobiphenyl	0.00	172	0	0.00	ng/ul	0.0
16) Terphenyl-D14	11.10	244	2483	0.12	ng/ul	0.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\d27a.d Vial: 1
Acq On : 27 Jun 112 9:45 am Operator: PL
Sample : dftpp std (120607) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jun 27 10:03 19112

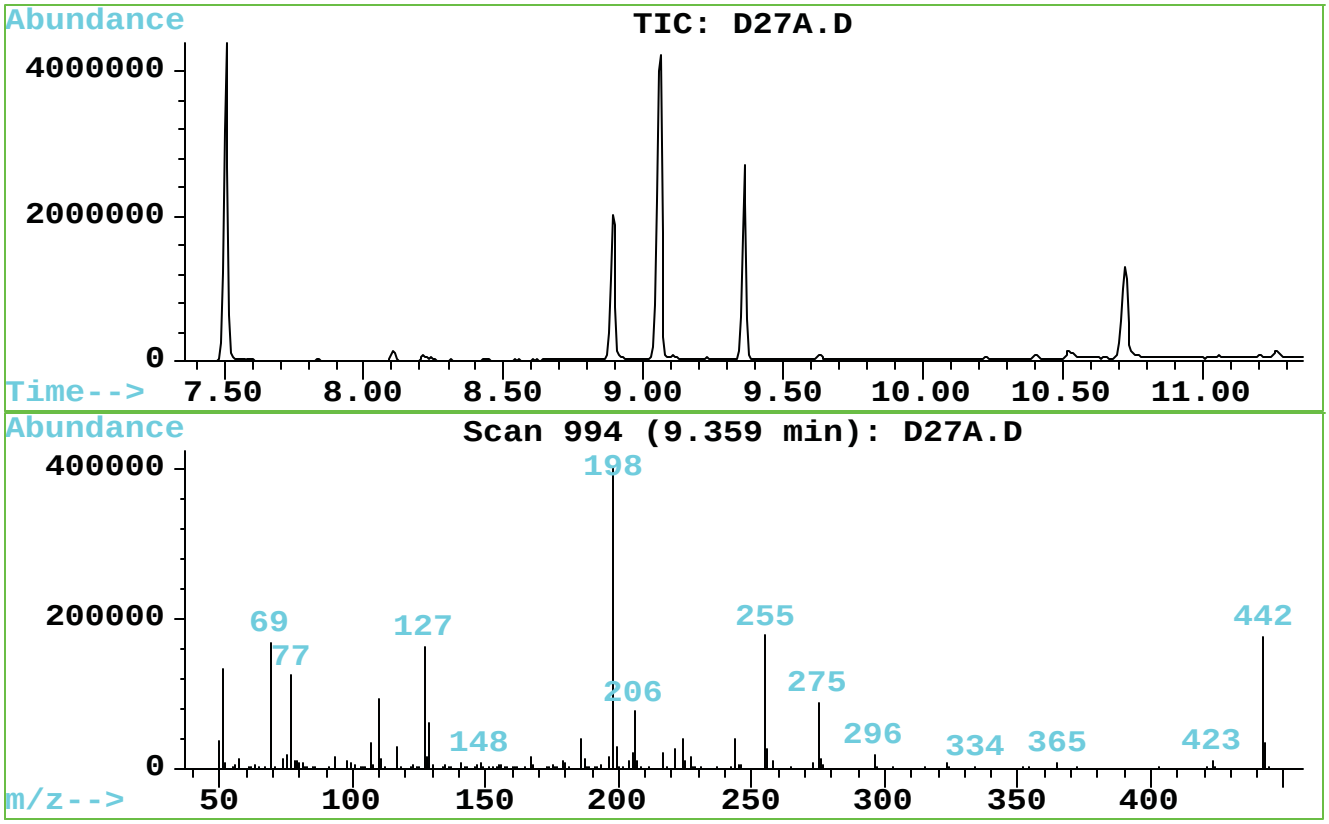
Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\ULYSSES.3\DATA\U120627\D27A.D Vial: 1
Acq On : 27 Jun 112 9:45 am Operator: PL
Sample : dftpp std (120607) Inst : 5972 -
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270



Peak Apex is scan: 994

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	32.8	132160	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	41.7	167872	PASS
70	69	0	2	0.0	0	PASS
127	198	25	75	40.3	162176	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	402624	PASS
199	198	5	9	7.0	28352	PASS
275	198	10	30	22.0	88544	PASS
365	198	1	100	2.0	8146	PASS
441	443	0	100	0.0	0	PASS
442	198	40	110	43.7	175936	PASS
443	442	15	24	19.4	34192	PASS

D27A.D P120526U.M Thu Jun 28 11:19:50 2012

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\blks27a.d Vial: 3
Acq On : 27 Jun 112 10:36 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 10:54 19112

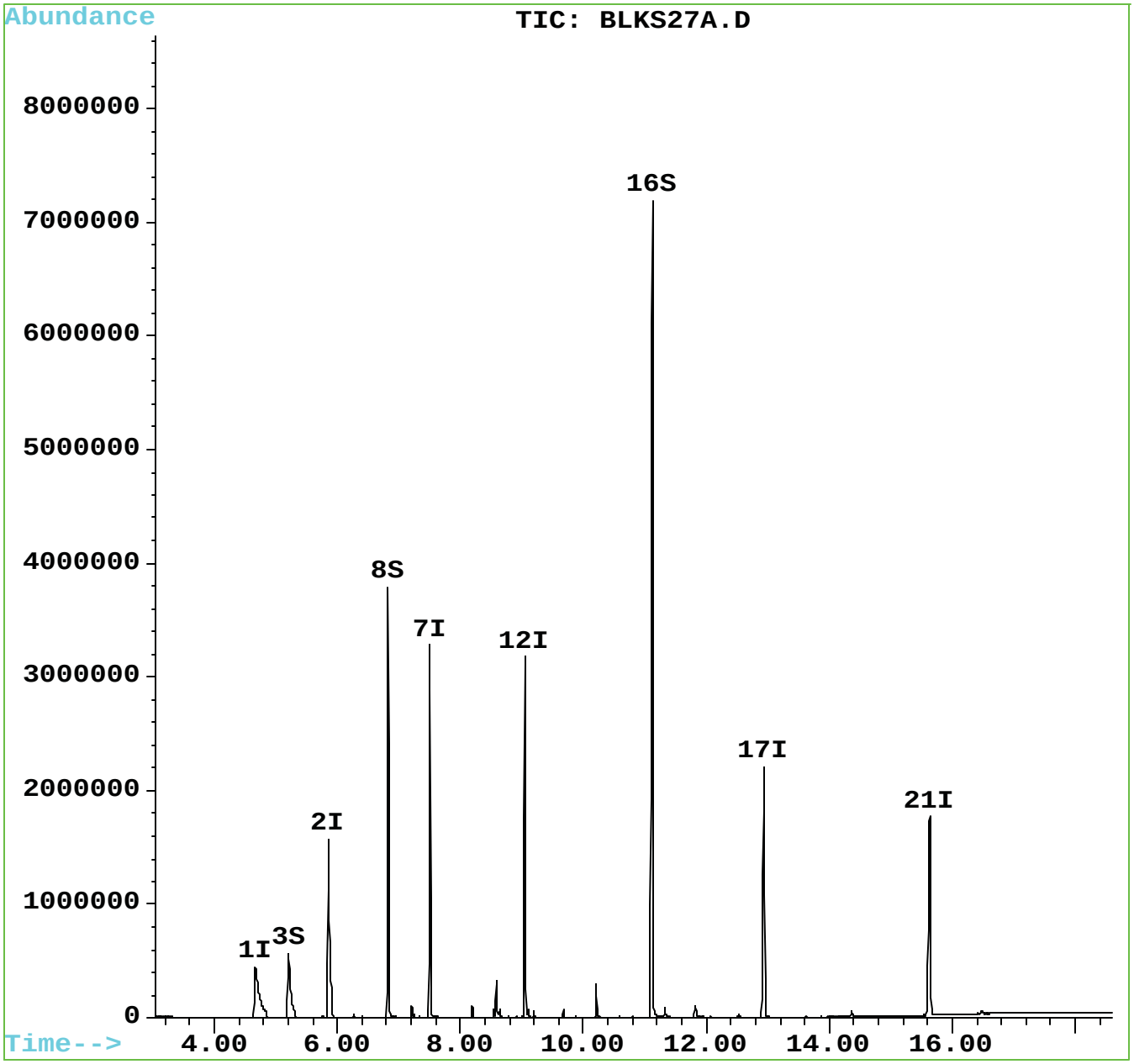
Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.67	152	492501	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.85	136	1987633	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	1059375	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.05	188	1764047	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.94	240	1513007	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.64	264	1412545	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.20	82	623860	88.43	ng/ul	88.4
8) 2-Fluorobiphenyl	6.83	172	1696104	102.36	ng/ul	102.3
16) Terphenyl-D14	11.12	244	5086487	326.02	ng/ul	326.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\ulysses.3\data\u120627\blks27a.d Vial: 3
Acq On : 27 Jun 112 10:36 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 10:54 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\lcss27a.d Vial: 4
Acq On : 27 Jun 112 11:00 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

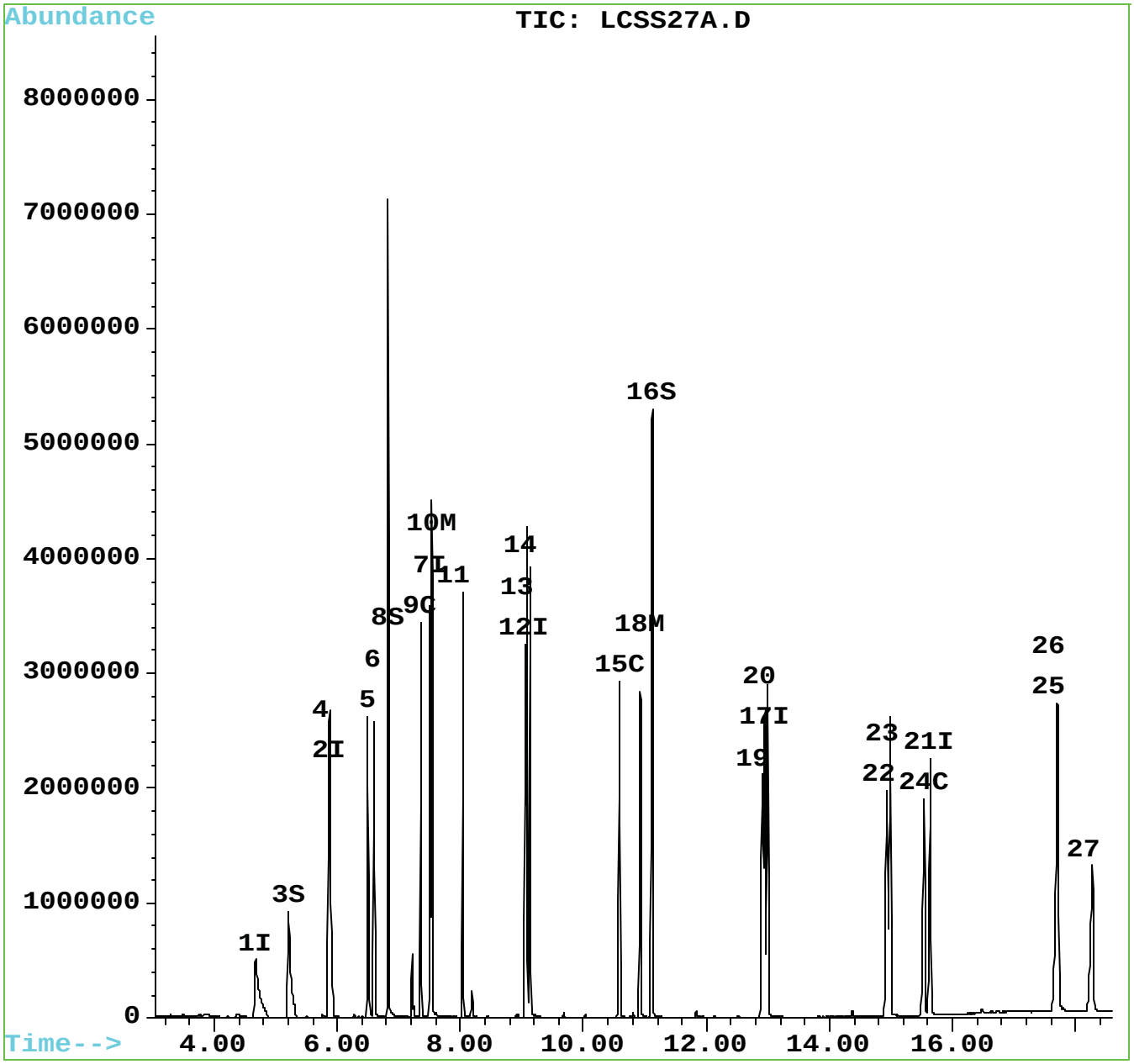
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.67	152	544882	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.86	136	2239533	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	1201957	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.06	188	1988960	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.95	240	1778458	40.00	ng/ul	0.0
21) PERYLENE-D12	15.64	264	1687781	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.21	82	1006126	126.57	ng/ul	126.5
8) 2-Fluorobiphenyl	6.83	172	3215004	171.01	ng/ul	171.0
16) Terphenyl-D14	11.12	244	3433073	195.16	ng/ul	195.1
Target Compounds						Qvalu
4) Naphthalene	5.87	128	2091748	38.33	ng/ul#	9
5) 2-Methylnaphthalene	6.49	141	1184944	40.48	ng/ul	9
6) 1-Methylnaphthalene	6.59	142	1240894	35.51	ng/ul	9
9) Acenaphthylene	7.36	152	2076413	40.99	ng/ul	10
10) Acenaphthene **	7.54	154	1277253	41.75	ng/ul	9
11) Fluorene	8.04	166	1506599	42.68	ng/ul	9
13) Phenanthrene	9.08	178	2081143	41.17	ng/ul	9
14) Anthracene	9.13	178	2103828	39.11	ng/ul	9
15) Fluoranthene	10.59	202	2079765	42.48	ng/ul	10
18) Pyrene **	10.93	202	2108499	44.87	ng/ul	9
19) Benzo(a)anthracene	12.91	228	1832983	46.83	ng/ul	9
20) Chrysene	13.00	228	1857957	43.96	ng/ul	9
22) Benzo(b)fluoranthene	14.94	252	1848840	48.89	ng/ul	9
23) Benzo(k)fluoranthene	14.99	252	1872639	48.65	ng/ul	9
24) Benzo(a)pyrene	15.54	252	1574879	47.19	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.71	276	1982590	44.24	ng/ul	9
26) Dibenzo(ah)anthracene	17.72	278	1595615	44.15	ng/ul	9
27) Benzo(ghi)perylene	18.28	276	1581142	42.48	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\lcss27a.d Vial: 4
Acq On : 27 Jun 112 11:00 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\lcsds27a.d Vial: 5
Acq On : 27 Jun 112 11:24 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 11:42 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration

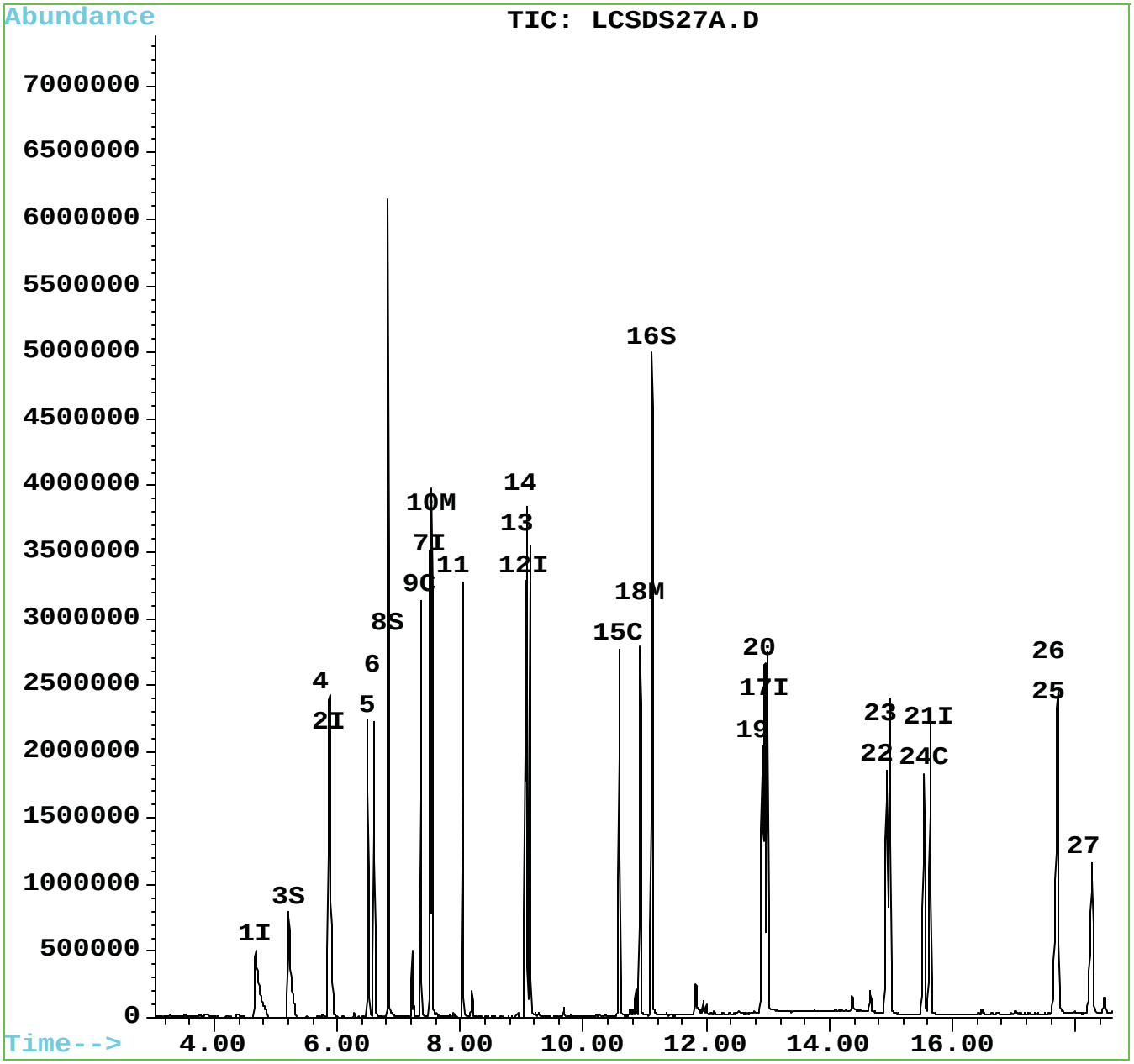
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	535987	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.86	136	2174404	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.50	164	1174430	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.05	188	1936962	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.95	240	1775478	40.00	ng/ul	0.0
21) PERYLENE-D12	15.64	264	1656041	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.21	82	872535	113.05	ng/ul	113.0
8) 2-Fluorobiphenyl	6.83	172	2738196	149.06	ng/ul	149.0
16) Terphenyl-D14	11.11	244	3179214	185.58	ng/ul	185.5
Target Compounds						Qvalu
4) Naphthalene	5.87	128	1746832	32.97	ng/ul	9
5) 2-Methylnaphthalene	6.49	141	1013831	35.67	ng/ul	9
6) 1-Methylnaphthalene	6.59	142	1080410	31.85	ng/ul	9
9) Acenaphthylene	7.36	152	1818403	36.74	ng/ul	10
10) Acenaphthene **	7.54	154	1098888	36.76	ng/ul	9
11) Fluorene	8.04	166	1313170	38.07	ng/ul	10
13) Phenanthrene	9.08	178	1860099	37.79	ng/ul	9
14) Anthracene	9.13	178	1949855	37.22	ng/ul	9
15) Fluoranthene	10.58	202	1881126	39.45	ng/ul	10
18) Pyrene **	10.92	202	1928148	41.10	ng/ul	9
19) Benzo(a)anthracene	12.91	228	1691551	43.29	ng/ul	9
20) Chrysene	13.00	228	1709854	40.53	ng/ul	9
22) Benzo(b)fluoranthene	14.94	252	1748350	47.12	ng/ul	9
23) Benzo(k)fluoranthene	14.99	252	1667737	44.15	ng/ul	10
24) Benzo(a)pyrene	15.54	252	1491433	45.55	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.70	276	1773609	40.34	ng/ul	9
26) Dibenzo(ah)anthracene	17.71	278	1427022	40.24	ng/ul	9
27) Benzo(ghi)perylene	18.27	276	1413005	38.69	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120627\lcsds27a.d Vial: 5
Acq On : 27 Jun 112 11:24 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120625s01 Multiplr: 2.00
Quant Time: Jun 27 11:42 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Fri Jun 22 11:26:57 2012
Response via : Multiple Level Calibration



Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120627.3

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
f120627.01r	sblk-r.01	06/27/12 08:44	SBLK-R.01	WW	Bl	**4**	
f120627.02r	sc1660.01	06/27/12 08:55	SC1660.01 0.5ppm 5/31/12	WW	CV	**4**	
f120627.10r	sblk-s.01	06/27/12 16:44	sBLK-S.01 20.0g s/1 ID:PA120627s01	SO	Bl	**4**	
f120627.11r	slcs-s.01	06/27/12 16:55	sLCS-S.01 20.0g s/1 ID:PA120627s01	SO	MS	**4**	
f120627.12r	slcs-s.01	06/27/12 17:05	sLCS-S.01D 20.0g s/1 ID:PA120627s01	SO	MS	**4**	
f120627.16r	s52959.02	06/27/12 17:48	s52959.02 20.0g s/1 ID:PA120627s01	SO		**4**	
f120627.17r	s52959.03	06/27/12 17:58	s52959.03 20.0g s/1 ID:PA120627s01	SO		**4**	
f120627.19r	ss1660.01	06/27/12 18:20	ss1660.01 0.1ppm 5/31/12	WW		**4**	
f120627.20r	sc1660.02	06/27/12 18:30	SC1660.02 0.5ppm 5/31/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120627.4

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	*LIMS ID*	*Run Time*	*Sample Comments*	*Mtx*	*QC Type*	*Notes*	*CA*
f120627b.01	sblk-r.01	06/27/12 08:44	SBLK-R.01	WW	Bl	**4**	
f120627b.02	sc1660.01	06/27/12 08:55	SC1660.01 0.5ppm 5/31/12	WW	CV	**4**	
f120627b.10	sblk-s.01	06/27/12 16:44	sBLK-S.01 20.0g s/1 ID:PA120627s01	SO	Bl	**4**	
f120627b.11	slcs-s.01	06/27/12 16:55	sLCS-S.01 20.0g s/1 ID:PA120627s01	SO	MS	**4**	
f120627b.12	slcs-s.01	06/27/12 17:05	sLCS-S.01D 20.0g s/1 ID:PA120627s01	SO	MS	**4**	
f120627b.16	s52959.02	06/27/12 17:48	s52959.02 20.0g s/1 ID:PA120627s01	SO		**4**	
f120627b.17	s52959.03	06/27/12 17:58	s52959.03 20.0g s/1 ID:PA120627s01	SO		**4**	
f120627b.19	ss1660.01	06/27/12 18:20	ss1660.01 0.1ppm 5/31/12	WW		**4**	
f120627b.20	sc1660.02	06/27/12 18:30	SC1660.02 0.5ppm 5/31/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120627.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120627.01r	sblk-r.01	TCX	28.22/30.00	94.1	34.1/137.1	WW
		DCBP	27.58/30.00	91.9	30.0/138.6	
f120627.02r	sc1660.01	TCX	17.51/30.00	n/a	34.1/137.1	WW
		DCBP	16.68/30.00	n/a	30.0/138.6	
f120627.10r	sblk-s.01	TCX	22.17/30.00	73.9	33.0/135.3	SO
		DCBP	27.95/30.00	93.2	30.0/137.0	
f120627.11r	slcs-s.01	TCX	21.91/30.00	73.0	33.0/135.3	SO
		DCBP	27.20/30.00	90.7	30.0/137.0	
f120627.12r	slcs-s.01	TCX	23.53/30.00	78.4	33.0/135.3	SO
		DCBP	27.96/30.00	93.2	30.0/137.0	
f120627.16r	s52959.02	TCX	22.93/30.00	76.4	33.0/135.3	SO
		DCBP	23.70/30.00	79.0	30.0/137.0	
f120627.17r	s52959.03	TCX	24.55/30.00	81.8	33.0/135.3	SO
		DCBP	23.54/30.00	78.5	30.0/137.0	
f120627.19r	ss1660.01	TCX	4.05/30.00	n/a	34.1/137.1	WW
		DCBP	3.53/30.00	n/a	30.0/138.6	
f120627.20r	sc1660.02	TCX	17.08/30.00	n/a	34.1/137.1	WW
		DCBP	15.04/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120627.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120627b.01	sblk-r.01	TCX	32.69/30.00	109.0	34.1/137.1	WW
		DCBP	29.83/30.00	99.4	30.0/138.6	
f120627b.02	sc1660.01	TCX	18.87/30.00	n/a	34.1/137.1	WW
		DCBP	16.56/30.00	n/a	30.0/138.6	
f120627b.10	sblk-s.01	TCX	25.47/30.00	84.9	33.0/135.3	SO
		DCBP	30.09/30.00	100.3	30.0/137.0	
f120627b.11	slcs-s.01	TCX	24.31/30.00	81.0	33.0/135.3	SO
		DCBP	29.02/30.00	96.7	30.0/137.0	
f120627b.12	slcs-s.01	TCX	26.07/30.00	86.9	33.0/135.3	SO
		DCBP	30.55/30.00	101.8	30.0/137.0	
f120627b.16	s52959.02	TCX	25.16/30.00	83.9	33.0/135.3	SO
		DCBP	25.31/30.00	84.4	30.0/137.0	
f120627b.17	s52959.03	TCX	26.09/30.00	87.0	33.0/135.3	SO
		DCBP	26.72/30.00	89.1	30.0/137.0	
f120627b.19	ss1660.01	TCX	4.50/30.00	n/a	34.1/137.1	WW
		DCBP	3.43/30.00	n/a	30.0/138.6	
f120627b.20	sc1660.02	TCX	19.29/30.00	n/a	34.1/137.1	WW
		DCBP	15.95/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120627.3

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120627.12r	slcs-s.01	**f120627.11r**	1016-1	0.535/ 0.500	6.8	SO
			1016-2	0.540/ 0.511	5.5	
			1016-3	0.548/ 0.521	5.1	
			1016-4	0.551/ 0.527	4.5	
			1016-5	0.533/ 0.509	4.6	
			1260-1	0.555/ 0.530	4.6	
			1260-2	0.557/ 0.529	5.2	
			1260-3	0.548/ 0.522	4.9	
			1260-4	0.523/ 0.498	4.9	
			1260-5	0.540/ 0.512	5.3	
			[end of list]			

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120627.4

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120627b.12	slcs-s.01	**f120627b.11**	1016-1	0.513/ 0.481	6.4	SO
			1016-2	0.518/ 0.484	6.8	
			1016-3	0.519/ 0.493	5.1	
			1016-4	0.516/ 0.491	5.0	
			1016-5	0.510/ 0.491	3.8	
			1260-1	0.541/ 0.517	4.5	
			1260-2	0.557/ 0.531	4.8	
			1260-3	0.546/ 0.509	7.0	
			1260-4	0.554/ 0.515	7.3	
			1260-5	0.540/ 0.514	4.9	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120627.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120627.11r	slcs-s.01	**f120627.10r**	1016-1	0.500/ 0.000	100.0		SO
			1016-2	0.511/ 0.000	102.2		
			1016-3	0.521/ 0.000	104.2		
			1016-4	0.527/-0.034	112.2		
			1016-5	0.509/ 0.000	101.8		
			1260-1	0.530/-0.042	114.4		
			1260-2	0.529/ 0.000	105.8		
			1260-3	0.522/ 0.000	104.4		
			1260-4	0.498/ 0.000	99.6		
			1260-5	0.512/ 0.000	102.4		
				Average Recovery	**104.7**	50.0/125.0	
f120627.12r	slcs-s.01	**f120627.10r**	1016-1	0.535/ 0.000	107.0		SO
			1016-2	0.540/ 0.000	108.0		
			1016-3	0.548/ 0.000	109.6		
			1016-4	0.551/-0.034	117.0		
			1016-5	0.533/ 0.000	106.6		
			1260-1	0.555/-0.042	119.4		
			1260-2	0.557/ 0.000	111.4		
			1260-3	0.548/ 0.000	109.6		
			1260-4	0.523/ 0.000	104.6		
			1260-5	0.540/ 0.000	108.0		
				Average Recovery	**110.1**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120627.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120627b.11	slcs-s.01	**f120627b.10**	1016-1	0.481/ 0.000	96.2		SO
			1016-2	0.484/ 0.000	96.8		
			1016-3	0.493/-0.041	106.8		
			1016-4	0.491/-0.035	105.2		
			1016-5	0.491/ 0.000	98.2		
			1260-1	0.517/-0.057	114.8		
			1260-2	0.531/-0.055	117.2		
			1260-3	0.509/ 0.032	95.4		
			1260-4	0.515/ 0.000	103.0		
			1260-5	0.514/ 0.000	102.8		
				Average Recovery	**103.6**	50.0/125.0	
f120627b.12	slcs-s.01	**f120627b.10**	1016-1	0.513/ 0.000	102.6		SO
			1016-2	0.518/ 0.000	103.6		
			1016-3	0.519/-0.041	112.0		
			1016-4	0.516/-0.035	110.2		
			1016-5	0.510/ 0.000	102.0		
			1260-1	0.541/-0.057	119.6		
			1260-2	0.557/-0.055	122.4		
			1260-3	0.546/ 0.032	102.8		
			1260-4	0.554/ 0.000	110.8		
			1260-5	0.540/ 0.000	108.0		
				Average Recovery	**109.4**	50.0/125.0	

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-5
Level: LOW

Analytical Batch: f120627.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120627.10r.bnd
LCS Data File: f120627.11r.bnd

Blank/LCS Preparation Batch: pa120627s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52938.15	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52938.16	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52938.17	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.23	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.24	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.25	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.26	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.27	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.28	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.29	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.30	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.31	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52947.01	F120627	PA120627S01	06/27/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52947.02	F120627	PA120627S01	06/27/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52947.03	F120627	PA120627S01	06/27/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52947.04	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52959.02	PA120627S01		06/27/12	Extraction, PCB	1120S
	F120627	PA120627S01	06/27/12	TCL PCB List (Column 1)	$TCL8082C1
	F120627	PA120627S01	06/27/12	TCL PCB List (Column 2)	$TCL8082C2
S52959.03	PA120627S01		06/27/12	Extraction, PCB	1120S
	F120627	PA120627S01	06/27/12	TCL PCB List (Column 1)	$TCL8082C1
	F120627	PA120627S01	06/27/12	TCL PCB List (Column 2)	$TCL8082C2
S52970.01	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52970.02	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-5
Level: LOW

Analytical Batch: f120627.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120627.01r	sblk-r.01	06/27/12 08:44	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120627.10r	sblk-s.01	06/27/12 16:44	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120627.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120627b.10r.bnd
LCS Data File: f120627b.11r.bnd

Blank/LCS Preparation Batch: pa120627s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52938.15	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52938.16	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52938.17	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.23	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.24	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.25	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.26	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.27	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.28	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.29	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.30	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52944.31	A120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52947.01	F120627	PA120627S01	06/27/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52947.02	F120627	PA120627S01	06/27/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52947.03	F120627	PA120627S01	06/27/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52947.04	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52959.02	PA120627S01		06/27/12	Extraction, PCB	1120S
	F120627	PA120627S01	06/27/12	TCL PCB List (Column 1)	$TCL8082C1
	F120627	PA120627S01	06/27/12	TCL PCB List (Column 2)	$TCL8082C2
S52959.03	PA120627S01		06/27/12	Extraction, PCB	1120S
	F120627	PA120627S01	06/27/12	TCL PCB List (Column 1)	$TCL8082C1
	F120627	PA120627S01	06/27/12	TCL PCB List (Column 2)	$TCL8082C2
S52970.01	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S
S52970.02	F120628	PA120627S01	06/28/12	PCB List	$8080A
	PA120627S01		06/27/12	Extraction, PCB	1120S

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120627.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120627b.01	sblk-r.01	06/27/12 08:44	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120627b.10	sblk-s.01	06/27/12 16:44	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
Analytical Batch: f120627.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Note/Qualifier Key

A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120627.3

LIMS ID: S52959.02
Data File: f120627.16r.bnd
Date Received: 06/25/12

Tag: SB146 (06-21-2012)(4-5)
Notes: s52959.02 20.0g s/1 ID:PA120627s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/27/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/27/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/27/12	
Total Solids								
TSOLIDS	Total Solids		80	1	1	%	06/26/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120627.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S52959.02 **Tag: SB146 (06-21-2012)(4-5)** Matrix: SO
Data File: f120627b.16r.bnd Notes: s52959.02 20.0g s/1 ID:PA120627s01 Extraction: SONC
Date Received: 06/25/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/27/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/27/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/27/12	
Total Solids								
TSOLIDS	Total Solids		80	1	1	%	06/26/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120627.3

LIMS ID: S52959.03
Data File: f120627.17r.bnd
Date Received: 06/25/12

Tag: SB141 (06-22-2012)(3-5)
Notes: s52959.03 20.0g s/1 ID:PA120627s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/27/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/27/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/27/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	06/26/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120627.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S52959.03 **Tag: SB141 (06-22-2012)(3-5)** Matrix: SO
Data File: f120627b.17r.bnd Notes: s52959.03 20.0g s/1 ID:PA120627s01 Extraction: SONC
Date Received: 06/25/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/27/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/27/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/27/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	06/26/12	

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120627.3

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
f66120605.cal	**TCX**	L	2.15	2.20	2.25	1.50	3.00	9.00	15.00	21.00	30.00	0.051	0.048
				22.5	1.00	0.08	0.06	0.05	0.05	0.05	0.05		
	1016-1	L	3.06	3.11	3.16	0.05	0.10	0.30	0.50	0.70	1.00	0.040	0.763
				24.8	1.00	1.45	1.08	0.92	0.87	0.83	0.79		
	1016-2	L	3.31	3.36	3.41	0.05	0.10	0.30	0.50	0.70	1.00	0.112	2.601
				26.2	1.00	4.96	3.53	2.99	2.84	2.80	2.70		
	1016-3	L	3.40	3.45	3.50	0.05	0.10	0.30	0.50	0.70	1.00	0.049	1.020
				25.0	1.00	1.93	1.39	1.21	1.14	1.11	1.05		
	1016-4	L	3.47	3.52	3.57	0.05	0.10	0.30	0.50	0.70	1.00	0.063	0.699
				46.8	1.00	2.10	1.12	0.92	0.86	0.79	0.75		
	1016-5	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.958
				27.7	1.00	1.91	1.32	1.13	1.07	1.04	0.99		
	1260-1	L	4.99	5.04	5.09	0.05	0.10	0.30	0.50	0.70	1.00	0.075	1.594
				27.6	1.00	3.14	2.22	1.85	1.75	1.72	1.66		
	1260-2	L	5.21	5.26	5.31	0.05	0.10	0.30	0.50	0.70	1.00	0.113	2.481
				27.6	1.00	4.88	3.43	2.86	2.72	2.68	2.58		
	1260-3	L	5.46	5.51	5.56	0.05	0.10	0.30	0.50	0.70	1.00	0.096	2.449
				25.7	1.00	4.57	3.27	2.75	2.64	2.62	2.53		
	1260-4	L	6.06	6.11	6.16	0.05	0.10	0.30	0.50	0.70	1.00	0.051	2.119
				29.1	1.00	4.04	2.56	2.17	2.17	2.20	2.19		
	1260-5	L	6.32	6.37	6.42	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.810
				26.0	1.00	3.44	2.46	2.08	1.98	1.95	1.87		
	DCBP	L	7.44	7.49	7.54	1.50	3.00	9.00	15.00	21.00	30.00	0.057	0.035
				27.7	1.00	0.07	0.05	0.04	0.04	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): f66120605.cal / mean %rsd: 28.0

File Name: F:\gcecd.dat\Methods\F66120605.cal
Version: 3

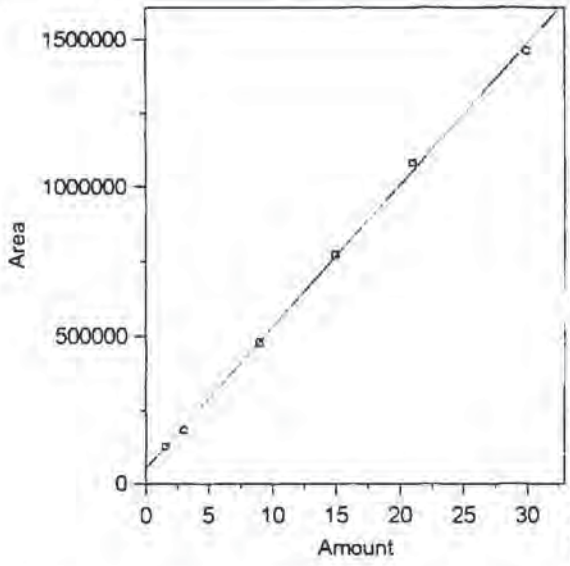
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.203 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

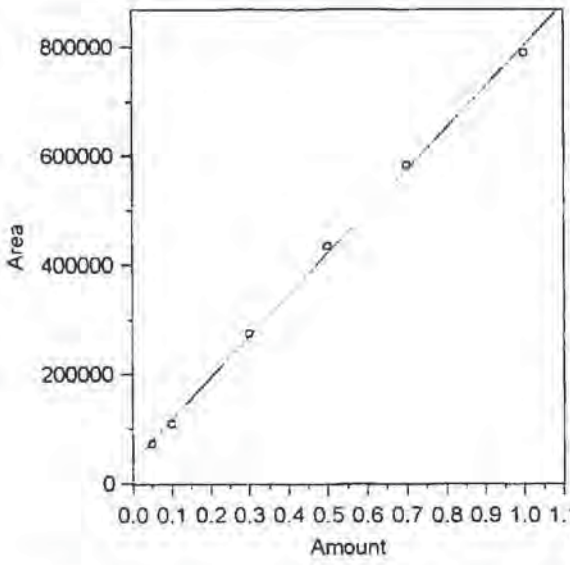
Single peak quantification by area

Y = 47656.17 X + 50931.09

Linear fit with equal weighting
Coefficient of determination: 0.9991111
Average error: 2.132%
Average CF: 58074.53
RSD: 22.469%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	125128.4	83418.93	2.216	F:\gcecd.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	181519.6	60506.53	-6.385	F:\gcecd.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	479177.3	53241.92	-0.137	F:\gcecd.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	767757.5	51183.83	0.259	F:\gcecd.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	1078491	51356.71	2.546	F:\gcecd.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1462178	48739.27	-1.245	F:\gcecd.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

2 1016-1



Expected retention time: 3.11 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 3
PCB-1016
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

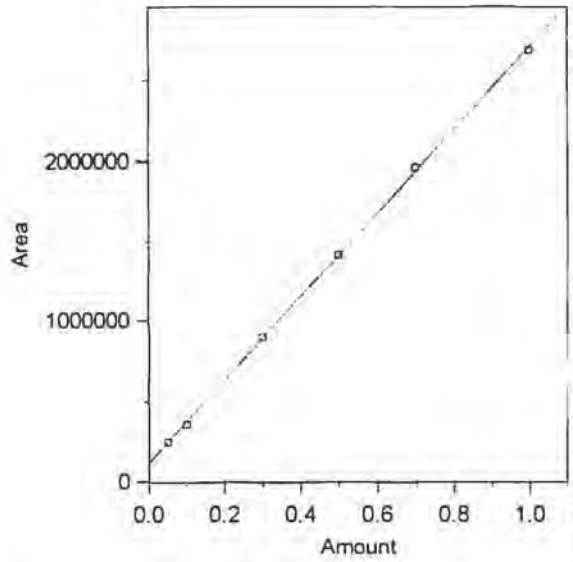
Single peak quantification by area

Y = 762932.1 X + 40053.23

Linear fit with equal weighting
Coefficient of determination: 0.9986599
Average error: 3.797%
Average CF: 989099.9
RSD: 24.802%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	72253.18	1445064	-7.604	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	108293.6	1082936	-6.921	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	275062.3	916874.3	2.279	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	433369.2	866738.4	2.811	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	583043.6	832919.5	1.557	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	790067.7	790067.7	-1.609	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

3 1016-2



Expected retention time: 3.362 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 3
PCB-1016
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

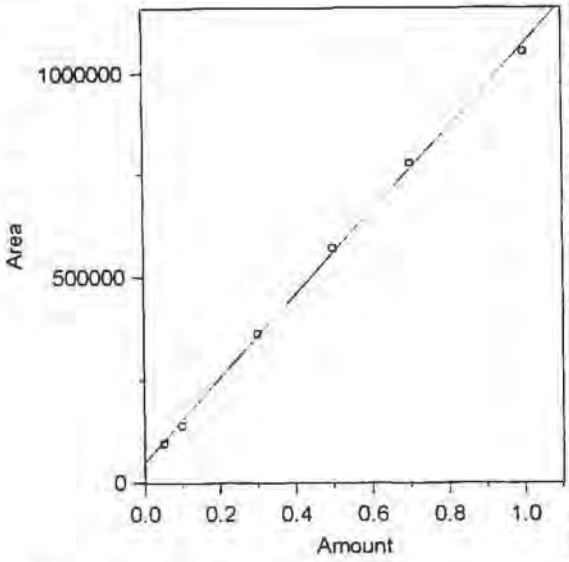
Single peak quantification by area

Y = 2601147 X + 112417.9

Linear fit with equal weighting
Coefficient of determination: 0.9997001
Average error: 1.685%
Average CF: 3300561
RSD: 26.166%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	247811	4956220	2.201	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	353161.1	3531611	-5.200	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	896735	2989117	0.445	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1417800	2835600	0.340	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1957154	2795934	1.238	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2694886	2694886	-0.688	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

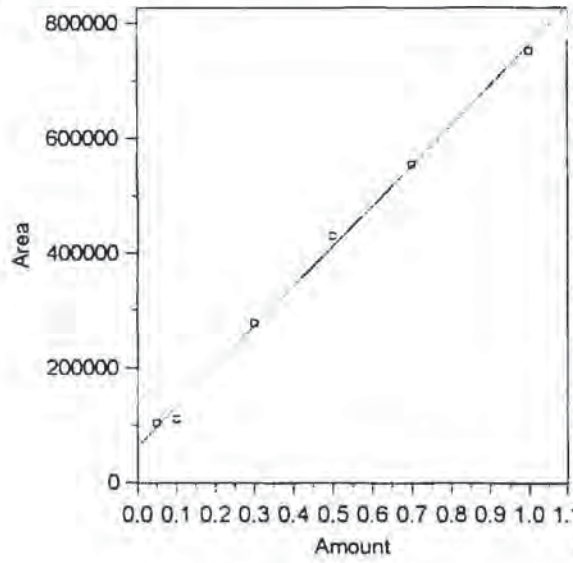
4 1016-3



Expected retention time:	3.454 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1020496 X + 49121.13	
Linear fit with equal weighting	
Coefficient of determination:	0.9988882
Average error:	3.145%
Average CF:	1305081
RSD:	24.946%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	962458	1924916	-3.894	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1393982	1393982	-7.788	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	3623616	1207872	1.996	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	5690901	1138180	1.738	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	7783863	1111981	1.954	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1053558	1053558	-1.501	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

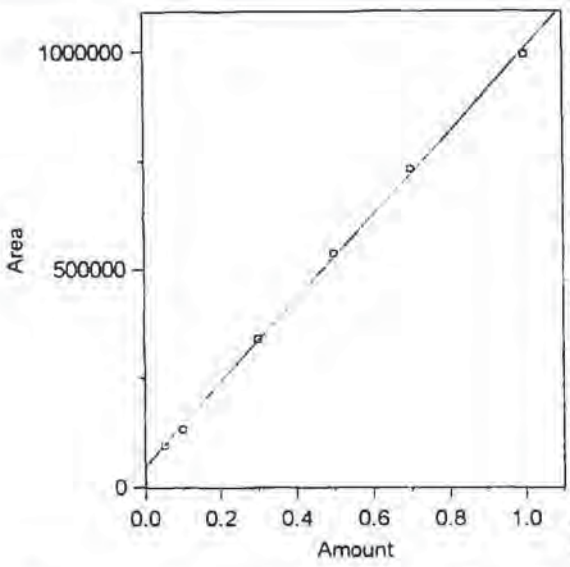
5 1016-4



Expected retention time:	3.524 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 698645 X + 62930.49	
Linear fit with equal weighting	
Coefficient of determination:	0.9971991
Average error:	5.099%
Average CF:	1089711
RSD:	46.750%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	1048121	2096242	7.101	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1116023	1116023	-15.959	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	2769628	923209.3	1.629	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	429680.3	859360.6	4.227	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	554151.1	791644.5	0.393	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	751783.6	751783.6	-1.286	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

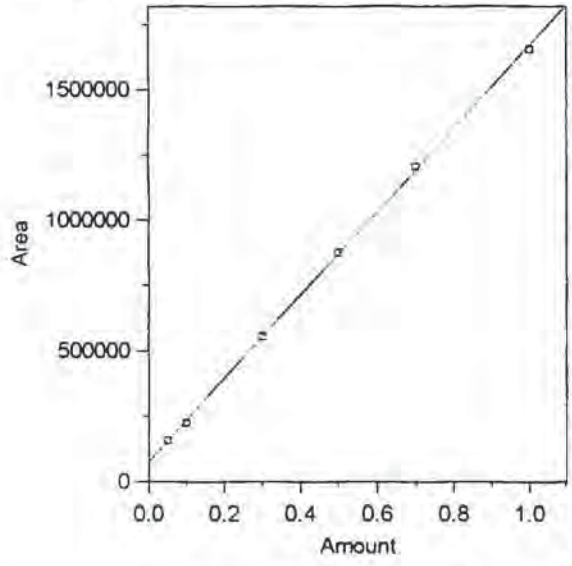
6 1016-5



Expected retention time:	3.99 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 958178.7 X + 47289.98	
Linear fit with equal weighting	
Coefficient of determination:	0.9991639
Average error:	2.277%
Average CF:	1242731
RSD:	27.702%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	95353.21	1907064	0.162	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	131689	1316890	-7.979	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	338223	1127410	1.039	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	534353.4	1068707	1.515	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	730374.4	1043392	1.721	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	992920.6	992920.6	-1.248	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

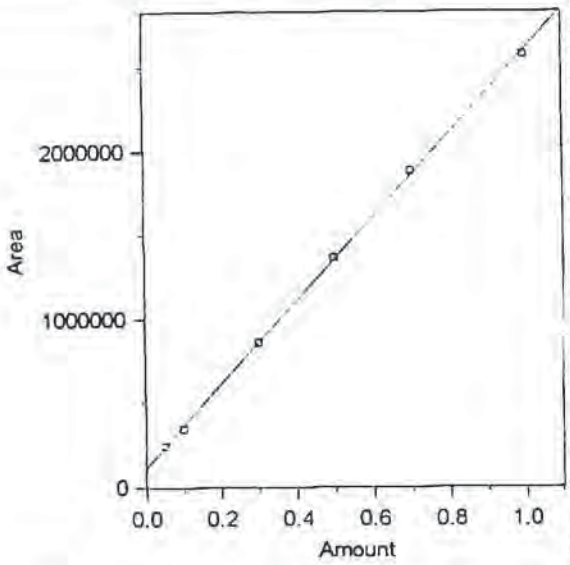
7 1260-1



Expected retention time:	5.044 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1594301 X + 74547.08	
Linear fit with equal weighting	
Coefficient of determination:	0.9996752
Average error:	1.587%
Average CF:	2057009
RSD:	27.569%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	156967.1	3139342	1.753	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	222370	2223700	-4.961	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	554058.1	1846860	0.221	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	876598.2	1753196	0.562	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1205797	1722567	1.280	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1656389	1656389	-0.747	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

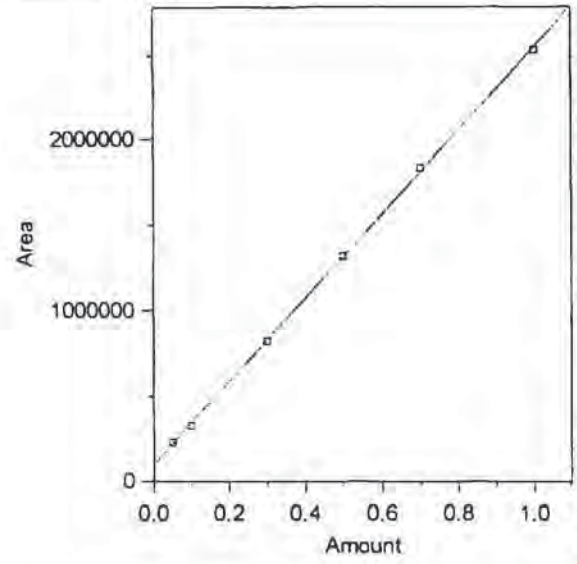
8 1260-2



Expected retention time:	5.264 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2480847 X + 112979.9	
Linear fit with equal weighting	
Coefficient of determination:	0.999669
Average error:	1.752%
Average CF:	3188669
RSD:	27.616%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	243842.2	4876844	2.877	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	342862.1	3428621	-5.041	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	856442.6	2854809	-0.092	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1359526	2719052	0.452	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1874225	2677464	1.333	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2575225	2575225	-0.717	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

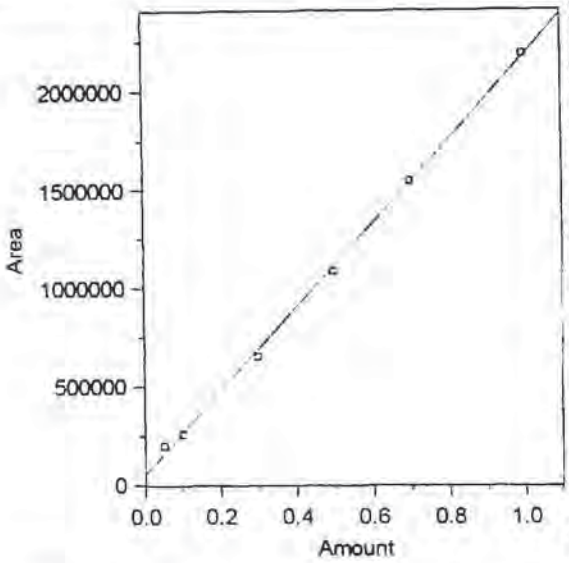
9 1260-3



Expected retention time:	5.51 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2448519 X + 95512.59	
Linear fit with equal weighting	
Coefficient of determination:	0.9997622
Average error:	1.899%
Average CF:	3062008
RSD:	25.646%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	228665.3	4573306	4.922	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	326472.3	3264723	-4.082	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	824149.5	2747165	-0.713	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1319799	2639598	0.002	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1830950	2615643	1.187	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2531615	2531615	-0.488	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

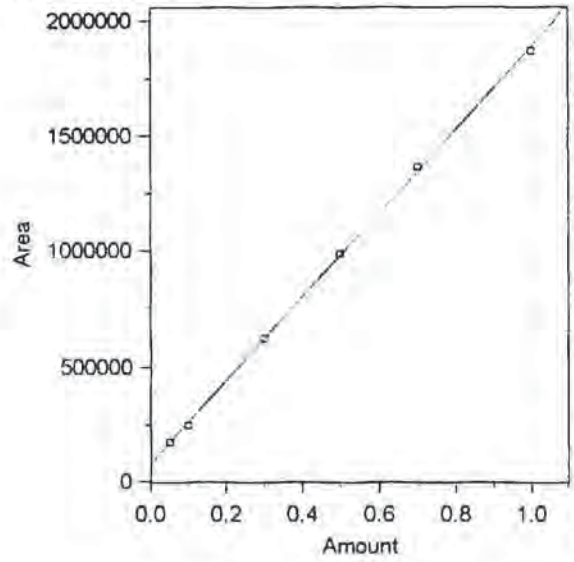
10 1260-4



Expected retention time:	6.111 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2118980 X + 51414.68	
Linear fit with equal weighting	
Coefficient of determination:	0.9985846
Average error:	6.664%
Average CF:	2554518
RSD:	29.065%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	201960.2	4039204	28.340	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	255490	2554900	-2.971	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	651378.4	2171261	-5.200	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1086010	2172020	-2.241	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1541809	2202584	0.463	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2187138	2187138	0.771	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

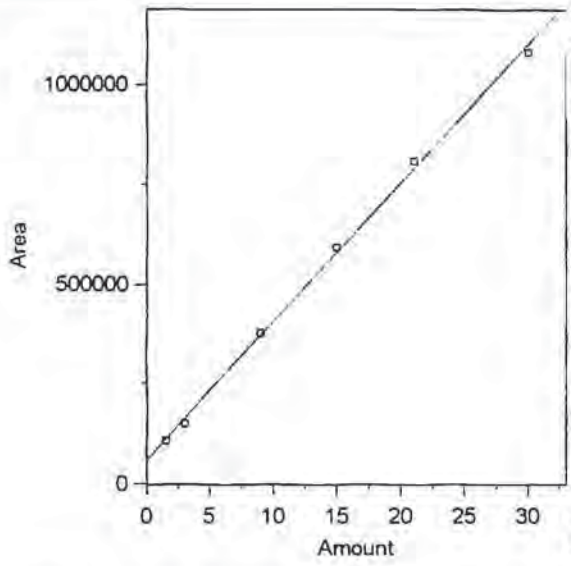
11 1260-5



Expected retention time:	6.367 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1809719 X + 78684.21	
Linear fit with equal weighting	
Coefficient of determination:	0.9995806
Average error:	1.650%
Average CF:	2296311
RSD:	25.999%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	171941.8	3438836	1.638	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	246226.6	2462266	-5.172	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	622912.1	2076374	0.211	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	987860.5	1975721	0.439	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1366743	1952490	1.580	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1872177	1872177	-0.859	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

12 DCBP



Expected retention time:	7.486 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 34817.2 X + 57301.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9984544
Average error:	3.281%
Average CF:	45923.08
RSD:	27.735%

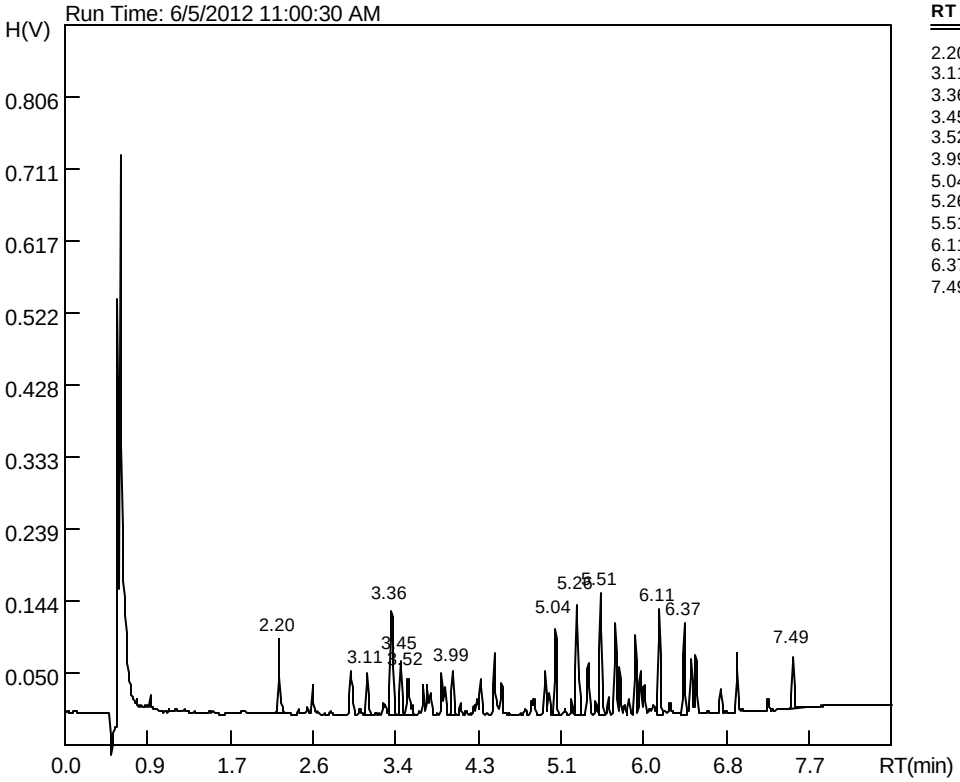
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	105176.3	70117.53	-3.972	F:\gceed dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	148972.2	49657.4	-7.901	F:\gceed dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	376072.3	41785.81	1.461	F:\gceed dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	591420.7	39428.05	2.047	F:\gceed dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	808171.9	38484.38	2.500	F:\gceed dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1081960	36065.33	-1.802	F:\gceed dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

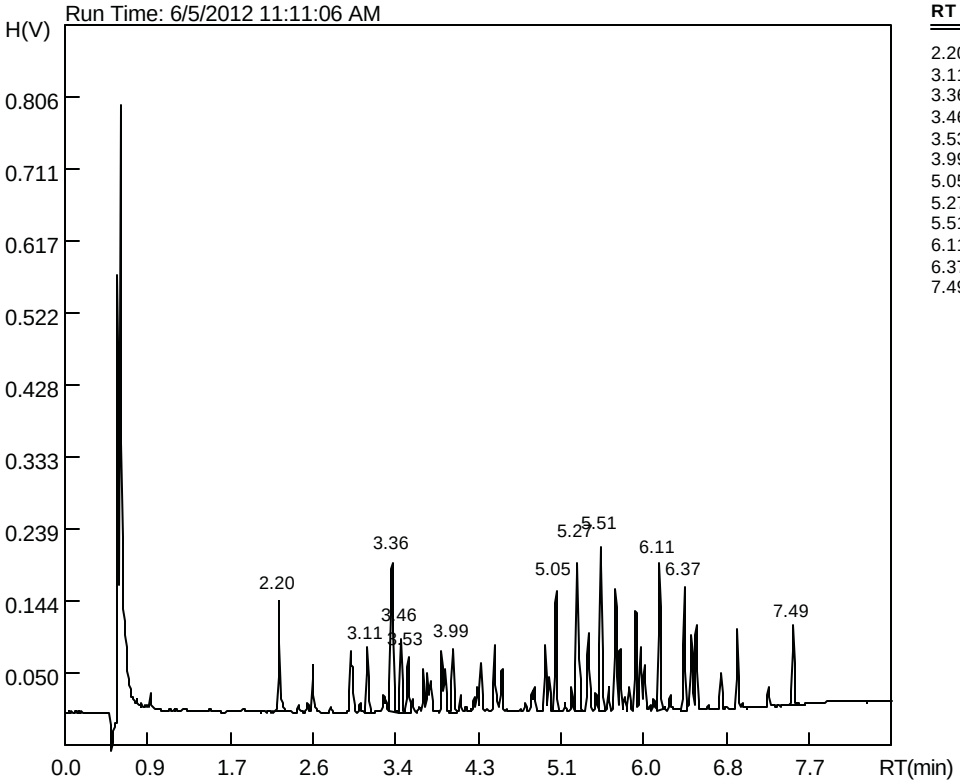
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:30 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	2.717	125128
3.11	0.00	1016-1	0.086	72253
3.36	0.00	1016-2	0.096	247811
3.45	-0.01	1016-3	0.089	96246
3.52	-0.01	1016-4	0.150	104812
3.99	0.01	1016-5	0.097	95353
5.04	0.01	1260-1	0.107	156967
5.26	0.01	1260-2	0.111	243842
5.51	0.01	1260-3	0.113	228665
6.11	0.00	1260-4	0.123	201960
6.37	0.00	1260-5	0.126	171942
7.49	0.02	DCBP	3.241	105176

File Name: F:\GCECD.DAT\F120605\F120605.03R.BND
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:06 AM



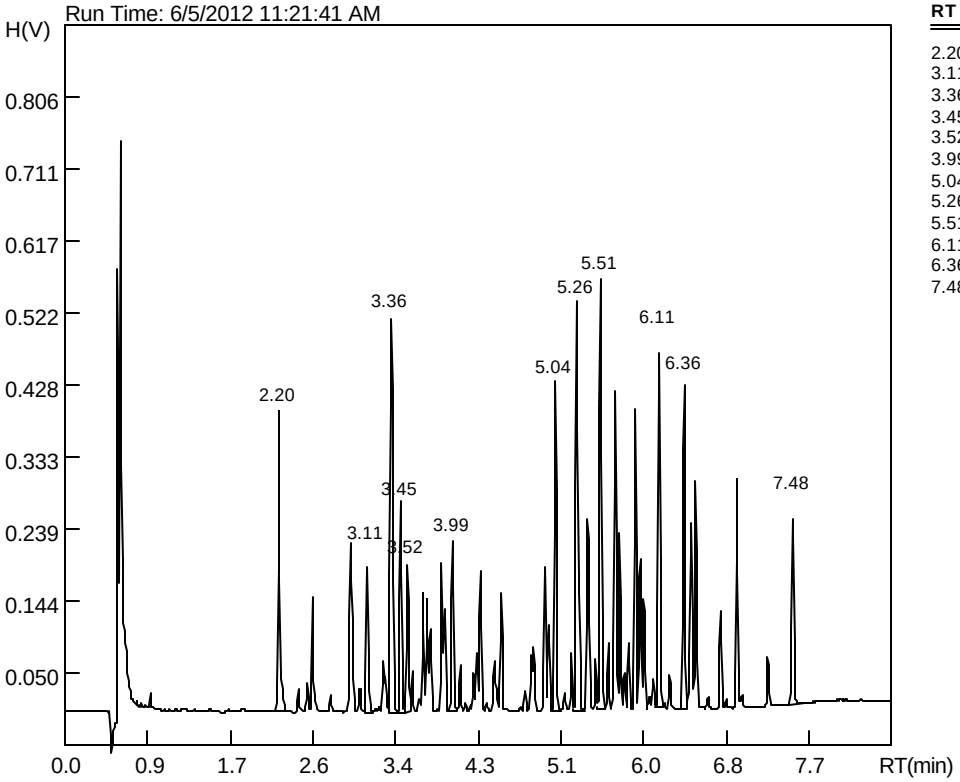
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	4.052	181520
3.11	0.00	1016-1	0.141	108294
3.36	0.00	1016-2	0.143	353161
3.46	0.00	1016-3	0.137	139398
3.53	0.00	1016-4	0.161	111602
3.99	0.02	1016-5	0.141	131689
5.05	0.02	1260-1	0.158	222370
5.27	0.02	1260-2	0.163	342862
5.51	0.02	1260-3	0.165	326472
6.11	0.00	1260-4	0.159	255490
6.37	0.00	1260-5	0.183	246227
7.49	0.02	DCBP	4.833	148972

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

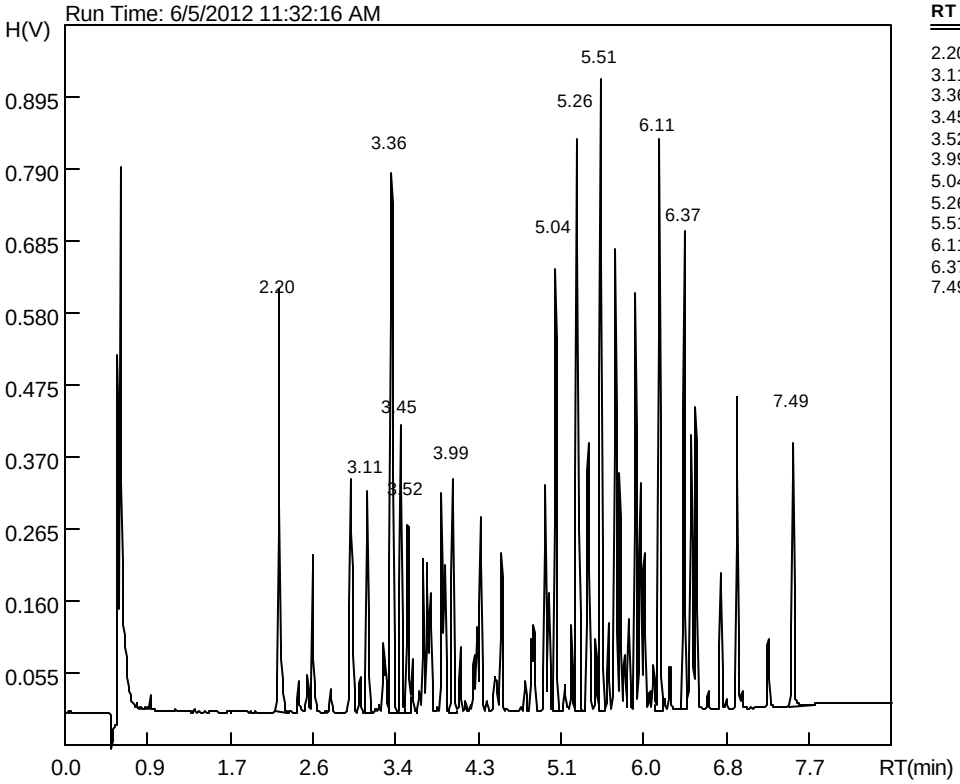
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:41 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	11.100	479177
3.11	0.00	1016-1	0.395	275062
3.36	0.00	1016-2	0.387	896735
3.45	-0.01	1016-3	0.388	362362
3.52	-0.01	1016-4	0.421	276963
3.99	0.01	1016-5	0.392	338223
5.04	0.01	1260-1	0.415	554058
5.26	0.01	1260-2	0.429	856443
5.51	0.01	1260-3	0.428	824150
6.11	0.00	1260-4	0.425	651378
6.36	-0.01	1260-5	0.472	622912
7.48	0.02	DCBP	13.089	376072

File Name: F:\GCECD.DAT\F120605\F120605.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:16 AM



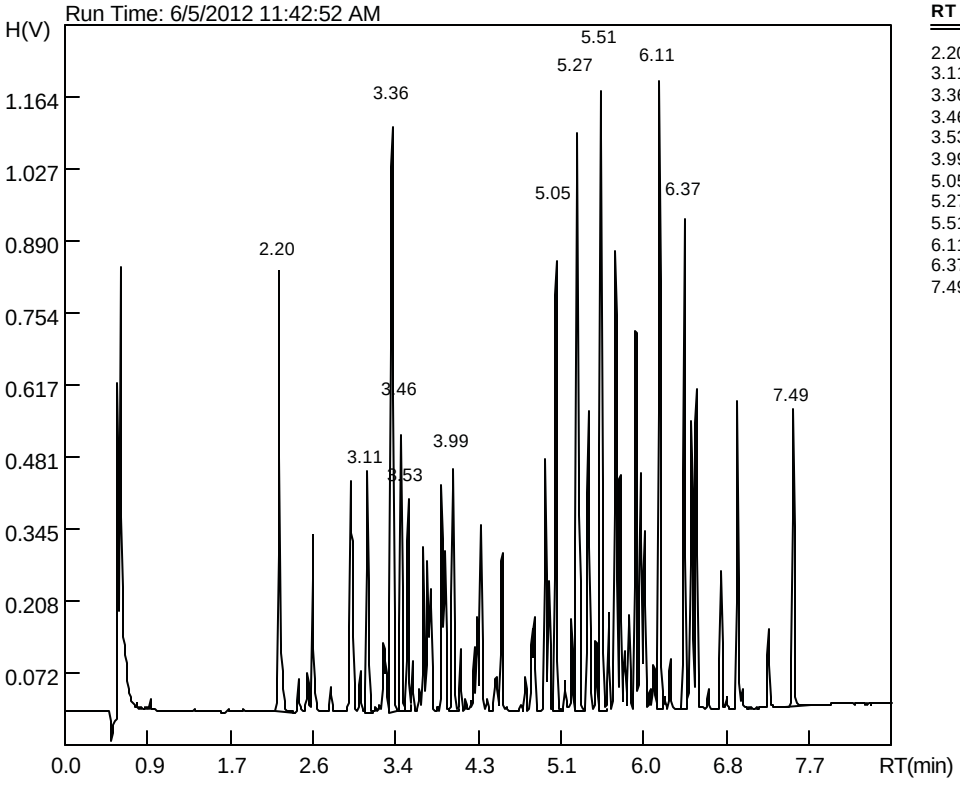
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	17.933	767758
3.11	0.00	1016-1	0.637	433369
3.36	0.00	1016-2	0.621	1417800
3.45	-0.01	1016-3	0.621	569090
3.52	-0.01	1016-4	0.661	429680
3.99	0.01	1016-5	0.629	534353
5.04	0.01	1260-1	0.665	876598
5.26	0.01	1260-2	0.689	1359526
5.51	0.01	1260-3	0.691	1319799
6.11	0.00	1260-4	0.718	1086010
6.37	0.00	1260-5	0.753	987861
7.49	0.02	DCBP	20.918	591421

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5 Analytical Batch: f120605.1

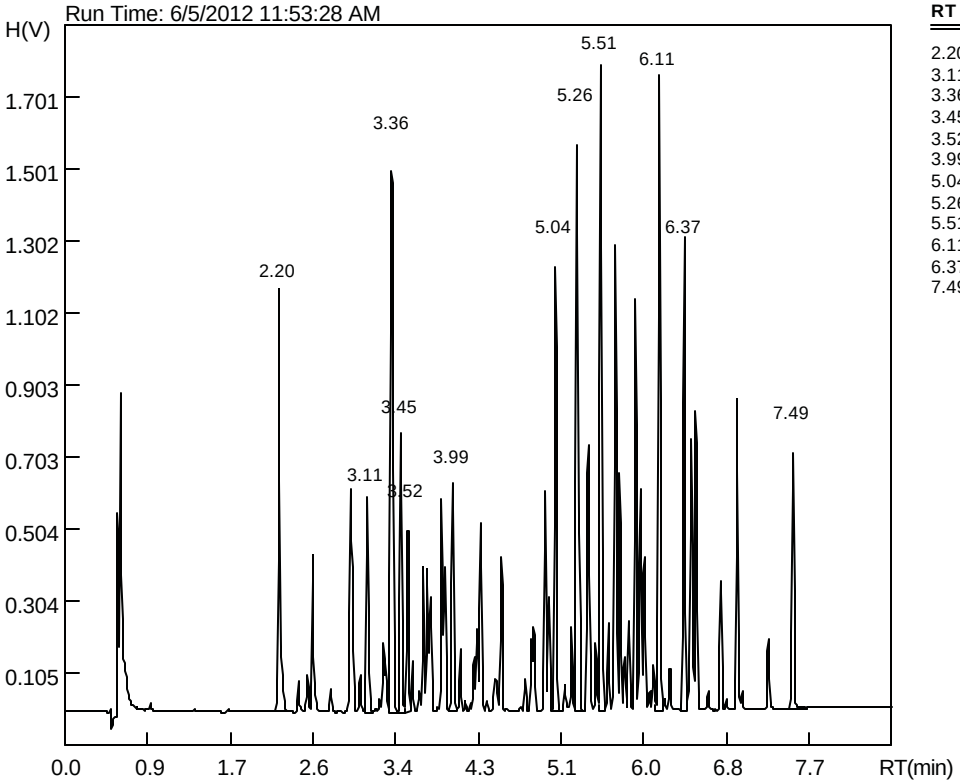
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120605\F120605.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:52 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	25.290	1078491
3.11	0.00	1016-1	0.866	583044
3.36	0.00	1016-2	0.863	1957154
3.46	0.00	1016-3	0.856	778386
3.53	0.00	1016-4	0.857	554151
3.99	0.02	1016-5	0.867	730374
5.05	0.02	1260-1	0.920	1205797
5.27	0.02	1260-2	0.956	1874225
5.51	0.02	1260-3	0.962	1830950
6.11	0.00	1260-4	1.025	1541809
6.37	0.00	1260-5	1.044	1366743
7.49	0.02	DCBP	28.798	808172

File Name: F:\GCECD.DAT\F120605\F120605.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:28 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	34.375	1462178
3.11	0.00	1016-1	1.182	790068
3.36	0.00	1016-2	1.195	2694886
3.45	-0.01	1016-3	1.166	1053558
3.52	-0.01	1016-4	1.168	751784
3.99	0.01	1016-5	1.185	992921
5.04	0.01	1260-1	1.269	1656389
5.26	0.01	1260-2	1.319	2575225
5.51	0.01	1260-3	1.333	2531615
6.11	0.00	1260-4	1.460	2187138
6.37	0.00	1260-5	1.433	1872177
7.49	0.02	DCBP	38.752	1081960

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120627.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
fb66120605.ca	**TCX**	L	2.31	2.36	2.41	1.50	3.00	9.00	15.00	21.00	30.00	0.058	0.040
				26.3	1.00	0.08	0.06	0.05	0.05	0.04	0.04		
	1016-1	L	3.01	3.06	3.11	0.05	0.10	0.30	0.50	0.70	1.00	0.036	0.583
				27.8	1.00	1.19	0.86	0.72	0.68	0.65	0.61		
	1016-2	L	3.44	3.49	3.54	0.05	0.10	0.30	0.50	0.70	1.00	0.086	1.183
				32.2	1.00	2.68	1.88	1.52	1.40	1.33	1.25		
	1016-3	L	3.81	3.86	3.91	0.05	0.10	0.30	0.50	0.70	1.00	0.138	2.534
				30.8	1.00	5.38	3.70	3.01	2.82	2.79	2.64		
	1016-4	L	3.97	4.02	4.07	0.05	0.10	0.30	0.50	0.70	1.00	0.066	0.946
				33.4	1.00	2.18	1.47	1.20	1.10	1.06	0.99		
	1016-5	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.721
				30.7	1.00	1.57	1.08	0.91	0.83	0.82	0.75		
	1260-1	L	5.56	5.61	5.66	0.05	0.10	0.30	0.50	0.70	1.00	0.105	1.632
				32.4	1.00	3.64	2.54	2.02	1.87	1.81	1.72		
	1260-2	L	5.64	5.69	5.74	0.05	0.10	0.30	0.50	0.70	1.00	0.104	1.712
				32.5	1.00	3.80	2.57	2.09	1.94	1.89	1.80		
	1260-3	L	6.05	6.10	6.15	0.05	0.10	0.30	0.50	0.70	1.00	0.095	1.698
				30.1	1.00	3.56	2.55	2.05	1.88	1.86	1.78		
	1260-4	L	6.54	6.59	6.64	0.05	0.10	0.30	0.50	0.70	1.00	0.048	1.827
				26.7	1.00	3.36	2.30	1.88	1.90	1.91	1.89		
	1260-5	L	6.96	7.01	7.06	0.05	0.10	0.30	0.50	0.70	1.00	0.088	1.607
				29.7	1.00	3.34	2.36	1.93	1.79	1.76	1.68		
	DCBP	L	8.11	8.16	8.21	1.50	3.00	9.00	15.00	21.00	30.00	0.070	0.032
				32.4	1.00	0.07	0.05	0.04	0.04	0.04	0.03		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): fb66120605.cal / mean %rsd: 30.4

File Name: F:\gceed.dat\Methods\Fb66120605.cal
Version: 2

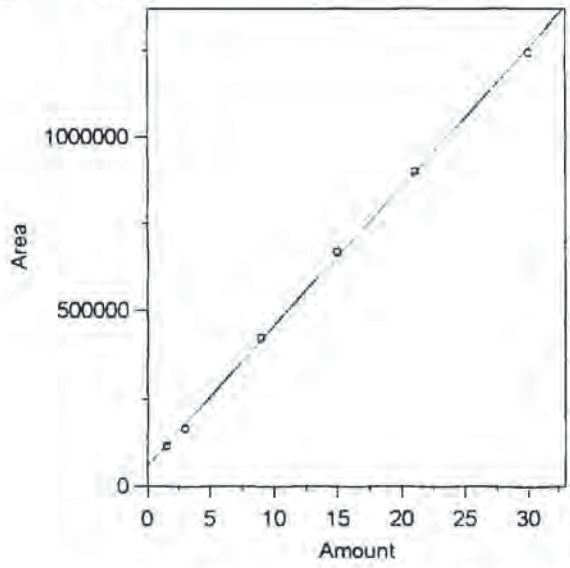
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.358 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

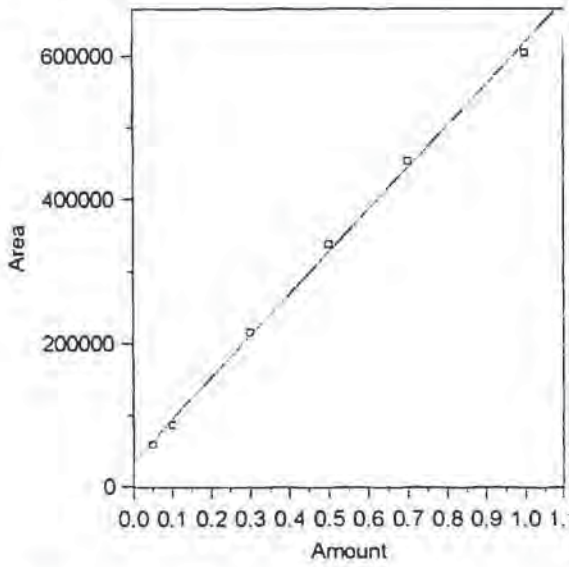
Single peak quantification by area

Y = 39870.61 X + 58053.06

Linear fit with equal weighting
Coefficient of determination: 0.9994379
Average error: 2.386%
Average CF: 51370.67
RSD: 26.263%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	115679.1	77119.4	-1.850	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	164970.6	54990.2	-7.145	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	424850.7	47205.63	1.910	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	668667.4	44577.82	1.914	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	900818.4	42896.11	0.612	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1243046	41434.87	-0.887	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

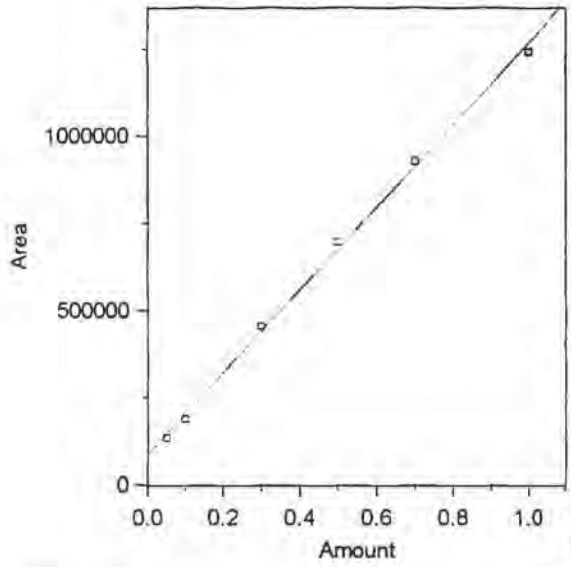
2 1016-1



Expected retention time:	3.057 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 582699.6 X + 35616.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9977939
Average error:	4.476%
Average CF:	782959.7
RSD:	27.844%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	59555.11	1191102	-8.024	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	85830.45	858304.5	-8.580	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	216043.1	720143.6	2.669	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	337309.8	674619.6	3.164	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	453779.1	648255.9	2.316	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	605332.5	605332.5	-2.100	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

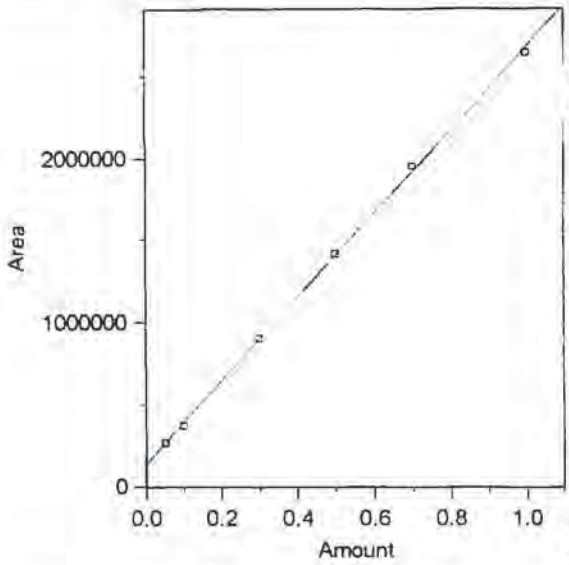
3 1016-2



Expected retention time:	3.49 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1182923 X + 86069.77	
Linear fit with equal weighting	
Coefficient of determination:	0.9980066
Average error:	4.316%
Average CF:	1674559
RSD:	32.211%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	133909.2	2678184	-7.786	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	187949.5	1879495	-8.031	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	456012.6	1520042	3.417	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	697347.2	1394694	2.925	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	930979	1329970	1.845	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1244968	1244968	-1.893	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

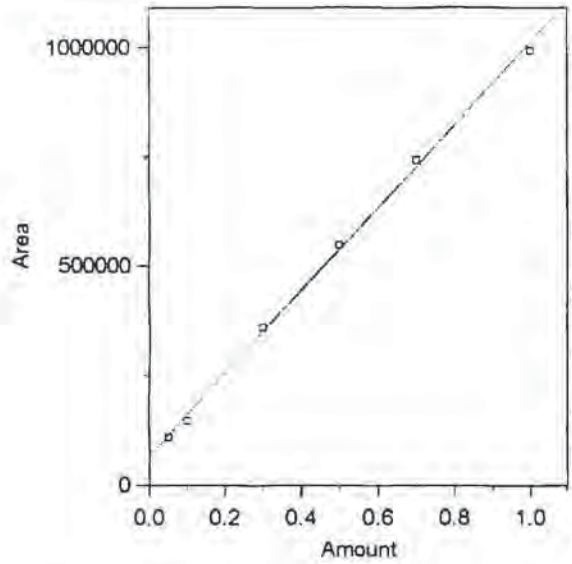
4 1016-3



Expected retention time:	3.858 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2533522 X + 138452.1	
Linear fit with equal weighting	
Coefficient of determination:	0.9993595
Average error:	1.799%
Average CF:	3389695
RSD:	30.843%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	269174.6	5383492	1.526	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	369980.5	3699805	-5.570	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	902096.4	3006988	0.399	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	1408728	2817456	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1950344	2786206	2.010	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	2644221	2644221	-1.039	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

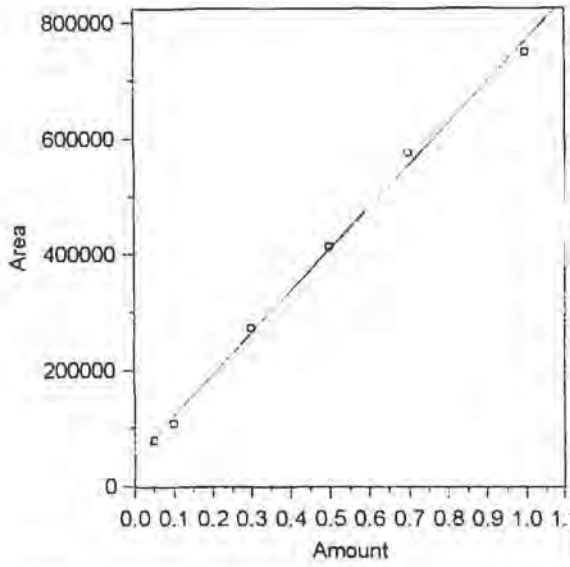
5 1016-4



Expected retention time:	4.02 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 945847.3 X + 66005.65	
Linear fit with equal weighting	
Coefficient of determination:	0.9983203
Average error:	3.567%
Average CF:	1332650
RSD:	33.355%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	108760.3	2175206	-4.005	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	146655.9	1466559	-8.677	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	359501.2	1198337	2.785	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	549015.4	1098031	1.872	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	744732.1	1063903	2.284	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	993864.6	993864.6	-1.778	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

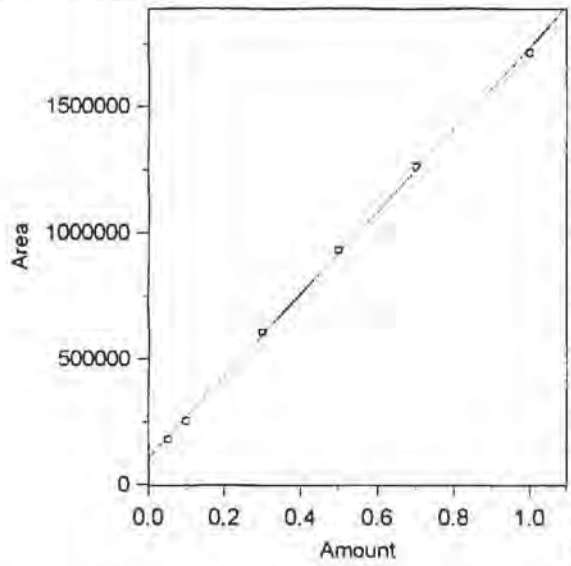
6 1016-5



Expected retention time:	4.151 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 721472.8 X + 47476.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9968299
Average error:	4.415%
Average CF:	992972
RSD:	30.730%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	78541.68	1570834	-5.995	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	108179	1081790	-9.568	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	272539	908463.3	3.266	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	412918.5	825837	1.153	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	574749.9	821071.3	4.026	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	749836.9	749836.9	-2.486	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

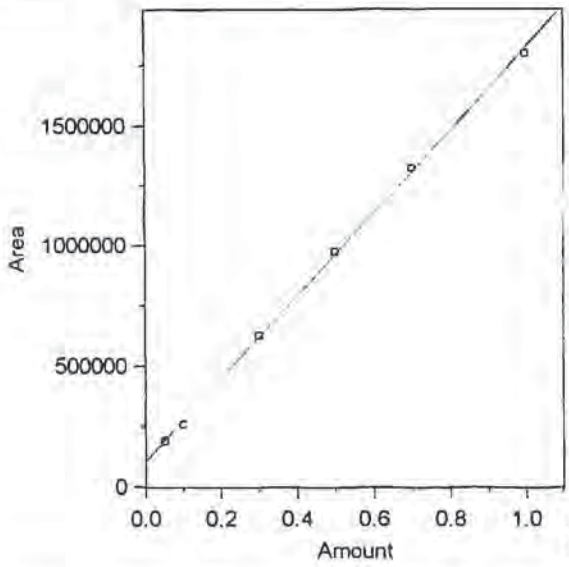
7 1260-1



Expected retention time:	5.611 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1631628 X + 105405.6	
Linear fit with equal weighting	
Coefficient of determination:	0.9994005
Average error:	2.230%
Average CF:	2264340
RSD:	32.401%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	181863.8	3637276	-2.740	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	254270.5	2542705	-5.324	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	604824.4	2016081	1.669	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	933124.7	1866249	1.292	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1263650	1805214	1.291	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1718515	1718515	-1.066	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

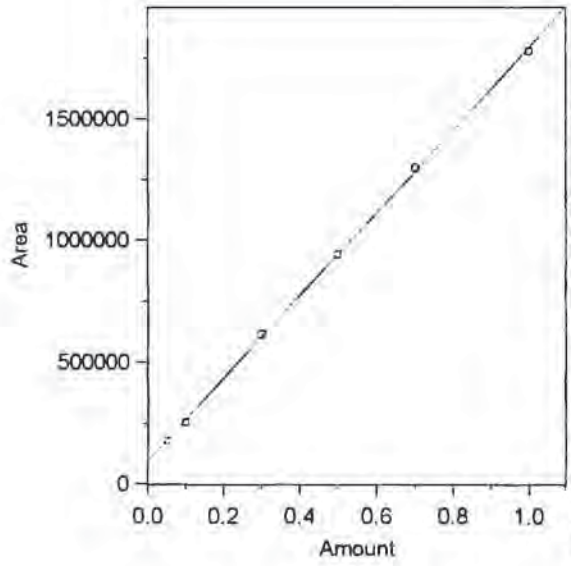
8 1260-2



Expected retention time:	5.692 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1711836 X + 104367.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9993424
Average error:	1.976%
Average CF:	2347058
RSD:	32.483%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	190027.6	3800552	0.036	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	256753.5	2567535	-6.822	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	626241.9	2087473	1.347	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	970528.4	1941057	1.067	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1322333	1889047	1.511	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1796684	1796684	-1.075	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

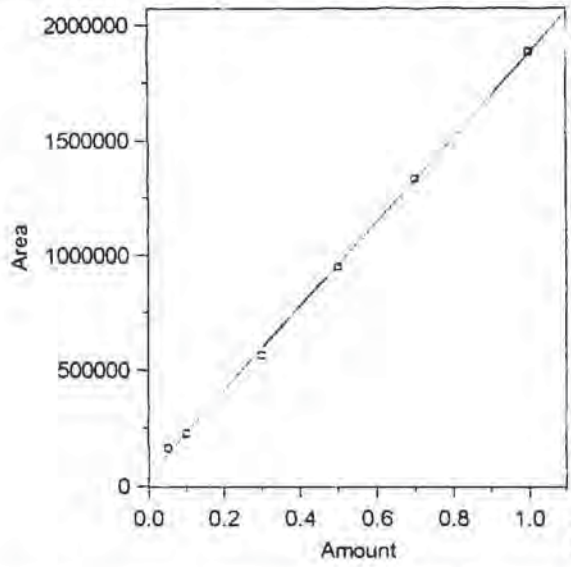
9 1260-3



Expected retention time:	6.098 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1698324 X + 94958.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9996811
Average error:	1.430%
Average CF:	2280111
RSD:	30.080%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	178024.2	3560484	-1.029	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	255083.7	2550837	-3.666	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	614370.1	2047900	1.640	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	941372.3	1882745	-0.291	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1300216	1857452	1.280	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1781245	1781245	-0.671	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

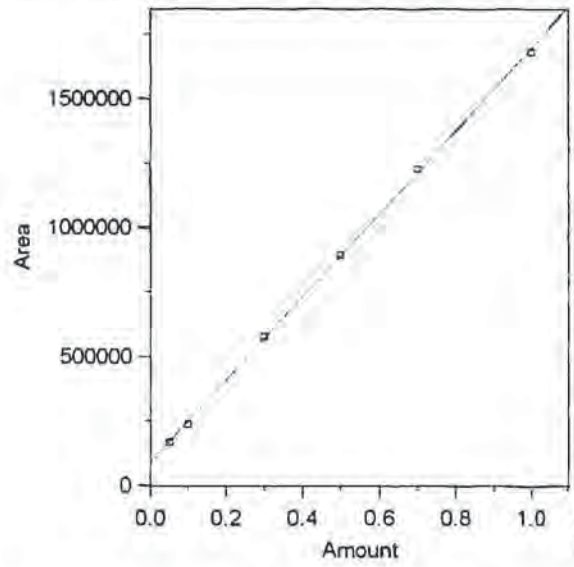
10 1260-4



Expected retention time:	6.591 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1827386 X + 48418.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9990682
Average error:	4.726%
Average CF:	2206297
RSD:	26.718%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	168141.7	3362834	20.283	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	229974.8	2299748	-0.512	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	564488.9	1881630	-5.388	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	950985.5	1901971	-1.156	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1334904	1907006	0.551	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1884593	1884593	0.468	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

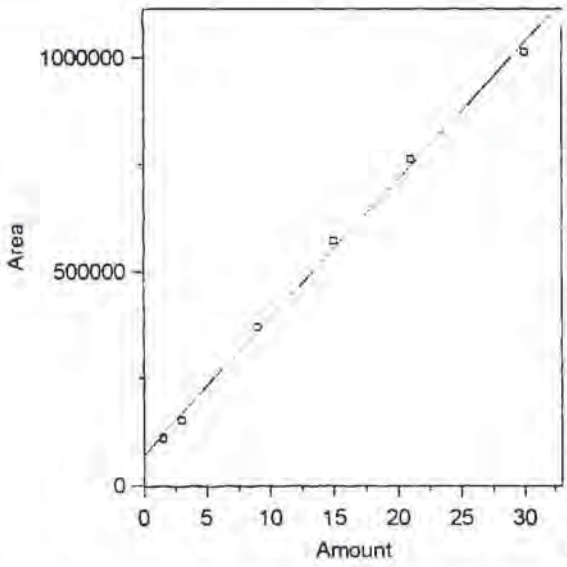
11 1260-5



Expected retention time:	7.014 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1606532 X + 87831.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9995843
Average error:	1.589%
Average CF:	2142375
RSD:	29.693%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	167108.9	3342178	-0.624	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	236188.5	2361885	-4.948	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	578119.2	1927064	1.462	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	893328.3	1786657	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1229462	1756374	1.407	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1680090	1680090	-0.842	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

12 DCBP



Expected retention time:	8.156 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 32186.62 X + 69759.48	
Linear fit with equal weighting	
Coefficient of determination:	0.9976669
Average error:	4.407%
Average CF:	45480.46
RSD:	32.426%

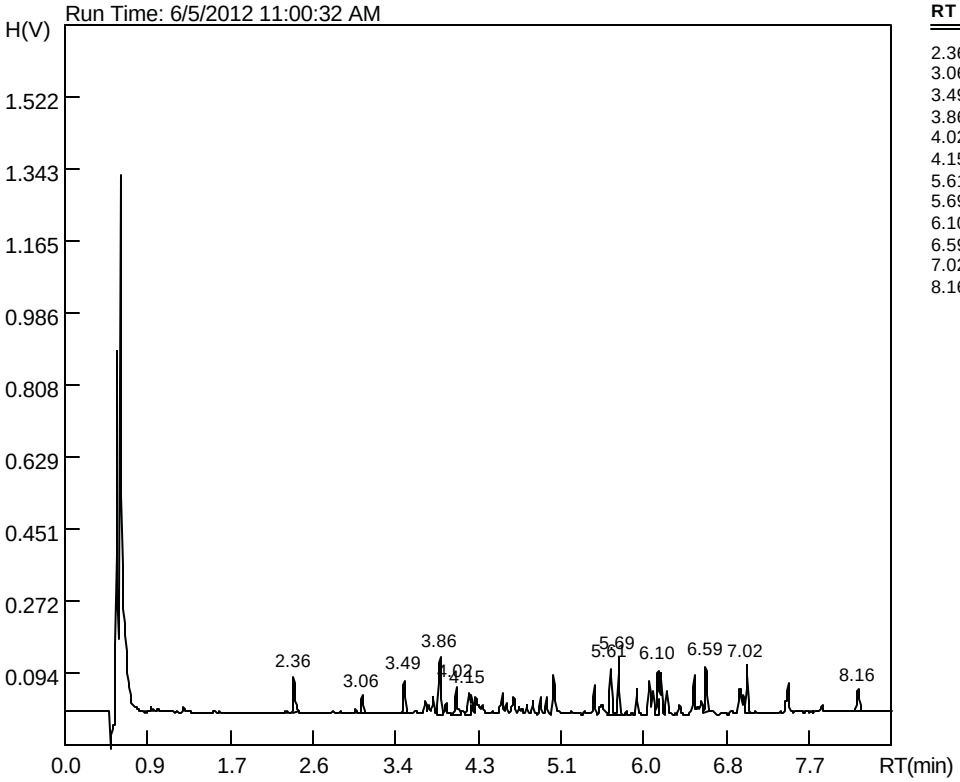
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	109747.5	73165	-7.025	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	151490.5	50496.83	-8.916	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	370306.1	41145.12	3.023	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	569490.9	37966.06	3.064	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	762846.1	36326.01	2.302	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1013512	33783.73	-2.110	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:32 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	1.445	115679
3.06	0.00	1016-1	0.041	59555
3.49	0.00	1016-2	0.040	133909
3.86	0.00	1016-3	0.052	269175
4.02	0.00	1016-4	0.045	108760
4.15	0.00	1016-5	-0.051	78542
5.61	0.00	1260-1	0.047	181864
5.69	0.00	1260-2	0.050	190028
6.10	0.00	1260-3	0.049	178024
6.59	0.00	1260-4	0.066	168142
7.02	0.00	1260-5	0.049	167109
8.16	0.00	DCBP	1.242	109748

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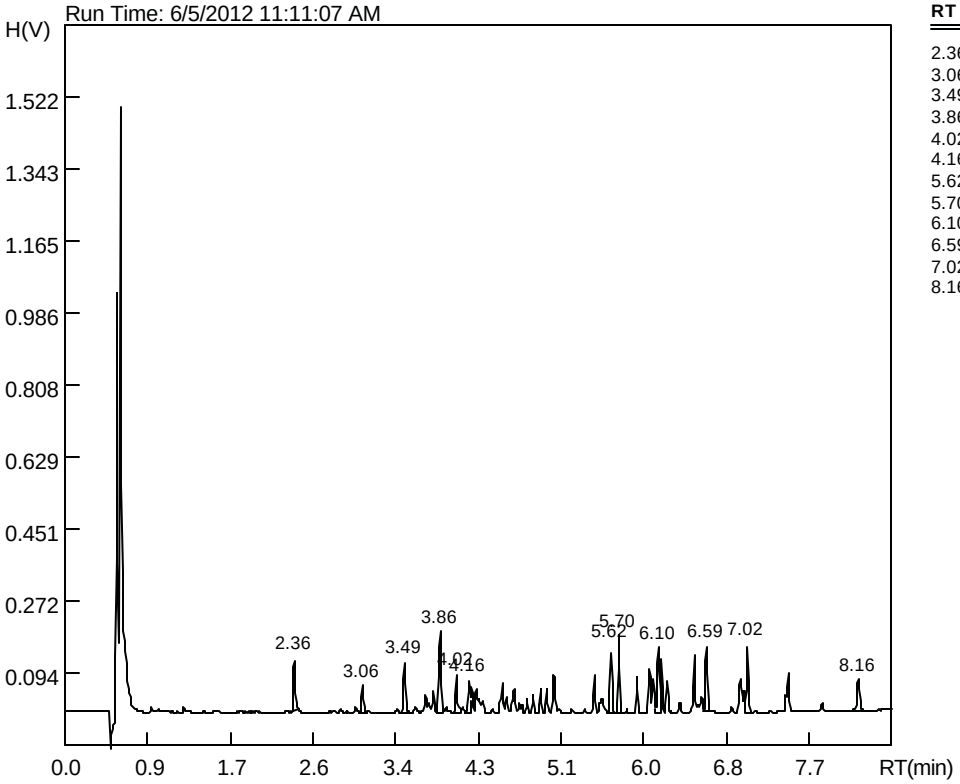
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:07 AM



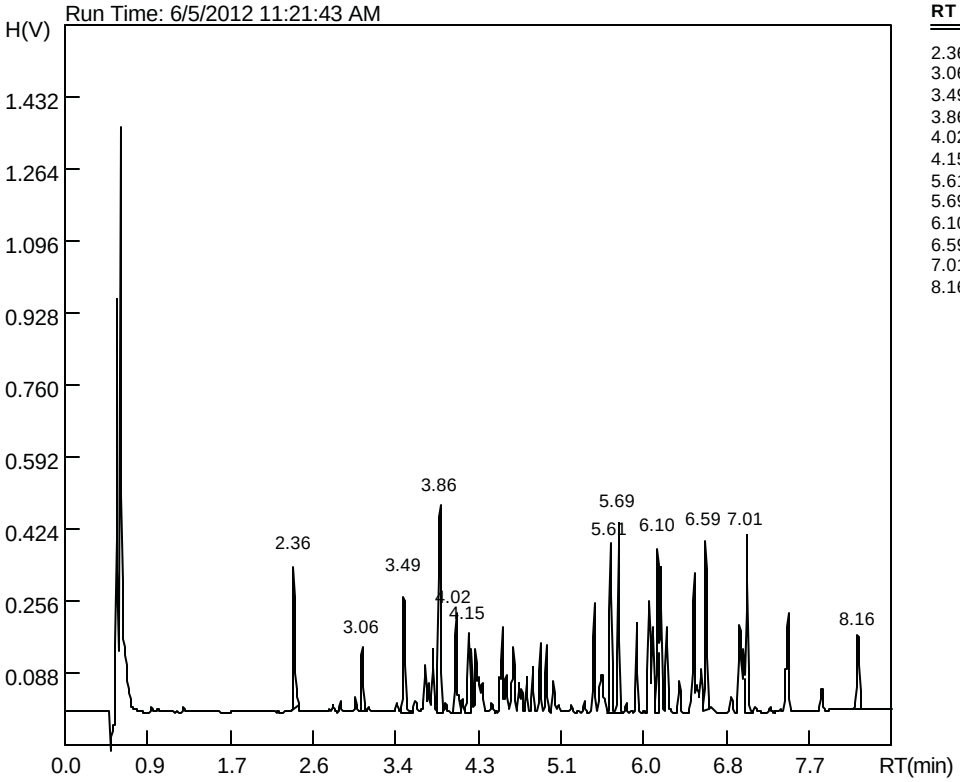
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	2.682	164971
3.06	0.00	1016-1	0.086	85830
3.49	0.00	1016-2	0.086	187950
3.86	0.00	1016-3	0.091	369981
4.02	0.00	1016-4	0.085	146656
4.16	0.01	1016-5	-0.006	108179
5.62	0.00	1260-1	0.091	254271
5.70	0.00	1260-2	0.089	256754
6.10	0.00	1260-3	0.094	255084
6.59	0.00	1260-4	0.099	229975
7.02	0.00	1260-5	0.092	236189
8.16	0.00	DCBP	2.539	151491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

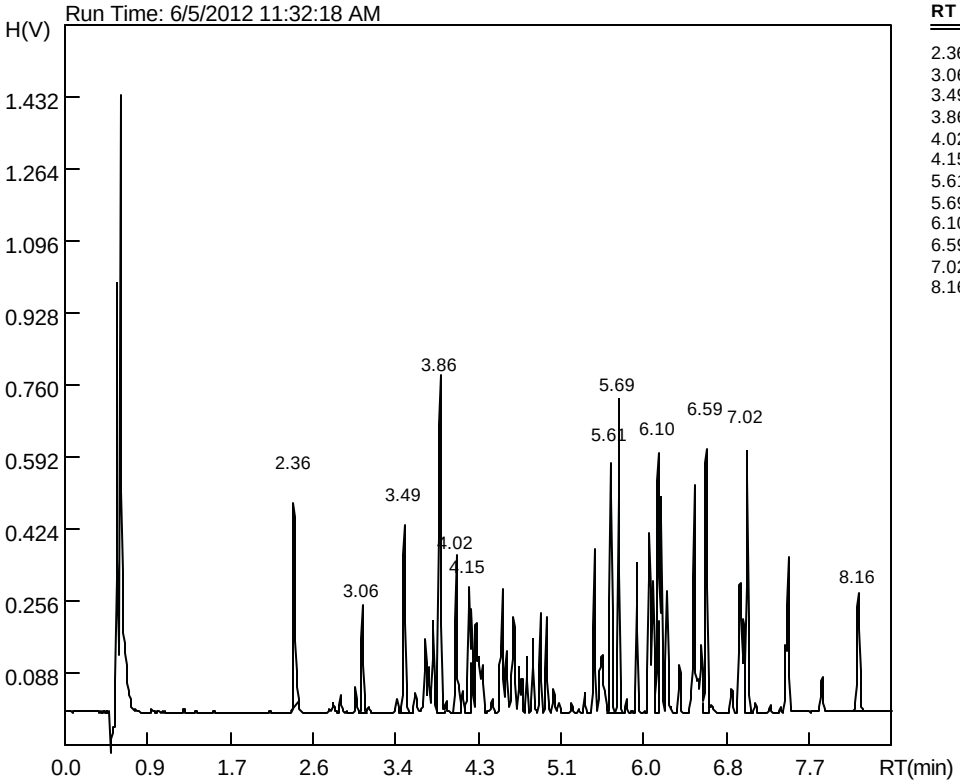
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:43 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	9.200	424851
3.06	0.00	1016-1	0.310	216043
3.49	0.00	1016-2	0.313	456013
3.86	0.00	1016-3	0.301	902096
4.02	0.00	1016-4	0.310	359501
4.15	0.00	1016-5	0.254	272539
5.61	0.00	1260-1	0.306	604824
5.69	0.00	1260-2	0.305	626242
6.10	0.00	1260-3	0.306	614370
6.59	0.00	1260-4	0.282	564489
7.01	0.00	1260-5	0.305	578119
8.16	0.00	DCBP	9.338	370306

File Name: F:\GCECD.DAT\F120605\F120605B.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:18 AM



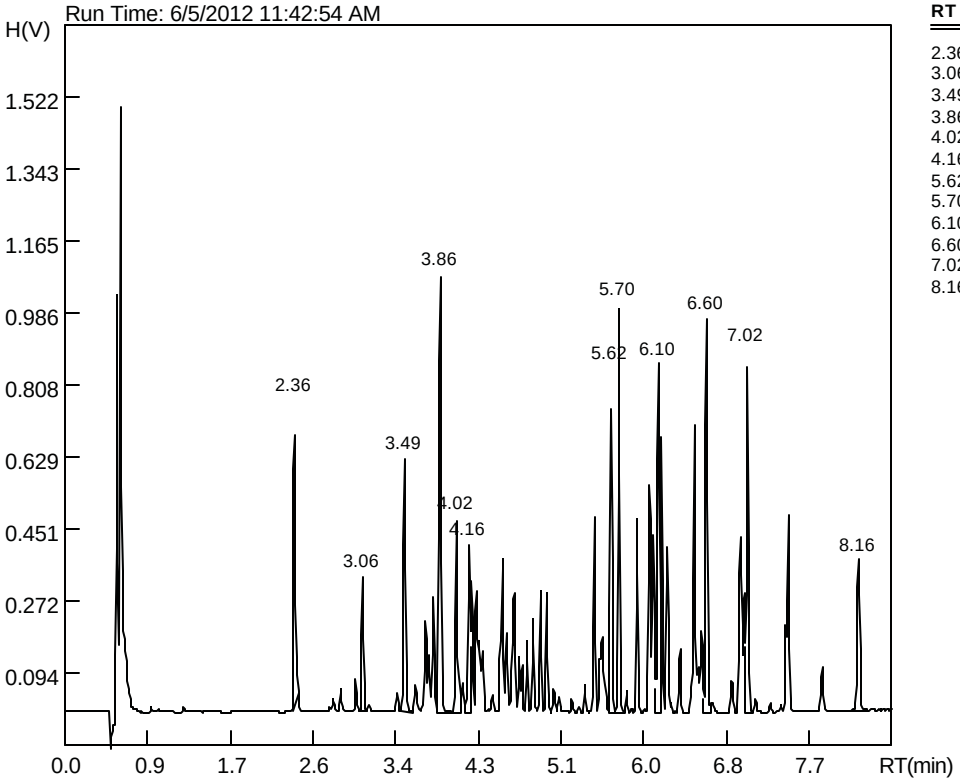
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	15.315	668667
3.06	0.00	1016-1	0.518	337310
3.49	0.00	1016-2	0.517	697347
3.86	0.00	1016-3	0.501	1408728
4.02	0.00	1016-4	0.511	549015
4.15	0.00	1016-5	0.449	412919
5.61	0.00	1260-1	0.507	933125
5.69	0.00	1260-2	0.506	970528
6.10	0.00	1260-3	0.498	941372
6.59	0.00	1260-4	0.494	950986
7.02	0.00	1260-5	0.501	893328
8.16	0.00	DCBP	15.526	569491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

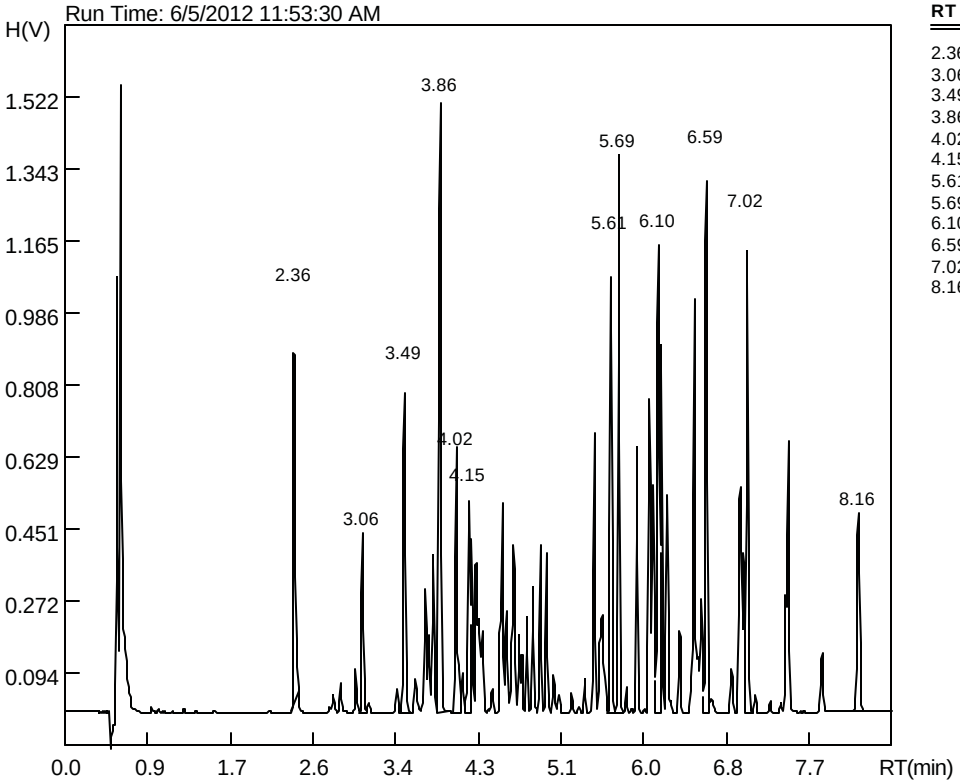
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:54 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	21.138	900818
3.06	0.00	1016-1	0.718	453779
3.49	0.00	1016-2	0.714	930979
3.86	0.00	1016-3	0.715	1950344
4.02	0.00	1016-4	0.718	744732
4.16	0.01	1016-5	0.691	574750
5.62	0.00	1260-1	0.710	1263650
5.70	0.00	1260-2	0.711	1322333
6.10	0.00	1260-3	0.710	1300216
6.60	0.00	1260-4	0.704	1334904
7.02	0.00	1260-5	0.711	1229462
8.16	0.00	DCBP	21.533	762846

File Name: F:\GCECD.DAT\F120605\F120605B.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:30 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	29.721	1243046
3.06	0.00	1016-1	0.978	605333
3.49	0.00	1016-2	0.980	1244968
3.86	0.00	1016-3	0.989	2644221
4.02	0.00	1016-4	0.981	993865
4.15	0.00	1016-5	0.952	749837
5.61	0.00	1260-1	0.989	1718515
5.69	0.00	1260-2	0.989	1796684
6.10	0.00	1260-3	0.993	1781245
6.59	0.00	1260-4	1.005	1884593
7.02	0.00	1260-5	0.991	1680090
8.16	0.00	DCBP	29.321	1013512

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120627.3

Filename	LIMS ID	Run Time	CVM Component	? RT/Win.	CVM Conc.	CVM %D/ UCL
f120627.02r	sc1660.01	06/27/12 08:55	1016-1	0.00/0.05	0.574/0.500	14.8
			1016-2	0.01/0.05	0.517/0.500	3.4
			1016-3	0.01/0.05	0.535/0.500	7.0
			1016-4	0.01/0.05	0.505/0.500	1.0
			1016-5	0.00/0.05	0.594/0.500	18.8
			1260-1	0.01/0.05	0.545/0.500	9.0
			1260-2	0.01/0.05	0.550/0.500	10.0
			1260-3	0.00/0.05	0.538/0.500	7.6
			1260-4	0.00/0.05	0.487/0.500	2.6
			1260-5	0.00/0.05	0.538/0.500	7.6
					Average	**7.7/ 20.0**
f120627.20r	sc1660.02	06/27/12 18:30	1016-1	0.02/0.05	0.529/0.500	5.8
			1016-2	0.02/0.05	0.503/0.500	0.6
			1016-3	0.02/0.05	0.527/0.500	5.4
			1016-4	0.02/0.05	0.499/0.500	0.2
			1016-5	0.01/0.05	0.578/0.500	15.6
			1260-1	0.02/0.05	0.510/0.500	2.0
			1260-2	0.02/0.05	0.511/0.500	2.2
			1260-3	0.01/0.05	0.492/0.500	1.6
			1260-4	0.01/0.05	0.462/0.500	7.6
			1260-5	0.01/0.05	0.465/0.500	7.0
					Average	**1.5/ 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120627.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
f120627b.02	sc1660.01	06/27/12 08:55	1016-1	0.01/0.05	0.509/0.500	1.8
			1016-2	0.01/0.05	0.538/0.500	7.6
			1016-3	0.01/0.05	0.540/0.500	8.0
			1016-4	0.01/0.05	0.528/0.500	5.6
			1016-5	0.01/0.05	0.501/0.500	0.2
			1260-1	0.01/0.05	0.528/0.500	5.6
			1260-2	0.01/0.05	0.541/0.500	8.2
			1260-3	0.00/0.05	0.516/0.500	3.2
			1260-4	0.01/0.05	0.515/0.500	3.0
			1260-5	0.01/0.05	0.500/0.500	0.0
					Average	**4.3/ 20.0**
f120627b.20	sc1660.02	06/27/12 18:30	1016-1	0.01/0.05	0.512/0.500	2.4
			1016-2	0.02/0.05	0.536/0.500	7.2
			1016-3	0.01/0.05	0.534/0.500	6.8
			1016-4	0.02/0.05	0.534/0.500	6.8
			1016-5	0.02/0.05	0.517/0.500	3.4
			1260-1	0.02/0.05	0.499/0.500	0.2
			1260-2	0.02/0.05	0.507/0.500	1.4
			1260-3	0.01/0.05	0.481/0.500	3.8
			1260-4	0.02/0.05	0.493/0.500	1.4
			1260-5	0.02/0.05	0.476/0.500	4.8
					Average	**1.8/ 20.0**

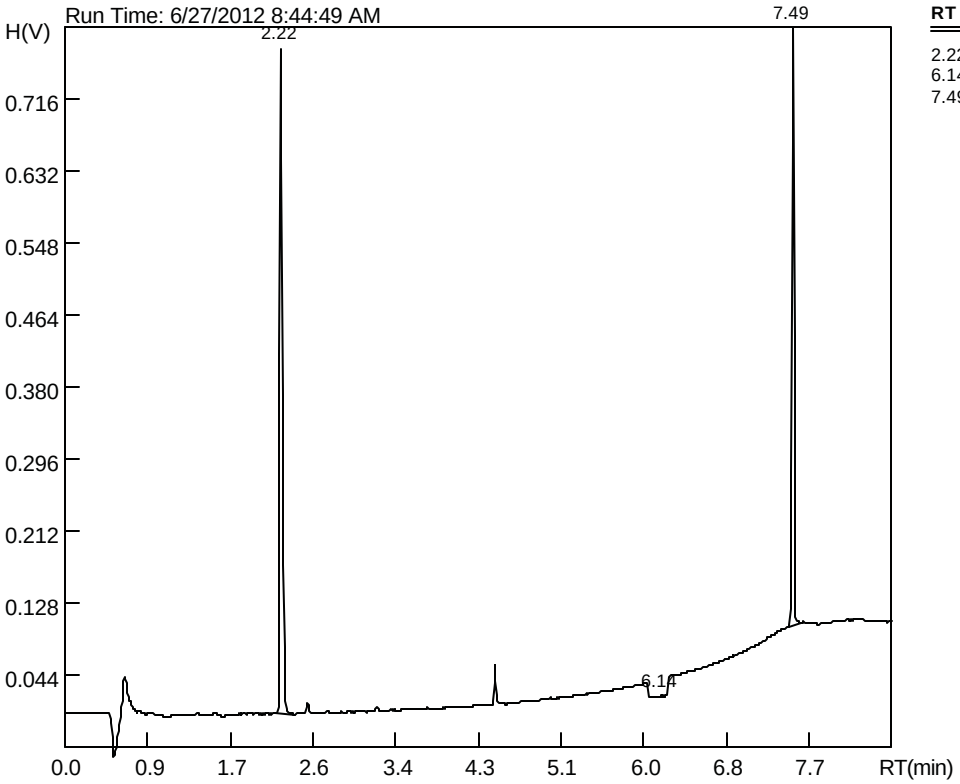
NOTES
*: Calibration check drift outside of method-established control limits

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

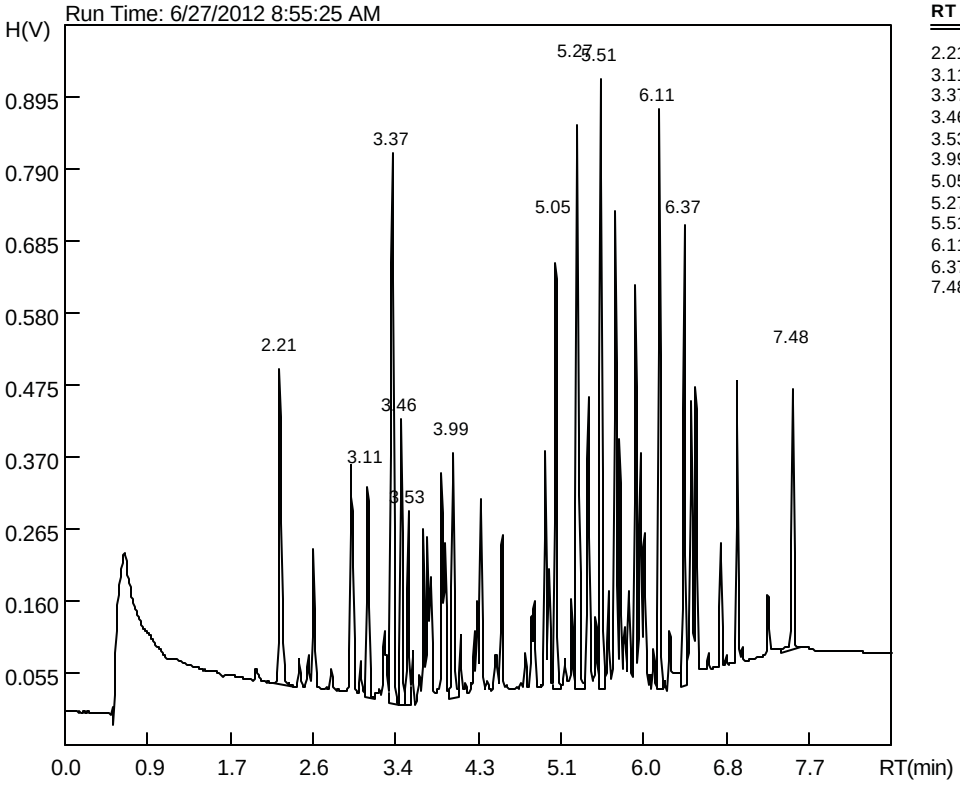
Analytical Batch: f120627.3

File Name: F:\GCECD.DAT\F120627\F120627.01R.BND
Comments: SBLK-R.01
Run Time: 6/27/2012 8:44:49 AM



RT	dT	Name	Amt.	Area
2.22	0.02	TCX	28.223	1395911
6.14	0.02	1260-4	-0.023	2023
7.49	0.00	DCBP	27.577	1017454

File Name: F:\GCECD.DAT\F120627\F120627.02R.BND
Comments: SC1660.01 0.5ppm 5/31/12
Run Time: 6/27/2012 8:55:25 AM



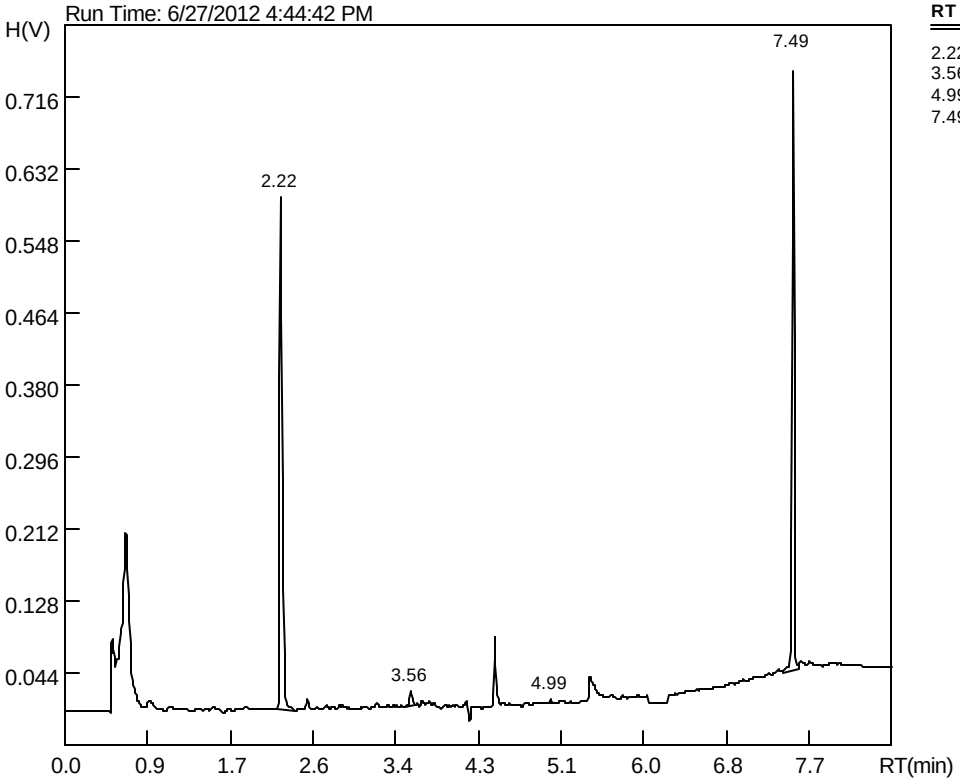
RT	dT	Name	Amt.	Area
2.21	0.01	TCX	17.514	885590
3.11	0.00	1016-1	0.574	477616
3.37	0.01	1016-2	0.517	1456375
3.46	0.00	1016-3	0.535	595054
3.53	0.00	1016-4	0.505	415421
3.99	0.00	1016-5	0.594	616189
5.05	0.00	1260-1	0.545	942708
5.27	0.00	1260-2	0.550	1476790
5.51	0.00	1260-3	0.538	1413766
6.11	0.00	1260-4	0.487	1083664
6.37	0.00	1260-5	0.538	1052058
7.48	0.00	DCBP	16.678	637973

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

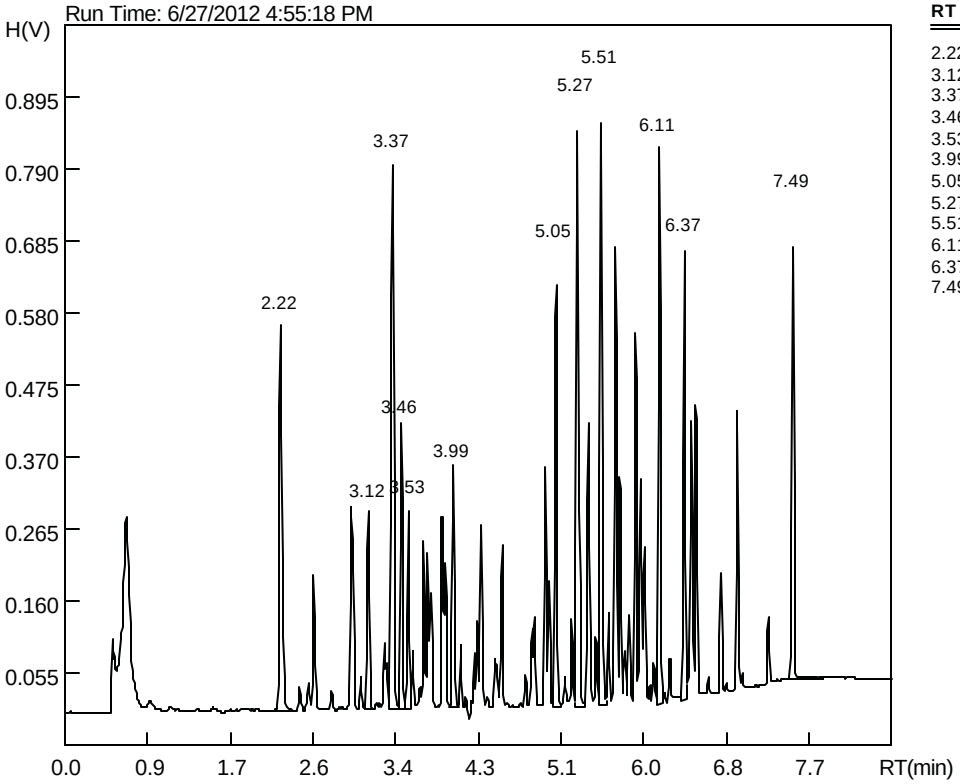
Analytical Batch: f120627.3

File Name: F:\GCECD.DAT\F120627\F120627.10R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 4:44:42 PM



RT	dT	Name	Amt.	Area
2.22	0.02	TCX	22.173	1107619
3.56	0.03	1016-4	-0.034	39197
4.99	-0.05	1260-1	-0.042	7880
7.49	0.00	DCBP	27.946	1030309

File Name: F:\GCECD.DAT\F120627\F120627.11R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 4:55:18 PM



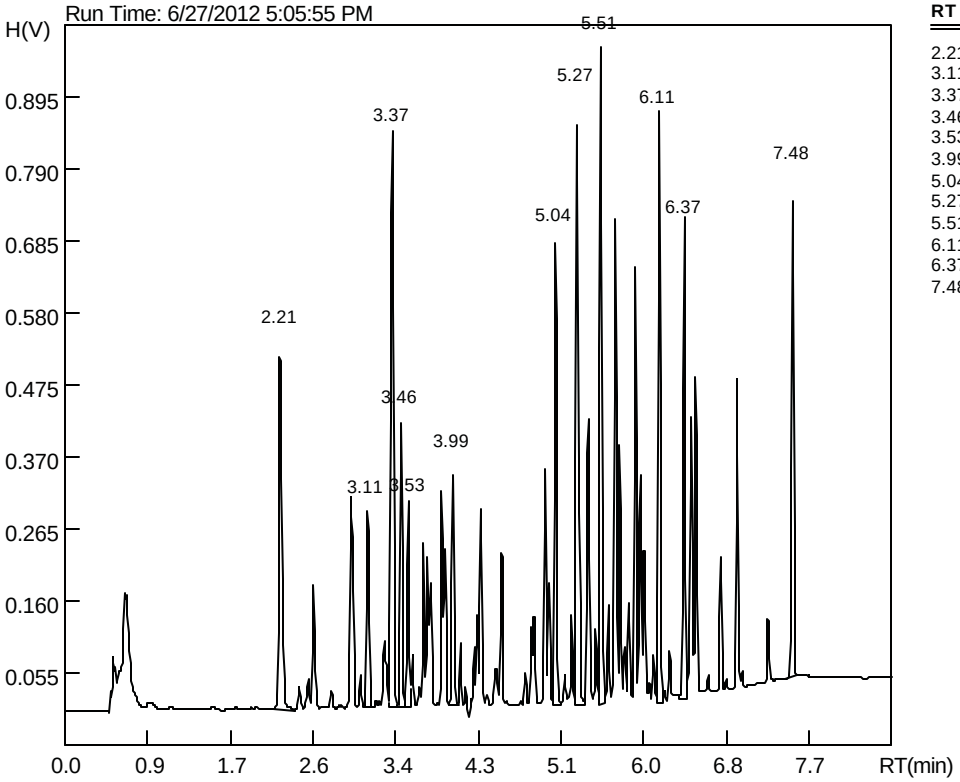
RT	dT	Name	Amt.	Area
2.22	0.01	TCX	21.914	1095261
3.12	0.01	1016-1	0.500	421695
3.37	0.01	1016-2	0.511	1441973
3.46	0.01	1016-3	0.521	581123
3.53	0.01	1016-4	0.527	431465
3.99	0.00	1016-5	0.509	534618
5.05	0.00	1260-1	0.530	918754
5.27	0.00	1260-2	0.529	1425881
5.51	0.00	1260-3	0.522	1372608
6.11	0.00	1260-4	0.498	1107299
6.37	0.00	1260-5	0.512	1005956
7.49	0.00	DCBP	27.195	1004144

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

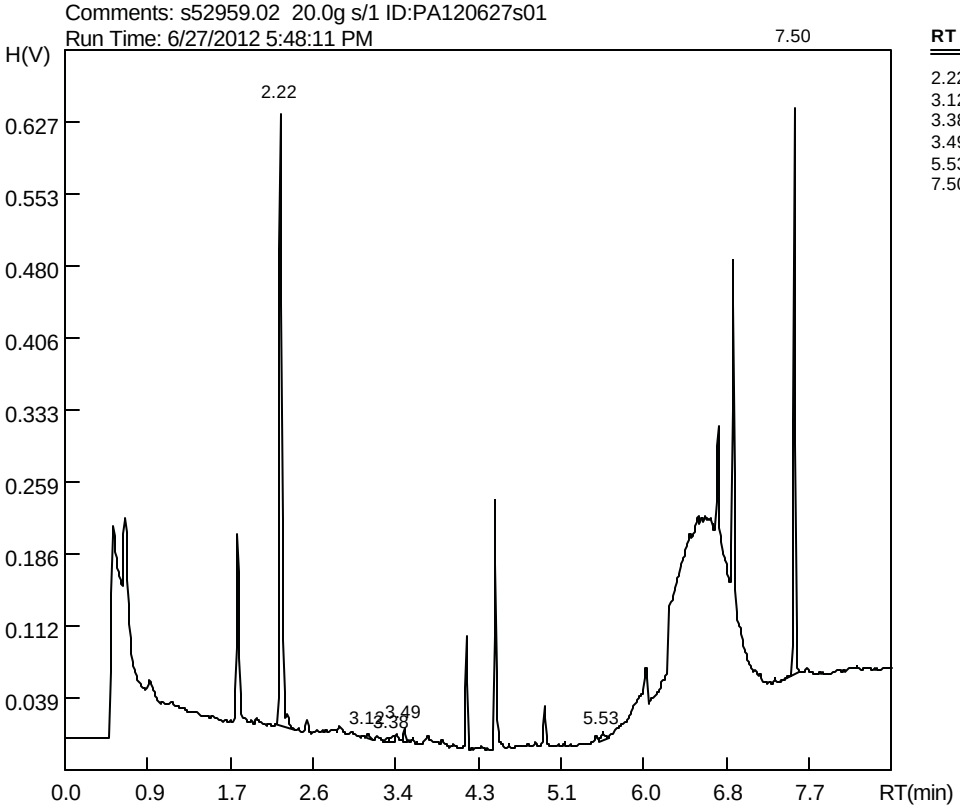
Analytical Batch: f120627.3

File Name: F:\GCECD.DAT\F120627\F120627.12R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 5:05:55 PM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	23.532	1172367
3.11	0.00	1016-1	0.535	448025
3.37	0.00	1016-2	0.540	1517830
3.46	0.00	1016-3	0.548	608065
3.53	0.00	1016-4	0.551	447753
3.99	0.00	1016-5	0.533	557966
5.04	0.00	1260-1	0.555	960028
5.27	0.00	1260-2	0.557	1494011
5.51	0.00	1260-3	0.548	1438308
6.11	0.00	1260-4	0.523	1160234
6.37	0.00	1260-5	0.540	1056332
7.48	0.00	DCBP	27.958	1030717

File Name: F:\GCECD.DAT\F120627\F120627.16R.BND
Comments: s52959.02 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 5:48:11 PM



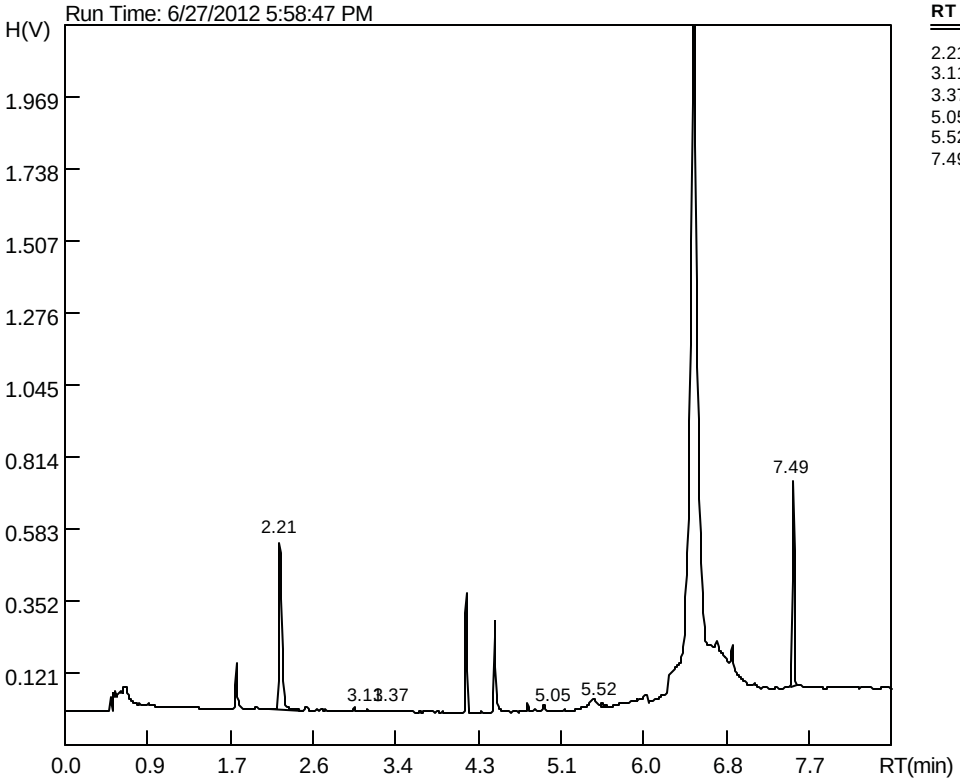
RT	dT	Name	Amt.	Area
2.22	0.02	TCX	22.933	1143837
3.12	0.01	1016-1	-0.041	9100
3.38	0.01	1016-2	-0.035	21973
3.49	-0.03	1016-4	-0.065	17636
5.53	0.02	1260-3	-0.031	19991
7.50	0.02	DCBP	23.702	882539

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

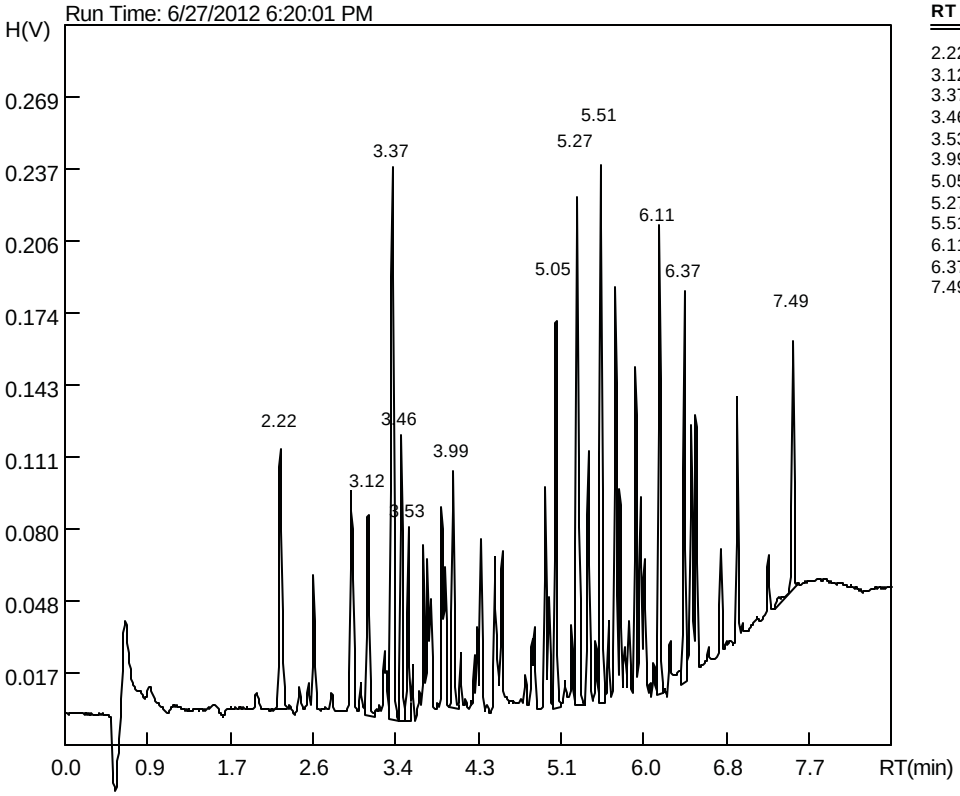
Analytical Batch: f120627.3

File Name: F:\GCECD.DAT\F120627\F120627.17R.BND
Comments: s52959.03 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 5:58:47 PM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	24.548	1220809
3.11	0.00	1016-1	-0.043	7187
3.37	0.01	1016-2	-0.040	8393
5.05	0.00	1260-1	-0.042	8021
5.52	0.01	1260-3	-0.024	37953
7.49	0.00	DCBP	23.540	876881

File Name: F:\GCECD.DAT\F120627\F120627.19R.BND
Comments: ss1660.01 0.1ppm 5/31/12
Run Time: 6/27/2012 6:20:01 PM



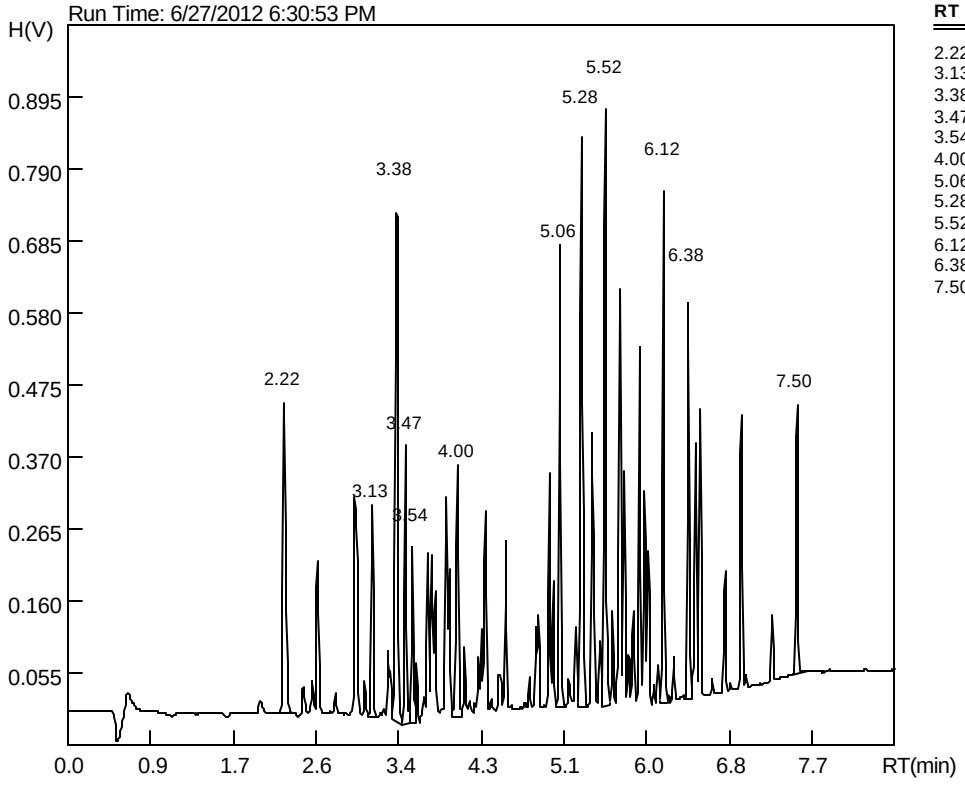
RT	dT	Name	Amt.	Area
2.22	0.01	TCX	4.047	243809
3.12	0.01	1016-1	0.136	143645
3.37	0.01	1016-2	0.128	445312
3.46	0.01	1016-3	0.130	182163
3.53	0.01	1016-4	0.089	125194
3.99	0.00	1016-5	0.118	160489
5.05	0.00	1260-1	0.119	263813
5.27	0.00	1260-2	0.115	397650
5.51	0.00	1260-3	0.115	377442
6.11	0.00	1260-4	0.108	279672
6.37	0.00	1260-5	0.106	270848
7.49	0.00	DCBP	3.531	180226

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5 Analytical Batch: f120627.3

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120627\F120627.20R.BND
Comments: SC1660.02 0.5ppm 5/31/12
Run Time: 6/27/2012 6:30:53 PM



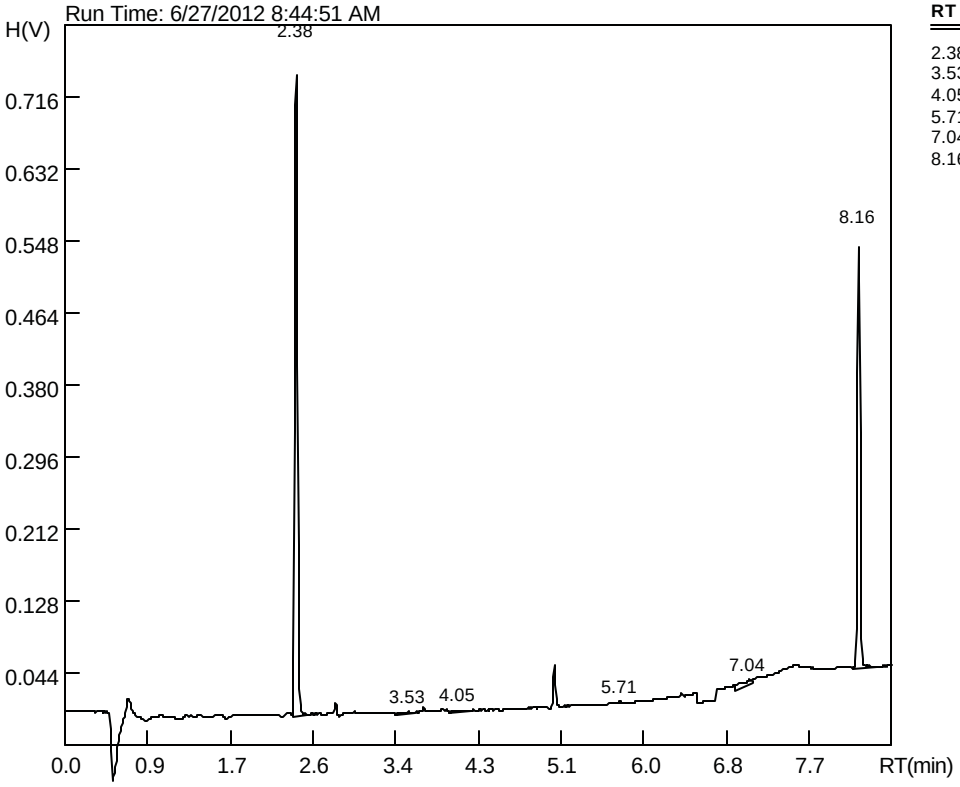
RT	dT	Name	Amt.	Area
2.22	0.02	TCX	17.081	864937
3.13	0.02	1016-1	0.529	443569
3.38	0.02	1016-2	0.503	1420891
3.47	0.02	1016-3	0.527	587255
3.54	0.02	1016-4	0.499	411737
4.00	0.01	1016-5	0.578	600806
5.06	0.01	1260-1	0.510	887651
5.28	0.01	1260-2	0.511	1379782
5.52	0.01	1260-3	0.492	1300914
6.12	0.01	1260-4	0.462	1031166
6.38	0.01	1260-5	0.465	920807
7.50	0.01	DCBP	15.041	580996

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

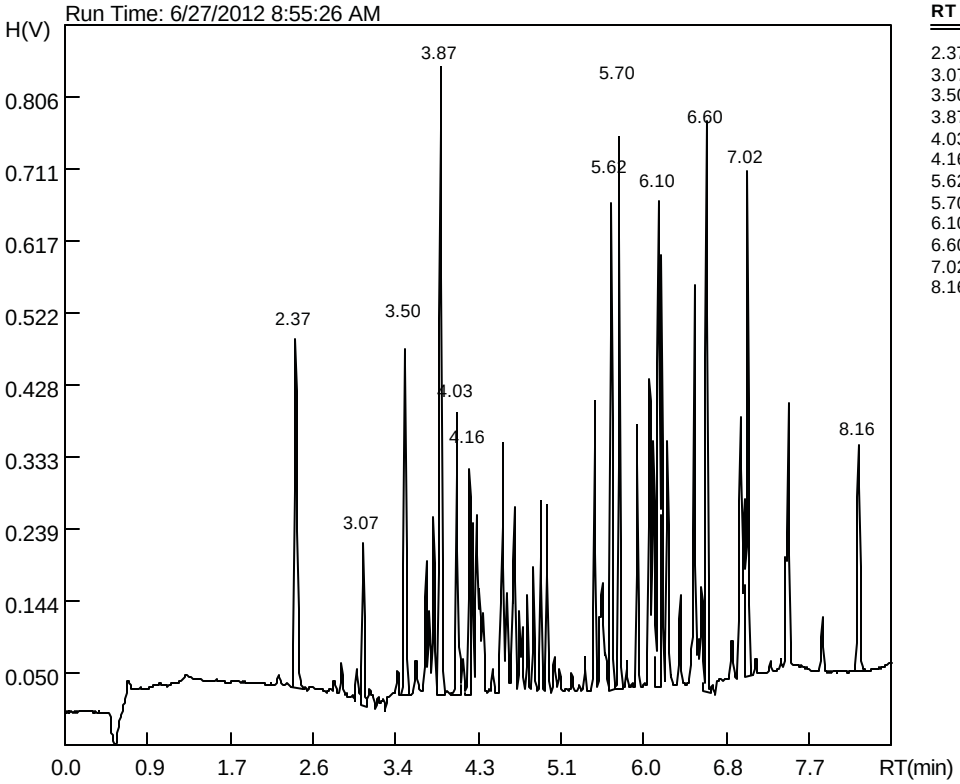
Analytical Batch: f120627.4

File Name: F:\GCECD.DAT\F120627\F120627B.01R.BND
Comments: SBLK-R.01
Run Time: 6/27/2012 8:44:51 AM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	32.693	1361531
3.53	0.04	1016-2	-0.050	26642
4.05	0.03	1016-4	-0.055	13820
5.71	0.02	1260-2	-0.057	7325
7.04	0.03	1260-5	-0.018	58529
8.16	0.01	DCBP	29.830	1029902

File Name: F:\GCECD.DAT\F120627\F120627B.02R.BND
Comments: SC1660.01 0.5ppm 5/31/12
Run Time: 6/27/2012 8:55:26 AM



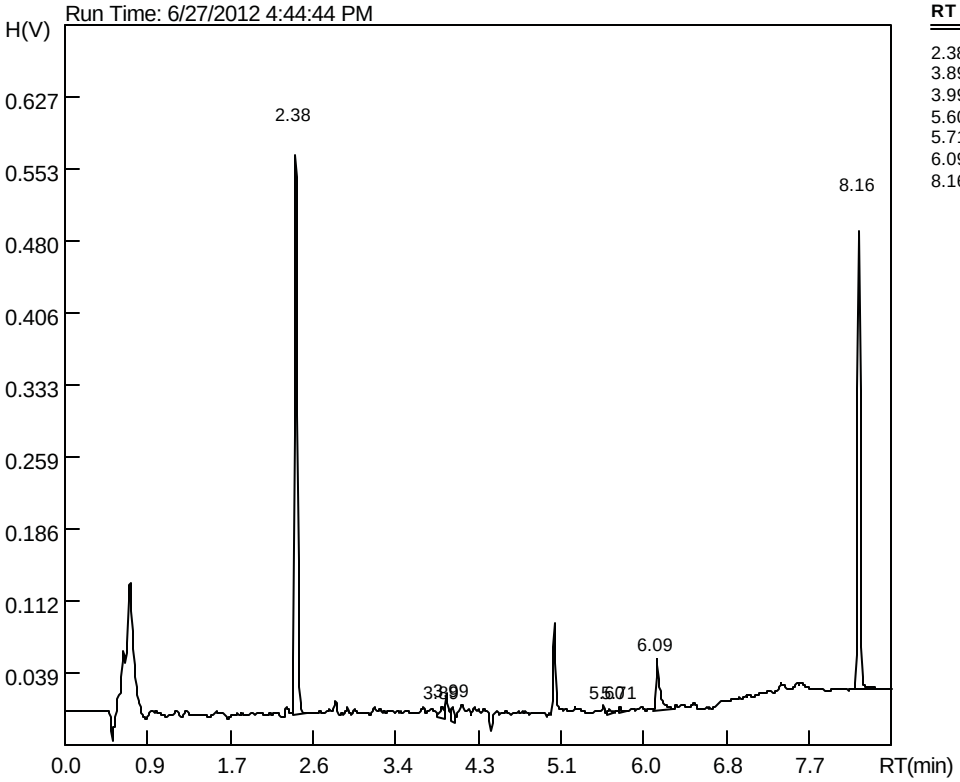
RT	dT	Name	Amt.	Area
2.37	0.02	TCX	18.865	810218
3.07	0.01	1016-1	0.509	332386
3.50	0.01	1016-2	0.538	722976
3.87	0.01	1016-3	0.540	1505736
4.03	0.01	1016-4	0.528	565816
4.16	0.01	1016-5	0.501	408655
5.62	0.01	1260-1	0.528	967311
5.70	0.01	1260-2	0.541	1031033
6.10	0.01	1260-3	0.516	971802
6.60	0.01	1260-4	0.515	990389
7.02	0.01	1260-5	0.500	890872
8.16	0.01	DCBP	16.560	602773

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

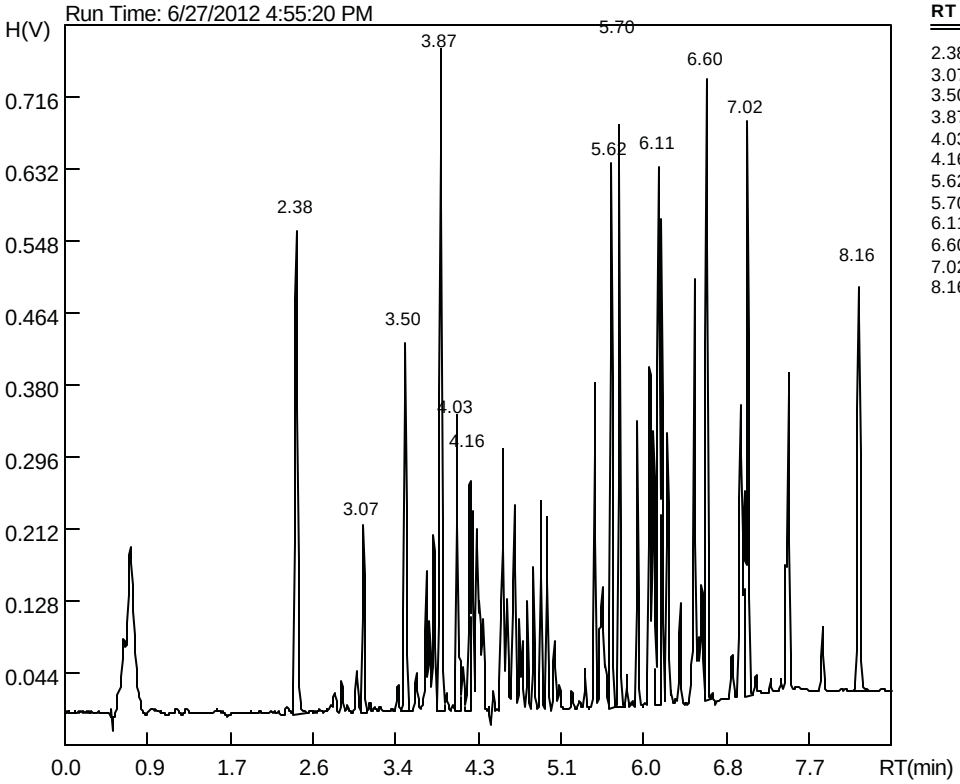
Analytical Batch: f120627.4

File Name: F:\GCECD.DAT\F120627\F120627B.10R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 4:44:44 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	25.465	1073370
3.89	0.03	1016-3	-0.041	34894
3.99	-0.03	1016-4	-0.035	32814
5.60	-0.01	1260-1	-0.057	12380
5.71	0.02	1260-2	-0.055	9505
6.09	-0.01	1260-3	0.032	149463
8.16	0.01	DCBP	30.089	1038231

File Name: F:\GCECD.DAT\F120627\F120627B.11R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 4:55:20 PM



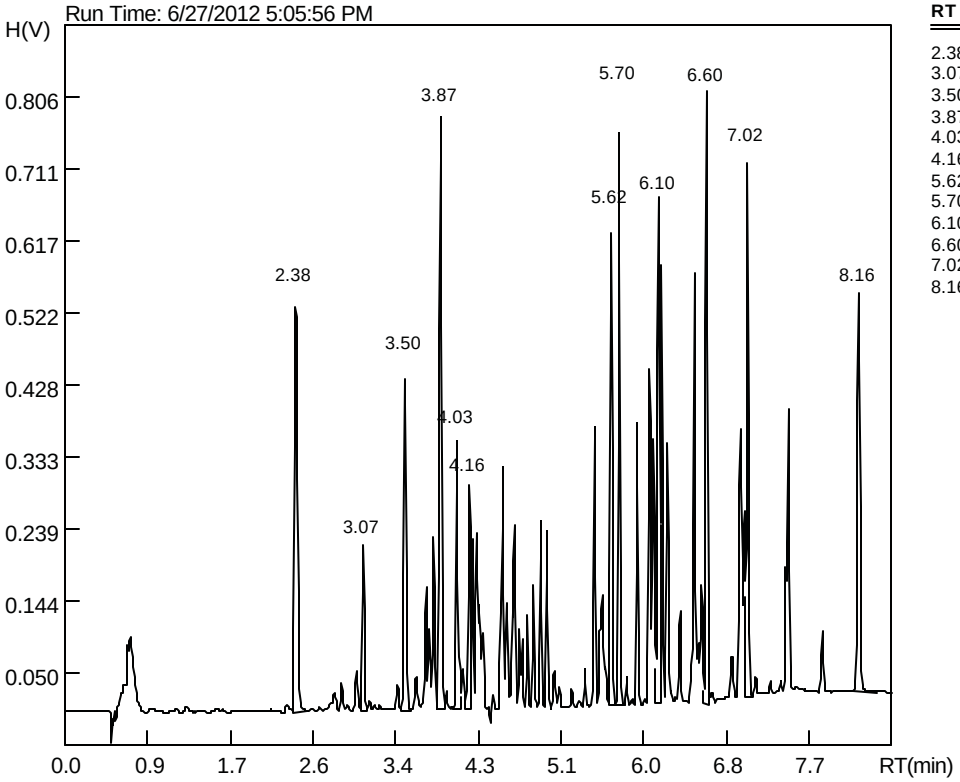
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	24.308	1027211
3.07	0.01	1016-1	0.481	315699
3.50	0.01	1016-2	0.484	658180
3.87	0.01	1016-3	0.493	1388046
4.03	0.01	1016-4	0.491	530424
4.16	0.01	1016-5	0.491	401728
5.62	0.01	1260-1	0.517	949303
5.70	0.01	1260-2	0.531	1012794
6.11	0.01	1260-3	0.509	959258
6.60	0.01	1260-4	0.515	989798
7.02	0.01	1260-5	0.514	913326
8.16	0.01	DCBP	29.024	1003942

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120627.4

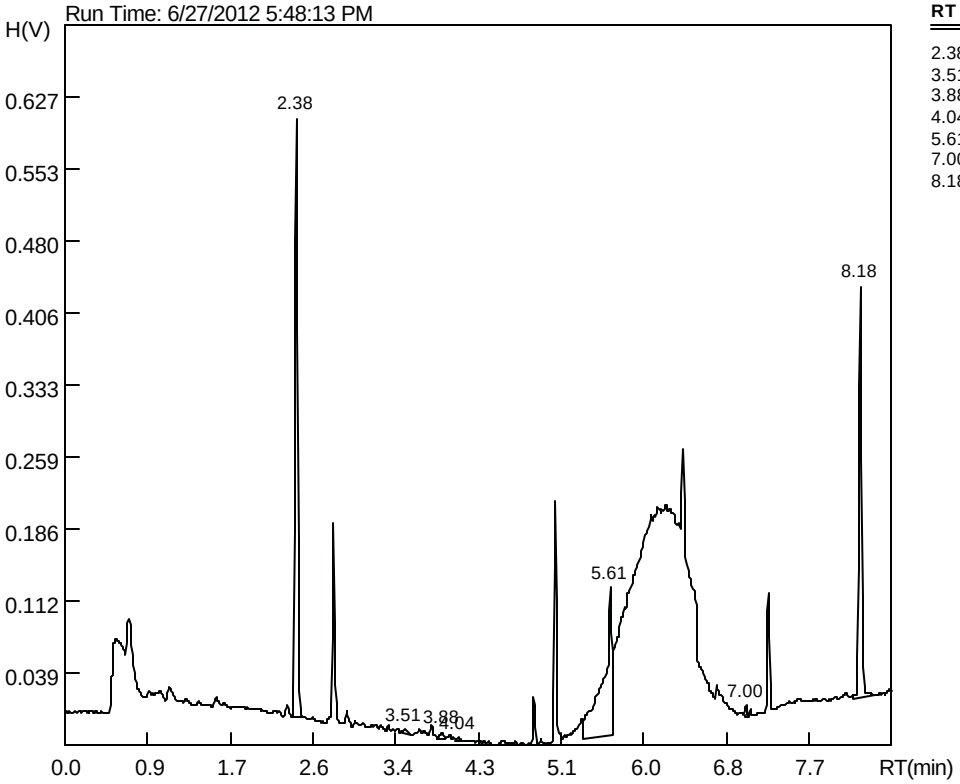
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120627\F120627B.12R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 5:05:56 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	26.071	1097516
3.07	0.01	1016-1	0.513	334262
3.50	0.01	1016-2	0.518	698624
3.87	0.01	1016-3	0.519	1453331
4.03	0.01	1016-4	0.516	554086
4.16	0.01	1016-5	0.510	415154
5.62	0.01	1260-1	0.541	988460
5.70	0.01	1260-2	0.557	1057305
6.10	0.01	1260-3	0.546	1023046
6.60	0.01	1260-4	0.554	1060663
7.02	0.01	1260-5	0.540	954955
8.16	0.01	DCBP	30.551	1053085

File Name: F:\GCECD.DAT\F120627\F120627B.16R.BND
Comments: s52959.02 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 5:48:13 PM



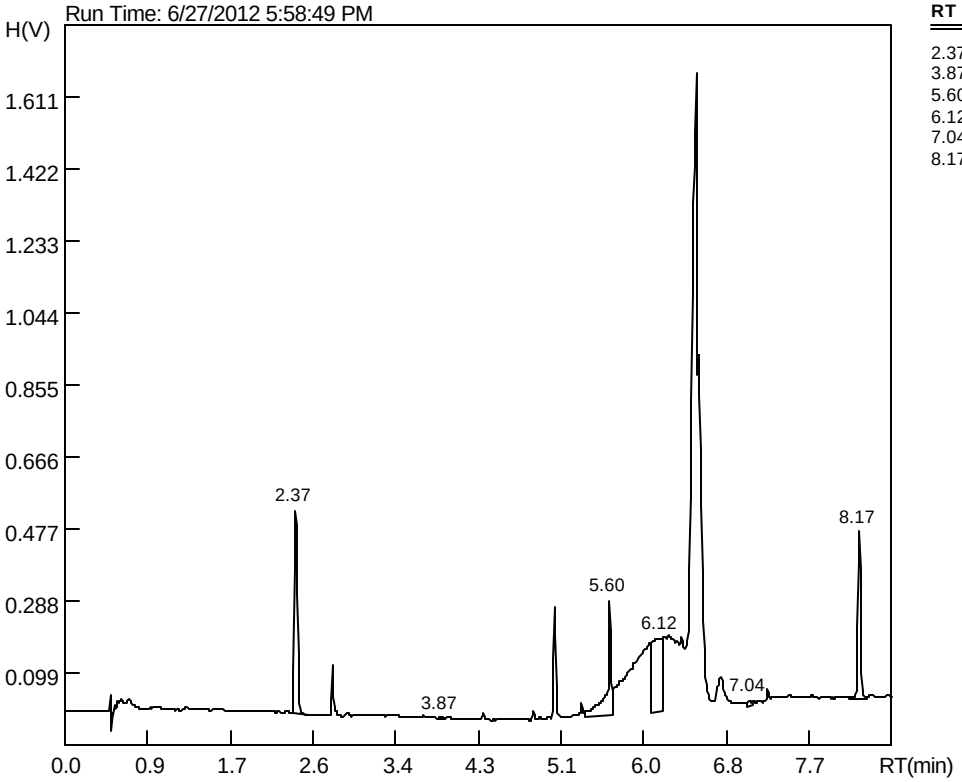
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	25.161	1061256
3.51	0.02	1016-2	-0.066	8494
3.88	0.02	1016-3	-0.049	15372
4.04	0.02	1016-4	-0.064	5487
5.61	0.00	1260-1	0.504	927053
7.00	-0.01	1260-5	-0.043	18486
8.18	0.02	DCBP	25.307	884302

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

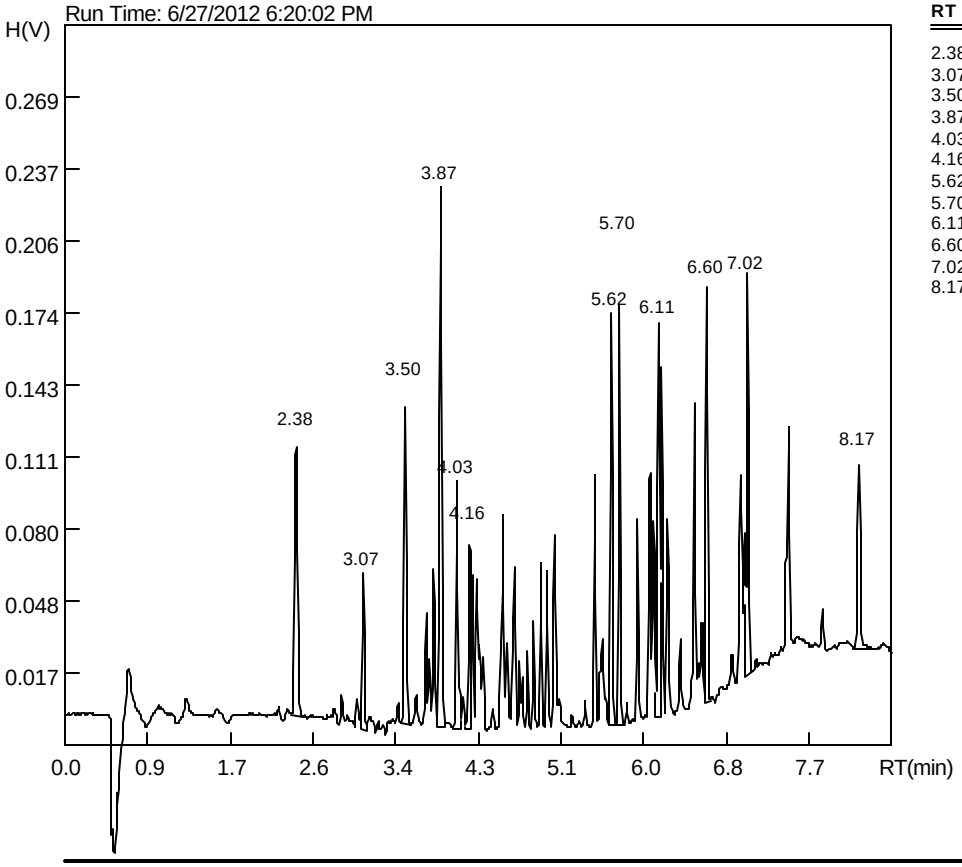
Analytical Batch: f120627.4

File Name: F:\GCECD.DAT\F120627\F120627B.17R.BND
Comments: s52959.03 20.0g s/1 ID:PA120627s01
Run Time: 6/27/2012 5:58:49 PM



RT	dT	Name	Amt.	Area
2.37	0.02	TCX	26.087	1098160
3.87	0.01	1016-3	-0.051	8636
5.60	-0.01	1260-1	0.484	895076
6.12	0.02	1260-3	0.703	1289329
7.04	0.03	1260-5	-0.035	32153
8.17	0.01	DCBP	26.724	929899

File Name: F:\GCECD.DAT\F120627\F120627B.19R.BND
Comments: ss1660.01 0.1ppm 5/31/12
Run Time: 6/27/2012 6:20:02 PM



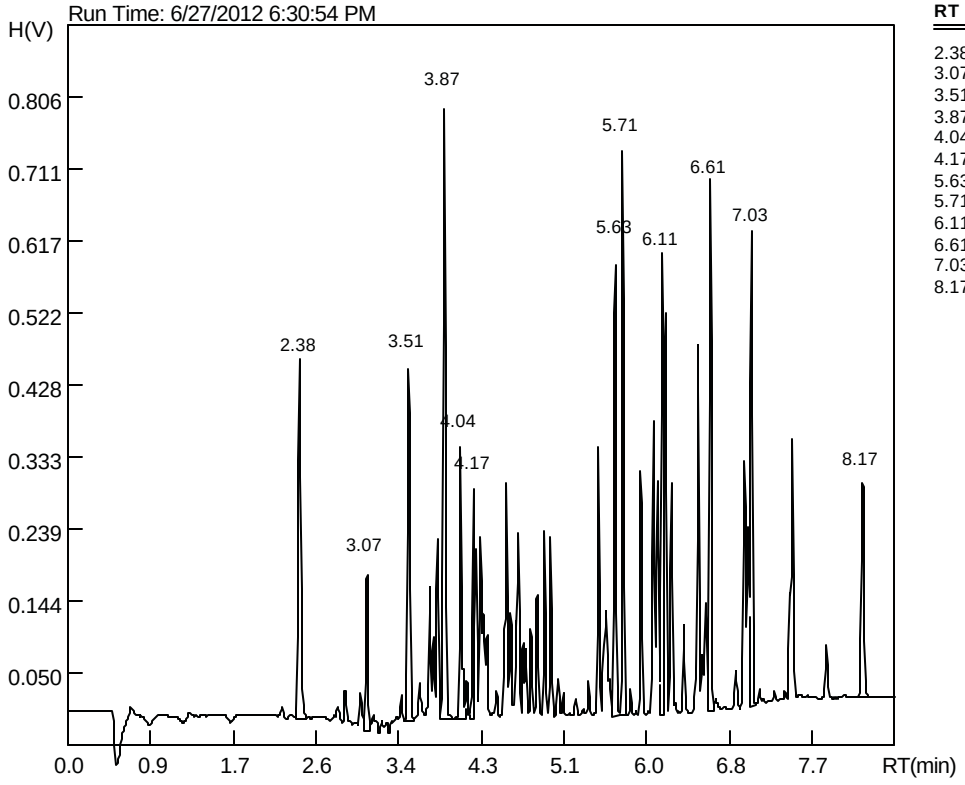
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	4.496	237315
3.07	0.01	1016-1	0.117	103884
3.50	0.01	1016-2	0.114	221074
3.87	0.01	1016-3	0.117	434773
4.03	0.01	1016-4	0.104	164575
4.16	0.01	1016-5	0.094	114984
5.62	0.01	1260-1	0.096	262605
5.70	0.01	1260-2	0.102	279570
6.11	0.01	1260-3	0.098	261391
6.60	0.01	1260-4	0.110	249774
7.02	0.01	1260-5	0.093	237656
8.17	0.01	DCBP	3.434	180296

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120627.4

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120627\F120627B.20R.BND
Comments: SC1660.02 0.5ppm 5/31/12
Run Time: 6/27/2012 6:30:54 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	19.294	827324
3.07	0.02	1016-1	0.512	333940
3.51	0.02	1016-2	0.536	720521
3.87	0.02	1016-3	0.534	1491094
4.04	0.02	1016-4	0.534	570958
4.17	0.02	1016-5	0.517	420615
5.63	0.01	1260-1	0.499	918786
5.71	0.01	1260-2	0.507	972879
6.11	0.01	1260-3	0.481	911658
6.61	0.01	1260-4	0.493	949229
7.03	0.02	1260-5	0.476	852431
8.17	0.02	DCBP	15.949	583117

Form 0: Sequence Log

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001SMPL.D#	Jun 28 2012 01:05 pm	Blank	Liquid	
002SMPL.D#	Jun 28 2012 01:09 pm	0.00	Liquid	
003SMPL.D#	Jun 28 2012 01:12 pm	0.0001	Liquid	
004SMPL.D#	Jun 28 2012 01:15 pm	0.0005	Liquid	
005SMPL.D#	Jun 28 2012 01:18 pm	0.001	Liquid	
006SMPL.D#	Jun 28 2012 01:22 pm	0.005	Liquid	
007SMPL.D#	Jun 28 2012 01:25 pm	0.02	Liquid	
008SMPL.D#	Jun 28 2012 01:28 pm	0.05	Liquid	
009SMPL.D#	Jun 28 2012 01:31 pm	0.20	Liquid	
010SMPL.D#	Jun 28 2012 01:35 pm	ICV-0.10	Liquid	ICV
011SMPL.D#	Jun 28 2012 01:38 pm	ERA-10/1	Liquid	ERA
012SMPL.D#	Jun 28 2012 01:41 pm	06/28 LCS-0.05	Liquid	LCS
013SMPL.D#	Jun 28 2012 01:44 pm	Rinse	Liquid	
014SMPL.D#	Jun 28 2012 01:48 pm	ICB	Liquid	ICB
015SMPL.D#	Jun 28 2012 01:51 pm	LRB	Liquid	LRB
016SMPL.D#	Jun 28 2012 01:54 pm	BS-0.0005	Liquid	BS
017SMPL.D#	Jun 28 2012 01:57 pm	BS-0.001	Liquid	BS
018SMPL.D#	Jun 28 2012 02:01 pm	52920.01 Dil	Liquid	DIL
019SMPL.D#	Jun 28 2012 02:04 pm	52920.01s	Liquid	S
020SMPL.D#	Jun 28 2012 02:08 pm	52920.02s	Liquid	S
021SMPL.D#	Jun 28 2012 02:11 pm	52920.03s	Liquid	S
022SMPL.D#	Jun 28 2012 02:14 pm	52948.01s	Liquid	S
023SMPL.D#	Jun 28 2012 02:17 pm	52949.01s	Liquid	S
024SMPL.D#	Jun 28 2012 02:21 pm	52949.02s	Liquid	S
025SMPL.D#	Jun 28 2012 02:24 pm	53006.01s	Liquid	S
026SMPL.D#	Jun 28 2012 02:27 pm	53006.01 MS-0.05	Liquid	MS
027SMPL.D#	Jun 28 2012 02:30 pm	53006.01 MSD	Liquid	MSD
028SMPL.D#	Jun 28 2012 02:34 pm	CCV1-0.10	Liquid	CCV
029SMPL.D#	Jun 28 2012 03:28 pm	CCB1	Liquid	CCB
030SMPL.D#	Jun 28 2012 02:40 pm	53008.01s	Liquid	S
031SMPL.D#	Jun 28 2012 02:43 pm	53011.01s	Liquid	S
032SMPL.D#	Jun 28 2012 02:46 pm	53011.02s	Liquid	S
033SMPL.D#	Jun 28 2012 02:50 pm	53011.03s	Liquid	S
034SMPL.D#	Jun 28 2012 02:53 pm	53011.04s	Liquid	S
035SMPL.D#	Jun 28 2012 02:56 pm	53011.05s	Liquid	S
036SMPL.D#	Jun 28 2012 02:59 pm	53011.06s	Liquid	S
037SMPL.D#	Jun 28 2012 03:31 pm	53011.06 MS-0.05	Liquid	MS
038SMPL.D#	Jun 28 2012 03:35 pm	53011.06 MSD	Liquid	MSD
039SMPL.D#	Jun 28 2012 03:09 pm	CCV2-0.10	Liquid	CCV
040SMPL.D#	Jun 28 2012 03:12 pm	CCB2	Liquid	CCB
041SMPL.D#	Jun 28 2012 03:15 pm	Soln-AA	Liquid	AA
042SMPL.D#	Jun 28 2012 03:19 pm	Soln-AB	Liquid	AB
043SMPL.D#	Jun 28 2012 05:02 pm	Blank	Liquid	
044SMPL.D#	Jun 28 2012 05:05 pm	0.00	Liquid	
045SMPL.D#	Jun 28 2012 05:08 pm	0.0001	Liquid	
046SMPL.D#	Jun 28 2012 05:11 pm	0.0005	Liquid	
047SMPL.D#	Jun 28 2012 05:15 pm	0.001	Liquid	
048SMPL.D#	Jun 28 2012 05:18 pm	0.005	Liquid	
049SMPL.D#	Jun 28 2012 05:21 pm	0.02	Liquid	
050SMPL.D#	Jun 28 2012 05:24 pm	0.05	Liquid	
051SMPL.D#	Jun 28 2012 05:28 pm	0.20	Liquid	
052SMPL.D#	Jun 28 2012 05:31 pm	ICV-0.10	Liquid	ICV
053SMPL.D#	Jun 28 2012 05:34 pm	ICB	Liquid	ICB

Form 0: Sequence Log

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054SMPL.D#	Jun 28 2012 05:38 pm	06/28 LCS-0.05	Liquid	LCS
055SMPL.D#	Jun 28 2012 05:41 pm	LRB	Liquid	LRB
056SMPL.D#	Jun 28 2012 05:44 pm	52910.01 Dil	Soil	DIL
057SMPL.D#	Jun 28 2012 05:47 pm	52910.01s	Soil	S
058SMPL.D#	Jun 28 2012 05:50 pm	52959.02s	Soil	S
059SMPL.D#	Jun 28 2012 05:54 pm	52959.03s	Soil	S
060SMPL.D#	Jun 28 2012 05:57 pm	52983.02s	Soil	S
061SMPL.D#	Jun 28 2012 06:00 pm	52983.03s	Soil	S
062SMPL.D#	Jun 28 2012 06:03 pm	52983.03 MS-0.10	Soil	MS
063SMPL.D#	Jun 28 2012 06:06 pm	52893.03 MSD	Soil	MSD
064SMPL.D#	Jun 28 2012 06:10 pm	CCV3-0.10	Liquid	CCV
065SMPL.D#	Jun 28 2012 06:13 pm	CCB3	Liquid	CCB
066SMPL.D#	Jun 28 2012 06:16 pm	52983.03 MS-0.10	Soil	MS
067SMPL.D#	Jun 28 2012 06:19 pm	53002.03s	Soil	S
068SMPL.D#	Jun 28 2012 06:23 pm	53002.03s-d	Soil	S
069SMPL.D#	Jun 28 2012 06:26 pm	53003.26	Soil	
070SMPL.D#	Jun 28 2012 06:29 pm	53003.27	Soil	
071SMPL.D#	Jun 28 2012 06:32 pm	53003.28	Soil	
072SMPL.D#	Jun 28 2012 06:35 pm	53003.29	Soil	
073SMPL.D#	Jun 28 2012 06:38 pm	CCV4-0.10	Liquid	CCV
074SMPL.D#	Jun 28 2012 06:42 pm	CCB4	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Lab Sample ID: S52959.02
Sample Tag: SB146 (06-21-2012)(4-5)
Date Collected: 06/21/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	2.02	0.10	mg/kg	237	06/28/2012	
7440-39-3	Barium	62.6	1.0	mg/kg	237	06/28/2012	
7440-43-9	Cadmium	0.23	0.20	mg/kg	237	06/28/2012	
7440-47-3	Chromium	5.00	0.50	mg/kg	237	06/28/2012	
7440-50-8	Copper	12.6	1.0	mg/kg	237	06/28/2012	
7439-92-1	Lead	8.87	0.30	mg/kg	237	06/28/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	237	06/28/2012	
7440-22-4	Silver	Not detected	0.20	mg/kg	237	06/28/2012	
7440-66-6	Zinc	22.4	1.0	mg/kg	237	06/28/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Lab Sample ID: S52959.03
Sample Tag: SB141 (06-22-2012)(3-5)
Date Collected: 06/22/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.29	0.10	mg/kg	249	06/28/2012	
7440-39-3	Barium	10.8	1.0	mg/kg	249	06/28/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	249	06/28/2012	
7440-47-3	Chromium	1.29	0.50	mg/kg	249	06/28/2012	
7440-50-8	Copper	1.24	1.0	mg/kg	249	06/28/2012	
7439-92-1	Lead	1.80	0.30	mg/kg	249	06/28/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	249	06/28/2012	
7440-22-4	Silver	Not detected	0.20	mg/kg	249	06/28/2012	
7440-66-6	Zinc	5.97	1.0	mg/kg	249	06/28/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
010SMPL.D# ICV-0.10	ICV	1.000	Cr	0.107	0.10	107	90/110	mg/L	Liquid
			Ni	0.107	0.10	107	90/110		
			Cu	0.104	0.10	104	90/110		
			Zn	0.109	0.10	109	90/110		
			As	0.105	0.10	105	90/110		
			Se	0.102	0.10	102	90/110		
			Ag	0.1014	0.10	101	90/110		
			Cd	0.1030	0.10	103	90/110		
			Ba	0.103	0.10	103	90/110		
			Pb	0.101	0.10	101	90/110		
028SMPL.D# CCV1-0.10	CCV	1.000	Cr	0.100	0.10	100	90/110	mg/L	Liquid
			Ni	0.101	0.10	101	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.102	0.10	102	90/110		
			As	0.100	0.10	100	90/110		
			Se	0.103	0.10	103	90/110		
			Ag	0.0996	0.10	100	90/110		
			Cd	0.0991	0.10	99	90/110		
			Ba	0.099	0.10	99	90/110		
			Pb	0.099	0.10	99	90/110		
039SMPL.D# CCV2-0.10	CCV	1.000	Cr	0.105	0.10	105	90/110	mg/L	Liquid
			Ni	0.105	0.10	105	90/110		
			Cu	0.105	0.10	105	90/110		
			Zn	0.106	0.10	106	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.104	0.10	104	90/110		
			Ag	0.0999	0.10	100	90/110		
			Cd	0.0982	0.10	98	90/110		
			Ba	0.096	0.10	96	90/110		
			Pb	0.100	0.10	100	90/110		
052SMPL.D# ICV-0.10	ICV	1.000	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Ni	0.103	0.10	103	90/110		
			Cu	0.101	0.10	101	90/110		
			Zn	0.104	0.10	104	90/110		
			As	0.104	0.10	104	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.1035	0.10	104	90/110		
			Cd	0.1018	0.10	102	90/110		
			Ba	0.102	0.10	102	90/110		
			Pb	0.105	0.10	105	90/110		
064SMPL.D# CCV3-0.10	CCV	1.000	Cr	0.099	0.10	99	90/110	mg/L	Liquid
			Ni	0.099	0.10	99	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.098	0.10	98	90/110		
			Se	0.109	0.10	109	90/110		
			Ag	0.1006	0.10	101	90/110		
			Cd	0.0975	0.10	98	90/110		
			Ba	0.096	0.10	96	90/110		
			Pb	0.103	0.10	103	90/110		
073SMPL.D# CCV4-0.10	CCV	1.000	Cr	0.097	0.10	97	90/110	mg/L	Liquid
			Ni	0.096	0.10	96	90/110		
			Cu	0.100	0.10	100	90/110		

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
073SMPL.D# CCV4-0.10	CCV	1.000	As	0.097	0.10	97	90/110	mg/L	Liquid
			Se	0.106	0.10	106	90/110		
			Ag	0.1018	0.10	102	90/110		
			Cd	0.0981	0.10	98	90/110		
			Ba	0.098	0.10	98	90/110		
			Pb	0.104	0.10	104	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: P194-500

Data Set ID: MT3-12-0628B

Instrument ID: HP ICP/MS 2

Analysis Date: 06/28/12

Analyst: SLR

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
011SMPL.D# ERA-10/1	5.000	Cr	0.763	0.751	102	0.682	0.808	mg/L	Liquid
		Ni	0.857	0.836	103	0.767	0.895		
		Cu	0.292	0.287	102	0.262	0.312		
		Zn	0.412	0.403	102	0.370	0.444		
		As	0.540	0.528	102	0.462	0.575		
		Se	0.800	0.770	104	0.679	0.838		
		Ag	0.1115	0.121	92	0.106	0.132		
		Cd	0.5546	0.554	100	0.499	0.585		
		Ba	0.440	0.428	103	0.388	0.463		
		Pb	0.862	0.821	105	0.749	0.888		

Form 3: Blanks

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
014SMPL.D# ICB	ICB	1.000	Cr	<0.001	0.000009175	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.00002084		
			Zn	<0.001	0.0003076		
			As	<0.0001	0.00003613		
			Se	<0.001	<0.000		
			Ag	<0.0002	0.00004572		
			Cd	<0.0001	0.00001059		
			Ba	<0.001	0.00003360		
			Pb	<0.0006	<0.000		
015SMPL.D# LRB	LRB	1.000	Cr	<0.001	0.000008186	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	<0.000		
			Zn	<0.001	0.00007473		
			As	<0.0001	0.00002715		
			Se	<0.001	<0.000		
			Ag	<0.0002	0.00001981		
			Cd	<0.0001	<0.000		
			Ba	<0.001	0.00003406		
			Pb	<0.0006	0.000004337		
029SMPL.D# CCB1	CCB	1.000	Cr	<0.001	0.00001562	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.0001090		
			Zn	<0.001	0.0003911		
			As	<0.0001	0.000005717		
			Se	<0.001	0.00005282		
			Ag	<0.0002	0.00004717		
			Cd	<0.0001	<0.000		
			Ba	<0.001	0.00003455		
			Pb	<0.0006	0.0002970		
040SMPL.D# CCB2	CCB	1.000	Cr	<0.001	0.00003137	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.0002335		
			Zn	<0.001	0.0004406		
			As	<0.0001	0.00003972		
			Se	<0.001	0.00009631		
			Ag	<0.0002	0.0001458		
			Cd	<0.0001	0.00002170		
			Ba	<0.001	0.00006151		
			Pb	<0.0006	0.0002069		
053SMPL.D# ICB	ICB	1.000	Cr	<0.001	<0.000	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.0001015		
			Zn	<0.001	0.0006772		
			As	<0.0001	0.0001009		
			Se	<0.001	0.0001699		
			Ag	<0.0002	0.0001384		
			Cd	<0.0001	0.00006372		
			Ba	<0.001	0.00008237		
			Pb	<0.0006	<0.000		
055SMPL.D# LRB	LRB	1.000	Cr	<0.001	<0.000	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	<0.000		

Form 3: Blanks

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
055SMPL.D# LRB	LRB	1.000	Zn	<0.001	<0.000	mg/L	Liquid
			As	<0.0001	0.00004310		
			Se	<0.001	0.0001165		
			Ag	<0.0002	0.00005028		
			Cd	<0.0001	0.00001586		
			Ba	<0.001	0.00004365		
			Pb	<0.0006	<0.000		
065SMPL.D# CCB3	CCB	1.000	Cr	<0.001	<0.000	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.00007582		
			Zn	<0.001	0.0007561		
			As	<0.0001	0.00006763		
			Se	<0.001	0.0002377		
			Ag	<0.0002	0.0001200		
			Cd	<0.0001	0.00001546		
			Ba	<0.001	0.00006646		
			Pb	<0.0006	<0.000		
074SMPL.D# CCB4	CCB	1.000	Cr	<0.001	<0.000	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.00008342		
			As	<0.0001	0.00008488		
			Se	<0.001	0.0001827		
			Ag	<0.0002	0.0001025		
			Cd	<0.0001	0.00003332		
			Ba	<0.001	0.00008437		
			Pb	<0.0006	<0.000		

Form 4B: ICP Interference Check Sample

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
041SMPL.D# Soln-AA	AA	1.000	Cr	<0.01	0.0	N/A	N/A	mg/L	Liquid
			Ni	<0.01	0.0	N/A	N/A		
			Cu	<0.01	0.0	N/A	N/A		
			Zn	<0.01	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.002	0.0	N/A	N/A		
			Cd	<0.005	0.0	N/A	N/A		
			Ba	<0.01	0.0	N/A	N/A		
			Pb	<0.005	0.0	N/A	N/A		
042SMPL.D# Soln-AB	AB	1.000	Cr	0.025	0.025	100	70/135	mg/L	Liquid
			Ni	0.023	0.02	115	70/135		
			Cu	0.022	0.02	110	70/135		
			Zn	0.024	0.025	96	70/135		
			As	0.024	0.02	120	70/135		
			Ag	0.0202	0.020	101	70/135		
			Cd	0.0220	0.02	110	70/135		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
016SMPL.D#		1.000	Cr	0.0005	ND	0.0005	100	70/130	mg/L	Liquid
			Ni	0.0005	ND	0.0005	100	70/130		
			As	0.0005	ND	0.0005	100	70/130		
			Se	0.0005	ND	0.0005	100	70/130		
			Ag	0.0005	ND	0.0005	100	70/130		
			Cd	0.0005	ND	0.0005	100	70/130		
			Ba	0.0006	ND	0.0005	120	70/130		
			Pb	0.0005	ND	0.0005	100	70/130		
017SMPL.D# BS-0.001		1.000	Cr	0.0010	ND	0.001	100	70/130	mg/L	Liquid
			Ni	0.0010	ND	0.001	100	70/130		
			Zn	0.0013	ND	0.001	130	70/130		
			As	0.0010	ND	0.001	100	70/130		
			Se	0.0011	ND	0.001	110	70/130		
			Ag	0.0010	ND	0.001	100	70/130		
			Cd	0.0011	ND	0.001	110	70/130		
			Ba	0.0012	ND	0.001	120	70/130		
			Pb	0.0011	ND	0.001	110	70/130		
026SMPL.D# 53006.01 025SMPL.D#		5.000	Cr	0.264	<0.005	0.25	106	75/125	mg/L	Liquid
			Ni	0.263	0.007	0.25	102	75/125		
			Cu	0.258	0.005	0.25	101	75/125		
			Zn	0.475	0.213	0.25	105	75/125		
			As	0.290	0.021	0.25	108	75/125		
			Se	0.281	<0.005	0.25	112	75/125		
			Ag	0.2087	<0.0005	0.25	84	75/125		
			Cd	0.2568	0.0005	0.25	103	75/125		
			Ba	0.331	0.086	0.25	98	75/125		
			Pb	0.249	<0.003	0.25	100	75/125		
037SMPL.D# 53011.06 036SMPL.D#		5.000	Cr	0.286	<0.005	0.25	114	75/125	mg/L	Liquid
			Ni	0.277	<0.005	0.25	111	75/125		
			Cu	0.272	0.004	0.25	107	75/125		
			Zn	0.274	<0.005	0.25	110	75/125		
			As	0.284	0.002	0.25	113	75/125		
			Se	0.299	<0.005	0.25	120	75/125		
			Ag	0.2106	<0.0005	0.25	84	75/125		
			Cd	0.2403	<0.0005	0.25	96	75/125		
			Ba	0.379	0.140	0.25	96	75/125		
			Pb	0.247	0.005	0.25	97	75/125		
062SMPL.D# 52983.03 061SMPL.D#		232.0	Cr	28.6	4.07	23.20	106	75/125	mg/kg	Soil
			Ni	30.6	7.75	23.20	99	75/125		
			Cu	33.4	10.6	23.20	98	75/125		
			Zn	39.7	18.3	23.20	92	75/125		
			As	26.5	2.45	23.20	104	75/125		
			Se	26.9	<0.50	23.20	116	75/125		
			Ag	23.07	<0.20	23.20	99	75/125		
			Cd	23.90	0.20	23.20	102	75/125		
			Ba	68.2	64.8	23.20	15*	75/125		
			Pb	31.7	9.02	23.20	98	75/125		
066SMPL.D# 52983.03 061SMPL.D#		232.0	Ba	88.0	64.8	23.20	100	75/125	mg/kg	Soil

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
027SMPL.D# 53006.01	**026SMPL.D# 53006.01**	5.000	Cr	0.262	0.264	1	0/20	mg/L	Liquid
			Ni	0.264	0.263	0	0/20		
			Cu	0.258	0.258	0	0/20		
			Zn	0.471	0.475	1	0/20		
			As	0.289	0.290	0	0/20		
			Se	0.283	0.281	1	0/20		
			Ag	0.2105	0.2087	1	0/20		
			Cd	0.2528	0.2568	2	0/20		
			Ba	0.332	0.331	0	0/20		
			Pb	0.239	0.249	4	0/20		
038SMPL.D# 53011.06	**037SMPL.D# 53011.06**	5.000	Cr	0.286	0.286	0	0/20	mg/L	Liquid
			Ni	0.277	0.277	0	0/20		
			Cu	0.271	0.272	0	0/20		
			Zn	0.275	0.274	0	0/20		
			As	0.283	0.284	0	0/20		
			Se	0.309	0.299	3	0/20		
			Ag	0.2115	0.2106	0	0/20		
			Cd	0.2428	0.2403	1	0/20		
			Ba	0.380	0.379	0	0/20		
			Pb	0.242	0.247	2	0/20		
063SMPL.D# 52893.03	**062SMPL.D# 52983.03**	216.0	Cr	26.4	28.6	8	0/20	mg/kg	Soil
			Ni	28.0	30.6	9	0/20		
			Cu	30.9	33.4	8	0/20		
			Zn	36.6	39.7	8	0/20		
			As	24.7	26.5	7	0/20		
			Se	25.6	26.9	5	0/20		
			Ag	21.77	23.07	6	0/20		
			Cd	23.10	23.90	3	0/20		
			Ba	55.4	68.2	21 *	0/20		
			Pb	31.5	31.7	1	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
012SMPL.D# 06/28 LCS-0.05	1.000	Cr	0.050	0.05	100	85/115	mg/L	Liquid
		Ni	0.051	0.05	102	85/115		
		Cu	0.051	0.05	102	85/115		
		Zn	0.051	0.05	102	85/115		
		As	0.051	0.05	102	85/115		
		Se	0.052	0.05	104	85/115		
		Ag	0.0513	0.05	103	85/115		
		Cd	0.0507	0.05	101	85/115		
		Ba	0.050	0.05	100	85/115		
		Pb	0.052	0.05	104	85/115		
054SMPL.D# 06/28 LCS-0.05	1.000	Cr	0.050	0.05	100	85/115	mg/L	Liquid
		Ni	0.050	0.05	100	85/115		
		Cu	0.050	0.05	100	85/115		
		Zn	0.050	0.05	100	85/115		
		As	0.051	0.05	102	85/115		
		Se	0.051	0.05	102	85/115		
		Ag	0.0510	0.05	102	85/115		
		Cd	0.0503	0.05	101	85/115		
		Ba	0.050	0.05	100	85/115		
		Pb	0.052	0.05	104	85/115		

Form 8: Serial Dilutions

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
018SMPL.D# 52920.01	**019SMPL.D# 52920.01s**	25.00	Cr	<0.005	<0.005	NC	0/10	mg/L	Liquid
			Ni	<0.005	<0.005	NC	0/10		
			Cu	0.005	0.006	18*	0/10		
			Zn	0.033	0.043	26*	0/10		
			As	<0.002	0.002	200*	0/10		
			Se	<0.005	<0.005	NC	0/10		
			Ag	0.0007	<0.0005	200*	0/10		
			Cd	0.0005	<0.0005	200*	0/10		
			Ba	0.106	0.071	40*	0/10		
			Pb	<0.003	<0.003	NC	0/10		
056SMPL.D# 52910.01	**057SMPL.D# 52910.01s**	500.0	Cr	627	631	1	0/10	mg/kg	Soil
			Ni	161	165	2	0/10		
			Cu	1.64	1.67	2	0/10		
			Zn	253	253	0	0/10		
			As	0.12	0.12	0	0/10		
			Se	<0.50	<0.50	NC	0/10		
			Ag	<0.20	<0.20	NC	0/10		
			Cd	<0.20	<0.20	NC	0/10		
			Ba	<1.0	<1.0	NC	0/10		
			Pb	<0.30	<0.30	NC	0/10		

Form 13: Analysis Run Log

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Filename	*Run Time*	*Matrix*	*Analytes*
001SMPL.D# Blank	Jun 28 2012 01:05 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
002SMPL.D# 0.00	Jun 28 2012 01:09 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
003SMPL.D# 0.0001	Jun 28 2012 01:12 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
004SMPL.D# 0.0005	Jun 28 2012 01:15 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
005SMPL.D# 0.001	Jun 28 2012 01:18 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
006SMPL.D# 0.005	Jun 28 2012 01:22 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
007SMPL.D# 0.02	Jun 28 2012 01:25 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
008SMPL.D# 0.05	Jun 28 2012 01:28 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
009SMPL.D# 0.20	Jun 28 2012 01:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
010SMPL.D# ICV-0.10	Jun 28 2012 01:35 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
011SMPL.D# ERA-10/1	Jun 28 2012 01:38 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
012SMPL.D# 06/28 LCS-0.05	Jun 28 2012 01:41 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
013SMPL.D# Rinse	Jun 28 2012 01:44 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
014SMPL.D# ICB	Jun 28 2012 01:48 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
015SMPL.D# LRB	Jun 28 2012 01:51 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
016SMPL.D# BS-0.0005	Jun 28 2012 01:54 pm	Liquid	Ag,As,Ba,Cd,Cr,Ni,Pb,Se
017SMPL.D# BS-0.001	Jun 28 2012 01:57 pm	Liquid	Ag,As,Ba,Cd,Cr,Ni,Pb,Se,Zn
018SMPL.D# 52920.01 Dil	Jun 28 2012 02:01 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
019SMPL.D# 52920.01s	Jun 28 2012 02:04 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
020SMPL.D# 52920.02s	Jun 28 2012 02:08 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
021SMPL.D# 52920.03s	Jun 28 2012 02:11 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
022SMPL.D# 52948.01s	Jun 28 2012 02:14 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
023SMPL.D# 52949.01s	Jun 28 2012 02:17 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
024SMPL.D# 52949.02s	Jun 28 2012 02:21 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
025SMPL.D# 53006.01s	Jun 28 2012 02:24 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
026SMPL.D# 53006.01 MS-0.05	Jun 28 2012 02:27 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
027SMPL.D# 53006.01 MSD	Jun 28 2012 02:30 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
028SMPL.D# CCV1-0.10	Jun 28 2012 02:34 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
029SMPL.D# CCB1	Jun 28 2012 03:28 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
030SMPL.D# 53008.01s	Jun 28 2012 02:40 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
031SMPL.D# 53011.01s	Jun 28 2012 02:43 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
032SMPL.D# 53011.02s	Jun 28 2012 02:46 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
033SMPL.D# 53011.03s	Jun 28 2012 02:50 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
034SMPL.D# 53011.04s	Jun 28 2012 02:53 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
035SMPL.D# 53011.05s	Jun 28 2012 02:56 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
036SMPL.D# 53011.06s	Jun 28 2012 02:59 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
037SMPL.D# 53011.06 MS-0.05	Jun 28 2012 03:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
038SMPL.D# 53011.06 MSD	Jun 28 2012 03:35 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
039SMPL.D# CCV2-0.10	Jun 28 2012 03:09 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
040SMPL.D# CCB2	Jun 28 2012 03:12 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
041SMPL.D# Soln-AA	Jun 28 2012 03:15 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
042SMPL.D# Soln-AB	Jun 28 2012 03:19 pm	Liquid	Ag,As,Cd,Cr,Cu,Ni,Zn
043SMPL.D# Blank	Jun 28 2012 05:02 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
044SMPL.D# 0.00	Jun 28 2012 05:05 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
045SMPL.D# 0.0001	Jun 28 2012 05:08 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
046SMPL.D# 0.0005	Jun 28 2012 05:11 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
047SMPL.D# 0.001	Jun 28 2012 05:15 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
048SMPL.D# 0.005	Jun 28 2012 05:18 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
049SMPL.D# 0.02	Jun 28 2012 05:21 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
050SMPL.D# 0.05	Jun 28 2012 05:24 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
051SMPL.D# 0.20	Jun 28 2012 05:28 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
052SMPL.D# ICV-0.10	Jun 28 2012 05:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
053SMPL.D# ICB	Jun 28 2012 05:34 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn

Form 13: Analysis Run Log

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

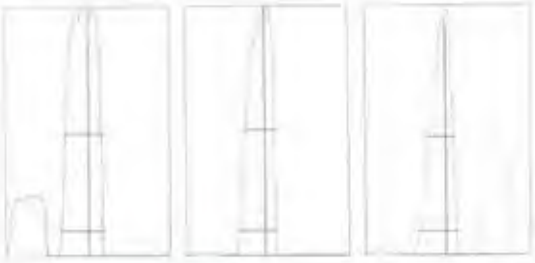
Filename	*Run Time*	*Matrix*	*Analytes*
054SMPL.D# 06/28 LCS-0.05	Jun 28 2012 05:38 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
055SMPL.D# LRB	Jun 28 2012 05:41 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
056SMPL.D# 52910.01 Dil	Jun 28 2012 05:44 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
057SMPL.D# 52910.01s	Jun 28 2012 05:47 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
058SMPL.D# 52959.02s	Jun 28 2012 05:50 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
059SMPL.D# 52959.03s	Jun 28 2012 05:54 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
060SMPL.D# 52983.02s	Jun 28 2012 05:57 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
061SMPL.D# 52983.03s	Jun 28 2012 06:00 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
062SMPL.D# 52983.03 MS-0.10	Jun 28 2012 06:03 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
063SMPL.D# 52893.03 MSD	Jun 28 2012 06:06 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
064SMPL.D# CCV3-0.10	Jun 28 2012 06:10 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
065SMPL.D# CCB3	Jun 28 2012 06:13 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
066SMPL.D# 52983.03 MS-0.10	Jun 28 2012 06:16 pm	Soil	Ba
067SMPL.D# 53002.03s	Jun 28 2012 06:19 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
068SMPL.D# 53002.03s-d	Jun 28 2012 06:23 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
069SMPL.D# 53003.26	Jun 28 2012 06:26 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
070SMPL.D# 53003.27	Jun 28 2012 06:29 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
071SMPL.D# 53003.28	Jun 28 2012 06:32 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
072SMPL.D# 53003.29	Jun 28 2012 06:35 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
073SMPL.D# CCV4-0.10	Jun 28 2012 06:38 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
074SMPL.D# CCB4	Jun 28 2012 06:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se

Tune Report

Tune File : nogas.u
Comment :

m/z	Range	Count	Mean	RSD%	Background
7	5,000	2295.0	2212.7	2.88	0.40
89	10,000	8648.0	8460.7	3.01	0.90
205	1,000	595.0	562.9	5.29	2.90

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec
n: 50
Oxide: 156/140 2.360%
Doubly Charged: 70/140 3.792%



m/z:	7	89	205
Height:	2,205	8,661	570
Axis:	7.05	89.00	205.00
W-50%:	0.70	0.60	0.50
W-10%:	0.7500	0.700	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec
Y axis : Linear

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power	1450 W	Extract 1	-78.8 V	AMU Gain	132
RF Matching	1.75 V	Extract 2	-85.5 V	AMU Offset	123
Smpl Depth	9 mm	Omega Bias-ce	-14 V	Axis Gain	0.9992
Torch-H	0 mm	Omega Lens-ce	2 V	Axis Offset	-0.04
Torch-V	1 mm	Cell Entrance	-30 V	QP Bias	-3 V
Carrier Gas	0.7 L/min	QP Focus	3 V		
Makeup Gas	0.27 L/min	Cell Exit	-34 V	===Detector Parameters===	
Optional Gas	0 %			Discriminator	8 mV
Nebulizer Pump	0.1 rps	===Octopole Parameters===		Analog HV	1820 V
Sample Pump	--- rps	OctP RF	170 V	Pulse HV	1360 V
S/C Temp	2 degC	OctP Bias	-6 V		

===Reaction Cell===

Reaction Mode	OFF				
H2 Gas	0 mL/min	He Gas	0 mL/min	Optional Gas	0 %

Tune File : he.u
He Gas: 3.5 mL/min
Optional Gas: 0 %
QP Focus: -7 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -11.5 V

m/z	Count(Mean)	RSD%
51	239.9	7.53
59	2191.2	3.05
89	1648.4	4.17

Integration Time: 0.1000sec

Tune File : h2.u
H2 Gas: 4.7 mL/min
Optional Gas: 0 %
QP Focus: -8 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -15 V

m/z	Count(Mean)	RSD%
59	2363.4	3.13
78	1.5	84.41
89	10099.5	2.67

Integration Time: 0.1000sec

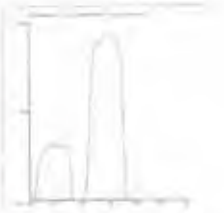
Generated : Jun 28, 2012 11:21:54
Printed : Jun 28, 2012 11:23:34

6020 and 200.8 Tune Check Sample

Data File: 0016TUN.D
Date Acquired: Jun 28 2012 11:33 am
Operator:
Sample Name: 10ppb Li, Co, In, Tl
Misc Info: EPA tune solution
Vial Number: 4108
Current Method: TN_62_28.M

QC Tune Summary:
Pass

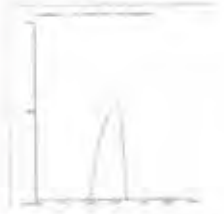
Element	Actual	Required	Flag
RSD%			
7 Li	1.69	5.00	
9 Be	1.55	5.00	
59 Co	1.16	5.00	
115 In	0.24	5.00	
205 Tl	2.98	5.00	
208 Pb	3.36	5.00	



7 Li
Mass Calib.
Actual: 7.00
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:

9 Be
Mass Calib.
Actual: 9.00
Required 8.90 - 9.10
Flag:
Peak Width
Actual: 0.65
Required 0.75
Flag:

59 Co
Mass Calib.
Actual: 59.00
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.55
Required: 0.75
Flag:

205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.75
Flag:

208 Pb
Mass Calib.
Actual: 207.95
Required: 207.90 - 208.10
Flag:
Peak Width
Actual: 0.60
Required: 0.75
Flag:

Form 15: Internal Standards Summary

IS Check Reference Sample: 044SMPL.D# 0.00

Data Set ID: MT3-12-0628B

Instrument ID: HP ICP/MS 2

Analysis Date: 06/28/12

Analyst: SLR

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh-1	146300	70-125	102410-182875	80-120	117040-175560	0
Rh-2	153483	70-125	107438-191854	80-120	122786-184180	0
Re-2	7972	70-125	5580-9965	80-120	6378-9566	0

Seq ID	QC Type	Rh-1	Rh-2	Re-2
043SMPL		96	102	100
044SMPL		100	100	100
045SMPL		100	102	102
046SMPL		100	105	102
047SMPL		103	104	105
048SMPL		104	105	104
049SMPL		105	106	107
050SMPL		105	106	107
051SMPL		107	106	108
052SMPL	ICV	107	107	111
053SMPL	ICB	102	104	110
054SMPL	LCS	103	103	106
055SMPL	LRB	101	103	109
056SMPL	DIL	112	108	108
057SMPL	S	91	105	97
058SMPL	S	76	93	95
059SMPL	S	97	107	108
060SMPL	S	85	98	101
061SMPL	S	83	96	96
062SMPL	MS	89	100	99
063SMPL	MSD	91	99	99
064SMPL	CCV	101	107	103
065SMPL	CCB	100	105	105
066SMPL	MS	84	93	92
067SMPL	S	105	113	103
068SMPL	S	102	109	108
069SMPL		90	103	102
070SMPL		90	104	99
071SMPL		92	105	106
072SMPL		101	109	110
073SMPL	CCV	101	108	105
074SMPL	CCB	99	107	108

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	(ug/L) Spike	MDL (ug/l)	Prep Batch
Ag-107	12/1/2010	0.1	0.019	MTD-120110-12
Al-27	12/2/2010	1	0.266	MTD-120110-13
As-75	12/1/2010	0.1	0.052	MTD-120110-12
B-10	12/1/2010	1	0.324	MTD-120110-13
B-11	12/1/2010	2	0.200	MTD-120110-13
Ba-137	12/1/2010	1	0.218	MTD-120110-13
Be-9	12/1/2010	0.1	0.041	MTD-120110-12
Cd-111	12/1/2010	0.1	0.067	MTD-120110-12
Cd-114	12/1/2010	0.1	0.021	MTD-120110-12
Cr-52	12/1/2010	0.1	0.044	MTD-120110-12
Cr-53	12/1/2010	0.5	0.125	MTD-120110-12
Co-59	12/1/2010	0.5	0.051	MTD-120110-12
Cu-65	12/1/2010	0.5	0.060	MTD-120110-12
Fe-56	12/1/2010	2	0.362	MTD-120110-13
Fe-57	12/1/2010	2	0.772	MTD-120110-13
Li-7	12/1/2010	0.5	0.081	MTD-120110-12
Mn-55	12/1/2010	0.5	0.060	MTD-120110-12
Mo-95	12/1/2010	0.5	0.085	MTD-120110-12
Ni-60	12/1/2010	0.1	0.036	MTD-120110-12
Pb-208	12/1/2010	0.1	0.043	MTD-120110-12
Sb-121	12/1/2010	2	0.421	MTD-120110-13
Se-78	12/1/2010	0.5	0.276	MTD-120110-12
Se-82	12/1/2010	0.5	0.250	MTD-120110-12
Sn-118	12/1/2010	2	0.204	MTD-120110-13
Sr-88	12/1/2010	0.1	0.011	MTD-120110-12
Ti-47	12/1/2010	0.1	0.061	MTD-120110-12
Tl-205	12/1/2010	0.1	0.036	MTD-120110-12
V-51	12/1/2010	0.1	0.025	MTD-120110-12
Zn-66	12/1/2010	0.5	0.145	MTD-120110-12

Element/Mass	Date	(mg/L) Spike	MDLw(a) (mg/l)	Prep Batch
Na-23	12/10/2010	0.02	0.0038	MTD-121010-4
Mg-24	12/10/2010	0.01	0.0011	MTD-121010-4
K-39	12/10/2010	0.01	0.0028	MTD-121010-4
Ca-43	12/10/2010	0.01	0.0102	MTD-121010-4
Ca-44	12/10/2010	0.01	0.0026	MTD-121010-4

		Prep Batch
Na-23	50ppm	MTD-110409-2
Mg-24	75ppm	MTD-110409-2
K-39	50ppm	MTD-110409-2
Ca-43	50ppm	MTD-110409-2
Ca-44	<50ppm	MTD-110409-2

Ag-107	<2.0ppm	MTD-110409-3
Al-27	5.0ppm	MTD-110409-3
As-75	2.0ppm	MTD-110409-3
B-10	2.0ppm	MTD-110409-3
B-11	2.0ppm	MTD-110409-3
Ba-137	5.0ppm	MTD-110409-3
Be-9	5.0ppm	MTD-110409-3
Cd-111	5.0ppm	MTD-110409-3
Cd-114	5.0ppm	MTD-110409-3
Cr-52	5.0ppm	MTD-110409-3
Cr-53	4.0ppm	MTD-110409-3
Co-59	5.0ppm	MTD-110409-3
Cu-65	5.0ppm	MTD-110409-3
Fe-56	5.0ppm	MTD-110409-3
Fe-57	5.0ppm	MTD-110409-3
Li-7	5.0ppm	MTD-110409-3
Mn-55	5.0ppm	MTD-110409-3
Mo-95	4.0ppm	MTD-110409-3
Ni-60	5.0ppm	MTD-110409-3
Pb-208	5.0ppm	MTD-110409-3
Sb-121	4.0ppm	MTD-110409-3
Se-78	5.0ppm	MTD-110409-3
Se-82	5.0ppm	MTD-110409-3
Sn-118	5.0ppm	MTD-110409-3
Sr-88	5.0ppm	MTD-110409-3
Ti-47	5.0ppm	MTD-110409-3
Tl-205	5.0ppm	MTD-110409-3
V-51	2.0ppm	MTD-110409-3
Zn-66	5.0ppm	MTD-110409-3

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 001SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:05 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000238081	<0.000	mg/L	2.65	2
Ni	60	103	.0000352250	<0.000	mg/L	11.02	2
Cu	65	103	.0000301107	0.00003305	mg/L	49.14	2
Zn	66	103	.0000065171	<0.000	mg/L	9.84	2
As	75	103	.0000003202	<0.000	mg/L	4.06	2
Se	78	103	.0000006450	<0.000	mg/L	63.35	1
Ag	107	103	.0000048924	<0.000	mg/L	30.50	2
Cd	111	103	.0000003236	<0.000	mg/L	260.69	2
Ba	137	103	.0000005331	0.000004638	mg/L	222.94	2
Pb	208	185	.0000264627	<0.000	mg/L	4.67	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 002SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:09 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000234075	<0.000	mg/L	11.15	2
Ni	60	103	.0000348073	<0.000	mg/L	29.77	2
Cu	65	103	.0000313244	0.00004168	mg/L	2.65	2
Zn	66	103	.0000081569	<0.000	mg/L	20.38	2
As	75	103	.0000008662	0.00001273	mg/L	166.06	2
Se	78	103	.0000017313	0.000008496	mg/L	179.38	1
Ag	107	103	.0000042980	<0.000	mg/L	17.40	2
Cd	111	103	.0000006410	0.000007103	mg/L	283.40	2
Ba	137	103	.0000003263	<0.000	mg/L	263.24	2
Pb	208	185	.0000415217	<0.000	mg/L	9.94	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 003SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:12 pm
Sample Name: 0.0001
Sample Type: CalStd
Matrix: Liquid
Comments: Ag, As, Be, Cd, Tl
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000642813	<0.000	mg/L	86.57	2
Ni	60	103	.0000547120	0.00004858	mg/L	93.64	2
Cu	65	103	.0000964512	0.0005046	mg/L	7.25	2
Zn	66	103	.0000999321	0.001793	mg/L	4.88	2
As	75	103	.0000036912	0.00009955	mg/L	42.16	2
Se	78	103	.0000032753	0.00007270	mg/L	38.24	1
Ag	107	103	.0000221446	0.00006319	mg/L	22.23	2
Cd	111	103	.0000024418	0.00007341	mg/L	50.21	2
Ba	137	103	.0000025388	0.0001177	mg/L	52.32	2
Pb	208	185	.0000937916	<0.000	mg/L	27.16	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 004SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:15 pm
Sample Name: 0.0005
Sample Type: CalStd
Matrix: Liquid
Comments: Cu, Pb, V
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0002082579	0.0004112	mg/L	9.17	2
Ni	60	103	.0001007729	0.0004485	mg/L	19.65	2
Cu	65	103	.0003167044	0.002070	mg/L	5.22	2
Zn	66	103	.0000553052	0.0007845	mg/L	13.60	2
As	75	103	.0000180217	0.0005400	mg/L	7.59	2
Se	78	103	.0000142414	0.0005287	mg/L	7.02	1
Ag	107	103	.0000924961	0.0004271	mg/L	9.03	2
Cd	111	103	.0000135341	0.0004818	mg/L	13.51	2
Ba	137	103	.0000092731	0.0004974	mg/L	13.26	2
Pb	208	185	.0003192108	0.0002618	mg/L	26.96	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 005SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:18 pm
Sample Name: 0.001
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003791845	0.0009327	mg/L	2.93	2
Ni	60	103	.0001609920	0.0009713	mg/L	1.75	2
Cu	65	103	0.001549548	0.01083	mg/L	0.64	2
Zn	66	103	.0000631217	0.0009611	mg/L	10.84	2
As	75	103	.0000314991	0.0009542	mg/L	10.50	2
Se	78	103	.0000232134	0.0009018	mg/L	3.68	1
Ag	107	103	.0001858865	0.0009102	mg/L	1.94	2
Cd	111	103	.0000274279	0.0009934	mg/L	6.95	2
Ba	137	103	.0000182855	0.001006	mg/L	10.94	2
Pb	208	185	.0005727458	0.0007195	mg/L	17.58	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 006SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:22 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.001809454	0.005296	mg/L	3.33	2
Ni	60	103	.0006569060	0.005277	mg/L	1.28	2
Cu	65	103	.0007896055	0.005432	mg/L	2.65	2
Zn	66	103	.0002852059	0.005979	mg/L	1.76	2
As	75	103	.0001690240	0.005181	mg/L	5.29	2
Se	78	103	.0001178917	0.004839	mg/L	9.61	1
Ag	107	103	.0009876126	0.005057	mg/L	1.74	2
Cd	111	103	.0001436600	0.005273	mg/L	1.72	2
Ba	137	103	.0000922687	0.005177	mg/L	7.01	2
Pb	208	185	0.002936443	0.004987	mg/L	2.69	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 007SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:25 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.007135886	0.02155	mg/L	2.84	2
Ni	60	103	0.002507138	0.02134	mg/L	2.33	2
Cu	65	103	0.003078548	0.02170	mg/L	1.96	2
Zn	66	103	0.001058619	0.02345	mg/L	3.32	2
As	75	103	.0006766237	0.02078	mg/L	2.19	2
Se	78	103	.0004844180	0.02008	mg/L	1.55	1
Ag	107	103	0.003820580	0.01971	mg/L	1.08	2
Cd	111	103	.0005497921	0.02023	mg/L	0.38	2
Ba	137	103	.0003747519	0.02110	mg/L	2.54	2
Pb	208	185	0.01102872	0.01960	mg/L	5.98	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 008SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:28 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01757910	0.05340	mg/L	1.99	2
Ni	60	103	0.006097092	0.05251	mg/L	0.77	2
Cu	65	103	0.007472062	0.05293	mg/L	2.13	2
Zn	66	103	0.002355001	0.05274	mg/L	3.35	2
As	75	103	0.001651337	0.05074	mg/L	3.20	2
Se	78	103	0.001226520	0.05094	mg/L	2.69	1
Ag	107	103	0.009688197	0.05006	mg/L	0.66	2
Cd	111	103	0.001385459	0.05100	mg/L	0.40	2
Ba	137	103	.0008908876	0.05020	mg/L	4.73	2
Pb	208	185	0.02754332	0.04941	mg/L	1.03	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 009SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:31 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.06988963	0.2130	mg/L	2.20	2
Ni	60	103	0.02407590	0.2086	mg/L	1.76	2
Cu	65	103	0.02941765	0.2089	mg/L	0.91	2
Zn	66	103	0.009306960	0.2098	mg/L	1.13	2
As	75	103	0.006649675	0.2044	mg/L	0.86	2
Se	78	103	0.004803158	0.1997	mg/L	0.21	1
Ag	107	103	0.03856891	0.1994	mg/L	0.52	2
Cd	111	103	0.005407942	0.1991	mg/L	0.59	2
Ba	137	103	0.003587904	0.2023	mg/L	3.73	2
Pb	208	185	0.1088987	0.1963	mg/L	3.94	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 010SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:35 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03530739	0.1075	mg/L	1.12	2
Ni	60	103	0.01242109	0.1074	mg/L	0.36	2
Cu	65	103	0.01475929	0.1047	mg/L	0.52	2
Zn	66	103	0.004851895	0.1092	mg/L	1.13	2
As	75	103	0.003440047	0.1057	mg/L	0.74	2
Se	78	103	0.002461151	0.1023	mg/L	1.77	1
Ag	107	103	0.01961610	0.1014	mg/L	2.36	2
Cd	111	103	0.002796463	0.1030	mg/L	1.51	2
Ba	137	103	0.001835509	0.1035	mg/L	2.12	2
Pb	208	185	0.05619932	0.1012	mg/L	3.40	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 011SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:38 pm
Sample Name: ERA-10/1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.05340010	0.7636	mg/L	2.53	2
Ni	60	103	0.02066781	0.8576	mg/L	1.61	2
Cu	65	103	0.008647053	0.2929	mg/L	2.68	2
Zn	66	103	0.003849029	0.4123	mg/L	1.81	2
As	75	103	0.003593404	0.5405	mg/L	1.05	2
Se	78	103	0.003851892	0.8009	mg/L	1.60	1
Ag	107	103	0.004306904	0.1115	mg/L	0.28	2
Cd	111	103	0.003004350	0.5546	mg/L	1.38	2
Ba	137	103	0.001578833	0.4400	mg/L	2.80	2
Pb	208	185	0.09401798	0.8627	mg/L	5.71	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 012SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:41 pm
Sample Name: 06/28 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01736982	0.04963	mg/L	3.22	2
Ni	60	103	0.006195907	0.05121	mg/L	2.38	2
Cu	65	103	0.007460027	0.05050	mg/L	2.77	2
Zn	66	103	0.002391099	0.05116	mg/L	2.37	2
As	75	103	0.001704806	0.05127	mg/L	1.19	2
Se	78	103	0.001244240	0.05169	mg/L	1.16	1
Ag	107	103	0.009896383	0.05129	mg/L	0.60	2
Cd	111	103	0.001374561	0.05074	mg/L	1.65	2
Ba	137	103	.0008973917	0.05001	mg/L	0.71	2
Pb	208	185	0.02810686	0.05152	mg/L	2.51	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 013SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:44 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000314564	0.00002303	mg/L	67.87	2
Ni	60	103	.0000339081	<0.000	mg/L	517.06	2
Cu	65	103	.0000367182	0.00003667	mg/L	75.27	2
Zn	66	103	.0000255643	0.0003737	mg/L	2.00	2
As	75	103	.0000018761	0.00003039	mg/L	78.05	2
Se	78	103	.0000043642	0.0001095	mg/L	25.48	1
Ag	107	103	.0000205967	0.00008451	mg/L	18.07	2
Cd	111	103	.0000010532	0.00001522	mg/L	272.86	2
Ba	137	103	.0000009360	0.00003399	mg/L	85.32	2
Pb	208	185	.0000654353	0.00004390	mg/L	105.40	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 014SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:48 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000266141	0.000009175	mg/L	77.68	2
Ni	60	103	.0000322322	<0.000	mg/L	183.79	2
Cu	65	103	.0000343895	0.00002084	mg/L	128.41	2
Zn	66	103	.0000224870	0.0003076	mg/L	11.32	2
As	75	103	.0000020670	0.00003613	mg/L	31.80	2
Se	78	103	.0000016322	<0.000	mg/L	10.59	1
Ag	107	103	.0000131151	0.00004572	mg/L	33.60	2
Cd	111	103	.0000009278	0.00001059	mg/L	106.80	2
Ba	137	103	.0000009290	0.00003360	mg/L	1.94	2
Pb	208	185	.0000298440	<0.000	mg/L	155.30	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 015SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:51 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000262685	0.000008186	mg/L	99.74	2
Ni	60	103	.0000281141	<0.000	mg/L	48.00	2
Cu	65	103	.0000249696	<0.000	mg/L	25.72	2
Zn	66	103	.0000116381	0.00007473	mg/L	61.81	2
As	75	103	.0000017686	0.00002715	mg/L	52.49	2
Se	78	103	.0000006512	<0.000	mg/L	30.38	1
Ag	107	103	.0000081191	0.00001981	mg/L	5.06	2
Cd	111	103	.0000002075	<0.000	mg/L	41.46	2
Ba	137	103	.0000009372	0.00003406	mg/L	2.59	2
Pb	208	185	.0000438838	0.000004337	mg/L	451.93	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 016SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:54 pm
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0002012315	0.0005088	mg/L	3.37	2
Ni	60	103	.0000943526	0.0004950	mg/L	3.57	2
As	75	103	.0000173382	0.0004956	mg/L	12.42	2
Se	78	103	.0000130621	0.0004714	mg/L	8.69	1
Ag	107	103	.0001013128	0.0005030	mg/L	4.86	2
Cd	111	103	.0000147264	0.0005201	mg/L	14.59	2
Ba	137	103	.0000108287	0.0005855	mg/L	16.15	2
Pb	208	185	.0003261690	0.0005226	mg/L	13.93	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 017SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:57 pm
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003885406	0.001045	mg/L	2.34	2
Ni	60	103	.0001608709	0.001048	mg/L	5.11	2
Zn	66	103	.0000704270	0.001337	mg/L	4.95	2
As	75	103	.0000348463	0.001022	mg/L	5.97	2
Se	78	103	.0000273340	0.001065	mg/L	6.01	1
Ag	107	103	.0002064057	0.001048	mg/L	2.68	2
Cd	111	103	.0000296351	0.001071	mg/L	11.44	2
Ba	137	103	.0000217326	0.001193	mg/L	15.03	2
Pb	208	185	.0006201643	0.001062	mg/L	13.49	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 028SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 02:34 pm
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03522721	0.1007	mg/L	2.63	2
Ni	60	103	0.01218814	0.1010	mg/L	2.96	2
Cu	65	103	0.01485102	0.1007	mg/L	1.62	2
Zn	66	103	0.004791678	0.1027	mg/L	3.76	2
As	75	103	0.003315485	0.09973	mg/L	2.59	2
Se	78	103	0.002493493	0.1037	mg/L	0.45	1
Ag	107	103	0.01921961	0.09963	mg/L	1.35	2
Cd	111	103	0.002685416	0.09914	mg/L	1.84	2
Ba	137	103	0.001784586	0.09947	mg/L	0.70	2
Pb	208	185	0.05405660	0.09917	mg/L	1.09	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 029SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:28 pm
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000288681	0.00001562	mg/L	15.41	2
Ni	60	103	.0000149327	<0.000	mg/L	9.44	2
Cu	65	103	.0000473608	0.0001090	mg/L	24.21	2
Zn	66	103	.0000263745	0.0003911	mg/L	18.01	2
As	75	103	.0000010562	0.000005717	mg/L	328.49	2
Se	78	103	.0000030009	0.00005282	mg/L	36.56	1
Ag	107	103	.0000133960	0.00004717	mg/L	10.19	2
Cd	111	103	.0000004745	<0.000	mg/L	97.51	2
Ba	137	103	.0000009460	0.00003455	mg/L	50.65	2
Pb	208	185	.0002033252	0.0002970	mg/L	18.95	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 039SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:09 pm
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03695971	0.1057	mg/L	3.22	2
Ni	60	103	0.01271383	0.1054	mg/L	3.71	2
Cu	65	103	0.01552680	0.1053	mg/L	2.78	2
Zn	66	103	0.004962334	0.1063	mg/L	1.50	2
As	75	103	0.003407924	0.1025	mg/L	1.92	2
Se	78	103	0.002504882	0.1041	mg/L	0.96	1
Ag	107	103	0.01927897	0.09994	mg/L	2.31	2
Cd	111	103	0.002658637	0.09815	mg/L	0.38	2
Ba	137	103	0.001728852	0.09636	mg/L	3.18	2
Pb	208	185	0.05459867	0.1002	mg/L	2.85	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 040SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:12 pm
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000343700	0.00003137	mg/L	11.77	2
Ni	60	103	.0000165212	<0.000	mg/L	3.66	2
Cu	65	103	.0000656711	0.0002335	mg/L	10.59	2
Zn	66	103	.0000286790	0.0004406	mg/L	5.14	2
As	75	103	.0000021865	0.00003972	mg/L	75.78	2
Se	78	103	.0000040462	0.00009631	mg/L	62.71	1
Ag	107	103	.0000324077	0.0001458	mg/L	15.99	2
Cd	111	103	.0000012288	0.00002170	mg/L	120.09	2
Ba	137	103	.0000014296	0.00006151	mg/L	47.26	2
Pb	208	185	.0001541963	0.0002069	mg/L	18.89	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 041SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:15 pm
Sample Name: Soln-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000344601	0.00003162	mg/L	18.15	2
Ni	60	103	.0000220723	<0.000	mg/L	22.60	2
Cu	65	103	.0000994668	0.0004632	mg/L	27.57	2
Zn	66	103	.0000650057	0.001220	mg/L	4.30	2
As	75	103	.0000020809	0.00003655	mg/L	79.43	2
Se	78	103	.0000015530	<0.000	mg/L	256.34	1
Ag	107	103	.0000165368	0.00006346	mg/L	8.35	2
Cd	111	103	.0000008186	0.000006555	mg/L	269.26	2
Ba	137	103	.0000017212	0.00007777	mg/L	24.12	2
Pb	208	185	.0001326617	0.0001673	mg/L	40.50	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 042SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:19 pm
Sample Name: Soln-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.008772040	0.02503	mg/L	3.49	2
Ni	60	103	0.002815929	0.02312	mg/L	3.86	2
Cu	65	103	0.003303833	0.02225	mg/L	1.75	2
Zn	66	103	0.001146514	0.02444	mg/L	0.46	2
As	75	103	.0008012241	0.02408	mg/L	2.41	2
Ag	107	103	0.003905827	0.02023	mg/L	2.95	2
Cd	111	103	.0005968971	0.02202	mg/L	1.82	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 043SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:02 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000411831	<0.000	mg/L	14.49	2
Ni	60	103	.0000475015	<0.000	mg/L	259.13	2
Cu	65	103	.0000264416	0.000006967	mg/L	18.37	2
Zn	66	103	.0000145450	<0.000	mg/L	49.13	2
As	75	103	.0000013138	0.00002648	mg/L	136.93	2
Se	78	103	.0000029614	0.00005965	mg/L	56.45	1
Ag	107	103	.0000107062	0.000004026	mg/L	251.61	2
Cd	111	103	.0000006182	0.000006263	mg/L	229.28	2
Ba	137	103	.0000006292	0.00001005	mg/L	377.61	2
Pb	208	185	.0001083133	<0.000	mg/L	21.10	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 044SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:05 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000734573	<0.000	mg/L	7.6E+8	2
Ni	60	103	.0000491162	<0.000	mg/L	3.8E+8	2
Cu	65	103	.0000254615	<0.000	mg/L	1.4E+9	2
Zn	66	103	.0000205820	.0000000000	mg/L	6.3E+9	2
As	75	103	.0000004522	.0000000000	mg/L	4.3E+9	2
Se	78	103	.0000015270	.0000000000	mg/L	1.1E+1	1
Ag	107	103	.0000099278	<0.000	mg/L	4.3E+8	2
Cd	111	103	.0000004481	<0.000	mg/L	1.2E+9	2
Ba	137	103	.0000004508	<0.000	mg/L	1.8E+1	2
Pb	208	185	.0001742234	<0.000	mg/L	9.7E+8	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 045SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:08 pm
Sample Name: 0.0001
Sample Type: CalStd
Matrix: Liquid
Comments: Ag, As, Be, Cd, Tl
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000771451	0.00001125	mg/L	110.84	2
Ni	60	103	.0000657566	0.0001445	mg/L	37.76	2
Cu	65	103	.0000847164	0.0004212	mg/L	10.80	2
Zn	66	103	.0000998873	0.001792	mg/L	7.05	2
As	75	103	.0000042927	0.0001180	mg/L	32.28	2
Se	78	103	.0000052491	0.0001548	mg/L	25.70	1
Ag	107	103	.0000244267	0.00007500	mg/L	7.51	2
Cd	111	103	.0000032933	0.0001048	mg/L	12.42	2
Ba	137	103	.0000031966	0.0001548	mg/L	23.02	2
Pb	208	185	.0001760803	0.000003352	mg/L	1,600	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 046SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:11 pm
Sample Name: 0.0005
Sample Type: CalStd
Matrix: Liquid
Comments: Cu, Pb, V
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0001949918	0.0003708	mg/L	16.72	2
Ni	60	103	.0000990053	0.0004332	mg/L	12.19	2
Cu	65	103	.0002881420	0.001867	mg/L	1.99	2
Zn	66	103	.0000620321	0.0009365	mg/L	6.05	2
As	75	103	.0000176314	0.0005280	mg/L	7.66	2
Se	78	103	.0000150465	0.0005622	mg/L	7.36	1
Ag	107	103	.0001043651	0.0004885	mg/L	1.22	2
Cd	111	103	.0000136668	0.0004867	mg/L	12.83	2
Ba	137	103	.0000107477	0.0005805	mg/L	9.16	2
Pb	208	185	.0003416965	0.0003024	mg/L	28.47	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 047SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:15 pm
Sample Name: 0.001
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003844511	0.0009488	mg/L	9.16	2
Ni	60	103	.0001598403	0.0009614	mg/L	6.60	2
Cu	65	103	0.001463316	0.01022	mg/L	2.46	2
Zn	66	103	.0000776153	0.001289	mg/L	7.61	2
As	75	103	.0000307918	0.0009325	mg/L	14.93	2
Se	78	103	.0000294216	0.001160	mg/L	11.97	1
Ag	107	103	.0001991238	0.0009787	mg/L	3.22	2
Cd	111	103	.0000279867	0.001014	mg/L	8.36	2
Ba	137	103	.0000182821	0.001005	mg/L	10.12	2
Pb	208	185	.0006665170	0.0008888	mg/L	21.88	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 048SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:18 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.001719724	0.005022	mg/L	3.95	2
Ni	60	103	.0006421198	0.005149	mg/L	4.63	2
Cu	65	103	.0007647391	0.005255	mg/L	3.59	2
Zn	66	103	.0002740710	0.005727	mg/L	4.45	2
As	75	103	.0001645818	0.005044	mg/L	4.79	2
Se	78	103	.0001258853	0.005171	mg/L	5.79	1
Ag	107	103	0.001017556	0.005212	mg/L	2.24	2
Cd	111	103	.0001429635	0.005247	mg/L	7.58	2
Ba	137	103	.0000932449	0.005232	mg/L	3.61	2
Pb	208	185	0.002926110	0.004968	mg/L	5.90	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 049SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:21 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.006725356	0.02029	mg/L	1.57	2
Ni	60	103	0.002379664	0.02023	mg/L	1.73	2
Cu	65	103	0.002910363	0.02051	mg/L	1.95	2
Zn	66	103	.0009896657	0.02189	mg/L	1.45	2
As	75	103	.0006654090	0.02044	mg/L	2.93	2
Se	78	103	.0004741355	0.01965	mg/L	3.54	1
Ag	107	103	0.003846170	0.01984	mg/L	4.33	2
Cd	111	103	.0005344264	0.01966	mg/L	3.66	2
Ba	137	103	.0003631752	0.02045	mg/L	3.32	2
Pb	208	185	0.01164674	0.02071	mg/L	7.25	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 050SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:24 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01639180	0.04978	mg/L	2.37	2
Ni	60	103	0.005816496	0.05007	mg/L	1.34	2
Cu	65	103	0.007206854	0.05105	mg/L	0.76	2
Zn	66	103	0.002264045	0.05069	mg/L	1.72	2
As	75	103	0.001614736	0.04961	mg/L	0.40	2
Se	78	103	0.001201888	0.04992	mg/L	2.06	1
Ag	107	103	0.009726544	0.05026	mg/L	2.46	2
Cd	111	103	0.001388541	0.05111	mg/L	2.73	2
Ba	137	103	.0008789350	0.04953	mg/L	3.89	2
Pb	208	185	0.02867274	0.05145	mg/L	3.09	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 051SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:28 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.06563913	0.2000	mg/L	2.83	2
Ni	60	103	0.02307891	0.2000	mg/L	2.33	2
Cu	65	103	0.02811575	0.1997	mg/L	1.42	2
Zn	66	103	0.008855476	0.1996	mg/L	3.62	2
As	75	103	0.006509451	0.2001	mg/L	2.15	2
Se	78	103	0.004812347	0.2001	mg/L	1.78	1
Ag	107	103	0.03866364	0.1999	mg/L	2.00	2
Cd	111	103	0.005425440	0.1998	mg/L	0.43	2
Ba	137	103	0.003548996	0.2001	mg/L	1.39	2
Pb	208	185	0.1107089	0.1996	mg/L	1.93	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 052SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:31 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03318435	0.1010	mg/L	2.88	2
Ni	60	103	0.01194630	0.1033	mg/L	3.87	2
Cu	65	103	0.01429880	0.1015	mg/L	2.11	2
Zn	66	103	0.004622802	0.1040	mg/L	2.19	2
As	75	103	0.003406947	0.1047	mg/L	2.52	2
Se	78	103	0.002405633	0.09997	mg/L	0.86	1
Ag	107	103	0.02001039	0.1035	mg/L	0.52	2
Cd	111	103	0.002764903	0.1018	mg/L	0.70	2
Ba	137	103	0.001821343	0.1027	mg/L	2.51	2
Pb	208	185	0.05865167	0.1056	mg/L	2.13	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 053SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:34 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000448806	<0.000	mg/L	20.69	2
Ni	60	103	.0000336903	<0.000	mg/L	53.88	2
Cu	65	103	.0000397462	0.0001015	mg/L	21.55	2
Zn	66	103	.0000505557	0.0006772	mg/L	3.90	2
As	75	103	.0000037342	0.0001009	mg/L	41.15	2
Se	78	103	.0000056126	0.0001699	mg/L	37.12	1
Ag	107	103	.0000366745	0.0001384	mg/L	4.99	2
Cd	111	103	.0000021789	0.00006372	mg/L	62.49	2
Ba	137	103	.0000019119	0.00008237	mg/L	29.20	2
Pb	208	185	.0001196572	<0.000	mg/L	31.14	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 054SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:38 pm
Sample Name: 06/28 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01644086	0.04993	mg/L	2.09	2
Ni	60	103	0.005766217	0.04964	mg/L	1.81	2
Cu	65	103	0.007104614	0.05032	mg/L	1.52	2
Zn	66	103	0.002243877	0.05023	mg/L	3.15	2
As	75	103	0.001658195	0.05095	mg/L	1.43	2
Se	78	103	0.001228796	0.05103	mg/L	1.15	1
Ag	107	103	0.009863087	0.05097	mg/L	0.45	2
Cd	111	103	0.001367400	0.05033	mg/L	0.93	2
Ba	137	103	.0008902459	0.05017	mg/L	1.53	2
Pb	208	185	0.02878209	0.05165	mg/L	3.54	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 055SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:41 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000391600	<0.000	mg/L	11.01	2
Ni	60	103	.0000290389	<0.000	mg/L	22.48	2
Cu	65	103	.0000228360	<0.000	mg/L	67.58	2
Zn	66	103	.0000139460	<0.000	mg/L	28.29	2
As	75	103	.0000018545	0.00004310	mg/L	51.11	2
Se	78	103	.0000043276	0.0001165	mg/L	36.40	1
Ag	107	103	.0000196478	0.00005028	mg/L	4.24	2
Cd	111	103	.0000008788	0.00001586	mg/L	90.86	2
Ba	137	103	.0000012251	0.00004365	mg/L	83.23	2
Pb	208	185	.0000856390	<0.000	mg/L	31.74	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 058SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:50 pm
Sample Name: 52959.02s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 237.0

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.007000091	5.008	mg/kg	4.16	2
Ni	60	103	0.005990908	12.23	mg/kg	1.84	2
Cu	65	103	0.007512792	12.61	mg/kg	0.64	2
Zn	66	103	0.004207680	22.42	mg/kg	2.83	2
As	75	103	.0002789142	2.028	mg/kg	0.60	2
Se	78	103	.0000210602	0.1925	mg/kg	7.60	1
Ag	107	103	.0000359410	0.03189	mg/kg	13.37	2
Cd	111	103	.0000268693	0.2306	mg/kg	9.46	2
Ba	137	103	0.004690047	62.66	mg/kg	2.80	2
Pb	208	185	0.02091343	8.874	mg/kg	3.47	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 059SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:54 pm
Sample Name: 52959.03s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 249.0

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.001780796	1.297	mg/kg	1.85	2
Ni	60	103	.0008006388	1.625	mg/kg	4.11	2
Cu	65	103	.0007282621	1.244	mg/kg	2.99	2
Zn	66	103	0.001083354	5.979	mg/kg	1.56	2
As	75	103	.0000379423	0.2869	mg/kg	10.93	2
Se	78	103	.0000063998	0.05045	mg/kg	15.35	1
Ag	107	103	.0000153555	0.006991	mg/kg	50.31	2
Cd	111	103	.0000052328	0.04387	mg/kg	14.72	2
Ba	137	103	.0007744655	10.87	mg/kg	1.43	2
Pb	208	185	0.004181294	1.801	mg/kg	6.55	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 064SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:10 pm
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03251316	0.09896	mg/L	2.56	2
Ni	60	103	0.01142087	0.09873	mg/L	2.20	2
Cu	65	103	0.01420167	0.1008	mg/L	1.43	2
Zn	66	103	0.004435532	0.09975	mg/L	1.76	2
As	75	103	0.003189676	0.09802	mg/L	2.50	2
Se	78	103	0.002645670	0.1099	mg/L	1.49	1
Ag	107	103	0.01945202	0.1006	mg/L	1.07	2
Cd	111	103	0.002648728	0.09751	mg/L	0.86	2
Ba	137	103	0.001698337	0.09573	mg/L	0.30	2
Pb	208	185	0.05738242	0.1033	mg/L	3.36	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 065SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:13 pm
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000600280	<0.000	mg/L	51.90	2
Ni	60	103	.0000261875	<0.000	mg/L	8.48	2
Cu	65	103	.0000361279	0.00007582	mg/L	39.91	2
Zn	66	103	.0000540462	0.0007561	mg/L	7.96	2
As	75	103	.0000026525	0.00006763	mg/L	41.37	2
Se	78	103	.0000072424	0.0002377	mg/L	14.72	1
Ag	107	103	.0000331303	0.0001200	mg/L	9.27	2
Cd	111	103	.0000008679	0.00001546	mg/L	75.94	2
Ba	137	103	.0000016296	0.00006646	mg/L	28.77	2
Pb	208	185	.0001140953	<0.000	mg/L	62.70	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 073SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:38 pm
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03181208	0.09683	mg/L	2.54	2
Ni	60	103	0.01112505	0.09617	mg/L	2.56	2
Cu	65	103	0.01411880	0.1002	mg/L	1.53	2
As	75	103	0.003146213	0.09668	mg/L	1.49	2
Se	78	103	0.002566776	0.1067	mg/L	1.14	1
Ag	107	103	0.01969470	0.1018	mg/L	2.01	2
Cd	111	103	0.002664988	0.09811	mg/L	0.59	2
Ba	137	103	0.001735610	0.09783	mg/L	3.32	2
Pb	208	185	0.05816544	0.1047	mg/L	2.82	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 074SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:42 pm
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000472497	<0.000	mg/L	18.71	2
Ni	60	103	.0000249140	<0.000	mg/L	4.38	2
Cu	65	103	.0000371966	0.00008342	mg/L	30.09	2
As	75	103	.0000032139	0.00008488	mg/L	48.01	2
Se	78	103	.0000059202	0.0001827	mg/L	25.34	1
Ag	107	103	.0000297368	0.0001025	mg/L	11.64	2
Cd	111	103	.0000013531	0.00003332	mg/L	43.55	2
Ba	137	103	.0000019472	0.00008437	mg/L	37.35	2
Pb	208	185	.0001565500	<0.000	mg/L	163.82	2

Metals Digestion

3015A (3050B)

DATE 06/28/12

TIME START 13:05

ANALYST SR

TIME FINISH 13:35

PREP BATCH MTD- 062812-6

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS - 6	----	50	50		—	1
LRB- 6	----	50	50		—	1
52910.01		0.500		5/1 Dil = 500	100	100
52959.02		0.264			80	237
03		0.221		wet weight: ..	91	249
52983.02		0.243		206	84	245
03		0.237		211	91	232
03MS		0.237		211	91	232
03MSD		0.254		197	91	216
53002.03		0.0208		(M3 balance used)	100	2404
53003.26		0.193			100	259
27		0.246			100	203
28		0.0230		(M3 balance used)	100	2174
29		0.0164		(M3 balance used)	100	3049

NOTES: 1) Spike values (unless otherwise stated):
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078 + D2-SV02033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 112533

3) HNO_3 Lot # 51332-OmniTrace

4) Centrifuge Tube Lot # 120201-060-1

5) Balance ID: M2

Reviewed by JM On 06/28/12

Form 0: Sequence Log

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	6/28/2012 2:37:45 PM	Calibration Blank	Liquid	
002	6/28/2012 2:40:00 PM	Standard #1	Liquid	
003	6/28/2012 2:42:15 PM	Standard #2	Liquid	
004	6/28/2012 2:44:28 PM	Standard #3	Liquid	
005	6/28/2012 2:46:41 PM	Standard #4	Liquid	
006	6/28/2012 2:48:54 PM	Standard #5	Liquid	
007	6/28/2012 2:51:05 PM	Standard #6	Liquid	
008	6/28/2012 2:54:33 PM	Standard #7	Liquid	
009	6/28/2012 2:58:23 PM	CCV1-2.0 ppb	Liquid	CCV
010	6/28/2012 3:00:42 PM	CCB1	Liquid	CCB
011	6/28/2012 3:03:00 PM	ICV-5.0	Liquid	ICV
012	6/28/2012 3:05:24 PM	ICB	Liquid	ICB
013	6/28/2012 3:07:41 PM	ERA P177514 TV=25.7	Liquid	ERA
014	6/28/2012 3:10:02 PM	BS-0.10	Liquid	BS
015	6/28/2012 3:12:22 PM	06/28 LCS2-2.0 ppb	Soil	LCS
016	6/28/2012 3:14:42 PM	06/28 LRB2	Soil	LRB
017	6/28/2012 3:16:53 PM	53002.03s	Soil	S
018	6/28/2012 3:19:05 PM	53003.26s	Soil	S
019	6/28/2012 3:21:17 PM	53003.27s	Soil	S
020	6/28/2012 3:23:30 PM	53003.28s	Soil	S
021	6/28/2012 3:25:43 PM	53003.29s	Soil	S
022	6/28/2012 3:27:57 PM	52983.02s	Soil	
023	6/28/2012 3:30:12 PM	52983.03s	Soil	
024	6/28/2012 3:32:23 PM	52893.03 MS-2.0 ppb	Soil	
025	6/28/2012 3:34:36 PM	52893.03 MSD	Soil	
026	6/28/2012 3:36:54 PM	CCV2-2.0 ppb	Liquid	CCV
027	6/28/2012 3:39:14 PM	CCB2	Liquid	CCB
028	6/28/2012 3:45:30 PM	52959.02s	Soil	S
029	6/28/2012 3:47:45 PM	52959.03s	Soil	S
030	6/28/2012 3:49:57 PM	52859.03 MS-2.0 ppb	Soil	MS
031	6/28/2012 3:54:38 PM	52959.03 MSD	Soil	MSD
032	6/28/2012 3:56:56 PM	CCV2-2.0 ppb	Liquid	CCV
033	6/28/2012 3:59:16 PM	CCB2	Liquid	CCB
034	6/28/2012 4:11:30 PM	ICV-5.0	Liquid	
035	6/28/2012 4:15:58 PM	ICV-5.0	Liquid	ICV
036	6/28/2012 4:18:28 PM	ICB	Liquid	ICB
037	6/28/2012 4:20:48 PM	06/28 LCS3-2.0 ppb	Liquid	LCS
038	6/28/2012 4:23:08 PM	06/28 0.4 ppb	Liquid	
039	6/28/2012 4:25:29 PM	06/28 LRB3	Liquid	LRB
040	6/28/2012 4:27:42 PM	53015.01s	Liquid	
041	6/28/2012 4:29:55 PM	53015.02s	Liquid	
042	6/28/2012 4:32:09 PM	53015.03s	Liquid	
043	6/28/2012 4:34:24 PM	53015.04s	Liquid	
044	6/28/2012 4:36:39 PM	53015.05s	Liquid	
045	6/28/2012 4:38:51 PM	53015.06s	Liquid	
046	6/28/2012 4:41:04 PM	53015.07s	Liquid	S
047	6/28/2012 4:43:18 PM	53015.09s	Liquid	
048	6/28/2012 4:45:32 PM	53015.10s	Liquid	S
049	6/28/2012 4:47:47 PM	53015.08s	Liquid	
050	6/28/2012 4:50:02 PM	53015.08 MS-2.0 ppb	Liquid	MS
051	6/28/2012 4:52:18 PM	53015.08 MSD	Liquid	MSD
052	6/28/2012 4:54:37 PM	CCV4-2.0 ppb	Liquid	CCV
053	6/28/2012 4:56:56 PM	CCB4	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Lab Sample ID: S52959.02
Sample Tag: SB146 (06-21-2012)(4-5)
Date Collected: 06/21/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	61	06/28/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Lab Sample ID: S52959.03
Sample Tag: SB141 (06-22-2012)(3-5)
Date Collected: 06/22/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	54	06/28/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 CCV1-2.0 ppb	CCV	1.0	Hg	2.043	2.0	102	90/110	ug/L	Liquid
011 ICV-5.0	ICV	1.0	Hg	4.868	5.0	97	90/110	ug/L	Liquid
026 CCV2-2.0 ppb	CCV	1.0	Hg	2.028	2.0	101	90/110	ug/L	Liquid
032 CCV2-2.0 ppb	CCV	1.0	Hg	2.020	2.0	101	90/110	ug/L	Liquid
035 ICV-5.0	ICV	1.0	Hg	4.810	5.0	96	90/110	ug/L	Liquid
052 CCV4-2.0 ppb	CCV	1.0	Hg	2.021	2.0	101	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: P177-514

Data Set ID: HG2-12-0628B

Instrument ID: HG QuickTrace

Analysis Date: 06/28/12

Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
013 ERA P177514 TV=25.7	5.0	Hg	27.20	25.7	106	20.2	31.1	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0390	ug/L	Liquid
012 ICB	ICB	1.0	Hg	<0.03	-0.0387	ug/L	Liquid
016 06/28 LRB2	LRB	50.0	Hg	<0.03	-1.5050	ug/kg	Soil
027 CCB2	CCB	1.0	Hg	<0.03	-0.0410	ug/L	Liquid
033 CCB2	CCB	1.0	Hg	<0.03	-0.0409	ug/L	Liquid
036 ICB	ICB	1.0	Hg	<0.03	-0.0445	ug/L	Liquid
039 06/28 LRB3	LRB	1.0	Hg	<0.03	-0.0322	ug/L	Liquid
053 CCB4	CCB	1.0	Hg	<0.03	-0.0424	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
014 BS-0.10		1.0	Hg	0.073	ND	0.10	73	70/130	ug/L	Liquid
030 52859.03 MS-2.0	**029 52959.03s**	54.1	Hg	125.0	<50	108.2	116	80/120	ug/kg	Soil
050 53015.08 MS-2.0	**049 53015.08s**	1.0	Hg	1.899	<0.2	2.0	95	80/120	ug/L	Liquid

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
031 52959.03 MSD	**030 52859.03 MS-2.0**	54.3	Hg	125.5	125.0	0	0/20	ug/kg	Soil
051 53015.08 MSD	**050 53015.08 MS-2.0**	1.0	Hg	1.908	1.899	0	0/20	ug/L	Liquid

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 06/28 LCS2-2.0 ppb	50.0	Hg	99.25	100	99	85/115	ug/kg	Soil
037 06/28 LCS3-2.0 ppb	1.0	Hg	1.996	2.0	100	85/115	ug/L	Liquid

Form 13: Analysis Run Log

Data Set ID: HG2-12-0628B
Instrument ID: HG QuickTrace
Analysis Date: 06/28/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	6/28/2012 2:37:45 PM	Liquid	Hg
002 Standard #1	6/28/2012 2:40:00 PM	Liquid	Hg
003 Standard #2	6/28/2012 2:42:15 PM	Liquid	Hg
004 Standard #3	6/28/2012 2:44:28 PM	Liquid	Hg
005 Standard #4	6/28/2012 2:46:41 PM	Liquid	Hg
006 Standard #5	6/28/2012 2:48:54 PM	Liquid	Hg
007 Standard #6	6/28/2012 2:51:05 PM	Liquid	Hg
008 Standard #7	6/28/2012 2:54:33 PM	Liquid	Hg
009 CCV1-2.0 ppb	6/28/2012 2:58:23 PM	Liquid	Hg
010 CCB1	6/28/2012 3:00:42 PM	Liquid	Hg
011 ICV-5.0	6/28/2012 3:03:00 PM	Liquid	Hg
012 ICB	6/28/2012 3:05:24 PM	Liquid	Hg
013 ERA P177514 TV=25.7	6/28/2012 3:07:41 PM	Liquid	Hg
014 BS-0.10	6/28/2012 3:10:02 PM	Liquid	Hg
015 06/28 LCS2-2.0 ppb	6/28/2012 3:12:22 PM	Soil	Hg
016 06/28 LRB2	6/28/2012 3:14:42 PM	Soil	Hg
017 53002.03s	6/28/2012 3:16:53 PM	Soil	Hg
018 53003.26s	6/28/2012 3:19:05 PM	Soil	Hg
019 53003.27s	6/28/2012 3:21:17 PM	Soil	Hg
020 53003.28s	6/28/2012 3:23:30 PM	Soil	Hg
021 53003.29s	6/28/2012 3:25:43 PM	Soil	Hg
022 52983.02s	6/28/2012 3:27:57 PM	Soil	Hg
023 52983.03s	6/28/2012 3:30:12 PM	Soil	Hg
024 52893.03 MS-2.0 ppb	6/28/2012 3:32:23 PM	Soil	Hg
025 52893.03 MSD	6/28/2012 3:34:36 PM	Soil	Hg
026 CCV2-2.0 ppb	6/28/2012 3:36:54 PM	Liquid	Hg
027 CCB2	6/28/2012 3:39:14 PM	Liquid	Hg
028 52959.02s	6/28/2012 3:45:30 PM	Soil	Hg
029 52959.03s	6/28/2012 3:47:45 PM	Soil	Hg
030 52859.03 MS-2.0 ppb	6/28/2012 3:49:57 PM	Soil	Hg
031 52959.03 MSD	6/28/2012 3:54:38 PM	Soil	Hg
032 CCV2-2.0 ppb	6/28/2012 3:56:56 PM	Liquid	Hg
033 CCB2	6/28/2012 3:59:16 PM	Liquid	Hg
034 ICV-5.0	6/28/2012 4:11:30 PM	Liquid	Hg
035 ICV-5.0	6/28/2012 4:15:58 PM	Liquid	Hg
036 ICB	6/28/2012 4:18:28 PM	Liquid	Hg
037 06/28 LCS3-2.0 ppb	6/28/2012 4:20:48 PM	Liquid	Hg
038 06/28 0.4 ppb	6/28/2012 4:23:08 PM	Liquid	Hg
039 06/28 LRB3	6/28/2012 4:25:29 PM	Liquid	Hg
040 53015.01s	6/28/2012 4:27:42 PM	Liquid	Hg
041 53015.02s	6/28/2012 4:29:55 PM	Liquid	Hg
042 53015.03s	6/28/2012 4:32:09 PM	Liquid	Hg
043 53015.04s	6/28/2012 4:34:24 PM	Liquid	Hg
044 53015.05s	6/28/2012 4:36:39 PM	Liquid	Hg
045 53015.06s	6/28/2012 4:38:51 PM	Liquid	Hg
046 53015.07s	6/28/2012 4:41:04 PM	Liquid	Hg
047 53015.09s	6/28/2012 4:43:18 PM	Liquid	Hg
048 53015.10s	6/28/2012 4:45:32 PM	Liquid	Hg
049 53015.08s	6/28/2012 4:47:47 PM	Liquid	Hg
050 53015.08 MS-2.0 ppb	6/28/2012 4:50:02 PM	Liquid	Hg
051 53015.08 MSD	6/28/2012 4:52:18 PM	Liquid	Hg
052 CCV4-2.0 ppb	6/28/2012 4:54:37 PM	Liquid	Hg
053 CCB4	6/28/2012 4:56:56 PM	Liquid	Hg

Data Set: HG2-12-0628B
Run Date: 06/28/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	6/28/2012 2:37:45 PM	Calibration Blank	663.3000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	6/28/2012 2:40:00 PM	Standard #1	2026.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	6/28/2012 2:42:15 PM	Standard #2	3243.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	6/28/2012 2:44:28 PM	Standard #3	7253.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	6/28/2012 2:46:41 PM	Standard #4	13440.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	6/28/2012 2:48:54 PM	Standard #5	25930.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	6/28/2012 2:51:05 PM	Standard #6	73750.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	6/28/2012 2:54:33 PM	Standard #7	121500.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	6/28/2012 2:58:23 PM	CCV1-2.0 ppb	25760.0000	2.0430	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	6/28/2012 3:00:42 PM	CCB1	633.1000	-0.0390	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	6/28/2012 3:03:00 PM	ICV-5.0	59860.0000	4.8680	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	6/28/2012 3:05:24 PM	ICB	637.2000	-0.0387	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	6/28/2012 3:07:41 PM	ERA P177514 TV=25.7	66770.0000	27.2050	ug/L	Liquid	5.0	1.0000	5.0000
Hg	014	6/28/2012 3:10:02 PM	BS-0.10	1988.0000	0.0733	ug/L	Liquid	1.0	1.0000	1.0000
Hg	015	6/28/2012 3:12:22 PM	06/28 LCS2-2.0 ppb	25060.0000	99.2500	ug/kg	Soil	50.0	0.5000	25.0000
Hg	016	6/28/2012 3:14:42 PM	06/28 LRB2	741.0000	-1.5050	ug/kg	Soil	50.0	0.5000	25.0000
Hg	026	6/28/2012 3:36:54 PM	CCV2-2.0 ppb	25580.0000	2.0280	ug/L	Liquid	1.0	1.0000	1.0000
Hg	027	6/28/2012 3:39:14 PM	CCB2	609.2000	-0.0410	ug/L	Liquid	1.0	1.0000	1.0000
Hg	028	6/28/2012 3:45:30 PM	52959.02s	4165.0000	15.4250	ug/kg	Soil	60.8	0.4110	25.0000
Hg	029	6/28/2012 3:47:45 PM	52959.03s	5276.0000	18.7715	ug/kg	Soil	54.3	0.4600	25.0000
Hg	030	6/28/2012 3:49:57 PM	52859.03 MS-2.0 ppb	29010.0000	125.0792	ug/kg	Soil	54.1	0.4620	25.0000
Hg	031	6/28/2012 3:54:38 PM	52959.03 MSD	29010.0000	125.5416	ug/kg	Soil	54.3	0.4600	25.0000
Hg	032	6/28/2012 3:56:56 PM	CCV2-2.0 ppb	25490.0000	2.0200	ug/L	Liquid	1.0	1.0000	1.0000
Hg	033	6/28/2012 3:59:16 PM	CCB2	610.2000	-0.0409	ug/L	Liquid	1.0	1.0000	1.0000
Hg	034	6/28/2012 4:11:30 PM	ICV-5.0	7258.0000	0.5099	ug/L	Liquid	1.0	1.0000	1.0000
Hg	035	6/28/2012 4:15:58 PM	ICV-5.0	59150.0000	4.8100	ug/L	Liquid	1.0	1.0000	1.0000
Hg	036	6/28/2012 4:18:28 PM	ICB	566.8000	-0.0445	ug/L	Liquid	1.0	1.0000	1.0000
Hg	037	6/28/2012 4:20:48 PM	06/28 LCS3-2.0 ppb	25200.0000	1.9960	ug/L	Liquid	1.0	1.0000	1.0000
Hg	038	6/28/2012 4:23:08 PM	06/28 0.4 ppb	5869.0000	0.3948	ug/L	Liquid	1.0	1.0000	1.0000
Hg	039	6/28/2012 4:25:29 PM	06/28 LRB3	715.0000	-0.0322	ug/L	Liquid	1.0	1.0000	1.0000
Hg	052	6/28/2012 4:54:37 PM	CCV4-2.0 ppb	25490.0000	2.0210	ug/L	Liquid	1.0	1.0000	1.0000
Hg	053	6/28/2012 4:56:56 PM	CCB4	592.4000	-0.0424	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 11:20
TIME FINISH: 13:25 TEMP: block #1 — °C
PREP BATCH: HGD-062812-2 block #2 95 °C
BALANCE ID: M1 block #3 95 °C

DATE 06/28/12
ANALYST RPM
REVIEWED BY SNK
REVIEW DATE 06/28/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 2	------	0.5	--------	----------	50	25g	
LRB- 2	------	0.5	--------	----------	50	25g	
52959.02		0.514	80	0.411	61		
03		0.505	91	0.460	54		
03 MS		0.508	91	0.462	54		
03 MSD		0.505	91	0.460	54		
53002.03		0.155			161		
53003.26		0.260			96		
27		0.289			86		
28		0.258			97		
29		0.256			98		

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 1132011 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 1132011 Exp. 12/29/12
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 1132011 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)

Effective Date 7/20/11

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 06/25/12 Date Finished: 6/26/12 Date Checked: 7/10/12

Time Started: 3:09 Time Finished: 3:00 Checked By: BB

Analyst: [illegible] Temperature: 103°C Batch: TSN0625B

Time in Oven: 24:00 Balance ID: 51 Oven ID: oven

Merit #	Dish #	Dish Wt. (g)	Wet Smpl. + Dish Wt. (g)	Dry Smpl + Dish Wt. (g)	Ash Smpl + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	25	1.41	1.41	1.41		—		
LCS	26	1.34	11.09	11.09		100		
52956.91	27	1.4	15.1	13.65		89		
Dup 1 .01	28	1.35	15.09	13.63		89		
.02	29	1.35	13.97	12.59		89		
.03	30	1.34	15.35	13.46		87		
59.02	31	1.37	12.03	9.87		80		
.03	32	1.26	13.49	12.33		91		
Dup 2								

% LCS Recovery: 100 Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 0 Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): _____

Method 5035A (High Level)
Extraction Sheet

Analyst: LBR
Date: 6-25-12
Batch QC ID#: _____

Merit Number	Tare wt (g)	Vial wt (g)	Sample wt.(g)	Methanol (mL)	Sonicate (min)	Time Start / End	Notes
52934.01	31.232	31.244	–	10	✓	12:08	
02	31.129	48.348	17.219	17	✓		
52939.01	32.208	44.359	12.151	12	✓		
52951.01	31.432	42.500	11.068	11	✓		
02	31.621	41.760	10.139	10	✓		
03	31.383	41.404	10.121	10	✓		
04	31.479	41.847	10.368	10	✓		
05	31.508	42.310	10.802	11	✓		
06	31.561	42.854	11.293	11	✓		
52952.01	31.498	43.083	11.585	12	✓		
02	31.445	41.470	9.975	10	✓		
03	31.471	42.643	11.172	11	✓		
04	31.674	41.886	10.212	10	✓		
05	31.513	42.183	10.670	11	✓		
06	31.488	42.825	11.337	11	✓		
52953.01	31.641	42.242	10.601	11	✓		
52954.01	31.577	42.151	10.574	11	✓		
02	31.458	42.907	11.449	11	✓		
52955.01	31.492	42.437	10.945	11	✓		
02	31.656	42.702	11.046	11	✓		
52956.01	31.463	41.833	10.370	10	✓		
02	31.621	42.166	10.545	11	✓		
03	31.685	41.691	10.006	10	✓		
52959.01	31.359	31.332	–	10	✓		
02	31.154	50.161	19.007	19	✓	1	31.154
03	31.261	50.507	19.246	19	✓	12:18	

Balance ID: V1
Methanol Lot: DE645 / DJ471 / S0349
5035A High Level

Reviewed By: JGH
Date: 6-25-12
Prepared by Merit Laboratories, Inc.

Effective Date 6/14/12

Solvent Lot #: 51357
Na2SO4 Lot #: 060TC505
SSD #: PR120620
MS/LCS #: PP120619

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 6-25-2012
Time Started: 10:45
Time Ended: 11:30
Batch ID#: SP120625S01

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	ewr		
	LCS	Sand	30.0 g	↓	↓	↓	↓	1	↓	ewj	
	LCSD	Sand	30.0 g	↓	↓	↓	↓	1	↓	↓	[ ]
	MS							1			[ ]
	MSD							1			
1	52934.02	soil	30.1	CH_2Cl_2	180	1ml	1ml		ewr	ewj	
2	52959.02	↓	30.0	↓	↓	↓	↓		↓	↓	
3	.03	↓	30.0	↓	↓	↓	↓		↓	↓	
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Reviewed by: M On: 6/26 Balance ID: ez

Prepared by: Merit Laboratories, Inc.

Hexane 51223
Ether/Hexane 51108129/51223
Na_2SO_4 0601C505
H_2SO_4 50328
SSD# 175508
PCB MS ID# 11MS03 Pest MS ID#_____

PCB/Pesticide Extraction
Method 3550B

Date 6-27-12
Time Started 9:00
Time Ended 13:00
Prep Batch ID# PA120627501
Balance ID# E2

#	Merit #	Matrix	Sample Wt. (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Alumina Cleanup	Dioxin Cleanup	Turbo Vap	Notes
Initial Q.C.	BLANK	soil	20.0	Hexane	180	1	1		CM			ev2	
	LCS	↓	↓	↓	↓	↓	↓	1	↓			↓	
	LCSD	↓	↓	↓	↓	↓	↓	1	↓			↓	
	MS												
	MSD												
1	52938.15	oil	0.3	Hexane	180	1	1		CM	X		ev1	
2	.16	↓	0.3	↓	↓	↓	↓		↓	X		↓	
3	.17	↓	0.3	↓	↓	↓	↓		↓	X	X	↓	
4	52944.23	conc	10.0	↓	↓	↓	↓		↓			↓	
5	.24	↓	10.0	↓	↓	↓	↓		↓			↓	
6	.25	paint	20 (20)	↓	↓	↓	↓		↓			↓	
7	.26	conc	10.0	↓	↓	↓	↓		↓			ev2	
8	.27	↓	10.0	↓	↓	↓	↓		↓			↓	
9	.28	↓	10.0	↓	↓	↓	↓		↓			↓	
10	.29	↓	10.0	↓	↓	↓	↓		↓			↓	
11	.30	↓	10.0	↓	↓	↓	↓		↓			↓	
12	.31	↓	10.0	↓	↓	↓	↓		↓			↓	
13	52947.01	soil/sludge	10.0	↓	↓	↓	↓		↓			ev1	
14	.02	↓	10.0	↓	↓	↓	↓		↓			↓	
15	.03	↓	10.0	↓	↓	↓	↓		↓			↓	
16	.04	sludge	5.0	↓	↓	↓	↓		↓	X		↓	
17	52959.02	soil	20.0	↓	↓	↓	↓		↓			↓	
18	.03	↓	20.0	↓	↓	↓	↓		↓			↓	
19	52970.01	conc	10.0	↓	↓	↓	↓		↓	X		ev1	
20	.02	↓	10.0	↓	↓	↓	↓		↓	X		ev1	

Reviewed by: [signature] On: 7/11/12

Prepared by: Merit Laboratories, Inc.

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

69206

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Susan Hoertt
COMPANY: Haley + Aldrich
ADDRESS: 8899 Gander Creek Dr.
CITY: Miamisburg STATE: OH ZIP CODE: 45342
PHONE NO.: 937-530-1408 FAX NO.: 937-580-1458 P.O. NO.:
E-MAIL ADDRESS: SHoerth@haleyaldrich.com QUOTE NO.:

INVOICE TO

CONTACT NAME: Melanie Satanek ☐ SAME
COMPANY: 5755 Granger Rd Suit 320 (Haley + Aldrich)
ADDRESS: Cleveland
CITY: Cleveland STATE: OH ZIP CODE: 44131
PHONE NO.: 216-706-1320 E-MAIL ADDRESS: MSatanek@haleyaldrich.com

PROJECT NO./NAME: RACER 6MPT LIVONIA
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Megan Castles-Humphrey / MMH
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER
DELIVERABLES REQUIRED ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: NA
☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other LIVONIA, MI

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOC	PAH	PCB	Michigan 10 Metals	Special Instructions
52959.01	6/21/12	—	2306-062112-0001	WG	1						1		X				Trip blank
.02	6/21/12	14:10	SB146 (06-21-2012)(4-5)	SO	2	1					1		X	X	X	X	Norma
.03	6/22/12	12:25	SB141 (06-22-2012)(3-5)	SO	2	1					1		X	X	X	X	Norma

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Megan Castles-Humphrey / Haley + Aldrich	DATE	6/22/12	TIME	1703
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Isaak / Merit	DATE	6/22/12	TIME	1703
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Isaak / Merit	DATE	6/22/12	TIME	2000
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Frig	DATE	6/22/12	TIME	2000

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Andrew Bell / Merit Fridge	DATE	25JUN12	TIME	0800
RELINQUISHED BY: SIGNATURE/ORGANIZATION	Andrew Bell	DATE	25JUN12	TIME	0800

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S52959
Client: HALEYALDRICH (Haley & Aldrich)
Project: RACER GMPT Livonia
Submitted: 06/25/2012 08:00 Login User: ASB

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR: 4.0oC
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☒ No	☐ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Accounts Payable

Address: Haley & Aldrich, Inc.
70 Blanchard Rd.
Ste. 430
Burlington, MA 01803-5100

Phone: 617-886-7400 FAX: 617-886-7900

Email: Haley Aldrich Invoice Group

Set ID: S52959 Location: HALEYALDRICH (Haley & Aldrich)

Project: RACER GMPT Livonia PO #:

Submitted: 06/25/2012 08:00 Due Date: 07/09/2012 Collected by: M.Castles Humphrey Login by: ASB

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S52959.01	2306-062112-0001	Methanol	06/21/2012 00:01	69206
S52959.02	SB146 (06-21-2012)(4-5)	Soil	06/21/2012 14:10	69206
S52959.03	SB141 (06-22-2012)(3-5)	Soil	06/22/2012 12:25	69206

Samples: S52959.01

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260	Volatile Organics 5035	8260B/5035	mg/kg	07/05/2012
METHEXT	5035 Methanol Extraction	5035		03/17/2015

Samples: S52959.02-03

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260	Volatile Organics 5035	8260B/5035	mg/kg	07/05/2012
$PNA8270	Polynuclear Aromatics	8270C	mg/kg	07/31/2012
2115SMS	Arsenic	6020	mg/kg	12/18/2012
2120SMS	Barium	6020	mg/kg	12/18/2012
2135SMS	Cadmium	6020	mg/kg	12/18/2012
2145SMS	Chromium	6020	mg/kg	12/18/2012
2155SMS	Copper	6020	mg/kg	12/18/2012
2165SMS	Lead	6020	mg/kg	12/18/2012
2185S	Mercury	7471A	mg/kg	07/19/2012
2205SMS	Selenium	6020	mg/kg	12/18/2012
2215SMS	Silver	6020	mg/kg	12/18/2012
2245SMS	Zinc	6020	mg/kg	12/18/2012
1605S	Metal Digestion	3050B		12/18/2012
1605HGS	Mercury Digestion	7471A		07/19/2012
METHEXT	5035 Methanol Extraction	5035		03/17/2015
PNAEXTS	Semi Volatile Extraction	3550B		07/05/2012
1120S	Extraction, PCB	3550B		07/05/2012
4605	Total Solids	Std M 2540 B	%	07/19/2012
$TCL8082C1	TCL PCB List (Column 1)	8082A	mg/kg	07/31/2012
$TCL8082C2	TCL PCB List (Column 2)	8082A	mg/kg	07/31/2012

MERIT LABORATORIES, INC.
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PHONE: 517-332-0167 FAX: 517-332-6333
FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

HALEY & ALDRICH
RACER GMPT LIVONIA

SDG Batch:
52983

Pages 1 - 289

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FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

HALEY & ALDRICH

PROJECT:
RACER GMPT LIVONIA

SDG Batch:
52983.01

Prepared by:
Merit Laboratories, Inc.

July 16, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S52983.01 - .03

Deliverable	References		Pages		Checklist	
	Merit	CLP	From	To	Lab	Audit
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	19	☑	☐
4. **Volatiles Data**			20	98		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			99	148		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
6. **PCB Data**			149	199		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
c. Standards Data (All Instruments)						
Initial Calibration of Multicomponent Data	F. 6	F. VI			☑	☐
Chromatograms and Quantitation Reports for all IC Standards					☑	☐
Calibration Check Standard	F. 7b	F. VII			☑	☐
Chromatograms and Quantitation Reports for all CC Standards					☑	☐
d. Raw QC Data						
Chromatograms and Quantitation Reports - Column 1					☑	☐
Chromatograms and Quantitation Reports - Column 2					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
10. **Miscellaneous Data**			284	286		
Preparation / Extraction logbooks					☑	☐
11. **Shipping / Receiving Documents**			287	289		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S52983.01 - .03

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	19	☑	☐
7. **ICP/MS Metals Data**			200	267		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
8. **Mercury Data**			268	282		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
9. **Total Solids Data**			283	283		
Bench Sheet - sample and QC sample evaluation					☑	☐
11. **Shipping / Receiving Documents**			287	289		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: RACER GMPT LIVONIA
Merit IDs: S52983.01-S52983.03

Field Sampling: Megan Castles-Humphrey performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (06/26/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
- The MS had low recovery for Barium. Post digestion spike performed and passed.
- The MS/MSD had high RPD for Barium.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120703A5:
- The blank contained 109.0 ug/kg of Tetrahydrofuran. Tetrahydrofuran was not found in associated samples.
- The CCC had the compounds Acetone, 2-Butanone (MEK), and Tetrahydrofuran outside of control limits.

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PCBs: The organic method utilized for this SDG was 8082A (GC/ECD). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barbara Ball

Barb Ball
QA Officer

07/16/12
Date

Analytical Laboratory Report

Report ID: S52983.01(01)
Generated on 07/05/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S52983.01-S52983.03
Project: RACER GMPT Livonia
Collected Date: 06/25/2012
Submitted Date/Time: 06/26/2012 12:55
Sampled by: M.Castles Humphrey
P.O. #:

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S52983.01	2306-062512-0001	Methanol	06/25/2012 00:01
S52983.02	SB121 (06-25-12) (3-5)	Soil	06/25/2012 08:45
S52983.03	SB116 (06-25-12) (1-2)	Soil	06/25/2012 11:30

Analytical Laboratory Report

Lab Sample ID: S52983.01
Sample Tag: 2306-062512-0001
Collected Date/Time: 06/25/2012 00:01
Matrix: Methanol
COC Reference: 69205

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	07/03/12 13:41	WAT	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	07/03/12 13:41	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	07/03/12 13:41	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	07/03/12 13:41	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	750	8260B/5035	07/03/12 13:41	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	07/03/12 13:41	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	07/03/12 13:41	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	07/03/12 13:41	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	07/03/12 13:41	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	07/03/12 13:41	WAT	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	07/03/12 13:41	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	07/03/12 13:41	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	07/03/12 13:41	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	07/03/12 13:41	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	630-20-6	

M-Result reported to MDL not RDL

Lab Sample ID: S52983.01 (continued)
Sample Tag: 2306-062512-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT		
o-Xylene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	07/03/12 13:41	WAT	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 13:41	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	07/03/12 13:41	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	07/03/12 13:41	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	07/03/12 13:41	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	8260B/5035	07/03/12 13:41	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	8260B/5035	07/03/12 13:41	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	330	8260B/5035	07/03/12 13:41	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	330	8260B/5035	07/03/12 13:41	WAT	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S52983.02
Sample Tag: SB121 (06-25-12) (3-5)
Collected Date/Time: 06/25/2012 08:45
Matrix: Soil
COC Reference: 69205

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.3	IR
1	8oz Glass	None	Yes	4.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	06/28/12 14:24	ADB		
Mercury Digestion	Completed			7471A	07/02/12 12:55	JRH		
Metal Digestion	Completed			3050B	06/28/12 01:00	SLR		
PNA Extraction	Completed			3550B	06/28/12 14:44	EMR		
Inorganics								
Total Solids	84	%	1	Std M 2540 B	06/29/12 15:28	AMM		
Metals								
Arsenic	2.01	mg/kg	0.10	6020	06/28/12 17:57	SLS	7440-38-2	
Barium	49.7	mg/kg	1.0	6020	06/28/12 17:57	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	06/28/12 17:57	SLS	7440-43-9	
Chromium	4.24	mg/kg	0.50	6020	06/28/12 17:57	SLS	7440-47-3	
Copper	7.35	mg/kg	1.0	6020	06/28/12 17:57	SLS	7440-50-8	
Lead	6.80	mg/kg	0.30	6020	06/28/12 17:57	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	07/02/12 15:39	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	06/28/12 17:57	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	06/28/12 17:57	SLS	7440-22-4	
Zinc	21.0	mg/kg	1.0	6020	06/28/12 17:57	SLS	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/28/12 15:43	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	83-32-9	

Lab Sample ID: S52983.02 (continued)
Sample Tag: SB121 (06-25-12) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/02/12 14:42	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	8260B/5035	07/03/12 14:02	WAT	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	07/03/12 14:02	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	400	8260B/5035	07/03/12 14:02	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	8260B/5035	07/03/12 14:02	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	1,100	8260B/5035	07/03/12 14:02	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	400	8260B/5035	07/03/12 14:02	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	8260B/5035	07/03/12 14:02	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	8260B/5035	07/03/12 14:02	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	8260B/5035	07/03/12 14:02	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	07/03/12 14:02	WAT	109-99-9	
Chloroform	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	8260B/5035	07/03/12 14:02	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	8260B/5035	07/03/12 14:02	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	78-87-5	

Lab Sample ID: S52983.02 (continued)
Sample Tag: SB121 (06-25-12) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	400	8260B/5035	07/03/12 14:02	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	30	8260B/5035	07/03/12 14:02	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	630-20-6	
Ethylbenzene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT		
o-Xylene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	400	8260B/5035	07/03/12 14:02	WAT	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:02	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	70	8260B/5035	07/03/12 14:02	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	07/03/12 14:02	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	8260B/5035	07/03/12 14:02	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	460	8260B/5035	07/03/12 14:02	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	460	8260B/5035	07/03/12 14:02	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	460	8260B/5035	07/03/12 14:02	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	460	8260B/5035	07/03/12 14:02	WAT	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Lab Sample ID: S52983.03
Sample Tag: SB116 (06-25-12) (1-2)
Collected Date/Time: 06/25/2012 11:30
Matrix: Soil
COC Reference: 69205

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.3	IR
1	8oz Glass	None	Yes	4.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	06/28/12 14:24	ADB		
Mercury Digestion	Completed			7471A	07/02/12 12:55	JRH		
Metal Digestion	Completed			3050B	06/28/12 01:00	SLR		
PNA Extraction	Completed			3550B	06/28/12 14:44	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	06/29/12 15:28	AMM		
Metals								
Arsenic	2.45	mg/kg	0.10	6020	06/28/12 18:00	SLS	7440-38-2	
Barium	64.8	mg/kg	1.0	6020	06/28/12 18:00	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	06/28/12 18:00	SLS	7440-43-9	
Chromium	4.07	mg/kg	0.50	6020	06/28/12 18:00	SLS	7440-47-3	
Copper	10.6	mg/kg	1.0	6020	06/28/12 18:00	SLS	7440-50-8	
Lead	9.02	mg/kg	0.30	6020	06/28/12 18:00	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	07/02/12 15:41	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	06/28/12 18:00	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	06/28/12 18:00	SLS	7440-22-4	
Zinc	18.3	mg/kg	1.0	6020	06/28/12 18:00	SLS	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	8082A	06/28/12 15:54	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	83-32-9	

Lab Sample ID: S52983.03 (continued)
Sample Tag: SB116 (06-25-12) (1-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	07/02/12 15:06	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	07/03/12 14:22	WAT	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	07/03/12 14:22	WAT	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	07/03/12 14:22	WAT	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	07/03/12 14:22	WAT	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	910	8260B/5035	07/03/12 14:22	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	07/03/12 14:22	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	07/03/12 14:22	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	07/03/12 14:22	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	07/03/12 14:22	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	07/03/12 14:22	WAT	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	07/03/12 14:22	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	07/03/12 14:22	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	78-87-5	

Lab Sample ID: S52983.03 (continued)
Sample Tag: SB116 (06-25-12) (1-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	07/03/12 14:22	WAT	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	07/03/12 14:22	WAT	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT		
o-Xylene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	07/03/12 14:22	WAT	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	07/03/12 14:22	WAT	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	07/03/12 14:22	WAT	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	07/03/12 14:22	WAT	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	07/03/12 14:22	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	07/03/12 14:22	WAT	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	07/03/12 14:22	WAT	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	07/03/12 14:22	WAT	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	07/03/12 14:22	WAT	91-57-6	

M-Result reported to MDL not RDL

Quality Control Cover Page

Report ID: S52983.01(01)
Report Date: 07/05/2012
Project: RACER GMPT Livonia
Lab Sample ID(s): S52983.01-S52983.03

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S52983.01	2306-062512-0001	06/25/2012 00:01	Methanol	Extraction / Prep., Organics
S52983.02	SB121 (06-25-12) (3-5)	06/25/2012 08:45	Soil	Extraction / Prep., Inorganics, Metals,
S52983.03	SB116 (06-25-12) (1-2)	06/25/2012 11:30	Soil	Extraction / Prep., Inorganics, Metals,

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S52983.01(01)
Generated on 07/10/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S52983.01-S52983.03
Project: RACER GMPT Livonia
Submitted Date/Time: 06/26/2012 12:55
Sampled by: M.Castles Humphrey
P.O. #:

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-4)
Prep Batch Summary (Pages 5-6)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S52983.01
Sample Tag: 2306-062512-0001
Collected Date/Time: 06/25/2012 00:01
Matrix: Methanol
COC Reference: 69205

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	07/03/12 13:41	120703A5	VF120703S1	Yes	LCS/BLK/LCSD

Lab Sample ID: S52983.02
Sample Tag: SB121 (06-25-12) (3-5)
Collected Date/Time: 06/25/2012 08:45
Matrix: Soil
COC Reference: 69205

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	06/29/12 15:28	TS120628A	TS120628A	No	BLK/LCS/DUP
Metals						
Arsenic	6020	06/28/12 17:57	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Barium	6020	06/28/12 17:57	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Cadmium	6020	06/28/12 17:57	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Chromium	6020	06/28/12 17:57	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Copper	6020	06/28/12 17:57	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Lead	6020	06/28/12 17:57	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Mercury	7471A	07/02/12 15:39	HG2-12-0702A	HGD-070212-2	No	LCS/BLK/MS/MSD
Selenium	6020	06/28/12 17:57	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Silver	6020	06/28/12 17:57	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Zinc	6020	06/28/12 17:57	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	8082A	06/28/12 15:43	F120628	PA120628S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	8082A	06/28/12 15:43	F120628	PA120628S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	8270C	07/02/12 14:42	U120702	SP120628S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	07/03/12 14:02	120703A5	VF120703S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S52983.03
Sample Tag: SB116 (06-25-12) (1-2)
Collected Date/Time: 06/25/2012 11:30
Matrix: Soil
COC Reference: 69205

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	06/29/12 15:28	TS120628A	TS120628A	No	BLK/LCS/DUP
Metals						
Arsenic	6020	06/28/12 18:00	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Barium	6020	06/28/12 18:00	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Cadmium	6020	06/28/12 18:00	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Chromium	6020	06/28/12 18:00	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Copper	6020	06/28/12 18:00	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Lead	6020	06/28/12 18:00	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Mercury	7471A	07/02/12 15:41	HG2-12-0702A	HGD-070212-2	No	LCS/BLK/MS/MSD
Selenium	6020	06/28/12 18:00	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Silver	6020	06/28/12 18:00	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Zinc	6020	06/28/12 18:00	MT3-12-0628B	MTD-062812-6	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	8082A	06/28/12 15:54	F120628	PA120628S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	8082A	06/28/12 15:54	F120628	PA120628S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	8270C	07/02/12 15:06	U120702	SP120628S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
Volatile Organics 5035	8260B/5035	07/03/12 14:22	120703A5	VF120703S1	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TS120628A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52983.02	Total Solids	Std M 2540 B	06/29/12 15:28	TS120628A
S52983.03	Total Solids	Std M 2540 B	06/29/12 15:28	TS120628A

Metals, Prep Batch ID: HGD-070212-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52983.02	Mercury	7471A	07/02/12 15:39	HG2-12-0702A
S52983.03	Mercury	7471A	07/02/12 15:41	HG2-12-0702A

Metals, Prep Batch ID: MTD-062812-6

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52983.02	Arsenic	6020	06/28/12 17:57	MT3-12-0628B
S52983.02	Barium	6020	06/28/12 17:57	MT3-12-0628B
S52983.02	Cadmium	6020	06/28/12 17:57	MT3-12-0628B
S52983.02	Chromium	6020	06/28/12 17:57	MT3-12-0628B
S52983.02	Copper	6020	06/28/12 17:57	MT3-12-0628B
S52983.02	Lead	6020	06/28/12 17:57	MT3-12-0628B
S52983.02	Selenium	6020	06/28/12 17:57	MT3-12-0628B
S52983.02	Silver	6020	06/28/12 17:57	MT3-12-0628B
S52983.02	Zinc	6020	06/28/12 17:57	MT3-12-0628B
S52983.03	Arsenic	6020	06/28/12 18:00	MT3-12-0628B
S52983.03	Barium	6020	06/28/12 18:00	MT3-12-0628B
S52983.03	Cadmium	6020	06/28/12 18:00	MT3-12-0628B
S52983.03	Chromium	6020	06/28/12 18:00	MT3-12-0628B
S52983.03	Copper	6020	06/28/12 18:00	MT3-12-0628B
S52983.03	Lead	6020	06/28/12 18:00	MT3-12-0628B
S52983.03	Selenium	6020	06/28/12 18:00	MT3-12-0628B
S52983.03	Silver	6020	06/28/12 18:00	MT3-12-0628B
S52983.03	Zinc	6020	06/28/12 18:00	MT3-12-0628B

Organics - PCBs/Pesticides, Prep Batch ID: PA120628S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52983.02	TCL PCB List (Column 1)	8082A	06/28/12 15:43	F120628
S52983.02	TCL PCB List (Column 2)	8082A	06/28/12 15:43	F120628
S52983.03	TCL PCB List (Column 1)	8082A	06/28/12 15:54	F120628
S52983.03	TCL PCB List (Column 2)	8082A	06/28/12 15:54	F120628

Organics - Semi-Volatiles, Prep Batch ID: SP120628S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52983.02	Polynuclear Aromatics	8270C	07/02/12 14:42	U120702
S52983.03	Polynuclear Aromatics	8270C	07/02/12 15:06	U120702

Organics - Volatiles, Prep Batch ID: VF120703S1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52983.01	Volatile Organics 5035	8260B/5035	07/03/12 13:41	120703A5
S52983.02	Volatile Organics 5035	8260B/5035	07/03/12 14:02	120703A5

Organics - Volatiles, Prep Batch ID: VF120703S1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S52983.03	Volatile Organics 5035	8260B/5035	07/03/12 14:22	120703A5

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb03a.d	07/03/12 09:28	50ng/bfb 1s0702 [none]	WW	IP	**1**	
spcc03a.d	07/03/12 09:54	spcc/ccc 1s0703 1v0703 [none]	WW	CV	**1**	**4**
lcss03a.d	07/03/12 10:24	100ul blankms 1s0703 1m0703 vf120703s1	SO	MS	**1**	
lcss03b.d	07/03/12 10:44	100ul blankmsd 1s0703 1m0703 vf120703s1	SO	MS	**1**	
blks03a.d	07/03/12 12:05	100ul blank 1s0703 vf120703s1	SO	Bl	**1**	
5298301.d	07/03/12 13:41	100ul 1s0703 vf120703s1	SO		**1**	
5298302.d	07/03/12 14:02	100ul 1s0703 vf120703s1	SO		**1**	
5298303.d	07/03/12 14:22	100ul 1s0703 vf120703s1	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	3
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
spcc03a.d	4-Bromofluorobenzene	46.3/ 50.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	43.3/ 50.0	n/a	77.0/121.0	
	Toluene-D8	49.1/ 50.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcss03a.d	4-Bromofluorobenzene	46.8/ 50.0	93.6	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.5/ 50.0	87.0	71.0/124.0	
	Toluene-D8	48.3/ 50.0	96.6	83.0/120.0	
				Total Outliers: 0	
lcss03b.d	4-Bromofluorobenzene	46.6/ 50.0	93.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.2/ 50.0	88.4	71.0/124.0	
	Toluene-D8	48.5/ 50.0	97.0	83.0/120.0	
				Total Outliers: 0	
blks03a.d	4-Bromofluorobenzene	48.2/ 50.0	96.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.3/ 50.0	86.6	71.0/124.0	
	Toluene-D8	47.2/ 50.0	94.3	83.0/120.0	
				Total Outliers: 0	
5298301.d	4-Bromofluorobenzene	47.2/ 50.0	94.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	42.7/ 50.0	85.4	71.0/124.0	
	Toluene-D8	47.3/ 50.0	94.5	83.0/120.0	
				Total Outliers: 0	
5298302.d	4-Bromofluorobenzene	47.5/ 50.0	94.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	42.7/ 50.0	85.4	71.0/124.0	
	Toluene-D8	47.6/ 50.0	95.2	83.0/120.0	
				Total Outliers: 0	
5298303.d	4-Bromofluorobenzene	48.1/ 50.0	96.2	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.1/ 50.0	86.1	71.0/124.0	
	Toluene-D8	47.3/ 50.0	94.6	83.0/120.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Dup File : lcss03b.d
Dup ID : LCS1
Prep Batch: vf120703s1
Prep Date : 07/03/12
Parent File: lcss03a.d

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
1,1,2-trichloro-1,2,2-trifluoroethane	45.91/ 47.61	3.6/25.0	SO
diethyl ether (*)	42.23/ 43.36	2.6/25.0	
acetone (*)	35.57/ 36.06	1.4/25.0	
methyl iodide (iodomethane) (*)	41.73/ 42.12	0.9/25.0	
carbon disulfide (*)	40.95/ 41.64	1.7/25.0	
methyl acetate	37.28/ 38.79	4.0/25.0	
tert-methyl butyl ether (mtbe) (*)	41.73/ 42.70	2.3/25.0	
acrylonitrile (*)	41.74/ 42.74	2.4/25.0	
2-butanone (mek) (*)	36.05/ 35.98	0.2/25.0	
dichlorodifluoromethane	43.93/ 46.50	5.7/25.0	
chloromethane (spcc)	43.85/ 45.68	4.1/25.0	
vinyl chloride (ccc)	44.72/ 47.85	6.8/25.0	
bromomethane	41.45/ 43.44	4.7/25.0	
chloroethane	44.15/ 46.11	4.3/25.0	
trichlorofluoromethane	48.84/ 51.38	5.1/25.0	
1,1-dichloroethene (ccc/ms)	43.48/ 41.69	4.2/25.0	
methylene chloride	38.78/ 38.94	0.4/25.0	
trans-1,2-dichloroethene	41.64/ 42.61	2.3/25.0	
1,1-dichloroethane (spcc)	41.22/ 41.69	1.1/25.0	
cis-1,2-dichloroethene	41.59/ 42.55	2.3/25.0	
tetrahydrofuran	35.92/ 36.42	1.4/25.0	
chloroform (ccc)	41.49/ 41.72	0.6/25.0	
bromochloromethane	41.50/ 41.71	0.5/25.0	
1,1,1-trichloroethane	43.96/ 45.10	2.6/25.0	
1,1-dichloropropene	2.17/ 2.17	0.0/25.0	
cyclohexane	38.82/ 40.80	5.0/25.0	
4-methyl-2-pentanone (mibk) (*)	41.65/ 43.20	3.7/25.0	
2-hexanone (*)	42.46/ 43.22	1.8/25.0	
carbon tetrachloride	46.73/ 48.70	4.1/25.0	
benzene (ms)	43.81/ 44.81	2.3/25.0	
1,2-dichloroethane	42.85/ 43.69	1.9/25.0	
trichloroethene (ms)	45.19/ 46.23	2.3/25.0	
1,2-dichloropropane (ccc)	43.74/ 44.02	0.6/25.0	
bromodichloromethane	45.80/ 45.90	0.2/25.0	
methyl cyclohexane	46.25/ 47.77	3.2/25.0	
dibromomethane	44.15/ 45.87	3.8/25.0	
cis-1,3-dichloropropene	46.66/ 46.69	0.1/25.0	
toluene (ccc/ms)	45.09/ 45.88	1.7/25.0	
trans-1,3-dichloropropene	47.28/ 47.65	0.8/25.0	
1,1,2-trichloroethane	43.79/ 43.54	0.6/25.0	
tetrachloroethene	44.09/ 45.08	2.2/25.0	
trans-1,4-dichloro-2-butene	44.17/ 46.72	5.6/25.0	
dibromochloromethane	47.94/ 48.90	2.0/25.0	
1,2-dibromoethane	45.04/ 46.28	2.7/25.0	
chlorobenzene (spcc/ms)	44.27/ 45.10	1.9/25.0	
1,1,1,2-tetrachloroethane	46.24/ 47.43	2.5/25.0	
ethylbenzene (ccc)	45.88/ 47.09	2.6/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	*Dup/Samp Conc.*	*%RPD/UCL*	*Matrix*
p,m-xylene	92.93/ 94.19	1.3/25.0	
o-xylene	46.07/ 47.10	2.2/25.0	
styrene	45.85/ 47.01	2.5/25.0	
isopropylbenzene	46.40/ 47.88	3.1/25.0	
bromoform (spcc)	44.54/ 46.60	4.5/25.0	
1,1,2,2-tetrachloroethane (spcc)	43.44/ 45.73	5.1/25.0	
1,2,3-trichloropropane	44.20/ 46.35	4.7/25.0	
n-propylbenzene	47.09/ 48.56	3.1/25.0	
bromobenzene	44.18/ 45.31	2.5/25.0	
1,3,5-trimethylbenzene	45.98/ 46.90	2.0/25.0	
tert-butylbenzene	45.95/ 47.26	2.8/25.0	
1,2,4-trimethylbenzene	47.16/ 48.28	2.3/25.0	
sec-butylbenzene	48.02/ 49.21	2.4/25.0	
p-isopropyltoluene	49.32/ 50.00	1.4/25.0	
1,3-dichlorobenzene	45.66/ 46.09	0.9/25.0	
1,4-dichlorobenzene	44.22/ 44.69	1.1/25.0	
1,2-dichlorobenzene	44.81/ 45.33	1.2/25.0	
1,2,3-trimethylbenzene	45.46/ 45.79	0.7/25.0	
n-butylbenzene	47.79/ 48.34	1.1/25.0	
hexachloroethane	43.27/ 43.38	0.3/25.0	
1,2-dibromo-3-chloropropane	45.99/ 48.61	5.5/25.0	
1,2,4-trichlorobenzene	47.94/ 48.06	0.3/25.0	
1,2,3-trichlorobenzene	48.14/ 47.57	1.2/25.0	
naphthalene	49.62/ 50.64	2.0/25.0	
2-methylnaphthalene	49.21/ 49.19	0.0/25.0	
[end of compound list]			
		Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss03a.d
Spike ID : LCS1
Prep Batch: vf120703s1
Prep Date : 07/03/12
Parent File: blks03a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	47.61/	0.00	50.00	95.2	56.9/138.1	SO
Diethyl ether	43.36/	0.00	50.00	86.7	51.7/123.0	
Acetone	36.06/	2.50	50.00	72.1	25.3/155.1	
Methyl iodide	42.12/	0.00	50.00	84.2	56.9/110.8	
Carbon disulfide	41.64/	0.00	50.00	83.3	57.0/123.0	
Methyl acetate	38.79/	0.00	50.00	77.6	54.4/133.5	
tert-Methyl butyl ether	42.70/	0.00	50.00	85.4	67.5/123.7	
Acrylonitrile	42.74/	0.00	50.00	85.5	58.7/133.0	
2-Butanone	35.98/	0.00	50.00	72.0	38.7/136.9	
Dichlorodifluoromethane	46.50/	0.00	50.00	93.0	10.0/171.8	
Chloromethane	45.68/	0.00	50.00	91.4	30.2/152.7	
Vinyl Chloride	47.85/	0.00	50.00	95.7	45.3/138.7	
Bromomethane	43.44/	0.00	50.00	86.9	10.0/157.4	
Chloroethane	46.11/	0.00	50.00	92.2	10.0/169.1	
Trichlorofluoromethane	51.38/	0.00	50.00	102.8	25.7/157.8	
1,1-Dichloroethene	41.69/	0.00	50.00	83.4	59.2/137.5	
Methylene Chloride	38.94/	0.00	50.00	77.9	70.5/121.5	
trans-1,2-Dichloroethene	42.61/	0.00	50.00	85.2	72.5/128.8	
1,1-Dichloroethane	41.69/	0.00	50.00	83.4	72.5/123.4	
cis-1,2-Dichloroethene	42.55/	0.00	50.00	85.1	75.0/120.5	
Tetrahydrofuran	36.42/	2.18	50.00	72.8	48.2/125.7	
Chloroform	41.72/	0.00	50.00	83.4	74.6/123.2	
Bromochloromethane	41.71/	0.00	50.00	83.4	72.3/122.8	
1,1,1-Trichloroethane	45.10/	0.00	50.00	90.2	73.8/128.9	
Cyclohexane	40.80/	0.00	50.00	81.6	42.4/147.1	
4-Methyl-2-pentanone	43.20/	0.00	50.00	86.4	60.4/133.8	
2-Hexanone	43.22/	0.00	50.00	86.4	45.7/141.9	
Carbon Tetrachloride	48.70/	0.00	50.00	97.4	70.1/132.7	
Benzene	44.81/	0.00	50.00	89.6	74.6/128.9	
1,2-Dichloroethane	43.69/	0.00	50.00	87.4	73.2/125.4	
Trichloroethene	46.23/	0.00	50.00	92.5	74.1/127.6	
1,2-Dichloropropane	44.02/	0.00	50.00	88.0	77.6/124.4	
Bromodichloromethane	45.90/	0.00	50.00	91.8	76.7/128.4	
Methyl cyclohexane	47.77/	0.00	50.00	95.5	53.7/148.2	
Dibromomethane	45.87/	0.00	50.00	91.7	72.5/127.3	
cis-1,3-Dichloropropene	46.69/	0.00	50.00	93.4	79.3/128.3	
Toluene	45.88/	0.00	50.00	91.8	74.8/129.2	
trans-1,3-Dichloropropene	47.65/	0.00	50.00	95.3	74.5/129.7	
1,1,2-Trichloroethane	43.54/	0.00	50.00	87.1	71.3/125.7	
Tetrachloroethene	45.08/	0.00	50.00	90.2	73.0/124.7	
trans-1,4-Dichloro-2-butene	46.72/	0.00	50.00	93.4	58.3/143.3	
Dibromochloromethane	48.90/	0.00	50.00	97.8	68.9/132.7	
1,2-Dibromoethane	46.28/	0.00	50.00	92.6	71.4/129.3	
Chlorobenzene	45.10/	0.00	50.00	90.2	74.2/128.1	
1,1,1,2-Tetrachloroethane	47.43/	0.00	50.00	94.9	76.6/133.0	
Ethylbenzene	47.09/	0.00	50.00	94.2	77.7/130.4	
p,m-Xylene	94.19/	0.00	100.00	94.2	79.8/132.0	
o-Xylene	47.10/	0.00	50.00	94.2	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	47.01/	0.00	50.00	94.0	71.3/119.3	
Isopropylbenzene	47.88/	0.00	50.00	95.8	70.3/128.2	
Bromoform	46.60/	0.00	50.00	93.2	54.7/137.4	
1,1,2,2-Tetrachloroethane	45.73/	0.00	50.00	91.5	65.4/134.9	
1,2,3-Trichloropropane	46.35/	0.00	50.00	92.7	67.2/154.5	
n-Propylbenzene	48.56/	0.00	50.00	97.1	77.3/135.2	
Bromobenzene	45.31/	0.00	50.00	90.6	74.0/132.4	
1,3,5-Trimethylbenzene	46.90/	0.00	50.00	93.8	75.6/137.0	
tert-Butylbenzene	47.26/	0.00	50.00	94.5	75.6/134.6	
1,2,4-Trimethylbenzene	48.28/	0.00	50.00	96.6	76.9/139.1	
sec-Butylbenzene	49.21/	0.00	50.00	98.4	72.7/135.6	
p-Isopropyltoluene	50.00/	0.00	50.00	100.0	77.1/140.9	
1,3-Dichlorobenzene	46.09/	0.00	50.00	92.2	77.3/131.0	
1,4-Dichlorobenzene	44.69/	0.00	50.00	89.4	33.1/125.8	
1,2-Dichlorobenzene	45.33/	0.00	50.00	90.7	73.5/132.7	
1,2,3-Trimethylbenzene	45.79/	0.00	50.00	91.6	70.9/130.2	
n-Butylbenzene	48.34/	0.00	50.00	96.7	75.0/138.6	
Hexachloroethane	43.38/	0.00	50.00	86.8	55.5/129.0	
1,2-Dibromo-3-Chloropropane	48.61/	0.00	50.00	97.2	54.1/156.4	
1,2,4-Trichlorobenzene	48.06/	0.00	50.00	96.1	37.1/131.3	
1,2,3-Trichlorobenzene	47.57/	0.00	50.00	95.1	59.4/157.9	
Naphthalene	50.64/	0.00	50.00	101.3	39.3/129.2	
2-Methylnaphthalene	49.19/	0.00	50.00	98.4	10.0/175.9	
					Total Outliers:	**0**

Spike File : lcss03b.d
Spike ID : LCS1
Prep Batch: vf120703s1
Prep Date : 07/03/12
Parent File: blks03a.d

1,1,2-Trichloro-1,2,2-trifluor	45.91/	0.00	50.00	91.8	56.9/138.1	SO
Diethyl ether	42.23/	0.00	50.00	84.5	51.7/123.0	
Acetone	35.57/	2.50	50.00	71.1	25.3/155.1	
Methyl iodide	41.73/	0.00	50.00	83.5	56.9/110.8	
Carbon disulfide	40.95/	0.00	50.00	81.9	57.0/123.0	
Methyl acetate	37.28/	0.00	50.00	74.6	54.4/133.5	
tert-Methyl butyl ether	41.73/	0.00	50.00	83.5	67.5/123.7	
Acrylonitrile	41.74/	0.00	50.00	83.5	58.7/133.0	
2-Butanone	36.05/	0.00	50.00	72.1	38.7/136.9	
Dichlorodifluoromethane	43.93/	0.00	50.00	87.9	10.0/171.8	
Chloromethane	43.85/	0.00	50.00	87.7	30.2/152.7	
Vinyl Chloride	44.72/	0.00	50.00	89.4	45.3/138.7	
Bromomethane	41.45/	0.00	50.00	82.9	10.0/157.4	
Chloroethane	44.15/	0.00	50.00	88.3	10.0/169.1	
Trichlorofluoromethane	48.84/	0.00	50.00	97.7	25.7/157.8	
1,1-Dichloroethene	43.48/	0.00	50.00	87.0	59.2/137.5	
Methylene Chloride	38.78/	0.00	50.00	77.6	70.5/121.5	
trans-1,2-Dichloroethene	41.64/	0.00	50.00	83.3	72.5/128.8	
1,1-Dichloroethane	41.22/	0.00	50.00	82.4	72.5/123.4	
cis-1,2-Dichloroethene	41.59/	0.00	50.00	83.2	75.0/120.5	
Tetrahydrofuran	35.92/	2.18	50.00	71.8	48.2/125.7	
Chloroform	41.49/	0.00	50.00	83.0	74.6/123.2	
Bromochloromethane	41.50/	0.00	50.00	83.0	72.3/122.8	
1,1,1-Trichloroethane	43.96/	0.00	50.00	87.9	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	38.82/	0.00	50.00	77.6	42.4/147.1	
4-Methyl-2-pentanone	41.65/	0.00	50.00	83.3	60.4/133.8	
2-Hexanone	42.46/	0.00	50.00	84.9	45.7/141.9	
Carbon Tetrachloride	46.73/	0.00	50.00	93.5	70.1/132.7	
Benzene	43.81/	0.00	50.00	87.6	74.6/128.9	
1,2-Dichloroethane	42.85/	0.00	50.00	85.7	73.2/125.4	
Trichloroethene	45.19/	0.00	50.00	90.4	74.1/127.6	
1,2-Dichloropropane	43.74/	0.00	50.00	87.5	77.6/124.4	
Bromodichloromethane	45.80/	0.00	50.00	91.6	76.7/128.4	
Methyl cyclohexane	46.25/	0.00	50.00	92.5	53.7/148.2	
Dibromomethane	44.15/	0.00	50.00	88.3	72.5/127.3	
cis-1,3-Dichloropropene	46.66/	0.00	50.00	93.3	79.3/128.3	
Toluene	45.09/	0.00	50.00	90.2	74.8/129.2	
trans-1,3-Dichloropropene	47.28/	0.00	50.00	94.6	74.5/129.7	
1,1,2-Trichloroethane	43.79/	0.00	50.00	87.6	71.3/125.7	
Tetrachloroethene	44.09/	0.00	50.00	88.2	73.0/124.7	
trans-1,4-Dichloro-2-butene	44.17/	0.00	50.00	88.3	58.3/143.3	
Dibromochloromethane	47.94/	0.00	50.00	95.9	68.9/132.7	
1,2-Dibromoethane	45.04/	0.00	50.00	90.1	71.4/129.3	
Chlorobenzene	44.27/	0.00	50.00	88.5	74.2/128.1	
1,1,1,2-Tetrachloroethane	46.24/	0.00	50.00	92.5	76.6/133.0	
Ethylbenzene	45.88/	0.00	50.00	91.8	77.7/130.4	
p,m-Xylene	92.93/	0.00	100.00	92.9	79.8/132.0	
o-Xylene	46.07/	0.00	50.00	92.1	79.4/132.3	
Styrene	45.85/	0.00	50.00	91.7	71.3/119.3	
Isopropylbenzene	46.40/	0.00	50.00	92.8	70.3/128.2	
Bromoform	44.54/	0.00	50.00	89.1	54.7/137.4	
1,1,2,2-Tetrachloroethane	43.44/	0.00	50.00	86.9	65.4/134.9	
1,2,3-Trichloropropane	44.20/	0.00	50.00	88.4	67.2/154.5	
n-Propylbenzene	47.09/	0.00	50.00	94.2	77.3/135.2	
Bromobenzene	44.18/	0.00	50.00	88.4	74.0/132.4	
1,3,5-Trimethylbenzene	45.98/	0.00	50.00	92.0	75.6/137.0	
tert-Butylbenzene	45.95/	0.00	50.00	91.9	75.6/134.6	
1,2,4-Trimethylbenzene	47.16/	0.00	50.00	94.3	76.9/139.1	
sec-Butylbenzene	48.02/	0.00	50.00	96.0	72.7/135.6	
p-Isopropyltoluene	49.32/	0.00	50.00	98.6	77.1/140.9	
1,3-Dichlorobenzene	45.66/	0.00	50.00	91.3	77.3/131.0	
1,4-Dichlorobenzene	44.22/	0.00	50.00	88.4	33.1/125.8	
1,2-Dichlorobenzene	44.81/	0.00	50.00	89.6	73.5/132.7	
1,2,3-Trimethylbenzene	45.46/	0.00	50.00	90.9	70.9/130.2	
n-Butylbenzene	47.79/	0.00	50.00	95.6	75.0/138.6	
Hexachloroethane	43.27/	0.00	50.00	86.5	55.5/129.0	
1,2-Dibromo-3-Chloropropane	45.99/	0.00	50.00	92.0	54.1/156.4	
1,2,4-Trichlorobenzene	47.94/	0.00	50.00	95.9	37.1/131.3	
1,2,3-Trichlorobenzene	48.14/	0.00	50.00	96.3	59.4/157.9	
Naphthalene	49.62/	0.00	50.00	99.2	39.3/129.2	
2-Methylnaphthalene	49.21/	0.00	50.00	98.4	10.0/175.9	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks03a.d (100ul blank 1s0703)
Blank ID : BLANK1
Prep Batch: vf120703s1
Prep Date : 07/03/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		5.6	50
Diethyl ether (*)	Not detected		7.1	50
Acetone (*)	Not detected		140	500
Methyl iodide (iodomethane) (*	Not detected		7.3	50
Carbon disulfide (*)	Not detected		8.2	50
Methyl Acetate	Not detected		15	50
tert-Methyl butyl ether (MTBE)	Not detected		8.8	50
Acrylonitrile (*)	Not detected		14	50
2-Butanone (MEK) (*)	Not detected		24	500
Dichlorodifluoromethane	Not detected		12	50
Chloromethane (SPCC)	Not detected		12	50
Vinyl Chloride (CCC)	Not detected		9.2	50
Bromomethane	Not detected		10	50
Chloroethane	Not detected		8.8	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		10	50
1,1-Dichloroethene (CCC/MS)	Not detected		9.9	50
Methylene Chloride	Not detected		9.4	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		9.2	50
cis-1,2-Dichloroethene	Not detected		9.1	50
Tetrahydrofuran	2.18	109.0	49	500
Chloroform (CCC)	Not detected		7.1	50
Bromochloromethane	Not detected		6.7	50
1,1,1-Trichloroethane	Not detected		6.2	50
1,1-Dichloropropene	Not detected		10	50
Cyclohexane	Not detected		14	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		17	50
2-Hexanone (*)	Not detected		10	50
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		6.7	50
Benzene (MS)	Not detected		10	50
1,2-Dichloroethane	Not detected		9.2	50
Trichloroethene (MS)	Not detected		8.8	50
1,2-Dichloropropane (CCC)	Not detected		14	50
Bromodichloromethane	Not detected		7.0	50
Methyl Cyclohexane	Not detected		12	50
Dibromomethane	Not detected		8.3	50
cis-1,3-Dichloropropene	Not detected		8.3	50
Toluene (CCC/MS)	Not detected		9.4	50
trans-1,3-Dichloropropene	Not detected		5.3	50
1,1,2-Trichloroethane	Not detected		11	50
Tetrachloroethene	Not detected		10	50
trans-1,4-Dichloro-2-butene	Not detected		14	50
Dibromochloromethane	Not detected		7.3	50
1,2-Dibromoethane	Not detected		7.5	50
Chlorobenzene (SPCC/MS)	Not detected		9.0	50
1,1,1,2-Tetrachloroethane	Not detected		9.1	50
Ethylbenzene (CCC)	Not detected		9.8	50
p,m-Xylene	Not detected		20	50
o-Xylene	Not detected		8.2	50
Styrene	Not detected		8.2	50
Isopropylbenzene	Not detected		9.8	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks03a.d (100ul blank 1s0703)
Blank ID : BLANK1
Prep Batch: vf120703s1
Prep Date : 07/03/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		5.8	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.4	50
1,2,3-Trichloropropane	Not detected		11	50
n-Propylbenzene	Not detected		8.3	50
Bromobenzene	Not detected		10	50
1,3,5-Trimethylbenzene	Not detected		7.1	50
tert-Butylbenzene	Not detected		9.7	50
1,2,4-Trimethylbenzene	Not detected		7.6	50
sec-Butylbenzene	Not detected		9.1	50
p-Isopropyltoluene	Not detected		9.9	50
1,3-Dichlorobenzene	Not detected		11	50
1,4-Dichlorobenzene	Not detected		7.5	50
1,2-Dichlorobenzene	Not detected		8.6	50
1,2,3-Trimethylbenzene	Not detected		4.0	50
n-Butylbenzene	Not detected		9.4	50
Hexachloroethane	Not detected		3.2	50
1,2-Dibromo-3-Chloropropane	Not detected		18	50
1,2,4-Trichlorobenzene	Not detected		9.8	50
Hexachlorobutadiene	Not detected		9.8	50
1,2,3-Trichlorobenzene	Not detected		8.1	50
Naphthalene	Not detected		8.5	50
2-Methylnaphthalene	Not detected		12	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks03a.d
Method Blank Prep Date: 07/03/12
Blank/LCS Preparation Batch: vf120703s1

LCS Data File: lcss03a.d
LCS Prep Date: 07/03/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52976.11	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S52976.12	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S52976.13	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S52983.01	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S52983.02	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S52983.03	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S52988.12	120703A5	VF120703S1	07/03/12	Volatile Organics	$8260
S53036.04	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53036.05	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53037.01	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53037.02	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53037.03	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53037.04	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53037.05	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53037.06	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53037.07	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53037.08	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260
S53037.09	120703A5	VF120703S1	07/03/12	Volatile Organics 5035	$58260

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb03a.d	07/03/12 09:28	50	95	8.0	40.0	10.4	7060	PASS
		75	95	30.0	66.0	38.3	26056	PASS
		95	95	100.0	100.0	100.0	67976	PASS
		96	95	5.0	9.0	6.8	4604	PASS
		173	174	0.0	2.0	0.9	661	PASS
		174	95	50.0	120.0	110.7	75272	PASS
		175	174	4.0	9.0	7.4	5546	PASS
		176	174	93.0	101.0	96.6	72696	PASS
		177	176	5.0	9.0	6.7	4900	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc03a.d	07/03/12 09:54	Pentafluorobenzene	667948/ 3.96	333974- 1335896	3.46- 4.46
		1,4-Difluorobenzene	746100/ 4.32	373050- 1492200	3.82- 4.82
		Chlorobenzene-D5	272113/ 5.69	136057- 544226	5.19- 6.19
		1,4-Dichlorobenzene-D4	358032/ 6.78	179016- 716064	6.28- 7.28
				Total Outliers: N/A	
lcss03a.d	07/03/12 10:24	Pentafluorobenzene	649151/ 3.96	Ratio: 0.972	Diff.: 0.00
		1,4-Difluorobenzene	725935/ 4.32	Ratio: 0.973	Diff.: 0.00
		Chlorobenzene-D5	258728/ 5.69	Ratio: 0.951	Diff.: 0.00
		1,4-Dichlorobenzene-D4	344494/ 6.78	Ratio: 0.962	Diff.: 0.00
				Total Outliers: 0	
lcss03b.d	07/03/12 10:44	Pentafluorobenzene	669247/ 3.96	Ratio: 1.002	Diff.: 0.00
		1,4-Difluorobenzene	759266/ 4.32	Ratio: 1.018	Diff.: 0.00
		Chlorobenzene-D5	272801/ 5.68	Ratio: 1.003	Diff.: -0.01
		1,4-Dichlorobenzene-D4	359353/ 6.77	Ratio: 1.004	Diff.: -0.01
				Total Outliers: 0	
blks03a.d	07/03/12 12:05	Pentafluorobenzene	683748/ 3.96	Ratio: 1.024	Diff.: 0.00
		1,4-Difluorobenzene	769491/ 4.32	Ratio: 1.031	Diff.: 0.00
		Chlorobenzene-D5	269879/ 5.68	Ratio: 0.992	Diff.: -0.01
		1,4-Dichlorobenzene-D4	380999/ 6.77	Ratio: 1.064	Diff.: -0.01
				Total Outliers: 0	
5298301.d	07/03/12 13:41	Pentafluorobenzene	654824/ 3.96	Ratio: 0.980	Diff.: 0.00
		1,4-Difluorobenzene	744383/ 4.32	Ratio: 0.998	Diff.: 0.00
		Chlorobenzene-D5	264149/ 5.68	Ratio: 0.971	Diff.: -0.01
		1,4-Dichlorobenzene-D4	371405/ 6.77	Ratio: 1.037	Diff.: -0.01
				Total Outliers: 0	
5298302.d	07/03/12 14:02	Pentafluorobenzene	701745/ 3.96	Ratio: 1.051	Diff.: 0.00
		1,4-Difluorobenzene	788773/ 4.32	Ratio: 1.057	Diff.: 0.00
		Chlorobenzene-D5	281055/ 5.68	Ratio: 1.033	Diff.: -0.01
		1,4-Dichlorobenzene-D4	394558/ 6.77	Ratio: 1.102	Diff.: -0.01
				Total Outliers: 0	
5298303.d	07/03/12 14:22	Pentafluorobenzene	679600/ 3.96	Ratio: 1.017	Diff.: 0.00
		1,4-Difluorobenzene	767157/ 4.32	Ratio: 1.028	Diff.: 0.00
		Chlorobenzene-D5	272961/ 5.68	Ratio: 1.003	Diff.: -0.01
		1,4-Dichlorobenzene-D4	394099/ 6.77	Ratio: 1.101	Diff.: -0.01
				Total Outliers: 0	

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120703a5.3

LIMS ID: S52983.01
Data File: 5298301.d
Date Received: 06/26/12

Tag: 2306-062512-0001
Notes: 100ul 1s0703
s/50 id:vf120703s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	200	16	ug/kg	07/03/12	
67-64-1	Acetone	Not detected	1000	340	ug/kg		
74-88-4	Methyl iodide	Not detected	100	5.4	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	6.9	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	200	9.2	ug/kg		
107-13-1	Acrylonitrile	Not detected	100	37	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	750	25	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	300	11	ug/kg		
74-87-3	Chloromethane	Not detected	300	9.9	ug/kg		
75-01-4	Vinyl chloride	Not detected	50	10.0	ug/kg		
74-83-9	Bromomethane	Not detected	200	11	ug/kg		
75-00-3	Chloroethane	Not detected	300	11	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	7.8	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	50	11	ug/kg		
75-09-2	Methylene chloride	Not detected	100	11	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	50	8.5	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	50	8.5	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	50	7.9	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	1000	83	ug/kg		
67-66-3	Chloroform	Not detected	50	7.8	ug/kg		
74-97-5	Bromochloromethane	Not detected	100	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	50	6.4	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	22	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	13	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	50	7.3	ug/kg		
71-43-2	Benzene	Not detected	50	9.2	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	50	11	ug/kg		
79-01-6	Trichloroethene	Not detected	50	9.4	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	50	6.5	ug/kg		
75-27-4	Bromodichloromethane	Not detected	100	7.4	ug/kg		
74-95-3	Dibromomethane	Not detected	300	7.7	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	7.3	ug/kg		
108-88-3	Toluene	Not detected	100	8.4	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	6.4	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	50	9.2	ug/kg		
127-18-4	Tetrachloroethene	Not detected	50	9.0	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	50	18	ug/kg		
124-48-1	Dibromochloromethane	Not detected	100	6.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	20	6.2	ug/kg		M
108-90-7	Chlorobenzene	Not detected	50	8.1	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	100	6.1	ug/kg		
100-41-4	Ethylbenzene	Not detected	50	9.6	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	100	18	ug/kg		
95-47-6	o-Xylene	Not detected	50	9.1	ug/kg		
100-42-5	Styrene	Not detected	50	9.6	ug/kg		
98-82-8	Isopropylbenzene	Not detected	300	8.6	ug/kg		
75-25-2	Bromoform	Not detected	100	9.9	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	7.2	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	100	18	ug/kg		
103-65-1	n-Propylbenzene	Not detected	100	8.8	ug/kg		
108-86-1	Bromobenzene	Not detected	100	9.5	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	100	8.8	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	50	10	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	100	9.9	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	50	10	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	100	10	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	100	10	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	100	8.5	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	100	11	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	100	6.7	ug/kg		
104-51-8	n-Butylbenzene	Not detected	50	4.1	ug/kg		
67-72-1	Hexachloroethane	Not detected	300	6.5	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	300	11	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	330	6.6	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	330	7.6	ug/kg		
91-20-3	Naphthalene	Not detected	330	6.7	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	330	7.8	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120703a5.3

LIMS ID: S52983.01
Data File: 5298301.d
Date Received: 06/26/12

Tag: 2306-062512-0001
Notes: 100ul 1s0703
s/50 id:vf120703s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (85%)				07/03/12	
460-00-4	4-Bromofluorobenzene	Pass (94%)					
2037-26-5	Toluene-D8	Pass (95%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120703a5.3

LIMS ID: S52983.02
Data File: 5298302.d
Date Received: 06/26/12

Tag: SB121 (06-25-12) (3-5)
Notes: 100ul 1s0703
s/50 id:vf120703s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 70.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	300	22	ug/kg	07/03/12	
67-64-1	Acetone	Not detected	1000	470	ug/kg		
74-88-4	Methyl iodide	Not detected	100	7.5	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	9.7	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	13	ug/kg		
107-13-1	Acrylonitrile	Not detected	100	52	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	35	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	400	16	ug/kg		
74-87-3	Chloromethane	Not detected	400	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	70	14	ug/kg		
74-83-9	Bromomethane	Not detected	300	15	ug/kg		
75-00-3	Chloroethane	Not detected	400	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	100	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	1000	120	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
74-97-5	Bromochloromethane	Not detected	100	15	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	9.0	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	30	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	18	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	10	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.1	ug/kg		
75-27-4	Bromodichloromethane	Not detected	100	10	ug/kg		
74-95-3	Dibromomethane	Not detected	400	11	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	10	ug/kg		
108-88-3	Toluene	Not detected	100	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.9	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	70	26	ug/kg		
124-48-1	Dibromochloromethane	Not detected	100	8.5	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	30	8.7	ug/kg		M
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	100	8.6	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	100	25	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	400	12	ug/kg		
75-25-2	Bromoform	Not detected	100	14	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	10	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	100	25	ug/kg		
103-65-1	n-Propylbenzene	Not detected	100	12	ug/kg		
108-86-1	Bromobenzene	Not detected	100	13	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	100	12	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	70	15	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	100	14	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	70	14	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	100	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	100	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	100	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	100	15	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	100	9.3	ug/kg		
104-51-8	n-Butylbenzene	Not detected	70	5.7	ug/kg		
67-72-1	Hexachloroethane	Not detected	400	9.1	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	400	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	460	9.3	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	460	11	ug/kg		
91-20-3	Naphthalene	Not detected	460	9.4	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	460	11	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120703a5.3

LIMS ID: S52983.02
Data File: 5298302.d
Date Received: 06/26/12

Tag: SB121 (06-25-12) (3-5)
Notes: 100ul 1s0703
s/50 id:vf120703s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 70.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Total Solids							
TSOLIDS	Total Solids	84	1		%	06/29/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (85%)				07/03/12	
460-00-4	4-Bromofluorobenzene	Pass (95%)					
2037-26-5	Toluene-D8	Pass (95%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120703a5.3

LIMS ID: S52983.03
Data File: 5298303.d
Date Received: 06/26/12

Tag: SB116 (06-25-12) (1-2)
Notes: 100ul 1s0703
s/50 id:vf120703s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 60.4

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Volatile Organics 5035							
60-29-7	Diethyl ether	Not detected	200	19	ug/kg	07/03/12	
67-64-1	Acetone	Not detected	1000	410	ug/kg		
74-88-4	Methyl iodide	Not detected	100	6.5	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.3	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	200	11	ug/kg		
107-13-1	Acrylonitrile	Not detected	100	45	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	910	30	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	300	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	60	12	ug/kg		
74-83-9	Bromomethane	Not detected	200	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.4	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	100	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.5	ug/kg		
109-99-9	Tetrahydrofuran	Not detected	1000	100	ug/kg		
67-66-3	Chloroform	Not detected	60	9.4	ug/kg		
74-97-5	Bromochloromethane	Not detected	100	13	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.7	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	26	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.8	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.8	ug/kg		
75-27-4	Bromodichloromethane	Not detected	100	8.9	ug/kg		
74-95-3	Dibromomethane	Not detected	300	9.3	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.8	ug/kg		
108-88-3	Toluene	Not detected	100	10	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.7	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
110-57-6	trans-1,4-Dichloro-2-butene	Not detected	60	22	ug/kg		
124-48-1	Dibromochloromethane	Not detected	100	7.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	20	7.5	ug/kg		M
108-90-7	Chlorobenzene	Not detected	60	9.8	ug/kg		
630-20-6	1,1,1,2-Tetrachloroethane	Not detected	100	7.4	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	100	22	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	300	10	ug/kg		
75-25-2	Bromoform	Not detected	100	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.7	ug/kg		
96-18-4	1,2,3-Trichloropropane	Not detected	100	21	ug/kg		
103-65-1	n-Propylbenzene	Not detected	100	11	ug/kg		
108-86-1	Bromobenzene	Not detected	100	11	ug/kg		
108-67-8	1,3,5-Trimethylbenzene	Not detected	100	11	ug/kg		
98-06-6	tert-Butylbenzene	Not detected	60	13	ug/kg		
95-63-6	1,2,4-Trimethylbenzene	Not detected	100	12	ug/kg		
135-98-8	sec-Butylbenzene	Not detected	60	12	ug/kg		
99-87-6	p-Isopropyltoluene	Not detected	100	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	100	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	100	10	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	100	13	ug/kg		
526-73-8	1,2,3-Trimethylbenzene	Not detected	100	8.0	ug/kg		
104-51-8	n-Butylbenzene	Not detected	60	4.9	ug/kg		
67-72-1	Hexachloroethane	Not detected	400	7.9	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	300	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	400	8.0	ug/kg		
87-61-6	1,2,3-Trichlorobenzene	Not detected	400	9.1	ug/kg		
91-20-3	Naphthalene	Not detected	400	8.1	ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	400	9.4	ug/kg		

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120703a5.3

LIMS ID: S52983.03
Data File: 5298303.d
Date Received: 06/26/12

Tag: SB116 (06-25-12) (1-2)
Notes: 100ul 1s0703
s/50 id:vf120703s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 60.4

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Total Solids							
TSOLIDS	Total Solids	91	1		%	06/29/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (86%)				07/03/12	
460-00-4	4-Bromofluorobenzene	Pass (96%)					
2037-26-5	Toluene-D8	Pass (95%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
Analytical Batch: 120703a5.3
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\5298301.d Vial: 9
Acq On : 3 Jul 12 1:41 pm Operator: lbr
Sample : 100ul 1s0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

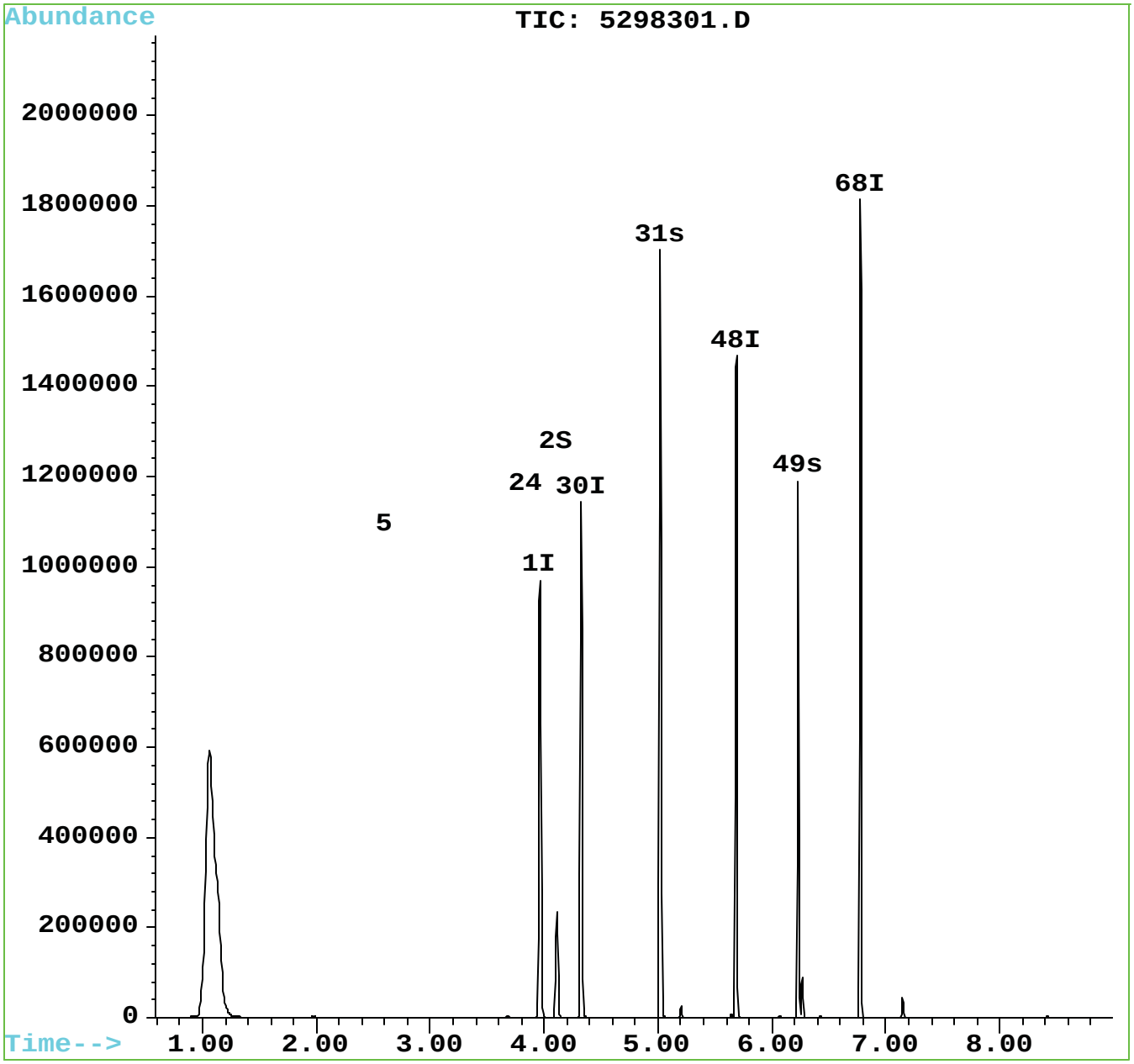
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	654824	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	744383	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	264149	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	371405	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	105699	42.69	ug/l	85.3
31) TOLUENE-D8 (S)	5.02	98	710816	47.26	ug/l	94.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	296469	47.19	ug/l	94.3
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	1009	4.14	ug/l	8
24) Tetrahydrofuran	3.85	42	963	2.67	ug/l #	

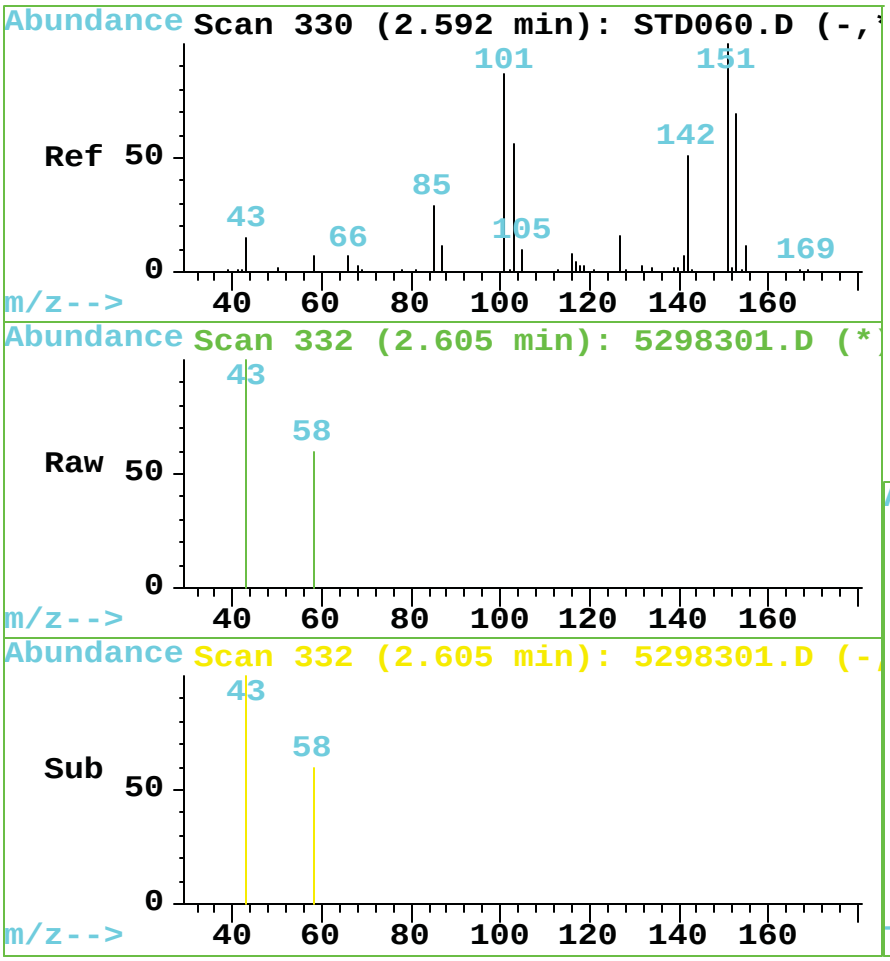
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\5298301.d Vial: 9
Acq On : 3 Jul 12 1:41 pm Operator: lbr
Sample : 100ul 1s0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

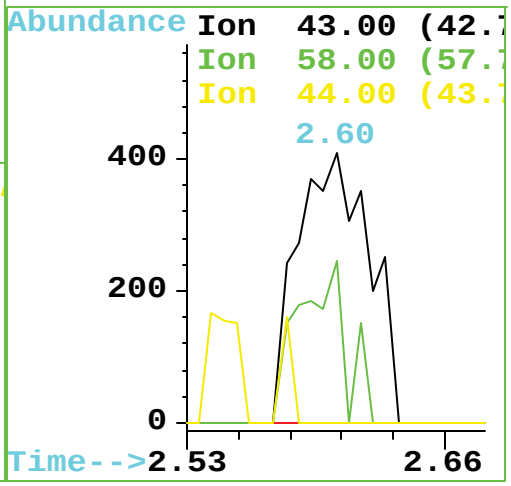


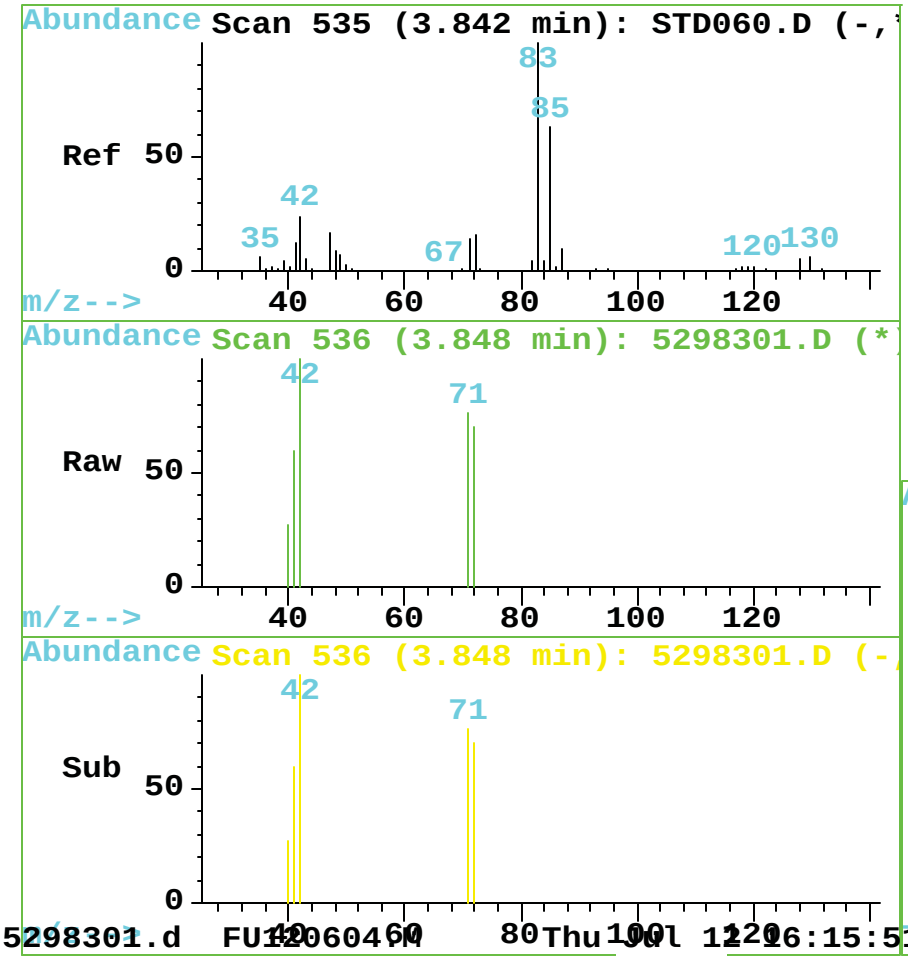


#5
Acetone (*)
Concen: 4.14 ug/l
RT: 2.60 min Scan# 332
Delta R.T. 0.03 min
Lab File: 5298301.d
Acq: 3 Jul 12 1:41 pm

Tgt Ion:43 Resp: 1009

Ion	Ratio	Lower	Upper
43	100		
58	39.3	2.5	62.5
44	5.8	0.0	32.2
0	0.0	0.0	0.0

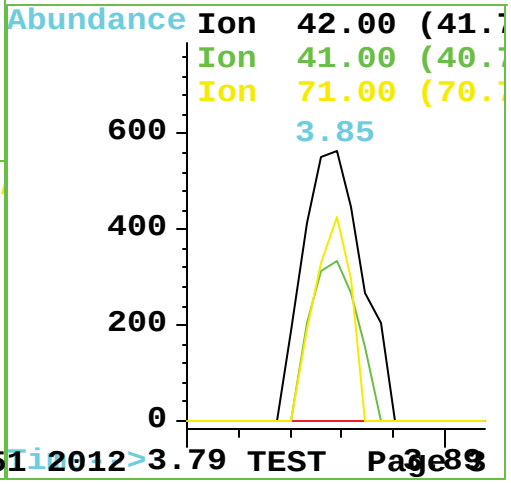




#24
Tetrahydrofuran
Concen: 2.67 ug/l
RT: 3.85 min Scan# 536
Delta R.T. 0.01 min
Lab File: 5298301.d
Acq: 3 Jul 12 1:41 pm

Tgt Ion:42 Resp: 963

Ion	Ratio	Lower	Upper
42	100		
41	48.4	222.5	282.5#
71	47.4	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\5298302.d Vial: 10
Acq On : 3 Jul 12 2:02 pm Operator: lbr
Sample : 100ul 1s0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

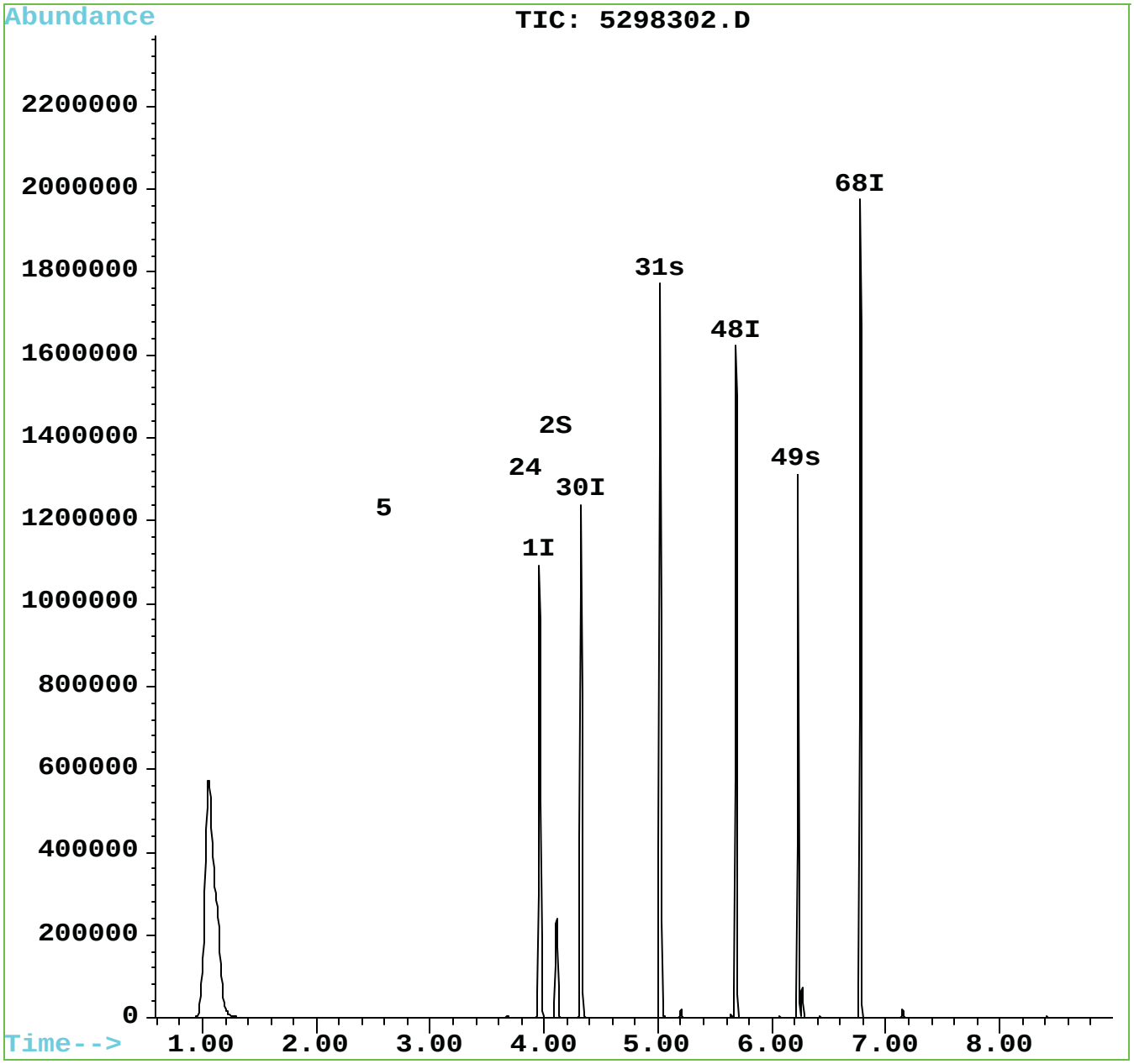
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	701745	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	788773	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	281055	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	394558	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	113263	42.69	ug/l	85.3
31) TOLUENE-D8 (S)	5.02	98	758656	47.60	ug/l	95.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	317156	47.45	ug/l	94.9
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	1322	5.06	ug/l #	8
24) Tetrahydrofuran	3.85	42	888	2.29	ug/l #	

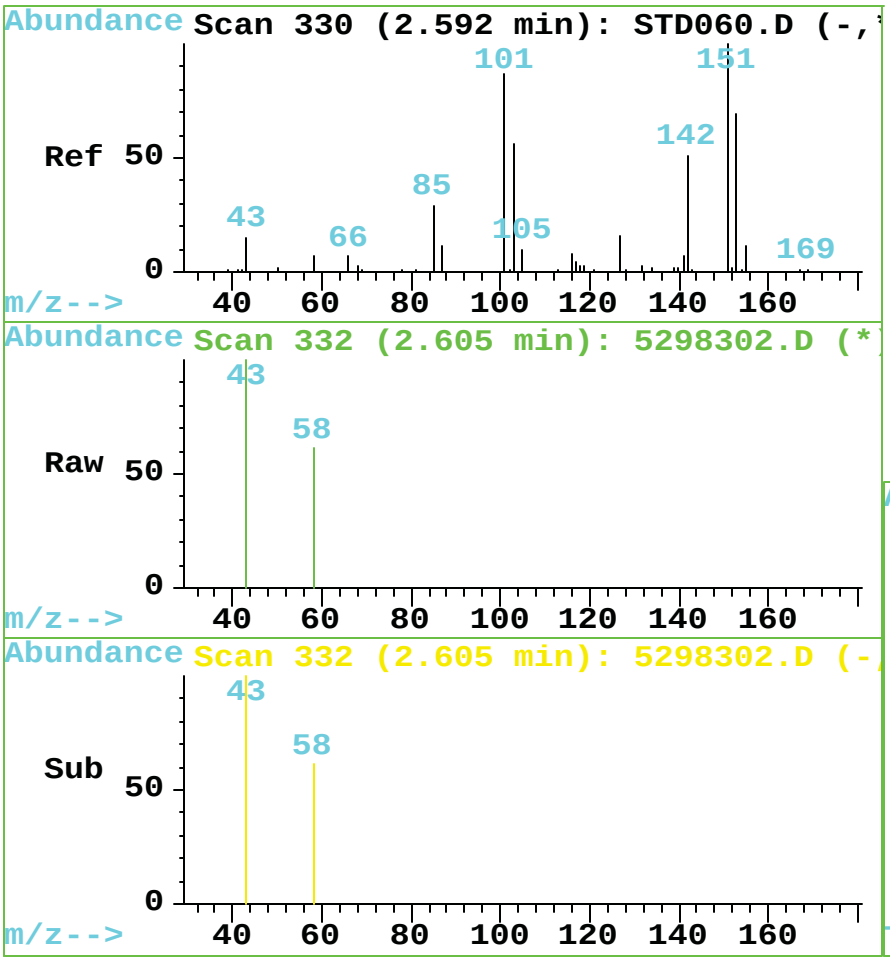
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\5298302.d Vial: 10
Acq On : 3 Jul 12 2:02 pm Operator: lbr
Sample : 100ul 1s0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

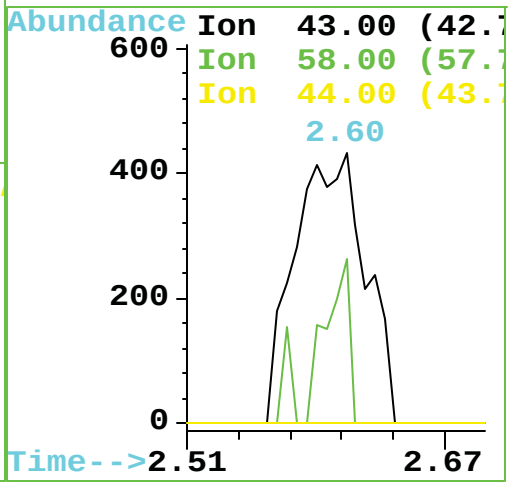


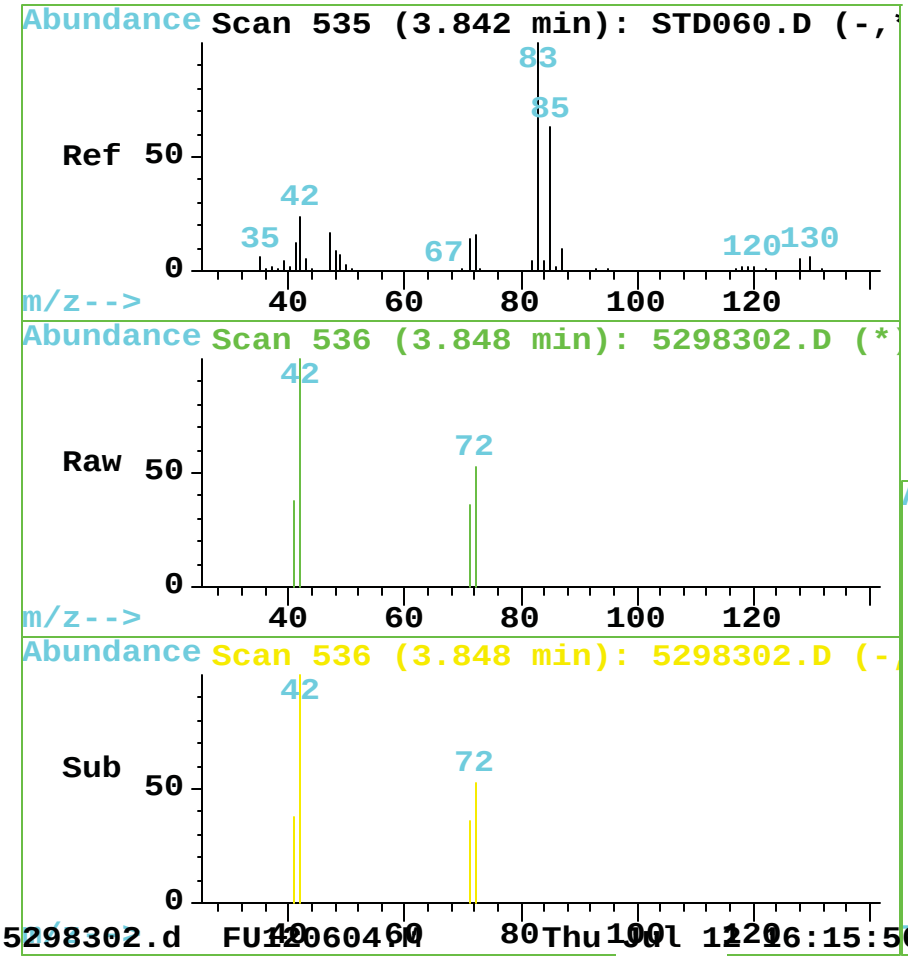


#5
Acetone (*)
Concen: 5.06 ug/l
RT: 2.60 min Scan# 332
Delta R.T. 0.03 min
Lab File: 5298302.d
Acq: 3 Jul 12 2:02 pm

Tgt Ion:43 Resp: 1322

Ion	Ratio	Lower	Upper
43	100		
58	21.3	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

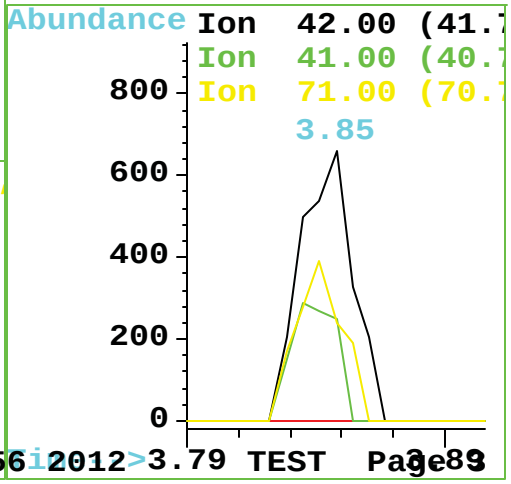




#24
Tetrahydrofuran
Concen: 2.29 ug/l
RT: 3.85 min Scan# 536
Delta R.T. 0.01 min
Lab File: 5298302.d
Acq: 3 Jul 12 2:02 pm

Tgt Ion:42 Resp: 888

Ion	Ratio	Lower	Upper
42	100		
41	39.5	222.5	282.5#
71	52.3	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\5298303.d Vial: 11
Acq On : 3 Jul 12 2:22 pm Operator: lbr
Sample : 100ul 1s0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

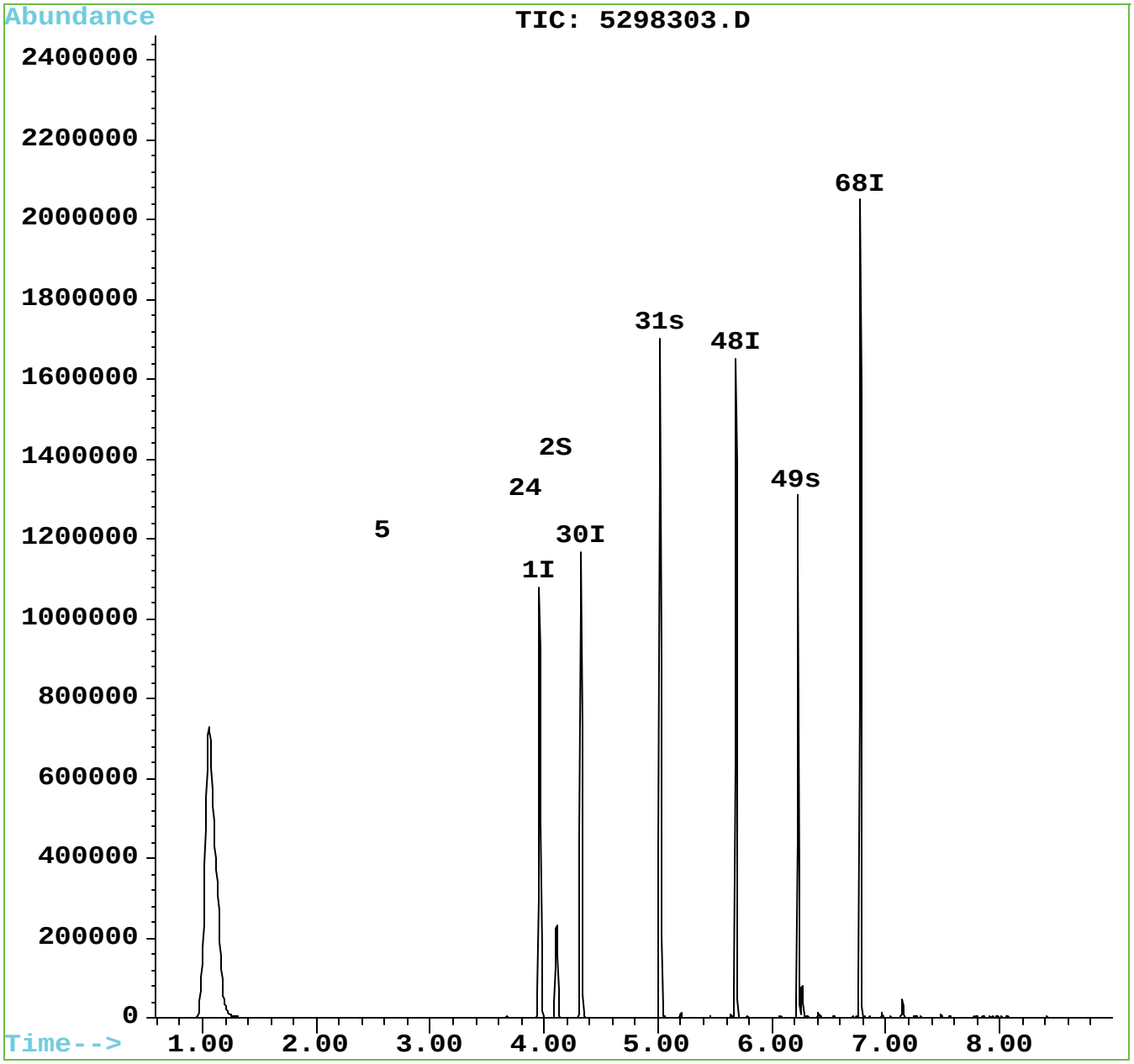
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	679600	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	767157	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	272961	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	394099	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	110659	43.06	ug/l	86.1
31) TOLUENE-D8 (S)	5.02	98	733389	47.31	ug/l	94.6
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	312164	48.09	ug/l	96.1
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	1320	5.22	ug/l	6
24) Tetrahydrofuran	3.85	42	872	2.33	ug/l #	

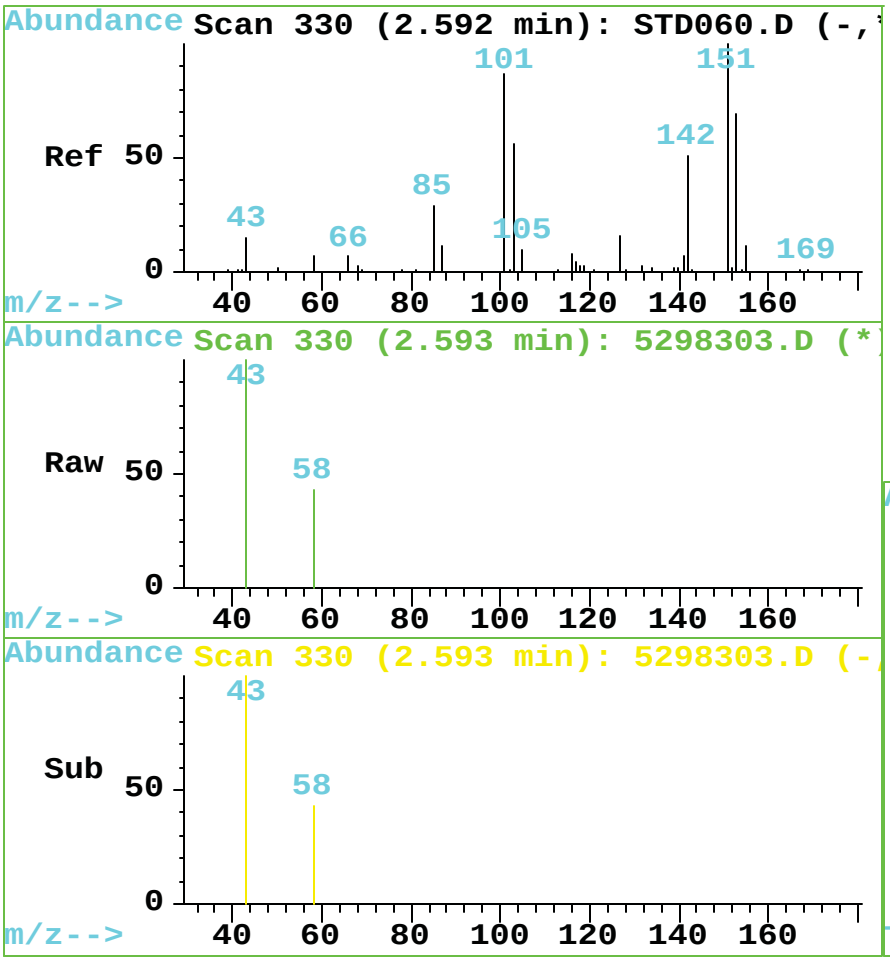
(#) = qualifier out of range (m) = manual integration
5298303.d FU120604.M Thu Jul 12 16:16:02 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\5298303.d Vial: 11
Acq On : 3 Jul 12 2:22 pm Operator: lbr
Sample : 100ul 1s0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

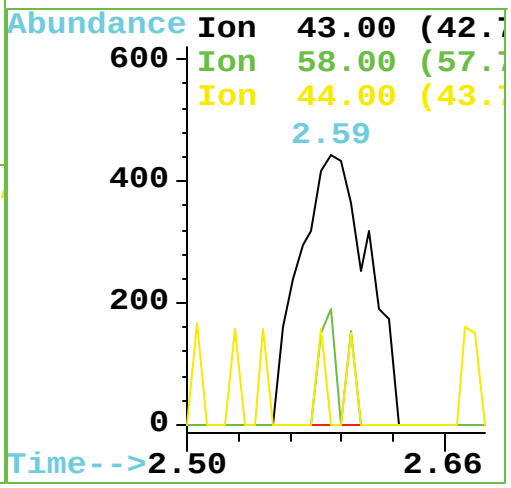


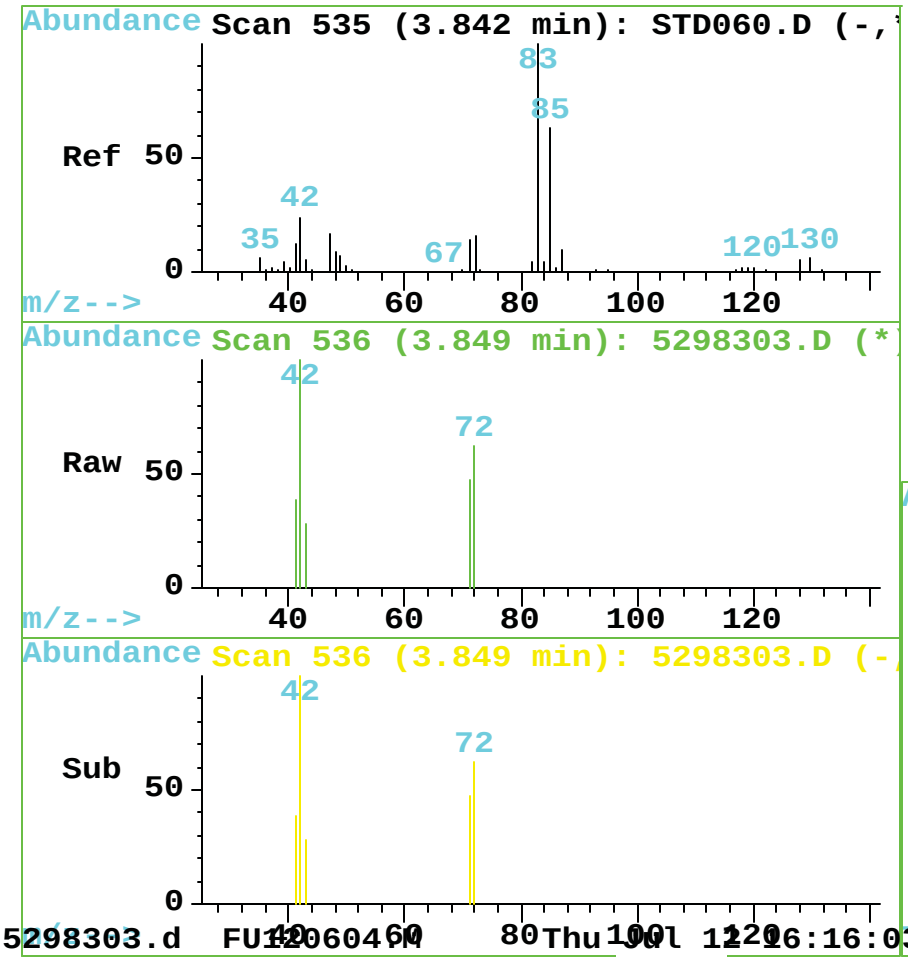


#5
Acetone (*)
Concen: 5.22 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5298303.d
Acq: 3 Jul 12 2:22 pm

Tgt Ion:43 Resp: 1320

Ion	Ratio	Lower	Upper
43	100		
58	13.8	2.5	62.5
44	4.3	0.0	32.2
0	0.0	0.0	0.0

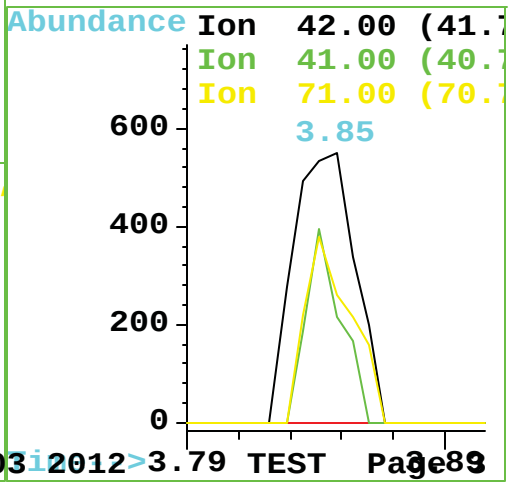




#24
Tetrahydrofuran
Concen: 2.33 ug/l
RT: 3.85 min Scan# 536
Delta R.T. 0.01 min
Lab File: 5298303.d
Acq: 3 Jul 12 2:22 pm

Tgt Ion:42 Resp: 872

Ion	Ratio	Lower	Upper
42	100		
41	40.4	222.5	282.5#
71	51.7	24.9	84.9
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.189	1.69	0.187	0.194	0.190	0.185	0.188	0.191				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.321	2.04	0.310	0.321	0.323	0.320	0.324	0.330				
	Diethyl ether (*)	A	0.093	2.34	0.090	0.096	0.091	0.092	0.092	0.094				
	Acetone (*)	LO	0.020	16.90		0.025	0.017	0.021	0.017	0.019	0.99	0.00	0.019	0.00
	Methyl iodide (iodomethane) (*	A	0.675	1.86	0.663	0.675	0.665	0.669	0.683	0.696				
	Carbon disulfide (*)	LO	0.837	15.25	0.624	0.764	0.829	0.900	0.937	0.966	1.00	0.00	0.955	0.00
	Methyl Acetate	A	0.068	5.50	0.074	0.069	0.067	0.064	0.064	0.068				
	tert-Methyl butyl ether (MTBE)	A	0.467	4.09	0.442	0.460	0.462	0.461	0.475	0.499				
	Acrylonitrile (*)	A	0.041	12.24	0.031	0.045	0.043	0.042	0.042	0.043				
	2-Butanone (MEK) (*)	LO	0.034	21.27		0.046	0.033	0.033	0.028	0.029	1.00	0.00	0.029	0.00
	Dichlorodifluoromethane	QO	0.183	19.21	0.118	0.179	0.178	0.203	0.208	0.213	1.00	0.00	0.199	0.00
	Chloromethane (SPCC)	A	0.230	3.47	0.214	0.234	0.229	0.231	0.236	0.233				
	Vinyl Chloride (CCC)	A	0.258	3.98	0.240	0.262	0.260	0.263	0.270	0.254				
	Bromomethane	A	0.115	5.21	0.104	0.121	0.114	0.114	0.117	0.119				
	Chloroethane	A	0.055	9.88	0.044	0.057	0.056	0.056	0.057	0.059				
	Acrolein	A												
	Trichlorofluoromethane	A	0.301	5.21	0.283	0.308	0.281	0.300	0.315	0.317				
	1,1-Dichloroethene (CCC/MS)	A	0.320	3.94	0.307	0.313	0.333	0.334	0.306	0.324				
	Methylene Chloride	A	0.309	6.48	0.349	0.306	0.299	0.296	0.299	0.304				
	trans-1,2-Dichloroethene	A	0.333	0.80	0.329	0.332	0.336	0.330	0.334	0.334				
	1,1-Dichloroethane (SPCC)	A	0.417	1.85	0.403	0.418	0.419	0.413	0.421	0.425				
	cis-1,2-Dichloroethene	A	0.348	0.98	0.345	0.346	0.354	0.346	0.350	0.347				
	Tetrahydrofuran	A	0.027	13.06		0.033	0.029	0.025	0.025	0.025				
	Chloroform (CCC)	A	0.448	1.09	0.445	0.454	0.451	0.440	0.448	0.449				
	Bromochloromethane	A	0.223	1.41	0.218	0.224	0.223	0.220	0.223	0.227				
	1,1,1-Trichloroethane	A	0.438	6.04	0.388	0.433	0.446	0.446	0.456	0.461				
	1,1-Dichloropropene	A	0.367	3.62	0.365	0.377	0.386	0.365	0.363	0.347				
	Cyclohexane	A	0.101	6.77	0.104	0.107	0.110	0.096	0.099	0.092				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.010	5.44	1.018	1.058	1.063	1.016	0.994	0.912				
	4-Methyl-2-pentanone (MIBK) (*	LO	0.029	17.01	0.019	0.028	0.030	0.031	0.031	0.032	1.00	0.00	0.032	0.00
	2-Hexanone (*)	A	0.025	11.08	0.021	0.023	0.023	0.027	0.026	0.028				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.355	5.17	0.320	0.350	0.364	0.367	0.369	0.358				
	Benzene (MS)	A	1.000	6.75	1.062	1.044	1.050	0.993	0.962	0.886				
	1,2-Dichloroethane	A	0.181	4.10	0.190	0.184	0.187	0.179	0.176	0.170				
	Trichloroethene (MS)	A	0.273	2.82	0.268	0.278	0.283	0.274	0.272	0.261				
	1,2-Dichloropropane (CCC)	A	0.195	6.61	0.204	0.204	0.203	0.195	0.190	0.171				
	Bromodichloromethane	A	0.243	10.47	0.195	0.234	0.251	0.257	0.262	0.258				
	Methyl Cyclohexane	A	0.283	6.15	0.281	0.296	0.300	0.287	0.280	0.251				
	Dibromomethane	A	0.189	3.98	0.174	0.189	0.194	0.193	0.193	0.189				
	cis-1,3-Dichloropropene	A	0.303	10.83	0.238	0.301	0.318	0.322	0.324	0.314				
	Toluene (CCC/MS)	A	1.173	6.12	1.178	1.235	1.244	1.184	1.149	1.046				
	trans-1,3-Dichloropropene	A	0.228	12.49	0.174	0.218	0.239	0.244	0.248	0.244				
	1,1,2-Trichloroethane	A	0.125	1.47	0.127	0.125	0.127	0.125	0.125	0.122				
	Tetrachloroethene	A	0.485	6.21	0.494	0.491	0.525	0.472	0.491	0.434				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	1.189	4.16	1.270	1.200	1.204	1.160	1.178	1.123				
	trans-1,4-Dichloro-2-butene	A	0.069	6.87	0.061	0.071	0.075	0.070	0.071	0.067				
	Dibromochloromethane	A	0.570	14.80	0.417	0.536	0.580	0.618	0.630	0.641				
	1,2-Dibromoethane	A	0.459	4.13	0.422	0.455	0.470	0.466	0.469	0.471				
	Chlorobenzene (SPCC/MS)	A	2.315	6.75	2.518	2.398	2.396	2.276	2.232	2.072				
	1,1,1,2-Tetrachloroethane	A	0.774	6.88	0.684	0.808	0.821	0.805	0.788	0.735				
	Ethylbenzene (CCC)	A	3.471	8.72	3.621	3.696	3.733	3.487	3.372	2.918				
	p,m-Xylene	A	1.483	14.01	1.631	1.642	1.639	1.488	1.381	1.117				
	o-Xylene	A	2.647	10.04	2.798	2.845	2.865	2.662	2.546	2.164				
	Styrene	A	2.154	10.38	2.010	2.320	2.398	2.251	2.155	1.790				
	Isopropylbenzene	A	3.905	7.55	3.731	4.156	4.257	3.971	3.870	3.445				
	Bromoform (SPCC)	QO	0.364	19.60	0.250	0.320	0.353	0.395	0.420	0.443	1.00	0.00	0.383	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.427	4.34	0.390	0.436	0.440	0.432	0.434	0.432				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	1,2,3-Trichloropropane	A	0.141	4.87	0.151	0.143	0.145	0.138	0.136	0.132				
	n-Propylbenzene	A	4.016	7.55	3.862	4.278	4.350	4.072	4.020	3.514				
	Bromobenzene	A	1.102	4.68	1.138	1.138	1.143	1.097	1.084	1.009				
	1,3,5-Trimethylbenzene	A	1.801	8.11	1.769	1.930	1.960	1.819	1.780	1.550				
	tert-Butylbenzene	A	1.843	6.47	1.765	1.943	1.980	1.861	1.852	1.654				
	1,2,4-Trimethylbenzene	A	1.903	10.03	1.881	2.038	2.118	1.941	1.874	1.564				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.169	8.51	2.891	3.389	3.456	3.301	3.179	2.798				
	p-Isopropyltoluene	A	2.676	10.95	2.508	2.945	2.977	2.785	2.639	2.202				
	1,3-Dichlorobenzene	A	1.462	12.17	1.620	1.583	1.585	1.457	1.370	1.154				
	1,4-Dichlorobenzene	A	1.500	5.88	1.605	1.548	1.558	1.471	1.461	1.359				
	1,2-Dichlorobenzene	A	1.359	4.10	1.399	1.411	1.407	1.334	1.329	1.273				
	1,2,3-Trimethylbenzene	A	2.213	5.18	2.172	2.302	2.344	2.247	2.190	2.020				
	n-Butylbenzene	A	2.120	6.98	1.974	2.225	2.296	2.167	2.146	1.912				
	Hexachloroethane	QO	0.565	17.65	0.389	0.514	0.574	0.621	0.650	0.640	1.00	0.00	0.632	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.070	20.12	0.045	0.066	0.068	0.073	0.080	0.085	1.00	0.00	0.071	0.00
	1,2,4-Trichlorobenzene	A	0.928	2.87	0.941	0.913	0.949	0.912	0.961	0.891				
	Hexachlorobutadiene	A	0.882	4.04	0.921	0.886	0.887	0.862	0.912	0.823				
	1,2,3-Trichlorobenzene	A	0.758	4.14	0.807	0.738	0.759	0.732	0.784	0.730				
	Naphthalene	A	1.135	6.37	1.023	1.081	1.148	1.149	1.222	1.187				
	2-Methylnaphthalene	LO	0.504	16.36	0.448	0.392	0.472	0.525	0.615	0.571	1.00	0.00	0.575	0.00

Calibration Date: 06/04/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): fu120604.M (Mean %RSD: 7.41)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\urborg.fft\methods\fu120604.m\

Injection Time	Calibration Data File
06/04/12 15:11	bfb04c.d
06/04/12 17:12	std001.d
06/04/12 17:33	std010.d
06/04/12 17:53	std020.d
06/04/12 18:13	std060.d
06/04/12 18:33	std100.d
06/04/12 18:53	std200.d

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

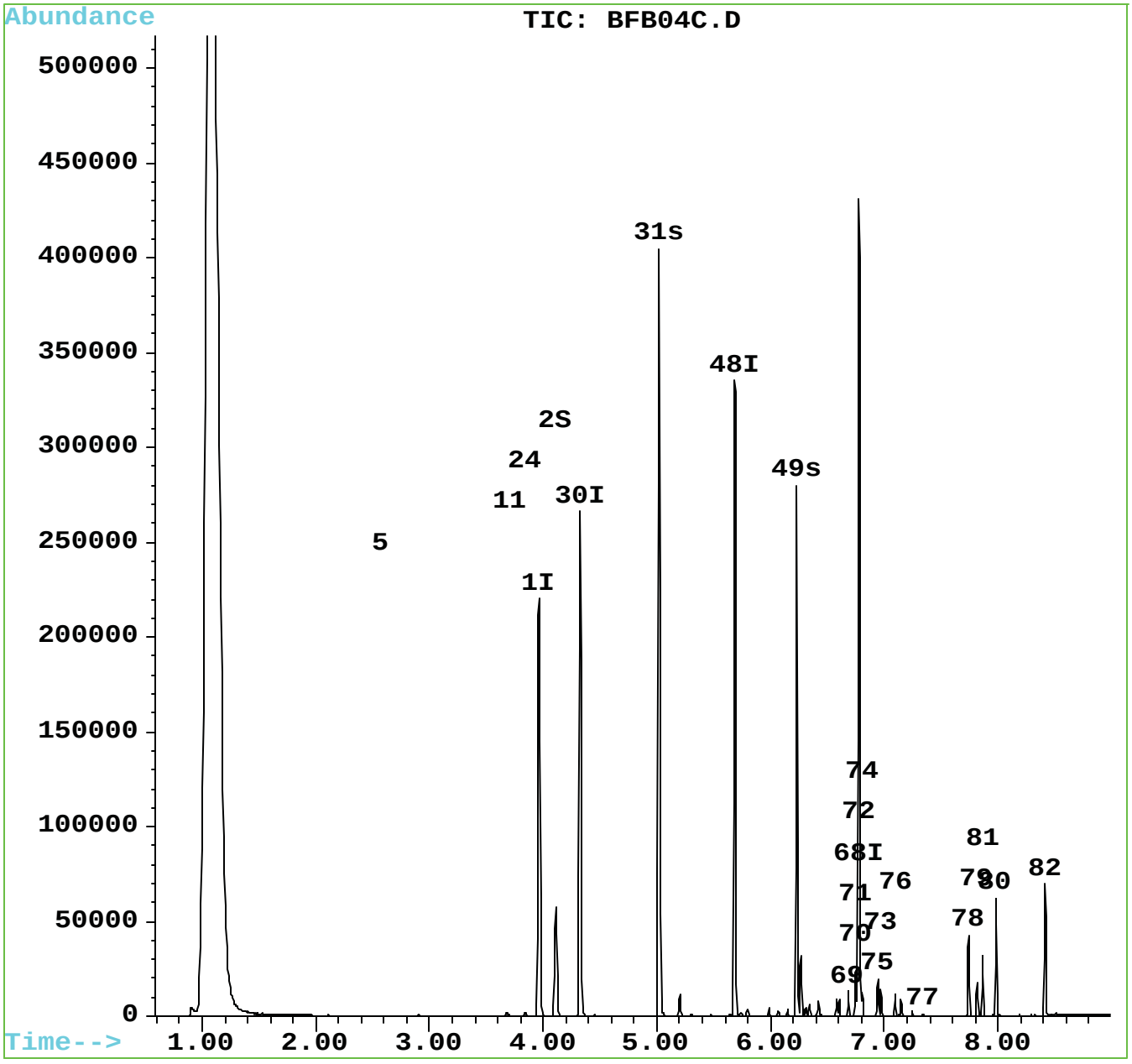
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	149094	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	170397	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	58855	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	89237	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	25625	45.46	ug/l		90.9
31) TOLUENE-D8 (S)	5.02	98	166719	48.42	ug/l		96.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	68907	49.23	ug/l		98.4
Target Compounds							Qvalu
5) Acetone (*)	2.57	43	63	1.14	ug/l	#	
11) 2-Butanone (MEK) (*)	3.70	43	336	3.90	ug/l	#	4
24) Tetrahydrofuran	3.84	42	879	10.69	ug/l	#	
69) sec-Butylbenzene	6.68	105	5698	1.01	ug/l		9
70) p-Isopropyltoluene	6.74	119	5654	1.18	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	4460	1.71	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	4908	1.83	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	4574	1.89	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	4618	1.17	ug/l		9
75) n-Butylbenzene	6.95	91	6419	1.70	ug/l		9
76) Hexachloroethane	7.10	201	1448	1.28	ug/l		7
77) 1,2-Dibromo-3-Chloropropan	7.34	157	330	2.57	ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.74	182	10848	6.55	ug/l		9
79) Hexachlorobutadiene	7.82	225	2912	1.85	ug/l		9
80) 1,2,3-Trichlorobenzene	7.98	180	15542	11.48	ug/l		9
81) Naphthalene	7.87	128	17573	8.67	ug/l		9
82) 2-Methylnaphthalene	8.41	142	23182	22.59	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

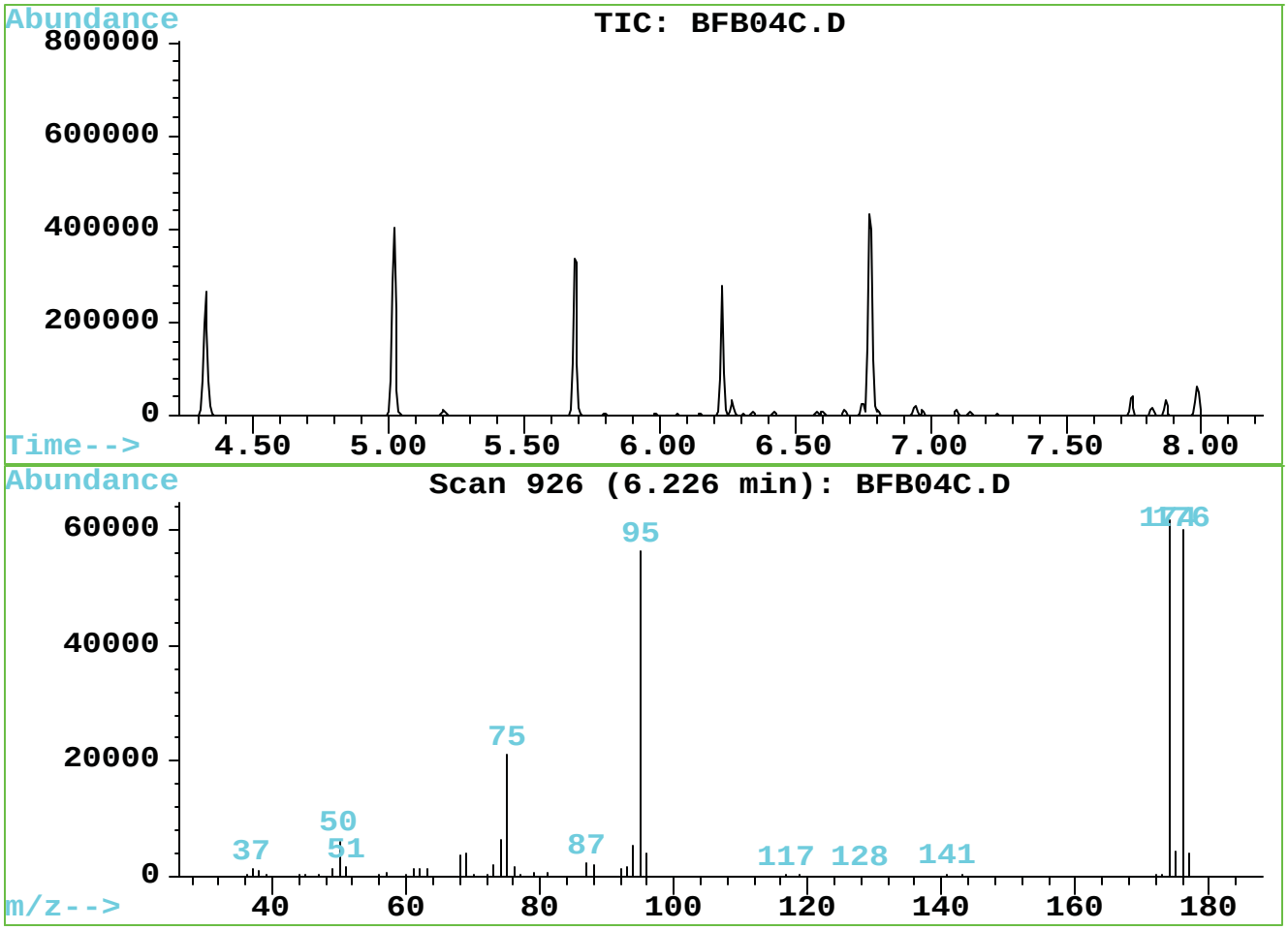
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.9	6123	PASS
75	95	30	66	37.5	21088	PASS
95	95	100	100	100.0	56240	PASS
96	95	5	9	7.1	4010	PASS
173	174	0	2	0.5	328	PASS
174	95	50	120	109.6	61664	PASS
175	174	4	9	6.9	4224	PASS
176	174	93	101	97.4	60088	PASS
177	176	5	9	6.5	3929	PASS

BFB04C.D FU120604.M Thu Jul 12 16:20:21 2012 TEST

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	700150	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	808489	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288497	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	414328	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	2614	1.37	ug/l		2.7
31) TOLUENE-D8 (S)	5.02	98	16460	1.01	ug/l		2.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	7329	1.11	ug/l		2.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	4345	0.88	ug/l		9
4) Diethyl ether (*)	2.35	74	1265	1.68	ug/l		8
5) Acetone (*)	2.59	43	1101	2.69	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	9290	1.12	ug/l		9
7) Carbon disulfide (*)	2.68	76	8736	0.59	ug/l		8
8) Methyl Acetate	2.84	43	1042	0.81	ug/l	#	5
9) tert-Methyl butyl ether (M	3.11	73	6186	1.24	ug/l		8
10) Acrylonitrile (*)	3.09	53	434	0.50	ug/l	#	9
11) 2-Butanone (MEK) (*)	3.70	43	2004	3.80	ug/l		9
12) Dichlorodifluoromethane	1.22	85	1656	0.44	ug/l	#	6
13) Chloromethane (SPCC)	1.34	50	2994	0.81	ug/l	#	8
14) Vinyl Chloride (CCC)	1.45	62	3355	0.75	ug/l	#	8
15) Bromomethane	1.73	94	1457	1.03	ug/l	#	9
16) Chloroethane	1.84	64	621	0.74	ug/l	#	2
18) Trichlorofluoromethane	2.12	101	3960	1.12	ug/l	m	6
19) 1,1-Dichloroethene (CCC/MS	2.52	61	4293	0.93	ug/l		8
20) Methylene Chloride	2.90	84	4885	1.44	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	4602	1.00	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	5643	1.09	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	4836	1.18	ug/l		8
24) Tetrahydrofuran	3.84	42	1414	2.47	ug/l	#	
25) Chloroform (CCC)	3.85	83	6228	1.22	ug/l		9
26) Bromochloromethane	3.81	130	3055	1.31	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	5438	0.89	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	5116	0.93	ug/l		9
29) Cyclohexane	3.98	42	1455	0.86	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	308	0.50	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	345	0.65	ug/l	#	7
35) Carbon Tetrachloride	4.04	117	5180	0.78	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.13	78	17168	1.05	ug/l		9
37) 1,2-Dichloroethane	4.15	62	3072	1.26	ug/l		9
38) Trichloroethene (MS)	4.45	95	4332	0.89	ug/l		8
39) 1,2-Dichloropropane (CCC)	4.56	63	3296	1.20	ug/l		9
40) Bromodichloromethane	4.68	83	3156	0.99	ug/l		9
41) Methyl Cyclohexane	4.54	55	4537	0.76	ug/l		9
42) Dibromomethane	4.62	174	2816	1.09	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	3853	0.95	ug/l		9
44) Toluene (CCC/MS)	5.05	91	19045	1.00	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	2821	0.93	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	2059	1.20	ug/l		9
47) Tetrachloroethene	5.31	166	7985	0.77	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	354	0.70	ug/l	#	6
51) Dibromochloromethane	5.42	129	2406	0.72	ug/l		9
52) 1,2-Dibromoethane	5.48	107	2435	0.94	ug/l	#	9
53) Chlorobenzene (SPCC/MS)	5.70	112	14530	1.08	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.73	131	3946	0.98	ug/l	#	7
55) Ethylbenzene (CCC)	5.74	91	20894	0.91	ug/l		9
56) p,m-Xylene	5.79	106	18819	1.92	ug/l		8
57) o-Xylene	5.98	91	16146	0.99	ug/l		9
58) Styrene	5.99	104	11598	0.91	ug/l		9
59) Isopropylbenzene	6.15	105	21529	0.80	ug/l		9
60) Bromoform (SPCC)	6.09	173	1444	0.64	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	2250	0.92	ug/l		8
62) 1,2,3-Trichloropropane	6.31	110	873	0.88	ug/l	#	7
63) n-Propylbenzene	6.34	91	22281	0.79	ug/l		9
64) Bromobenzene	6.31	156	6565	1.07	ug/l		9
65) 1,3,5-Trimethylbenzene	6.42	120	10207	0.87	ug/l		8
66) tert-Butylbenzene	6.58	91	10186	0.81	ug/l		8
67) 1,2,4-Trimethylbenzene	6.60	120	10851	0.88	ug/l		9
69) sec-Butylbenzene	6.68	105	23956	0.71	ug/l		9
70) p-Isopropyltoluene	6.75	119	20779	0.75	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	13421	1.06	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	13301	1.05	ug/l		8
73) 1,2-Dichlorobenzene	6.97	146	11592	1.05	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	17998	0.98	ug/l		9
75) n-Butylbenzene	6.95	91	16359	0.73	ug/l		9
76) Hexachloroethane	7.10	201	3221	0.57	ug/l	#	6
77) 1,2-Dibromo-3-Chloropropan	7.34	157	377	0.43	ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.74	182	7794	0.99	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

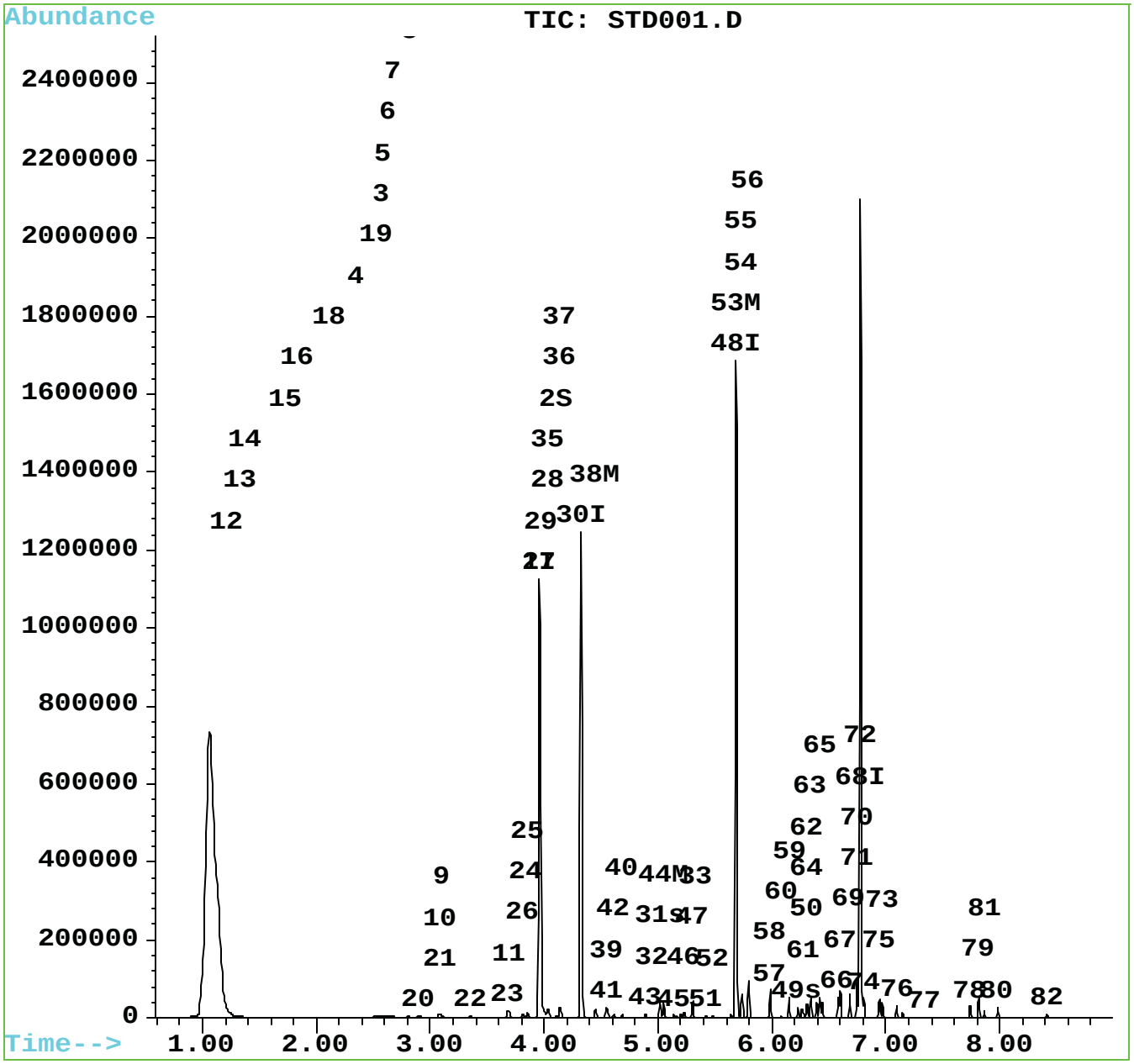
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	7628	0.81	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	6691	1.04	ug/l	9
81)	Naphthalene	7.87	128	8480	0.73	ug/l	9
82)	2-Methylnaphthalene	8.41	142	3709	0.79	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	682071	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	801325	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288586	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	394725	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	26439	14.21	ug/l		28.4
31) TOLUENE-D8 (S)	5.02	98	169634	10.50	ug/l		21.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	69262	10.51	ug/l		21.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	43785	9.08	ug/l		9
4) Diethyl ether (*)	2.35	74	13061	17.75	ug/l		9
5) Acetone (*)	2.59	43	3379	8.48	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	92043	11.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	104193	7.28	ug/l		9
8) Methyl Acetate	2.84	43	9355	7.51	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	62726	12.90	ug/l		9
10) Acrylonitrile (*)	3.08	53	6179	7.36	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	6284	12.23	ug/l		9
12) Dichlorodifluoromethane	1.23	85	24480	6.75	ug/l	#	5
13) Chloromethane (SPCC)	1.34	50	31951	8.92	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	35708	8.22	ug/l		9
15) Bromomethane	1.73	94	16455	11.98	ug/l		9
16) Chloroethane	1.83	64	7811	9.60	ug/l		8
18) Trichlorofluoromethane	2.12	101	42017	12.15	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	42759	9.53	ug/l		8
20) Methylene Chloride	2.90	84	41726	12.59	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	45284	10.11	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	57014	11.28	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	47225	11.79	ug/l		8
24) Tetrahydrofuran	3.84	42	4482	8.04	ug/l		8
25) Chloroform (CCC)	3.85	83	61944	12.44	ug/l		9
26) Bromochloromethane	3.81	130	30607	13.45	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	59062	9.90	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	51446	9.59	ug/l		9
29) Cyclohexane	3.98	42	14529	8.79	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	4526	7.43	ug/l		9
33) 2-Hexanone (*)	5.34	58	3739	7.03	ug/l		9
35) Carbon Tetrachloride	4.04	117	56039	8.46	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	167262	10.36 ug/l	9
37) 1,2-Dichloroethane	4.15	62	29557	12.25 ug/l	9
38) Trichloroethene (MS)	4.45	95	44502	9.19 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	32643	11.98 ug/l	9
40) Bromodichloromethane	4.68	83	37532	11.83 ug/l	9
41) Methyl Cyclohexane	4.54	55	47431	8.07 ug/l	9
42) Dibromomethane	4.62	174	30292	11.86 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	48244	12.06 ug/l	9
44) Toluene (CCC/MS)	5.05	91	197973	10.46 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	34925	11.65 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	20058	11.76 ug/l	9
47) Tetrachloroethene	5.31	166	78758	7.65 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	4076	8.03 ug/l #	8
51) Dibromochloromethane	5.42	129	30965	9.25 ug/l	9
52) 1,2-Dibromoethane	5.48	107	26247	10.12 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	138379	10.24 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	46654	11.55 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	213344	9.25 ug/l	9
56) p,m-Xylene	5.79	106	189596	19.33 ug/l	8
57) o-Xylene	5.98	91	164221	10.10 ug/l	9
58) Styrene	5.99	104	133879	10.53 ug/l	9
59) Isopropylbenzene	6.15	105	239852	8.91 ug/l	9
60) Bromoform (SPCC)	6.09	173	18451	8.11 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	25150	10.29 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	8275	8.34 ug/l	8
63) n-Propylbenzene	6.34	91	246890	8.70 ug/l	9
64) Bromobenzene	6.31	156	65654	10.74 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	111420	9.50 ug/l	8
66) tert-Butylbenzene	6.58	91	112146	8.93 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	117646	9.49 ug/l	9
69) sec-Butylbenzene	6.68	105	267519	8.38 ug/l	9
70) p-Isopropyltoluene	6.75	119	232466	8.82 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	124985	10.32 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	122183	10.08 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	111374	10.57 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	181720	10.42 ug/l	9
75) n-Butylbenzene	6.95	91	175684	8.18 ug/l	9
76) Hexachloroethane	7.10	201	40609	7.46 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	5208	6.12 ug/l	8
78) 1,2,4-Trichlorobenzene	7.74	182	72052	9.63 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

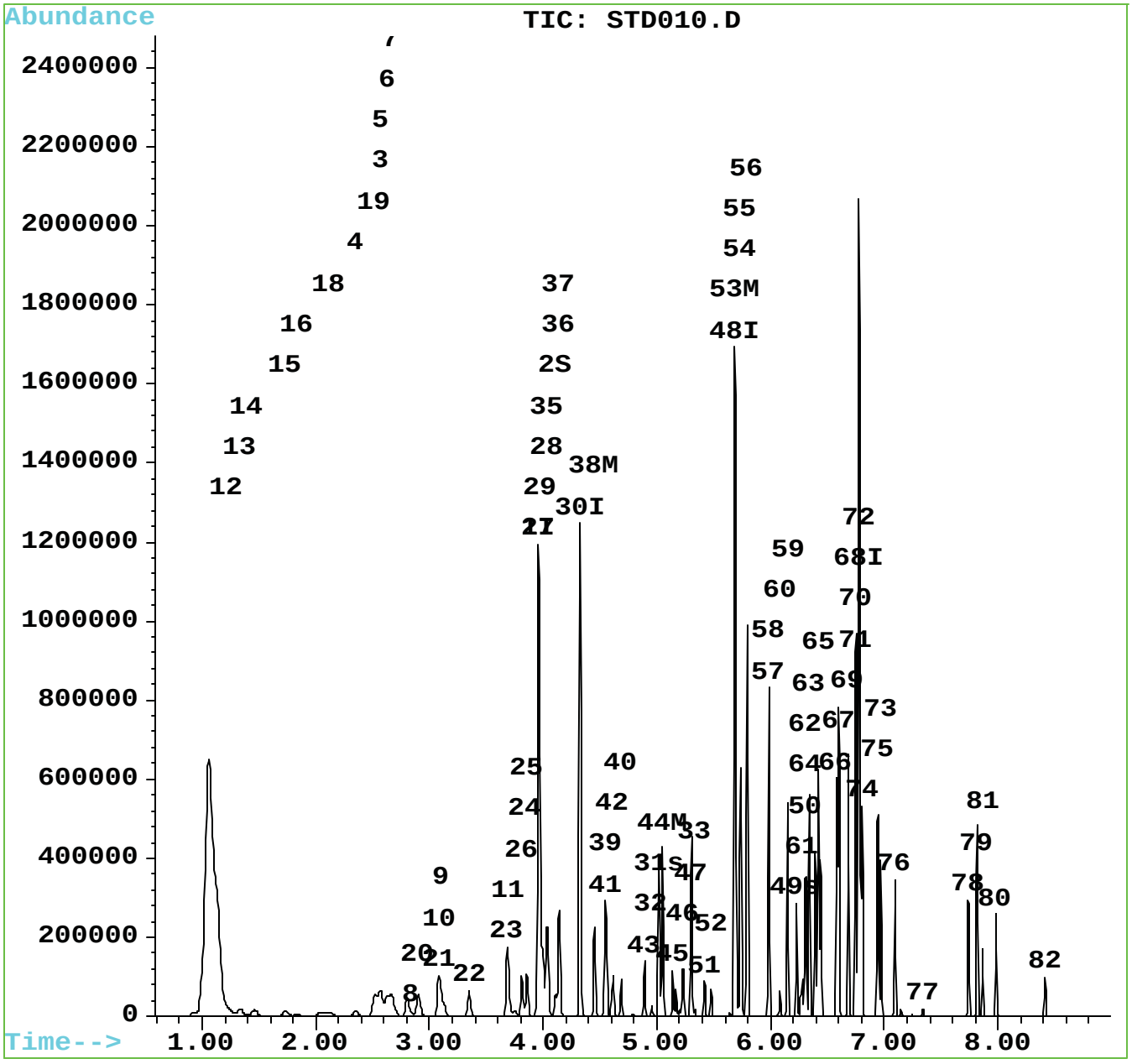
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	69955	7.80	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	58236	9.54	ug/l	9
81)	Naphthalene	7.87	128	85357	7.76	ug/l	9
82)	2-Methylnaphthalene	8.41	142	30930	6.85	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	709486	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	825373	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	299894	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	409867	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	53897	27.85	ug/l		55.7
31) TOLUENE-D8 (S)	5.02	98	351021	21.10	ug/l		42.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	144461	21.10	ug/l		42.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	91781	18.31	ug/l		9
4) Diethyl ether (*)	2.35	74	25711	33.60	ug/l		9
5) Acetone (*)	2.60	43	4942	11.93	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	188646	22.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	235375	15.82	ug/l		9
8) Methyl Acetate	2.85	43	18887	14.57	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	131145	25.92	ug/l		9
10) Acrylonitrile (*)	3.08	53	12124	13.89	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	9327	17.45	ug/l		9
12) Dichlorodifluoromethane	1.23	85	50440	13.36	ug/l		9
13) Chloromethane (SPCC)	1.34	50	64854	17.41	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	73753	16.33	ug/l		9
15) Bromomethane	1.73	94	32316	22.61	ug/l		9
16) Chloroethane	1.83	64	15915	18.80	ug/l		9
18) Trichlorofluoromethane	2.12	101	79626	22.13	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	94639	20.29	ug/l		8
20) Methylene Chloride	2.90	84	84820	24.61	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	95379	20.46	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	118876	22.61	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	100420	24.10	ug/l		8
24) Tetrahydrofuran	3.84	42	8270	14.27	ug/l		9
25) Chloroform (CCC)	3.86	83	127954	24.71	ug/l		9
26) Bromochloromethane	3.81	130	63310	26.75	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	126518	20.39	ug/l		9
28) 1,1-Dichloropropene	4.03	75	109525	19.62	ug/l		9
29) Cyclohexane	3.98	42	31157	18.13	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	9937	15.84	ug/l		9
33) 2-Hexanone (*)	5.34	58	7624	13.86	ug/l		9
35) Carbon Tetrachloride	4.04	117	120064	17.61	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.14	78	346640	20.85	ug/l		9
37)	1,2-Dichloroethane	4.15	62	61814	24.88	ug/l		9
38)	Trichloroethene (MS)	4.45	95	93456	18.74	ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	66909	23.84	ug/l		9
40)	Bromodichloromethane	4.68	83	83011	25.40	ug/l		9
41)	Methyl Cyclohexane	4.54	55	98953	16.34	ug/l		8
42)	Dibromomethane	4.62	174	64214	24.41	ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	105104	25.51	ug/l		9
44)	Toluene (CCC/MS)	5.05	91	410707	21.07	ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	79001	25.57	ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	42064	23.95	ug/l		9
47)	Tetrachloroethene	5.31	166	173216	16.33	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	8960	16.98	ug/l	#	8
51)	Dibromochloromethane	5.42	129	69610	20.02	ug/l		9
52)	1,2-Dibromoethane	5.48	107	56350	20.90	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	287425	20.47	ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	98529	23.48	ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	447837	18.69	ug/l		9
56)	p,m-Xylene	5.79	106	393276	38.59	ug/l		8
57)	o-Xylene	5.98	91	343694	20.34	ug/l		9
58)	Styrene	5.99	104	287633	21.77	ug/l		9
59)	Isopropylbenzene	6.15	105	510716	18.27	ug/l		9
60)	Bromoform (SPCC)	6.09	173	42375	17.80	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.28	83	52746	20.76	ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	17382	16.87	ug/l		9
63)	n-Propylbenzene	6.34	91	521769	17.68	ug/l		9
64)	Bromobenzene	6.31	156	137054	21.58	ug/l		9
65)	1,3,5-Trimethylbenzene	6.42	120	235119	19.28	ug/l		8
66)	tert-Butylbenzene	6.58	91	237568	18.20	ug/l	#	7
67)	1,2,4-Trimethylbenzene	6.60	120	254120	19.73	ug/l		8
69)	sec-Butylbenzene	6.68	105	566596	17.09	ug/l		9
70)	p-Isopropyltoluene	6.74	119	488044	17.83	ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	259870	20.67	ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	255459	20.30	ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	230653	21.09	ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	384373	21.22	ug/l		9
75)	n-Butylbenzene	6.95	91	376350	16.87	ug/l		9
76)	Hexachloroethane	7.10	201	94123	16.60	ug/l		9
77)	1,2-Dibromo-3-Chloropropan	7.34	157	11200	12.58	ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	155584	20.02	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

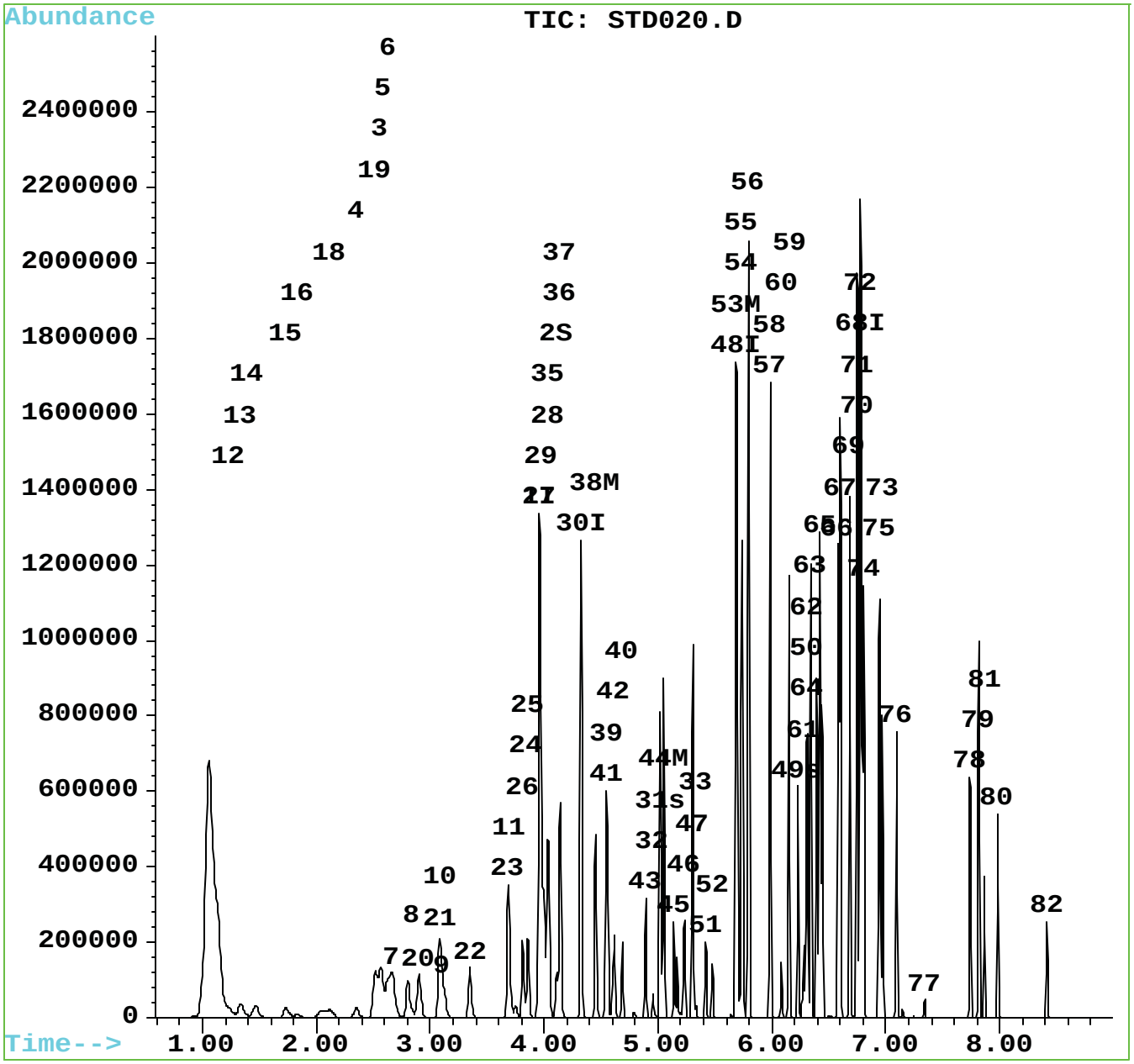
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	145427	15.61 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	124462	19.64 ug/l	9
81)	Naphthalene	7.87	128	188147	16.48 ug/l	9
82)	2-Methylnaphthalene	8.41	142	77365	16.33 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	718453	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	838217	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	305349	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	406145	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	159458	81.36	ug/l		162.7
31) TOLUENE-D8 (S)	5.02	98	1021635	60.46	ug/l		120.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	425016	60.98	ug/l		121.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	275989	54.36	ug/l		9
4) Diethyl ether (*)	2.35	74	79137	102.12	ug/l		9
5) Acetone (*)	2.59	43	17957	42.81	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	576645	67.45	ug/l		9
7) Carbon disulfide (*)	2.67	76	775809	51.48	ug/l		9
8) Methyl Acetate	2.84	43	54937	41.85	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	397720	77.63	ug/l		9
10) Acrylonitrile (*)	3.08	53	36473	41.27	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	28683	53.00	ug/l		9
12) Dichlorodifluoromethane	1.24	85	175155	45.82	ug/l		9
13) Chloromethane (SPCC)	1.35	50	199235	52.82	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	227100	49.64	ug/l		9
15) Bromomethane	1.74	94	97960	67.68	ug/l		9
16) Chloroethane	1.84	64	48474	56.54	ug/l		9
18) Trichlorofluoromethane	2.12	101	258964	71.07	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.52	61	287633	60.89	ug/l		8
20) Methylene Chloride	2.90	84	254920	73.03	ug/l		9
21) trans-1,2-Dichloroethene	3.09	61	284751	60.33	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	356405	66.94	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	298452	70.73	ug/l		8
24) Tetrahydrofuran	3.84	42	21830	37.19	ug/l		9
25) Chloroform (CCC)	3.86	83	379380	72.36	ug/l		9
26) Bromochloromethane	3.81	130	189594	79.11	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	384589	61.20	ug/l	#	3
28) 1,1-Dichloropropene	4.03	75	314724	55.68	ug/l		9
29) Cyclohexane	3.99	42	82335	47.31	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	31183	48.94	ug/l		9
33) 2-Hexanone (*)	5.34	58	27660	48.50	ug/l		9
35) Carbon Tetrachloride	4.04	117	369330	53.33	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	998814	59.16 ug/l	9
37) 1,2-Dichloroethane	4.15	62	179875	71.29 ug/l	9
38) Trichloroethene (MS)	4.45	95	275694	54.44 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	195965	68.74 ug/l	9
40) Bromodichloromethane	4.68	83	258599	77.91 ug/l	9
41) Methyl Cyclohexane	4.55	55	289075	47.00 ug/l	8
42) Dibromomethane	4.62	174	194155	72.68 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	324088	77.44 ug/l	9
44) Toluene (CCC/MS)	5.05	91	1190657	60.15 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	245175	78.15 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	126122	70.70 ug/l	9
47) Tetrachloroethene	5.31	166	475083	44.11 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	25702	47.84 ug/l #	7
51) Dibromochloromethane	5.42	129	226338	63.93 ug/l	9
52) 1,2-Dibromoethane	5.48	107	170570	62.14 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	834134	58.35 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	295143	69.09 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	1277879	52.37 ug/l	9
56) p,m-Xylene	5.79	106	1090584	105.11 ug/l	8
57) o-Xylene	5.98	91	975511	56.71 ug/l	9
58) Styrene	5.99	104	824730	61.29 ug/l	9
59) Isopropylbenzene	6.15	105	1455204	51.12 ug/l	9
60) Bromoform (SPCC)	6.09	173	144672	58.16 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	158438	61.24 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	50455	48.09 ug/l	9
63) n-Propylbenzene	6.34	91	1492185	49.67 ug/l	9
64) Bromobenzene	6.31	156	402124	62.17 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	666617	53.70 ug/l	9
66) tert-Butylbenzene	6.58	91	681991	51.32 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	711162	54.22 ug/l	9
69) sec-Butylbenzene	6.68	105	1608849	48.98 ug/l	9
70) p-Isopropyltoluene	6.75	119	1357400	50.03 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	709873	56.97 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	716942	57.49 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	650136	59.98 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	1095014	61.02 ug/l	9
75) n-Butylbenzene	6.95	91	1056273	47.79 ug/l	9
76) Hexachloroethane	7.10	201	302724	53.07 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	35812	39.31 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	444417	57.72 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

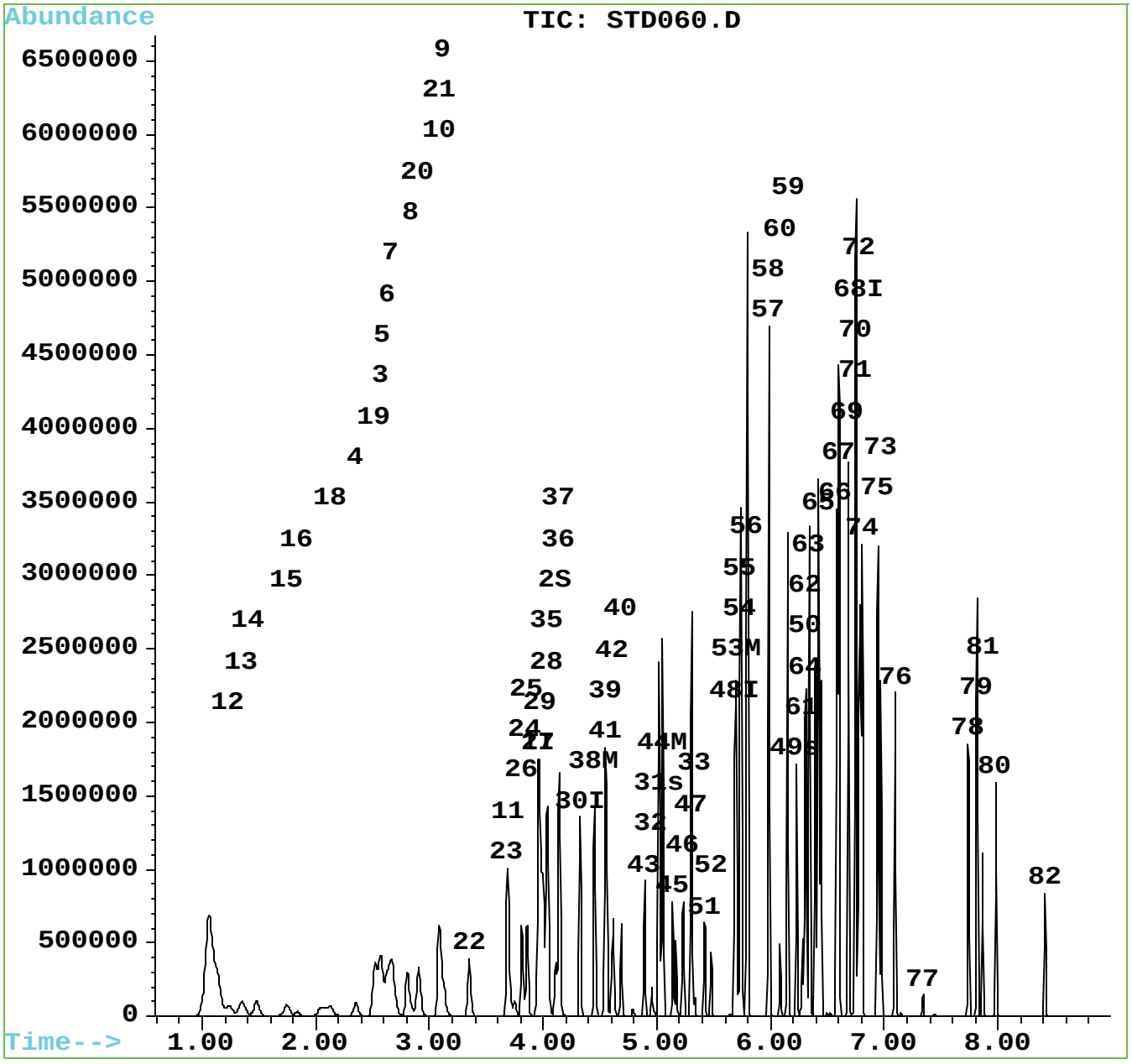
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79) Hexachlorobutadiene	7.82	225	420276	45.53 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	356654	56.79 ug/l	9
81) Naphthalene	7.87	128	559897	49.50 ug/l	9
82) 2-Methylnaphthalene	8.41	142	255721	52.36 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	708225	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	842056	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	310341	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	420177	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	266464	137.93	ug/l		275.8
31) TOLUENE-D8 (S)	5.02	98	1674468	98.65	ug/l		197.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	730962	103.18	ug/l		206.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	458452	91.60	ug/l		9
4) Diethyl ether (*)	2.35	74	130554	170.91	ug/l		9
5) Acetone (*)	2.60	43	24499	59.25	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	967325	114.78	ug/l		9
7) Carbon disulfide (*)	2.67	76	1327315	89.35	ug/l		9
8) Methyl Acetate	2.84	43	90663	70.06	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	672818	133.22	ug/l		9
10) Acrylonitrile (*)	3.08	53	59377	68.16	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	40056	75.08	ug/l		8
12) Dichlorodifluoromethane	1.23	85	294663	78.20	ug/l		9
13) Chloromethane (SPCC)	1.35	50	334048	89.83	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	381940	84.70	ug/l		9
15) Bromomethane	1.75	94	165451	115.97	ug/l		9
16) Chloroethane	1.83	64	81311	96.21	ug/l		9
18) Trichlorofluoromethane	2.13	101	446143	124.21	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	432880	92.96	ug/l		8
20) Methylene Chloride	2.90	84	424114	123.26	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	473743	101.83	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	595985	113.55	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	495434	119.10	ug/l		8
24) Tetrahydrofuran	3.84	42	35840	61.95	ug/l		9
25) Chloroform (CCC)	3.86	83	634132	122.70	ug/l		9
26) Bromochloromethane	3.81	130	316285	133.88	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	646098	104.29	ug/l	#	2
28) 1,1-Dichloropropene	4.03	75	514252	92.29	ug/l		9
29) Cyclohexane	3.99	42	140936	82.15	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	52354	81.80	ug/l		9
33) 2-Hexanone (*)	5.34	58	43937	75.48	ug/l		9
35) Carbon Tetrachloride	4.04	117	620967	89.26	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.14	78	1620241	95.53	ug/l		9
37) 1,2-Dichloroethane	4.15	62	295703	116.66	ug/l		9
38) Trichloroethene (MS)	4.45	95	458355	90.09	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	319257	111.48	ug/l		9
40) Bromodichloromethane	4.68	83	440414	132.08	ug/l		9
41) Methyl Cyclohexane	4.54	55	470767	76.20	ug/l		8
42) Dibromomethane	4.62	174	324265	120.84	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	545507	129.75	ug/l		9
44) Toluene (CCC/MS)	5.05	91	1935644	97.34	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	417540	132.49	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	210750	117.60	ug/l		9
47) Tetrachloroethene	5.31	166	827035	76.44	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	44222	80.98	ug/l	#	7
51) Dibromochloromethane	5.42	129	390996	108.67	ug/l		9
52) 1,2-Dibromoethane	5.48	107	291010	104.31	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	1385172	95.34	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	489204	112.67	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	2092868	84.40	ug/l		9
56) p,m-Xylene	5.79	106	1714294	162.56	ug/l		9
57) o-Xylene	5.98	91	1580494	90.41	ug/l		9
58) Styrene	5.99	104	1337756	97.82	ug/l		9
59) Isopropylbenzene	6.15	105	2402114	83.02	ug/l		9
60) Bromoform (SPCC)	6.09	173	260844	100.47	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	269439	102.47	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	84719	79.44	ug/l		9
63) n-Propylbenzene	6.34	91	2494881	81.71	ug/l		9
64) Bromobenzene	6.31	156	672863	102.36	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	1105110	87.59	ug/l		9
66) tert-Butylbenzene	6.58	91	1149321	85.10	ug/l		8
67) 1,2,4-Trimethylbenzene	6.60	120	1163043	87.25	ug/l		9
69) sec-Butylbenzene	6.68	105	2671833	78.62	ug/l		9
70) p-Isopropyltoluene	6.75	119	2217346	79.00	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	1151355	89.31	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	1227498	95.14	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	1117041	99.62	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	1840375	99.13	ug/l		9
75) n-Butylbenzene	6.95	91	1803285	78.87	ug/l		9
76) Hexachloroethane	7.10	201	546020	91.11	ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	67377	69.05	ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	807872	101.42	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

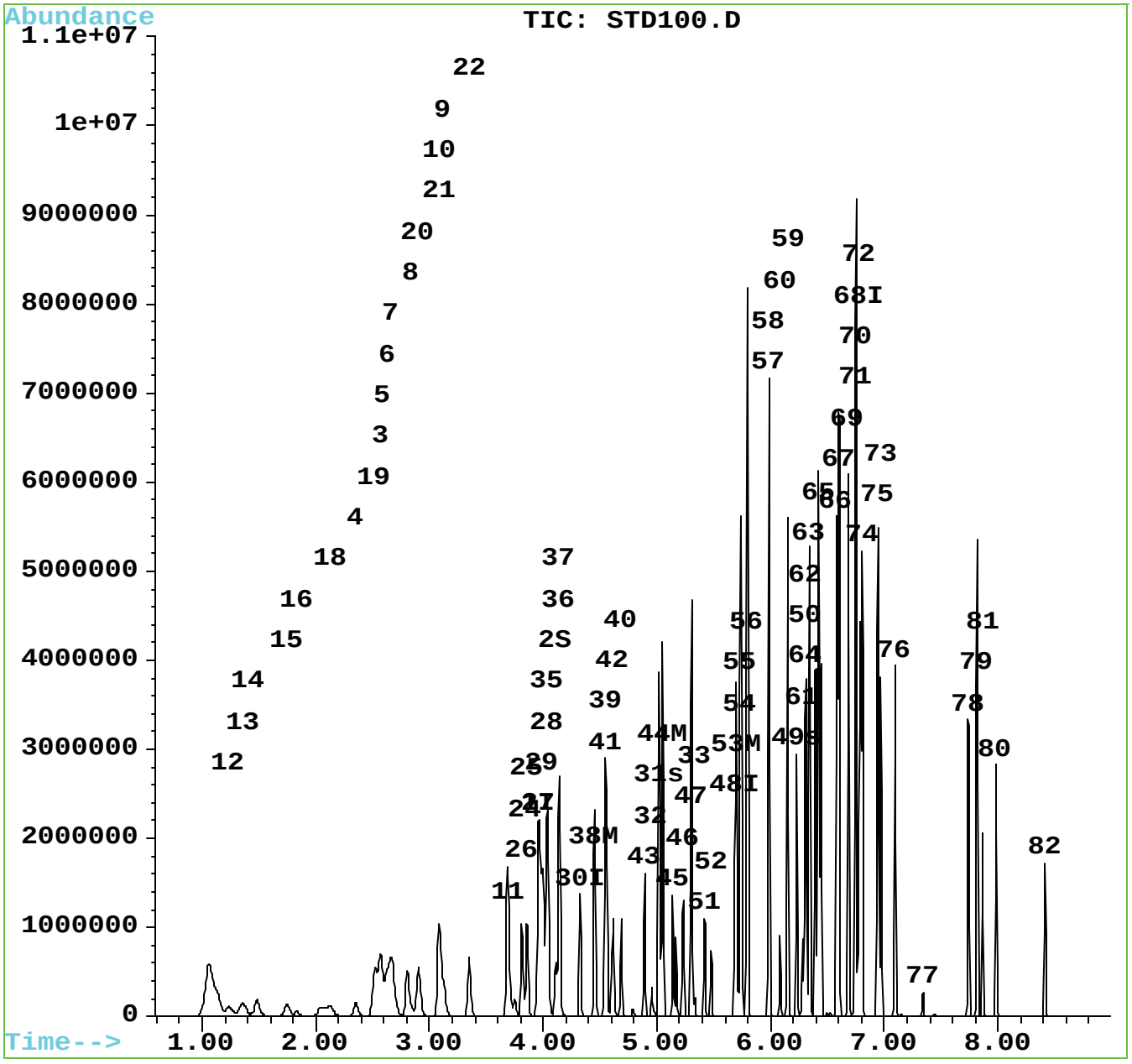
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	766294	80.25	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	658965	101.43	ug/l	9
81)	Naphthalene	7.87	128	1027251	87.78	ug/l	9
82)	2-Methylnaphthalene	8.41	142	517086	97.58	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	688743	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	845341	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	308126	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	406115	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	525719	279.82	ug/l		559.6
31) TOLUENE-D8 (S)	5.02	98	3083752	180.96	ug/l		361.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	1383700	196.72	ug/l		393.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	910425	187.06	ug/l		9
4) Diethyl ether (*)	2.35	74	257886	347.15	ug/l		9
5) Acetone (*)	2.60	43	51628	128.38	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	1916805	233.87	ug/l		9
7) Carbon disulfide (*)	2.67	76	2662579	184.32	ug/l		9
8) Methyl Acetate	2.84	43	186727	148.37	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	1373395	279.62	ug/l		9
10) Acrylonitrile (*)	3.08	53	117707	138.93	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	78647	151.59	ug/l		8
12) Dichlorodifluoromethane	1.23	85	585957	159.91	ug/l		9
13) Chloromethane (SPCC)	1.37	50	640687	177.17	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	699592	159.53	ug/l		9
15) Bromomethane	1.75	94	327119	235.77	ug/l		9
16) Chloroethane	1.83	64	161920	197.00	ug/l		9
18) Trichlorofluoromethane	2.12	101	874370	250.32	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	891921	196.95	ug/l		8
20) Methylene Chloride	2.90	84	837145	250.19	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	920836	203.52	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	1170821	229.39	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	955274	236.15	ug/l		8
24) Tetrahydrofuran	3.84	42	69742	123.96	ug/l		9
25) Chloroform (CCC)	3.85	83	1237261	246.16	ug/l		9
26) Bromochloromethane	3.81	130	626413	272.65	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	1270184	210.83	ug/l	#	1
28) 1,1-Dichloropropene	4.03	75	955460	176.31	ug/l		9
29) Cyclohexane	3.99	42	254634	152.62	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	108848	169.40	ug/l		9
33) 2-Hexanone (*)	5.34	58	93899	153.65	ug/l		9
35) Carbon Tetrachloride	4.04	117	1209587	173.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.14	78	2994921	175.89	ug/l		9
37)	1,2-Dichloroethane	4.15	62	574923	225.94	ug/l		9
38)	Trichloroethene (MS)	4.45	95	882992	172.88	ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	577886	201.01	ug/l		9
40)	Bromodichloromethane	4.68	83	872875	260.76	ug/l		9
41)	Methyl Cyclohexane	4.54	55	847603	136.66	ug/l		8
42)	Dibromomethane	4.62	174	640027	237.58	ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	1061342	251.47	ug/l		9
44)	Toluene (CCC/MS)	5.05	91	3536540	177.16	ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	824716	260.67	ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	413284	229.72	ug/l		9
47)	Tetrachloroethene	5.31	166	1468387	135.19	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	81968	151.19	ug/l	#	8
51)	Dibromochloromethane	5.42	129	790200	221.19	ug/l		9
52)	1,2-Dibromoethane	5.48	107	580990	209.74	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	2554280	177.08	ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	905805	210.11	ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	3596434	146.07	ug/l		9
56)	p,m-Xylene	5.80	106	2753302	262.96	ug/l		9
57)	o-Xylene	5.98	91	2667192	153.66	ug/l		9
58)	Styrene	5.99	104	2206761	162.53	ug/l		9
59)	Isopropylbenzene	6.15	105	4245829	147.80	ug/l		9
60)	Bromoform (SPCC)	6.09	173	546176	199.61	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.29	83	532985	204.16	ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	162450	153.42	ug/l		8
63)	n-Propylbenzene	6.34	91	4330762	142.86	ug/l		9
64)	Bromobenzene	6.31	156	1243615	190.55	ug/l		8
65)	1,3,5-Trimethylbenzene	6.42	120	1910200	152.49	ug/l		9
66)	tert-Butylbenzene	6.58	91	2038129	152.00	ug/l		8
67)	1,2,4-Trimethylbenzene	6.60	120	1928173	145.69	ug/l		9
69)	sec-Butylbenzene	6.68	105	4544434	138.36	ug/l		9
70)	p-Isopropyltoluene	6.75	119	3576681	131.84	ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	1874024	150.41	ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	2207783	177.05	ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	2067733	190.79	ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	3281860	182.89	ug/l		9
75)	n-Butylbenzene	6.95	91	3105508	140.52	ug/l		9
76)	Hexachloroethane	7.10	201	1039766	173.73	ug/l		8
77)	1,2-Dibromo-3-Chloropropan	7.34	157	138631	136.48	ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	1446629	187.89	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

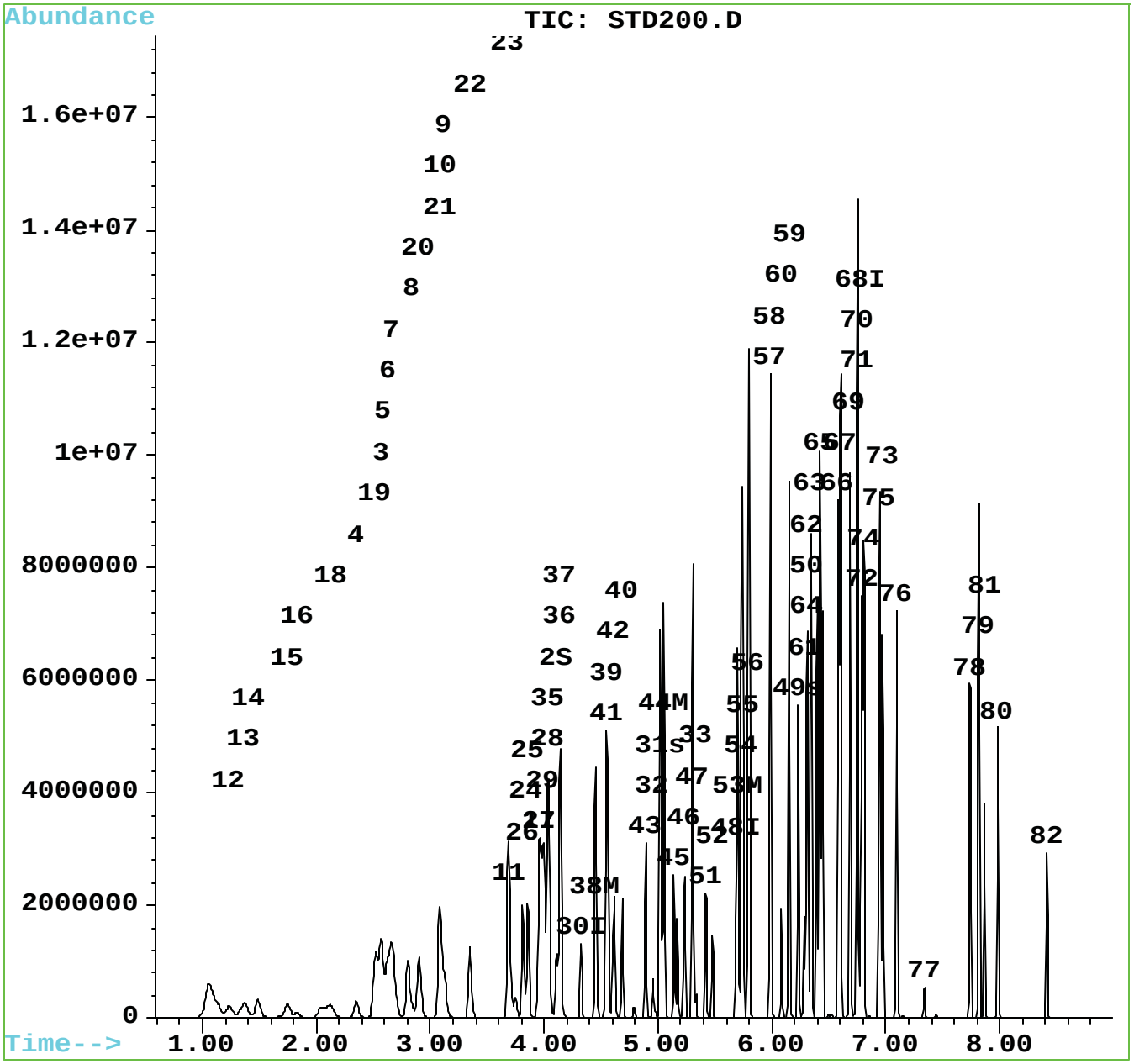
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79) Hexachlorobutadiene	7.82	225	1337439	144.91 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	1185710	188.82 ug/l	9
81) Naphthalene	7.87	128	1928293	170.48 ug/l	9
82) 2-Methylnaphthalene	8.41	142	927349	168.70 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120703a5.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc03a.d	07/03/12 09:54	1,1,2-Trichloro-1,2,2-trifluoroethane	0.299	0.05
		Diethyl ether	0.079	0.05
		Acetone	0.012	0.01
		Methyl iodide	0.590	0.05
		Carbon disulfide	0.808	0.05
		Methyl acetate	0.054	0.05
		tert-Methyl butyl ether	0.398	0.05
		Acrylonitrile	0.036	0.01
		2-Butanone	0.020	0.01
		Dichlorodifluoromethane	0.203	0.05
		Chloromethane	0.209	0.10
		Vinyl Chloride	0.240	0.05
		Bromomethane	0.100	0.05
		Chloroethane	0.050	0.05
		Trichlorofluoromethane	0.285	0.05
		1,1-Dichloroethene	0.277	0.05
		Methylene Chloride	0.248	0.05
		trans-1,2-Dichloroethene	0.291	0.05
		1,1-Dichloroethane	0.357	0.10
		cis-1,2-Dichloroethene	0.298	0.05
		Tetrahydrofuran	0.022	0.01
		Chloroform	0.381	0.05
		Bromochloromethane	0.189	0.05
		1,1,1-Trichloroethane	0.406	0.05
		Cyclohexane	0.098	0.05
		4-Methyl-2-pentanone	0.028	0.01
		2-Hexanone	0.021	0.01
		Carbon Tetrachloride	0.352	0.05
		Benzene	0.904	0.05
		1,2-Dichloroethane	0.159	0.05
		Trichloroethene	0.256	0.05
		1,2-Dichloropropane	0.173	0.05
		Bromodichloromethane	0.229	0.05
		Methyl cyclohexane	0.279	0.05
		Dibromomethane	0.173	0.05
		cis-1,3-Dichloropropene	0.290	0.05
		Toluene	1.106	0.05
		trans-1,3-Dichloropropene	0.222	0.05
		1,1,2-Trichloroethane	0.112	0.05
		Tetrachloroethene	0.458	0.05
		trans-1,4-Dichloro-2-butene	0.065	0.05
		Dibromochloromethane	0.564	0.05
		1,2-Dibromoethane	0.425	0.05
		Chlorobenzene	2.121	0.30
		1,1,1,2-Tetrachloroethane	0.726	0.05
		Ethylbenzene	3.333	0.05
		p,m-Xylene	1.432	0.05
		o-Xylene	2.511	0.05
		Styrene	2.117	0.05
		Isopropylbenzene	3.778	0.05
		Bromoform	0.369	0.10
		1,1,2,2-Tetrachloroethane	0.391	0.30
		1,2,3-Trichloropropane	0.126	0.05
		n-Propylbenzene	3.855	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120703a5.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	0.994	0.05
		1,3,5-Trimethylbenzene	1.730	0.05
		tert-Butylbenzene	1.725	0.05
		1,2,4-Trimethylbenzene	1.806	0.05
		sec-Butylbenzene	3.142	0.05
		p-Isopropyltoluene	2.684	0.05
		1,3-Dichlorobenzene	1.375	0.05
		1,4-Dichlorobenzene	1.388	0.05
		1,2-Dichlorobenzene	1.242	0.05
		1,2,3-Trimethylbenzene	2.080	0.05
		n-Butylbenzene	2.106	0.05
		Hexachloroethane	0.575	0.05
		1,2-Dibromo-3-Chloropropane	0.070	0.05
		1,2,4-Trichlorobenzene	0.894	0.05
		1,2,3-Trichlorobenzene	0.693	0.05
		Naphthalene	1.092	0.05
		2-Methylnaphthalene	0.484	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*		*CCC %D/UCL*
spcc03a.d	07/03/12 09:54	1,1,2-Trichloro-1,2,2-trifluoroet	46.6/ 50.0		6.9/ 20.0
		Diethyl ether	42.9/ 50.0		14.1/ 20.0
		Acetone	30.6/ 50.0	*	38.7/ 20.0
		Methyl iodide	43.7/ 50.0		12.6/ 20.0
		Carbon disulfide	42.3/ 50.0		15.4/ 20.0
		Methyl acetate	39.5/ 50.0	*	21.0/ 20.0
		tert-Methyl butyl ether	42.7/ 50.0		14.7/ 20.0
		Acrylonitrile	43.4/ 50.0		13.2/ 20.0
		2-Butanone	33.9/ 50.0	*	32.2/ 20.0
		Dichlorodifluoromethane	50.1/ 50.0		0.2/ 20.0
		Chloromethane	45.7/ 50.0		8.7/ 20.0
		Vinyl Chloride	46.5/ 50.0		7.0/ 20.0
		Bromomethane	43.7/ 50.0		12.7/ 20.0
		Chloroethane	45.4/ 50.0		9.1/ 20.0
		Trichlorofluoromethane	47.4/ 50.0		5.3/ 20.0
		1,1-Dichloroethene	43.4/ 50.0		13.2/ 20.0
		Methylene Chloride	40.2/ 50.0		19.7/ 20.0
		trans-1,2-Dichloroethene	43.7/ 50.0		12.6/ 20.0
		1,1-Dichloroethane	42.9/ 50.0		14.3/ 20.0
		cis-1,2-Dichloroethene	42.8/ 50.0		14.5/ 20.0
		Tetrahydrofuran	39.5/ 50.0	*	21.1/ 20.0
		Chloroform	42.5/ 50.0		15.0/ 20.0
		Bromochloromethane	42.3/ 50.0		15.4/ 20.0
		1,1,1-Trichloroethane	46.4/ 50.0		7.3/ 20.0
		Cyclohexane	48.4/ 50.0		3.2/ 20.0
		4-Methyl-2-pentanone	43.4/ 50.0		13.3/ 20.0
		2-Hexanone	41.9/ 50.0		16.2/ 20.0
		Carbon Tetrachloride	49.5/ 50.0		0.9/ 20.0
		Benzene	45.3/ 50.0		9.5/ 20.0
		1,2-Dichloroethane	43.8/ 50.0		12.3/ 20.0
		Trichloroethene	46.9/ 50.0		6.3/ 20.0
		1,2-Dichloropropane	44.6/ 50.0		10.9/ 20.0
		Bromodichloromethane	47.2/ 50.0		5.7/ 20.0
		Methyl cyclohexane	49.5/ 50.0		1.1/ 20.0
		Dibromomethane	45.9/ 50.0		8.2/ 20.0
		cis-1,3-Dichloropropene	47.9/ 50.0		4.2/ 20.0
		Toluene	47.2/ 50.0		5.7/ 20.0
		trans-1,3-Dichloropropene	48.7/ 50.0		2.6/ 20.0
		1,1,2-Trichloroethane	44.9/ 50.0		10.3/ 20.0
		Tetrachloroethene	47.3/ 50.0		5.5/ 20.0
		trans-1,4-Dichloro-2-butene	47.3/ 50.0		5.4/ 20.0
		Dibromochloromethane	49.5/ 50.0		1.0/ 20.0
		1,2-Dibromoethane	46.4/ 50.0		7.3/ 20.0
		Chlorobenzene	45.8/ 50.0		8.4/ 20.0
		1,1,1,2-Tetrachloroethane	46.9/ 50.0		6.2/ 20.0
		Ethylbenzene	48.0/ 50.0		4.0/ 20.0
		p,m-Xylene	96.6/100.0		3.4/ 20.0
		o-Xylene	47.4/ 50.0		5.1/ 20.0
		Styrene	49.1/ 50.0		1.7/ 20.0
		Isopropylbenzene	48.4/ 50.0		3.2/ 20.0
		Bromoform	46.5/ 50.0		7.1/ 20.0
		1,1,2,2-Tetrachloroethane	45.8/ 50.0		8.5/ 20.0
		1,2,3-Trichloropropane	44.8/ 50.0		10.4/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120703a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	48.0/ 50.0	4.0/ 20.0
		Bromobenzene	45.1/ 50.0	9.7/ 20.0
		1,3,5-Trimethylbenzene	48.0/ 50.0	3.9/ 20.0
		tert-Butylbenzene	46.8/ 50.0	6.4/ 20.0
		1,2,4-Trimethylbenzene	47.5/ 50.0	5.1/ 20.0
		sec-Butylbenzene	49.6/ 50.0	0.8/ 20.0
		p-Isopropyltoluene	50.2/ 50.0	0.3/ 20.0
		1,3-Dichlorobenzene	47.1/ 50.0	5.9/ 20.0
		1,4-Dichlorobenzene	46.3/ 50.0	7.5/ 20.0
		1,2-Dichlorobenzene	45.7/ 50.0	8.6/ 20.0
		1,2,3-Trimethylbenzene	47.0/ 50.0	6.0/ 20.0
		n-Butylbenzene	49.7/ 50.0	0.6/ 20.0
		Hexachloroethane	45.4/ 50.0	9.3/ 20.0
		1,2-Dibromo-3-Chloropropane	46.7/ 50.0	6.7/ 20.0
		1,2,4-Trichlorobenzene	48.2/ 50.0	3.7/ 20.0
		1,2,3-Trichlorobenzene	45.7/ 50.0	8.5/ 20.0
		Naphthalene	48.1/ 50.0	3.8/ 20.0
		2-Methylnaphthalene	42.1/ 50.0	15.8/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\spcc03a.d Vial: 2
Acq On : 3 Jul 12 9:54 am Operator: wat
Sample : spcc/ccc 1s0703 1v0703 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	667948	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	746100	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	272113	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	358032	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	109296	43.28	ug/l		86.5
31) TOLUENE-D8 (S)	5.02	98	740160	49.10	ug/l		98.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	299699	46.31	ug/l		92.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	199970	46.56	ug/l		9
4) Diethyl ether (*)	2.34	74	52992	42.94	ug/l		9
5) Acetone (*)	2.59	43	7616	30.63	ug/l		9
6) Methyl iodide (iodomethane	2.62	142	394137	43.70	ug/l		9
7) Carbon disulfide (*)	2.67	76	539944	42.31	ug/l		9
8) Methyl Acetate	2.84	43	35625	39.50	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	265820	42.66	ug/l		9
10) Acrylonitrile (*)	3.07	53	23757	43.38	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	13077	33.90	ug/l		8
12) Dichlorodifluoromethane	1.23	85	135573	50.11	ug/l		9
13) Chloromethane (SPCC)	1.34	50	139891	45.66	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	160241	46.49	ug/l		9
15) Bromomethane	1.73	94	66870	43.67	ug/l		9
16) Chloroethane	1.82	64	33395	45.44	ug/l		9
18) Trichlorofluoromethane	2.11	101	190224	47.36	ug/l	#	3
19) 1,1-Dichloroethene (CCC/MS	2.51	61	185243	43.41	ug/l		8
20) Methylene Chloride	2.90	84	165626	40.15	ug/l		9
21) trans-1,2-Dichloroethene	3.07	61	194103	43.68	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	238388	42.85	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	198793	42.76	ug/l		8
24) Tetrahydrofuran	3.84	42	14546	39.47	ug/l		9
25) Chloroform (CCC)	3.85	83	254218	42.50	ug/l		9
26) Bromochloromethane	3.81	130	125857	42.30	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	271486	46.36	ug/l	#	4
28) 1,1-Dichloropropene	4.03	75	222185	45.29	ug/l		9
29) Cyclohexane	3.98	42	65471	48.39	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	20632	43.36	ug/l		9
33) 2-Hexanone (*)	5.34	58	15536	41.89	ug/l		9
35) Carbon Tetrachloride	4.04	117	262054	49.53	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\spcc03a.d Vial: 2
Acq On : 3 Jul 12 9:54 am Operator: wat
Sample : spcc/ccc 1s0703 1v0703 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36)	Benzene (MS)	4.13	78	674878	45.26 ug/l		9
37)	1,2-Dichloroethane	4.15	62	118411	43.84 ug/l		9
38)	Trichloroethene (MS)	4.45	95	190648	46.86 ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	129178	44.57 ug/l		9
40)	Bromodichloromethane	4.68	83	170928	47.15 ug/l		9
41)	Methyl Cyclohexane	4.54	55	208324	49.45 ug/l		8
42)	Dibromomethane	4.62	174	129210	45.88 ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	216455	47.88 ug/l		9
44)	Toluene (CCC/MS)	5.05	91	824981	47.15 ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	165621	48.71 ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	83965	44.86 ug/l		9
47)	Tetrachloroethene	5.31	166	341774	47.26 ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	17778	47.28 ug/l	#	8
51)	Dibromochloromethane	5.42	129	153650	49.49 ug/l		9
52)	1,2-Dibromoethane	5.48	107	115706	46.35 ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	577058	45.79 ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	197444	46.89 ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	906973	48.01 ug/l		9
56)	p,m-Xylene	5.79	106	779607	96.59 ug/l		8
57)	o-Xylene	5.98	91	683439	47.44 ug/l		9
58)	Styrene	5.99	104	576028	49.14 ug/l		9
59)	Isopropylbenzene	6.15	105	1028172	48.38 ug/l		9
60)	Bromoform (SPCC)	6.09	173	100333	46.45 ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.29	83	106469	45.77 ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	34366	44.81 ug/l		9
63)	n-Propylbenzene	6.34	91	1048877	47.99 ug/l		9
64)	Bromobenzene	6.31	156	270529	45.13 ug/l		8
65)	1,3,5-Trimethylbenzene	6.42	120	470892	48.03 ug/l		8
66)	tert-Butylbenzene	6.58	91	469314	46.80 ug/l	#	7
67)	1,2,4-Trimethylbenzene	6.60	120	491455	47.46 ug/l		9
69)	sec-Butylbenzene	6.68	105	1125106	49.58 ug/l		9
70)	p-Isopropyltoluene	6.75	119	960908	50.15 ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	492303	47.05 ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	496941	46.26 ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	444732	45.71 ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	744630	47.00 ug/l		9
75)	n-Butylbenzene	6.95	91	754242	49.68 ug/l		9
76)	Hexachloroethane	7.10	201	205851	45.35 ug/l		9
77)	1,2-Dibromo-3-Chloropropan	7.34	157	25016	46.67 ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	320003	48.17 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\spcc03a.d Vial: 2
Acq On : 3 Jul 12 9:54 am Operator: wat
Sample : spcc/ccc 1s0703 1v0703 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

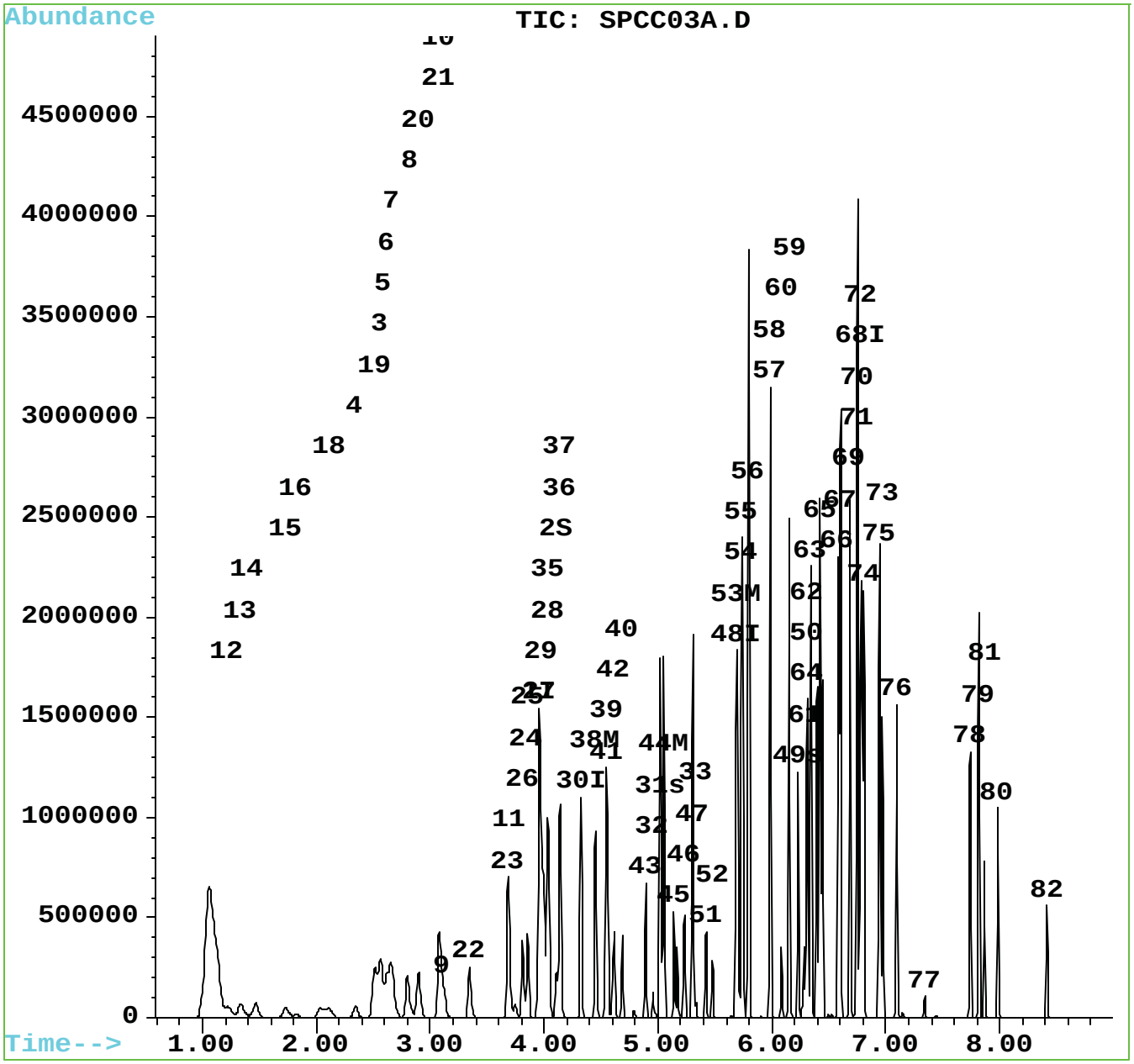
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	289415	45.83 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	248374	45.74 ug/l	9
81)	Naphthalene	7.87	128	390884	48.09 ug/l	9
82)	2-Methylnaphthalene	8.41	142	173307	42.10 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\spcc03a.d Vial: 2
Acq On : 3 Jul 12 9:54 am Operator: wat
Sample : spcc/ccc 1s0703 1v0703 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\bfb03a.d Vial: 1
Acq On : 3 Jul 12 9:28 am Operator: wat
Sample : 50ng/bfb 1s0702 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

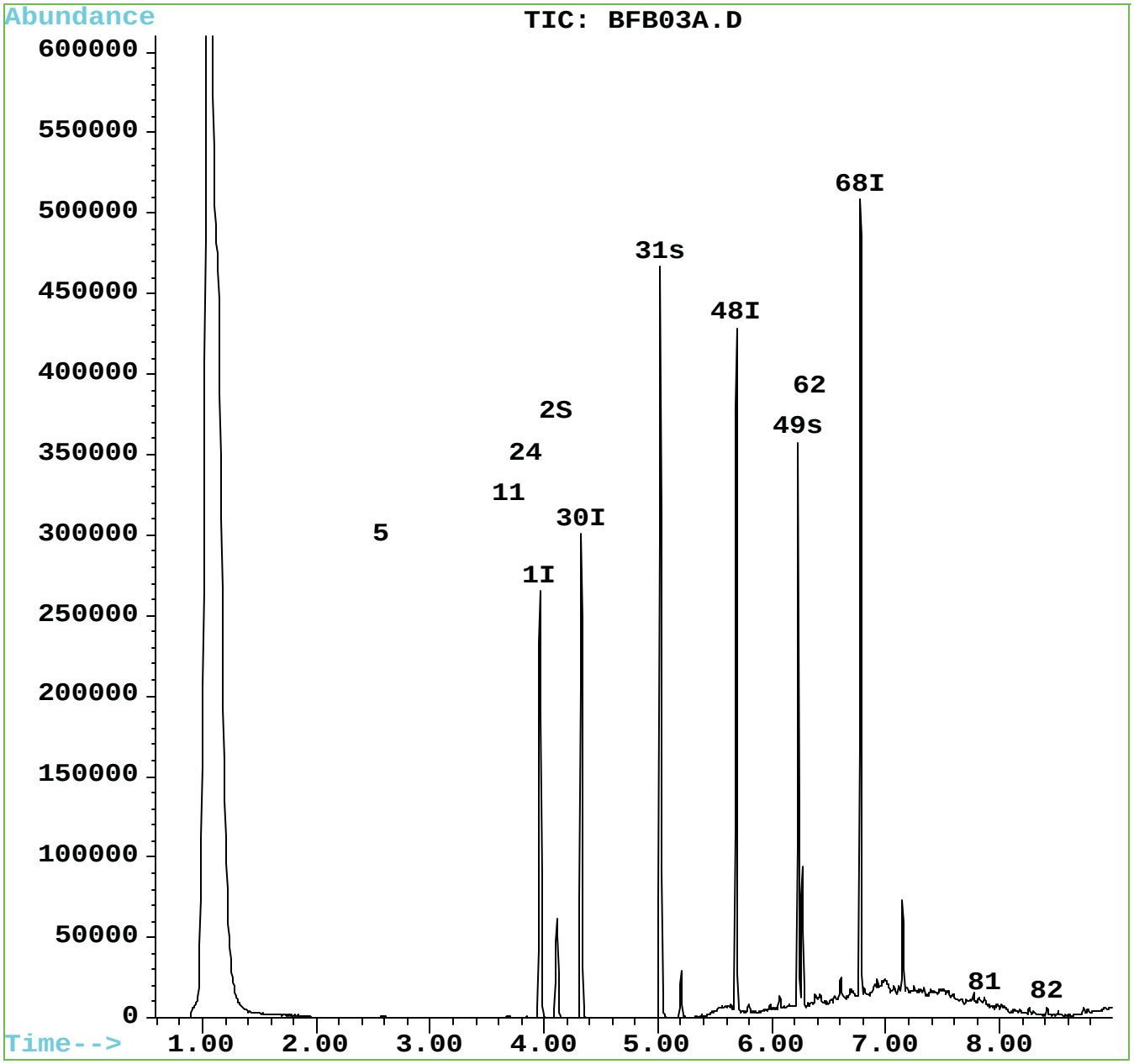
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	178061	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	201797	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	71791	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	103651	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	28802	42.78	ug/l		85.5
31) TOLUENE-D8 (S)	5.02	98	199672	48.97	ug/l		97.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	85813	50.26	ug/l		100.5
Target Compounds							Qvalu
5) Acetone (*)	2.58	43	2659	40.11	ug/l	#	8
11) 2-Butanone (MEK) (*)	3.70	43	276	2.68	ug/l	#	4
24) Tetrahydrofuran	3.84	42	408	4.15	ug/l	#	
62) 1,2,3-Trichloropropane	6.33	110	275	1.36	ug/l	#	
81) Naphthalene	7.87	128	3368	1.43	ug/l		7
82) 2-Methylnaphthalene	8.41	142	1851	1.55	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\bfb03a.d Vial: 1
Acq On : 3 Jul 12 9:28 am Operator: wat
Sample : 50ng/bfb 1s0702 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

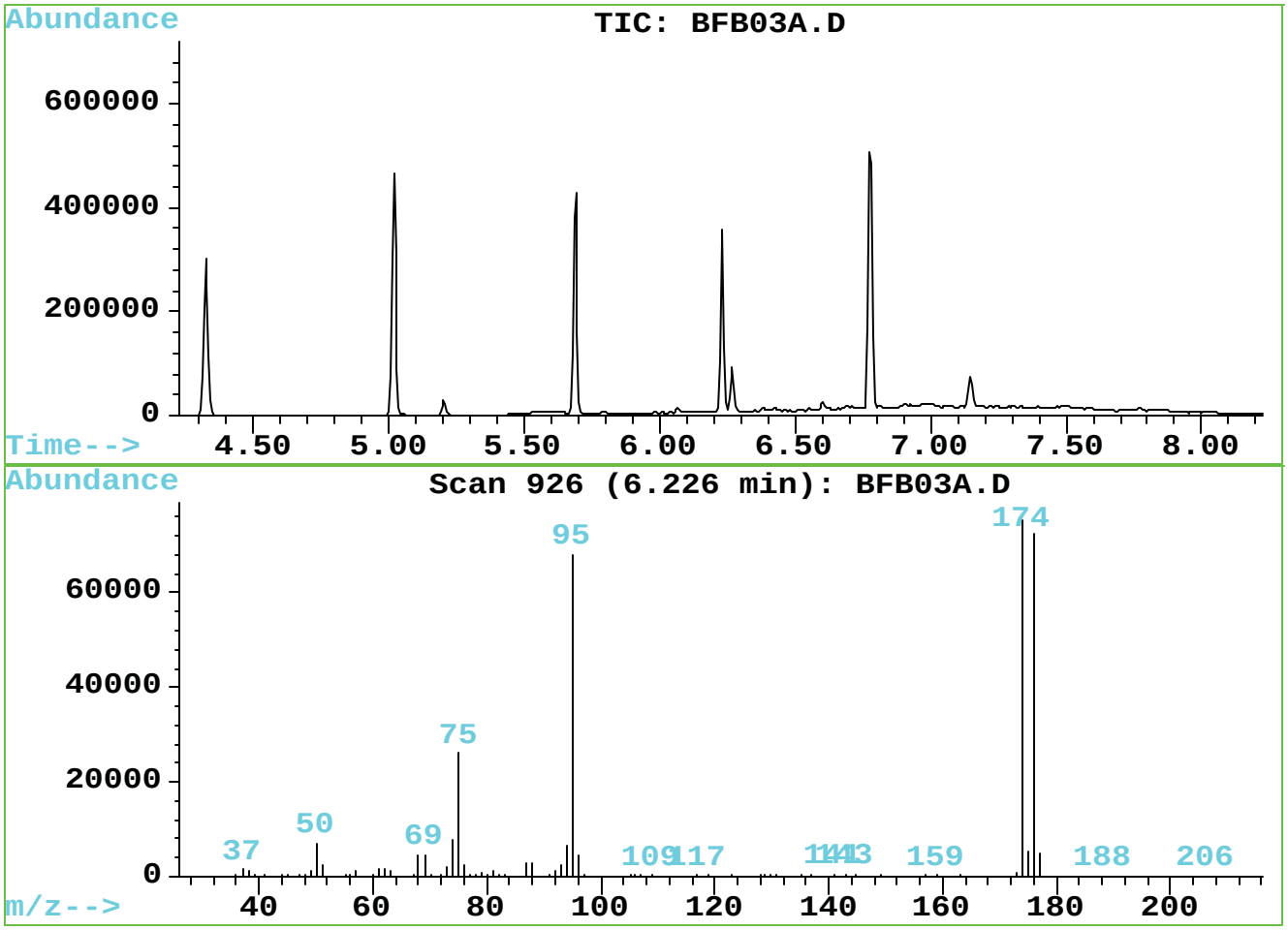
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\DATA\120703A5\BFB03A.D Vial: 1
Acq On : 3 Jul 12 9:28 am Operator: wat
Sample : 50ng/bfb 1s0702 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.4	7060	PASS
75	95	30	66	38.3	26056	PASS
95	95	100	100	100.0	67976	PASS
96	95	5	9	6.8	4604	PASS
173	174	0	2	0.9	661	PASS
174	95	50	120	110.7	75272	PASS
175	174	4	9	7.4	5546	PASS
176	174	93	101	96.6	72696	PASS
177	176	5	9	6.7	4900	PASS

BFB03A.D FU120604.M Thu Jul 12 16:17:59 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\blks03a.d Vial: 5
Acq On : 3 Jul 12 12:05 pm Operator: wat
Sample : 100ul blank 1s0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

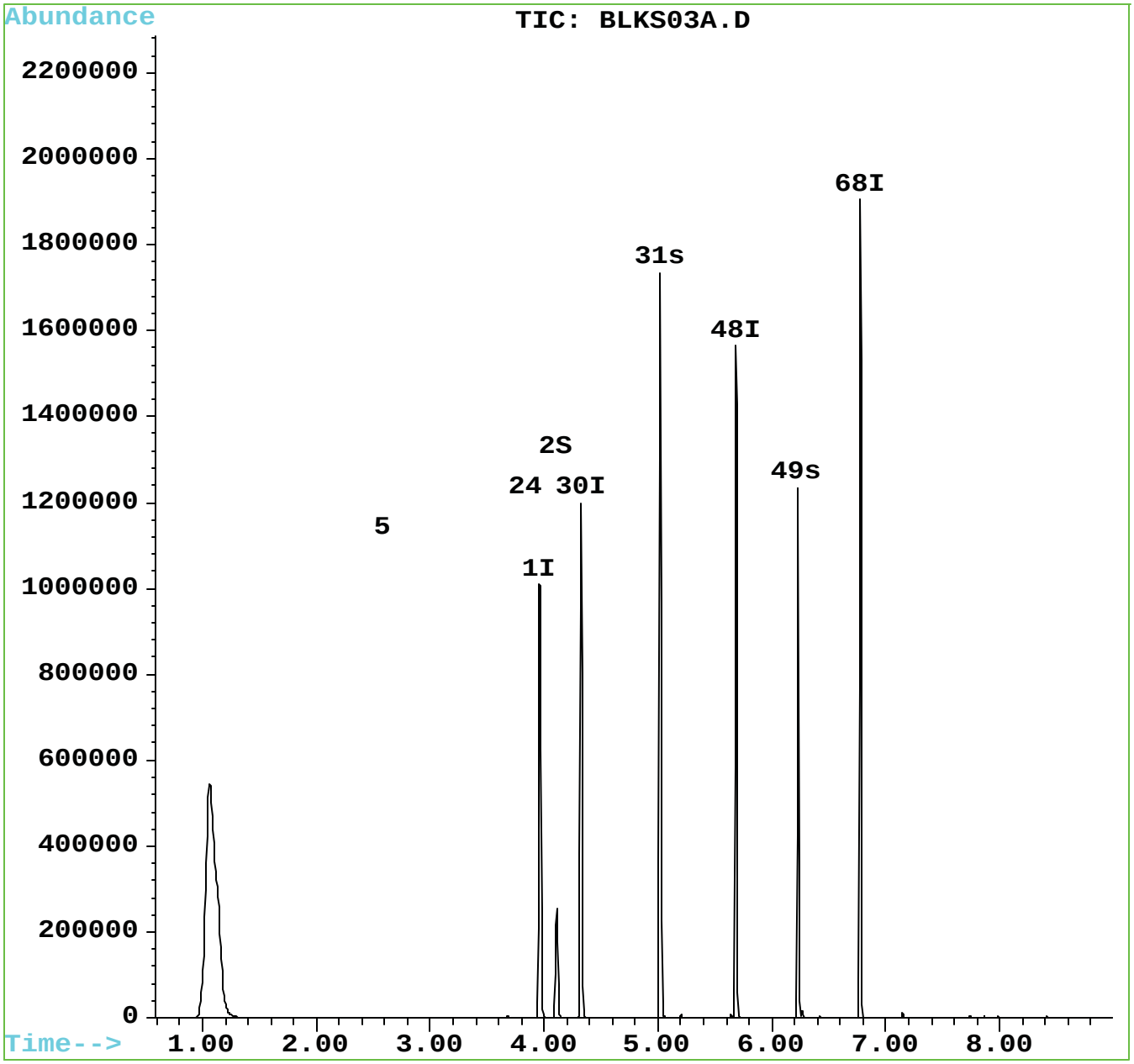
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	683748	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	769491	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	269879	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	380999	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	111905	43.29	ug/l	86.5
31) TOLUENE-D8 (S)	5.02	98	733088	47.15	ug/l	94.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	309515	48.22	ug/l	96.4
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	637	2.50	ug/l	6
24) Tetrahydrofuran	3.84	42	824	2.18	ug/l #	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\blks03a.d Vial: 5
Acq On : 3 Jul 12 12:05 pm Operator: wat
Sample : 100ul blank 1s0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\lcss03a.d Vial: 3
Acq On : 3 Jul 12 10:24 am Operator: wat
Sample : 100ul blankms 1s0703 1m0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	649151	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	725935	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	258728	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	344494	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	106808	43.52	ug/l		87.0
31) TOLUENE-D8 (S)	5.02	98	708332	48.29	ug/l		96.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	287961	46.80	ug/l		93.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	198702	47.61	ug/l		9
4) Diethyl ether (*)	2.35	74	52001	43.36	ug/l		9
5) Acetone (*)	2.59	43	8714	36.06	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	369136	42.12	ug/l		9
7) Carbon disulfide (*)	2.67	76	516429	41.64	ug/l		9
8) Methyl Acetate	2.84	43	33994	38.79	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	258551	42.70	ug/l		9
10) Acrylonitrile (*)	3.08	53	22747	42.74	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	13488	35.98	ug/l		9
12) Dichlorodifluoromethane	1.23	85	122117	46.50	ug/l		9
13) Chloromethane (SPCC)	1.34	50	136022	45.68	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	160287	47.85	ug/l		9
15) Bromomethane	1.74	94	64643	43.44	ug/l		9
16) Chloroethane	1.83	64	32935	46.11	ug/l		9
18) Trichlorofluoromethane	2.04	101	200593	51.38	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	172893	41.69	ug/l		8
20) Methylene Chloride	2.90	84	156084	38.94	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	184011	42.61	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	225413	41.69	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	192242	42.55	ug/l	#	8
24) Tetrahydrofuran	3.84	42	13046	36.42	ug/l	#	
25) Chloroform (CCC)	3.86	83	242556	41.72	ug/l		9
26) Bromochloromethane	3.81	130	120588	41.71	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	256695	45.10	ug/l	#	4
28) 1,1-Dichloropropene	4.14	75	10360	2.17	ug/l	#	
29) Cyclohexane	3.98	42	53646	40.80	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	19997	43.20	ug/l		8
33) 2-Hexanone (*)	5.34	58	15596	43.22	ug/l		9
35) Carbon Tetrachloride	4.04	117	250712	48.70	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\lcss03a.d Vial: 3
Acq On : 3 Jul 12 10:24 am Operator: wat
Sample : 100ul blankms 1s0703 1m0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	650230	44.81 ug/l	9
37) 1,2-Dichloroethane	4.15	62	114810	43.69 ug/l	9
38) Trichloroethene (MS)	4.45	95	183001	46.23 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	124135	44.02 ug/l	9
40) Bromodichloromethane	4.68	83	161894	45.90 ug/l	9
41) Methyl Cyclohexane	4.54	55	195815	47.77 ug/l	8
42) Dibromomethane	4.62	174	125692	45.87 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	205368	46.69 ug/l	9
44) Toluene (CCC/MS)	5.05	91	781112	45.88 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	157645	47.65 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	79291	43.54 ug/l	9
47) Tetrachloroethene	5.31	166	317176	45.08 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	16704	46.72 ug/l #	7
51) Dibromochloromethane	5.42	129	144342	48.90 ug/l	9
52) 1,2-Dibromoethane	5.48	107	109843	46.28 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	540371	45.10 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	189902	47.43 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	845815	47.09 ug/l	9
56) p,m-Xylene	5.79	106	722812	94.19 ug/l	8
57) o-Xylene	5.98	91	645170	47.10 ug/l	9
58) Styrene	5.99	104	524018	47.01 ug/l	9
59) Isopropylbenzene	6.15	105	967552	47.88 ug/l	9
60) Bromoform (SPCC)	6.09	173	95715	46.60 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	101144	45.73 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	33803	46.35 ug/l	9
63) n-Propylbenzene	6.34	91	1008981	48.56 ug/l	9
64) Bromobenzene	6.31	156	258239	45.31 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	437225	46.90 ug/l	9
66) tert-Butylbenzene	6.58	91	450607	47.26 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	475318	48.28 ug/l	9
69) sec-Butylbenzene	6.68	105	1074343	49.21 ug/l	9
70) p-Isopropyltoluene	6.75	119	921821	50.00 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	464063	46.09 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	461955	44.69 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	424376	45.33 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	698091	45.79 ug/l	9
75) n-Butylbenzene	6.95	91	706082	48.34 ug/l	9
76) Hexachloroethane	7.10	201	189400	43.38 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	25119	48.61 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	307164	48.06 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\lcss03a.d Vial: 3
Acq On : 3 Jul 12 10:24 am Operator: wat
Sample : 100ul blankms 1s0703 1m0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

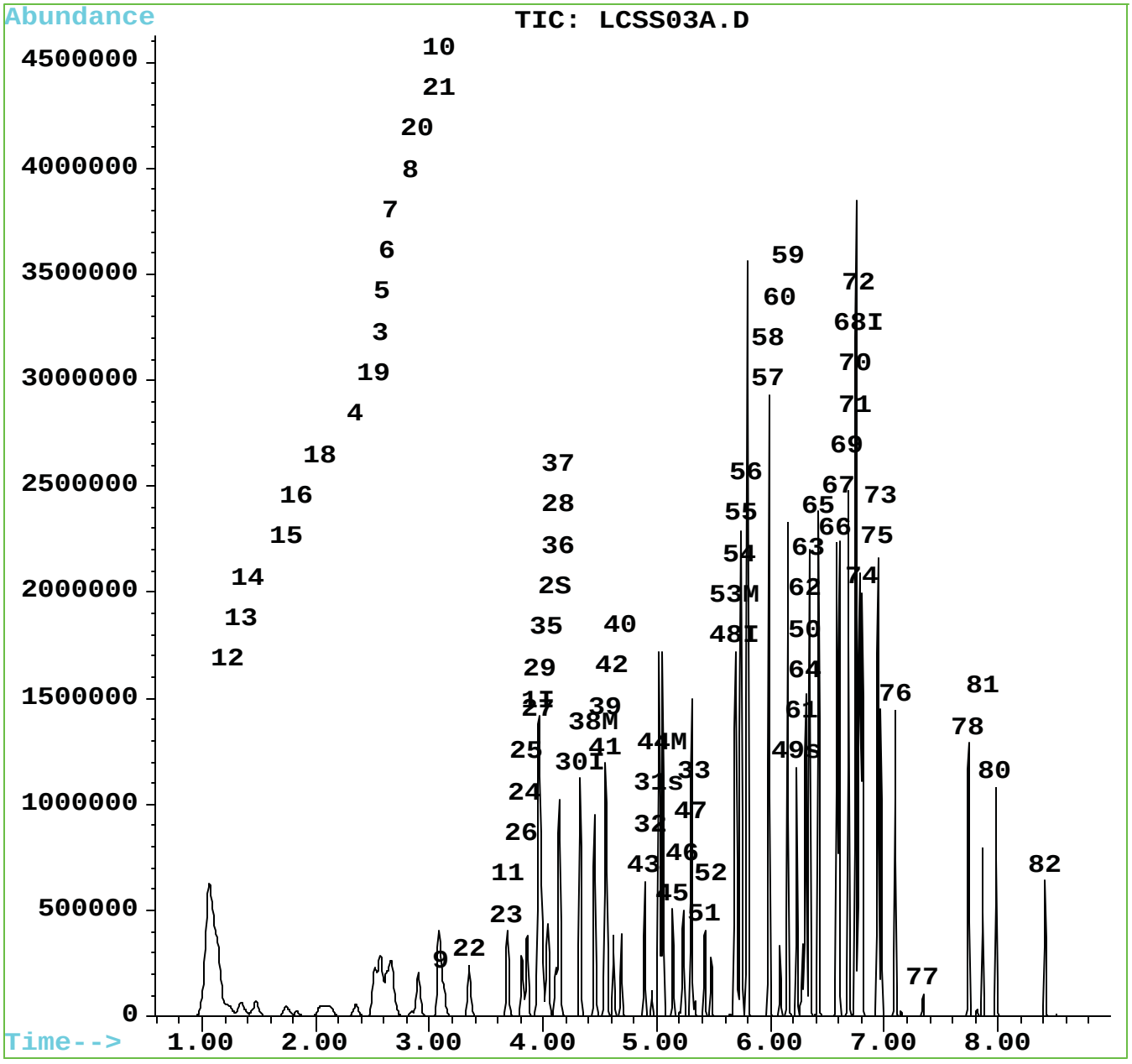
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80) 1,2,3-Trichlorobenzene	7.98	180	248568	47.57 ug/l	9
81) Naphthalene	7.87	128	396043	50.64 ug/l	9
82) 2-Methylnaphthalene	8.41	142	194854	49.19 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\lcss03a.d Vial: 3
Acq On : 3 Jul 12 10:24 am Operator: wat
Sample : 100ul blankms 1s0703 1m0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\lcss03b.d Vial: 4
Acq On : 3 Jul 12 10:44 am Operator: wat
Sample : 100ul blankmsd 1s0703 1m0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	669247	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	759266	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	272801	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	359353	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	111900	44.22	ug/l		88.4
31) TOLUENE-D8 (S)	5.02	98	744241	48.51	ug/l		97.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	302033	46.55	ug/l		93.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	197554	45.91	ug/l		9
4) Diethyl ether (*)	2.34	74	52214	42.23	ug/l		9
5) Acetone (*)	2.59	43	8863	35.57	ug/l	#	8
6) Methyl iodide (iodomethane	2.62	142	377028	41.73	ug/l		9
7) Carbon disulfide (*)	2.67	76	523606	40.95	ug/l		9
8) Methyl Acetate	2.84	43	33685	37.28	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	260496	41.73	ug/l		9
10) Acrylonitrile (*)	3.07	53	22905	41.74	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	13934	36.05	ug/l		9
12) Dichlorodifluoromethane	1.22	85	118814	43.93	ug/l		9
13) Chloromethane (SPCC)	1.34	50	134603	43.85	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	154464	44.72	ug/l		9
15) Bromomethane	1.73	94	63589	41.45	ug/l		9
16) Chloroethane	1.82	64	32508	44.15	ug/l		9
18) Trichlorofluoromethane	2.11	101	196576	48.84	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	185903	43.48	ug/l		8
20) Methylene Chloride	2.90	84	160268	38.78	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	185366	41.64	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	229779	41.22	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	193746	41.59	ug/l	#	8
24) Tetrahydrofuran	3.84	42	13262	35.92	ug/l	#	
25) Chloroform (CCC)	3.85	83	248654	41.49	ug/l		9
26) Bromochloromethane	3.81	130	123695	41.50	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	257928	43.96	ug/l	#	5
28) 1,1-Dichloropropene	4.13	75	10684	2.17	ug/l	#	
29) Cyclohexane	3.98	42	52616	38.82	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	20164	41.65	ug/l		8
33) 2-Hexanone (*)	5.34	58	16025	42.46	ug/l		9
35) Carbon Tetrachloride	4.04	117	251591	46.73	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\lcss03b.d Vial: 4
Acq On : 3 Jul 12 10:44 am Operator: wat
Sample : 100ul blankmsd 1s0703 1m0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.13	78	664809	43.81 ug/l	9
37) 1,2-Dichloroethane	4.15	62	117774	42.85 ug/l	9
38) Trichloroethene (MS)	4.45	95	187100	45.19 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	129026	43.74 ug/l	9
40) Bromodichloromethane	4.68	83	168954	45.80 ug/l	9
41) Methyl Cyclohexane	4.54	55	198280	46.25 ug/l	8
42) Dibromomethane	4.62	174	126559	44.15 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	214651	46.66 ug/l	9
44) Toluene (CCC/MS)	5.05	91	802907	45.09 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	163593	47.28 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	83422	43.79 ug/l	9
47) Tetrachloroethene	5.31	166	324415	44.09 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	16651	44.17 ug/l #	7
51) Dibromochloromethane	5.42	129	149191	47.94 ug/l	9
52) 1,2-Dibromoethane	5.48	107	112722	45.04 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	559305	44.27 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	195174	46.24 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	868994	45.88 ug/l	9
56) p,m-Xylene	5.79	106	751954	92.93 ug/l	8
57) o-Xylene	5.98	91	665257	46.07 ug/l	9
58) Styrene	5.99	104	538897	45.85 ug/l	9
59) Isopropylbenzene	6.15	105	988588	46.40 ug/l	9
60) Bromoform (SPCC)	6.09	173	96306	44.54 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	101297	43.44 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	33986	44.20 ug/l	9
63) n-Propylbenzene	6.34	91	1031816	47.09 ug/l	9
64) Bromobenzene	6.31	156	265475	44.18 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	451972	45.98 ug/l	8
66) tert-Butylbenzene	6.58	91	461917	45.95 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	489603	47.16 ug/l	9
69) sec-Butylbenzene	6.68	105	1093604	48.02 ug/l	9
70) p-Isopropyltoluene	6.75	119	948402	49.32 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	479537	45.66 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	476761	44.22 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	437644	44.81 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	722882	45.46 ug/l	9
75) n-Butylbenzene	6.95	91	728144	47.79 ug/l	9
76) Hexachloroethane	7.10	201	197105	43.27 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	24726	45.99 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	319592	47.94 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\lcss03b.d Vial: 4
Acq On : 3 Jul 12 10:44 am Operator: wat
Sample : 100ul blankmsd 1s0703 1m0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

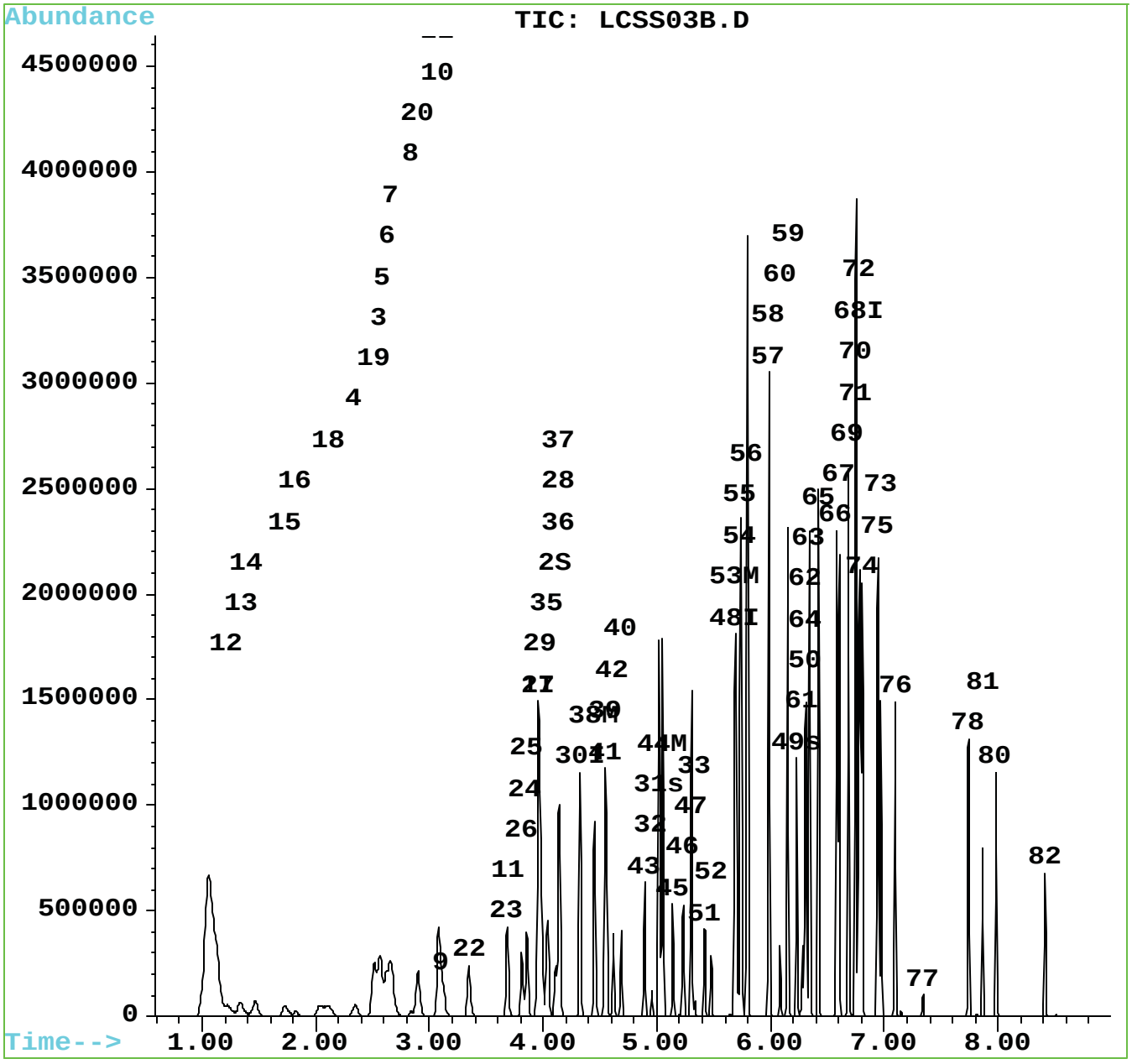
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	262376	48.14 ug/l	9
81)	Naphthalene	7.87	128	404791	49.62 ug/l	9
82)	2-Methylnaphthalene	8.41	142	203339	49.21 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120703a5\lcss03b.d Vial: 4
Acq On : 3 Jul 12 10:44 am Operator: wat
Sample : 100ul blankmsd 1s0703 1m0703 Inst : Urborg
Misc : s/50 id:vf120703s1 Multiplr: 1.00
Quant Time: Jul 5 9:26 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120702.2
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
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Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d02a.d	07/02/12 11:32	dftpp std (120607) [none]	WW	IP	**1**	
spnn02b.d	07/02/12 12:40	pna std 50 (120314) [none]	WW	CV	**1**	
blks02a.d	07/02/12 13:06	pna-s 30g/1ml df:1 sp120628s01	SO	Bl	**1**	
lcss02a.d	07/02/12 13:30	pna-s 30g/1ml df:1 sp120628s01	SO	MS	**1**	
lcsds02a.d	07/02/12 13:54	pna-s 30g/1ml df:1 sp120628s01	SO	MS	**1**	
5297611.d	07/02/12 14:18	pna-s 30g/1ml df:6 sp120628s01	SO			
5298302.d	07/02/12 14:42	pna-s 30g/1ml df:6 sp120628s01	SO		**1**	
5298303.d	07/02/12 15:06	pna-s 30g/1ml df:6 sp120628s01	SO		**1**	
5299601.d	07/02/12 15:30	pna-s 30g/1ml df:6 sp120628s01	SO			
5299602.d	07/02/12 15:54	pna-s 30g/1ml df:6 sp120628s01	SO			
5299603.d	07/02/12 16:18	pna-s 30g/1ml df:6 sp120628s01	SO			
5299901.d	07/02/12 16:41	pna-s 30g/1ml df:6 sp120628s01	SO			
5299902.d	07/02/12 17:05	pna-s 30g/1ml df:6 sp120628s01	SO			
5297612.d	07/02/12 17:29	pna-s 30g/2ml df:15 sp120628s01	SO			
5297613.d	07/02/12 17:53	pna-s 30g/2ml df:15 sp120628s01	SO			
5297614.d	07/02/12 18:17	pna-s 30g/2ml df:20 sp120628s01	SO			
5297615.d	07/02/12 18:41	pna-s 30g/2ml df:15 sp120628s01	SO			

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	12
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120702.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spnn02b.d	2-Fluorobiphenyl	2056/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	1877/100.0	n/a	10.0/114.0	
	Terphenyl-D14	2056/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blks02a.d	2-Fluorobiphenyl	66.0/100.0	66.0	10.0/115.0	SO
	Nitrobenzene-D5	47.2/100.0	47.2	18.5/120.0	
	Terphenyl-D14	78.6/100.0	78.6	10.3/137.0	
				Total Outliers: 0	
lcss02a.d	2-Fluorobiphenyl	69.0/100.0	69.0	10.0/115.0	SO
	Nitrobenzene-D5	52.6/100.0	52.6	18.5/120.0	
	Terphenyl-D14	78.1/100.0	78.1	10.3/137.0	
				Total Outliers: 0	
lcsds02a.d	2-Fluorobiphenyl	72.0/100.0	72.0	10.0/115.0	SO
	Nitrobenzene-D5	56.1/100.0	56.1	18.5/120.0	
	Terphenyl-D14	87.8/100.0	87.8	10.3/137.0	
				Total Outliers: 0	
5297611.d	2-Fluorobiphenyl	65.1/100.0	65.1	10.0/115.0	SO
	Nitrobenzene-D5	56.6/100.0	56.6	18.5/120.0	
	Terphenyl-D14	73.3/100.0	73.3	10.3/137.0	
				Total Outliers: 0	
5298302.d	2-Fluorobiphenyl	69.5/100.0	69.5	10.0/115.0	SO
	Nitrobenzene-D5	66.7/100.0	66.7	18.5/120.0	
	Terphenyl-D14	76.4/100.0	76.4	10.3/137.0	
				Total Outliers: 0	
5298303.d	2-Fluorobiphenyl	80.7/100.0	80.7	10.0/115.0	SO
	Nitrobenzene-D5	73.5/100.0	73.5	18.5/120.0	
	Terphenyl-D14	83.3/100.0	83.3	10.3/137.0	
				Total Outliers: 0	
5299601.d	2-Fluorobiphenyl	69.5/100.0	69.5	10.0/115.0	SO
	Nitrobenzene-D5	59.1/100.0	59.1	18.5/120.0	
	Terphenyl-D14	79.6/100.0	79.6	10.3/137.0	
				Total Outliers: 0	
5299602.d	2-Fluorobiphenyl	73.8/100.0	73.8	10.0/115.0	SO
	Nitrobenzene-D5	57.6/100.0	57.6	18.5/120.0	
	Terphenyl-D14	79.7/100.0	79.7	10.3/137.0	
				Total Outliers: 0	
5299603.d	2-Fluorobiphenyl	73.8/100.0	73.8	10.0/115.0	SO
	Nitrobenzene-D5	64.7/100.0	64.7	18.5/120.0	
	Terphenyl-D14	78.2/100.0	78.2	10.3/137.0	
				Total Outliers: 0	
5299901.d	2-Fluorobiphenyl	68.3/100.0	68.3	10.0/115.0	SO
	Nitrobenzene-D5	57.6/100.0	57.6	18.5/120.0	
	Terphenyl-D14	80.6/100.0	80.6	10.3/137.0	
				Total Outliers: 0	
5299902.d	2-Fluorobiphenyl	62.9/100.0	62.9	10.0/115.0	SO
	Nitrobenzene-D5	61.4/100.0	61.4	18.5/120.0	
	Terphenyl-D14	72.6/100.0	72.6	10.3/137.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120702.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5297612.d	2-Fluorobiphenyl	74.7/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	63.6/100.0	n/a	18.5/120.0	
	Terphenyl-D14	85.9/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5297613.d	2-Fluorobiphenyl	67.1/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	61.9/100.0	n/a	18.5/120.0	
	Terphenyl-D14	74.1/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5297614.d	2-Fluorobiphenyl	46.9/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	43.7/100.0	n/a	18.5/120.0	
	Terphenyl-D14	58.6/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5297615.d	2-Fluorobiphenyl	58.9/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	50.7/100.0	n/a	18.5/120.0	
	Terphenyl-D14	71.9/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120702.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsds02a.d			
Dup ID : LCSD1			
Prep Batch: sp120628s01			
Prep Date : 06/28/12			
Parent File: lcss02a.d			
naphthalene	32.04/ 30.81	3.9/25.0	SO
2-methylnaphthalene	34.24/ 32.69	4.6/25.0	
1-methylnaphthalene	30.29/ 28.94	4.6/25.0	
acenaphthylene	35.04/ 33.20	5.4/25.0	
acenaphthene **	35.93/ 33.95	5.7/25.0	
fluorene	36.15/ 34.89	3.5/25.0	
phenanthrene	36.69/ 33.80	8.2/25.0	
anthracene	34.37/ 30.89	10.7/25.0	
fluoranthene	38.62/ 34.81	10.4/25.0	
pyrene **	42.04/ 38.37	9.1/25.0	
benzo(a)anthracene	41.51/ 37.78	9.4/25.0	
chrysene	39.30/ 35.02	11.5/25.0	
benzo(b)fluoranthene	45.63/ 40.80	11.2/25.0	
benzo(k)fluoranthene	44.55/ 40.95	8.4/25.0	
benzo(a)pyrene	41.82/ 38.15	9.2/25.0	
indeno(1,2,3-cd)pyrene	34.05/ 31.41	8.1/25.0	
dibenzo(ah)anthracene	33.10/ 30.62	7.8/25.0	
benzo(ghi)perylene	33.50/ 30.88	8.1/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120702.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss02a.d						
Spike ID : LCS1						
Prep Batch: sp120628s01						
Prep Date : 06/28/12						
Parent File: blks02a.d						
1-Methylnaphthalene	28.94/	0.00	50.00	57.9	10.0/120.0	SO
2-Methylnaphthalene	32.69/	0.00	50.00	65.4	35.6/120.0	
Acenaphthene	33.95/	0.00	50.00	67.9	10.0/121.0	
Acenaphthylene	33.20/	0.00	50.00	66.4	35.4/127.7	
Anthracene	30.89/	0.00	50.00	61.8	32.3/142.4	
Benzo(a)anthracene	37.78/	0.00	50.00	75.6	36.7/134.7	
Benzo(a)pyrene	38.15/	0.00	50.00	76.3	10.0/140.8	
Benzo(b)fluoranthene	40.80/	0.00	50.00	81.6	29.0/152.7	
Benzo(ghi)perylene	30.88/	0.00	50.00	61.8	45.2/130.7	
Benzo(k)fluoranthene	40.95/	0.00	50.00	81.9	29.8/136.0	
Chrysene	35.02/	0.00	50.00	70.0	38.7/137.1	
Dibenzo(ah)anthracene	30.62/	0.00	50.00	61.2	45.3/130.8	
Fluorene	34.89/	0.00	50.00	69.8	37.8/127.8	
Fluoranthene	34.81/	0.00	50.00	69.6	10.0/145.8	
Indeno(1,2,3-cd)pyrene	31.41/	0.00	50.00	62.8	39.2/137.4	
Naphthalene	30.81/	0.00	50.00	61.6	10.0/110.0	
Phenanthrene	33.80/	0.00	50.00	67.6	36.4/143.0	
Pyrene	38.37/	0.00	50.00	76.7	10.0/135.8	
					Total Outliers:	**0**
Spike File : lcsds02a.d						
Spike ID : LCSD1						
Prep Batch: sp120628s01						
Prep Date : 06/28/12						
Parent File: blks02a.d						
1-Methylnaphthalene	30.29/	0.00	50.00	60.6	10.0/120.0	SO
2-Methylnaphthalene	34.24/	0.00	50.00	68.5	35.6/120.0	
Acenaphthene	35.93/	0.00	50.00	71.9	10.0/121.0	
Acenaphthylene	35.04/	0.00	50.00	70.1	35.4/127.7	
Anthracene	34.37/	0.00	50.00	68.7	32.3/142.4	
Benzo(a)anthracene	41.51/	0.00	50.00	83.0	36.7/134.7	
Benzo(a)pyrene	41.82/	0.00	50.00	83.6	10.0/140.8	
Benzo(b)fluoranthene	45.63/	0.00	50.00	91.3	29.0/152.7	
Benzo(ghi)perylene	33.50/	0.00	50.00	67.0	45.2/130.7	
Benzo(k)fluoranthene	44.55/	0.00	50.00	89.1	29.8/136.0	
Chrysene	39.30/	0.00	50.00	78.6	38.7/137.1	
Dibenzo(ah)anthracene	33.10/	0.00	50.00	66.2	45.3/130.8	
Fluorene	36.15/	0.00	50.00	72.3	37.8/127.8	
Fluoranthene	38.62/	0.00	50.00	77.2	10.0/145.8	
Indeno(1,2,3-cd)pyrene	34.05/	0.00	50.00	68.1	39.2/137.4	
Naphthalene	32.04/	0.00	50.00	64.1	10.0/110.0	
Phenanthrene	36.69/	0.00	50.00	73.4	36.4/143.0	
Pyrene	42.04/	0.00	50.00	84.1	10.0/135.8	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120702.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blks02a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120628s01
Prep Date : 06/28/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [mg/kg]	RL [mg/kg]
Benzo(b)fluoranthene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Benzo(a)pyrene	Not detected		0.3	20
Benzo(ghi)perylene	Not detected		0.5	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(a)anthracene	Not detected		0.4	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
1-Methylnaphthalene	Not detected		0.4	20
2-Methylnaphthalene	Not detected		0.2	20
Acenaphthylene	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Naphthalene	Not detected		0.2	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Level: LOW

Analytical Batch: u120702.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks02a.d
Method Blank Prep Date: 06/28/12
Blank/LCS Preparation Batch: sp120628s01

LCS Data File: lcss02a.d
LCS Prep Date: 06/28/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52261.03	T120629	SP120628S01	06/29/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
	H120712B	SP120628S01	07/12/12	Polynuclear Aromatics	$PNA8270(01)
S52261.04	T120629	SP120628S01	06/29/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
	H120712B	SP120628S01	07/12/12	Polynuclear Aromatics	$PNA8270(01)
S52976.11	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52976.12	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52976.13	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52976.14	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52976.15	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52983.02	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52983.03	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52996.01	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52996.02	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52996.03	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52999.01	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS
S52999.02	U120702	SP120628S01	07/02/12	Polynuclear Aromatics	$PNA8270
	SP120628S01		06/28/12	Semi Volatile Extraction	PNAEXTS

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120702.2
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d02a.d	07/02/12 11:32	51	198	30.0	80.0	32.3	155136	PASS
		68	69	0.0	2.0	0.0	0	PASS
		69	198	0.0	100.0	40.4	194240	PASS
		70	69	0.0	2.0	0.0	0	PASS
		127	198	25.0	75.0	40.8	195840	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	480384	PASS
		199	198	5.0	9.0	6.7	32224	PASS
		275	198	10.0	30.0	22.4	107712	PASS
		365	198	1.0	100.0	2.0	9504	PASS
		441	443	0.0	100.0	0.0	0	PASS
		442	198	40.0	110.0	43.5	209152	PASS
		443	442	15.0	24.0	18.7	39032	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120702.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn02b.d	07/02/12 12:40	1,4-Dichlorobenzene-D4	431274/ 4.63	215637- 862548	4.13- 5.13
		Naphthalene-D8	1715931/ 5.80	857966- 3431862	5.30- 6.30
		Acenaphthalene-D10	959028/ 7.44	479514- 1918056	6.94- 7.94
		Phenanthrene-D10	1493101/ 8.99	746551- 2986202	8.49- 9.49
		Chrysene-D12	1282688/12.86	641344- 2565376	12.36-13.36
		Perylene-D12	1126317/15.54	563159- 2252634	15.04-16.04
					Total Outliers: N/A
blks02a.d	07/02/12 13:06	1,4-Dichlorobenzene-D4	518432/ 4.63	Ratio: 1.202	Diff.: 0.00
		Naphthalene-D8	2105881/ 5.81	Ratio: 1.227	Diff.: 0.01
		Acenaphthalene-D10	1127021/ 7.44	Ratio: 1.175	Diff.: 0.00
		Phenanthrene-D10	1824557/ 8.99	Ratio: 1.222	Diff.: 0.00
		Chrysene-D12	1294629/12.85	Ratio: 1.009	Diff.: -0.01
		Perylene-D12	1050977/15.53	Ratio: 0.933	Diff.: -0.01
					Total Outliers: 0
lcss02a.d	07/02/12 13:30	1,4-Dichlorobenzene-D4	496676/ 4.62	Ratio: 1.152	Diff.: -0.01
		Naphthalene-D8	2093255/ 5.80	Ratio: 1.220	Diff.: 0.00
		Acenaphthalene-D10	1129435/ 7.44	Ratio: 1.178	Diff.: 0.00
		Phenanthrene-D10	1878181/ 8.99	Ratio: 1.258	Diff.: 0.00
		Chrysene-D12	1608642/12.86	Ratio: 1.254	Diff.: 0.00
		Perylene-D12	1379450/15.54	Ratio: 1.225	Diff.: 0.00
					Total Outliers: 0
lcsds02a.d	07/02/12 13:54	1,4-Dichlorobenzene-D4	518769/ 4.63	Ratio: 1.203	Diff.: 0.00
		Naphthalene-D8	2138672/ 5.81	Ratio: 1.246	Diff.: 0.01
		Acenaphthalene-D10	1145023/ 7.45	Ratio: 1.194	Diff.: 0.01
		Phenanthrene-D10	1892480/ 8.99	Ratio: 1.267	Diff.: 0.00
		Chrysene-D12	1629808/12.86	Ratio: 1.271	Diff.: 0.00
		Perylene-D12	1390765/15.55	Ratio: 1.235	Diff.: 0.01
					Total Outliers: 0
5297611.d	07/02/12 14:18	1,4-Dichlorobenzene-D4	519678/ 4.64	Ratio: 1.205	Diff.: 0.01
		Naphthalene-D8	2101450/ 5.81	Ratio: 1.225	Diff.: 0.01
		Acenaphthalene-D10	1127398/ 7.44	Ratio: 1.176	Diff.: 0.00
		Phenanthrene-D10	1804050/ 8.99	Ratio: 1.208	Diff.: 0.00
		Chrysene-D12	1328477/12.85	Ratio: 1.036	Diff.: -0.01
		Perylene-D12	1131612/15.54	Ratio: 1.005	Diff.: 0.00
					Total Outliers: 0
5298302.d	07/02/12 14:42	1,4-Dichlorobenzene-D4	458109/ 4.63	Ratio: 1.062	Diff.: 0.00
		Naphthalene-D8	1827577/ 5.81	Ratio: 1.065	Diff.: 0.01
		Acenaphthalene-D10	980477/ 7.44	Ratio: 1.022	Diff.: 0.00
		Phenanthrene-D10	1595429/ 8.99	Ratio: 1.069	Diff.: 0.00
		Chrysene-D12	1162867/12.85	Ratio: 0.907	Diff.: -0.01
		Perylene-D12	993956/15.53	Ratio: 0.882	Diff.: -0.01
					Total Outliers: 0
5298303.d	07/02/12 15:06	1,4-Dichlorobenzene-D4	503449/ 4.64	Ratio: 1.167	Diff.: 0.01
		Naphthalene-D8	2028695/ 5.81	Ratio: 1.182	Diff.: 0.01
		Acenaphthalene-D10	1082035/ 7.44	Ratio: 1.128	Diff.: 0.00
		Phenanthrene-D10	1755387/ 8.99	Ratio: 1.176	Diff.: 0.00
		Chrysene-D12	1287557/12.85	Ratio: 1.004	Diff.: -0.01
		Perylene-D12	1098177/15.54	Ratio: 0.975	Diff.: 0.00
					Total Outliers: 0
5299601.d	07/02/12 15:30	1,4-Dichlorobenzene-D4	461887/ 4.63	Ratio: 1.071	Diff.: 0.00
		Naphthalene-D8	1855300/ 5.81	Ratio: 1.081	Diff.: 0.01
		Acenaphthalene-D10	985531/ 7.44	Ratio: 1.028	Diff.: 0.00
		Phenanthrene-D10	1562552/ 8.99	Ratio: 1.047	Diff.: 0.00
		Chrysene-D12	1150912/12.85	Ratio: 0.897	Diff.: -0.01
		Perylene-D12	961698/15.53	Ratio: 0.854	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120702.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5299602.d	07/02/12 15:54	1,4-Dichlorobenzene-D4	449782/ 4.63	Ratio: 1.043	Diff.: 0.00
		Naphthalene-D8	1786480/ 5.81	Ratio: 1.041	Diff.: 0.01
		Acenaphthalene-D10	956395/ 7.45	Ratio: 0.997	Diff.: 0.01
		Phenanthrene-D10	1570966/ 8.99	Ratio: 1.052	Diff.: 0.00
		Chrysene-D12	1121941/12.86	Ratio: 0.875	Diff.: 0.00
		Perylene-D12	945066/15.54	Ratio: 0.839	Diff.: 0.00
					Total Outliers: 0
5299603.d	07/02/12 16:18	1,4-Dichlorobenzene-D4	460352/ 4.64	Ratio: 1.067	Diff.: 0.01
		Naphthalene-D8	1811509/ 5.81	Ratio: 1.056	Diff.: 0.01
		Acenaphthalene-D10	968842/ 7.45	Ratio: 1.010	Diff.: 0.01
		Phenanthrene-D10	1599155/ 8.99	Ratio: 1.071	Diff.: 0.00
		Chrysene-D12	1130197/12.86	Ratio: 0.881	Diff.: 0.00
		Perylene-D12	956627/15.53	Ratio: 0.849	Diff.: -0.01
					Total Outliers: 0
5299901.d	07/02/12 16:41	1,4-Dichlorobenzene-D4	474117/ 4.63	Ratio: 1.099	Diff.: 0.00
		Naphthalene-D8	1909261/ 5.81	Ratio: 1.113	Diff.: 0.01
		Acenaphthalene-D10	1002705/ 7.44	Ratio: 1.046	Diff.: 0.00
		Phenanthrene-D10	1641786/ 8.99	Ratio: 1.100	Diff.: 0.00
		Chrysene-D12	1183678/12.85	Ratio: 0.923	Diff.: -0.01
		Perylene-D12	998802/15.54	Ratio: 0.887	Diff.: 0.00
					Total Outliers: 0
5299902.d	07/02/12 17:05	1,4-Dichlorobenzene-D4	435191/ 4.63	Ratio: 1.009	Diff.: 0.00
		Naphthalene-D8	1700831/ 5.81	Ratio: 0.991	Diff.: 0.01
		Acenaphthalene-D10	913685/ 7.45	Ratio: 0.953	Diff.: 0.01
		Phenanthrene-D10	1479720/ 8.99	Ratio: 0.991	Diff.: 0.00
		Chrysene-D12	1074457/12.86	Ratio: 0.838	Diff.: 0.00
		Perylene-D12	898634/15.54	Ratio: 0.798	Diff.: 0.00
					Total Outliers: 0
5297612.d	07/02/12 17:29	1,4-Dichlorobenzene-D4	470927/ 4.63	Ratio: 1.092	Diff.: 0.00
		Naphthalene-D8	1891663/ 5.81	Ratio: 1.102	Diff.: 0.01
		Acenaphthalene-D10	1006803/ 7.45	Ratio: 1.050	Diff.: 0.01
		Phenanthrene-D10	1649785/ 8.99	Ratio: 1.105	Diff.: 0.00
		Chrysene-D12	1329116/12.86	Ratio: 1.036	Diff.: 0.00
		Perylene-D12	1182669/15.55	Ratio: 1.050	Diff.: 0.01
					Total Outliers: 0
5297613.d	07/02/12 17:53	1,4-Dichlorobenzene-D4	509861/ 4.64	Ratio: 1.182	Diff.: 0.01
		Naphthalene-D8	2032891/ 5.81	Ratio: 1.185	Diff.: 0.01
		Acenaphthalene-D10	1080973/ 7.44	Ratio: 1.127	Diff.: 0.00
		Phenanthrene-D10	1765761/ 8.99	Ratio: 1.183	Diff.: 0.00
		Chrysene-D12	1424612/12.86	Ratio: 1.111	Diff.: 0.00
		Perylene-D12	1248419/15.55	Ratio: 1.108	Diff.: 0.01
					Total Outliers: 0
5297614.d	07/02/12 18:17	1,4-Dichlorobenzene-D4	503318/ 4.64	Ratio: 1.167	Diff.: 0.01
		Naphthalene-D8	1989500/ 5.81	Ratio: 1.159	Diff.: 0.01
		Acenaphthalene-D10	1044781/ 7.44	Ratio: 1.089	Diff.: 0.00
		Phenanthrene-D10	1748507/ 8.99	Ratio: 1.171	Diff.: 0.00
		Chrysene-D12	1497651/12.87	Ratio: 1.168	Diff.: 0.01
		Perylene-D12	1284119/15.56	Ratio: 1.140	Diff.: 0.02
					Total Outliers: 0
5297615.d	07/02/12 18:41	1,4-Dichlorobenzene-D4	535253/ 4.64	Ratio: 1.241	Diff.: 0.01
		Naphthalene-D8	2150609/ 5.81	Ratio: 1.253	Diff.: 0.01
		Acenaphthalene-D10	1134443/ 7.44	Ratio: 1.183	Diff.: 0.00
		Phenanthrene-D10	1902305/ 9.00	Ratio: 1.274	Diff.: 0.01
		Chrysene-D12	1681652/12.87	Ratio: 1.311	Diff.: 0.01
		Perylene-D12	1318905/15.56	Ratio: 1.171	Diff.: 0.02
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120702.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*

KEY:

```
[Area/RT]:    Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]:   +/- 0.5 minutes of relative internal standard RT
[Ratio]:      Ratio of internal standard areas
[Diff]:       Difference in internal standard retention times (minutes)
```

CONTROL LIMITS:

```
Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT
```

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.01.Ulysses
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: u120702.2

LIMS ID: S52983.02
Data File: 5298302.d
Date Received: 06/26/12

Tag: SB121 (06-25-12) (3-5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120628s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/02/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	84	1		%	06/29/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				06/28/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/02/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (70%)				07/02/12	
4165-60-0	Nitrobenzene-D5	Pass (67%)					
98904-43-9	Terphenyl-D14	Pass (76%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.01.Ulysses
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: u120702.2

LIMS ID: S52983.03
Data File: 5298303.d
Date Received: 06/26/12

Tag: SB116 (06-25-12) (1-2)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120628s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/02/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	91	1		%	06/29/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				06/28/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/02/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (81%)				07/02/12	
4165-60-0	Nitrobenzene-D5	Pass (74%)					
98904-43-9	Terphenyl-D14	Pass (83%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.01.Ulysses
Analytical Batch: u120702.2
GC Column: DB-5/L:30m/D:0.25mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\5298302.d Vial: 11
Acq On : 2 Jul 112 2:42 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 15:00 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration

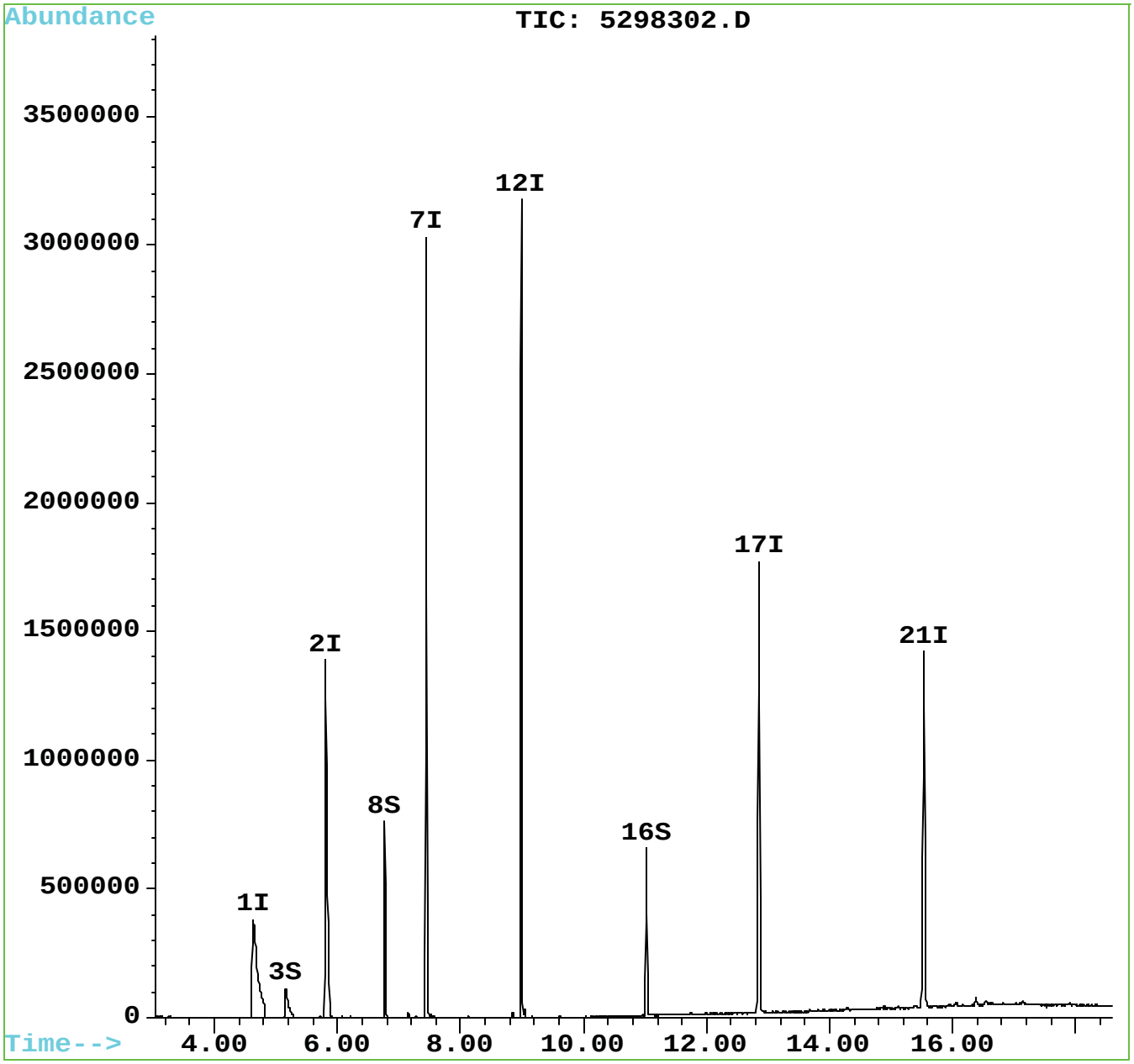
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.63	152	458109	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.81	136	1827577	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.44	164	980477	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.99	188	1595429	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.85	240	1162867	40.00	ng/ul	0.0
21) PERYLENE-D12	15.53	264	993956	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.16	82	144252	22.24	ng/ul	22.2
8) 2-Fluorobiphenyl	6.77	172	355397	23.17	ng/ul	23.1
16) Terphenyl-D14	11.03	244	359515	25.48	ng/ul	25.4
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\5298302.d Vial: 11
Acq On : 2 Jul 112 2:42 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 15:00 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\5298303.d Vial: 12
Acq On : 2 Jul 112 3:06 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 15:24 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration

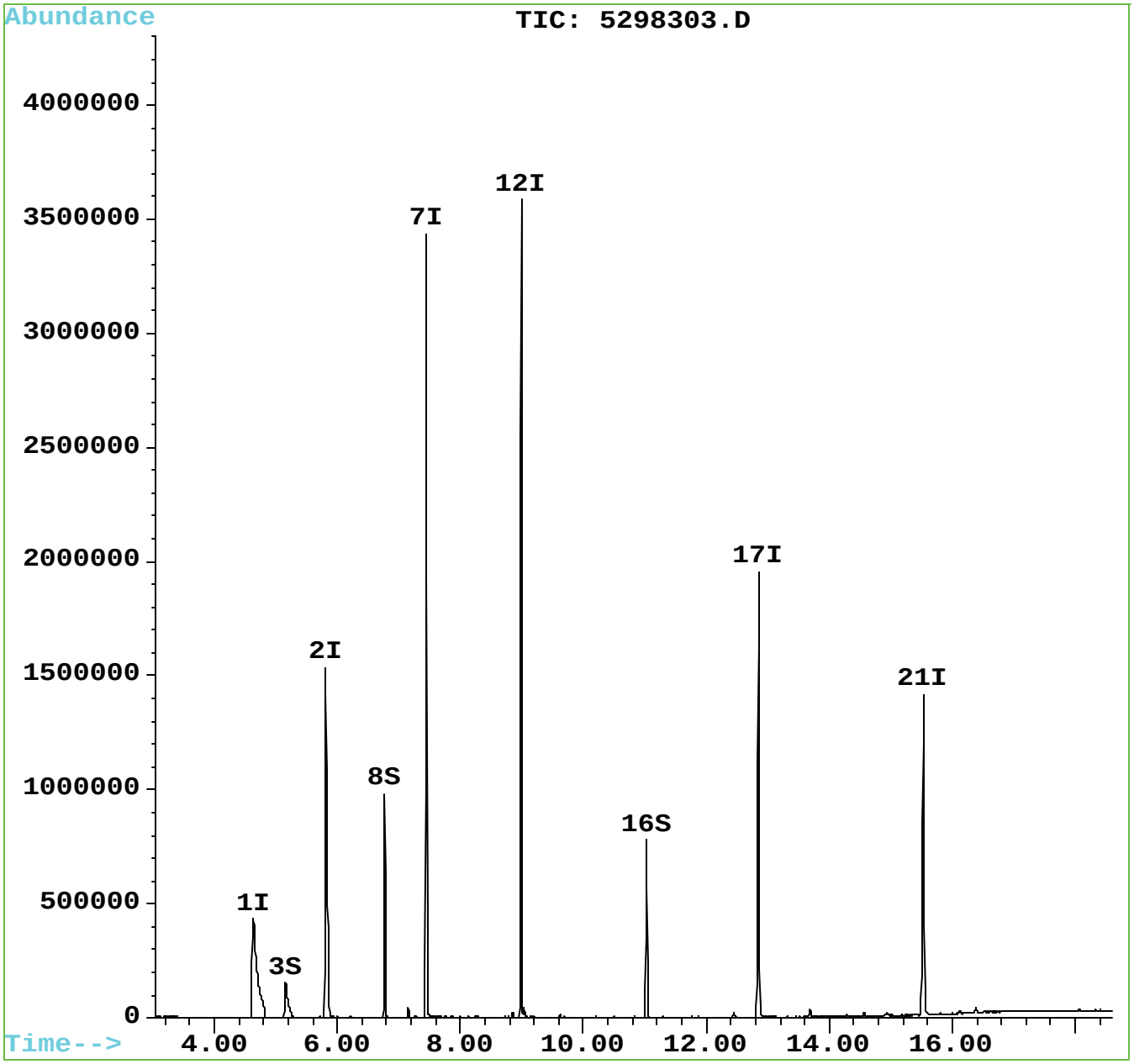
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.64	152	503449	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.81	136	2028695	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.44	164	1082035	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.99	188	1755387	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.85	240	1287557	40.00	ng/ul	0.0
21) PERYLENE-D12	15.54	264	1098177	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.16	82	176339	24.49	ng/ul	24.4
8) 2-Fluorobiphenyl	6.77	172	455256	26.90	ng/ul	26.9
16) Terphenyl-D14	11.03	244	431263	27.78	ng/ul	27.7
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\5298303.d Vial: 12
Acq On : 2 Jul 112 3:06 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 15:24 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses

Analytical Batch: u120702.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120526u.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	A	0.284	4.70	0.260	0.299	0.285	0.289	0.291	0.280				
	Naphthalene	A	0.975	2.47	1.006	0.944	0.952	0.970	0.994	0.983				
	2-Methylnaphthalene	A	0.523	3.35	0.505	0.506	0.510	0.536	0.541	0.539				
	1-Methylnaphthalene	A	0.624	5.87	0.585	0.600	0.590	0.646	0.655	0.669				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.251	4.06	1.244	1.194	1.189	1.281	1.306	1.294				
	Acenaphthylene	A	1.686	2.72	1.657	1.629	1.654	1.707	1.746	1.723				
	Acenaphthene **	A	1.018	5.13	0.983	0.960	0.975	1.047	1.089	1.054				
	Fluorene	A	1.175	3.66	1.206	1.117	1.129	1.173	1.207	1.217				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	A	1.017	4.42	1.031	0.961	0.969	1.017	1.042	1.079				
	Anthracene	A	1.082	8.00	0.981	1.021	1.025	1.101	1.173	1.190				
	Fluoranthene	A	0.985	4.38	0.956	0.940	0.955	0.993	1.009	1.055				
	Terphenyl-D14	A	0.708	2.87	0.711	0.689	0.682	0.703	0.733	0.727				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	1.057	4.56	1.003	1.024	1.063	1.110	1.117	1.023				
	Benzo(a)anthracene	A	0.880	2.90	0.854	0.864	0.886	0.913	0.907	0.858				
	Chrysene	A	0.950	2.40	0.941	0.937	0.918	0.956	0.980	0.970				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	0.896	6.32	0.821	0.839	0.903	0.920	0.973	0.921				
	Benzo(k)fluoranthene	A	0.912	7.79	0.796	0.873	0.908	0.970	0.935	0.992				
	Benzo(a)pyrene	A	0.791	6.25	0.714	0.748	0.802	0.838	0.833	0.810				
	Indeno(1,2,3-cd)pyrene	A	1.062	8.20	0.908	1.050	1.031	1.128	1.137	1.118				
	Dibenzo(ah)anthracene	A	0.857	10.32	0.689	0.865	0.838	0.915	0.924	0.908				
	Benzo(ghi)perylene	A	0.882	4.69	0.803	0.891	0.897	0.918	0.908	0.876				

Calibration Date: 52/6u/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120526u.M (Mean %RSD: 5.00)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\ulysses.3\methods\p120526u.m\

Injection Time	Calibration Data File
05/26/12 20:12	d26a.d
05/26/12 20:36	pna0005.d
05/26/12 21:49	pna_020.d
05/26/12 22:13	pna_040.d
05/26/12 22:37	pna_050.d
05/26/12 23:01	pna_060.d
05/26/12 23:26	pna_080.d
05/26/12 23:50	pna_100.d

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\d26a.d Vial: 1
Acq On : 26 May 112 8:12 pm Operator:
Sample : dftpp std (120525) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 20:31 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

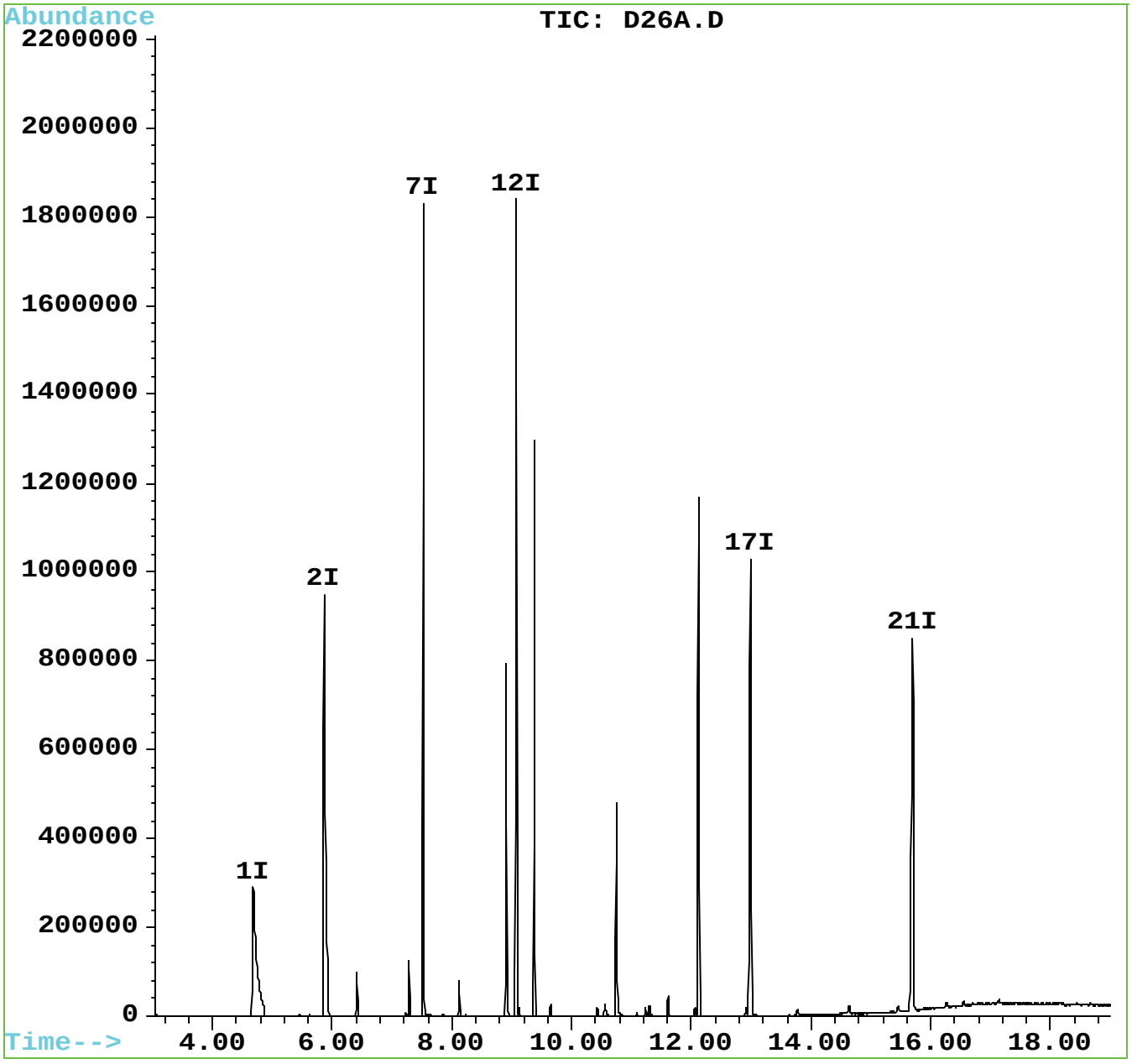
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.68	152	257755	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.87	136	1032952	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.52	164	518465	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	9.08	188	861330	40.00	ng/ul	-0.0
17) CHRYSENE-D12	12.99	240	694834	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.69	264	660571	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	0.00	82	0	0.00	ng/ul	0.0
8) 2-Fluorobiphenyl	0.00	172	0	0.00	ng/ul	0.0
16) Terphenyl-D14	0.00	244	0	0.00	ng/ul	0.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration
d26a.d P120526U.M Fri Jun 01 16:07:57 2012 Page 1

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\d26a.d Vial: 1
Acq On : 26 May 112 8:12 pm Operator:
Sample : dftpp std (120525) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 20:31 19112

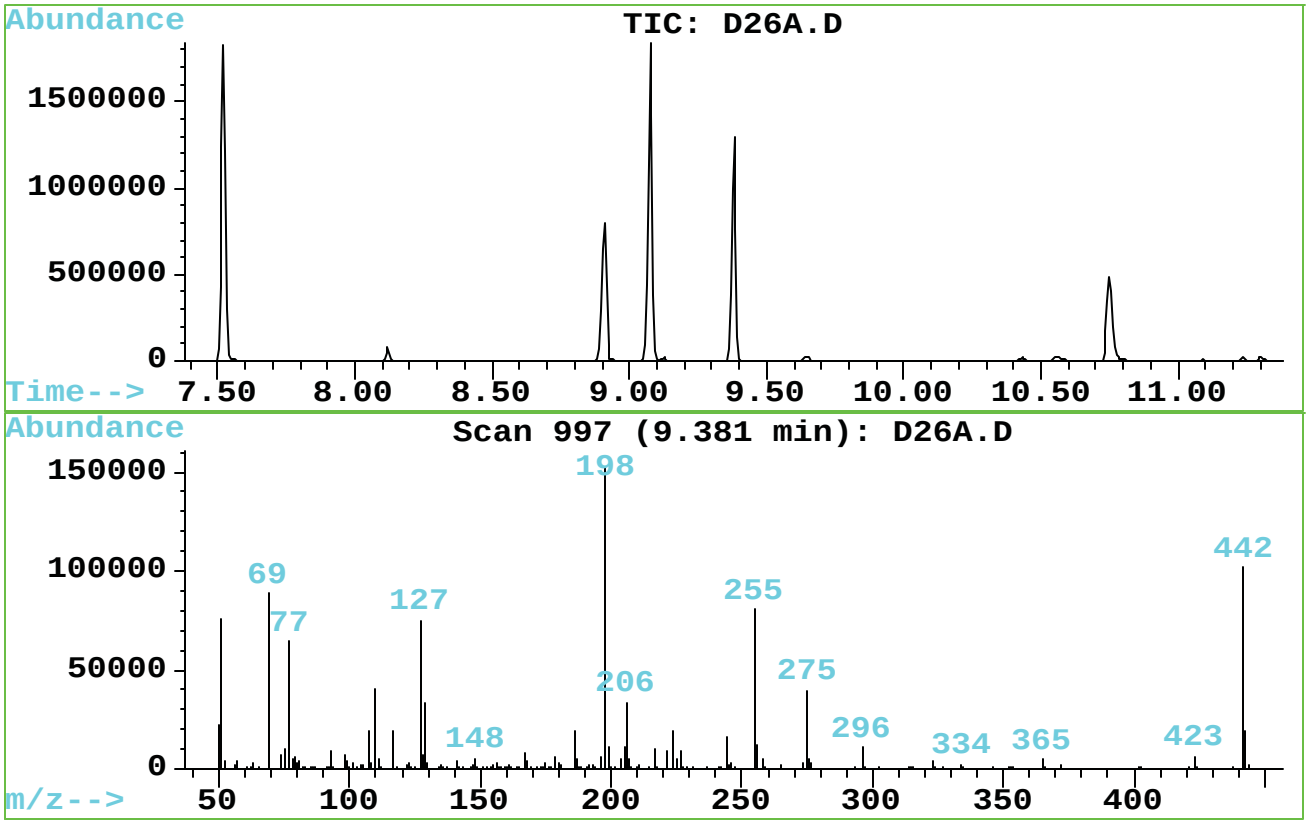
Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\ULYSSES.3\DATA\U120526\D26A.D Vial: 1
Acq On : 26 May 112 8:12 pm Operator:
Sample : dftpp std (120525) Inst : 5972 -
Misc : Multiplr: 1.00

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270



Peak Apex is scan: 997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	49.6	75840	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	57.9	88616	PASS
70	69	0	2	0.0	0	PASS
127	198	25	75	49.0	74968	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	152960	PASS
199	198	5	9	7.2	11001	PASS
275	198	10	30	25.8	39528	PASS
365	198	1	100	3.3	5007	PASS
441	443	0	100	0.0	0	PASS
442	198	40	110	66.7	101984	PASS
443	442	15	24	18.7	19072	PASS

D26A.D P120526U.M Tue Jun 19 15:16:45 2012

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna0005.d Vial: 2
Acq On : 26 May 112 8:36 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

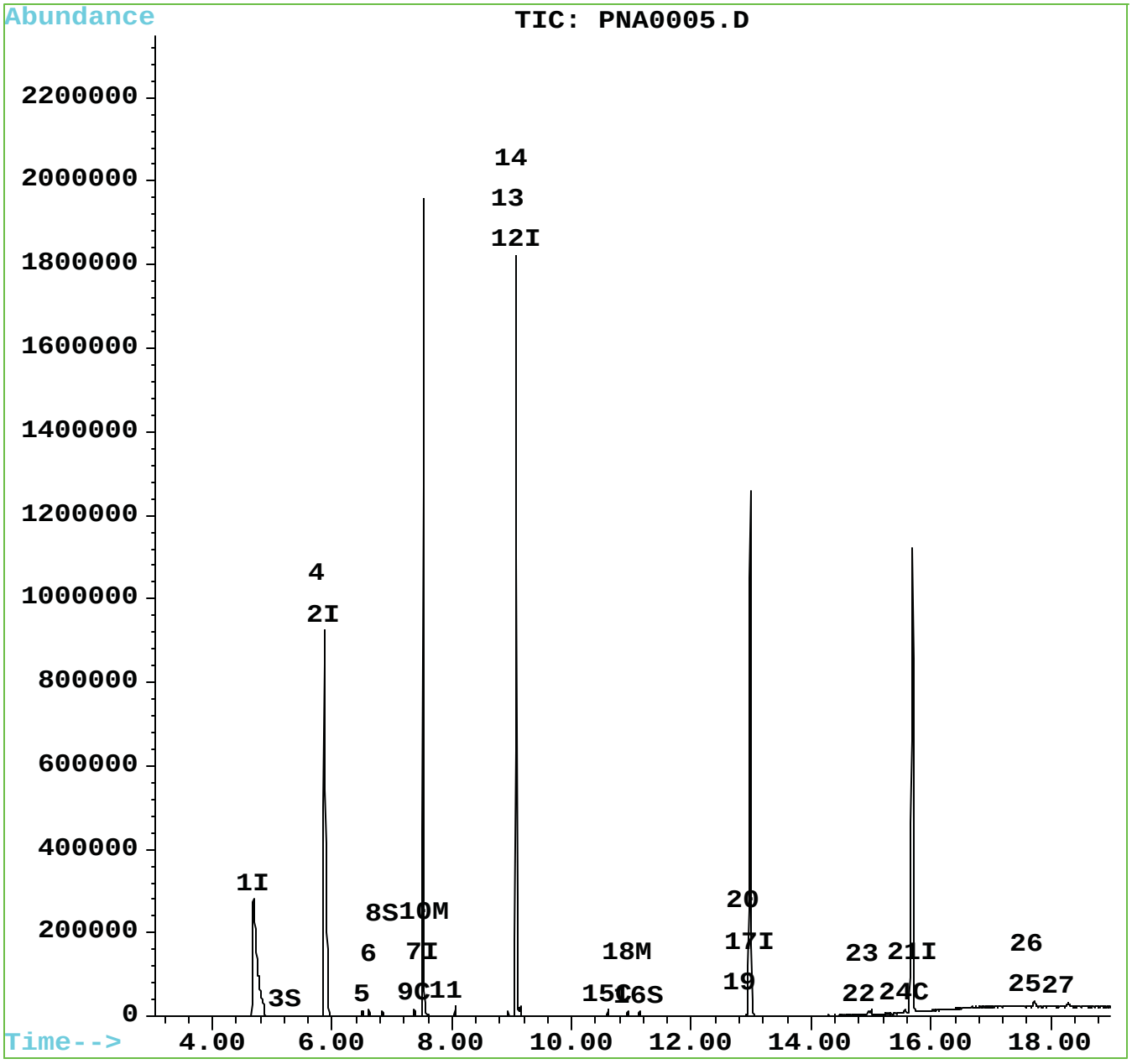
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	268137	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.87	136	1033470	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.52	164	534209	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	9.07	188	873050	40.00	ng/ul	-0.0
17) CHRYSENE-D12	12.98	240	841288	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.69	264	866472	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.22	82	3353	0.48	ng/ul	0.4
8) 2-Fluorobiphenyl	6.84	172	8310	0.52	ng/ul	0.5
16) Terphenyl-D14	11.13	244	7758	0.57	ng/ul	0.5
Target Compounds						Qvalu
4) Naphthalene	5.89	128	12998	0.92	ng/ul	9
5) 2-Methylnaphthalene	6.50	141	6526	0.48	ng/ul	9
6) 1-Methylnaphthalene	6.61	142	7551	0.49	ng/ulm	9
9) Acenaphthylene	7.38	152	11067	0.49	ng/ul	9
10) Acenaphthene **	7.55	154	6561	0.54	ng/ul	9
11) Fluorene	8.06	166	8053	0.53	ng/ul	9
13) Phenanthrene	9.09	178	11248	0.67	ng/ulm	9
14) Anthracene	9.14	178	10710	0.61	ng/ul	9
15) Fluoranthene	10.61	202	10430	0.52	ng/ul	9
18) Pyrene **	10.95	202	10552	0.44	ng/ul	9
19) Benzo(a)anthracene	12.94	228	8980	0.43	ng/ulm	8
20) Chrysene	13.02	228	9894	0.50	ng/ul	9
22) Benzo(b)fluoranthene	14.96	252	8888	0.42	ng/ulm	6
23) Benzo(k)fluoranthene	15.01	252	8616	0.43	ng/ul	6
24) Benzo(a)pyrene	15.57	252	7730	0.42	ng/ul	7
25) Indeno(1,2,3-cd)pyrene	17.72	276	9835	0.44	ng/ul	7
26) Dibenzo(ah)anthracene	17.74	278	7462	0.41	ng/ul	8
27) Benzo(ghi)perylene	18.30	276	8699	0.47	ng/ul	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna0005.d Vial: 2
Acq On : 26 May 112 8:36 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:18 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_020.d Vial: 5
Acq On : 26 May 112 9:49 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

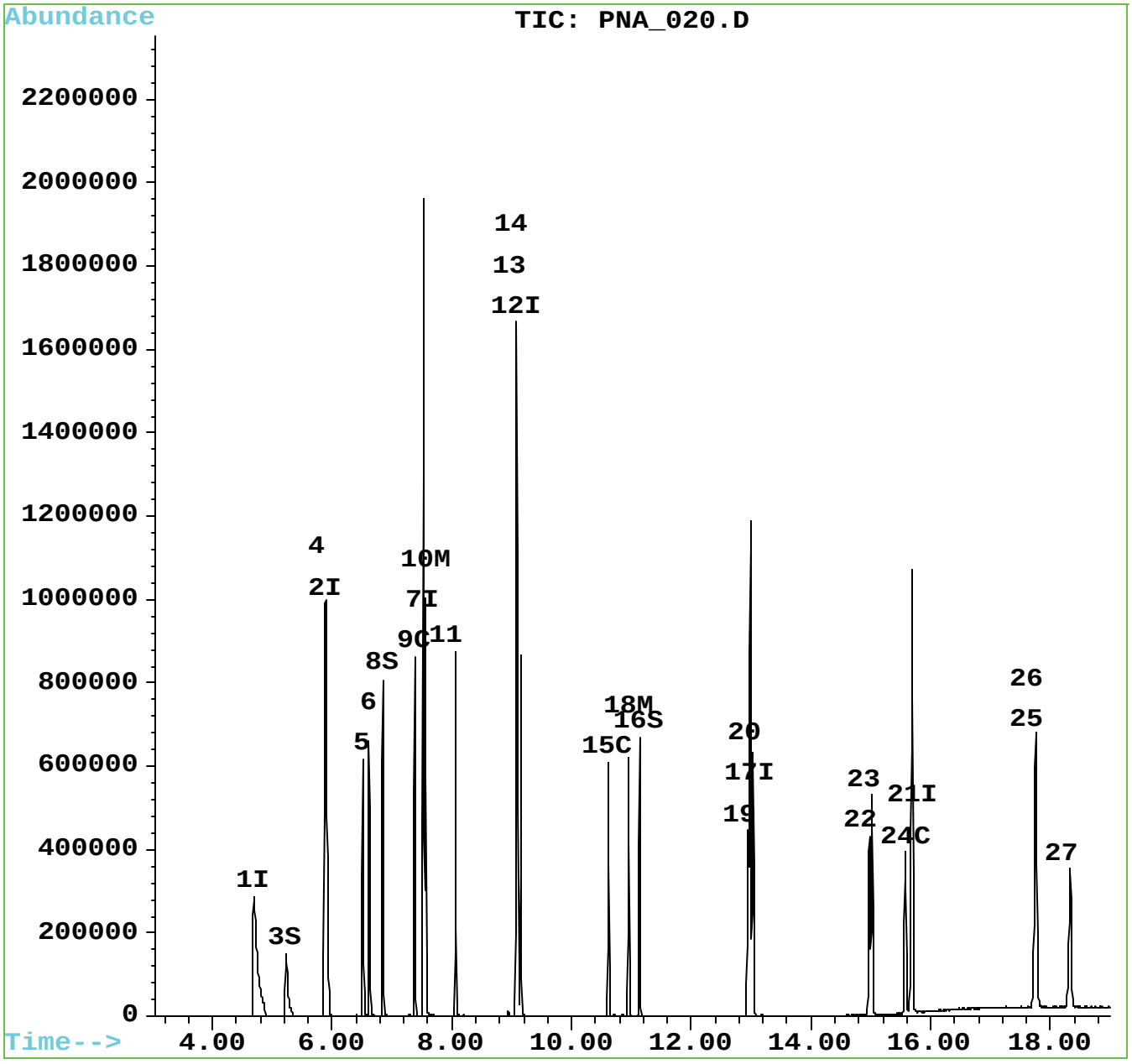
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	270946	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1028543	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	547592	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	855123	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.99	240	797754	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.70	264	814802	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	153847	22.18	ng/ul	22.1
8) 2-Fluorobiphenyl	6.85	172	326830	20.14	ng/ul	20.1
16) Terphenyl-D14	11.14	244	294701	21.79	ng/ul	21.7
Target Compounds						Qvalu
4) Naphthalene	5.90	128	485339	29.53	ng/ul	9
5) 2-Methylnaphthalene	6.51	141	260195	19.02	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	308796	20.17	ng/ul#	9
9) Acenaphthylene	7.38	152	446010	19.44	ng/ul	10
10) Acenaphthene **	7.56	154	262893	21.46	ng/ul	9
11) Fluorene	8.06	166	305797	19.62	ng/ul	9
13) Phenanthrene	9.11	178	410792	25.03	ng/ul	9
14) Anthracene	9.16	178	436745	25.47	ng/ul	9
15) Fluoranthene	10.62	202	401829	20.60	ng/ul	9
18) Pyrene **	10.96	202	408592	18.23	ng/ul	9
19) Benzo(a)anthracene	12.95	228	344571	18.18	ng/ul	9
20) Chrysene	13.03	228	373890	20.27	ng/ul	9
22) Benzo(b)fluoranthene	14.98	252	341946	17.81	ng/ulm	9
23) Benzo(k)fluoranthene	15.02	252	355820	19.61	ng/ul	9
24) Benzo(a)pyrene	15.58	252	304909	18.06	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.76	276	427570	20.56	ng/ul	7
26) Dibenzo(ah)anthracene	17.77	278	352454	20.99	ng/ul	9
27) Benzo(ghi)perylene	18.33	276	363027	20.99	ng/ul	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_020.d Vial: 5
Acq On : 26 May 112 9:49 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_040.d Vial: 6
Acq On : 26 May 112 10:13 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

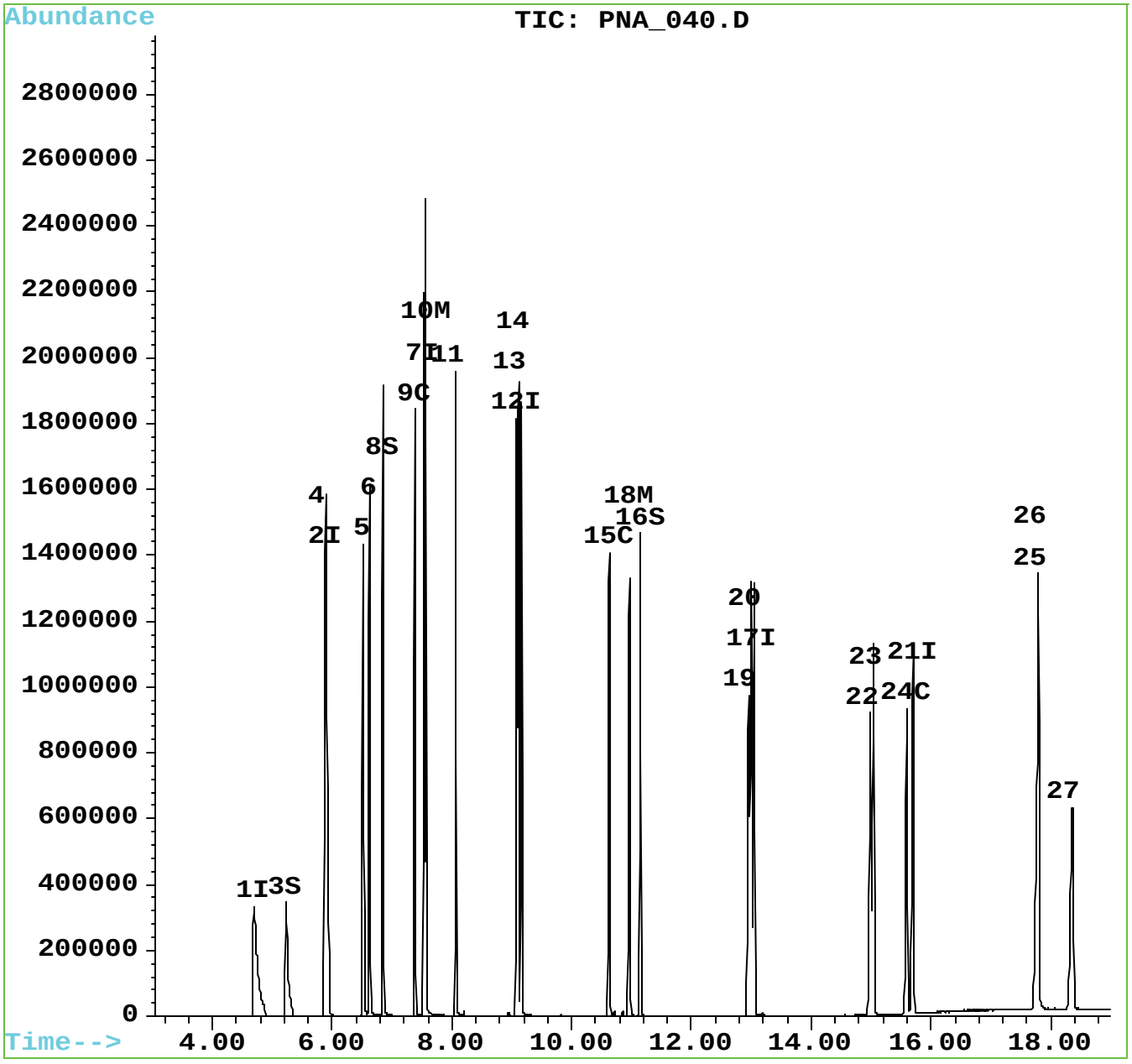
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	308639	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1196433	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	636736	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	977507	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.00	240	876703	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	877258	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	341317	42.30	ng/ul	42.3
8) 2-Fluorobiphenyl	6.85	172	757014	40.13	ng/ul	40.1
16) Terphenyl-D14	11.15	244	666498	43.12	ng/ul	43.1
Target Compounds						Qvalu
4) Naphthalene	5.90	128	1138595	53.17	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	609894	38.34	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	706143	39.65	ng/ul#	9
9) Acenaphthylene	7.38	152	1053133	39.48	ng/ul	10
10) Acenaphthene **	7.56	154	621110	43.61	ng/ul	10
11) Fluorene	8.07	166	718929	39.66	ng/ul	9
13) Phenanthrene	9.11	178	947631	50.52	ng/ul	9
14) Anthracene	9.16	178	1001649	51.10	ng/ul	10
15) Fluoranthene	10.63	202	933749	41.87	ng/ul	9
18) Pyrene **	10.96	202	931927	37.83	ng/ul	9
19) Benzo(a)anthracene	12.96	228	777093	37.30	ng/ul	10
20) Chrysene	13.05	228	805044	39.71	ng/ul	9
22) Benzo(b)fluoranthene	14.99	252	792228	38.32	ng/ul	9
23) Benzo(k)fluoranthene	15.04	252	796764	40.79	ng/ul	9
24) Benzo(a)pyrene	15.60	252	703463	38.70	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.79	276	904815	40.42	ng/ul	8
26) Dibenzo(ah)anthracene	17.80	278	735112	40.67	ng/ul	9
27) Benzo(ghi)perylene	18.37	276	787140	42.27	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_040.d Vial: 6
Acq On : 26 May 112 10:13 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:19 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_050.d Vial: 7
Acq On : 26 May 112 10:37 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:24 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

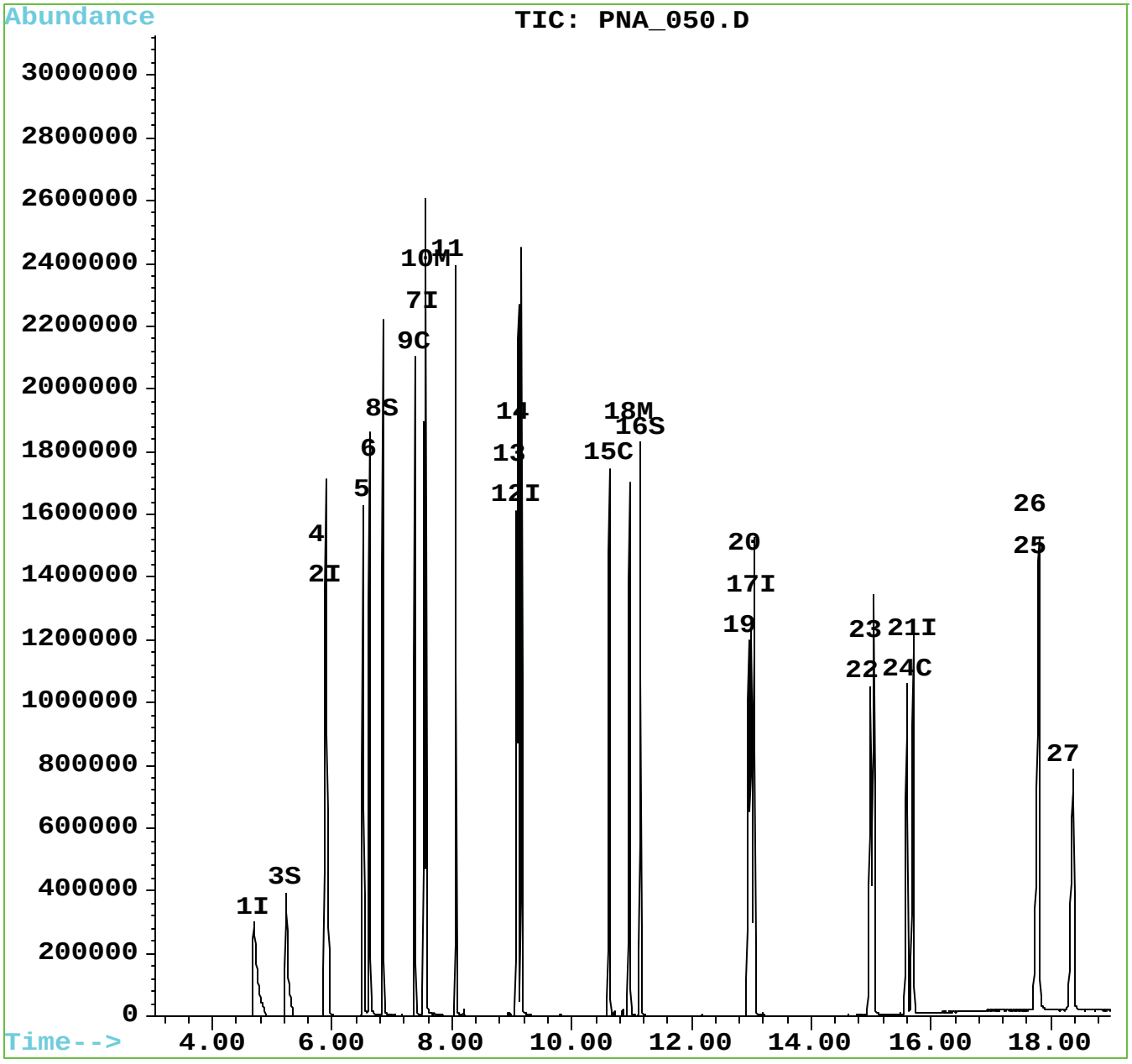
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.69	152	266255	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.88	136	1021852	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	556893	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	885025	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.00	240	820302	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	919573	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.22	82	391480	53.97	ng/ul	53.9
8) 2-Fluorobiphenyl	6.85	172	892778	51.25	ng/ul	51.2
16) Terphenyl-D14	11.15	244	815247	52.08	ng/ul	52.0
Target Compounds						Qvalu
4) Naphthalene	5.90	128	1287749	51.72	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	707297	52.96	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	828535	51.97	ng/ulm	9
9) Acenaphthylene	7.39	152	1213450	51.70	ng/ul	9
10) Acenaphthene **	7.56	154	726697	51.27	ng/ul	9
11) Fluorene	8.07	166	863082	52.77	ng/ul	9
13) Phenanthrene	9.11	178	1124772	50.01	ng/ul	9
14) Anthracene	9.16	178	1230942	51.42	ng/ul	10
15) Fluoranthene	10.63	202	1114536	51.16	ng/ul	9
18) Pyrene **	10.96	202	1144231	52.80	ng/ul	9
19) Benzo(a)anthracene	12.96	228	949112	52.57	ng/ul	9
20) Chrysene	13.05	228	982525	50.41	ng/ul	9
22) Benzo(b)fluoranthene	14.99	252	997694	48.42	ng/ul	9
23) Benzo(k)fluoranthene	15.05	252	937805	44.71	ng/ul	9
24) Benzo(a)pyrene	15.60	252	860881	47.35	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.79	276	1171973	48.00	ng/ul	8
26) Dibenzo(ah)anthracene	17.81	278	959794	48.74	ng/ul	9
27) Benzo(ghi)perylene	18.37	276	1002580	49.44	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_050.d Vial: 7
Acq On : 26 May 112 10:37 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:24 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_060.d Vial: 8
Acq On : 26 May 112 11:01 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:21 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

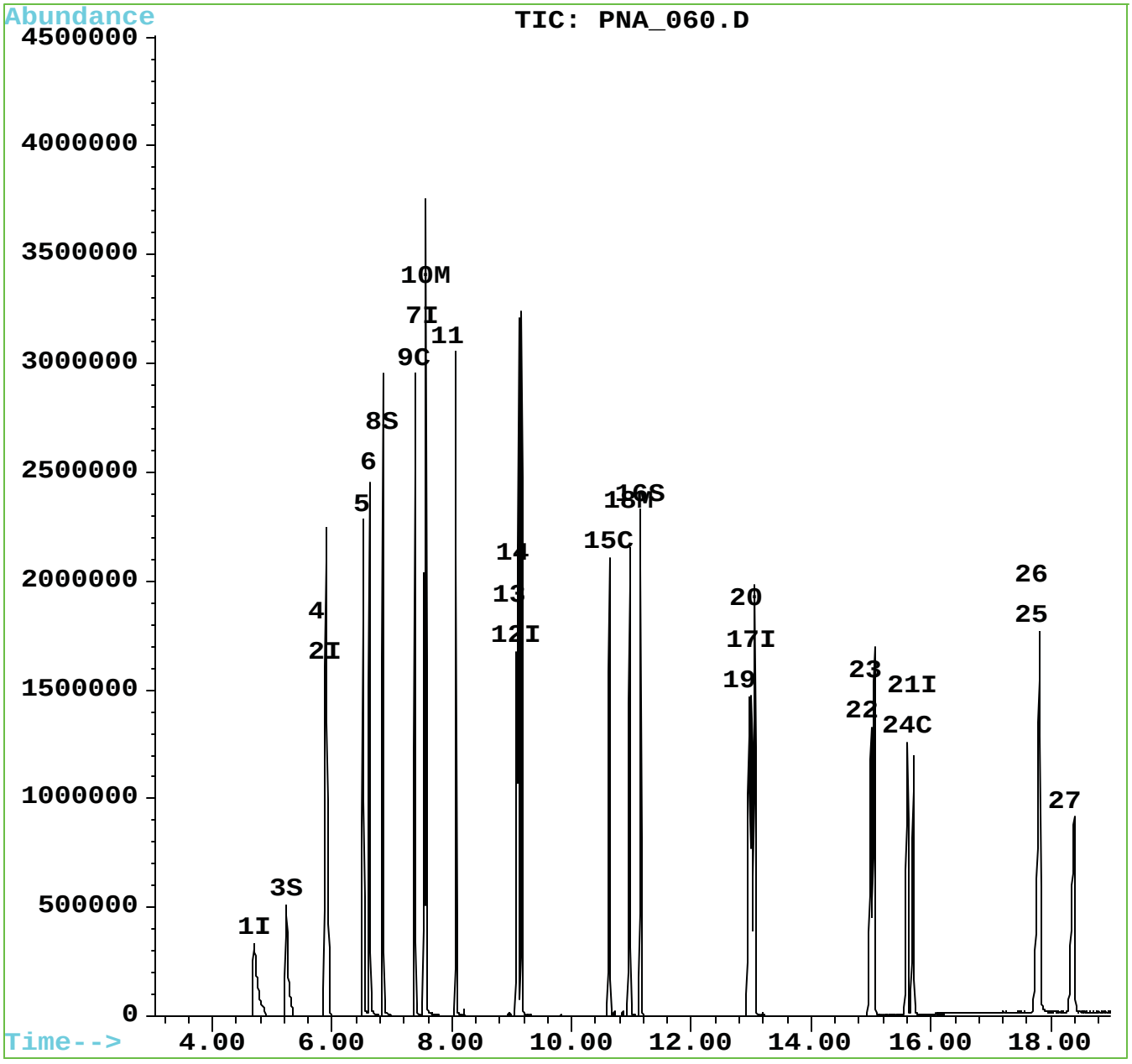
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.70	152	310144	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1204660	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	641452	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	990540	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.00	240	898311	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	878448	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	521531	64.19	ng/ul	64.1
8) 2-Fluorobiphenyl	6.85	172	1232944	64.45	ng/ul	64.4
16) Terphenyl-D14	11.15	244	1044220	68.01	ng/ul	68.0
Target Compounds						Qvalu
4) Naphthalene	5.90	128	1752554	74.20	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	968245	60.83	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	1166883	64.43	ng/ul	9
9) Acenaphthylene	7.39	152	1642462	60.97	ng/ul	9
10) Acenaphthene **	7.57	154	1007300	69.10	ng/ul	9
11) Fluorene	8.07	166	1128796	61.79	ng/ul	9
13) Phenanthrene	9.11	178	1511210	79.51	ng/ul	9
14) Anthracene	9.16	178	1635345	82.33	ng/ul	9
15) Fluoranthene	10.63	202	1475931	64.58	ng/ul	9
18) Pyrene **	10.97	202	1495771	57.80	ng/ul	9
19) Benzo(a)anthracene	12.96	228	1230077	55.62	ng/ul	10
20) Chrysene	13.06	228	1288430	61.05	ng/ul	9
22) Benzo(b)fluoranthene	15.00	252	1211910	56.07	ng/ul	9
23) Benzo(k)fluoranthene	15.06	252	1277505	63.28	ng/ulm	9
24) Benzo(a)pyrene	15.61	252	1104670	59.73	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.82	276	1486313	65.66	ng/ul	8
26) Dibenzo(ah)anthracene	17.83	278	1205391	64.88	ng/ul	9
27) Benzo(ghi)perylene	18.39	276	1209206	64.49	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_060.d Vial: 8
Acq On : 26 May 112 11:01 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 29 11:21 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_080.d Vial: 9
Acq On : 26 May 112 11:26 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 23:45 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

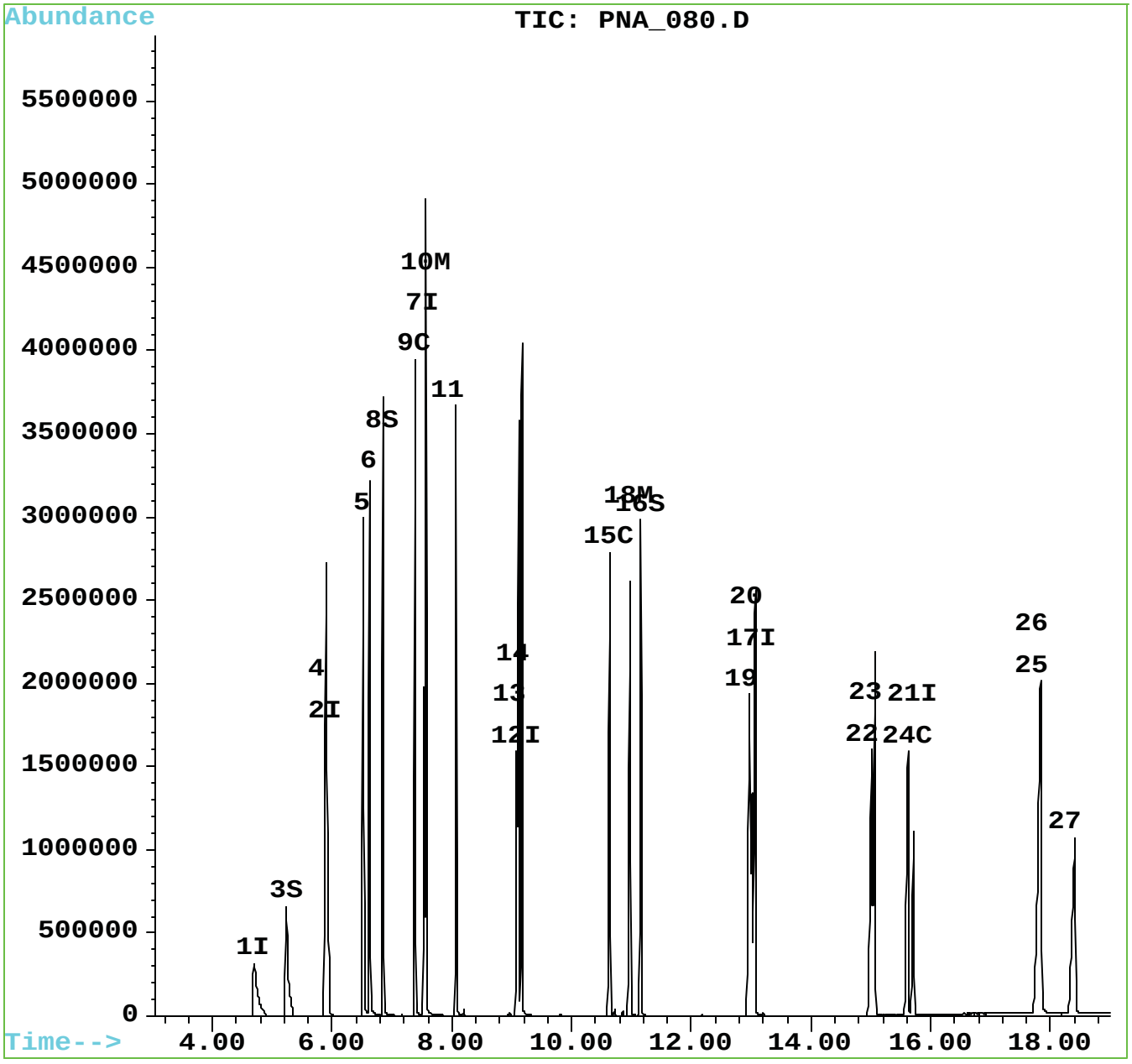
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.70	152	295851	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1145190	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	607398	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	946072	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.01	240	874983	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	844662	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	666871	86.34	ng/ul	86.3
8) 2-Fluorobiphenyl	6.85	172	1586206	87.57	ng/ul	87.5
16) Terphenyl-D14	11.16	244	1387325	94.61	ng/ul	94.6
Target Compounds						Qvalu
4) Naphthalene	5.90	128	2276222	93.78	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	1240206	81.96	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	1499600	87.10	ng/ul	9
9) Acenaphthylene	7.39	152	2120598	83.14	ng/ul	9
10) Acenaphthene **	7.57	154	1322555	95.81	ng/ul	9
11) Fluorene	8.07	166	1465979	84.75	ng/ul	9
13) Phenanthrene	9.11	178	1971918	108.62	ng/ul	9
14) Anthracene	9.17	178	2219884	117.01	ng/ul	9
15) Fluoranthene	10.63	202	1908678	87.43	ng/ul	9
18) Pyrene **	10.97	202	1954000	77.52	ng/ul	9
19) Benzo(a)anthracene	12.97	228	1587612	73.70	ng/ul	10
20) Chrysene	13.07	228	1715616	83.45	ng/ul	9
22) Benzo(b)fluoranthene	15.01	252	1644204	79.12	ng/ul	9
23) Benzo(k)fluoranthene	15.06	252	1579827	81.39	ng/ul	9
24) Benzo(a)pyrene	15.62	252	1407771	79.16	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.83	276	1920833	88.25	ng/ul	8
26) Dibenzo(ah)anthracene	17.84	278	1561713	87.42	ng/ul	9
27) Benzo(ghi)perylene	18.41	276	1533403	85.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_080.d Vial: 9
Acq On : 26 May 112 11:26 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 26 23:45 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_100.d Vial: 1
Acq On : 26 May 112 11:50 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 27 0:09 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration

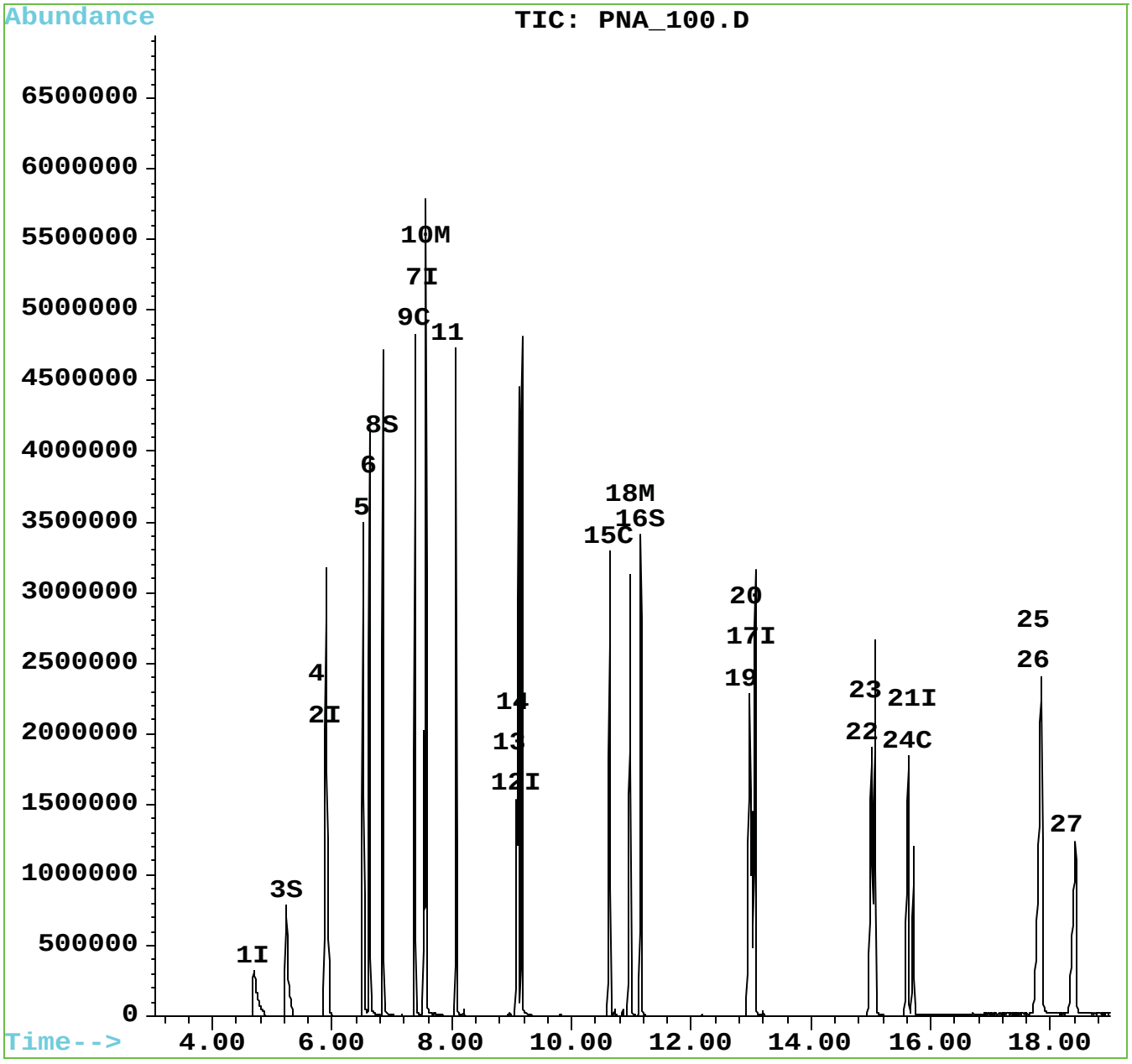
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.70	152	291498	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.88	136	1145378	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.53	164	621551	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	9.08	188	924282	40.00	ng/ul	0.0
17) CHRYSENE-D12	13.01	240	918995	40.00	ng/ul	0.0
21) PERYLENE-D12	15.71	264	857361	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.23	82	801591	103.76	ng/ul	103.7
8) 2-Fluorobiphenyl	6.85	172	2010381	108.45	ng/ul	108.4
16) Terphenyl-D14	11.16	244	1680531	117.30	ng/ul	117.3
Target Compounds						Qvalu
4) Naphthalene	5.90	128	2814041	109.37	ng/ul	9
5) 2-Methylnaphthalene	6.52	141	1542162	101.90	ng/ul	9
6) 1-Methylnaphthalene	6.62	142	1914938	111.20	ng/ul	9
9) Acenaphthylene	7.39	152	2676770	102.55	ng/ul	9
10) Acenaphthene **	7.57	154	1638322	115.98	ng/ul	9
11) Fluorene	8.07	166	1891614	106.87	ng/ul	9
13) Phenanthrene	9.11	178	2493597	140.60	ng/ul	9
14) Anthracene	9.17	178	2749364	148.34	ng/ul	10
15) Fluoranthene	10.64	202	2437362	114.29	ng/ul	9
18) Pyrene **	10.98	202	2351458	88.82	ng/ul	9
19) Benzo(a)anthracene	12.98	228	1971229	87.13	ng/ul	9
20) Chrysene	13.07	228	2228302	103.20	ng/ul	9
22) Benzo(b)fluoranthene	15.01	252	1974884	93.62	ng/ul	9
23) Benzo(k)fluoranthene	15.08	252	2126253	107.92	ng/ul	9
24) Benzo(a)pyrene	15.63	252	1735694	96.15	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.86	276	2397230	108.51	ng/ul#	3
26) Dibenzo(ah)anthracene	17.85	278	1945636	107.30	ng/ul	9
27) Benzo(ghi)perylene	18.42	276	1877411	102.59	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\methods\p120526u.m\pna_100.d Vial: 1
Acq On : 26 May 112 11:50 pm Operator:
Sample : pna std (120314) Inst : 5972 -
Misc : Multiplr: 1.00
Quant Time: May 27 0:09 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : BNA 8270
Last Update : Tue May 29 11:25:18 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Initial Calibration Date: (see Form 6)

Analytical Batch: u120702.2
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn02b.d	07/02/12 12:40	Acenaphthylene	1.719	0.30
		Benzo(b)fluoranthene	1.034	0.30
		Naphthalene	1.038	0.30
		Phenanthrene	1.036	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Ulysses
Initial Calibration Date: (see Form 6)

Analytical Batch: u120702.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn02b.d	07/02/12 12:40	1-methylnaphthalene	53.0/ 50.0	6.0/ 20.0
		2-Methylnaphthalene	54.4/ 50.0	8.8/ 20.0
		Acenaphthene	50.6/ 50.0	1.2/ 20.0
		Acenaphthylene	51.0/ 50.0	2.0/ 20.0
		Anthracene	48.6/ 50.0	2.8/ 20.0
		Benzo(a)anthracene	54.5/ 50.0	9.0/ 20.0
		Benzo(a)pyrene	55.3/ 50.0	10.6/ 20.0
		Benzo(b)fluoranthene	57.7/ 50.0	15.4/ 20.0
		Benzo(ghi)perylene	43.7/ 50.0	12.6/ 20.0
		Benzo(k)fluoranthene	55.4/ 50.0	10.7/ 20.0
		Chrysene	51.7/ 50.0	3.5/ 20.0
		Dibenzo(ah)anthracene	43.0/ 50.0	14.0/ 20.0
		Fluorene	50.9/ 50.0	1.7/ 20.0
		Fluoranthene	53.1/ 50.0	6.2/ 20.0
		Indeno(1,2,3-cd)pyrene	44.6/ 50.0	10.8/ 20.0
		Naphthalene	53.2/ 50.0	6.4/ 20.0
		Phenanthrene	50.9/ 50.0	1.8/ 20.0
		Pyrene	58.0/ 50.0	16.0/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\spnn02b.d Vial: 2
Acq On : 2 Jul 112 12:40 pm Operator: PL
Sample : pna std 50 (120314) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jul 2 13:00 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration

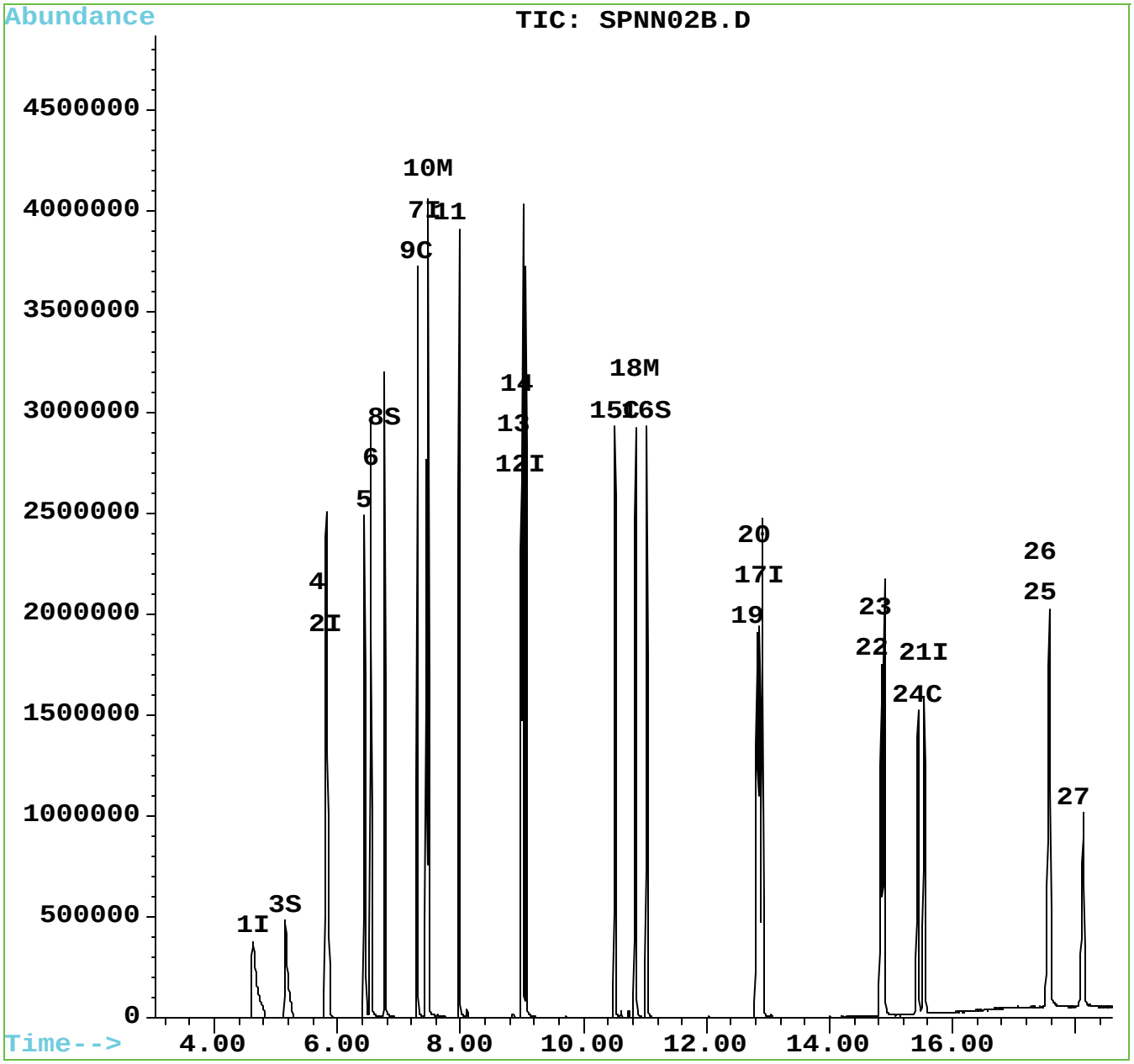
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.63	152	431274	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.80	136	1715931	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.44	164	959028	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.99	188	1493101	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.86	240	1282688	40.00	ng/ul	0.0
21) PERYLENE-D12	15.54	264	1126317	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.15	82	571503	93.84	ng/ul	93.8
8) 2-Fluorobiphenyl	6.76	172	1542327	102.82	ng/ul	102.8
16) Terphenyl-D14	11.03	244	1357684	102.81	ng/ul	102.8
Target Compounds						Qvalu
4) Naphthalene	5.82	128	2224922	53.21	ng/ul#	9
5) 2-Methylnaphthalene	6.43	141	1219655	54.38	ng/ul	9
6) 1-Methylnaphthalene	6.54	142	1418712	52.99	ng/ul	9
9) Acenaphthylene	7.30	152	2060762	50.98	ng/ul	10
10) Acenaphthene **	7.48	154	1235257	50.61	ng/ul	9
11) Fluorene	7.98	166	1432336	50.85	ng/ul	9
13) Phenanthrene	9.02	178	1931707	50.91	ng/ul	9
14) Anthracene	9.07	178	1963069	48.61	ng/ul	10
15) Fluoranthene	10.51	202	1950871	53.08	ng/ul	10
18) Pyrene **	10.85	202	1966277	58.02	ng/ul	10
19) Benzo(a)anthracene	12.82	228	1539031	54.52	ng/ul	9
20) Chrysene	12.91	228	1577043	51.74	ng/ul	9
22) Benzo(b)fluoranthene	14.84	252	1455844	57.69	ng/ul	9
23) Benzo(k)fluoranthene	14.89	252	1422026	55.36	ng/ul	9
24) Benzo(a)pyrene	15.44	252	1231341	55.29	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.57	276	1333354	44.59	ng/ul	9
26) Dibenzo(ah)anthracene	17.58	278	1037446	43.02	ng/ul	9
27) Benzo(ghi)perylene	18.13	276	1084892	43.68	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\spnn02b.d Vial: 2
Acq On : 2 Jul 112 12:40 pm Operator: PL
Sample : pna std 50 (120314) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jul 2 13:00 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\d02a.d Vial: 1
Acq On : 2 Jul 112 11:32 am Operator: PL
Sample : dftpp std (120607) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jul 2 11:50 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration

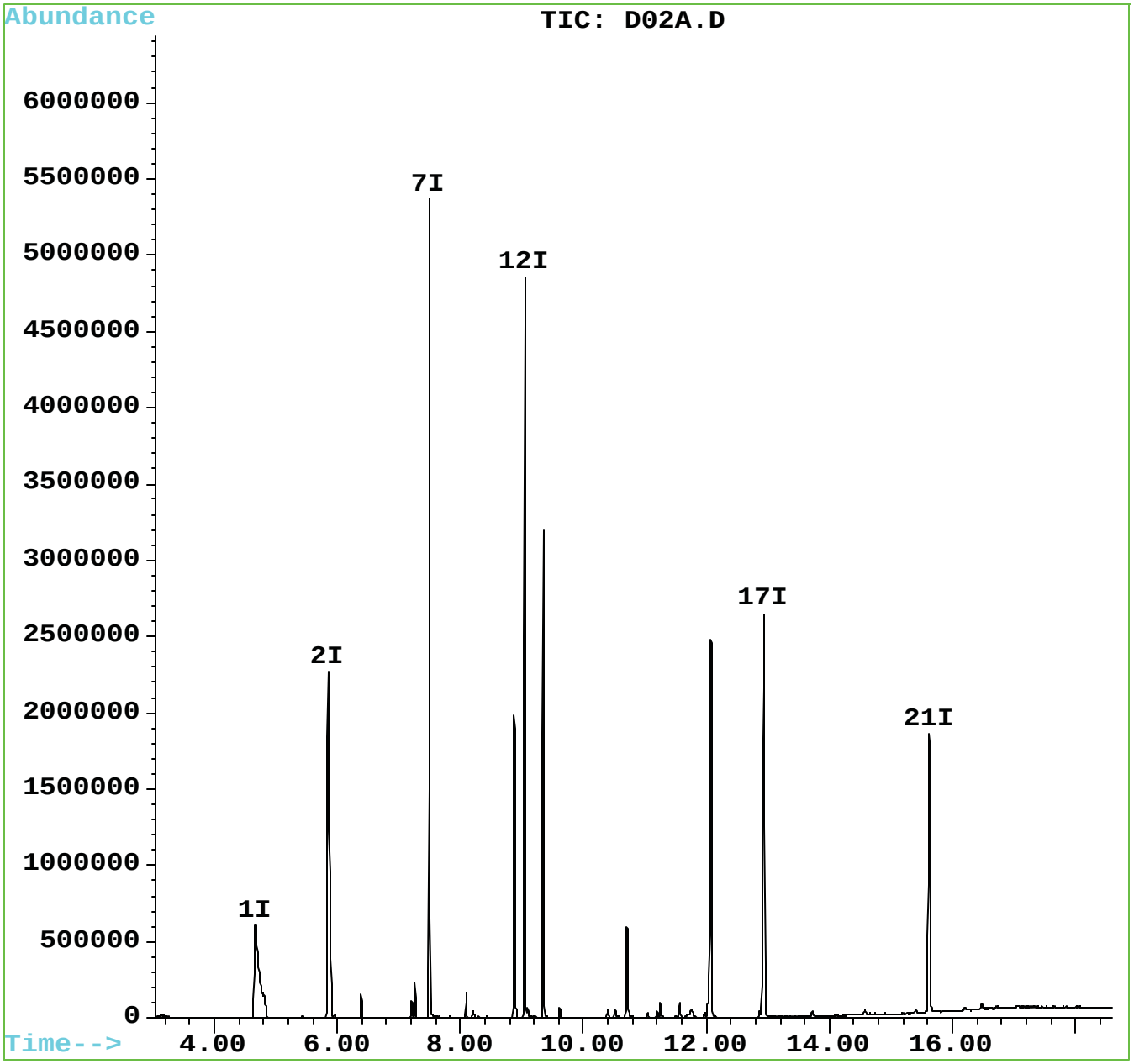
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.67	152	697740	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.85	136	3006204	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.50	164	1612561	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	9.05	188	2574864	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.93	240	1795408	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.63	264	1415060	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	0.00	82	0	0.00	ng/ul	0.0
8) 2-Fluorobiphenyl	0.00	172	0	0.00	ng/ul	0.0
16) Terphenyl-D14	11.09	244	3321	0.15	ng/ul	0.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\d02a.d Vial: 1
Acq On : 2 Jul 112 11:32 am Operator: PL
Sample : dftpp std (120607) Inst : 5972 -
Misc : w/1 Multiplr: 2.00
Quant Time: Jul 2 11:50 19112

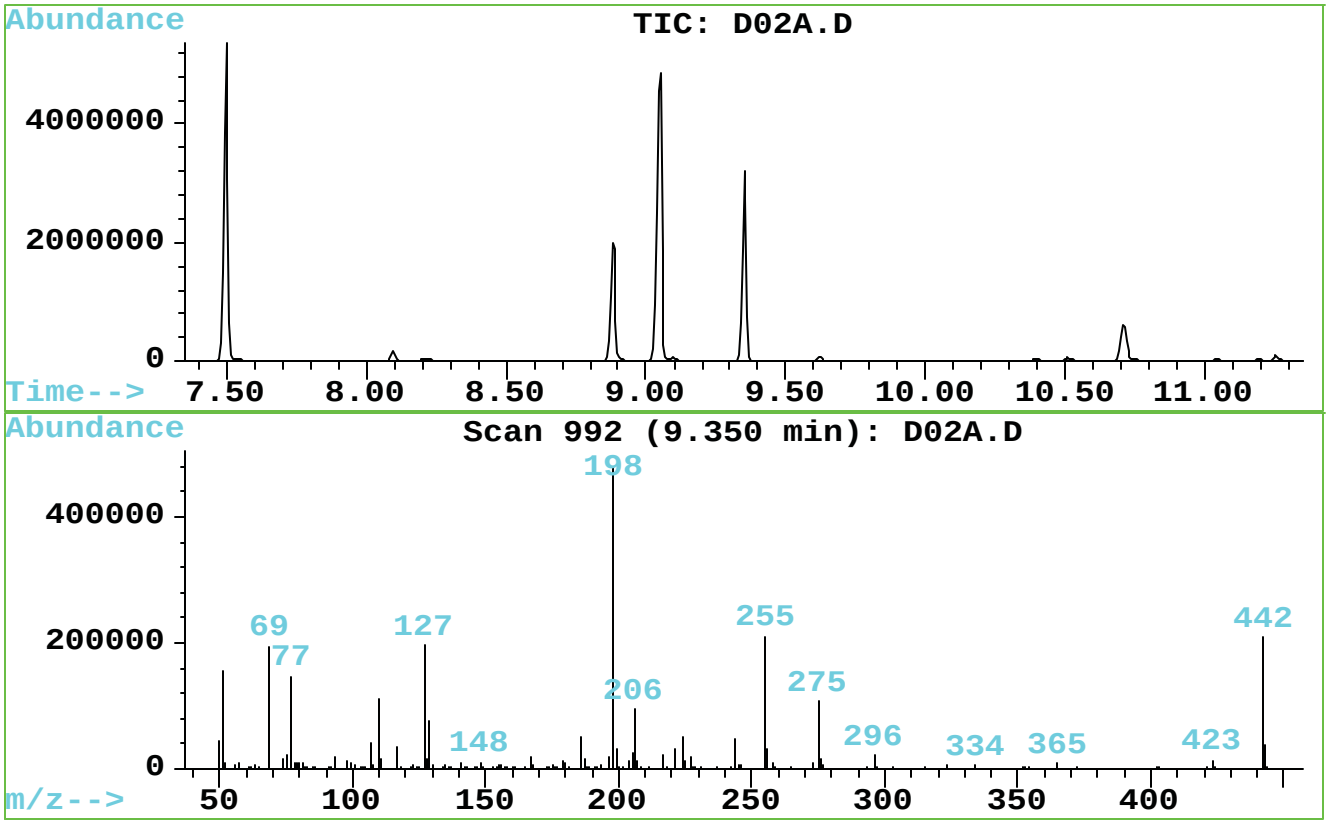
Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\ULYSSES.3\DATA\U120702\D02A.D Vial: 1
Acq On : 2 Jul 112 11:32 am Operator: PL
Sample : dftpp std (120607) Inst : 5972 -
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270



Peak Apex is scan: 992

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	32.3	155136	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	40.4	194240	PASS
70	69	0	2	0.0	0	PASS
127	198	25	75	40.8	195840	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	480384	PASS
199	198	5	9	6.7	32224	PASS
275	198	10	30	22.4	107712	PASS
365	198	1	100	2.0	9504	PASS
441	443	0	100	0.0	0	PASS
442	198	40	110	43.5	209152	PASS
443	442	15	24	18.7	39032	PASS

D02A.D P120526U.M Fri Jul 13 12:17:37 2012

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\blks02a.d Vial: 3
Acq On : 2 Jul 112 1:06 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 13:24 19112

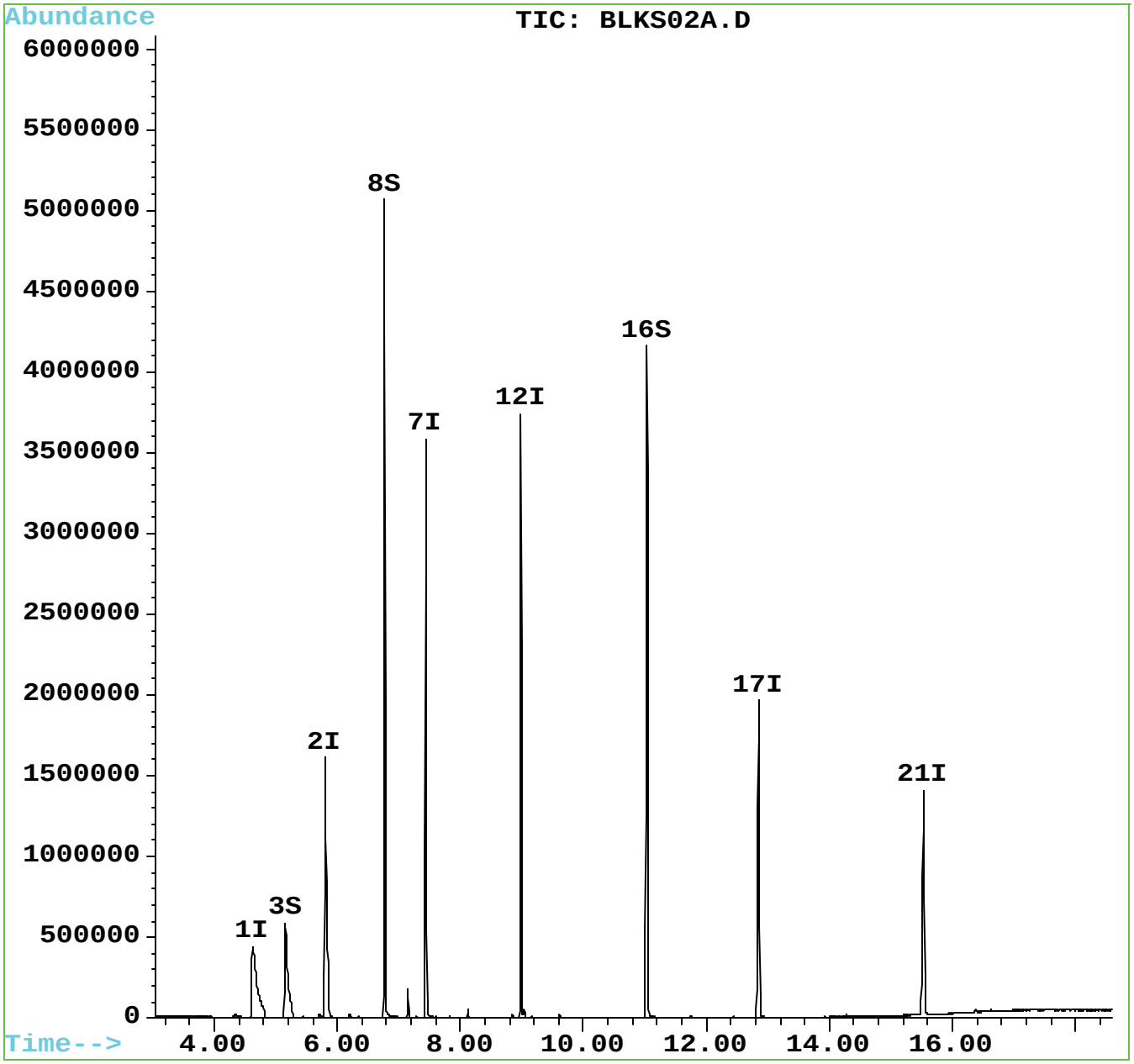
Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.63	152	518432	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.81	136	2105881	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.44	164	1127021	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.99	188	1824557	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.85	240	1294629	40.00	ng/ul	-0.0
21) PERYLENE-D12	15.53	264	1050977	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.16	82	705860	94.43	ng/ul	94.4
8) 2-Fluorobiphenyl	6.77	172	2326424	131.97	ng/ul	131.9
16) Terphenyl-D14	11.04	244	2538102	157.29	ng/ul	157.2
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\ulysses.3\data\u120702\blks02a.d Vial: 3
Acq On : 2 Jul 112 1:06 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 13:24 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\lcsds02a.d Vial: 5
Acq On : 2 Jul 112 1:54 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 14:12 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration

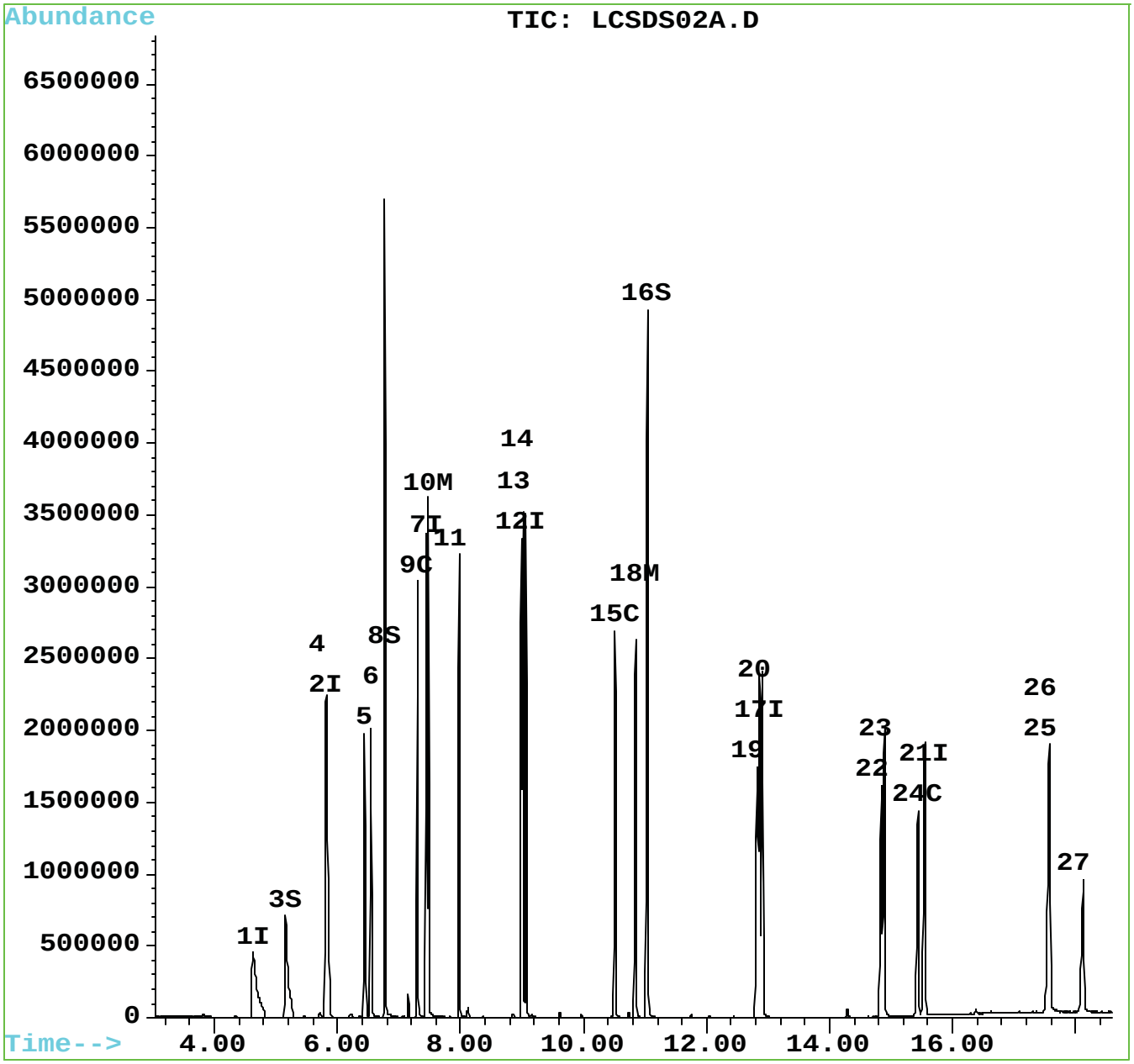
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.63	152	518769	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.81	136	2138672	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	1145023	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.99	188	1892480	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.86	240	1629808	40.00	ng/ul	0.0
21) PERYLENE-D12	15.55	264	1390765	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.16	82	851333	112.15	ng/ul	112.1
8) 2-Fluorobiphenyl	6.77	172	2577108	143.89	ng/ul	143.8
16) Terphenyl-D14	11.04	244	2938252	175.55	ng/ul	175.5
Target Compounds						Qvalu
4) Naphthalene	5.82	128	1669750	32.04	ng/ul	9
5) 2-Methylnaphthalene	6.44	141	956997	34.24	ng/ul	9
6) 1-Methylnaphthalene	6.54	142	1010846	30.29	ng/ul	9
9) Acenaphthylene	7.30	152	1691115	35.04	ng/ul	10
10) Acenaphthene **	7.48	154	1047114	35.93	ng/ul	9
11) Fluorene	7.98	166	1215649	36.15	ng/ul	9
13) Phenanthrene	9.02	178	1764505	36.69	ng/ul	9
14) Anthracene	9.07	178	1759382	34.37	ng/ul	10
15) Fluoranthene	10.51	202	1799150	38.62	ng/ul	10
18) Pyrene **	10.85	202	1810242	42.04	ng/ul	9
19) Benzo(a)anthracene	12.82	228	1488902	41.51	ng/ul	9
20) Chrysene	12.91	228	1521951	39.30	ng/ul	9
22) Benzo(b)fluoranthene	14.84	252	1421887	45.63	ng/ul	9
23) Benzo(k)fluoranthene	14.89	252	1413044	44.55	ng/ul	9
24) Benzo(a)pyrene	15.44	252	1149965	41.82	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.57	276	1257518	34.05	ng/ul	9
26) Dibenzo(ah)anthracene	17.58	278	985622	33.10	ng/ul	9
27) Benzo(ghi)perylene	18.13	276	1027421	33.50	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\lcsds02a.d Vial: 5
Acq On : 2 Jul 112 1:54 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 14:12 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\lcss02a.d Vial: 4
Acq On : 2 Jul 112 1:30 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 13:48 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration

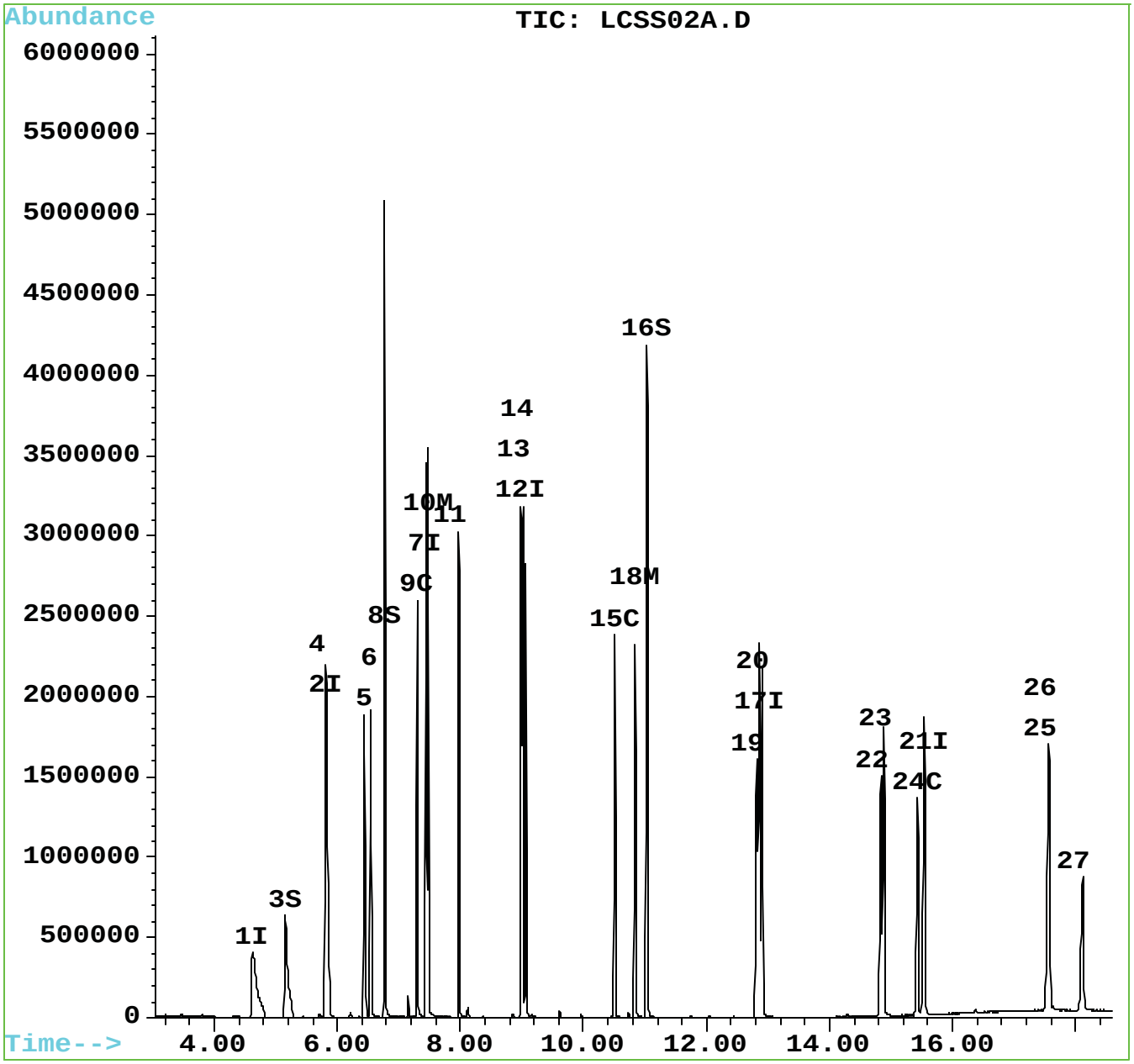
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.62	152	496676	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.80	136	2093255	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.44	164	1129435	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.99	188	1878181	40.00	ng/ul	0.0
17) CHRYSENE-D12	12.86	240	1608642	40.00	ng/ul	0.0
21) PERYLENE-D12	15.54	264	1379450	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.16	82	780892	105.10	ng/ul	105.1
8) 2-Fluorobiphenyl	6.77	172	2438641	138.04	ng/ul	138.0
16) Terphenyl-D14	11.04	244	2594597	156.20	ng/ul	156.2
Target Compounds						Qvalu
4) Naphthalene	5.82	128	1571552	30.81	ng/ul	9
5) 2-Methylnaphthalene	6.43	141	894419	32.69	ng/ul	9
6) 1-Methylnaphthalene	6.54	142	945244	28.94	ng/ul	9
9) Acenaphthylene	7.30	152	1580517	33.20	ng/ul	10
10) Acenaphthene **	7.47	154	975805	33.95	ng/ul	9
11) Fluorene	7.97	166	1157447	34.89	ng/ul	10
13) Phenanthrene	9.02	178	1613271	33.80	ng/ul	9
14) Anthracene	9.07	178	1568936	30.89	ng/ul	9
15) Fluoranthene	10.51	202	1609364	34.81	ng/ul	10
18) Pyrene **	10.85	202	1630878	38.37	ng/ul	10
19) Benzo(a)anthracene	12.82	228	1337549	37.78	ng/ul	9
20) Chrysene	12.91	228	1338648	35.02	ng/ul	9
22) Benzo(b)fluoranthene	14.84	252	1260959	40.80	ng/ul	9
23) Benzo(k)fluoranthene	14.89	252	1288457	40.95	ng/ul	9
24) Benzo(a)pyrene	15.43	252	1040540	38.15	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	17.56	276	1150451	31.41	ng/ul	9
26) Dibenzo(ah)anthracene	17.57	278	904332	30.62	ng/ul	9
27) Benzo(ghi)perylene	18.12	276	939448	30.88	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ulysses.3\data\u120702\lcss02a.d Vial: 4
Acq On : 2 Jul 112 1:30 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : 5972 -
Misc : s/1; id:sp120628s01 Multiplr: 2.00
Quant Time: Jul 2 13:48 19112

Method : F:\GCMS.DAT\ULYSSES.3\METHODS\P120526U.M
Title : PNA 8270
Last Update : Thu Jul 12 10:59:41 2012
Response via : Multiple Level Calibration



Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120628.3

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
f120628.01r	sblk-r.01	06/28/12 09:25	SBLK-R.01	WW	Bl	**4**	
f120628.02r	sc1660.01	06/28/12 09:36	SC1660.01 0.5ppm 5/31/12	WW	CV	**4**	
f120628.12r	sblk-s.01	06/28/12 12:50	sBLK-S.01 20.0g s/1 ID:PA120628s01	SO	Bl	**4**	
f120628.13r	slcs-s.01	06/28/12 13:00	sLCS-S.01 20.0g s/1 ID:PA120628s01	SO	MS	**4**	
f120628.14r	slcs-s.01	06/28/12 13:11	sLCS-S.01D 20.0g s/1 ID:PA120628s01	SO	MS	**4**	
f120628.19r	s52983.02	06/28/12 15:43	s52983.02 20.2g s/1 ID:PA120628s01	SO		**4**	
f120628.20r	s52983.03	06/28/12 15:54	s52983.03 20.0g s/1 ID:PA120628s01	SO		**4**	
f120628.22r	ss1660.01	06/28/12 16:15	ss1660.01 0.1ppm 5/31/12	WW		**4**	
f120628.23r	sc1660.02	06/28/12 16:26	SC1660.02 0.5ppm 5/31/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120628.4

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
f120628b.01	sblk-r.01	06/28/12 09:25	SBLK-R.01	WW	Bl	**4**	
f120628b.02	sc1660.01	06/28/12 09:36	SC1660.01 0.5ppm 5/31/12	WW	CV	**4**	
f120628b.12	sblk-s.01	06/28/12 12:50	sBLK-S.01 20.0g s/1 ID:PA120628s01	SO	Bl	**4**	
f120628b.13	slcs-s.01	06/28/12 13:00	sLCS-S.01 20.0g s/1 ID:PA120628s01	SO	MS	**4**	
f120628b.14	slcs-s.01	06/28/12 13:11	sLCS-S.01D 20.0g s/1 ID:PA120628s01	SO	MS	**4**	
f120628b.19	s52983.02	06/28/12 15:43	s52983.02 20.2g s/1 ID:PA120628s01	SO		**4**	
f120628b.20	s52983.03	06/28/12 15:54	s52983.03 20.0g s/1 ID:PA120628s01	SO		**4**	
f120628b.22	ss1660.01	06/28/12 16:15	ss1660.01 0.1ppm 5/31/12	WW		**4**	
f120628b.23	sc1660.02	06/28/12 16:26	SC1660.02 0.5ppm 5/31/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120628.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120628.01r	sblk-r.01	TCX	25.86/30.00	86.2	34.1/137.1	WW
		DCBP	23.27/30.00	77.6	30.0/138.6	
f120628.02r	sc1660.01	TCX	16.93/30.00	n/a	34.1/137.1	WW
		DCBP	14.54/30.00	n/a	30.0/138.6	
f120628.12r	sblk-s.01	TCX	20.01/30.00	66.7	33.0/135.3	SO
		DCBP	22.36/30.00	74.5	30.0/137.0	
f120628.13r	slcs-s.01	TCX	20.07/30.00	66.9	33.0/135.3	SO
		DCBP	22.90/30.00	76.3	30.0/137.0	
f120628.14r	slcs-s.01	TCX	19.92/30.00	66.4	33.0/135.3	SO
		DCBP	22.73/30.00	75.8	30.0/137.0	
f120628.19r	s52983.02	TCX	17.59/30.00	58.6	33.0/135.3	SO
		DCBP	15.78/30.00	52.6	30.0/137.0	
f120628.20r	s52983.03	TCX	17.98/30.00	59.9	33.0/135.3	SO
		DCBP	17.53/30.00	58.4	30.0/137.0	
f120628.22r	ss1660.01	TCX	3.93/30.00	n/a	34.1/137.1	WW
		DCBP	3.24/30.00	n/a	30.0/138.6	
f120628.23r	sc1660.02	TCX	18.27/30.00	n/a	34.1/137.1	WW
		DCBP	15.29/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120628.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120628b.01	sblk-r.01	TCX	31.34/30.00	104.5	34.1/137.1	WW
		DCBP	25.37/30.00	84.6	30.0/138.6	
f120628b.02	sc1660.01	TCX	18.58/30.00	n/a	34.1/137.1	WW
		DCBP	16.17/30.00	n/a	30.0/138.6	
f120628b.12	sblk-s.01	TCX	23.20/30.00	77.3	33.0/135.3	SO
		DCBP	24.08/30.00	80.3	30.0/137.0	
f120628b.13	slcs-s.01	TCX	22.40/30.00	74.7	33.0/135.3	SO
		DCBP	25.67/30.00	85.6	30.0/137.0	
f120628b.14	slcs-s.01	TCX	21.99/30.00	73.3	33.0/135.3	SO
		DCBP	28.58/30.00	95.3	30.0/137.0	
f120628b.19	s52983.02	TCX	20.19/30.00	67.3	33.0/135.3	SO
		DCBP	17.47/30.00	58.2	30.0/137.0	
f120628b.20	s52983.03	TCX	20.64/30.00	68.8	33.0/135.3	SO
		DCBP	19.97/30.00	66.6	30.0/137.0	
f120628b.22	ss1660.01	TCX	4.61/30.00	n/a	34.1/137.1	WW
		DCBP	2.89/30.00	n/a	30.0/138.6	
f120628b.23	sc1660.02	TCX	20.06/30.00	n/a	34.1/137.1	WW
		DCBP	16.46/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120628.3

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120628.14r	slcs-s.01	**f120628.13r**	1016-1	0.441/ 0.440	0.2	SO
			1016-2	0.448/ 0.448	0.0	
			1016-3	0.456/ 0.464	1.7	
			1016-4	0.432/ 0.458	5.8	
			1016-5	0.476/ 0.453	5.0	
			1260-1	0.438/ 0.428	2.3	
			1260-2	0.428/ 0.408	4.8	
			1260-3	0.416/ 0.396	4.9	
			1260-4	0.390/ 0.372	4.7	
			1260-5	0.408/ 0.398	2.5	
			[end of list]			

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120628.4

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120628b.14	slcs-s.01	**f120628b.13**	1016-1	0.414/ 0.414	0.0	SO
			1016-2	0.425/ 0.421	0.9	
			1016-3	0.435/ 0.393	10.1	
			1016-4	0.444/ 0.387	13.7	
			1016-5	0.419/ 0.391	6.9	
			1260-1	0.422/ 0.395	6.6	
			1260-2	0.422/ 0.395	6.6	
			1260-3	0.399/ 0.382	4.4	
			1260-4	0.401/ 0.403	0.5	
			1260-5	0.404/ 0.401	0.7	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120628.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120628.13r	slcs-s.01	**f120628.12r**	1016-1	0.440/-0.035	95.0		SO
			1016-2	0.448/ 0.000	89.6		
			1016-3	0.464/ 0.000	92.8		
			1016-4	0.458/ 0.000	91.6		
			1016-5	0.453/ 0.000	90.6		
			1260-1	0.428/ 0.000	85.6		
			1260-2	0.408/-0.038	89.2		
			1260-3	0.396/ 0.000	79.2		
			1260-4	0.372/ 0.000	74.4		
			1260-5	0.398/ 0.000	79.6		
				Average Recovery	**86.8**	50.0/125.0	
f120628.14r	slcs-s.01	**f120628.12r**	1016-1	0.441/-0.035	95.2		SO
			1016-2	0.448/ 0.000	89.6		
			1016-3	0.456/ 0.000	91.2		
			1016-4	0.432/ 0.000	86.4		
			1016-5	0.476/ 0.000	95.2		
			1260-1	0.438/ 0.000	87.6		
			1260-2	0.428/-0.038	93.2		
			1260-3	0.416/ 0.000	83.2		
			1260-4	0.390/ 0.000	78.0		
			1260-5	0.408/ 0.000	81.6		
				Average Recovery	**88.1**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120628.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120628b.13	slcs-s.01	**f120628b.12**	1016-1	0.414/ 0.000	82.8		SO
			1016-2	0.421/ 0.000	84.2		
			1016-3	0.393/ 0.000	78.6		
			1016-4	0.387/ 0.000	77.4		
			1016-5	0.391/ 0.000	78.2		
			1260-1	0.395/-0.061	91.2		
			1260-2	0.395/ 0.000	79.0		
			1260-3	0.382/ 0.000	76.4		
			1260-4	0.403/-0.006	81.8		
			1260-5	0.401/ 0.000	80.2		
				Average Recovery	**81.0**	50.0/125.0	
f120628b.14	slcs-s.01	**f120628b.12**	1016-1	0.414/ 0.000	82.8		SO
			1016-2	0.425/ 0.000	85.0		
			1016-3	0.435/ 0.000	87.0		
			1016-4	0.444/ 0.000	88.8		
			1016-5	0.419/ 0.000	83.8		
			1260-1	0.422/-0.061	96.6		
			1260-2	0.422/ 0.000	84.4		
			1260-3	0.399/ 0.000	79.8		
			1260-4	0.401/-0.006	81.4		
			1260-5	0.404/ 0.000	80.8		
				Average Recovery	**85.0**	50.0/125.0	

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-5
Level: LOW

Analytical Batch: f120628.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120628.12r.bnd
LCS Data File: f120628.13r.bnd

Blank/LCS Preparation Batch: pa120628s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52966.01	A120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52966.02	F120630	PA120628S01	06/30/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52966.03	A120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52966.04	A120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52968.04	A120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52970.03	F120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52970.04	F120702	PA120628S01	07/02/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52970.05	F120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.01	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.02	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.03	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.04	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.05	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.06	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.07	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.08	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.09	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.10	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52983.02	PA120628S01		06/28/12	Extraction, PCB	1120S
	F120628	PA120628S01	06/28/12	TCL PCB List (Column 1)	$TCL8082C1
	F120628	PA120628S01	06/28/12	TCL PCB List (Column 2)	$TCL8082C2
S52983.03	PA120628S01		06/28/12	Extraction, PCB	1120S
	F120628	PA120628S01	06/28/12	TCL PCB List (Column 1)	$TCL8082C1
	F120628	PA120628S01	06/28/12	TCL PCB List (Column 2)	$TCL8082C2

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-5
Level: LOW

Analytical Batch: f120628.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120628.01r	sblk-r.01	06/28/12 09:25	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120628.12r	sblk-s.01	06/28/12 12:50	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120628.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120628b.12r.bnd
LCS Data File: f120628b.13r.bnd

Blank/LCS Preparation Batch: pa120628s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S52966.01	A120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52966.02	F120630	PA120628S01	06/30/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52966.03	A120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52966.04	A120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52968.04	A120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52970.03	F120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52970.04	F120702	PA120628S01	07/02/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52970.05	F120629	PA120628S01	06/29/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.01	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.02	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.03	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.04	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.05	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.06	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.07	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.08	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.09	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52976.10	F120628	PA120628S01	06/28/12	PCB List	$8080A
	PA120628S01		06/28/12	Extraction, PCB	1120S
S52983.02	PA120628S01		06/28/12	Extraction, PCB	1120S
	F120628	PA120628S01	06/28/12	TCL PCB List (Column 1)	$TCL8082C1
	F120628	PA120628S01	06/28/12	TCL PCB List (Column 2)	$TCL8082C2
S52983.03	PA120628S01		06/28/12	Extraction, PCB	1120S
	F120628	PA120628S01	06/28/12	TCL PCB List (Column 1)	$TCL8082C1
	F120628	PA120628S01	06/28/12	TCL PCB List (Column 2)	$TCL8082C2

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120628.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120628b.01	sblk-r.01	06/28/12 09:25	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120628b.12	sblk-s.01	06/28/12 12:50	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
Analytical Batch: f120628.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Note/Qualifier Key

A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120628.3

LIMS ID: S52983.02
Data File: f120628.19r.bnd
Date Received: 06/26/12

Tag: SB121 (06-25-12) (3-5)
Notes: s52983.02 20.2g s/1 ID:PA120628s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/28/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/28/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/28/12	
Total Solids								
TSOLIDS	Total Solids		84	1	1	%	06/29/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120628.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S52983.02 **Tag: SB121 (06-25-12) (3-5)** Matrix: SO
Data File: f120628b.19r.bnd Notes: s52983.02 20.2g s/1 ID:PA120628s01 Extraction: SONC
Date Received: 06/26/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/28/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/28/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/28/12	
Total Solids								
TSOLIDS	Total Solids		84	1	1	%	06/29/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120628.3

LIMS ID: S52983.03
Data File: f120628.20r.bnd
Date Received: 06/26/12

Tag: SB116 (06-25-12) (1-2)
Notes: s52983.03 20.0g s/1 ID:PA120628s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/28/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/28/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/28/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	06/29/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120628.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S52983.03 **Tag: SB116 (06-25-12) (1-2)** Matrix: SO
Data File: f120628b.20r.bnd Notes: s52983.03 20.0g s/1 ID:PA120628s01 Extraction: SONC
Date Received: 06/26/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	06/28/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	06/28/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				06/28/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	06/29/12	

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120628.3

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
f66120605.cal	**TCX**	L	2.15	2.20	2.25	1.50	3.00	9.00	15.00	21.00	30.00	0.051	0.048
				22.5	1.00	0.08	0.06	0.05	0.05	0.05	0.05		
	1016-1	L	3.06	3.11	3.16	0.05	0.10	0.30	0.50	0.70	1.00	0.040	0.763
				24.8	1.00	1.45	1.08	0.92	0.87	0.83	0.79		
	1016-2	L	3.31	3.36	3.41	0.05	0.10	0.30	0.50	0.70	1.00	0.112	2.601
				26.2	1.00	4.96	3.53	2.99	2.84	2.80	2.70		
	1016-3	L	3.40	3.45	3.50	0.05	0.10	0.30	0.50	0.70	1.00	0.049	1.020
				25.0	1.00	1.93	1.39	1.21	1.14	1.11	1.05		
	1016-4	L	3.47	3.52	3.57	0.05	0.10	0.30	0.50	0.70	1.00	0.063	0.699
				46.8	1.00	2.10	1.12	0.92	0.86	0.79	0.75		
	1016-5	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.958
				27.7	1.00	1.91	1.32	1.13	1.07	1.04	0.99		
	1260-1	L	4.99	5.04	5.09	0.05	0.10	0.30	0.50	0.70	1.00	0.075	1.594
				27.6	1.00	3.14	2.22	1.85	1.75	1.72	1.66		
	1260-2	L	5.21	5.26	5.31	0.05	0.10	0.30	0.50	0.70	1.00	0.113	2.481
				27.6	1.00	4.88	3.43	2.86	2.72	2.68	2.58		
	1260-3	L	5.46	5.51	5.56	0.05	0.10	0.30	0.50	0.70	1.00	0.096	2.449
				25.7	1.00	4.57	3.27	2.75	2.64	2.62	2.53		
	1260-4	L	6.06	6.11	6.16	0.05	0.10	0.30	0.50	0.70	1.00	0.051	2.119
				29.1	1.00	4.04	2.56	2.17	2.17	2.20	2.19		
	1260-5	L	6.32	6.37	6.42	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.810
				26.0	1.00	3.44	2.46	2.08	1.98	1.95	1.87		
	DCBP	L	7.44	7.49	7.54	1.50	3.00	9.00	15.00	21.00	30.00	0.057	0.035
				27.7	1.00	0.07	0.05	0.04	0.04	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): f66120605.cal / mean %rsd: 28.0

File Name: F:\gcecd.dat\Methods\F66120605.cal
Version: 3

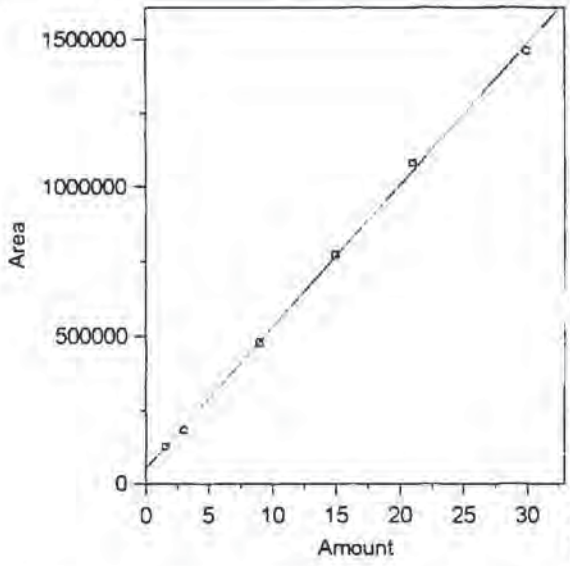
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.203 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

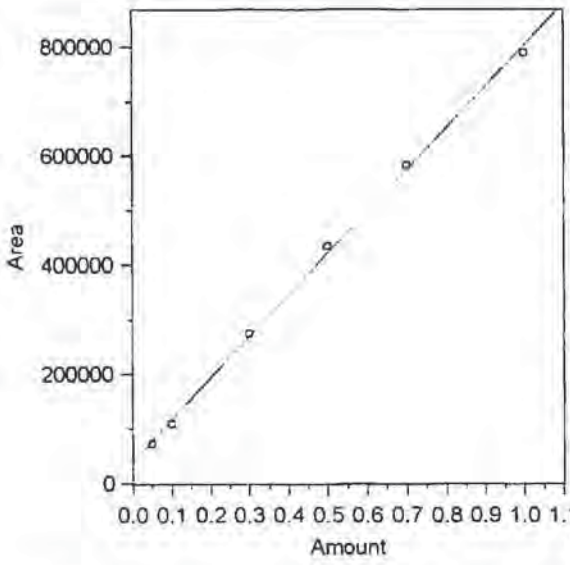
Single peak quantification by area

Y = 47656.17 X + 50931.09

Linear fit with equal weighting
Coefficient of determination: 0.9991111
Average error: 2.132%
Average CF: 58074.53
RSD: 22.469%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	125128.4	83418.93	2.216	F:\gcecd.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	181519.6	60506.53	-6.385	F:\gcecd.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	479177.3	53241.92	-0.137	F:\gcecd.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	767757.5	51183.83	0.259	F:\gcecd.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	1078491	51356.71	2.546	F:\gcecd.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1462178	48739.27	-1.245	F:\gcecd.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

2 1016-1



Expected retention time: 3.11 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 3
PCB-1016
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

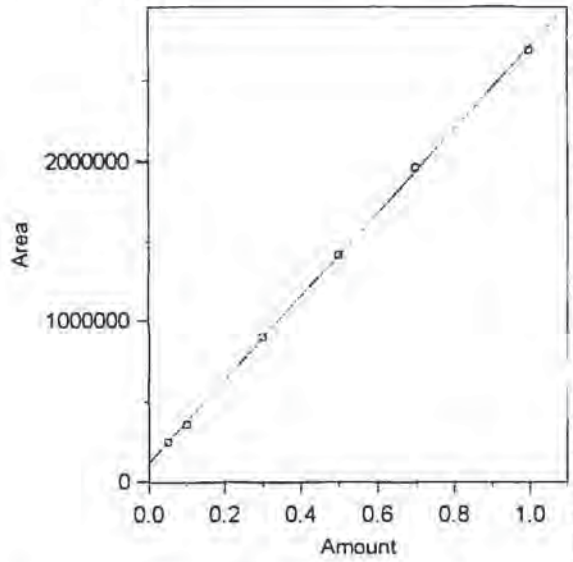
Single peak quantification by area

Y = 762932.1 X + 40053.23

Linear fit with equal weighting
Coefficient of determination: 0.9986599
Average error: 3.797%
Average CF: 989099.9
RSD: 24.802%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	72253.18	1445064	-7.604	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	108293.6	1082936	-6.921	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	275062.3	916874.3	2.279	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	433369.2	866738.4	2.811	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	583043.6	832919.5	1.557	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	790067.7	790067.7	-1.609	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

3 1016-2



Expected retention time: 3.362 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 3
PCB-1016
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

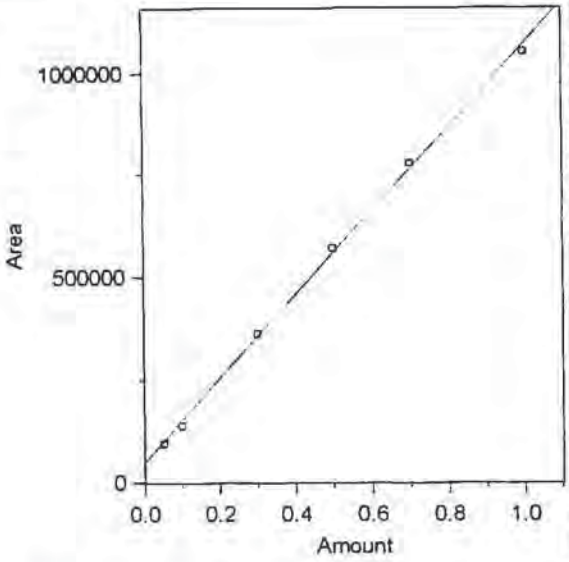
Single peak quantification by area

Y = 2601147 X + 112417.9

Linear fit with equal weighting
Coefficient of determination: 0.9997001
Average error: 1.685%
Average CF: 3300561
RSD: 26.166%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	247811	4956220	2.201	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	353161.1	3531611	-5.200	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	896735	2989117	0.445	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1417800	2835600	0.340	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1957154	2795934	1.238	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2694886	2694886	-0.688	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

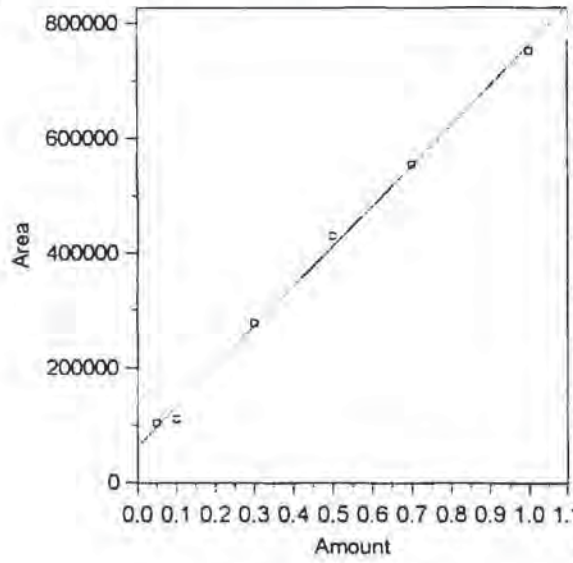
4 1016-3



Expected retention time:	3.454 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1020496 X + 49121.13	
Linear fit with equal weighting	
Coefficient of determination:	0.9988882
Average error:	3.145%
Average CF:	1305081
RSD:	24.946%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	962458	1924916	-3.894	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1393982	1393982	-7.788	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	3623616	1207872	1.996	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	5690901	1138180	1.738	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	7783863	1111981	1.954	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1053558	1053558	-1.501	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

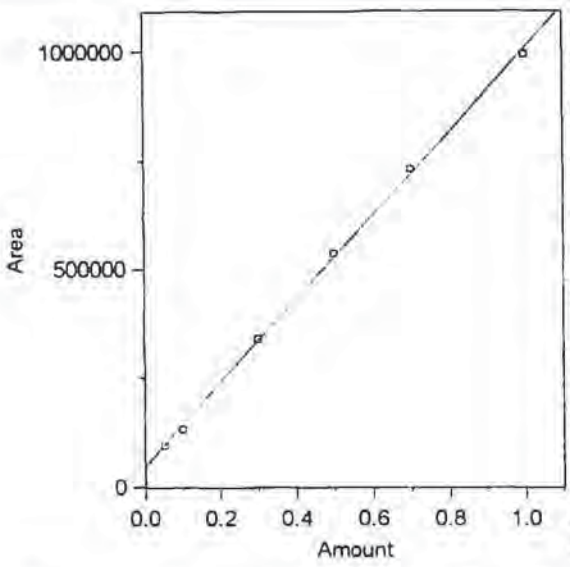
5 1016-4



Expected retention time:	3.524 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 698645 X + 62930.49	
Linear fit with equal weighting	
Coefficient of determination:	0.9971991
Average error:	5.099%
Average CF:	1089711
RSD:	46.750%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	1048121	2096242	7.101	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1116023	1116023	-15.959	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	2769628	923209.3	1.629	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	429680.3	859360.6	4.227	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	554151.1	791644.5	0.393	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	751783.6	751783.6	-1.286	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

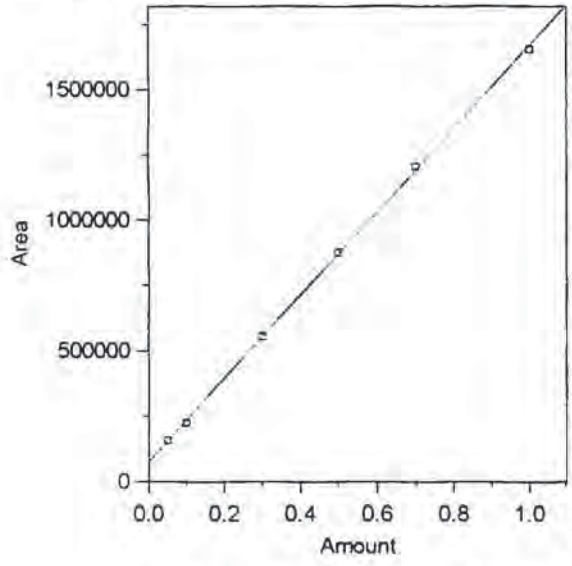
6 1016-5



Expected retention time:	3.99 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 958178.7 X + 47289.98	
Linear fit with equal weighting	
Coefficient of determination:	0.9991639
Average error:	2.277%
Average CF:	1242731
RSD:	27.702%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	95353.21	1907064	0.162	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	131689	1316890	-7.979	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	338223	1127410	1.039	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	534353.4	1068707	1.515	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	730374.4	1043392	1.721	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	992920.6	992920.6	-1.248	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

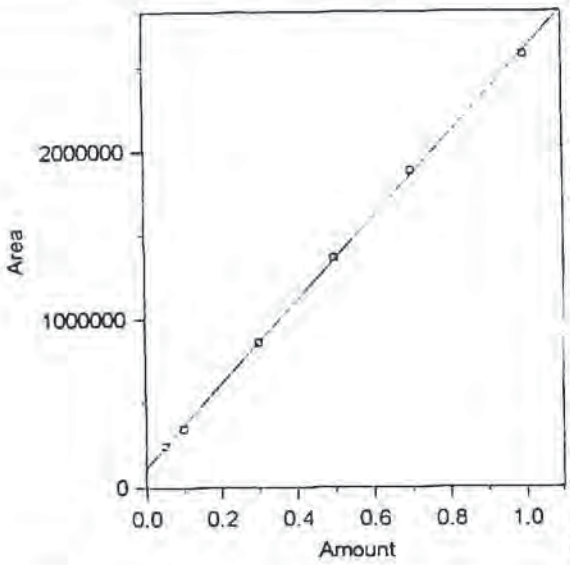
7 1260-1



Expected retention time:	5.044 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1594301 X + 74547.08	
Linear fit with equal weighting	
Coefficient of determination:	0.9996752
Average error:	1.587%
Average CF:	2057009
RSD:	27.569%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	156967.1	3139342	1.753	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	222370	2223700	-4.961	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	554058.1	1846860	0.221	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	876598.2	1753196	0.562	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1205797	1722567	1.280	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1656389	1656389	-0.747	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

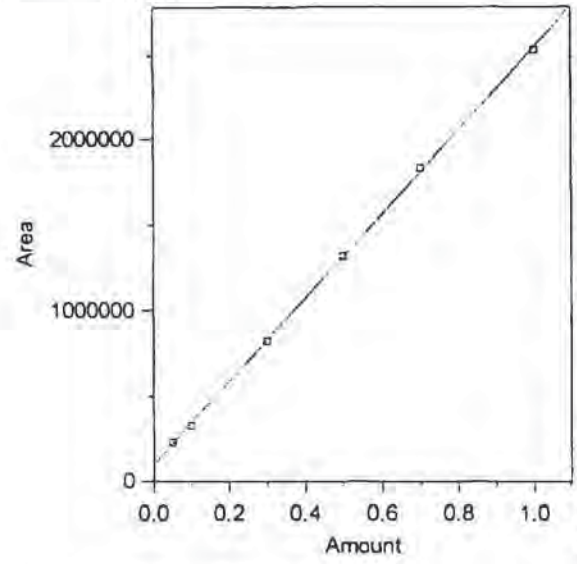
8 1260-2



Expected retention time:	5.264 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2480847 X + 112979.9	
Linear fit with equal weighting	
Coefficient of determination:	0.999669
Average error:	1.752%
Average CF:	3188669
RSD:	27.616%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	243842.2	4876844	2.877	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	342862.1	3428621	-5.041	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	856442.6	2854809	-0.092	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1359526	2719052	0.452	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1874225	2677464	1.333	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2575225	2575225	-0.717	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

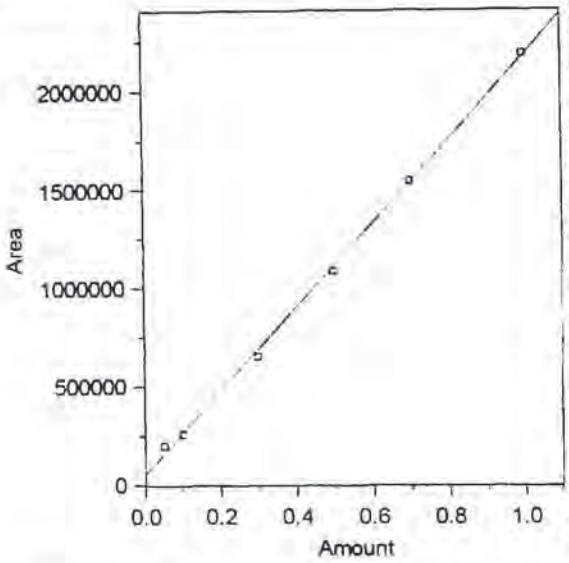
9 1260-3



Expected retention time:	5.51 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2448519 X + 95512.59	
Linear fit with equal weighting	
Coefficient of determination:	0.9997622
Average error:	1.899%
Average CF:	3062008
RSD:	25.646%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	228665.3	4573306	4.922	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	326472.3	3264723	-4.082	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	824149.5	2747165	-0.713	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1319799	2639598	0.002	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1830950	2615643	1.187	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2531615	2531615	-0.488	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

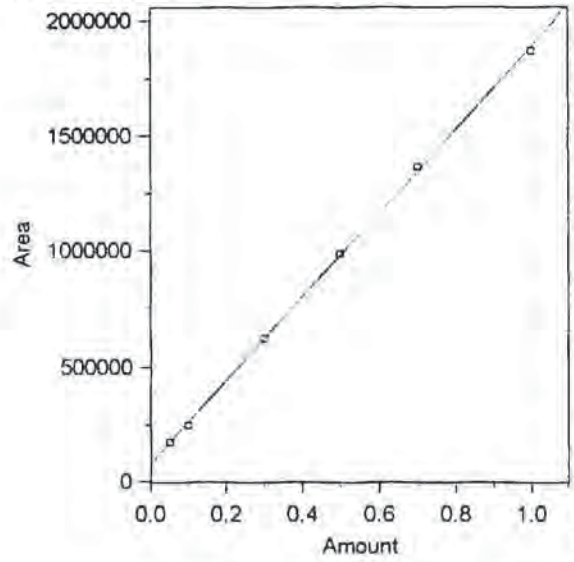
10 1260-4



Expected retention time:	6.111 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2118980 X + 51414.68	
Linear fit with equal weighting	
Coefficient of determination:	0.9985846
Average error:	6.664%
Average CF:	2554518
RSD:	29.065%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	201960.2	4039204	28.340	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	255490	2554900	-2.971	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	651378.4	2171261	-5.200	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1086010	2172020	-2.241	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1541809	2202584	0.463	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2187138	2187138	0.771	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

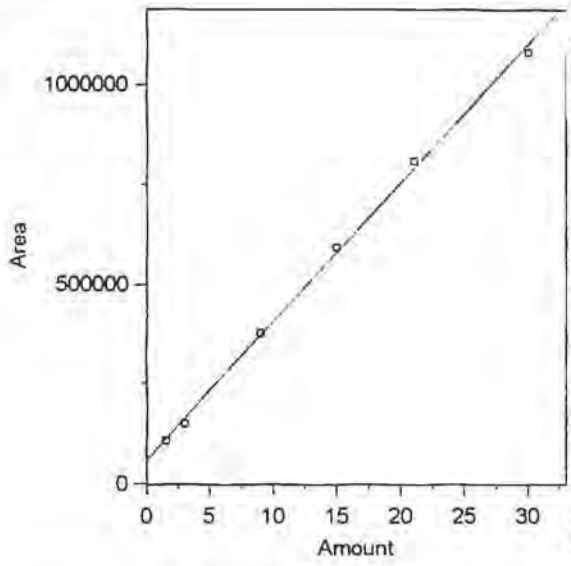
11 1260-5



Expected retention time:	6.367 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1809719 X + 78684.21	
Linear fit with equal weighting	
Coefficient of determination:	0.9995806
Average error:	1.650%
Average CF:	2296311
RSD:	25.999%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	171941.8	3438836	1.638	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	246226.6	2462266	-5.172	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	622912.1	2076374	0.211	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	987860.5	1975721	0.439	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1366743	1952490	1.580	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1872177	1872177	-0.859	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

12 DCBP



Expected retention time:	7.486 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 34817.2 X + 57301.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9984544
Average error:	3.281%
Average CF:	45923.08
RSD:	27.735%

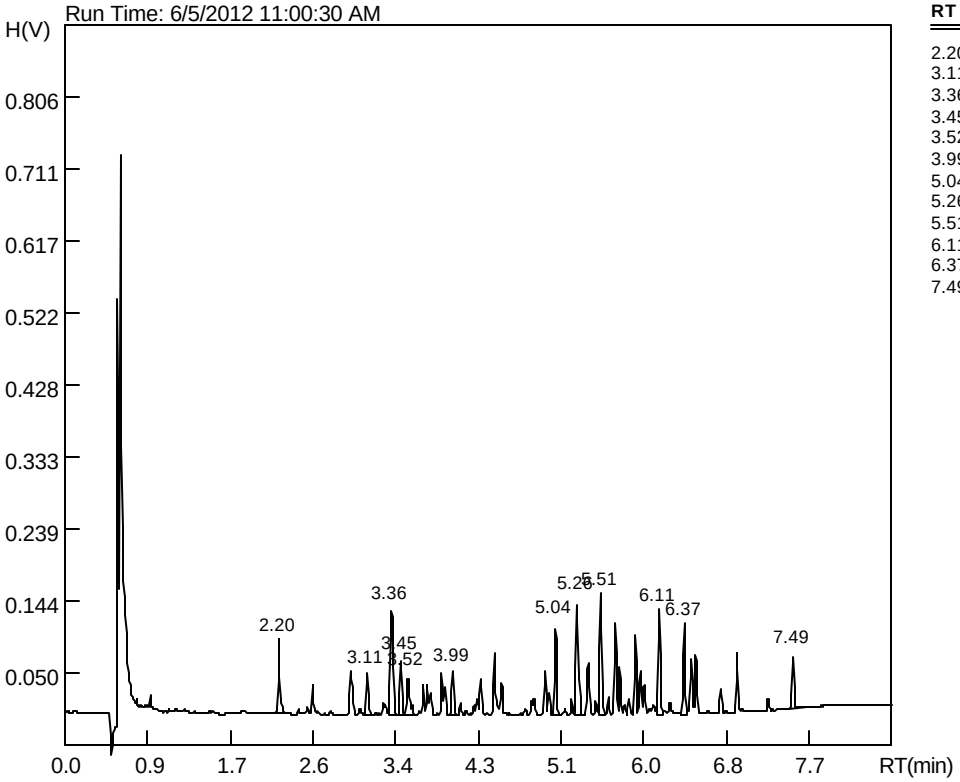
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	105176.3	70117.53	-3.972	F:\gceed dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	148972.2	49657.4	-7.901	F:\gceed dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	376072.3	41785.81	1.461	F:\gceed dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	591420.7	39428.05	2.047	F:\gceed dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	808171.9	38484.38	2.500	F:\gceed dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1081960	36065.33	-1.802	F:\gceed dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

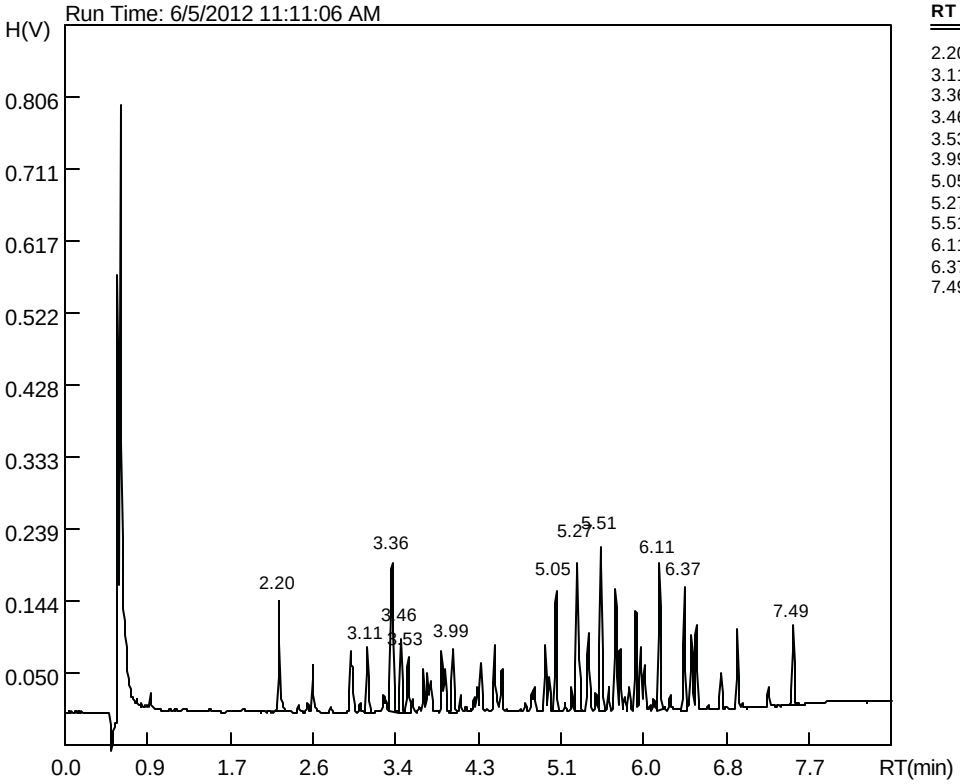
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:30 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	2.717	125128
3.11	0.00	1016-1	0.086	72253
3.36	0.00	1016-2	0.096	247811
3.45	-0.01	1016-3	0.089	96246
3.52	-0.01	1016-4	0.150	104812
3.99	0.01	1016-5	0.097	95353
5.04	0.01	1260-1	0.107	156967
5.26	0.01	1260-2	0.111	243842
5.51	0.01	1260-3	0.113	228665
6.11	0.00	1260-4	0.123	201960
6.37	0.00	1260-5	0.126	171942
7.49	0.02	DCBP	3.241	105176

File Name: F:\GCECD.DAT\F120605\F120605.03R.BND
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:06 AM



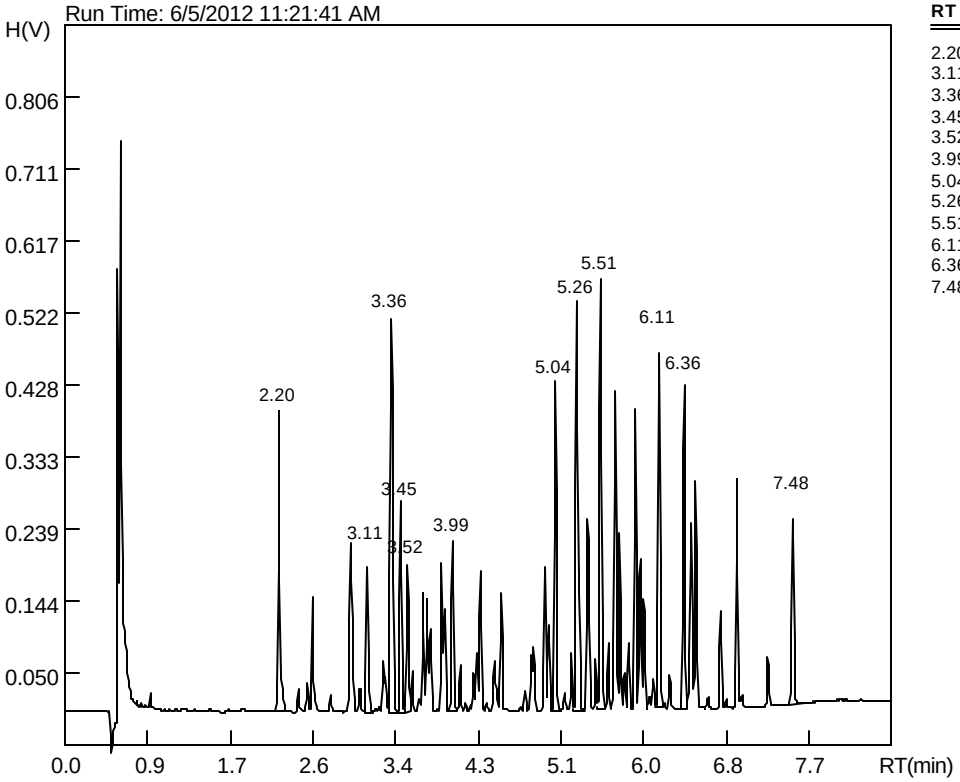
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	4.052	181520
3.11	0.00	1016-1	0.141	108294
3.36	0.00	1016-2	0.143	353161
3.46	0.00	1016-3	0.137	139398
3.53	0.00	1016-4	0.161	111602
3.99	0.02	1016-5	0.141	131689
5.05	0.02	1260-1	0.158	222370
5.27	0.02	1260-2	0.163	342862
5.51	0.02	1260-3	0.165	326472
6.11	0.00	1260-4	0.159	255490
6.37	0.00	1260-5	0.183	246227
7.49	0.02	DCBP	4.833	148972

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

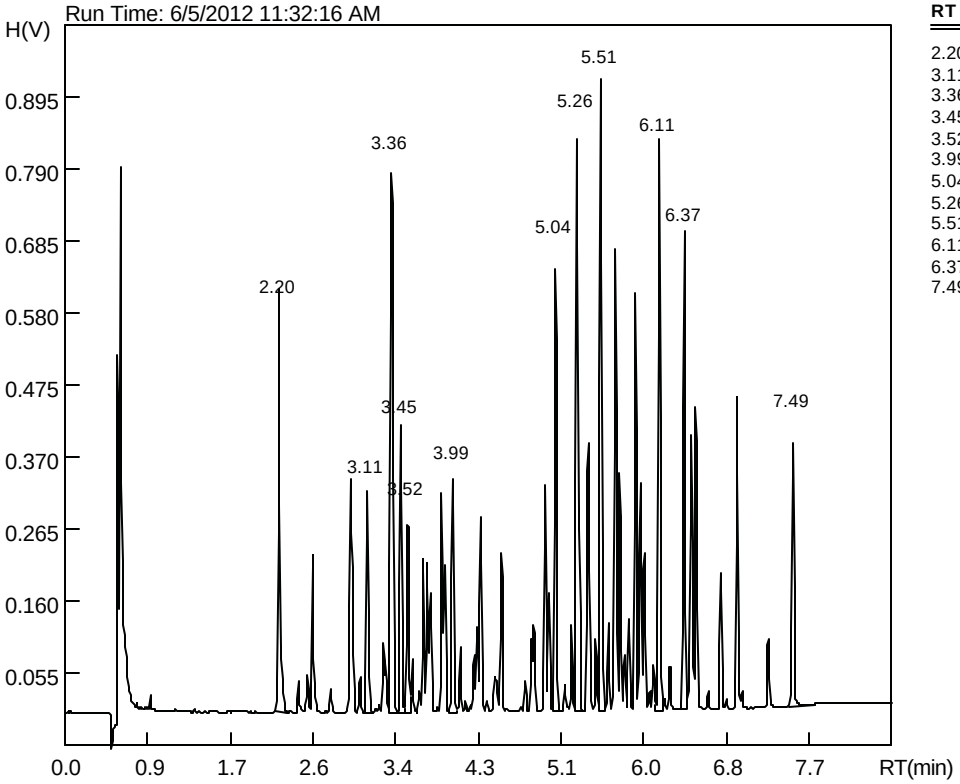
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:41 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	11.100	479177
3.11	0.00	1016-1	0.395	275062
3.36	0.00	1016-2	0.387	896735
3.45	-0.01	1016-3	0.388	362362
3.52	-0.01	1016-4	0.421	276963
3.99	0.01	1016-5	0.392	338223
5.04	0.01	1260-1	0.415	554058
5.26	0.01	1260-2	0.429	856443
5.51	0.01	1260-3	0.428	824150
6.11	0.00	1260-4	0.425	651378
6.36	-0.01	1260-5	0.472	622912
7.48	0.02	DCBP	13.089	376072

File Name: F:\GCECD.DAT\F120605\F120605.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:16 AM



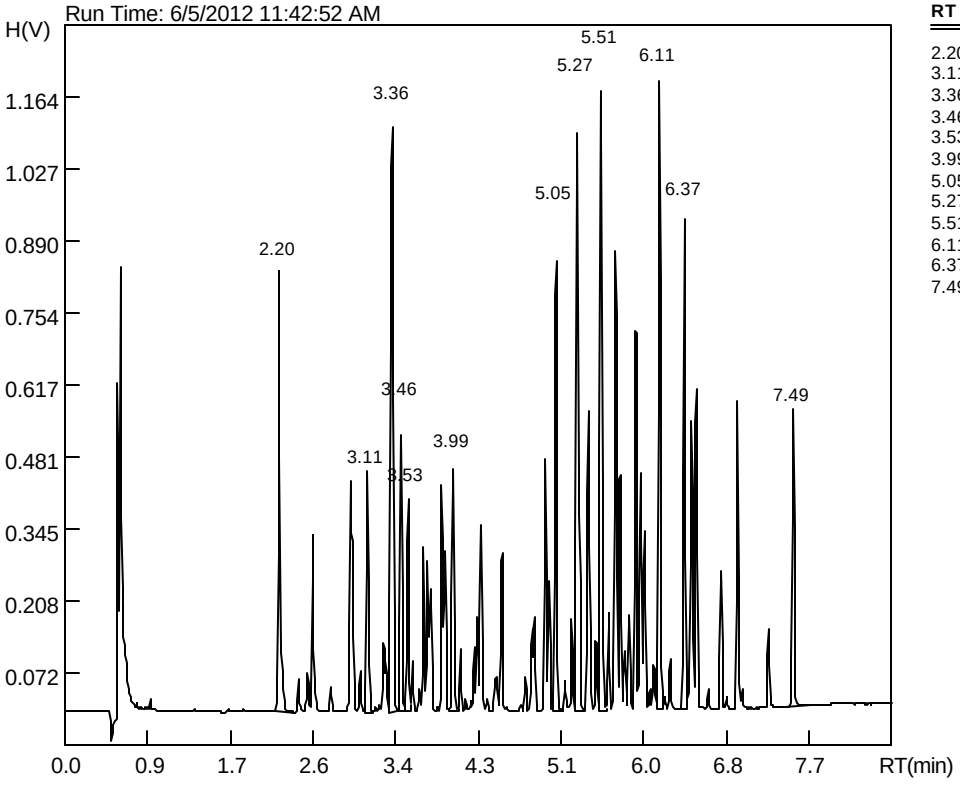
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	17.933	767758
3.11	0.00	1016-1	0.637	433369
3.36	0.00	1016-2	0.621	1417800
3.45	-0.01	1016-3	0.621	569090
3.52	-0.01	1016-4	0.661	429680
3.99	0.01	1016-5	0.629	534353
5.04	0.01	1260-1	0.665	876598
5.26	0.01	1260-2	0.689	1359526
5.51	0.01	1260-3	0.691	1319799
6.11	0.00	1260-4	0.718	1086010
6.37	0.00	1260-5	0.753	987861
7.49	0.02	DCBP	20.918	591421

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5 Analytical Batch: f120605.1

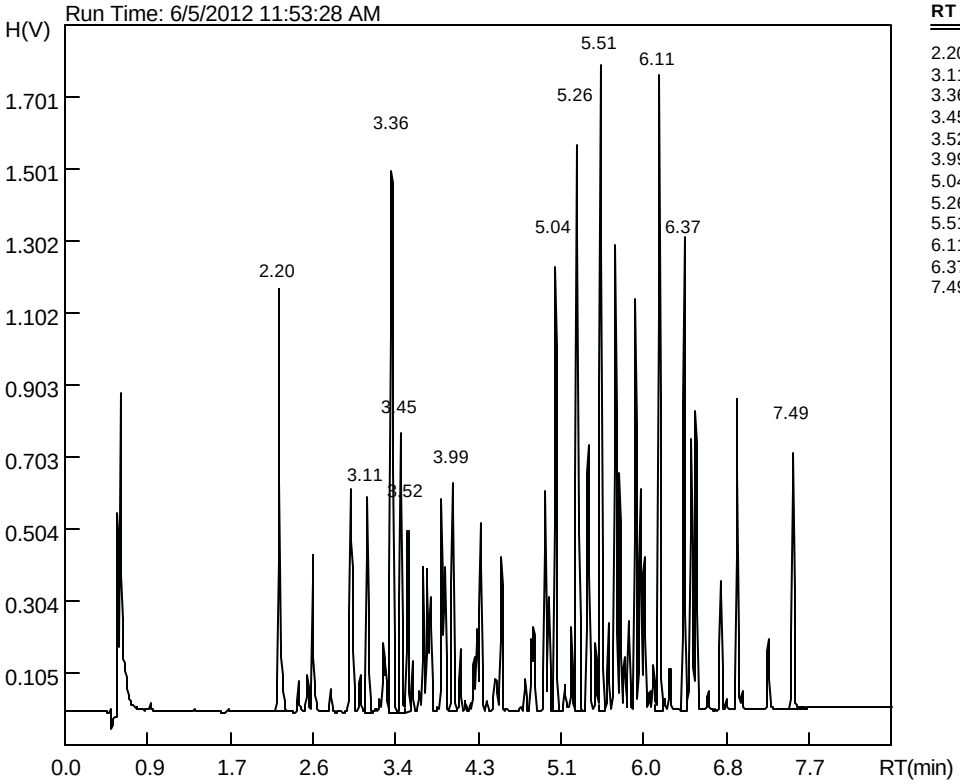
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120605\F120605.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:52 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	25.290	1078491
3.11	0.00	1016-1	0.866	583044
3.36	0.00	1016-2	0.863	1957154
3.46	0.00	1016-3	0.856	778386
3.53	0.00	1016-4	0.857	554151
3.99	0.02	1016-5	0.867	730374
5.05	0.02	1260-1	0.920	1205797
5.27	0.02	1260-2	0.956	1874225
5.51	0.02	1260-3	0.962	1830950
6.11	0.00	1260-4	1.025	1541809
6.37	0.00	1260-5	1.044	1366743
7.49	0.02	DCBP	28.798	808172

File Name: F:\GCECD.DAT\F120605\F120605.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:28 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	34.375	1462178
3.11	0.00	1016-1	1.182	790068
3.36	0.00	1016-2	1.195	2694886
3.45	-0.01	1016-3	1.166	1053558
3.52	-0.01	1016-4	1.168	751784
3.99	0.01	1016-5	1.185	992921
5.04	0.01	1260-1	1.269	1656389
5.26	0.01	1260-2	1.319	2575225
5.51	0.01	1260-3	1.333	2531615
6.11	0.00	1260-4	1.460	2187138
6.37	0.00	1260-5	1.433	1872177
7.49	0.02	DCBP	38.752	1081960

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120628.4

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
fb66120605.ca	**TCX**	L	2.31	2.36	2.41	1.50	3.00	9.00	15.00	21.00	30.00	0.058	0.040
				26.3	1.00	0.08	0.06	0.05	0.05	0.04	0.04		
	1016-1	L	3.01	3.06	3.11	0.05	0.10	0.30	0.50	0.70	1.00	0.036	0.583
				27.8	1.00	1.19	0.86	0.72	0.68	0.65	0.61		
	1016-2	L	3.44	3.49	3.54	0.05	0.10	0.30	0.50	0.70	1.00	0.086	1.183
				32.2	1.00	2.68	1.88	1.52	1.40	1.33	1.25		
	1016-3	L	3.81	3.86	3.91	0.05	0.10	0.30	0.50	0.70	1.00	0.138	2.534
				30.8	1.00	5.38	3.70	3.01	2.82	2.79	2.64		
	1016-4	L	3.97	4.02	4.07	0.05	0.10	0.30	0.50	0.70	1.00	0.066	0.946
				33.4	1.00	2.18	1.47	1.20	1.10	1.06	0.99		
	1016-5	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.721
				30.7	1.00	1.57	1.08	0.91	0.83	0.82	0.75		
	1260-1	L	5.56	5.61	5.66	0.05	0.10	0.30	0.50	0.70	1.00	0.105	1.632
				32.4	1.00	3.64	2.54	2.02	1.87	1.81	1.72		
	1260-2	L	5.64	5.69	5.74	0.05	0.10	0.30	0.50	0.70	1.00	0.104	1.712
				32.5	1.00	3.80	2.57	2.09	1.94	1.89	1.80		
	1260-3	L	6.05	6.10	6.15	0.05	0.10	0.30	0.50	0.70	1.00	0.095	1.698
				30.1	1.00	3.56	2.55	2.05	1.88	1.86	1.78		
	1260-4	L	6.54	6.59	6.64	0.05	0.10	0.30	0.50	0.70	1.00	0.048	1.827
				26.7	1.00	3.36	2.30	1.88	1.90	1.91	1.89		
	1260-5	L	6.96	7.01	7.06	0.05	0.10	0.30	0.50	0.70	1.00	0.088	1.607
				29.7	1.00	3.34	2.36	1.93	1.79	1.76	1.68		
	DCBP	L	8.11	8.16	8.21	1.50	3.00	9.00	15.00	21.00	30.00	0.070	0.032
				32.4	1.00	0.07	0.05	0.04	0.04	0.04	0.03		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): fb66120605.cal / mean %rsd: 30.4

File Name: F:\gceed.dat\Methods\Fb66120605.cal
Version: 2

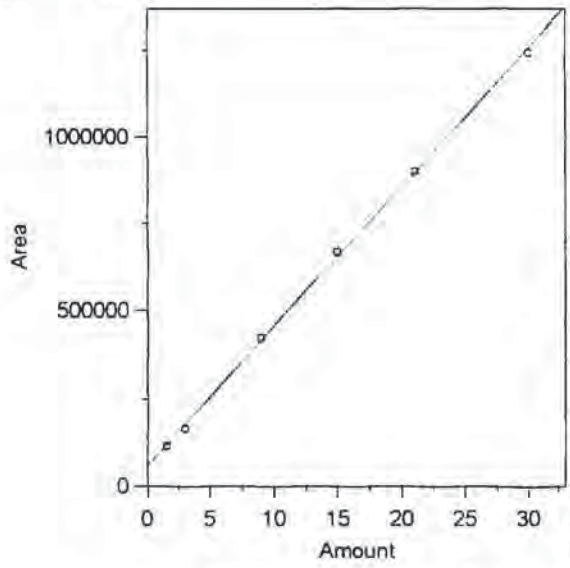
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.358 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

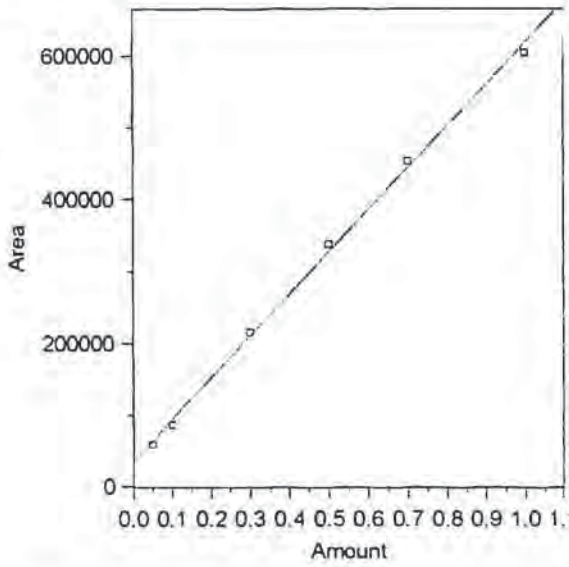
Single peak quantification by area

Y = 39870.61 X + 58053.06

Linear fit with equal weighting
Coefficient of determination: 0.9994379
Average error: 2.386%
Average CF: 51370.67
RSD: 26.263%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	115679.1	77119.4	-1.850	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	164970.6	54990.2	-7.145	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	424850.7	47205.63	1.910	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	668667.4	44577.82	1.914	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	900818.4	42896.11	0.612	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1243046	41434.87	-0.887	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

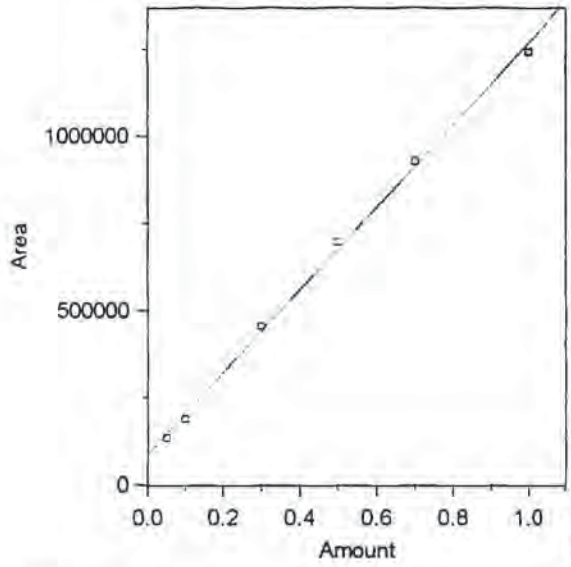
2 1016-1



Expected retention time:	3.057 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 582699.6 X + 35616.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9977939
Average error:	4.476%
Average CF:	782959.7
RSD:	27.844%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	59555.11	1191102	-8.024	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	85830.45	858304.5	-8.580	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	216043.1	720143.6	2.669	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	337309.8	674619.6	3.164	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	453779.1	648255.9	2.316	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	605332.5	605332.5	-2.100	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

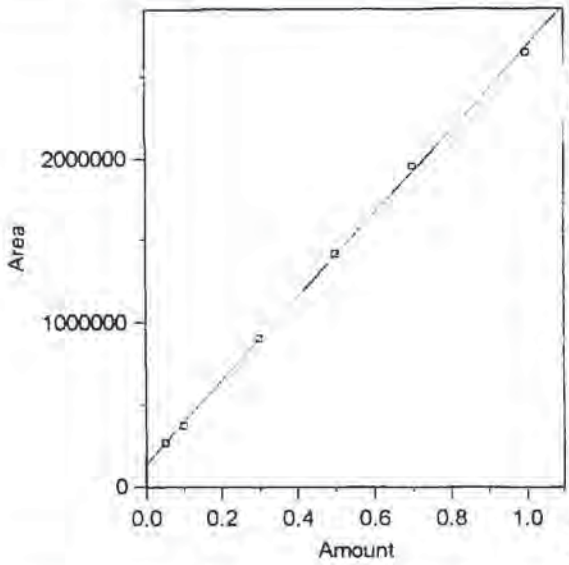
3 1016-2



Expected retention time:	3.49 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1182923 X + 86069.77	
Linear fit with equal weighting	
Coefficient of determination:	0.9980066
Average error:	4.316%
Average CF:	1674559
RSD:	32.211%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	133909.2	2678184	-7.786	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	187949.5	1879495	-8.031	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	456012.6	1520042	3.417	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	697347.2	1394694	2.925	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	930979	1329970	1.845	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1244968	1244968	-1.893	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

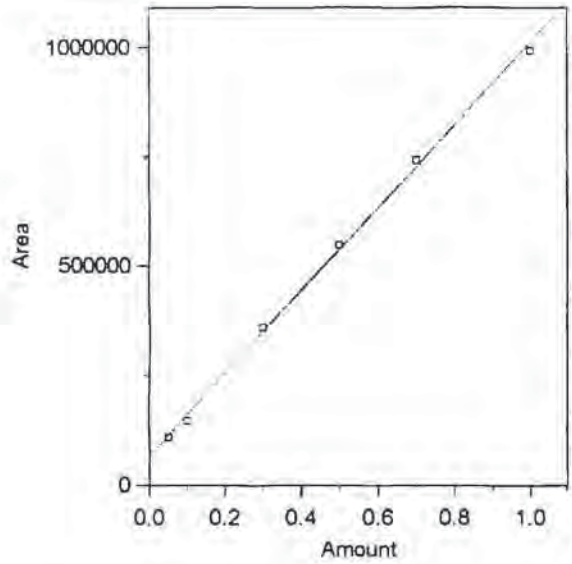
4 1016-3



Expected retention time:	3.858 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2533522 X + 138452.1	
Linear fit with equal weighting	
Coefficient of determination:	0.9993595
Average error:	1.799%
Average CF:	3389695
RSD:	30.843%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	269174.6	5383492	1.526	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	369980.5	3699805	-5.570	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	902096.4	3006988	0.399	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	1408728	2817456	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1950344	2786206	2.010	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	2644221	2644221	-1.039	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

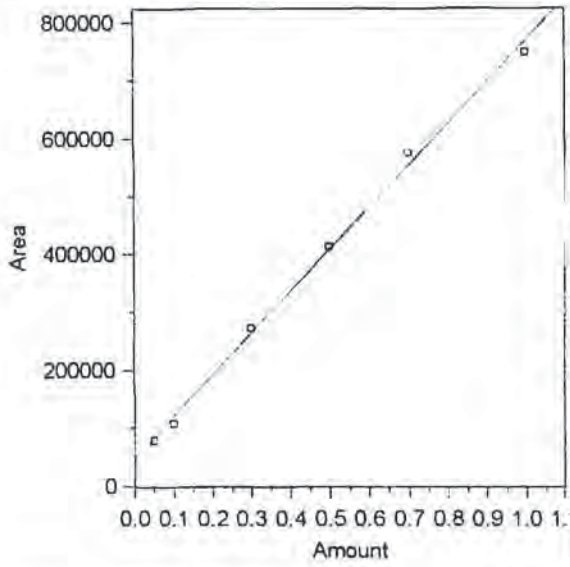
5 1016-4



Expected retention time:	4.02 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 945847.3 X + 66005.65	
Linear fit with equal weighting	
Coefficient of determination:	0.9983203
Average error:	3.567%
Average CF:	1332650
RSD:	33.355%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	108760.3	2175206	-4.005	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	146655.9	1466559	-8.677	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	359501.2	1198337	2.785	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	549015.4	1098031	1.872	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	744732.1	1063903	2.284	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	993864.6	993864.6	-1.778	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

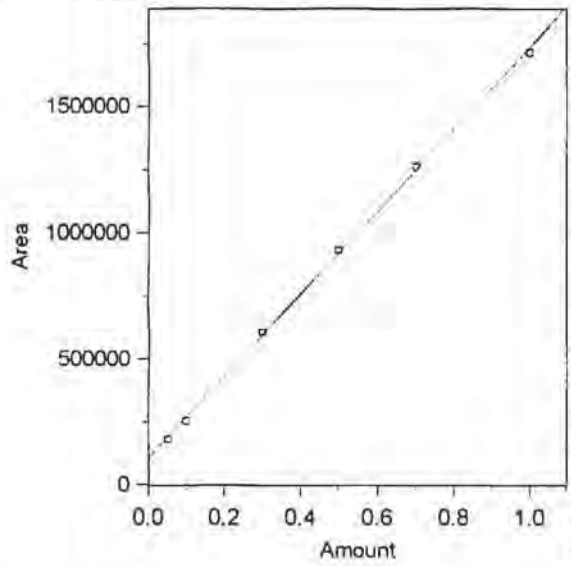
6 1016-5



Expected retention time:	4.151 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 721472.8 X + 47476.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9968299
Average error:	4.415%
Average CF:	992972
RSD:	30.730%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	78541.68	1570834	-5.995	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	108179	1081790	-9.568	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	272539	908463.3	3.266	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	412918.5	825837	1.153	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	574749.9	821071.3	4.026	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	749836.9	749836.9	-2.486	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

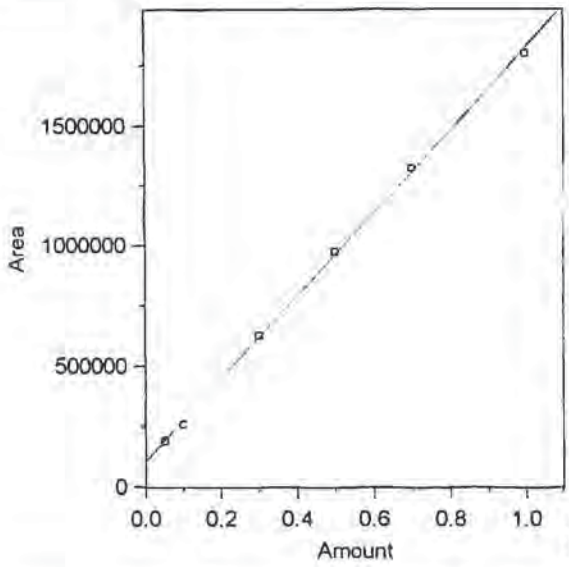
7 1260-1



Expected retention time:	5.611 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1631628 X + 105405.6	
Linear fit with equal weighting	
Coefficient of determination:	0.9994005
Average error:	2.230%
Average CF:	2264340
RSD:	32.401%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	181863.8	3637276	-2.740	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	254270.5	2542705	-5.324	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	604824.4	2016081	1.669	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	933124.7	1866249	1.292	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1263650	1805214	1.291	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1718515	1718515	-1.066	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

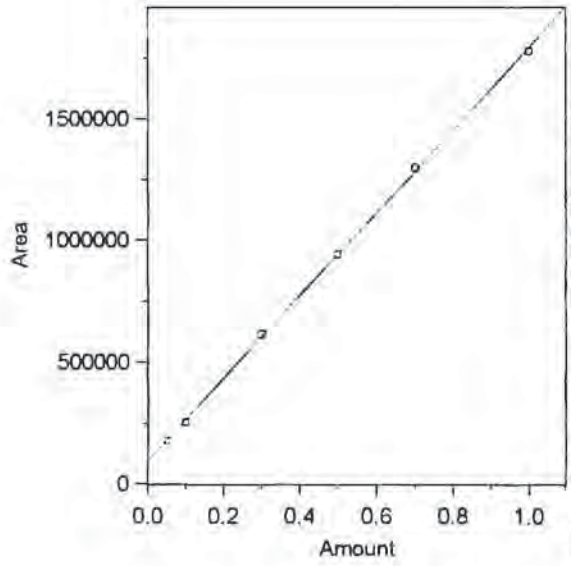
8 1260-2



Expected retention time:	5.692 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1711836 X + 104367.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9993424
Average error:	1.976%
Average CF:	2347058
RSD:	32.483%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	190027.6	3800552	0.036	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	256753.5	2567535	-6.822	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	626241.9	2087473	1.347	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	970528.4	1941057	1.067	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1322333	1889047	1.511	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1796684	1796684	-1.075	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

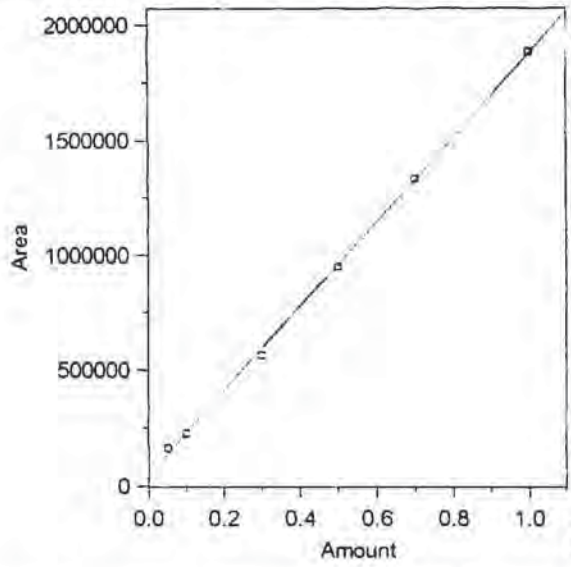
9 1260-3



Expected retention time:	6.098 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1698324 X + 94958.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9996811
Average error:	1.430%
Average CF:	2280111
RSD:	30.080%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	178024.2	3560484	-1.029	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	255083.7	2550837	-3.666	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	614370.1	2047900	1.640	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	941372.3	1882745	-0.291	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1300216	1857452	1.280	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1781245	1781245	-0.671	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

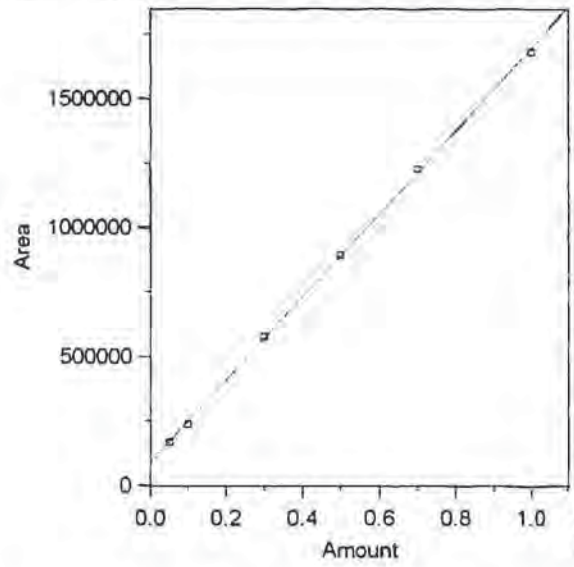
10 1260-4



Expected retention time:	6.591 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1827386 X + 48418.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9990682
Average error:	4.726%
Average CF:	2206297
RSD:	26.718%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	168141.7	3362834	20.283	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	229974.8	2299748	-0.512	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	564488.9	1881630	-5.388	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	950985.5	1901971	-1.156	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1334904	1907006	0.551	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1884593	1884593	0.468	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

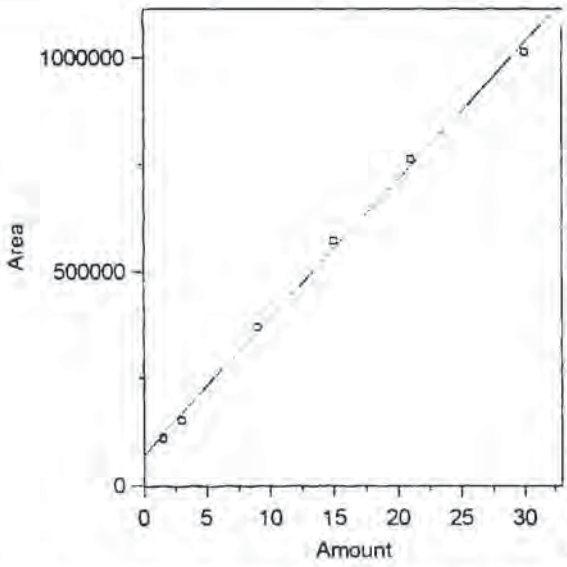
11 1260-5



Expected retention time:	7.014 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1606532 X + 87831.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9995843
Average error:	1.589%
Average CF:	2142375
RSD:	29.693%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	167108.9	3342178	-0.624	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	236188.5	2361885	-4.948	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	578119.2	1927064	1.462	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	893328.3	1786657	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1229462	1756374	1.407	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1680090	1680090	-0.842	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

12 DCBP



Expected retention time:	8.156 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 32186.62 X + 69759.48	
Linear fit with equal weighting	
Coefficient of determination:	0.9976669
Average error:	4.407%
Average CF:	45480.46
RSD:	32.426%

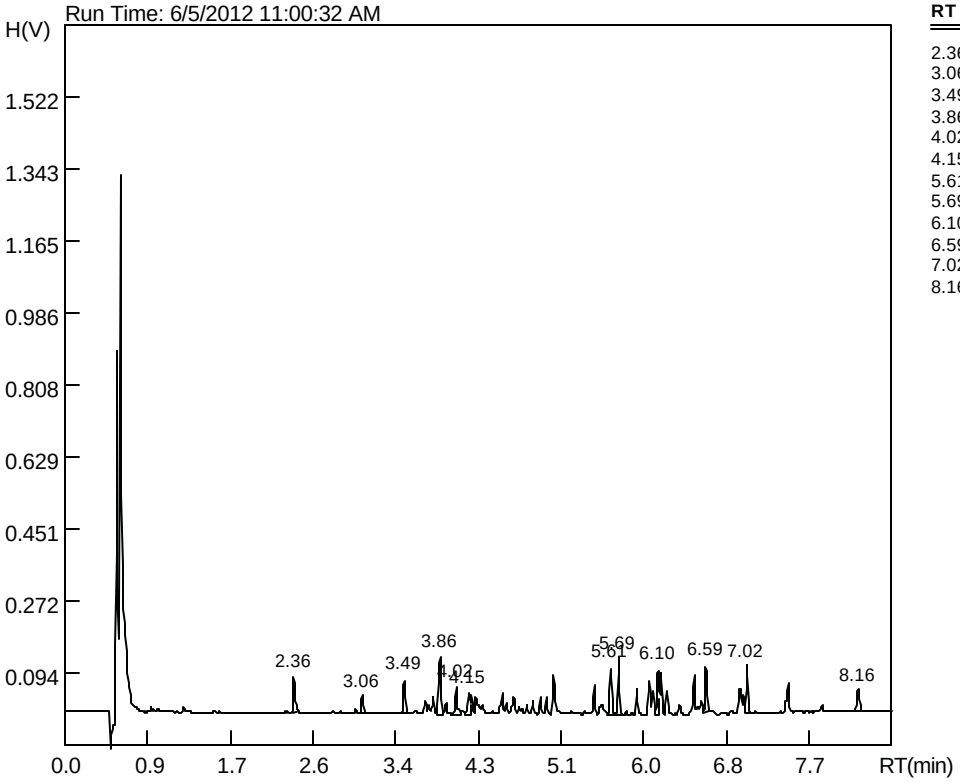
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	109747.5	73165	-7.025	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	151490.5	50496.83	-8.916	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	370306.1	41145.12	3.023	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	569490.9	37966.06	3.064	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	762846.1	36326.01	2.302	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1013512	33783.73	-2.110	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

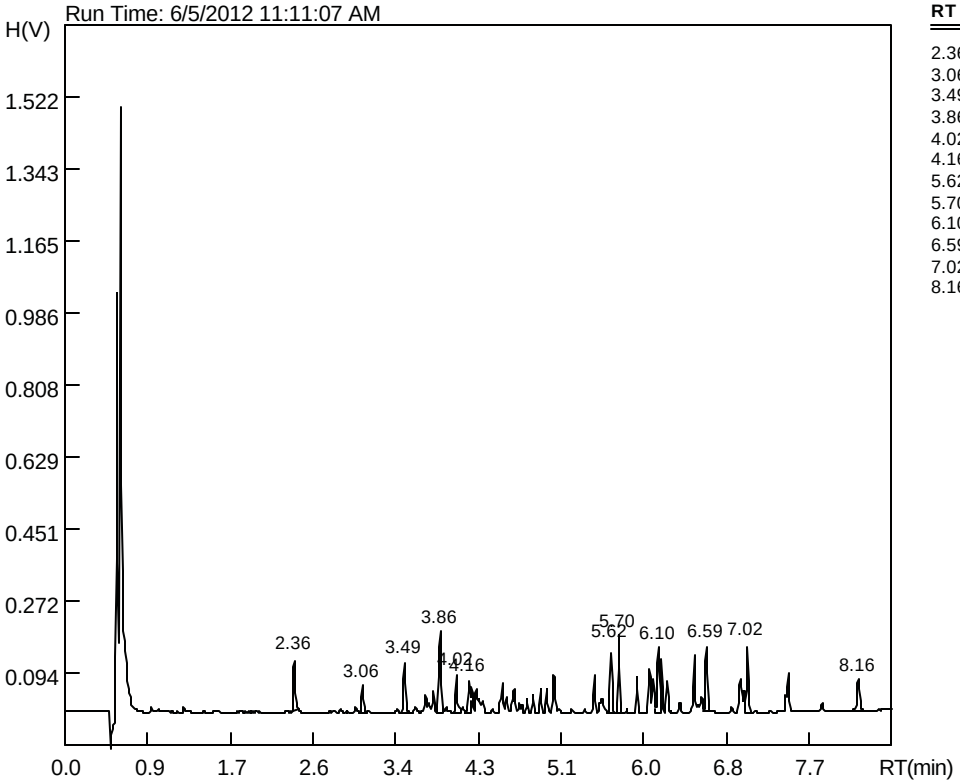
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:32 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	1.445	115679
3.06	0.00	1016-1	0.041	59555
3.49	0.00	1016-2	0.040	133909
3.86	0.00	1016-3	0.052	269175
4.02	0.00	1016-4	0.045	108760
4.15	0.00	1016-5	-0.051	78542
5.61	0.00	1260-1	0.047	181864
5.69	0.00	1260-2	0.050	190028
6.10	0.00	1260-3	0.049	178024
6.59	0.00	1260-4	0.066	168142
7.02	0.00	1260-5	0.049	167109
8.16	0.00	DCBP	1.242	109748

File Name: F:\GCECD.DAT\F120605\F120605B.03R.BND
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:07 AM



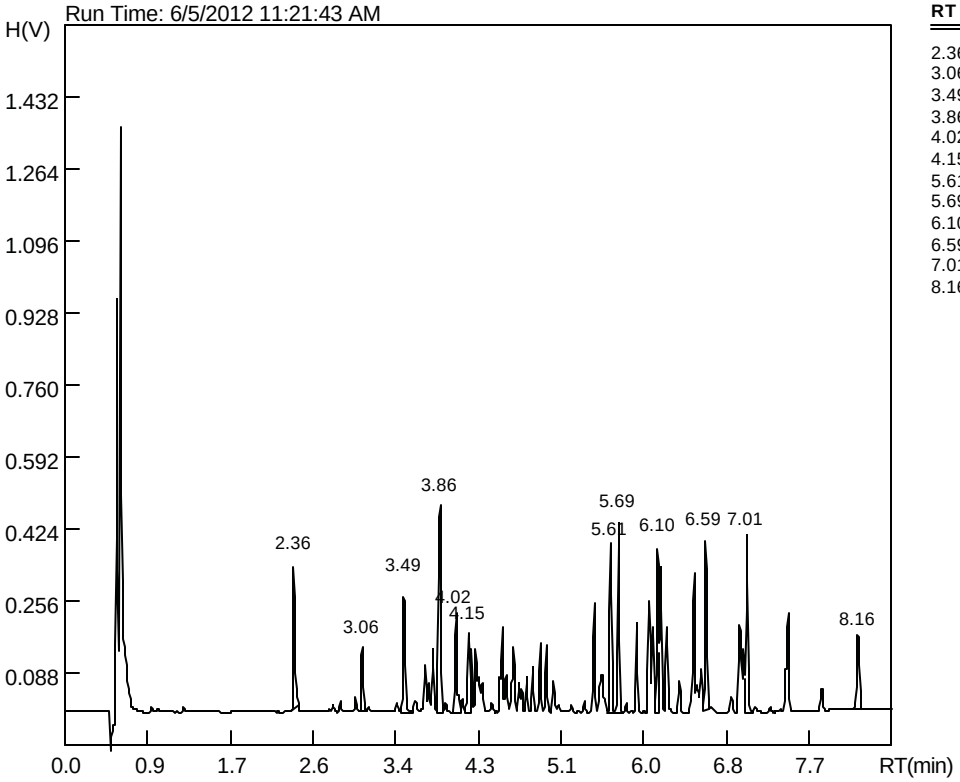
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	2.682	164971
3.06	0.00	1016-1	0.086	85830
3.49	0.00	1016-2	0.086	187950
3.86	0.00	1016-3	0.091	369981
4.02	0.00	1016-4	0.085	146656
4.16	0.01	1016-5	-0.006	108179
5.62	0.00	1260-1	0.091	254271
5.70	0.00	1260-2	0.089	256754
6.10	0.00	1260-3	0.094	255084
6.59	0.00	1260-4	0.099	229975
7.02	0.00	1260-5	0.092	236189
8.16	0.00	DCBP	2.539	151491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

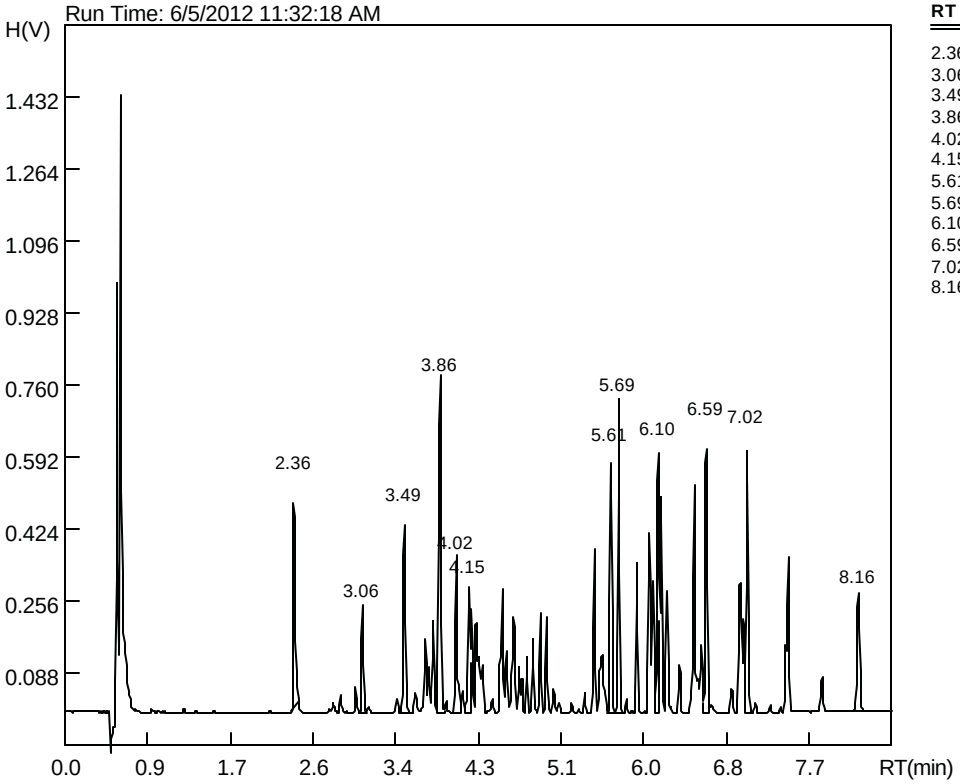
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:43 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	9.200	424851
3.06	0.00	1016-1	0.310	216043
3.49	0.00	1016-2	0.313	456013
3.86	0.00	1016-3	0.301	902096
4.02	0.00	1016-4	0.310	359501
4.15	0.00	1016-5	0.254	272539
5.61	0.00	1260-1	0.306	604824
5.69	0.00	1260-2	0.305	626242
6.10	0.00	1260-3	0.306	614370
6.59	0.00	1260-4	0.282	564489
7.01	0.00	1260-5	0.305	578119
8.16	0.00	DCBP	9.338	370306

File Name: F:\GCECD.DAT\F120605\F120605B.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:18 AM



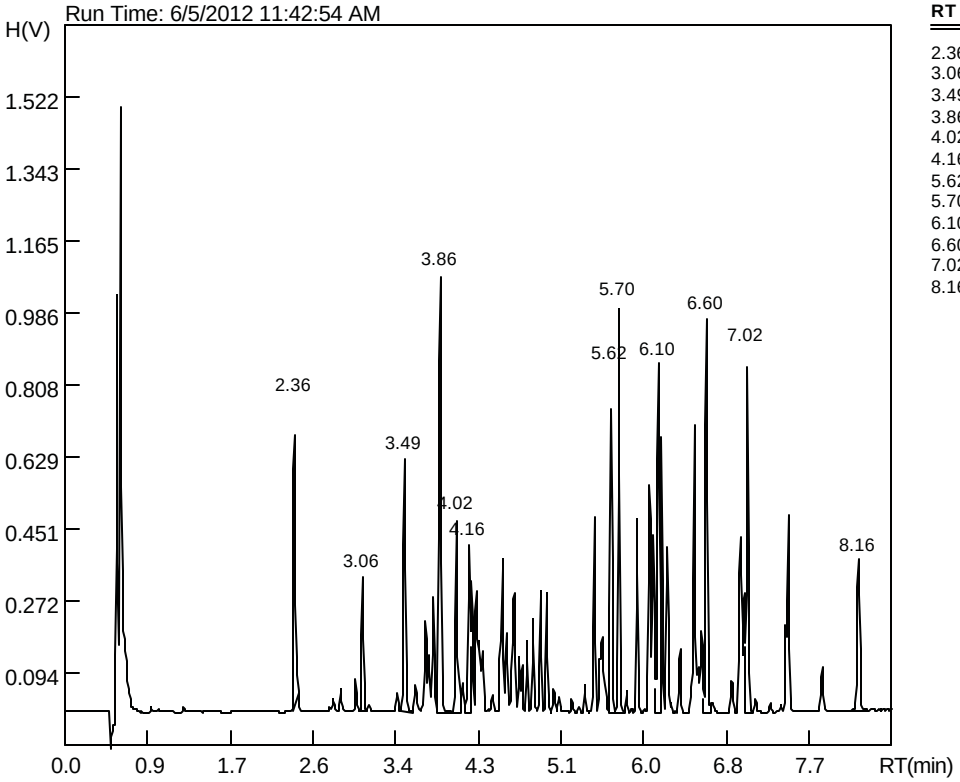
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	15.315	668667
3.06	0.00	1016-1	0.518	337310
3.49	0.00	1016-2	0.517	697347
3.86	0.00	1016-3	0.501	1408728
4.02	0.00	1016-4	0.511	549015
4.15	0.00	1016-5	0.449	412919
5.61	0.00	1260-1	0.507	933125
5.69	0.00	1260-2	0.506	970528
6.10	0.00	1260-3	0.498	941372
6.59	0.00	1260-4	0.494	950986
7.02	0.00	1260-5	0.501	893328
8.16	0.00	DCBP	15.526	569491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

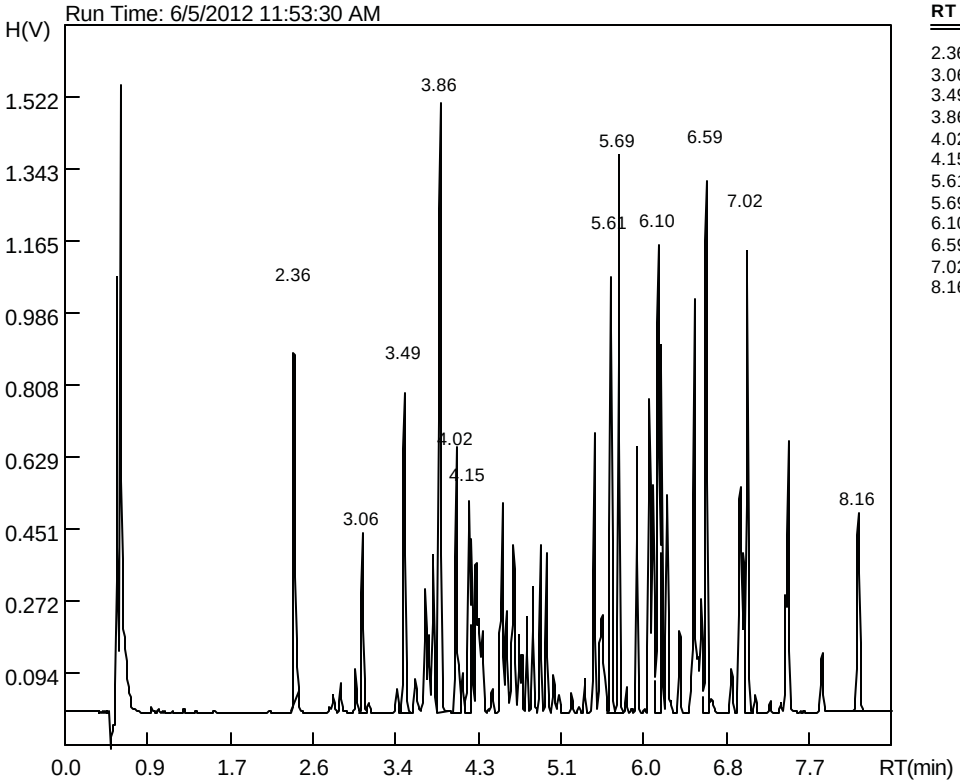
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:54 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	21.138	900818
3.06	0.00	1016-1	0.718	453779
3.49	0.00	1016-2	0.714	930979
3.86	0.00	1016-3	0.715	1950344
4.02	0.00	1016-4	0.718	744732
4.16	0.01	1016-5	0.691	574750
5.62	0.00	1260-1	0.710	1263650
5.70	0.00	1260-2	0.711	1322333
6.10	0.00	1260-3	0.710	1300216
6.60	0.00	1260-4	0.704	1334904
7.02	0.00	1260-5	0.711	1229462
8.16	0.00	DCBP	21.533	762846

File Name: F:\GCECD.DAT\F120605\F120605B.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:30 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	29.721	1243046
3.06	0.00	1016-1	0.978	605333
3.49	0.00	1016-2	0.980	1244968
3.86	0.00	1016-3	0.989	2644221
4.02	0.00	1016-4	0.981	993865
4.15	0.00	1016-5	0.952	749837
5.61	0.00	1260-1	0.989	1718515
5.69	0.00	1260-2	0.989	1796684
6.10	0.00	1260-3	0.993	1781245
6.59	0.00	1260-4	1.005	1884593
7.02	0.00	1260-5	0.991	1680090
8.16	0.00	DCBP	29.321	1013512

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120628.3

Filename	LIMS ID	Run Time	CVM Component	? RT/Win.	CVM Conc.	CVM %D/ UCL
f120628.02r	sc1660.01	06/28/12 09:36	1016-1	0.01/0.05	0.522/0.500	4.4
			1016-2	0.01/0.05	0.482/0.500	3.6
			1016-3	0.01/0.05	0.500/0.500	0.0
			1016-4	0.01/0.05	0.470/0.500	6.0
			1016-5	0.01/0.05	0.546/0.500	9.2
			1260-1	0.01/0.05	0.496/0.500	0.8
			1260-2	0.01/0.05	0.496/0.500	0.8
			1260-3	0.00/0.05	0.484/0.500	3.2
			1260-4	0.00/0.05	0.445/0.500	11.0
			1260-5	0.00/0.05	0.492/0.500	1.6
					Average	**1.3/ 20.0**
f120628.23r	sc1660.02	06/28/12 16:26	1016-1	0.01/0.05	0.586/0.500	17.2
			1016-2	0.02/0.05	0.526/0.500	5.2
			1016-3	0.02/0.05	0.548/0.500	9.6
			1016-4	0.02/0.05	0.521/0.500	4.2
			1016-5	0.01/0.05	0.602/0.500	20.4
			1260-1	0.01/0.05	0.541/0.500	8.2
			1260-2	0.01/0.05	0.537/0.500	7.4
			1260-3	0.01/0.05	0.520/0.500	4.0
			1260-4	0.01/0.05	0.489/0.500	2.2
			1260-5	0.00/0.05	0.493/0.500	1.4
					Average	**7.3/ 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120628.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	LIMS ID	Run Time	CVM Component	? RT/Win.	CVM Conc.	CVM %D/ UCL
f120628b.02	sc1660.01	06/28/12 09:36	1016-1	0.01/0.05	0.497/0.500	0.6
			1016-2	0.01/0.05	0.514/0.500	2.8
			1016-3	0.01/0.05	0.513/0.500	2.6
			1016-4	0.01/0.05	0.512/0.500	2.4
			1016-5	0.01/0.05	0.491/0.500	1.8
			1260-1	0.01/0.05	0.484/0.500	3.2
			1260-2	0.01/0.05	0.494/0.500	1.2
			1260-3	0.01/0.05	0.482/0.500	3.6
			1260-4	0.01/0.05	0.469/0.500	6.2
			1260-5	0.01/0.05	0.450/0.500	10.0
					Average	**1.9/ 20.0**
f120628b.23	sc1660.02	06/28/12 16:26	1016-1	0.01/0.05	0.538/0.500	7.6
			1016-2	0.01/0.05	0.562/0.500	12.4
			1016-3	0.01/0.05	0.565/0.500	13.0
			1016-4	0.01/0.05	0.558/0.500	11.6
			1016-5	0.01/0.05	0.539/0.500	7.8
			1260-1	0.01/0.05	0.518/0.500	3.6
			1260-2	0.01/0.05	0.527/0.500	5.4
			1260-3	0.01/0.05	0.514/0.500	2.8
			1260-4	0.01/0.05	0.510/0.500	2.0
			1260-5	0.01/0.05	0.492/0.500	1.6
					Average	**6.5/ 20.0**

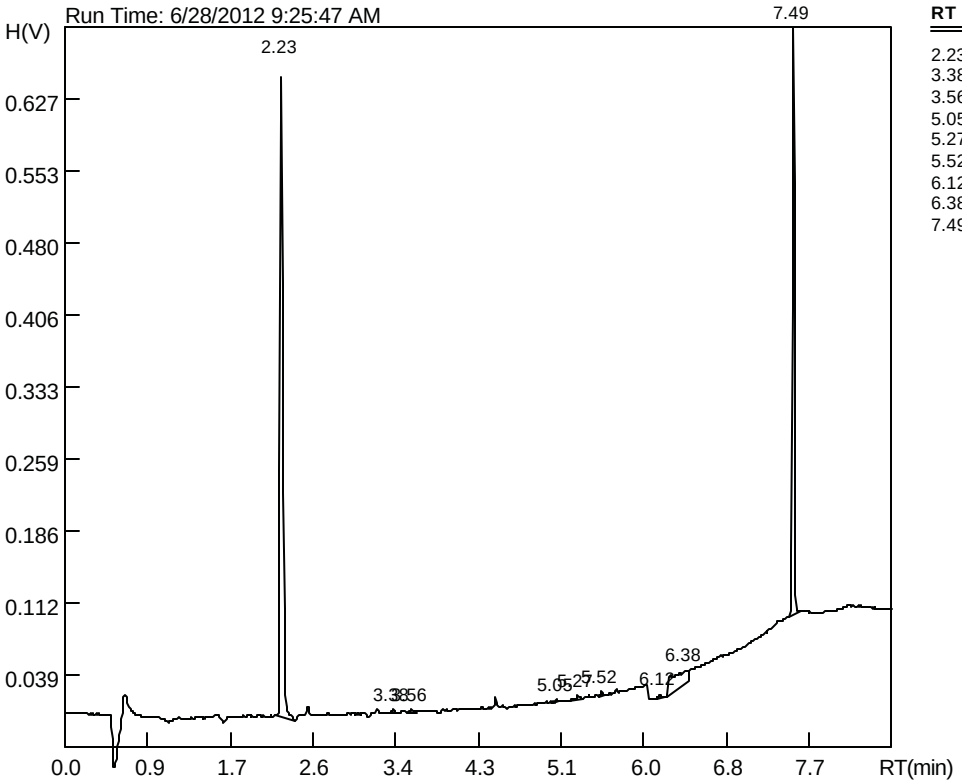
NOTES
*: Calibration check drift outside of method-established control limits

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

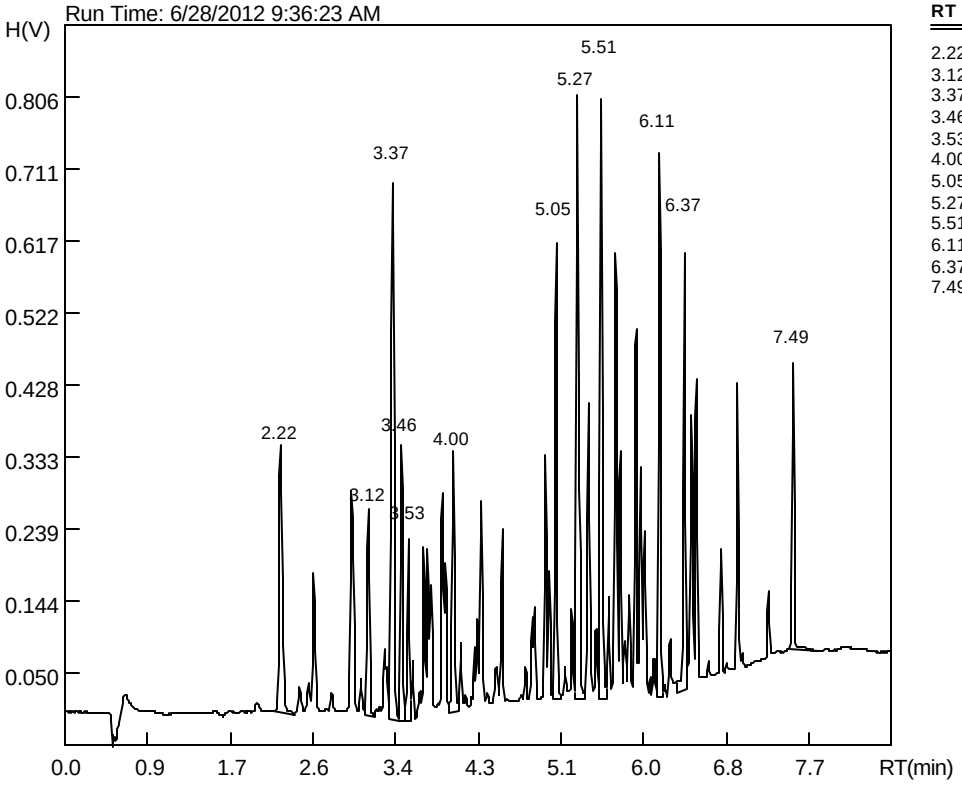
Analytical Batch: f120628.3

File Name: F:\GCECD.DAT\F120628\F120628.01R.BND
Comments: SBLK-R.01
Run Time: 6/28/2012 9:25:47 AM



RT	dT	Name	Amt.	Area
2.23	0.02	TCX	25.860	1283312
3.38	0.02	1016-2	-0.040	7411
3.56	0.03	1016-4	-0.081	6572
5.05	0.01	1260-1	-0.044	4019
5.27	0.01	1260-2	-0.040	13258
5.52	0.01	1260-3	-0.036	7063
6.12	0.01	1260-4	-0.022	4478
6.38	0.01	1260-5	0.059	184967
7.49	0.00	DCBP	23.272	867581

File Name: F:\GCECD.DAT\F120628\F120628.02R.BND
Comments: SC1660.01 0.5ppm 5/31/12
Run Time: 6/28/2012 9:36:23 AM



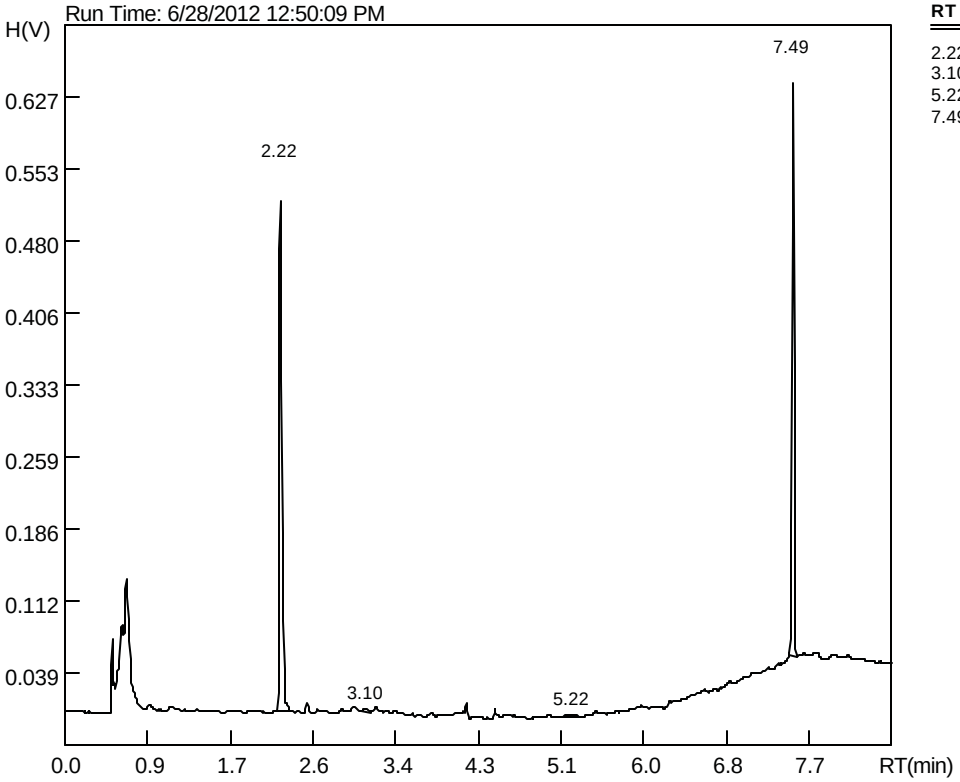
RT	dT	Name	Amt.	Area
2.22	0.02	TCX	16.931	857804
3.12	0.01	1016-1	0.522	438029
3.37	0.01	1016-2	0.482	1366014
3.46	0.01	1016-3	0.500	559048
3.53	0.01	1016-4	0.470	391416
4.00	0.01	1016-5	0.546	570365
5.05	0.00	1260-1	0.496	865076
5.27	0.00	1260-2	0.496	1343933
5.51	0.00	1260-3	0.484	1281797
6.11	0.00	1260-4	0.445	993897
6.37	0.00	1260-5	0.492	968832
7.49	0.00	DCBP	14.535	563367

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

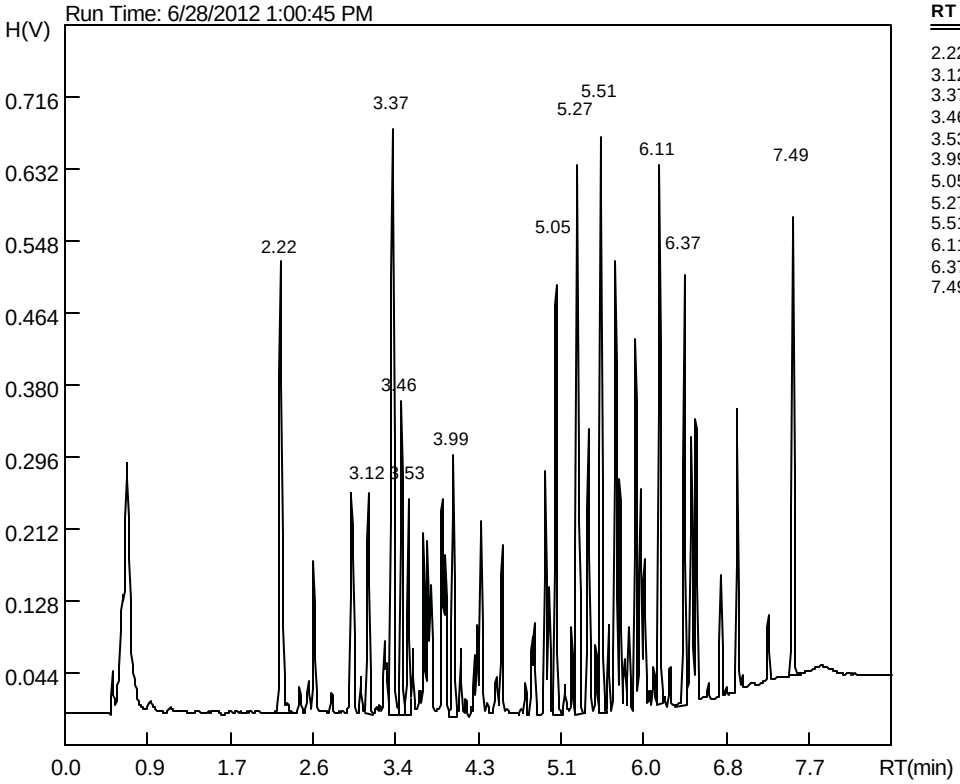
Analytical Batch: f120628.3

File Name: F:\GCECD.DAT\F120628\F120628.12R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120628s01
Run Time: 6/28/2012 12:50:09 PM



RT	dT	Name	Amt.	Area
2.22	0.01	TCX	20.009	1004465
3.10	-0.01	1016-1	-0.035	13669
5.22	-0.04	1260-2	-0.038	17902
7.49	0.00	DCBP	22.363	835914

File Name: F:\GCECD.DAT\F120628\F120628.13R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120628s01
Run Time: 6/28/2012 1:00:45 PM



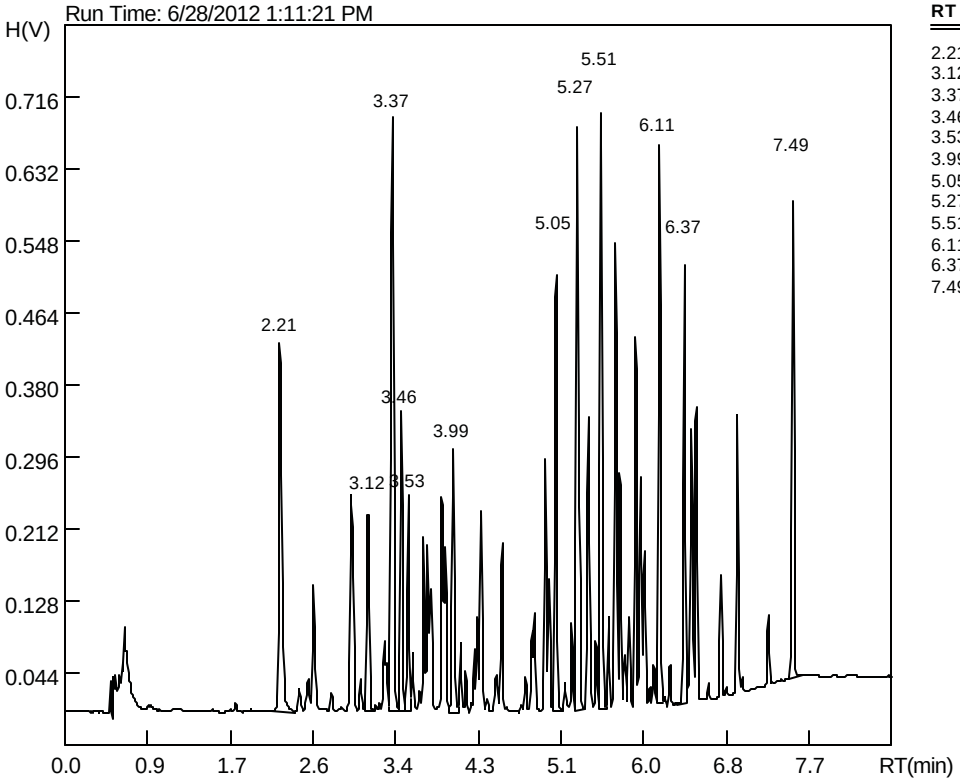
RT	dT	Name	Amt.	Area
2.22	0.02	TCX	20.068	1007276
3.12	0.01	1016-1	0.440	375881
3.37	0.01	1016-2	0.448	1277894
3.46	0.01	1016-3	0.464	523037
3.53	0.01	1016-4	0.458	382963
3.99	0.00	1016-5	0.453	481717
5.05	0.00	1260-1	0.428	757469
5.27	0.00	1260-2	0.408	1125901
5.51	0.00	1260-3	0.396	1065479
6.11	0.00	1260-4	0.372	840285
6.37	0.00	1260-5	0.398	798470
7.49	0.00	DCBP	22.898	854547

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: f120628.3

File Name: F:\GCECD.DAT\F120628\F120628.14R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120628s01
Run Time: 6/28/2012 1:11:21 PM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	19.917	1000119
3.12	0.01	1016-1	0.441	376484
3.37	0.01	1016-2	0.448	1276620
3.46	0.01	1016-3	0.456	514282
3.53	0.01	1016-4	0.432	364698
3.99	0.00	1016-5	0.476	503513
5.05	0.00	1260-1	0.438	772089
5.27	0.00	1260-2	0.428	1175771
5.51	0.00	1260-3	0.416	1114413
6.11	0.00	1260-4	0.390	877207
6.37	0.00	1260-5	0.408	817087
7.49	0.00	DCBP	22.730	848682

File Name: F:\GCECD.DAT\F120628\F120628.19R.BND
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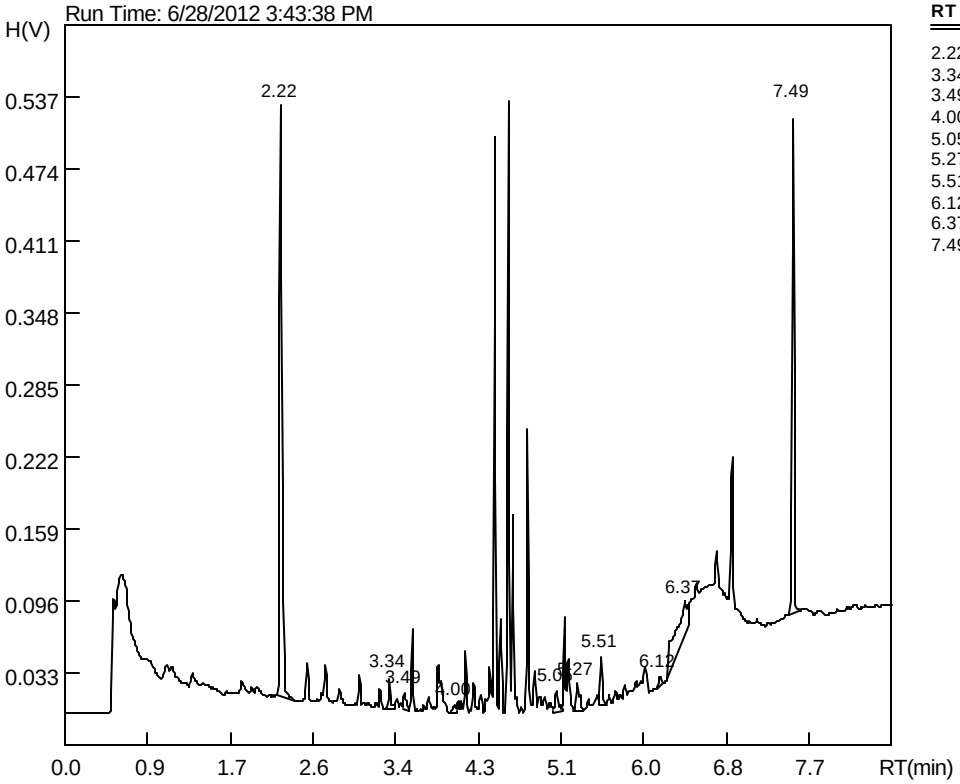
Run Time: 6/28/2012 3:43:38 PM



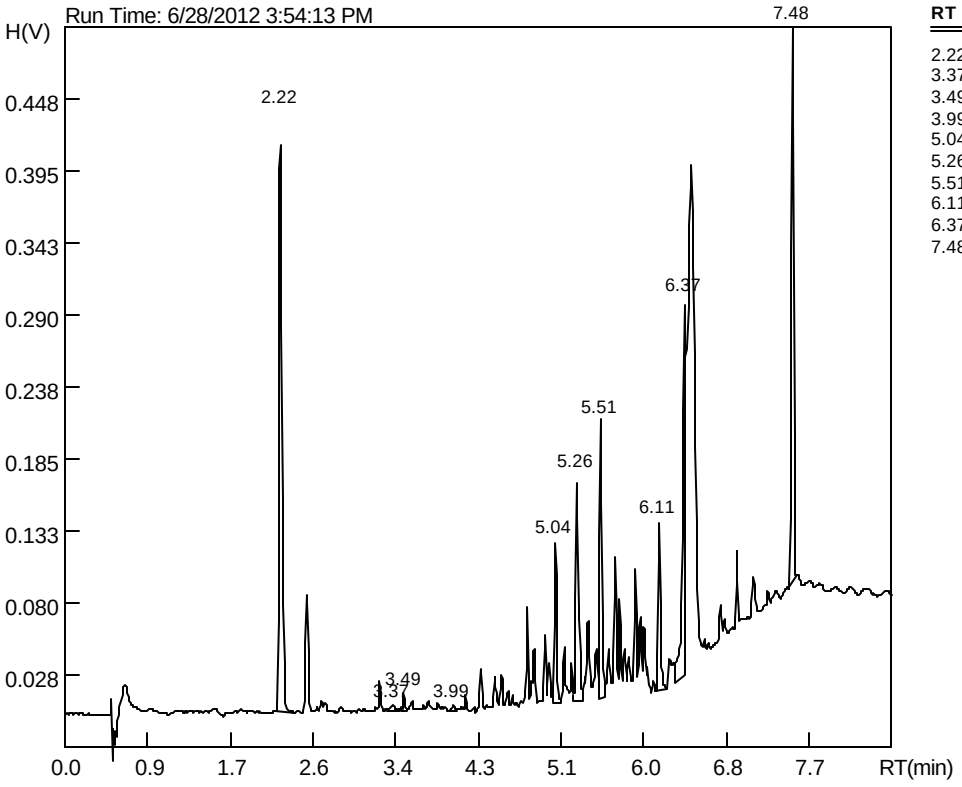
RT	dT	Name	Amt.	Area
2.22	0.02	TCX	17.593	889356
3.34	-0.02	1016-2	-0.026	44072
3.49	-0.03	1016-4	-0.049	28439
4.00	0.01	1016-5	-0.034	15115
5.05	0.01	1260-1	-0.018	45386
5.27	0.00	1260-2	-0.025	51994
5.51	0.00	1260-3	-0.013	63586
6.12	0.00	1260-4	-0.016	17442
6.37	0.01	1260-5	0.119	294420
7.49	0.00	DCBP	15.784	606864

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

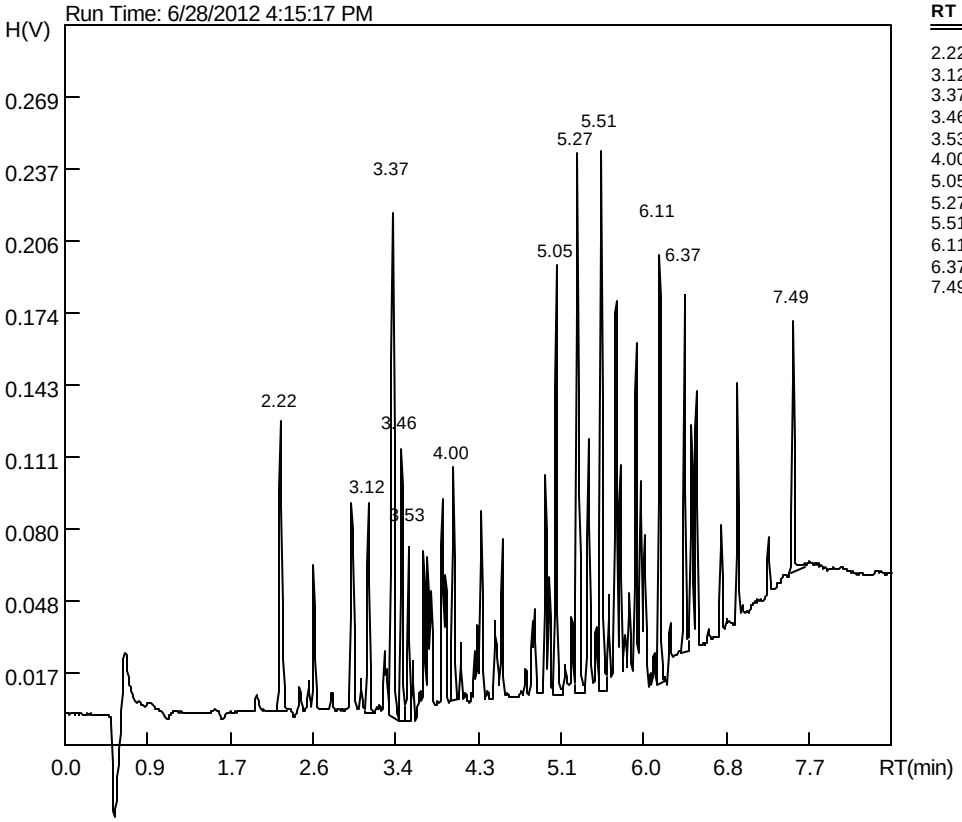
Analytical Batch: f120628.3

File Name: F:\GCECD.DAT\F120628\F120628.20R.BND
Comments: s52983.03 20.0g s/1 ID:PA120628s01
Run Time: 6/28/2012 3:54:13 PM



RT	dT	Name	Amt.	Area
2.22	0.01	TCX	17.978	907692
3.37	0.00	1016-2	-0.036	17972
3.49	0.03	1016-3	-0.028	20839
3.99	0.00	1016-5	-0.043	5867
5.04	0.00	1260-1	0.064	175986
5.26	0.00	1260-2	0.075	298075
5.51	0.00	1260-3	0.093	322751
6.11	0.00	1260-4	0.065	190012
6.37	0.00	1260-5	0.293	609384
7.48	0.00	DCBP	17.530	667659

File Name: F:\GCECD.DAT\F120628\F120628.22R.BND
Comments: ss1660.01 0.1ppm 5/31/12
Run Time: 6/28/2012 4:15:17 PM



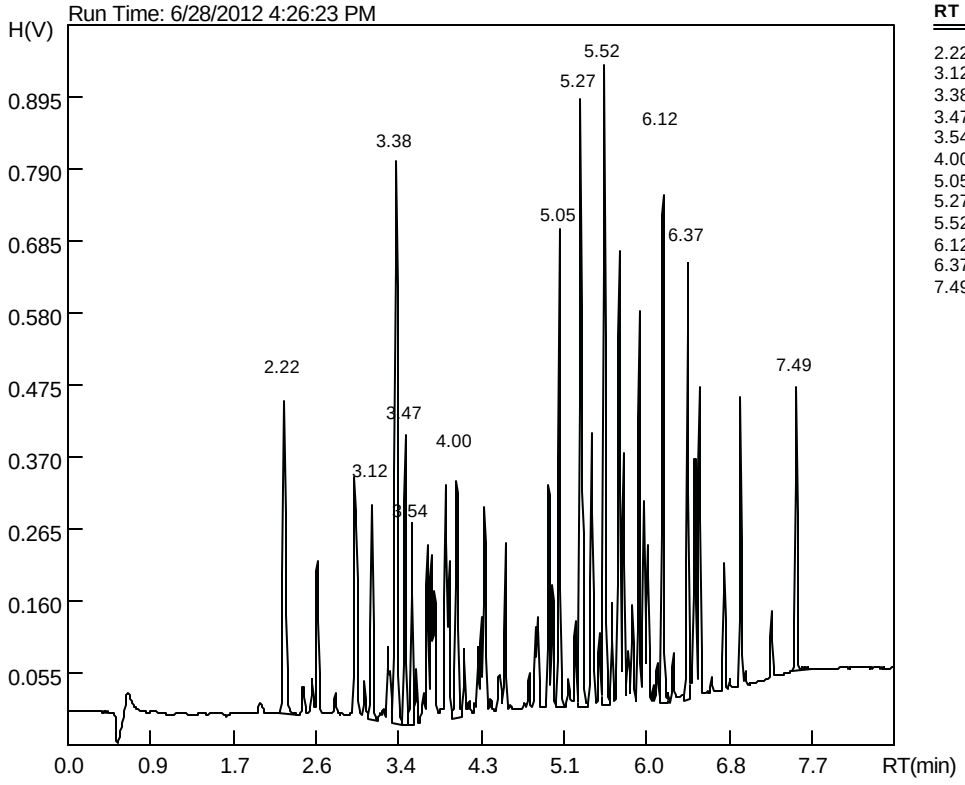
RT	dT	Name	Amt.	Area
2.22	0.01	TCX	3.933	238353
3.12	0.01	1016-1	0.119	131100
3.37	0.01	1016-2	0.121	427467
3.46	0.01	1016-3	0.128	179509
3.53	0.01	1016-4	0.090	125743
4.00	0.01	1016-5	0.109	151253
5.05	0.00	1260-1	0.120	266339
5.27	0.01	1260-2	0.119	407001
5.51	0.00	1260-3	0.117	382911
6.11	0.00	1260-4	0.106	275749
6.37	0.00	1260-5	0.095	250421
7.49	0.00	DCBP	3.236	169978

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5 Analytical Batch: f120628.3

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120628\F120628.23R.BND
Comments: SC1660.02 0.5ppm 5/31/12
Run Time: 6/28/2012 4:26:23 PM



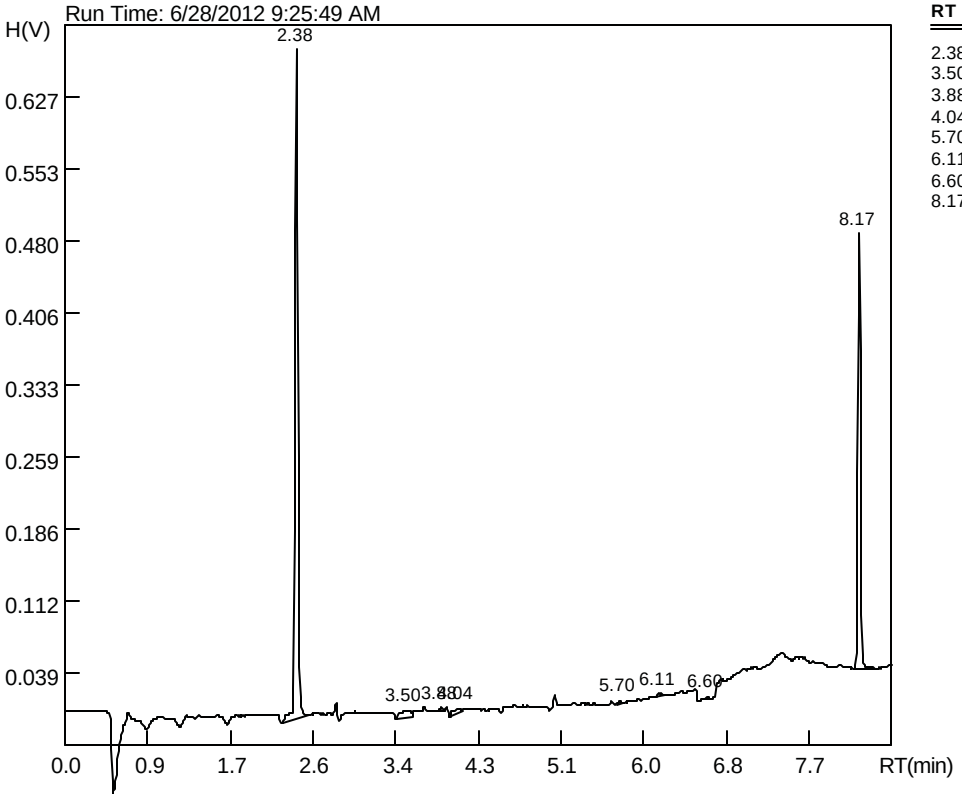
RT	dT	Name	Amt.	Area
2.22	0.02	TCX	18.267	921478
3.12	0.01	1016-1	0.586	487061
3.38	0.01	1016-2	0.526	1480613
3.47	0.01	1016-3	0.548	607876
3.54	0.01	1016-4	0.521	426920
4.00	0.01	1016-5	0.602	623655
5.05	0.01	1260-1	0.541	936471
5.27	0.01	1260-2	0.537	1445030
5.52	0.01	1260-3	0.520	1369070
6.12	0.01	1260-4	0.489	1088072
6.37	0.01	1260-5	0.493	970048
7.49	0.00	DCBP	15.288	589584

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

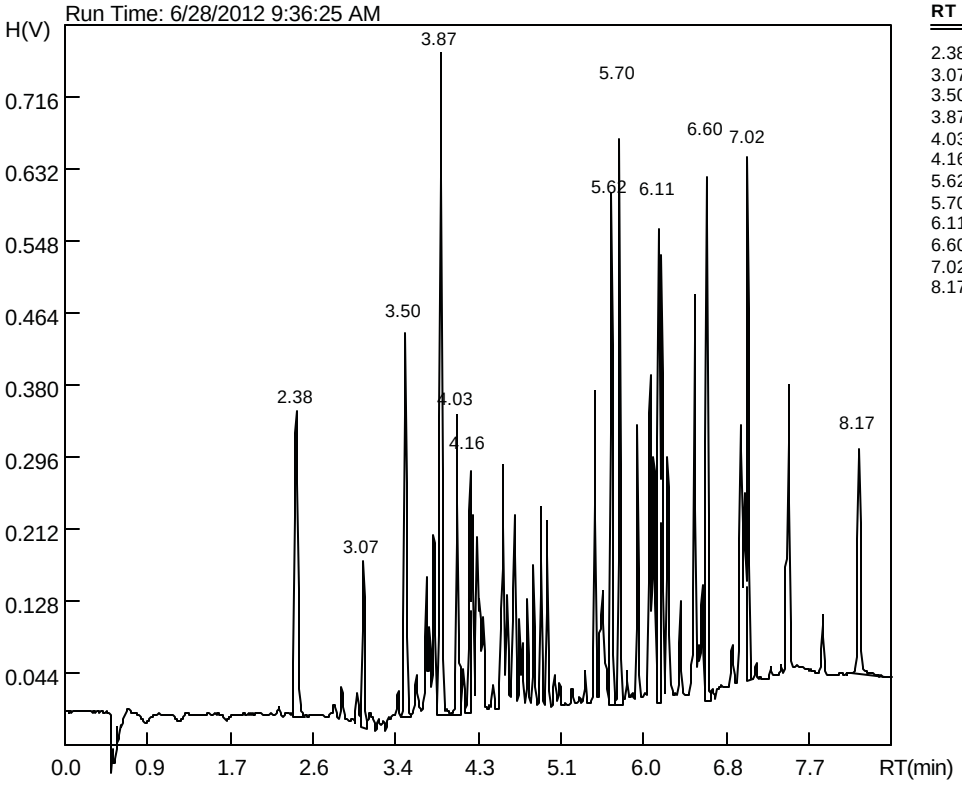
Analytical Batch: f120628.4

File Name: F:\GCECD.DAT\F120628\F120628B.01R.BND
Comments: SBLK-R.01
Run Time: 6/28/2012 9:25:49 AM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	31.341	1307628
3.50	0.01	1016-2	-0.023	58460
3.88	0.02	1016-3	-0.052	7368
4.04	0.02	1016-4	-0.046	22915
5.70	0.01	1260-2	-0.057	6571
6.11	0.01	1260-3	-0.051	8073
6.60	0.01	1260-4	-0.024	4961
8.17	0.01	DCBP	25.371	886358

File Name: F:\GCECD.DAT\F120628\F120628B.02R.BND
Comments: SC1660.01 0.5ppm 5/31/12
Run Time: 6/28/2012 9:36:25 AM



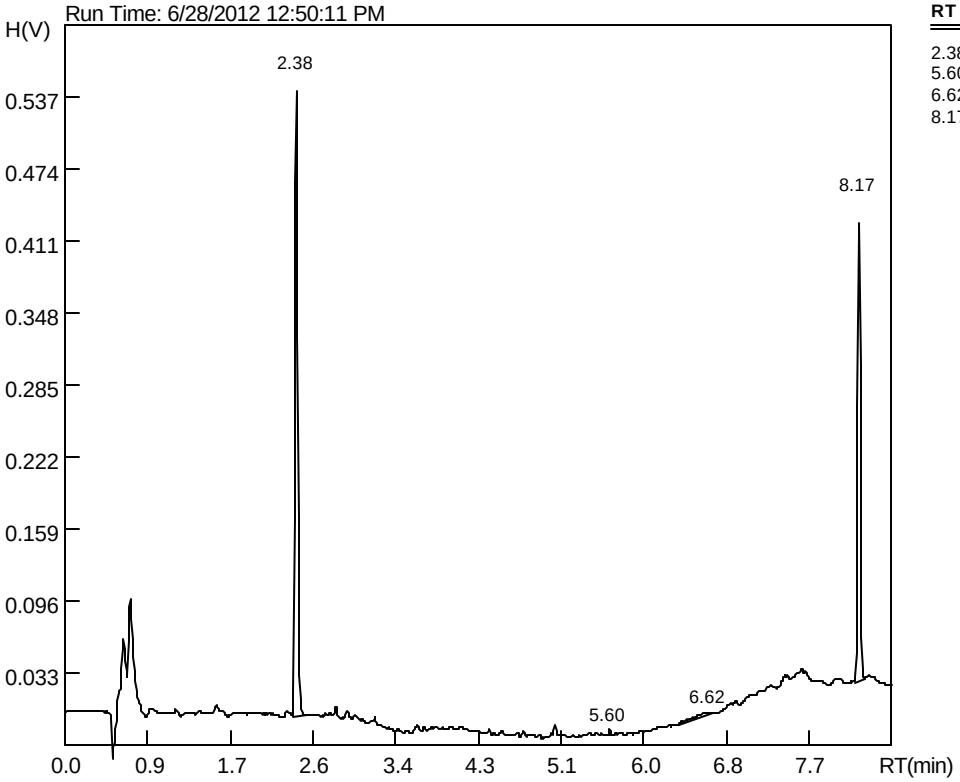
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	18.578	798754
3.07	0.01	1016-1	0.497	324993
3.50	0.01	1016-2	0.514	693892
3.87	0.01	1016-3	0.513	1439153
4.03	0.01	1016-4	0.512	550192
4.16	0.01	1016-5	0.491	401423
5.62	0.01	1260-1	0.484	895691
5.70	0.01	1260-2	0.494	950486
6.11	0.01	1260-3	0.482	912801
6.60	0.01	1260-4	0.469	905098
7.02	0.01	1260-5	0.450	811376
8.17	0.01	DCBP	16.167	590123

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

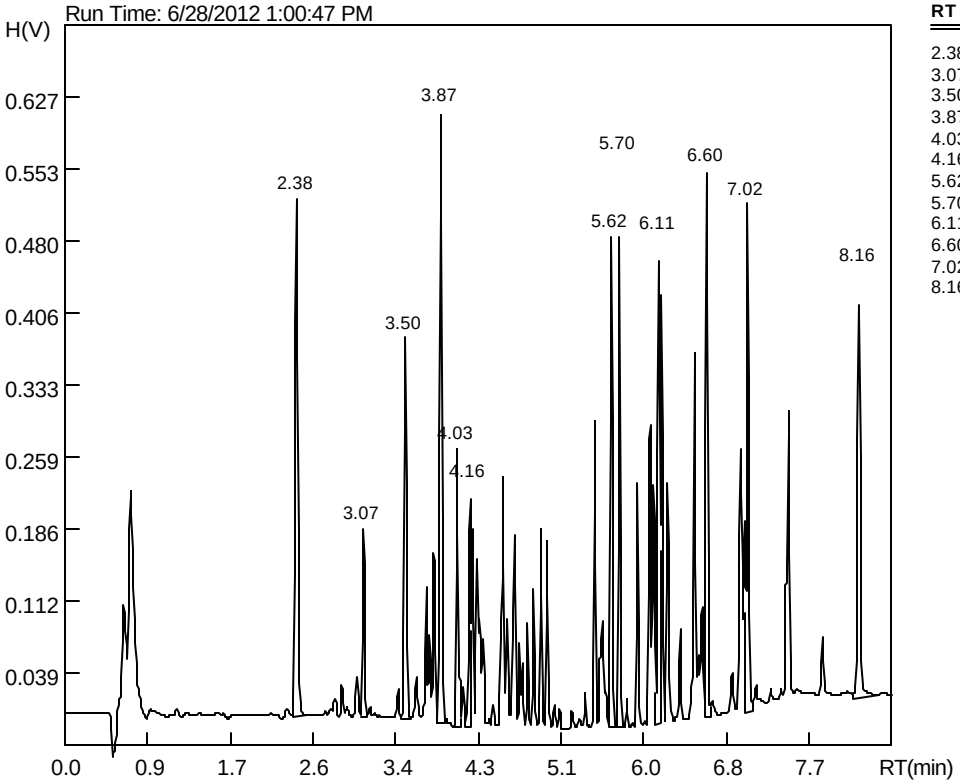
Analytical Batch: f120628.4

File Name: F:\GCECD.DAT\F120628\F120628B.12R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120628s01
Run Time: 6/28/2012 12:50:11 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	23.204	983194
5.60	-0.01	1260-1	-0.061	6690
6.62	0.03	1260-4	-0.006	37517
8.17	0.01	DCBP	24.077	844732

File Name: F:\GCECD.DAT\F120628\F120628B.13R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120628s01
Run Time: 6/28/2012 1:00:47 PM



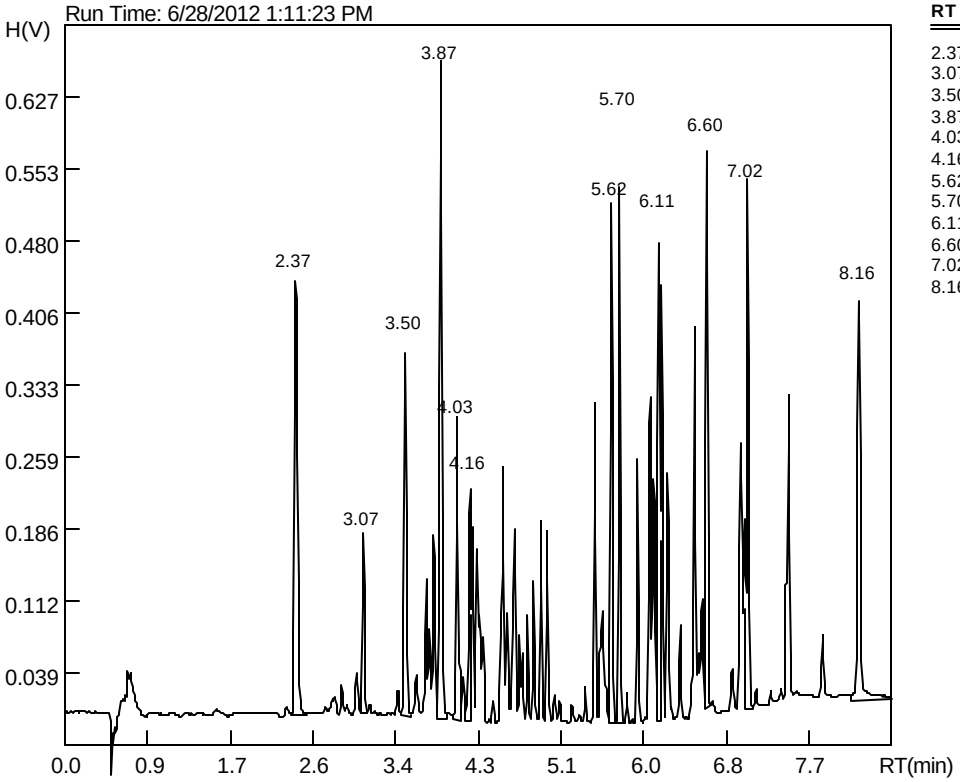
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	22.398	951084
3.07	0.01	1016-1	0.414	276886
3.50	0.01	1016-2	0.421	584545
3.87	0.01	1016-3	0.393	1133146
4.03	0.01	1016-4	0.387	431628
4.16	0.01	1016-5	0.391	329594
5.62	0.01	1260-1	0.395	750073
5.70	0.01	1260-2	0.395	780197
6.11	0.01	1260-3	0.382	744421
6.60	0.01	1260-4	0.403	784733
7.02	0.01	1260-5	0.401	731978
8.16	0.01	DCBP	25.667	895886

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

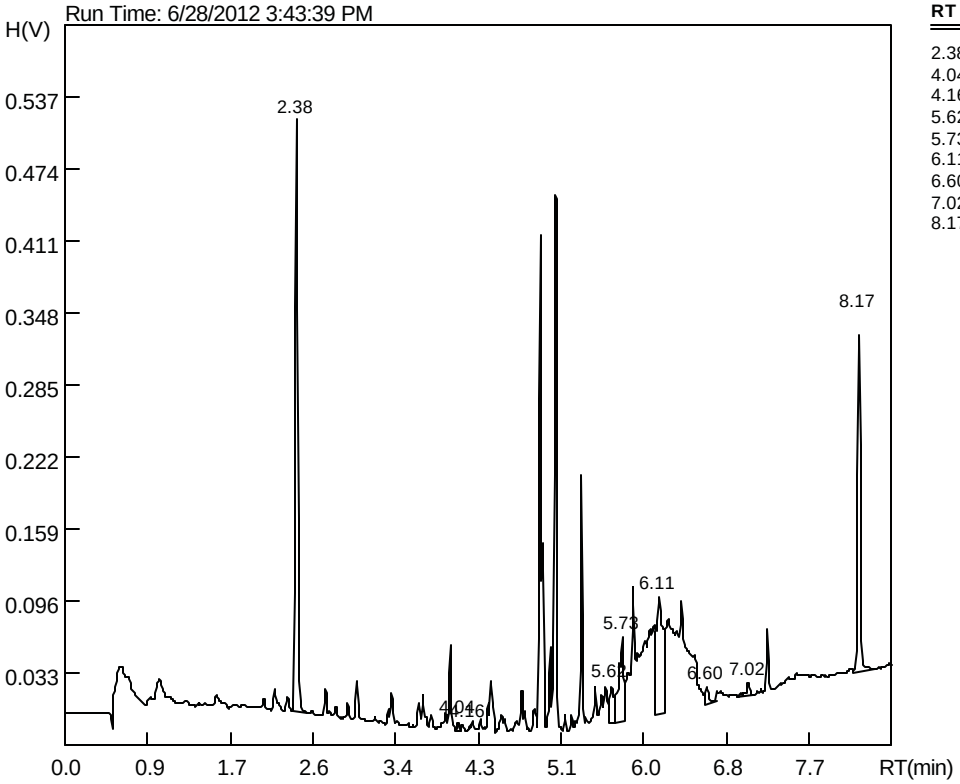
Analytical Batch: f120628.4

File Name: F:\GCECD.DAT\F120628\F120628B.14R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120628s01
Run Time: 6/28/2012 1:11:23 PM



RT	dT	Name	Amt.	Area
2.37	0.02	TCX	21.992	934873
3.07	0.01	1016-1	0.414	277017
3.50	0.01	1016-2	0.425	588897
3.87	0.01	1016-3	0.435	1240946
4.03	0.01	1016-4	0.444	486271
4.16	0.01	1016-5	0.419	349497
5.62	0.01	1260-1	0.422	793470
5.70	0.01	1260-2	0.422	827368
6.11	0.01	1260-3	0.399	771745
6.60	0.01	1260-4	0.401	780805
7.02	0.01	1260-5	0.404	737587
8.16	0.01	DCBP	28.584	989766

File Name: F:\GCECD.DAT\F120628\F120628B.19R.BND
Comments: s52983.02 20.2g s/1 ID:PA120628s01
Run Time: 6/28/2012 3:43:39 PM



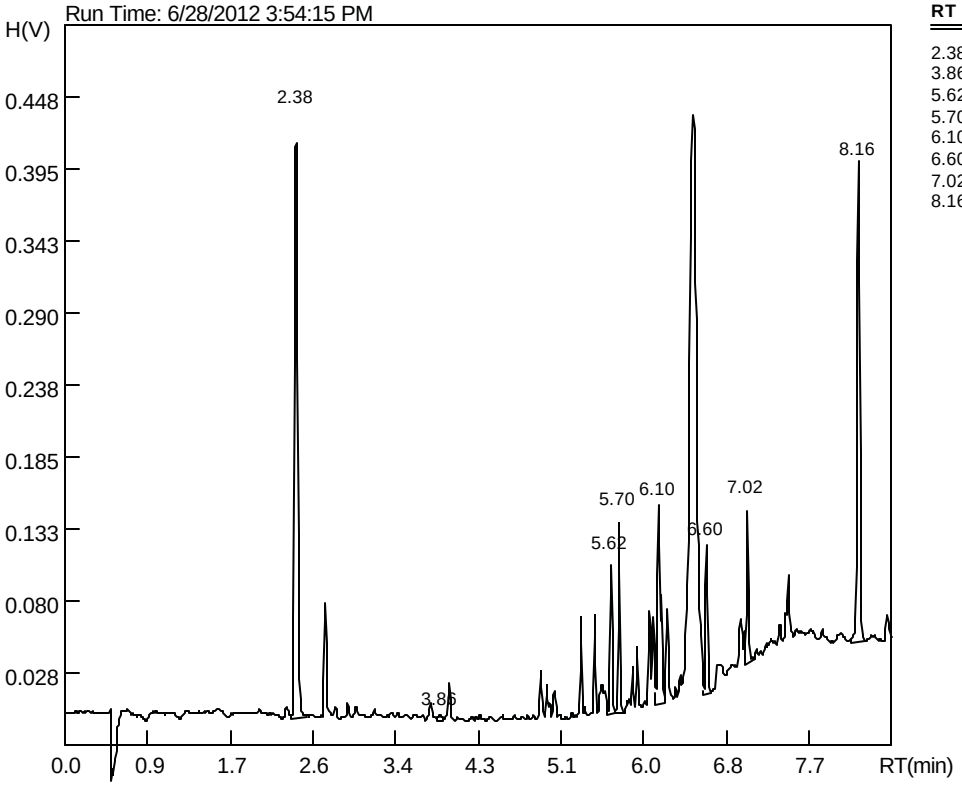
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	20.188	862958
4.04	0.02	1016-4	-0.059	10418
4.16	0.01	1016-5	-0.061	3540
5.62	0.01	1260-1	0.000	105058
5.73	0.04	1260-2	0.092	261711
6.11	0.01	1260-3	0.229	484350
6.60	0.01	1260-4	-0.006	37397
7.02	0.01	1260-5	-0.033	34051
8.17	0.01	DCBP	17.474	632198

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

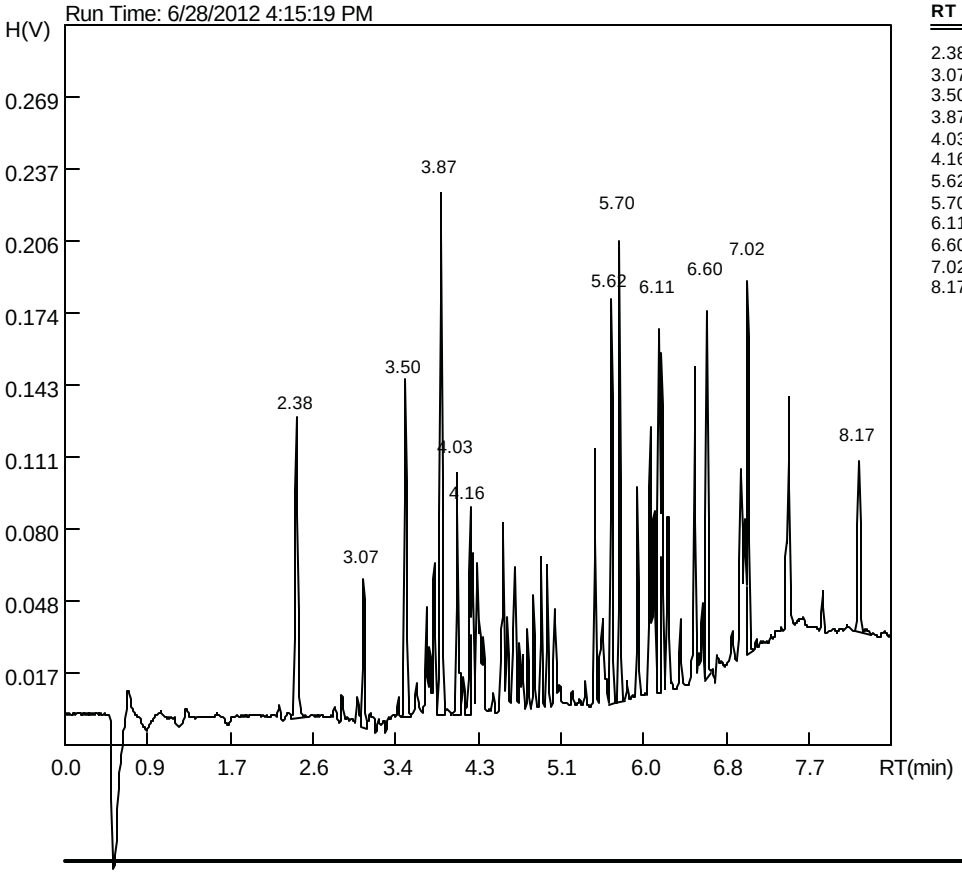
Analytical Batch: f120628.4

File Name: F:\GCECD.DAT\F120628\F120628B.20R.BND
Comments: s52983.03 20.0g s/1 ID:PA120628s01
Run Time: 6/28/2012 3:54:15 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	20.639	880945
3.86	0.00	1016-3	-0.050	11725
5.62	0.01	1260-1	0.044	176680
5.70	0.01	1260-2	0.052	193675
6.10	0.01	1260-3	0.144	339332
6.60	0.01	1260-4	0.063	163485
7.02	0.00	1260-5	0.048	164198
8.16	0.00	DCBP	19.966	712404

File Name: F:\GCECD.DAT\F120628\F120628B.22R.BND
Comments: ss1660.01 0.1ppm 5/31/12
Run Time: 6/28/2012 4:15:19 PM



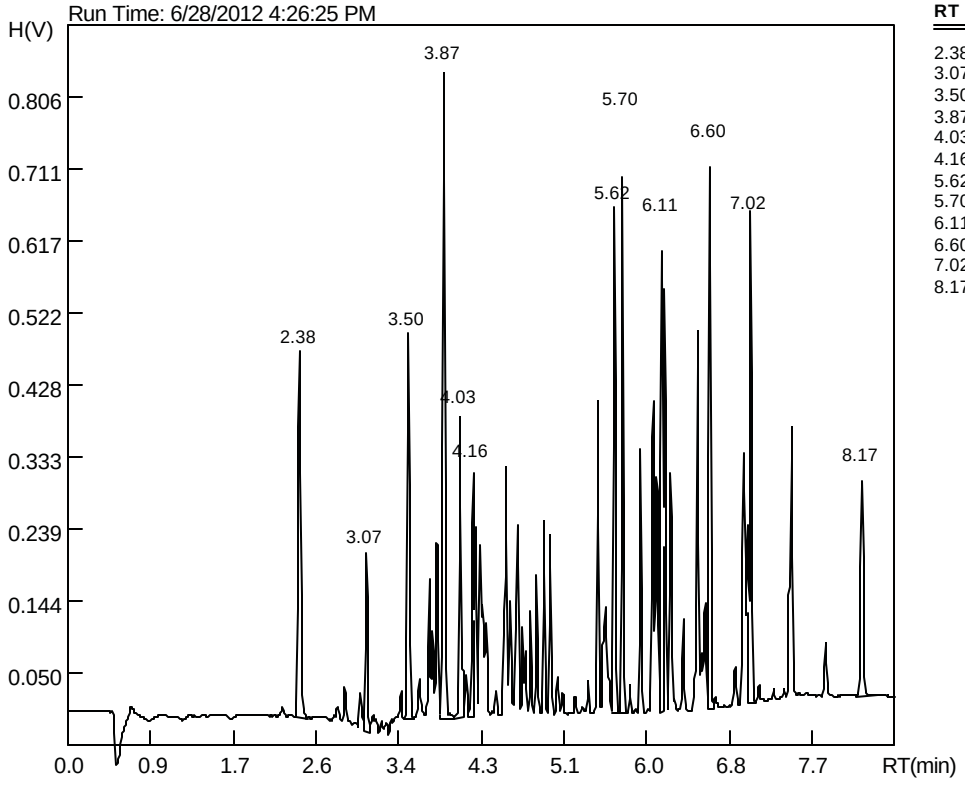
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	4.612	241930
3.07	0.02	1016-1	0.115	102616
3.50	0.01	1016-2	0.112	218051
3.87	0.01	1016-3	0.116	432403
4.03	0.01	1016-4	0.107	167596
4.16	0.01	1016-5	0.103	121438
5.62	0.01	1260-1	0.095	260432
5.70	0.01	1260-2	0.102	279458
6.11	0.01	1260-3	0.094	255075
6.60	0.01	1260-4	0.105	239810
7.02	0.01	1260-5	0.089	231471
8.17	0.01	DCBP	2.894	162894

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120628.4

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120628\F120628B.23R.BND
Comments: SC1660.02 0.5ppm 5/31/12
Run Time: 6/28/2012 4:26:25 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	20.059	857822
3.07	0.01	1016-1	0.538	349219
3.50	0.01	1016-2	0.562	751204
3.87	0.01	1016-3	0.565	1569241
4.03	0.01	1016-4	0.558	594175
4.16	0.01	1016-5	0.539	436590
5.62	0.01	1260-1	0.518	951396
5.70	0.01	1260-2	0.527	1006593
6.11	0.01	1260-3	0.514	967757
6.60	0.01	1260-4	0.510	980653
7.02	0.01	1260-5	0.492	878414
8.17	0.01	DCBP	16.456	599407

Form 0: Sequence Log

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001SMPL.D#	Jun 28 2012 01:05 pm	Blank	Liquid	
002SMPL.D#	Jun 28 2012 01:09 pm	0.00	Liquid	
003SMPL.D#	Jun 28 2012 01:12 pm	0.0001	Liquid	
004SMPL.D#	Jun 28 2012 01:15 pm	0.0005	Liquid	
005SMPL.D#	Jun 28 2012 01:18 pm	0.001	Liquid	
006SMPL.D#	Jun 28 2012 01:22 pm	0.005	Liquid	
007SMPL.D#	Jun 28 2012 01:25 pm	0.02	Liquid	
008SMPL.D#	Jun 28 2012 01:28 pm	0.05	Liquid	
009SMPL.D#	Jun 28 2012 01:31 pm	0.20	Liquid	
010SMPL.D#	Jun 28 2012 01:35 pm	ICV-0.10	Liquid	ICV
011SMPL.D#	Jun 28 2012 01:38 pm	ERA-10/1	Liquid	ERA
012SMPL.D#	Jun 28 2012 01:41 pm	06/28 LCS-0.05	Liquid	LCS
013SMPL.D#	Jun 28 2012 01:44 pm	Rinse	Liquid	
014SMPL.D#	Jun 28 2012 01:48 pm	ICB	Liquid	ICB
015SMPL.D#	Jun 28 2012 01:51 pm	LRB	Liquid	LRB
016SMPL.D#	Jun 28 2012 01:54 pm	BS-0.0005	Liquid	BS
017SMPL.D#	Jun 28 2012 01:57 pm	BS-0.001	Liquid	BS
018SMPL.D#	Jun 28 2012 02:01 pm	52920.01 Dil	Liquid	DIL
019SMPL.D#	Jun 28 2012 02:04 pm	52920.01s	Liquid	S
020SMPL.D#	Jun 28 2012 02:08 pm	52920.02s	Liquid	S
021SMPL.D#	Jun 28 2012 02:11 pm	52920.03s	Liquid	S
022SMPL.D#	Jun 28 2012 02:14 pm	52948.01s	Liquid	S
023SMPL.D#	Jun 28 2012 02:17 pm	52949.01s	Liquid	S
024SMPL.D#	Jun 28 2012 02:21 pm	52949.02s	Liquid	S
025SMPL.D#	Jun 28 2012 02:24 pm	53006.01s	Liquid	S
026SMPL.D#	Jun 28 2012 02:27 pm	53006.01 MS-0.05	Liquid	MS
027SMPL.D#	Jun 28 2012 02:30 pm	53006.01 MSD	Liquid	MSD
028SMPL.D#	Jun 28 2012 02:34 pm	CCV1-0.10	Liquid	CCV
029SMPL.D#	Jun 28 2012 03:28 pm	CCB1	Liquid	CCB
030SMPL.D#	Jun 28 2012 02:40 pm	53008.01s	Liquid	S
031SMPL.D#	Jun 28 2012 02:43 pm	53011.01s	Liquid	S
032SMPL.D#	Jun 28 2012 02:46 pm	53011.02s	Liquid	S
033SMPL.D#	Jun 28 2012 02:50 pm	53011.03s	Liquid	S
034SMPL.D#	Jun 28 2012 02:53 pm	53011.04s	Liquid	S
035SMPL.D#	Jun 28 2012 02:56 pm	53011.05s	Liquid	S
036SMPL.D#	Jun 28 2012 02:59 pm	53011.06s	Liquid	S
037SMPL.D#	Jun 28 2012 03:31 pm	53011.06 MS-0.05	Liquid	MS
038SMPL.D#	Jun 28 2012 03:35 pm	53011.06 MSD	Liquid	MSD
039SMPL.D#	Jun 28 2012 03:09 pm	CCV2-0.10	Liquid	CCV
040SMPL.D#	Jun 28 2012 03:12 pm	CCB2	Liquid	CCB
041SMPL.D#	Jun 28 2012 03:15 pm	Soln-AA	Liquid	AA
042SMPL.D#	Jun 28 2012 03:19 pm	Soln-AB	Liquid	AB
043SMPL.D#	Jun 28 2012 05:02 pm	Blank	Liquid	
044SMPL.D#	Jun 28 2012 05:05 pm	0.00	Liquid	
045SMPL.D#	Jun 28 2012 05:08 pm	0.0001	Liquid	
046SMPL.D#	Jun 28 2012 05:11 pm	0.0005	Liquid	
047SMPL.D#	Jun 28 2012 05:15 pm	0.001	Liquid	
048SMPL.D#	Jun 28 2012 05:18 pm	0.005	Liquid	
049SMPL.D#	Jun 28 2012 05:21 pm	0.02	Liquid	
050SMPL.D#	Jun 28 2012 05:24 pm	0.05	Liquid	
051SMPL.D#	Jun 28 2012 05:28 pm	0.20	Liquid	
052SMPL.D#	Jun 28 2012 05:31 pm	ICV-0.10	Liquid	ICV
053SMPL.D#	Jun 28 2012 05:34 pm	ICB	Liquid	ICB

Form 0: Sequence Log

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054SMPL.D#	Jun 28 2012 05:38 pm	06/28 LCS-0.05	Liquid	LCS
055SMPL.D#	Jun 28 2012 05:41 pm	LRB	Liquid	LRB
056SMPL.D#	Jun 28 2012 05:44 pm	52910.01 Dil	Soil	DIL
057SMPL.D#	Jun 28 2012 05:47 pm	52910.01s	Soil	S
058SMPL.D#	Jun 28 2012 05:50 pm	52959.02s	Soil	S
059SMPL.D#	Jun 28 2012 05:54 pm	52959.03s	Soil	S
060SMPL.D#	Jun 28 2012 05:57 pm	52983.02s	Soil	S
061SMPL.D#	Jun 28 2012 06:00 pm	52983.03s	Soil	S
062SMPL.D#	Jun 28 2012 06:03 pm	52983.03 MS-0.10	Soil	MS
063SMPL.D#	Jun 28 2012 06:06 pm	52893.03 MSD	Soil	MSD
064SMPL.D#	Jun 28 2012 06:10 pm	CCV3-0.10	Liquid	CCV
065SMPL.D#	Jun 28 2012 06:13 pm	CCB3	Liquid	CCB
066SMPL.D#	Jun 28 2012 06:16 pm	52983.03 MS-0.10	Soil	MS
067SMPL.D#	Jun 28 2012 06:19 pm	53002.03s	Soil	S
068SMPL.D#	Jun 28 2012 06:23 pm	53002.03s-d	Soil	S
069SMPL.D#	Jun 28 2012 06:26 pm	53003.26	Soil	
070SMPL.D#	Jun 28 2012 06:29 pm	53003.27	Soil	
071SMPL.D#	Jun 28 2012 06:32 pm	53003.28	Soil	
072SMPL.D#	Jun 28 2012 06:35 pm	53003.29	Soil	
073SMPL.D#	Jun 28 2012 06:38 pm	CCV4-0.10	Liquid	CCV
074SMPL.D#	Jun 28 2012 06:42 pm	CCB4	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Lab Sample ID: S52983.02
Sample Tag: SB121 (06-25-12) (3-5)
Date Collected: 06/25/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	2.01	0.10	mg/kg	245	06/28/2012	
7440-39-3	Barium	49.7	1.0	mg/kg	245	06/28/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	245	06/28/2012	
7440-47-3	Chromium	4.24	0.50	mg/kg	245	06/28/2012	
7440-50-8	Copper	7.35	1.0	mg/kg	245	06/28/2012	
7439-92-1	Lead	6.80	0.30	mg/kg	245	06/28/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	245	06/28/2012	
7440-22-4	Silver	Not detected	0.20	mg/kg	245	06/28/2012	
7440-66-6	Zinc	21.0	1.0	mg/kg	245	06/28/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Lab Sample ID: S52983.03
Sample Tag: SB116 (06-25-12) (1-2)
Date Collected: 06/25/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	2.45	0.10	mg/kg	232	06/28/2012	
7440-39-3	Barium	64.8	1.0	mg/kg	232	06/28/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	232	06/28/2012	
7440-47-3	Chromium	4.07	0.50	mg/kg	232	06/28/2012	
7440-50-8	Copper	10.6	1.0	mg/kg	232	06/28/2012	
7439-92-1	Lead	9.02	0.30	mg/kg	232	06/28/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	232	06/28/2012	
7440-22-4	Silver	Not detected	0.20	mg/kg	232	06/28/2012	
7440-66-6	Zinc	18.3	1.0	mg/kg	232	06/28/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
010SMPL.D# ICV-0.10	ICV	1.000	Cr	0.107	0.10	107	90/110	mg/L	Liquid
			Ni	0.107	0.10	107	90/110		
			Cu	0.104	0.10	104	90/110		
			Zn	0.109	0.10	109	90/110		
			As	0.105	0.10	105	90/110		
			Se	0.102	0.10	102	90/110		
			Ag	0.1014	0.10	101	90/110		
			Cd	0.1030	0.10	103	90/110		
			Ba	0.103	0.10	103	90/110		
			Pb	0.101	0.10	101	90/110		
028SMPL.D# CCV1-0.10	CCV	1.000	Cr	0.100	0.10	100	90/110	mg/L	Liquid
			Ni	0.101	0.10	101	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.102	0.10	102	90/110		
			As	0.100	0.10	100	90/110		
			Se	0.103	0.10	103	90/110		
			Ag	0.0996	0.10	100	90/110		
			Cd	0.0991	0.10	99	90/110		
			Ba	0.099	0.10	99	90/110		
			Pb	0.099	0.10	99	90/110		
039SMPL.D# CCV2-0.10	CCV	1.000	Cr	0.105	0.10	105	90/110	mg/L	Liquid
			Ni	0.105	0.10	105	90/110		
			Cu	0.105	0.10	105	90/110		
			Zn	0.106	0.10	106	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.104	0.10	104	90/110		
			Ag	0.0999	0.10	100	90/110		
			Cd	0.0982	0.10	98	90/110		
			Ba	0.096	0.10	96	90/110		
			Pb	0.100	0.10	100	90/110		
052SMPL.D# ICV-0.10	ICV	1.000	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Ni	0.103	0.10	103	90/110		
			Cu	0.101	0.10	101	90/110		
			Zn	0.104	0.10	104	90/110		
			As	0.104	0.10	104	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.1035	0.10	104	90/110		
			Cd	0.1018	0.10	102	90/110		
			Ba	0.102	0.10	102	90/110		
			Pb	0.105	0.10	105	90/110		
064SMPL.D# CCV3-0.10	CCV	1.000	Cr	0.099	0.10	99	90/110	mg/L	Liquid
			Ni	0.099	0.10	99	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.098	0.10	98	90/110		
			Se	0.109	0.10	109	90/110		
			Ag	0.1006	0.10	101	90/110		
			Cd	0.0975	0.10	98	90/110		
			Ba	0.096	0.10	96	90/110		
			Pb	0.103	0.10	103	90/110		
073SMPL.D# CCV4-0.10	CCV	1.000	Cr	0.097	0.10	97	90/110	mg/L	Liquid
			Ni	0.096	0.10	96	90/110		
			Cu	0.100	0.10	100	90/110		

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
073SMPL.D# CCV4-0.10	CCV	1.000	As	0.097	0.10	97	90/110	mg/L	Liquid
			Se	0.106	0.10	106	90/110		
			Ag	0.1018	0.10	102	90/110		
			Cd	0.0981	0.10	98	90/110		
			Ba	0.098	0.10	98	90/110		
			Pb	0.104	0.10	104	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: P194-500

Data Set ID: MT3-12-0628B

Instrument ID: HP ICP/MS 2

Analysis Date: 06/28/12

Analyst: SLR

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
011SMPL.D# ERA-10/1	5.000	Cr	0.763	0.751	102	0.682	0.808	mg/L	Liquid
		Ni	0.857	0.836	103	0.767	0.895		
		Cu	0.292	0.287	102	0.262	0.312		
		Zn	0.412	0.403	102	0.370	0.444		
		As	0.540	0.528	102	0.462	0.575		
		Se	0.800	0.770	104	0.679	0.838		
		Ag	0.1115	0.121	92	0.106	0.132		
		Cd	0.5546	0.554	100	0.499	0.585		
		Ba	0.440	0.428	103	0.388	0.463		
		Pb	0.862	0.821	105	0.749	0.888		

Form 3: Blanks

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
014SMPL.D# ICB	ICB	1.000	Cr	<0.001	0.000009175	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.00002084		
			Zn	<0.001	0.0003076		
			As	<0.0001	0.00003613		
			Se	<0.001	<0.000		
			Ag	<0.0002	0.00004572		
			Cd	<0.0001	0.00001059		
			Ba	<0.001	0.00003360		
			Pb	<0.0006	<0.000		
015SMPL.D# LRB	LRB	1.000	Cr	<0.001	0.000008186	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	<0.000		
			Zn	<0.001	0.00007473		
			As	<0.0001	0.00002715		
			Se	<0.001	<0.000		
			Ag	<0.0002	0.00001981		
			Cd	<0.0001	<0.000		
			Ba	<0.001	0.00003406		
			Pb	<0.0006	0.000004337		
029SMPL.D# CCB1	CCB	1.000	Cr	<0.001	0.00001562	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.0001090		
			Zn	<0.001	0.0003911		
			As	<0.0001	0.000005717		
			Se	<0.001	0.00005282		
			Ag	<0.0002	0.00004717		
			Cd	<0.0001	<0.000		
			Ba	<0.001	0.00003455		
			Pb	<0.0006	0.0002970		
040SMPL.D# CCB2	CCB	1.000	Cr	<0.001	0.00003137	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.0002335		
			Zn	<0.001	0.0004406		
			As	<0.0001	0.00003972		
			Se	<0.001	0.00009631		
			Ag	<0.0002	0.0001458		
			Cd	<0.0001	0.00002170		
			Ba	<0.001	0.00006151		
			Pb	<0.0006	0.0002069		
053SMPL.D# ICB	ICB	1.000	Cr	<0.001	<0.000	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.0001015		
			Zn	<0.001	0.0006772		
			As	<0.0001	0.0001009		
			Se	<0.001	0.0001699		
			Ag	<0.0002	0.0001384		
			Cd	<0.0001	0.00006372		
			Ba	<0.001	0.00008237		
			Pb	<0.0006	<0.000		
055SMPL.D# LRB	LRB	1.000	Cr	<0.001	<0.000	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	<0.000		

Form 3: Blanks

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
055SMPL.D# LRB	LRB	1.000	Zn	<0.001	<0.000	mg/L	Liquid
			As	<0.0001	0.00004310		
			Se	<0.001	0.0001165		
			Ag	<0.0002	0.00005028		
			Cd	<0.0001	0.00001586		
			Ba	<0.001	0.00004365		
			Pb	<0.0006	<0.000		
065SMPL.D# CCB3	CCB	1.000	Cr	<0.001	<0.000	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.00007582		
			Zn	<0.001	0.0007561		
			As	<0.0001	0.00006763		
			Se	<0.001	0.0002377		
			Ag	<0.0002	0.0001200		
			Cd	<0.0001	0.00001546		
			Ba	<0.001	0.00006646		
			Pb	<0.0006	<0.000		
074SMPL.D# CCB4	CCB	1.000	Cr	<0.001	<0.000	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.00008342		
			As	<0.0001	0.00008488		
			Se	<0.001	0.0001827		
			Ag	<0.0002	0.0001025		
			Cd	<0.0001	0.00003332		
			Ba	<0.001	0.00008437		
			Pb	<0.0006	<0.000		

Form 4B: ICP Interference Check Sample

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
041SMPL.D# Soln-AA	AA	1.000	Cr	<0.01	0.0	N/A	N/A	mg/L	Liquid
			Ni	<0.01	0.0	N/A	N/A		
			Cu	<0.01	0.0	N/A	N/A		
			Zn	<0.01	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.002	0.0	N/A	N/A		
			Cd	<0.005	0.0	N/A	N/A		
			Ba	<0.01	0.0	N/A	N/A		
			Pb	<0.005	0.0	N/A	N/A		
042SMPL.D# Soln-AB	AB	1.000	Cr	0.025	0.025	100	70/135	mg/L	Liquid
			Ni	0.023	0.02	115	70/135		
			Cu	0.022	0.02	110	70/135		
			Zn	0.024	0.025	96	70/135		
			As	0.024	0.02	120	70/135		
			Ag	0.0202	0.020	101	70/135		
			Cd	0.0220	0.02	110	70/135		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
016SMPL.D#		1.000	Cr	0.0005	ND	0.0005	100	70/130	mg/L	Liquid
			Ni	0.0005	ND	0.0005	100	70/130		
			As	0.0005	ND	0.0005	100	70/130		
			Se	0.0005	ND	0.0005	100	70/130		
			Ag	0.0005	ND	0.0005	100	70/130		
			Cd	0.0005	ND	0.0005	100	70/130		
			Ba	0.0006	ND	0.0005	120	70/130		
			Pb	0.0005	ND	0.0005	100	70/130		
017SMPL.D# BS-0.001		1.000	Cr	0.0010	ND	0.001	100	70/130	mg/L	Liquid
			Ni	0.0010	ND	0.001	100	70/130		
			Zn	0.0013	ND	0.001	130	70/130		
			As	0.0010	ND	0.001	100	70/130		
			Se	0.0011	ND	0.001	110	70/130		
			Ag	0.0010	ND	0.001	100	70/130		
			Cd	0.0011	ND	0.001	110	70/130		
			Ba	0.0012	ND	0.001	120	70/130		
			Pb	0.0011	ND	0.001	110	70/130		
026SMPL.D# 53006.01 025SMPL.D#		5.000	Cr	0.264	<0.005	0.25	106	75/125	mg/L	Liquid
			Ni	0.263	0.007	0.25	102	75/125		
			Cu	0.258	0.005	0.25	101	75/125		
			Zn	0.475	0.213	0.25	105	75/125		
			As	0.290	0.021	0.25	108	75/125		
			Se	0.281	<0.005	0.25	112	75/125		
			Ag	0.2087	<0.0005	0.25	84	75/125		
			Cd	0.2568	0.0005	0.25	103	75/125		
			Ba	0.331	0.086	0.25	98	75/125		
			Pb	0.249	<0.003	0.25	100	75/125		
037SMPL.D# 53011.06 036SMPL.D#		5.000	Cr	0.286	<0.005	0.25	114	75/125	mg/L	Liquid
			Ni	0.277	<0.005	0.25	111	75/125		
			Cu	0.272	0.004	0.25	107	75/125		
			Zn	0.274	<0.005	0.25	110	75/125		
			As	0.284	0.002	0.25	113	75/125		
			Se	0.299	<0.005	0.25	120	75/125		
			Ag	0.2106	<0.0005	0.25	84	75/125		
			Cd	0.2403	<0.0005	0.25	96	75/125		
			Ba	0.379	0.140	0.25	96	75/125		
			Pb	0.247	0.005	0.25	97	75/125		
062SMPL.D# 52983.03 061SMPL.D#		232.0	Cr	28.6	4.07	23.20	106	75/125	mg/kg	Soil
			Ni	30.6	7.75	23.20	99	75/125		
			Cu	33.4	10.6	23.20	98	75/125		
			Zn	39.7	18.3	23.20	92	75/125		
			As	26.5	2.45	23.20	104	75/125		
			Se	26.9	<0.50	23.20	116	75/125		
			Ag	23.07	<0.20	23.20	99	75/125		
			Cd	23.90	0.20	23.20	102	75/125		
			Ba	68.2	64.8	23.20	15*	75/125		
			Pb	31.7	9.02	23.20	98	75/125		
066SMPL.D# 52983.03 061SMPL.D#		232.0	Ba	88.0	64.8	23.20	100	75/125	mg/kg	Soil

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
027SMPL.D# 53006.01	**026SMPL.D# 53006.01**	5.000	Cr	0.262	0.264	1	0/20	mg/L	Liquid
			Ni	0.264	0.263	0	0/20		
			Cu	0.258	0.258	0	0/20		
			Zn	0.471	0.475	1	0/20		
			As	0.289	0.290	0	0/20		
			Se	0.283	0.281	1	0/20		
			Ag	0.2105	0.2087	1	0/20		
			Cd	0.2528	0.2568	2	0/20		
			Ba	0.332	0.331	0	0/20		
			Pb	0.239	0.249	4	0/20		
038SMPL.D# 53011.06	**037SMPL.D# 53011.06**	5.000	Cr	0.286	0.286	0	0/20	mg/L	Liquid
			Ni	0.277	0.277	0	0/20		
			Cu	0.271	0.272	0	0/20		
			Zn	0.275	0.274	0	0/20		
			As	0.283	0.284	0	0/20		
			Se	0.309	0.299	3	0/20		
			Ag	0.2115	0.2106	0	0/20		
			Cd	0.2428	0.2403	1	0/20		
			Ba	0.380	0.379	0	0/20		
			Pb	0.242	0.247	2	0/20		
063SMPL.D# 52893.03	**062SMPL.D# 52983.03**	216.0	Cr	26.4	28.6	8	0/20	mg/kg	Soil
			Ni	28.0	30.6	9	0/20		
			Cu	30.9	33.4	8	0/20		
			Zn	36.6	39.7	8	0/20		
			As	24.7	26.5	7	0/20		
			Se	25.6	26.9	5	0/20		
			Ag	21.77	23.07	6	0/20		
			Cd	23.10	23.90	3	0/20		
			Ba	55.4	68.2	21 *	0/20		
			Pb	31.5	31.7	1	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
012SMPL.D# 06/28 LCS-0.05	1.000	Cr	0.050	0.05	100	85/115	mg/L	Liquid
		Ni	0.051	0.05	102	85/115		
		Cu	0.051	0.05	102	85/115		
		Zn	0.051	0.05	102	85/115		
		As	0.051	0.05	102	85/115		
		Se	0.052	0.05	104	85/115		
		Ag	0.0513	0.05	103	85/115		
		Cd	0.0507	0.05	101	85/115		
		Ba	0.050	0.05	100	85/115		
		Pb	0.052	0.05	104	85/115		
054SMPL.D# 06/28 LCS-0.05	1.000	Cr	0.050	0.05	100	85/115	mg/L	Liquid
		Ni	0.050	0.05	100	85/115		
		Cu	0.050	0.05	100	85/115		
		Zn	0.050	0.05	100	85/115		
		As	0.051	0.05	102	85/115		
		Se	0.051	0.05	102	85/115		
		Ag	0.0510	0.05	102	85/115		
		Cd	0.0503	0.05	101	85/115		
		Ba	0.050	0.05	100	85/115		
		Pb	0.052	0.05	104	85/115		

Form 8: Serial Dilutions

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
018SMPL.D# 52920.01	**019SMPL.D# 52920.01s**	25.00	Cr	<0.005	<0.005	NC	0/10	mg/L	Liquid
			Ni	<0.005	<0.005	NC	0/10		
			Cu	0.005	0.006	18*	0/10		
			Zn	0.033	0.043	26*	0/10		
			As	<0.002	0.002	200*	0/10		
			Se	<0.005	<0.005	NC	0/10		
			Ag	0.0007	<0.0005	200*	0/10		
			Cd	0.0005	<0.0005	200*	0/10		
			Ba	0.106	0.071	40*	0/10		
			Pb	<0.003	<0.003	NC	0/10		
056SMPL.D# 52910.01	**057SMPL.D# 52910.01s**	500.0	Cr	627	631	1	0/10	mg/kg	Soil
			Ni	161	165	2	0/10		
			Cu	1.64	1.67	2	0/10		
			Zn	253	253	0	0/10		
			As	0.12	0.12	0	0/10		
			Se	<0.50	<0.50	NC	0/10		
			Ag	<0.20	<0.20	NC	0/10		
			Cd	<0.20	<0.20	NC	0/10		
			Ba	<1.0	<1.0	NC	0/10		
			Pb	<0.30	<0.30	NC	0/10		

Form 13: Analysis Run Log

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

Filename	*Run Time*	*Matrix*	*Analytes*
001SMPL.D# Blank	Jun 28 2012 01:05 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
002SMPL.D# 0.00	Jun 28 2012 01:09 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
003SMPL.D# 0.0001	Jun 28 2012 01:12 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
004SMPL.D# 0.0005	Jun 28 2012 01:15 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
005SMPL.D# 0.001	Jun 28 2012 01:18 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
006SMPL.D# 0.005	Jun 28 2012 01:22 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
007SMPL.D# 0.02	Jun 28 2012 01:25 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
008SMPL.D# 0.05	Jun 28 2012 01:28 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
009SMPL.D# 0.20	Jun 28 2012 01:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
010SMPL.D# ICV-0.10	Jun 28 2012 01:35 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
011SMPL.D# ERA-10/1	Jun 28 2012 01:38 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
012SMPL.D# 06/28 LCS-0.05	Jun 28 2012 01:41 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
013SMPL.D# Rinse	Jun 28 2012 01:44 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
014SMPL.D# ICB	Jun 28 2012 01:48 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
015SMPL.D# LRB	Jun 28 2012 01:51 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
016SMPL.D# BS-0.0005	Jun 28 2012 01:54 pm	Liquid	Ag,As,Ba,Cd,Cr,Ni,Pb,Se
017SMPL.D# BS-0.001	Jun 28 2012 01:57 pm	Liquid	Ag,As,Ba,Cd,Cr,Ni,Pb,Se,Zn
018SMPL.D# 52920.01 Dil	Jun 28 2012 02:01 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
019SMPL.D# 52920.01s	Jun 28 2012 02:04 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
020SMPL.D# 52920.02s	Jun 28 2012 02:08 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
021SMPL.D# 52920.03s	Jun 28 2012 02:11 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
022SMPL.D# 52948.01s	Jun 28 2012 02:14 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
023SMPL.D# 52949.01s	Jun 28 2012 02:17 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
024SMPL.D# 52949.02s	Jun 28 2012 02:21 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
025SMPL.D# 53006.01s	Jun 28 2012 02:24 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
026SMPL.D# 53006.01 MS-0.05	Jun 28 2012 02:27 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
027SMPL.D# 53006.01 MSD	Jun 28 2012 02:30 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
028SMPL.D# CCV1-0.10	Jun 28 2012 02:34 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
029SMPL.D# CCB1	Jun 28 2012 03:28 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
030SMPL.D# 53008.01s	Jun 28 2012 02:40 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
031SMPL.D# 53011.01s	Jun 28 2012 02:43 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
032SMPL.D# 53011.02s	Jun 28 2012 02:46 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
033SMPL.D# 53011.03s	Jun 28 2012 02:50 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
034SMPL.D# 53011.04s	Jun 28 2012 02:53 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
035SMPL.D# 53011.05s	Jun 28 2012 02:56 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
036SMPL.D# 53011.06s	Jun 28 2012 02:59 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
037SMPL.D# 53011.06 MS-0.05	Jun 28 2012 03:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
038SMPL.D# 53011.06 MSD	Jun 28 2012 03:35 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
039SMPL.D# CCV2-0.10	Jun 28 2012 03:09 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
040SMPL.D# CCB2	Jun 28 2012 03:12 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
041SMPL.D# Soln-AA	Jun 28 2012 03:15 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
042SMPL.D# Soln-AB	Jun 28 2012 03:19 pm	Liquid	Ag,As,Cd,Cr,Cu,Ni,Zn
043SMPL.D# Blank	Jun 28 2012 05:02 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
044SMPL.D# 0.00	Jun 28 2012 05:05 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
045SMPL.D# 0.0001	Jun 28 2012 05:08 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
046SMPL.D# 0.0005	Jun 28 2012 05:11 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
047SMPL.D# 0.001	Jun 28 2012 05:15 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
048SMPL.D# 0.005	Jun 28 2012 05:18 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
049SMPL.D# 0.02	Jun 28 2012 05:21 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
050SMPL.D# 0.05	Jun 28 2012 05:24 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
051SMPL.D# 0.20	Jun 28 2012 05:28 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
052SMPL.D# ICV-0.10	Jun 28 2012 05:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
053SMPL.D# ICB	Jun 28 2012 05:34 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn

Form 13: Analysis Run Log

Data Set ID: MT3-12-0628B
Instrument ID: HP ICP/MS 2
Analysis Date: 06/28/12
Analyst: SLR

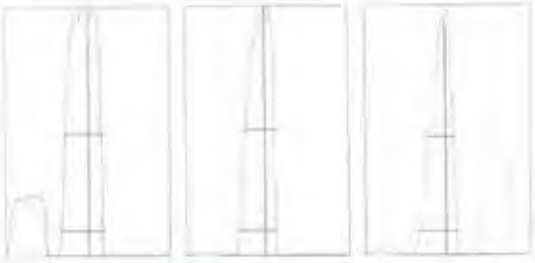
Filename	*Run Time*	*Matrix*	*Analytes*
054SMPL.D# 06/28 LCS-0.05	Jun 28 2012 05:38 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
055SMPL.D# LRB	Jun 28 2012 05:41 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
056SMPL.D# 52910.01 Dil	Jun 28 2012 05:44 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
057SMPL.D# 52910.01s	Jun 28 2012 05:47 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
058SMPL.D# 52959.02s	Jun 28 2012 05:50 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
059SMPL.D# 52959.03s	Jun 28 2012 05:54 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
060SMPL.D# 52983.02s	Jun 28 2012 05:57 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
061SMPL.D# 52983.03s	Jun 28 2012 06:00 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
062SMPL.D# 52983.03 MS-0.10	Jun 28 2012 06:03 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
063SMPL.D# 52893.03 MSD	Jun 28 2012 06:06 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
064SMPL.D# CCV3-0.10	Jun 28 2012 06:10 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
065SMPL.D# CCB3	Jun 28 2012 06:13 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
066SMPL.D# 52983.03 MS-0.10	Jun 28 2012 06:16 pm	Soil	Ba
067SMPL.D# 53002.03s	Jun 28 2012 06:19 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
068SMPL.D# 53002.03s-d	Jun 28 2012 06:23 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
069SMPL.D# 53003.26	Jun 28 2012 06:26 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
070SMPL.D# 53003.27	Jun 28 2012 06:29 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
071SMPL.D# 53003.28	Jun 28 2012 06:32 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
072SMPL.D# 53003.29	Jun 28 2012 06:35 pm	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
073SMPL.D# CCV4-0.10	Jun 28 2012 06:38 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
074SMPL.D# CCB4	Jun 28 2012 06:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se

Tune Report

Tune File : nogas.u
Comment :

m/z	Range	Count	Mean	RSD%	Background
7	5,000	2295.0	2212.7	2.88	0.40
89	10,000	8648.0	8460.7	3.01	0.90
205	1,000	595.0	562.9	5.29	2.90

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec
n: 50
Oxide: 156/140 2.360%
Doubly Charged: 70/140 3.792%



m/z:	7	89	205
Height:	2,205	8,661	570
Axis:	7.05	89.00	205.00
W-50%:	0.70	0.60	0.50
W-10%:	0.7500	0.700	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec
Y axis : Linear

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power	1450 W	Extract 1	-78.8 V	AMU Gain	132
RF Matching	1.75 V	Extract 2	-85.5 V	AMU Offset	123
Smpl Depth	9 mm	Omega Bias-ce	-14 V	Axis Gain	0.9992
Torch-H	0 mm	Omega Lens-ce	2 V	Axis Offset	-0.04
Torch-V	1 mm	Cell Entrance	-30 V	QP Bias	-3 V
Carrier Gas	0.7 L/min	QP Focus	3 V		
Makeup Gas	0.27 L/min	Cell Exit	-34 V	===Detector Parameters===	
Optional Gas	0 %			Discriminator	8 mV
Nebulizer Pump	0.1 rps	===Octopole Parameters===		Analog HV	1820 V
Sample Pump	--- rps	OctP RF	170 V	Pulse HV	1360 V
S/C Temp	2 degC	OctP Bias	-6 V		

===Reaction Cell===

Reaction Mode	OFF				
H2 Gas	0 mL/min	He Gas	0 mL/min	Optional Gas	0 %

Tune File : he.u
He Gas: 3.5 mL/min
Optional Gas: 0 %
QP Focus: -7 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -11.5 V

m/z	Count(Mean)	RSD%
51	239.9	7.53
59	2191.2	3.05
89	1648.4	4.17

Integration Time: 0.1000sec

Tune File : h2.u
H2 Gas: 4.7 mL/min
Optional Gas: 0 %
QP Focus: -8 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -15 V

m/z	Count(Mean)	RSD%
59	2363.4	3.13
78	1.5	84.41
89	10099.5	2.67

Integration Time: 0.1000sec

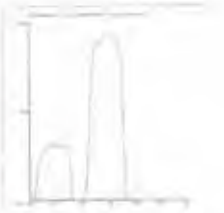
Generated : Jun 28, 2012 11:21:54
Printed : Jun 28, 2012 11:23:34

6020 and 200.8 Tune Check Sample

Data File: 0016TUN.D
Date Acquired: Jun 28 2012 11:33 am
Operator:
Sample Name: 10ppb Li, Co, In, Tl
Misc Info: EPA tune solution
Vial Number: 4108
Current Method: TN_62_28.M

QC Tune Summary:
Pass

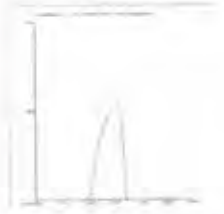
Element	Actual	Required	Flag
RSD%			
7 Li	1.69	5.00	
9 Be	1.55	5.00	
59 Co	1.16	5.00	
115 In	0.24	5.00	
205 Tl	2.98	5.00	
208 Pb	3.36	5.00	



7 Li
Mass Calib.
Actual: 7.00
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:

9 Be
Mass Calib.
Actual: 9.00
Required 8.90 - 9.10
Flag:
Peak Width
Actual: 0.65
Required 0.75
Flag:

59 Co
Mass Calib.
Actual: 59.00
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.55
Required: 0.75
Flag:

205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.75
Flag:

208 Pb
Mass Calib.
Actual: 207.95
Required: 207.90 - 208.10
Flag:
Peak Width
Actual: 0.60
Required: 0.75
Flag:

Form 15: Internal Standards Summary

IS Check Reference Sample: 044SMPL.D# 0.00

Data Set ID: MT3-12-0628B

Instrument ID: HP ICP/MS 2

Analysis Date: 06/28/12

Analyst: SLR

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh-1	146300	70-125	102410-182875	80-120	117040-175560	0
Rh-2	153483	70-125	107438-191854	80-120	122786-184180	0
Re-2	7972	70-125	5580-9965	80-120	6378-9566	0

Seq ID	QC Type	Rh-1	Rh-2	Re-2
043SMPL		96	102	100
044SMPL		100	100	100
045SMPL		100	102	102
046SMPL		100	105	102
047SMPL		103	104	105
048SMPL		104	105	104
049SMPL		105	106	107
050SMPL		105	106	107
051SMPL		107	106	108
052SMPL	ICV	107	107	111
053SMPL	ICB	102	104	110
054SMPL	LCS	103	103	106
055SMPL	LRB	101	103	109
056SMPL	DIL	112	108	108
057SMPL	S	91	105	97
058SMPL	S	76	93	95
059SMPL	S	97	107	108
060SMPL	S	85	98	101
061SMPL	S	83	96	96
062SMPL	MS	89	100	99
063SMPL	MSD	91	99	99
064SMPL	CCV	101	107	103
065SMPL	CCB	100	105	105
066SMPL	MS	84	93	92
067SMPL	S	105	113	103
068SMPL	S	102	109	108
069SMPL		90	103	102
070SMPL		90	104	99
071SMPL		92	105	106
072SMPL		101	109	110
073SMPL	CCV	101	108	105
074SMPL	CCB	99	107	108

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	(ug/L) Spike	MDL (ug/l)	Prep Batch
Ag-107	12/1/2010	0.1	0.019	MTD-120110-12
Al-27	12/2/2010	1	0.266	MTD-120110-13
As-75	12/1/2010	0.1	0.052	MTD-120110-12
B-10	12/1/2010	1	0.324	MTD-120110-13
B-11	12/1/2010	2	0.200	MTD-120110-13
Ba-137	12/1/2010	1	0.218	MTD-120110-13
Be-9	12/1/2010	0.1	0.041	MTD-120110-12
Cd-111	12/1/2010	0.1	0.067	MTD-120110-12
Cd-114	12/1/2010	0.1	0.021	MTD-120110-12
Cr-52	12/1/2010	0.1	0.044	MTD-120110-12
Cr-53	12/1/2010	0.5	0.125	MTD-120110-12
Co-59	12/1/2010	0.5	0.051	MTD-120110-12
Cu-65	12/1/2010	0.5	0.060	MTD-120110-12
Fe-56	12/1/2010	2	0.362	MTD-120110-13
Fe-57	12/1/2010	2	0.772	MTD-120110-13
Li-7	12/1/2010	0.5	0.081	MTD-120110-12
Mn-55	12/1/2010	0.5	0.060	MTD-120110-12
Mo-95	12/1/2010	0.5	0.085	MTD-120110-12
Ni-60	12/1/2010	0.1	0.036	MTD-120110-12
Pb-208	12/1/2010	0.1	0.043	MTD-120110-12
Sb-121	12/1/2010	2	0.421	MTD-120110-13
Se-78	12/1/2010	0.5	0.276	MTD-120110-12
Se-82	12/1/2010	0.5	0.250	MTD-120110-12
Sn-118	12/1/2010	2	0.204	MTD-120110-13
Sr-88	12/1/2010	0.1	0.011	MTD-120110-12
Ti-47	12/1/2010	0.1	0.061	MTD-120110-12
Tl-205	12/1/2010	0.1	0.036	MTD-120110-12
V-51	12/1/2010	0.1	0.025	MTD-120110-12
Zn-66	12/1/2010	0.5	0.145	MTD-120110-12

Element/Mass	Date	(mg/L) Spike	MDLw(a) (mg/l)	Prep Batch
Na-23	12/10/2010	0.02	0.0038	MTD-121010-4
Mg-24	12/10/2010	0.01	0.0011	MTD-121010-4
K-39	12/10/2010	0.01	0.0028	MTD-121010-4
Ca-43	12/10/2010	0.01	0.0102	MTD-121010-4
Ca-44	12/10/2010	0.01	0.0026	MTD-121010-4

		Prep Batch
Na-23	50ppm	MTD-110409-2
Mg-24	75ppm	MTD-110409-2
K-39	50ppm	MTD-110409-2
Ca-43	50ppm	MTD-110409-2
Ca-44	<50ppm	MTD-110409-2

Ag-107	<2.0ppm	MTD-110409-3
Al-27	5.0ppm	MTD-110409-3
As-75	2.0ppm	MTD-110409-3
B-10	2.0ppm	MTD-110409-3
B-11	2.0ppm	MTD-110409-3
Ba-137	5.0ppm	MTD-110409-3
Be-9	5.0ppm	MTD-110409-3
Cd-111	5.0ppm	MTD-110409-3
Cd-114	5.0ppm	MTD-110409-3
Cr-52	5.0ppm	MTD-110409-3
Cr-53	4.0ppm	MTD-110409-3
Co-59	5.0ppm	MTD-110409-3
Cu-65	5.0ppm	MTD-110409-3
Fe-56	5.0ppm	MTD-110409-3
Fe-57	5.0ppm	MTD-110409-3
Li-7	5.0ppm	MTD-110409-3
Mn-55	5.0ppm	MTD-110409-3
Mo-95	4.0ppm	MTD-110409-3
Ni-60	5.0ppm	MTD-110409-3
Pb-208	5.0ppm	MTD-110409-3
Sb-121	4.0ppm	MTD-110409-3
Se-78	5.0ppm	MTD-110409-3
Se-82	5.0ppm	MTD-110409-3
Sn-118	5.0ppm	MTD-110409-3
Sr-88	5.0ppm	MTD-110409-3
Ti-47	5.0ppm	MTD-110409-3
Tl-205	5.0ppm	MTD-110409-3
V-51	2.0ppm	MTD-110409-3
Zn-66	5.0ppm	MTD-110409-3

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 001SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:05 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000238081	<0.000	mg/L	2.65	2
Ni	60	103	.0000352250	<0.000	mg/L	11.02	2
Cu	65	103	.0000301107	0.00003305	mg/L	49.14	2
Zn	66	103	.0000065171	<0.000	mg/L	9.84	2
As	75	103	.0000003202	<0.000	mg/L	4.06	2
Se	78	103	.0000006450	<0.000	mg/L	63.35	1
Ag	107	103	.0000048924	<0.000	mg/L	30.50	2
Cd	111	103	.0000003236	<0.000	mg/L	260.69	2
Ba	137	103	.0000005331	0.000004638	mg/L	222.94	2
Pb	208	185	.0000264627	<0.000	mg/L	4.67	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 002SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:09 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000234075	<0.000	mg/L	11.15	2
Ni	60	103	.0000348073	<0.000	mg/L	29.77	2
Cu	65	103	.0000313244	0.00004168	mg/L	2.65	2
Zn	66	103	.0000081569	<0.000	mg/L	20.38	2
As	75	103	.0000008662	0.00001273	mg/L	166.06	2
Se	78	103	.0000017313	0.000008496	mg/L	179.38	1
Ag	107	103	.0000042980	<0.000	mg/L	17.40	2
Cd	111	103	.0000006410	0.000007103	mg/L	283.40	2
Ba	137	103	.0000003263	<0.000	mg/L	263.24	2
Pb	208	185	.0000415217	<0.000	mg/L	9.94	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 003SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:12 pm
Sample Name: 0.0001
Sample Type: CalStd
Matrix: Liquid
Comments: Ag, As, Be, Cd, Tl
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000642813	<0.000	mg/L	86.57	2
Ni	60	103	.0000547120	0.00004858	mg/L	93.64	2
Cu	65	103	.0000964512	0.0005046	mg/L	7.25	2
Zn	66	103	.0000999321	0.001793	mg/L	4.88	2
As	75	103	.0000036912	0.00009955	mg/L	42.16	2
Se	78	103	.0000032753	0.00007270	mg/L	38.24	1
Ag	107	103	.0000221446	0.00006319	mg/L	22.23	2
Cd	111	103	.0000024418	0.00007341	mg/L	50.21	2
Ba	137	103	.0000025388	0.0001177	mg/L	52.32	2
Pb	208	185	.0000937916	<0.000	mg/L	27.16	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 004SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:15 pm
Sample Name: 0.0005
Sample Type: CalStd
Matrix: Liquid
Comments: Cu, Pb, V
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0002082579	0.0004112	mg/L	9.17	2
Ni	60	103	.0001007729	0.0004485	mg/L	19.65	2
Cu	65	103	.0003167044	0.002070	mg/L	5.22	2
Zn	66	103	.0000553052	0.0007845	mg/L	13.60	2
As	75	103	.0000180217	0.0005400	mg/L	7.59	2
Se	78	103	.0000142414	0.0005287	mg/L	7.02	1
Ag	107	103	.0000924961	0.0004271	mg/L	9.03	2
Cd	111	103	.0000135341	0.0004818	mg/L	13.51	2
Ba	137	103	.0000092731	0.0004974	mg/L	13.26	2
Pb	208	185	.0003192108	0.0002618	mg/L	26.96	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 005SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:18 pm
Sample Name: 0.001
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003791845	0.0009327	mg/L	2.93	2
Ni	60	103	.0001609920	0.0009713	mg/L	1.75	2
Cu	65	103	0.001549548	0.01083	mg/L	0.64	2
Zn	66	103	.0000631217	0.0009611	mg/L	10.84	2
As	75	103	.0000314991	0.0009542	mg/L	10.50	2
Se	78	103	.0000232134	0.0009018	mg/L	3.68	1
Ag	107	103	.0001858865	0.0009102	mg/L	1.94	2
Cd	111	103	.0000274279	0.0009934	mg/L	6.95	2
Ba	137	103	.0000182855	0.001006	mg/L	10.94	2
Pb	208	185	.0005727458	0.0007195	mg/L	17.58	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 006SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:22 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.001809454	0.005296	mg/L	3.33	2
Ni	60	103	.0006569060	0.005277	mg/L	1.28	2
Cu	65	103	.0007896055	0.005432	mg/L	2.65	2
Zn	66	103	.0002852059	0.005979	mg/L	1.76	2
As	75	103	.0001690240	0.005181	mg/L	5.29	2
Se	78	103	.0001178917	0.004839	mg/L	9.61	1
Ag	107	103	.0009876126	0.005057	mg/L	1.74	2
Cd	111	103	.0001436600	0.005273	mg/L	1.72	2
Ba	137	103	.0000922687	0.005177	mg/L	7.01	2
Pb	208	185	0.002936443	0.004987	mg/L	2.69	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 007SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:25 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.007135886	0.02155	mg/L	2.84	2
Ni	60	103	0.002507138	0.02134	mg/L	2.33	2
Cu	65	103	0.003078548	0.02170	mg/L	1.96	2
Zn	66	103	0.001058619	0.02345	mg/L	3.32	2
As	75	103	.0006766237	0.02078	mg/L	2.19	2
Se	78	103	.0004844180	0.02008	mg/L	1.55	1
Ag	107	103	0.003820580	0.01971	mg/L	1.08	2
Cd	111	103	.0005497921	0.02023	mg/L	0.38	2
Ba	137	103	.0003747519	0.02110	mg/L	2.54	2
Pb	208	185	0.01102872	0.01960	mg/L	5.98	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 008SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:28 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01757910	0.05340	mg/L	1.99	2
Ni	60	103	0.006097092	0.05251	mg/L	0.77	2
Cu	65	103	0.007472062	0.05293	mg/L	2.13	2
Zn	66	103	0.002355001	0.05274	mg/L	3.35	2
As	75	103	0.001651337	0.05074	mg/L	3.20	2
Se	78	103	0.001226520	0.05094	mg/L	2.69	1
Ag	107	103	0.009688197	0.05006	mg/L	0.66	2
Cd	111	103	0.001385459	0.05100	mg/L	0.40	2
Ba	137	103	.0008908876	0.05020	mg/L	4.73	2
Pb	208	185	0.02754332	0.04941	mg/L	1.03	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 009SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:31 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.06988963	0.2130	mg/L	2.20	2
Ni	60	103	0.02407590	0.2086	mg/L	1.76	2
Cu	65	103	0.02941765	0.2089	mg/L	0.91	2
Zn	66	103	0.009306960	0.2098	mg/L	1.13	2
As	75	103	0.006649675	0.2044	mg/L	0.86	2
Se	78	103	0.004803158	0.1997	mg/L	0.21	1
Ag	107	103	0.03856891	0.1994	mg/L	0.52	2
Cd	111	103	0.005407942	0.1991	mg/L	0.59	2
Ba	137	103	0.003587904	0.2023	mg/L	3.73	2
Pb	208	185	0.1088987	0.1963	mg/L	3.94	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 010SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:35 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03530739	0.1075	mg/L	1.12	2
Ni	60	103	0.01242109	0.1074	mg/L	0.36	2
Cu	65	103	0.01475929	0.1047	mg/L	0.52	2
Zn	66	103	0.004851895	0.1092	mg/L	1.13	2
As	75	103	0.003440047	0.1057	mg/L	0.74	2
Se	78	103	0.002461151	0.1023	mg/L	1.77	1
Ag	107	103	0.01961610	0.1014	mg/L	2.36	2
Cd	111	103	0.002796463	0.1030	mg/L	1.51	2
Ba	137	103	0.001835509	0.1035	mg/L	2.12	2
Pb	208	185	0.05619932	0.1012	mg/L	3.40	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 011SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:38 pm
Sample Name: ERA-10/1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.05340010	0.7636	mg/L	2.53	2
Ni	60	103	0.02066781	0.8576	mg/L	1.61	2
Cu	65	103	0.008647053	0.2929	mg/L	2.68	2
Zn	66	103	0.003849029	0.4123	mg/L	1.81	2
As	75	103	0.003593404	0.5405	mg/L	1.05	2
Se	78	103	0.003851892	0.8009	mg/L	1.60	1
Ag	107	103	0.004306904	0.1115	mg/L	0.28	2
Cd	111	103	0.003004350	0.5546	mg/L	1.38	2
Ba	137	103	0.001578833	0.4400	mg/L	2.80	2
Pb	208	185	0.09401798	0.8627	mg/L	5.71	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 012SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:41 pm
Sample Name: 06/28 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01736982	0.04963	mg/L	3.22	2
Ni	60	103	0.006195907	0.05121	mg/L	2.38	2
Cu	65	103	0.007460027	0.05050	mg/L	2.77	2
Zn	66	103	0.002391099	0.05116	mg/L	2.37	2
As	75	103	0.001704806	0.05127	mg/L	1.19	2
Se	78	103	0.001244240	0.05169	mg/L	1.16	1
Ag	107	103	0.009896383	0.05129	mg/L	0.60	2
Cd	111	103	0.001374561	0.05074	mg/L	1.65	2
Ba	137	103	.0008973917	0.05001	mg/L	0.71	2
Pb	208	185	0.02810686	0.05152	mg/L	2.51	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 013SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:44 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000314564	0.00002303	mg/L	67.87	2
Ni	60	103	.0000339081	<0.000	mg/L	517.06	2
Cu	65	103	.0000367182	0.00003667	mg/L	75.27	2
Zn	66	103	.0000255643	0.0003737	mg/L	2.00	2
As	75	103	.0000018761	0.00003039	mg/L	78.05	2
Se	78	103	.0000043642	0.0001095	mg/L	25.48	1
Ag	107	103	.0000205967	0.00008451	mg/L	18.07	2
Cd	111	103	.0000010532	0.00001522	mg/L	272.86	2
Ba	137	103	.0000009360	0.00003399	mg/L	85.32	2
Pb	208	185	.0000654353	0.00004390	mg/L	105.40	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 014SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:48 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000266141	0.000009175	mg/L	77.68	2
Ni	60	103	.0000322322	<0.000	mg/L	183.79	2
Cu	65	103	.0000343895	0.00002084	mg/L	128.41	2
Zn	66	103	.0000224870	0.0003076	mg/L	11.32	2
As	75	103	.0000020670	0.00003613	mg/L	31.80	2
Se	78	103	.0000016322	<0.000	mg/L	10.59	1
Ag	107	103	.0000131151	0.00004572	mg/L	33.60	2
Cd	111	103	.0000009278	0.00001059	mg/L	106.80	2
Ba	137	103	.0000009290	0.00003360	mg/L	1.94	2
Pb	208	185	.0000298440	<0.000	mg/L	155.30	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 015SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:51 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000262685	0.000008186	mg/L	99.74	2
Ni	60	103	.0000281141	<0.000	mg/L	48.00	2
Cu	65	103	.0000249696	<0.000	mg/L	25.72	2
Zn	66	103	.0000116381	0.00007473	mg/L	61.81	2
As	75	103	.0000017686	0.00002715	mg/L	52.49	2
Se	78	103	.0000006512	<0.000	mg/L	30.38	1
Ag	107	103	.0000081191	0.00001981	mg/L	5.06	2
Cd	111	103	.0000002075	<0.000	mg/L	41.46	2
Ba	137	103	.0000009372	0.00003406	mg/L	2.59	2
Pb	208	185	.0000438838	0.000004337	mg/L	451.93	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 016SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:54 pm
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0002012315	0.0005088	mg/L	3.37	2
Ni	60	103	.0000943526	0.0004950	mg/L	3.57	2
As	75	103	.0000173382	0.0004956	mg/L	12.42	2
Se	78	103	.0000130621	0.0004714	mg/L	8.69	1
Ag	107	103	.0001013128	0.0005030	mg/L	4.86	2
Cd	111	103	.0000147264	0.0005201	mg/L	14.59	2
Ba	137	103	.0000108287	0.0005855	mg/L	16.15	2
Pb	208	185	.0003261690	0.0005226	mg/L	13.93	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 017SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 01:57 pm
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003885406	0.001045	mg/L	2.34	2
Ni	60	103	.0001608709	0.001048	mg/L	5.11	2
Zn	66	103	.0000704270	0.001337	mg/L	4.95	2
As	75	103	.0000348463	0.001022	mg/L	5.97	2
Se	78	103	.0000273340	0.001065	mg/L	6.01	1
Ag	107	103	.0002064057	0.001048	mg/L	2.68	2
Cd	111	103	.0000296351	0.001071	mg/L	11.44	2
Ba	137	103	.0000217326	0.001193	mg/L	15.03	2
Pb	208	185	.0006201643	0.001062	mg/L	13.49	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 028SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 02:34 pm
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03522721	0.1007	mg/L	2.63	2
Ni	60	103	0.01218814	0.1010	mg/L	2.96	2
Cu	65	103	0.01485102	0.1007	mg/L	1.62	2
Zn	66	103	0.004791678	0.1027	mg/L	3.76	2
As	75	103	0.003315485	0.09973	mg/L	2.59	2
Se	78	103	0.002493493	0.1037	mg/L	0.45	1
Ag	107	103	0.01921961	0.09963	mg/L	1.35	2
Cd	111	103	0.002685416	0.09914	mg/L	1.84	2
Ba	137	103	0.001784586	0.09947	mg/L	0.70	2
Pb	208	185	0.05405660	0.09917	mg/L	1.09	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 029SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:28 pm
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000288681	0.00001562	mg/L	15.41	2
Ni	60	103	.0000149327	<0.000	mg/L	9.44	2
Cu	65	103	.0000473608	0.0001090	mg/L	24.21	2
Zn	66	103	.0000263745	0.0003911	mg/L	18.01	2
As	75	103	.0000010562	0.000005717	mg/L	328.49	2
Se	78	103	.0000030009	0.00005282	mg/L	36.56	1
Ag	107	103	.0000133960	0.00004717	mg/L	10.19	2
Cd	111	103	.0000004745	<0.000	mg/L	97.51	2
Ba	137	103	.0000009460	0.00003455	mg/L	50.65	2
Pb	208	185	.0002033252	0.0002970	mg/L	18.95	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 039SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:09 pm
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03695971	0.1057	mg/L	3.22	2
Ni	60	103	0.01271383	0.1054	mg/L	3.71	2
Cu	65	103	0.01552680	0.1053	mg/L	2.78	2
Zn	66	103	0.004962334	0.1063	mg/L	1.50	2
As	75	103	0.003407924	0.1025	mg/L	1.92	2
Se	78	103	0.002504882	0.1041	mg/L	0.96	1
Ag	107	103	0.01927897	0.09994	mg/L	2.31	2
Cd	111	103	0.002658637	0.09815	mg/L	0.38	2
Ba	137	103	0.001728852	0.09636	mg/L	3.18	2
Pb	208	185	0.05459867	0.1002	mg/L	2.85	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 040SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:12 pm
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000343700	0.00003137	mg/L	11.77	2
Ni	60	103	.0000165212	<0.000	mg/L	3.66	2
Cu	65	103	.0000656711	0.0002335	mg/L	10.59	2
Zn	66	103	.0000286790	0.0004406	mg/L	5.14	2
As	75	103	.0000021865	0.00003972	mg/L	75.78	2
Se	78	103	.0000040462	0.00009631	mg/L	62.71	1
Ag	107	103	.0000324077	0.0001458	mg/L	15.99	2
Cd	111	103	.0000012288	0.00002170	mg/L	120.09	2
Ba	137	103	.0000014296	0.00006151	mg/L	47.26	2
Pb	208	185	.0001541963	0.0002069	mg/L	18.89	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 041SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:15 pm
Sample Name: Soln-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000344601	0.00003162	mg/L	18.15	2
Ni	60	103	.0000220723	<0.000	mg/L	22.60	2
Cu	65	103	.0000994668	0.0004632	mg/L	27.57	2
Zn	66	103	.0000650057	0.001220	mg/L	4.30	2
As	75	103	.0000020809	0.00003655	mg/L	79.43	2
Se	78	103	.0000015530	<0.000	mg/L	256.34	1
Ag	107	103	.0000165368	0.00006346	mg/L	8.35	2
Cd	111	103	.0000008186	0.000006555	mg/L	269.26	2
Ba	137	103	.0000017212	0.00007777	mg/L	24.12	2
Pb	208	185	.0001326617	0.0001673	mg/L	40.50	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 042SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 03:19 pm
Sample Name: Soln-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.008772040	0.02503	mg/L	3.49	2
Ni	60	103	0.002815929	0.02312	mg/L	3.86	2
Cu	65	103	0.003303833	0.02225	mg/L	1.75	2
Zn	66	103	0.001146514	0.02444	mg/L	0.46	2
As	75	103	.0008012241	0.02408	mg/L	2.41	2
Ag	107	103	0.003905827	0.02023	mg/L	2.95	2
Cd	111	103	.0005968971	0.02202	mg/L	1.82	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 043SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:02 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000411831	<0.000	mg/L	14.49	2
Ni	60	103	.0000475015	<0.000	mg/L	259.13	2
Cu	65	103	.0000264416	0.000006967	mg/L	18.37	2
Zn	66	103	.0000145450	<0.000	mg/L	49.13	2
As	75	103	.0000013138	0.00002648	mg/L	136.93	2
Se	78	103	.0000029614	0.00005965	mg/L	56.45	1
Ag	107	103	.0000107062	0.000004026	mg/L	251.61	2
Cd	111	103	.0000006182	0.000006263	mg/L	229.28	2
Ba	137	103	.0000006292	0.00001005	mg/L	377.61	2
Pb	208	185	.0001083133	<0.000	mg/L	21.10	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 044SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:05 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000734573	<0.000	mg/L	7.6E+8	2
Ni	60	103	.0000491162	<0.000	mg/L	3.8E+8	2
Cu	65	103	.0000254615	<0.000	mg/L	1.4E+9	2
Zn	66	103	.0000205820	.0000000000	mg/L	6.3E+9	2
As	75	103	.0000004522	.0000000000	mg/L	4.3E+9	2
Se	78	103	.0000015270	.0000000000	mg/L	1.1E+1	1
Ag	107	103	.0000099278	<0.000	mg/L	4.3E+8	2
Cd	111	103	.0000004481	<0.000	mg/L	1.2E+9	2
Ba	137	103	.0000004508	<0.000	mg/L	1.8E+1	2
Pb	208	185	.0001742234	<0.000	mg/L	9.7E+8	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 045SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:08 pm
Sample Name: 0.0001
Sample Type: CalStd
Matrix: Liquid
Comments: Ag, As, Be, Cd, Tl
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000771451	0.00001125	mg/L	110.84	2
Ni	60	103	.0000657566	0.0001445	mg/L	37.76	2
Cu	65	103	.0000847164	0.0004212	mg/L	10.80	2
Zn	66	103	.0000998873	0.001792	mg/L	7.05	2
As	75	103	.0000042927	0.0001180	mg/L	32.28	2
Se	78	103	.0000052491	0.0001548	mg/L	25.70	1
Ag	107	103	.0000244267	0.00007500	mg/L	7.51	2
Cd	111	103	.0000032933	0.0001048	mg/L	12.42	2
Ba	137	103	.0000031966	0.0001548	mg/L	23.02	2
Pb	208	185	.0001760803	0.000003352	mg/L	1,600	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 046SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:11 pm
Sample Name: 0.0005
Sample Type: CalStd
Matrix: Liquid
Comments: Cu, Pb, V
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0001949918	0.0003708	mg/L	16.72	2
Ni	60	103	.0000990053	0.0004332	mg/L	12.19	2
Cu	65	103	.0002881420	0.001867	mg/L	1.99	2
Zn	66	103	.0000620321	0.0009365	mg/L	6.05	2
As	75	103	.0000176314	0.0005280	mg/L	7.66	2
Se	78	103	.0000150465	0.0005622	mg/L	7.36	1
Ag	107	103	.0001043651	0.0004885	mg/L	1.22	2
Cd	111	103	.0000136668	0.0004867	mg/L	12.83	2
Ba	137	103	.0000107477	0.0005805	mg/L	9.16	2
Pb	208	185	.0003416965	0.0003024	mg/L	28.47	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 047SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:15 pm
Sample Name: 0.001
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003844511	0.0009488	mg/L	9.16	2
Ni	60	103	.0001598403	0.0009614	mg/L	6.60	2
Cu	65	103	0.001463316	0.01022	mg/L	2.46	2
Zn	66	103	.0000776153	0.001289	mg/L	7.61	2
As	75	103	.0000307918	0.0009325	mg/L	14.93	2
Se	78	103	.0000294216	0.001160	mg/L	11.97	1
Ag	107	103	.0001991238	0.0009787	mg/L	3.22	2
Cd	111	103	.0000279867	0.001014	mg/L	8.36	2
Ba	137	103	.0000182821	0.001005	mg/L	10.12	2
Pb	208	185	.0006665170	0.0008888	mg/L	21.88	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 048SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:18 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.001719724	0.005022	mg/L	3.95	2
Ni	60	103	.0006421198	0.005149	mg/L	4.63	2
Cu	65	103	.0007647391	0.005255	mg/L	3.59	2
Zn	66	103	.0002740710	0.005727	mg/L	4.45	2
As	75	103	.0001645818	0.005044	mg/L	4.79	2
Se	78	103	.0001258853	0.005171	mg/L	5.79	1
Ag	107	103	0.001017556	0.005212	mg/L	2.24	2
Cd	111	103	.0001429635	0.005247	mg/L	7.58	2
Ba	137	103	.0000932449	0.005232	mg/L	3.61	2
Pb	208	185	0.002926110	0.004968	mg/L	5.90	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 049SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:21 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.006725356	0.02029	mg/L	1.57	2
Ni	60	103	0.002379664	0.02023	mg/L	1.73	2
Cu	65	103	0.002910363	0.02051	mg/L	1.95	2
Zn	66	103	.0009896657	0.02189	mg/L	1.45	2
As	75	103	.0006654090	0.02044	mg/L	2.93	2
Se	78	103	.0004741355	0.01965	mg/L	3.54	1
Ag	107	103	0.003846170	0.01984	mg/L	4.33	2
Cd	111	103	.0005344264	0.01966	mg/L	3.66	2
Ba	137	103	.0003631752	0.02045	mg/L	3.32	2
Pb	208	185	0.01164674	0.02071	mg/L	7.25	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 050SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:24 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01639180	0.04978	mg/L	2.37	2
Ni	60	103	0.005816496	0.05007	mg/L	1.34	2
Cu	65	103	0.007206854	0.05105	mg/L	0.76	2
Zn	66	103	0.002264045	0.05069	mg/L	1.72	2
As	75	103	0.001614736	0.04961	mg/L	0.40	2
Se	78	103	0.001201888	0.04992	mg/L	2.06	1
Ag	107	103	0.009726544	0.05026	mg/L	2.46	2
Cd	111	103	0.001388541	0.05111	mg/L	2.73	2
Ba	137	103	.0008789350	0.04953	mg/L	3.89	2
Pb	208	185	0.02867274	0.05145	mg/L	3.09	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 051SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:28 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.06563913	0.2000	mg/L	2.83	2
Ni	60	103	0.02307891	0.2000	mg/L	2.33	2
Cu	65	103	0.02811575	0.1997	mg/L	1.42	2
Zn	66	103	0.008855476	0.1996	mg/L	3.62	2
As	75	103	0.006509451	0.2001	mg/L	2.15	2
Se	78	103	0.004812347	0.2001	mg/L	1.78	1
Ag	107	103	0.03866364	0.1999	mg/L	2.00	2
Cd	111	103	0.005425440	0.1998	mg/L	0.43	2
Ba	137	103	0.003548996	0.2001	mg/L	1.39	2
Pb	208	185	0.1107089	0.1996	mg/L	1.93	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 052SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:31 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03318435	0.1010	mg/L	2.88	2
Ni	60	103	0.01194630	0.1033	mg/L	3.87	2
Cu	65	103	0.01429880	0.1015	mg/L	2.11	2
Zn	66	103	0.004622802	0.1040	mg/L	2.19	2
As	75	103	0.003406947	0.1047	mg/L	2.52	2
Se	78	103	0.002405633	0.09997	mg/L	0.86	1
Ag	107	103	0.02001039	0.1035	mg/L	0.52	2
Cd	111	103	0.002764903	0.1018	mg/L	0.70	2
Ba	137	103	0.001821343	0.1027	mg/L	2.51	2
Pb	208	185	0.05865167	0.1056	mg/L	2.13	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 053SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:34 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-3
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000448806	<0.000	mg/L	20.69	2
Ni	60	103	.0000336903	<0.000	mg/L	53.88	2
Cu	65	103	.0000397462	0.0001015	mg/L	21.55	2
Zn	66	103	.0000505557	0.0006772	mg/L	3.90	2
As	75	103	.0000037342	0.0001009	mg/L	41.15	2
Se	78	103	.0000056126	0.0001699	mg/L	37.12	1
Ag	107	103	.0000366745	0.0001384	mg/L	4.99	2
Cd	111	103	.0000021789	0.00006372	mg/L	62.49	2
Ba	137	103	.0000019119	0.00008237	mg/L	29.20	2
Pb	208	185	.0001196572	<0.000	mg/L	31.14	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 054SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:38 pm
Sample Name: 06/28 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01644086	0.04993	mg/L	2.09	2
Ni	60	103	0.005766217	0.04964	mg/L	1.81	2
Cu	65	103	0.007104614	0.05032	mg/L	1.52	2
Zn	66	103	0.002243877	0.05023	mg/L	3.15	2
As	75	103	0.001658195	0.05095	mg/L	1.43	2
Se	78	103	0.001228796	0.05103	mg/L	1.15	1
Ag	107	103	0.009863087	0.05097	mg/L	0.45	2
Cd	111	103	0.001367400	0.05033	mg/L	0.93	2
Ba	137	103	.0008902459	0.05017	mg/L	1.53	2
Pb	208	185	0.02878209	0.05165	mg/L	3.54	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 055SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:41 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000391600	<0.000	mg/L	11.01	2
Ni	60	103	.0000290389	<0.000	mg/L	22.48	2
Cu	65	103	.0000228360	<0.000	mg/L	67.58	2
Zn	66	103	.0000139460	<0.000	mg/L	28.29	2
As	75	103	.0000018545	0.00004310	mg/L	51.11	2
Se	78	103	.0000043276	0.0001165	mg/L	36.40	1
Ag	107	103	.0000196478	0.00005028	mg/L	4.24	2
Cd	111	103	.0000008788	0.00001586	mg/L	90.86	2
Ba	137	103	.0000012251	0.00004365	mg/L	83.23	2
Pb	208	185	.0000856390	<0.000	mg/L	31.74	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 060SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 05:57 pm
Sample Name: 52983.02s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 245.0

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.005748459	4.242	mg/kg	1.25	2
Ni	60	103	0.006764910	14.29	mg/kg	2.17	2
Cu	65	103	0.004247298	7.353	mg/kg	0.88	2
Zn	66	103	0.003817302	21.02	mg/kg	1.31	2
As	75	103	.0002675883	2.011	mg/kg	3.00	2
Se	78	103	.0000149127	0.1364	mg/kg	22.76	1
Ag	107	103	.0000176168	0.009744	mg/kg	52.34	2
Cd	111	103	.0000180659	0.1589	mg/kg	13.27	2
Ba	137	103	0.003601671	49.74	mg/kg	2.07	2
Pb	208	185	0.01555767	6.805	mg/kg	3.98	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 061SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:00 pm
Sample Name: 52983.03s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 232.0

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.005823811	4.070	mg/kg	2.96	2
Ni	60	103	0.003900855	7.759	mg/kg	3.49	2
Cu	65	103	0.006490367	10.66	mg/kg	2.42	2
Zn	66	103	0.003523702	18.36	mg/kg	2.28	2
As	75	103	.0003449913	2.457	mg/kg	2.54	2
Se	78	103	.0000206031	0.1840	mg/kg	11.27	1
Ag	107	103	.0000441049	0.04101	mg/kg	0.69	2
Cd	111	103	.0000233247	0.1954	mg/kg	8.90	2
Ba	137	103	0.004959702	64.87	mg/kg	2.54	2
Pb	208	185	0.02171560	9.023	mg/kg	1.24	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 062SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:03 pm
Sample Name: 52983.03 MS-0.10
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 232.0

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.04056922	28.66	mg/kg	3.24	2
Ni	60	103	0.01526596	30.65	mg/kg	2.47	2
Cu	65	103	0.02033366	33.49	mg/kg	2.42	2
Zn	66	103	0.007594373	39.70	mg/kg	0.52	2
As	75	103	0.003717079	26.50	mg/kg	2.09	2
Se	78	103	0.002793554	26.93	mg/kg	0.19	1
Ag	107	103	0.01923682	23.07	mg/kg	1.87	2
Cd	111	103	0.002798774	23.90	mg/kg	2.18	2
Ba	137	103	0.005214158	68.20	mg/kg	3.49	2
Pb	208	185	0.07591511	31.72	mg/kg	1.77	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 063SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:06 pm
Sample Name: 52893.03 MSD
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 216.0

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.04027774	26.49	mg/kg	3.07	2
Ni	60	103	0.01502297	28.08	mg/kg	2.75	2
Cu	65	103	0.02020739	30.99	mg/kg	3.83	2
Zn	66	103	0.007523028	36.61	mg/kg	3.88	2
As	75	103	0.003733134	24.78	mg/kg	2.80	2
Se	78	103	0.002851680	25.60	mg/kg	2.69	1
Ag	107	103	0.01949508	21.77	mg/kg	3.36	2
Cd	111	103	0.002905555	23.10	mg/kg	2.14	2
Ba	137	103	0.004549554	55.40	mg/kg	1.14	2
Pb	208	185	0.08113911	31.57	mg/kg	4.67	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 064SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:10 pm
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03251316	0.09896	mg/L	2.56	2
Ni	60	103	0.01142087	0.09873	mg/L	2.20	2
Cu	65	103	0.01420167	0.1008	mg/L	1.43	2
Zn	66	103	0.004435532	0.09975	mg/L	1.76	2
As	75	103	0.003189676	0.09802	mg/L	2.50	2
Se	78	103	0.002645670	0.1099	mg/L	1.49	1
Ag	107	103	0.01945202	0.1006	mg/L	1.07	2
Cd	111	103	0.002648728	0.09751	mg/L	0.86	2
Ba	137	103	0.001698337	0.09573	mg/L	0.30	2
Pb	208	185	0.05738242	0.1033	mg/L	3.36	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 065SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:13 pm
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000600280	<0.000	mg/L	51.90	2
Ni	60	103	.0000261875	<0.000	mg/L	8.48	2
Cu	65	103	.0000361279	0.00007582	mg/L	39.91	2
Zn	66	103	.0000540462	0.0007561	mg/L	7.96	2
As	75	103	.0000026525	0.00006763	mg/L	41.37	2
Se	78	103	.0000072424	0.0002377	mg/L	14.72	1
Ag	107	103	.0000331303	0.0001200	mg/L	9.27	2
Cd	111	103	.0000008679	0.00001546	mg/L	75.94	2
Ba	137	103	.0000016296	0.00006646	mg/L	28.77	2
Pb	208	185	.0001140953	<0.000	mg/L	62.70	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 066SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:16 pm
Sample Name: 52983.03 MS-0.10
Sample Type: Sample
Matrix: Soil
Comments: known addition
Dilution: 232.0

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ba	137	103	0.006735429	88.09	mg/kg	5.27	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 073SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:38 pm
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03181208	0.09683	mg/L	2.54	2
Ni	60	103	0.01112505	0.09617	mg/L	2.56	2
Cu	65	103	0.01411880	0.1002	mg/L	1.53	2
As	75	103	0.003146213	0.09668	mg/L	1.49	2
Se	78	103	0.002566776	0.1067	mg/L	1.14	1
Ag	107	103	0.01969470	0.1018	mg/L	2.01	2
Cd	111	103	0.002664988	0.09811	mg/L	0.59	2
Ba	137	103	0.001735610	0.09783	mg/L	3.32	2
Pb	208	185	0.05816544	0.1047	mg/L	2.82	2

Data Set: MT3-12-0628B
Run Date: 06/28/12

Metals Quantitation Summary Report

Analyst: SLR
Instrument: HP ICP/MS

Sequence #: 074SMPL.D#
Method: 01-Mi10.M
Acq Time: Jun 28 2012 06:42 pm
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-062812-6
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000472497	<0.000	mg/L	18.71	2
Ni	60	103	.0000249140	<0.000	mg/L	4.38	2
Cu	65	103	.0000371966	0.00008342	mg/L	30.09	2
As	75	103	.0000032139	0.00008488	mg/L	48.01	2
Se	78	103	.0000059202	0.0001827	mg/L	25.34	1
Ag	107	103	.0000297368	0.0001025	mg/L	11.64	2
Cd	111	103	.0000013531	0.00003332	mg/L	43.55	2
Ba	137	103	.0000019472	0.00008437	mg/L	37.35	2
Pb	208	185	.0001565500	<0.000	mg/L	163.82	2

Metals Digestion

3015A (3050B)

DATE 06/28/12

TIME START 13:05

ANALYST SR

TIME FINISH 13:35

PREP BATCH MTD- 062812-6

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS - 6	----	50	50		—	1
LRB- 6	----	50	50		—	1
52910.01		0.500		5/1 Dil = 500	100	100
52959.02		0.264			80	237
03		0.221		wet weight: ..	91	249
52983.02		0.243		206	84	245
03		0.237		211	91	232
03MS		0.237		211	91	232
03MSD		0.254		197	91	216
53002.03		0.0208		(M3 balance used)	100	2404
53003.26		0.193			100	259
27		0.246			100	203
28		0.0230		(M3 balance used)	100	2174
29		0.0164		(M3 balance used)	100	3049

NOTES: *1) Spike values (unless otherwise stated):*
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078 + D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM) - Lot # 112533

3) HNO_3 Lot # 51332-OmniTrace

4) Centrifuge Tube Lot # 120201-060-1

5) Balance ID: M2

Reviewed by JM *On* 06/28/12

Form 0: Sequence Log

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	7/2/2012 1:43:59 PM	Calibration Blank	Liquid	
002	7/2/2012 1:46:14 PM	Standard #1	Liquid	
003	7/2/2012 1:48:28 PM	Standard #2	Liquid	
004	7/2/2012 1:50:42 PM	Standard #3	Liquid	
005	7/2/2012 1:52:55 PM	Standard #4	Liquid	
006	7/2/2012 1:55:07 PM	Standard #5	Liquid	
007	7/2/2012 1:57:19 PM	Standard #6	Liquid	
008	7/2/2012 2:00:39 PM	Standard #7	Liquid	
009	7/2/2012 2:04:46 PM	CCV1-2.0 ppb	Liquid	CCV
010	7/2/2012 2:07:05 PM	CCB1	Liquid	CCB
011	7/2/2012 2:09:23 PM	ICV-5.0	Liquid	ICV
012	7/2/2012 2:12:41 PM	ICB	Liquid	ICB
013	7/2/2012 2:14:58 PM	ERA P177514 TV=25.7	Liquid	ERA
014	7/2/2012 2:18:02 PM	BS-0.10	Liquid	BS
015	7/2/2012 2:20:39 PM	07/02 LCS1-2.0 ppb	Liquid	LCS
016	7/2/2012 2:23:00 PM	07/02 LRB1	Liquid	LRB
017	7/2/2012 2:25:12 PM	53055.01s	Liquid	S
018	7/2/2012 2:27:26 PM	53055.01 MS-2.0 ppb	Liquid	MS
019	7/2/2012 2:29:40 PM	53055.01 MSD	Liquid	MSD
020	7/2/2012 2:31:59 PM	CCV2-2.0 ppb	Liquid	CCV
021	7/2/2012 2:34:18 PM	CCB2	Liquid	CCB
022	7/2/2012 2:36:29 PM	52922.01s tclp	Liquid	S
023	7/2/2012 2:38:41 PM	52923.01s tclp	Liquid	S
024	7/2/2012 2:40:53 PM	52923.03s tclp	Liquid	S
025	7/2/2012 2:43:06 PM	52923.04s tclp	Liquid	S
026	7/2/2012 2:45:19 PM	52925.01s tclp	Liquid	S
027	7/2/2012 2:47:33 PM	52939.01s tclp	Liquid	S
028	7/2/2012 2:49:48 PM	52939.02s tclp	Liquid	S
029	7/2/2012 2:51:59 PM	52939.03s tclp	Liquid	S
030	7/2/2012 2:54:12 PM	53056.01s	Liquid	S
031	7/2/2012 2:56:30 PM	CCV3-2.0 ppb	Liquid	CCV
032	7/2/2012 2:58:50 PM	CCB3	Liquid	CCB
033	7/2/2012 3:01:08 PM	06/27 Blank tclp	Liquid	
034	7/2/2012 3:03:22 PM	52926.01s tclp	Liquid	S
035	7/2/2012 3:05:37 PM	52966.01s tclp	Liquid	S
036	7/2/2012 3:07:50 PM	52966.02s tclp	Liquid	S
037	7/2/2012 3:10:03 PM	52966.03s tclp	Liquid	S
038	7/2/2012 3:12:16 PM	52966.04s tclp	Liquid	S
039	7/2/2012 3:14:31 PM	52947.02s tclp	Liquid	S
040	7/2/2012 3:16:45 PM	52947.03s tclp	Liquid	S
041	7/2/2012 3:19:01 PM	52947.04s tclp	Liquid	S
042	7/2/2012 3:21:16 PM	52947.01s tclp	Liquid	S
043	7/2/2012 3:23:30 PM	52947.01 MS-2.0 ppb	Liquid	MS
044	7/2/2012 3:25:43 PM	52947.01 MSD	Liquid	MSD
045	7/2/2012 3:28:02 PM	CCV4-2.0 ppb	Liquid	CCV
046	7/2/2012 3:30:21 PM	CCB4	Liquid	CCB
047	7/2/2012 3:32:42 PM	07/02 LCS2-2.0 ppb	Soil	LCS
048	7/2/2012 3:35:03 PM	07/02 LRB2	Soil	LRB
049	7/2/2012 3:37:17 PM	52933.24s	Soil	S
050	7/2/2012 3:39:32 PM	52983.02s	Soil	S
051	7/2/2012 3:41:47 PM	52983.03s	Soil	S
052	7/2/2012 3:44:03 PM	53000.02s	Soil	S
053	7/2/2012 3:46:20 PM	53000.03s	Soil	S

Form 0: Sequence Log

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	7/2/2012 3:48:34 PM	53000.04s	Soil	S
055	7/2/2012 3:50:48 PM	53000.05s	Soil	S
056	7/2/2012 3:53:03 PM	53000.06s	Soil	S
057	7/2/2012 3:55:18 PM	53000.07s	Soil	S
058	7/2/2012 3:57:34 PM	53000.07 MS-2.0 ppb	Soil	MS
059	7/2/2012 3:59:51 PM	53000.07 MSD	Soil	MSD
060	7/2/2012 4:02:10 PM	CCV5-2.0 ppb	Liquid	CCV
061	7/2/2012 4:04:29 PM	CCB5	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Lab Sample ID: S52983.02
Sample Tag: SB121 (06-25-12) (3-5)
Date Collected: 06/25/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	59	07/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Lab Sample ID: S52983.03
Sample Tag: SB116 (06-25-12) (1-2)
Date Collected: 06/25/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	54	07/02/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 CCV1-2.0 ppb	CCV	1.0	Hg	2.032	2.0	102	90/110	ug/L	Liquid
011 ICV-5.0	ICV	1.0	Hg	4.793	5.0	96	90/110	ug/L	Liquid
020 CCV2-2.0 ppb	CCV	1.0	Hg	2.049	2.0	103	90/110	ug/L	Liquid
031 CCV3-2.0 ppb	CCV	1.0	Hg	2.073	2.0	104	90/110	ug/L	Liquid
045 CCV4-2.0 ppb	CCV	1.0	Hg	2.069	2.0	104	90/110	ug/L	Liquid
060 CCV5-2.0 ppb	CCV	1.0	Hg	2.075	2.0	104	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: P177-514

Data Set ID: HG2-12-0702A

Instrument ID: HG QuickTrace

Analysis Date: 07/02/12

Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
013 ERA P177514 TV=25.7	5.0	Hg	26.93	25.7	105	20.2	31.1	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0300	ug/L	Liquid
012 ICB	ICB	1.0	Hg	<0.03	-0.0297	ug/L	Liquid
016 07/02 LRB1	LRB	1.0	Hg	<0.03	-0.0465	ug/L	Liquid
021 CCB2	CCB	1.0	Hg	<0.03	-0.0323	ug/L	Liquid
032 CCB3	CCB	1.0	Hg	<0.03	-0.0301	ug/L	Liquid
046 CCB4	CCB	1.0	Hg	<0.03	-0.0297	ug/L	Liquid
048 07/02 LRB2	LRB	50.0	Hg	<0.03	-2.3200	ug/kg	Soil
061 CCB5	CCB	1.0	Hg	<0.03	-0.0305	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
014 BS-0.10		1.0	Hg	0.0831	ND	0.10	83	70/130	ug/L	Liquid
018 53055.01 MS-2.0	**017 53055.01s**	1.0	Hg	1.777	<0.2	2.0	89	80/120	ug/L	Liquid
043 52947.01 MS-2.0	**042 52947.01s tclp**	2.0	Hg	4.242	<0.2	4.0	106	80/120	ug/L	Liquid
058 53000.07 MS-2.0	**057 53000.07s**	52.0	Hg	107.9	<50	104.0	104	80/120	ug/kg	Soil

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
019 53055.01 MSD	**018 53055.01 MS-2.0**	1.0	Hg	1.781	1.777	0	0/20	ug/L	Liquid
044 52947.01 MSD	**043 52947.01 MS-2.0**	2.0	Hg	4.194	4.242	1	0/20	ug/L	Liquid
059 53000.07 MSD	**058 53000.07 MS-2.0**	52.4	Hg	110.3	107.9	2	0/20	ug/kg	Soil

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 07/02 LCS1-2.0 ppb	1.0	Hg	2.008	2.0	100	85/115	ug/L	Liquid
047 07/02 LCS2-2.0 ppb	50.0	Hg	103.4	100	103	85/115	ug/kg	Soil

Form 13: Analysis Run Log

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	7/2/2012 1:43:59 PM	Liquid	Hg
002 Standard #1	7/2/2012 1:46:14 PM	Liquid	Hg
003 Standard #2	7/2/2012 1:48:28 PM	Liquid	Hg
004 Standard #3	7/2/2012 1:50:42 PM	Liquid	Hg
005 Standard #4	7/2/2012 1:52:55 PM	Liquid	Hg
006 Standard #5	7/2/2012 1:55:07 PM	Liquid	Hg
007 Standard #6	7/2/2012 1:57:19 PM	Liquid	Hg
008 Standard #7	7/2/2012 2:00:39 PM	Liquid	Hg
009 CCV1-2.0 ppb	7/2/2012 2:04:46 PM	Liquid	Hg
010 CCB1	7/2/2012 2:07:05 PM	Liquid	Hg
011 ICV-5.0	7/2/2012 2:09:23 PM	Liquid	Hg
012 ICB	7/2/2012 2:12:41 PM	Liquid	Hg
013 ERA P177514 TV=25.7	7/2/2012 2:14:58 PM	Liquid	Hg
014 BS-0.10	7/2/2012 2:18:02 PM	Liquid	Hg
015 07/02 LCS1-2.0 ppb	7/2/2012 2:20:39 PM	Liquid	Hg
016 07/02 LRB1	7/2/2012 2:23:00 PM	Liquid	Hg
017 53055.01s	7/2/2012 2:25:12 PM	Liquid	Hg
018 53055.01 MS-2.0 ppb	7/2/2012 2:27:26 PM	Liquid	Hg
019 53055.01 MSD	7/2/2012 2:29:40 PM	Liquid	Hg
020 CCV2-2.0 ppb	7/2/2012 2:31:59 PM	Liquid	Hg
021 CCB2	7/2/2012 2:34:18 PM	Liquid	Hg
022 52922.01s tclp	7/2/2012 2:36:29 PM	Liquid	Hg
023 52923.01s tclp	7/2/2012 2:38:41 PM	Liquid	Hg
024 52923.03s tclp	7/2/2012 2:40:53 PM	Liquid	Hg
025 52923.04s tclp	7/2/2012 2:43:06 PM	Liquid	Hg
026 52925.01s tclp	7/2/2012 2:45:19 PM	Liquid	Hg
027 52939.01s tclp	7/2/2012 2:47:33 PM	Liquid	Hg
028 52939.02s tclp	7/2/2012 2:49:48 PM	Liquid	Hg
029 52939.03s tclp	7/2/2012 2:51:59 PM	Liquid	Hg
030 53056.01s	7/2/2012 2:54:12 PM	Liquid	Hg
031 CCV3-2.0 ppb	7/2/2012 2:56:30 PM	Liquid	Hg
032 CCB3	7/2/2012 2:58:50 PM	Liquid	Hg
033 06/27 Blank tclp	7/2/2012 3:01:08 PM	Liquid	Hg
034 52926.01s tclp	7/2/2012 3:03:22 PM	Liquid	Hg
035 52966.01s tclp	7/2/2012 3:05:37 PM	Liquid	Hg
036 52966.02s tclp	7/2/2012 3:07:50 PM	Liquid	Hg
037 52966.03s tclp	7/2/2012 3:10:03 PM	Liquid	Hg
038 52966.04s tclp	7/2/2012 3:12:16 PM	Liquid	Hg
039 52947.02s tclp	7/2/2012 3:14:31 PM	Liquid	Hg
040 52947.03s tclp	7/2/2012 3:16:45 PM	Liquid	Hg
041 52947.04s tclp	7/2/2012 3:19:01 PM	Liquid	Hg
042 52947.01s tclp	7/2/2012 3:21:16 PM	Liquid	Hg
043 52947.01 MS-2.0 ppb	7/2/2012 3:23:30 PM	Liquid	Hg
044 52947.01 MSD	7/2/2012 3:25:43 PM	Liquid	Hg
045 CCV4-2.0 ppb	7/2/2012 3:28:02 PM	Liquid	Hg
046 CCB4	7/2/2012 3:30:21 PM	Liquid	Hg
047 07/02 LCS2-2.0 ppb	7/2/2012 3:32:42 PM	Soil	Hg
048 07/02 LRB2	7/2/2012 3:35:03 PM	Soil	Hg
049 52933.24s	7/2/2012 3:37:17 PM	Soil	Hg
050 52983.02s	7/2/2012 3:39:32 PM	Soil	Hg
051 52983.03s	7/2/2012 3:41:47 PM	Soil	Hg
052 53000.02s	7/2/2012 3:44:03 PM	Soil	Hg
053 53000.03s	7/2/2012 3:46:20 PM	Soil	Hg

Form 13: Analysis Run Log

Data Set ID: HG2-12-0702A
Instrument ID: HG QuickTrace
Analysis Date: 07/02/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
054 53000.04s	7/2/2012 3:48:34 PM	Soil	Hg
055 53000.05s	7/2/2012 3:50:48 PM	Soil	Hg
056 53000.06s	7/2/2012 3:53:03 PM	Soil	Hg
057 53000.07s	7/2/2012 3:55:18 PM	Soil	Hg
058 53000.07 MS-2.0 ppb	7/2/2012 3:57:34 PM	Soil	Hg
059 53000.07 MSD	7/2/2012 3:59:51 PM	Soil	Hg
060 CCV5-2.0 ppb	7/2/2012 4:02:10 PM	Liquid	Hg
061 CCB5	7/2/2012 4:04:29 PM	Liquid	Hg

Data Set: HG2-12-0702A
Run Date: 07/02/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	7/2/2012 1:43:59 PM	Calibration Blank	324.3000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	7/2/2012 1:46:14 PM	Standard #1	1633.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	7/2/2012 1:48:28 PM	Standard #2	2850.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	7/2/2012 1:50:42 PM	Standard #3	6887.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	7/2/2012 1:52:55 PM	Standard #4	12870.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	7/2/2012 1:55:07 PM	Standard #5	25140.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	7/2/2012 1:57:19 PM	Standard #6	72560.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	7/2/2012 2:00:39 PM	Standard #7	120800.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	7/2/2012 2:04:46 PM	CCV1-2.0 ppb	25060.0000	2.0320	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	7/2/2012 2:07:05 PM	CCB1	279.9000	-0.0300	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	7/2/2012 2:09:23 PM	ICV-5.0	58240.0000	4.7930	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	7/2/2012 2:12:41 PM	ICB	283.1000	-0.0297	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	7/2/2012 2:14:58 PM	ERA P177514 TV=25.7	65380.0000	26.9350	ug/L	Liquid	5.0	1.0000	5.0000
Hg	014	7/2/2012 2:18:02 PM	BS-0.10	1639.0000	0.0831	ug/L	Liquid	1.0	1.0000	1.0000
Hg	015	7/2/2012 2:20:39 PM	07/02 LCS1-2.0 ppb	24770.0000	2.0080	ug/L	Liquid	1.0	1.0000	1.0000
Hg	016	7/2/2012 2:23:00 PM	07/02 LRB1	80.7400	-0.0465	ug/L	Liquid	1.0	1.0000	1.0000
Hg	020	7/2/2012 2:31:59 PM	CCV2-2.0 ppb	25260.0000	2.0490	ug/L	Liquid	1.0	1.0000	1.0000
Hg	021	7/2/2012 2:34:18 PM	CCB2	252.2000	-0.0323	ug/L	Liquid	1.0	1.0000	1.0000
Hg	031	7/2/2012 2:56:30 PM	CCV3-2.0 ppb	25560.0000	2.0730	ug/L	Liquid	1.0	1.0000	1.0000
Hg	032	7/2/2012 2:58:50 PM	CCB3	277.6000	-0.0301	ug/L	Liquid	1.0	1.0000	1.0000
Hg	033	7/2/2012 3:01:08 PM	06/27 Blank tclp	277.3000	-0.0302	ug/L	Liquid	1.0	1.0000	1.0000
Hg	045	7/2/2012 3:28:02 PM	CCV4-2.0 ppb	25510.0000	2.0690	ug/L	Liquid	1.0	1.0000	1.0000
Hg	046	7/2/2012 3:30:21 PM	CCB4	283.4000	-0.0297	ug/L	Liquid	1.0	1.0000	1.0000
Hg	047	7/2/2012 3:32:42 PM	07/02 LCS2-2.0 ppb	25500.0000	103.4000	ug/kg	Soil	50.0	0.5000	25.0000
Hg	048	7/2/2012 3:35:03 PM	07/02 LRB2	82.3100	-2.3200	ug/kg	Soil	50.0	0.5000	25.0000
Hg	050	7/2/2012 3:39:32 PM	52983.02s	3817.0000	15.4674	ug/kg	Soil	58.5	0.4270	25.0000
Hg	051	7/2/2012 3:41:47 PM	52983.03s	6815.0000	27.8480	ug/kg	Soil	54.2	0.4610	25.0000
Hg	060	7/2/2012 4:02:10 PM	CCV5-2.0 ppb	25580.0000	2.0750	ug/L	Liquid	1.0	1.0000	1.0000
Hg	061	7/2/2012 4:04:29 PM	CCB5	273.7000	-0.0305	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 12:55
TIME FINISH: 15:00 TEMP: block #1 95 °C
PREP BATCH: HGD-070212-2 block #2 95 °C
BALANCE ID: M1 block #3 95 °C

DATE 07/02/12
ANALYST RH
REVIEWED BY SM
REVIEW DATE 07/03/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 2	------	0.5	--------	----------	50	25g	
LRB- 2	------	0.5	--------	----------	50	25g	
52933.24	1	0.210			119		
52983.02	2	0.508	84	0.427	58		
03	1	0.507	91	0.461	54		
53000.02	1	0.514	89	0.457	55		
03	1	0.499	93	0.464	54		
04	1	0.512	51	0.261	96		
05	1	0.499	93	0.464	54		
06	1	0.514	94	0.483	52		
07	1	0.498	96	0.478	52		
07MS	1	0.501	96	0.481	52		
07MSD	1	0.497	96	0.477	52		

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 113201 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)

Effective Date 7/20/11

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 6/28/12 Date Finished: 6/29/12 Date Checked: 7/10/12

Time Started: 12:00 Time Finished: 12:00 Checked By: BB

Analyst: Ann Temperature: 103°C Batch: TS120628b

Time in Oven: 24:00 hours Balance ID: 51 Oven ID: QL

Merit #	Dish #	Dish Wt. (g)	Wet Smpl. + Dish Wt. (g)	Dry Smpl + Dish Wt. (g)	Ash Smpl + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	1	1.37	1.37	1.37		—		
LCS	2	1.36	10.83	10.83		100		
52983.02	3	1.36	12.19	10.42		84		
Dup 1 .02	4	1.38	15.75	13.17		82		
.03	5	1.32	11.46	10.51		91		
96.01	6	1.38	10.44	9.57		90		
.02	7	1.4	10.83	10.36		95		
.03	8	1.36	12.86	12.19		94		
99.01	9	1.35	15.2	14.34		94		
.02	10	1.41	18.28	15.92		86		
53000.02	11	1.35	10.89	9.82		89		
.03	12	1.34	11.26	10.54		93		
.04	13	1.3	19.38	10.49		51		
.05	14	1.36	11.37	10.63		93		
Dup 2 .05	15	1.36	11.08	10.39		93		
.06	16	1.36	10.29	9.72		94		
.07	17	1.37	11.75	11.38		96		
013.01	18	1.47	9.84	8.88		89		
0.13-02	19	1.35	13.02	11.63		88		

% LCS Recovery: 100 Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 2 Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): 0

Method 5035A (High Level)
Extraction Sheet

Analyst: LBR
Date: 7-2-12
Batch QC ID#: _____

Merit Number	Tare wt (g)	Vial wt (g)	Sample wt.(g)	Methanol (mL)	Sonicate (min)	Time Start / End	Notes
52969 07	32.049	42.670	10.621	11	✓	12:05	
08	32.061	41.579	9.518	10	✓		
09	32.069	42.719	10.650	11	✓		
10	32.083	40.828	8.745	10	✓		
11	32.150	43.656	11.506	12	✓		
12	31.480	44.208	12.728	12	✓		
13	32.035	46.897	14.862	15	✓		
14	32.086	43.241	11.155	11	✓		
52976 11	32.182	43.063	10.941	11	✓		
12	32.039	45.092	13.053	13	✓		
13	31.463	43.827	11.954	12	✓		
14	32.134	42.845	10.711	11	✓		
15	32.214	46.571	14.357	14	✓		
52953.01	31.220	31.199	—	0	✓		
02	31.241	46.865	15.624	16	✓		
03	31.261	48.091	16.830	17	✓		
52996.01	32.140	39.557	7.417	10	✓		
02	32.135	40.819	8.684	10	✓		
05	31.963	39.997	8.034	10	✓		
53000.02	32.243	49.541	17.298	17	✓		
03	31.960	49.670	17.710	18	✓		
04	32.030	49.814	17.784	18	✓		
05	31.958	47.941	15.983	16	✓		
06	32.045	47.940	15.895	16	✓		
07	32.003	48.805	16.802	17	✓		
53027.03	32.105	44.473	12.368	13	✓		
53031 01	31.554	42.898	11.339	11	✓		
02	31.644	46.259	14.615	15	✓		
03	31.459	47.086	15.627	16	✓		
04	31.535	43.043	11.508	12	✓		
05	31.578	44.151	12.573	13	✓		
53032 06	31.536	43.635	12.099	12	✓		
53032 01	31.554	43.551	11.997	12	✓		
53032.02	31.639	45.607	13.968	14	✓		
03	31.463	42.917	11.454	11	✓		
04	31.720	45.513	13.793	14	✓	12:32	

Balance ID: VI
Methanol Lot: DE645 / 50349

Reviewed By: CH
Date: 7/2/12

5035A High Level

Prepared by Merit Laboratories, Inc.

Effective Date 6/14/12

Solvent Lot #: 51357
Na2SO4 Lot #: 0601C505
SSD #: PR120620
MS/LCS #: PP120619

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 6-28-2012
Time Started: 12:00
Time Ended: 2:30 pm
Batch ID#: SP120628501

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	ewr		
	LCS	Sand	30.0 g	↓	↓	↓	↓	1	↓	ev3	
	LCSD	Sand	30.0 g	↓	↓	↓	↓	1	↓	↓	[X]
	MS							1			[ ]
	MSD							1			
1	52261.03	soil	30.0g	CH_2Cl_2	180	1ml	1ml		ewr	ev3	LOD - PPR120626
2	.04	↓	30.0	↓	↓	↓	↓		↓	↓	LOQ - ↓
3	52976.11		30.4			↓					
4	.12		30.3			2ml					
5	.13		30.1			2ml					
6	.14		30.0			2ml					
7	.15		30.0			2ml					
8	52983.02		30.2			1ml					
9	.03		30.0								
10	52996.01		30.0								
11	.02		30.0								
12	.03		30.2								
13	52999.01		30.0								
14	.02	↓	29.9	↓	↓	↓	↓		↓	↓	
15											
16											
17											
18											
19											
20											

Reviewed by: M On: 6/29 Balance ID: e2

Prepared by: Merit Laboratories, Inc.

Effective Date 8/1/2011

Hexane 51223
Ether/Hexane 5110812 9/51223
Na_2SO_4 060 IC505
H_2SO_4 50328
SSD# 175509
PCB MS ID# 11MS04 Pest MS ID#

PCB/Pesticide Extraction
Method 3550B

Date 06/28/12
Time Started 9:00
Time Ended 14:30
Prep Batch ID# PA120628SO1
Balance ID# E2

#	Merit #	Matrix	Sample Wt. (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Alumina Cleanup	Dioxin Cleanup	Turbo Vap	Notes
Initial Q.C.	BLANK	Soil	20.0	Hexane	180	1	1		ADB			EV2	
	LCS	↓	↓	↓	↓	↓	↓	1	↓			↓	
	LCSD	↓	↓	↓	↓	↓	↓	1	↓			↓	
	MS												
	MSD												
1	52968.04	roofing	3.0	Hexane	180	1	1		ADB	X		EV2	
2	52970.03	Conc.	10.0	↓	↓	↓	↓		↓			↓	
3	↓ .04	↓	10.1							X			
4	↓ .05	↓	10.0										
5	52976.01	Soil	20.2										
6	.02		20.1										
7	.03		20.2										
8	.04		20.0										
9	.05		20.2										
10	.06		20.0										
11	.07		20.1										
12	.08		20.1										
13	.09		20.1										
14	↓ .10	↓	20.0										
15	52983.02	Soil	20.2										
16	↓ .03	↓	20.0										
17	52966.01	Soil	0.3							X			
18	.02									X	X		
19	.03									X			
20	↓ .04	↓	↓	↓	↓	↓	↓		↓	X		↓	

Reviewed by: JBH On: 06/29/12

Effective Date 8/1/2011

Prepared by: Merit Laboratories, Inc.

Merit Laboratories, Inc.

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C.O.C. PAGE # 1 OF 1

69205

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: SUSAN HOERTT
COMPANY: HALEY + ALDRICH
ADDRESS: 8899 GANDER CREEK DRIVE
CITY: MIAMISBURG STATE: OH ZIP CODE: 45342
PHONE NO.: 937-530-1408 FAX NO.: 937-530-1458 P.O. NO.: —
E-MAIL ADDRESS: ~~SHOERTT~~ SHoerTT@haleyaldrich.com QUOTE NO.: —

INVOICE TO

CONTACT NAME: Melanie Satanek ☐ SAME
COMPANY: Haley + Aldrich
ADDRESS: 5755 Granger Rd Suite 320
CITY: Cleveland STATE: OH ZIP CODE: 44131
PHONE NO.: 216 206 - 1320 E-MAIL ADDRESS: MSatanek@haleyaldrich.com

PROJECT NO./NAME: RACER GMPT LIVONIA
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Megan Lashley-Humphrey

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications NA
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☒ Other Livonia MI

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	VOC	PCB	Michigan 10 Metals	Special Instructions
52983.01	6/25/12	[redacted]	2306-062512-0001	SO	1						1		X			Trip Blank
.02	6/25/12	8:45	SB121 (06-25-12) (3-5)	SO	2	1					1		X	X	X	Normal
.03	6/25/12	11:30	SB116 (06-25-12) (1-2)	SO	2	1					1		X	X	X	Normal

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
Megan Lashley-Humphrey / Haley + Aldrich	☒ Sampler	6/26/12	11:55
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
Mark / Haley + Aldrich		6.26.12	11:55
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
	6.26.12	12:55

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.3

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S52983
Client: HALEYALDRICH (Haley & Aldrich)
Project: RACER GMPT Livonia
Submitted: 06/26/2012 12:55 Login User: ASB

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.3oC
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Accounts Payable

Address: Haley & Aldrich, Inc.
70 Blanchard Rd.
Ste. 430
Burlington, MA 01803-5100

Phone: 617-886-7400 FAX: 617-886-7900

Email: Haley Aldrich Invoice Group

Set ID: S52983 Location: HALEYALDRICH (Haley & Aldrich)

Project: RACER GMPT Livonia PO #:

Submitted: 06/26/2012 12:55 Due Date: 07/10/2012 Collected by: M.Castles Humphrey Login by: ASB

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S52983.01	2306-062512-0001	Methanol	06/25/2012 00:01	69205
S52983.02	SB121 (06-25-12) (3-5)	Soil	06/25/2012 08:45	69205
S52983.03	SB116 (06-25-12) (1-2)	Soil	06/25/2012 11:30	69205

Samples: S52983.01

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260	Volatile Organics 5035	8260B/5035	mg/kg	07/09/2012
METHEXT	5035 Methanol Extraction	5035		03/21/2015

Samples: S52983.02-03

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260	Volatile Organics 5035	8260B/5035	mg/kg	07/09/2012
METHEXT	5035 Methanol Extraction	5035		03/21/2015
$PNA8270	Polynuclear Aromatics	8270C	mg/kg	08/04/2012
2115SMS	Arsenic	6020	mg/kg	12/22/2012
2120SMS	Barium	6020	mg/kg	12/22/2012
2135SMS	Cadmium	6020	mg/kg	12/22/2012
2145SMS	Chromium	6020	mg/kg	12/22/2012
2155SMS	Copper	6020	mg/kg	12/22/2012
2165SMS	Lead	6020	mg/kg	12/22/2012
2185S	Mercury	7471A	mg/kg	07/23/2012
2205SMS	Selenium	6020	mg/kg	12/22/2012
2215SMS	Silver	6020	mg/kg	12/22/2012
2245SMS	Zinc	6020	mg/kg	12/22/2012
1605S	Metal Digestion	3050B		12/22/2012
1605HGS	Mercury Digestion	7471A		07/23/2012
PNAEXTS	Semi Volatile Extraction	3550B		07/09/2012
1120S	Extraction, PCB	3550B		07/09/2012
4605	Total Solids	Std M 2540 B	%	07/23/2012
$TCL8082C1	TCL PCB List (Column 1)	8082A	mg/kg	08/04/2012
$TCL8082C2	TCL PCB List (Column 2)	8082A	mg/kg	08/04/2012

MERIT LABORATORIES, INC.
2680 EAST LANSING DRIVE EAST LANSING • MICHIGAN • 48823
PHONE: 517-332-0167 FAX: 517-332-6333
FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

HALEY & ALDRICH

PROJECT:
RACER GMPT LIVONIA

SDG Batch:
53243.01

Prepared by:
Merit Laboratories, Inc.

August 7, 2012

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HALEY & ALDRICH
RACER GMPT LIVONIA

SDG Batch:
53243

Pages 1 - 400

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53243.01 - .06

	References		Pages		Checklist	
Deliverable	**Merit**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	32	☑	☐
4. **Volatiles Data**			33	194		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			195	253		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
6. **PCB Data**			254	312		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
c. Standards Data (All Instruments)						
Initial Calibration of Multicomponent Data	F. 6	F. VI			☑	☐
Chromatograms and Quantitation Reports for all IC Standards					☑	☐
Calibration Check Standard	F. 7b	F. VII			☑	☐
Chromatograms and Quantitation Reports for all CC Standards					☑	☐
d. Raw QC Data						
Chromatograms and Quantitation Reports - Column 1					☑	☐
Chromatograms and Quantitation Reports - Column 2					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
10. **Miscellaneous Data**			395	397		
Preparation / Extraction logbooks					☑	☐
11. **Shipping / Receiving Documents**			398	400		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53243.01 - .06

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	32	☑	☐
7. **ICP/MS Metals Data**			313	375		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
8. **Mercury Data**			376	393		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
9. **Total Solids Data**			394	394		
Bench Sheet - sample and QC sample evaluation					☑	☐
11. **Shipping / Receiving Documents**			398	400		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

MERIT LABORATORIES, INC.
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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: RACER GMPT LIVONIA
Merit IDs: S53243.01-S53243.06

Field Sampling: Corey Barver performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (07/18/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Notes: Dilution test not applicable if measured concentration is less than 100 times MDL.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120720A5:

- The CCC had the compounds Methyl Acetate and 4-Methyl-2-pentanone.

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Run-Batch 120726A7:

- The LCS had low recoveries for the compounds Methyl Acetate, 4-Methyl-2-pentanone, and 1,1,2,2-Tetrachloroethane.
- The CCC had the compounds Methyl Acetate, 2-Butanone, Dichlorodifluoromethane, Bromomethane, 4-Methyl-2-pentanone, 2-Hexanone, and 1,2-Dibromo-3-chloropropane.

PCBs: The organic method utilized for this SDG was 8082A (GC/ECD). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barb Ball
QA Officer

08/07/12
Date

Analytical Laboratory Report

Report ID: S53243.01(01)
Generated on 07/31/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53243.01-S53243.06
Project: RACER GMPT Livonia
Collected Date: 07/16/2012 - 07/17/2012
Submitted Date/Time: 07/18/2012 11:40
Sampled by: Corey Barver
P.O. #: PO12727

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S53243.01	SB 123 (07-16-12) (6-8)	Soil	07/16/2012 13:30
S53243.02	SB 124 (07-16-12) (4-6)	Soil	07/16/2012 14:10
S53243.03	SB 117 (07-16-12) (2-4)	Soil	07/16/2012 15:50
S53243.04	SB 157 (07-17-12) (3-5)	Soil	07/17/2012 14:00
S53243.05	SB 157 (07-17-12) (8-10)	Soil	07/17/2012 14:20
S53243.06	0908 -071612-0001	Liquid	07/16/2012 13:00

Analytical Laboratory Report

Lab Sample ID: S53243.01
Sample Tag: SB 123 (07-16-12) (6-8)
Collected Date/Time: 07/16/2012 13:30
Matrix: Soil
COC Reference: 69777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.4	IR
1	4oz Glass	None	Yes	4.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/19/12 12:09	CCM		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/20/12 19:04	EMR		
Inorganics								
Total Solids	80	%	1	Std M 2540 B	07/20/12 15:00	WAR		
Metals								
Arsenic	2.21	mg/kg	0.20	SW6020	07/24/12 12:46	PER	7440-38-2	
Barium	58.9	mg/kg	1.0	SW6020	07/24/12 12:46	PER	7440-39-3	
Cadmium	0.31	mg/kg	0.20	SW6020	07/24/12 12:46	PER	7440-43-9	
Chromium	5.38	mg/kg	0.50	SW6020	07/24/12 12:46	PER	7440-47-3	
Copper	19.7	mg/kg	0.50	SW6020	07/24/12 12:46	PER	7440-50-8	
Lead	10.5	mg/kg	0.30	SW6020	07/24/12 12:46	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 14:54	JRT	7439-97-6	
Selenium	0.64	mg/kg	0.50	SW6020	07/24/12 12:46	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 12:46	PER	7440-22-4	
Zinc	30.0	mg/kg	1.0	SW6020	07/24/12 12:46	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 14:04	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	83-32-9	

Lab Sample ID: S53243.01 (continued)
Sample Tag: SB 123 (07-16-12) (6-8)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 14:34	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	200	5035/8260B	07/20/12 19:12	JGH	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	07/20/12 19:12	JGH	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	07/20/12 19:12	JGH	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	07/20/12 19:12	JGH	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	07/20/12 19:12	JGH	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	07/20/12 19:12	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	07/20/12 19:12	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	200	5035/8260B	07/20/12 19:12	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	07/20/12 19:12	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	07/20/12 19:12	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	5035/8260B	07/20/12 19:12	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	07/20/12 19:12	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	156-59-2	
Chloroform	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	71-55-6	
Cyclohexane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	07/20/12 19:12	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	07/20/12 19:12	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	56-23-5	
Benzene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	108-87-2	

Lab Sample ID: S53243.01 (continued)
Sample Tag: SB 123 (07-16-12) (6-8)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	10061-01-5	
Toluene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	127-18-4	
Dibromochloromethane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	106-93-4	
Chlorobenzene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	79-34-5	
Ethylbenzene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH		
o-Xylene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	95-47-6	
Styrene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	98-82-8	
Bromoform	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	80	5035/8260B	07/20/12 19:12	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	200	5035/8260B	07/20/12 19:12	JGH	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53243.02
Sample Tag: SB 124 (07-16-12) (4-6)
Collected Date/Time: 07/16/2012 14:10
Matrix: Soil
COC Reference: 69777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.4	IR
1	4oz Glass	None	Yes	4.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/19/12 12:09	CCM		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/20/12 19:04	EMR		
Inorganics								
Total Solids	84	%	1	Std M 2540 B	07/20/12 15:00	WAR		
Metals								
Arsenic	0.95	mg/kg	0.20	SW6020	07/24/12 12:52	PER	7440-38-2	
Barium	18.7	mg/kg	1.0	SW6020	07/24/12 12:52	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 12:52	PER	7440-43-9	
Chromium	2.39	mg/kg	0.50	SW6020	07/24/12 12:52	PER	7440-47-3	
Copper	4.33	mg/kg	0.50	SW6020	07/24/12 12:52	PER	7440-50-8	
Lead	6.27	mg/kg	0.30	SW6020	07/24/12 12:52	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 14:56	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 12:52	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 12:52	PER	7440-22-4	
Zinc	8.82	mg/kg	1.0	SW6020	07/24/12 12:52	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 14:14	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	83-32-9	

Lab Sample ID: S53243.02 (continued)
Sample Tag: SB 124 (07-16-12) (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 14:56	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/20/12 19:32	JGH	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/20/12 19:32	JGH	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/20/12 19:32	JGH	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/20/12 19:32	JGH	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/20/12 19:32	JGH	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	07/20/12 19:32	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/20/12 19:32	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/20/12 19:32	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/20/12 19:32	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/20/12 19:32	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/20/12 19:32	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/20/12 19:32	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/20/12 19:32	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/20/12 19:32	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	108-87-2	

Lab Sample ID: S53243.02 (continued)
Sample Tag: SB 124 (07-16-12) (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH		
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:32	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/20/12 19:32	JGH	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53243.03
Sample Tag: SB 117 (07-16-12) (2-4)
Collected Date/Time: 07/16/2012 15:50
Matrix: Soil
COC Reference: 69777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.4	IR
1	4oz Glass	None	Yes	4.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/19/12 12:09	CCM		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/20/12 19:04	EMR		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	07/20/12 15:00	WAR		
Metals								
Arsenic	0.95	mg/kg	0.20	SW6020	07/24/12 12:54	PER	7440-38-2	
Barium	50.1	mg/kg	1.0	SW6020	07/24/12 12:54	PER	7440-39-3	
Cadmium	0.62	mg/kg	0.20	SW6020	07/24/12 12:54	PER	7440-43-9	
Chromium	3.42	mg/kg	0.50	SW6020	07/24/12 12:54	PER	7440-47-3	
Copper	24.0	mg/kg	0.50	SW6020	07/24/12 12:54	PER	7440-50-8	
Lead	8.97	mg/kg	0.30	SW6020	07/24/12 12:54	PER	7439-92-1	
Mercury	0.053	mg/kg	0.050	SW7471A	07/24/12 14:58	JRT	7439-97-6	
Selenium	0.62	mg/kg	0.50	SW6020	07/24/12 12:54	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 12:54	PER	7440-22-4	
Zinc	10.2	mg/kg	1.0	SW6020	07/24/12 12:54	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 14:25	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	83-32-9	

Lab Sample ID: S53243.03 (continued)
Sample Tag: SB 117 (07-16-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 15:19	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/20/12 19:52	JGH	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/20/12 19:52	JGH	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/20/12 19:52	JGH	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/20/12 19:52	JGH	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/20/12 19:52	JGH	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	07/20/12 19:52	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/20/12 19:52	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/20/12 19:52	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/20/12 19:52	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/20/12 19:52	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/20/12 19:52	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/20/12 19:52	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/20/12 19:52	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/20/12 19:52	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	108-87-2	

Lab Sample ID: S53243.03 (continued)
Sample Tag: SB 117 (07-16-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH		
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	07/20/12 19:52	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/20/12 19:52	JGH	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53243.04
Sample Tag: SB 157 (07-17-12) (3-5)
Collected Date/Time: 07/17/2012 14:00
Matrix: Soil
COC Reference: 69777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.4	IR
1	4oz Glass	None	Yes	4.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/19/12 12:09	CCM		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/20/12 19:04	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	07/20/12 15:00	WAR		
Metals								
Arsenic	0.98	mg/kg	0.20	SW6020	07/24/12 12:57	PER	7440-38-2	
Barium	20.3	mg/kg	1.0	SW6020	07/24/12 12:57	PER	7440-39-3	
Cadmium	0.21	mg/kg	0.20	SW6020	07/24/12 12:57	PER	7440-43-9	
Chromium	1.85	mg/kg	0.50	SW6020	07/24/12 12:57	PER	7440-47-3	
Copper	5.54	mg/kg	0.50	SW6020	07/24/12 12:57	PER	7440-50-8	
Lead	2.72	mg/kg	0.30	SW6020	07/24/12 12:57	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:01	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 12:57	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 12:57	PER	7440-22-4	
Zinc	13.6	mg/kg	1.0	SW6020	07/24/12 12:57	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 15:01	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	83-32-9	X

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53243.04 (continued)
Sample Tag: SB 157 (07-17-12) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	208-96-8	X
Anthracene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	120-12-7	X
Benzo(a)anthracene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	56-55-3	X
Benzo(a)pyrene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	50-32-8	X
Benzo(b)fluoranthene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	205-99-2	X
Benzo(k)fluoranthene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	207-08-9	X
Benzo(ghi)perylene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	191-24-2	X
Chrysene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	53-70-3	X
Fluoranthene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	206-44-0	X
Fluorene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	86-73-7	X
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	193-39-5	X
Naphthalene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	91-20-3	X
Phenanthrene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	85-01-8	X
Pyrene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	1,500	SW8270C	07/23/12 18:19	PL	90-12-0	X
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/20/12 20:11	JGH	76-13-1	
Acetone	Not detected	ug/kg	900	5035/8260B	07/20/12 20:11	JGH	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/20/12 20:11	JGH	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/20/12 20:11	JGH	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/20/12 20:11	JGH	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	900	5035/8260B	07/20/12 20:11	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/20/12 20:11	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/20/12 20:11	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/20/12 20:11	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/20/12 20:11	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/20/12 20:11	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/20/12 20:11	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/20/12 20:11	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/20/12 20:11	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	75-27-4	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53243.04 (continued)
Sample Tag: SB 157 (07-17-12) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH		
o-Xylene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	07/20/12 20:11	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/20/12 20:11	JGH	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53243.05
Sample Tag: SB 157 (07-17-12) (8-10)
Collected Date/Time: 07/17/2012 14:20
Matrix: Soil
COC Reference: 69777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.4	IR
1	4oz Glass	None	Yes	4.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/19/12 12:09	CCM		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/20/12 19:04	EMR		
Inorganics								
Total Solids	81	%	1	Std M 2540 B	07/20/12 15:00	WAR		
Metals								
Arsenic	8.58	mg/kg	0.20	SW6020	07/24/12 13:00	PER	7440-38-2	
Barium	67.2	mg/kg	1.0	SW6020	07/24/12 13:00	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:00	PER	7440-43-9	
Chromium	11.4	mg/kg	0.50	SW6020	07/24/12 13:00	PER	7440-47-3	
Copper	18.3	mg/kg	0.50	SW6020	07/24/12 13:00	PER	7440-50-8	
Lead	8.52	mg/kg	0.30	SW6020	07/24/12 13:00	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:03	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:00	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:00	PER	7440-22-4	
Zinc	38.6	mg/kg	1.0	SW6020	07/24/12 13:00	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/19/12 14:38	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	83-32-9	

Lab Sample ID: S53243.05 (continued)
Sample Tag: SB 157 (07-17-12) (8-10)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/23/12 15:41	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/20/12 20:31	JGH	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	07/20/12 20:31	JGH	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	07/20/12 20:31	JGH	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	07/20/12 20:31	JGH	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	07/20/12 20:31	JGH	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	07/20/12 20:31	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	07/20/12 20:31	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/20/12 20:31	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	07/20/12 20:31	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	07/20/12 20:31	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/20/12 20:31	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	07/20/12 20:31	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	07/20/12 20:31	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	07/20/12 20:31	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	108-87-2	

Lab Sample ID: S53243.05 (continued)
Sample Tag: SB 157 (07-17-12) (8-10)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH		
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	07/20/12 20:31	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/20/12 20:31	JGH	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53243.06
Sample Tag: 0908 -071612-0001
Collected Date/Time: 07/16/2012 13:00
Matrix: Liquid
COC Reference: 69777

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	4.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	07/26/12 15:05	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	07/26/12 15:05	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/26/12 15:05	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	07/26/12 15:05	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/26/12 15:05	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	07/26/12 15:05	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	07/26/12 15:05	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/26/12 15:05	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	07/26/12 15:05	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/26/12 15:05	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	07/26/12 15:05	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/26/12 15:05	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	100-42-5	

Lab Sample ID: S53243.06 (continued)
Sample Tag: 0908 -071612-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Isopropylbenzene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	07/26/12 15:05	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	07/26/12 15:05	WAT	120-82-1	

Quality Control Cover Page

Report ID: S53243.01(01)
Report Date: 07/31/2012
Project: RACER GMPT Livonia
Lab Sample ID(s): S53243.01-S53243.06

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S53243.01	SB 123 (07-16-12) (6-8)	07/16/2012 13:30	Soil	Extraction / Prep., Inorganics, Metals,
S53243.02	SB 124 (07-16-12) (4-6)	07/16/2012 14:10	Soil	Extraction / Prep., Inorganics, Metals,
S53243.03	SB 117 (07-16-12) (2-4)	07/16/2012 15:50	Soil	Extraction / Prep., Inorganics, Metals,
S53243.04	SB 157 (07-17-12) (3-5)	07/17/2012 14:00	Soil	Extraction / Prep., Inorganics, Metals,
S53243.05	SB 157 (07-17-12) (8-10)	07/17/2012 14:20	Soil	Extraction / Prep., Inorganics, Metals,
S53243.06	0908 -071612-0001	07/16/2012 13:00	Liquid	Organics

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S53243.01(01)
Generated on 08/07/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53243.01-S53243.06
Project: RACER GMPT Livonia
Submitted Date/Time: 07/18/2012 11:40
Sampled by: Corey Barver
P.O. #: PO12727

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-7)
Prep Batch Summary (Pages 8-10)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S53243.01
Sample Tag: SB 123 (07-16-12) (6-8)
Collected Date/Time: 07/16/2012 13:30
Matrix: Soil
COC Reference: 69777

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A	TS120720A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 12:46	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 12:46	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 12:46	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 12:46	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 12:46	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 12:46	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 14:54	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 12:46	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 12:46	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 12:46	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/19/12 14:04	F120719	PA120719S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/19/12 14:04	F120719	PA120719S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/23/12 14:34	T120723	SP120720S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 19:12	120720A5	VF120720S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53243.02
Sample Tag: SB 124 (07-16-12) (4-6)
Collected Date/Time: 07/16/2012 14:10
Matrix: Soil
COC Reference: 69777

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A	TS120720A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 12:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 12:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 12:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 12:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 12:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 12:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 14:56	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 12:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 12:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 12:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/19/12 14:14	F120719	PA120719S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/19/12 14:14	F120719	PA120719S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/23/12 14:56	T120723	SP120720S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 19:32	120720A5	VF120720S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53243.03
Sample Tag: SB 117 (07-16-12) (2-4)
Collected Date/Time: 07/16/2012 15:50
Matrix: Soil
COC Reference: 69777

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A	TS120720A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 12:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 12:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 12:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 12:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 12:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 12:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 14:58	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 12:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 12:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 12:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/19/12 14:25	F120719	PA120719S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/19/12 14:25	F120719	PA120719S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/23/12 15:19	T120723	SP120720S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 19:52	120720A5	VF120720S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53243.04
Sample Tag: SB 157 (07-17-12) (3-5)
Collected Date/Time: 07/17/2012 14:00
Matrix: Soil
COC Reference: 69777

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A	TS120720A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 12:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 12:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 12:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 12:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 12:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 12:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:01	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 12:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 12:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 12:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/19/12 15:01	F120719	PA120719S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/19/12 15:01	F120719	PA120719S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/23/12 18:19	T120723	SP120720S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 20:11	120720A5	VF120720S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53243.05
Sample Tag: SB 157 (07-17-12) (8-10)
Collected Date/Time: 07/17/2012 14:20
Matrix: Soil
COC Reference: 69777

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A	TS120720A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:00	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:00	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:00	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:00	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:00	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:00	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:03	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:00	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:00	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:00	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/19/12 14:38	F120719	PA120719S01	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/19/12 14:38	F120719	PA120719S01	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/23/12 15:41	T120723	SP120720S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 20:31	120720A5	VF120720S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53243.06
Sample Tag: 0908 -071612-0001
Collected Date/Time: 07/16/2012 13:00
Matrix: Liquid
COC Reference: 69777

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	07/26/12 15:05	120726A7	VF120726W1	Yes	LCS/BLK/LCSD

Inorganics, Prep Batch ID: TS120720A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53243.01	Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A
S53243.02	Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A
S53243.03	Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A
S53243.04	Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A
S53243.05	Total Solids	Std M 2540 B	07/20/12 15:00	TS120720A

Metals, Prep Batch ID: HGD-072412-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53243.01	Mercury	SW7471A	07/24/12 14:54	HG2-12-0724A
S53243.02	Mercury	SW7471A	07/24/12 14:56	HG2-12-0724A
S53243.03	Mercury	SW7471A	07/24/12 14:58	HG2-12-0724A
S53243.04	Mercury	SW7471A	07/24/12 15:01	HG2-12-0724A
S53243.05	Mercury	SW7471A	07/24/12 15:03	HG2-12-0724A

Metals, Prep Batch ID: MTD-072412-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53243.01	Arsenic	SW6020	07/24/12 12:46	MT2-12-0724A
S53243.01	Barium	SW6020	07/24/12 12:46	MT2-12-0724A
S53243.01	Cadmium	SW6020	07/24/12 12:46	MT2-12-0724A
S53243.01	Chromium	SW6020	07/24/12 12:46	MT2-12-0724A
S53243.01	Copper	SW6020	07/24/12 12:46	MT2-12-0724A
S53243.01	Lead	SW6020	07/24/12 12:46	MT2-12-0724A
S53243.01	Selenium	SW6020	07/24/12 12:46	MT2-12-0724A
S53243.01	Silver	SW6020	07/24/12 12:46	MT2-12-0724A
S53243.01	Zinc	SW6020	07/24/12 12:46	MT2-12-0724A
S53243.02	Arsenic	SW6020	07/24/12 12:52	MT2-12-0724A
S53243.02	Barium	SW6020	07/24/12 12:52	MT2-12-0724A
S53243.02	Cadmium	SW6020	07/24/12 12:52	MT2-12-0724A
S53243.02	Chromium	SW6020	07/24/12 12:52	MT2-12-0724A
S53243.02	Copper	SW6020	07/24/12 12:52	MT2-12-0724A
S53243.02	Lead	SW6020	07/24/12 12:52	MT2-12-0724A
S53243.02	Selenium	SW6020	07/24/12 12:52	MT2-12-0724A
S53243.02	Silver	SW6020	07/24/12 12:52	MT2-12-0724A
S53243.02	Zinc	SW6020	07/24/12 12:52	MT2-12-0724A
S53243.03	Arsenic	SW6020	07/24/12 12:54	MT2-12-0724A
S53243.03	Barium	SW6020	07/24/12 12:54	MT2-12-0724A
S53243.03	Cadmium	SW6020	07/24/12 12:54	MT2-12-0724A
S53243.03	Chromium	SW6020	07/24/12 12:54	MT2-12-0724A
S53243.03	Copper	SW6020	07/24/12 12:54	MT2-12-0724A
S53243.03	Lead	SW6020	07/24/12 12:54	MT2-12-0724A
S53243.03	Selenium	SW6020	07/24/12 12:54	MT2-12-0724A
S53243.03	Silver	SW6020	07/24/12 12:54	MT2-12-0724A
S53243.03	Zinc	SW6020	07/24/12 12:54	MT2-12-0724A
S53243.04	Arsenic	SW6020	07/24/12 12:57	MT2-12-0724A
S53243.04	Barium	SW6020	07/24/12 12:57	MT2-12-0724A
S53243.04	Cadmium	SW6020	07/24/12 12:57	MT2-12-0724A
S53243.04	Chromium	SW6020	07/24/12 12:57	MT2-12-0724A
S53243.04	Copper	SW6020	07/24/12 12:57	MT2-12-0724A

Metals, Prep Batch ID: MTD-072412-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53243.04	Lead	SW6020	07/24/12 12:57	MT2-12-0724A
S53243.04	Selenium	SW6020	07/24/12 12:57	MT2-12-0724A
S53243.04	Silver	SW6020	07/24/12 12:57	MT2-12-0724A
S53243.04	Zinc	SW6020	07/24/12 12:57	MT2-12-0724A
S53243.05	Arsenic	SW6020	07/24/12 13:00	MT2-12-0724A
S53243.05	Barium	SW6020	07/24/12 13:00	MT2-12-0724A
S53243.05	Cadmium	SW6020	07/24/12 13:00	MT2-12-0724A
S53243.05	Chromium	SW6020	07/24/12 13:00	MT2-12-0724A
S53243.05	Copper	SW6020	07/24/12 13:00	MT2-12-0724A
S53243.05	Lead	SW6020	07/24/12 13:00	MT2-12-0724A
S53243.05	Selenium	SW6020	07/24/12 13:00	MT2-12-0724A
S53243.05	Silver	SW6020	07/24/12 13:00	MT2-12-0724A
S53243.05	Zinc	SW6020	07/24/12 13:00	MT2-12-0724A

Organics - PCBs/Pesticides, Prep Batch ID: PA120719S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53243.01	TCL PCB List (Column 1)	SW8082A	07/19/12 14:04	F120719
S53243.01	TCL PCB List (Column 2)	SW8082A	07/19/12 14:04	F120719
S53243.02	TCL PCB List (Column 1)	SW8082A	07/19/12 14:14	F120719
S53243.02	TCL PCB List (Column 2)	SW8082A	07/19/12 14:14	F120719
S53243.03	TCL PCB List (Column 1)	SW8082A	07/19/12 14:25	F120719
S53243.03	TCL PCB List (Column 2)	SW8082A	07/19/12 14:25	F120719
S53243.04	TCL PCB List (Column 1)	SW8082A	07/19/12 15:01	F120719
S53243.04	TCL PCB List (Column 2)	SW8082A	07/19/12 15:01	F120719
S53243.05	TCL PCB List (Column 1)	SW8082A	07/19/12 14:38	F120719
S53243.05	TCL PCB List (Column 2)	SW8082A	07/19/12 14:38	F120719

Organics - Semi-Volatiles, Prep Batch ID: SP120720S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53243.01	Polynuclear Aromatics	SW8270C	07/23/12 14:34	T120723
S53243.02	Polynuclear Aromatics	SW8270C	07/23/12 14:56	T120723
S53243.03	Polynuclear Aromatics	SW8270C	07/23/12 15:19	T120723
S53243.04	Polynuclear Aromatics	SW8270C	07/23/12 18:19	T120723
S53243.05	Polynuclear Aromatics	SW8270C	07/23/12 15:41	T120723

Organics - Volatiles, Prep Batch ID: VF120720S1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53243.01	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 19:12	120720A5
S53243.02	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 19:32	120720A5
S53243.03	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 19:52	120720A5
S53243.04	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 20:11	120720A5
S53243.05	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/20/12 20:31	120720A5

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: VF120726W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53243.06	TCL Volatile Organics 8260	SW8260B	07/26/12 15:05	120726A7

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb20a.d	07/20/12 10:55	50ng/bfb 1s0720 [none]	WW	IP	**1**	
spcc20a.d	07/20/12 11:30	spcc/ccc 1s0720 1v0720 [none]	SO	CV	**1**	**4**
lcss20a.d	07/20/12 12:11	blank ms 1s0720 1m0720 vf120720s1	SO	MS	**1**	
lcss20b.d	07/20/12 12:31	blank msd 1s0720 1m0720 vf120720s1	SO	MS	**1**	
blks20a.d	07/20/12 13:50	100ul blank 1s0720 vf120720s1	SO	Bl	**1**	
5324301.d	07/20/12 19:12	100ul 1s0720 vf120720s1	SO		**1**	
5324302.d	07/20/12 19:32	100ul 1s0720 vf120720s1	SO		**1**	
5324303.d	07/20/12 19:52	100ul 1s0720 vf120720s1	SO		**1**	
5324304.d	07/20/12 20:11	100ul 1s0720 vf120720s1	SO		**1**	
5324305.d	07/20/12 20:31	100ul 1s0720 vf120720s1	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	5
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica

Analytical Batch: 120726a7.1
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
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Form 4: Method Blank Summary
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Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb26a.d	07/26/12 11:18	25ng/bfb 1dr0723 [none]	WW	IP		
spcc26a.d	07/26/12 11:47	spcc/ccc 1dr0723 1v0726 [none]	WW	CV	**4**	
lcsw26b.d	07/26/12 12:20	blank msd 1dr0723 1m0726 vf120726w1	WW	MS	**3**	
lcsw26c.d	07/26/12 12:42	blank msd 1dr0723 1m0726 vf120726w1	WW	MS	**3**	
blkw26a.d	07/26/12 13:49	5ml blank 1dr0723 vf120726w1	WW	Bl		
5324306.d	07/26/12 15:05	5ml 1dr0723 vf120726w1	WW			

Matrix (Mtx) Summary

Water Samples:	1	Soil Samples:	0
Water Duplicates:	1	Soil Duplicates:	0
Water Spikes:	2	Soil Spikes:	0
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 2
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc20a.d	4-Bromofluorobenzene	49.4/ 50.0	n/a	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.2/ 50.0	n/a	71.0/124.0	
	Toluene-D8	50.3/ 50.0	n/a	83.0/120.0	
				Total Outliers: n/a	
lcss20a.d	4-Bromofluorobenzene	49.6/ 50.0	99.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.9/ 50.0	91.8	71.0/124.0	
	Toluene-D8	50.6/ 50.0	101.1	83.0/120.0	
				Total Outliers: 0	
lcss20b.d	4-Bromofluorobenzene	49.7/ 50.0	99.3	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.3/ 50.0	92.7	71.0/124.0	
	Toluene-D8	50.4/ 50.0	100.8	83.0/120.0	
				Total Outliers: 0	
blks20a.d	4-Bromofluorobenzene	49.6/ 50.0	99.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.6/ 50.0	89.2	71.0/124.0	
	Toluene-D8	49.5/ 50.0	99.0	83.0/120.0	
				Total Outliers: 0	
5324301.d	4-Bromofluorobenzene	49.2/ 50.0	98.5	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.8/ 50.0	89.5	71.0/124.0	
	Toluene-D8	49.3/ 50.0	98.6	83.0/120.0	
				Total Outliers: 0	
5324302.d	4-Bromofluorobenzene	49.1/ 50.0	98.2	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.3/ 50.0	92.6	71.0/124.0	
	Toluene-D8	49.8/ 50.0	99.5	83.0/120.0	
				Total Outliers: 0	
5324303.d	4-Bromofluorobenzene	49.4/ 50.0	98.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.1/ 50.0	92.1	71.0/124.0	
	Toluene-D8	49.1/ 50.0	98.2	83.0/120.0	
				Total Outliers: 0	
5324304.d	4-Bromofluorobenzene	48.5/ 50.0	97.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.4/ 50.0	86.7	71.0/124.0	
	Toluene-D8	48.8/ 50.0	97.6	83.0/120.0	
				Total Outliers: 0	
5324305.d	4-Bromofluorobenzene	48.5/ 50.0	96.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.8/ 50.0	91.6	71.0/124.0	
	Toluene-D8	49.2/ 50.0	98.3	83.0/120.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica
Level: N/A

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
spcc26a.d	4-Bromofluorobenzene	5.4/ 5.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.8/ 5.0	n/a	77.0/121.0	
	Toluene-D8	5.0/ 5.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcsw26b.d	4-Bromofluorobenzene	5.3/ 5.0	106.2	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.7/ 5.0	94.6	77.0/121.0	
	Toluene-D8	5.2/ 5.0	104.0	86.0/118.0	
				Total Outliers: 0	
lcsw26c.d	4-Bromofluorobenzene	5.2/ 5.0	104.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.8/ 5.0	95.8	77.0/121.0	
	Toluene-D8	5.0/ 5.0	100.8	86.0/118.0	
				Total Outliers: 0	
blkw26a.d	4-Bromofluorobenzene	5.4/ 5.0	108.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.8/ 5.0	95.6	77.0/121.0	
	Toluene-D8	5.0/ 5.0	99.8	86.0/118.0	
				Total Outliers: 0	
5324306.d	4-Bromofluorobenzene	5.5/ 5.0	110.4	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.8/ 5.0	95.2	77.0/121.0	
	Toluene-D8	5.0/ 5.0	100.0	86.0/118.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcss20b.d			
Dup ID : LCS1			
Prep Batch: vf120720s1			
Prep Date : / /			
Parent File: lcss20a.d			
1,1,2-trichloro-1,2,2-trifluoroethane	51.03/ 48.78	4.5/25.0	SO
diethyl ether (*)	44.80/ 42.23	5.9/25.0	
acetone (*)	38.75/ 37.14	4.2/25.0	
methyl iodide (iodomethane) (*)	46.45/ 45.02	3.1/25.0	
carbon disulfide (*)	43.63/ 42.13	3.5/25.0	
methyl acetate	39.17/ 38.70	1.2/25.0	
tert-methyl butyl ether (mtbe) (*)	45.29/ 43.59	3.8/25.0	
acrylonitrile (*)	43.72/ 43.17	1.3/25.0	
2-butanone (mek) (*)	39.22/ 38.84	1.0/25.0	
dichlorodifluoromethane	52.42/ 50.46	3.8/25.0	
chloromethane (spcc)	49.18/ 46.53	5.5/25.0	
vinyl chloride (ccc)	49.63/ 47.22	5.0/25.0	
bromomethane	47.42/ 45.86	3.3/25.0	
chloroethane	50.08/ 48.70	2.8/25.0	
trichlorofluoromethane	55.19/ 53.73	2.7/25.0	
1,1-dichloroethene (ccc/ms)	45.91/ 43.03	6.5/25.0	
methylene chloride	42.71/ 41.15	3.7/25.0	
trans-1,2-dichloroethene	45.85/ 44.21	3.6/25.0	
1,1-dichloroethane (spcc)	45.31/ 43.34	4.4/25.0	
cis-1,2-dichloroethene	45.74/ 43.61	4.8/25.0	
tetrahydrofuran	36.71/ 36.93	0.6/25.0	
chloroform (ccc)	46.10/ 43.77	5.2/25.0	
bromochloromethane	44.84/ 43.08	4.0/25.0	
1,1,1-trichloroethane	49.44/ 47.79	3.4/25.0	
1,1-dichloropropene	2.39/ 2.30	3.8/25.0	
cyclohexane	41.82/ 40.90	2.2/25.0	
4-methyl-2-pentanone (mibk) (*)	43.25/ 42.83	1.0/25.0	
2-hexanone (*)	44.20/ 43.35	1.9/25.0	
carbon tetrachloride	52.47/ 50.99	2.9/25.0	
benzene (ms)	48.00/ 46.40	3.4/25.0	
1,2-dichloroethane	47.63/ 46.19	3.1/25.0	
trichloroethene (ms)	50.12/ 48.51	3.3/25.0	
1,2-dichloropropane (ccc)	47.52/ 46.25	2.7/25.0	
bromodichloromethane	50.29/ 48.16	4.3/25.0	
methyl cyclohexane	51.33/ 50.35	1.9/25.0	
dibromomethane	49.03/ 47.54	3.1/25.0	
cis-1,3-dichloropropene	51.18/ 49.68	3.0/25.0	
toluene (ccc/ms)	49.88/ 48.30	3.2/25.0	
trans-1,3-dichloropropene	51.30/ 49.78	3.0/25.0	
1,1,2-trichloroethane	47.64/ 45.94	3.6/25.0	
tetrachloroethene	49.61/ 47.98	3.3/25.0	
trans-1,4-dichloro-2-butene	47.69/ 46.72	2.1/25.0	
dibromochloromethane	52.10/ 50.65	2.8/25.0	
1,2-dibromoethane	49.07/ 47.87	2.5/25.0	
chlorobenzene (spcc/ms)	49.19/ 47.67	3.1/25.0	
1,1,1,2-tetrachloroethane	51.69/ 50.05	3.2/25.0	
ethylbenzene (ccc)	50.85/ 49.83	2.0/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
p,m-xylene	103.27/100.33	2.9/25.0	
o-xylene	51.56/ 49.97	3.1/25.0	
styrene	50.77/ 49.08	3.4/25.0	
isopropylbenzene	52.51/ 50.86	3.2/25.0	
bromoform (spcc)	48.04/ 46.22	3.9/25.0	
1,1,2,2-tetrachloroethane (spcc)	47.23/ 46.02	2.6/25.0	
1,2,3-trichloropropane	47.29/ 46.64	1.4/25.0	
n-propylbenzene	53.38/ 51.37	3.8/25.0	
bromobenzene	49.98/ 47.96	4.1/25.0	
1,3,5-trimethylbenzene	52.23/ 50.17	4.0/25.0	
tert-butylbenzene	52.93/ 50.83	4.0/25.0	
1,2,4-trimethylbenzene	53.64/ 51.40	4.3/25.0	
sec-butylbenzene	53.85/ 52.39	2.7/25.0	
p-isopropyltoluene	55.69/ 54.25	2.6/25.0	
1,3-dichlorobenzene	51.51/ 49.79	3.4/25.0	
1,4-dichlorobenzene	50.28/ 48.20	4.2/25.0	
1,2-dichlorobenzene	50.42/ 48.95	3.0/25.0	
1,2,3-trimethylbenzene	50.82/ 49.05	3.5/25.0	
n-butylbenzene	54.47/ 52.25	4.2/25.0	
hexachloroethane	49.31/ 47.13	4.5/25.0	
1,2-dibromo-3-chloropropane	48.92/ 47.35	3.3/25.0	
1,2,4-trichlorobenzene	54.99/ 51.12	7.3/25.0	
1,2,3-trichlorobenzene	53.86/ 50.19	7.1/25.0	
naphthalene	54.18/ 50.55	6.9/25.0	
2-methylnaphthalene	53.17/ 48.10	10.0/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Dup File : lcsw26c.d
Dup ID : LCS1
Prep Batch: vf120726w1
Prep Date : / /
Parent File: lcsw26b.d

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
1,1,2-trichloro-1,2,2-trifluoroethane	46.22/ 49.83	7.5/25.0	WW
diethyl ether (*)	42.52/ 39.68	6.9/25.0	
acetone (*)	42.15/ 38.44	9.2/25.0	
methyl iodide (iodomethane) (*)	50.48/ 52.17	3.3/25.0	
carbon disulfide (*)	49.67/ 52.27	5.1/25.0	
methyl acetate	33.81/ 32.12	5.1/25.0	
tert-methyl butyl ether (mtbe) (*)	47.29/ 46.36	2.0/25.0	
acrylonitrile (*)	36.50/ 35.25	3.5/25.0	
2-butanone (mek) (*)	33.75/ 30.33	10.7/25.0	
dichlorodifluoromethane	34.89/ 40.23	14.2/25.0	
chloromethane (spcc)	42.93/ 45.60	6.0/25.0	
vinyl chloride (ccc)	38.80/ 40.85	5.1/25.0	
bromomethane	41.28/ 41.62	0.8/25.0	
chloroethane	43.37/ 45.25	4.2/25.0	
trichlorofluoromethane	50.27/ 54.38	7.9/25.0	
1,1-dichloroethene (ccc/ms)	47.94/ 49.80	3.8/25.0	
methylene chloride	49.64/ 50.08	0.9/25.0	
trans-1,2-dichloroethene	48.92/ 49.95	2.1/25.0	
1,1-dichloroethane (spcc)	47.67/ 49.17	3.1/25.0	
cis-1,2-dichloroethene	49.12/ 49.78	1.3/25.0	
tetrahydrofuran	29.55/ 27.61	6.8/25.0	
chloroform (ccc)	51.57/ 52.55	1.9/25.0	
bromochloromethane	50.83/ 51.47	1.3/25.0	
1,1,1-trichloroethane	53.73/ 55.49	3.2/25.0	
cyclohexane	34.04/ 37.12	8.7/25.0	
4-methyl-2-pentanone (mibk) (*)	36.83/ 35.12	4.8/25.0	
2-hexanone (*)	35.14/ 33.19	5.7/25.0	
carbon tetrachloride	55.52/ 59.56	7.0/25.0	
benzene (ms)	49.38/ 51.84	4.9/25.0	
1,2-dichloroethane	50.68/ 52.69	3.9/25.0	
trichloroethene (ms)	51.44/ 55.16	7.0/25.0	
1,2-dichloropropane (ccc)	48.23/ 51.05	5.7/25.0	
bromodichloromethane	54.09/ 55.83	3.2/25.0	
methyl cyclohexane	46.54/ 52.37	11.8/25.0	
dibromomethane	51.95/ 53.48	2.9/25.0	
cis-1,3-dichloropropene	50.29/ 53.46	6.1/25.0	
toluene (ccc/ms)	51.31/ 53.78	4.7/25.0	
trans-1,3-dichloropropene	49.76/ 51.65	3.7/25.0	
1,1,2-trichloroethane	48.39/ 48.88	1.0/25.0	
tetrachloroethene	50.09/ 53.15	5.9/25.0	
trans-1,4-dichloro-2-butene	10.47/ 14.49	32.2/25.0*	
dibromochloromethane	52.31/ 52.85	1.0/25.0	
1,2-dibromoethane	46.97/ 46.01	2.1/25.0	
chlorobenzene (spcc/ms)	50.39/ 51.44	2.1/25.0	
1,1,1,2-tetrachloroethane	52.72/ 54.90	4.1/25.0	
ethylbenzene (ccc)	50.92/ 52.19	2.5/25.0	
p,m-xylene	98.41/101.30	2.9/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	*Dup/Samp Conc.*	*%RPD/UCL*	*Matrix*
o-xylene	51.72/ 53.42	3.2/25.0	
styrene	48.38/ 49.50	2.3/25.0	
isopropylbenzene	51.46/ 53.55	4.0/25.0	
bromoform (spcc)	43.22/ 42.21	2.4/25.0	
1,1,2,2-tetrachloroethane (spcc)	41.02/ 39.32	4.2/25.0	
1,2,3-trichloropropane	43.00/ 40.96	4.9/25.0	
n-propylbenzene	53.41/ 54.46	1.9/25.0	
bromobenzene	52.62/ 53.88	2.4/25.0	
1,3,5-trimethylbenzene	50.51/ 52.57	4.0/25.0	
tert-butylbenzene	51.41/ 52.80	2.7/25.0	
1,2,4-trimethylbenzene	50.25/ 50.85	1.2/25.0	
sec-butylbenzene	52.56/ 51.86	1.3/25.0	
p-isopropyltoluene	54.50/ 54.14	0.7/25.0	
1,3-dichlorobenzene	53.86/ 53.17	1.3/25.0	
1,4-dichlorobenzene	53.74/ 52.35	2.6/25.0	
1,2-dichlorobenzene	53.88/ 51.81	3.9/25.0	
1,2,3-trimethylbenzene	54.03/ 52.65	2.6/25.0	
n-butylbenzene	53.95/ 52.99	1.8/25.0	
hexachloroethane	53.41/ 53.71	0.6/25.0	
1,2-dibromo-3-chloropropane	41.31/ 35.79	14.3/25.0	
1,2,4-trichlorobenzene	52.87/ 50.45	4.7/25.0	
1,2,3-trichlorobenzene	50.49/ 47.85	5.4/25.0	
naphthalene	42.58/ 38.37	10.4/25.0	
2-methylnaphthalene	40.46/ 36.95	9.1/25.0	
[end of compound list]			
		Total Outliers:	**1**

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss20a.d
Spike ID : LCS1
Prep Batch: vf120720s1
Prep Date : / /
Parent File: blks20a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	48.78/	0.00	50.00	97.6	56.9/138.1	SO
Diethyl ether	42.23/	0.00	50.00	84.5	51.7/123.0	
Acetone	37.14/	3.50	50.00	74.3	25.3/155.1	
Methyl iodide	45.02/	0.00	50.00	90.0	56.9/110.8	
Carbon disulfide	42.13/	0.00	50.00	84.3	57.0/123.0	
Methyl acetate	38.70/	0.00	50.00	77.4	54.4/133.5	
tert-Methyl butyl ether	43.59/	0.00	50.00	87.2	67.5/123.7	
Acrylonitrile	43.17/	0.00	50.00	86.3	58.7/133.0	
2-Butanone	38.84/	0.00	50.00	77.7	38.7/136.9	
Dichlorodifluoromethane	50.46/	0.00	50.00	100.9	10.0/171.8	
Chloromethane	46.53/	0.00	50.00	93.1	30.2/152.7	
Vinyl Chloride	47.22/	0.00	50.00	94.4	45.3/138.7	
Bromomethane	45.86/	0.00	50.00	91.7	10.0/157.4	
Chloroethane	48.70/	0.00	50.00	97.4	10.0/169.1	
Trichlorofluoromethane	53.73/	0.00	50.00	107.5	25.7/157.8	
1,1-Dichloroethene	43.03/	0.00	50.00	86.1	59.2/137.5	
Methylene Chloride	41.15/	0.00	50.00	82.3	70.5/121.5	
trans-1,2-Dichloroethene	44.21/	0.00	50.00	88.4	72.5/128.8	
1,1-Dichloroethane	43.34/	0.00	50.00	86.7	72.5/123.4	
cis-1,2-Dichloroethene	43.61/	0.00	50.00	87.2	75.0/120.5	
Tetrahydrofuran	36.93/	2.89	50.00	73.9	48.2/125.7	
Chloroform	43.77/	0.00	50.00	87.5	74.6/123.2	
Bromochloromethane	43.08/	0.00	50.00	86.2	72.3/122.8	
1,1,1-Trichloroethane	47.79/	0.00	50.00	95.6	73.8/128.9	
Cyclohexane	40.90/	0.00	50.00	81.8	42.4/147.1	
4-Methyl-2-pentanone	42.83/	0.00	50.00	85.7	60.4/133.8	
2-Hexanone	43.35/	0.00	50.00	86.7	45.7/141.9	
Carbon Tetrachloride	50.99/	0.00	50.00	102.0	70.1/132.7	
Benzene	46.40/	0.00	50.00	92.8	74.6/128.9	
1,2-Dichloroethane	46.19/	0.00	50.00	92.4	73.2/125.4	
Trichloroethene	48.51/	0.00	50.00	97.0	74.1/127.6	
1,2-Dichloropropane	46.25/	0.00	50.00	92.5	77.6/124.4	
Bromodichloromethane	48.16/	0.00	50.00	96.3	76.7/128.4	
Methyl cyclohexane	50.35/	0.00	50.00	100.7	53.7/148.2	
Dibromomethane	47.54/	0.00	50.00	95.1	72.5/127.3	
cis-1,3-Dichloropropene	49.68/	0.00	50.00	99.4	79.3/128.3	
Toluene	48.30/	0.00	50.00	96.6	74.8/129.2	
trans-1,3-Dichloropropene	49.78/	0.00	50.00	99.6	74.5/129.7	
1,1,2-Trichloroethane	45.94/	0.00	50.00	91.9	71.3/125.7	
Tetrachloroethene	47.98/	0.00	50.00	96.0	73.0/124.7	
trans-1,4-Dichloro-2-butene	46.72/	0.00	50.00	93.4	58.3/143.3	
Dibromochloromethane	50.65/	0.00	50.00	101.3	68.9/132.7	
1,2-Dibromoethane	47.87/	0.00	50.00	95.7	71.4/129.3	
Chlorobenzene	47.67/	0.00	50.00	95.3	74.2/128.1	
1,1,1,2-Tetrachloroethane	50.05/	0.00	50.00	100.1	76.6/133.0	
Ethylbenzene	49.83/	0.00	50.00	99.7	77.7/130.4	
p,m-Xylene	100.33/	0.00	100.00	100.3	79.8/132.0	
o-Xylene	49.97/	0.00	50.00	99.9	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	49.08/	0.00	50.00	98.2	71.3/119.3	
Isopropylbenzene	50.86/	0.00	50.00	101.7	70.3/128.2	
Bromoform	46.22/	0.00	50.00	92.4	54.7/137.4	
1,1,2,2-Tetrachloroethane	46.02/	0.00	50.00	92.0	65.4/134.9	
1,2,3-Trichloropropane	46.64/	0.00	50.00	93.3	67.2/154.5	
n-Propylbenzene	51.37/	0.00	50.00	102.7	77.3/135.2	
Bromobenzene	47.96/	0.00	50.00	95.9	74.0/132.4	
1,3,5-Trimethylbenzene	50.17/	0.00	50.00	100.3	75.6/137.0	
tert-Butylbenzene	50.83/	0.00	50.00	101.7	75.6/134.6	
1,2,4-Trimethylbenzene	51.40/	0.00	50.00	102.8	76.9/139.1	
sec-Butylbenzene	52.39/	0.00	50.00	104.8	72.7/135.6	
p-Isopropyltoluene	54.25/	0.00	50.00	108.5	77.1/140.9	
1,3-Dichlorobenzene	49.79/	0.00	50.00	99.6	77.3/131.0	
1,4-Dichlorobenzene	48.20/	0.00	50.00	96.4	33.1/125.8	
1,2-Dichlorobenzene	48.95/	0.00	50.00	97.9	73.5/132.7	
1,2,3-Trimethylbenzene	49.05/	0.00	50.00	98.1	70.9/130.2	
n-Butylbenzene	52.25/	0.00	50.00	104.5	75.0/138.6	
Hexachloroethane	47.13/	0.00	50.00	94.3	55.5/129.0	
1,2-Dibromo-3-Chloropropane	47.35/	0.00	50.00	94.7	54.1/156.4	
1,2,4-Trichlorobenzene	51.12/	0.00	50.00	102.2	37.1/131.3	
1,2,3-Trichlorobenzene	50.19/	0.00	50.00	100.4	59.4/157.9	
Naphthalene	50.55/	0.00	50.00	101.1	39.3/129.2	
2-Methylnaphthalene	48.10/	0.00	50.00	96.2	10.0/175.9	
					Total Outliers:	**0**

Spike File : lcss20b.d
Spike ID : LCS1
Prep Batch: vf120720s1
Prep Date : / /
Parent File: blks20a.d

1,1,2-Trichloro-1,2,2-trifluor	51.03/	0.00	50.00	102.1	56.9/138.1	SO
Diethyl ether	44.80/	0.00	50.00	89.6	51.7/123.0	
Acetone	38.75/	3.50	50.00	77.5	25.3/155.1	
Methyl iodide	46.45/	0.00	50.00	92.9	56.9/110.8	
Carbon disulfide	43.63/	0.00	50.00	87.3	57.0/123.0	
Methyl acetate	39.17/	0.00	50.00	78.3	54.4/133.5	
tert-Methyl butyl ether	45.29/	0.00	50.00	90.6	67.5/123.7	
Acrylonitrile	43.72/	0.00	50.00	87.4	58.7/133.0	
2-Butanone	39.22/	0.00	50.00	78.4	38.7/136.9	
Dichlorodifluoromethane	52.42/	0.00	50.00	104.8	10.0/171.8	
Chloromethane	49.18/	0.00	50.00	98.4	30.2/152.7	
Vinyl Chloride	49.63/	0.00	50.00	99.3	45.3/138.7	
Bromomethane	47.42/	0.00	50.00	94.8	10.0/157.4	
Chloroethane	50.08/	0.00	50.00	100.2	10.0/169.1	
Trichlorofluoromethane	55.19/	0.00	50.00	110.4	25.7/157.8	
1,1-Dichloroethene	45.91/	0.00	50.00	91.8	59.2/137.5	
Methylene Chloride	42.71/	0.00	50.00	85.4	70.5/121.5	
trans-1,2-Dichloroethene	45.85/	0.00	50.00	91.7	72.5/128.8	
1,1-Dichloroethane	45.31/	0.00	50.00	90.6	72.5/123.4	
cis-1,2-Dichloroethene	45.74/	0.00	50.00	91.5	75.0/120.5	
Tetrahydrofuran	36.71/	2.89	50.00	73.4	48.2/125.7	
Chloroform	46.10/	0.00	50.00	92.2	74.6/123.2	
Bromochloromethane	44.84/	0.00	50.00	89.7	72.3/122.8	
1,1,1-Trichloroethane	49.44/	0.00	50.00	98.9	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	41.82/	0.00	50.00	83.6	42.4/147.1	
4-Methyl-2-pentanone	43.25/	0.00	50.00	86.5	60.4/133.8	
2-Hexanone	44.20/	0.00	50.00	88.4	45.7/141.9	
Carbon Tetrachloride	52.47/	0.00	50.00	104.9	70.1/132.7	
Benzene	48.00/	0.00	50.00	96.0	74.6/128.9	
1,2-Dichloroethane	47.63/	0.00	50.00	95.3	73.2/125.4	
Trichloroethene	50.12/	0.00	50.00	100.2	74.1/127.6	
1,2-Dichloropropane	47.52/	0.00	50.00	95.0	77.6/124.4	
Bromodichloromethane	50.29/	0.00	50.00	100.6	76.7/128.4	
Methyl cyclohexane	51.33/	0.00	50.00	102.7	53.7/148.2	
Dibromomethane	49.03/	0.00	50.00	98.1	72.5/127.3	
cis-1,3-Dichloropropene	51.18/	0.00	50.00	102.4	79.3/128.3	
Toluene	49.88/	0.00	50.00	99.8	74.8/129.2	
trans-1,3-Dichloropropene	51.30/	0.00	50.00	102.6	74.5/129.7	
1,1,2-Trichloroethane	47.64/	0.00	50.00	95.3	71.3/125.7	
Tetrachloroethene	49.61/	0.00	50.00	99.2	73.0/124.7	
trans-1,4-Dichloro-2-butene	47.69/	0.00	50.00	95.4	58.3/143.3	
Dibromochloromethane	52.10/	0.00	50.00	104.2	68.9/132.7	
1,2-Dibromoethane	49.07/	0.00	50.00	98.1	71.4/129.3	
Chlorobenzene	49.19/	0.00	50.00	98.4	74.2/128.1	
1,1,1,2-Tetrachloroethane	51.69/	0.00	50.00	103.4	76.6/133.0	
Ethylbenzene	50.85/	0.00	50.00	101.7	77.7/130.4	
p,m-Xylene	103.27/	0.00	100.00	103.3	79.8/132.0	
o-Xylene	51.56/	0.00	50.00	103.1	79.4/132.3	
Styrene	50.77/	0.00	50.00	101.5	71.3/119.3	
Isopropylbenzene	52.51/	0.00	50.00	105.0	70.3/128.2	
Bromoform	48.04/	0.00	50.00	96.1	54.7/137.4	
1,1,2,2-Tetrachloroethane	47.23/	0.00	50.00	94.5	65.4/134.9	
1,2,3-Trichloropropane	47.29/	0.00	50.00	94.6	67.2/154.5	
n-Propylbenzene	53.38/	0.00	50.00	106.8	77.3/135.2	
Bromobenzene	49.98/	0.00	50.00	100.0	74.0/132.4	
1,3,5-Trimethylbenzene	52.23/	0.00	50.00	104.5	75.6/137.0	
tert-Butylbenzene	52.93/	0.00	50.00	105.9	75.6/134.6	
1,2,4-Trimethylbenzene	53.64/	0.00	50.00	107.3	76.9/139.1	
sec-Butylbenzene	53.85/	0.00	50.00	107.7	72.7/135.6	
p-Isopropyltoluene	55.69/	0.00	50.00	111.4	77.1/140.9	
1,3-Dichlorobenzene	51.51/	0.00	50.00	103.0	77.3/131.0	
1,4-Dichlorobenzene	50.28/	0.00	50.00	100.6	33.1/125.8	
1,2-Dichlorobenzene	50.42/	0.00	50.00	100.8	73.5/132.7	
1,2,3-Trimethylbenzene	50.82/	0.00	50.00	101.6	70.9/130.2	
n-Butylbenzene	54.47/	0.00	50.00	108.9	75.0/138.6	
Hexachloroethane	49.31/	0.00	50.00	98.6	55.5/129.0	
1,2-Dibromo-3-Chloropropane	48.92/	0.00	50.00	97.8	54.1/156.4	
1,2,4-Trichlorobenzene	54.99/	0.00	50.00	110.0	37.1/131.3	
1,2,3-Trichlorobenzene	53.86/	0.00	50.00	107.7	59.4/157.9	
Naphthalene	54.18/	0.00	50.00	108.4	39.3/129.2	
2-Methylnaphthalene	53.17/	0.00	50.00	106.3	10.0/175.9	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcsw26b.d
Spike ID : LCS1
Prep Batch: vf120726w1
Prep Date : / /
Parent File: blkw26a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	49.83/	0.00	50.00	99.7	75.1/135.9	WW
Diethyl ether	39.68/	0.00	50.00	79.4	67.4/121.2	
Acetone	38.44/	0.00	50.00	76.9	29.9/161.5	
Methyl iodide	52.17/	0.00	50.00	104.3	68.8/116.4	
Carbon disulfide	52.27/	0.00	50.00	104.5	63.8/137.4	
Methyl acetate	32.12/	0.00	50.00	64.2*	64.7/125.4	
tert-Methyl butyl ether	46.36/	0.00	50.00	92.7	73.2/122.4	
Acrylonitrile	35.25/	0.00	50.00	70.5	69.9/128.9	
2-Butanone	30.33/	0.00	50.00	60.7	44.0/134.4	
Dichlorodifluoromethane	40.23/	0.00	50.00	80.5	10.0/222.8	
Chloromethane	45.60/	0.00	50.00	91.2	23.8/166.5	
Vinyl Chloride	40.85/	0.00	50.00	81.7	43.5/149.1	
Bromomethane	41.62/	0.00	50.00	83.2	56.8/151.3	
Chloroethane	45.25/	0.00	50.00	90.5	53.4/149.4	
Trichlorofluoromethane	54.38/	0.00	50.00	108.8	59.7/151.8	
1,1-Dichloroethene	49.80/	0.00	50.00	99.6	69.6/139.4	
Methylene Chloride	50.08/	0.00	50.00	100.2	73.3/121.1	
trans-1,2-Dichloroethene	49.95/	0.00	50.00	99.9	73.6/129.3	
1,1-Dichloroethane	49.17/	0.00	50.00	98.3	71.5/126.2	
cis-1,2-Dichloroethene	49.78/	0.00	50.00	99.6	76.6/122.1	
Tetrahydrofuran	27.61/	1.53	50.00	55.2*	59.0/117.9	
Chloroform	52.55/	0.00	50.00	105.1	78.4/124.0	
Bromochloromethane	51.47/	0.00	50.00	102.9	78.2/120.8	
1,1,1-Trichloroethane	55.49/	0.00	50.00	111.0	79.4/130.9	
Cyclohexane	37.12/	0.00	50.00	74.2	10.0/169.1	
4-Methyl-2-pentanone	35.12/	0.00	50.00	70.2*	71.6/125.2	
2-Hexanone	33.19/	0.00	50.00	66.4	55.4/136.9	
Carbon Tetrachloride	59.56/	0.00	50.00	119.1	72.6/133.0	
Benzene	51.84/	0.00	50.00	103.7	79.9/124.9	
1,2-Dichloroethane	52.69/	0.00	50.00	105.4	76.0/126.3	
Trichloroethene	55.16/	0.00	50.00	110.3	79.7/124.2	
1,2-Dichloropropane	51.05/	0.00	50.00	102.1	78.6/126.4	
Bromodichloromethane	55.83/	0.00	50.00	111.7	80.4/128.2	
Methyl cyclohexane	52.37/	0.00	50.00	104.7	76.6/131.3	
Dibromomethane	53.48/	0.00	50.00	107.0	76.9/122.1	
cis-1,3-Dichloropropene	53.46/	0.00	50.00	106.9	79.8/129.9	
Toluene	53.78/	0.00	50.00	107.6	79.8/124.5	
trans-1,3-Dichloropropene	51.65/	0.00	50.00	103.3	74.0/131.3	
1,1,2-Trichloroethane	48.88/	0.00	50.00	97.8	78.7/123.1	
Tetrachloroethene	53.15/	0.00	50.00	106.3	74.5/124.5	
trans-1,4-Dichloro-2-butene	14.49/	0.00	50.00	29.0*	68.6/135.4	
Dibromochloromethane	52.85/	0.00	50.00	105.7	74.6/127.2	
1,2-Dibromoethane	46.01/	0.00	50.00	92.0	70.3/133.7	
Chlorobenzene	51.44/	0.00	50.00	102.9	79.2/122.7	
1,1,1,2-Tetrachloroethane	54.90/	0.00	50.00	109.8	80.3/128.2	
Ethylbenzene	52.19/	0.00	50.00	104.4	79.5/129.1	
p,m-Xylene	101.30/	0.00	100.00	101.3	79.4/132.2	
o-Xylene	53.42/	0.00	50.00	106.8	80.2/131.0	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	49.50/	0.00	50.00	99.0	69.5/126.7	
Isopropylbenzene	53.55/	0.00	50.00	107.1	74.4/121.5	
Bromoform	42.21/	0.00	50.00	84.4	69.4/128.0	
1,1,2,2-Tetrachloroethane	39.32/	0.00	50.00	78.6*	79.8/126.3	
1,2,3-Trichloropropane	40.96/	0.00	50.00	81.9	78.3/138.8	
n-Propylbenzene	54.46/	0.00	50.00	108.9	82.0/130.7	
Bromobenzene	53.88/	0.00	50.00	107.8	78.7/124.6	
1,3,5-Trimethylbenzene	52.57/	0.00	50.00	105.1	81.3/128.9	
tert-Butylbenzene	52.80/	0.00	50.00	105.6	80.7/128.9	
1,2,4-Trimethylbenzene	50.85/	0.00	50.00	101.7	81.4/130.8	
sec-Butylbenzene	51.86/	0.00	50.00	103.7	77.4/129.8	
p-Isopropyltoluene	54.14/	0.00	50.00	108.3	79.8/137.5	
1,3-Dichlorobenzene	53.17/	0.00	50.00	106.3	77.0/131.3	
1,4-Dichlorobenzene	52.35/	0.00	50.00	104.7	20.7/137.7	
1,2-Dichlorobenzene	51.81/	0.00	50.00	103.6	10.0/166.2	
1,2,3-Trimethylbenzene	52.65/	0.00	50.00	105.3	76.3/124.2	
n-Butylbenzene	52.99/	0.00	50.00	106.0	80.0/133.3	
Hexachloroethane	53.71/	0.00	50.00	107.4	23.8/138.1	
1,2-Dibromo-3-Chloropropane	35.79/	0.00	50.00	71.6	21.2/189.4	
1,2,4-Trichlorobenzene	50.45/	0.00	50.00	100.9	27.4/143.4	
1,2,3-Trichlorobenzene	47.85/	0.00	50.00	95.7	75.4/131.4	
Naphthalene	38.37/	0.00	50.00	76.7	32.9/135.8	
2-Methylnaphthalene	36.95/	0.00	50.00	73.9	25.5/165.5	
					Total Outliers:	**5**

Spike File : lcsw26c.d
Spike ID : LCS1
Prep Batch: vf120726w1
Prep Date : / /
Parent File: blkw26a.d

1,1,2-Trichloro-1,2,2-trifluor	46.22/	0.00	50.00	92.4	75.1/135.9	WW
Diethyl ether	42.52/	0.00	50.00	85.0	67.4/121.2	
Acetone	42.15/	0.00	50.00	84.3	29.9/161.5	
Methyl iodide	50.48/	0.00	50.00	101.0	68.8/116.4	
Carbon disulfide	49.67/	0.00	50.00	99.3	63.8/137.4	
Methyl acetate	33.81/	0.00	50.00	67.6	64.7/125.4	
tert-Methyl butyl ether	47.29/	0.00	50.00	94.6	73.2/122.4	
Acrylonitrile	36.50/	0.00	50.00	73.0	69.9/128.9	
2-Butanone	33.75/	0.00	50.00	67.5	44.0/134.4	
Dichlorodifluoromethane	34.89/	0.00	50.00	69.8	10.0/222.8	
Chloromethane	42.93/	0.00	50.00	85.9	23.8/166.5	
Vinyl Chloride	38.80/	0.00	50.00	77.6	43.5/149.1	
Bromomethane	41.28/	0.00	50.00	82.6	56.8/151.3	
Chloroethane	43.37/	0.00	50.00	86.7	53.4/149.4	
Trichlorofluoromethane	50.27/	0.00	50.00	100.5	59.7/151.8	
1,1-Dichloroethene	47.94/	0.00	50.00	95.9	69.6/139.4	
Methylene Chloride	49.64/	0.00	50.00	99.3	73.3/121.1	
trans-1,2-Dichloroethene	48.92/	0.00	50.00	97.8	73.6/129.3	
1,1-Dichloroethane	47.67/	0.00	50.00	95.3	71.5/126.2	
cis-1,2-Dichloroethene	49.12/	0.00	50.00	98.2	76.6/122.1	
Tetrahydrofuran	29.55/	1.53	50.00	59.1	59.0/117.9	
Chloroform	51.57/	0.00	50.00	103.1	78.4/124.0	
Bromochloromethane	50.83/	0.00	50.00	101.7	78.2/120.8	
1,1,1-Trichloroethane	53.73/	0.00	50.00	107.5	79.4/130.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	34.04/	0.00	50.00	68.1	10.0/169.1	
4-Methyl-2-pentanone	36.83/	0.00	50.00	73.7	71.6/125.2	
2-Hexanone	35.14/	0.00	50.00	70.3	55.4/136.9	
Carbon Tetrachloride	55.52/	0.00	50.00	111.0	72.6/133.0	
Benzene	49.38/	0.00	50.00	98.8	79.9/124.9	
1,2-Dichloroethane	50.68/	0.00	50.00	101.4	76.0/126.3	
Trichloroethene	51.44/	0.00	50.00	102.9	79.7/124.2	
1,2-Dichloropropane	48.23/	0.00	50.00	96.5	78.6/126.4	
Bromodichloromethane	54.09/	0.00	50.00	108.2	80.4/128.2	
Methyl cyclohexane	46.54/	0.00	50.00	93.1	76.6/131.3	
Dibromomethane	51.95/	0.00	50.00	103.9	76.9/122.1	
cis-1,3-Dichloropropene	50.29/	0.00	50.00	100.6	79.8/129.9	
Toluene	51.31/	0.00	50.00	102.6	79.8/124.5	
trans-1,3-Dichloropropene	49.76/	0.00	50.00	99.5	74.0/131.3	
1,1,2-Trichloroethane	48.39/	0.00	50.00	96.8	78.7/123.1	
Tetrachloroethene	50.09/	0.00	50.00	100.2	74.5/124.5	
trans-1,4-Dichloro-2-butene	10.47/	0.00	50.00	20.9*	68.6/135.4	
Dibromochloromethane	52.31/	0.00	50.00	104.6	74.6/127.2	
1,2-Dibromoethane	46.97/	0.00	50.00	93.9	70.3/133.7	
Chlorobenzene	50.39/	0.00	50.00	100.8	79.2/122.7	
1,1,1,2-Tetrachloroethane	52.72/	0.00	50.00	105.4	80.3/128.2	
Ethylbenzene	50.92/	0.00	50.00	101.8	79.5/129.1	
p,m-Xylene	98.41/	0.00	100.00	98.4	79.4/132.2	
o-Xylene	51.72/	0.00	50.00	103.4	80.2/131.0	
Styrene	48.38/	0.00	50.00	96.8	69.5/126.7	
Isopropylbenzene	51.46/	0.00	50.00	102.9	74.4/121.5	
Bromoform	43.22/	0.00	50.00	86.4	69.4/128.0	
1,1,2,2-Tetrachloroethane	41.02/	0.00	50.00	82.0	79.8/126.3	
1,2,3-Trichloropropane	43.00/	0.00	50.00	86.0	78.3/138.8	
n-Propylbenzene	53.41/	0.00	50.00	106.8	82.0/130.7	
Bromobenzene	52.62/	0.00	50.00	105.2	78.7/124.6	
1,3,5-Trimethylbenzene	50.51/	0.00	50.00	101.0	81.3/128.9	
tert-Butylbenzene	51.41/	0.00	50.00	102.8	80.7/128.9	
1,2,4-Trimethylbenzene	50.25/	0.00	50.00	100.5	81.4/130.8	
sec-Butylbenzene	52.56/	0.00	50.00	105.1	77.4/129.8	
p-Isopropyltoluene	54.50/	0.00	50.00	109.0	79.8/137.5	
1,3-Dichlorobenzene	53.86/	0.00	50.00	107.7	77.0/131.3	
1,4-Dichlorobenzene	53.74/	0.00	50.00	107.5	20.7/137.7	
1,2-Dichlorobenzene	53.88/	0.00	50.00	107.8	10.0/166.2	
1,2,3-Trimethylbenzene	54.03/	0.00	50.00	108.1	76.3/124.2	
n-Butylbenzene	53.95/	0.00	50.00	107.9	80.0/133.3	
Hexachloroethane	53.41/	0.00	50.00	106.8	23.8/138.1	
1,2-Dibromo-3-Chloropropane	41.31/	0.00	50.00	82.6	21.2/189.4	
1,2,4-Trichlorobenzene	52.87/	0.00	50.00	105.7	27.4/143.4	
1,2,3-Trichlorobenzene	50.49/	0.00	50.00	101.0	75.4/131.4	
Naphthalene	42.58/	0.00	50.00	85.2	32.9/135.8	
2-Methylnaphthalene	40.46/	0.00	50.00	80.9	25.5/165.5	

Total Outliers: 1

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks20a.d (100ul blank 1s0720)
Blank ID : BLANK1
Prep Batch: vf120720s1
Prep Date : / /
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		11	50
Diethyl ether (*)	Not detected		16	50
Acetone (*)	Not detected		340	500
Methyl iodide (iodomethane) (*	Not detected		5.4	50
Carbon disulfide (*)	Not detected		6.9	50
Methyl Acetate	Not detected		20	50
tert-Methyl butyl ether (MTBE)	Not detected		9.2	50
Acrylonitrile (*)	Not detected		37	50
2-Butanone (MEK) (*)	Not detected		25	500
Dichlorodifluoromethane	Not detected		11	50
Chloromethane (SPCC)	Not detected		9.9	50
Vinyl Chloride (CCC)	Not detected		10.0	50
Bromomethane	Not detected		11	50
Chloroethane	Not detected		11	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		7.8	50
1,1-Dichloroethene (CCC/MS)	Not detected		11	50
Methylene Chloride	Not detected		11	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		8.5	50
cis-1,2-Dichloroethene	Not detected		7.9	50
Tetrahydrofuran	2.89	144.5	83	500
Chloroform (CCC)	Not detected		7.8	50
Bromochloromethane	Not detected		11	50
1,1,1-Trichloroethane	Not detected		6.4	50
1,1-Dichloropropene	Not detected		8.2	50
Cyclohexane	Not detected		18	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		22	50
2-Hexanone (*)	Not detected		13	50
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		7.3	50
Benzene (MS)	Not detected		9.2	50
1,2-Dichloroethane	Not detected		11	50
Trichloroethene (MS)	Not detected		9.4	50
1,2-Dichloropropane (CCC)	Not detected		6.5	50
Bromodichloromethane	Not detected		7.4	50
Methyl Cyclohexane	Not detected		9.6	50
Dibromomethane	Not detected		7.7	50
cis-1,3-Dichloropropene	Not detected		7.3	50
Toluene (CCC/MS)	Not detected		8.4	50
trans-1,3-Dichloropropene	Not detected		6.4	50
1,1,2-Trichloroethane	Not detected		9.2	50
Tetrachloroethene	Not detected		9.0	50
trans-1,4-Dichloro-2-butene	Not detected		18	50
Dibromochloromethane	Not detected		6.1	50
1,2-Dibromoethane	Not detected		6.2	50
Chlorobenzene (SPCC/MS)	Not detected		8.1	50
1,1,1,2-Tetrachloroethane	Not detected		6.1	50
Ethylbenzene (CCC)	Not detected		9.6	50
p,m-Xylene	Not detected		18	50
o-Xylene	Not detected		9.1	50
Styrene	Not detected		9.6	50
Isopropylbenzene	Not detected		8.6	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks20a.d (100ul blank 1s0720)
Blank ID : BLANK1
Prep Batch: vf120720s1
Prep Date : / /
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		9.9	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.2	50
1,2,3-Trichloropropane	Not detected		18	50
n-Propylbenzene	Not detected		8.8	50
Bromobenzene	Not detected		9.5	50
1,3,5-Trimethylbenzene	Not detected		8.8	50
tert-Butylbenzene	Not detected		10	50
1,2,4-Trimethylbenzene	Not detected		9.9	50
sec-Butylbenzene	Not detected		10	50
p-Isopropyltoluene	Not detected		10	50
1,3-Dichlorobenzene	Not detected		10	50
1,4-Dichlorobenzene	Not detected		8.5	50
1,2-Dichlorobenzene	Not detected		11	50
1,2,3-Trimethylbenzene	Not detected		6.7	50
n-Butylbenzene	Not detected		4.1	50
Hexachloroethane	Not detected		6.5	50
1,2-Dibromo-3-Chloropropane	Not detected		11	50
1,2,4-Trichlorobenzene	Not detected		6.6	50
Hexachlorobutadiene	Not detected		11	50
1,2,3-Trichlorobenzene	Not detected		7.6	50
Naphthalene	Not detected		6.7	50
2-Methylnaphthalene	Not detected		7.8	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica
Level: N/A

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw26a.d (5ml blank 1dr0723)
Blank ID : BLANK1
Prep Batch: vf120726w1
Prep Date : / /
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		0.18	1
Diethyl ether (*)	Not detected		0.50	1
Acetone (*)	Not detected		0.56	10
Methyl iodide (iodomethane) (*	Not detected		0.25	1
Carbon disulfide (*)	Not detected		0.24	1
Methyl Acetate	Not detected		0.25	1
tert-Methyl butyl ether (MTBE)	Not detected		0.19	1
Acrylonitrile (*)	Not detected		0.57	1
2-Butanone (MEK) (*)	Not detected		0.26	10
Dichlorodifluoromethane	Not detected		0.50	1
Chloromethane (SPCC)	Not detected		0.26	1
Vinyl Chloride (CCC)	Not detected		0.31	1
Bromomethane	Not detected		0.32	1
Chloroethane	Not detected		0.34	1
Acrolein	Not detected		1.8	10
Trichlorofluoromethane	Not detected		0.33	1
1,1-Dichloroethene (CCC/MS)	Not detected		0.27	1
Methylene Chloride	Not detected		0.29	1
trans-1,2-Dichloroethene	Not detected		0.20	1
1,1-Dichloroethane (SPCC)	Not detected		0.20	1
cis-1,2-Dichloroethene	Not detected		0.26	1
Tetrahydrofuran	1.53	1.5	1.3	10
Chloroform (CCC)	Not detected		0.21	1
Bromochloromethane	Not detected		0.38	1
1,1,1-Trichloroethane	Not detected		0.28	1
1,1-Dichloropropene	Not detected		0.20	1
Cyclohexane	Not detected		0.29	1
4-Methyl-2-pentanone (MIBK) (*	Not detected		0.14	1
2-Hexanone (*)	Not detected		0.29	1
2-chloroethylvinyl ether	Not detected		0.28	1
Carbon Tetrachloride	Not detected		0.20	1
Benzene (MS)	Not detected		0.20	1
1,2-Dichloroethane	Not detected		0.16	1
Trichloroethene (MS)	Not detected		0.23	1
1,2-Dichloropropane (CCC)	Not detected		0.20	1
Bromodichloromethane	Not detected		0.23	1
Methyl Cyclohexane	Not detected		0.21	1
Dibromomethane	Not detected		0.20	1
cis-1,3-Dichloropropene	Not detected		0.19	1
Toluene (CCC/MS)	Not detected		0.25	1
trans-1,3-Dichloropropene	Not detected		0.25	1
1,1,2-Trichloroethane	Not detected		0.28	1
Tetrachloroethene	Not detected		0.20	1
trans-1,4-Dichloro-2-butene	Not detected		0.20	1
Dibromochloromethane	Not detected		0.24	1
1,2-Dibromoethane	Not detected		0.30	1
Chlorobenzene (SPCC/MS)	Not detected		0.17	1
1,1,1,2-Tetrachloroethane	Not detected		0.24	1
Ethylbenzene (CCC)	Not detected		0.26	1
p,m-Xylene	Not detected		0.41	1
o-Xylene	Not detected		0.25	1
Styrene	Not detected		0.18	1
Isopropylbenzene	Not detected		0.25	1

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica
Level: N/A

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw26a.d (5ml blank 1dr0723)
Blank ID : BLANK1
Prep Batch: vf120726w1
Prep Date : / /
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
Bromoform (SPCC)	Not detected		0.22	1
1,1,2,2-Tetrachloroethane (SPC	Not detected		0.18	1
1,2,3-Trichloropropane	Not detected		0.33	1
n-Propylbenzene	Not detected		0.23	1
Bromobenzene	Not detected		0.27	1
1,3,5-Trimethylbenzene	Not detected		0.26	1
tert-Butylbenzene	Not detected		0.18	1
1,2,4-Trimethylbenzene	Not detected		0.22	1
sec-Butylbenzene	Not detected		0.25	1
p-Isopropyltoluene	Not detected		0.21	1
1,3-Dichlorobenzene	Not detected		0.24	1
1,4-Dichlorobenzene	Not detected		0.23	1
1,2-Dichlorobenzene	Not detected		0.28	1
1,2,3-Trimethylbenzene	Not detected		0.061	1
n-Butylbenzene	Not detected		0.22	1
Hexachloroethane	Not detected		0.21	1
1,2-Dibromo-3-Chloropropane	Not detected		0.47	1
1,2,4-Trichlorobenzene	Not detected		0.19	1
Hexachlorobutadiene	Not detected		0.31	1
1,2,3-Trichlorobenzene	Not detected		0.20	1
Naphthalene	Not detected		0.21	1
2-Methylnaphthalene	Not detected		0.16	1

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks20a.d
Method Blank Prep Date: / /
Blank/LCS Preparation Batch: vf120720s1

LCS Data File: lcss20a.d
LCS Prep Date: / /

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53158.01	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53158.02	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53158.03	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53225.01	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53225.02	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53227.01	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53227.02	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53227.03	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53228.01	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53228.02	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53228.03	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53229.01	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53229.02	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53229.03	120720A5	VF120720S1	07/20/12	BTEX 5035	$5BTX826
S53243.01	120720A5	VF120720S1	07/20/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53243.02	120720A5	VF120720S1	07/20/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53243.03	120720A5	VF120720S1	07/20/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53243.04	120720A5	VF120720S1	07/20/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53243.05	120720A5	VF120720S1	07/20/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica
Level: N/A

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blkw26a.d
Method Blank Prep Date: / /
Blank/LCS Preparation Batch: vf120726w1

LCS Data File: lcsw26b.d
LCS Prep Date: / /

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53243.06	120726A7	VF120726W1	07/26/12	TCL Volatile Organics 8260	$8260TCL
S53265.04	120726A7	VF120726W1	07/26/12	Volatile Organics - DEQ List	$8260W

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb20a.d	07/20/12 10:55	50	95	8.0	40.0	10.1	4228	PASS
		75	95	30.0	66.0	37.6	15772	PASS
		95	95	100.0	100.0	100.0	41936	PASS
		96	95	5.0	9.0	6.5	2731	PASS
		173	174	0.0	2.0	0.7	295	PASS
		174	95	50.0	120.0	107.8	45208	PASS
		175	174	4.0	9.0	7.1	3205	PASS
		176	174	93.0	101.0	97.9	44240	PASS
		177	176	5.0	9.0	6.8	3015	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica

Analytical Batch: 120726a7.1
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb26a.d	07/26/12 11:18	50	95	8.0	40.0	22.6	10389	PASS
		75	95	30.0	66.0	57.9	26592	PASS
		95	95	100.0	100.0	100.0	45888	PASS
		96	95	5.0	9.0	5.6	2558	PASS
		173	174	0.0	2.0	0.0	0	PASS
		174	95	50.0	120.0	117.5	53896	PASS
		175	174	4.0	9.0	5.8	3112	PASS
		176	174	93.0	101.0	93.6	50432	PASS
		177	176	5.0	9.0	5.8	2928	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc20a.d	07/20/12 11:30	Pentafluorobenzene	620765/ 3.96	310383- 1241530	3.46- 4.46
		1,4-Difluorobenzene	688790/ 4.32	344395- 1377580	3.82- 4.82
		Chlorobenzene-D5	245936/ 5.68	122968- 491872	5.18- 6.18
		1,4-Dichlorobenzene-D4	326882/ 6.78	163441- 653764	6.28- 7.28
					Total Outliers: N/A
lcss20a.d	07/20/12 12:11	Pentafluorobenzene	570529/ 3.96	Ratio: 0.919	Diff.: 0.00
		1,4-Difluorobenzene	644368/ 4.32	Ratio: 0.936	Diff.: 0.00
		Chlorobenzene-D5	230734/ 5.68	Ratio: 0.938	Diff.: 0.00
		1,4-Dichlorobenzene-D4	303664/ 6.77	Ratio: 0.929	Diff.: -0.01
					Total Outliers: 0
lcss20b.d	07/20/12 12:31	Pentafluorobenzene	579696/ 3.96	Ratio: 0.934	Diff.: 0.00
		1,4-Difluorobenzene	657524/ 4.32	Ratio: 0.955	Diff.: 0.00
		Chlorobenzene-D5	236976/ 5.68	Ratio: 0.964	Diff.: 0.00
		1,4-Dichlorobenzene-D4	315580/ 6.77	Ratio: 0.965	Diff.: -0.01
					Total Outliers: 0
blks20a.d	07/20/12 13:50	Pentafluorobenzene	587853/ 3.96	Ratio: 0.947	Diff.: 0.00
		1,4-Difluorobenzene	662186/ 4.32	Ratio: 0.961	Diff.: 0.00
		Chlorobenzene-D5	234741/ 5.68	Ratio: 0.954	Diff.: 0.00
		1,4-Dichlorobenzene-D4	321708/ 6.77	Ratio: 0.984	Diff.: -0.01
					Total Outliers: 0
5324301.d	07/20/12 19:12	Pentafluorobenzene	606609/ 3.96	Ratio: 0.977	Diff.: 0.00
		1,4-Difluorobenzene	683880/ 4.32	Ratio: 0.993	Diff.: 0.00
		Chlorobenzene-D5	238995/ 5.68	Ratio: 0.972	Diff.: 0.00
		1,4-Dichlorobenzene-D4	326068/ 6.77	Ratio: 0.998	Diff.: -0.01
					Total Outliers: 0
5324302.d	07/20/12 19:32	Pentafluorobenzene	526883/ 3.96	Ratio: 0.849	Diff.: 0.00
		1,4-Difluorobenzene	603067/ 4.32	Ratio: 0.876	Diff.: 0.00
		Chlorobenzene-D5	218077/ 5.68	Ratio: 0.887	Diff.: 0.00
		1,4-Dichlorobenzene-D4	298668/ 6.77	Ratio: 0.914	Diff.: -0.01
					Total Outliers: 0
5324303.d	07/20/12 19:52	Pentafluorobenzene	580401/ 3.96	Ratio: 0.935	Diff.: 0.00
		1,4-Difluorobenzene	668647/ 4.32	Ratio: 0.971	Diff.: 0.00
		Chlorobenzene-D5	233329/ 5.68	Ratio: 0.949	Diff.: 0.00
		1,4-Dichlorobenzene-D4	320668/ 6.77	Ratio: 0.981	Diff.: -0.01
					Total Outliers: 0
5324304.d	07/20/12 20:11	Pentafluorobenzene	574119/ 3.96	Ratio: 0.925	Diff.: 0.00
		1,4-Difluorobenzene	636672/ 4.32	Ratio: 0.924	Diff.: 0.00
		Chlorobenzene-D5	216686/ 5.68	Ratio: 0.881	Diff.: 0.00
		1,4-Dichlorobenzene-D4	291230/ 6.77	Ratio: 0.891	Diff.: -0.01
					Total Outliers: 0
5324305.d	07/20/12 20:31	Pentafluorobenzene	564763/ 3.96	Ratio: 0.910	Diff.: 0.00
		1,4-Difluorobenzene	644568/ 4.32	Ratio: 0.936	Diff.: 0.00
		Chlorobenzene-D5	222772/ 5.68	Ratio: 0.906	Diff.: 0.00
		1,4-Dichlorobenzene-D4	296253/ 6.77	Ratio: 0.906	Diff.: -0.01
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica
Analytical Batch: 120726a7.1
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc26a.d	07/26/12 11:47	Pentafluorobenzene	73547/ 3.90	36774- 147094	3.40- 4.40
		1,4-Difluorobenzene	85459/ 4.26	42730- 170918	3.76- 4.76
		Chlorobenzene-D5	51529/ 5.60	25765- 103058	5.10- 6.10
		1,4-Dichlorobenzene-D4	53328/ 6.68	26664- 106656	6.18- 7.18
				Total Outliers: N/A	
lcsw26b.d	07/26/12 12:20	Pentafluorobenzene	72915/ 3.90	Ratio: 0.991	Diff.: 0.00
		1,4-Difluorobenzene	84057/ 4.26	Ratio: 0.984	Diff.: 0.00
		Chlorobenzene-D5	53051/ 5.61	Ratio: 1.030	Diff.: 0.01
		1,4-Dichlorobenzene-D4	53373/ 6.69	Ratio: 1.001	Diff.: 0.01
				Total Outliers: 0	
lcsw26c.d	07/26/12 12:42	Pentafluorobenzene	72784/ 3.90	Ratio: 0.990	Diff.: 0.00
		1,4-Difluorobenzene	86275/ 4.26	Ratio: 1.010	Diff.: 0.00
		Chlorobenzene-D5	52958/ 5.60	Ratio: 1.028	Diff.: 0.00
		1,4-Dichlorobenzene-D4	50903/ 6.68	Ratio: 0.955	Diff.: 0.00
				Total Outliers: 0	
blkw26a.d	07/26/12 13:49	Pentafluorobenzene	71151/ 3.91	Ratio: 0.967	Diff.: 0.01
		1,4-Difluorobenzene	84063/ 4.26	Ratio: 0.984	Diff.: 0.00
		Chlorobenzene-D5	50143/ 5.61	Ratio: 0.973	Diff.: 0.01
		1,4-Dichlorobenzene-D4	51539/ 6.69	Ratio: 0.966	Diff.: 0.01
				Total Outliers: 0	
5324306.d	07/26/12 15:05	Pentafluorobenzene	70149/ 3.90	Ratio: 0.954	Diff.: 0.00
		1,4-Difluorobenzene	82432/ 4.26	Ratio: 0.965	Diff.: 0.00
		Chlorobenzene-D5	48953/ 5.60	Ratio: 0.950	Diff.: 0.00
		1,4-Dichlorobenzene-D4	50408/ 6.68	Ratio: 0.945	Diff.: 0.00
				Total Outliers: 0	

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.01
Data File: 5324301.d
Date Received: 07/18/12

Tag: SB 123 (07-16-12) (6-8)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 75.1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	200	16	ug/kg	07/20/12	
67-64-1	Acetone	Not detected	1100	510	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	10	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	31	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	37	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	80	17	ug/kg		
74-87-3	Chloromethane	Not detected	400	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	200	15	ug/kg		
74-83-9	Bromomethane	Not detected	400	16	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	200	12	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	80	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	16	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	80	13	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	80	13	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	80	12	ug/kg		
67-66-3	Chloroform	Not detected	80	12	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	80	9.6	ug/kg		
110-82-7	Cyclohexane	Not detected	80	28	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	32	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	19	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	80	11	ug/kg		
71-43-2	Benzene	Not detected	80	14	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	80	17	ug/kg		
79-01-6	Trichloroethene	Not detected	80	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	80	9.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	80	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	80	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	80	11	ug/kg		
108-88-3	Toluene	Not detected	80	13	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	80	9.5	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	80	14	ug/kg		
127-18-4	Tetrachloroethene	Not detected	80	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	80	9.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	80	9.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	80	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	80	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	80	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	80	27	ug/kg		
95-47-6	o-Xylene	Not detected	80	14	ug/kg		
100-42-5	Styrene	Not detected	80	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	80	13	ug/kg		
75-25-2	Bromoform	Not detected	80	15	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	80	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	80	13	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	80	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	80	16	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	200	9.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	80	1		%	07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/20/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (90%)				07/20/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.01
Data File: 5324301.d
Date Received: 07/18/12

Tag: SB 123 (07-16-12) (6-8)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.02
Data File: 5324302.d
Date Received: 07/18/12

Tag: SB 124 (07-16-12) (4-6)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 69.5

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	07/20/12	
67-64-1	Acetone	Not detected	1000	470	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.6	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	34	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	16	ug/kg		
74-87-3	Chloromethane	Not detected	300	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	300	15	ug/kg		
75-00-3	Chloroethane	Not detected	300	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	300	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.9	ug/kg		
110-82-7	Cyclohexane	Not detected	70	26	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	30	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	10	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.0	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	10	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.8	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.4	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.6	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	10	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	25	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.2	ug/kg		
Total Solids							
TSOLIDS	Total Solids	84	1		%	07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/20/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				07/20/12	
460-00-4	4-Bromofluorobenzene	Pass (98%)					
2037-26-5	Toluene-D8	Pass (100%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.02
Data File: 5324302.d
Date Received: 07/18/12

Tag: SB 124 (07-16-12) (4-6)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.03
Data File: 5324303.d
Date Received: 07/18/12

Tag: SB 117 (07-16-12) (2-4)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 67.3

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	07/20/12	
67-64-1	Acetone	Not detected	1000	450	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.3	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	27	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	33	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.6	ug/kg		
110-82-7	Cyclohexane	Not detected	70	25	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	29	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.8	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10.0	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.8	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.5	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.7	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	24	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/20/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				07/20/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.03
Data File: 5324303.d
Date Received: 07/18/12

Tag: SB 117 (07-16-12) (2-4)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.04
Data File: 5324304.d
Date Received: 07/18/12

Tag: SB 157 (07-17-12) (3-5)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 60

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	07/20/12	
67-64-1	Acetone	Not detected	900	410	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.3	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	24	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	900	30	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.4	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.5	ug/kg		
67-66-3	Chloroform	Not detected	60	9.3	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.7	ug/kg		
110-82-7	Cyclohexane	Not detected	60	22	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	26	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.7	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.9	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.7	ug/kg		
108-88-3	Toluene	Not detected	60	10	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.4	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.7	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.6	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	22	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	10	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	91	1		%	07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/20/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (87%)				07/20/12	
460-00-4	4-Bromofluorobenzene	Pass (97%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.04
Data File: 5324304.d
Date Received: 07/18/12

Tag: SB 157 (07-17-12) (3-5)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.05
Data File: 5324305.d
Date Received: 07/18/12

Tag: SB 157 (07-17-12) (8-10)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 72.6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	07/20/12	
67-64-1	Acetone	Not detected	1100	490	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	10	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	30	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	36	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	16	ug/kg		
74-87-3	Chloromethane	Not detected	400	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	400	15	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	9.3	ug/kg		
110-82-7	Cyclohexane	Not detected	70	27	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	31	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	18	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	11	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.4	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	11	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	9.2	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.8	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	9.0	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	10	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	26	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	16	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.6	ug/kg		
Total Solids							
TSOLIDS	Total Solids	81	1		%	07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/20/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				07/20/12	
460-00-4	4-Bromofluorobenzene	Pass (97%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120720a5.2

LIMS ID: S53243.05
Data File: 5324305.d
Date Received: 07/18/12

Tag: SB 157 (07-17-12) (8-10)
Notes: 100ul 1s0720
s/50 id:vf120720s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.07.Ravnica
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120726a7.1

LIMS ID: S53243.06
Data File: 5324306.d
Date Received: 07/18/12

Tag: 0908 -071612-0001
Notes: 5ml 1dr0723
w/1 id:vf120726w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.18	ug/l	07/26/12	
67-64-1	Acetone	Not detected	20	0.56	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.24	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.25	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.19	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	0.26	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.50	ug/l		
74-87-3	Chloromethane	Not detected	1	0.26	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.31	ug/l		
74-83-9	Bromomethane	Not detected	2	0.32	ug/l		
75-00-3	Chloroethane	Not detected	1	0.34	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.33	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.27	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.29	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.20	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.20	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.26	ug/l		
67-66-3	Chloroform	Not detected	1	0.21	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.28	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.29	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.14	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.29	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.20	ug/l		
71-43-2	Benzene	Not detected	1	0.20	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.16	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.23	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.20	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.23	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.21	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.19	ug/l		
108-88-3	Toluene	Not detected	1	0.25	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.25	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.28	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.20	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.24	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.30	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.17	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.26	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.41	ug/l		
95-47-6	o-Xylene	Not detected	1	0.25	ug/l		
100-42-5	Styrene	Not detected	1	0.18	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.25	ug/l		
75-25-2	Bromoform	Not detected	1	0.22	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.24	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.23	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.28	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.47	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.19	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/26/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (95%)				07/26/12	
460-00-4	4-Bromofluorobenzene	Pass (110%)					
2037-26-5	Toluene-D8	Pass (100%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.07.Ravnica
Analytical Batch: 120726a7.1
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324301.d Vial: 21
Acq On : 20 Jul 12 7:12 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:23 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

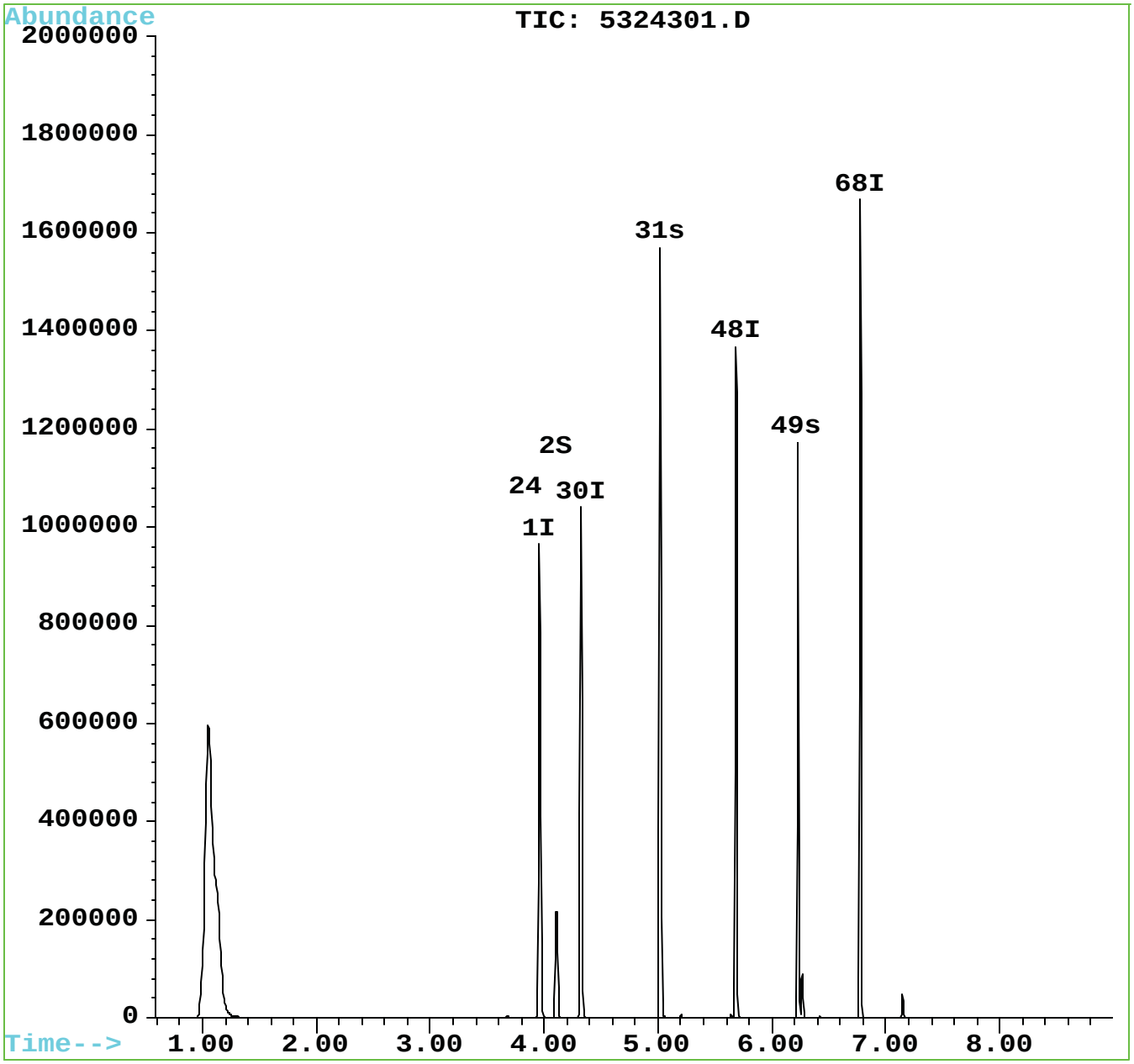
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	606609	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	683880	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	238995	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	326068	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	102667	44.76	ug/l	89.5
31) TOLUENE-D8 (S)	5.02	98	681356	49.31	ug/l	98.6
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	279833	49.23	ug/l	98.4
Target Compounds						Qvalu
24) Tetrahydrofuran	3.84	42	779	2.33	ug/l	#

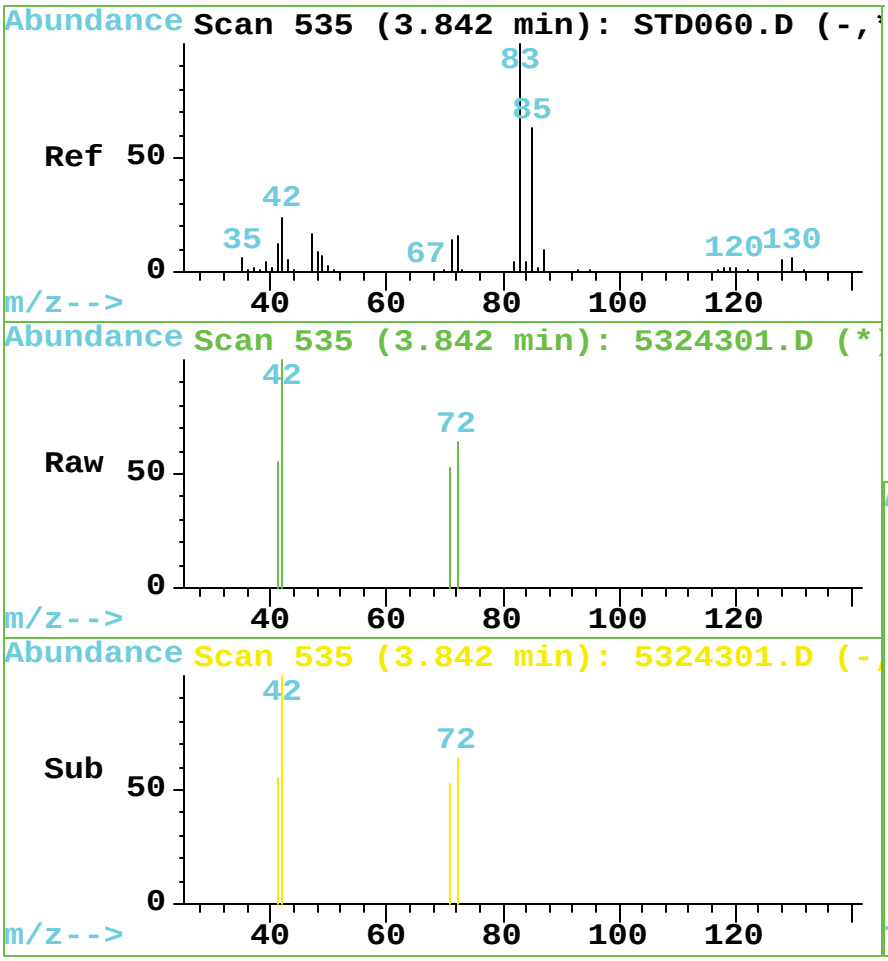
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324301.d Vial: 21
Acq On : 20 Jul 12 7:12 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:23 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

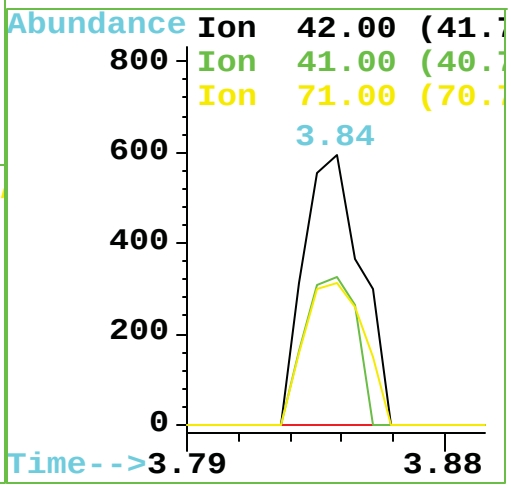




#24
Tetrahydrofuran
Concen: 2.33 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5324301.d
Acq: 20 Jul 12 7:12 pm

Tgt Ion:42 Resp: 779

Ion	Ratio	Lower	Upper
42	100		
41	49.6	222.5	282.5#
71	55.6	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324302.d Vial: 22
Acq On : 20 Jul 12 7:32 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

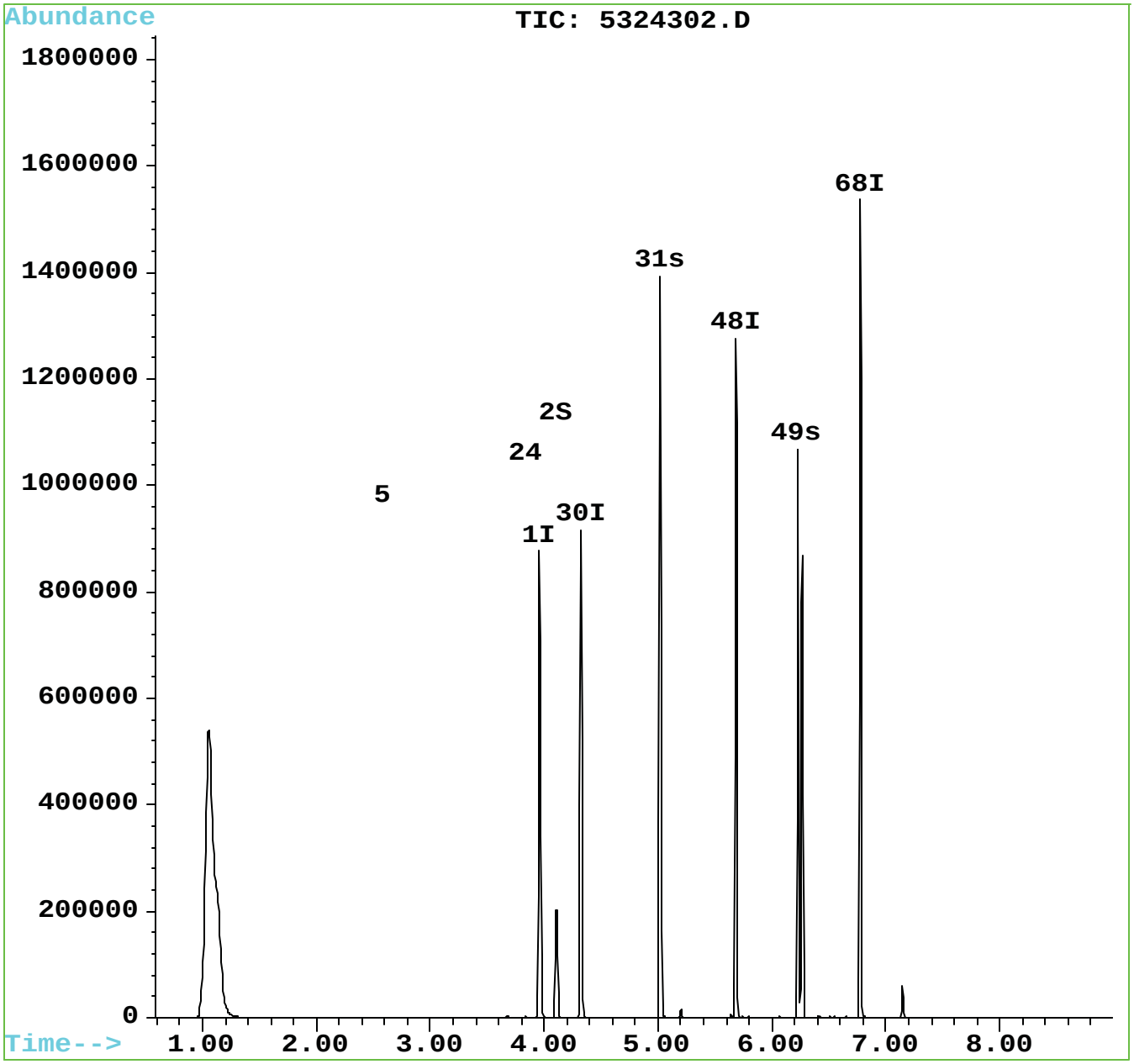
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	526883	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	603067	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	218077	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	298668	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	92214	46.29	ug/l	92.5
31) TOLUENE-D8 (S)	5.02	98	606171	49.75	ug/l	99.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	254710	49.11	ug/l	98.2
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	532	2.71	ug/l #	4
24) Tetrahydrofuran	3.84	42	842	2.90	ug/l #	

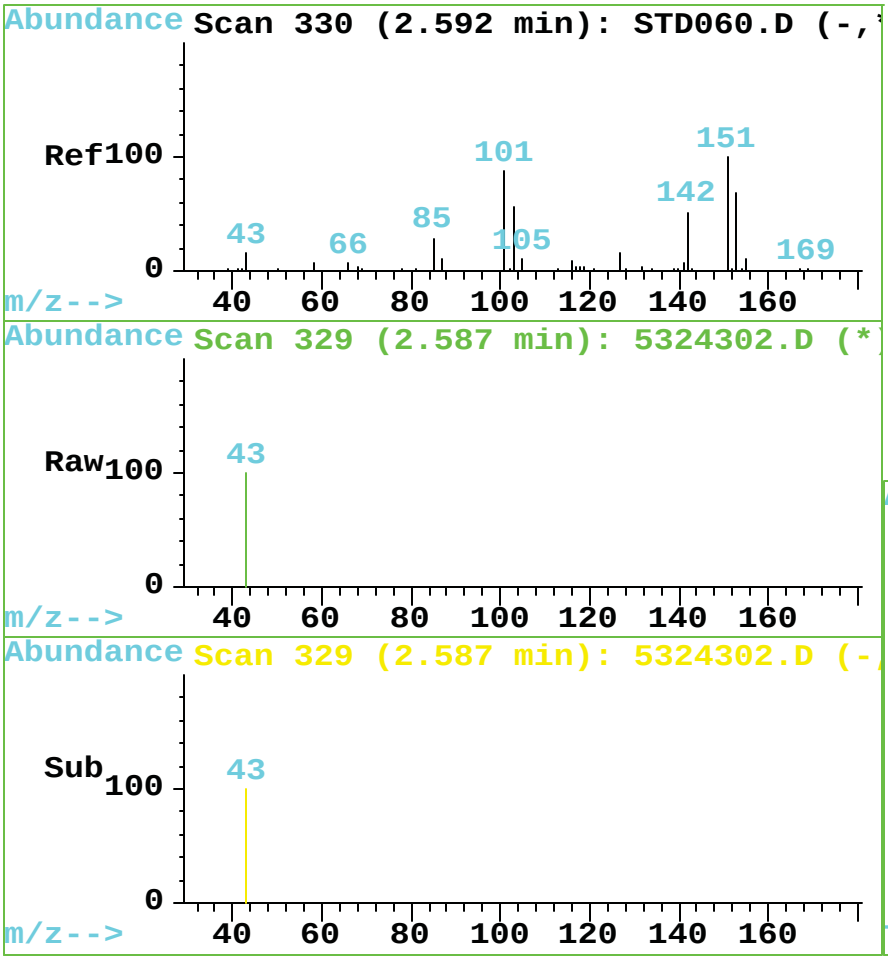
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324302.d Vial: 22
Acq On : 20 Jul 12 7:32 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

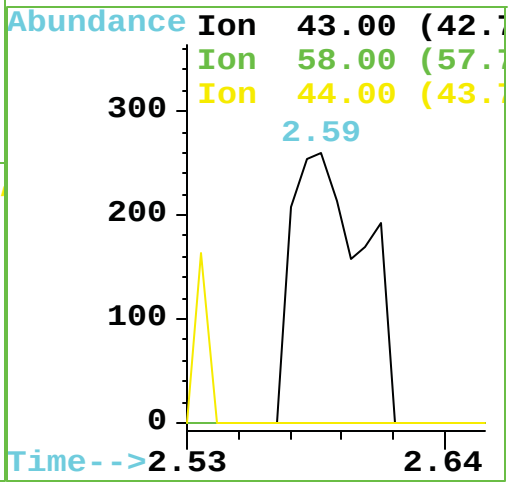


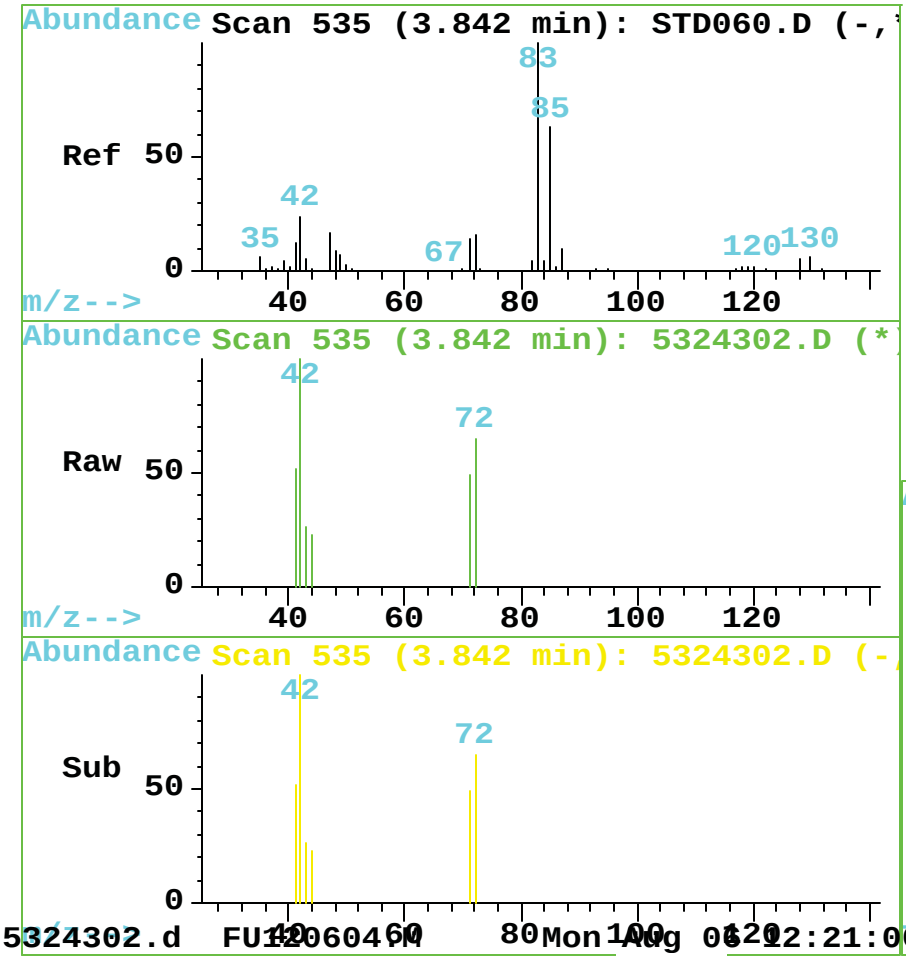


#5
Acetone (*)
Concen: 2.71 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5324302.d
Acq: 20 Jul 12 7:32 pm

Tgt Ion:43 Resp: 532

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	11.3	0.0	32.2
0	0.0	0.0	0.0

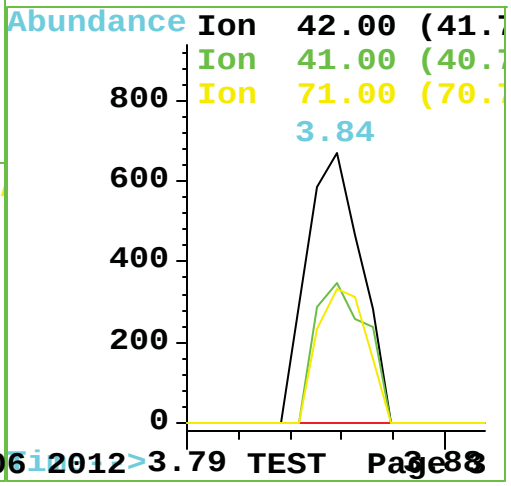




#24
Tetrahydrofuran
Concen: 2.90 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5324302.d
Acq: 20 Jul 12 7:32 pm

Tgt Ion:42 Resp: 842

Ion	Ratio	Lower	Upper
42	100		
41	48.9	222.5	282.5#
71	45.0	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324303.d Vial: 23
Acq On : 20 Jul 12 7:52 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:23 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

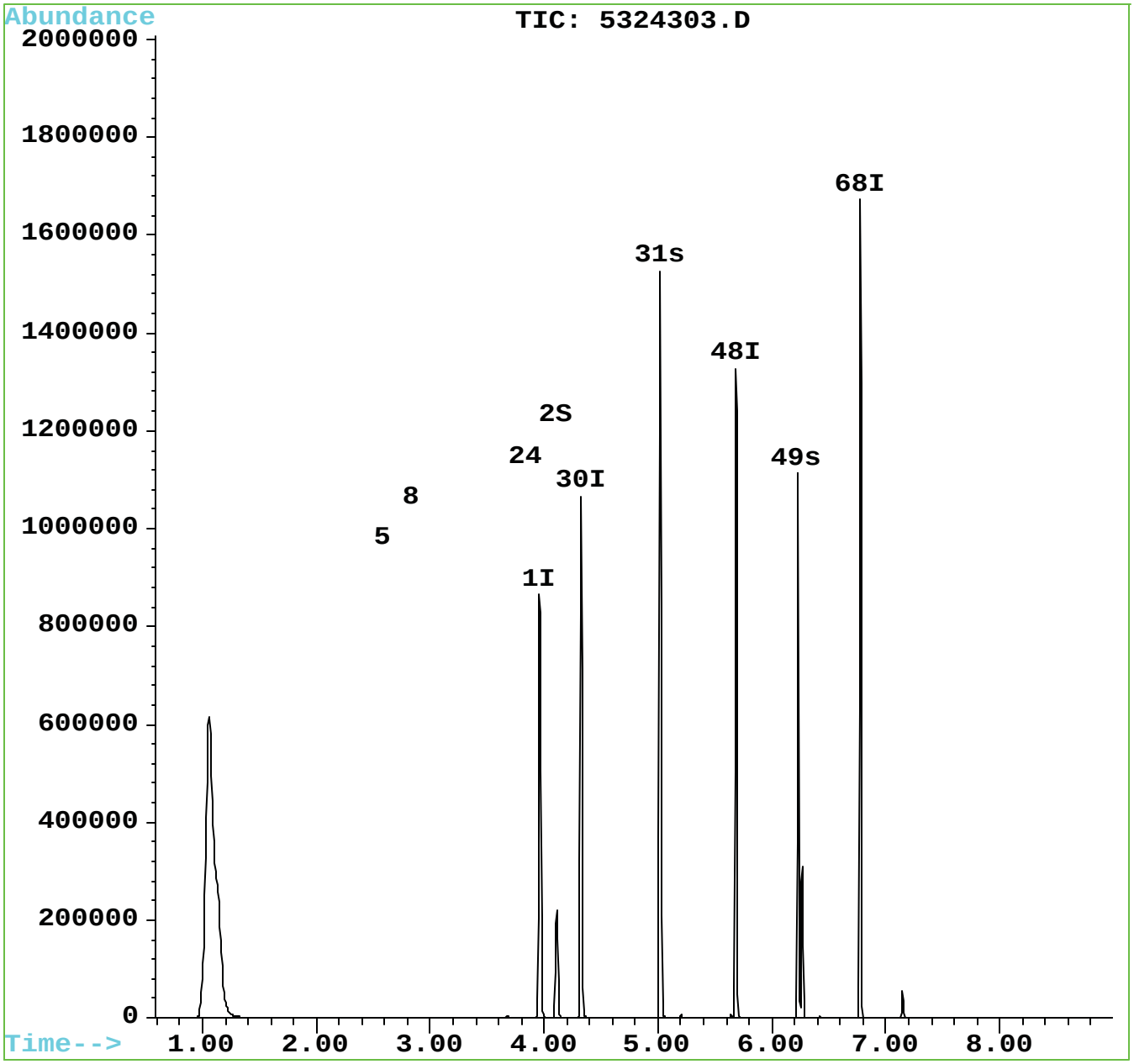
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	580401	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	668647	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	233329	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	320668	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	101102	46.07	ug/l	92.1
31) TOLUENE-D8 (S)	5.02	98	663191	49.09	ug/l	98.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	274026	49.38	ug/l	98.7
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	869	4.02	ug/l #	5
8) Methyl Acetate	2.84	43	1759	2.24	ug/l #	8
24) Tetrahydrofuran	3.84	42	846	2.64	ug/l #	

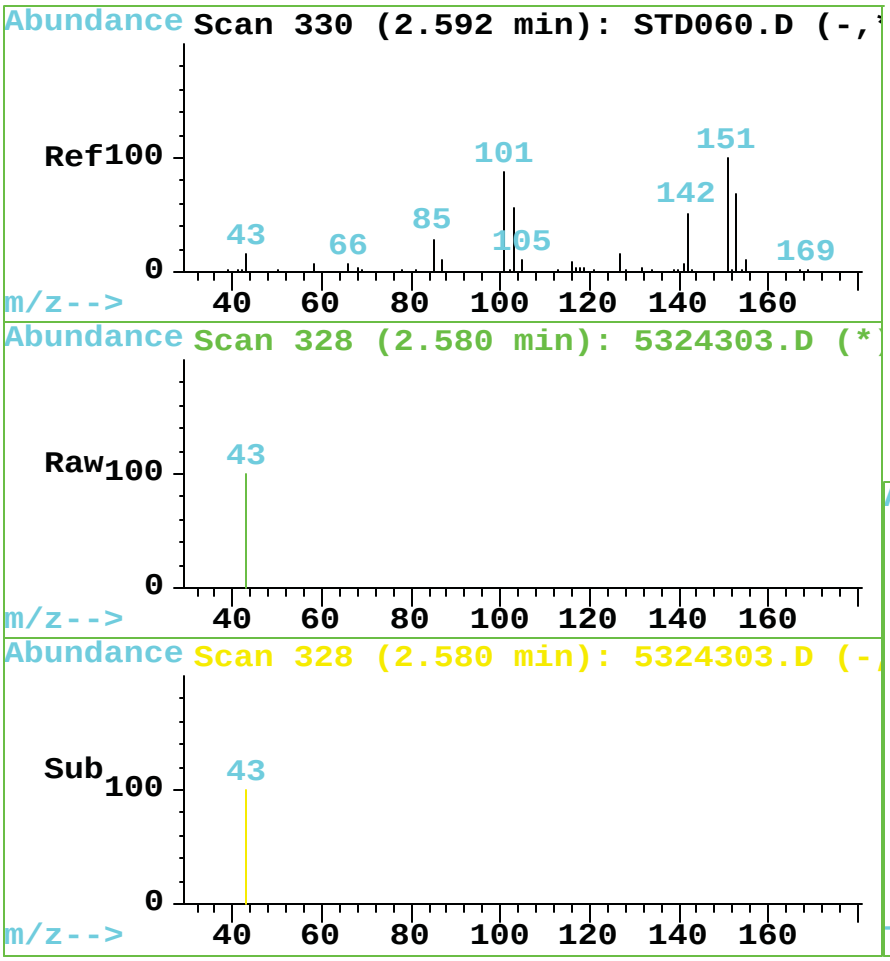
(#) = qualifier out of range (m) = manual integration
5324303.d FU120604.M Mon Aug 06 12:21:11 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324303.d Vial: 23
Acq On : 20 Jul 12 7:52 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:23 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

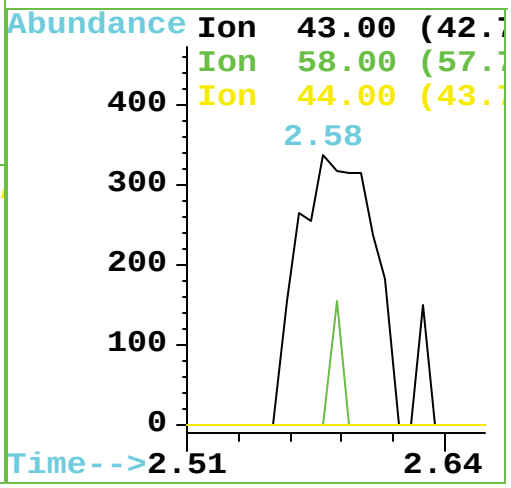


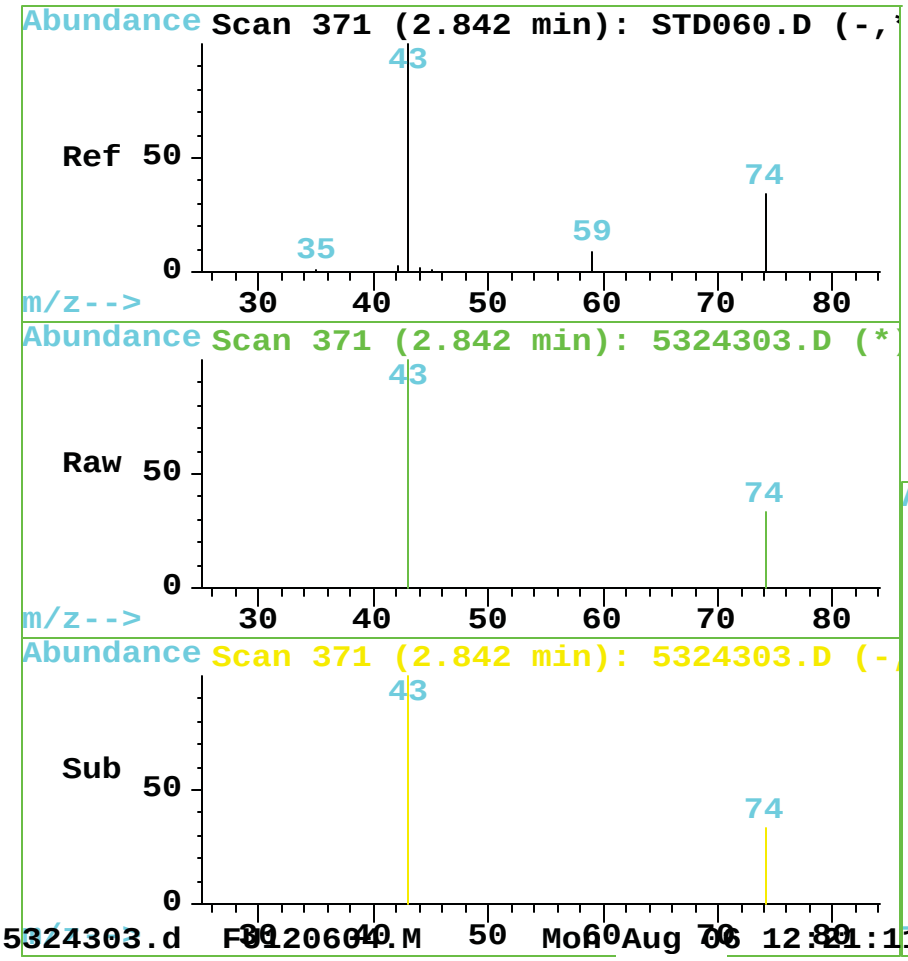


#5
Acetone (*)
Concen: 4.02 ug/l
RT: 2.58 min Scan# 328
Delta R.T. 0.01 min
Lab File: 5324303.d
Acq: 20 Jul 12 7:52 pm

Tgt Ion:43 Resp: 869

Ion	Ratio	Lower	Upper
43	100		
58	6.6	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

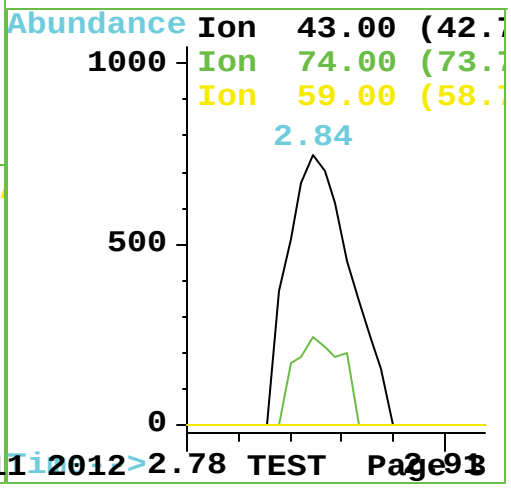


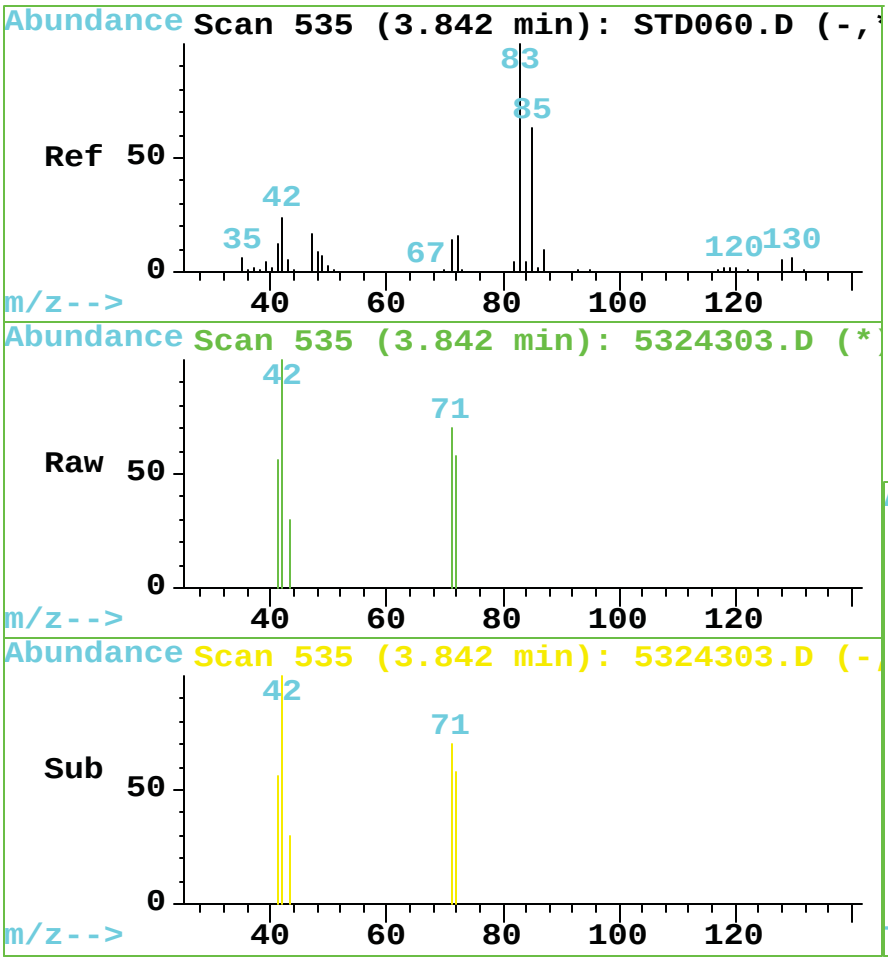


#8
Methyl Acetate
Concen: 2.24 ug/l
RT: 2.84 min Scan# 371
Delta R.T. 0.01 min
Lab File: 5324303.d
Acq: 20 Jul 12 7:52 pm

Tgt Ion:43 Resp: 1759

Ion	Ratio	Lower	Upper
43	100		
74	25.2	4.8	64.8
59	0.0	0.0	40.3
0	0.0	0.0	0.0

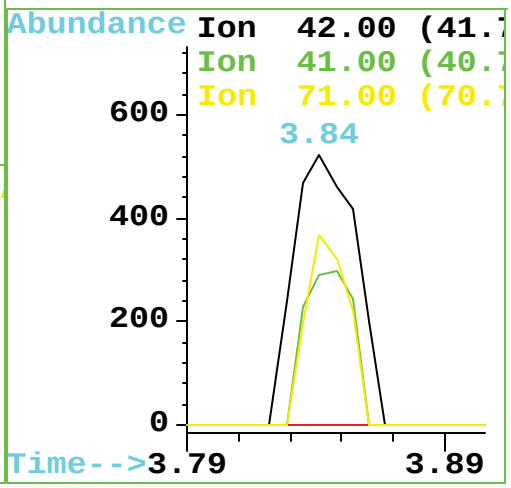




#24
Tetrahydrofuran
Concen: 2.64 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5324303.d
Acq: 20 Jul 12 7:52 pm

Tgt Ion:42 Resp: 846

Ion	Ratio	Lower	Upper
42	100		
41	45.7	222.5	282.5#
71	47.8	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324304.d Vial: 24
Acq On : 20 Jul 12 8:11 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:23 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

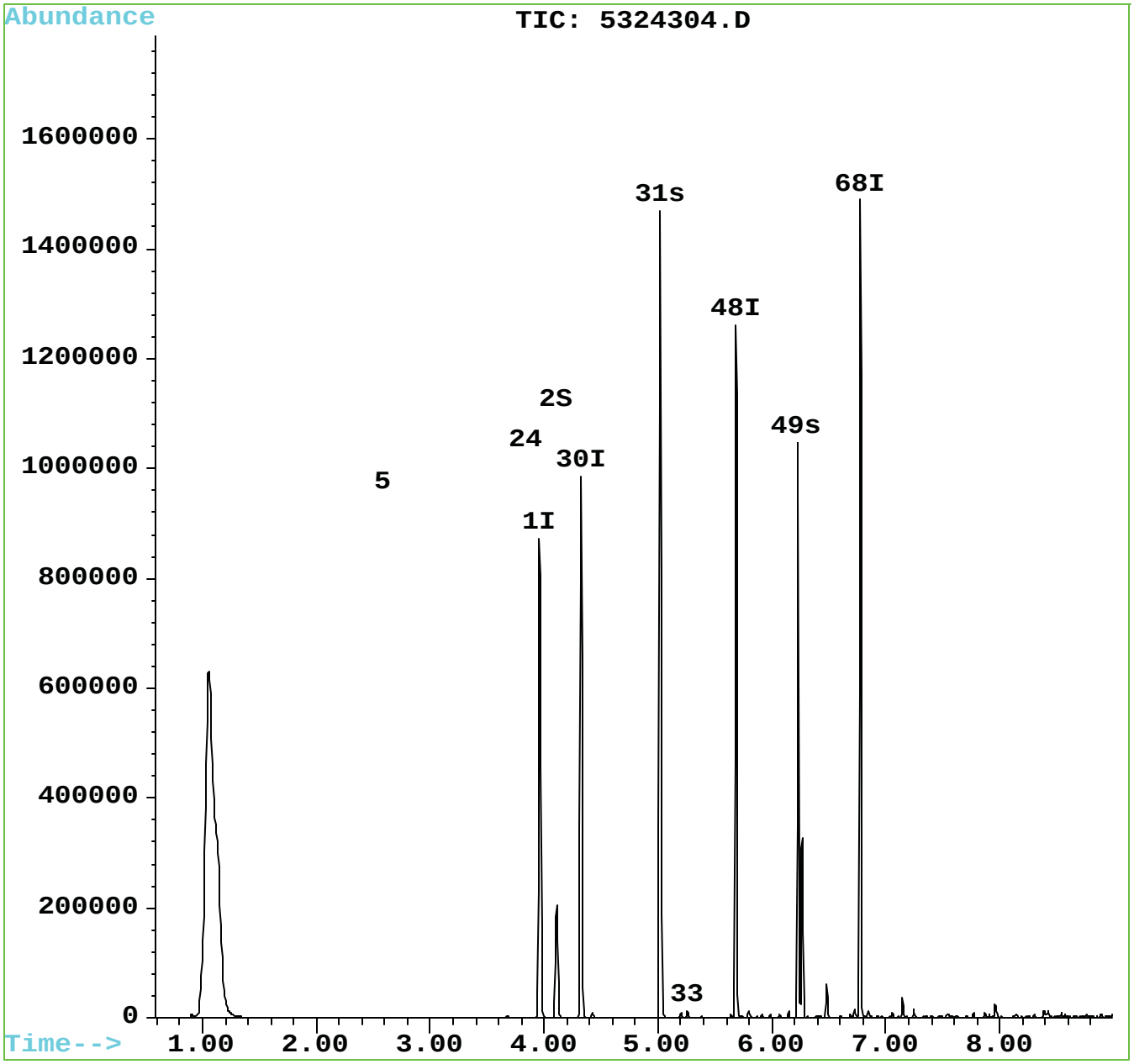
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	574119	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	636672	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	216686	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	291230	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	94109	43.35	ug/l	86.7
31) TOLUENE-D8 (S)	5.02	98	627812	48.80	ug/l	97.6
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	250057	48.52	ug/l	97.0
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	1425	6.67	ug/l #	5
24) Tetrahydrofuran	3.84	42	789	2.49	ug/l #	
33) 2-Hexanone (*)	5.26	58	2203	6.96	ug/l #	4

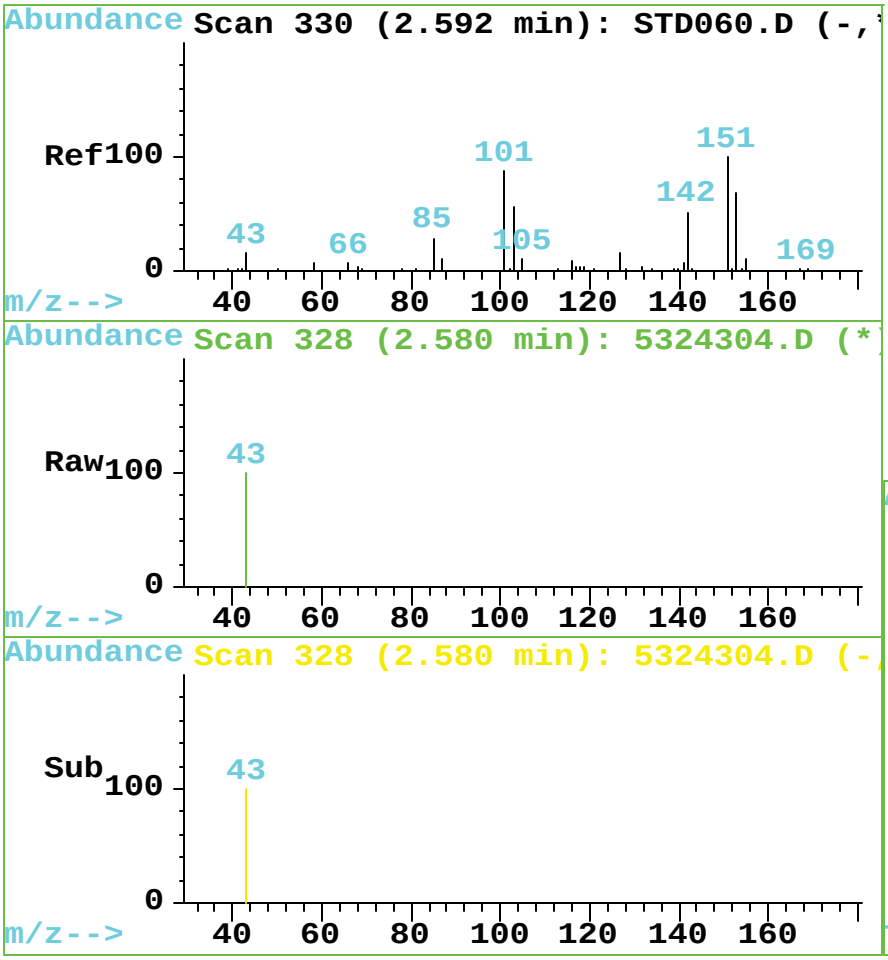
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324304.d Vial: 24
Acq On : 20 Jul 12 8:11 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:23 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

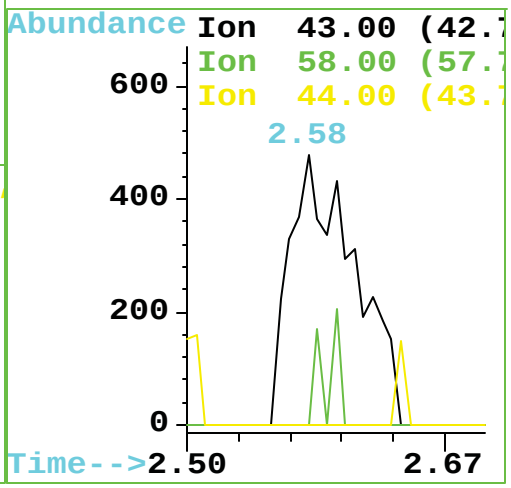


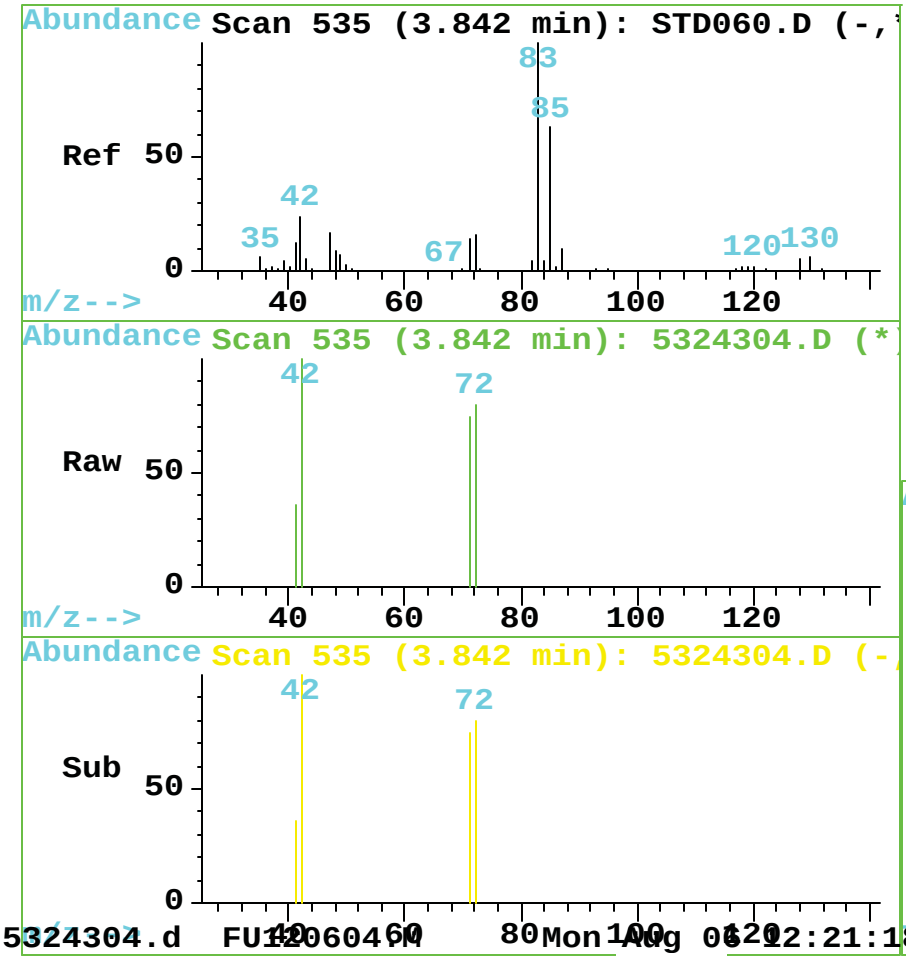


#5
Acetone (*)
Concen: 6.67 ug/l
RT: 2.58 min Scan# 328
Delta R.T. 0.01 min
Lab File: 5324304.d
Acq: 20 Jul 12 8:11 pm

Tgt Ion:43 Resp: 1425

Ion	Ratio	Lower	Upper
43	100		
58	4.4	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

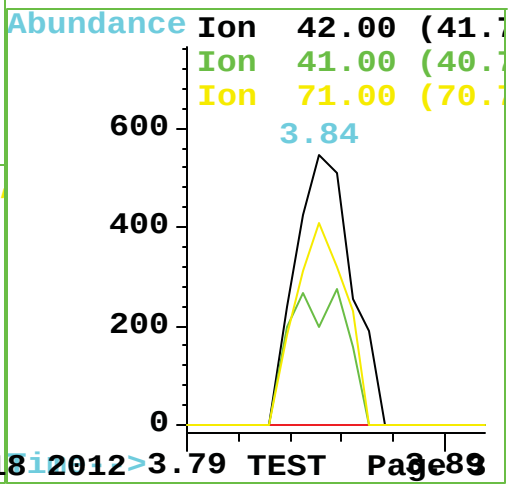


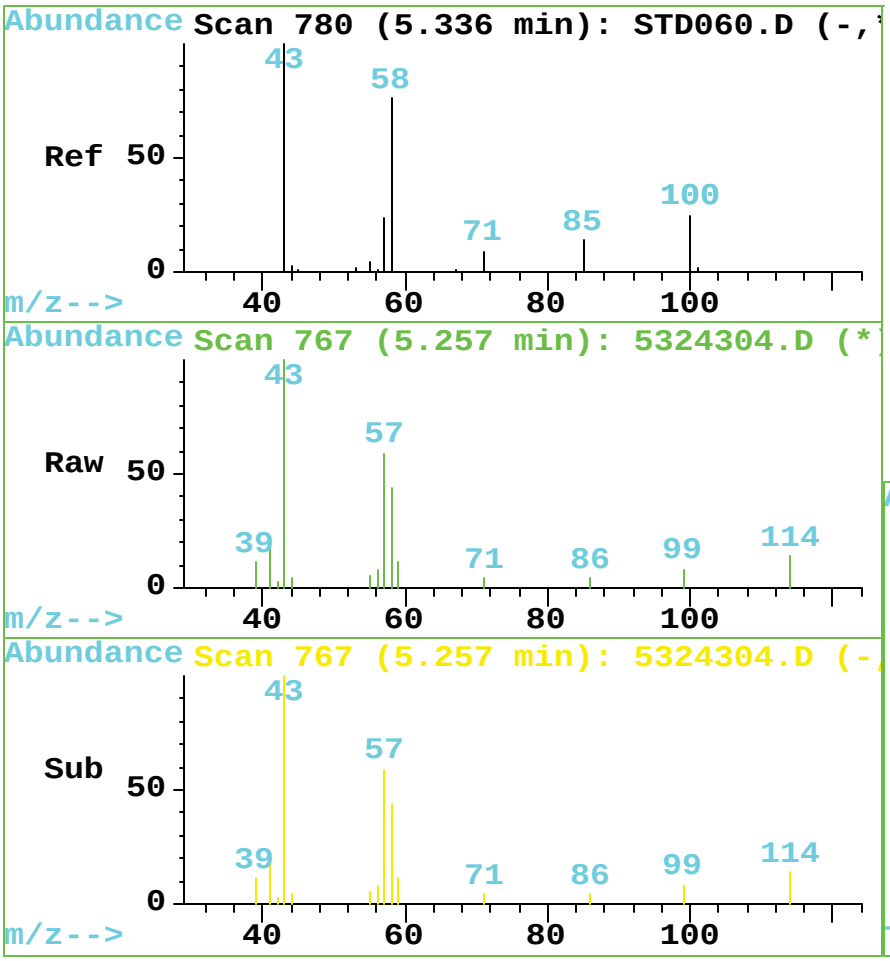


#24
Tetrahydrofuran
Concen: 2.49 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5324304.d
Acq: 20 Jul 12 8:11 pm

Tgt Ion:42 Resp: 789

Ion	Ratio	Lower	Upper
42	100		
41	51.0	222.5	282.5#
71	67.4	24.9	84.9
0	0.0	0.0	0.0

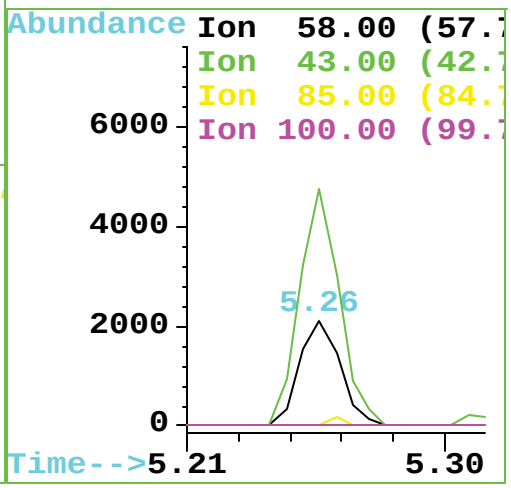




#33
2-Hexanone (*)
Concen: 6.96 ug/l
RT: 5.26 min Scan# 767
Delta R.T. -0.08 min
Lab File: 5324304.d
Acq: 20 Jul 12 8:11 pm

Tgt Ion:58 Resp: 2203

Ion	Ratio	Lower	Upper
58	100		
43	219.3	122.2	182.2#
85	3.0	0.0	52.9
100	0.0	2.6	62.6#



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324305.d Vial: 25
Acq On : 20 Jul 12 8:31 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

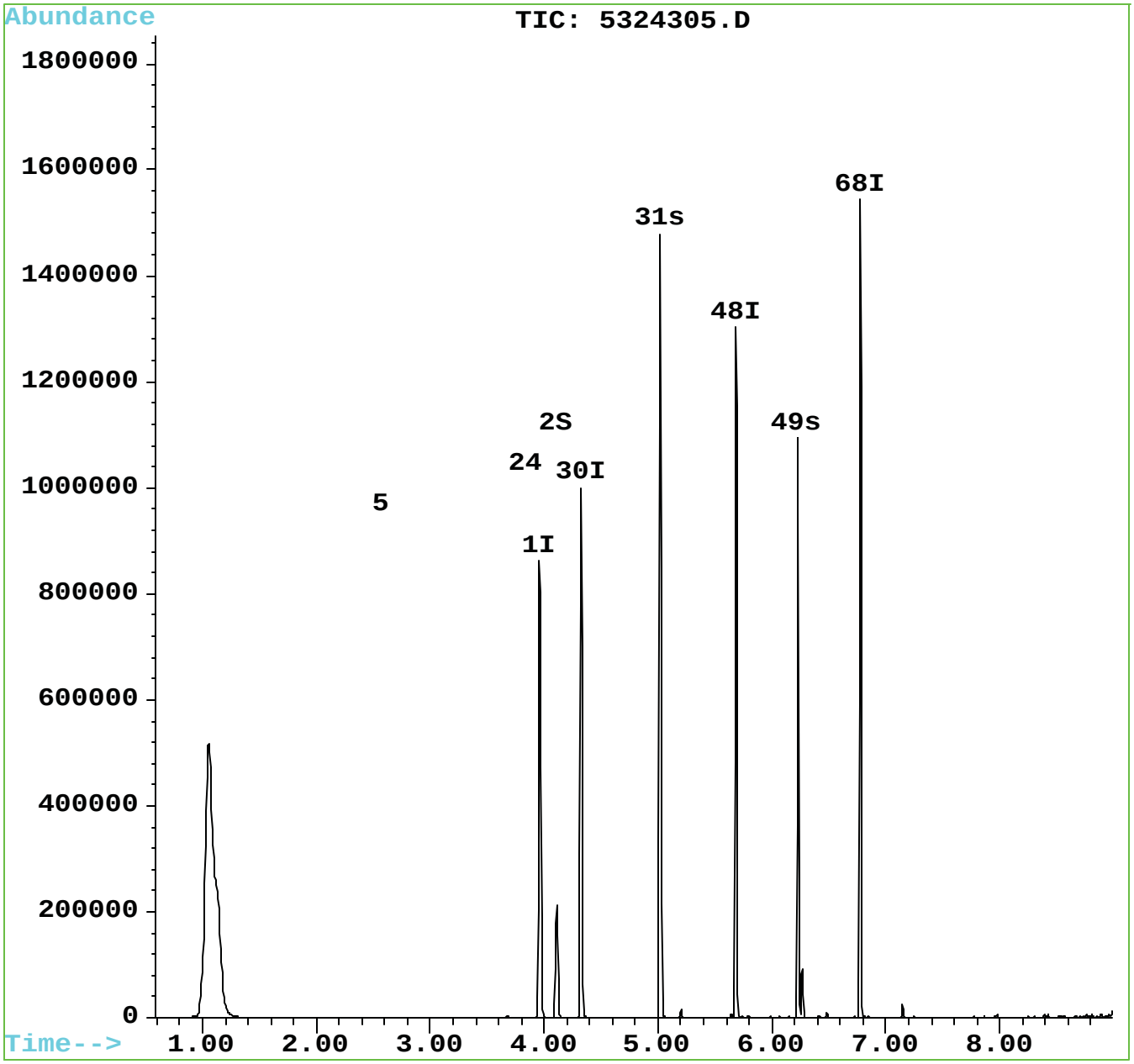
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	564763	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	644568	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	222772	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	296253	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	97799	45.80	ug/l	91.6
31) TOLUENE-D8 (S)	5.02	98	640281	49.16	ug/l	98.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	256792	48.47	ug/l	96.9
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	359	1.71	ug/l #	4
24) Tetrahydrofuran	3.84	42	816	2.62	ug/l #	

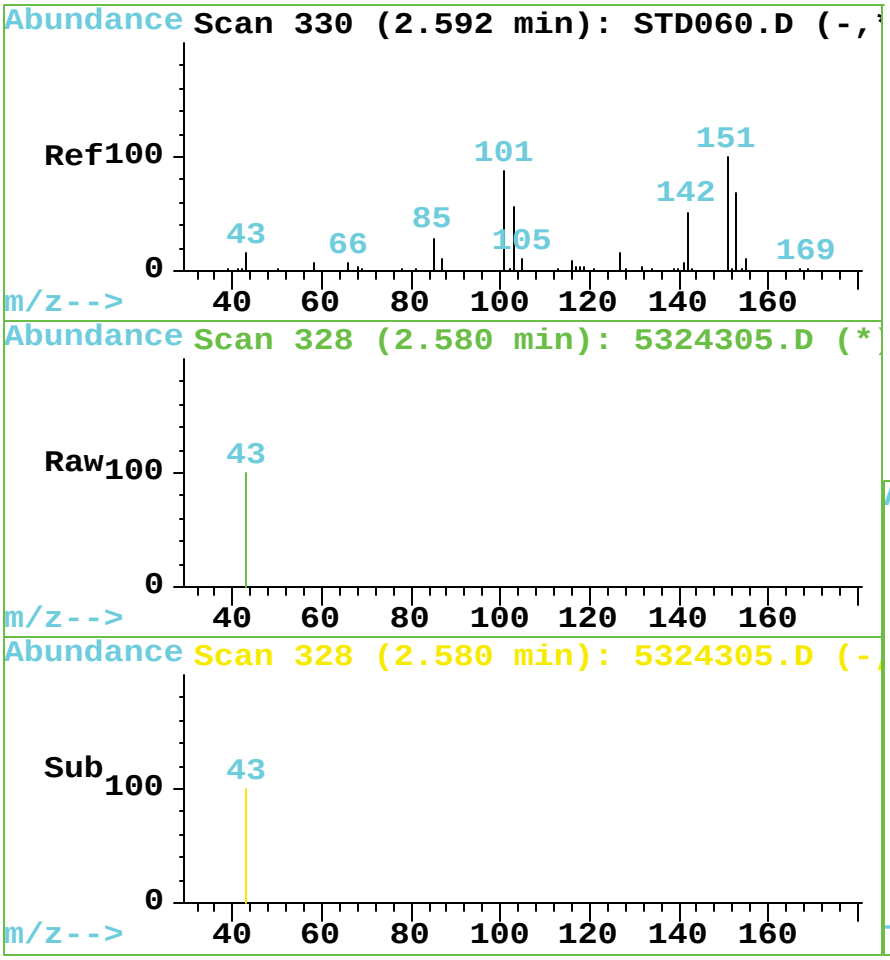
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\5324305.d Vial: 25
Acq On : 20 Jul 12 8:31 pm Operator: lbr
Sample : 100ul 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

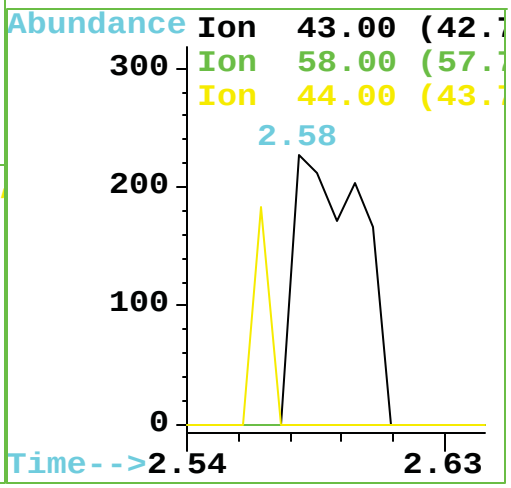


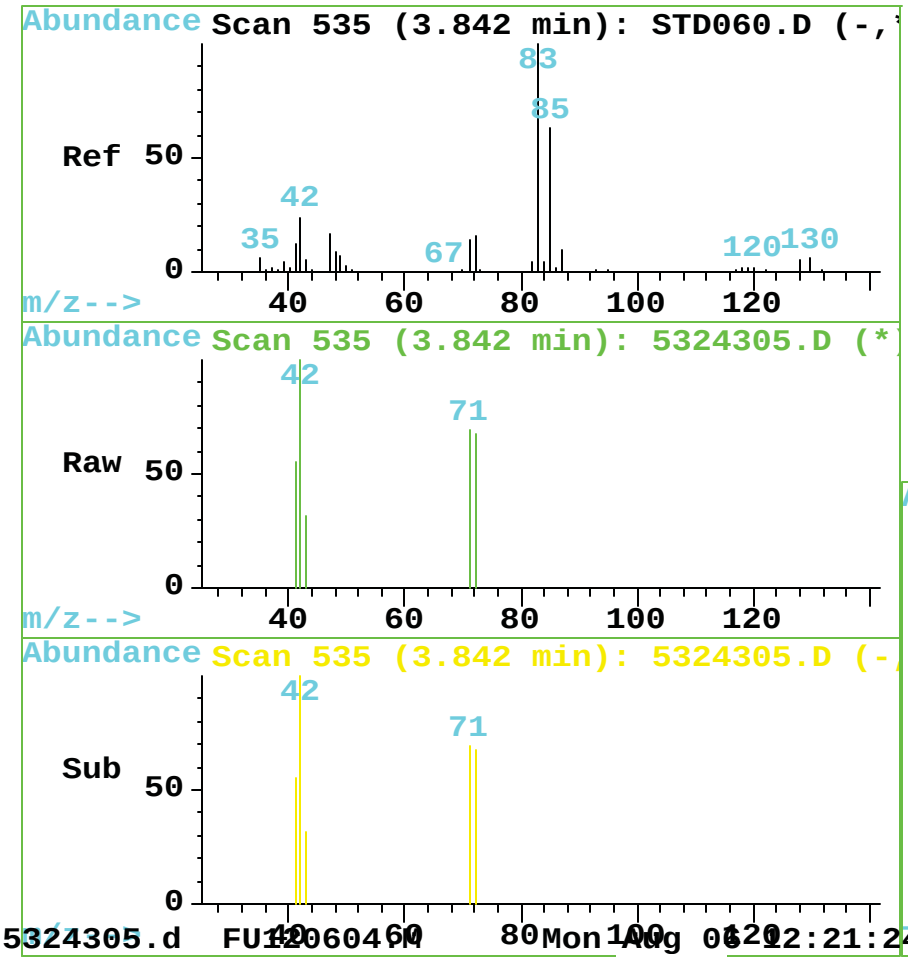


#5
Acetone (*)
Concen: 1.71 ug/l
RT: 2.58 min Scan# 328
Delta R.T. 0.01 min
Lab File: 5324305.d
Acq: 20 Jul 12 8:31 pm

Tgt Ion:43 Resp: 359

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	18.7	0.0	32.2
0	0.0	0.0	0.0

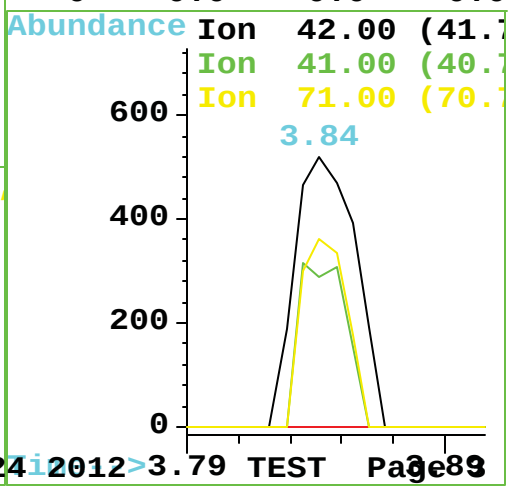




#24
Tetrahydrofuran
Concen: 2.62 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5324305.d
Acq: 20 Jul 12 8:31 pm

Tgt Ion:42 Resp: 816

Ion	Ratio	Lower	Upper
42	100		
41	47.5	222.5	282.5#
71	52.5	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\5324306.d Vial: 9
Acq On : 26 Jul 12 3:05 pm Operator: lbr
Sample : 5ml 1dr0723 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:58 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

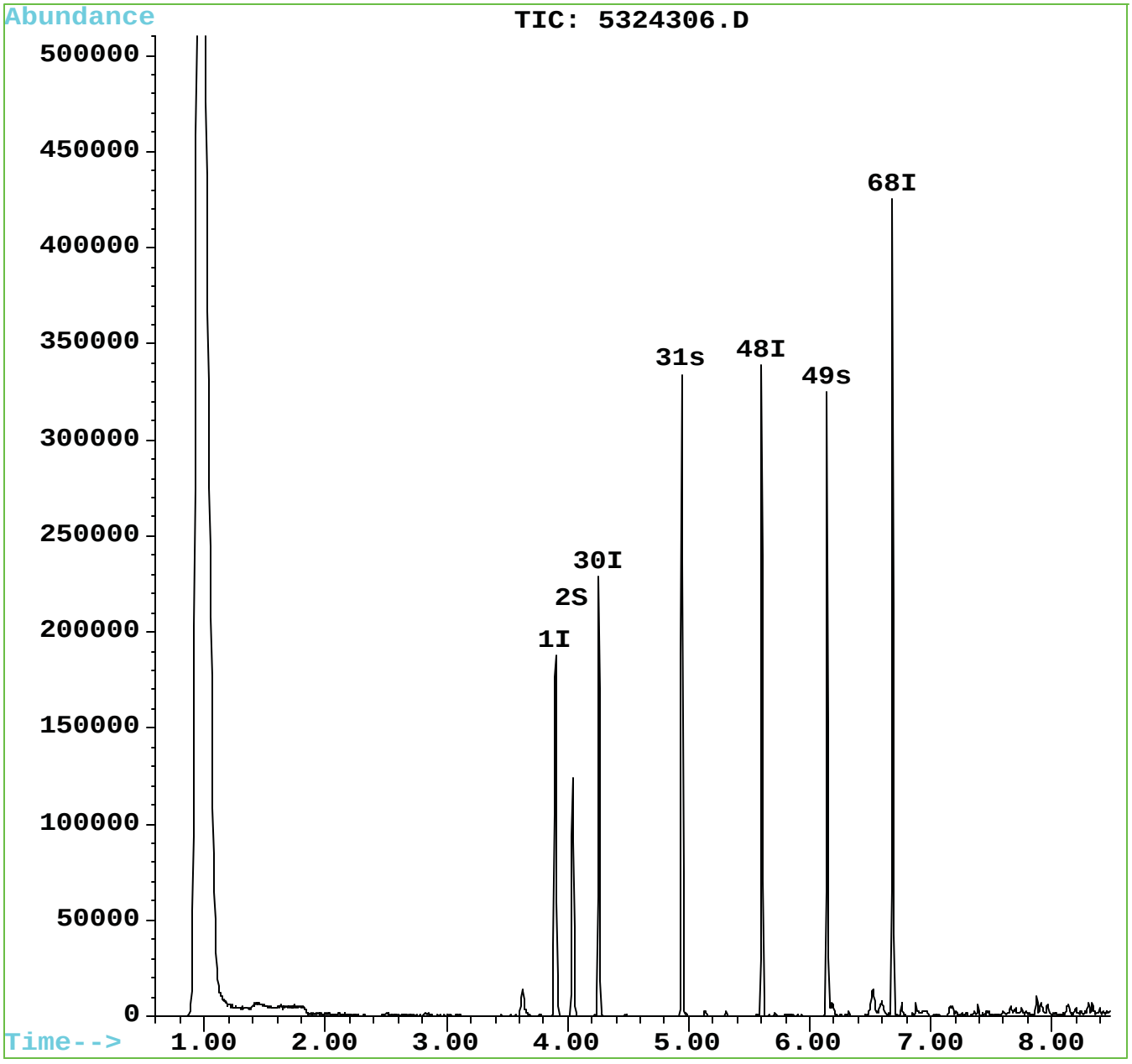
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.90	168	70149	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	82432	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	48953	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.68	152	50408	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.04	65	61627	4.76	ug/l	95.1
31) TOLUENE-D8 (S)	4.94	98	94844	5.00	ug/l	100.0
49) 4-BROMOFLUOROBENZENE (S)	6.14	174	42815	5.52	ug/l	110.4
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\5324306.d Vial: 9
Acq On : 26 Jul 12 3:05 pm Operator: lbr
Sample : 5ml 1dr0723 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:58 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.189	1.69	0.187	0.194	0.190	0.185	0.188	0.191				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.321	2.04	0.310	0.321	0.323	0.320	0.324	0.330				
	Diethyl ether (*)	A	0.093	2.34	0.090	0.096	0.091	0.092	0.092	0.094				
	Acetone (*)	LO	0.020	16.90		0.025	0.017	0.021	0.017	0.019	0.99	0.00	0.019	0.00
	Methyl iodide (iodomethane) (*	A	0.675	1.86	0.663	0.675	0.665	0.669	0.683	0.696				
	Carbon disulfide (*)	LO	0.837	15.25	0.624	0.764	0.829	0.900	0.937	0.966	1.00	0.00	0.955	0.00
	Methyl Acetate	A	0.068	5.50	0.074	0.069	0.067	0.064	0.064	0.068				
	tert-Methyl butyl ether (MTBE)	A	0.467	4.09	0.442	0.460	0.462	0.461	0.475	0.499				
	Acrylonitrile (*)	A	0.041	12.24	0.031	0.045	0.043	0.042	0.042	0.043				
	2-Butanone (MEK) (*)	LO	0.034	21.27		0.046	0.033	0.033	0.028	0.029	1.00	0.00	0.029	0.00
	Dichlorodifluoromethane	QO	0.183	19.21	0.118	0.179	0.178	0.203	0.208	0.213	1.00	0.00	0.199	0.00
	Chloromethane (SPCC)	A	0.230	3.47	0.214	0.234	0.229	0.231	0.236	0.233				
	Vinyl Chloride (CCC)	A	0.258	3.98	0.240	0.262	0.260	0.263	0.270	0.254				
	Bromomethane	A	0.115	5.21	0.104	0.121	0.114	0.114	0.117	0.119				
	Chloroethane	A	0.055	9.88	0.044	0.057	0.056	0.056	0.057	0.059				
	Acrolein	A												
	Trichlorofluoromethane	A	0.301	5.21	0.283	0.308	0.281	0.300	0.315	0.317				
	1,1-Dichloroethene (CCC/MS)	A	0.320	3.94	0.307	0.313	0.333	0.334	0.306	0.324				
	Methylene Chloride	A	0.309	6.48	0.349	0.306	0.299	0.296	0.299	0.304				
	trans-1,2-Dichloroethene	A	0.333	0.80	0.329	0.332	0.336	0.330	0.334	0.334				
	1,1-Dichloroethane (SPCC)	A	0.417	1.85	0.403	0.418	0.419	0.413	0.421	0.425				
	cis-1,2-Dichloroethene	A	0.348	0.98	0.345	0.346	0.354	0.346	0.350	0.347				
	Tetrahydrofuran	A	0.027	13.06		0.033	0.029	0.025	0.025	0.025				
	Chloroform (CCC)	A	0.448	1.09	0.445	0.454	0.451	0.440	0.448	0.449				
	Bromochloromethane	A	0.223	1.41	0.218	0.224	0.223	0.220	0.223	0.227				
	1,1,1-Trichloroethane	A	0.438	6.04	0.388	0.433	0.446	0.446	0.456	0.461				
	1,1-Dichloropropene	A	0.367	3.62	0.365	0.377	0.386	0.365	0.363	0.347				
	Cyclohexane	A	0.101	6.77	0.104	0.107	0.110	0.096	0.099	0.092				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.010	5.44	1.018	1.058	1.063	1.016	0.994	0.912				
	4-Methyl-2-pentanone (MIBK) (*	LO	0.029	17.01	0.019	0.028	0.030	0.031	0.031	0.032	1.00	0.00	0.032	0.00
	2-Hexanone (*)	A	0.025	11.08	0.021	0.023	0.023	0.027	0.026	0.028				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.355	5.17	0.320	0.350	0.364	0.367	0.369	0.358				
	Benzene (MS)	A	1.000	6.75	1.062	1.044	1.050	0.993	0.962	0.886				
	1,2-Dichloroethane	A	0.181	4.10	0.190	0.184	0.187	0.179	0.176	0.170				
	Trichloroethene (MS)	A	0.273	2.82	0.268	0.278	0.283	0.274	0.272	0.261				
	1,2-Dichloropropane (CCC)	A	0.195	6.61	0.204	0.204	0.203	0.195	0.190	0.171				
	Bromodichloromethane	A	0.243	10.47	0.195	0.234	0.251	0.257	0.262	0.258				
	Methyl Cyclohexane	A	0.283	6.15	0.281	0.296	0.300	0.287	0.280	0.251				
	Dibromomethane	A	0.189	3.98	0.174	0.189	0.194	0.193	0.193	0.189				
	cis-1,3-Dichloropropene	A	0.303	10.83	0.238	0.301	0.318	0.322	0.324	0.314				
	Toluene (CCC/MS)	A	1.173	6.12	1.178	1.235	1.244	1.184	1.149	1.046				
	trans-1,3-Dichloropropene	A	0.228	12.49	0.174	0.218	0.239	0.244	0.248	0.244				
	1,1,2-Trichloroethane	A	0.125	1.47	0.127	0.125	0.127	0.125	0.125	0.122				
	Tetrachloroethene	A	0.485	6.21	0.494	0.491	0.525	0.472	0.491	0.434				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	1.189	4.16	1.270	1.200	1.204	1.160	1.178	1.123				
	trans-1,4-Dichloro-2-butene	A	0.069	6.87	0.061	0.071	0.075	0.070	0.071	0.067				
	Dibromochloromethane	A	0.570	14.80	0.417	0.536	0.580	0.618	0.630	0.641				
	1,2-Dibromoethane	A	0.459	4.13	0.422	0.455	0.470	0.466	0.469	0.471				
	Chlorobenzene (SPCC/MS)	A	2.315	6.75	2.518	2.398	2.396	2.276	2.232	2.072				
	1,1,1,2-Tetrachloroethane	A	0.774	6.88	0.684	0.808	0.821	0.805	0.788	0.735				
	Ethylbenzene (CCC)	A	3.471	8.72	3.621	3.696	3.733	3.487	3.372	2.918				
	p,m-Xylene	A	1.483	14.01	1.631	1.642	1.639	1.488	1.381	1.117				
	o-Xylene	A	2.647	10.04	2.798	2.845	2.865	2.662	2.546	2.164				
	Styrene	A	2.154	10.38	2.010	2.320	2.398	2.251	2.155	1.790				
	Isopropylbenzene	A	3.905	7.55	3.731	4.156	4.257	3.971	3.870	3.445				
	Bromoform (SPCC)	QO	0.364	19.60	0.250	0.320	0.353	0.395	0.420	0.443	1.00	0.00	0.383	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.427	4.34	0.390	0.436	0.440	0.432	0.434	0.432				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	1,2,3-Trichloropropane	A	0.141	4.87	0.151	0.143	0.145	0.138	0.136	0.132				
	n-Propylbenzene	A	4.016	7.55	3.862	4.278	4.350	4.072	4.020	3.514				
	Bromobenzene	A	1.102	4.68	1.138	1.138	1.143	1.097	1.084	1.009				
	1,3,5-Trimethylbenzene	A	1.801	8.11	1.769	1.930	1.960	1.819	1.780	1.550				
	tert-Butylbenzene	A	1.843	6.47	1.765	1.943	1.980	1.861	1.852	1.654				
	1,2,4-Trimethylbenzene	A	1.903	10.03	1.881	2.038	2.118	1.941	1.874	1.564				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.169	8.51	2.891	3.389	3.456	3.301	3.179	2.798				
	p-Isopropyltoluene	A	2.676	10.95	2.508	2.945	2.977	2.785	2.639	2.202				
	1,3-Dichlorobenzene	A	1.462	12.17	1.620	1.583	1.585	1.457	1.370	1.154				
	1,4-Dichlorobenzene	A	1.500	5.88	1.605	1.548	1.558	1.471	1.461	1.359				
	1,2-Dichlorobenzene	A	1.359	4.10	1.399	1.411	1.407	1.334	1.329	1.273				
	1,2,3-Trimethylbenzene	A	2.213	5.18	2.172	2.302	2.344	2.247	2.190	2.020				
	n-Butylbenzene	A	2.120	6.98	1.974	2.225	2.296	2.167	2.146	1.912				
	Hexachloroethane	QO	0.565	17.65	0.389	0.514	0.574	0.621	0.650	0.640	1.00	0.00	0.632	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.070	20.12	0.045	0.066	0.068	0.073	0.080	0.085	1.00	0.00	0.071	0.00
	1,2,4-Trichlorobenzene	A	0.928	2.87	0.941	0.913	0.949	0.912	0.961	0.891				
	Hexachlorobutadiene	A	0.882	4.04	0.921	0.886	0.887	0.862	0.912	0.823				
	1,2,3-Trichlorobenzene	A	0.758	4.14	0.807	0.738	0.759	0.732	0.784	0.730				
	Naphthalene	A	1.135	6.37	1.023	1.081	1.148	1.149	1.222	1.187				
	2-Methylnaphthalene	LO	0.504	16.36	0.448	0.392	0.472	0.525	0.615	0.571	1.00	0.00	0.575	0.00

Calibration Date: 06/04/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): fu120604.M (Mean %RSD: 7.41)

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wr120706.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.924	1.65	0.927	0.933	0.918	0.929	0.939	0.896				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.370	5.92	0.330	0.371	0.366	0.375	0.385	0.393				
	Diethyl ether (*)	A	0.172	7.11	0.176	0.154	0.164	0.168	0.178	0.189				
	Acetone (*)	A	0.217	9.34		0.245	0.224	0.208	0.218	0.190				
	Methyl iodide (iodomethane) (*	A	0.571	2.92	0.576	0.556	0.556	0.559	0.596	0.583				
	Carbon disulfide (*)	A	0.824	8.45	0.715	0.798	0.807	0.826	0.900	0.899				
	Methyl Acetate	A	0.389	3.12	0.372	0.383	0.386	0.389	0.407	0.398				
	tert-Methyl butyl ether (MTBE)	A	1.249	2.51	1.244	1.215	1.224	1.238	1.297	1.275				
	Acrylonitrile (*)	A	0.222	2.44	0.216	0.217	0.225	0.224	0.230	0.219				
	2-Butanone (MEK) (*)	A	0.282	8.00		0.315	0.287	0.273	0.284	0.253				
	Dichlorodifluoromethane	QO	0.490	16.48	0.396	0.462	0.451	0.450	0.593	0.586	0.99	0.00	0.505	0.00
	Chloromethane (SPCC)	A	0.479	4.99	0.513	0.461	0.464	0.452	0.499	0.484				
	Vinyl Chloride (CCC)	A	0.414	6.00	0.390	0.403	0.398	0.402	0.446	0.445				
	Bromomethane	A	0.286	12.19	0.265	0.250	0.264	0.280	0.314	0.341				
	Chloroethane	A	0.238	6.18	0.237	0.226	0.228	0.227	0.250	0.262				
	Acrolein	A	0.072	3.51		0.070	0.073	0.074	0.073	0.068				
	Trichlorofluoromethane	A	0.895	2.43	0.908	0.886	0.887	0.873	0.933	0.884				
	1,1-Dichloroethene (CCC/MS)	A	0.798	3.03	0.819	0.785	0.774	0.777	0.834	0.796				
	Methylene Chloride	A	0.288	2.92	0.301	0.287	0.283	0.279	0.296	0.284				
	trans-1,2-Dichloroethene	A	0.673	2.40	0.650	0.676	0.677	0.662	0.698	0.676				
	1,1-Dichloroethane (SPCC)	A	0.771	1.87	0.781	0.768	0.762	0.752	0.793	0.768				
	cis-1,2-Dichloroethene	A	0.321	2.18	0.331	0.318	0.315	0.313	0.327	0.321				
	Tetrahydrofuran	A	0.170	10.18		0.198	0.173	0.159	0.165	0.154				
	Chloroform (CCC)	A	0.768	1.45	0.773	0.762	0.761	0.756	0.787	0.770				
	Bromochloromethane	A	0.224	3.33	0.211	0.226	0.224	0.220	0.232	0.229				
	1,1,1-Trichloroethane	A	0.926	2.42	0.945	0.901	0.905	0.913	0.953	0.940				
	1,1-Dichloropropene	A	0.525	2.99	0.506	0.528	0.513	0.515	0.544	0.541				
	Cyclohexane	A	0.219	6.31	0.236	0.222	0.213	0.213	0.231	0.198				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.151	0.82	1.162	1.136	1.153	1.144	1.158	1.150				
	4-Methyl-2-pentanone (MIBK) (*	A	0.158	4.05	0.154	0.148	0.157	0.162	0.164	0.164				
	2-Hexanone (*)	A	0.168	5.44	0.174	0.156	0.160	0.170	0.181	0.167				
	2-chloroethylvinyl ether	A	0.222	7.92	0.187	0.223	0.230	0.232	0.231	0.231				
	Carbon Tetrachloride	A	0.721	3.24	0.690	0.703	0.716	0.720	0.746	0.749				
	Benzene (MS)	A	0.857	2.80	0.882	0.846	0.835	0.829	0.861	0.886				
	1,2-Dichloroethane	A	0.771	0.88	0.779	0.773	0.777	0.769	0.770	0.760				
	Trichloroethene (MS)	A	0.305	2.84	0.296	0.304	0.297	0.302	0.316	0.315				
	1,2-Dichloropropane (CCC)	A	0.293	1.24	0.299	0.294	0.289	0.291	0.293	0.290				
	Bromodichloromethane	A	0.506	4.91	0.469	0.489	0.501	0.512	0.530	0.534				
	Methyl Cyclohexane	A	0.569	3.85	0.609	0.576	0.558	0.554	0.568	0.549				
	Dibromomethane	A	0.242	3.14	0.231	0.241	0.240	0.238	0.247	0.253				
	cis-1,3-Dichloropropene	A	0.465	3.60	0.436	0.461	0.465	0.464	0.481	0.482				
	Toluene (CCC/MS)	A	1.031	3.45	1.014	1.009	1.016	1.007	1.042	1.099				
	trans-1,3-Dichloropropene	A	0.535	6.37	0.479	0.517	0.533	0.545	0.562	0.574				
	1,1,2-Trichloroethane	A	0.181	2.38	0.179	0.178	0.177	0.181	0.185	0.188				
	Tetrachloroethene	A	0.390	9.15	0.374	0.364	0.365	0.375	0.456	0.405				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.792	4.94	0.867	0.765	0.758	0.788	0.791	0.781				
	trans-1,4-Dichloro-2-butene	A	0.317	4.63	0.296	0.307	0.331	0.326	0.332	0.311				
	Dibromochloromethane	A	0.638	9.82	0.538	0.594	0.642	0.659	0.702	0.694				
	1,2-Dibromoethane	A	0.486	3.80	0.466	0.468	0.479	0.492	0.513	0.499				
	Chlorobenzene (SPCC/MS)	A	1.209	3.55	1.247	1.145	1.194	1.181	1.236	1.253				
	1,1,1,2-Tetrachloroethane	A	0.631	4.60	0.602	0.601	0.623	0.627	0.667	0.664				
	Ethylbenzene (CCC)	A	2.317	3.65	2.372	2.196	2.270	2.268	2.407	2.391				
	p,m-Xylene	A	0.844	8.42	0.866	0.774	0.791	0.800	0.871	0.964				
	o-Xylene	A	2.021	5.44	1.997	1.882	1.967	1.983	2.110	2.189				
	Styrene	A	1.377	8.23	1.345	1.271	1.291	1.337	1.441	1.574				
	Isopropylbenzene	A	2.448	3.46	2.457	2.327	2.401	2.431	2.575	2.499				
	Bromoform (SPCC)	LO	0.492	15.19	0.377	0.437	0.482	0.528	0.559	0.568	1.00	0.00	0.563	0.00
	1,1,2,2-Tetrachloroethane (SPC	A	0.532	4.10	0.510	0.514	0.516	0.536	0.558	0.557				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wr120706.m	1,2,3-Trichloropropane	A	0.261	3.33	0.260	0.246	0.260	0.263	0.271	0.268				
	n-Propylbenzene	A	2.577	3.23	2.617	2.519	2.540	2.574	2.721	2.490				
	Bromobenzene	A	0.637	4.18	0.630	0.606	0.624	0.625	0.654	0.681				
	1,3,5-Trimethylbenzene	A	0.894	6.12	0.848	0.851	0.864	0.884	0.931	0.987				
	tert-Butylbenzene	A	1.761	3.61	1.786	1.662	1.714	1.759	1.831	1.813				
	1,2,4-Trimethylbenzene	A	1.054	7.78	1.086	0.958	0.991	1.017	1.088	1.184				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	2.505	2.63	2.415	2.526	2.535	2.532	2.586	2.435				
	p-Isopropyltoluene	A	2.293	5.25	2.106	2.245	2.254	2.308	2.433	2.410				
	1,3-Dichlorobenzene	A	1.229	5.54	1.205	1.178	1.200	1.187	1.246	1.360				
	1,4-Dichlorobenzene	A	1.223	1.22	1.238	1.229	1.217	1.201	1.214	1.239				
	1,2-Dichlorobenzene	A	1.174	1.71	1.192	1.169	1.186	1.137	1.171	1.186				
	1,2,3-Trimethylbenzene	A	2.260	1.30	2.213	2.271	2.257	2.275	2.299	2.244				
	n-Butylbenzene	A	1.955	1.42	1.914	1.964	1.965	1.932	1.993	1.959				
	Hexachloroethane	A	0.394	13.91	0.303	0.364	0.389	0.420	0.440	0.449				
	1,2-Dibromo-3-Chloropropane	A	0.189	12.10	0.144	0.189	0.195	0.204	0.203	0.201				
	1,2,4-Trichlorobenzene	A	1.018	1.81	1.005	1.016	1.026	1.028	1.043	0.991				
	Hexachlorobutadiene	A	0.627	4.91	0.633	0.630	0.650	0.636	0.646	0.566				
	1,2,3-Trichlorobenzene	A	0.929	3.14	0.937	0.920	0.944	0.942	0.955	0.874				
	Naphthalene	A	2.211	2.61	2.127	2.162	2.243	2.263	2.269	2.203				
	2-Methylnaphthalene	A	1.312	8.35	1.129	1.297	1.373	1.398	1.420	1.253				

Calibration Date: 07/06/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): wr120706.M (Mean %RSD: 4.90)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\urborg.fft\methods\fu120604.m\

Injection Time	Calibration Data File
06/04/12 15:11	bfb04c.d
06/04/12 17:12	std001.d
06/04/12 17:33	std010.d
06/04/12 17:53	std020.d
06/04/12 18:13	std060.d
06/04/12 18:33	std100.d
06/04/12 18:53	std200.d

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

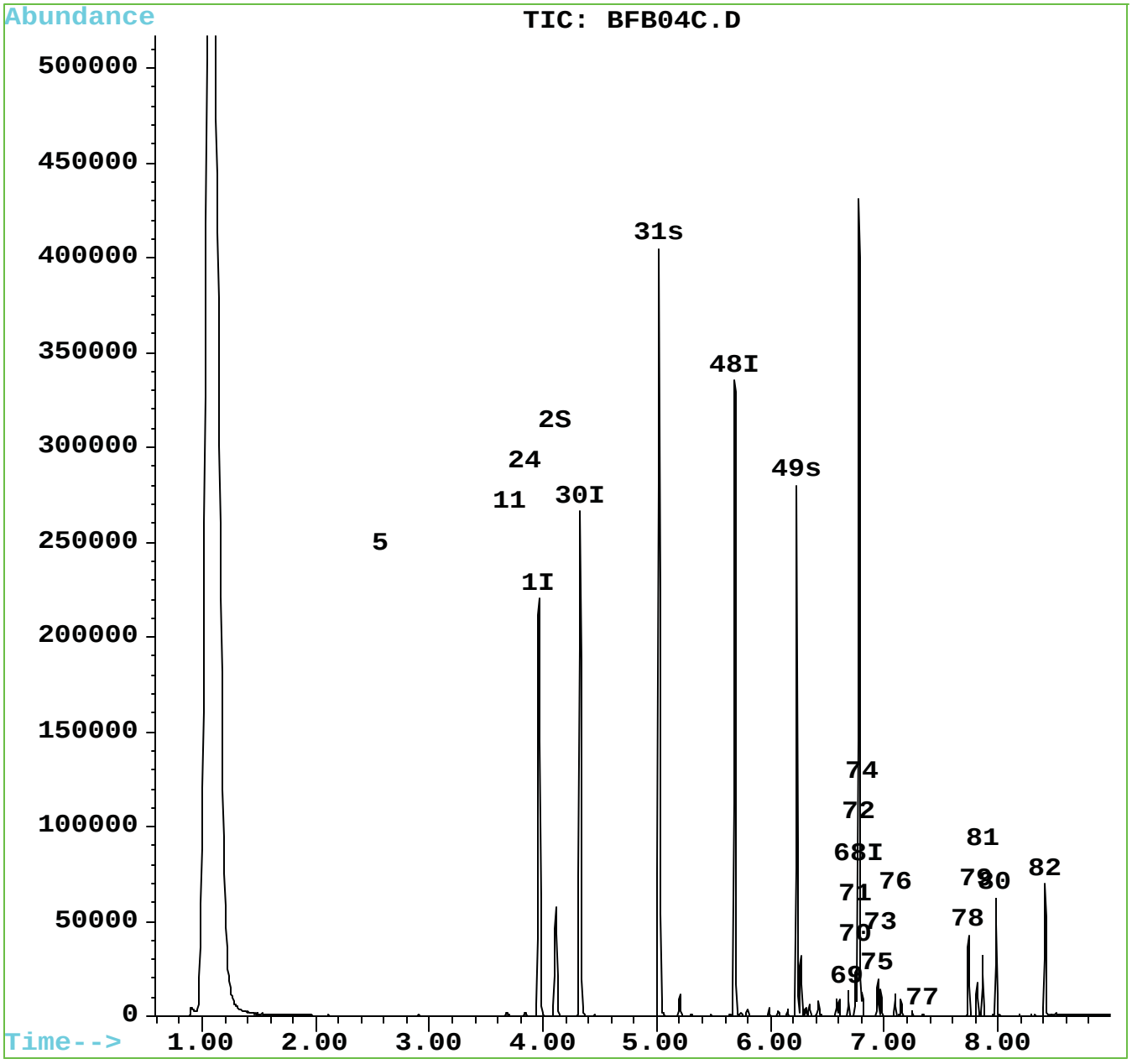
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	149094	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	170397	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	58855	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	89237	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	25625	45.46	ug/l		90.9
31) TOLUENE-D8 (S)	5.02	98	166719	48.42	ug/l		96.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	68907	49.23	ug/l		98.4
Target Compounds							Qvalu
5) Acetone (*)	2.57	43	63	1.14	ug/l	#	
11) 2-Butanone (MEK) (*)	3.70	43	336	3.90	ug/l	#	4
24) Tetrahydrofuran	3.84	42	879	10.69	ug/l	#	
69) sec-Butylbenzene	6.68	105	5698	1.01	ug/l		9
70) p-Isopropyltoluene	6.74	119	5654	1.18	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	4460	1.71	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	4908	1.83	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	4574	1.89	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	4618	1.17	ug/l		9
75) n-Butylbenzene	6.95	91	6419	1.70	ug/l		9
76) Hexachloroethane	7.10	201	1448	1.28	ug/l		7
77) 1,2-Dibromo-3-Chloropropan	7.34	157	330	2.57	ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.74	182	10848	6.55	ug/l		9
79) Hexachlorobutadiene	7.82	225	2912	1.85	ug/l		9
80) 1,2,3-Trichlorobenzene	7.98	180	15542	11.48	ug/l		9
81) Naphthalene	7.87	128	17573	8.67	ug/l		9
82) 2-Methylnaphthalene	8.41	142	23182	22.59	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

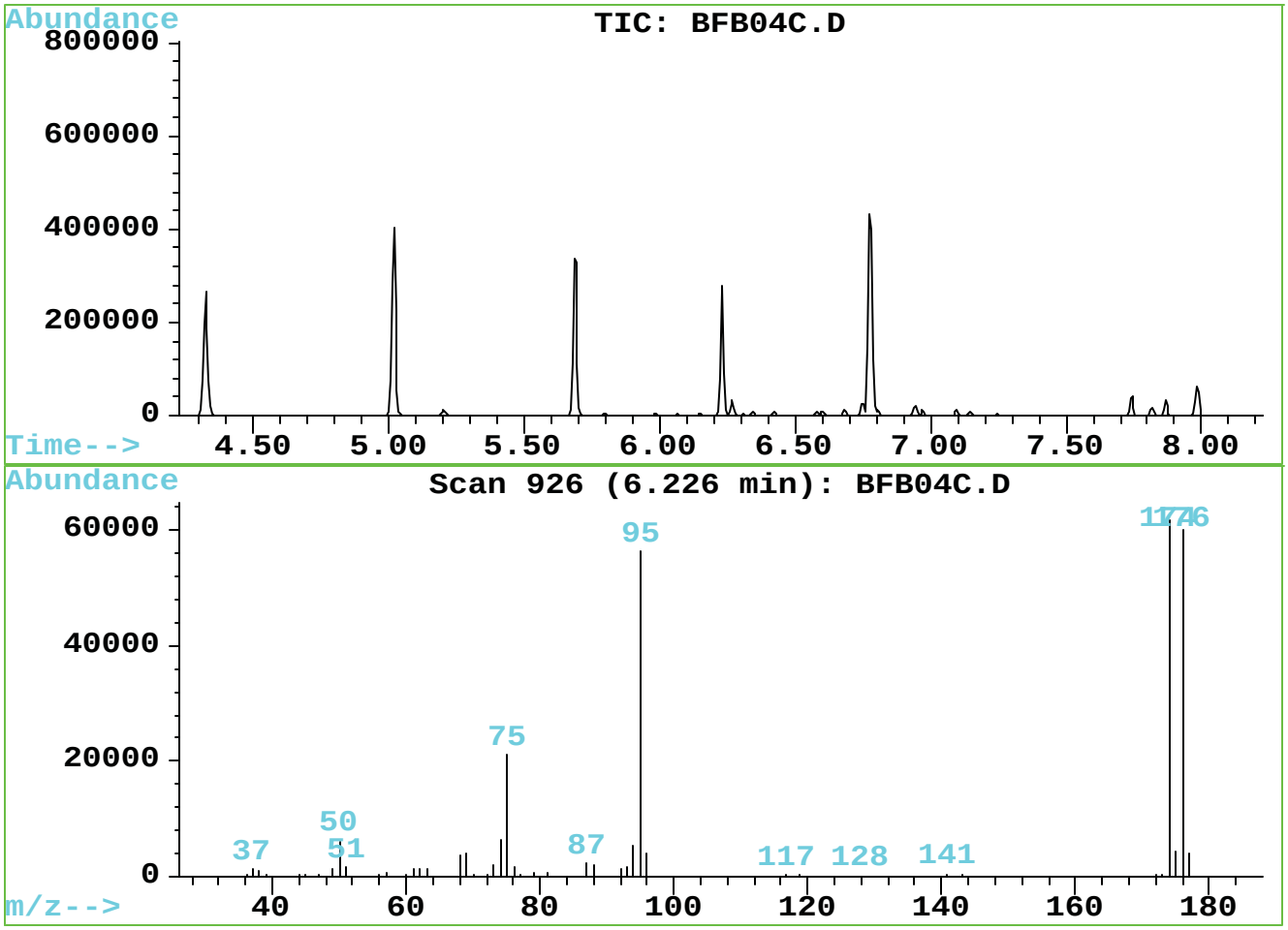
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.9	6123	PASS
75	95	30	66	37.5	21088	PASS
95	95	100	100	100.0	56240	PASS
96	95	5	9	7.1	4010	PASS
173	174	0	2	0.5	328	PASS
174	95	50	120	109.6	61664	PASS
175	174	4	9	6.9	4224	PASS
176	174	93	101	97.4	60088	PASS
177	176	5	9	6.5	3929	PASS

BFB04C.D FU120604.M Thu Jul 12 16:20:21 2012 TEST

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	700150	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	808489	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288497	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	414328	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	2614	1.37	ug/l		2.7
31) TOLUENE-D8 (S)	5.02	98	16460	1.01	ug/l		2.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	7329	1.11	ug/l		2.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	4345	0.88	ug/l		9
4) Diethyl ether (*)	2.35	74	1265	1.68	ug/l		8
5) Acetone (*)	2.59	43	1101	2.69	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	9290	1.12	ug/l		9
7) Carbon disulfide (*)	2.68	76	8736	0.59	ug/l		8
8) Methyl Acetate	2.84	43	1042	0.81	ug/l	#	5
9) tert-Methyl butyl ether (M	3.11	73	6186	1.24	ug/l		8
10) Acrylonitrile (*)	3.09	53	434	0.50	ug/l	#	9
11) 2-Butanone (MEK) (*)	3.70	43	2004	3.80	ug/l		9
12) Dichlorodifluoromethane	1.22	85	1656	0.44	ug/l	#	6
13) Chloromethane (SPCC)	1.34	50	2994	0.81	ug/l	#	8
14) Vinyl Chloride (CCC)	1.45	62	3355	0.75	ug/l	#	8
15) Bromomethane	1.73	94	1457	1.03	ug/l	#	9
16) Chloroethane	1.84	64	621	0.74	ug/l	#	2
18) Trichlorofluoromethane	2.12	101	3960	1.12	ug/l	m	6
19) 1,1-Dichloroethene (CCC/MS	2.52	61	4293	0.93	ug/l		8
20) Methylene Chloride	2.90	84	4885	1.44	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	4602	1.00	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	5643	1.09	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	4836	1.18	ug/l		8
24) Tetrahydrofuran	3.84	42	1414	2.47	ug/l	#	
25) Chloroform (CCC)	3.85	83	6228	1.22	ug/l		9
26) Bromochloromethane	3.81	130	3055	1.31	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	5438	0.89	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	5116	0.93	ug/l		9
29) Cyclohexane	3.98	42	1455	0.86	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	308	0.50	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	345	0.65	ug/l	#	7
35) Carbon Tetrachloride	4.04	117	5180	0.78	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.13	78	17168	1.05 ug/l	9
37) 1,2-Dichloroethane	4.15	62	3072	1.26 ug/l	9
38) Trichloroethene (MS)	4.45	95	4332	0.89 ug/l	8
39) 1,2-Dichloropropane (CCC)	4.56	63	3296	1.20 ug/l	9
40) Bromodichloromethane	4.68	83	3156	0.99 ug/l	9
41) Methyl Cyclohexane	4.54	55	4537	0.76 ug/l	9
42) Dibromomethane	4.62	174	2816	1.09 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	3853	0.95 ug/l	9
44) Toluene (CCC/MS)	5.05	91	19045	1.00 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	2821	0.93 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	2059	1.20 ug/l	9
47) Tetrachloroethene	5.31	166	7985	0.77 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	354	0.70 ug/l #	6
51) Dibromochloromethane	5.42	129	2406	0.72 ug/l	9
52) 1,2-Dibromoethane	5.48	107	2435	0.94 ug/l #	9
53) Chlorobenzene (SPCC/MS)	5.70	112	14530	1.08 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.73	131	3946	0.98 ug/l #	7
55) Ethylbenzene (CCC)	5.74	91	20894	0.91 ug/l	9
56) p,m-Xylene	5.79	106	18819	1.92 ug/l	8
57) o-Xylene	5.98	91	16146	0.99 ug/l	9
58) Styrene	5.99	104	11598	0.91 ug/l	9
59) Isopropylbenzene	6.15	105	21529	0.80 ug/l	9
60) Bromoform (SPCC)	6.09	173	1444	0.64 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	2250	0.92 ug/l	8
62) 1,2,3-Trichloropropane	6.31	110	873	0.88 ug/l #	7
63) n-Propylbenzene	6.34	91	22281	0.79 ug/l	9
64) Bromobenzene	6.31	156	6565	1.07 ug/l	9
65) 1,3,5-Trimethylbenzene	6.42	120	10207	0.87 ug/l	8
66) tert-Butylbenzene	6.58	91	10186	0.81 ug/l	8
67) 1,2,4-Trimethylbenzene	6.60	120	10851	0.88 ug/l	9
69) sec-Butylbenzene	6.68	105	23956	0.71 ug/l	9
70) p-Isopropyltoluene	6.75	119	20779	0.75 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	13421	1.06 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	13301	1.05 ug/l	8
73) 1,2-Dichlorobenzene	6.97	146	11592	1.05 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	17998	0.98 ug/l	9
75) n-Butylbenzene	6.95	91	16359	0.73 ug/l	9
76) Hexachloroethane	7.10	201	3221	0.57 ug/l #	6
77) 1,2-Dibromo-3-Chloropropan	7.34	157	377	0.43 ug/l #	7
78) 1,2,4-Trichlorobenzene	7.74	182	7794	0.99 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

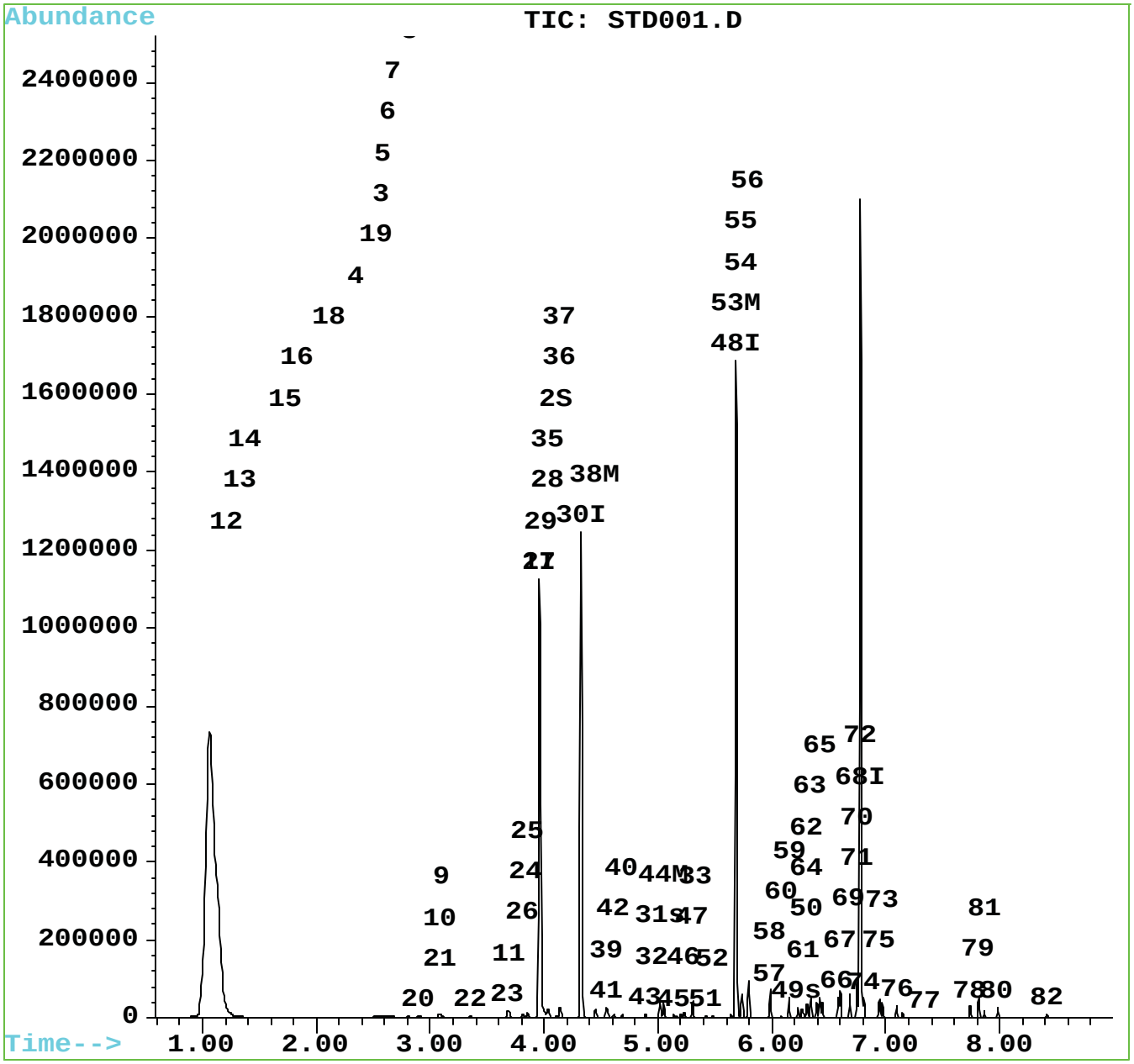
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	7628	0.81	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	6691	1.04	ug/l	9
81)	Naphthalene	7.87	128	8480	0.73	ug/l	9
82)	2-Methylnaphthalene	8.41	142	3709	0.79	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	682071	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	801325	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288586	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	394725	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	26439	14.21	ug/l		28.4
31) TOLUENE-D8 (S)	5.02	98	169634	10.50	ug/l		21.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	69262	10.51	ug/l		21.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	43785	9.08	ug/l		9
4) Diethyl ether (*)	2.35	74	13061	17.75	ug/l		9
5) Acetone (*)	2.59	43	3379	8.48	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	92043	11.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	104193	7.28	ug/l		9
8) Methyl Acetate	2.84	43	9355	7.51	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	62726	12.90	ug/l		9
10) Acrylonitrile (*)	3.08	53	6179	7.36	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	6284	12.23	ug/l		9
12) Dichlorodifluoromethane	1.23	85	24480	6.75	ug/l	#	5
13) Chloromethane (SPCC)	1.34	50	31951	8.92	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	35708	8.22	ug/l		9
15) Bromomethane	1.73	94	16455	11.98	ug/l		9
16) Chloroethane	1.83	64	7811	9.60	ug/l		8
18) Trichlorofluoromethane	2.12	101	42017	12.15	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	42759	9.53	ug/l		8
20) Methylene Chloride	2.90	84	41726	12.59	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	45284	10.11	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	57014	11.28	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	47225	11.79	ug/l		8
24) Tetrahydrofuran	3.84	42	4482	8.04	ug/l		8
25) Chloroform (CCC)	3.85	83	61944	12.44	ug/l		9
26) Bromochloromethane	3.81	130	30607	13.45	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	59062	9.90	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	51446	9.59	ug/l		9
29) Cyclohexane	3.98	42	14529	8.79	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	4526	7.43	ug/l		9
33) 2-Hexanone (*)	5.34	58	3739	7.03	ug/l		9
35) Carbon Tetrachloride	4.04	117	56039	8.46	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.14	78	167262	10.36	ug/l		9
37) 1,2-Dichloroethane	4.15	62	29557	12.25	ug/l		9
38) Trichloroethene (MS)	4.45	95	44502	9.19	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	32643	11.98	ug/l		9
40) Bromodichloromethane	4.68	83	37532	11.83	ug/l		9
41) Methyl Cyclohexane	4.54	55	47431	8.07	ug/l		9
42) Dibromomethane	4.62	174	30292	11.86	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	48244	12.06	ug/l		9
44) Toluene (CCC/MS)	5.05	91	197973	10.46	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	34925	11.65	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	20058	11.76	ug/l		9
47) Tetrachloroethene	5.31	166	78758	7.65	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	4076	8.03	ug/l	#	8
51) Dibromochloromethane	5.42	129	30965	9.25	ug/l		9
52) 1,2-Dibromoethane	5.48	107	26247	10.12	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	138379	10.24	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	46654	11.55	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	213344	9.25	ug/l		9
56) p,m-Xylene	5.79	106	189596	19.33	ug/l		8
57) o-Xylene	5.98	91	164221	10.10	ug/l		9
58) Styrene	5.99	104	133879	10.53	ug/l		9
59) Isopropylbenzene	6.15	105	239852	8.91	ug/l		9
60) Bromoform (SPCC)	6.09	173	18451	8.11	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	25150	10.29	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	8275	8.34	ug/l		8
63) n-Propylbenzene	6.34	91	246890	8.70	ug/l		9
64) Bromobenzene	6.31	156	65654	10.74	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	111420	9.50	ug/l		8
66) tert-Butylbenzene	6.58	91	112146	8.93	ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.60	120	117646	9.49	ug/l		9
69) sec-Butylbenzene	6.68	105	267519	8.38	ug/l		9
70) p-Isopropyltoluene	6.75	119	232466	8.82	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	124985	10.32	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	122183	10.08	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	111374	10.57	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	181720	10.42	ug/l		9
75) n-Butylbenzene	6.95	91	175684	8.18	ug/l		9
76) Hexachloroethane	7.10	201	40609	7.46	ug/l		9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	5208	6.12	ug/l		8
78) 1,2,4-Trichlorobenzene	7.74	182	72052	9.63	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

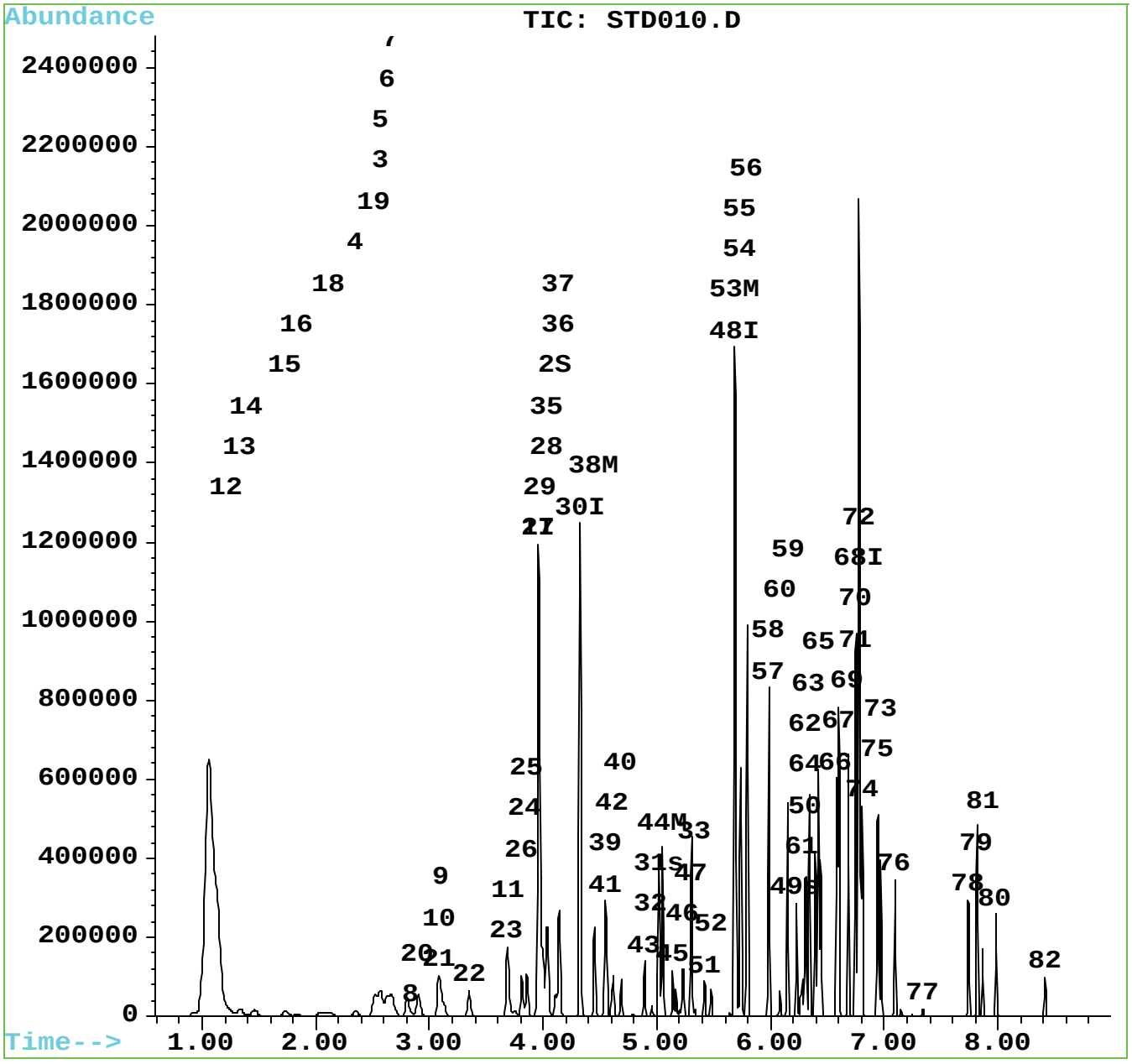
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	69955	7.80	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	58236	9.54	ug/l	9
81)	Naphthalene	7.87	128	85357	7.76	ug/l	9
82)	2-Methylnaphthalene	8.41	142	30930	6.85	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	709486	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	825373	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	299894	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	409867	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	53897	27.85	ug/l		55.7
31) TOLUENE-D8 (S)	5.02	98	351021	21.10	ug/l		42.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	144461	21.10	ug/l		42.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	91781	18.31	ug/l		9
4) Diethyl ether (*)	2.35	74	25711	33.60	ug/l		9
5) Acetone (*)	2.60	43	4942	11.93	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	188646	22.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	235375	15.82	ug/l		9
8) Methyl Acetate	2.85	43	18887	14.57	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	131145	25.92	ug/l		9
10) Acrylonitrile (*)	3.08	53	12124	13.89	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	9327	17.45	ug/l		9
12) Dichlorodifluoromethane	1.23	85	50440	13.36	ug/l		9
13) Chloromethane (SPCC)	1.34	50	64854	17.41	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	73753	16.33	ug/l		9
15) Bromomethane	1.73	94	32316	22.61	ug/l		9
16) Chloroethane	1.83	64	15915	18.80	ug/l		9
18) Trichlorofluoromethane	2.12	101	79626	22.13	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	94639	20.29	ug/l		8
20) Methylene Chloride	2.90	84	84820	24.61	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	95379	20.46	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	118876	22.61	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	100420	24.10	ug/l		8
24) Tetrahydrofuran	3.84	42	8270	14.27	ug/l		9
25) Chloroform (CCC)	3.86	83	127954	24.71	ug/l		9
26) Bromochloromethane	3.81	130	63310	26.75	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	126518	20.39	ug/l		9
28) 1,1-Dichloropropene	4.03	75	109525	19.62	ug/l		9
29) Cyclohexane	3.98	42	31157	18.13	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	9937	15.84	ug/l		9
33) 2-Hexanone (*)	5.34	58	7624	13.86	ug/l		9
35) Carbon Tetrachloride	4.04	117	120064	17.61	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	346640	20.85 ug/l	9
37) 1,2-Dichloroethane	4.15	62	61814	24.88 ug/l	9
38) Trichloroethene (MS)	4.45	95	93456	18.74 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	66909	23.84 ug/l	9
40) Bromodichloromethane	4.68	83	83011	25.40 ug/l	9
41) Methyl Cyclohexane	4.54	55	98953	16.34 ug/l	8
42) Dibromomethane	4.62	174	64214	24.41 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	105104	25.51 ug/l	9
44) Toluene (CCC/MS)	5.05	91	410707	21.07 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	79001	25.57 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	42064	23.95 ug/l	9
47) Tetrachloroethene	5.31	166	173216	16.33 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	8960	16.98 ug/l #	8
51) Dibromochloromethane	5.42	129	69610	20.02 ug/l	9
52) 1,2-Dibromoethane	5.48	107	56350	20.90 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	287425	20.47 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	98529	23.48 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	447837	18.69 ug/l	9
56) p,m-Xylene	5.79	106	393276	38.59 ug/l	8
57) o-Xylene	5.98	91	343694	20.34 ug/l	9
58) Styrene	5.99	104	287633	21.77 ug/l	9
59) Isopropylbenzene	6.15	105	510716	18.27 ug/l	9
60) Bromoform (SPCC)	6.09	173	42375	17.80 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	52746	20.76 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	17382	16.87 ug/l	9
63) n-Propylbenzene	6.34	91	521769	17.68 ug/l	9
64) Bromobenzene	6.31	156	137054	21.58 ug/l	9
65) 1,3,5-Trimethylbenzene	6.42	120	235119	19.28 ug/l	8
66) tert-Butylbenzene	6.58	91	237568	18.20 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	254120	19.73 ug/l	8
69) sec-Butylbenzene	6.68	105	566596	17.09 ug/l	9
70) p-Isopropyltoluene	6.74	119	488044	17.83 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	259870	20.67 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	255459	20.30 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	230653	21.09 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	384373	21.22 ug/l	9
75) n-Butylbenzene	6.95	91	376350	16.87 ug/l	9
76) Hexachloroethane	7.10	201	94123	16.60 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	11200	12.58 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	155584	20.02 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

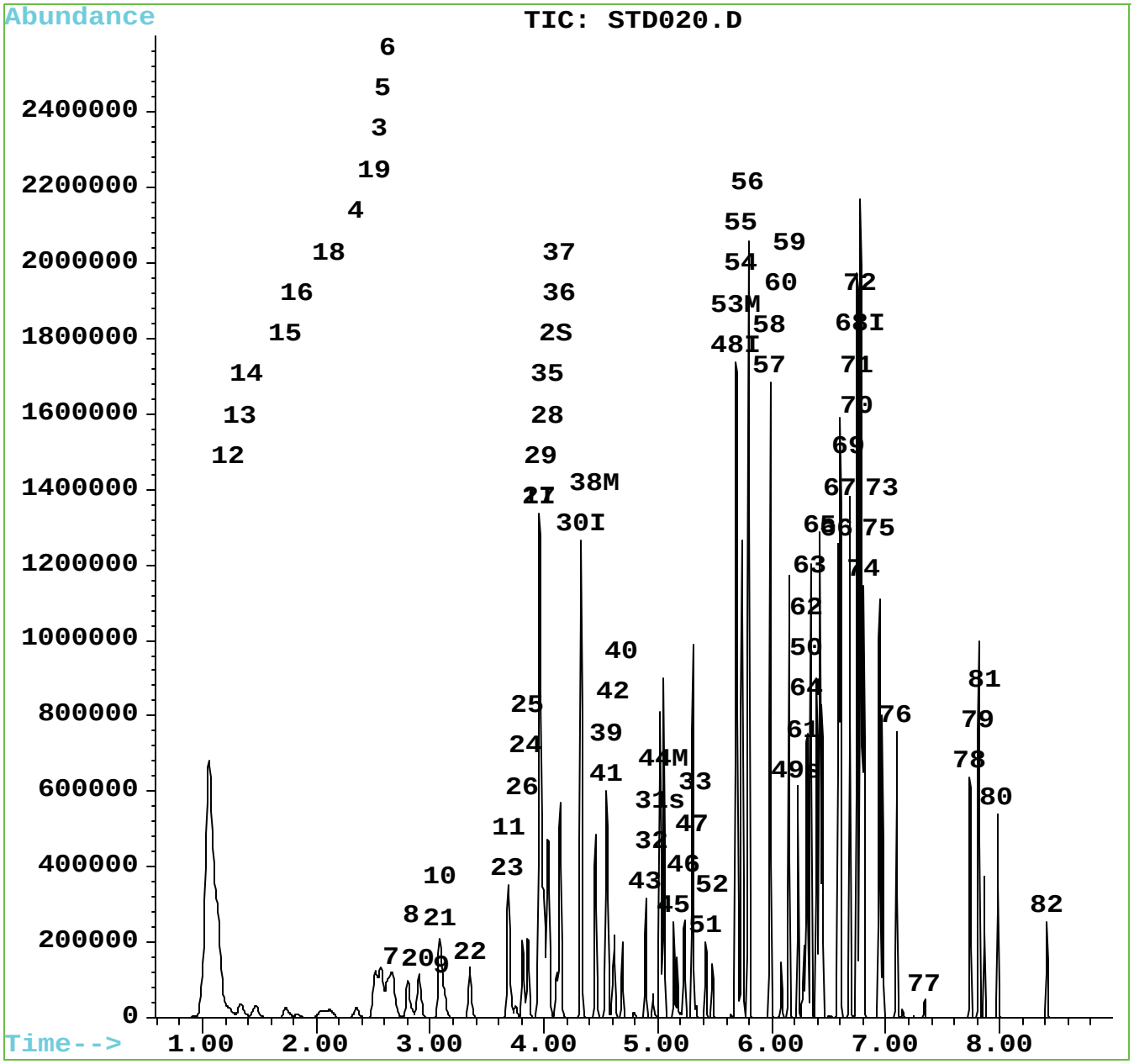
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	145427	15.61 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	124462	19.64 ug/l	9
81)	Naphthalene	7.87	128	188147	16.48 ug/l	9
82)	2-Methylnaphthalene	8.41	142	77365	16.33 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	718453	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	838217	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	305349	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	406145	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	159458	81.36	ug/l		162.7
31) TOLUENE-D8 (S)	5.02	98	1021635	60.46	ug/l		120.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	425016	60.98	ug/l		121.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	275989	54.36	ug/l		9
4) Diethyl ether (*)	2.35	74	79137	102.12	ug/l		9
5) Acetone (*)	2.59	43	17957	42.81	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	576645	67.45	ug/l		9
7) Carbon disulfide (*)	2.67	76	775809	51.48	ug/l		9
8) Methyl Acetate	2.84	43	54937	41.85	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	397720	77.63	ug/l		9
10) Acrylonitrile (*)	3.08	53	36473	41.27	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	28683	53.00	ug/l		9
12) Dichlorodifluoromethane	1.24	85	175155	45.82	ug/l		9
13) Chloromethane (SPCC)	1.35	50	199235	52.82	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	227100	49.64	ug/l		9
15) Bromomethane	1.74	94	97960	67.68	ug/l		9
16) Chloroethane	1.84	64	48474	56.54	ug/l		9
18) Trichlorofluoromethane	2.12	101	258964	71.07	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.52	61	287633	60.89	ug/l		8
20) Methylene Chloride	2.90	84	254920	73.03	ug/l		9
21) trans-1,2-Dichloroethene	3.09	61	284751	60.33	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	356405	66.94	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	298452	70.73	ug/l		8
24) Tetrahydrofuran	3.84	42	21830	37.19	ug/l		9
25) Chloroform (CCC)	3.86	83	379380	72.36	ug/l		9
26) Bromochloromethane	3.81	130	189594	79.11	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	384589	61.20	ug/l	#	3
28) 1,1-Dichloropropene	4.03	75	314724	55.68	ug/l		9
29) Cyclohexane	3.99	42	82335	47.31	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	31183	48.94	ug/l		9
33) 2-Hexanone (*)	5.34	58	27660	48.50	ug/l		9
35) Carbon Tetrachloride	4.04	117	369330	53.33	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	998814	59.16 ug/l	9
37) 1,2-Dichloroethane	4.15	62	179875	71.29 ug/l	9
38) Trichloroethene (MS)	4.45	95	275694	54.44 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	195965	68.74 ug/l	9
40) Bromodichloromethane	4.68	83	258599	77.91 ug/l	9
41) Methyl Cyclohexane	4.55	55	289075	47.00 ug/l	8
42) Dibromomethane	4.62	174	194155	72.68 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	324088	77.44 ug/l	9
44) Toluene (CCC/MS)	5.05	91	1190657	60.15 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	245175	78.15 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	126122	70.70 ug/l	9
47) Tetrachloroethene	5.31	166	475083	44.11 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	25702	47.84 ug/l #	7
51) Dibromochloromethane	5.42	129	226338	63.93 ug/l	9
52) 1,2-Dibromoethane	5.48	107	170570	62.14 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	834134	58.35 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	295143	69.09 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	1277879	52.37 ug/l	9
56) p,m-Xylene	5.79	106	1090584	105.11 ug/l	8
57) o-Xylene	5.98	91	975511	56.71 ug/l	9
58) Styrene	5.99	104	824730	61.29 ug/l	9
59) Isopropylbenzene	6.15	105	1455204	51.12 ug/l	9
60) Bromoform (SPCC)	6.09	173	144672	58.16 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	158438	61.24 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	50455	48.09 ug/l	9
63) n-Propylbenzene	6.34	91	1492185	49.67 ug/l	9
64) Bromobenzene	6.31	156	402124	62.17 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	666617	53.70 ug/l	9
66) tert-Butylbenzene	6.58	91	681991	51.32 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	711162	54.22 ug/l	9
69) sec-Butylbenzene	6.68	105	1608849	48.98 ug/l	9
70) p-Isopropyltoluene	6.75	119	1357400	50.03 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	709873	56.97 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	716942	57.49 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	650136	59.98 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	1095014	61.02 ug/l	9
75) n-Butylbenzene	6.95	91	1056273	47.79 ug/l	9
76) Hexachloroethane	7.10	201	302724	53.07 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	35812	39.31 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	444417	57.72 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

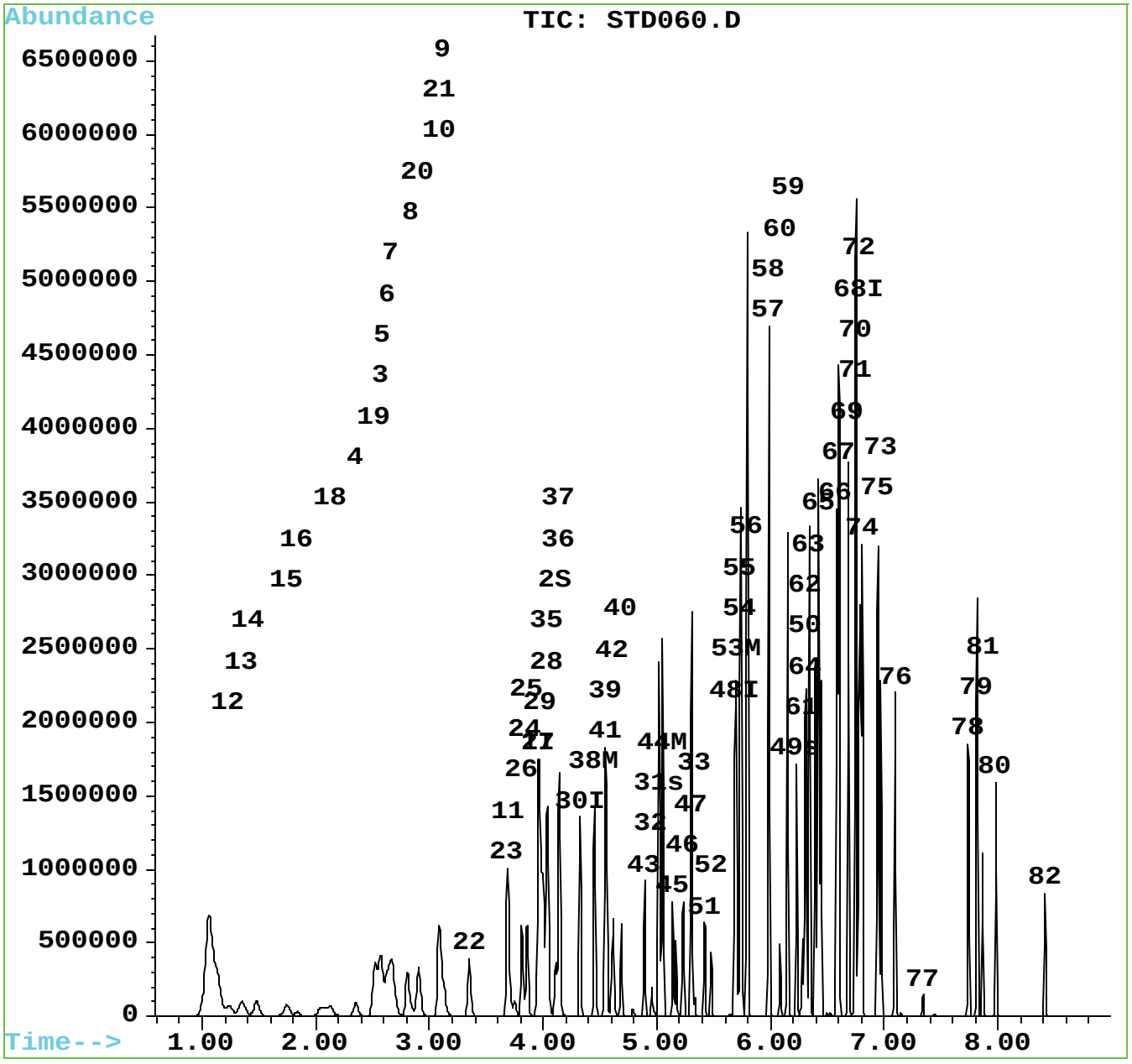
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79) Hexachlorobutadiene	7.82	225	420276	45.53 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	356654	56.79 ug/l	9
81) Naphthalene	7.87	128	559897	49.50 ug/l	9
82) 2-Methylnaphthalene	8.41	142	255721	52.36 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	708225	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	842056	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	310341	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	420177	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	266464	137.93	ug/l		275.8
31) TOLUENE-D8 (S)	5.02	98	1674468	98.65	ug/l		197.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	730962	103.18	ug/l		206.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	458452	91.60	ug/l		9
4) Diethyl ether (*)	2.35	74	130554	170.91	ug/l		9
5) Acetone (*)	2.60	43	24499	59.25	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	967325	114.78	ug/l		9
7) Carbon disulfide (*)	2.67	76	1327315	89.35	ug/l		9
8) Methyl Acetate	2.84	43	90663	70.06	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	672818	133.22	ug/l		9
10) Acrylonitrile (*)	3.08	53	59377	68.16	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	40056	75.08	ug/l		8
12) Dichlorodifluoromethane	1.23	85	294663	78.20	ug/l		9
13) Chloromethane (SPCC)	1.35	50	334048	89.83	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	381940	84.70	ug/l		9
15) Bromomethane	1.75	94	165451	115.97	ug/l		9
16) Chloroethane	1.83	64	81311	96.21	ug/l		9
18) Trichlorofluoromethane	2.13	101	446143	124.21	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	432880	92.96	ug/l		8
20) Methylene Chloride	2.90	84	424114	123.26	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	473743	101.83	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	595985	113.55	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	495434	119.10	ug/l		8
24) Tetrahydrofuran	3.84	42	35840	61.95	ug/l		9
25) Chloroform (CCC)	3.86	83	634132	122.70	ug/l		9
26) Bromochloromethane	3.81	130	316285	133.88	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	646098	104.29	ug/l	#	2
28) 1,1-Dichloropropene	4.03	75	514252	92.29	ug/l		9
29) Cyclohexane	3.99	42	140936	82.15	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	52354	81.80	ug/l		9
33) 2-Hexanone (*)	5.34	58	43937	75.48	ug/l		9
35) Carbon Tetrachloride	4.04	117	620967	89.26	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.14	78	1620241	95.53	ug/l		9
37)	1,2-Dichloroethane	4.15	62	295703	116.66	ug/l		9
38)	Trichloroethene (MS)	4.45	95	458355	90.09	ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	319257	111.48	ug/l		9
40)	Bromodichloromethane	4.68	83	440414	132.08	ug/l		9
41)	Methyl Cyclohexane	4.54	55	470767	76.20	ug/l		8
42)	Dibromomethane	4.62	174	324265	120.84	ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	545507	129.75	ug/l		9
44)	Toluene (CCC/MS)	5.05	91	1935644	97.34	ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	417540	132.49	ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	210750	117.60	ug/l		9
47)	Tetrachloroethene	5.31	166	827035	76.44	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	44222	80.98	ug/l	#	7
51)	Dibromochloromethane	5.42	129	390996	108.67	ug/l		9
52)	1,2-Dibromoethane	5.48	107	291010	104.31	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	1385172	95.34	ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	489204	112.67	ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	2092868	84.40	ug/l		9
56)	p,m-Xylene	5.79	106	1714294	162.56	ug/l		9
57)	o-Xylene	5.98	91	1580494	90.41	ug/l		9
58)	Styrene	5.99	104	1337756	97.82	ug/l		9
59)	Isopropylbenzene	6.15	105	2402114	83.02	ug/l		9
60)	Bromoform (SPCC)	6.09	173	260844	100.47	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.28	83	269439	102.47	ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	84719	79.44	ug/l		9
63)	n-Propylbenzene	6.34	91	2494881	81.71	ug/l		9
64)	Bromobenzene	6.31	156	672863	102.36	ug/l		8
65)	1,3,5-Trimethylbenzene	6.42	120	1105110	87.59	ug/l		9
66)	tert-Butylbenzene	6.58	91	1149321	85.10	ug/l		8
67)	1,2,4-Trimethylbenzene	6.60	120	1163043	87.25	ug/l		9
69)	sec-Butylbenzene	6.68	105	2671833	78.62	ug/l		9
70)	p-Isopropyltoluene	6.75	119	2217346	79.00	ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	1151355	89.31	ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	1227498	95.14	ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	1117041	99.62	ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	1840375	99.13	ug/l		9
75)	n-Butylbenzene	6.95	91	1803285	78.87	ug/l		9
76)	Hexachloroethane	7.10	201	546020	91.11	ug/l		8
77)	1,2-Dibromo-3-Chloropropan	7.34	157	67377	69.05	ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	807872	101.42	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

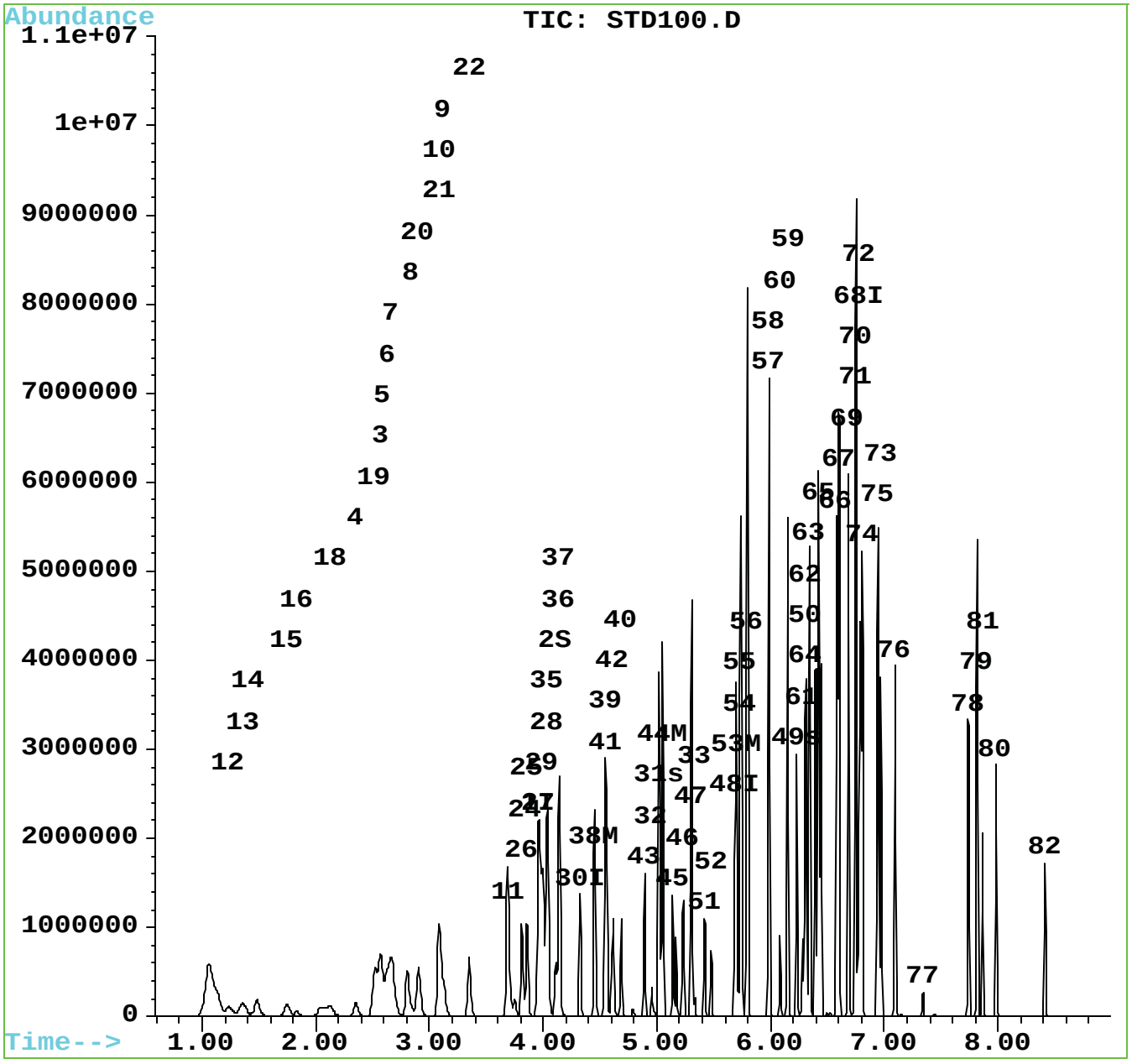
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	766294	80.25	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	658965	101.43	ug/l	9
81)	Naphthalene	7.87	128	1027251	87.78	ug/l	9
82)	2-Methylnaphthalene	8.41	142	517086	97.58	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	688743	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	845341	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	308126	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	406115	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	525719	279.82	ug/l		559.6
31) TOLUENE-D8 (S)	5.02	98	3083752	180.96	ug/l		361.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	1383700	196.72	ug/l		393.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	910425	187.06	ug/l		9
4) Diethyl ether (*)	2.35	74	257886	347.15	ug/l		9
5) Acetone (*)	2.60	43	51628	128.38	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	1916805	233.87	ug/l		9
7) Carbon disulfide (*)	2.67	76	2662579	184.32	ug/l		9
8) Methyl Acetate	2.84	43	186727	148.37	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	1373395	279.62	ug/l		9
10) Acrylonitrile (*)	3.08	53	117707	138.93	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	78647	151.59	ug/l		8
12) Dichlorodifluoromethane	1.23	85	585957	159.91	ug/l		9
13) Chloromethane (SPCC)	1.37	50	640687	177.17	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	699592	159.53	ug/l		9
15) Bromomethane	1.75	94	327119	235.77	ug/l		9
16) Chloroethane	1.83	64	161920	197.00	ug/l		9
18) Trichlorofluoromethane	2.12	101	874370	250.32	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	891921	196.95	ug/l		8
20) Methylene Chloride	2.90	84	837145	250.19	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	920836	203.52	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	1170821	229.39	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	955274	236.15	ug/l		8
24) Tetrahydrofuran	3.84	42	69742	123.96	ug/l		9
25) Chloroform (CCC)	3.85	83	1237261	246.16	ug/l		9
26) Bromochloromethane	3.81	130	626413	272.65	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	1270184	210.83	ug/l	#	1
28) 1,1-Dichloropropene	4.03	75	955460	176.31	ug/l		9
29) Cyclohexane	3.99	42	254634	152.62	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	108848	169.40	ug/l		9
33) 2-Hexanone (*)	5.34	58	93899	153.65	ug/l		9
35) Carbon Tetrachloride	4.04	117	1209587	173.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36) Benzene (MS)	4.14	78	2994921	175.89 ug/l		9
37) 1,2-Dichloroethane	4.15	62	574923	225.94 ug/l		9
38) Trichloroethene (MS)	4.45	95	882992	172.88 ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	577886	201.01 ug/l		9
40) Bromodichloromethane	4.68	83	872875	260.76 ug/l		9
41) Methyl Cyclohexane	4.54	55	847603	136.66 ug/l		8
42) Dibromomethane	4.62	174	640027	237.58 ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	1061342	251.47 ug/l		9
44) Toluene (CCC/MS)	5.05	91	3536540	177.16 ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	824716	260.67 ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	413284	229.72 ug/l		9
47) Tetrachloroethene	5.31	166	1468387	135.19 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	81968	151.19 ug/l	#	8
51) Dibromochloromethane	5.42	129	790200	221.19 ug/l		9
52) 1,2-Dibromoethane	5.48	107	580990	209.74 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	2554280	177.08 ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	905805	210.11 ug/l		9
55) Ethylbenzene (CCC)	5.74	91	3596434	146.07 ug/l		9
56) p,m-Xylene	5.80	106	2753302	262.96 ug/l		9
57) o-Xylene	5.98	91	2667192	153.66 ug/l		9
58) Styrene	5.99	104	2206761	162.53 ug/l		9
59) Isopropylbenzene	6.15	105	4245829	147.80 ug/l		9
60) Bromoform (SPCC)	6.09	173	546176	199.61 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.29	83	532985	204.16 ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	162450	153.42 ug/l		8
63) n-Propylbenzene	6.34	91	4330762	142.86 ug/l		9
64) Bromobenzene	6.31	156	1243615	190.55 ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	1910200	152.49 ug/l		9
66) tert-Butylbenzene	6.58	91	2038129	152.00 ug/l		8
67) 1,2,4-Trimethylbenzene	6.60	120	1928173	145.69 ug/l		9
69) sec-Butylbenzene	6.68	105	4544434	138.36 ug/l		9
70) p-Isopropyltoluene	6.75	119	3576681	131.84 ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	1874024	150.41 ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	2207783	177.05 ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	2067733	190.79 ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	3281860	182.89 ug/l		9
75) n-Butylbenzene	6.95	91	3105508	140.52 ug/l		9
76) Hexachloroethane	7.10	201	1039766	173.73 ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	138631	136.48 ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	1446629	187.89 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

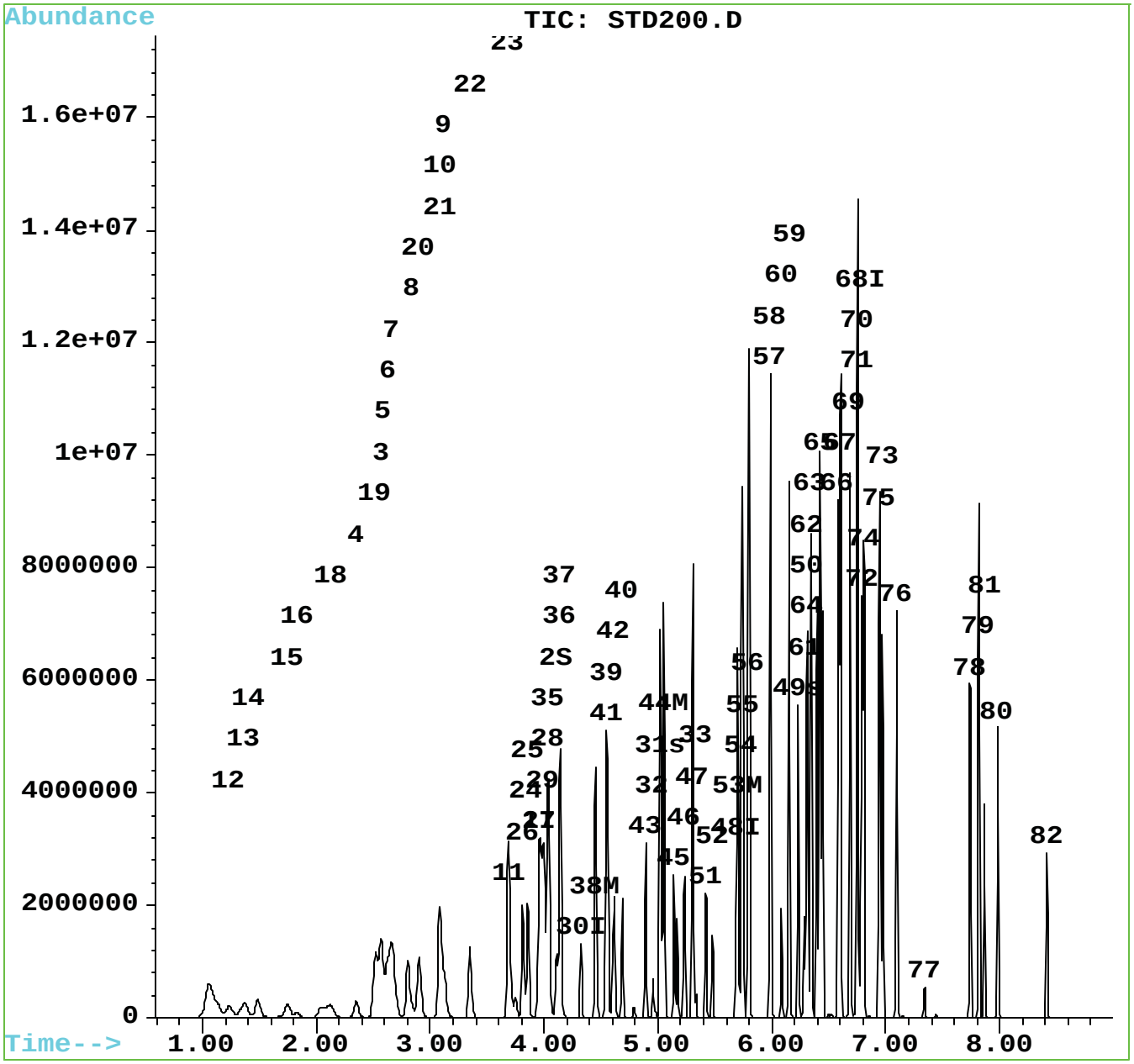
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79) Hexachlorobutadiene	7.82	225	1337439	144.91 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	1185710	188.82 ug/l	9
81) Naphthalene	7.87	128	1928293	170.48 ug/l	9
82) 2-Methylnaphthalene	8.41	142	927349	168.70 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\ravnica.sn\methods\wr120706.m\

Injection Time	Calibration Data File
07/06/12 12:34	bfb06a.d
07/06/12 14:59	std001.d
07/06/12 15:21	std010.d
07/06/12 15:43	std020.d
07/06/12 16:05	std060.d
07/06/12 16:27	std100.d
07/06/12 16:49	std200.d
07/07/12 00:01	icv06a.d

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\bfb06a.d Vial: 1
Acq On : 6 Jul 12 12:34 pm Operator: lbr
Sample : 25ng/bfb 2dr0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:53 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.90	168	94721	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	116420	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	65513	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.69	152	68035	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.05	65	90256	9.80	ug/l		196.1
31) TOLUENE-D8 (S)	4.95	98	133356	4.91	ug/l		98.1
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	54346	4.86	ug/l		97.2
Target Compounds							Qvalu
5) Acetone (*)	2.50	43	6863	0.52	ug/l		8
7) Carbon disulfide (*)	2.57	76	1307	0.06	ug/l	#	7
8) Methyl Acetate	2.76	43	102	0.03	ug/l	#	6
11) 2-Butanone (MEK) (*)	3.64	43	1375	0.58	ug/l		8
13) Chloromethane (SPCC)	1.26	50	3220	0.34	ug/l	#	6
15) Bromomethane	1.62	94	52	0.01	ug/l	#	1
20) Methylene Chloride	2.83	84	134	0.02	ug/l	#	
21) trans-1,2-Dichloroethene	3.00	61	123	0.01	ug/l	#	3
23) cis-1,2-Dichloroethene	3.62	96	270	0.04	ug/l	#	2
24) Tetrahydrofuran	3.77	42	15374	10.44	ug/l		9
25) Chloroform (CCC)	3.80	83	191	0.02	ug/l	#	6
27) 1,1,1-Trichloroethane	3.90	97	54	0.01	ug/l	#	
28) 1,1-Dichloropropene	3.97	75	128	0.01	ug/l	#	4
29) Cyclohexane	3.77	42	10371	3.20	ug/l	#	
33) 2-Hexanone (*)	5.27	58	60	0.03	ug/l	#	
34) 2-chloroethylvinyl ether	4.95	63	75	0.02	ug/l	#	
36) Benzene (MS)	4.08	78	862	0.04	ug/l	#	
37) 1,2-Dichloroethane	4.09	62	48	0.01	ug/l	#	5
38) Trichloroethene (MS)	4.39	95	568	0.10	ug/l	#	7
41) Methyl Cyclohexane	4.47	55	277	0.03	ug/l	#	4
44) Toluene (CCC/MS)	4.98	91	677	0.03	ug/l	#	6
45) trans-1,3-Dichloropropene	5.14	75	712	0.09	ug/l	#	4
47) Tetrachloroethene	5.23	166	112	0.01	ug/l	#	5
51) Dibromochloromethane	5.23	129	63	0.01	ug/l	#	2
53) Chlorobenzene (SPCC/MS)	5.63	112	320	0.02	ug/l	#	
55) Ethylbenzene (CCC)	5.67	91	2346	0.08	ug/l		9
56) p,m-Xylene	5.72	106	3275	0.27	ug/l		9
57) o-Xylene	5.91	91	1897	0.08	ug/l		9
58) Styrene	5.91	104	346	0.02	ug/l	#	4

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\bfb06a.d Vial: 1
Acq On : 6 Jul 12 12:34 pm Operator: lbr
Sample : 25ng/bfb 2dr0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:53 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

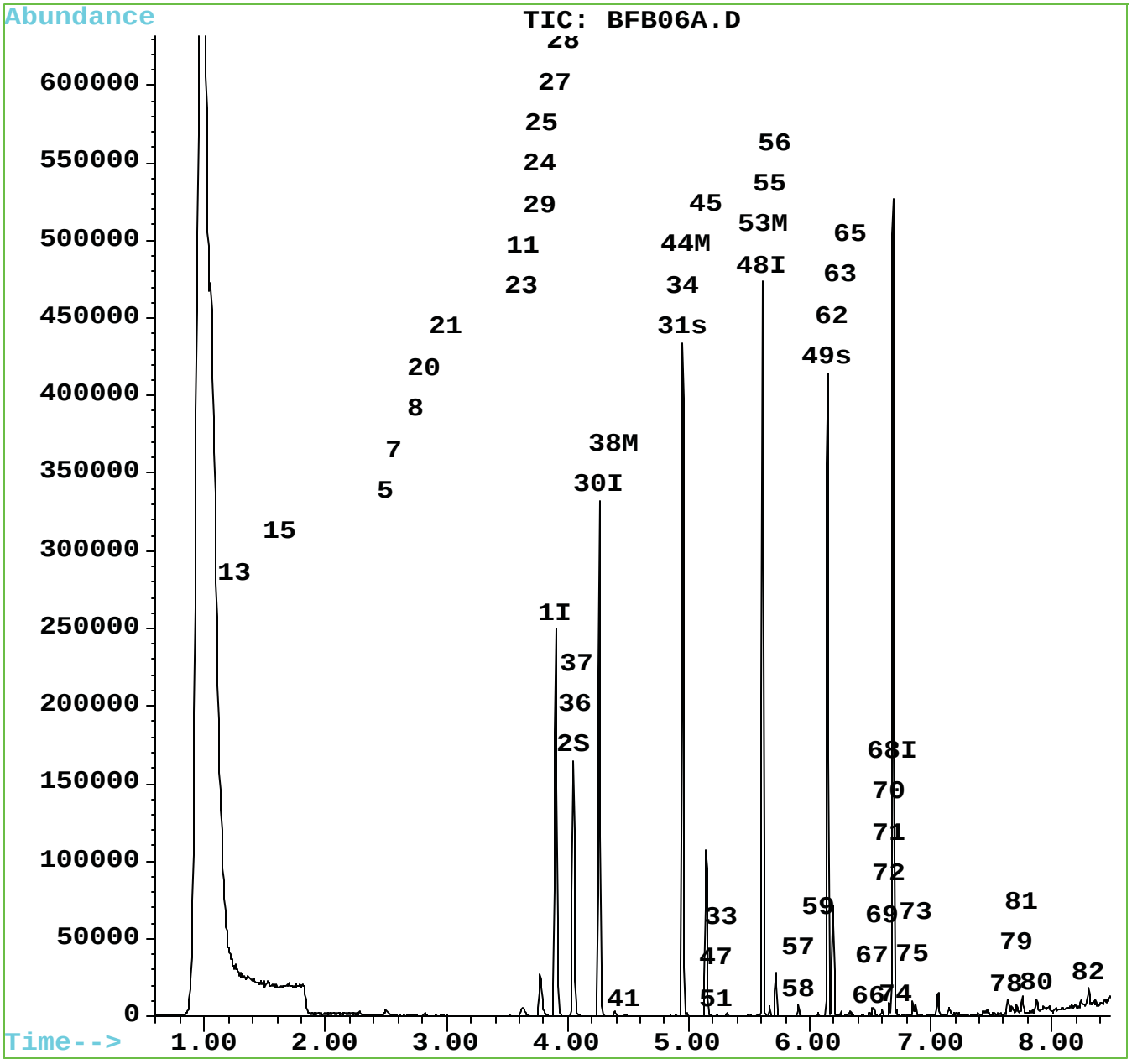
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
59)	Isopropylbenzene	6.07	105	595	0.02	ug/l		8
62)	1,2,3-Trichloropropane	6.19	110	145	0.08	ug/l	#	2
63)	n-Propylbenzene	6.26	91	1349	0.04	ug/l	#	8
65)	1,3,5-Trimethylbenzene	6.34	120	302	0.02	ug/l	#	2
66)	tert-Butylbenzene	6.50	91	578	0.03	ug/l		9
67)	1,2,4-Trimethylbenzene	6.52	120	662	0.05	ug/l	#	2
69)	sec-Butylbenzene	6.60	105	1423	0.05	ug/l		9
70)	p-Isopropyltoluene	6.66	119	1602	0.07	ug/l		8
71)	1,3-Dichlorobenzene	6.66	146	662	0.04	ug/l		9
72)	1,4-Dichlorobenzene	6.66	146	662	0.04	ug/l		9
73)	1,2-Dichlorobenzene	6.88	146	667	0.05	ug/l		9
74)	1,2,3-Trimethylbenzene	6.72	105	1028	0.04	ug/l		9
75)	n-Butylbenzene	6.85	91	2643	0.12	ug/l		9
78)	1,2,4-Trichlorobenzene	7.64	182	1568	0.17	ug/l		9
79)	Hexachlorobutadiene	7.71	225	440	0.09	ug/l	#	6
80)	1,2,3-Trichlorobenzene	7.87	180	1433	0.20	ug/l		7
81)	Naphthalene	7.76	128	3218	0.22	ug/l		7
82)	2-Methylnaphthalene	8.30	142	2583	0.46	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\bfb06a.d Vial: 1
Acq On : 6 Jul 12 12:34 pm Operator: lbr
Sample : 25ng/bfb 2dr0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:53 19112

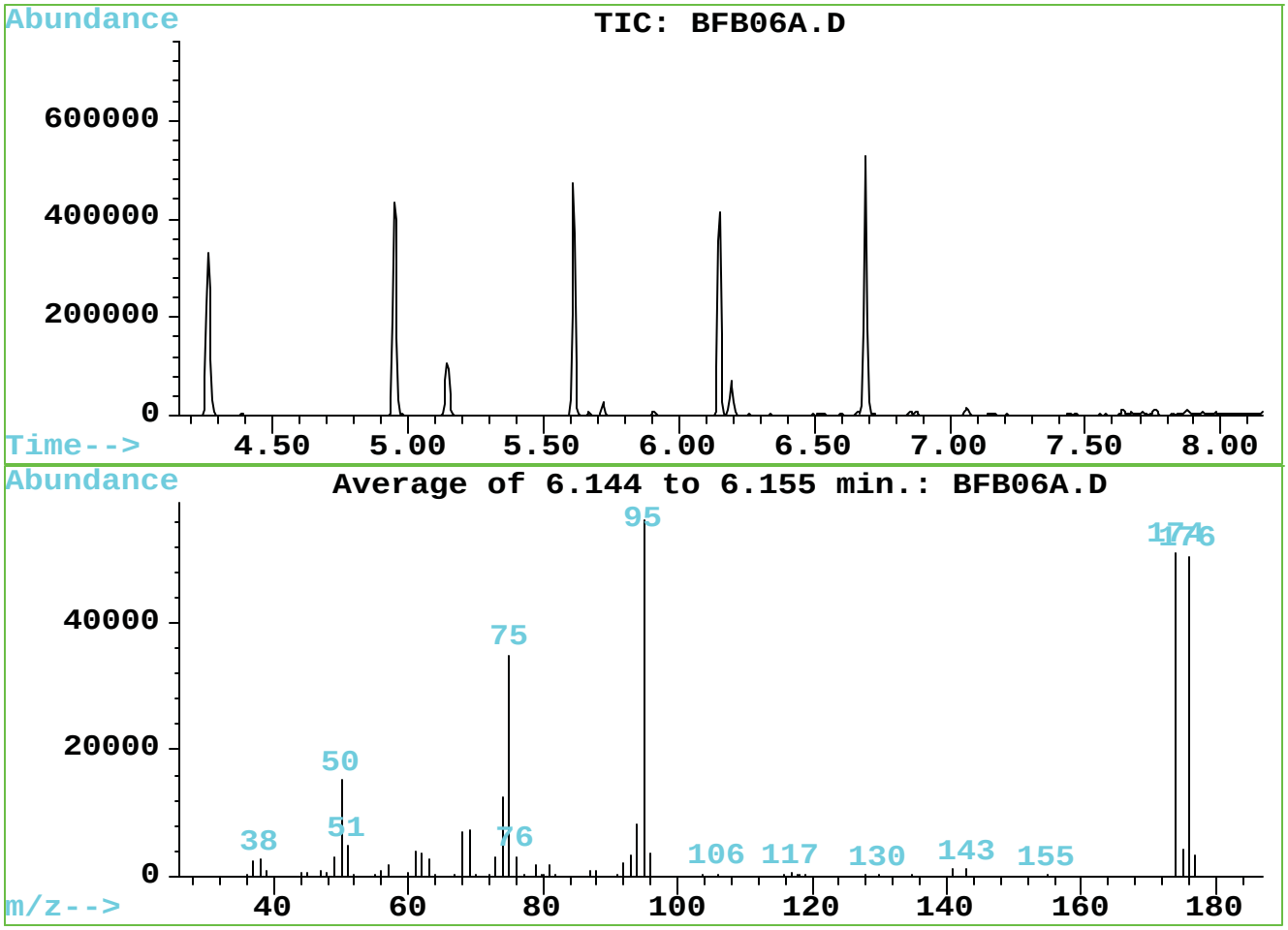
Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M\BFB06A.D Vial: 1
Acq On : 6 Jul 12 12:34 pm Operator: lbr
Sample : 25ng/bfb 2dr0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 1062

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	27.1	15213	PASS
75	95	30	66	62.1	34825	PASS
95	95	100	100	100.0	56099	PASS
96	95	5	9	6.3	3531	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	91.1	51099	PASS
175	174	4	9	8.1	4145	PASS
176	174	93	101	98.6	50379	PASS
177	176	5	9	6.6	3306	PASS

BFB06A.D WR120706.M Wed Jul 18 12:03:56 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std001.d Vial: 8
Acq On : 6 Jul 12 2:59 pm Operator: lbr
Sample : 2dr0706 1c0706 1ac0706 1ch0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:54 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.91	168	89054	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	107033	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	60402	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.69	152	61743	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.05	65	82596	9.54	ug/l		190.8
31) TOLUENE-D8 (S)	4.95	98	124332	4.98	ug/l		99.5
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	52362	5.08	ug/l		101.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.51	101	5875	0.84	ug/l	m	9
4) Diethyl ether (*)	2.25	74	3139	0.96	ug/l		9
5) Acetone (*)	2.51	43	14548	6.09	ug/l		8
6) Methyl iodide (iodomethane	2.54	142	10260	0.90	ug/l		8
7) Carbon disulfide (*)	2.57	76	12726	0.59	ug/l		9
8) Methyl Acetate	2.77	43	6627	1.99	ug/l		9
9) tert-Methyl butyl ether (M	3.02	73	22149	1.62	ug/l		9
10) Acrylonitrile (*)	3.01	53	3843	1.68	ug/l		9
11) 2-Butanone (MEK) (*)	3.64	43	16468	7.37	ug/l		9
12) Dichlorodifluoromethane	1.12	85	7061	1.10	ug/l	m	8
13) Chloromethane (SPCC)	1.25	50	9140	1.03	ug/l		9
14) Vinyl Chloride (CCC)	1.36	62	6940	0.82	ug/l	m	6
15) Bromomethane	1.63	94	4713	1.18	ug/l	m	9
16) Chloroethane	1.72	64	4229	1.03	ug/l	m	4
17) Acrolein	2.37	56	882	0.93	ug/l	#	9
18) Trichlorofluoromethane	1.95	101	16179	1.54	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.42	61	14579	1.31	ug/l		8
20) Methylene Chloride	2.82	84	5362	0.76	ug/l		8
21) trans-1,2-Dichloroethene	3.00	61	11577	1.11	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.28	63	13915	1.10	ug/l		9
23) cis-1,2-Dichloroethene	3.62	96	5902	0.84	ug/l		9
24) Tetrahydrofuran	3.77	42	10286	7.43	ug/l		9
25) Chloroform (CCC)	3.80	83	13765	1.25	ug/l		9
26) Bromochloromethane	3.75	130	3753	0.85	ug/l		9
27) 1,1,1-Trichloroethane	3.89	97	16830	1.74	ug/l	#	
28) 1,1-Dichloropropene	3.97	75	9015	1.04	ug/l		9
29) Cyclohexane	3.92	42	4209	1.38	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.90	58	3299	1.96	ug/l		8
33) 2-Hexanone (*)	5.27	58	3725	2.26	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std001.d Vial: 8
Acq On : 6 Jul 12 2:59 pm Operator: lbr
Sample : 2dr0706 1c0706 1ac0706 1ch0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:54 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.76	63	3999	1.40	ug/l		9
35) Carbon Tetrachloride	3.97	117	14772	2.13	ug/l		9
36) Benzene (MS)	4.07	78	18885	0.93	ug/l	#	
37) 1,2-Dichloroethane	4.08	62	16669	2.37	ug/l		9
38) Trichloroethene (MS)	4.39	95	6335	1.17	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.49	63	6403	1.07	ug/l		8
40) Bromodichloromethane	4.62	83	10038	1.59	ug/l		9
41) Methyl Cyclohexane	4.48	55	13047	1.71	ug/l	#	7
42) Dibromomethane	4.56	174	4953	1.40	ug/l		9
43) cis-1,3-Dichloropropene	4.83	75	9338	1.22	ug/l		9
44) Toluene (CCC/MS)	4.98	91	21708	0.98	ug/l		9
45) trans-1,3-Dichloropropene	5.08	75	10260	1.42	ug/l		9
46) 1,1,2-Trichloroethane	5.16	83	3842	1.05	ug/l		9
47) Tetrachloroethene	5.23	166	8010	1.11	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.23	53	3576	2.67	ug/l	#	7
51) Dibromochloromethane	5.35	129	6495	1.18	ug/l		9
52) 1,2-Dibromoethane	5.41	107	5627	1.07	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.63	112	15067	0.84	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.66	131	7269	1.22	ug/l		9
55) Ethylbenzene (CCC)	5.67	91	28652	1.00	ug/l		9
56) p,m-Xylene	5.72	106	20925	1.89	ug/l		9
57) o-Xylene	5.90	91	24126	1.08	ug/l		9
58) Styrene	5.91	104	16244	0.91	ug/l		9
59) Isopropylbenzene	6.07	105	29686	1.04	ug/l		9
60) Bromoform (SPCC)	6.01	173	4555	1.23	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.21	83	6164	1.00	ug/l		9
62) 1,2,3-Trichloropropane	6.23	110	3144	1.80	ug/l		9
63) n-Propylbenzene	6.26	91	31610	0.96	ug/l		9
64) Bromobenzene	6.22	156	7615	0.96	ug/l		9
65) 1,3,5-Trimethylbenzene	6.34	120	10247	0.86	ug/l	#	6
66) tert-Butylbenzene	6.50	91	21576	1.41	ug/l		9
67) 1,2,4-Trimethylbenzene	6.52	120	13115	1.00	ug/l	#	7
69) sec-Butylbenzene	6.60	105	29818	1.09	ug/l		9
70) p-Isopropyltoluene	6.66	119	26002	1.19	ug/l		9
71) 1,3-Dichlorobenzene	6.66	146	14884	1.11	ug/l		9
72) 1,4-Dichlorobenzene	6.70	146	15292	1.07	ug/l		9
73) 1,2-Dichlorobenzene	6.88	146	14720	1.10	ug/l		9
74) 1,2,3-Trimethylbenzene	6.72	105	27333	1.18	ug/l		9
75) n-Butylbenzene	6.85	91	23634	1.15	ug/l		9
76) Hexachloroethane	7.00	201	3738	1.14	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std001.d Vial: 8
Acq On : 6 Jul 12 2:59 pm Operator: lbr
Sample : 2dr0706 1c0706 1ac0706 1ch0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:54 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

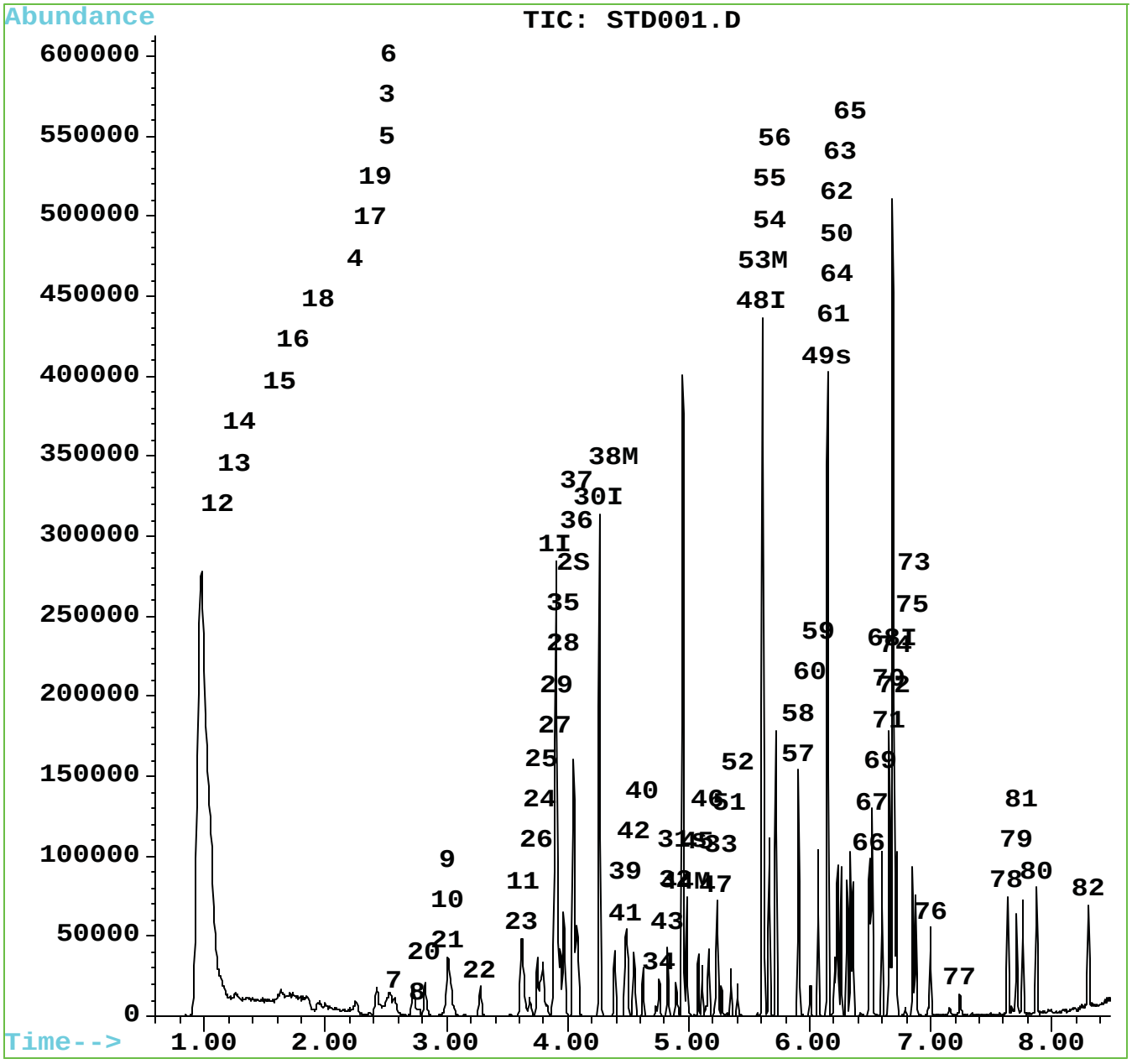
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.24	157	1781	1.79	ug/l	8
78)	1,2,4-Trichlorobenzene	7.64	182	12406	1.45	ug/l	9
79)	Hexachlorobutadiene	7.71	225	7820	1.83	ug/l	9
80)	1,2,3-Trichlorobenzene	7.87	180	11576	1.76	ug/l	9
81)	Naphthalene	7.76	128	26266	1.98	ug/l	9
82)	2-Methylnaphthalene	8.30	142	13939	2.73	ug/l	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std001.d Vial: 8
Acq On : 6 Jul 12 2:59 pm Operator: lbr
Sample : 2dr0706 1c0706 1ac0706 1ch0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:54 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std010.d Vial: 9
Acq On : 6 Jul 12 3:21 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:55 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.91	168	88138	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	106413	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	64292	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.68	152	59960	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.05	65	82259	9.60	ug/l		192.0
31) TOLUENE-D8 (S)	4.95	98	120894	4.87	ug/l		97.3
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	49163	4.48	ug/l		89.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.47	101	65443	9.43	ug/l	m	3
4) Diethyl ether (*)	2.24	74	27101	8.36	ug/l		8
5) Acetone (*)	2.51	43	43155	26.10	ug/l		9
6) Methyl iodide (iodomethane	2.53	142	98049	8.65	ug/l		8
7) Carbon disulfide (*)	2.56	76	140754	6.64	ug/l		9
8) Methyl Acetate	2.76	43	67581	20.54	ug/l		9
9) tert-Methyl butyl ether (M	3.02	73	214184	15.86	ug/l		9
10) Acrylonitrile (*)	3.00	53	38302	16.95	ug/l		9
11) 2-Butanone (MEK) (*)	3.64	43	55503	25.09	ug/l		9
12) Dichlorodifluoromethane	1.13	85	81386	12.67	ug/l		9
13) Chloromethane (SPCC)	1.26	50	81278	9.26	ug/l		9
14) Vinyl Chloride (CCC)	1.34	62	71084	8.47	ug/l		9
15) Bromomethane	1.62	94	44154	11.17	ug/l		9
16) Chloroethane	1.71	64	39918	9.81	ug/l		9
17) Acrolein	2.35	56	12347	13.18	ug/l		9
18) Trichlorofluoromethane	1.93	101	156134	15.04	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.42	61	138347	12.61	ug/l		9
20) Methylene Chloride	2.82	84	50642	7.21	ug/l		9
21) trans-1,2-Dichloroethene	3.00	61	119170	11.53	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.28	63	135454	10.82	ug/l		10
23) cis-1,2-Dichloroethene	3.62	96	56061	8.02	ug/l		8
24) Tetrahydrofuran	3.77	42	34828	25.41	ug/l	#	
25) Chloroform (CCC)	3.80	83	134405	12.35	ug/l		9
26) Bromochloromethane	3.75	130	39772	9.12	ug/l		9
27) 1,1,1-Trichloroethane	3.88	97	158791	16.57	ug/l	#	7
28) 1,1-Dichloropropene	3.97	75	93161	10.89	ug/l		9
29) Cyclohexane	3.91	42	39215	13.02	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.90	58	31538	18.87	ug/l	#	6
33) 2-Hexanone (*)	5.27	58	33169	20.25	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std010.d Vial: 9
Acq On : 6 Jul 12 3:21 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:55 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.76	63	47487	16.71 ug/l	10
35) Carbon Tetrachloride	3.97	117	149563	21.74 ug/l	9
36) Benzene (MS)	4.07	78	180045	8.93 ug/l	9
37) 1,2-Dichloroethane	4.08	62	164446	23.51 ug/l	9
38) Trichloroethene (MS)	4.39	95	64734	11.99 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.49	63	62625	10.57 ug/l	8
40) Bromodichloromethane	4.62	83	104010	16.53 ug/l	9
41) Methyl Cyclohexane	4.48	55	122566	16.15 ug/l #	7
42) Dibromomethane	4.56	174	51309	14.60 ug/l	9
43) cis-1,3-Dichloropropene	4.83	75	98043	12.91 ug/l	9
44) Toluene (CCC/MS)	4.98	91	214830	9.80 ug/l	9
45) trans-1,3-Dichloropropene	5.08	75	110110	15.31 ug/l	9
46) 1,1,2-Trichloroethane	5.16	83	37843	10.41 ug/l	9
47) Tetrachloroethene	5.23	166	77516	10.84 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	39518	27.41 ug/l #	7
51) Dibromochloromethane	5.35	129	76337	13.06 ug/l	9
52) 1,2-Dibromoethane	5.41	107	60192	10.77 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.63	112	147270	7.73 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	77262	12.18 ug/l	9
55) Ethylbenzene (CCC)	5.67	91	282352	9.26 ug/l	9
56) p,m-Xylene	5.72	106	198990	16.84 ug/l	9
57) o-Xylene	5.90	91	242031	10.19 ug/l	9
58) Styrene	5.91	104	163479	8.62 ug/l	9
59) Isopropylbenzene	6.07	105	299241	9.88 ug/l	9
60) Bromoform (SPCC)	6.01	173	56248	14.19 ug/l	10
61) 1,1,2,2-Tetrachloroethane	6.21	83	66140	10.10 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	31663	17.00 ug/l	9
63) n-Propylbenzene	6.26	91	323950	9.22 ug/l	9
64) Bromobenzene	6.22	156	77921	9.19 ug/l	9
65) 1,3,5-Trimethylbenzene	6.34	120	109482	8.64 ug/l #	7
66) tert-Butylbenzene	6.50	91	213725	13.15 ug/l	9
67) 1,2,4-Trimethylbenzene	6.52	120	123217	8.81 ug/l #	7
69) sec-Butylbenzene	6.60	105	302899	11.35 ug/l	9
70) p-Isopropyltoluene	6.66	119	269230	12.71 ug/l	9
71) 1,3-Dichlorobenzene	6.66	146	141226	10.86 ug/l	9
72) 1,4-Dichlorobenzene	6.70	146	147394	10.61 ug/l	9
73) 1,2-Dichlorobenzene	6.88	146	140246	10.77 ug/l	9
74) 1,2,3-Trimethylbenzene	6.72	105	272367	12.15 ug/l	9
75) n-Butylbenzene	6.85	91	235531	11.85 ug/l	10
76) Hexachloroethane	7.00	201	43693	13.63 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std010.d Vial: 9
Acq On : 6 Jul 12 3:21 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:55 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

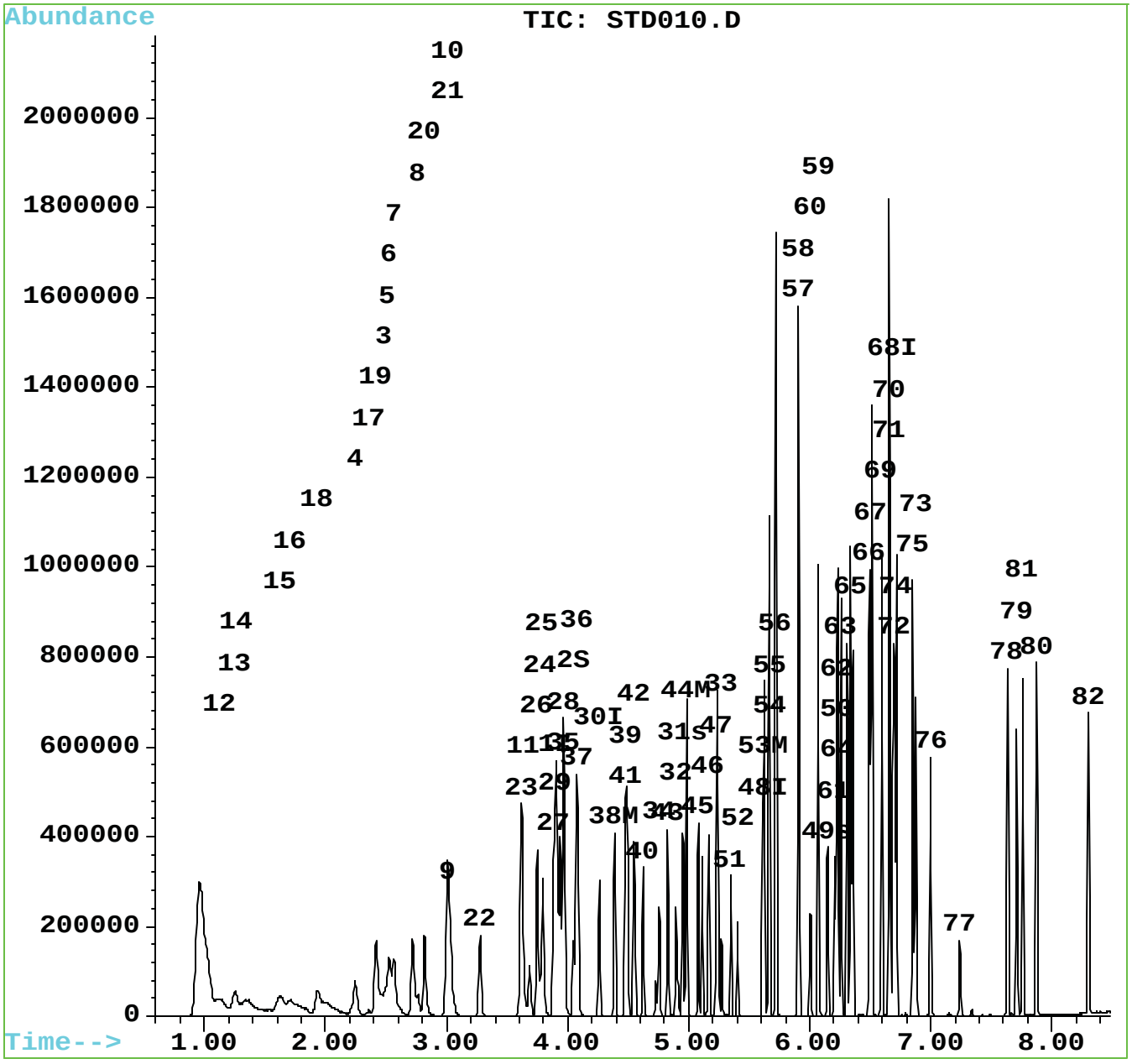
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.25	157	22650	23.19	ug/l	9
78)	1,2,4-Trichlorobenzene	7.64	182	121887	14.63	ug/l	9
79)	Hexachlorobutadiene	7.71	225	75580	18.20	ug/l	9
80)	1,2,3-Trichlorobenzene	7.87	180	110371	17.32	ug/l	9
81)	Naphthalene	7.76	128	259295	20.16	ug/l	9
82)	2-Methylnaphthalene	8.30	142	155504	31.34	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std010.d Vial: 9
Acq On : 6 Jul 12 3:21 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:55 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std020.d Vial: 1
Acq On : 6 Jul 12 3:43 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:57 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.91	168	89137	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	107209	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	63020	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.68	152	60222	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.05	65	81799	9.44	ug/l		188.8
31) TOLUENE-D8 (S)	4.95	98	123662	4.94	ug/l		98.8
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	47759	4.44	ug/l		88.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.52	101	130401	18.58	ug/l	m	2
4) Diethyl ether (*)	2.25	74	58316	17.79	ug/l		9
5) Acetone (*)	2.51	43	79778	50.95	ug/l		9
6) Methyl iodide (iodomethane	2.53	142	198307	17.29	ug/l		8
7) Carbon disulfide (*)	2.57	76	287568	13.41	ug/l		9
8) Methyl Acetate	2.77	43	137764	41.40	ug/l		9
9) tert-Methyl butyl ether (M	3.02	73	436263	31.94	ug/l		9
10) Acrylonitrile (*)	3.01	53	80133	35.06	ug/l		9
11) 2-Butanone (MEK) (*)	3.63	43	102274	45.71	ug/l		9
12) Dichlorodifluoromethane	1.13	85	160815	24.42	ug/l		9
13) Chloromethane (SPCC)	1.26	50	165366	18.64	ug/l	m	9
14) Vinyl Chloride (CCC)	1.36	62	141905	16.72	ug/l		9
15) Bromomethane	1.63	94	94160	23.55	ug/l		9
16) Chloroethane	1.71	64	81315	19.77	ug/l		9
17) Acrolein	2.36	56	26059	27.51	ug/l		9
18) Trichlorofluoromethane	1.94	101	316170	30.12	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.42	61	275854	24.85	ug/l		9
20) Methylene Chloride	2.82	84	100953	14.20	ug/l		9
21) trans-1,2-Dichloroethene	3.01	61	241206	23.08	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.28	63	271741	21.47	ug/l		9
23) cis-1,2-Dichloroethene	3.62	96	112451	15.91	ug/l		8
24) Tetrahydrofuran	3.77	42	61607	44.45	ug/l	#	
25) Chloroform (CCC)	3.80	83	271229	24.64	ug/l		9
26) Bromochloromethane	3.75	130	80026	18.15	ug/l		9
27) 1,1,1-Trichloroethane	3.89	97	322658	33.29	ug/l		8
28) 1,1-Dichloropropene	3.97	75	182846	21.13	ug/l		9
29) Cyclohexane	3.91	42	75920	24.92	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.90	58	67367	40.02	ug/l		8
33) 2-Hexanone (*)	5.27	58	68691	41.63	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std020.d Vial: 1
Acq On : 6 Jul 12 3:43 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:57 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.76	63	98816	34.51 ug/l	9
35) Carbon Tetrachloride	3.97	117	306917	44.29 ug/l	9
36) Benzene (MS)	4.07	78	358134	17.63 ug/l	8
37) 1,2-Dichloroethane	4.08	62	333049	47.26 ug/l	9
38) Trichloroethene (MS)	4.39	95	127242	23.39 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.50	63	124109	20.80 ug/l	8
40) Bromodichloromethane	4.62	83	214803	33.89 ug/l	9
41) Methyl Cyclohexane	4.48	55	239319	31.29 ug/l #	7
42) Dibromomethane	4.56	174	102730	29.01 ug/l	9
43) cis-1,3-Dichloropropene	4.83	75	199361	26.05 ug/l	9
44) Toluene (CCC/MS)	4.98	91	435619	19.73 ug/l	9
45) trans-1,3-Dichloropropene	5.08	75	228463	31.52 ug/l	9
46) 1,1,2-Trichloroethane	5.16	83	75968	20.75 ug/l	9
47) Tetrachloroethene	5.23	166	156637	21.75 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	83420	58.10 ug/l #	6
51) Dibromochloromethane	5.35	129	161842	28.25 ug/l	9
52) 1,2-Dibromoethane	5.41	107	120726	22.04 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.63	112	300961	16.12 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	157099	25.27 ug/l	9
55) Ethylbenzene (CCC)	5.67	91	572346	19.15 ug/l	9
56) p,m-Xylene	5.72	106	398628	34.42 ug/l	9
57) o-Xylene	5.90	91	495791	21.29 ug/l	9
58) Styrene	5.91	104	325396	17.50 ug/l	9
59) Isopropylbenzene	6.07	105	605239	20.39 ug/l	9
60) Bromoform (SPCC)	6.00	173	121467	30.98 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.20	83	130074	20.26 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	65664	35.97 ug/l	9
63) n-Propylbenzene	6.26	91	640311	18.59 ug/l	9
64) Bromobenzene	6.22	156	157340	18.94 ug/l	9
65) 1,3,5-Trimethylbenzene	6.34	120	217772	17.54 ug/l #	7
66) tert-Butylbenzene	6.49	91	432150	27.13 ug/l	9
67) 1,2,4-Trimethylbenzene	6.52	120	249930	18.23 ug/l #	7
69) sec-Butylbenzene	6.60	105	610714	22.78 ug/l	9
70) p-Isopropyltoluene	6.66	119	543025	25.53 ug/l	9
71) 1,3-Dichlorobenzene	6.66	146	289012	22.13 ug/l	9
72) 1,4-Dichlorobenzene	6.70	146	293192	21.01 ug/l	9
73) 1,2-Dichlorobenzene	6.88	146	285625	21.85 ug/l	9
74) 1,2,3-Trimethylbenzene	6.72	105	543748	24.15 ug/l	9
75) n-Butylbenzene	6.85	91	473304	23.71 ug/l	10
76) Hexachloroethane	7.00	201	93745	28.89 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std020.d Vial: 1
Acq On : 6 Jul 12 3:43 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:57 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

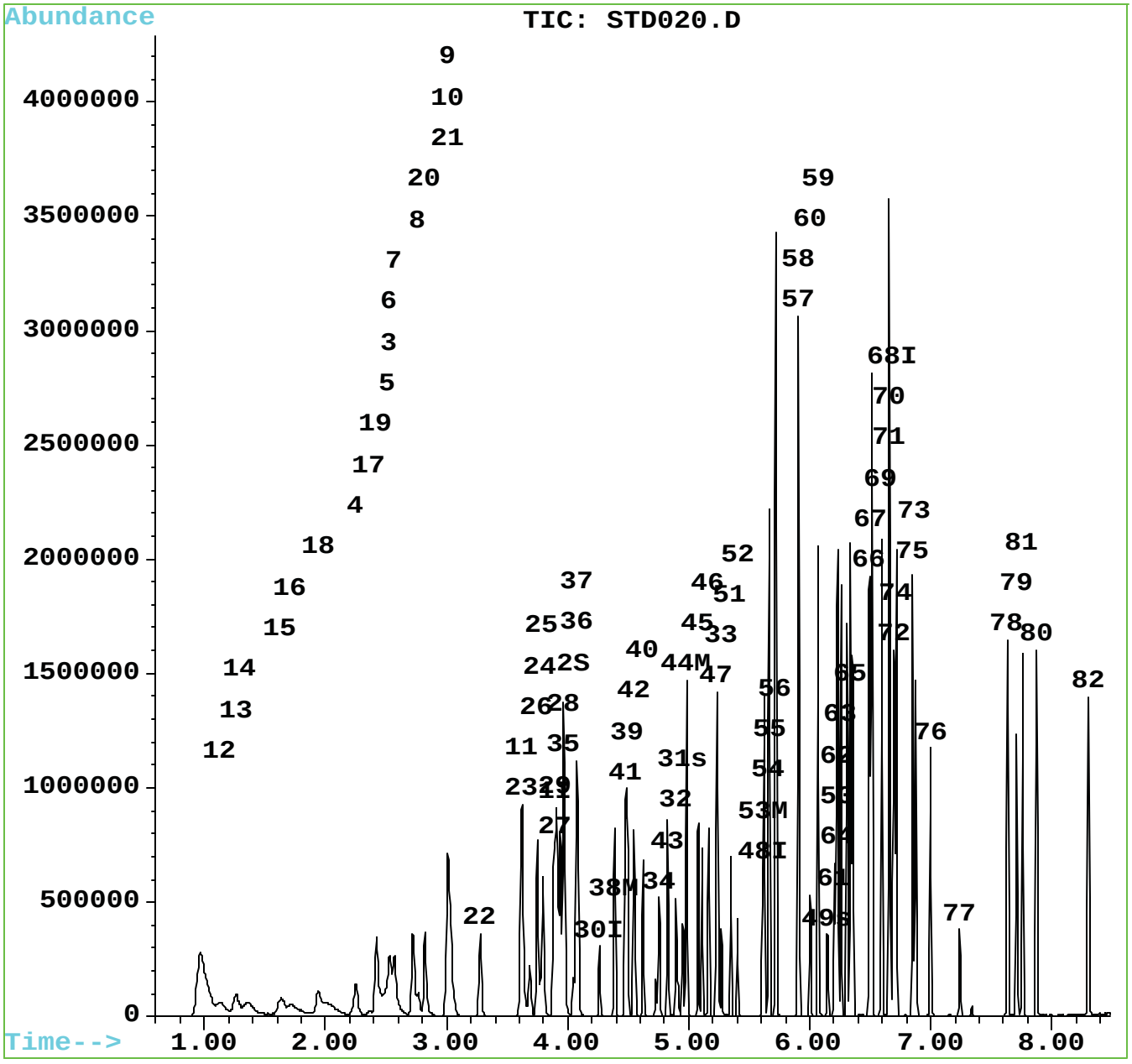
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.24	157	46958	47.45 ug/l	9
78)	1,2,4-Trichlorobenzene	7.63	182	247205	29.54 ug/l	9
79)	Hexachlorobutadiene	7.71	225	156473	37.51 ug/l	10
80)	1,2,3-Trichlorobenzene	7.87	180	227334	35.51 ug/l	9
81)	Naphthalene	7.76	128	540284	41.82 ug/l	9
82)	2-Methylnaphthalene	8.30	142	330722	66.37 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std020.d Vial: 1
Acq On : 6 Jul 12 3:43 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:57 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std060.d Vial: 1
Acq On : 6 Jul 12 4:05 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.91	168	90194	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	109956	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	65427	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.69	152	64999	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.05	65	83754	9.56	ug/l		191.1
31) TOLUENE-D8 (S)	4.95	98	125781	4.90	ug/l		98.0
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	51559	4.62	ug/l		92.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.51	101	405723	57.12	ug/l	m	7
4) Diethyl ether (*)	2.25	74	181952	54.85	ug/l	#	8
5) Acetone (*)	2.51	43	224954	148.98	ug/l		9
6) Methyl iodide (iodomethane	2.53	142	605091	52.15	ug/l		8
7) Carbon disulfide (*)	2.56	76	893654	41.18	ug/l		9
8) Methyl Acetate	2.77	43	420867	125.00	ug/l		9
9) tert-Methyl butyl ether (M	3.02	73	1340406	96.98	ug/l		9
10) Acrylonitrile (*)	3.00	53	242676	104.94	ug/l		9
11) 2-Butanone (MEK) (*)	3.64	43	295809	130.67	ug/l		9
12) Dichlorodifluoromethane	1.13	85	487457	69.53	ug/l		9
13) Chloromethane (SPCC)	1.26	50	488842	54.45	ug/l	m	9
14) Vinyl Chloride (CCC)	1.36	62	435276	50.68	ug/l		9
15) Bromomethane	1.64	94	302995	74.88	ug/l		9
16) Chloroethane	1.72	64	245495	58.98	ug/l		9
17) Acrolein	2.36	56	79837	83.29	ug/l		9
18) Trichlorofluoromethane	1.93	101	944517	88.92	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.42	61	841303	74.91	ug/l		9
20) Methylene Chloride	2.82	84	302092	42.00	ug/l		9
21) trans-1,2-Dichloroethene	3.00	61	716479	67.74	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.28	63	813886	63.54	ug/l		9
23) cis-1,2-Dichloroethene	3.62	96	338647	47.35	ug/l		8
24) Tetrahydrofuran	3.77	42	172492	123.00	ug/l	#	
25) Chloroform (CCC)	3.80	83	817794	73.42	ug/l		10
26) Bromochloromethane	3.75	130	238608	53.48	ug/l		9
27) 1,1,1-Trichloroethane	3.88	97	988547	100.80	ug/l		9
28) 1,1-Dichloropropene	3.97	75	557634	63.69	ug/l		9
29) Cyclohexane	3.91	42	230253	74.69	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.90	58	213430	123.61	ug/l	#	7
33) 2-Hexanone (*)	5.27	58	224283	132.54	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std060.d Vial: 1
Acq On : 6 Jul 12 4:05 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.76	63	306340	104.31 ug/l		9
35) Carbon Tetrachloride	3.97	117	950267	133.69 ug/l		9
36) Benzene (MS)	4.07	78	1093589	52.49 ug/l		9
37) 1,2-Dichloroethane	4.08	62	1014801	140.42 ug/l		9
38) Trichloroethene (MS)	4.39	95	398959	71.52 ug/l		9
39) 1,2-Dichloropropane (CCC)	4.50	63	383993	62.74 ug/l		8
40) Bromodichloromethane	4.62	83	675671	103.95 ug/l		10
41) Methyl Cyclohexane	4.48	55	731468	93.25 ug/l	#	8
42) Dibromomethane	4.56	174	313956	86.44 ug/l		9
43) cis-1,3-Dichloropropene	4.83	75	611890	77.96 ug/l		9
44) Toluene (CCC/MS)	4.99	91	1328436	58.65 ug/l		9
45) trans-1,3-Dichloropropene	5.08	75	718584	96.67 ug/l		9
46) 1,1,2-Trichloroethane	5.16	83	239178	63.70 ug/l		9
47) Tetrachloroethene	5.24	166	494238	66.90 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.23	53	256325	163.13 ug/l	#	6
51) Dibromochloromethane	5.35	129	517515	87.03 ug/l		9
52) 1,2-Dibromoethane	5.41	107	385984	67.88 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.63	112	926900	47.82 ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.66	131	492617	76.31 ug/l		9
55) Ethylbenzene (CCC)	5.67	91	1780939	57.41 ug/l		9
56) p,m-Xylene	5.72	106	1256154	104.47 ug/l		9
57) o-Xylene	5.91	91	1556986	64.39 ug/l		9
58) Styrene	5.91	104	1049497	54.37 ug/l		9
59) Isopropylbenzene	6.07	105	1908435	61.93 ug/l		9
60) Bromoform (SPCC)	6.01	173	414646	98.48 ug/l		10
61) 1,1,2,2-Tetrachloroethane	6.21	83	420455	63.08 ug/l		9
62) 1,2,3-Trichloropropane	6.23	110	206098	108.75 ug/l		9
63) n-Propylbenzene	6.26	91	2021075	56.52 ug/l		9
64) Bromobenzene	6.23	156	491020	56.93 ug/l		9
65) 1,3,5-Trimethylbenzene	6.34	120	694028	53.84 ug/l	#	7
66) tert-Butylbenzene	6.50	91	1381051	83.50 ug/l		9
67) 1,2,4-Trimethylbenzene	6.52	120	798845	56.13 ug/l	#	7
69) sec-Butylbenzene	6.60	105	1974892	68.26 ug/l		9
70) p-Isopropyltoluene	6.66	119	1800214	78.43 ug/l		9
71) 1,3-Dichlorobenzene	6.66	146	925786	65.68 ug/l		9
72) 1,4-Dichlorobenzene	6.70	146	936861	62.21 ug/l		9
73) 1,2-Dichlorobenzene	6.88	146	887077	62.87 ug/l		9
74) 1,2,3-Trimethylbenzene	6.72	105	1774298	73.01 ug/l		9
75) n-Butylbenzene	6.85	91	1507179	69.95 ug/l		10
76) Hexachloroethane	7.00	201	327882	90.78 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std060.d Vial: 1
Acq On : 6 Jul 12 4:05 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

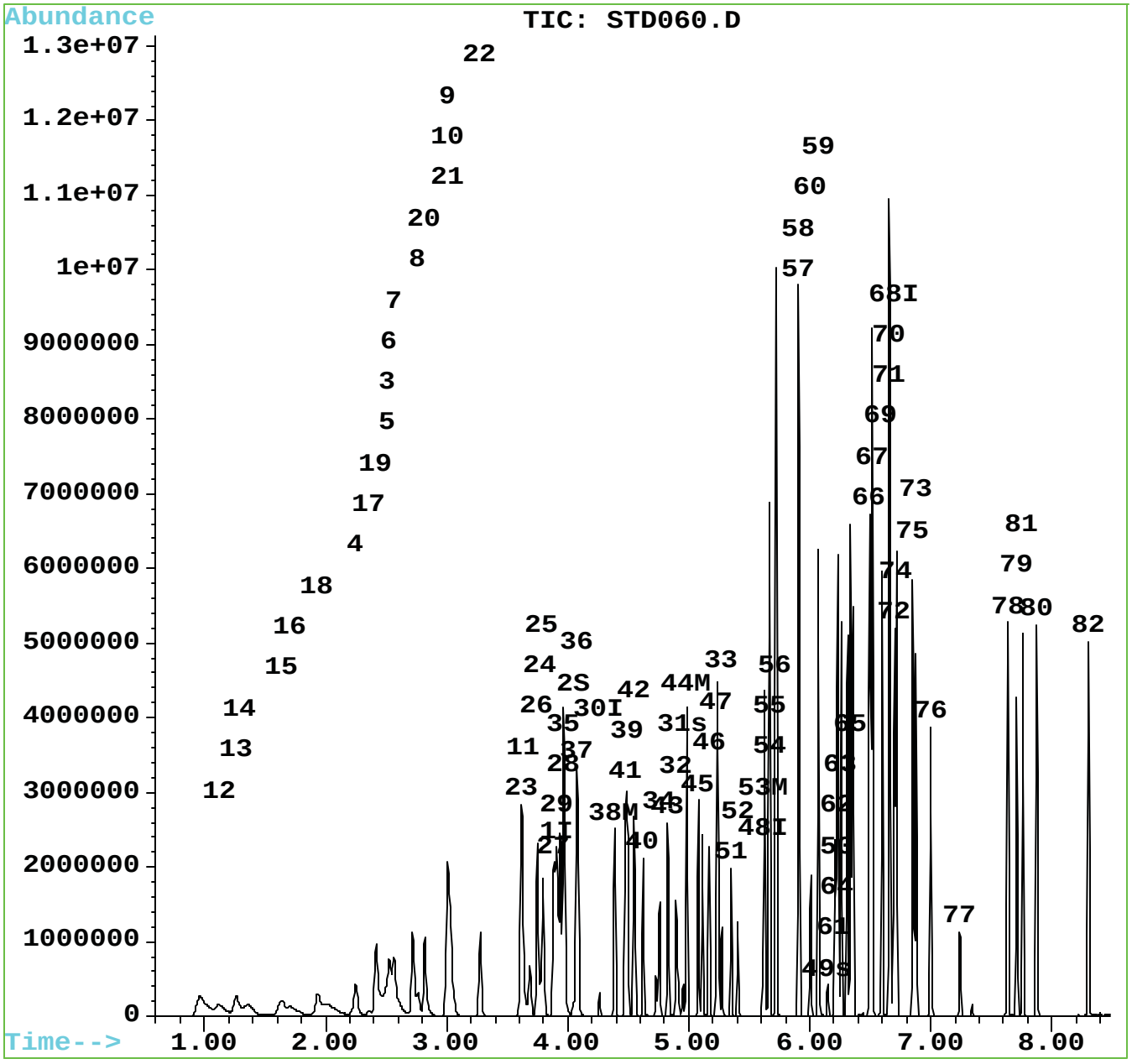
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.25	157	158877	143.68	ug/l	9
78)	1,2,4-Trichlorobenzene	7.64	182	801906	88.79	ug/l	9
79)	Hexachlorobutadiene	7.71	225	496170	110.20	ug/l	9
80)	1,2,3-Trichlorobenzene	7.87	180	734952	106.37	ug/l	9
81)	Naphthalene	7.76	128	1765365	126.60	ug/l	9
82)	2-Methylnaphthalene	8.30	142	1090385	202.74	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std060.d Vial: 1
Acq On : 6 Jul 12 4:05 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 10:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std100.d Vial: 1
Acq On : 6 Jul 12 4:27 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:00 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.91	168	90774	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	113272	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	66650	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.69	152	68136	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.05	65	85236	9.66	ug/l		193.2
31) TOLUENE-D8 (S)	4.95	98	131210	4.96	ug/l		99.2
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	52707	4.63	ug/l		92.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.52	101	699276	97.81	ug/l	m	9
4) Diethyl ether (*)	2.25	74	323780	96.99	ug/l	#	8
5) Acetone (*)	2.51	43	395239	263.01	ug/l		9
6) Methyl iodide (iodomethane	2.53	142	1082297	92.68	ug/l		8
7) Carbon disulfide (*)	2.57	76	1633112	74.78	ug/l		9
8) Methyl Acetate	2.77	43	738483	217.94	ug/l		9
9) tert-Methyl butyl ether (M	3.03	73	2355040	169.30	ug/l		9
10) Acrylonitrile (*)	3.01	53	417638	179.44	ug/l		9
11) 2-Butanone (MEK) (*)	3.64	43	515473	226.25	ug/l		9
12) Dichlorodifluoromethane	1.13	85	1076743	141.46	ug/l		9
13) Chloromethane (SPCC)	1.27	50	906295	100.30	ug/l		9
14) Vinyl Chloride (CCC)	1.37	62	809928	93.70	ug/l		9
15) Bromomethane	1.65	94	569351	139.80	ug/l		9
16) Chloroethane	1.72	64	454318	108.46	ug/l		9
17) Acrolein	2.36	56	132339	137.19	ug/l		9
18) Trichlorofluoromethane	1.94	101	1693520	158.42	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.42	61	1513724	133.92	ug/l		9
20) Methylene Chloride	2.82	84	537956	74.32	ug/l		9
21) trans-1,2-Dichloroethene	3.00	61	1267743	119.10	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.28	63	1440151	111.72	ug/l		9
23) cis-1,2-Dichloroethene	3.62	96	593944	82.51	ug/l		8
24) Tetrahydrofuran	3.77	42	299828	212.44	ug/l	#	
25) Chloroform (CCC)	3.80	83	1429045	127.48	ug/l		9
26) Bromochloromethane	3.75	130	420986	93.75	ug/l		9
27) 1,1,1-Trichloroethane	3.88	97	1730246	175.30	ug/l		9
28) 1,1-Dichloropropene	3.97	75	986950	112.00	ug/l		9
29) Cyclohexane	3.91	42	420016	135.37	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.90	58	370740	208.44	ug/l	#	7
33) 2-Hexanone (*)	5.27	58	410409	235.43	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std100.d Vial: 1
Acq On : 6 Jul 12 4:27 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:00 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.76	63	524264	173.29 ug/l		9
35) Carbon Tetrachloride	3.97	117	1690799	230.91 ug/l		9
36) Benzene (MS)	4.07	78	1950604	90.88 ug/l		9
37) 1,2-Dichloroethane	4.08	62	1744222	234.28 ug/l		9
38) Trichloroethene (MS)	4.39	95	716916	124.75 ug/l		9
39) 1,2-Dichloropropane (CCC)	4.49	63	663639	105.25 ug/l		8
40) Bromodichloromethane	4.62	83	1200380	179.27 ug/l		9
41) Methyl Cyclohexane	4.48	55	1287562	159.34 ug/l	#	8
42) Dibromomethane	4.56	174	560357	149.76 ug/l		9
43) cis-1,3-Dichloropropene	4.83	75	1090772	134.91 ug/l		9
44) Toluene (CCC/MS)	4.99	91	2361668	101.22 ug/l		9
45) trans-1,3-Dichloropropene	5.08	75	1273966	166.36 ug/l		9
46) 1,1,2-Trichloroethane	5.16	83	419328	108.41 ug/l		9
47) Tetrachloroethene	5.23	166	1032821	135.71 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.23	53	442103	263.31 ug/l	#	7
51) Dibromochloromethane	5.35	129	935973	154.51 ug/l		9
52) 1,2-Dibromoethane	5.41	107	683826	118.05 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.63	112	1647308	83.42 ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.66	131	888553	135.13 ug/l		9
55) Ethylbenzene (CCC)	5.67	91	3209150	101.54 ug/l		9
56) p,m-Xylene	5.73	106	2323029	189.66 ug/l		9
57) o-Xylene	5.91	91	2812626	114.18 ug/l		9
58) Styrene	5.91	104	1921452	97.71 ug/l		9
59) Isopropylbenzene	6.07	105	3432847	109.36 ug/l		9
60) Bromoform (SPCC)	6.01	173	745133	167.95 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.21	83	743317	109.47 ug/l		9
62) 1,2,3-Trichloropropane	6.23	110	361184	187.09 ug/l		9
63) n-Propylbenzene	6.26	91	3627617	99.58 ug/l		9
64) Bromobenzene	6.22	156	871213	99.15 ug/l		9
65) 1,3,5-Trimethylbenzene	6.34	120	1240601	94.47 ug/l	#	7
66) tert-Butylbenzene	6.50	91	2440464	144.85 ug/l		9
67) 1,2,4-Trimethylbenzene	6.52	120	1450741	100.07 ug/l	#	7
69) sec-Butylbenzene	6.60	105	3524021	116.20 ug/l		9
70) p-Isopropyltoluene	6.66	119	3314945	137.77 ug/l		9
71) 1,3-Dichlorobenzene	6.66	146	1698289	114.93 ug/l		10
72) 1,4-Dichlorobenzene	6.70	146	1654250	104.78 ug/l		9
73) 1,2-Dichlorobenzene	6.88	146	1595939	107.90 ug/l		9
74) 1,2,3-Trimethylbenzene	6.72	105	3132347	122.96 ug/l		9
75) n-Butylbenzene	6.85	91	2716237	120.26 ug/l		9
76) Hexachloroethane	7.00	201	599618	153.65 ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std100.d Vial: 1
Acq On : 6 Jul 12 4:27 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:00 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

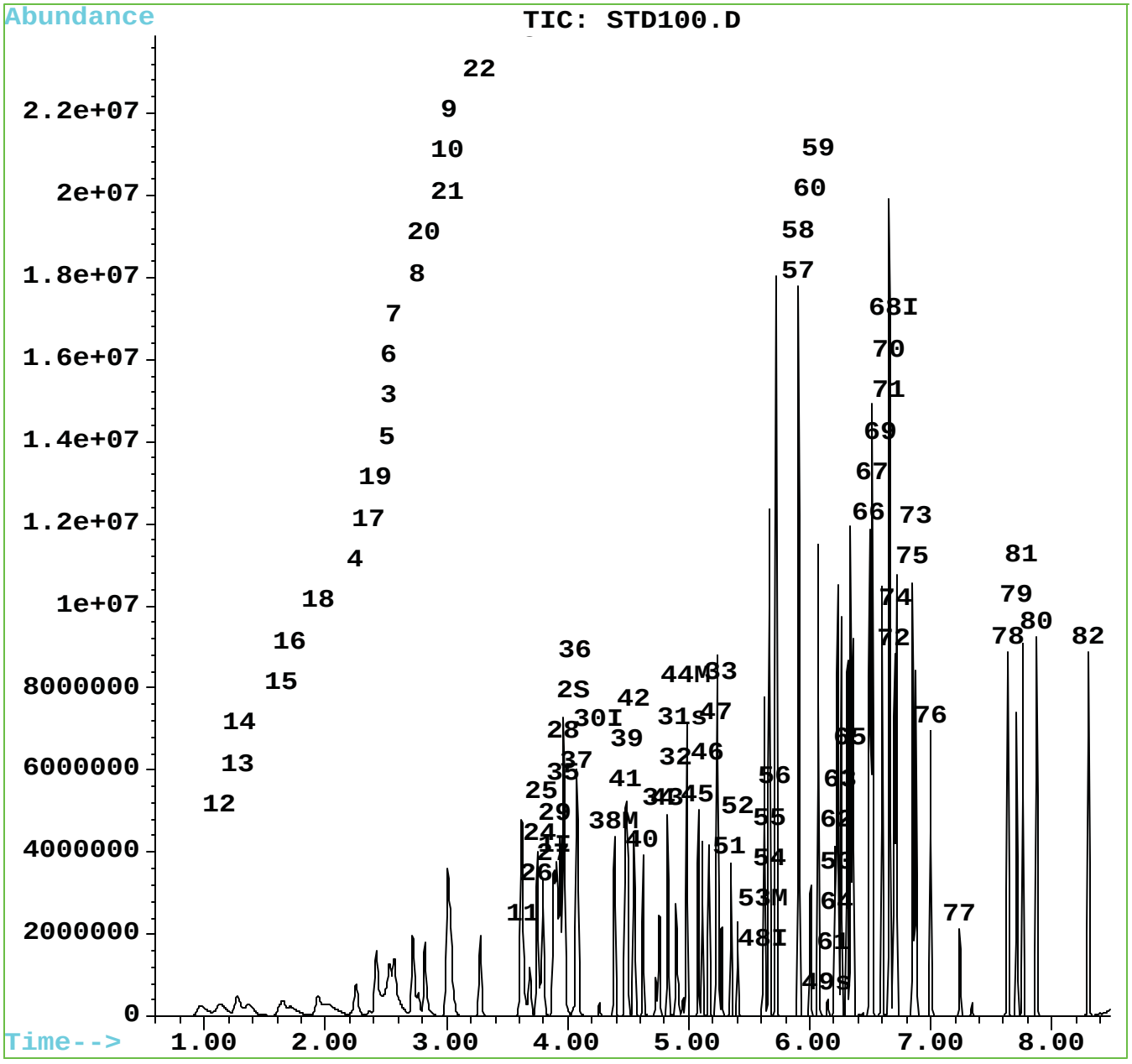
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.24	157	276984	231.73	ug/l	9
78)	1,2,4-Trichlorobenzene	7.64	182	1421292	150.12	ug/l	9
79)	Hexachlorobutadiene	7.71	225	880152	186.49	ug/l	9
80)	1,2,3-Trichlorobenzene	7.87	180	1301957	179.75	ug/l	9
81)	Naphthalene	7.76	128	3091514	211.50	ug/l	9
82)	2-Methylnaphthalene	8.30	142	1935083	343.24	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std100.d Vial: 1
Acq On : 6 Jul 12 4:27 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:00 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std200.d Vial: 1
Acq On : 6 Jul 12 4:49 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:01 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.90	168	93051	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	114057	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	69987	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.69	152	72139	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.05	65	83347	9.22	ug/l		184.3
31) TOLUENE-D8 (S)	4.95	98	131115	4.93	ug/l		98.5
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	54666	4.58	ug/l		91.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.51	101	1464611	199.85	ug/l	m	1
4) Diethyl ether (*)	2.24	74	704936	205.99	ug/l	#	7
5) Acetone (*)	2.51	43	707318	462.08	ug/l		9
6) Methyl iodide (iodomethane	2.53	142	2169732	181.26	ug/l		8
7) Carbon disulfide (*)	2.56	76	3345211	149.43	ug/l		9
8) Methyl Acetate	2.76	43	1482960	426.93	ug/l		9
9) tert-Methyl butyl ether (M	3.02	73	4745588	332.81	ug/l		9
10) Acrylonitrile (*)	3.00	53	813784	341.10	ug/l		9
11) 2-Butanone (MEK) (*)	3.63	43	939905	402.45	ug/l		9
12) Dichlorodifluoromethane	1.13	85	2182194	251.54	ug/l		9
13) Chloromethane (SPCC)	1.27	50	1799682	194.29	ug/l		9
14) Vinyl Chloride (CCC)	1.37	62	1655058	186.79	ug/l		9
15) Bromomethane	1.65	94	1267954	303.72	ug/l		9
16) Chloroethane	1.72	64	975161	227.11	ug/l		9
17) Acrolein	2.35	56	254168	257.03	ug/l		9
18) Trichlorofluoromethane	1.92	101	3290285	300.25	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.41	61	2962365	255.67	ug/l		9
20) Methylene Chloride	2.82	84	1058847	142.70	ug/l		9
21) trans-1,2-Dichloroethene	3.00	61	2516943	230.67	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.27	63	2858168	216.29	ug/l		9
23) cis-1,2-Dichloroethene	3.62	96	1193230	161.71	ug/l		9
24) Tetrahydrofuran	3.77	42	574742	397.26	ug/l	#	
25) Chloroform (CCC)	3.80	83	2865390	249.36	ug/l		9
26) Bromochloromethane	3.75	130	851973	185.09	ug/l		8
27) 1,1,1-Trichloroethane	3.88	97	3497765	345.69	ug/l		9
28) 1,1-Dichloropropene	3.97	75	2013112	222.86	ug/l		9
29) Cyclohexane	3.91	42	735623	231.29	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.90	58	748364	417.85	ug/l	#	7
33) 2-Hexanone (*)	5.27	58	760049	433.00	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std200.d Vial: 1
Acq On : 6 Jul 12 4:49 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:01 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.76	63	1052853	345.62 ug/l	9
35) Carbon Tetrachloride	3.97	117	3416843	463.42 ug/l	9
36) Benzene (MS)	4.07	78	4041591	187.00 ug/l	9
37) 1,2-Dichloroethane	4.08	62	3467357	462.52 ug/l	9
38) Trichloroethene (MS)	4.39	95	1438330	248.57 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.50	63	1324767	208.65 ug/l	8
40) Bromodichloromethane	4.62	83	2436060	361.32 ug/l	9
41) Methyl Cyclohexane	4.48	55	2505633	307.94 ug/l #	8
42) Dibromomethane	4.56	174	1155509	306.69 ug/l	9
43) cis-1,3-Dichloropropene	4.83	75	2200244	270.25 ug/l	9
44) Toluene (CCC/MS)	4.99	91	5015698	213.49 ug/l	9
45) trans-1,3-Dichloropropene	5.08	75	2618716	339.61 ug/l	9
46) 1,1,2-Trichloroethane	5.17	83	858876	220.51 ug/l	9
47) Tetrachloroethene	5.24	166	1847629	241.11 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	870072	453.35 ug/l #	7
51) Dibromochloromethane	5.35	129	1943660	305.55 ug/l	9
52) 1,2-Dibromoethane	5.41	107	1397143	229.68 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.63	112	3507166	169.14 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	1860171	269.39 ug/l	9
55) Ethylbenzene (CCC)	5.67	91	6693845	201.71 ug/l	9
56) p,m-Xylene	5.73	106	5397044	419.62 ug/l #	6
57) o-Xylene	5.91	91	6127361	236.89 ug/l	9
58) Styrene	5.91	104	4406395	213.39 ug/l	9
59) Isopropylbenzene	6.08	105	6995608	212.23 ug/l	9
60) Bromoform (SPCC)	6.01	173	1589247	318.27 ug/l	10
61) 1,1,2,2-Tetrachloroethane	6.21	83	1559780	218.76 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	750329	370.13 ug/l	9
63) n-Propylbenzene	6.27	91	6971929	182.26 ug/l	9
64) Bromobenzene	6.23	156	1905591	206.54 ug/l	9
65) 1,3,5-Trimethylbenzene	6.34	120	2763641	200.41 ug/l	8
66) tert-Butylbenzene	6.50	91	5076738	286.95 ug/l	9
67) 1,2,4-Trimethylbenzene	6.52	120	3313780	217.68 ug/l #	6
69) sec-Butylbenzene	6.60	105	7026779	218.85 ug/l	9
70) p-Isopropyltoluene	6.66	119	6953628	272.95 ug/l	9
71) 1,3-Dichlorobenzene	6.66	146	3924502	250.85 ug/l	9
72) 1,4-Dichlorobenzene	6.70	146	3573813	213.81 ug/l	9
73) 1,2-Dichlorobenzene	6.88	146	3420926	218.45 ug/l	9
74) 1,2,3-Trimethylbenzene	6.72	105	6474371	240.05 ug/l	9
75) n-Butylbenzene	6.86	91	5653583	236.43 ug/l	9
76) Hexachloroethane	7.00	201	1295266	293.92 ug/l	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std200.d Vial: 1
Acq On : 6 Jul 12 4:49 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:01 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

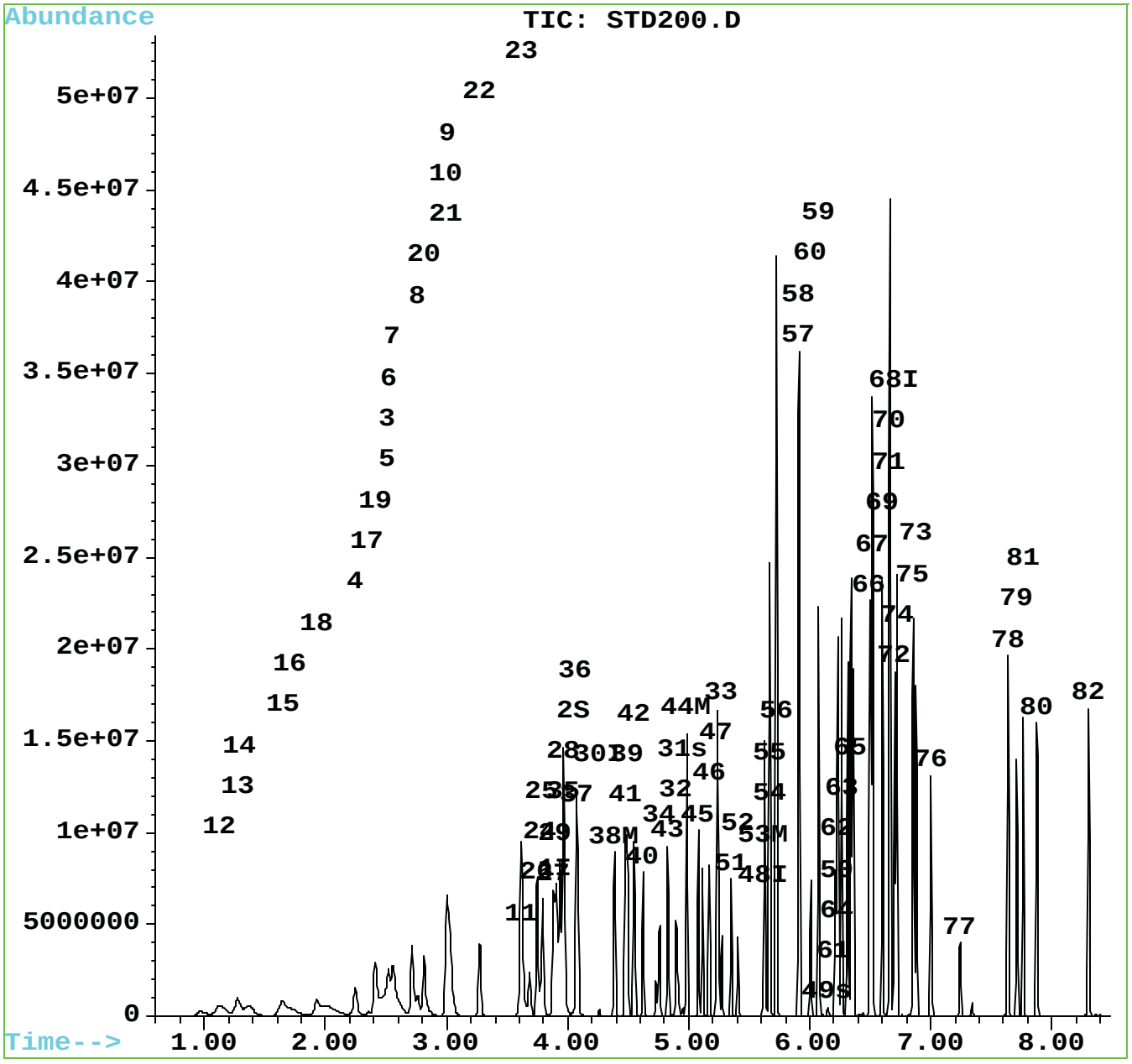
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.25	157	580163	429.32	ug/l	9
78)	1,2,4-Trichlorobenzene	7.64	182	2860075	285.33	ug/l	9
79)	Hexachlorobutadiene	7.71	225	1632347	326.68	ug/l	9
80)	1,2,3-Trichlorobenzene	7.88	180	2522901	328.99	ug/l	9
81)	Naphthalene	7.76	128	6355983	410.71	ug/l	9
82)	2-Methylnaphthalene	8.30	142	3616886	605.95	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\std200.d Vial: 1
Acq On : 6 Jul 12 4:49 pm Operator: lbr
Sample : 2dr0706 1c0706 4ac0612 2ch0612 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:01 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\icv06a.d Vial: 2
Acq On : 7 Jul 12 12:01 am Operator: lbr
Sample : 2dr0706 1m0706 1mch0706 1mac0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:06 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.89	168	92275	5.00	ug/l		-0.0
30) 1,4-DIFLUOROBENZENE (I)	4.25	114	109576	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	66700	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.68	152	64921	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.03	65	84144	4.94	ug/l		98.7
31) TOLUENE-D8 (S)	4.94	98	128790	5.11	ug/l		102.1
49) 4-BROMOFLUOROBENZENE (S)	6.14	174	53591	5.08	ug/l		101.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.48	101	341782	50.04	ug/l	m	9
4) Diethyl ether (*)	2.22	74	151357	47.80	ug/l		8
5) Acetone (*)	2.47	43	196013	50.35	ug/l		8
6) Methyl iodide (iodomethane	2.50	142	511454	48.53	ug/l		8
7) Carbon disulfide (*)	2.54	76	739558	48.64	ug/l		9
8) Methyl Acetate	2.74	43	369350	51.41	ug/l		9
9) tert-Methyl butyl ether (M	3.00	73	1165343	50.56	ug/l		9
10) Acrylonitrile (*)	2.98	53	218190	53.31	ug/l		9
11) 2-Butanone (MEK) (*)	3.62	43	267769	51.40	ug/l		9
12) Dichlorodifluoromethane	1.12	85	356145	37.07	ug/l		9
13) Chloromethane (SPCC)	1.25	50	398517	45.11	ug/l		9
14) Vinyl Chloride (CCC)	1.35	62	343851	45.01	ug/l		9
15) Bromomethane	1.62	94	251234	47.67	ug/l		9
16) Chloroethane	1.69	64	212218	48.21	ug/l	#	7
17) Acrolein	2.33	56	59902	45.32	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.39	61	701067	47.64	ug/l		9
20) Methylene Chloride	2.79	84	256670	48.20	ug/l		9
21) trans-1,2-Dichloroethene	2.98	61	601668	48.43	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.26	63	682238	47.96	ug/l		9
23) cis-1,2-Dichloroethene	3.60	96	284674	48.07	ug/l		9
24) Tetrahydrofuran	3.76	42	157345	50.19	ug/l		9
25) Chloroform (CCC)	3.78	83	690912	48.74	ug/l		9
26) Bromochloromethane	3.73	130	204002	49.42	ug/l		9
27) 1,1,1-Trichloroethane	3.87	97	821119	48.04	ug/l		9
28) 1,1-Dichloropropene	4.06	75	22571	2.33	ug/l	#	
29) Cyclohexane	3.90	42	161251	39.91	ug/l	#	2
32) 4-Methyl-2-pentanone (MIBK	4.89	58	199424	55.58	ug/l		9
33) 2-Hexanone (*)	5.26	58	201487	54.26	ug/l		9
34) 2-chloroethylvinyl ether	4.75	63	261728	53.69	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\icv06a.d Vial: 2
Acq On : 7 Jul 12 12:01 am Operator: lbr
Sample : 2dr0706 1m0706 1mch0706 1mac0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:06 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
35) Carbon Tetrachloride	3.95	117	796116	50.41 ug/l	9
36) Benzene (MS)	4.06	78	922931	49.17 ug/l	9
37) 1,2-Dichloroethane	4.07	62	853914	50.53 ug/l	9
38) Trichloroethene (MS)	4.37	95	343414	51.35 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.48	63	321484	50.09 ug/l	8
40) Bromodichloromethane	4.61	83	574709	51.85 ug/l	9
41) Methyl Cyclohexane	4.47	55	614439	49.25 ug/l #	7
42) Dibromomethane	4.55	174	268399	50.66 ug/l	9
43) cis-1,3-Dichloropropene	4.82	75	502903	49.36 ug/l	9
44) Toluene (CCC/MS)	4.98	91	1120464	49.57 ug/l	9
45) trans-1,3-Dichloropropene	5.07	75	583995	46.79 ug/l	9
46) 1,1,2-Trichloroethane	5.16	83	209208	52.59 ug/l	9
47) Tetrachloroethene	5.23	166	384551	45.01 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	206302	46.10 ug/l #	7
51) Dibromochloromethane	5.34	129	445263	52.30 ug/l	9
52) 1,2-Dibromoethane	5.40	107	328080	50.60 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.62	112	784062	48.60 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	413284	49.12 ug/l	9
55) Ethylbenzene (CCC)	5.66	91	1486752	48.09 ug/l	9
56) p,m-Xylene	5.71	106	1036120	91.99 ug/l	9
57) o-Xylene	5.90	91	1298397	48.15 ug/l	9
58) Styrene	5.91	104	832805	45.35 ug/l	9
59) Isopropylbenzene	6.07	105	1569461	48.05 ug/l	9
60) Bromoform (SPCC)	6.00	173	355219	49.55 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.20	83	336748	47.47 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	175691	50.38 ug/l	9
63) n-Propylbenzene	6.26	91	1689632	49.15 ug/l	9
64) Bromobenzene	6.22	156	416782	49.07 ug/l	9
65) 1,3,5-Trimethylbenzene	6.34	120	567962	47.61 ug/l #	7
66) tert-Butylbenzene	6.50	91	1124823	47.88 ug/l	8
67) 1,2,4-Trimethylbenzene	6.52	120	657678	46.77 ug/l #	7
69) sec-Butylbenzene	6.60	105	1588855	48.85 ug/l	9
70) p-Isopropyltoluene	6.66	119	1448252	48.65 ug/l	9
71) 1,3-Dichlorobenzene	6.66	146	754383	47.26 ug/l	9
72) 1,4-Dichlorobenzene	6.70	146	764154	48.12 ug/l	9
73) 1,2-Dichlorobenzene	6.88	146	750932	49.28 ug/l	9
74) 1,2,3-Trimethylbenzene	6.72	105	1434133	48.88 ug/l	9
75) n-Butylbenzene	6.85	91	1210909	47.71 ug/l	10
76) Hexachloroethane	7.00	201	265467	48.10 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.25	157	138499	52.47 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\icv06a.d Vial: 2
Acq On : 7 Jul 12 12:01 am Operator: lbr
Sample : 2dr0706 1m0706 1mch0706 1mac0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:06 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration

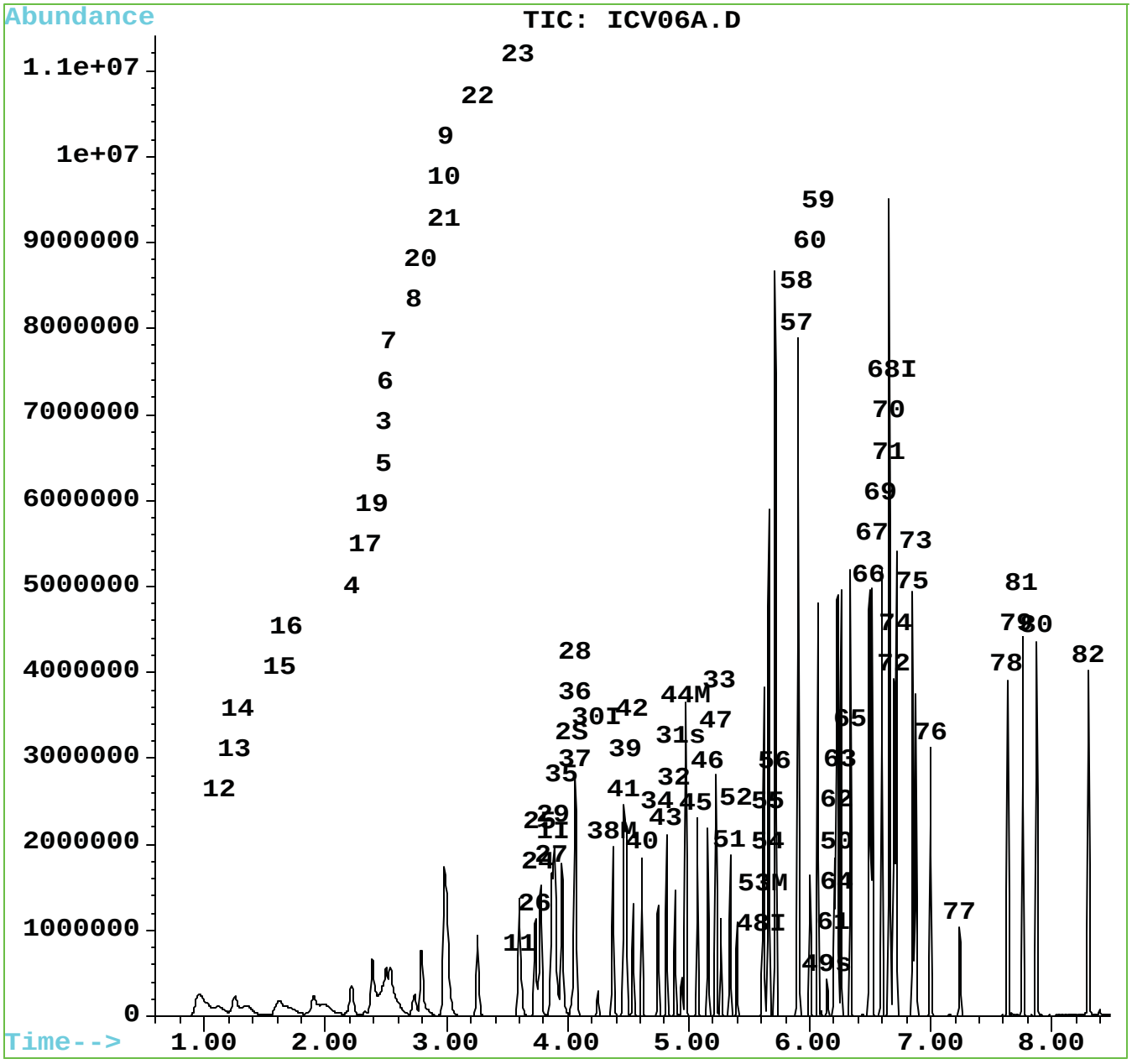
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
78)	1,2,4-Trichlorobenzene	7.64	182	635544	48.07	ug/l	9
79)	Hexachlorobutadiene	7.71	225	2525	0.31	ug/l	9
80)	1,2,3-Trichlorobenzene	7.87	180	608410	50.44	ug/l	9
81)	Naphthalene	7.76	128	1484809	51.72	ug/l	9
82)	2-Methylnaphthalene	8.30	142	878574	52.26	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\methods\wr120706.m\icv06a.d Vial: 2
Acq On : 7 Jul 12 12:01 am Operator: lbr
Sample : 2dr0706 1m0706 1mch0706 1mac0706 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 9 11:06 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:21:00 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120720a5.2
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc20a.d	07/20/12 11:30	1,1,2-Trichloro-1,2,2-trifluoroethane	0.302	0.05
		Diethyl ether	0.077	0.05
		Acetone	0.018	0.01
		Methyl iodide	0.599	0.05
		Carbon disulfide	0.777	0.05
		Methyl acetate	0.050	0.05
		tert-Methyl butyl ether	0.377	0.05
		Acrylonitrile	0.033	0.01
		2-Butanone	0.025	0.01
		Dichlorodifluoromethane	0.198	0.05
		Chloromethane	0.200	0.10
		Vinyl Chloride	0.249	0.05
		Bromomethane	0.101	0.05
		Chloroethane	0.050	0.05
		Trichlorofluoromethane	0.305	0.05
		1,1-Dichloroethene	0.297	0.05
		Methylene Chloride	0.248	0.05
		trans-1,2-Dichloroethene	0.294	0.05
		1,1-Dichloroethane	0.362	0.10
		cis-1,2-Dichloroethene	0.301	0.05
		Tetrahydrofuran	0.021	0.01
		Chloroform	0.388	0.05
		Bromochloromethane	0.187	0.05
		1,1,1-Trichloroethane	0.417	0.05
		Cyclohexane	0.088	0.05
		4-Methyl-2-pentanone	0.025	0.01
		2-Hexanone	0.022	0.01
		Carbon Tetrachloride	0.363	0.05
		Benzene	0.932	0.05
		1,2-Dichloroethane	0.163	0.05
		Trichloroethene	0.263	0.05
		1,2-Dichloropropane	0.176	0.05
		Bromodichloromethane	0.232	0.05
		Methyl cyclohexane	0.274	0.05
		Dibromomethane	0.176	0.05
		cis-1,3-Dichloropropene	0.296	0.05
		Toluene	1.142	0.05
		trans-1,3-Dichloropropene	0.223	0.05
		1,1,2-Trichloroethane	0.111	0.05
		Tetrachloroethene	0.477	0.05
		trans-1,4-Dichloro-2-butene	0.063	0.05
		Dibromochloromethane	0.563	0.05
		1,2-Dibromoethane	0.428	0.05
		Chlorobenzene	2.213	0.30
		1,1,1,2-Tetrachloroethane	0.765	0.05
		Ethylbenzene	3.488	0.05
		p,m-Xylene	1.499	0.05
		o-Xylene	2.642	0.05
		Styrene	2.204	0.05
		Isopropylbenzene	4.004	0.05
		Bromoform	0.356	0.10
		1,1,2,2-Tetrachloroethane	0.385	0.30
		1,2,3-Trichloropropane	0.129	0.05
		n-Propylbenzene	4.059	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120720a5.2
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	1.047	0.05
		1,3,5-Trimethylbenzene	1.827	0.05
		tert-Butylbenzene	1.877	0.05
		1,2,4-Trimethylbenzene	1.927	0.05
		sec-Butylbenzene	3.315	0.05
		p-Isopropyltoluene	2.840	0.05
		1,3-Dichlorobenzene	1.451	0.05
		1,4-Dichlorobenzene	1.462	0.05
		1,2-Dichlorobenzene	1.302	0.05
		1,2,3-Trimethylbenzene	2.141	0.05
		n-Butylbenzene	2.203	0.05
		Hexachloroethane	0.602	0.05
		1,2-Dibromo-3-Chloropropane	0.067	0.05
		1,2,4-Trichlorobenzene	0.932	0.05
		1,2,3-Trichlorobenzene	0.714	0.05
		Naphthalene	1.088	0.05
		2-Methylnaphthalene	0.472	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica
Initial Calibration Date: (see Form 6)

Analytical Batch: 120726a7.1
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc26a.d	07/26/12 11:47	1,1,2-Trichloro-1,2,2-trifluoroethane	0.325	0.05
		Diethyl ether	0.135	0.05
		Acetone	0.188	0.01
		Methyl iodide	0.565	0.05
		Carbon disulfide	0.811	0.05
		Methyl acetate	0.247	0.05
		tert-Methyl butyl ether	1.083	0.05
		Acrylonitrile	0.148	0.01
		2-Butanone	0.177	0.01
		Dichlorodifluoromethane	0.416	0.05
		Chloromethane	0.393	0.10
		Vinyl Chloride	0.341	0.05
		Bromomethane	0.223	0.05
		Chloroethane	0.199	0.05
		Trichlorofluoromethane	0.898	0.05
		1,1-Dichloroethene	0.761	0.05
		Methylene Chloride	0.275	0.05
		trans-1,2-Dichloroethene	0.658	0.05
		1,1-Dichloroethane	0.734	0.10
		cis-1,2-Dichloroethene	0.311	0.05
		Tetrahydrofuran	0.096	0.01
		Chloroform	0.771	0.05
		Bromochloromethane	0.220	0.05
		1,1,1-Trichloroethane	0.991	0.05
		Cyclohexane	0.184	0.05
		4-Methyl-2-pentanone	0.106	0.01
		2-Hexanone	0.111	0.01
		Carbon Tetrachloride	0.817	0.05
		Benzene	0.852	0.05
		1,2-Dichloroethane	0.788	0.05
		Trichloroethene	0.322	0.05
		1,2-Dichloropropane	0.285	0.05
		Bromodichloromethane	0.545	0.05
		Methyl cyclohexane	0.545	0.05
		Dibromomethane	0.246	0.05
		cis-1,3-Dichloropropene	0.474	0.05
		Toluene	1.065	0.05
		trans-1,3-Dichloropropene	0.536	0.05
		1,1,2-Trichloroethane	0.172	0.05
		Tetrachloroethene	0.404	0.05
		trans-1,4-Dichloro-2-butene	0.147	0.05
		Dibromochloromethane	0.677	0.05
		1,2-Dibromoethane	0.451	0.05
		Chlorobenzene	1.227	0.30
		1,1,1,2-Tetrachloroethane	0.687	0.05
		Ethylbenzene	2.452	0.05
		p,m-Xylene	0.856	0.05
		o-Xylene	2.150	0.05
		Styrene	1.404	0.05
		Isopropylbenzene	2.601	0.05
		Bromoform	0.486	0.10
		1,1,2,2-Tetrachloroethane	0.429	0.30
		1,2,3-Trichloropropane	0.219	0.05
		n-Propylbenzene	2.749	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica
Initial Calibration Date: (see Form 6)

Analytical Batch: 120726a7.1
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	0.680	0.05
		1,3,5-Trimethylbenzene	0.935	0.05
		tert-Butylbenzene	1.877	0.05
		1,2,4-Trimethylbenzene	1.090	0.05
		sec-Butylbenzene	2.524	0.05
		p-Isopropyltoluene	2.375	0.05
		1,3-Dichlorobenzene	1.259	0.05
		1,4-Dichlorobenzene	1.249	0.05
		1,2-Dichlorobenzene	1.179	0.05
		1,2,3-Trimethylbenzene	2.302	0.05
		n-Butylbenzene	1.987	0.05
		Hexachloroethane	0.409	0.05
		1,2-Dibromo-3-Chloropropane	0.132	0.05
		1,2,4-Trichlorobenzene	0.963	0.05
		1,2,3-Trichlorobenzene	0.813	0.05
		Naphthalene	1.597	0.05
		2-Methylnaphthalene	0.892	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
spcc20a.d	07/20/12 11:30	1,1,2-Trichloro-1,2,2-trifluoroet	47.0/ 50.0		6.0/ 20.0
		Diethyl ether	42.0/ 50.0		15.9/ 20.0
		Acetone	46.3/ 50.0		7.4/ 20.0
		Methyl iodide	44.4/ 50.0		11.3/ 20.0
		Carbon disulfide	40.7/ 50.0		18.6/ 20.0
		Methyl acetate	36.7/ 50.0	*	26.7/ 20.0
		tert-Methyl butyl ether	40.4/ 50.0		19.2/ 20.0
		Acrylonitrile	39.9/ 50.0	*	20.2/ 20.0
		2-Butanone	43.8/ 50.0		12.3/ 20.0
		Dichlorodifluoromethane	49.1/ 50.0		1.8/ 20.0
		Chloromethane	43.8/ 50.0		12.5/ 20.0
		Vinyl Chloride	48.3/ 50.0		3.5/ 20.0
		Bromomethane	43.7/ 50.0		12.6/ 20.0
		Chloroethane	45.5/ 50.0		8.9/ 20.0
		Trichlorofluoromethane	50.6/ 50.0		1.3/ 20.0
		1,1-Dichloroethene	46.5/ 50.0		6.9/ 20.0
		Methylene Chloride	40.1/ 50.0		19.7/ 20.0
		trans-1,2-Dichloroethene	44.1/ 50.0		11.8/ 20.0
		1,1-Dichloroethane	43.5/ 50.0		13.1/ 20.0
		cis-1,2-Dichloroethene	43.3/ 50.0		13.5/ 20.0
		Tetrahydrofuran	38.0/ 50.0	*	24.0/ 20.0
		Chloroform	43.3/ 50.0		13.5/ 20.0
		Bromochloromethane	41.9/ 50.0		16.1/ 20.0
		1,1,1-Trichloroethane	47.6/ 50.0		4.9/ 20.0
		Cyclohexane	43.4/ 50.0		13.3/ 20.0
		4-Methyl-2-pentanone	39.8/ 50.0	*	20.5/ 20.0
		2-Hexanone	43.3/ 50.0		13.4/ 20.0
		Carbon Tetrachloride	51.1/ 50.0		2.2/ 20.0
		Benzene	46.7/ 50.0		6.7/ 20.0
		1,2-Dichloroethane	45.2/ 50.0		9.7/ 20.0
		Trichloroethene	48.1/ 50.0		3.7/ 20.0
		1,2-Dichloropropane	45.4/ 50.0		9.3/ 20.0
		Bromodichloromethane	47.7/ 50.0		4.7/ 20.0
		Methyl cyclohexane	48.5/ 50.0		2.9/ 20.0
		Dibromomethane	46.6/ 50.0		6.8/ 20.0
		cis-1,3-Dichloropropene	48.8/ 50.0		2.4/ 20.0
		Toluene	48.7/ 50.0		2.6/ 20.0
		trans-1,3-Dichloropropene	48.9/ 50.0		2.2/ 20.0
		1,1,2-Trichloroethane	44.5/ 50.0		11.0/ 20.0
		Tetrachloroethene	49.2/ 50.0		1.6/ 20.0
		trans-1,4-Dichloro-2-butene	45.9/ 50.0		8.3/ 20.0
		Dibromochloromethane	49.4/ 50.0		1.2/ 20.0
		1,2-Dibromoethane	46.6/ 50.0		6.7/ 20.0
		Chlorobenzene	47.8/ 50.0		4.4/ 20.0
		1,1,1,2-Tetrachloroethane	49.4/ 50.0		1.2/ 20.0
		Ethylbenzene	50.2/ 50.0		0.5/ 20.0
		p,m-Xylene	101.1/100.0		1.1/ 20.0
		o-Xylene	49.9/ 50.0		0.2/ 20.0
		Styrene	51.2/ 50.0		2.3/ 20.0
		Isopropylbenzene	51.3/ 50.0		2.5/ 20.0
		Bromoform	44.9/ 50.0		10.1/ 20.0
		1,1,2,2-Tetrachloroethane	45.0/ 50.0		9.9/ 20.0
		1,2,3-Trichloropropane	45.9/ 50.0		8.2/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120720a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	50.5/ 50.0	1.1/ 20.0
		Bromobenzene	47.6/ 50.0	4.9/ 20.0
		1,3,5-Trimethylbenzene	50.7/ 50.0	1.4/ 20.0
		tert-Butylbenzene	50.9/ 50.0	1.8/ 20.0
		1,2,4-Trimethylbenzene	50.6/ 50.0	1.3/ 20.0
		sec-Butylbenzene	52.3/ 50.0	4.6/ 20.0
		p-Isopropyltoluene	53.1/ 50.0	6.1/ 20.0
		1,3-Dichlorobenzene	49.7/ 50.0	0.7/ 20.0
		1,4-Dichlorobenzene	48.7/ 50.0	2.6/ 20.0
		1,2-Dichlorobenzene	47.9/ 50.0	4.2/ 20.0
		1,2,3-Trimethylbenzene	48.4/ 50.0	3.3/ 20.0
		n-Butylbenzene	52.0/ 50.0	3.9/ 20.0
		Hexachloroethane	47.5/ 50.0	5.0/ 20.0
		1,2-Dibromo-3-Chloropropane	44.7/ 50.0	10.7/ 20.0
		1,2,4-Trichlorobenzene	50.2/ 50.0	0.5/ 20.0
		1,2,3-Trichlorobenzene	47.1/ 50.0	5.7/ 20.0
		Naphthalene	48.0/ 50.0	4.1/ 20.0
		2-Methylnaphthalene	41.1/ 50.0	17.9/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica
Initial Calibration Date: (see Form 6)

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
spcc26a.d	07/26/12 11:47	1,1,2-Trichloro-1,2,2-trifluoroet	43.9/ 50.0		12.1/ 20.0
		Diethyl ether	39.3/ 50.0	*	21.5/ 20.0
		Acetone	43.4/ 50.0		13.2/ 20.0
		Methyl iodide	49.5/ 50.0		1.0/ 20.0
		Carbon disulfide	49.2/ 50.0		1.6/ 20.0
		Methyl acetate	31.8/ 50.0	*	36.5/ 20.0
		tert-Methyl butyl ether	43.3/ 50.0		13.3/ 20.0
		Acrylonitrile	33.3/ 50.0	*	33.4/ 20.0
		2-Butanone	31.4/ 50.0	*	37.1/ 20.0
		Dichlorodifluoromethane	39.9/ 50.0	*	20.3/ 20.0
		Chloromethane	41.1/ 50.0		17.9/ 20.0
		Vinyl Chloride	41.2/ 50.0		17.7/ 20.0
		Bromomethane	39.1/ 50.0	*	21.9/ 20.0
		Chloroethane	41.6/ 50.0		16.8/ 20.0
		Trichlorofluoromethane	50.2/ 50.0		0.3/ 20.0
		1,1-Dichloroethene	47.7/ 50.0		4.5/ 20.0
		Methylene Chloride	47.6/ 50.0		4.7/ 20.0
		trans-1,2-Dichloroethene	48.9/ 50.0		2.2/ 20.0
		1,1-Dichloroethane	47.6/ 50.0		4.8/ 20.0
		cis-1,2-Dichloroethene	48.4/ 50.0		3.2/ 20.0
		Tetrahydrofuran	28.3/ 50.0	*	43.4/ 20.0
		Chloroform	50.2/ 50.0		0.4/ 20.0
		Bromochloromethane	49.2/ 50.0		1.6/ 20.0
		1,1,1-Trichloroethane	53.5/ 50.0		7.0/ 20.0
		Cyclohexane	42.1/ 50.0		15.8/ 20.0
		4-Methyl-2-pentanone	33.7/ 50.0	*	32.7/ 20.0
		2-Hexanone	33.2/ 50.0	*	33.7/ 20.0
		Carbon Tetrachloride	56.7/ 50.0		13.4/ 20.0
		Benzene	49.7/ 50.0		0.6/ 20.0
		1,2-Dichloroethane	51.1/ 50.0		2.3/ 20.0
		Trichloroethene	52.7/ 50.0		5.5/ 20.0
		1,2-Dichloropropane	48.7/ 50.0		2.7/ 20.0
		Bromodichloromethane	53.9/ 50.0		7.7/ 20.0
		Methyl cyclohexane	47.9/ 50.0		4.3/ 20.0
		Dibromomethane	50.8/ 50.0		1.7/ 20.0
		cis-1,3-Dichloropropene	51.0/ 50.0		2.0/ 20.0
		Toluene	51.6/ 50.0		3.3/ 20.0
		trans-1,3-Dichloropropene	50.1/ 50.0		0.2/ 20.0
		1,1,2-Trichloroethane	47.2/ 50.0		5.6/ 20.0
		Tetrachloroethene	51.8/ 50.0		3.5/ 20.0
		trans-1,4-Dichloro-2-butene	23.2/ 50.0	*	53.6/ 20.0
		Dibromochloromethane	53.1/ 50.0		6.1/ 20.0
		1,2-Dibromoethane	46.4/ 50.0		7.2/ 20.0
		Chlorobenzene	50.7/ 50.0		1.5/ 20.0
		1,1,1,2-Tetrachloroethane	54.5/ 50.0		8.9/ 20.0
		Ethylbenzene	52.9/ 50.0		5.8/ 20.0
		p,m-Xylene	101.5/100.0		1.5/ 20.0
		o-Xylene	53.2/ 50.0		6.4/ 20.0
		Styrene	51.0/ 50.0		1.9/ 20.0
		Isopropylbenzene	53.1/ 50.0		6.3/ 20.0
		Bromoform	43.1/ 50.0		13.8/ 20.0
		1,1,2,2-Tetrachloroethane	40.3/ 50.0		19.4/ 20.0
		1,2,3-Trichloropropane	41.9/ 50.0		16.3/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.07.Ravnica
Initial Calibration Date: (see Form 6)

Analytical Batch: 120726a7.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
		n-Propylbenzene	53.3/ 50.0		6.7/ 20.0
		Bromobenzene	53.4/ 50.0		6.8/ 20.0
		1,3,5-Trimethylbenzene	52.3/ 50.0		4.6/ 20.0
		tert-Butylbenzene	53.3/ 50.0		6.6/ 20.0
		1,2,4-Trimethylbenzene	51.7/ 50.0		3.4/ 20.0
		sec-Butylbenzene	50.4/ 50.0		0.7/ 20.0
		p-Isopropyltoluene	51.8/ 50.0		3.6/ 20.0
		1,3-Dichlorobenzene	51.2/ 50.0		2.4/ 20.0
		1,4-Dichlorobenzene	51.1/ 50.0		2.2/ 20.0
		1,2-Dichlorobenzene	50.3/ 50.0		0.5/ 20.0
		1,2,3-Trimethylbenzene	50.9/ 50.0		1.9/ 20.0
		n-Butylbenzene	50.9/ 50.0		1.7/ 20.0
		Hexachloroethane	51.9/ 50.0		3.9/ 20.0
		1,2-Dibromo-3-Chloropropane	34.9/ 50.0	*	30.1/ 20.0
		1,2,4-Trichlorobenzene	47.3/ 50.0		5.4/ 20.0
		1,2,3-Trichlorobenzene	43.8/ 50.0		12.5/ 20.0
		Naphthalene	36.1/ 50.0	*	27.8/ 20.0
		2-Methylnaphthalene	34.0/ 50.0	*	32.0/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\spcc20a.d Vial: 2
Acq On : 20 Jul 12 11:30 am Operator: lbr
Sample : spcc/ccc 1s0720 1v0720 Inst : Urborg
Misc : s/50 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	620765	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	688790	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	245936	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	326882	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	103691	44.18	ug/l		88.3
31) TOLUENE-D8 (S)	5.02	98	699967	50.30	ug/l		100.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	288736	49.37	ug/l		98.7
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	187536	46.99	ug/l		9
4) Diethyl ether (*)	2.34	74	48219	42.04	ug/l		9
5) Acetone (*)	2.58	43	10699	46.30	ug/l	#	9
6) Methyl iodide (iodomethane	2.62	142	371736	44.35	ug/l		9
7) Carbon disulfide (*)	2.67	76	482487	40.68	ug/l		9
8) Methyl Acetate	2.84	43	30716	36.65	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	234023	40.41	ug/l		9
10) Acrylonitrile (*)	3.07	53	20306	39.90	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	15715	43.83	ug/l		9
12) Dichlorodifluoromethane	1.23	85	123385	49.09	ug/l		9
13) Chloromethane (SPCC)	1.34	50	124632	43.77	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	154624	48.27	ug/l		9
15) Bromomethane	1.73	94	62198	43.71	ug/l		10
16) Chloroethane	1.82	64	31098	45.53	ug/l		9
18) Trichlorofluoromethane	2.03	101	188991	50.63	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	184516	46.53	ug/l		8
20) Methylene Chloride	2.90	84	153878	40.14	ug/l		9
21) trans-1,2-Dichloroethene	3.07	61	182100	44.10	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.34	63	224654	43.45	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	186973	43.27	ug/l		8
24) Tetrahydrofuran	3.84	42	13012	37.99	ug/l		9
25) Chloroform (CCC)	3.85	83	240491	43.26	ug/l		9
26) Bromochloromethane	3.81	130	115930	41.93	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	258926	47.57	ug/l	#	4
28) 1,1-Dichloropropene	4.03	75	211022	46.29	ug/l		9
29) Cyclohexane	3.98	42	54499	43.35	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	17466	39.76	ug/l		9
33) 2-Hexanone (*)	5.34	58	14824	43.30	ug/l		9
35) Carbon Tetrachloride	4.04	117	249571	51.10	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\spcc20a.d Vial: 2
Acq On : 20 Jul 12 11:30 am Operator: lbr
Sample : spcc/ccc 1s0720 1v0720 Inst : Urborg
Misc : s/50 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	642393	46.66 ug/l	9
37) 1,2-Dichloroethane	4.15	62	112609	45.16 ug/l	9
38) Trichloroethene (MS)	4.45	95	180794	48.13 ug/l	8
39) 1,2-Dichloropropane (CCC)	4.56	63	121406	45.37 ug/l	9
40) Bromodichloromethane	4.68	83	159482	47.66 ug/l	9
41) Methyl Cyclohexane	4.54	55	188762	48.54 ug/l	8
42) Dibromomethane	4.62	174	121233	46.62 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	203731	48.82 ug/l	9
44) Toluene (CCC/MS)	5.05	91	786429	48.68 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	153532	48.91 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	76858	44.48 ug/l	9
47) Tetrachloroethene	5.31	166	328350	49.19 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	15590	45.87 ug/l #	7
51) Dibromochloromethane	5.42	129	138650	49.42 ug/l	9
52) 1,2-Dibromoethane	5.48	107	105200	46.63 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	544264	47.79 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	188075	49.42 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	857718	50.23 ug/l	9
56) p,m-Xylene	5.79	106	737495	101.10 ug/l	9
57) o-Xylene	5.98	91	649836	49.91 ug/l	9
58) Styrene	5.99	104	542061	51.16 ug/l	9
59) Isopropylbenzene	6.15	105	984713	51.27 ug/l	9
60) Bromoform (SPCC)	6.09	173	87619	44.93 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.29	83	94680	45.04 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	31810	45.89 ug/l	8
63) n-Propylbenzene	6.34	91	998099	50.53 ug/l	9
64) Bromobenzene	6.31	156	257647	47.56 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	449293	50.70 ug/l	9
66) tert-Butylbenzene	6.58	91	461414	50.91 ug/l #	8
67) 1,2,4-Trimethylbenzene	6.60	120	473850	50.63 ug/l	9
69) sec-Butylbenzene	6.68	105	1083773	52.31 ug/l	9
70) p-Isopropyltoluene	6.75	119	928110	53.06 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	474415	49.66 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	477866	48.72 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	425403	47.89 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	699671	48.37 ug/l	9
75) n-Butylbenzene	6.95	91	720088	51.96 ug/l	9
76) Hexachloroethane	7.10	201	196828	47.49 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	21822	44.67 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	304696	50.24 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\spcc20a.d Vial: 2
Acq On : 20 Jul 12 11:30 am Operator: lbr
Sample : spcc/ccc 1s0720 1v0720 Inst : Urborg
Misc : s/50 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

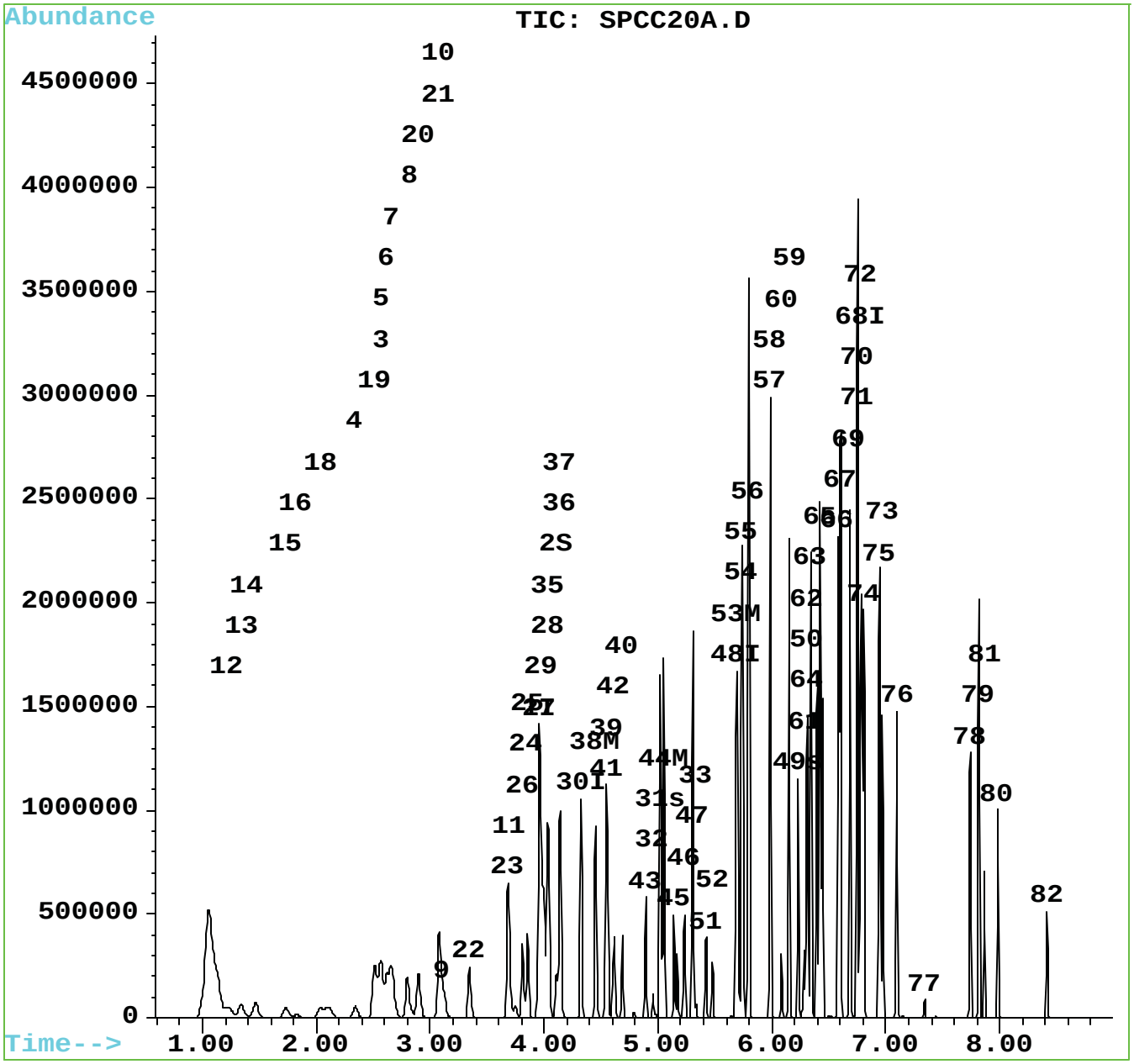
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79) Hexachlorobutadiene	7.82	225	293050	50.83 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	233670	47.13 ug/l	9
81) Naphthalene	7.87	128	355825	47.95 ug/l	9
82) 2-Methylnaphthalene	8.41	142	154325	41.06 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\spcc20a.d Vial: 2
Acq On : 20 Jul 12 11:30 am Operator: lbr
Sample : spcc/ccc 1s0720 1v0720 Inst : Urborg
Misc : s/50 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\spcc26a.d Vial: 2
Acq On : 26 Jul 12 11:47 am Operator: lbr
Sample : spcc/ccc 1dr0723 1v0726 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 27 12:00 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.90	168	73547	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	85459	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	51529	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.68	152	53328	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.04	65	65261	4.80	ug/l	96.0
31) TOLUENE-D8 (S)	4.94	98	98418	5.00	ug/l	100.1
49) 4-BROMOFLUOROBENZENE (S)	6.14	174	43778	5.37	ug/l	107.3
Target Compounds						Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.51	101	239205	43.94	ug/l	9
4) Diethyl ether (*)	2.24	74	99056	39.25	ug/l	9
5) Acetone (*)	2.50	43	138451	43.41	ug/l	8
6) Methyl iodide (iodomethane	2.53	142	415766	49.49	ug/l	7
7) Carbon disulfide (*)	2.57	76	596176	49.19	ug/l	9
8) Methyl Acetate	2.76	43	181822	31.75	ug/l	9
9) tert-Methyl butyl ether (M	3.02	73	796176	43.34	ug/l	9
10) Acrylonitrile (*)	3.00	53	108693	33.32	ug/l	9
11) 2-Butanone (MEK) (*)	3.63	43	130524	31.43	ug/l	9
12) Dichlorodifluoromethane	1.12	85	305897	39.85	ug/l	9
13) Chloromethane (SPCC)	1.26	50	289067	41.05	ug/l	9
14) Vinyl Chloride (CCC)	1.36	62	250614	41.16	ug/l	9
15) Bromomethane	1.63	94	164097	39.07	ug/l	9
16) Chloroethane	1.72	64	145946	41.60	ug/l	9
18) Trichlorofluoromethane	1.94	101	660264	50.15	ug/l	10
19) 1,1-Dichloroethene (CCC/MS	2.42	61	559914	47.74	ug/l	9
20) Methylene Chloride	2.82	84	202210	47.64	ug/l	9
21) trans-1,2-Dichloroethene	3.00	61	484008	48.88	ug/l	9
22) 1,1-Dichloroethane (SPCC)	3.28	63	539572	47.59	ug/l	9
23) cis-1,2-Dichloroethene	3.62	96	228374	48.38	ug/l	8
24) Tetrahydrofuran	3.77	42	70691	28.29	ug/l #	
25) Chloroform (CCC)	3.79	83	567132	50.20	ug/l	9
26) Bromochloromethane	3.74	130	161902	49.21	ug/l	8
27) 1,1,1-Trichloroethane	3.88	97	728816	53.50	ug/l	9
28) 1,1-Dichloropropene	3.96	75	385904	50.02	ug/l	9
29) Cyclohexane	3.91	42	135585	42.11	ug/l #	8
32) 4-Methyl-2-pentanone (MIBK	4.89	58	90994	33.67	ug/l #	6
33) 2-Hexanone (*)	5.26	58	95169	33.15	ug/l	9
35) Carbon Tetrachloride	3.97	117	698123	56.68	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\spcc26a.d Vial: 2
Acq On : 26 Jul 12 11:47 am Operator: lbr
Sample : spcc/ccc 1dr0723 1v0726 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 27 12:00 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36) Benzene (MS)	4.07	78	727291	49.68 ug/l		9
37) 1,2-Dichloroethane	4.08	62	673987	51.13 ug/l		9
38) Trichloroethene (MS)	4.38	95	275003	52.73 ug/l		9
39) 1,2-Dichloropropane (CCC)	4.49	63	243636	48.67 ug/l		8
40) Bromodichloromethane	4.62	83	465489	53.85 ug/l		9
41) Methyl Cyclohexane	4.47	55	465588	47.86 ug/l	#	8
42) Dibromomethane	4.55	174	210022	50.83 ug/l		9
43) cis-1,3-Dichloropropene	4.82	75	405284	51.01 ug/l		9
44) Toluene (CCC/MS)	4.98	91	910317	51.64 ug/l		9
45) trans-1,3-Dichloropropene	5.07	75	458205	50.10 ug/l		9
46) 1,1,2-Trichloroethane	5.16	83	146407	47.19 ug/l		9
47) Tetrachloroethene	5.23	166	344939	51.77 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.23	53	75800	23.19 ug/l	#	6
51) Dibromochloromethane	5.34	129	349037	53.07 ug/l		9
52) 1,2-Dibromoethane	5.40	107	232472	46.41 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.62	112	632266	50.73 ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.66	131	354076	54.47 ug/l		9
55) Ethylbenzene (CCC)	5.67	91	1263480	52.90 ug/l		9
56) p,m-Xylene	5.71	106	882724	101.45 ug/l		9
57) o-Xylene	5.90	91	1107902	53.18 ug/l		9
58) Styrene	5.91	104	723080	50.97 ug/l		9
59) Isopropylbenzene	6.07	105	1340510	53.13 ug/l		9
60) Bromoform (SPCC)	6.00	173	249980	43.12 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.20	83	220783	40.28 ug/l		9
62) 1,2,3-Trichloropropane	6.23	110	112769	41.86 ug/l	#	8
63) n-Propylbenzene	6.26	91	1416524	53.34 ug/l		9
64) Bromobenzene	6.22	156	350478	53.41 ug/l		9
65) 1,3,5-Trimethylbenzene	6.34	120	481778	52.28 ug/l	#	7
66) tert-Butylbenzene	6.49	91	967343	53.30 ug/l		9
67) 1,2,4-Trimethylbenzene	6.52	120	561841	51.72 ug/l	#	7
69) sec-Butylbenzene	6.60	105	1345597	50.37 ug/l		9
70) p-Isopropyltoluene	6.66	119	1266745	51.81 ug/l		9
71) 1,3-Dichlorobenzene	6.66	146	671620	51.22 ug/l		10
72) 1,4-Dichlorobenzene	6.70	146	666267	51.08 ug/l		9
73) 1,2-Dichlorobenzene	6.88	146	629160	50.27 ug/l		9
74) 1,2,3-Trimethylbenzene	6.72	105	1227777	50.94 ug/l		9
75) n-Butylbenzene	6.85	91	1059999	50.85 ug/l		9
76) Hexachloroethane	7.00	201	218371	51.93 ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.24	157	70561	34.94 ug/l		9
78) 1,2,4-Trichlorobenzene	7.64	182	513421	47.28 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\spcc26a.d Vial: 2
Acq On : 26 Jul 12 11:47 am Operator: lbr
Sample : spcc/ccc 1dr0723 1v0726 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 27 12:00 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

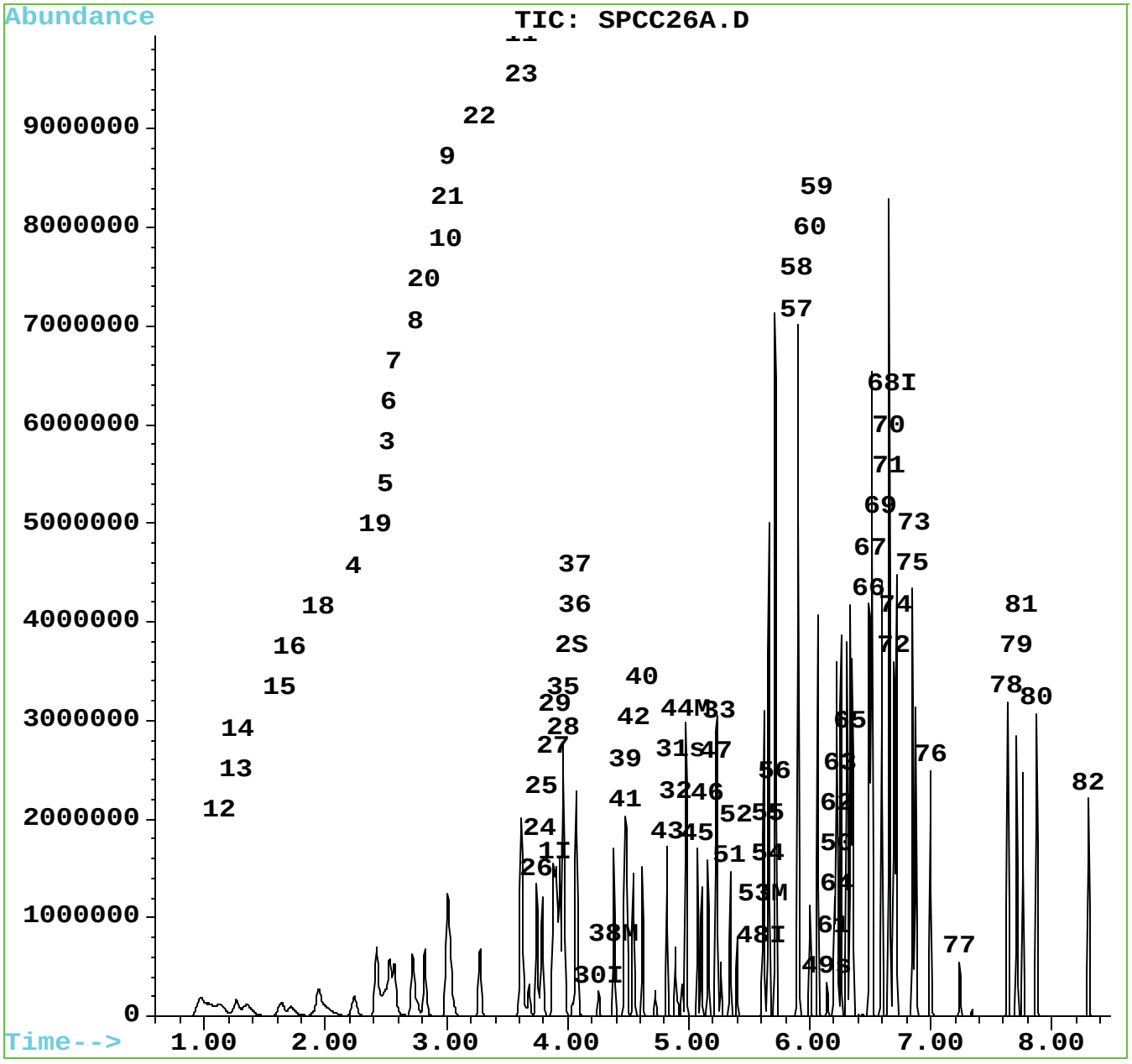
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.71	225	337892	50.54 ug/l	9
80)	1,2,3-Trichlorobenzene	7.87	180	433595	43.76 ug/l	9
81)	Naphthalene	7.76	128	851910	36.12 ug/l	9
82)	2-Methylnaphthalene	8.30	142	475781	34.01 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\spcc26a.d Vial: 2
Acq On : 26 Jul 12 11:47 am Operator: lbr
Sample : spcc/ccc 1dr0723 1v0726 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 27 12:00 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\bfb20a.d Vial: 1
Acq On : 20 Jul 12 10:55 am Operator: lbr
Sample : 50ng/bfb 1s0720 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

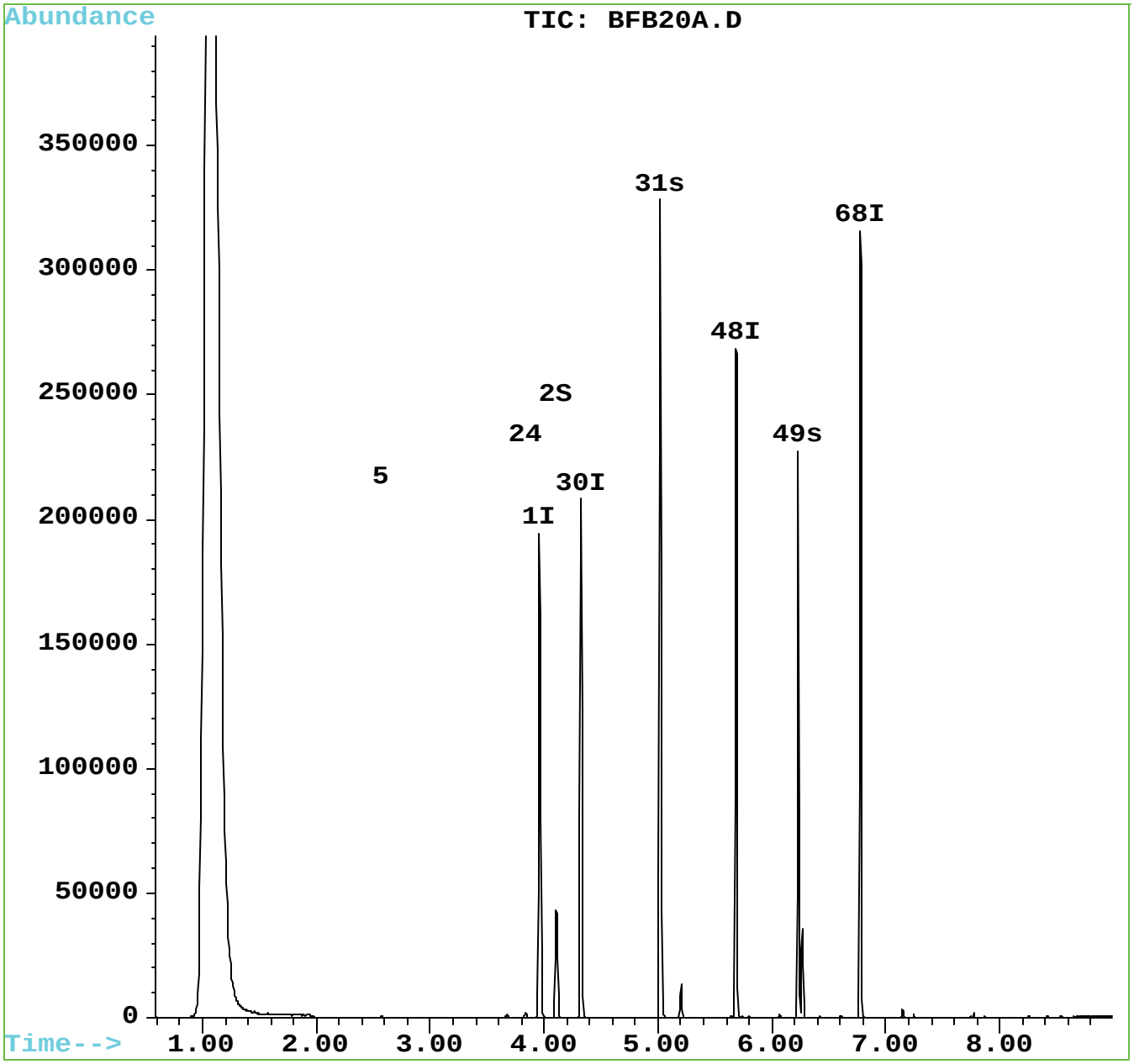
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	119697	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	135195	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	47496	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	65832	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	19990	44.17	ug/l	88.3
31) TOLUENE-D8 (S)	5.02	98	134159	49.11	ug/l	98.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	53751	47.59	ug/l	95.1
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	768	17.24	ug/l	5
24) Tetrahydrofuran	3.84	42	912	13.81	ug/l #	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\bfb20a.d Vial: 1
Acq On : 20 Jul 12 10:55 am Operator: lbr
Sample : 50ng/bfb 1s0720 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

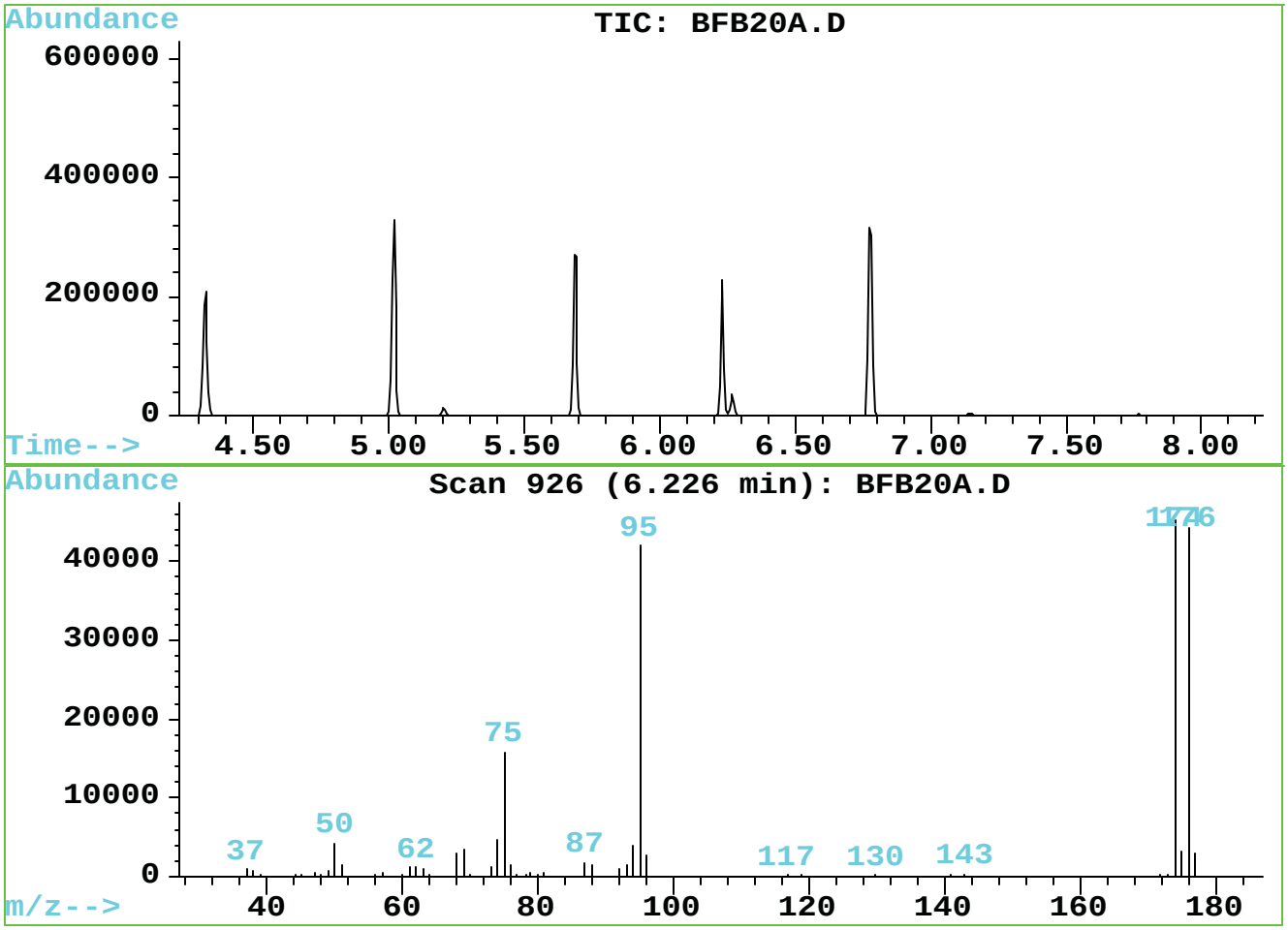
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\DATA\120720A5\BFB20A.D Vial: 1
Acq On : 20 Jul 12 10:55 am Operator: lbr
Sample : 50ng/bfb 1s0720 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.1	4228	PASS
75	95	30	66	37.6	15772	PASS
95	95	100	100	100.0	41936	PASS
96	95	5	9	6.5	2731	PASS
173	174	0	2	0.7	295	PASS
174	95	50	120	107.8	45208	PASS
175	174	4	9	7.1	3205	PASS
176	174	93	101	97.9	44240	PASS
177	176	5	9	6.8	3015	PASS

BFB20A.D FU120604.M Mon Aug 06 12:26:17 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\bfb26a.d Vial: 1
Acq On : 26 Jul 12 11:18 am Operator: lbr
Sample : 25ng/bfb 1dr0723 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

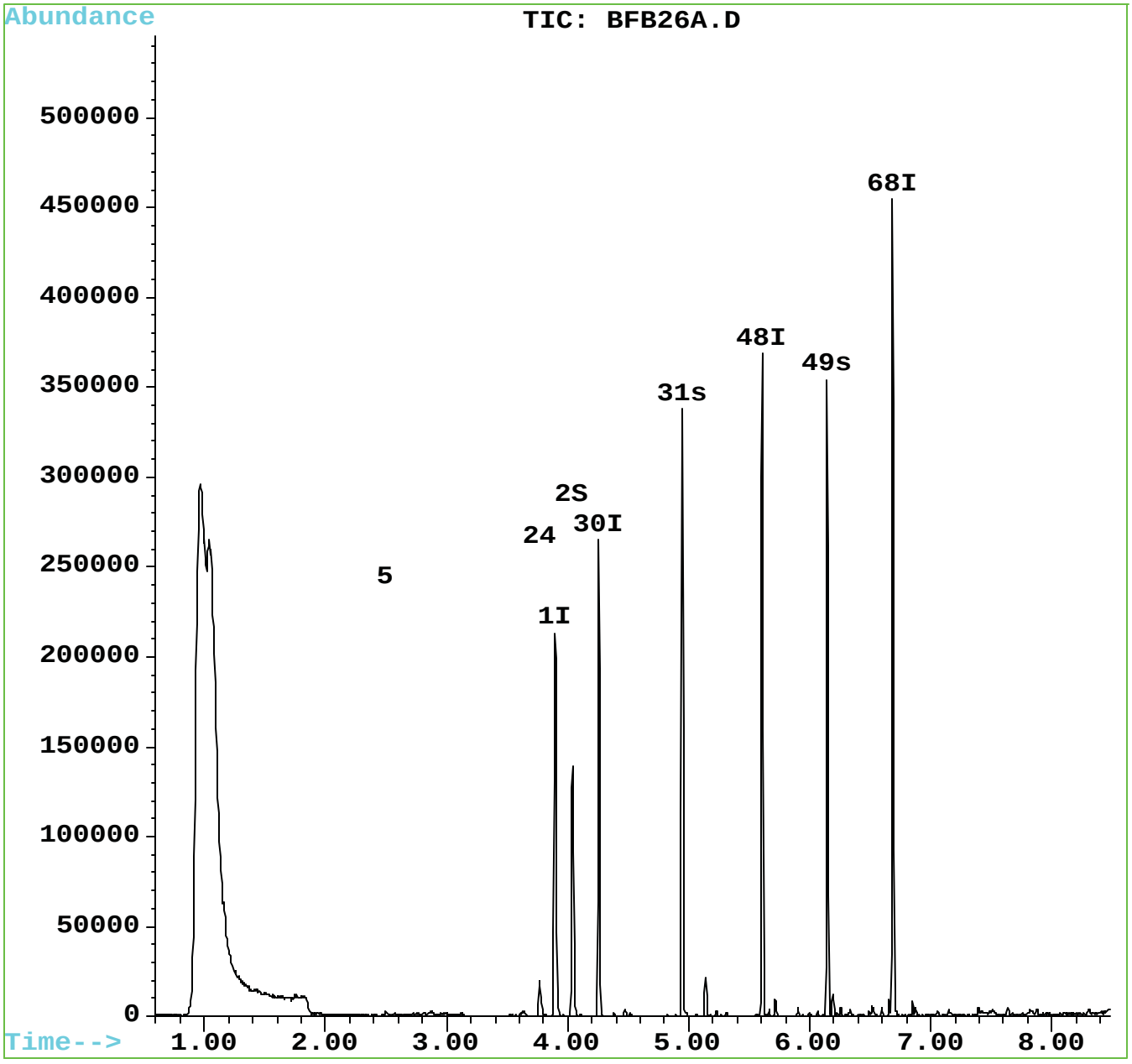
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.90	168	74735	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	88534	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	53221	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.68	152	55238	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.04	65	71481	5.18	ug/l	103.5
31) TOLUENE-D8 (S)	4.95	98	105626	5.18	ug/l	103.7
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	46681	5.54	ug/l	110.8
Target Compounds						Qvalu
5) Acetone (*)	2.50	43	3748	1.16	ug/l	7
24) Tetrahydrofuran	3.77	42	9311	3.67	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\bfb26a.d Vial: 1
Acq On : 26 Jul 12 11:18 am Operator: lbr
Sample : 25ng/bfb 1dr0723 Inst : Ravnica
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

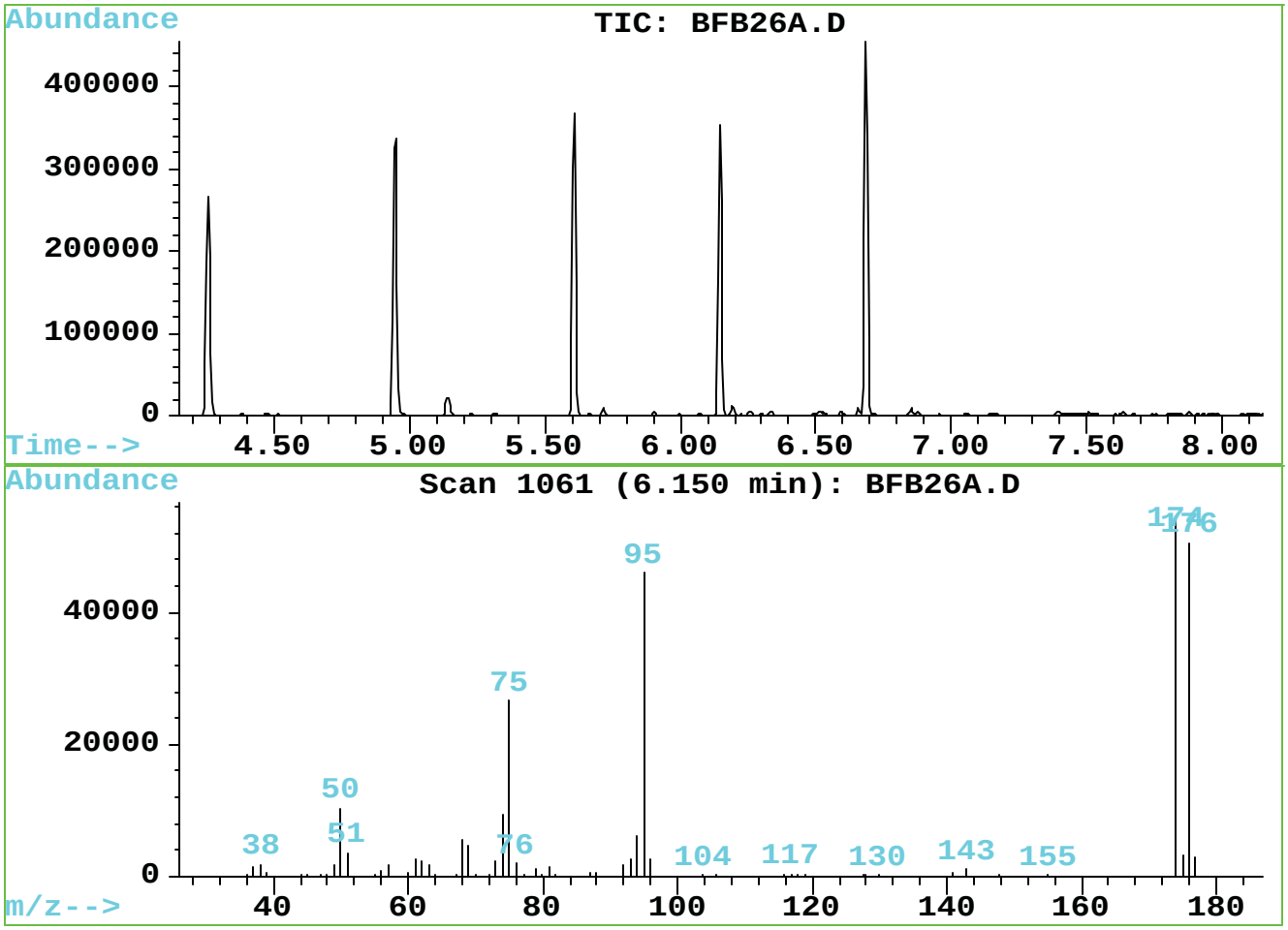
Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\RAVNICA.SN\DATA\120726A7\BFB26A.D Vial: 1
Acq On : 26 Jul 12 11:18 am Operator: lbr
Sample : 25ng/bfb 1dr0723 Inst : Ravnica
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 1061

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	22.6	10389	PASS
75	95	30	66	57.9	26592	PASS
95	95	100	100	100.0	45888	PASS
96	95	5	9	5.6	2558	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	117.5	53896	PASS
175	174	4	9	5.8	3112	PASS
176	174	93	101	93.6	50432	PASS
177	176	5	9	5.8	2928	PASS

BFB26A.D WR120706.M Mon Aug 06 12:08:06 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\blks20a.d Vial: 6
Acq On : 20 Jul 12 1:50 pm Operator: lbr
Sample : 100ul blank 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

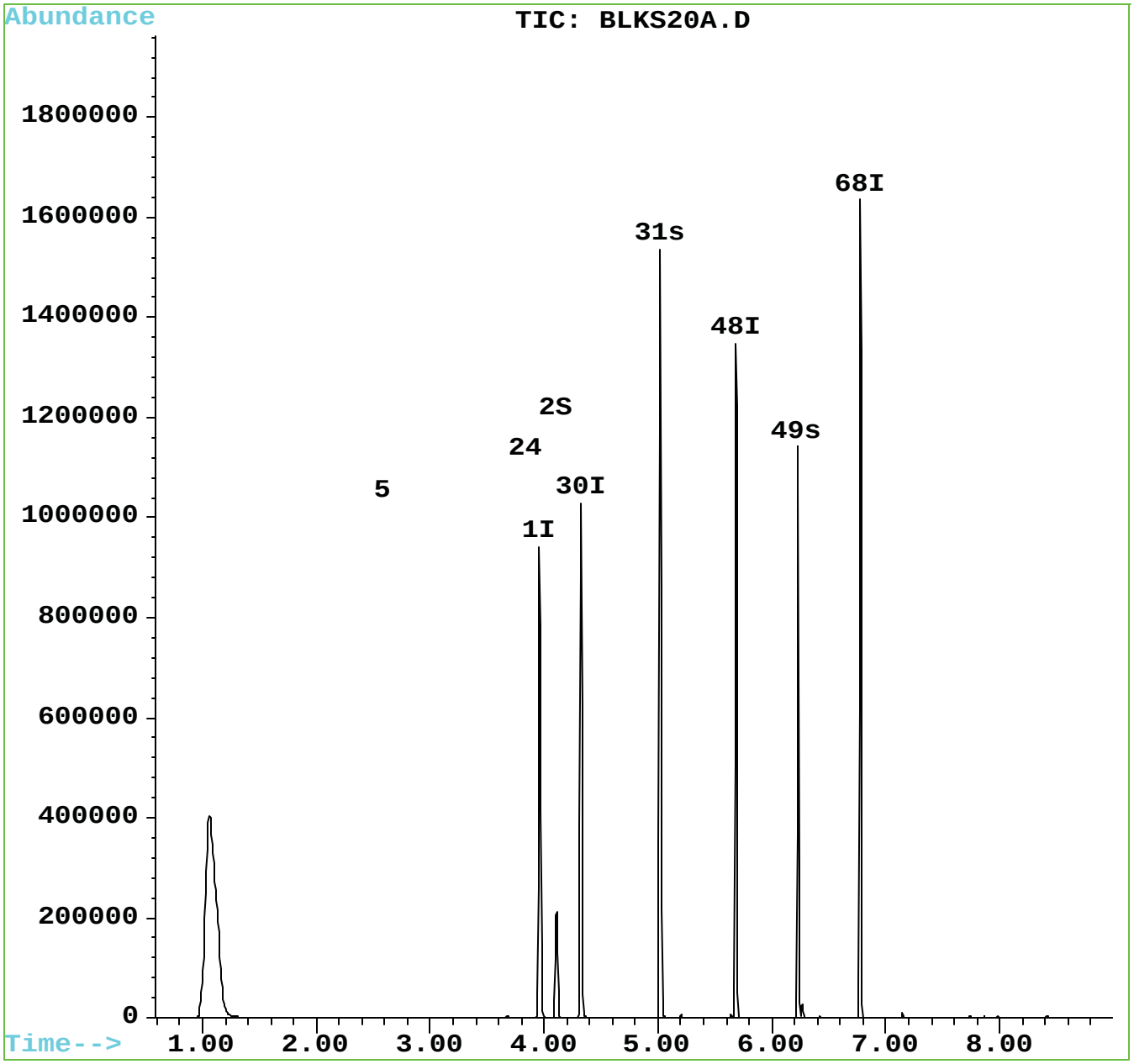
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	587853	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	662186	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	234741	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	321708	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	99132	44.60	ug/l	89.2
31) TOLUENE-D8 (S)	5.02	98	662571	49.52	ug/l	99.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	276714	49.57	ug/l	99.1
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	766	3.50	ug/l #	5
24) Tetrahydrofuran	3.84	42	938	2.89	ug/l #	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\blks20a.d Vial: 6
Acq On : 20 Jul 12 1:50 pm Operator: lbr
Sample : 100ul blank 1s0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\blkw26a.d Vial: 6
Acq On : 26 Jul 12 1:49 pm Operator: lbr
Sample : 5ml blank 1dr0723 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

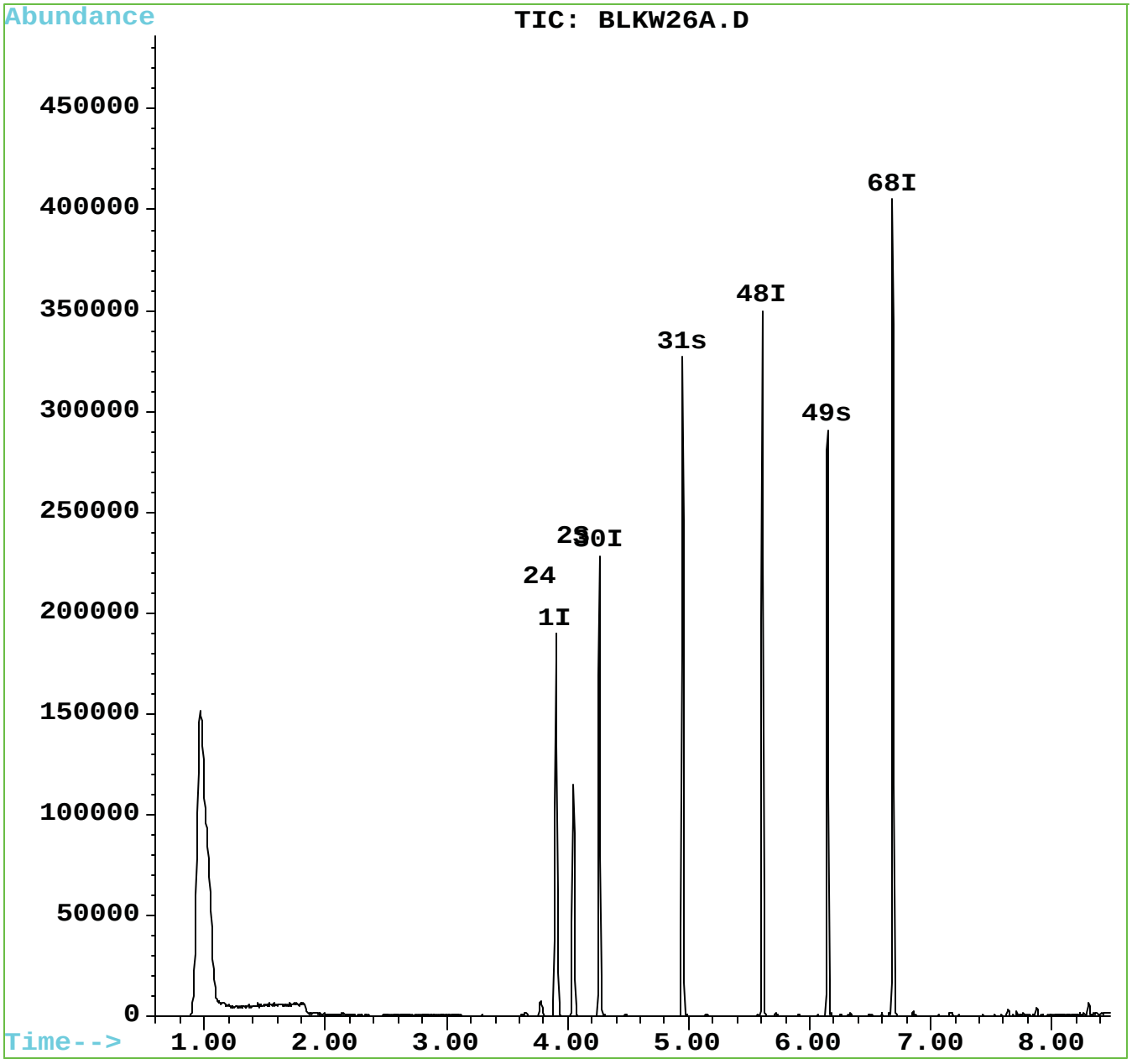
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.91	168	71151	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	84063	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	50143	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.69	152	51539	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.05	65	62781	4.78	ug/l	95.5
31) TOLUENE-D8 (S)	4.95	98	96593	4.99	ug/l	99.8
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	42883	5.40	ug/l	108.0
Target Compounds						Qvalu
24) Tetrahydrofuran	3.78	42	3706	1.53	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\blkw26a.d Vial: 6
Acq On : 26 Jul 12 1:49 pm Operator: lbr
Sample : 5ml blank 1dr0723 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\lcss20a.d Vial: 3
Acq On : 20 Jul 12 12:11 pm Operator: lbr
Sample : blank ms 1s0720 1m0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	570529	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	644368	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	230734	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	303664	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	98988	45.89	ug/l		91.7
31) TOLUENE-D8 (S)	5.02	98	658131	50.55	ug/l		101.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	271972	49.56	ug/l		99.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	178951	48.78	ug/l		9
4) Diethyl ether (*)	2.34	74	44516	42.23	ug/l		9
5) Acetone (*)	2.59	43	7889	37.14	ug/l		8
6) Methyl iodide (iodomethane	2.62	142	346804	45.02	ug/l		9
7) Carbon disulfide (*)	2.67	76	459209	42.13	ug/l		9
8) Methyl Acetate	2.84	43	29808	38.70	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	231979	43.59	ug/l		9
10) Acrylonitrile (*)	3.07	53	20193	43.17	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	12798	38.84	ug/l		9
12) Dichlorodifluoromethane	1.23	85	116606	50.46	ug/l		9
13) Chloromethane (SPCC)	1.34	50	121771	46.53	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	139047	47.22	ug/l		9
15) Bromomethane	1.73	94	59982	45.86	ug/l		10
16) Chloroethane	1.82	64	30573	48.70	ug/l		9
18) Trichlorofluoromethane	2.11	101	184340	53.73	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	156846	43.03	ug/l		8
20) Methylene Chloride	2.90	84	144993	41.15	ug/l		9
21) trans-1,2-Dichloroethene	3.07	61	167807	44.21	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.34	63	205963	43.34	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	173178	43.61	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11626	36.93	ug/l	#	
25) Chloroform (CCC)	3.85	83	223617	43.77	ug/l		9
26) Bromochloromethane	3.81	130	109481	43.08	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	239057	47.79	ug/l	#	4
28) 1,1-Dichloropropene	4.13	75	9632	2.30	ug/l	#	
29) Cyclohexane	3.98	42	47261	40.90	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	17598	42.83	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	13883	43.35	ug/l		9
35) Carbon Tetrachloride	4.04	117	232998	50.99	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\lcss20a.d Vial: 3
Acq On : 20 Jul 12 12:11 pm Operator: lbr
Sample : blank ms 1s0720 1m0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36) Benzene (MS)	4.13	78	597642	46.40 ug/l		9
37) 1,2-Dichloroethane	4.15	62	107755	46.19 ug/l		9
38) Trichloroethene (MS)	4.45	95	170472	48.51 ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	115788	46.25 ug/l		9
40) Bromodichloromethane	4.68	83	150762	48.16 ug/l		9
41) Methyl Cyclohexane	4.54	55	183168	50.35 ug/l		8
42) Dibromomethane	4.62	174	115653	47.54 ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	193976	49.68 ug/l		9
44) Toluene (CCC/MS)	5.05	91	729976	48.30 ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	146184	49.78 ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	74266	45.94 ug/l		9
47) Tetrachloroethene	5.31	166	299663	47.98 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	14896	46.72 ug/l	#	7
51) Dibromochloromethane	5.42	129	133327	50.65 ug/l		9
52) 1,2-Dibromoethane	5.48	107	101336	47.87 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	509356	47.67 ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	178691	50.05 ug/l		9
55) Ethylbenzene (CCC)	5.74	91	798307	49.83 ug/l		9
56) p,m-Xylene	5.79	106	686688	100.33 ug/l		9
57) o-Xylene	5.98	91	610372	49.97 ug/l		9
58) Styrene	5.99	104	487811	49.08 ug/l		9
59) Isopropylbenzene	6.15	105	916455	50.86 ug/l		9
60) Bromoform (SPCC)	6.09	173	84647	46.22 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	90761	46.02 ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	30331	46.64 ug/l		9
63) n-Propylbenzene	6.34	91	951922	51.37 ug/l		9
64) Bromobenzene	6.31	156	243752	47.96 ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	417124	50.17 ug/l		9
66) tert-Butylbenzene	6.58	91	432229	50.83 ug/l		9
67) 1,2,4-Trimethylbenzene	6.60	120	451291	51.40 ug/l		9
69) sec-Butylbenzene	6.68	105	1008269	52.39 ug/l		9
70) p-Isopropyltoluene	6.75	119	881564	54.25 ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	441884	49.79 ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	439209	48.20 ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	403938	48.95 ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	659095	49.05 ug/l		9
75) n-Butylbenzene	6.95	91	672693	52.25 ug/l		9
76) Hexachloroethane	7.10	201	181465	47.13 ug/l		9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	21543	47.35 ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	288015	51.12 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\lcss20a.d Vial: 3
Acq On : 20 Jul 12 12:11 pm Operator: lbr
Sample : blank ms 1s0720 1m0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

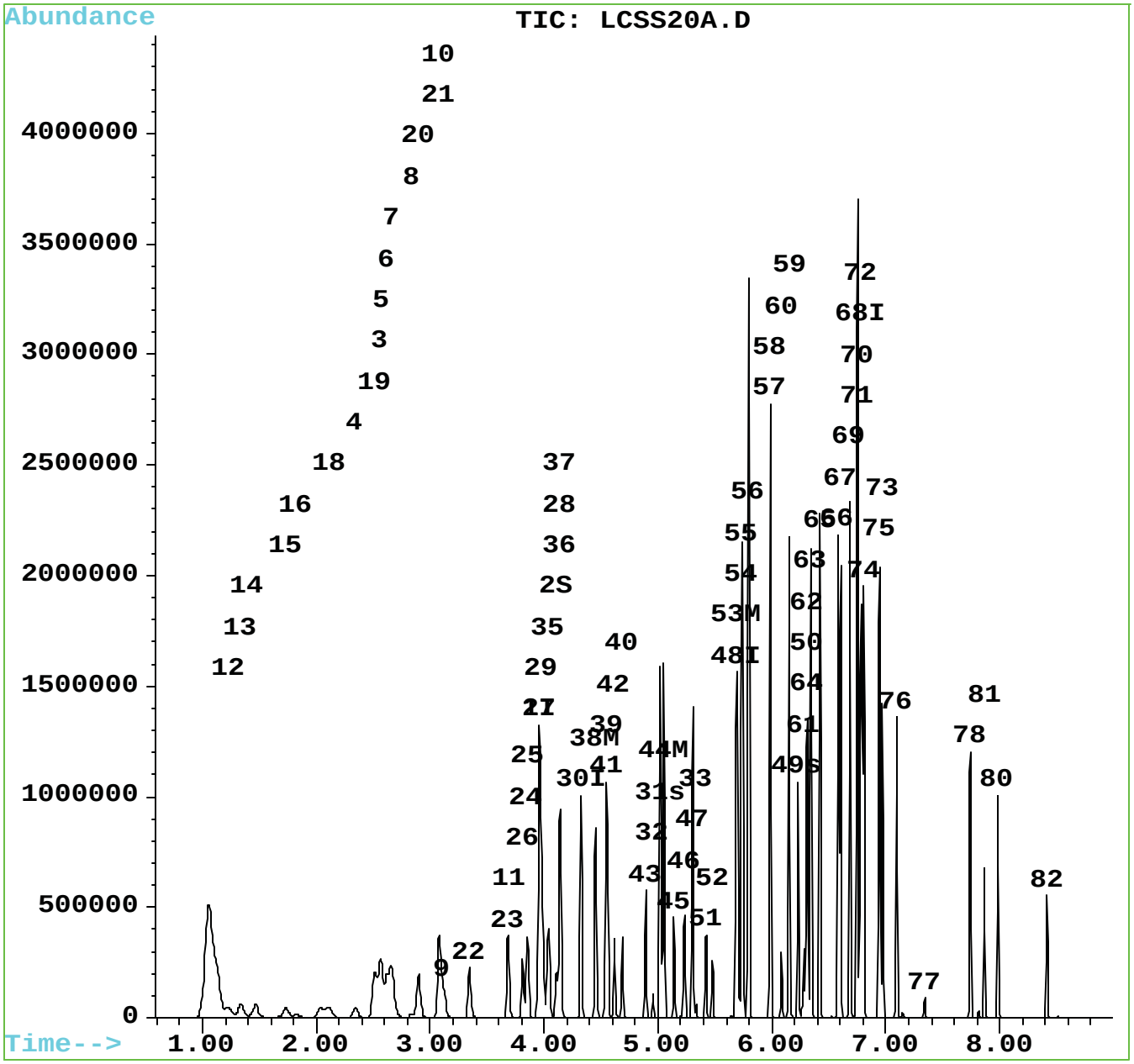
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	231170	50.19	ug/l	9
81)	Naphthalene	7.87	128	348485	50.55	ug/l	9
82)	2-Methylnaphthalene	8.41	142	167954	48.10	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\lcss20a.d Vial: 3
Acq On : 20 Jul 12 12:11 pm Operator: lbr
Sample : blank ms 1s0720 1m0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\lcss20b.d Vial: 4
Acq On : 20 Jul 12 12:31 pm Operator: lbr
Sample : blank msd 1s0720 1m0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	579696	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	657524	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	236976	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	315580	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	101574	46.34	ug/l		92.6
31) TOLUENE-D8 (S)	5.02	98	669696	50.41	ug/l		100.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	279851	49.66	ug/l		99.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	190197	51.03	ug/l		9
4) Diethyl ether (*)	2.34	74	47983	44.80	ug/l		9
5) Acetone (*)	2.59	43	8362	38.75	ug/l	#	9
6) Methyl iodide (iodomethane	2.62	142	363564	46.45	ug/l		9
7) Carbon disulfide (*)	2.66	76	483142	43.63	ug/l		9
8) Methyl Acetate	2.84	43	30656	39.17	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	244939	45.29	ug/l		9
10) Acrylonitrile (*)	3.07	53	20778	43.72	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	13130	39.22	ug/l		9
12) Dichlorodifluoromethane	1.22	85	123168	52.42	ug/l		9
13) Chloromethane (SPCC)	1.34	50	130774	49.18	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	148463	49.63	ug/l		9
15) Bromomethane	1.73	94	63014	47.42	ug/l		9
16) Chloroethane	1.82	64	31943	50.08	ug/l		9
18) Trichlorofluoromethane	2.10	101	192395	55.19	ug/l	#	3
19) 1,1-Dichloroethene (CCC/MS	2.51	61	170029	45.91	ug/l		8
20) Methylene Chloride	2.89	84	152908	42.71	ug/l		9
21) trans-1,2-Dichloroethene	3.07	61	176826	45.85	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.34	63	218784	45.31	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	184552	45.74	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11742	36.71	ug/l	#	
25) Chloroform (CCC)	3.85	83	239321	46.10	ug/l		9
26) Bromochloromethane	3.81	130	115769	44.84	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	251283	49.44	ug/l	#	4
28) 1,1-Dichloropropene	4.13	75	10178	2.39	ug/l	#	
29) Cyclohexane	3.98	42	49100	41.82	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	18133	43.25	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	14446	44.20	ug/l		9
35) Carbon Tetrachloride	4.04	117	244626	52.47	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\lcss20b.d Vial: 4
Acq On : 20 Jul 12 12:31 pm Operator: lbr
Sample : blank msd 1s0720 1m0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.13	78	630813	48.00	ug/l		9
37) 1,2-Dichloroethane	4.15	62	113381	47.63	ug/l		9
38) Trichloroethene (MS)	4.45	95	179733	50.12	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	121398	47.52	ug/l		9
40) Bromodichloromethane	4.68	83	160655	50.29	ug/l		9
41) Methyl Cyclohexane	4.54	55	190566	51.33	ug/l		8
42) Dibromomethane	4.62	174	121702	49.03	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	203890	51.18	ug/l		9
44) Toluene (CCC/MS)	5.05	91	769255	49.88	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	153734	51.30	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	78588	47.64	ug/l		9
47) Tetrachloroethene	5.31	166	316143	49.61	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	15618	47.69	ug/l	#	7
51) Dibromochloromethane	5.42	129	140855	52.10	ug/l		9
52) 1,2-Dibromoethane	5.48	107	106684	49.07	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	539844	49.19	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	189548	51.69	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	836638	50.85	ug/l		9
56) p,m-Xylene	5.79	106	725912	103.27	ug/l		8
57) o-Xylene	5.98	91	646824	51.56	ug/l		9
58) Styrene	5.99	104	518342	50.77	ug/l		9
59) Isopropylbenzene	6.15	105	971872	52.51	ug/l		9
60) Bromoform (SPCC)	6.09	173	90488	48.04	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	95680	47.23	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	31585	47.29	ug/l		9
63) n-Propylbenzene	6.34	91	1016057	53.38	ug/l		9
64) Bromobenzene	6.31	156	260887	49.98	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	445923	52.23	ug/l		8
66) tert-Butylbenzene	6.58	91	462247	52.93	ug/l		9
67) 1,2,4-Trimethylbenzene	6.60	120	483704	53.64	ug/l		9
69) sec-Butylbenzene	6.68	105	1077028	53.85	ug/l		9
70) p-Isopropyltoluene	6.75	119	940592	55.69	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	475099	51.51	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	476121	50.28	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	432420	50.42	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	709711	50.82	ug/l		9
75) n-Butylbenzene	6.95	91	728884	54.47	ug/l		9
76) Hexachloroethane	7.10	201	197319	49.31	ug/l		9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	23161	48.92	ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	321946	54.99	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\lcss20b.d Vial: 4
Acq On : 20 Jul 12 12:31 pm Operator: lbr
Sample : blank msd 1s0720 1m0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

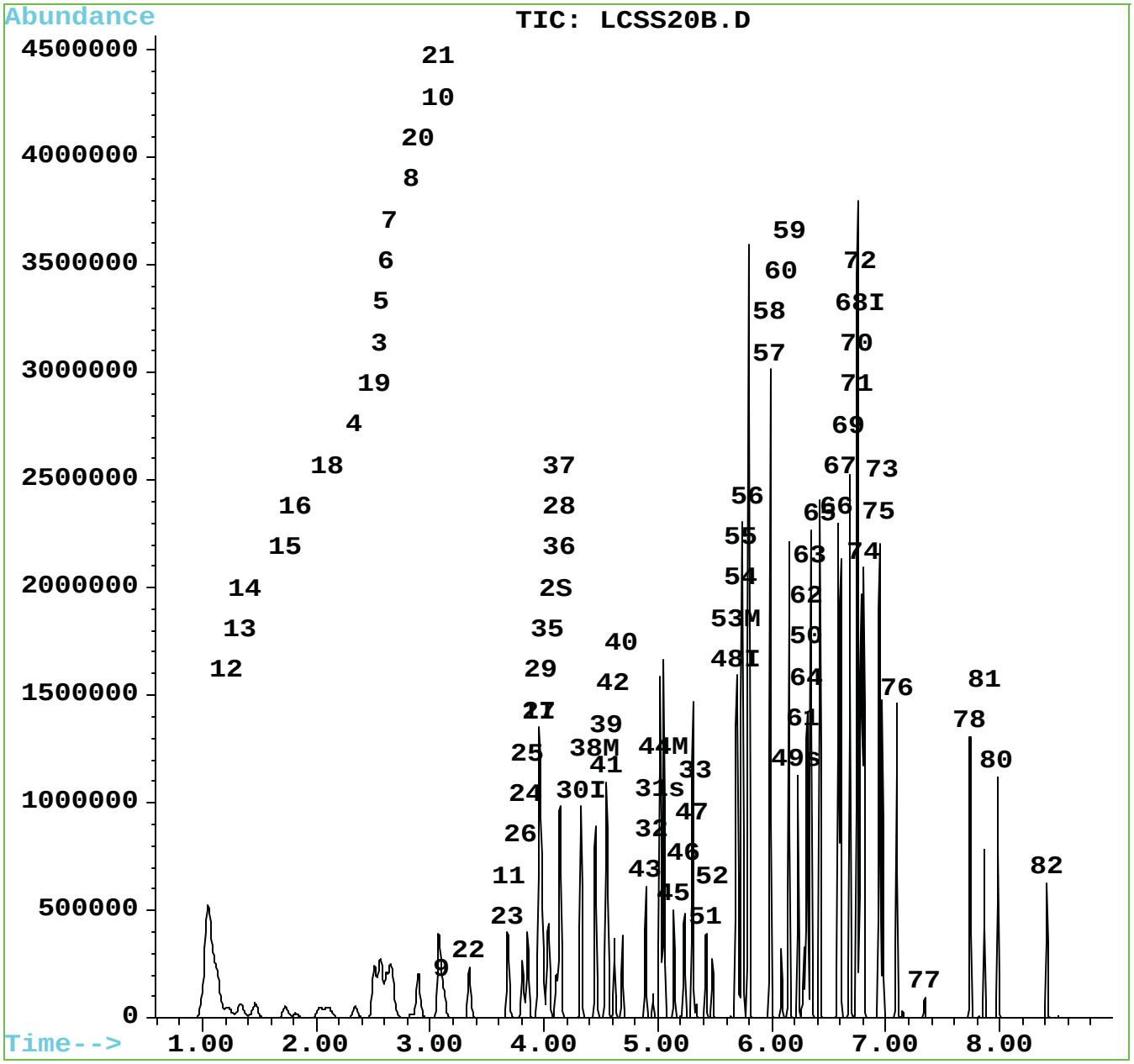
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	257821	53.86 ug/l	9
81)	Naphthalene	7.87	128	388130	54.18 ug/l	9
82)	2-Methylnaphthalene	8.41	142	192951	53.17 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120720a5\lcss20b.d Vial: 4
Acq On : 20 Jul 12 12:31 pm Operator: lbr
Sample : blank msd 1s0720 1m0720 Inst : Urborg
Misc : s/50 id:vf120720s1 Multiplr: 1.00
Quant Time: Jul 23 10:24 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\lcsw26b.d Vial: 4
Acq On : 26 Jul 12 12:20 pm Operator: lbr
Sample : blank msd 1dr0723 1m0726 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.90	168	72915	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	84057	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	53051	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.69	152	53373	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.05	65	63651	4.73	ug/l	94.5
31) TOLUENE-D8 (S)	4.95	98	100539	5.20	ug/l	103.9
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	44567	5.31	ug/l	106.1
Target Compounds						Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.51	101	268939	49.83	ug/l	9
4) Diethyl ether (*)	2.25	74	99270	39.68	ug/l	9
5) Acetone (*)	2.50	43	121562	38.44	ug/l	8
6) Methyl iodide (iodomethane	2.54	142	434515	52.17	ug/l	8
7) Carbon disulfide (*)	2.57	76	628094	52.27	ug/l	9
8) Methyl Acetate	2.76	43	182368	32.12	ug/l	9
9) tert-Methyl butyl ether (M	3.03	73	844286	46.36	ug/l	9
10) Acrylonitrile (*)	3.01	53	113994	35.25	ug/l	9
11) 2-Butanone (MEK) (*)	3.63	43	124860	30.33	ug/l	9
12) Dichlorodifluoromethane	1.14	85	306274	40.23	ug/l	9
13) Chloromethane (SPCC)	1.27	50	318366	45.60	ug/l	9
14) Vinyl Chloride (CCC)	1.36	62	246598	40.85	ug/l	9
15) Bromomethane	1.64	94	173320	41.62	ug/l	9
16) Chloroethane	1.72	64	157391	45.25	ug/l	9
18) Trichlorofluoromethane	1.95	101	709743	54.38	ug/l	9
19) 1,1-Dichloroethene (CCC/MS	2.43	61	579086	49.80	ug/l	9
20) Methylene Chloride	2.83	84	210764	50.08	ug/l	9
21) trans-1,2-Dichloroethene	3.01	61	490347	49.95	ug/l	9
22) 1,1-Dichloroethane (SPCC)	3.28	63	552732	49.17	ug/l	9
23) cis-1,2-Dichloroethene	3.62	96	232970	49.78	ug/l	9
24) Tetrahydrofuran	3.77	42	68392	27.61	ug/l	9
25) Chloroform (CCC)	3.80	83	588667	52.55	ug/l	9
26) Bromochloromethane	3.75	130	167889	51.47	ug/l	8
27) 1,1,1-Trichloroethane	3.89	97	749455	55.49	ug/l	9
29) Cyclohexane	3.92	42	118491	37.12	ug/l #	2
32) 4-Methyl-2-pentanone (MIBK	4.89	58	93366	35.12	ug/l	9
33) 2-Hexanone (*)	5.27	58	93723	33.19	ug/l	9
35) Carbon Tetrachloride	3.97	117	721553	59.56	ug/l	9
36) Benzene (MS)	4.07	78	746501	51.84	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\lcsw26b.d Vial: 4
Acq On : 26 Jul 12 12:20 pm Operator: lbr
Sample : blank msd 1dr0723 1m0726 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
37) 1,2-Dichloroethane	4.08	62	683064	52.69 ug/l	9
38) Trichloroethene (MS)	4.39	95	282980	55.16 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.49	63	251320	51.05 ug/l	8
40) Bromodichloromethane	4.62	83	474659	55.83 ug/l	9
41) Methyl Cyclohexane	4.48	55	501142	52.37 ug/l #	8
42) Dibromomethane	4.55	174	217354	53.48 ug/l	9
43) cis-1,3-Dichloropropene	4.82	75	417790	53.46 ug/l	9
44) Toluene (CCC/MS)	4.98	91	932395	53.78 ug/l	9
45) trans-1,3-Dichloropropene	5.07	75	464633	51.65 ug/l	9
46) 1,1,2-Trichloroethane	5.16	83	149150	48.88 ug/l	9
47) Tetrachloroethene	5.23	166	348376	53.15 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	48767	14.49 ug/l #	
51) Dibromochloromethane	5.35	129	357867	52.85 ug/l	9
52) 1,2-Dibromoethane	5.40	107	237315	46.01 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.63	112	660012	51.44 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	367419	54.90 ug/l	9
55) Ethylbenzene (CCC)	5.67	91	1283218	52.19 ug/l	9
56) p,m-Xylene	5.72	106	907495	101.30 ug/l	9
57) o-Xylene	5.90	91	1145714	53.42 ug/l	9
58) Styrene	5.91	104	722924	49.50 ug/l	9
59) Isopropylbenzene	6.07	105	1391258	53.55 ug/l	9
60) Bromoform (SPCC)	6.00	173	251964	42.21 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.21	83	221882	39.32 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	113620	40.96 ug/l #	7
63) n-Propylbenzene	6.26	91	1489090	54.46 ug/l	9
64) Bromobenzene	6.22	156	363955	53.88 ug/l	9
65) 1,3,5-Trimethylbenzene	6.34	120	498772	52.57 ug/l #	7
66) tert-Butylbenzene	6.50	91	986555	52.80 ug/l	8
67) 1,2,4-Trimethylbenzene	6.52	120	568705	50.85 ug/l #	7
69) sec-Butylbenzene	6.60	105	1386633	51.86 ug/l	9
70) p-Isopropyltoluene	6.66	119	1325002	54.14 ug/l	9
71) 1,3-Dichlorobenzene	6.66	146	697687	53.17 ug/l	10
72) 1,4-Dichlorobenzene	6.70	146	683429	52.35 ug/l	9
73) 1,2-Dichlorobenzene	6.88	146	649017	51.81 ug/l	9
74) 1,2,3-Trimethylbenzene	6.72	105	1270010	52.65 ug/l	9
75) n-Butylbenzene	6.85	91	1105627	52.99 ug/l	9
76) Hexachloroethane	7.00	201	226027	53.71 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.25	157	72337	35.79 ug/l	9
78) 1,2,4-Trichlorobenzene	7.64	182	548392	50.45 ug/l	9
79) Hexachlorobutadiene	7.71	225	11699	1.75 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\lcsw26b.d Vial: 4
Acq On : 26 Jul 12 12:20 pm Operator: lbr
Sample : blank msd 1dr0723 1m0726 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

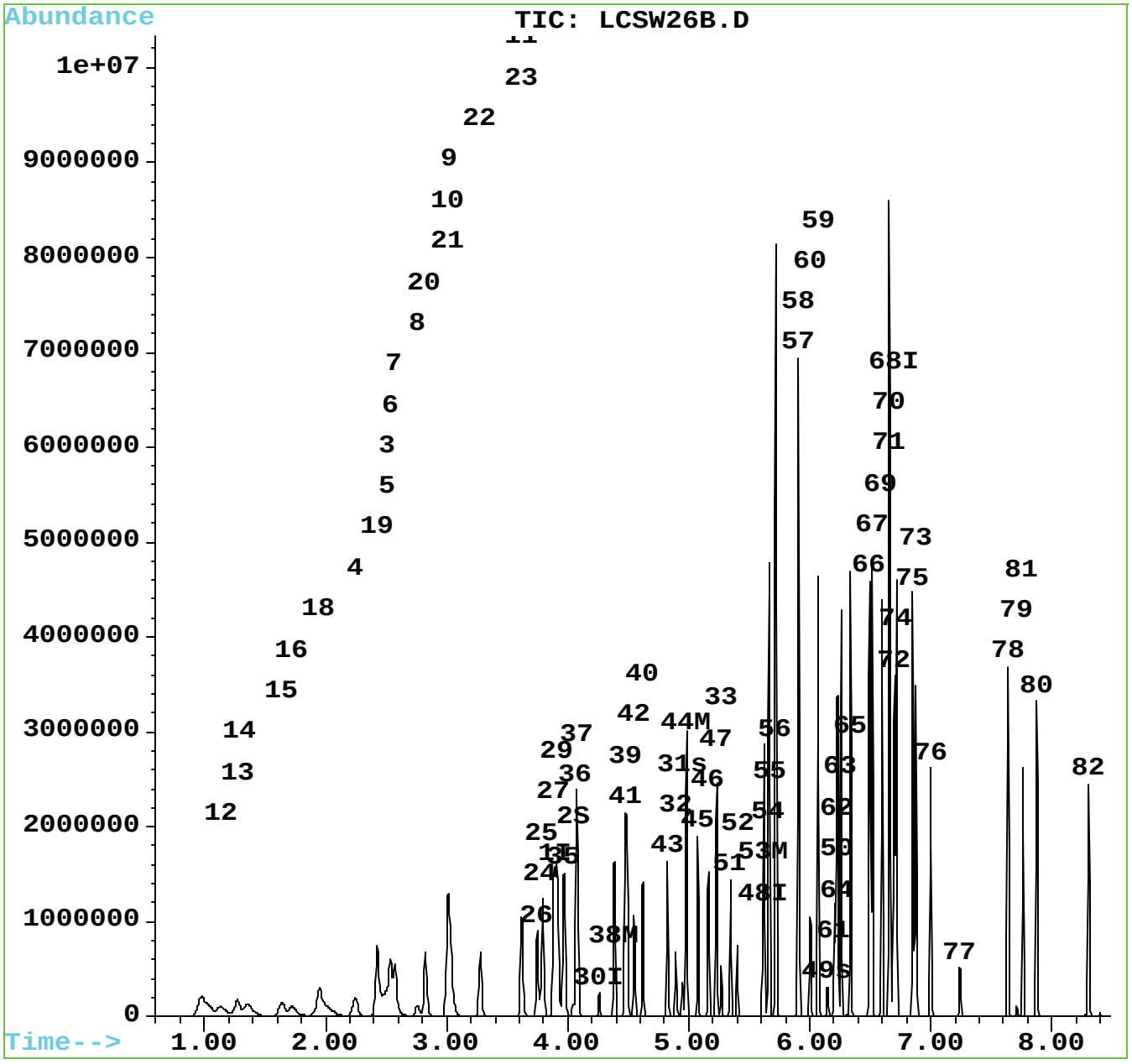
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.87	180	474504	47.85 ug/l	9
81)	Naphthalene	7.76	128	905617	38.37 ug/l	9
82)	2-Methylnaphthalene	8.30	142	517353	36.95 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\lcsw26b.d Vial: 4
Acq On : 26 Jul 12 12:20 pm Operator: lbr
Sample : blank msd 1dr0723 1m0726 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\lcsw26c.d Vial: 5
Acq On : 26 Jul 12 12:42 pm Operator: lbr
Sample : blank msd 1dr0723 1m0726 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.90	168	72784	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.26	114	86275	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	52958	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.68	152	50903	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.04	65	64446	4.79	ug/l		95.8
31) TOLUENE-D8 (S)	4.94	98	100009	5.04	ug/l		100.7
49) 4-BROMOFLUOROBENZENE (S)	6.14	174	43626	5.20	ug/l		104.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.50	101	248986	46.22	ug/l		9
4) Diethyl ether (*)	2.25	74	106198	42.52	ug/l		9
5) Acetone (*)	2.51	43	133041	42.15	ug/l		8
6) Methyl iodide (iodomethane	2.54	142	419655	50.48	ug/l		8
7) Carbon disulfide (*)	2.57	76	595733	49.67	ug/l		9
8) Methyl Acetate	2.76	43	191585	33.81	ug/l		9
9) tert-Methyl butyl ether (M	3.03	73	859669	47.29	ug/l		9
10) Acrylonitrile (*)	3.01	53	117832	36.50	ug/l		9
11) 2-Butanone (MEK) (*)	3.63	43	138690	33.75	ug/l		9
12) Dichlorodifluoromethane	1.14	85	263975	34.89	ug/l		9
13) Chloromethane (SPCC)	1.27	50	299157	42.93	ug/l		9
14) Vinyl Chloride (CCC)	1.36	62	233831	38.80	ug/l		9
15) Bromomethane	1.64	94	171583	41.28	ug/l		9
16) Chloroethane	1.72	64	150575	43.37	ug/l		9
18) Trichlorofluoromethane	1.95	101	655027	50.27	ug/l		10
19) 1,1-Dichloroethene (CCC/MS	2.43	61	556433	47.94	ug/l		9
20) Methylene Chloride	2.83	84	208533	49.64	ug/l		9
21) trans-1,2-Dichloroethene	3.01	61	479335	48.92	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.28	63	534872	47.67	ug/l		9
23) cis-1,2-Dichloroethene	3.62	96	229458	49.12	ug/l		9
24) Tetrahydrofuran	3.77	42	73073	29.55	ug/l		9
25) Chloroform (CCC)	3.80	83	576630	51.57	ug/l		9
26) Bromochloromethane	3.75	130	165515	50.83	ug/l		8
27) 1,1,1-Trichloroethane	3.89	97	724373	53.73	ug/l		9
29) Cyclohexane	3.91	42	108476	34.04	ug/l	#	2
32) 4-Methyl-2-pentanone (MIBK	4.89	58	100496	36.83	ug/l		9
33) 2-Hexanone (*)	5.26	58	101842	35.14	ug/l		9
35) Carbon Tetrachloride	3.97	117	690455	55.52	ug/l		9
36) Benzene (MS)	4.07	78	729784	49.38	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\lcsw26c.d Vial: 5
Acq On : 26 Jul 12 12:42 pm Operator: lbr
Sample : blank msd 1dr0723 1m0726 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
37) 1,2-Dichloroethane	4.08	62	674374	50.68 ug/l	9
38) Trichloroethene (MS)	4.38	95	270832	51.44 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.49	63	243696	48.23 ug/l	8
40) Bromodichloromethane	4.62	83	472012	54.09 ug/l	9
41) Methyl Cyclohexane	4.48	55	457131	46.54 ug/l #	8
42) Dibromomethane	4.55	174	216708	51.95 ug/l	9
43) cis-1,3-Dichloropropene	4.82	75	403390	50.29 ug/l	9
44) Toluene (CCC/MS)	4.98	91	913015	51.31 ug/l	9
45) trans-1,3-Dichloropropene	5.07	75	459410	49.76 ug/l	9
46) 1,1,2-Trichloroethane	5.16	83	151563	48.39 ug/l	9
47) Tetrachloroethene	5.23	166	336953	50.09 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	35176	10.47 ug/l #	
51) Dibromochloromethane	5.34	129	353551	52.31 ug/l	9
52) 1,2-Dibromoethane	5.40	107	241842	46.97 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.62	112	645457	50.39 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	352162	52.72 ug/l	9
55) Ethylbenzene (CCC)	5.67	91	1249868	50.92 ug/l	9
56) p,m-Xylene	5.72	106	880048	98.41 ug/l	9
57) o-Xylene	5.90	91	1107216	51.72 ug/l	9
58) Styrene	5.91	104	705378	48.38 ug/l	9
59) Isopropylbenzene	6.07	105	1334561	51.46 ug/l	9
60) Bromoform (SPCC)	6.00	173	257508	43.22 ug/l	10
61) 1,1,2,2-Tetrachloroethane	6.20	83	231053	41.02 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	119070	43.00 ug/l #	7
63) n-Propylbenzene	6.26	91	1457943	53.41 ug/l	9
64) Bromobenzene	6.22	156	354877	52.62 ug/l	9
65) 1,3,5-Trimethylbenzene	6.34	120	478376	50.51 ug/l #	7
66) tert-Butylbenzene	6.49	91	958899	51.41 ug/l	8
67) 1,2,4-Trimethylbenzene	6.52	120	561085	50.25 ug/l #	7
69) sec-Butylbenzene	6.60	105	1340184	52.56 ug/l	9
70) p-Isopropyltoluene	6.66	119	1272040	54.50 ug/l	9
71) 1,3-Dichlorobenzene	6.66	146	674094	53.86 ug/l	9
72) 1,4-Dichlorobenzene	6.70	146	669101	53.74 ug/l	9
73) 1,2-Dichlorobenzene	6.88	146	643717	53.88 ug/l	9
74) 1,2,3-Trimethylbenzene	6.72	105	1243138	54.03 ug/l	9
75) n-Butylbenzene	6.85	91	1073514	53.95 ug/l	9
76) Hexachloroethane	7.00	201	214367	53.41 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.24	157	79634	41.31 ug/l	9
78) 1,2,4-Trichlorobenzene	7.64	182	548077	52.87 ug/l	9
80) 1,2,3-Trichlorobenzene	7.87	180	477446	50.49 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\lcsw26c.d Vial: 5
Acq On : 26 Jul 12 12:42 pm Operator: lbr
Sample : blank msd 1dr0723 1m0726 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

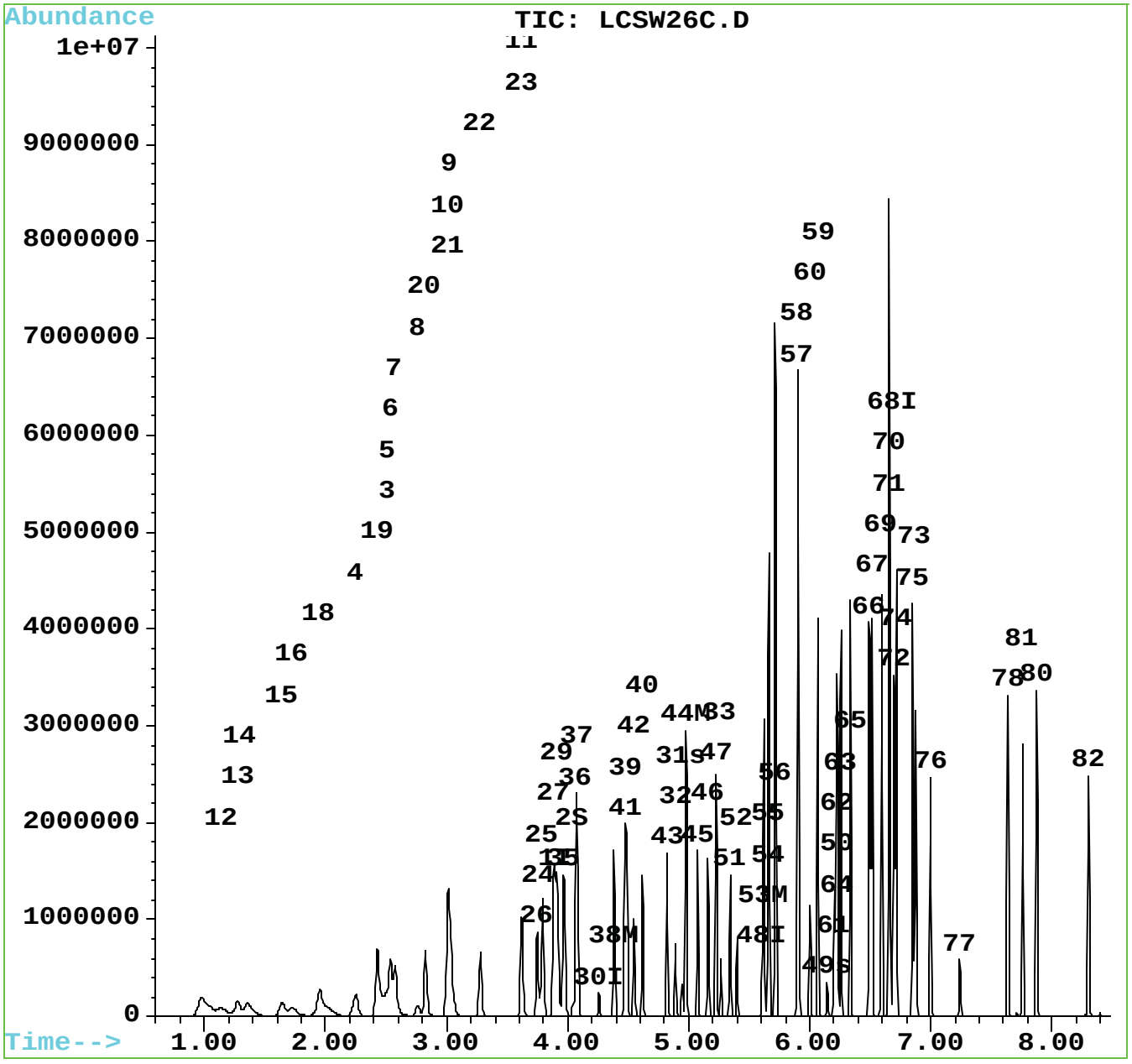
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
81) Naphthalene	7.76	128	958577	42.58 ug/l	9
82) 2-Methylnaphthalene	8.30	142	540239	40.46 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\ravnica.sn\data\120726a7\lcsw26c.d Vial: 5
Acq On : 26 Jul 12 12:42 pm Operator: lbr
Sample : blank msd 1dr0723 1m0726 Inst : Ravnica
Misc : w/1 id:vf120726w1 Multiplr: 1.00
Quant Time: Jul 27 11:59 19112

Method : F:\GCMS.DAT\RAVNICA.SN\METHODS\WR120706.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120723.1
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d23a.d	07/23/12 12:41	dftpp std (120621) [none]	WW	IP	**1**	
spnn23a.d	07/23/12 13:03	pna std 50 (120314) [none]	WW	CV	**1**	
blks23a.d	07/23/12 13:26	pna-s 30g/1ml df:1 sp120720s01	SO	Bl	**1**	
lcss23a.d	07/23/12 13:49	pna-s 30g/1ml df:1 sp120720s01	SO	MS	**1**	
lcsds23a.d	07/23/12 14:11	pna-s 30g/1ml df:1 sp120720s01	SO	MS	**1**	
5324301.d	07/23/12 14:34	pna-s 30g/1ml df:6 sp120720s01	SO		**1**	
5324302.d	07/23/12 14:56	pna-s 30g/1ml df:6 sp120720s01	SO		**1**	
5324303.d	07/23/12 15:19	pna-s 30g/1ml df:6 sp120720s01	SO		**1**	
5324305.d	07/23/12 15:41	pna-s 30g/1ml df:6 sp120720s01	SO		**1**	
5325402.d	07/23/12 16:04	pna-s 30g/1ml df:6 sp120720s01	SO			
5325403.d	07/23/12 16:26	pna-s 30g/1ml df:6 sp120720s01	SO			
5325404.d	07/23/12 16:49	pna-s 30g/1ml df:6 sp120720s01	SO			
5325406.d	07/23/12 17:11	pna-s 30g/1ml df:6 sp120720s01	SO			
5325405.d	07/23/12 17:34	pna-s 30g/1ml df:10 sp120720s01	SO			
5325401.d	07/23/12 17:56	pna-s 30g/1ml df:12 sp120720s01	SO			
5324304.d	07/23/12 18:19	pna-s 30g/2ml df:40 sp120720s01	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	11
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120723.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spnn23a.d	2-Fluorobiphenyl	54.9/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	51.5/100.0	n/a	10.0/114.0	
	Terphenyl-D14	58.1/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blks23a.d	2-Fluorobiphenyl	84.3/100.0	84.3	10.0/115.0	SO
	Nitrobenzene-D5	66.4/100.0	66.4	18.5/120.0	
	Terphenyl-D14	100.6/100.0	100.6	10.3/137.0	
				Total Outliers: 0	
lcss23a.d	2-Fluorobiphenyl	75.8/100.0	75.8	10.0/115.0	SO
	Nitrobenzene-D5	56.4/100.0	56.4	18.5/120.0	
	Terphenyl-D14	94.0/100.0	94.0	10.3/137.0	
				Total Outliers: 0	
lcsds23a.d	2-Fluorobiphenyl	81.7/100.0	81.7	10.0/115.0	SO
	Nitrobenzene-D5	61.1/100.0	61.1	18.5/120.0	
	Terphenyl-D14	101.8/100.0	101.8	10.3/137.0	
				Total Outliers: 0	
5324301.d	2-Fluorobiphenyl	52.8/100.0	52.8	10.0/115.0	SO
	Nitrobenzene-D5	58.9/100.0	58.9	18.5/120.0	
	Terphenyl-D14	56.5/100.0	56.5	10.3/137.0	
				Total Outliers: 0	
5324302.d	2-Fluorobiphenyl	45.6/100.0	45.6	10.0/115.0	SO
	Nitrobenzene-D5	47.4/100.0	47.4	18.5/120.0	
	Terphenyl-D14	56.0/100.0	56.0	10.3/137.0	
				Total Outliers: 0	
5324303.d	2-Fluorobiphenyl	51.6/100.0	51.6	10.0/115.0	SO
	Nitrobenzene-D5	57.9/100.0	57.9	18.5/120.0	
	Terphenyl-D14	57.1/100.0	57.1	10.3/137.0	
				Total Outliers: 0	
5324305.d	2-Fluorobiphenyl	51.9/100.0	51.9	10.0/115.0	SO
	Nitrobenzene-D5	65.0/100.0	65.0	18.5/120.0	
	Terphenyl-D14	58.1/100.0	58.1	10.3/137.0	
				Total Outliers: 0	
5325402.d	2-Fluorobiphenyl	47.1/100.0	47.1	10.0/115.0	SO
	Nitrobenzene-D5	55.8/100.0	55.8	18.5/120.0	
	Terphenyl-D14	50.2/100.0	50.2	10.3/137.0	
				Total Outliers: 0	
5325403.d	2-Fluorobiphenyl	54.0/100.0	54.0	10.0/115.0	SO
	Nitrobenzene-D5	60.1/100.0	60.1	18.5/120.0	
	Terphenyl-D14	58.6/100.0	58.6	10.3/137.0	
				Total Outliers: 0	
5325404.d	2-Fluorobiphenyl	53.3/100.0	53.3	10.0/115.0	SO
	Nitrobenzene-D5	57.2/100.0	57.2	18.5/120.0	
	Terphenyl-D14	61.8/100.0	61.8	10.3/137.0	
				Total Outliers: 0	
5325406.d	2-Fluorobiphenyl	63.9/100.0	63.9	10.0/115.0	SO
	Nitrobenzene-D5	63.4/100.0	63.4	18.5/120.0	
	Terphenyl-D14	71.6/100.0	71.6	10.3/137.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120723.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5325405.d	2-Fluorobiphenyl	60.8/100.0	60.8	10.0/115.0	SO
	Nitrobenzene-D5	59.6/100.0	59.6	18.5/120.0	
	Terphenyl-D14	65.9/100.0	65.9	10.3/137.0	
				Total Outliers:	**0**
5325401.d	2-Fluorobiphenyl	47.5/100.0	47.5	10.0/115.0	SO
	Nitrobenzene-D5	46.0/100.0	46.0	18.5/120.0	
	Terphenyl-D14	45.3/100.0	45.3	10.3/137.0	
				Total Outliers:	**0**
5324304.d	2-Fluorobiphenyl	43.1/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	48.1/100.0	n/a	18.5/120.0	
	Terphenyl-D14	55.6/100.0	n/a	10.3/137.0	
				Total Outliers:	**n/a**

NOTES
*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120723.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsds23a.d			
Dup ID : LCSD1			
Prep Batch: sp120720s01			
Prep Date : 07/20/12			
Parent File: lcss23a.d			
naphthalene	34.76/ 30.48	13.1/25.0	SO
2-methylnaphthalene	35.98/ 31.62	12.9/25.0	
1-methylnaphthalene	32.63/ 28.96	11.9/25.0	
acenaphthylene	37.92/ 34.94	8.2/25.0	
acenaphthene **	39.54/ 36.04	9.3/25.0	
fluorene	40.11/ 37.01	8.0/25.0	
phenanthrene	39.94/ 37.21	7.1/25.0	
anthracene	37.75/ 35.23	6.9/25.0	
fluoranthene	39.72/ 37.14	6.7/25.0	
pyrene **	38.56/ 36.33	6.0/25.0	
benzo(a)anthracene	38.78/ 36.76	5.3/25.0	
chrysene	40.39/ 38.17	5.7/25.0	
benzo(b)fluoranthene	42.22/ 39.06	7.8/25.0	
benzo(k)fluoranthene	45.41/ 43.33	4.7/25.0	
benzo(a)pyrene	41.07/ 38.69	6.0/25.0	
indeno(1,2,3-cd)pyrene	42.25/ 39.61	6.5/25.0	
dibenzo(ah)anthracene	42.81/ 40.19	6.3/25.0	
benzo(ghi)perylene	39.26/ 36.54	7.2/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120723.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss23a.d						
Spike ID : LCS1						
Prep Batch: sp120720s01						
Prep Date : 07/20/12						
Parent File: blks23a.d						
1-Methylnaphthalene	28.96/	0.00	50.00	57.9	10.0/120.0	SO
2-Methylnaphthalene	31.62/	0.00	50.00	63.2	35.6/120.0	
Acenaphthene	36.04/	0.00	50.00	72.1	10.0/121.0	
Acenaphthylene	34.94/	0.00	50.00	69.9	35.4/127.7	
Anthracene	35.23/	0.00	50.00	70.5	32.3/142.4	
Benzo(a)anthracene	36.76/	0.00	50.00	73.5	36.7/134.7	
Benzo(a)pyrene	38.69/	0.00	50.00	77.4	10.0/140.8	
Benzo(b)fluoranthene	39.06/	0.00	50.00	78.1	29.0/152.7	
Benzo(ghi)perylene	36.54/	0.00	50.00	73.1	45.2/130.7	
Benzo(k)fluoranthene	43.33/	0.00	50.00	86.7	29.8/136.0	
Chrysene	38.17/	0.00	50.00	76.3	38.7/137.1	
Dibenzo(ah)anthracene	40.19/	0.00	50.00	80.4	45.3/130.8	
Fluorene	37.01/	0.00	50.00	74.0	37.8/127.8	
Fluoranthene	37.14/	0.00	50.00	74.3	10.0/145.8	
Indeno(1,2,3-cd)pyrene	39.61/	0.00	50.00	79.2	39.2/137.4	
Naphthalene	30.48/	0.00	50.00	61.0	10.0/110.0	
Phenanthrene	37.21/	0.00	50.00	74.4	36.4/143.0	
Pyrene	36.33/	0.00	50.00	72.7	10.0/135.8	
					Total Outliers:	**0**
Spike File : lcsds23a.d						
Spike ID : LCSD1						
Prep Batch: sp120720s01						
Prep Date : 07/20/12						
Parent File: blks23a.d						
1-Methylnaphthalene	32.63/	0.00	50.00	65.3	10.0/120.0	SO
2-Methylnaphthalene	35.98/	0.00	50.00	72.0	35.6/120.0	
Acenaphthene	39.54/	0.00	50.00	79.1	10.0/121.0	
Acenaphthylene	37.92/	0.00	50.00	75.8	35.4/127.7	
Anthracene	37.75/	0.00	50.00	75.5	32.3/142.4	
Benzo(a)anthracene	38.78/	0.00	50.00	77.6	36.7/134.7	
Benzo(a)pyrene	41.07/	0.00	50.00	82.1	10.0/140.8	
Benzo(b)fluoranthene	42.22/	0.00	50.00	84.4	29.0/152.7	
Benzo(ghi)perylene	39.26/	0.00	50.00	78.5	45.2/130.7	
Benzo(k)fluoranthene	45.41/	0.00	50.00	90.8	29.8/136.0	
Chrysene	40.39/	0.00	50.00	80.8	38.7/137.1	
Dibenzo(ah)anthracene	42.81/	0.00	50.00	85.6	45.3/130.8	
Fluorene	40.11/	0.00	50.00	80.2	37.8/127.8	
Fluoranthene	39.72/	0.00	50.00	79.4	10.0/145.8	
Indeno(1,2,3-cd)pyrene	42.25/	0.00	50.00	84.5	39.2/137.4	
Naphthalene	34.76/	0.00	50.00	69.5	10.0/110.0	
Phenanthrene	39.94/	0.00	50.00	79.9	36.4/143.0	
Pyrene	38.56/	0.00	50.00	77.1	10.0/135.8	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120723.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blks23a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120720s01
Prep Date : 07/20/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [mg/kg]	RL [mg/kg]
Benzo(b)fluoranthene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Benzo(a)pyrene	Not detected		0.3	20
Benzo(ghi)perylene	Not detected		0.5	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(a)anthracene	Not detected		0.4	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
1-Methylnaphthalene	Not detected		0.4	20
2-Methylnaphthalene	Not detected		0.2	20
Acenaphthylene	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Naphthalene	Not detected		0.2	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120723.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks23a.d
Method Blank Prep Date: 07/20/12
Blank/LCS Preparation Batch: sp120720s01

LCS Data File: lcss23a.d
LCS Prep Date: 07/20/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53229.02	H120723	SP120720S01	07/23/12	TPH DRO (C10-C28)	$TPHDROS
	SP120720S01		07/20/12	DRO Extraction Soil	DROEXTS
S53229.03	H120723	SP120720S01	07/23/12	TPH DRO (C10-C28)	$TPHDROS
	SP120720S01		07/20/12	DRO Extraction Soil	DROEXTS
S53229.04	H120723	SP120720S01	07/23/12	TPH DRO (C10-C28)	$TPHDROS
	SP120720S01		07/20/12	DRO Extraction Soil	DROEXTS
S53229.05	H120723	SP120720S01	07/23/12	TPH DRO (C10-C28)	$TPHDROS
	SP120720S01		07/20/12	DRO Extraction Soil	DROEXTS
S53229.06	H120723	SP120720S01	07/23/12	TPH DRO (C10-C28)	$TPHDROS
	SP120720S01		07/20/12	DRO Extraction Soil	DROEXTS
S53229.07	H120723	SP120720S01	07/23/12	TPH DRO (C10-C28)	$TPHDROS
	SP120720S01		07/20/12	DRO Extraction Soil	DROEXTS
S53230.01	H120723	SP120720S01	07/23/12	TPH DRO (C10-C28)	$TPHDROS
	SP120720S01		07/20/12	DRO Extraction Soil	DROEXTS
S53230.02	H120723	SP120720S01	07/23/12	TPH DRO (C10-C28)	$TPHDROS
	SP120720S01		07/20/12	DRO Extraction Soil	DROEXTS
S53230.03	H120723	SP120720S01	07/23/12	TPH DRO (C10-C28)	$TPHDROS
	SP120720S01		07/20/12	DRO Extraction Soil	DROEXTS
S53243.01	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
S53243.02	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
S53243.03	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
S53243.04	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
S53243.05	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
S53254.01	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
S53254.02	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
S53254.03	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
S53254.04	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
S53254.05	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS
S53254.06	T120723	SP120720S01	07/23/12	Polynuclear Aromatics	$PNA8270
	SP120720S01		07/20/12	Semi Volatile Extraction	PNAEXTS

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120723.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d23a.d	07/23/12 12:41	51	198	30.0	80.0	53.3	50344	PASS
		68	69	0.0	2.0	1.8	638	PASS
		69	198	0.0	100.0	37.0	34936	PASS
		70	69	0.0	2.0	0.6	214	PASS
		127	198	25.0	75.0	51.9	49032	PASS
		197	198	0.0	1.0	0.9	833	PASS
		198	198	100.0	100.0	100.0	94536	PASS
		199	198	5.0	9.0	6.6	6225	PASS
		275	198	10.0	30.0	27.4	25944	PASS
		365	198	1.0	100.0	4.3	4108	PASS
		441	443	0.0	100.0	70.7	13589	PASS
		442	198	40.0	110.0	97.1	91824	PASS
		443	442	15.0	24.0	20.9	19232	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120723.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*		*RT Range*
spnn23a.d	07/23/12 13:03	1,4-Dichlorobenzene-D4	91042/ 5.11	45521-	182084	4.61- 5.61
		Naphthalene-D8	435505/ 6.06	217753-	871010	5.56- 6.56
		Acenaphthalene-D10	275351/ 7.44	137676-	550702	6.94- 7.94
		Phenanthrene-D10	487695/ 8.73	243848-	975390	8.23- 9.23
		Chrysene-D12	637814/11.53	318907-	1275628	11.03-12.03
		Perylene-D12	543879/13.44	271940-	1087758	12.94-13.94
					Total Outliers:	**N/A**
blks23a.d	07/23/12 13:26	1,4-Dichlorobenzene-D4	82427/ 5.12	Ratio: 0.905	Diff.:	0.01
		Naphthalene-D8	397022/ 6.07	Ratio: 0.912	Diff.:	0.01
		Acenaphthalene-D10	248620/ 7.45	Ratio: 0.903	Diff.:	0.01
		Phenanthrene-D10	462353/ 8.74	Ratio: 0.948	Diff.:	0.01
		Chrysene-D12	559378/11.53	Ratio: 0.877	Diff.:	0.00
		Perylene-D12	459572/13.45	Ratio: 0.845	Diff.:	0.01
					Total Outliers:	**0**
lcss23a.d	07/23/12 13:49	1,4-Dichlorobenzene-D4	86819/ 5.11	Ratio: 0.954	Diff.:	0.00
		Naphthalene-D8	435589/ 6.06	Ratio: 1.000	Diff.:	0.00
		Acenaphthalene-D10	273803/ 7.44	Ratio: 0.994	Diff.:	0.00
		Phenanthrene-D10	506235/ 8.73	Ratio: 1.038	Diff.:	0.00
		Chrysene-D12	646596/11.52	Ratio: 1.014	Diff.:	-0.01
		Perylene-D12	536863/13.44	Ratio: 0.987	Diff.:	0.00
					Total Outliers:	**0**
lcsds23a.d	07/23/12 14:11	1,4-Dichlorobenzene-D4	87918/ 5.11	Ratio: 0.966	Diff.:	0.00
		Naphthalene-D8	432835/ 6.06	Ratio: 0.994	Diff.:	0.00
		Acenaphthalene-D10	273302/ 7.44	Ratio: 0.993	Diff.:	0.00
		Phenanthrene-D10	500663/ 8.73	Ratio: 1.027	Diff.:	0.00
		Chrysene-D12	646226/11.52	Ratio: 1.013	Diff.:	-0.01
		Perylene-D12	532464/13.44	Ratio: 0.979	Diff.:	0.00
					Total Outliers:	**0**
5324301.d	07/23/12 14:34	1,4-Dichlorobenzene-D4	80134/ 5.12	Ratio: 0.880	Diff.:	0.01
		Naphthalene-D8	380268/ 6.07	Ratio: 0.873	Diff.:	0.01
		Acenaphthalene-D10	237652/ 7.45	Ratio: 0.863	Diff.:	0.01
		Phenanthrene-D10	439216/ 8.74	Ratio: 0.901	Diff.:	0.01
		Chrysene-D12	509395/11.53	Ratio: 0.799	Diff.:	0.00
		Perylene-D12	433469/13.44	Ratio: 0.797	Diff.:	0.00
					Total Outliers:	**0**
5324302.d	07/23/12 14:56	1,4-Dichlorobenzene-D4	73568/ 5.11	Ratio: 0.808	Diff.:	0.00
		Naphthalene-D8	360375/ 6.06	Ratio: 0.827	Diff.:	0.00
		Acenaphthalene-D10	225341/ 7.44	Ratio: 0.818	Diff.:	0.00
		Phenanthrene-D10	422417/ 8.72	Ratio: 0.866	Diff.:	-0.01
		Chrysene-D12	522792/11.51	Ratio: 0.820	Diff.:	-0.02
		Perylene-D12	451347/13.42	Ratio: 0.830	Diff.:	-0.02
					Total Outliers:	**0**
5324303.d	07/23/12 15:19	1,4-Dichlorobenzene-D4	76191/ 5.11	Ratio: 0.837	Diff.:	0.00
		Naphthalene-D8	362585/ 6.06	Ratio: 0.833	Diff.:	0.00
		Acenaphthalene-D10	225900/ 7.44	Ratio: 0.820	Diff.:	0.00
		Phenanthrene-D10	424462/ 8.72	Ratio: 0.870	Diff.:	-0.01
		Chrysene-D12	495570/11.51	Ratio: 0.777	Diff.:	-0.02
		Perylene-D12	417435/13.42	Ratio: 0.768	Diff.:	-0.02
					Total Outliers:	**0**
5324305.d	07/23/12 15:41	1,4-Dichlorobenzene-D4	74759/ 5.10	Ratio: 0.821	Diff.:	-0.01
		Naphthalene-D8	351496/ 6.06	Ratio: 0.807	Diff.:	0.00
		Acenaphthalene-D10	221218/ 7.44	Ratio: 0.803	Diff.:	0.00
		Phenanthrene-D10	418201/ 8.72	Ratio: 0.858	Diff.:	-0.01
		Chrysene-D12	511387/11.51	Ratio: 0.802	Diff.:	-0.02
		Perylene-D12	439465/13.43	Ratio: 0.808	Diff.:	-0.01
					Total Outliers:	**0**

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120723.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5325402.d	07/23/12 16:04	1,4-Dichlorobenzene-D4	75960/ 5.11	Ratio: 0.834	Diff.: 0.00
		Naphthalene-D8	363172/ 6.06	Ratio: 0.834	Diff.: 0.00
		Acenaphthalene-D10	227353/ 7.44	Ratio: 0.826	Diff.: 0.00
		Phenanthrene-D10	415644/ 8.72	Ratio: 0.852	Diff.: -0.01
		Chrysene-D12	494281/11.51	Ratio: 0.775	Diff.: -0.02
		Perylene-D12	425138/13.42	Ratio: 0.782	Diff.: -0.02
					Total Outliers: 0
5325403.d	07/23/12 16:26	1,4-Dichlorobenzene-D4	73602/ 5.11	Ratio: 0.808	Diff.: 0.00
		Naphthalene-D8	351646/ 6.06	Ratio: 0.807	Diff.: 0.00
		Acenaphthalene-D10	217467/ 7.44	Ratio: 0.790	Diff.: 0.00
		Phenanthrene-D10	410107/ 8.72	Ratio: 0.841	Diff.: -0.01
		Chrysene-D12	470472/11.51	Ratio: 0.738	Diff.: -0.02
		Perylene-D12	404514/13.42	Ratio: 0.744	Diff.: -0.02
					Total Outliers: 0
5325404.d	07/23/12 16:49	1,4-Dichlorobenzene-D4	71982/ 5.11	Ratio: 0.791	Diff.: 0.00
		Naphthalene-D8	343261/ 6.06	Ratio: 0.788	Diff.: 0.00
		Acenaphthalene-D10	213156/ 7.44	Ratio: 0.774	Diff.: 0.00
		Phenanthrene-D10	397569/ 8.72	Ratio: 0.815	Diff.: -0.01
		Chrysene-D12	464038/11.51	Ratio: 0.728	Diff.: -0.02
		Perylene-D12	402726/13.42	Ratio: 0.740	Diff.: -0.02
					Total Outliers: 0
5325406.d	07/23/12 17:11	1,4-Dichlorobenzene-D4	73373/ 5.11	Ratio: 0.806	Diff.: 0.00
		Naphthalene-D8	351969/ 6.06	Ratio: 0.808	Diff.: 0.00
		Acenaphthalene-D10	218332/ 7.44	Ratio: 0.793	Diff.: 0.00
		Phenanthrene-D10	407461/ 8.72	Ratio: 0.835	Diff.: -0.01
		Chrysene-D12	482331/11.51	Ratio: 0.756	Diff.: -0.02
		Perylene-D12	413467/13.42	Ratio: 0.760	Diff.: -0.02
					Total Outliers: 0
5325405.d	07/23/12 17:34	1,4-Dichlorobenzene-D4	71280/ 5.11	Ratio: 0.783	Diff.: 0.00
		Naphthalene-D8	341981/ 6.07	Ratio: 0.785	Diff.: 0.01
		Acenaphthalene-D10	211562/ 7.45	Ratio: 0.768	Diff.: 0.01
		Phenanthrene-D10	389067/ 8.74	Ratio: 0.798	Diff.: 0.01
		Chrysene-D12	466596/11.53	Ratio: 0.732	Diff.: 0.00
		Perylene-D12	406739/13.44	Ratio: 0.748	Diff.: 0.00
					Total Outliers: 0
5325401.d	07/23/12 17:56	1,4-Dichlorobenzene-D4	86744/ 5.11	Ratio: 0.953	Diff.: 0.00
		Naphthalene-D8	461718/ 6.06	Ratio: 1.060	Diff.: 0.00
		Acenaphthalene-D10	272163/ 7.44	Ratio: 0.988	Diff.: 0.00
		Phenanthrene-D10	504407/ 8.73	Ratio: 1.034	Diff.: 0.00
		Chrysene-D12	579201/11.52	Ratio: 0.908	Diff.: -0.01
		Perylene-D12	484845/13.43	Ratio: 0.891	Diff.: -0.01
					Total Outliers: 0
5324304.d	07/23/12 18:19	1,4-Dichlorobenzene-D4	79741/ 5.11	Ratio: 0.876	Diff.: 0.00
		Naphthalene-D8	395066/ 6.06	Ratio: 0.907	Diff.: 0.00
		Acenaphthalene-D10	251733/ 7.44	Ratio: 0.914	Diff.: 0.00
		Phenanthrene-D10	493456/ 8.73	Ratio: 1.012	Diff.: 0.00
		Chrysene-D12	616574/11.53	Ratio: 0.967	Diff.: 0.00
		Perylene-D12	485107/13.44	Ratio: 0.892	Diff.: 0.00
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120723.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*

KEY:

```
[Area/RT]:    Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]:   +/- 0.5 minutes of relative internal standard RT
[Ratio]:      Ratio of internal standard areas
[Diff]:       Difference in internal standard retention times (minutes)
```

CONTROL LIMITS:

```
Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT
```

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120723.1

LIMS ID: S53243.01
Data File: 5324301.d
Date Received: 07/18/12

Tag: SB 123 (07-16-12) (6-8)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120720s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/23/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	80	1		%	07/20/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/23/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (53%)				07/23/12	
4165-60-0	Nitrobenzene-D5	Pass (59%)					
98904-43-9	Terphenyl-D14	Pass (57%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120723.1

LIMS ID: S53243.02
Data File: 5324302.d
Date Received: 07/18/12

Tag: SB 124 (07-16-12) (4-6)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120720s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/23/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	84	1		%	07/20/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/23/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (46%)				07/23/12	
4165-60-0	Nitrobenzene-D5	Pass (47%)					
98904-43-9	Terphenyl-D14	Pass (56%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120723.1

LIMS ID: S53243.03
Data File: 5324303.d
Date Received: 07/18/12

Tag: SB 117 (07-16-12) (2-4)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120720s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/23/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/20/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/23/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (52%)				07/23/12	
4165-60-0	Nitrobenzene-D5	Pass (58%)					
98904-43-9	Terphenyl-D14	Pass (57%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120723.1

LIMS ID: S53243.04
Data File: 5324304.d
Date Received: 07/18/12

Tag: SB 157 (07-17-12) (3-5)
Notes: pna-s 30g/2ml df:40
sd/1; id:sp120720s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 40

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	1500		ug/kg	07/23/12	X
208-96-8	Acenaphthylene	Not detected	1500		ug/kg		X
120-12-7	Anthracene	Not detected	1500		ug/kg		X
56-55-3	Benzo(a)anthracene	Not detected	1500		ug/kg		X
50-32-8	Benzo(a)pyrene	Not detected	1500		ug/kg		X
205-99-2	Benzo(b)fluoranthene	Not detected	1500		ug/kg		X
207-08-9	Benzo(k)fluoranthene	Not detected	1500		ug/kg		X
191-24-2	Benzo(ghi)perylene	Not detected	1500		ug/kg		X
218-01-9	Chrysene	Not detected	1500		ug/kg		X
53-70-3	Dibenzo(ah)anthracene	Not detected	1500		ug/kg		X
206-44-0	Fluoranthene	Not detected	1500		ug/kg		X
86-73-7	Fluorene	Not detected	1500		ug/kg		X
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	1500		ug/kg		X
91-20-3	Naphthalene	Not detected	1500		ug/kg		X
85-01-8	Phenanthrene	Not detected	1500		ug/kg		X
129-00-0	Pyrene	Not detected	1500		ug/kg		X
91-57-6	2-Methylnaphthalene	Not detected	1500		ug/kg		X
90-12-0	1-Methylnaphthalene	Not detected	1500		ug/kg		X
Total Solids							
TSOLIDS	Total Solids	91	1		%	07/20/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/23/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (43%)				07/23/12	
4165-60-0	Nitrobenzene-D5	Pass (48%)					
98904-43-9	Terphenyl-D14	Pass (56%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120723.1

LIMS ID: S53243.05
Data File: 5324305.d
Date Received: 07/18/12

Tag: SB 157 (07-17-12) (8-10)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120720s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/23/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	81	1		%	07/20/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/20/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/23/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (52%)				07/23/12	
4165-60-0	Nitrobenzene-D5	Pass (65%)					
98904-43-9	Terphenyl-D14	Pass (58%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
Analytical Batch: t120723.1
GC Column: DB-5/L:30m/D:0.25mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324301.d Vial: 6
Acq On : 23 Jul 12 2:34 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:05 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

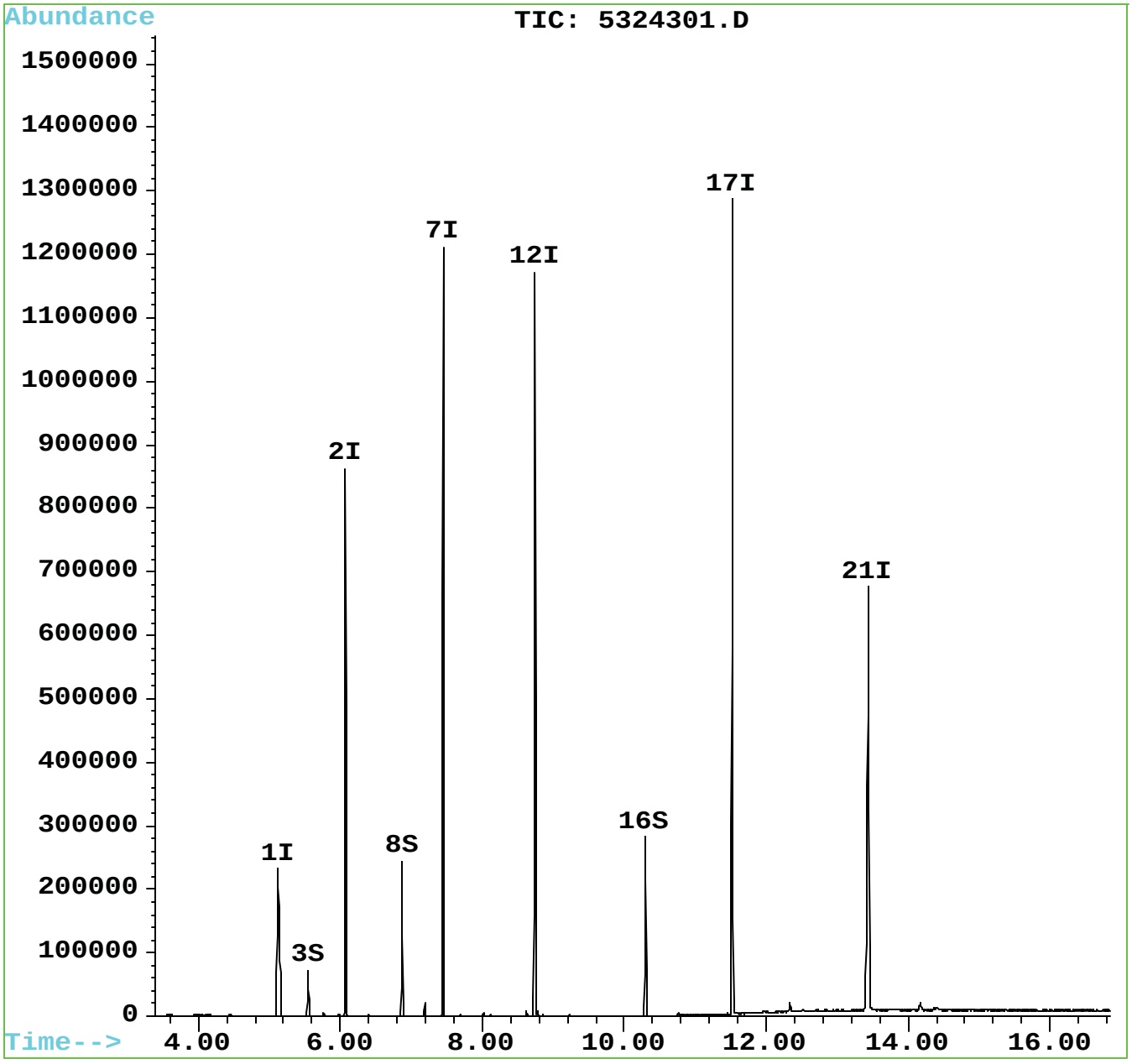
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	80134	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	380268	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	237652	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	439216	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.53	240	509395	40.00	ng/ul	0.0
21) PERYLENE-D12	13.44	264	433469	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	27929	58.91	ng/ul	58.9
8) 2-Fluorobiphenyl	6.87	172	64121	52.83	ng/ul	52.8
16) Terphenyl-D14	10.30	244	87784	56.46	ng/ul	56.4
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324301.d Vial: 6
Acq On : 23 Jul 12 2:34 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:05 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324302.d Vial: 7
Acq On : 23 Jul 12 2:56 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:06 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

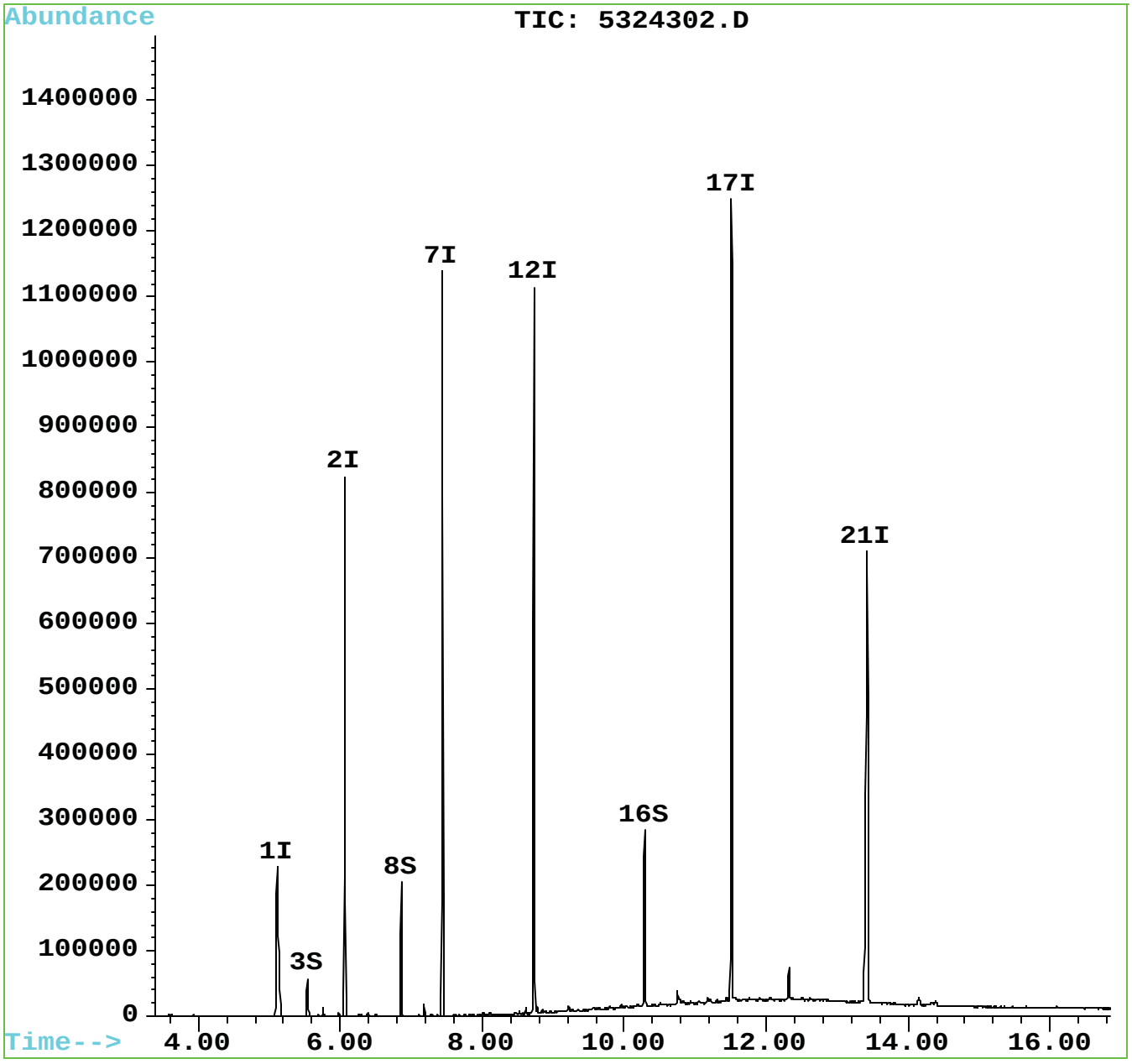
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	73568	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	360375	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	225341	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	422417	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	522792	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	451347	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	21309	47.42	ng/ul	47.4
8) 2-Fluorobiphenyl	6.86	172	52456	45.58	ng/ul	45.5
16) Terphenyl-D14	10.29	244	83706	55.98	ng/ul	55.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324302.d Vial: 7
Acq On : 23 Jul 12 2:56 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:06 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324303.d Vial: 8
Acq On : 23 Jul 12 3:19 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:06 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

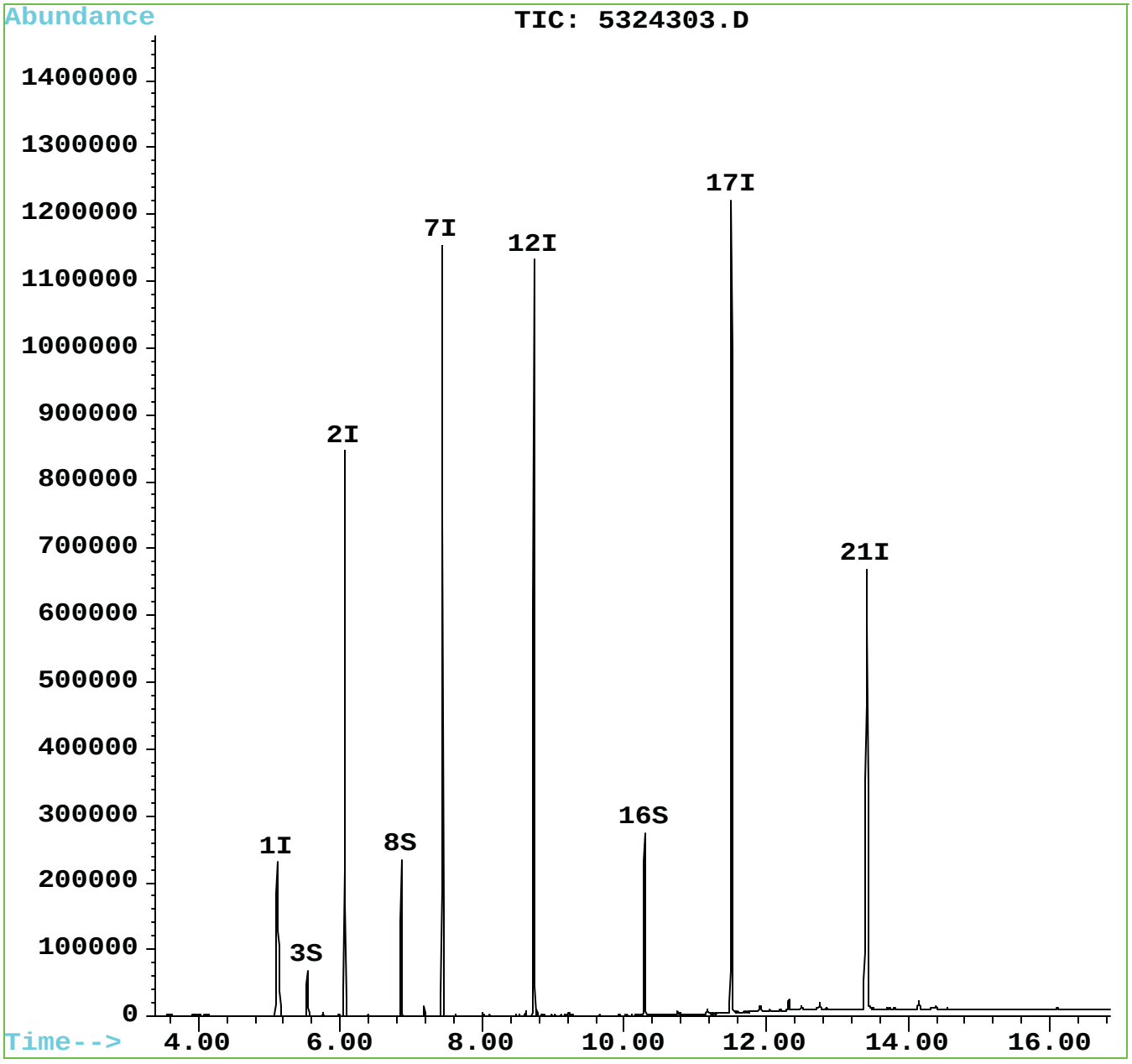
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	76191	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	362585	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	225900	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	424462	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	495570	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	417435	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	26175	57.90	ng/ul	57.9
8) 2-Fluorobiphenyl	6.86	172	59481	51.56	ng/ul	51.5
16) Terphenyl-D14	10.29	244	85770	57.09	ng/ul	57.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324303.d Vial: 8
Acq On : 23 Jul 12 3:19 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:06 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324304.d Vial: 9
Acq On : 23 Jul 12 6:19 pm Operator: PL
Sample : pna-s 30g/2ml df:40 Inst : Tempest
Misc : sd/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:06 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

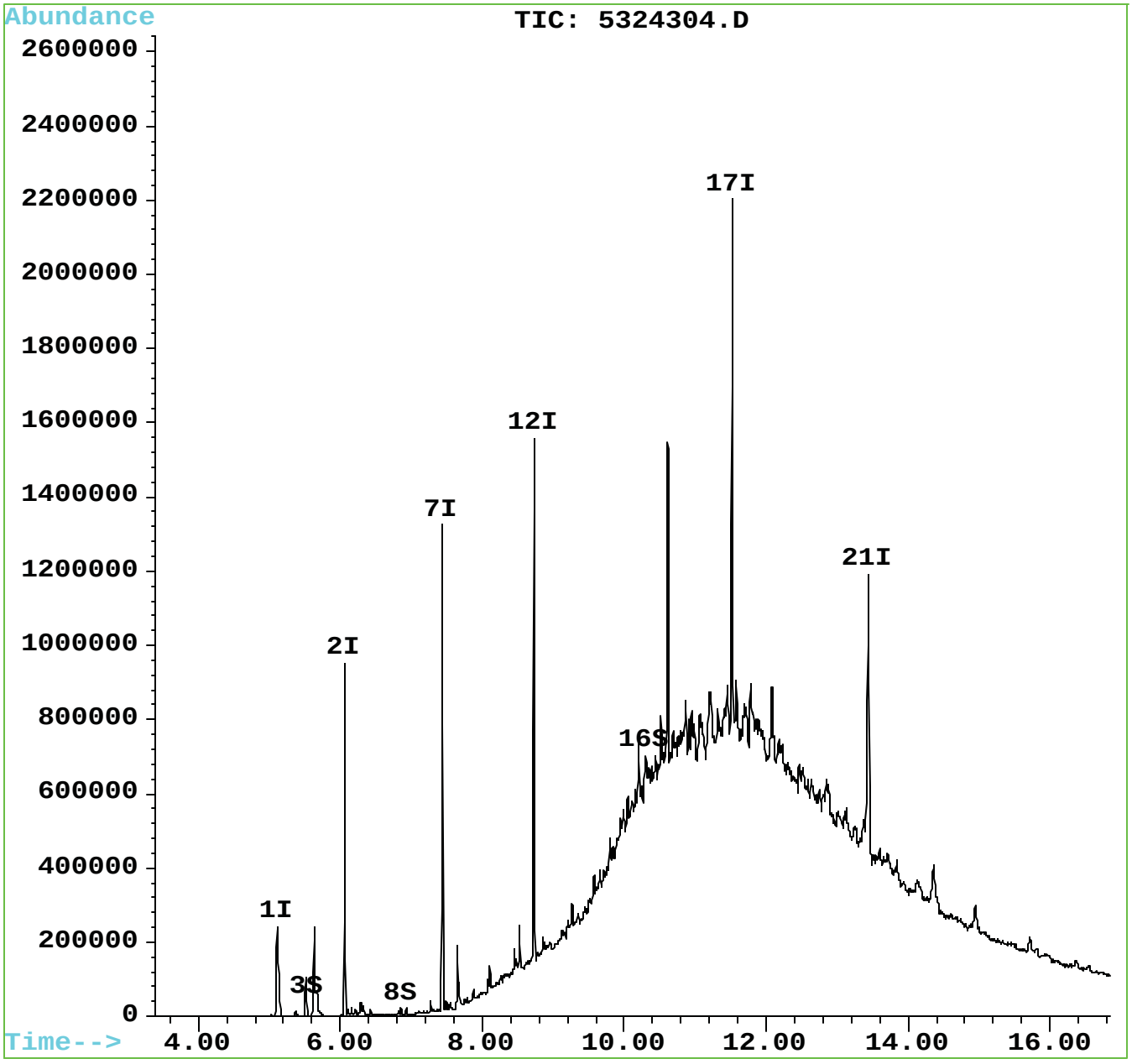
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	79741	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	395066	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	251733	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.73	188	493456	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.53	240	616574	40.00	ng/ul	0.0
21) PERYLENE-D12	13.44	264	485107	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	1778	3.61	ng/ul	3.6
8) 2-Fluorobiphenyl	6.86	172	4155	3.23	ng/ul	3.2
16) Terphenyl-D14	10.29	244	7283	4.17	ng/ul	4.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324304.d Vial: 9
Acq On : 23 Jul 12 6:19 pm Operator: PL
Sample : pna-s 30g/2ml df:40 Inst : Tempest
Misc : sd/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:06 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324305.d Vial: 10
Acq On : 23 Jul 12 3:41 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:07 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

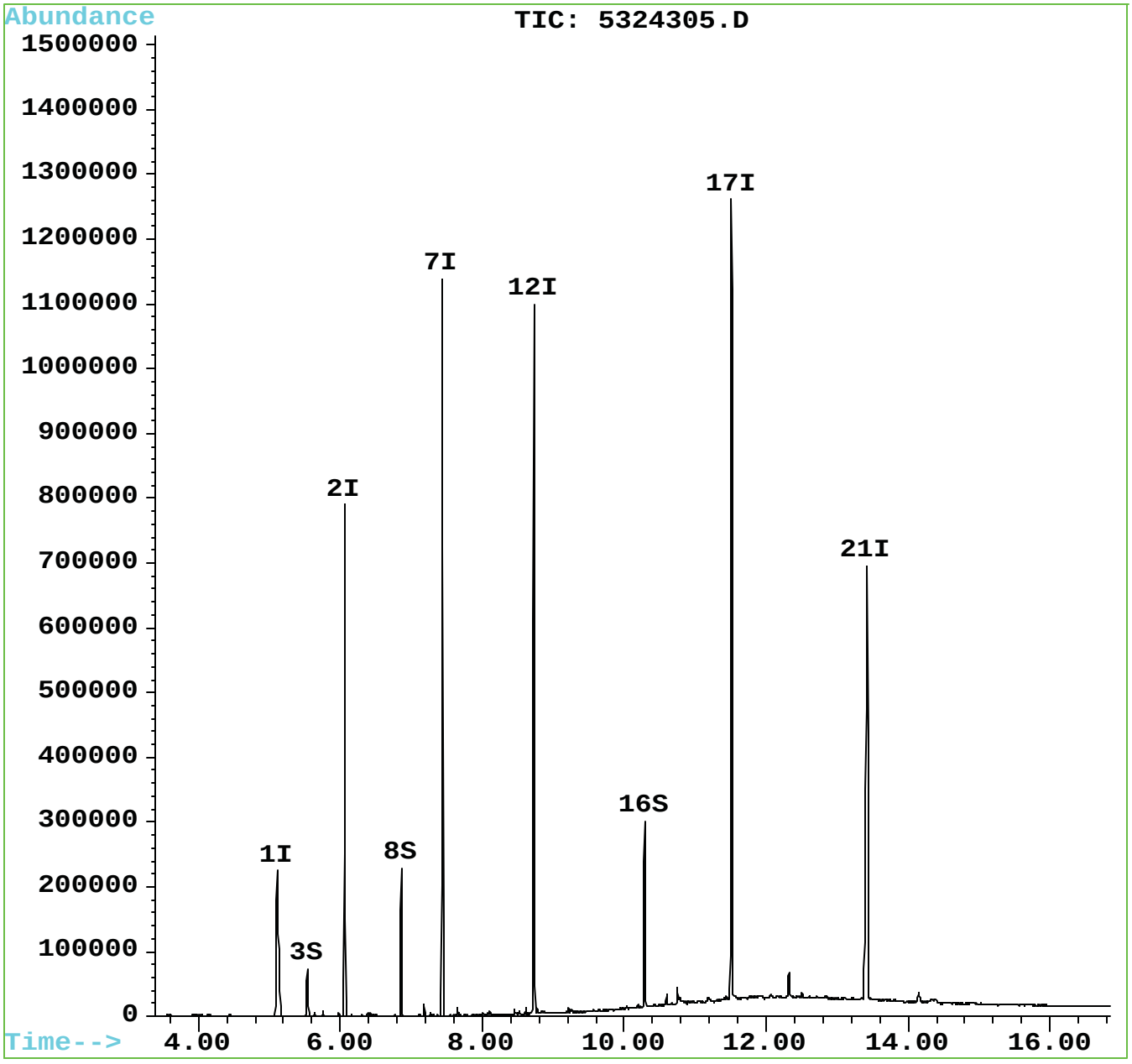
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.10	152	74759	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	351496	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	221218	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	418201	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	511387	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	439465	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	28466	64.95	ng/ul	64.9
8) 2-Fluorobiphenyl	6.86	172	58601	51.87	ng/ul	51.8
16) Terphenyl-D14	10.29	244	85949	58.06	ng/ul	58.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\5324305.d Vial: 10
Acq On : 23 Jul 12 3:41 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:07 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120723.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120620t.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	A	0.299	3.04	0.288	0.295	0.291	0.306	0.309	0.307				
	Naphthalene	A	0.994	2.36	1.014	0.969	0.959	1.007	1.009	1.004				
	2-Methylnaphthalene	A	0.556	3.05	0.542	0.540	0.541	0.568	0.575	0.572				
	1-Methylnaphthalene	A	0.648	3.33	0.626	0.628	0.632	0.659	0.673	0.669				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.226	4.08	1.179	1.179	1.184	1.265	1.286	1.261				
	Acenaphthylene	A	1.639	7.00	1.432	1.610	1.621	1.711	1.734	1.726				
	Acenaphthene **	A	0.978	3.73	0.937	0.953	0.948	1.007	1.024	1.000				
	Fluorene	A	1.263	4.43	1.187	1.220	1.237	1.304	1.324	1.307				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	A	1.047	3.62	1.100	1.002	1.006	1.047	1.072	1.053				
	Anthracene	A	1.057	3.26	1.024	1.025	1.035	1.065	1.108	1.083				
	Fluoranthene	A	1.179	5.74	1.081	1.132	1.151	1.228	1.243	1.241				
	Terphenyl-D14	A	0.850	7.10	0.811	0.775	0.803	0.887	0.916	0.906				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	0.980	8.44	0.819	0.981	0.985	1.026	1.045	1.024				
	Benzo(a)anthracene	A	0.988	3.92	0.975	0.939	0.956	1.000	1.041	1.019				
	Chrysene	A	0.971	5.16	0.901	0.939	0.945	0.999	1.027	1.016				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	1.046	9.60	0.869	0.990	1.076	1.110	1.140	1.092				
	Benzo(k)fluoranthene	A	0.963	10.65	0.835	0.872	0.916	1.030	1.030	1.092				
	Benzo(a)pyrene	A	0.876	7.14	0.792	0.811	0.867	0.919	0.937	0.927				
	Indeno(1,2,3-cd)pyrene	A	1.175	10.15	0.969	1.106	1.184	1.256	1.267	1.269				
	Dibenzo(ah)anthracene	A	0.996	11.49	0.797	0.924	1.018	1.076	1.082	1.076				
	Benzo(ghi)perylene	A	0.950	4.75	0.889	0.904	0.944	0.986	0.993	0.984				

Calibration Date: 62/0t/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120620t.M (Mean %RSD: 5.81)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\thanatos.4\methods\p120620t.m\

Injection Time	Calibration Data File
06/20/12 14:26	d20a.d
06/20/12 14:54	pna0005.d
06/20/12 16:01	pna_020.d
06/20/12 16:23	pna_040.d
06/20/12 16:46	pna_050.d
06/20/12 17:08	pna_060.d
06/20/12 17:31	pna_080.d
06/20/12 17:53	pna_100.d

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

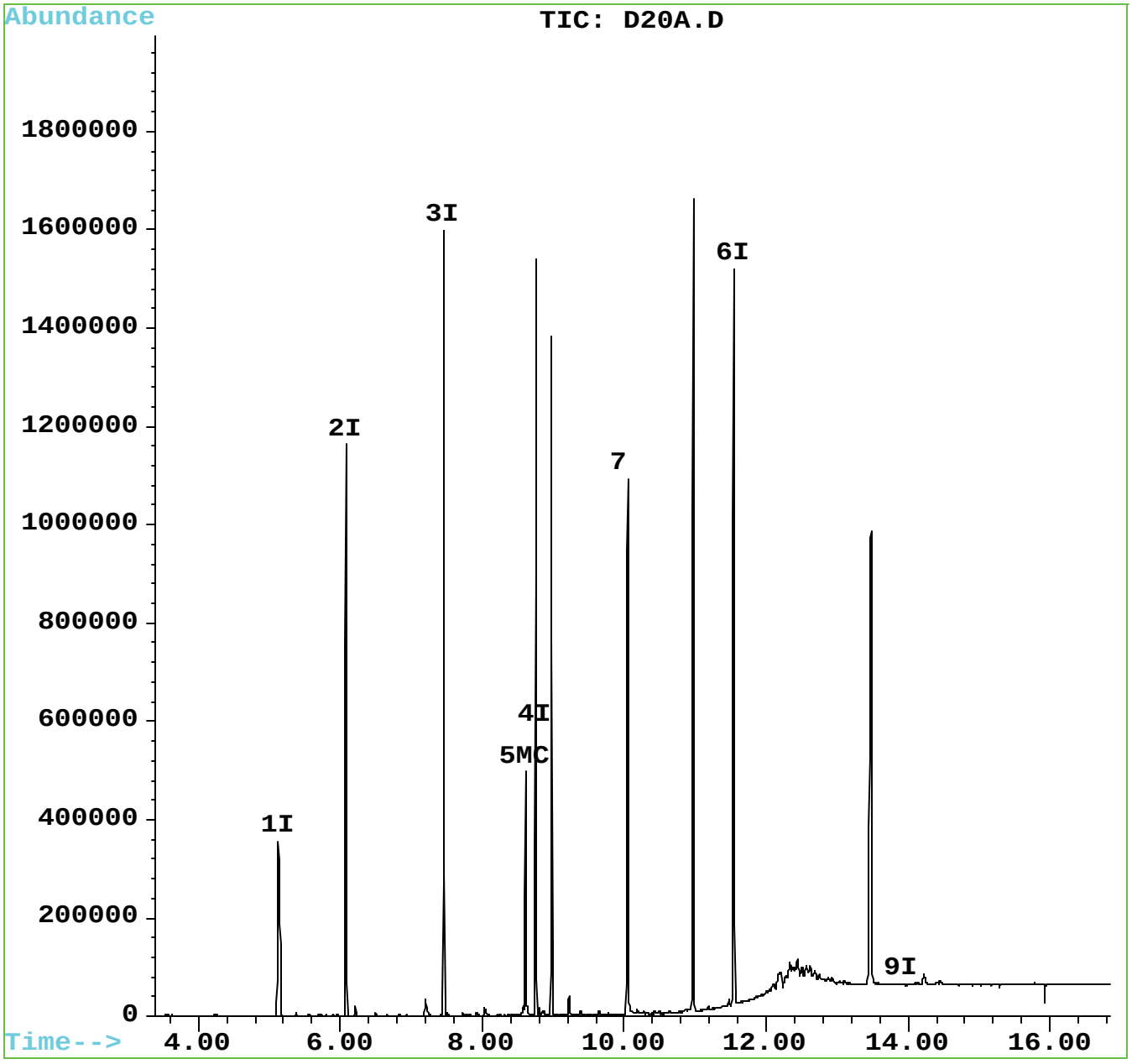
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	132678	40.00	ng/ul	-0.1
2) NAPHTHALENE-D8	6.08	136	569431	40.00	ng/ul	-0.1
3) ACENAPHTHALENE-D10	7.46	160	141248	40.00	ng/ul	-0.1
4) PHENANTHRENE-D10	8.75	188	623392	40.00	ng/ul	-0.1
6) CHRYSENE-D12	11.55	240	698034	40.00	ng/ul	-0.1
9) PERYLENE-D12	13.91	264	138	40.00	ng/ul	0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.61	266	58390	28.87	ng/ul	9
7) Benzidine	10.05	184	503493	85.56	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

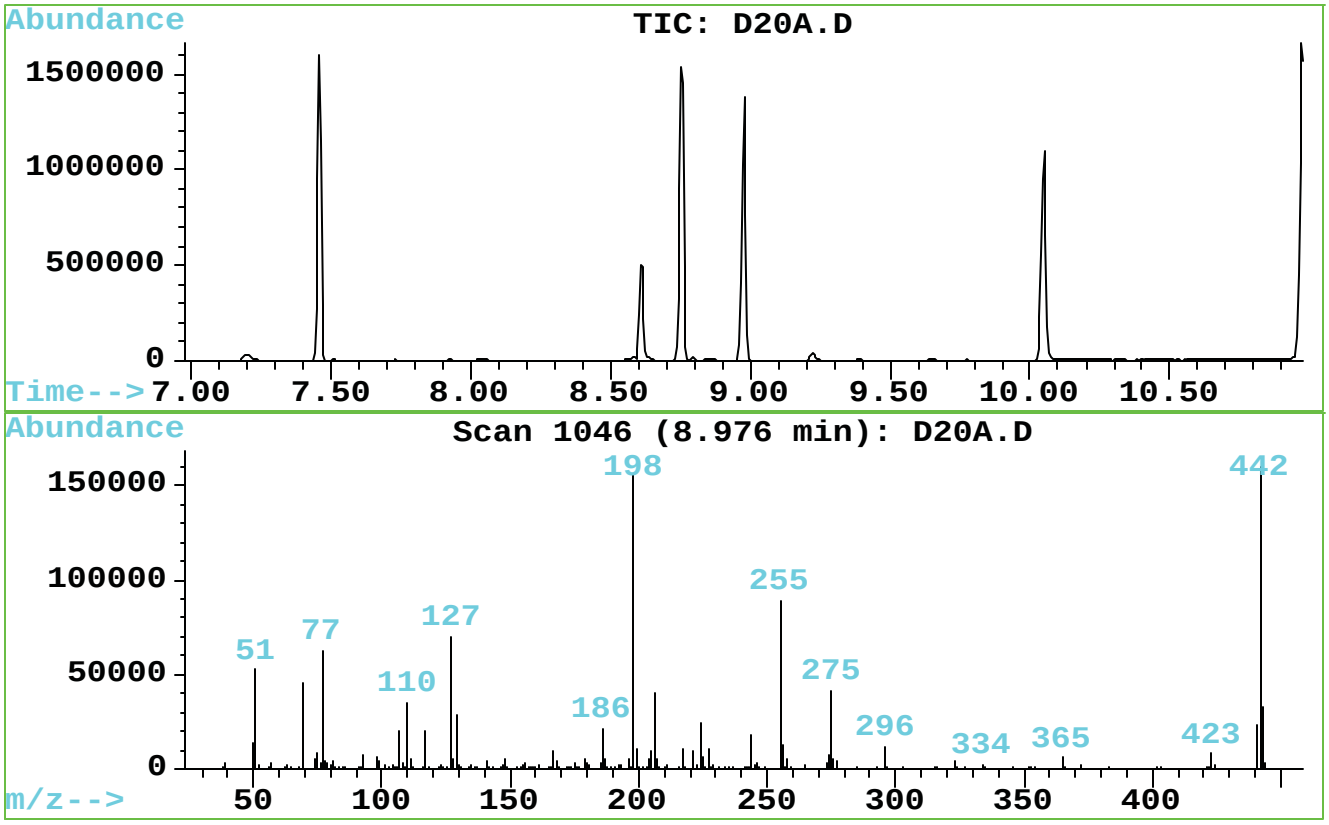
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120620.CAL\D20A.D Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270



Peak Apex is scan: 1046

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	33.7	52576	PASS
68	69	0	2	1.6	727	PASS
69	198	0	100	29.2	45504	PASS
70	69	0	2	0.6	257	PASS
127	198	25	75	45.1	70240	PASS
197	198	0	1	0.7	1032	PASS
198	198	100	100	100.0	155904	PASS
199	198	5	9	6.7	10402	PASS
275	198	10	30	26.5	41352	PASS
365	198	1	100	3.8	5941	PASS
441	443	0	100	71.5	23560	PASS
442	198	40	110	102.8	160256	PASS
443	442	15	24	20.6	32936	PASS

D20A.D P120620T.M Thu Jul 05 13:13:55 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

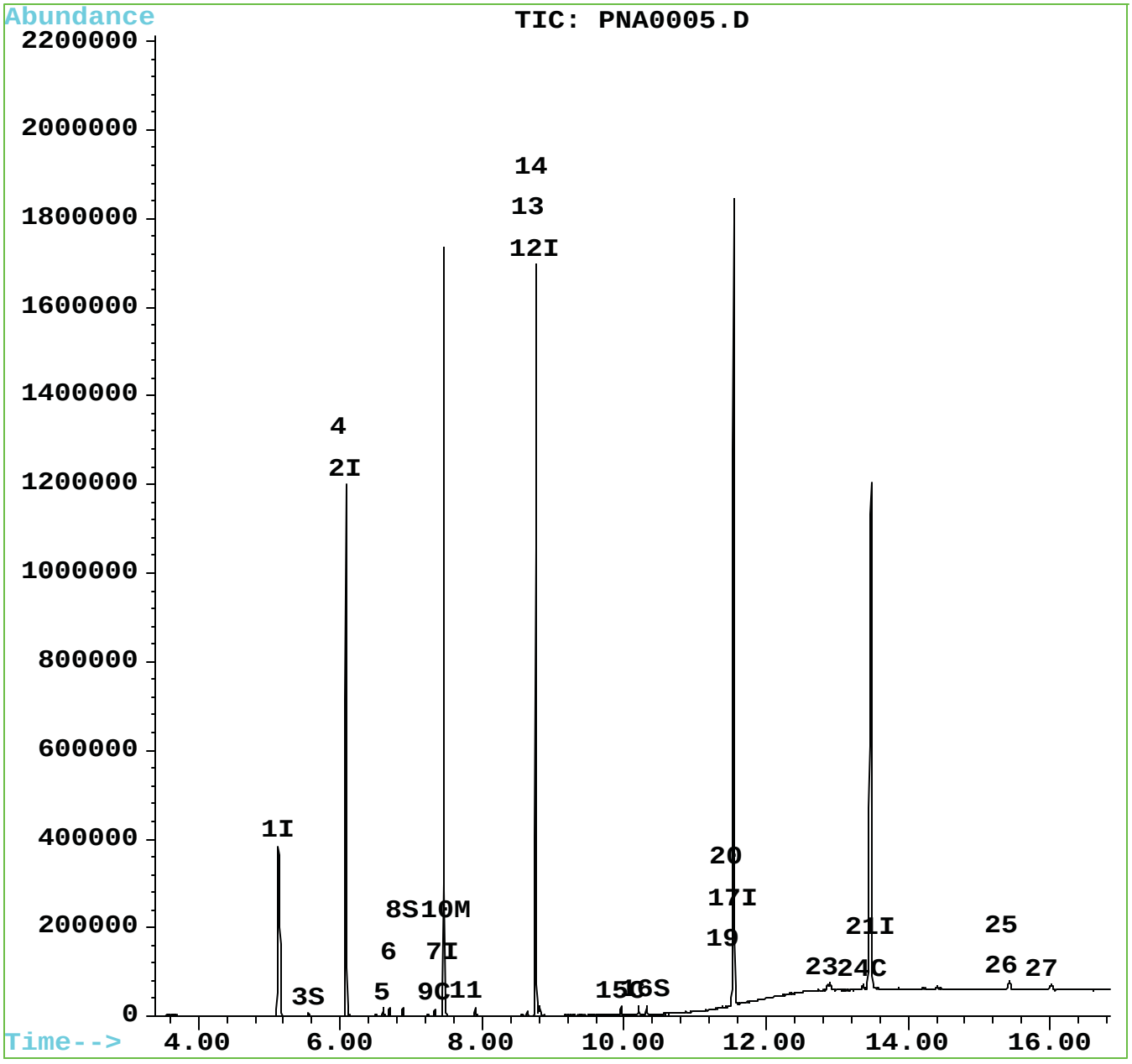
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	143390	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	584359	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	361670	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640265	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	851411	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	810081	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	2104	0.41	ng/ul	0.4
8) 2-Fluorobiphenyl	6.88	172	5332	0.49	ng/ul	0.4
16) Terphenyl-D14	10.31	244	6487	0.47	ng/ul	0.4
Target Compounds						Qvalu
4) Naphthalene	6.09	128	7409	0.50	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	3958	0.49	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	4576	0.49	ng/ul	9
9) Acenaphthylene	7.33	152	6474	0.43	ng/ul	9
10) Acenaphthene **	7.48	154	4235	0.49	ng/ul	10
11) Fluorene	7.90	166	5367	0.48	ng/ul	10
13) Phenanthrene	8.77	178	8800	0.53	ng/ul	9
14) Anthracene	8.81	178	8193	0.48	ng/ul	10
15) Fluoranthene	9.95	202	8650	0.46	ng/ul	9
19) Benzo(a)anthracene	11.52	228	10380	0.49	ng/ulm	9
20) Chrysene	11.57	228	9593	0.45	ng/ul	9
23) Benzo(k)fluoranthene	12.90	252	8460	0.41	ng/ul	9
24) Benzo(a)pyrene	13.37	252	8024	0.44	ng/ul	7
25) Indeno(1,2,3-cd)pyrene	15.43	276	9817	0.47	ng/ul	9
26) Dibenzo(ah)anthracene	15.43	278	8071	2.93	ng/ulm	
27) Benzo(ghi)perylene	16.02	276	9004	0.53	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

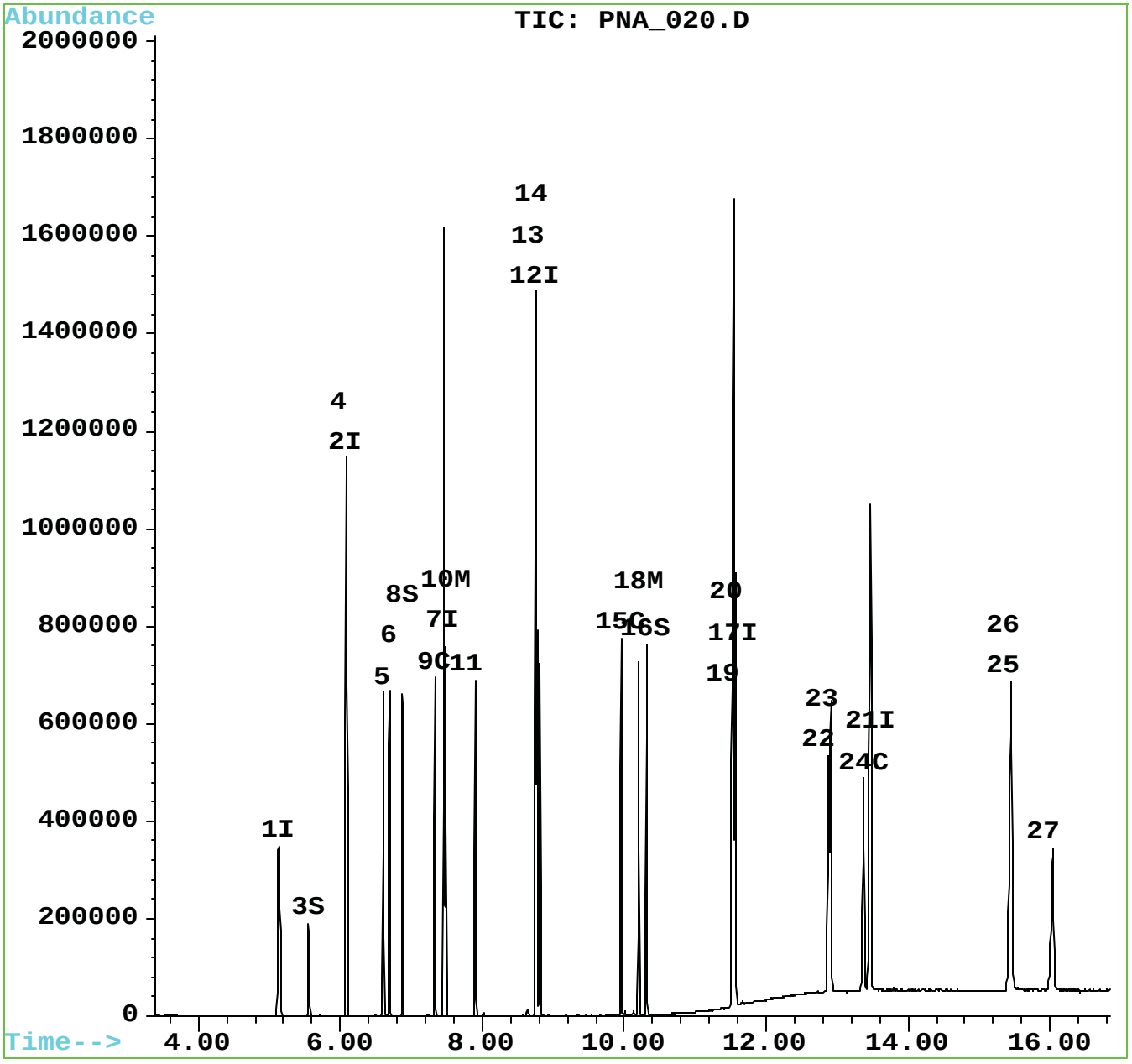
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	135615	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	556039	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	346157	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	598956	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.54	240	709363	40.00	ng/ul	0.0
21) PERYLENE-D12	13.47	264	692857	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	82003	17.37	ng/ul	17.3
8) 2-Fluorobiphenyl	6.88	172	204105	19.88	ng/ul	19.8
16) Terphenyl-D14	10.31	244	231969	19.02	ng/ul	19.0
Target Compounds						Qvalu
4) Naphthalene	6.09	128	269421	19.32	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	150167	19.85	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	174575	20.06	ng/ul	9
9) Acenaphthylene	7.33	152	278716	19.95	ng/ul	9
10) Acenaphthene **	7.48	154	164917	20.36	ng/ul	9
11) Fluorene	7.91	166	211147	19.78	ng/ul	9
13) Phenanthrene	8.77	178	300111	19.28	ng/ul	9
14) Anthracene	8.82	178	306951	19.46	ng/ul	9
15) Fluoranthene	9.95	202	339050	19.64	ng/ul	9
18) Pyrene **	10.21	202	347810	19.42	ng/ul	9
19) Benzo(a)anthracene	11.52	228	333084	19.02	ng/ul	9
20) Chrysene	11.57	228	333074	19.43	ng/ul	9
22) Benzo(b)fluoranthene	12.88	252	343106	19.00	ng/ul	9
23) Benzo(k)fluoranthene	12.91	252	301991	17.52	ng/ul	9
24) Benzo(a)pyrene	13.37	252	280817	18.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.45	276	383241	21.67	ng/ul	9
26) Dibenzo(ah)anthracene	15.45	278	320076	76.29	ng/ul#	
27) Benzo(ghi)perylene	16.04	276	313019	21.38	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

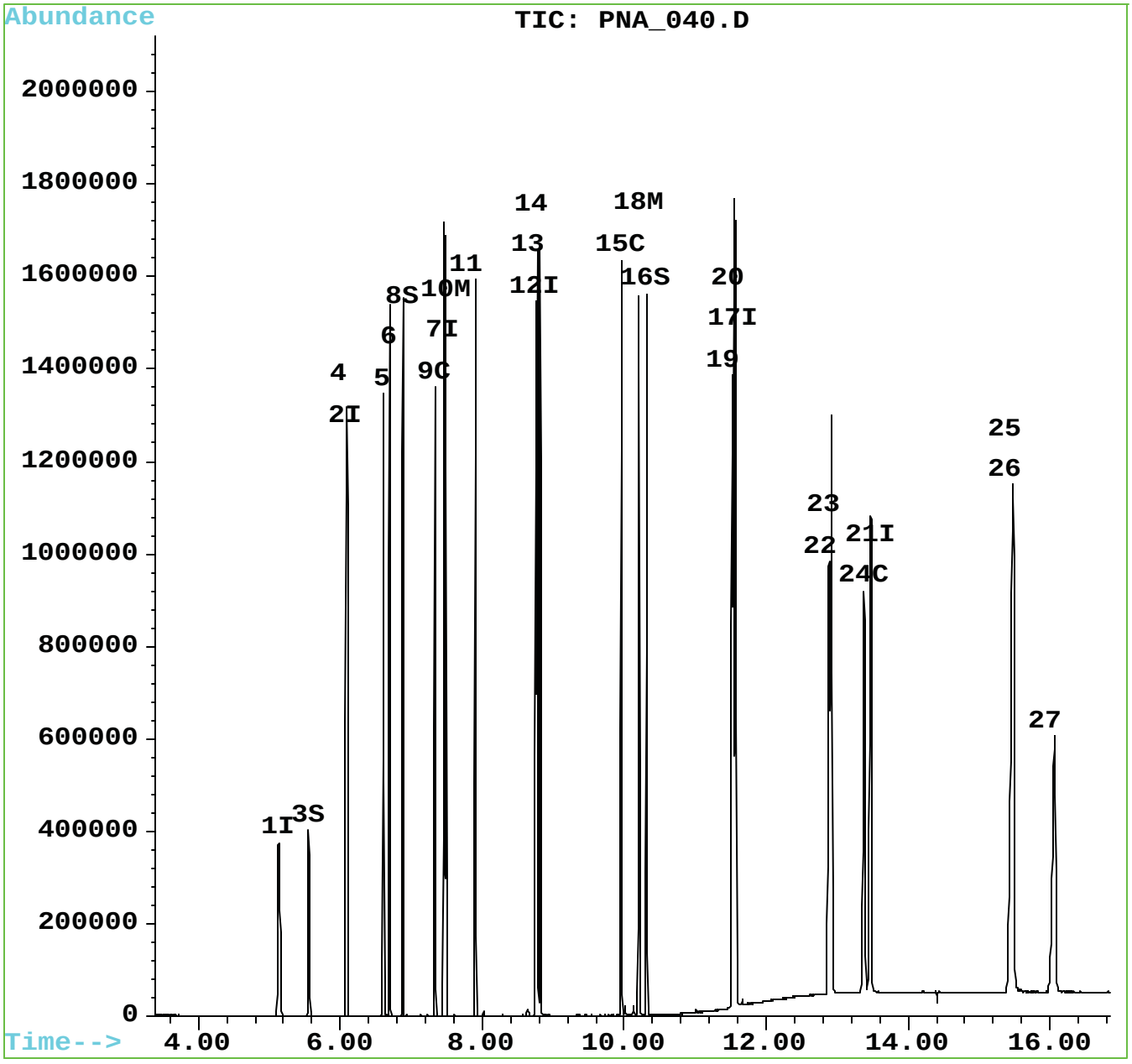
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	145174	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	600445	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	372384	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640122	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	768198	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	711428	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	174537	35.18	ng/ul	35.1
8) 2-Fluorobiphenyl	6.88	172	440917	40.11	ng/ul	40.1
16) Terphenyl-D14	10.32	244	513941	39.56	ng/ul	39.5
Target Compounds						Qvalu
4) Naphthalene	6.09	128	575604	38.59	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	325059	39.88	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	379358	40.37	ng/ul	9
9) Acenaphthylene	7.34	152	603631	40.34	ng/ul	9
10) Acenaphthene **	7.48	154	353127	40.59	ng/ul	9
11) Fluorene	7.91	166	460460	40.27	ng/ul	9
13) Phenanthrene	8.77	178	643835	38.97	ng/ul	10
14) Anthracene	8.82	178	662219	39.53	ng/ul	10
15) Fluoranthene	9.96	202	736945	40.05	ng/ul	10
18) Pyrene **	10.21	202	756635	39.53	ng/ul	10
19) Benzo(a)anthracene	11.52	228	734403	38.98	ng/ul	9
20) Chrysene	11.58	228	725802	39.40	ng/ul	9
22) Benzo(b)fluoranthene	12.89	252	765726	41.58	ng/ul	9
23) Benzo(k)fluoranthene	12.92	252	651601	37.90	ng/ulm	9
24) Benzo(a)pyrene	13.38	252	616751	39.86	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.49	276	842409	45.64	ng/ul	9
26) Dibenzo(ah)anthracene	15.48	278	724171	108.89	ng/ul#	
27) Benzo(ghi)perylene	16.07	276	671310	44.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

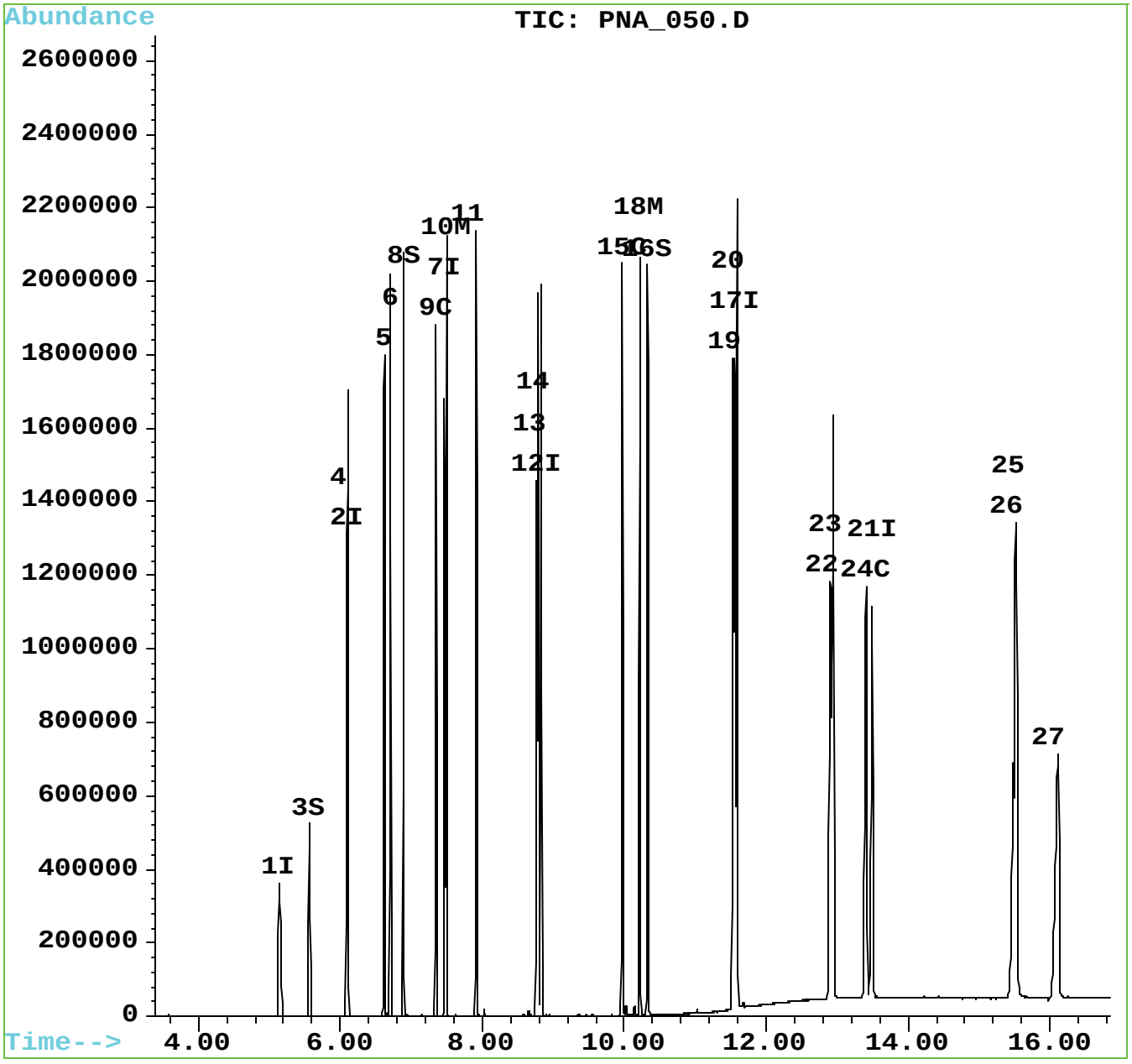
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.14	152	140598	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.09	136	584387	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.47	164	376489	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.76	188	622177	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.56	240	765174	40.00	ng/ul	0.0
21) PERYLENE-D12	13.50	264	703377	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	229947	52.60	ng/ul	52.6
8) 2-Fluorobiphenyl	6.89	172	607779	52.68	ng/ul	52.6
16) Terphenyl-D14	10.33	244	692330	52.39	ng/ul	52.3
Target Compounds						Qvalu
4) Naphthalene	6.10	128	751033	51.74	ng/ul	10
5) 2-Methylnaphthalene	6.62	141	434353	53.42	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	506957	53.57	ng/ul	9
9) Acenaphthylene	7.35	152	823667	53.39	ng/ul	9
10) Acenaphthene **	7.49	154	486187	52.81	ng/ul	9
11) Fluorene	7.92	166	607540	51.10	ng/ul	9
13) Phenanthrene	8.79	178	840726	51.65	ng/ul	10
14) Anthracene	8.83	178	824151	50.15	ng/ulm	10
15) Fluoranthene	9.98	202	961499	52.42	ng/ul	10
18) Pyrene **	10.22	202	986114	52.61	ng/ul	10
19) Benzo(a)anthracene	11.54	228	956291	50.58	ng/ul	9
20) Chrysene	11.59	228	954806	51.40	ng/ul	9
22) Benzo(b)fluoranthene	12.91	252	1007548	54.76	ng/ul	9
23) Benzo(k)fluoranthene	12.95	252	869858	51.39	ng/ulm	9
24) Benzo(a)pyrene	13.41	252	810603	52.65	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1043907	50.51	ng/ulm	8
26) Dibenzo(ah)anthracene	15.52	278	891914	50.95	ng/ul#	
27) Benzo(ghi)perylene	16.12	276	876303	52.46	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

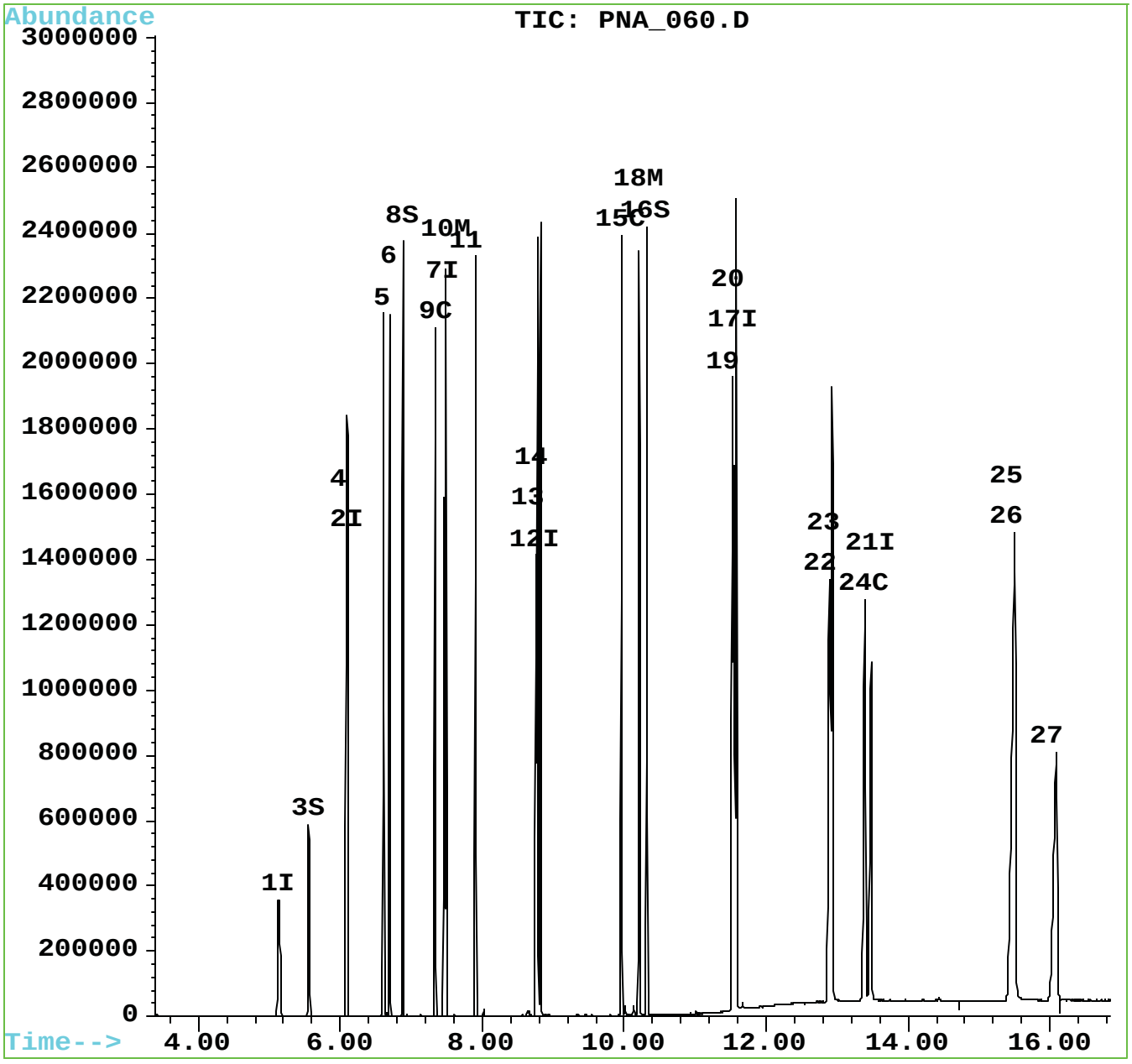
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	139447	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	575362	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	353288	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	616305	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	748003	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	682703	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	264229	57.14	ng/ul	57.1
8) 2-Fluorobiphenyl	6.88	172	670339	64.21	ng/ul	64.2
16) Terphenyl-D14	10.32	244	820095	65.45	ng/ul	65.4
Target Compounds						Qvalu
4) Naphthalene	6.10	128	868848	61.11	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	490465	62.75	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	569018	62.98	ng/ul	9
9) Acenaphthylene	7.34	152	906881	63.94	ng/ul	9
10) Acenaphthene **	7.48	154	533576	64.40	ng/ul	9
11) Fluorene	7.91	166	690907	63.53	ng/ul	9
13) Phenanthrene	8.78	178	967482	60.95	ng/ul	10
14) Anthracene	8.82	178	984460	61.22	ng/ul	10
15) Fluoranthene	9.97	202	1135196	64.07	ng/ul	10
18) Pyrene **	10.21	202	1150667	62.18	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1121641	61.16	ng/ul	9
20) Chrysene	11.59	228	1120370	62.57	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1137138	63.75	ng/ul	9
23) Benzo(k)fluoranthene	12.93	252	1055134	64.94	ng/ulm	9
24) Benzo(a)pyrene	13.39	252	941272	63.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.51	276	1286560	70.60	ng/ul	9
26) Dibenzo(ah)anthracene	15.50	278	1101876	123.88	ng/ul#	
27) Benzo(ghi)perylene	16.10	276	1009761	67.42	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

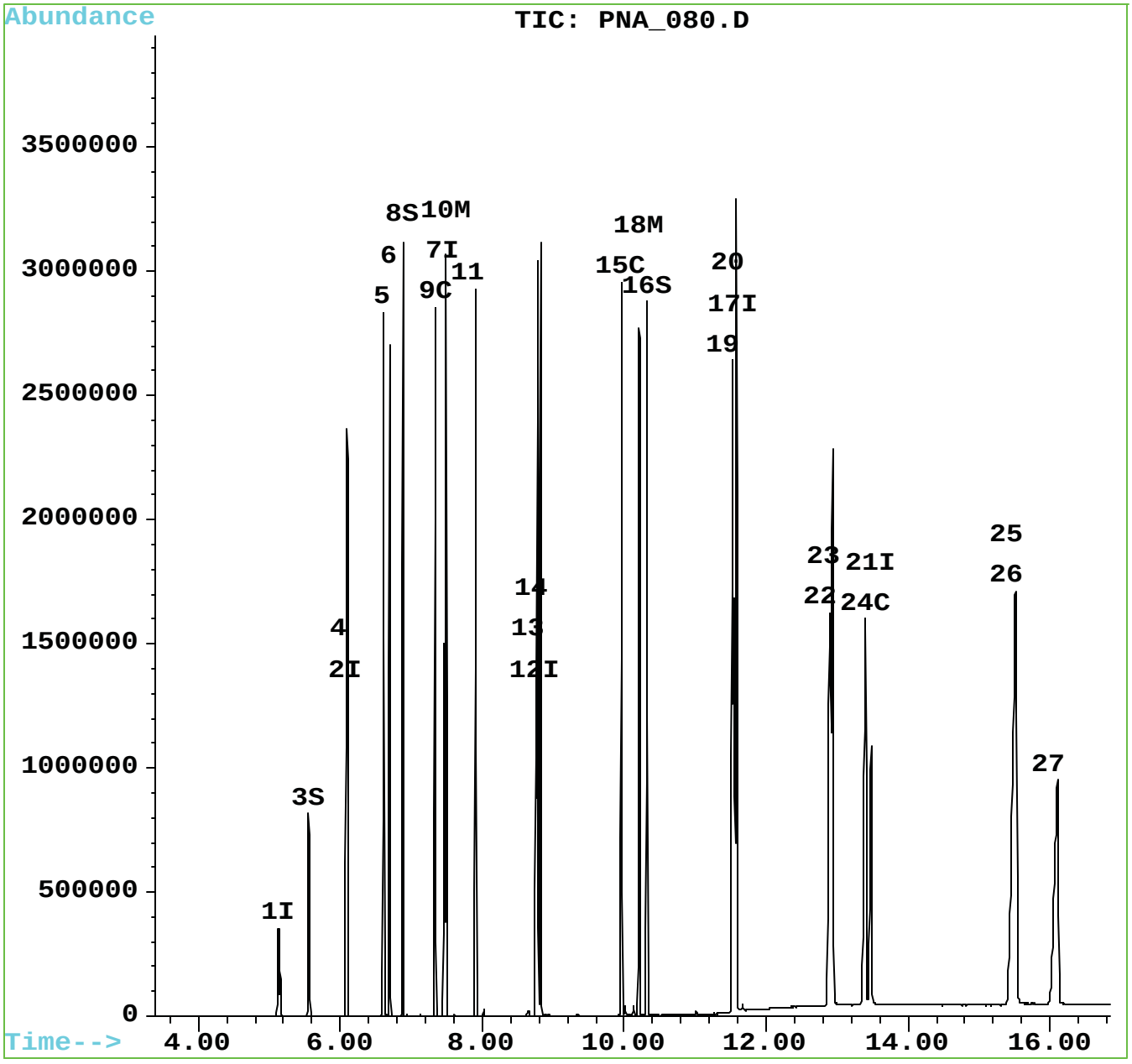
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	84162	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	560653	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	344328	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	593618	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	724268	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	668390	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	346243	78.73	ng/ul	78.7
8) 2-Fluorobiphenyl	6.88	172	885493	86.15	ng/ul	86.1
16) Terphenyl-D14	10.32	244	1087992	88.89	ng/ul	88.8
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1131267	81.69	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	644735	84.16	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	754321	85.15	ng/ul	9
9) Acenaphthylene	7.34	152	1193934	86.08	ng/ul	9
10) Acenaphthene **	7.49	154	705426	86.33	ng/ul	9
11) Fluorene	7.91	166	911878	85.55	ng/ul	10
13) Phenanthrene	8.78	178	1272975	83.14	ng/ul	9
14) Anthracene	8.82	178	1315513	84.88	ng/ul	10
15) Fluoranthene	9.97	202	1475282	85.92	ng/ul	10
18) Pyrene **	10.22	202	1513446	85.04	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1508631	85.06	ng/ul	9
20) Chrysene	11.59	228	1487020	85.85	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1523698	87.00	ng/ul	9
23) Benzo(k)fluoranthene	12.94	252	1376522	86.71	ng/ulm	9
24) Benzo(a)pyrene	13.40	252	1253005	86.05	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1693105	91.97	ng/ul	9
26) Dibenzo(ah)anthracene	15.51	278	1446162	127.51	ng/ul#	
27) Benzo(ghi)perylene	16.11	276	1327841	88.30	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

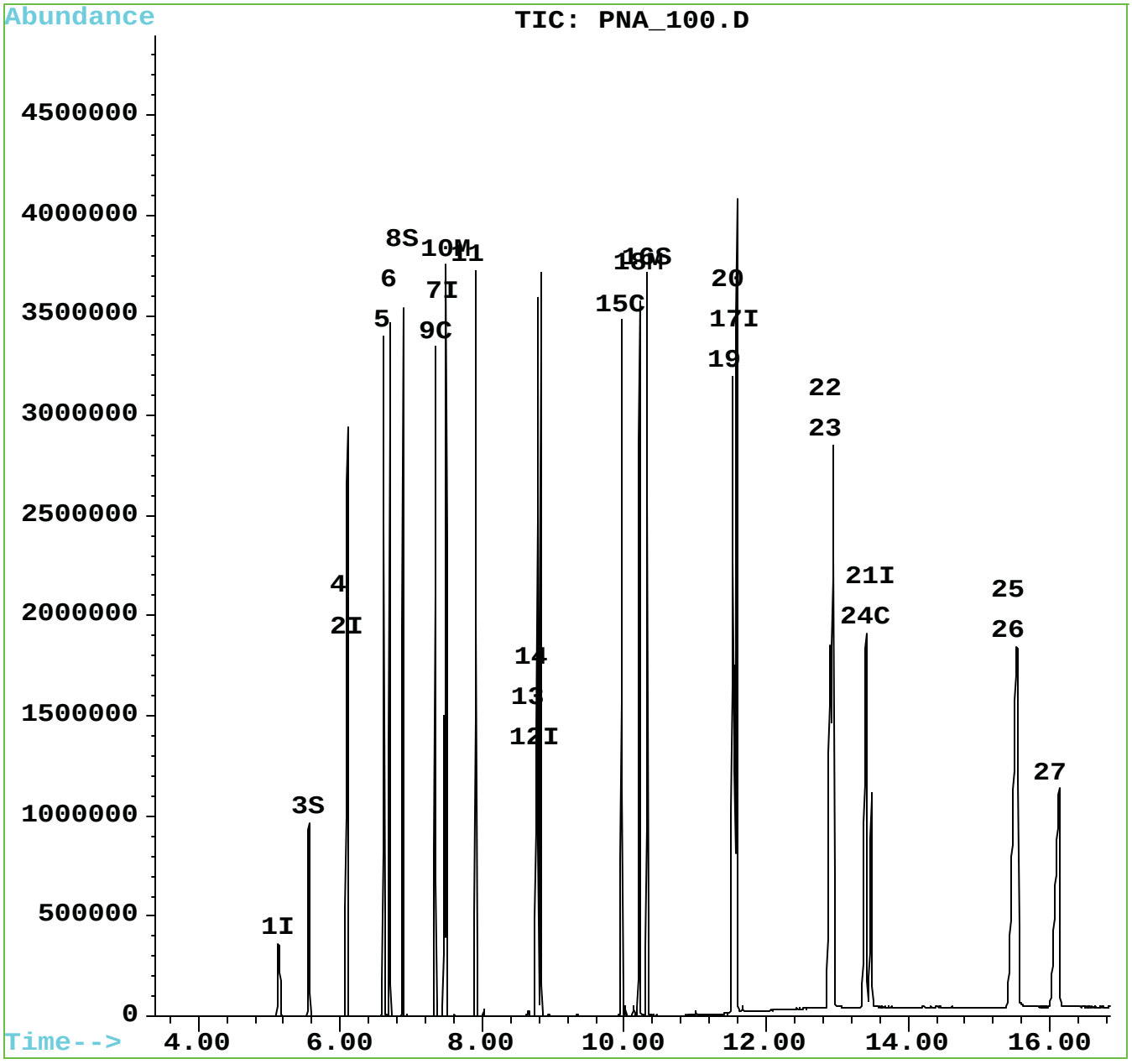
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	138171	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	568205	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	351986	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	611911	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	757963	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	692918	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	435831	100.13	ng/ul	100.1
8) 2-Fluorobiphenyl	6.88	172	1109224	104.17	ng/ul	104.1
16) Terphenyl-D14	10.32	244	1385539	108.11	ng/ul	108.1
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1425996	101.45	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	813163	103.78	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	949708	104.58	ng/ul	9
9) Acenaphthylene	7.34	152	1519026	106.44	ng/ul	9
10) Acenaphthene **	7.49	154	879645	103.79	ng/ul	9
11) Fluorene	7.91	166	1150248	104.66	ng/ul	9
13) Phenanthrene	8.78	178	1610327	101.32	ng/ul	9
14) Anthracene	8.83	178	1657005	103.19	ng/ul	10
15) Fluoranthene	9.97	202	1898025	106.43	ng/ul	9
18) Pyrene **	10.22	202	1939528	104.36	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1930239	103.53	ng/ul	9
20) Chrysene	11.59	228	1924431	105.47	ng/ul	9
22) Benzo(b)fluoranthene	12.95	252	3782432	207.76	ng/ulm	9
23) Benzo(k)fluoranthene	12.95	252	3782795	230.09	ng/ulm	10
24) Benzo(a)pyrene	13.41	252	1605543	106.12	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.55	276	2198376	111.69	ng/ul	10
26) Dibenzo(ah)anthracene	15.53	278	1864392	128.64	ng/ul#	
27) Benzo(ghi)perylene	16.13	276	1705175	106.54	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120723.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn23a.d	07/23/12 13:03	Acenaphthylene	1.793	0.30
		Benzo(b)fluoranthene	1.161	0.30
		Naphthalene	1.069	0.30
		Phenanthrene	1.166	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120723.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn23a.d	07/23/12 13:03	1-methylnaphthalene	54.8/ 50.0	9.6/ 20.0
		2-Methylnaphthalene	54.5/ 50.0	8.9/ 20.0
		Acenaphthene	55.9/ 50.0	11.8/ 20.0
		Acenaphthylene	54.7/ 50.0	9.4/ 20.0
		Anthracene	55.7/ 50.0	11.5/ 20.0
		Benzo(a)anthracene	51.9/ 50.0	3.8/ 20.0
		Benzo(a)pyrene	54.0/ 50.0	8.0/ 20.0
		Benzo(b)fluoranthene	55.5/ 50.0	11.0/ 20.0
		Benzo(ghi)perylene	49.8/ 50.0	0.3/ 20.0
		Benzo(k)fluoranthene	58.4/ 50.0	16.7/ 20.0
		Chrysene	55.0/ 50.0	10.0/ 20.0
		Dibenzo(ah)anthracene	55.1/ 50.0	10.2/ 20.0
		Fluorene	57.0/ 50.0	14.0/ 20.0
		Fluoranthene	57.1/ 50.0	14.1/ 20.0
		Indeno(1,2,3-cd)pyrene	54.4/ 50.0	8.8/ 20.0
		Naphthalene	53.8/ 50.0	7.6/ 20.0
		Phenanthrene	55.7/ 50.0	11.4/ 20.0
		Pyrene	53.3/ 50.0	6.5/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\spnn23a.d Vial: 2
Acq On : 23 Jul 12 1:03 pm Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 23 13:36 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

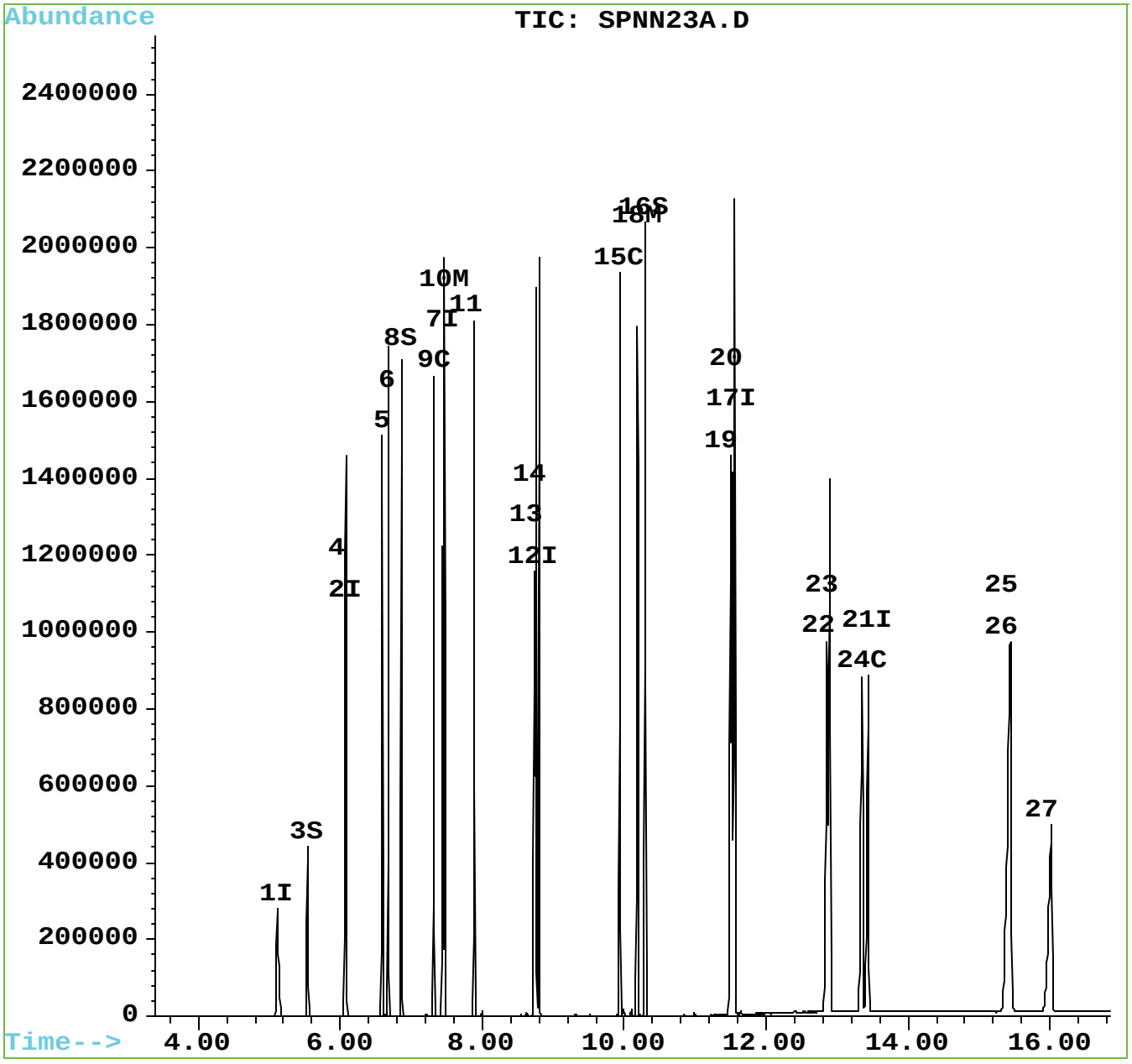
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	91042	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	435505	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	275351	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.73	188	487695	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.53	240	637814	40.00	ng/ul	0.0
21) PERYLENE-D12	13.44	264	543879	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	167638	308.73	ng/ul	308.7
8) 2-Fluorobiphenyl	6.86	172	463252	329.43	ng/ul	329.4
16) Terphenyl-D14	10.30	244	601904	348.66	ng/ul	348.6
Target Compounds						Qvalu
4) Naphthalene	6.08	128	582052	53.81	ng/ul	10
5) 2-Methylnaphthalene	6.59	141	329959	54.46	ng/ul	9
6) 1-Methylnaphthalene	6.68	142	386484	54.80	ng/ul	9
9) Acenaphthylene	7.32	152	617160	54.70	ng/ul	10
10) Acenaphthene **	7.47	154	376304	55.89	ng/ul	9
11) Fluorene	7.89	166	495439	56.98	ng/ul	10
13) Phenanthrene	8.76	178	710587	55.69	ng/ul	10
14) Anthracene	8.80	178	717945	55.73	ng/ul	9
15) Fluoranthene	9.94	202	820437	57.06	ng/ul	9
18) Pyrene **	10.18	202	832070	53.26	ng/ul	10
19) Benzo(a)anthracene	11.50	228	817743	51.89	ng/ul	10
20) Chrysene	11.56	228	851421	54.99	ng/ul	10
22) Benzo(b)fluoranthene	12.86	252	789414	55.49	ng/ul	9
23) Benzo(k)fluoranthene	12.90	252	763812	58.36	ng/ul	9
24) Benzo(a)pyrene	13.36	252	642897	54.00	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.45	276	869009	54.38	ng/ul	9
26) Dibenzo(ah)anthracene	15.44	278	745733	55.09	ng/ul	9
27) Benzo(ghi)perylene	16.02	276	643767	49.84	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\spnn23a.d Vial: 2
Acq On : 23 Jul 12 1:03 pm Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 23 13:36 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\d23a.d Vial: 1
Acq On : 23 Jul 12 12:41 pm Operator: PL
Sample : dftpp std (120621) Inst : Tempest
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 23 13:47 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

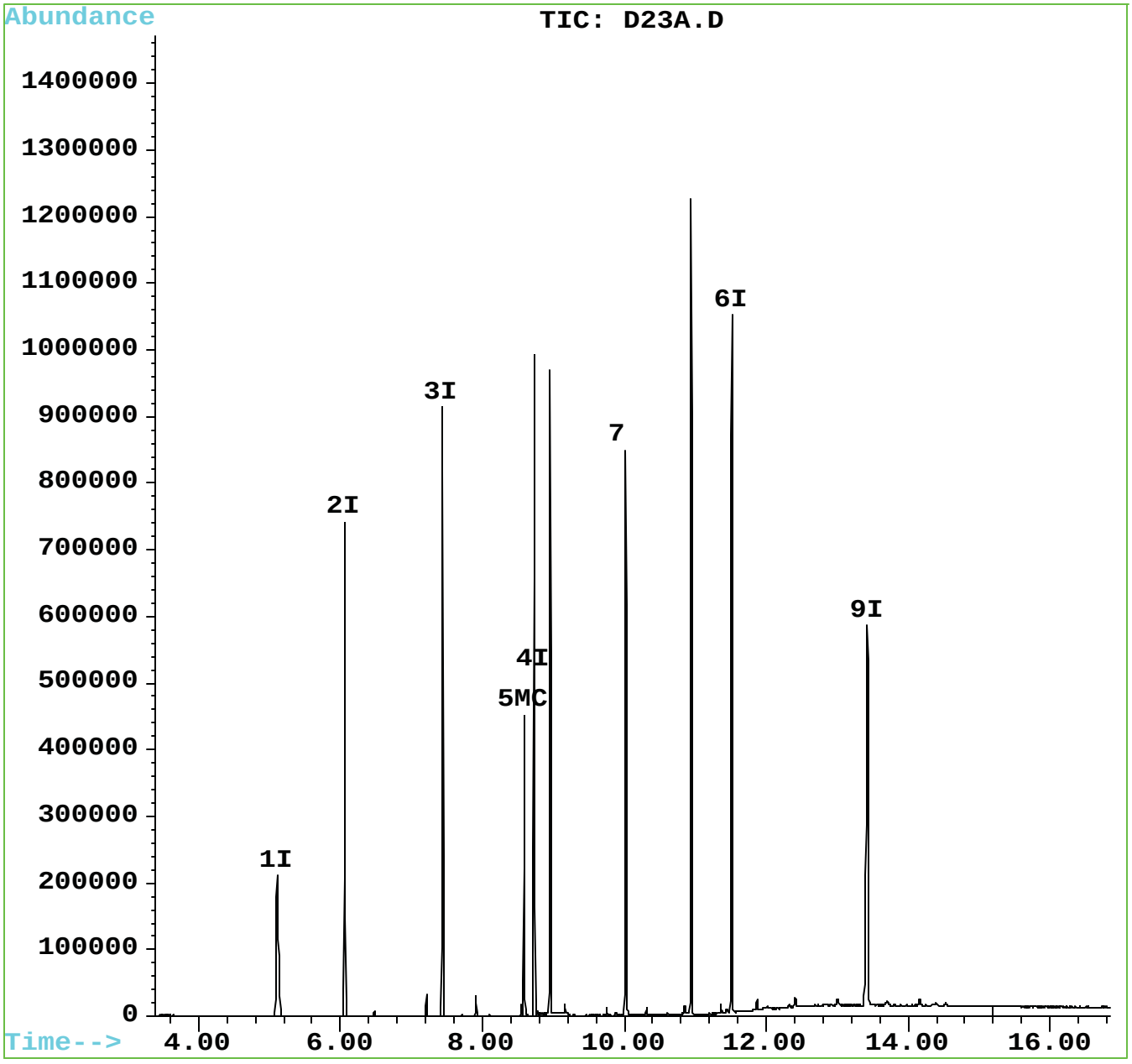
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.10	152	70036	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	324690	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	7.44	160	80038	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.73	188	354091	40.00	ng/ul	-0.0
6) CHRYSENE-D12	11.52	240	416270	40.00	ng/ul	-0.0
9) PERYLENE-D12	13.43	264	363414	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.59	266	43171	37.58	ng/ul	9
7) Benzidine	10.02	184	340028	96.90	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\d23a.d Vial: 1
Acq On : 23 Jul 12 12:41 pm Operator: PL
Sample : dftpp std (120621) Inst : Tempest
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 23 13:47 19112

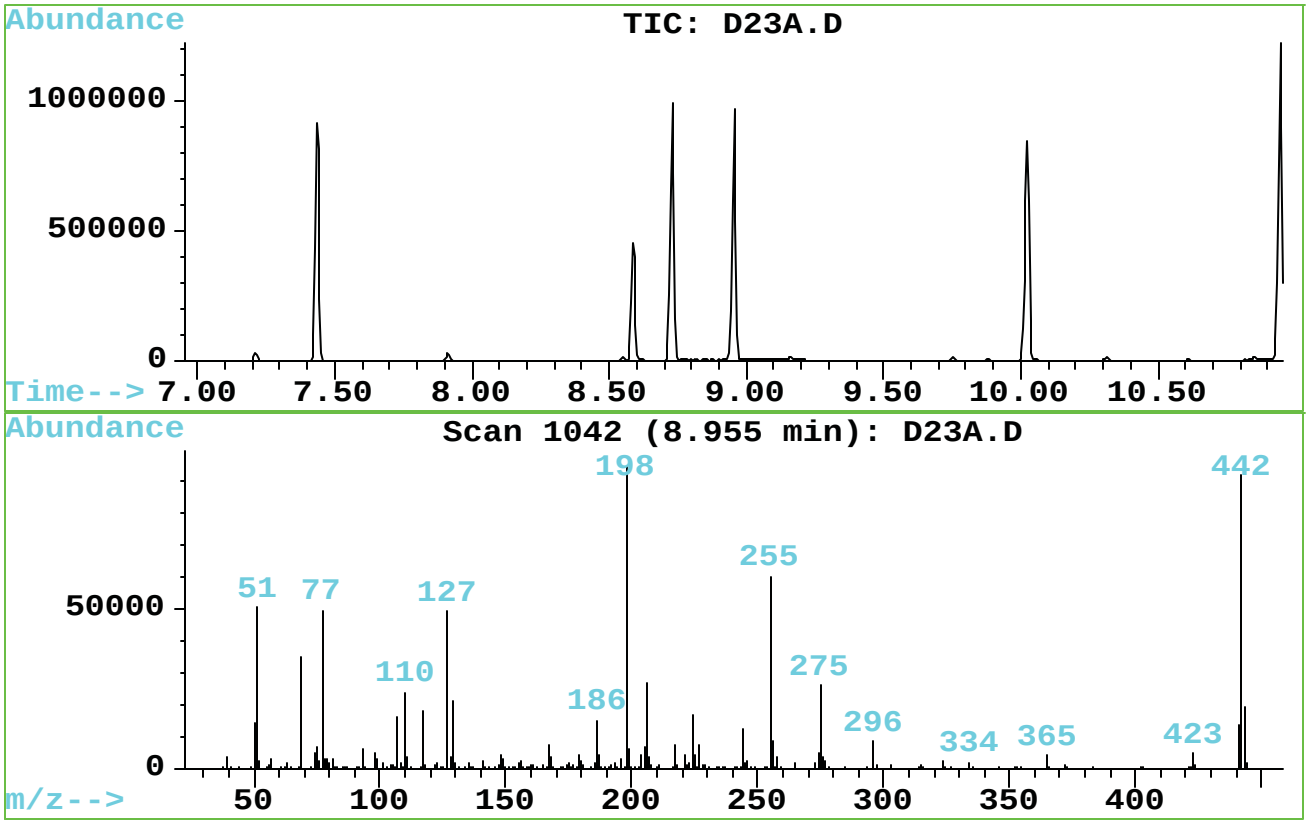
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120723\D23A.D Vial: 1
Acq On : 23 Jul 12 12:41 pm Operator: PL
Sample : dftpp std (120621) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270



Peak Apex is scan: 1042

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	53.3	50344	PASS
68	69	0	2	1.8	638	PASS
69	198	0	100	37.0	34936	PASS
70	69	0	2	0.6	214	PASS
127	198	25	75	51.9	49032	PASS
197	198	0	1	0.9	833	PASS
198	198	100	100	100.0	94536	PASS
199	198	5	9	6.6	6225	PASS
275	198	10	30	27.4	25944	PASS
365	198	1	100	4.3	4108	PASS
441	443	0	100	70.7	13589	PASS
442	198	40	110	97.1	91824	PASS
443	442	15	24	20.9	19232	PASS

D23A.D P120620T.M Tue Jul 24 15:52:04 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\blks23a.d Vial: 3
Acq On : 23 Jul 12 1:26 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:04 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

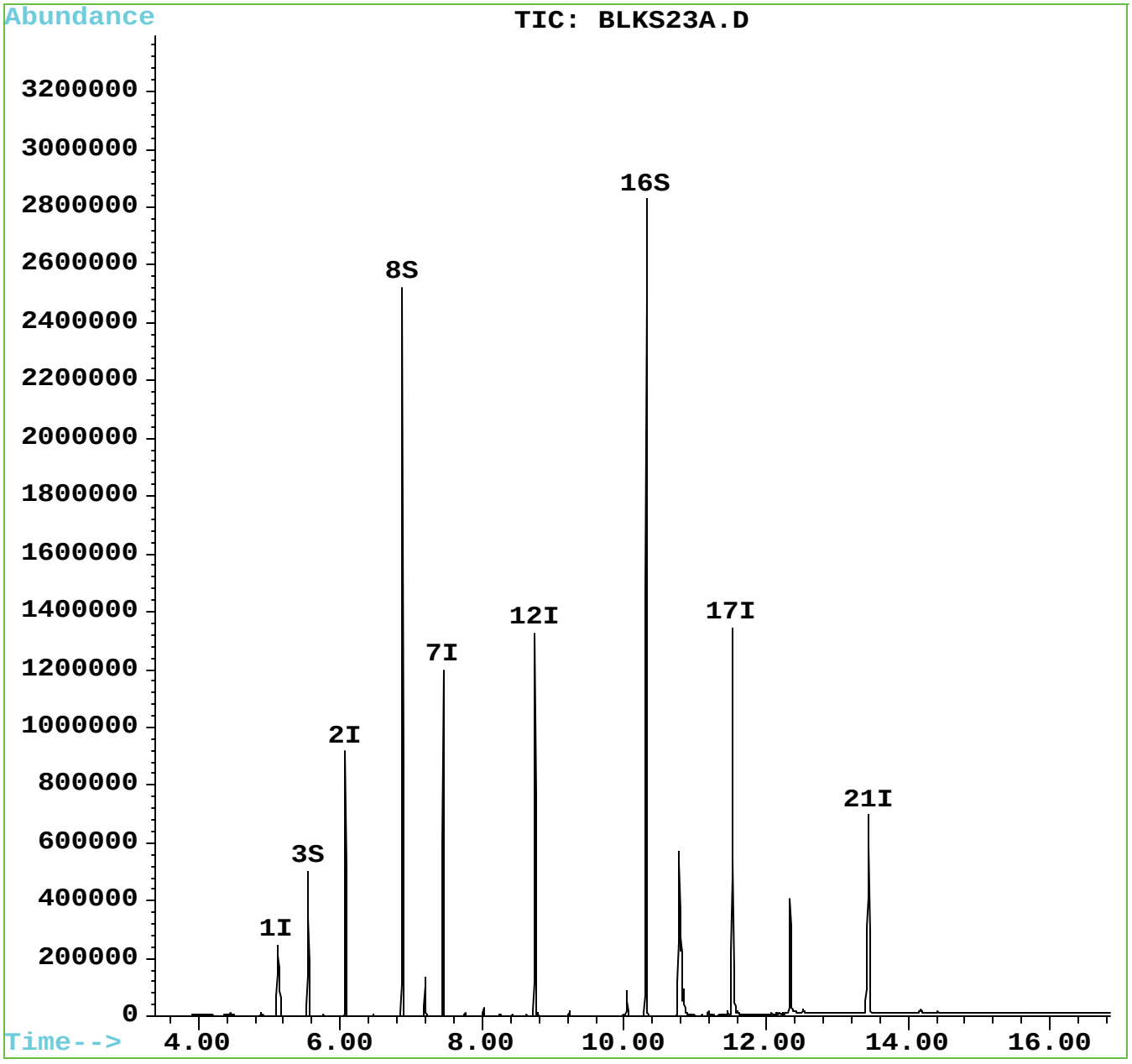
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	82427	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	397022	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	248620	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	462353	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.53	240	559378	40.00	ng/ul	0.0
21) PERYLENE-D12	13.45	264	459572	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	197195	398.36	ng/ul	398.3
8) 2-Fluorobiphenyl	6.87	172	642246	505.83	ng/ul	505.8
16) Terphenyl-D14	10.31	244	987530	603.40	ng/ul	603.4
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\blks23a.d Vial: 3
Acq On : 23 Jul 12 1:26 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:04 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\lcss23a.d Vial: 4
Acq On : 23 Jul 12 1:49 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:05 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

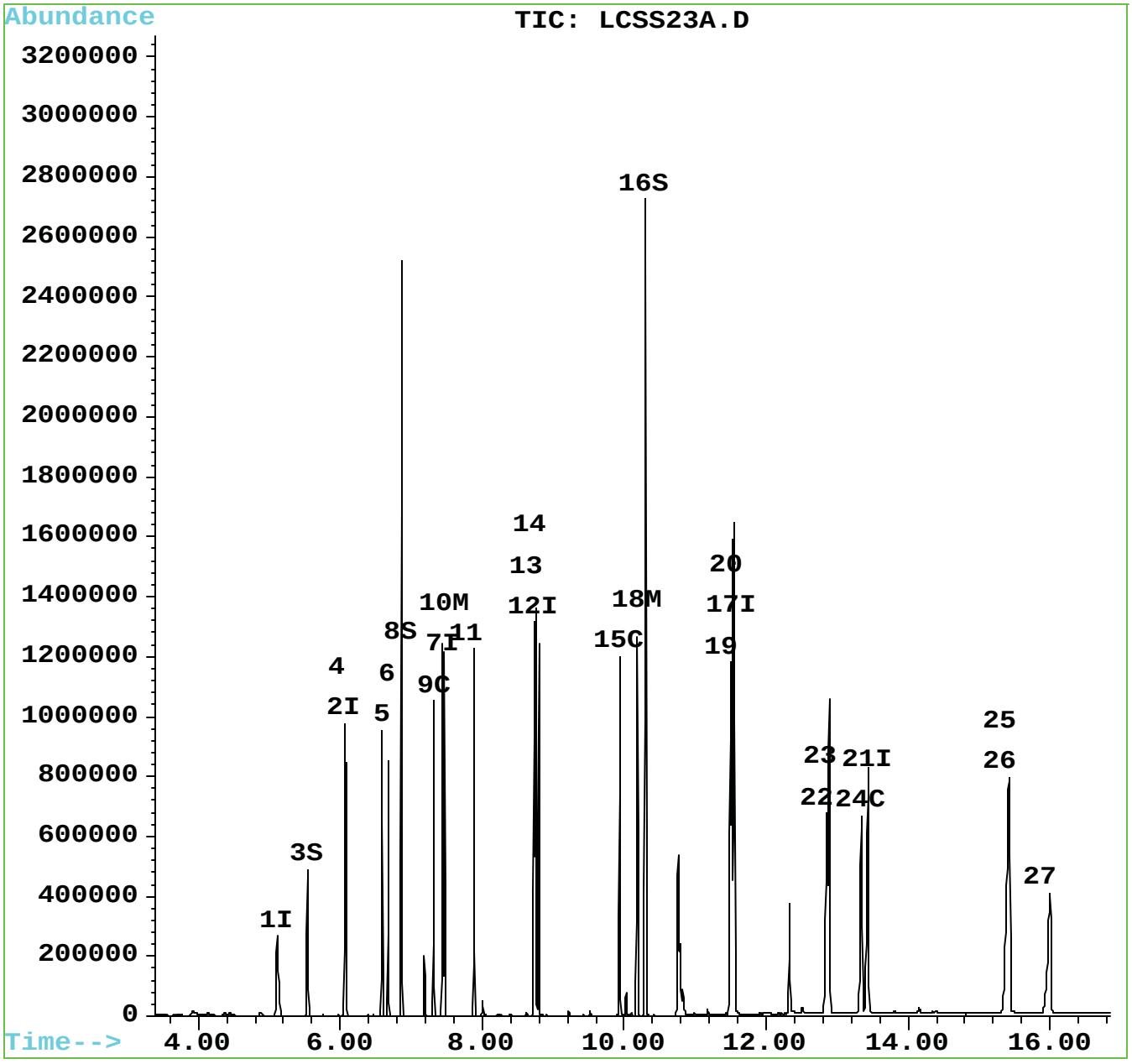
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	86819	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	435589	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	273803	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.73	188	506235	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	646596	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	536863	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	183815	338.45	ng/ul	338.4
8) 2-Fluorobiphenyl	6.86	172	635607	454.56	ng/ul	454.5
16) Terphenyl-D14	10.30	244	1010317	563.81	ng/ul	563.8
Target Compounds						Qvalu
4) Naphthalene	6.08	128	329761	30.48	ng/ul	9
5) 2-Methylnaphthalene	6.59	141	191607	31.62	ng/ul	9
6) 1-Methylnaphthalene	6.68	142	204316	28.96	ng/ul	9
9) Acenaphthylene	7.32	152	391975	34.94	ng/ul	10
10) Acenaphthene **	7.47	154	241271	36.04	ng/ul	9
11) Fluorene	7.89	166	319996	37.01	ng/ul	9
13) Phenanthrene	8.75	178	492819	37.21	ng/ul	10
14) Anthracene	8.79	178	471048	35.23	ng/ul	9
15) Fluoranthene	9.94	202	554235	37.14	ng/ul	9
18) Pyrene **	10.18	202	575427	36.33	ng/ul	10
19) Benzo(a)anthracene	11.50	228	587292	36.76	ng/ul	10
20) Chrysene	11.55	228	599145	38.17	ng/ul	10
22) Benzo(b)fluoranthene	12.85	252	548595	39.06	ng/ul	9
23) Benzo(k)fluoranthene	12.89	252	559746	43.33	ng/ul	10
24) Benzo(a)pyrene	13.35	252	454612	38.69	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.43	276	624832	39.61	ng/ul	9
26) Dibenzo(ah)anthracene	15.42	278	537009	40.19	ng/ul	9
27) Benzo(ghi)perylene	16.00	276	465900	36.54	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\lcss23a.d Vial: 4
Acq On : 23 Jul 12 1:49 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:05 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\lcsds23a.d Vial: 5
Acq On : 23 Jul 12 2:11 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:05 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration

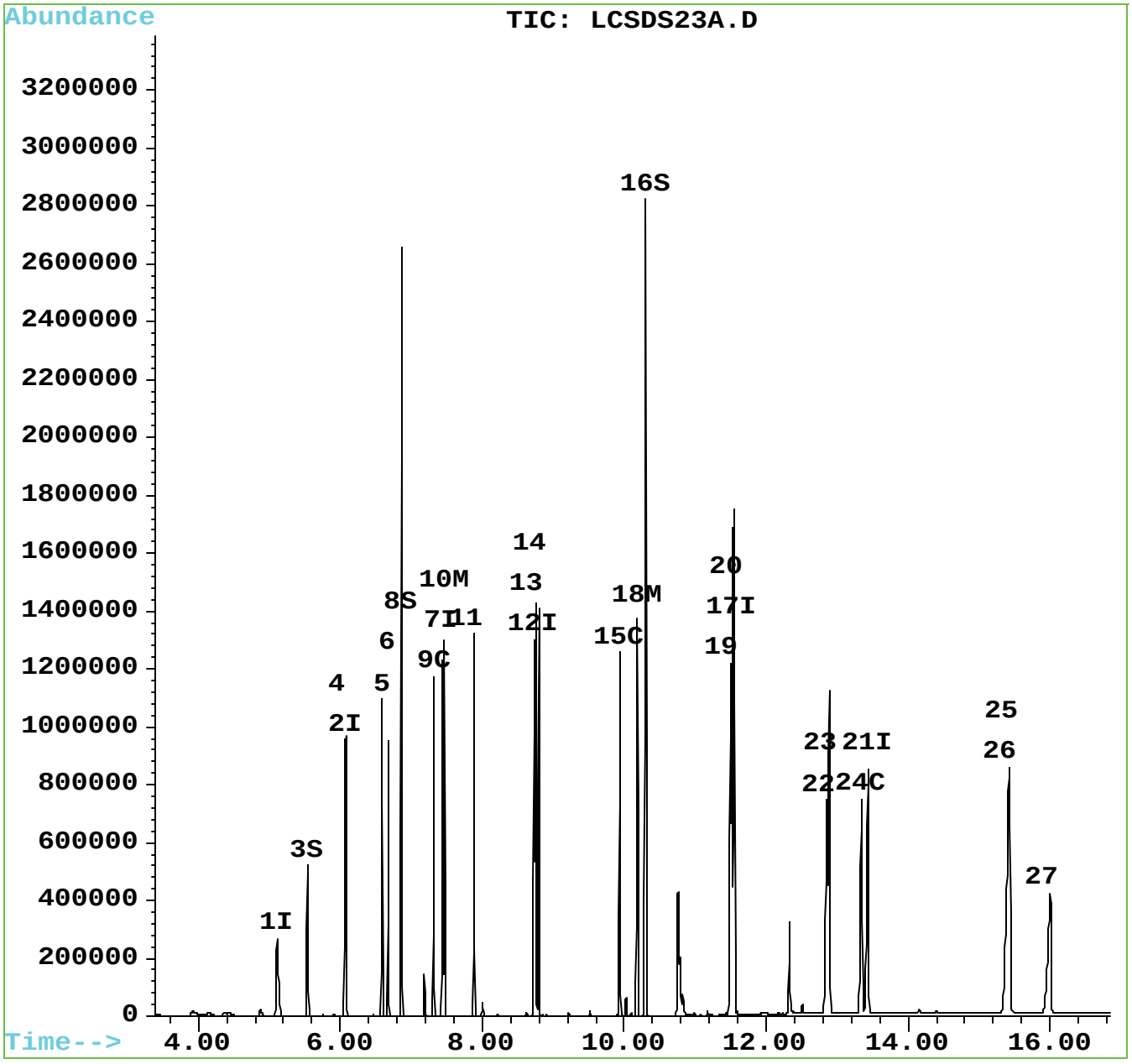
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	87918	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	432835	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	273302	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.73	188	500663	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	646226	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	532464	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	197756	366.44	ng/ul	366.4
8) 2-Fluorobiphenyl	6.86	172	684472	490.40	ng/ul	490.4
16) Terphenyl-D14	10.30	244	1082193	610.64	ng/ul	610.6
Target Compounds						Qvalu
4) Naphthalene	6.08	128	373732	34.76	ng/ul	9
5) 2-Methylnaphthalene	6.59	141	216676	35.98	ng/ul	9
6) 1-Methylnaphthalene	6.68	142	228705	32.63	ng/ul	9
9) Acenaphthylene	7.32	152	424648	37.92	ng/ul	10
10) Acenaphthene **	7.47	154	264268	39.54	ng/ul	10
11) Fluorene	7.88	166	346142	40.11	ng/ul	9
13) Phenanthrene	8.75	178	523142	39.94	ng/ul	10
14) Anthracene	8.79	178	499203	37.75	ng/ul	10
15) Fluoranthene	9.94	202	586256	39.72	ng/ul	9
18) Pyrene **	10.18	202	610396	38.56	ng/ul	10
19) Benzo(a)anthracene	11.50	228	619302	38.78	ng/ul	10
20) Chrysene	11.55	228	633539	40.39	ng/ul	9
22) Benzo(b)fluoranthene	12.85	252	588032	42.22	ng/ul	9
23) Benzo(k)fluoranthene	12.89	252	581826	45.41	ng/ul	10
24) Benzo(a)pyrene	13.35	252	478638	41.07	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.44	276	660961	42.25	ng/ul	9
26) Dibenzo(ah)anthracene	15.43	278	567249	42.81	ng/ul	9
27) Benzo(ghi)perylene	16.00	276	496450	39.26	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120723\lcsds23a.d Vial: 5
Acq On : 23 Jul 12 2:11 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120720s01 Multiplr: 6.00
Quant Time: Jul 24 15:05 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Tue Jul 03 13:06:51 2012
Response via : Multiple Level Calibration



Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

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Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
f120719.01r	sblk-r.01	07/19/12 09:01	SBLK-R.01	WW	Bl	**4**	
f120719.02r	sc1660.01	07/19/12 09:11	SC1660.01 0.5ppm 7/2/12	WW	CV	**4**	
f120719.06r	sblk-s.01	07/19/12 10:27	sBLK-S.01 20.0g s/1 ID:PA120719s01	SO	Bl	**4**	
f120719.07r	slcs-s.01	07/19/12 10:37	sLCS-S.01 20.0g s/1 ID:PA120719s01	SO	MS	**4**	
f120719.08r	slcs-s.01	07/19/12 10:48	sLCS-S.01D 20.0g s/1 ID:PA120719s01	SO	MS	**4**	
f120719.14r	s53243.01	07/19/12 14:04	s53243.01 20.0g s/1 ID:PA120719s01	SO		**4**	
f120719.15r	s53243.02	07/19/12 14:14	s53243.02 20.1g s/1 ID:PA120719s01	SO		**4**	
f120719.16r	s53243.03	07/19/12 14:25	s53243.03 20.1g s/1 ID:PA120719s01	SO		**4**	
f120719.17r	s53243.05	07/19/12 14:38	s53243.05 20.1g s/1 ID:PA120719s01	SO		**4**	
f120719.18r	s53243.04	07/19/12 15:01	s53243.04 20.0g s/1 C ID:PA120719s01	SO		**4**	
f120719.20r	ss1660.01	07/19/12 15:49	ss1660.01 0.1ppm 7/2/12	WW		**4**	
f120719.21r	sc1660.02	07/19/12 16:18	SC1660.02 0.5ppm 7/2/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	5
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120719.4

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Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
f120719b.01	sblk-r.01	07/19/12 09:01	SBLK-R.01	WW	Bl	**4**	
f120719b.02	sc1660.01	07/19/12 09:11	SC1660.01 0.5ppm 7/2/12	WW	CV	**4**	
f120719b.06	sblk-s.01	07/19/12 10:27	sBLK-S.01 20.0g s/1 ID:PA120719s01	SO	Bl	**4**	
f120719b.07	slcs-s.01	07/19/12 10:37	sLCS-S.01 20.0g s/1 ID:PA120719s01	SO	MS	**4**	
f120719b.08	slcs-s.01	07/19/12 10:48	sLCS-S.01D 20.0g s/1 ID:PA120719s01	SO	MS	**4**	
f120719b.14	s53243.01	07/19/12 14:04	s53243.01 20.0g s/1 ID:PA120719s01	SO		**4**	
f120719b.15	s53243.02	07/19/12 14:14	s53243.02 20.1g s/1 ID:PA120719s01	SO		**4**	
f120719b.16	s53243.03	07/19/12 14:25	s53243.03 20.1g s/1 ID:PA120719s01	SO		**4**	
f120719b.17	s53243.05	07/19/12 14:38	s53243.05 20.1g s/1 ID:PA120719s01	SO		**4**	
f120719b.18	s53243.04	07/19/12 15:01	s53243.04 20.0g s/1 C ID:PA120719s01	SO		**4**	
f120719b.20	ss1660.01	07/19/12 15:49	ss1660.01 0.1ppm 7/2/12	WW		**4**	
f120719b.21	sc1660.02	07/19/12 16:18	SC1660.02 0.5ppm 7/2/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	5
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120719.01r	sblk-r.01	TCX	25.61/30.00	85.4	34.1/137.1	WW
		DCBP	28.30/30.00	94.3	30.0/138.6	
f120719.02r	sc1660.01	TCX	18.25/30.00	n/a	34.1/137.1	WW
		DCBP	14.49/30.00	n/a	30.0/138.6	
f120719.06r	sblk-s.01	TCX	22.40/30.00	74.7	33.0/135.3	SO
		DCBP	26.16/30.00	87.2	30.0/137.0	
f120719.07r	slcs-s.01	TCX	22.51/30.00	75.0	33.0/135.3	SO
		DCBP	25.87/30.00	86.2	30.0/137.0	
f120719.08r	slcs-s.01	TCX	21.88/30.00	72.9	33.0/135.3	SO
		DCBP	24.85/30.00	82.8	30.0/137.0	
f120719.14r	s53243.01	TCX	16.00/30.00	53.3	33.0/135.3	SO
		DCBP	18.64/30.00	62.1	30.0/137.0	
f120719.15r	s53243.02	TCX	16.77/30.00	55.9	33.0/135.3	SO
		DCBP	18.37/30.00	61.2	30.0/137.0	
f120719.16r	s53243.03	TCX	17.34/30.00	57.8	33.0/135.3	SO
		DCBP	20.89/30.00	69.6	30.0/137.0	
f120719.17r	s53243.05	TCX	17.59/30.00	58.6	33.0/135.3	SO
		DCBP	19.70/30.00	65.7	30.0/137.0	
f120719.18r	s53243.04	TCX	14.72/30.00	49.1	33.0/135.3	SO
		DCBP	28.76/30.00	95.9	30.0/137.0	
f120719.20r	ss1660.01	TCX	3.46/30.00	n/a	34.1/137.1	WW
		DCBP	2.03/30.00	n/a	30.0/138.6	
f120719.21r	sc1660.02	TCX	19.40/30.00	n/a	34.1/137.1	WW
		DCBP	14.31/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120719.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
f120719b.01	sblk-r.01	TCX	29.68/30.00	98.9	34.1/137.1	WW
		DCBP	30.24/30.00	100.8	30.0/138.6	
f120719b.02	sc1660.01	TCX	20.29/30.00	n/a	34.1/137.1	WW
		DCBP	15.25/30.00	n/a	30.0/138.6	
f120719b.06	sblk-s.01	TCX	25.43/30.00	84.8	33.0/135.3	SO
		DCBP	27.04/30.00	90.1	30.0/137.0	
f120719b.07	slcs-s.01	TCX	24.50/30.00	81.7	33.0/135.3	SO
		DCBP	26.69/30.00	89.0	30.0/137.0	
f120719b.08	slcs-s.01	TCX	23.59/30.00	78.6	33.0/135.3	SO
		DCBP	25.63/30.00	85.4	30.0/137.0	
f120719b.14	s53243.01	TCX	18.36/30.00	61.2	33.0/135.3	SO
		DCBP	19.51/30.00	65.0	30.0/137.0	
f120719b.15	s53243.02	TCX	18.81/30.00	62.7	33.0/135.3	SO
		DCBP	20.56/30.00	68.5	30.0/137.0	
f120719b.16	s53243.03	TCX	19.68/30.00	65.6	33.0/135.3	SO
		DCBP	24.17/30.00	80.6	30.0/137.0	
f120719b.17	s53243.05	TCX	19.38/30.00	64.6	33.0/135.3	SO
		DCBP	21.74/30.00	72.5	30.0/137.0	
f120719b.18	s53243.04	TCX	16.36/30.00	54.5	33.0/135.3	SO
		DCBP	21.36/30.00	71.2	30.0/137.0	
f120719b.20	ss1660.01	TCX	4.75/30.00	n/a	34.1/137.1	WW
		DCBP	2.92/30.00	n/a	30.0/138.6	
f120719b.21	sc1660.02	TCX	21.63/30.00	n/a	34.1/137.1	WW
		DCBP	15.11/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120719.08r	slcs-s.01	**f120719.07r**	1016-1	0.513/ 0.546	6.2	SO
			1016-2	0.503/ 0.531	5.4	
			1016-3	0.512/ 0.544	6.1	
			1016-4	0.487/ 0.522	6.9	
			1016-5	0.503/ 0.539	6.9	
			1260-1	0.504/ 0.541	7.1	
			1260-2	0.499/ 0.537	7.3	
			1260-3	0.496/ 0.532	7.0	
			1260-4	0.452/ 0.494	8.9	
			1260-5	0.488/ 0.519	6.2	
			[end of list]			

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120719.4

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
f120719b.08	slcs-s.01	**f120719b.07**	1016-1	0.484/ 0.497	2.7	SO
			1016-2	0.473/ 0.505	6.5	
			1016-3	0.475/ 0.507	6.5	
			1016-4	0.468/ 0.513	9.2	
			1016-5	0.482/ 0.519	7.4	
			1260-1	0.477/ 0.516	7.9	
			1260-2	0.489/ 0.522	6.5	
			1260-3	0.480/ 0.513	6.6	
			1260-4	0.465/ 0.505	8.2	
			1260-5	0.460/ 0.494	7.1	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120719.07r	slcs-s.01	**f120719.06r**	1016-1	0.546/ 0.000	109.2		SO
			1016-2	0.531/-0.041	114.4		
			1016-3	0.544/ 0.000	108.8		
			1016-4	0.522/-0.070	118.4		
			1016-5	0.539/ 0.000	107.8		
			1260-1	0.541/-0.042	116.6		
			1260-2	0.537/-0.042	115.8		
			1260-3	0.532/-0.036	113.6		
			1260-4	0.494/-0.021	103.0		
			1260-5	0.519/-0.021	108.0		
				Average Recovery	**111.6**	50.0/125.0	
f120719.08r	slcs-s.01	**f120719.06r**	1016-1	0.513/ 0.000	102.6		SO
			1016-2	0.503/-0.041	108.8		
			1016-3	0.512/ 0.000	102.4		
			1016-4	0.487/-0.070	111.4		
			1016-5	0.503/ 0.000	100.6		
			1260-1	0.504/-0.042	109.2		
			1260-2	0.499/-0.042	108.2		
			1260-3	0.496/-0.036	106.4		
			1260-4	0.452/-0.021	94.6		
			1260-5	0.488/-0.021	101.8		
				Average Recovery	**104.6**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120719.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
f120719b.07	slcs-s.01	**f120719b.06**	1016-1	0.497/ 0.000	99.4		SO
			1016-2	0.505/ 0.000	101.0		
			1016-3	0.507/-0.050	111.4		
			1016-4	0.513/ 0.000	102.6		
			1016-5	0.519/ 0.000	103.8		
			1260-1	0.516/-0.061	115.4		
			1260-2	0.522/-0.056	115.6		
			1260-3	0.513/-0.050	112.6		
			1260-4	0.505/-0.019	104.8		
			1260-5	0.494/-0.050	108.8		
				Average Recovery	**107.5**	50.0/125.0	
f120719b.08	slcs-s.01	**f120719b.06**	1016-1	0.484/ 0.000	96.8		SO
			1016-2	0.473/ 0.000	94.6		
			1016-3	0.475/-0.050	105.0		
			1016-4	0.468/ 0.000	93.6		
			1016-5	0.482/ 0.000	96.4		
			1260-1	0.477/-0.061	107.6		
			1260-2	0.489/-0.056	109.0		
			1260-3	0.480/-0.050	106.0		
			1260-4	0.465/-0.019	96.8		
			1260-5	0.460/-0.050	102.0		
				Average Recovery	**100.8**	50.0/125.0	

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: Unknown
Instrument ID: Varian/3800(F)/VF-5
Level: LOW

Analytical Batch: f120719.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120719.06r.bnd
LCS Data File: f120719.07r.bnd

Blank/LCS Preparation Batch: pa120719s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53202.01	F120719	PA120719S01	07/19/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53211.01	F120719	PA120719S01	07/19/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53238.03	A120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 1)	$PCB66S
	A120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 2)	$PCB66S2
	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 1)	$PCB66S(02)
	F120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 2)	$PCB66S2(02)
S53238.04	A120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 1)	$PCB66S
	A120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 2)	$PCB66S2
	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 1)	$PCB66S(02)
	F120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 2)	$PCB66S2(02)
S53239.01	PA120719S01		07/19/12	Extraction, PCB - Wipes	1120WIPE
	F120719	PA120719S01	07/19/12	PCB Swab List	$PCBSWBL
S53243.01	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53243.02	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53243.03	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53243.04	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53243.05	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53245.01	F120720	PA120719S01	07/20/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53245.02	F120720	PA120719S01	07/20/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53245.03	F120720	PA120719S01	07/20/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53246.01	F120723	PA120719S01	07/23/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53248.01	F120720	PA120719S01	07/20/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53248.02	F120723	PA120719S01	07/23/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S

Form 4: Method Blank Summary

GC Column: Unknown
Instrument ID: Varian/3800(F)/VF-5
Level: LOW

Analytical Batch: f120719.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120719.01r	sblk-r.01	07/19/12 09:01	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120719.06r	sblk-s.01	07/19/12 10:27	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120719.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: f120719b.06r.bnd
LCS Data File: f120719b.07r.bnd

Blank/LCS Preparation Batch: pa120719s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53202.01	F120719	PA120719S01	07/19/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53211.01	F120719	PA120719S01	07/19/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53238.03	A120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 1)	$PCB66S
	A120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 2)	$PCB66S2
	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 1)	$PCB66S(02)
	F120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 2)	$PCB66S2(02)
S53238.04	A120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 1)	$PCB66S
	A120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 2)	$PCB66S2
	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 1)	$PCB66S(02)
	F120801	PA120719S01	08/01/12	PCB List 1016/1260 (Column 2)	$PCB66S2(02)
S53239.01	PA120719S01		07/19/12	Extraction, PCB - Wipes	1120WIPE
	F120719	PA120719S01	07/19/12	PCB Swab List	$PCBSWBL
S53243.01	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53243.02	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53243.03	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53243.04	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53243.05	PA120719S01		07/19/12	Extraction, PCB	1120S
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 1)	$TCL8082C1
	F120719	PA120719S01	07/19/12	TCL PCB List (Column 2)	$TCL8082C2
S53245.01	F120720	PA120719S01	07/20/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53245.02	F120720	PA120719S01	07/20/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53245.03	F120720	PA120719S01	07/20/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53246.01	F120723	PA120719S01	07/23/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53248.01	F120720	PA120719S01	07/20/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S
S53248.02	F120723	PA120719S01	07/23/12	PCB List	$8080A
	PA120719S01		07/19/12	Extraction, PCB	1120S

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3800(F)/DB-608
Level: LOW

Analytical Batch: f120719.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
f120719b.01	sblk-r.01	07/19/12 09:01	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
f120719b.06	sblk-s.01	07/19/12 10:27	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

Note/Qualifier Key

A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

LIMS ID: S53243.01
Data File: f120719.14r.bnd
Date Received: 07/18/12

Tag: SB 123 (07-16-12) (6-8)
Notes: s53243.01 20.0g s/1 ID:PA120719s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		80	1	1	%	07/20/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120719.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53243.01 **Tag: SB 123 (07-16-12) (6-8)** Matrix: SO
Data File: f120719b.14r.bnd Notes: s53243.01 20.0g s/1 ID:PA120719s01 Extraction: SONC
Date Received: 07/18/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		80	1	1	%	07/20/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

LIMS ID: S53243.02
Data File: f120719.15r.bnd
Date Received: 07/18/12

Tag: SB 124 (07-16-12) (4-6)
Notes: s53243.02 20.1g s/1 ID:PA120719s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		84	1	1	%	07/20/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120719.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53243.02 **Tag: SB 124 (07-16-12) (4-6)** Matrix: SO
Data File: f120719b.15r.bnd Notes: s53243.02 20.1g s/1 ID:PA120719s01 Extraction: SONC
Date Received: 07/18/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		84	1	1	%	07/20/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

LIMS ID: S53243.03
Data File: f120719.16r.bnd
Date Received: 07/18/12

Tag: SB 117 (07-16-12) (2-4)
Notes: s53243.03 20.1g s/1 ID:PA120719s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/20/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120719.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53243.03 **Tag: SB 117 (07-16-12) (2-4)** Matrix: SO
Data File: f120719b.16r.bnd Notes: s53243.03 20.1g s/1 ID:PA120719s01 Extraction: SONC
Date Received: 07/18/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/20/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

LIMS ID: S53243.04
Data File: f120719.18r.bnd
Date Received: 07/18/12

Tag: SB 157 (07-17-12) (3-5)
Notes: s53243.04 20.0g s/1 C ID:PA120719s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	07/20/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120719.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53243.04 **Tag: SB 157 (07-17-12) (3-5)** Matrix: SO
Data File: f120719b.18r.bnd Notes: s53243.04 20.0g s/1 C ID:PA120719s01 Extraction: SONC
Date Received: 07/18/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	07/20/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

LIMS ID: S53243.05
Data File: f120719.17r.bnd
Date Received: 07/18/12

Tag: SB 157 (07-17-12) (8-10)
Notes: s53243.05 20.1g s/1 ID:PA120719s01
JB

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		81	1	1	%	07/20/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120719.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53243.05 **Tag: SB 157 (07-17-12) (8-10)** Matrix: SO
Data File: f120719b.17r.bnd Notes: s53243.05 20.1g s/1 ID:PA120719s01 Extraction: SONC
Date Received: 07/18/12 ECD Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/19/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/19/12	
Total Solids								
TSOLIDS	Total Solids		81	1	1	%	07/20/12	

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
f66120605.cal	**TCX**	L	2.15	2.20	2.25	1.50	3.00	9.00	15.00	21.00	30.00	0.051	0.048
				22.5	1.00	0.08	0.06	0.05	0.05	0.05	0.05		
	1016-1	L	3.06	3.11	3.16	0.05	0.10	0.30	0.50	0.70	1.00	0.040	0.763
				24.8	1.00	1.45	1.08	0.92	0.87	0.83	0.79		
	1016-2	L	3.31	3.36	3.41	0.05	0.10	0.30	0.50	0.70	1.00	0.112	2.601
				26.2	1.00	4.96	3.53	2.99	2.84	2.80	2.70		
	1016-3	L	3.40	3.45	3.50	0.05	0.10	0.30	0.50	0.70	1.00	0.049	1.020
				25.0	1.00	1.93	1.39	1.21	1.14	1.11	1.05		
	1016-4	L	3.47	3.52	3.57	0.05	0.10	0.30	0.50	0.70	1.00	0.063	0.699
				46.8	1.00	2.10	1.12	0.92	0.86	0.79	0.75		
	1016-5	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.958
				27.7	1.00	1.91	1.32	1.13	1.07	1.04	0.99		
	1260-1	L	4.99	5.04	5.09	0.05	0.10	0.30	0.50	0.70	1.00	0.075	1.594
				27.6	1.00	3.14	2.22	1.85	1.75	1.72	1.66		
	1260-2	L	5.21	5.26	5.31	0.05	0.10	0.30	0.50	0.70	1.00	0.113	2.481
				27.6	1.00	4.88	3.43	2.86	2.72	2.68	2.58		
	1260-3	L	5.46	5.51	5.56	0.05	0.10	0.30	0.50	0.70	1.00	0.096	2.449
				25.7	1.00	4.57	3.27	2.75	2.64	2.62	2.53		
	1260-4	L	6.06	6.11	6.16	0.05	0.10	0.30	0.50	0.70	1.00	0.051	2.119
				29.1	1.00	4.04	2.56	2.17	2.17	2.20	2.19		
	1260-5	L	6.32	6.37	6.42	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.810
				26.0	1.00	3.44	2.46	2.08	1.98	1.95	1.87		
	DCBP	L	7.44	7.49	7.54	1.50	3.00	9.00	15.00	21.00	30.00	0.057	0.035
				27.7	1.00	0.07	0.05	0.04	0.04	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): f66120605.cal / mean %rsd: 28.0

File Name: F:\gcecd.dat\Methods\F66120605.cal
Version: 3

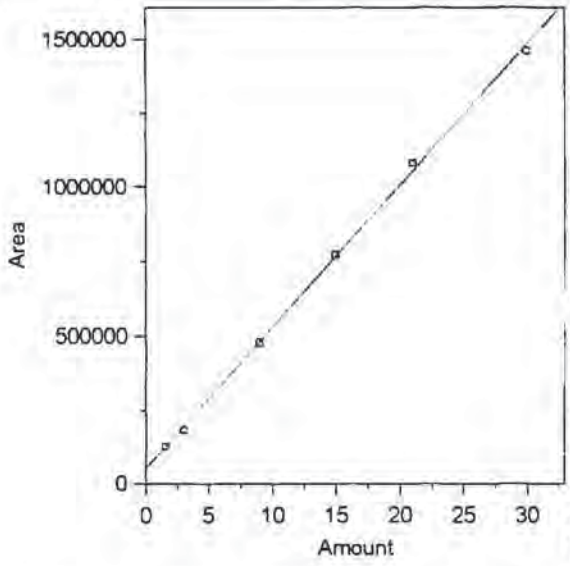
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.203 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

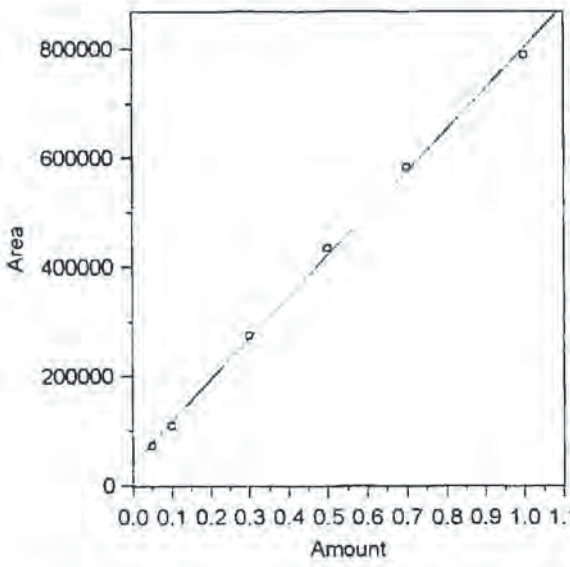
Single peak quantification by area

Y = 47656.17 X + 50931.09

Linear fit with equal weighting
Coefficient of determination: 0.9991111
Average error: 2.132%
Average CF: 58074.53
RSD: 22.469%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	125128.4	83418.93	2.216	F:\gcecd.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	181519.6	60506.53	-6.385	F:\gcecd.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	479177.3	53241.92	-0.137	F:\gcecd.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	767757.5	51183.83	0.259	F:\gcecd.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	1078491	51356.71	2.546	F:\gcecd.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1462178	48739.27	-1.245	F:\gcecd.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

2 1016-1



Expected retention time: 3.11 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 3
PCB-1016
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

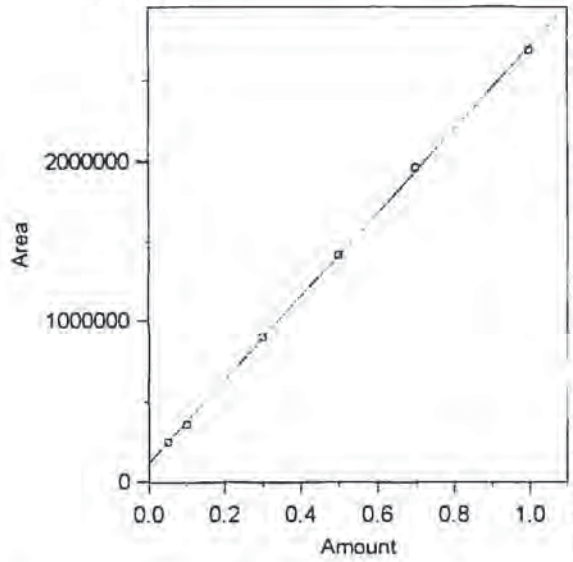
Single peak quantification by area

Y = 762932.1 X + 40053.23

Linear fit with equal weighting
Coefficient of determination: 0.9986599
Average error: 3.797%
Average CF: 989099.9
RSD: 24.802%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	72253.18	1445064	-7.604	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	108293.6	1082936	-6.921	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	275062.3	916874.3	2.279	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	433369.2	866738.4	2.811	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	583043.6	832919.5	1.557	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	790067.7	790067.7	-1.609	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

3 1016-2



Expected retention time: 3.362 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 3
PCB-1016
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

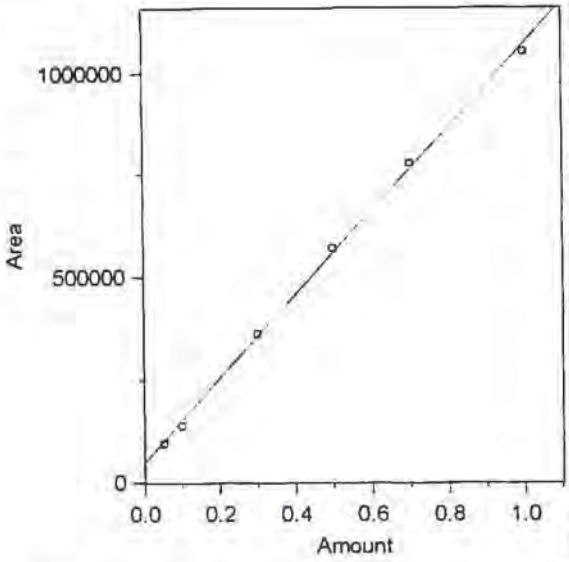
Single peak quantification by area

Y = 2601147 X + 112417.9

Linear fit with equal weighting
Coefficient of determination: 0.9997001
Average error: 1.685%
Average CF: 3300561
RSD: 26.166%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	247811	4956220	2.201	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	353161.1	3531611	-5.200	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	896735	2989117	0.445	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1417800	2835600	0.340	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1957154	2795934	1.238	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2694886	2694886	-0.688	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

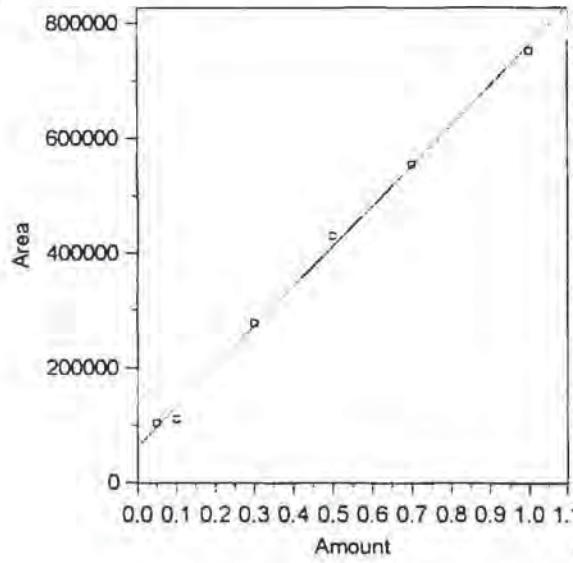
4 1016-3



Expected retention time:	3.454 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1020496 X + 49121.13	
Linear fit with equal weighting	
Coefficient of determination:	0.9988882
Average error:	3.145%
Average CF:	1305081
RSD:	24.946%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	962458	1924916	-3.894	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1393982	1393982	-7.788	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	3623616	1207872	1.996	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	5690901	1138180	1.738	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	7783863	1111981	1.954	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1053558	1053558	-1.501	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

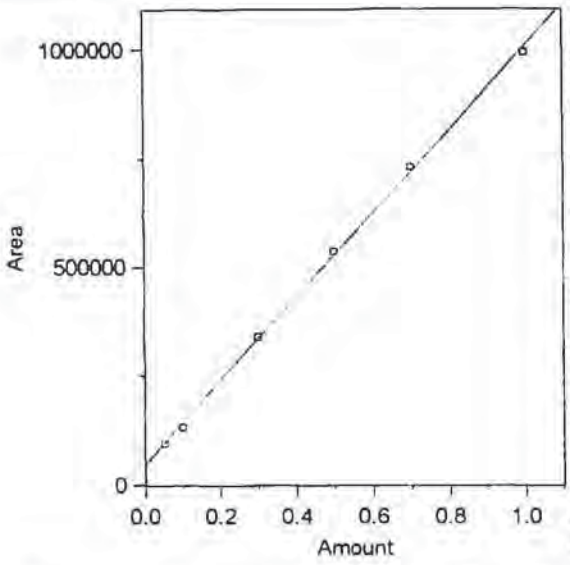
5 1016-4



Expected retention time:	3.524 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 698645 X + 62930.49	
Linear fit with equal weighting	
Coefficient of determination:	0.9971991
Average error:	5.099%
Average CF:	1089711
RSD:	46.750%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	1048121	2096242	7.101	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	1116023	1116023	-15.959	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	2769628	923209.3	1.629	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	429680.3	859360.6	4.227	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	554151.1	791644.5	0.393	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	751783.6	751783.6	-1.286	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

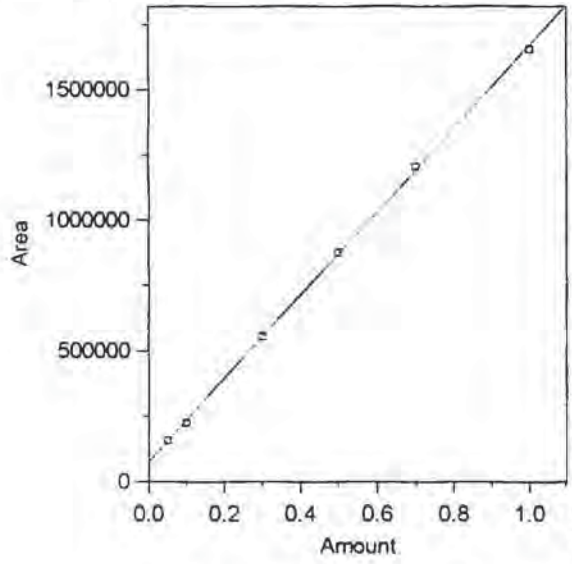
6 1016-5



Expected retention time:	3.99 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 958178.7 X + 47289.98	
Linear fit with equal weighting	
Coefficient of determination:	0.9991639
Average error:	2.277%
Average CF:	1242731
RSD:	27.702%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	95353.21	1907064	0.162	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	131689	1316890	-7.979	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	338223	1127410	1.039	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	534353.4	1068707	1.515	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	730374.4	1043392	1.721	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	992920.6	992920.6	-1.248	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

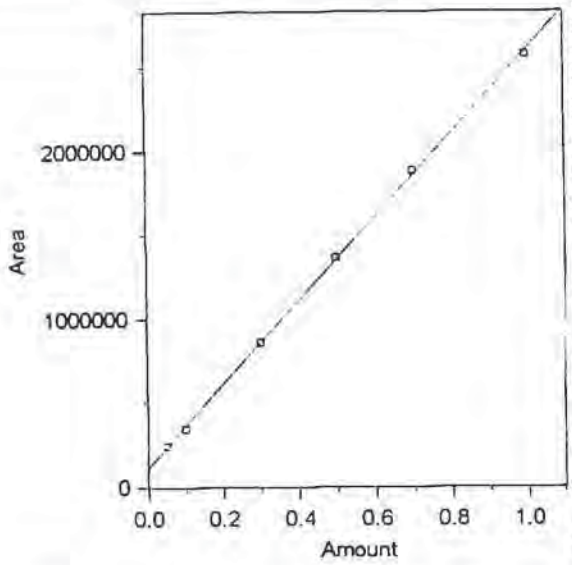
7 1260-1



Expected retention time:	5.044 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1594301 X + 74547.08	
Linear fit with equal weighting	
Coefficient of determination:	0.9996752
Average error:	1.587%
Average CF:	2057009
RSD:	27.569%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	156967.1	3139342	1.753	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	222370	2223700	-4.961	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	554058.1	1846860	0.221	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	876598.2	1753196	0.562	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1205797	1722567	1.280	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1656389	1656389	-0.747	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

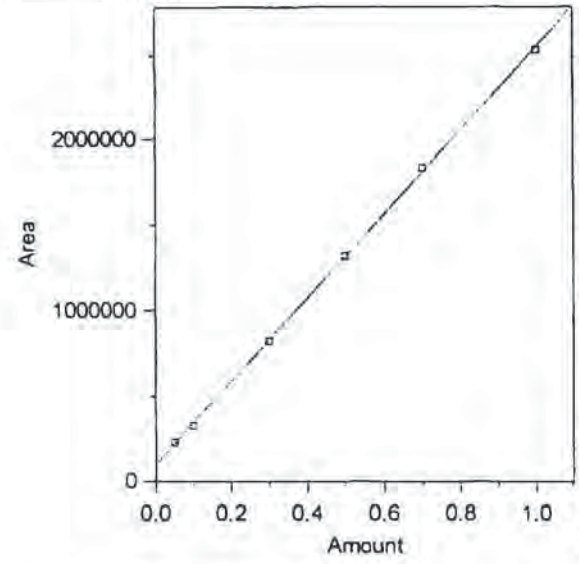
8 1260-2



Expected retention time:	5.264 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2480847 X + 112979.9	
Linear fit with equal weighting	
Coefficient of determination:	0.999669
Average error:	1.752%
Average CF:	3188669
RSD:	27.616%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	243842.2	4876844	2.877	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	342862.1	3428621	-5.041	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	856442.6	2854809	-0.092	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1359526	2719052	0.452	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1874225	2677464	1.333	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2575225	2575225	-0.717	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

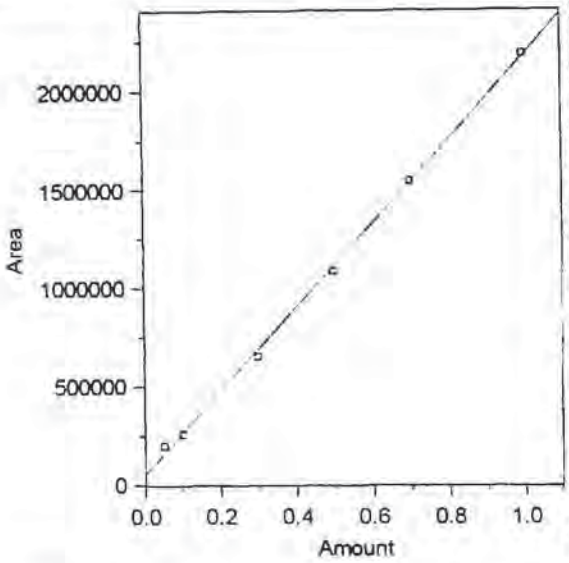
9 1260-3



Expected retention time:	5.51 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2448519 X + 95512.59	
Linear fit with equal weighting	
Coefficient of determination:	0.9997622
Average error:	1.899%
Average CF:	3062008
RSD:	25.646%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	228665.3	4573306	4.922	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	326472.3	3264723	-4.082	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	824149.5	2747165	-0.713	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1319799	2639598	0.002	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1830950	2615643	1.187	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2531615	2531615	-0.488	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

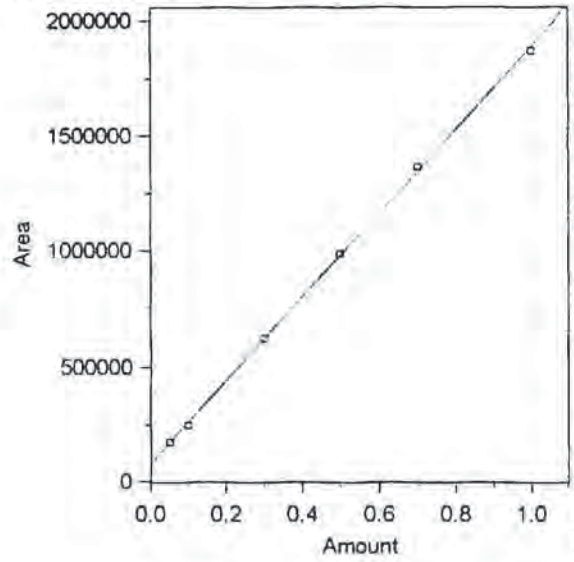
10 1260-4



Expected retention time:	6.111 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2118980 X + 51414.68	
Linear fit with equal weighting	
Coefficient of determination:	0.9985846
Average error:	6.664%
Average CF:	2554518
RSD:	29.065%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	201960.2	4039204	28.340	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	255490	2554900	-2.971	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	651378.4	2171261	-5.200	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	1086010	2172020	-2.241	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1541809	2202584	0.463	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	2187138	2187138	0.771	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

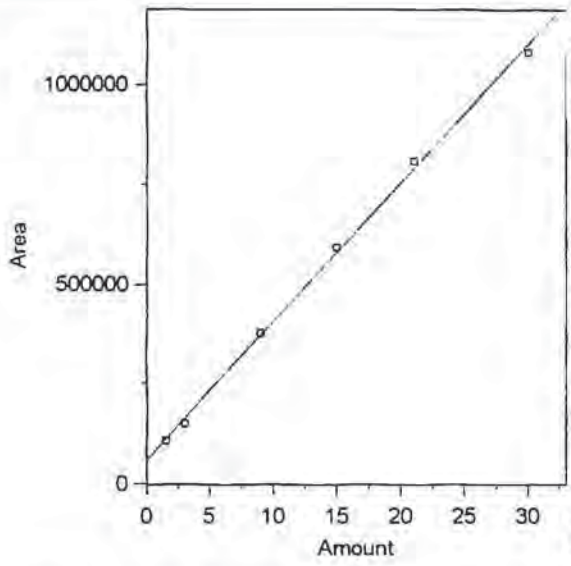
11 1260-5



Expected retention time:	6.367 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1809719 X + 78684.21	
Linear fit with equal weighting	
Coefficient of determination:	0.9995806
Average error:	1.650%
Average CF:	2296311
RSD:	25.999%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	171941.8	3438836	1.638	F:\gceed.dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	0.1	246226.6	2462266	-5.172	F:\gceed.dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	0.3	622912.1	2076374	0.211	F:\gceed.dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	0.5	987860.5	1975721	0.439	F:\gceed.dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	0.7	1366743	1952490	1.580	F:\gceed.dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	1	1872177	1872177	-0.859	F:\gceed.dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

12 DCBP



Expected retention time:	7.486 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 34817.2 X + 57301.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9984544
Average error:	3.281%
Average CF:	45923.08
RSD:	27.735%

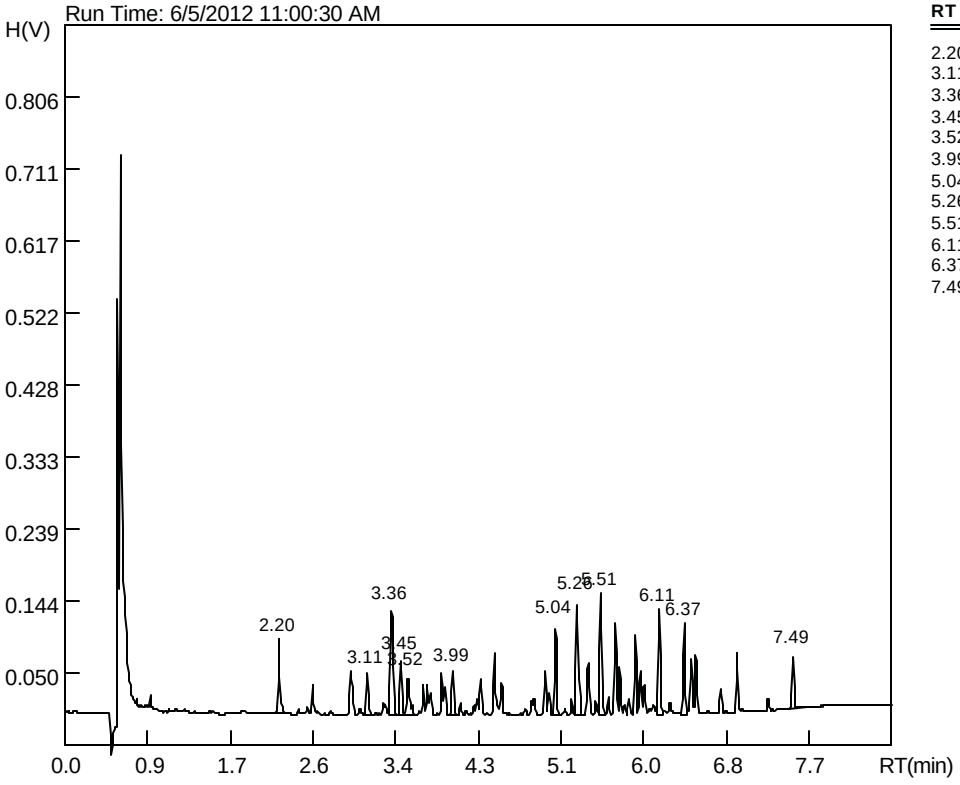
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	105176.3	70117.53	-3.972	F:\gceed dat\F120605\F120605.02R.BND	6/5/2012 3:02:54 PM
2	3	148972.2	49657.4	-7.901	F:\gceed dat\F120605\F120605.03R.BND	6/5/2012 3:03:06 PM
3	9	376072.3	41785.81	1.461	F:\gceed dat\F120605\F120605.04R.BND	6/5/2012 3:03:17 PM
4	15	591420.7	39428.05	2.047	F:\gceed dat\F120605\F120605.05R.BND	6/5/2012 3:03:32 PM
5	21	808171.9	38484.38	2.500	F:\gceed dat\F120605\F120605.06R.BND	6/5/2012 3:05:03 PM
6	30	1081960	36065.33	-1.802	F:\gceed dat\F120605\F120605.07R.BND	6/5/2012 3:05:15 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

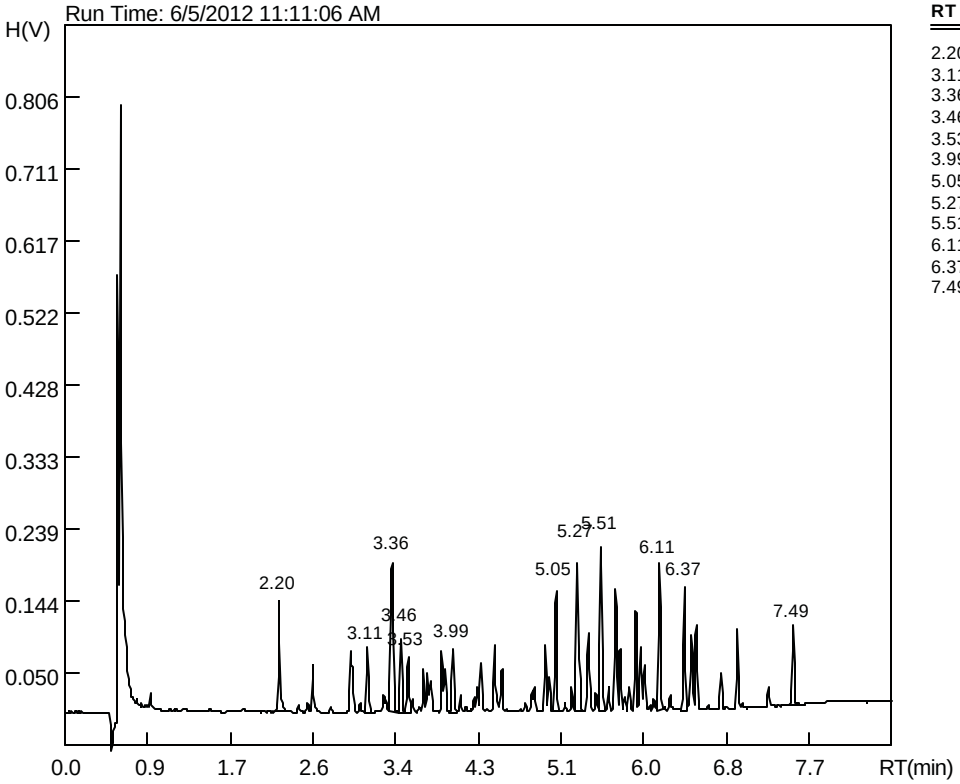
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:30 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	2.717	125128
3.11	0.00	1016-1	0.086	72253
3.36	0.00	1016-2	0.096	247811
3.45	-0.01	1016-3	0.089	96246
3.52	-0.01	1016-4	0.150	104812
3.99	0.01	1016-5	0.097	95353
5.04	0.01	1260-1	0.107	156967
5.26	0.01	1260-2	0.111	243842
5.51	0.01	1260-3	0.113	228665
6.11	0.00	1260-4	0.123	201960
6.37	0.00	1260-5	0.126	171942
7.49	0.02	DCBP	3.241	105176

File Name: F:\GCECD.DAT\F120605\F120605.03R.BND
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:06 AM



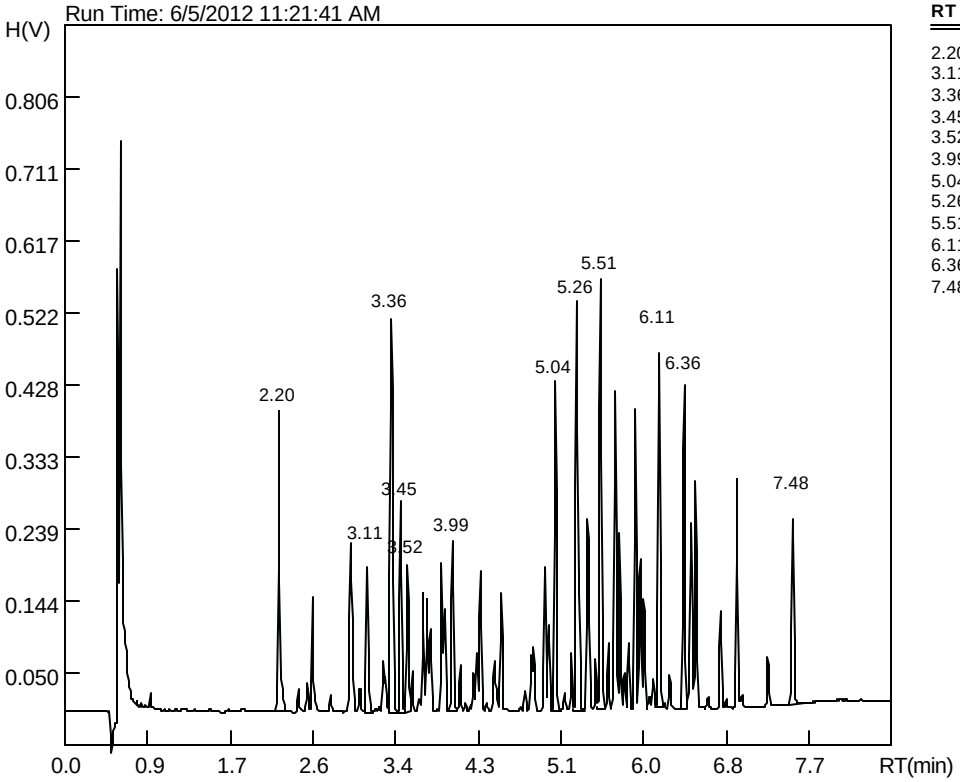
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	4.052	181520
3.11	0.00	1016-1	0.141	108294
3.36	0.00	1016-2	0.143	353161
3.46	0.00	1016-3	0.137	139398
3.53	0.00	1016-4	0.161	111602
3.99	0.02	1016-5	0.141	131689
5.05	0.02	1260-1	0.158	222370
5.27	0.02	1260-2	0.163	342862
5.51	0.02	1260-3	0.165	326472
6.11	0.00	1260-4	0.159	255490
6.37	0.00	1260-5	0.183	246227
7.49	0.02	DCBP	4.833	148972

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

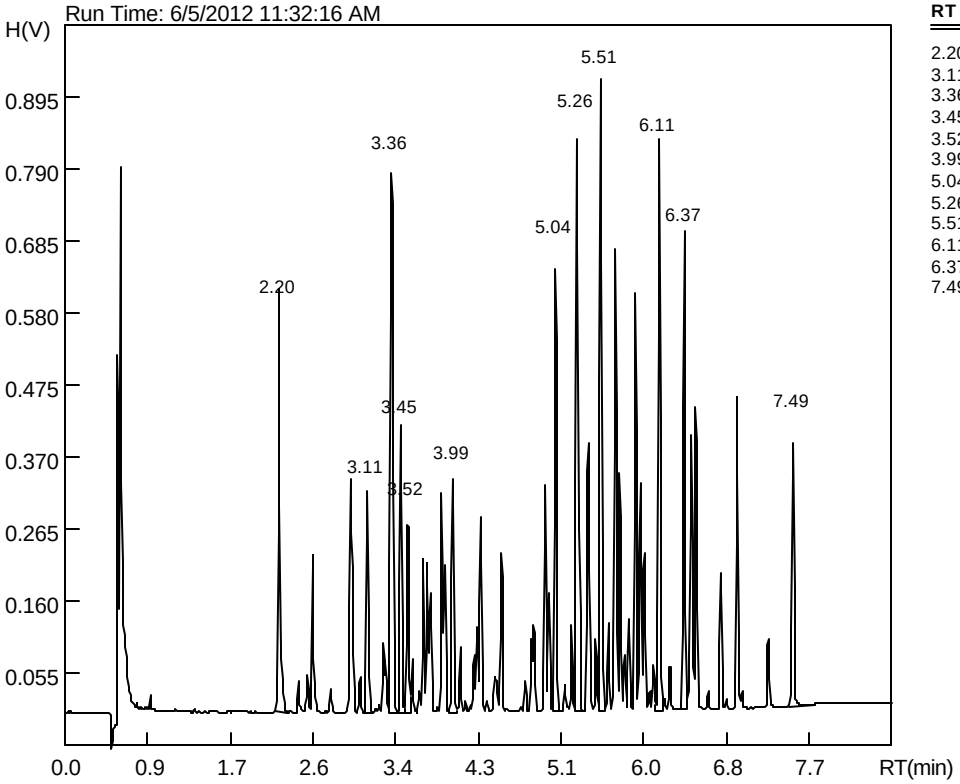
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:41 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	11.100	479177
3.11	0.00	1016-1	0.395	275062
3.36	0.00	1016-2	0.387	896735
3.45	-0.01	1016-3	0.388	362362
3.52	-0.01	1016-4	0.421	276963
3.99	0.01	1016-5	0.392	338223
5.04	0.01	1260-1	0.415	554058
5.26	0.01	1260-2	0.429	856443
5.51	0.01	1260-3	0.428	824150
6.11	0.00	1260-4	0.425	651378
6.36	-0.01	1260-5	0.472	622912
7.48	0.02	DCBP	13.089	376072

File Name: F:\GCECD.DAT\F120605\F120605.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:16 AM



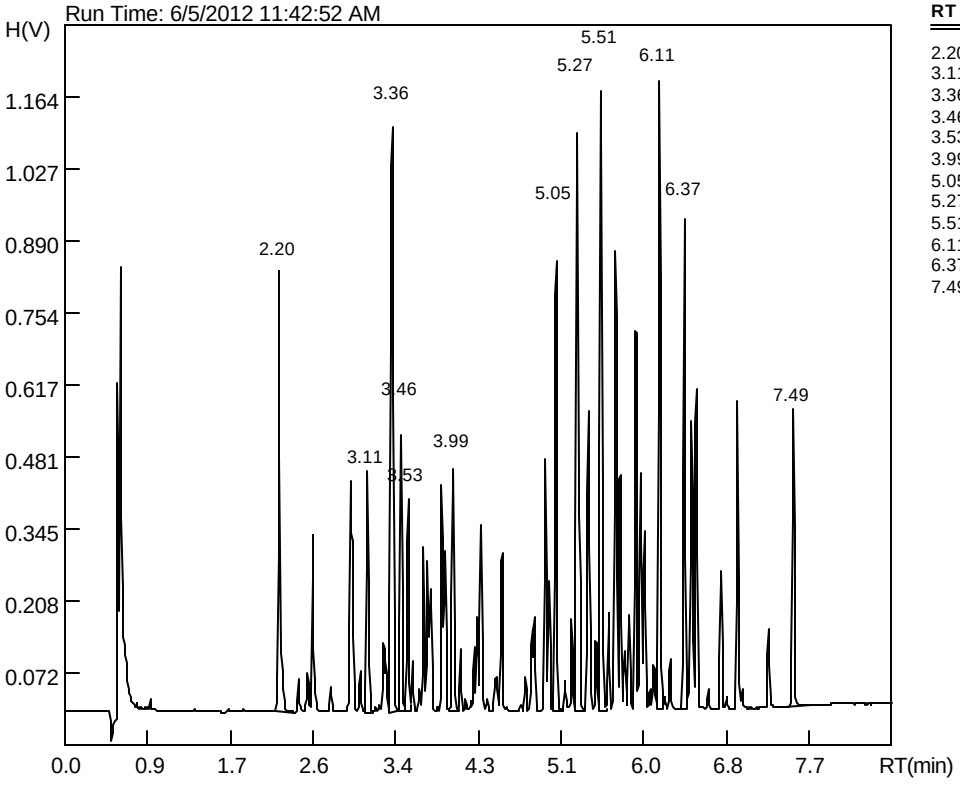
RT	dT	Name	Amt.	Area
2.20	0.02	TCX	17.933	767758
3.11	0.00	1016-1	0.637	433369
3.36	0.00	1016-2	0.621	1417800
3.45	-0.01	1016-3	0.621	569090
3.52	-0.01	1016-4	0.661	429680
3.99	0.01	1016-5	0.629	534353
5.04	0.01	1260-1	0.665	876598
5.26	0.01	1260-2	0.689	1359526
5.51	0.01	1260-3	0.691	1319799
6.11	0.00	1260-4	0.718	1086010
6.37	0.00	1260-5	0.753	987861
7.49	0.02	DCBP	20.918	591421

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

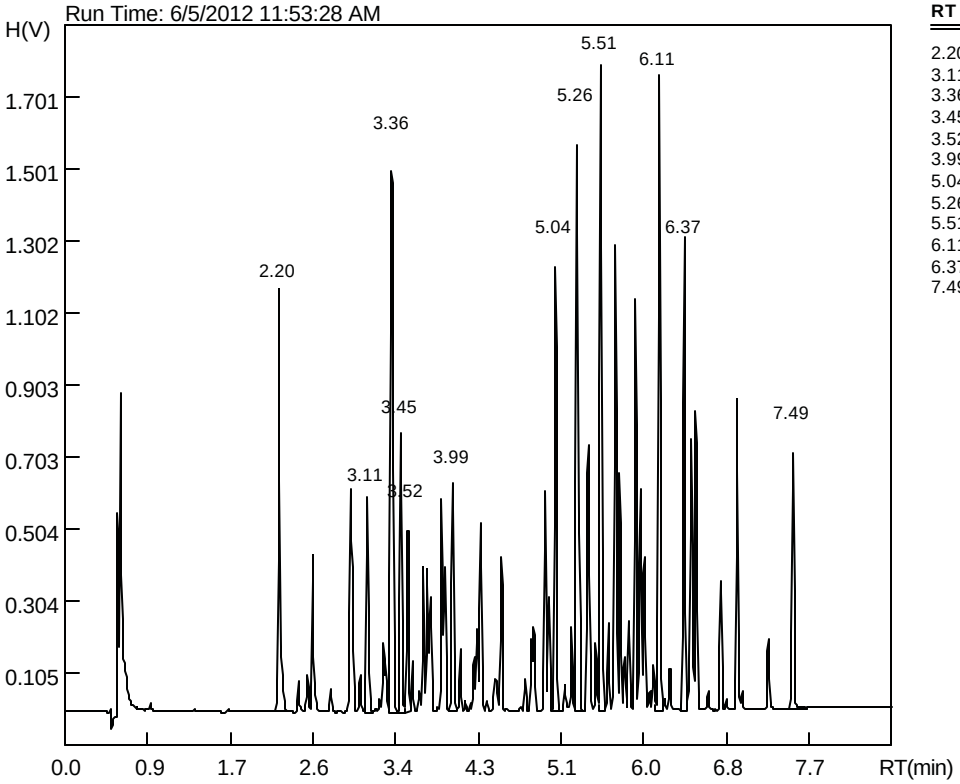
Analytical Batch: f120605.1

File Name: F:\GCECD.DAT\F120605\F120605.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:52 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	25.290	1078491
3.11	0.00	1016-1	0.866	583044
3.36	0.00	1016-2	0.863	1957154
3.46	0.00	1016-3	0.856	778386
3.53	0.00	1016-4	0.857	554151
3.99	0.02	1016-5	0.867	730374
5.05	0.02	1260-1	0.920	1205797
5.27	0.02	1260-2	0.956	1874225
5.51	0.02	1260-3	0.962	1830950
6.11	0.00	1260-4	1.025	1541809
6.37	0.00	1260-5	1.044	1366743
7.49	0.02	DCBP	28.798	808172

File Name: F:\GCECD.DAT\F120605\F120605.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:28 AM



RT	dT	Name	Amt.	Area
2.20	0.02	TCX	34.375	1462178
3.11	0.00	1016-1	1.182	790068
3.36	0.00	1016-2	1.195	2694886
3.45	-0.01	1016-3	1.166	1053558
3.52	-0.01	1016-4	1.168	751784
3.99	0.01	1016-5	1.185	992921
5.04	0.01	1260-1	1.269	1656389
5.26	0.01	1260-2	1.319	2575225
5.51	0.01	1260-3	1.333	2531615
6.11	0.00	1260-4	1.460	2187138
6.37	0.00	1260-5	1.433	1872177
7.49	0.02	DCBP	38.752	1081960

Form 6: Initial Calibration Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120719.4

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
fb66120605.ca	**TCX**	L	2.31	2.36	2.41	1.50	3.00	9.00	15.00	21.00	30.00	0.058	0.040
				26.3	1.00	0.08	0.06	0.05	0.05	0.04	0.04		
	1016-1	L	3.01	3.06	3.11	0.05	0.10	0.30	0.50	0.70	1.00	0.036	0.583
				27.8	1.00	1.19	0.86	0.72	0.68	0.65	0.61		
	1016-2	L	3.44	3.49	3.54	0.05	0.10	0.30	0.50	0.70	1.00	0.086	1.183
				32.2	1.00	2.68	1.88	1.52	1.40	1.33	1.25		
	1016-3	L	3.81	3.86	3.91	0.05	0.10	0.30	0.50	0.70	1.00	0.138	2.534
				30.8	1.00	5.38	3.70	3.01	2.82	2.79	2.64		
	1016-4	L	3.97	4.02	4.07	0.05	0.10	0.30	0.50	0.70	1.00	0.066	0.946
				33.4	1.00	2.18	1.47	1.20	1.10	1.06	0.99		
	1016-5	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.047	0.721
				30.7	1.00	1.57	1.08	0.91	0.83	0.82	0.75		
	1260-1	L	5.56	5.61	5.66	0.05	0.10	0.30	0.50	0.70	1.00	0.105	1.632
				32.4	1.00	3.64	2.54	2.02	1.87	1.81	1.72		
	1260-2	L	5.64	5.69	5.74	0.05	0.10	0.30	0.50	0.70	1.00	0.104	1.712
				32.5	1.00	3.80	2.57	2.09	1.94	1.89	1.80		
	1260-3	L	6.05	6.10	6.15	0.05	0.10	0.30	0.50	0.70	1.00	0.095	1.698
				30.1	1.00	3.56	2.55	2.05	1.88	1.86	1.78		
	1260-4	L	6.54	6.59	6.64	0.05	0.10	0.30	0.50	0.70	1.00	0.048	1.827
				26.7	1.00	3.36	2.30	1.88	1.90	1.91	1.89		
	1260-5	L	6.96	7.01	7.06	0.05	0.10	0.30	0.50	0.70	1.00	0.088	1.607
				29.7	1.00	3.34	2.36	1.93	1.79	1.76	1.68		
	DCBP	L	8.11	8.16	8.21	1.50	3.00	9.00	15.00	21.00	30.00	0.070	0.032
				32.4	1.00	0.07	0.05	0.04	0.04	0.04	0.03		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): fb66120605.cal / mean %rsd: 30.4

File Name: F:\gceed.dat\Methods\Fb66120605.cal
Version: 2

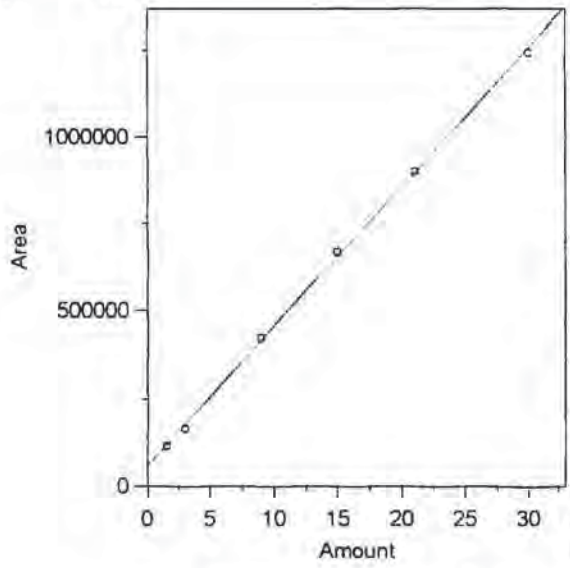
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.358 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

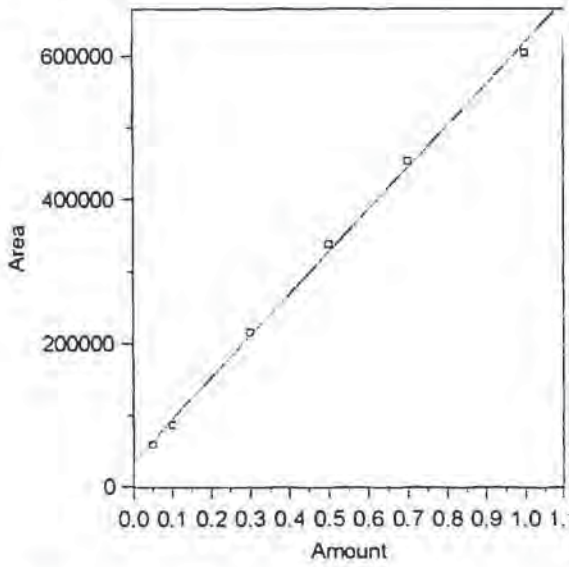
Single peak quantification by area

Y = 39870.61 X + 58053.06

Linear fit with equal weighting
Coefficient of determination: 0.9994379
Average error: 2.386%
Average CF: 51370.67
RSD: 26.263%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	115679.1	77119.4	-1.850	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	164970.6	54990.2	-7.145	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	424850.7	47205.63	1.910	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	668667.4	44577.82	1.914	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	900818.4	42896.11	0.612	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1243046	41434.87	-0.887	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

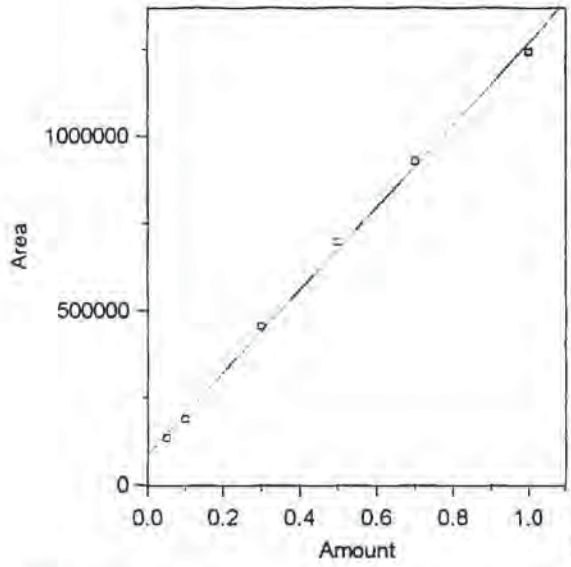
2 1016-1



Expected retention time:	3.057 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 582699.6 X + 35616.02	
Linear fit with equal weighting	
Coefficient of determination:	0.9977939
Average error:	4.476%
Average CF:	782959.7
RSD:	27.844%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	59555.11	1191102	-8.024	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	85830.45	858304.5	-8.580	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	216043.1	720143.6	2.669	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	337309.8	674619.6	3.164	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	453779.1	648255.9	2.316	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	605332.5	605332.5	-2.100	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

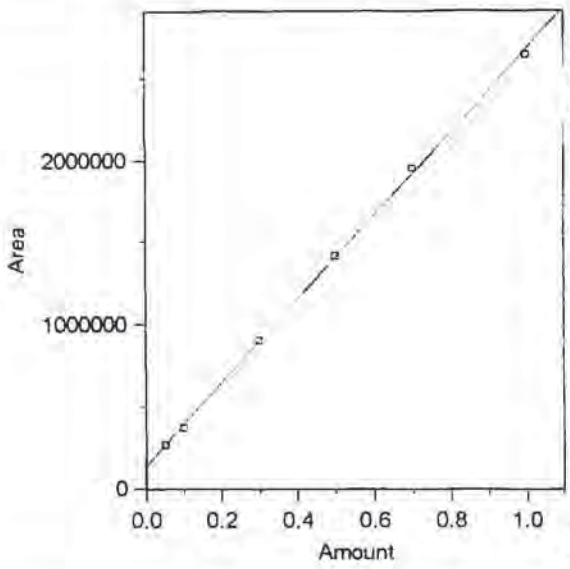
3 1016-2



Expected retention time:	3.49 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1182923 X + 86069.77	
Linear fit with equal weighting	
Coefficient of determination:	0.9980066
Average error:	4.316%
Average CF:	1674559
RSD:	32.211%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	133909.2	2678184	-7.786	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	187949.5	1879495	-8.031	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	456012.6	1520042	3.417	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	697347.2	1394694	2.925	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	930979	1329970	1.845	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1244968	1244968	-1.893	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

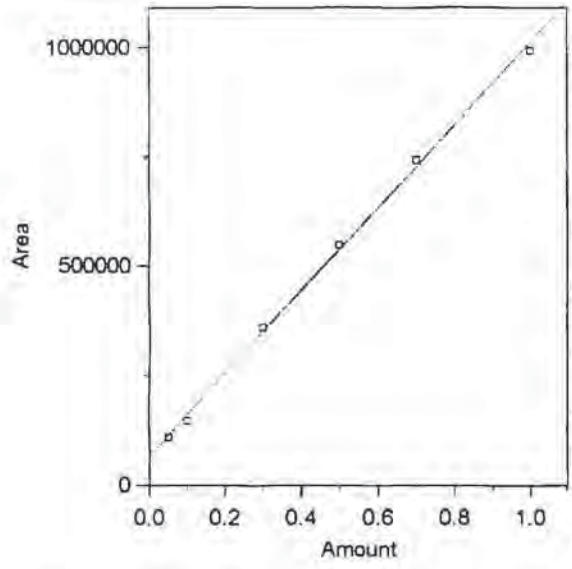
4 1016-3



Expected retention time:	3.858 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2533522 X + 138452.1	
Linear fit with equal weighting	
Coefficient of determination:	0.9993595
Average error:	1.799%
Average CF:	3389695
RSD:	30.843%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	269174.6	5383492	1.526	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	369980.5	3699805	-5.570	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	902096.4	3006988	0.399	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	1408728	2817456	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1950344	2786206	2.010	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	2644221	2644221	-1.039	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

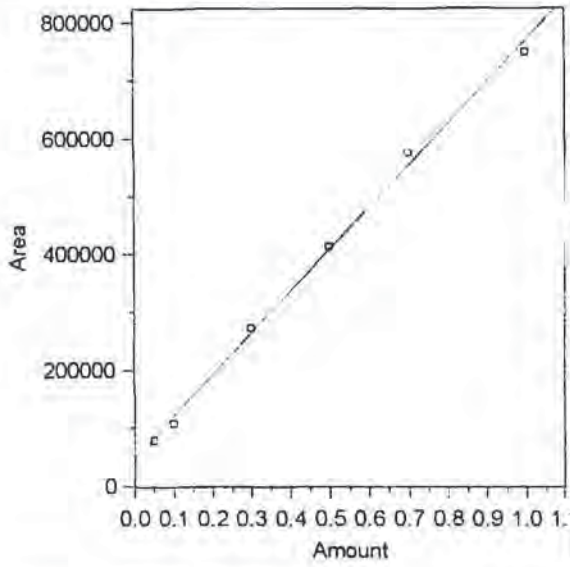
5 1016-4



Expected retention time:	4.02 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 945847.3 X + 66005.65	
Linear fit with equal weighting	
Coefficient of determination:	0.9983203
Average error:	3.567%
Average CF:	1332650
RSD:	33.355%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	108760.3	2175206	-4.005	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	146655.9	1466559	-8.677	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	359501.2	1198337	2.785	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	549015.4	1098031	1.872	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	744732.1	1063903	2.284	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	993864.6	993864.6	-1.778	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

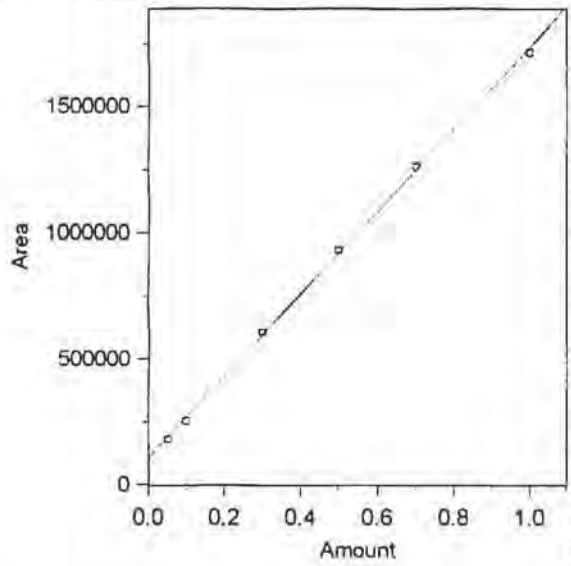
6 1016-5



Expected retention time:	4.151 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 721472.8 X + 47476.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9968299
Average error:	4.415%
Average CF:	992972
RSD:	30.730%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	78541.68	1570834	-5.995	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	108179	1081790	-9.568	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	272539	908463.3	3.266	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	412918.5	825837	1.153	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	574749.9	821071.3	4.026	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	749836.9	749836.9	-2.486	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

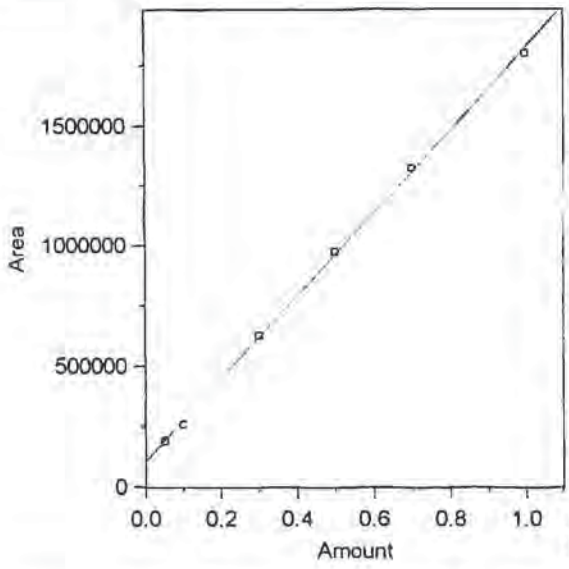
7 1260-1



Expected retention time:	5.611 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1631628 X + 105405.6	
Linear fit with equal weighting	
Coefficient of determination:	0.9994005
Average error:	2.230%
Average CF:	2264340
RSD:	32.401%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	181863.8	3637276	-2.740	F:\gceed dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	254270.5	2542705	-5.324	F:\gceed dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	604824.4	2016081	1.669	F:\gceed dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	933124.7	1866249	1.292	F:\gceed dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1263650	1805214	1.291	F:\gceed dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1718515	1718515	-1.066	F:\gceed dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

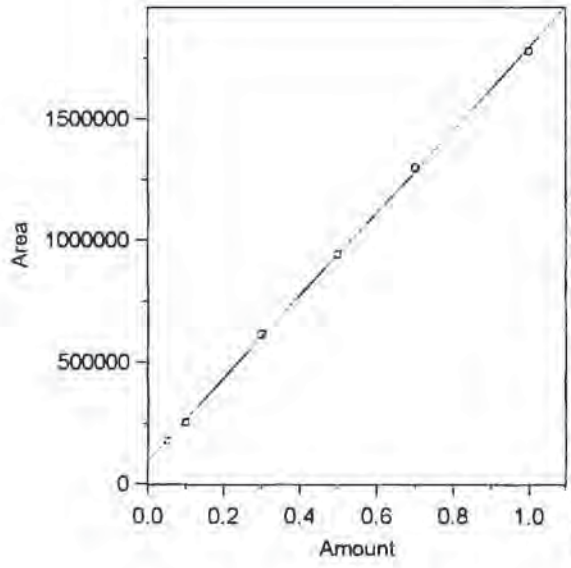
8 1260-2



Expected retention time:	5.692 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1711836 X + 104367.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9993424
Average error:	1.976%
Average CF:	2347058
RSD:	32.483%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	190027.6	3800552	0.036	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	256753.5	2567535	-6.822	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	626241.9	2087473	1.347	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	970528.4	1941057	1.067	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1322333	1889047	1.511	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1796684	1796684	-1.075	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

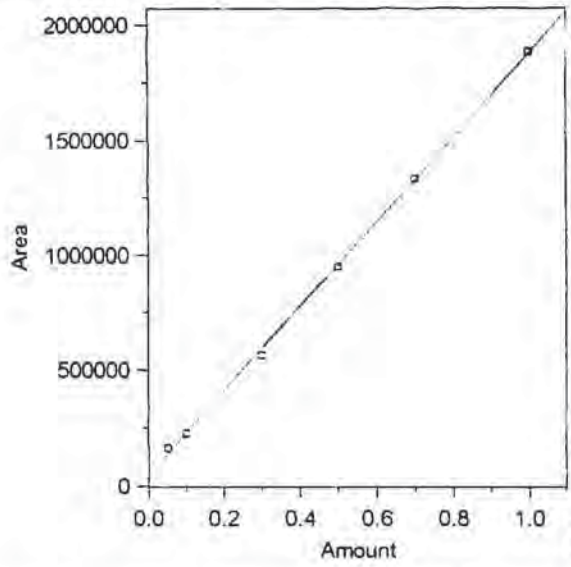
9 1260-3



Expected retention time:	6.098 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1698324 X + 94958.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9996811
Average error:	1.430%
Average CF:	2280111
RSD:	30.080%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	178024.2	3560484	-1.029	F:\gcecd.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	255083.7	2550837	-3.666	F:\gcecd.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	614370.1	2047900	1.640	F:\gcecd.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	941372.3	1882745	-0.291	F:\gcecd.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1300216	1857452	1.280	F:\gcecd.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1781245	1781245	-0.671	F:\gcecd.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

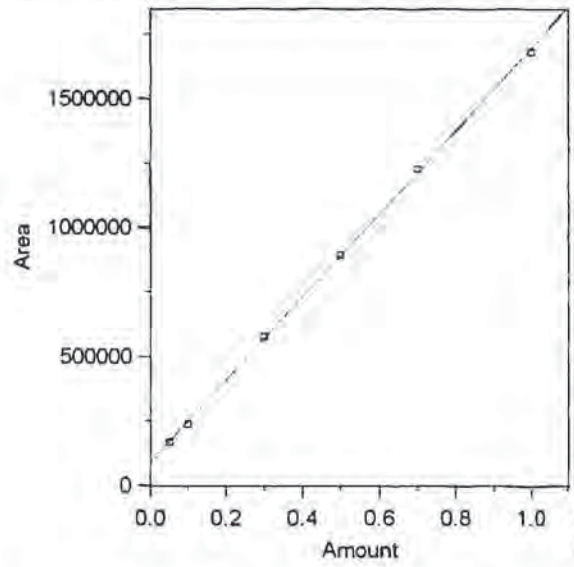
10 1260-4



Expected retention time:	6.591 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1827386 X + 48418.99	
Linear fit with equal weighting	
Coefficient of determination:	0.9990682
Average error:	4.726%
Average CF:	2206297
RSD:	26.718%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	168141.7	3362834	20.283	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	229974.8	2299748	-0.512	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	564488.9	1881630	-5.388	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	950985.5	1901971	-1.156	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1334904	1907006	0.551	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1884593	1884593	0.468	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

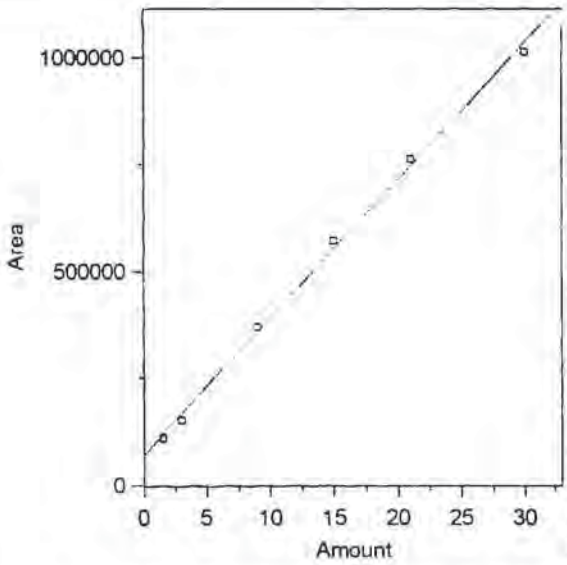
11 1260-5



Expected retention time:	7.014 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1606532 X + 87831.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9995843
Average error:	1.589%
Average CF:	2142375
RSD:	29.693%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	167108.9	3342178	-0.624	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	0.1	236188.5	2361885	-4.948	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	0.3	578119.2	1927064	1.462	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	0.5	893328.3	1786657	0.250	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	0.7	1229462	1756374	1.407	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	1	1680090	1680090	-0.842	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

12 DCBP



Expected retention time:	8.156 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 32186.62 X + 69759.48	
Linear fit with equal weighting	
Coefficient of determination:	0.9976669
Average error:	4.407%
Average CF:	45480.46
RSD:	32.426%

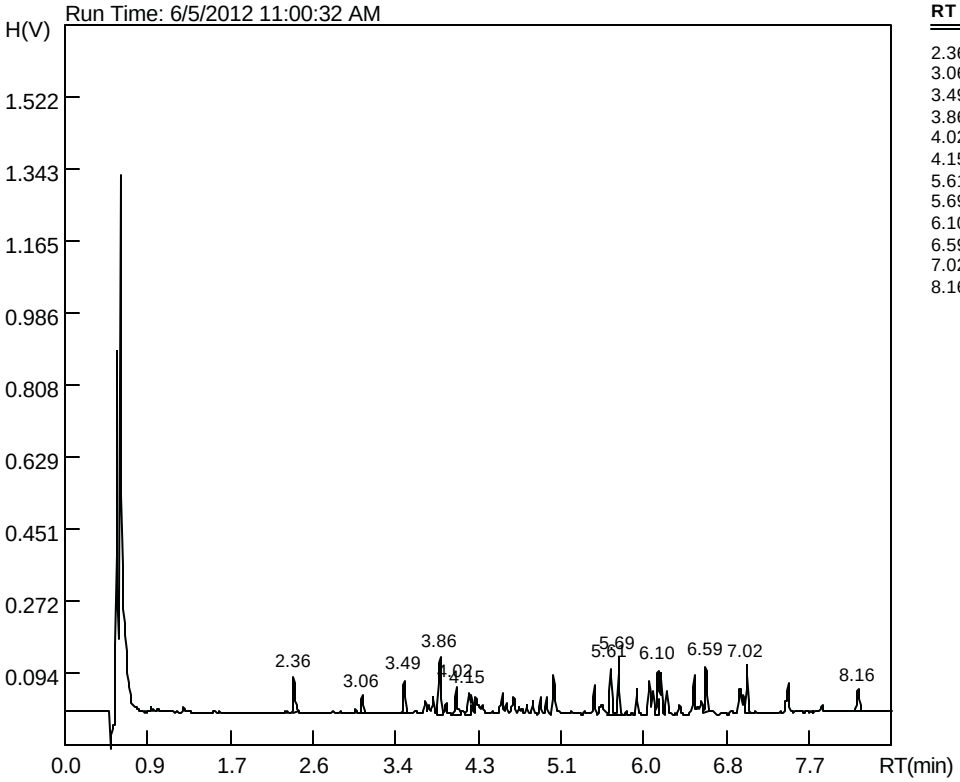
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	109747.5	73165	-7.025	F:\gceed.dat\F120605\F120605B.02R.BND	6/7/2012 12:57:43 PM
2	3	151490.5	50496.83	-8.916	F:\gceed.dat\F120605\F120605B.03R.BND	6/7/2012 12:57:59 PM
3	9	370306.1	41145.12	3.023	F:\gceed.dat\F120605\F120605B.04R.BND	6/7/2012 1:01:24 PM
4	15	569490.9	37966.06	3.064	F:\gceed.dat\F120605\F120605B.05R.BND	6/7/2012 12:58:36 PM
5	21	762846.1	36326.01	2.302	F:\gceed.dat\F120605\F120605B.06R.BND	6/7/2012 12:58:51 PM
6	30	1013512	33783.73	-2.110	F:\gceed.dat\F120605\F120605B.07R.BND	6/7/2012 12:59:07 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.02R.BND
Comments: ss1660.01 0.05ppm
Run Time: 6/5/2012 11:00:32 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	1.445	115679
3.06	0.00	1016-1	0.041	59555
3.49	0.00	1016-2	0.040	133909
3.86	0.00	1016-3	0.052	269175
4.02	0.00	1016-4	0.045	108760
4.15	0.00	1016-5	-0.051	78542
5.61	0.00	1260-1	0.047	181864
5.69	0.00	1260-2	0.050	190028
6.10	0.00	1260-3	0.049	178024
6.59	0.00	1260-4	0.066	168142
7.02	0.00	1260-5	0.049	167109
8.16	0.00	DCBP	1.242	109748

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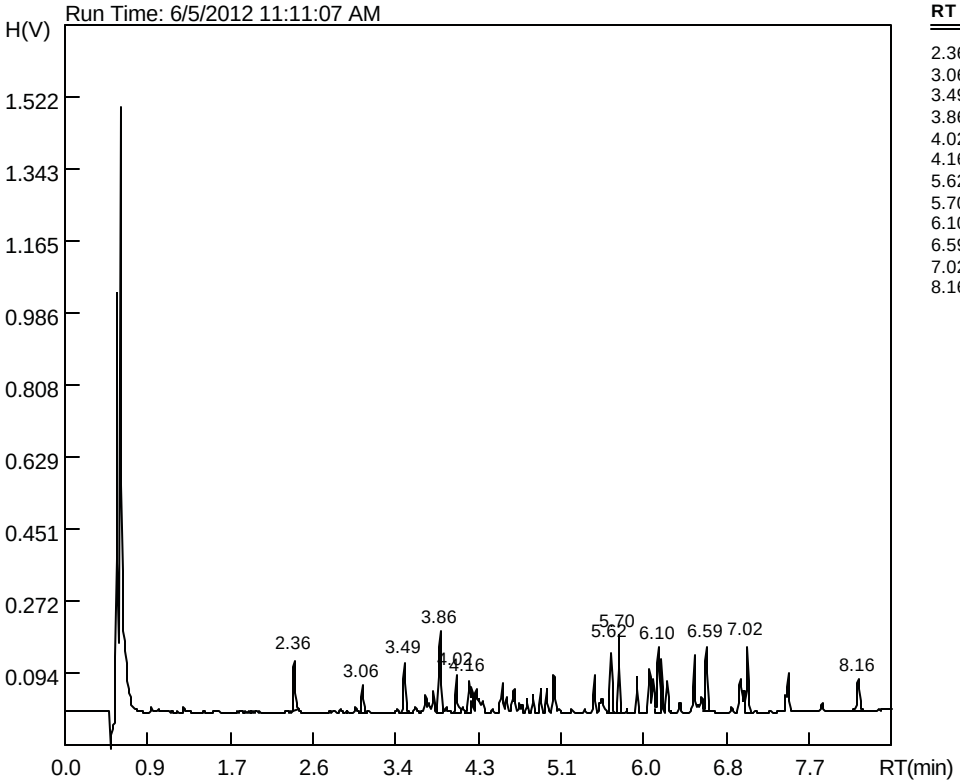
Comments: ss1660.02 0.1ppm
Run Time: 6/5/2012 11:11:07 AM



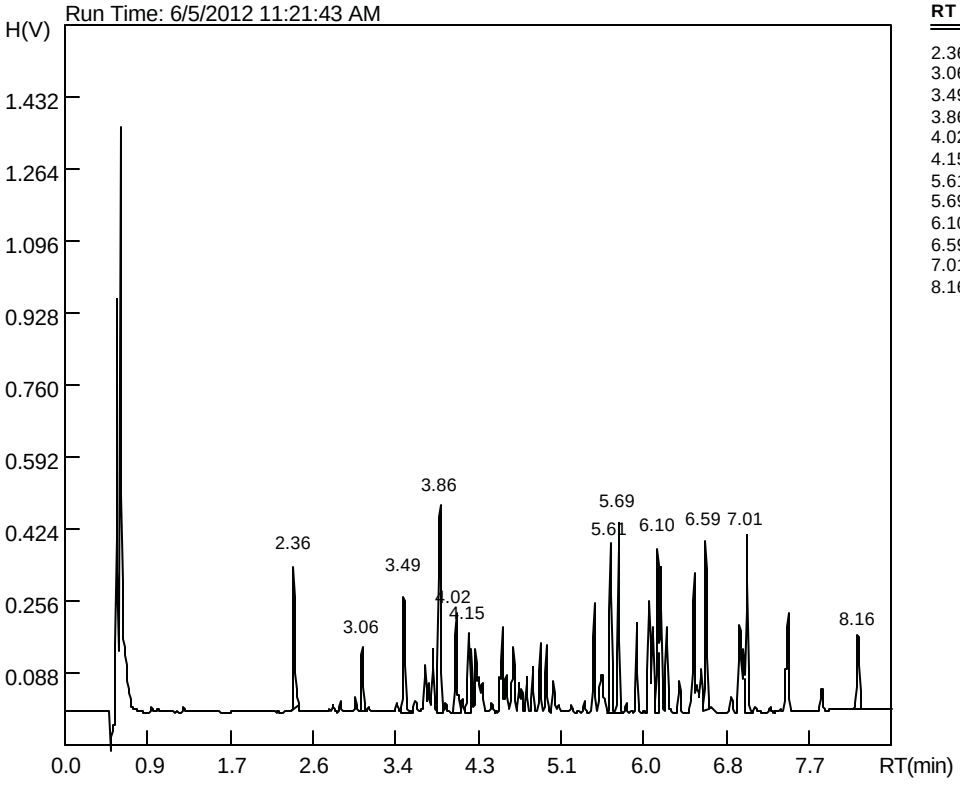
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	2.682	164971
3.06	0.00	1016-1	0.086	85830
3.49	0.00	1016-2	0.086	187950
3.86	0.00	1016-3	0.091	369981
4.02	0.00	1016-4	0.085	146656
4.16	0.01	1016-5	-0.006	108179
5.62	0.00	1260-1	0.091	254271
5.70	0.00	1260-2	0.089	256754
6.10	0.00	1260-3	0.094	255084
6.59	0.00	1260-4	0.099	229975
7.02	0.00	1260-5	0.092	236189
8.16	0.00	DCBP	2.539	151491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

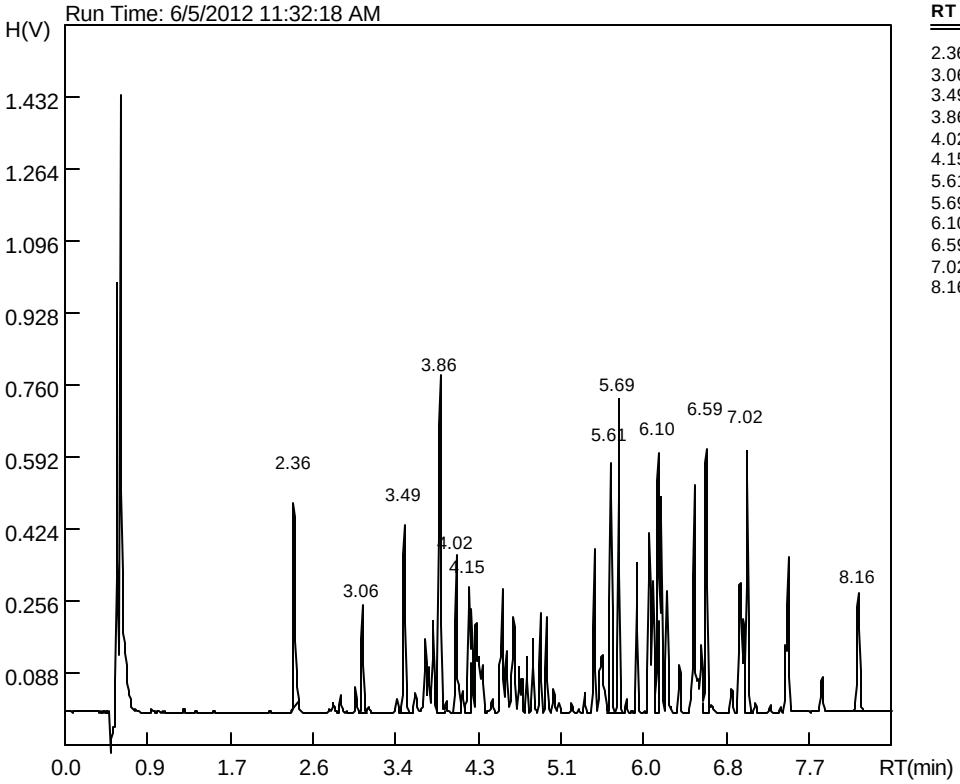
Analytical Batch: f120605.2

File Name: F:\GCECD.DAT\F120605\F120605B.04R.BND
Comments: ss1660.03 0.3ppm
Run Time: 6/5/2012 11:21:43 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	9.200	424851
3.06	0.00	1016-1	0.310	216043
3.49	0.00	1016-2	0.313	456013
3.86	0.00	1016-3	0.301	902096
4.02	0.00	1016-4	0.310	359501
4.15	0.00	1016-5	0.254	272539
5.61	0.00	1260-1	0.306	604824
5.69	0.00	1260-2	0.305	626242
6.10	0.00	1260-3	0.306	614370
6.59	0.00	1260-4	0.282	564489
7.01	0.00	1260-5	0.305	578119
8.16	0.00	DCBP	9.338	370306

File Name: F:\GCECD.DAT\F120605\F120605B.05R.BND
Comments: ss1660.04 0.5ppm
Run Time: 6/5/2012 11:32:18 AM



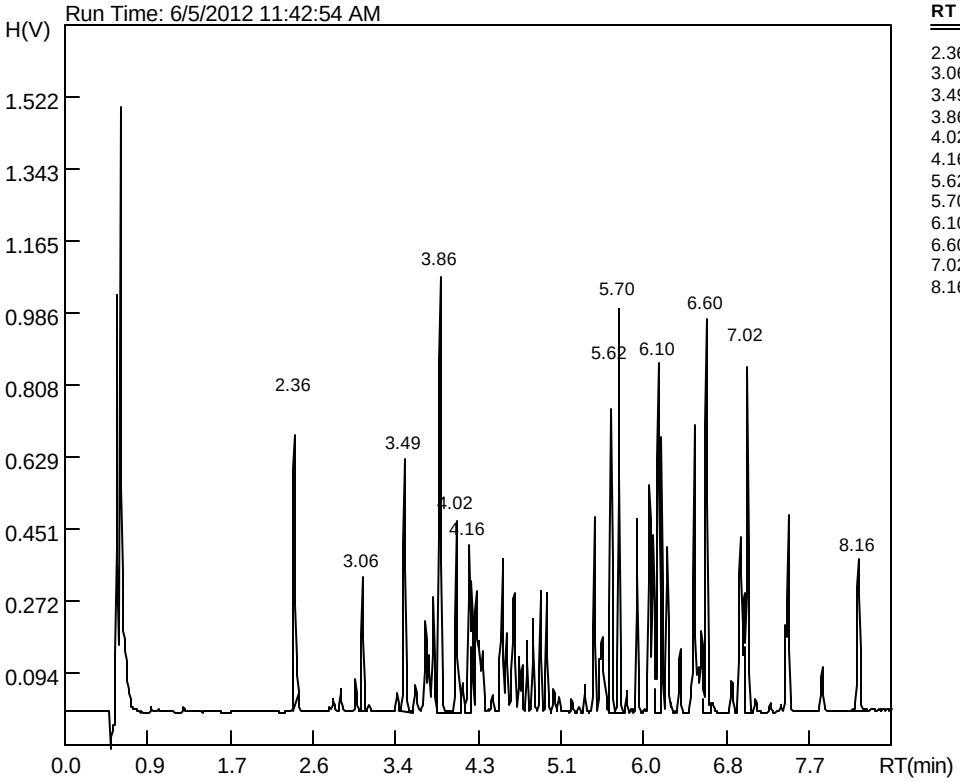
RT	dT	Name	Amt.	Area
2.36	0.00	TCX	15.315	668667
3.06	0.00	1016-1	0.518	337310
3.49	0.00	1016-2	0.517	697347
3.86	0.00	1016-3	0.501	1408728
4.02	0.00	1016-4	0.511	549015
4.15	0.00	1016-5	0.449	412919
5.61	0.00	1260-1	0.507	933125
5.69	0.00	1260-2	0.506	970528
6.10	0.00	1260-3	0.498	941372
6.59	0.00	1260-4	0.494	950986
7.02	0.00	1260-5	0.501	893328
8.16	0.00	DCBP	15.526	569491

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120605.2

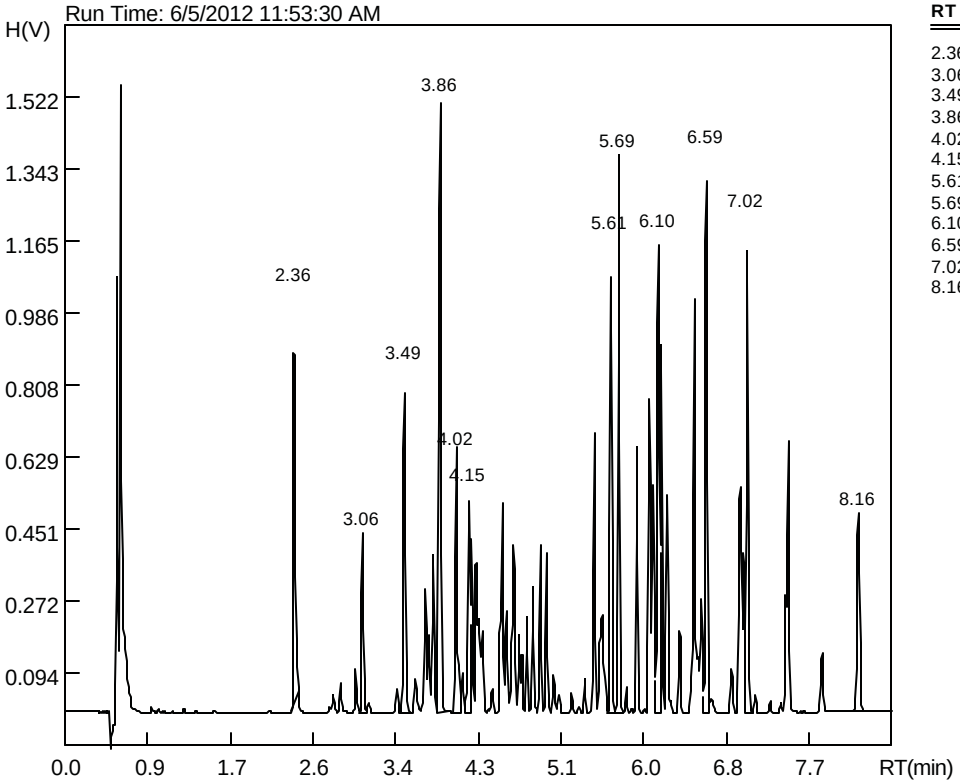
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\F120605\F120605B.06R.BND
Comments: ss1660.05 0.7ppm
Run Time: 6/5/2012 11:42:54 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	21.138	900818
3.06	0.00	1016-1	0.718	453779
3.49	0.00	1016-2	0.714	930979
3.86	0.00	1016-3	0.715	1950344
4.02	0.00	1016-4	0.718	744732
4.16	0.01	1016-5	0.691	574750
5.62	0.00	1260-1	0.710	1263650
5.70	0.00	1260-2	0.711	1322333
6.10	0.00	1260-3	0.710	1300216
6.60	0.00	1260-4	0.704	1334904
7.02	0.00	1260-5	0.711	1229462
8.16	0.00	DCBP	21.533	762846

File Name: F:\GCECD.DAT\F120605\F120605B.07R.BND
Comments: ss1660.06 1ppm
Run Time: 6/5/2012 11:53:30 AM



RT	dT	Name	Amt.	Area
2.36	0.00	TCX	29.721	1243046
3.06	0.00	1016-1	0.978	605333
3.49	0.00	1016-2	0.980	1244968
3.86	0.00	1016-3	0.989	2644221
4.02	0.00	1016-4	0.981	993865
4.15	0.00	1016-5	0.952	749837
5.61	0.00	1260-1	0.989	1718515
5.69	0.00	1260-2	0.989	1796684
6.10	0.00	1260-3	0.993	1781245
6.59	0.00	1260-4	1.005	1884593
7.02	0.00	1260-5	0.991	1680090
8.16	0.00	DCBP	29.321	1013512

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

Analytical Batch: f120719.3

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
f120719.02r	sc1660.01	07/19/12 09:11	1016-1	0.00/0.05	0.563/0.500	12.6
			1016-2	0.00/0.05	0.555/0.500	11.0
			1016-3	0.00/0.05	0.558/0.500	11.6
			1016-4	0.00/0.05	0.533/0.500	6.6
			1016-5	0.00/0.05	0.545/0.500	9.0
			1260-1	0.00/0.05	0.536/0.500	7.2
			1260-2	0.00/0.05	0.532/0.500	6.4
			1260-3	0.00/0.05	0.523/0.500	4.6
			1260-4	0.00/0.05	0.477/0.500	4.6
			1260-5	-.01/0.05	0.545/0.500	9.0
					Average	**7.3/ 20.0**
f120719.21r	sc1660.02	07/19/12 16:18	1016-1	0.00/0.05	0.619/0.500	23.8
			1016-2	0.00/0.05	0.590/0.500	18.0
			1016-3	0.01/0.05	0.597/0.500	19.4
			1016-4	0.01/0.05	0.574/0.500	14.8
			1016-5	0.00/0.05	0.584/0.500	16.8
			1260-1	0.00/0.05	0.541/0.500	8.2
			1260-2	0.00/0.05	0.527/0.500	5.4
			1260-3	0.00/0.05	0.514/0.500	2.8
			1260-4	0.00/0.05	0.476/0.500	4.8
			1260-5	0.00/0.05	0.478/0.500	4.4
					Average	**10.0/ 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3800(F)/DB-608 Analytical Batch: f120719.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

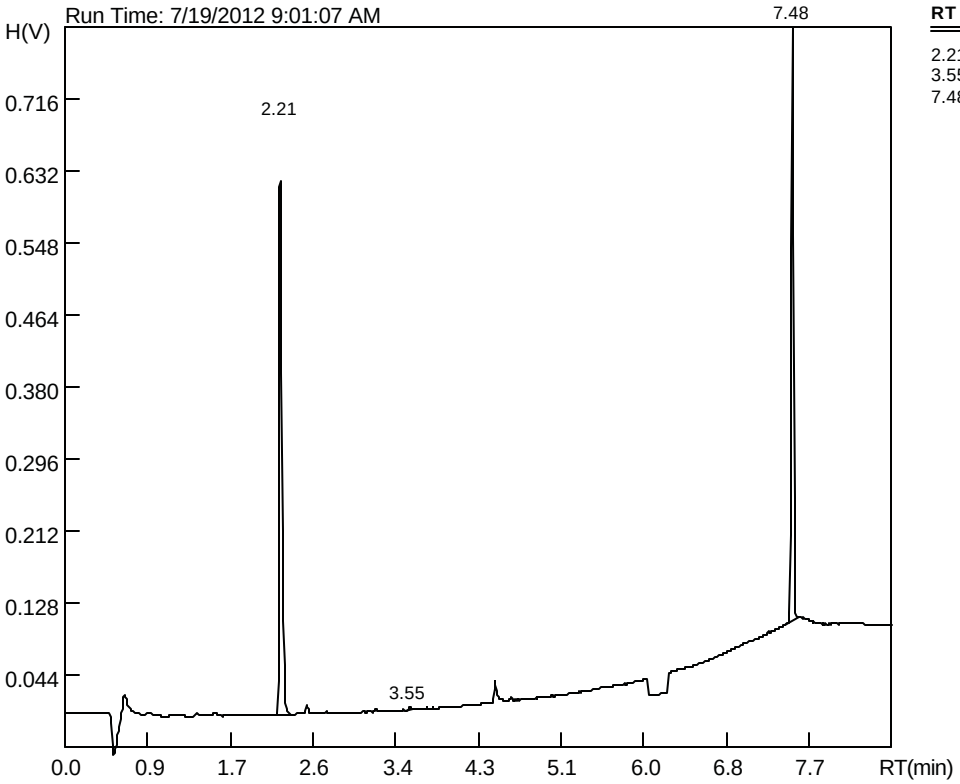
Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
f120719b.02	sc1660.01	07/19/12 09:11	1016-1	0.01/0.05	0.553/0.500	10.6
			1016-2	0.01/0.05	0.554/0.500	10.8
			1016-3	0.01/0.05	0.543/0.500	8.6
			1016-4	0.01/0.05	0.546/0.500	9.2
			1016-5	0.01/0.05	0.545/0.500	9.0
			1260-1	0.01/0.05	0.514/0.500	2.8
			1260-2	0.01/0.05	0.521/0.500	4.2
			1260-3	0.01/0.05	0.489/0.500	2.2
			1260-4	0.01/0.05	0.480/0.500	4.0
			1260-5	0.01/0.05	0.478/0.500	4.4
					Average	**4.5 / 20.0**
f120719b.21	sc1660.02	07/19/12 16:18	1016-1	0.01/0.05	0.587/0.500	17.4
			1016-2	0.01/0.05	0.588/0.500	17.6
			1016-3	0.01/0.05	0.574/0.500	14.8
			1016-4	0.01/0.05	0.576/0.500	15.2
			1016-5	0.01/0.05	0.568/0.500	13.6
			1260-1	0.01/0.05	0.511/0.500	2.2
			1260-2	0.01/0.05	0.515/0.500	3.0
			1260-3	0.01/0.05	0.484/0.500	3.2
			1260-4	0.01/0.05	0.484/0.500	3.2
			1260-5	0.01/0.05	0.460/0.500	8.0
					Average	**6.9 / 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

GC/ECD Analysis: Raw Chromatographic Data

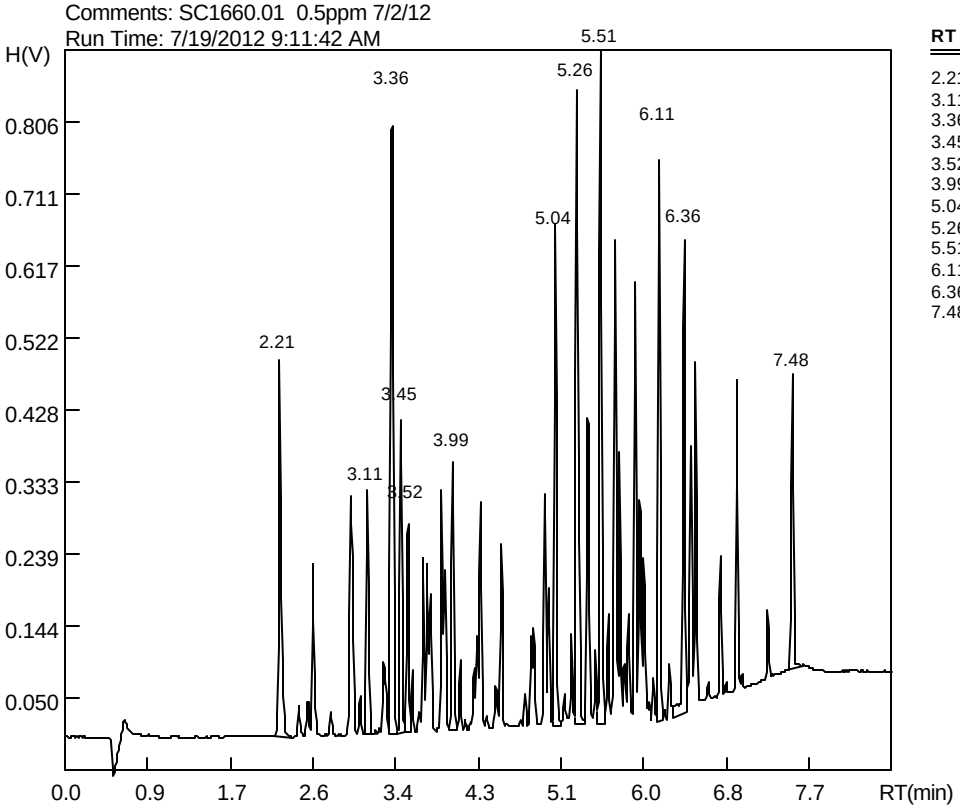
Instrument ID: Varian/3800(F)/VF-5 Analytical Batch: f120719.3
GC Column: Unknown

File Name: F:\GCECD.DAT\F120719\F120719.01R.BND
Comments: SBLK-R.01
Run Time: 7/19/2012 9:01:07 AM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	25.610	1271395
3.55	0.02	1016-4	-0.084	4387
7.48	0.00	DCBP	28.296	1042490

File Name: F:\GCECD.DAT\F120719\F120719.02R.BND
Comments: SC1660.01 0.5ppm 7/2/12
Run Time: 7/19/2012 9:11:42 AM



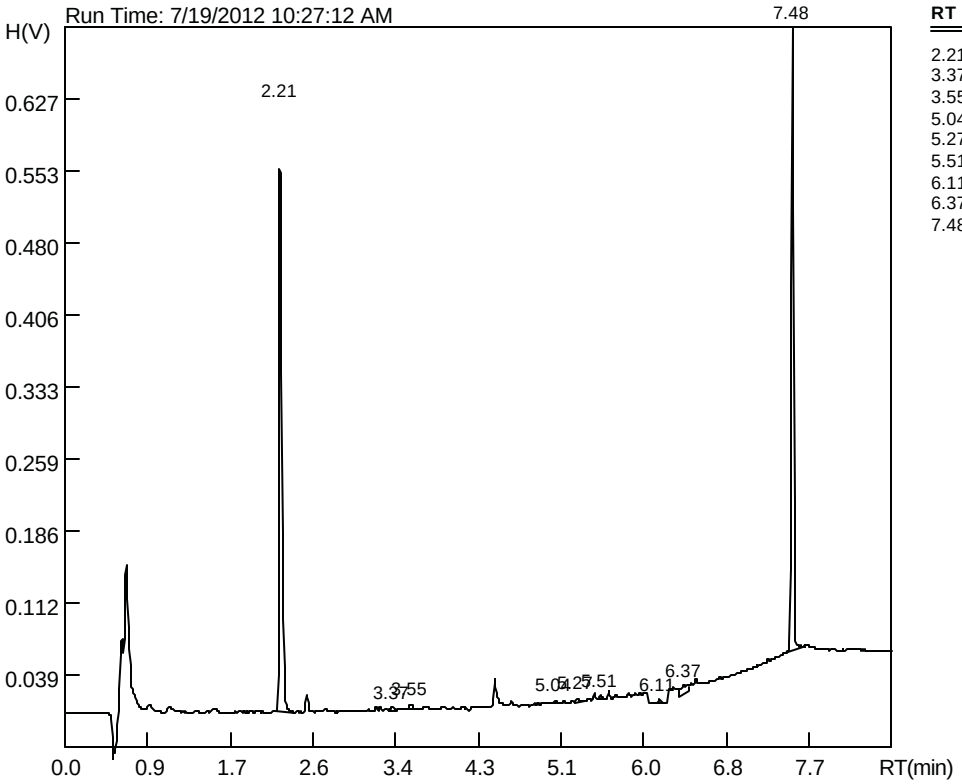
RT	dT	Name	Amt.	Area
2.21	0.01	TCX	18.247	920500
3.11	0.00	1016-1	0.563	469409
3.36	0.00	1016-2	0.555	1555080
3.45	0.00	1016-3	0.558	618456
3.52	0.00	1016-4	0.533	435243
3.99	0.00	1016-5	0.545	569865
5.04	0.00	1260-1	0.536	929457
5.26	0.00	1260-2	0.532	1433846
5.51	0.00	1260-3	0.523	1376874
6.11	0.00	1260-4	0.477	1061813
6.36	0.00	1260-5	0.545	1064728
7.48	-0.01	DCBP	14.493	561920

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

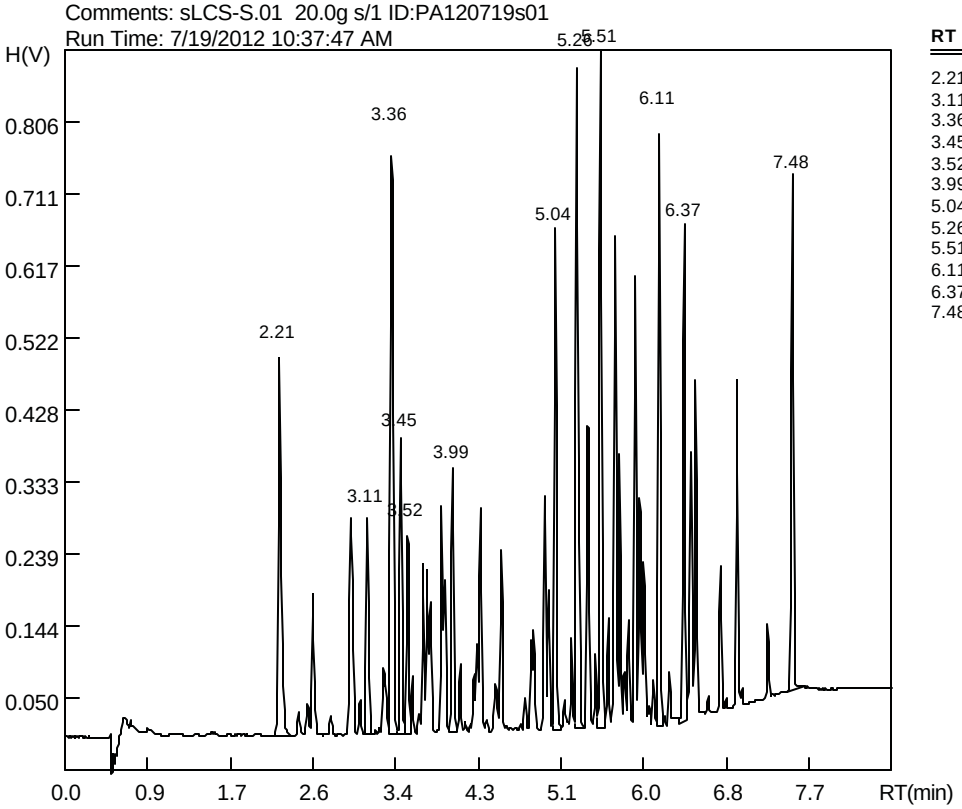
Analytical Batch: f120719.3

File Name: F:\GCECD.DAT\F120719\F120719.06R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120719s01
Run Time: 7/19/2012 10:27:12 AM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	22.400	1118438
3.37	0.01	1016-2	-0.041	7064
3.55	0.02	1016-4	-0.070	14060
5.04	0.00	1260-1	-0.042	6948
5.27	0.00	1260-2	-0.042	8109
5.51	0.00	1260-3	-0.036	7752
6.11	0.00	1260-4	-0.021	7072
6.37	0.00	1260-5	-0.021	40701
7.48	0.00	DCBP	26.155	967961

File Name: F:\GCECD.DAT\F120719\F120719.07R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120719s01
Run Time: 7/19/2012 10:37:47 AM

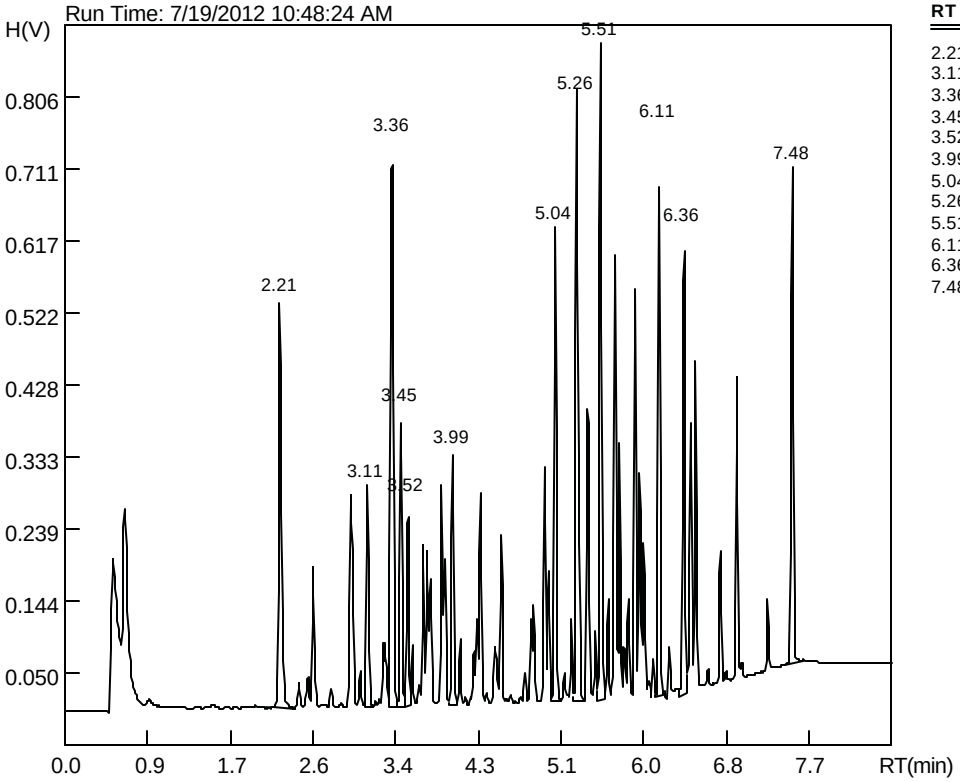


RT	dT	Name	Amt.	Area
2.21	0.00	TCX	22.508	1123572
3.11	0.00	1016-1	0.546	456772
3.36	0.00	1016-2	0.531	1494552
3.45	0.00	1016-3	0.544	604725
3.52	0.00	1016-4	0.522	427716
3.99	0.00	1016-5	0.539	563475
5.04	0.00	1260-1	0.541	936950
5.26	0.00	1260-2	0.537	1445139
5.51	0.00	1260-3	0.532	1397908
6.11	0.00	1260-4	0.494	1098178
6.37	0.00	1260-5	0.519	1018088
7.48	-0.01	DCBP	25.871	958049

GC/ECD Analysis: Raw Chromatographic Data

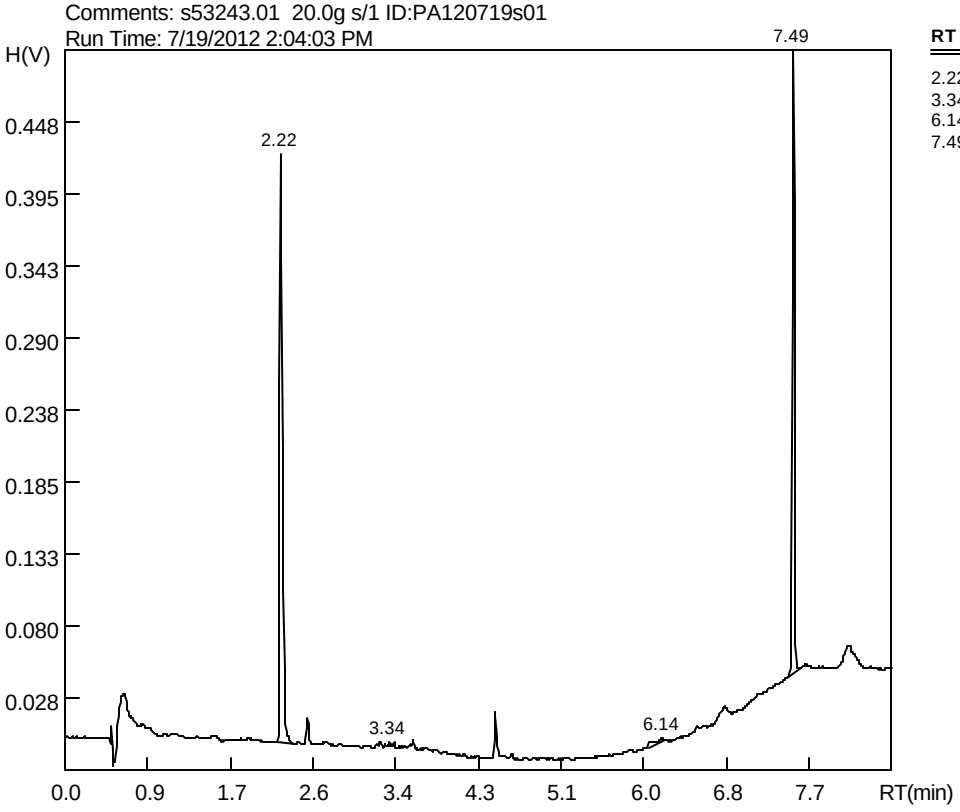
Instrument ID: Varian/3800(F)/VF-5 Analytical Batch: f120719.3
GC Column: Unknown

File Name: F:\GCECD.DAT\F120719\F120719.08R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120719s01
Run Time: 7/19/2012 10:48:24 AM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	21.878	1093535
3.11	0.00	1016-1	0.513	431158
3.36	0.00	1016-2	0.503	1420907
3.45	0.00	1016-3	0.512	571760
3.52	0.00	1016-4	0.487	403027
3.99	0.00	1016-5	0.503	528803
5.04	0.00	1260-1	0.504	877559
5.26	0.00	1260-2	0.499	1351957
5.51	0.00	1260-3	0.496	1310065
6.11	0.00	1260-4	0.452	1010109
6.36	0.00	1260-5	0.488	962151
7.48	-0.01	DCBP	24.850	922512

File Name: F:\GCECD.DAT\F120719\F120719.14R.BND
Comments: s53243.01 20.0g s/1 ID:PA120719s01
Run Time: 7/19/2012 2:04:03 PM



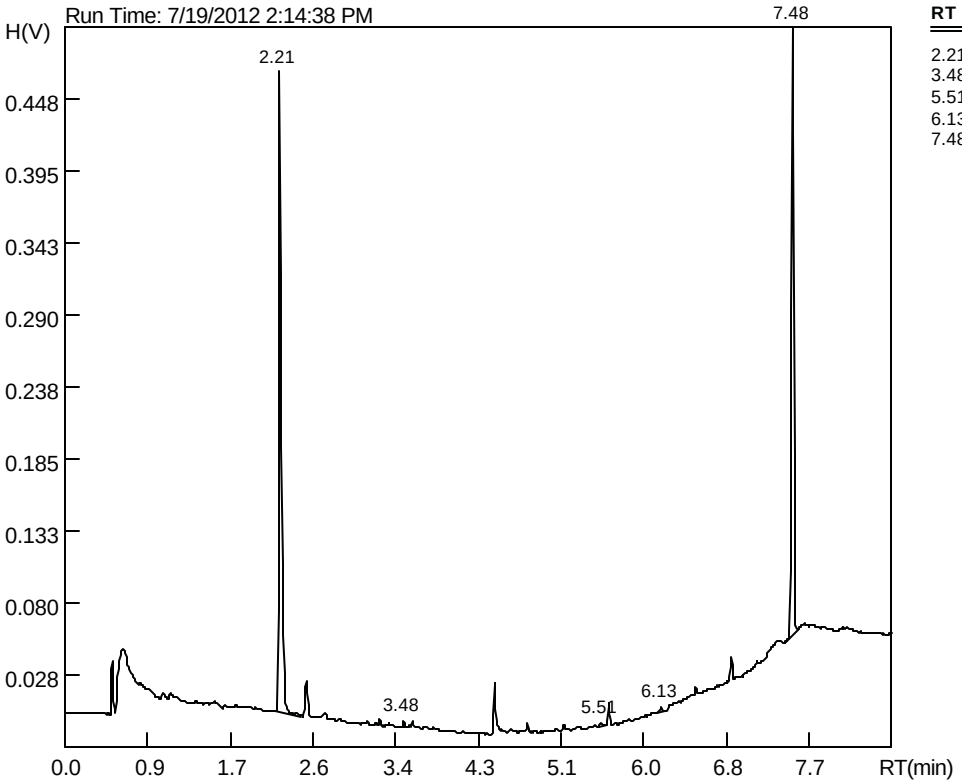
RT	dT	Name	Amt.	Area
2.22	0.02	TCX	15.996	813258
3.34	-0.02	1016-2	-0.041	4540
6.14	0.03	1260-4	-0.012	26222
7.49	0.00	DCBP	18.636	706154

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

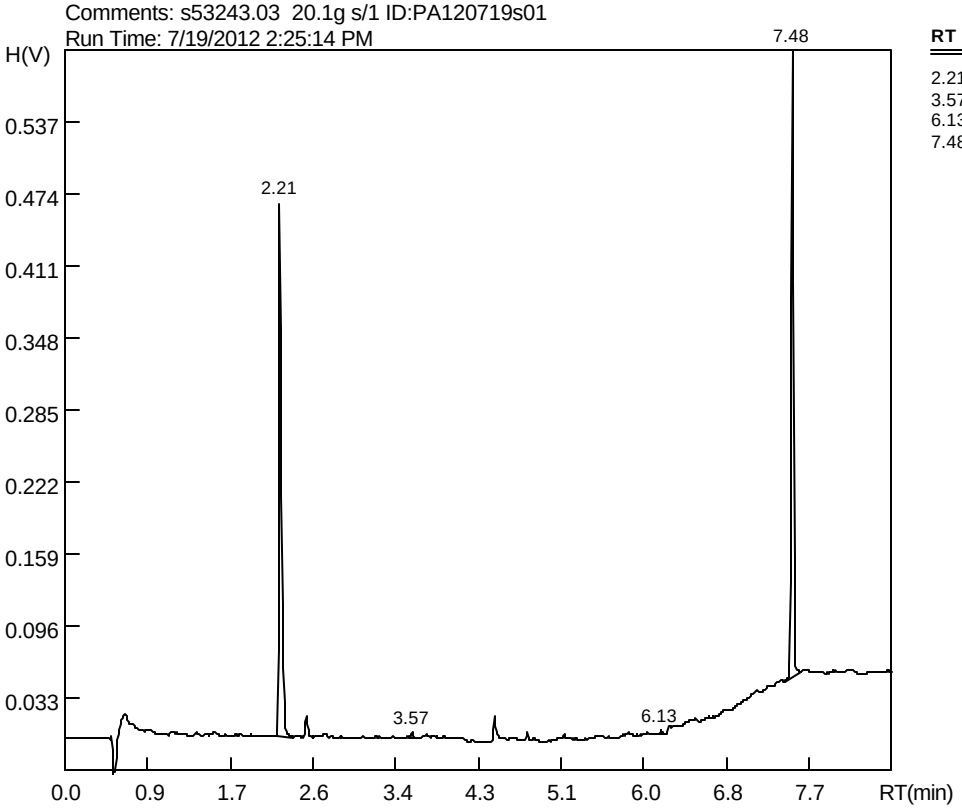
Analytical Batch: f120719.3

File Name: F:\GCECD.DAT\F120719\F120719.15R.BND
Comments: s53243.02 20.1g s/1 ID:PA120719s01
Run Time: 7/19/2012 2:14:38 PM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	16.768	850041
3.48	0.03	1016-3	-0.041	7422
5.51	0.00	1260-3	-0.037	3885
6.13	0.02	1260-4	-0.021	7896
7.48	0.00	DCBP	18.368	696832

File Name: F:\GCECD.DAT\F120719\F120719.16R.BND
Comments: s53243.03 20.1g s/1 ID:PA120719s01
Run Time: 7/19/2012 2:25:14 PM



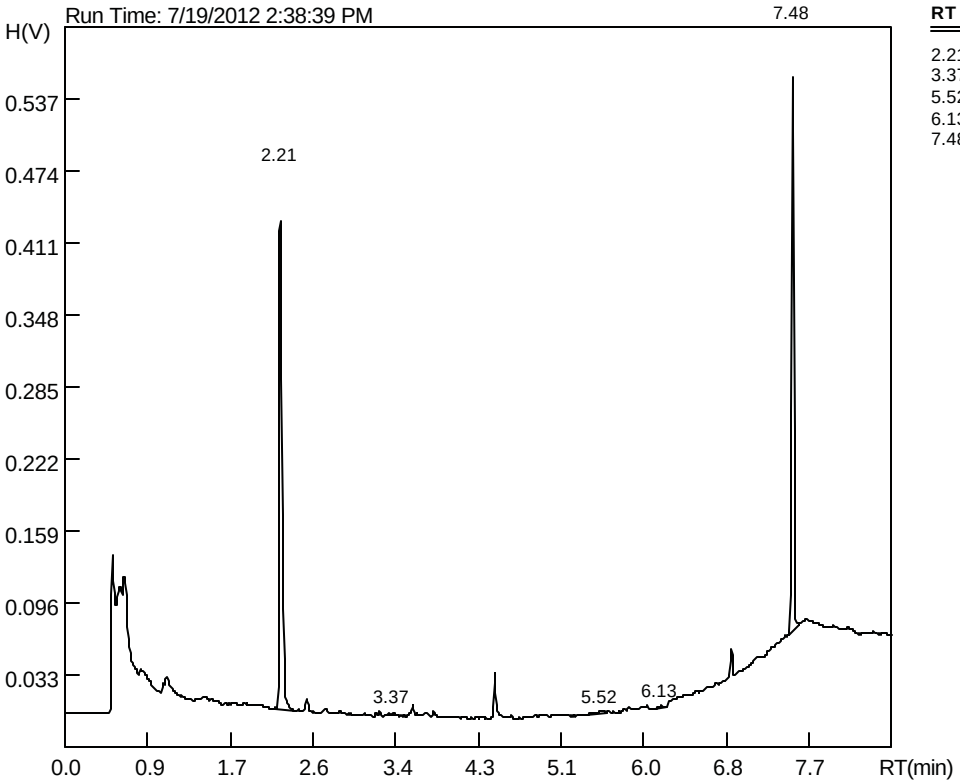
RT	dT	Name	Amt.	Area
2.21	0.01	TCX	17.339	877265
3.57	0.04	1016-4	-0.080	7046
6.13	0.02	1260-4	-0.022	4274
7.48	-0.01	DCBP	20.885	784453

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

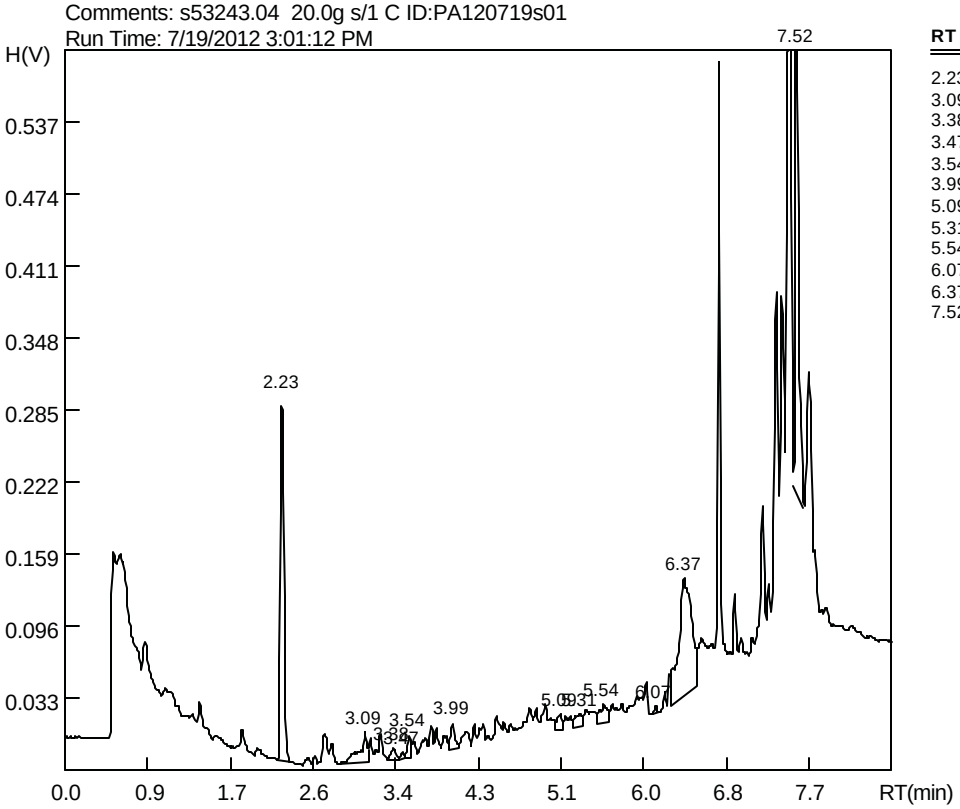
Analytical Batch: f120719.3

File Name: F:\GCECD.DAT\F120719\F120719.17R.BND
Comments: s53243.05 20.1g s/1 ID:PA120719s01
Run Time: 7/19/2012 2:38:39 PM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	17.594	889389
3.37	0.01	1016-2	-0.040	8268
5.52	0.01	1260-3	-0.034	13476
6.13	0.02	1260-4	-0.022	4355
7.48	0.00	DCBP	19.695	743019

File Name: F:\GCECD.DAT\F120719\F120719.18R.BND
Comments: s53243.04 20.0g s/1 C ID:PA120719s01
Run Time: 7/19/2012 3:01:12 PM



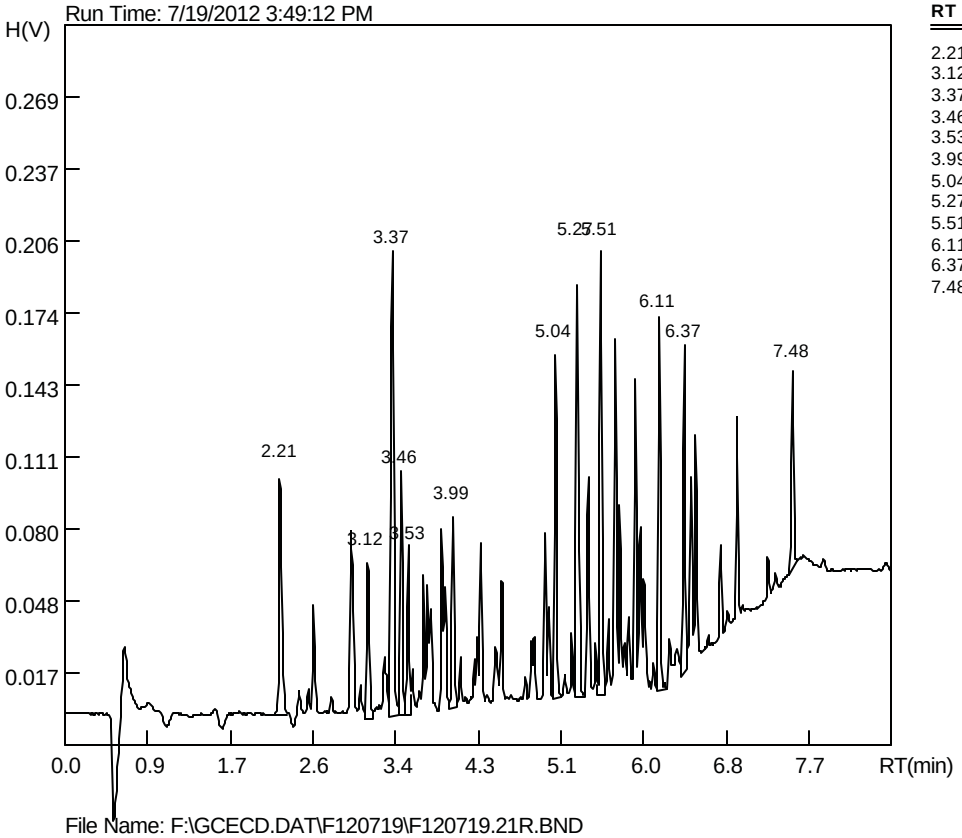
RT	dT	Name	Amt.	Area
2.23	0.03	TCX	14.718	752345
3.09	-0.02	1016-1	0.138	145541
3.38	0.01	1016-2	-0.029	36188
3.47	0.02	1016-3	-0.035	13461
3.54	0.02	1016-4	-0.015	52171
3.99	0.00	1016-5	0.026	71858
5.09	0.05	1260-1	-0.014	51632
5.31	0.04	1260-2	-0.021	61549
5.54	0.03	1260-3	-0.001	92581
6.07	-0.04	1260-4	-0.019	11218
6.37	0.00	1260-5	0.501	984715
7.52	0.04	DCBP	28.762	1058725

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/VF-5
GC Column: Unknown

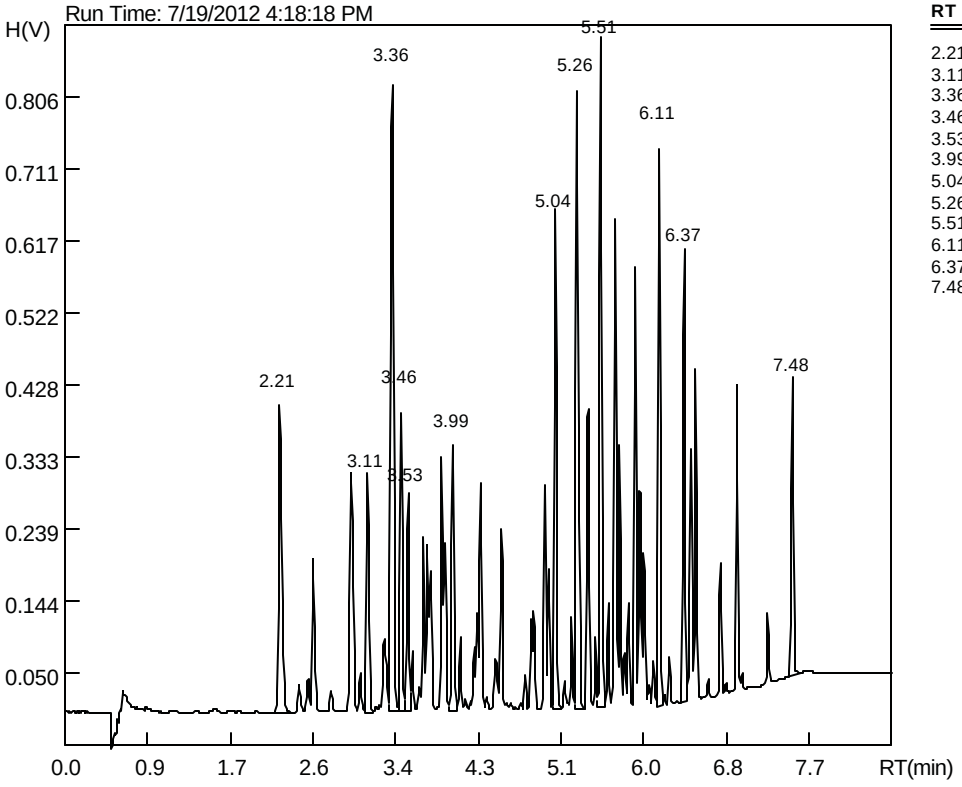
Analytical Batch: f120719.3

File Name: F:\GCECD.DAT\F120719\F120719.20R.BND
Comments: ss1660.01 0.1ppm 7/2/12
Run Time: 7/19/2012 3:49:12 PM



RT	dT	Name	Amt.	Area
2.21	0.01	TCX	3.463	215948
3.12	0.01	1016-1	0.101	116769
3.37	0.00	1016-2	0.110	397838
3.46	0.00	1016-3	0.111	162781
3.53	0.00	1016-4	0.076	116375
3.99	0.00	1016-5	0.101	143651
5.04	0.00	1260-1	0.089	215790
5.27	0.00	1260-2	0.088	331888
5.51	0.00	1260-3	0.091	317574
6.11	0.00	1260-4	0.087	235400
6.37	0.00	1260-5	0.084	230514
7.48	0.00	DCBP	2.025	127820

File Name: F:\GCECD.DAT\F120719\F120719.21R.BND
Comments: SC1660.02 0.5ppm 7/2/12
Run Time: 7/19/2012 4:18:18 PM



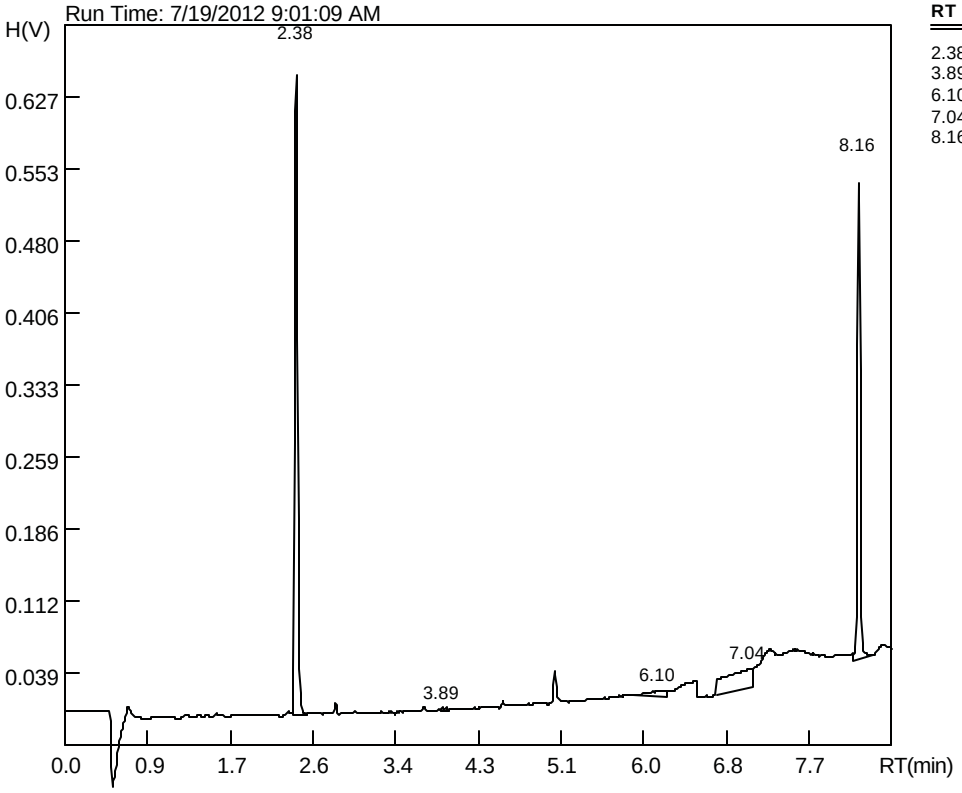
RT	dT	Name	Amt.	Area
2.21	0.00	TCX	19.397	975335
3.11	0.00	1016-1	0.619	512592
3.36	0.00	1016-2	0.590	1647972
3.46	0.00	1016-3	0.597	658703
3.53	0.00	1016-4	0.574	464037
3.99	0.00	1016-5	0.584	607067
5.04	0.00	1260-1	0.541	936627
5.26	0.00	1260-2	0.527	1421438
5.51	0.00	1260-3	0.514	1354469
6.11	0.00	1260-4	0.476	1059552
6.37	0.00	1260-5	0.478	943169
7.48	-0.01	DCBP	14.306	555379

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

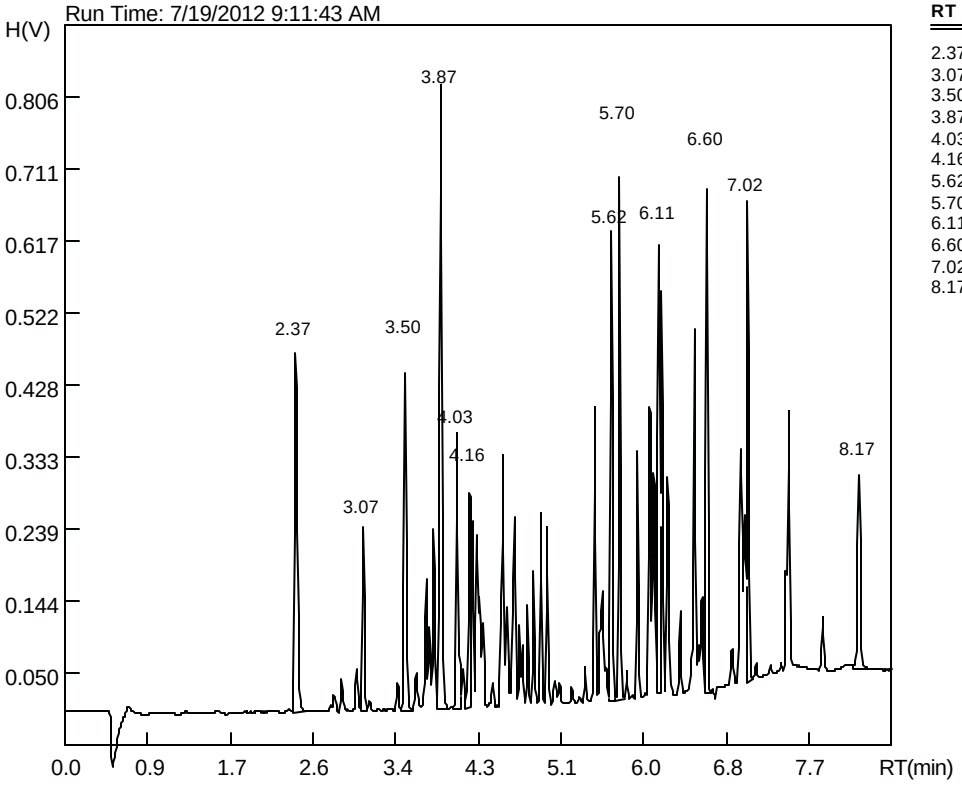
Analytical Batch: f120719.4

File Name: F:\GCECD.DAT\F120719\F120719B.01R.BND
Comments: SBLK-R.01
Run Time: 7/19/2012 9:01:09 AM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	29.681	1241456
3.89	0.03	1016-3	-0.051	10291
6.10	0.00	1260-3	-0.011	75711
7.04	0.02	1260-5	0.192	396467
8.16	0.01	DCBP	30.243	1043184

File Name: F:\GCECD.DAT\F120719\F120719B.02R.BND
Comments: SC1660.01 0.5ppm 7/2/12
Run Time: 7/19/2012 9:11:43 AM



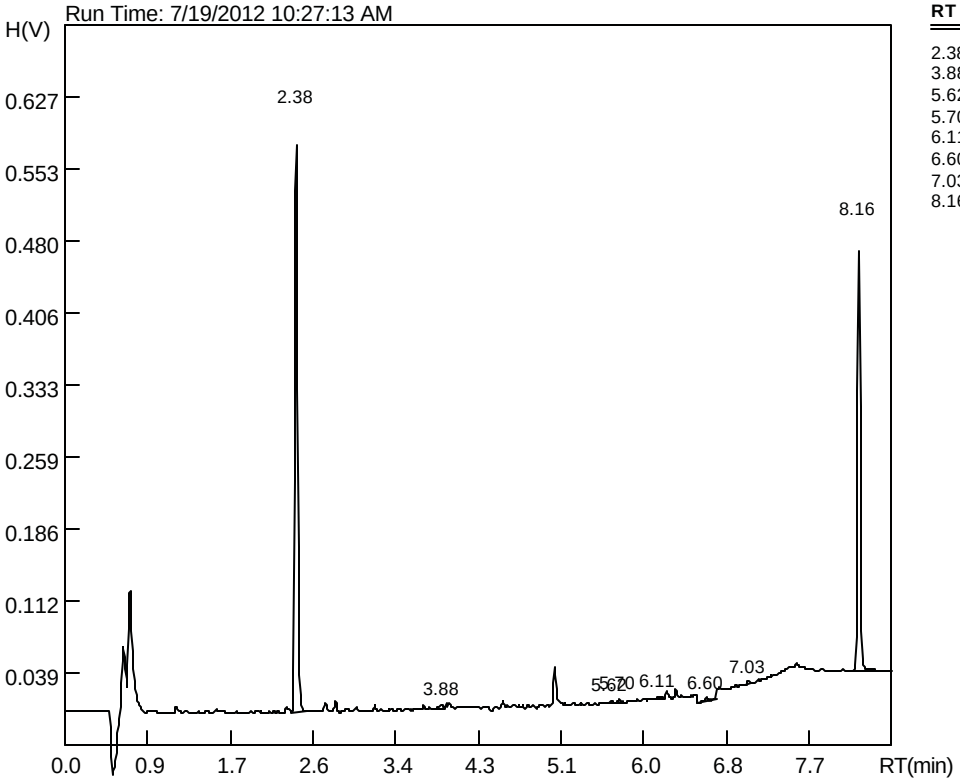
RT	dT	Name	Amt.	Area
2.37	0.02	TCX	20.288	866933
3.07	0.01	1016-1	0.553	357930
3.50	0.01	1016-2	0.554	740883
3.87	0.01	1016-3	0.543	1513389
4.03	0.01	1016-4	0.546	582008
4.16	0.01	1016-5	0.545	440953
5.62	0.01	1260-1	0.514	943394
5.70	0.01	1260-2	0.521	996840
6.11	0.01	1260-3	0.489	925550
6.60	0.01	1260-4	0.480	926009
7.02	0.01	1260-5	0.478	856279
8.17	0.01	DCBP	15.254	560724

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

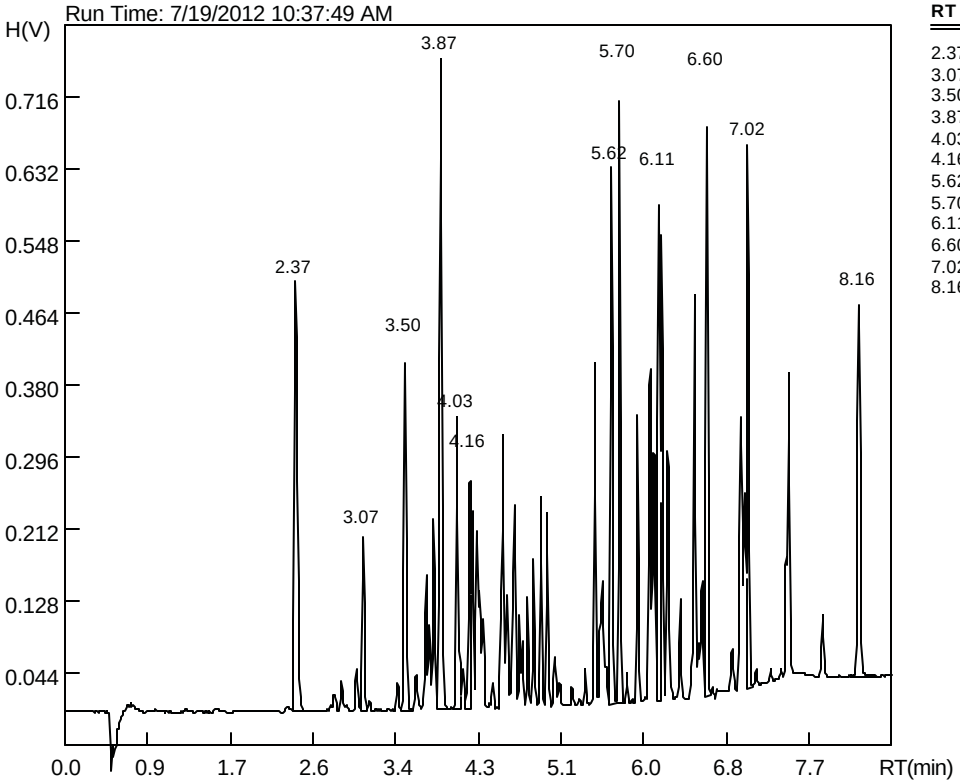
Analytical Batch: f120719.4

File Name: F:\GCECD.DAT\F120719\F120719B.06R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120719s01
Run Time: 7/19/2012 10:27:13 AM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	25.429	1071911
3.88	0.02	1016-3	-0.050	12265
5.62	0.01	1260-1	-0.061	6109
5.70	0.01	1260-2	-0.056	8866
6.11	0.01	1260-3	-0.050	9772
6.60	0.01	1260-4	-0.019	13580
7.03	0.02	1260-5	-0.050	6842
8.16	0.01	DCBP	27.042	940138

File Name: F:\GCECD.DAT\F120719\F120719B.07R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120719s01
Run Time: 7/19/2012 10:37:49 AM



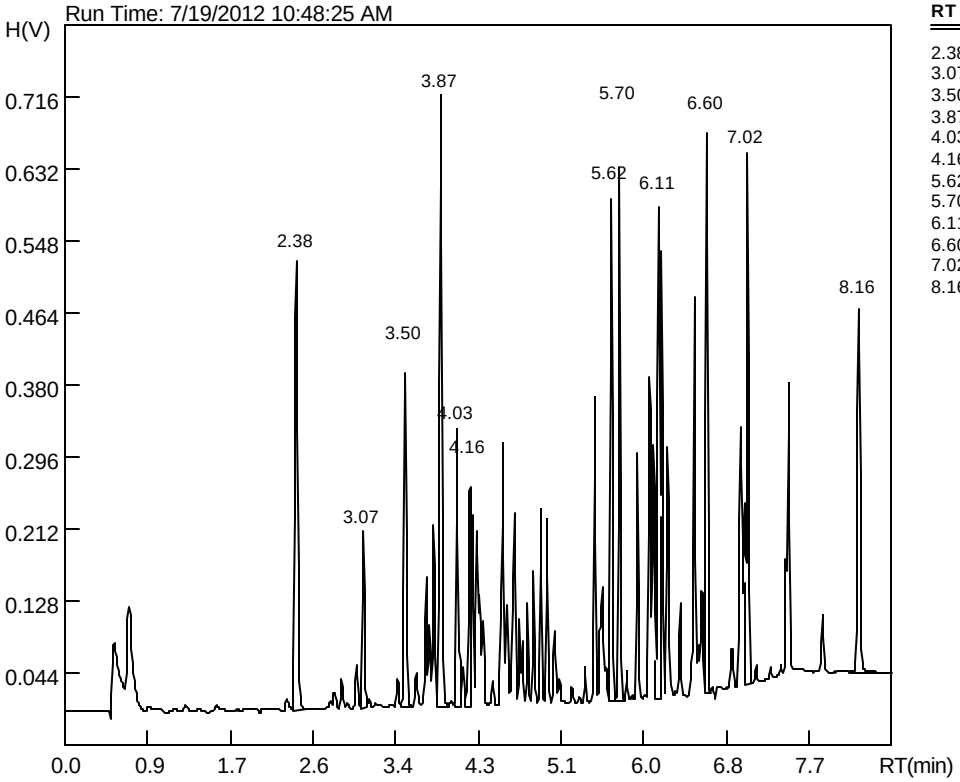
RT	dT	Name	Amt.	Area
2.37	0.01	TCX	24.498	1034815
3.07	0.01	1016-1	0.497	325272
3.50	0.01	1016-2	0.505	683638
3.87	0.01	1016-3	0.507	1422142
4.03	0.01	1016-4	0.513	551018
4.16	0.01	1016-5	0.519	421667
5.62	0.01	1260-1	0.516	948027
5.70	0.01	1260-2	0.522	998497
6.11	0.01	1260-3	0.513	966691
6.60	0.01	1260-4	0.505	972104
7.02	0.01	1260-5	0.494	880708
8.16	0.01	DCBP	26.688	928753

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

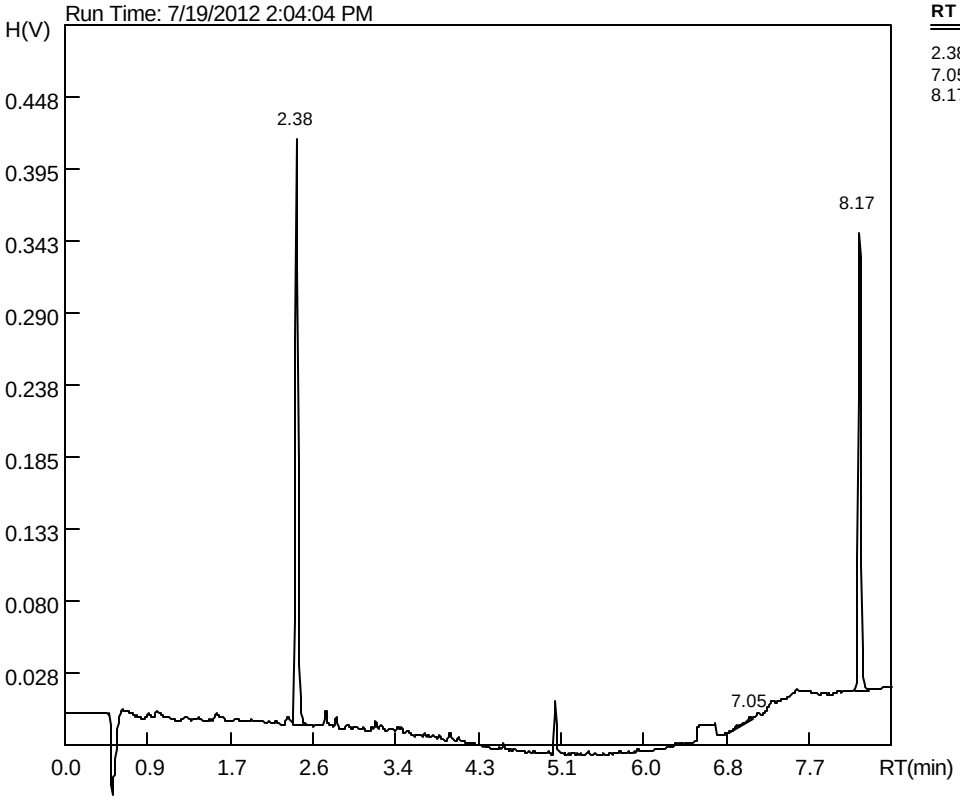
Analytical Batch: f120719.4

File Name: F:\GCECD.DAT\F120719\F120719B.08R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120719s01
Run Time: 7/19/2012 10:48:25 AM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	23.585	998384
3.07	0.01	1016-1	0.484	317522
3.50	0.01	1016-2	0.473	645772
3.87	0.01	1016-3	0.475	1340741
4.03	0.01	1016-4	0.468	509116
4.16	0.01	1016-5	0.482	395266
5.62	0.01	1260-1	0.477	883332
5.70	0.01	1260-2	0.489	941854
6.11	0.01	1260-3	0.480	909532
6.60	0.01	1260-4	0.465	897318
7.02	0.01	1260-5	0.460	827477
8.16	0.01	DCBP	25.631	894750

File Name: F:\GCECD.DAT\F120719\F120719B.14R.BND
Comments: s53243.01 20.0g s/1 ID:PA120719s01
Run Time: 7/19/2012 2:04:04 PM



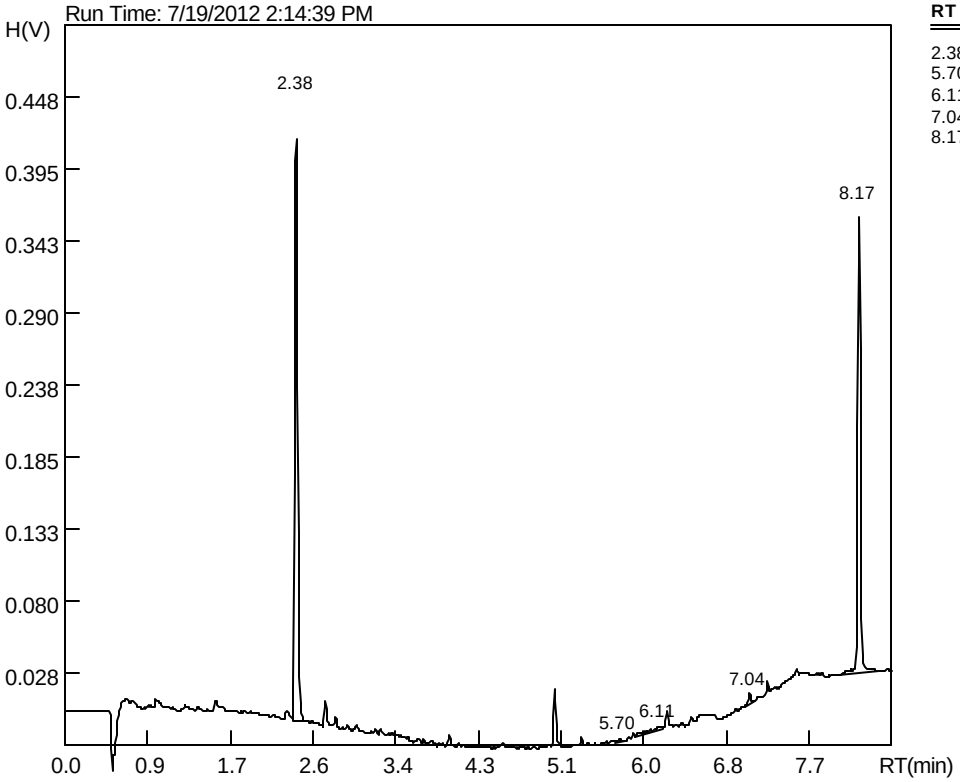
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	18.364	790227
7.05	0.03	1260-5	-0.043	18730
8.17	0.02	DCBP	19.512	697791

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

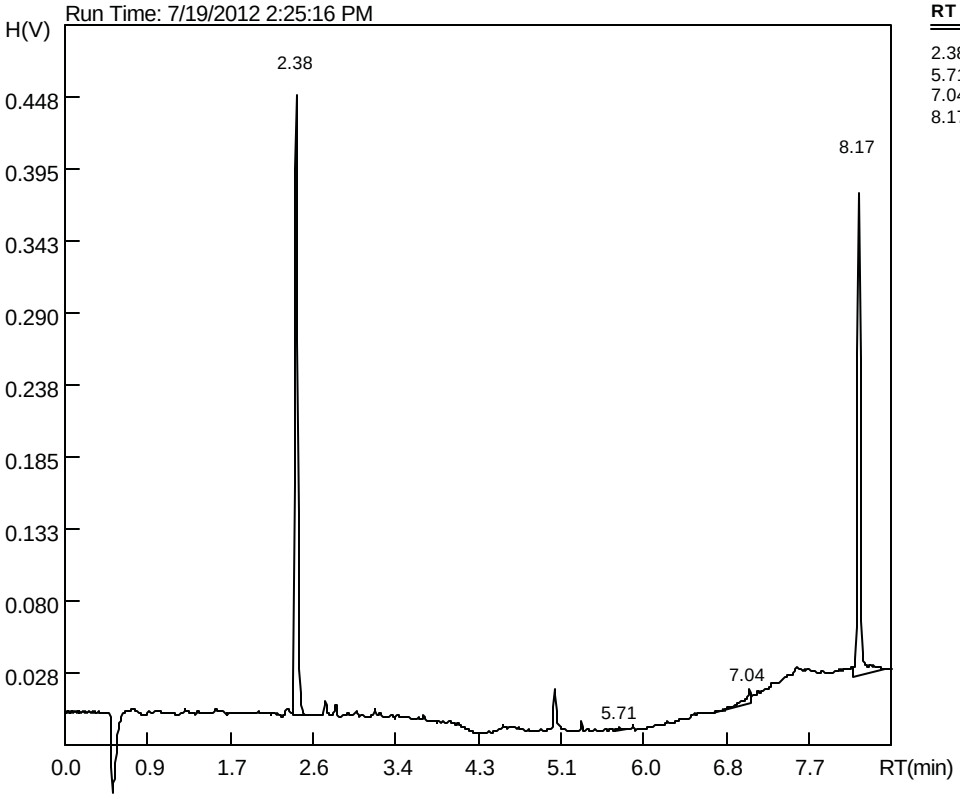
Analytical Batch: f120719.4

File Name: F:\GCECD.DAT\F120719\F120719B.15R.BND
Comments: s53243.02 20.1g s/1 ID:PA120719s01
Run Time: 7/19/2012 2:14:39 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	18.808	807956
5.70	0.01	1260-2	-0.058	4720
6.11	0.01	1260-3	-0.039	29453
7.04	0.03	1260-5	-0.046	13898
8.17	0.01	DCBP	20.556	731391

File Name: F:\GCECD.DAT\F120719\F120719B.16R.BND
Comments: s53243.03 20.1g s/1 ID:PA120719s01
Run Time: 7/19/2012 2:25:16 PM



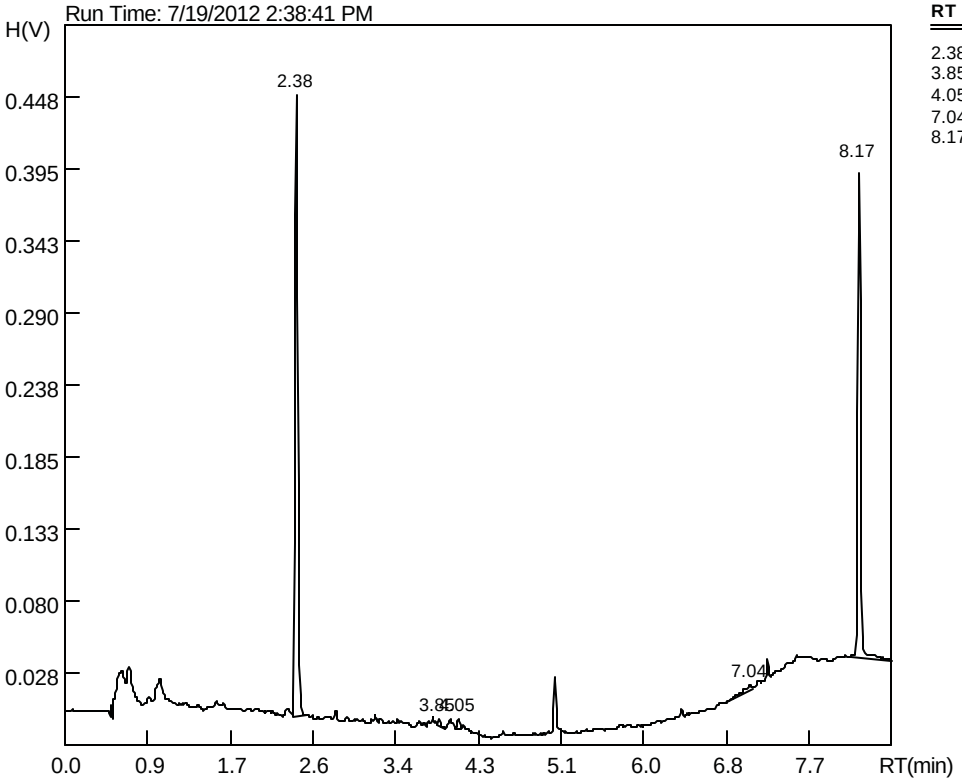
RT	dT	Name	Amt.	Area
2.38	0.02	TCX	19.678	842615
5.71	0.01	1260-2	-0.057	7018
7.04	0.02	1260-5	-0.020	55648
8.17	0.01	DCBP	24.167	847601

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

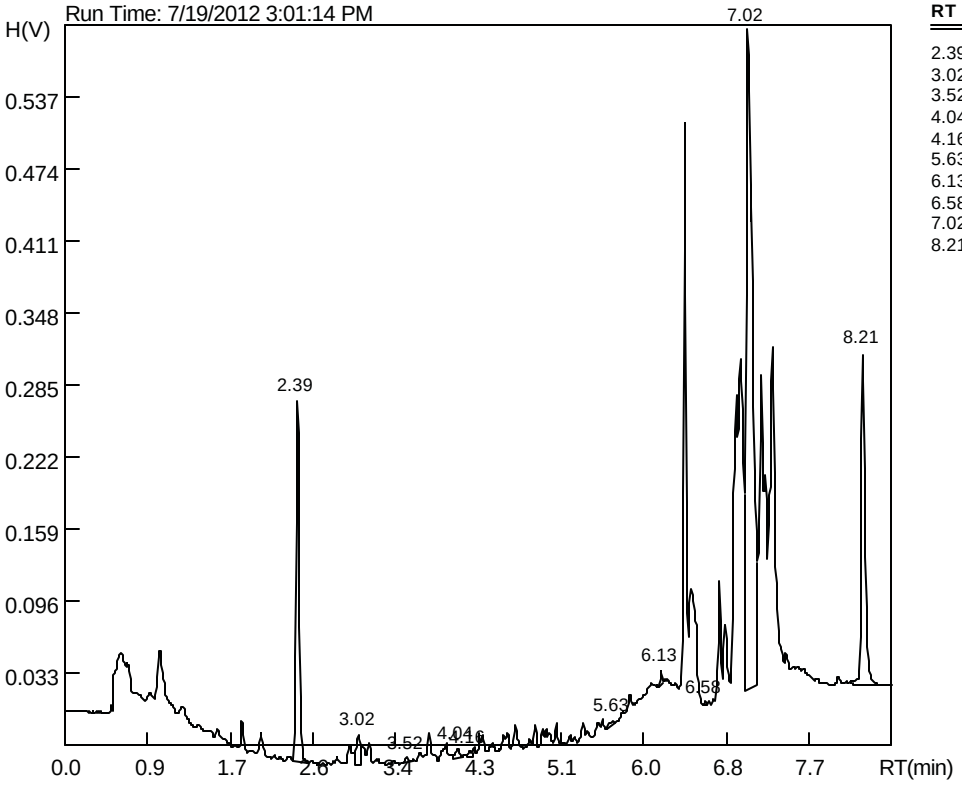
Analytical Batch: f120719.4

File Name: F:\GCECD.DAT\F120719\F120719B.17R.BND
Comments: s53243.05 20.1g s/1 ID:PA120719s01
Run Time: 7/19/2012 2:38:41 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	19.378	830656
3.85	-0.01	1016-3	-0.052	7340
4.05	0.03	1016-4	-0.057	11648
7.04	0.03	1260-5	-0.040	23339
8.17	0.01	DCBP	21.737	769392

File Name: F:\GCECD.DAT\F120719\F120719B.18R.BND
Comments: s53243.04 20.0g s/1 C ID:PA120719s01
Run Time: 7/19/2012 3:01:14 PM



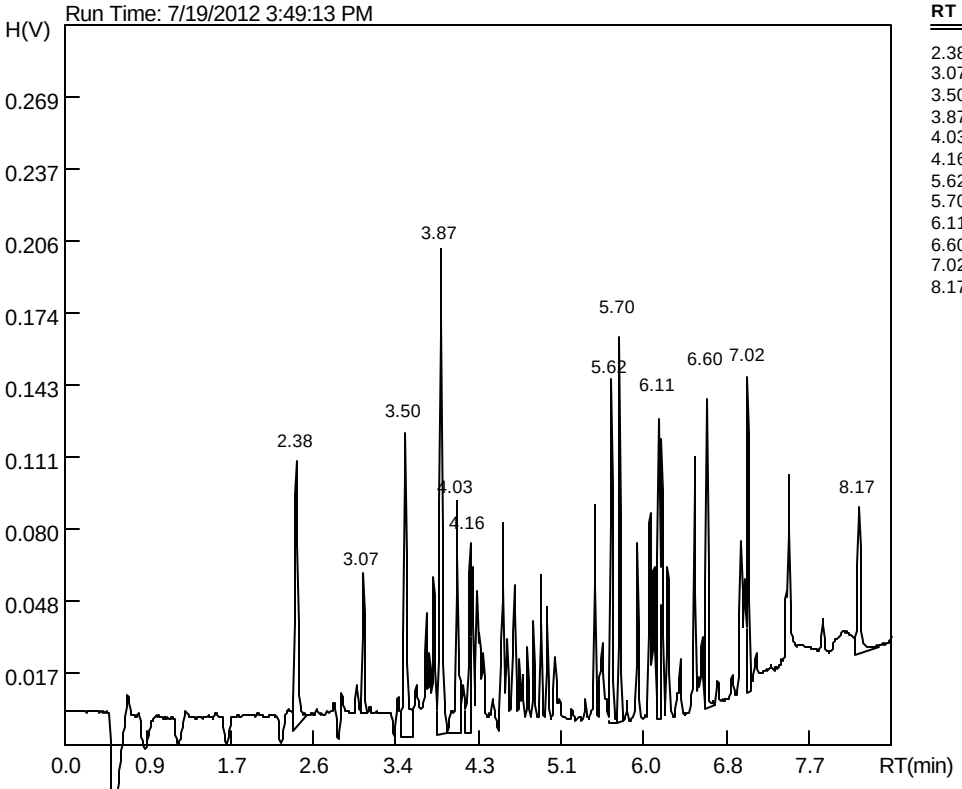
RT	dT	Name	Amt.	Area
2.39	0.03	TCX	16.362	710431
3.02	-0.04	1016-1	0.054	66856
3.52	0.03	1016-2	-0.064	10452
4.04	0.02	1016-4	-0.045	23575
4.16	0.01	1016-5	-0.052	9943
5.63	0.02	1260-1	-0.056	13690
6.13	0.03	1260-3	-0.046	16909
6.58	-0.01	1260-4	-0.024	4520
7.02	0.01	1260-5	1.621	2692262
8.21	0.05	DCBP	21.355	757105

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(F)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

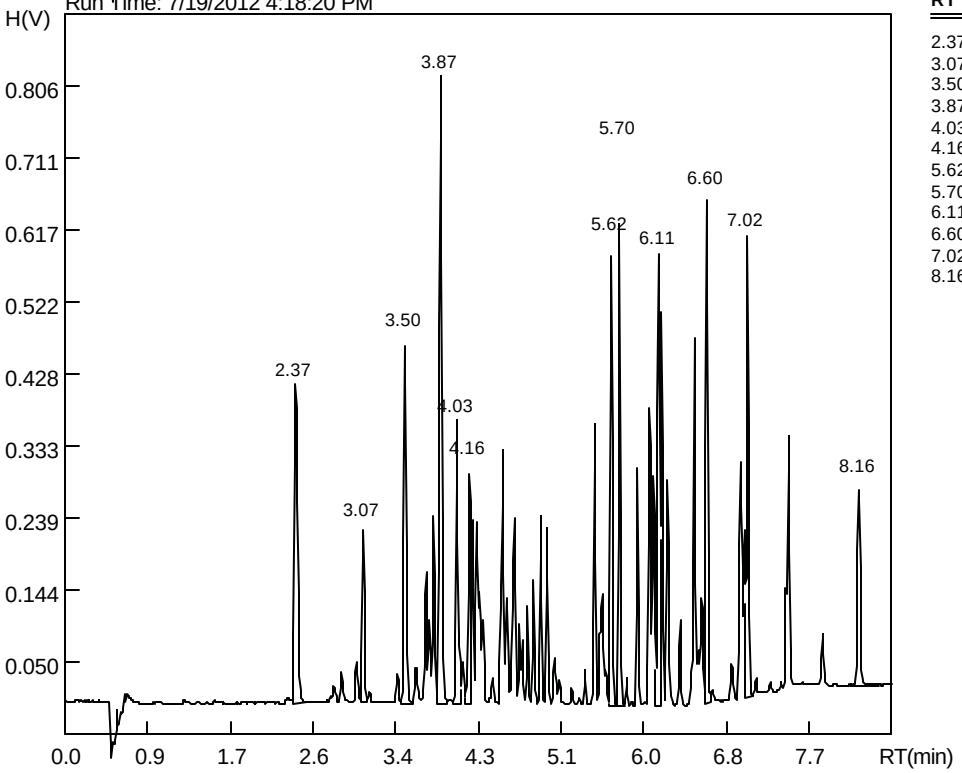
Analytical Batch: f120719.4

File Name: F:\GCECD.DAT\F120719\F120719B.20R.BND
Comments: ss1660.01 0.1ppm 7/2/12
Run Time: 7/19/2012 3:49:13 PM



RT	dT	Name	Amt.	Area
2.38	0.02	TCX	4.746	247272
3.07	0.01	1016-1	0.091	88878
3.50	0.01	1016-2	0.159	274505
3.87	0.01	1016-3	0.116	432398
4.03	0.01	1016-4	0.157	214821
4.16	0.01	1016-5	0.123	136213
5.62	0.01	1260-1	0.077	230389
5.70	0.01	1260-2	0.080	241722
6.11	0.01	1260-3	0.072	217094
6.60	0.01	1260-4	0.088	208374
7.02	0.01	1260-5	0.070	199540
8.17	0.01	DCBP	2.916	163612

File Name: F:\GCECD.DAT\F120719\F120719B.21R.BND
Comments: SC1660.02 0.5ppm 7/2/12
Run Time: 7/19/2012 4:18:20 PM



RT	dT	Name	Amt.	Area
2.37	0.01	TCX	21.628	920355
3.07	0.01	1016-1	0.587	377935
3.50	0.01	1016-2	0.588	781908
3.87	0.01	1016-3	0.574	1592225
4.03	0.01	1016-4	0.576	610704
4.16	0.01	1016-5	0.568	457595
5.62	0.01	1260-1	0.511	938735
5.70	0.01	1260-2	0.515	986730
6.11	0.01	1260-3	0.484	916393
6.60	0.01	1260-4	0.484	933110
7.02	0.01	1260-5	0.460	826535
8.16	0.01	DCBP	15.113	556182

Form 0: Sequence Log

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Filename	Run Time	Sample ID	Matrix	QC Type
001	11:14:17 Tue 24-Jul-12	Blank	Liquid	
002	11:16:08 Tue 24-Jul-12	std-0.00	Liquid	
003	11:29:56 Tue 24-Jul-12	std-0.0005	Liquid	
004	11:31:52 Tue 24-Jul-12	std-0.001	Liquid	
005	11:33:59 Tue 24-Jul-12	std-0.005	Liquid	
006	11:36:04 Tue 24-Jul-12	std-0.02	Liquid	
007	11:38:18 Tue 24-Jul-12	std-0.05	Liquid	
008	11:40:31 Tue 24-Jul-12	std-0.20	Liquid	
009	11:44:16 Tue 24-Jul-12	ICV-0.10	Liquid	ICV
010	11:49:52 Tue 24-Jul-12	ICB	Liquid	ICB
011	11:51:55 Tue 24-Jul-12	Solu-AB	Liquid	AB
012	11:57:41 Tue 24-Jul-12	Solu-AA	Liquid	AA
013	12:11:24 Tue 24-Jul-12	BS-0.0005	Liquid	BS
014	12:13:26 Tue 24-Jul-12	BS-0.001	Liquid	BS
015	12:15:26 Tue 24-Jul-12	BS-0.002	Liquid	BS
016	12:22:26 Tue 24-Jul-12	ERA-P194	Liquid	ERA
017	12:26:03 Tue 24-Jul-12	CCV1-0.10	Liquid	CCV
018	12:31:48 Tue 24-Jul-12	CCB1	Liquid	CCB
019	12:33:55 Tue 24-Jul-12	0724_2 LCS-0.05	Liquid	LCS
020	12:44:56 Tue 24-Jul-12	LRB_2	Liquid	LRB
021	12:46:47 Tue 24-Jul-12	53243.01s	Soil	S
022	12:49:00 Tue 24-Jul-12	53243.01 dil	Soil	DIL
023	12:52:08 Tue 24-Jul-12	53243.02s	Soil	S
024	12:54:38 Tue 24-Jul-12	53243.03s	Soil	S
025	12:57:33 Tue 24-Jul-12	53243.04s	Soil	S
026	13:00:04 Tue 24-Jul-12	53243.05s	Soil	S
027	13:08:48 Tue 24-Jul-12	53273.01s	Soil	S
028	13:11:26 Tue 24-Jul-12	53273.02s	Soil	S
029	13:16:07 Tue 24-Jul-12	53273.03s	Soil	S
030	13:28:33 Tue 24-Jul-12	53273.04s MS-0.10	Soil	MS
031	13:30:53 Tue 24-Jul-12	53273.05s MSD	Soil	MSD
032	13:33:16 Tue 24-Jul-12	CCV2-0.10	Liquid	CCV
033	13:38:41 Tue 24-Jul-12	CCB2	Liquid	CCB
034	13:40:43 Tue 24-Jul-12	53273.06s	Soil	S
035	13:43:05 Tue 24-Jul-12	53273.07s	Soil	S
036	13:45:27 Tue 24-Jul-12	53273.08s	Soil	S
037	13:47:48 Tue 24-Jul-12	53273.09s	Soil	S
038	13:50:07 Tue 24-Jul-12	53273.10s	Soil	S
039	13:52:28 Tue 24-Jul-12	53273.11s	Soil	S
040	13:54:49 Tue 24-Jul-12	53273.12s	Soil	S
041	13:57:11 Tue 24-Jul-12	53273.13s	Soil	S
042	13:59:33 Tue 24-Jul-12	53273.14s	Soil	S
043	14:01:56 Tue 24-Jul-12	53273.15s	Soil	S
044	14:07:18 Tue 24-Jul-12	CCV3-0.10	Liquid	CCV
045	14:10:50 Tue 24-Jul-12	Rinse	Liquid	
046	14:12:54 Tue 24-Jul-12	CCB3	Liquid	CCB
047	14:14:58 Tue 24-Jul-12	0724_2 LCS-0.05	Liquid	LCS
048	14:18:33 Tue 24-Jul-12	Rinse	Liquid	
049	14:20:39 Tue 24-Jul-12	LRB_2	Liquid	LRB
050	14:27:07 Tue 24-Jul-12	53262.01s	Soil	S
051	14:29:27 Tue 24-Jul-12	53262.01 dil	Soil	DIL
052	14:31:55 Tue 24-Jul-12	53264.02s	Soil	S
053	14:33:57 Tue 24-Jul-12	53264.02 MS-0.10	Soil	MS

Form 0: Sequence Log

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	14:35:59 Tue 24-Jul-12	53264.02 MSD	Soil	MSD
055	14:38:21 Tue 24-Jul-12	CCV4-0.10	Liquid	CCV
056	14:41:52 Tue 24-Jul-12	CCB4	Liquid	CCB
057	14:46:36 Tue 24-Jul-12	test- blk+pot-permag.	Liquid	
058	14:49:22 Tue 24-Jul-12	test- blk+pot-permag.	Liquid	
059	14:52:07 Tue 24-Jul-12	test- blk+pot-permag.	Liquid	
060	14:54:40 Tue 24-Jul-12	test- blk+pot-permag.	Liquid	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53243.01
Sample Tag: SB 123 (07-16-12) (6-8)
Date Collected: 07/16/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	2.21	0.20	mg/kg	238	07/24/2012	
7440-39-3	Barium	58.9	1.0	mg/kg	238	07/24/2012	
7440-43-9	Cadmium	0.31	0.20	mg/kg	238	07/24/2012	
7440-47-3	Chromium	5.38	0.50	mg/kg	238	07/24/2012	
7440-50-8	Copper	19.7	0.50	mg/kg	238	07/24/2012	
7439-92-1	Lead	10.5	0.30	mg/kg	238	07/24/2012	
7782-49-2	Selenium	0.64	0.50	mg/kg	238	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	238	07/24/2012	
7440-66-6	Zinc	30.0	1.0	mg/kg	238	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53243.02
Sample Tag: SB 124 (07-16-12) (4-6)
Date Collected: 07/16/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.95	0.20	mg/kg	225	07/24/2012	
7440-39-3	Barium	18.7	1.0	mg/kg	225	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	225	07/24/2012	
7440-47-3	Chromium	2.39	0.50	mg/kg	225	07/24/2012	
7440-50-8	Copper	4.33	0.50	mg/kg	225	07/24/2012	
7439-92-1	Lead	6.27	0.30	mg/kg	225	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	225	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	225	07/24/2012	
7440-66-6	Zinc	8.82	1.0	mg/kg	225	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53243.03
Sample Tag: SB 117 (07-16-12) (2-4)
Date Collected: 07/16/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.95	0.20	mg/kg	220	07/24/2012	
7440-39-3	Barium	50.1	1.0	mg/kg	220	07/24/2012	
7440-43-9	Cadmium	0.62	0.20	mg/kg	220	07/24/2012	
7440-47-3	Chromium	3.42	0.50	mg/kg	220	07/24/2012	
7440-50-8	Copper	24.0	0.50	mg/kg	220	07/24/2012	
7439-92-1	Lead	8.97	0.30	mg/kg	220	07/24/2012	
7782-49-2	Selenium	0.62	0.50	mg/kg	220	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	220	07/24/2012	
7440-66-6	Zinc	10.2	1.0	mg/kg	220	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53243.04
Sample Tag: SB 157 (07-17-12) (3-5)
Date Collected: 07/17/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.98	0.20	mg/kg	210	07/24/2012	
7440-39-3	Barium	20.3	1.0	mg/kg	210	07/24/2012	
7440-43-9	Cadmium	0.21	0.20	mg/kg	210	07/24/2012	
7440-47-3	Chromium	1.85	0.50	mg/kg	210	07/24/2012	
7440-50-8	Copper	5.54	0.50	mg/kg	210	07/24/2012	
7439-92-1	Lead	2.72	0.30	mg/kg	210	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	210	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	210	07/24/2012	
7440-66-6	Zinc	13.6	1.0	mg/kg	210	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53243.05
Sample Tag: SB 157 (07-17-12) (8-10)
Date Collected: 07/17/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	8.58	0.20	mg/kg	226	07/24/2012	
7440-39-3	Barium	67.2	1.0	mg/kg	226	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	226	07/24/2012	
7440-47-3	Chromium	11.4	0.50	mg/kg	226	07/24/2012	
7440-50-8	Copper	18.3	0.50	mg/kg	226	07/24/2012	
7439-92-1	Lead	8.52	0.30	mg/kg	226	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	226	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	226	07/24/2012	
7440-66-6	Zinc	38.6	1.0	mg/kg	226	07/24/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
009 ICV-0.10	ICV	1	Cr	0.0967	0.10	97	90/110	mg/L	Liquid
			Cu	0.101	0.10	101	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.0997	0.10	100	90/110		
			Se	0.101	0.10	101	90/110		
			Ag	0.0988	0.10	99	90/110		
			Cd	0.100	0.10	100	90/110		
			Ba	0.0985	0.10	99	90/110		
			Pb	0.100	0.10	100	90/110		
017 CCV1-0.10	CCV	1	Cr	0.0940	0.10	94	90/110	mg/L	Liquid
			Cu	0.0995	0.10	100	90/110		
			Zn	0.102	0.10	102	90/110		
			As	0.0970	0.10	97	90/110		
			Se	0.0986	0.10	99	90/110		
			Ag	0.0985	0.10	99	90/110		
			Cd	0.0979	0.10	98	90/110		
			Ba	0.0964	0.10	96	90/110		
			Pb	0.0992	0.10	99	90/110		
032 CCV2-0.10	CCV	1	Cr	0.102	0.10	102	90/110	mg/L	Liquid
			Cu	0.0985	0.10	99	90/110		
			Zn	0.101	0.10	101	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.0991	0.10	99	90/110		
			Cd	0.100	0.10	100	90/110		
			Ba	0.0981	0.10	98	90/110		
			Pb	0.100	0.10	100	90/110		
044 CCV3-0.10	CCV	1	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Cu	0.0963	0.10	96	90/110		
			Zn	0.0989	0.10	99	90/110		
			As	0.0978	0.10	98	90/110		
			Se	0.0990	0.10	99	90/110		
			Ag	0.0981	0.10	98	90/110		
			Cd	0.0993	0.10	99	90/110		
			Ba	0.0977	0.10	98	90/110		
			Pb	0.0996	0.10	100	90/110		
055 CCV4-0.10	CCV	1	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Cu	0.0960	0.10	96	90/110		
			Zn	0.0989	0.10	99	90/110		
			As	0.100	0.10	100	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.0968	0.10	97	90/110		
			Cd	0.0974	0.10	97	90/110		
			Ba	0.0970	0.10	97	90/110		
			Pb	0.0997	0.10	100	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: W-8121-0

Data Set ID: MT2-12-0724A

Instrument ID: PE ELAN

Analysis Date: 07/24/12

Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
016 ERA-P194	5	Cr	0.595	0.623	96	0.542	0.704	mg/L	Liquid
		Cu	0.838	0.835	100	0.751	0.918		
		Zn	0.413	0.412	100	0.352	0.476		
		As	0.863	0.877	98	0.738	1.030		
		Se	1.01	1.030	98	0.815	1.190		
		Ag	0.179	0.186	96	0.159	0.213		
		Cd	0.115	0.118	98	0.0998	0.135		
		Ba	0.680	0.716	95	0.621	0.807		
		Pb	1.76	1.760	100	1.550	1.970		

Form 3: Blanks

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 ICB	ICB	1	Cr	<0.001	-0.000062	mg/L	Liquid
			Cu	<0.001	-0.000048		
			Zn	<0.001	-0.000405		
			As	<0.0004	0.000053		
			Se	<0.001	0.000082		
			Ag	<0.0005	0.000015		
			Cd	<0.0001	-0.000007		
			Ba	<0.001	-0.000045		
			Pb	<0.0006	-0.000114		
018 CCB1	CCB	1	Cr	<0.001	-0.000061	mg/L	Liquid
			Cu	<0.001	-0.000032		
			Zn	<0.001	-0.000430		
			As	<0.0004	0.000004		
			Se	<0.001	-0.000098		
			Ag	<0.0005	0.000003		
			Cd	<0.0001	-0.000020		
			Ba	<0.001	-0.000041		
			Pb	<0.0006	-0.000107		
020 LRB_2	LRB	1	Cr	<0.001	-0.000060	mg/L	Liquid
			Cu	<0.001	-0.000038		
			Zn	<0.001	-0.000695		
			As	<0.0004	-0.000077		
			Se	<0.001	-0.000051		
			Ag	<0.0005	-0.000008		
			Cd	<0.0001	-0.000013		
			Ba	<0.001	-0.000078		
			Pb	<0.0006	-0.000133		
033 CCB2	CCB	1	Cr	<0.001	-0.000012	mg/L	Liquid
			Cu	<0.001	-0.000048		
			Zn	<0.001	-0.000462		
			As	<0.0004	-0.000182		
			Se	<0.001	-0.000018		
			Ag	<0.0005	0.000007		
			Cd	<0.0001	-0.000015		
			Ba	<0.001	-0.000035		
			Pb	<0.0006	-0.000113		
046 CCB3	CCB	1	Cr	<0.001	-0.000022	mg/L	Liquid
			Cu	<0.001	-0.000053		
			Zn	<0.001	-0.000518		
			As	<0.0004	-0.000258		
			Se	<0.001	-0.000070		
			Ag	<0.0005	0.000006		
			Cd	<0.0001	-0.000020		
			Ba	<0.001	-0.000036		
			Pb	<0.0006	-0.000102		
049 LRB_2	LRB	1	Cr	<0.001	-0.000008	mg/L	Liquid
			Cu	<0.001	-0.000057		
			Zn	<0.001	-0.000686		
			As	<0.0004	-0.000022		
			Se	<0.001	0.000108		
			Ag	<0.0005	-0.000008		
			Cd	<0.0001	-0.000028		
			Ba	<0.001	-0.000062		

Form 3: Blanks

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
049 LRB_2	LRB	1	Pb	<0.0006	-0.000127	mg/L	Liquid
056 CCB4	CCB	1	Cr	<0.001	0.000065	mg/L	Liquid
			Cu	<0.001	-0.000012		
			Zn	<0.001	-0.000460		
			As	<0.0004	-0.000131		
			Se	<0.001	0.000162		
			Ag	<0.0005	0.000026		
			Cd	<0.0001	-0.000016		
			Ba	<0.001	-0.000030		
			Pb	<0.0006	-0.000109		

Form 4B: ICP Interference Check Sample

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
011 Solu-AB	AB	1	Cr	0.0239	0.020	120	70/135	mg/L	Liquid
			Cu	0.0234	0.020	117	70/135		
			Zn	0.0237	0.020	119	70/135		
			As	0.0238	0.020	119	70/135		
			Ag	0.0194	0.020	97	70/135		
			Cd	0.0203	0.020	102	70/135		
012 Solu-AA	AA	1	Cr	<0.005	0.0	N/A	N/A	mg/L	Liquid
			Cu	<0.004	0.0	N/A	N/A		
			Zn	<0.005	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.0005	0.0	N/A	N/A		
			Cd	<0.0005	0.0	N/A	N/A		
			Ba	<0.005	0.0	N/A	N/A		
			Pb	<0.003	0.0	N/A	N/A		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
013 BS-0.0005		1	Cr	0.00047	ND	0.0005	94	70/130	mg/L	Liquid
			Cu	0.00052	ND	0.0005	104	70/130		
			Zn	0.00037	ND	0.0005	74	70/130		
			As	0.00049	ND	0.0005	98	70/130		
			Se	0.00047	ND	0.0005	94	70/130		
			Ag	0.00046	ND	0.0005	92	70/130		
			Cd	0.00044	ND	0.0005	88	70/130		
			Ba	0.00048	ND	0.0005	96	70/130		
			Pb	0.00044	ND	0.0005	88	70/130		
014 BS-0.001		1	Cr	0.00100	ND	0.001	100	70/130	mg/L	Liquid
			Cu	0.00105	ND	0.001	105	70/130		
			Zn	0.00097	ND	0.001	97	70/130		
			As	0.00111	ND	0.001	111	70/130		
			Se	0.00080	ND	0.001	80	70/130		
			Ag	0.00093	ND	0.001	93	70/130		
			Cd	0.00104	ND	0.001	104	70/130		
			Ba	0.00098	ND	0.001	98	70/130		
			Pb	0.00089	ND	0.001	89	70/130		
015 BS-0.002		1	Cr	0.00187	ND	0.002	94	70/130	mg/L	Liquid
			Cu	0.00226	ND	0.002	113	70/130		
			Zn	0.00182	ND	0.002	91	70/130		
			As	0.00171	ND	0.002	86	70/130		
			Se	0.00203	ND	0.002	102	70/130		
			Ag	0.00195	ND	0.002	98	70/130		
			Cd	0.00189	ND	0.002	95	70/130		
			Ba	0.00190	ND	0.002	95	70/130		
			Pb	0.00190	ND	0.002	95	70/130		
030 53273.04s	**029 53273.03s**	228	Cr	30.5	5.47	22.80	110	75/125	mg/kg	Soil
			Cu	27.8	5.98	22.80	96	75/125		
			Zn	42.4	19.6	22.80	100	75/125		
			As	26.6	1.83	22.80	109	75/125		
			Se	24.9	<0.50	22.80	109	75/125		
			Ag	22.9	<0.10	22.80	100	75/125		
			Cd	23.9	<0.20	22.80	105	75/125		
			Ba	65.4	40.6	22.80	109	75/125		
			Pb	28.0	5.84	22.80	97	75/125		
053 53264.02	**052 53264.02s**	189	Cr	20.7	<0.50	18.90	110	75/125	mg/kg	Soil
			Cd	19.5	<0.20	18.90	103	75/125		
			Pb	18.8	0.68	18.90	96	75/125		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
031 53273.05s MSD	**030 53273.04s MS-0.10**	228	Cr	30.6	30.5	0	0/20	mg/kg	Soil
			Cu	28.0	27.8	1	0/20		
			Zn	42.3	42.4	0	0/20		
			As	26.5	26.6	0	0/20		
			Se	25.2	24.9	1	0/20		
			Ag	22.8	22.9	0	0/20		
			Cd	23.9	23.9	0	0/20		
			Ba	65.0	65.4	1	0/20		
			Pb	27.9	28.0	0	0/20		
054 53264.02 MSD	**053 53264.02 MS-0.10**	188	Cr	20.2	20.7	2	0/20	mg/kg	Soil
			Cd	19.1	19.5	2	0/20		
			Pb	18.6	18.8	1	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
019 0724_2 LCS-0.05	1	Cr	0.0474	0.05	95	85/115	mg/L	Liquid
		Cu	0.0497	0.05	99	85/115		
		Zn	0.0504	0.05	101	85/115		
		As	0.0482	0.05	96	85/115		
		Se	0.0497	0.05	99	85/115		
		Ag	0.0486	0.05	97	85/115		
		Cd	0.0485	0.05	97	85/115		
		Ba	0.0486	0.05	97	85/115		
		Pb	0.0505	0.05	101	85/115		
047 0724_2 LCS-0.05	1	Cr	0.0501	0.05	100	85/115	mg/L	Liquid
		Cu	0.0485	0.05	97	85/115		
		Zn	0.0486	0.05	97	85/115		
		As	0.0501	0.05	100	85/115		
		Se	0.0484	0.05	97	85/115		
		Ag	0.0493	0.05	99	85/115		
		Cd	0.0507	0.05	101	85/115		
		Ba	0.0499	0.05	100	85/115		
		Pb	0.0503	0.05	101	85/115		

Form 8: Serial Dilutions

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
022 53243.01 dil	**021 53243.01s**	1190	Cr	5.20	5.38	3	0/10	mg/kg	Soil
			Cu	19.4	19.7	2	0/10		
			Zn	29.3	30.0	2	0/10		
			As	2.31	2.21	4	0/10		
			Se	<0.50	0.64	200*	0/10		
			Ag	<0.10	<0.10	NC	0/10		
			Cd	0.28	0.31	10	0/10		
			Ba	60.0	58.9	2	0/10		
			Pb	10.8	10.5	3	0/10		
051 53262.01 dil	**050 53262.01s**	1095	Cr	1.01	1.17	15*	0/10	mg/kg	Soil
			Cd	<0.20	<0.20	NC	0/10		
			Pb	2.78	2.80	1	0/10		

Form 13: Analysis Run Log

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
001 Blank	11:14:17 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
002 std-0.00	11:16:08 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
003 std-0.0005	11:29:56 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
004 std-0.001	11:31:52 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
005 std-0.005	11:33:59 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
006 std-0.02	11:36:04 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
007 std-0.05	11:38:18 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
008 std-0.20	11:40:31 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
009 ICV-0.10	11:44:16 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
010 ICB	11:49:52 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
011 Solu-AB	11:51:55 Tue	Liquid	Ag,As,Cd,Cr,Cu,Zn
012 Solu-AA	11:57:41 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
013 BS-0.0005	12:11:24 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
014 BS-0.001	12:13:26 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
015 BS-0.002	12:15:26 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
016 ERA-P194	12:22:26 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
017 CCV1-0.10	12:26:03 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
018 CCB1	12:31:48 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
019 0724_2 LCS-0.05	12:33:55 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
020 LRB_2	12:44:56 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
021 53243.01s	12:46:47 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
022 53243.01 dil	12:49:00 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
023 53243.02s	12:52:08 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
024 53243.03s	12:54:38 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
025 53243.04s	12:57:33 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
026 53243.05s	13:00:04 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
027 53273.01s	13:08:48 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
028 53273.02s	13:11:26 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
029 53273.03s	13:16:07 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
030 53273.04s MS-0.10	13:28:33 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
031 53273.05s MSD	13:30:53 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
032 CCV2-0.10	13:33:16 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
033 CCB2	13:38:41 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
034 53273.06s	13:40:43 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
035 53273.07s	13:43:05 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
036 53273.08s	13:45:27 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
037 53273.09s	13:47:48 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
038 53273.10s	13:50:07 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
039 53273.11s	13:52:28 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
040 53273.12s	13:54:49 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
041 53273.13s	13:57:11 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
042 53273.14s	13:59:33 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
043 53273.15s	14:01:56 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
044 CCV3-0.10	14:07:18 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
045 Rinse	14:10:50 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
046 CCB3	14:12:54 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
047 0724_2 LCS-0.05	14:14:58 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
048 Rinse	14:18:33 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
049 LRB_2	14:20:39 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
050 53262.01s	14:27:07 Tue	Soil	Cd,Cr,Pb
051 53262.01 dil	14:29:27 Tue	Soil	Cd,Cr,Pb
052 53264.02s	14:31:55 Tue	Soil	Cd,Cr,Pb
053 53264.02 MS-0.10	14:33:57 Tue	Soil	Cd,Cr,Pb

Form 13: Analysis Run Log

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
054 53264.02 MSD	14:35:59 Tue	Soil	Cd,Cr,Pb
055 CCV4-0.10	14:38:21 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
056 CCB4	14:41:52 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
057 test- blk+pot-permag.	14:46:36 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
058 test- blk+pot-permag.	14:49:22 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
059 test- blk+pot-permag.	14:52:07 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
060 test- blk+pot-permag.	14:54:40 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Tuesday, July 24, 2012 10:52:40
Sample Description:
Method File: C:\Elandata\Method\Daily-All.mth
Dataset File: C:\Elandata\DataSet\6020-200.8.tun\Daily Performance Check.2563
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Optimization File: C:\Elandata\Optimize\6020-200.8.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Li	7.0	16088.0	16087.983	490.664	3.0
	Be	9.0	5102.7	5102.683	191.254	3.7
	Mg	24.0	50915.2	50915.241	1198.807	2.4
	Co	58.9	103506.8	103506.806	3565.766	3.4
	In	114.9	232721.2	232721.153	3255.337	1.4
	Tl	205.0	140265.3	140265.277	1549.951	1.1
	Pb	208.0	91606.3	91606.283	1138.064	1.2
⌈>	Ce	139.9	238751.3	238751.319	3611.339	1.5
⌊	Ce++	70.0	1864.6	0.008	0.000	5.1
⌈>	Ce-1	139.9	238751.3	238751.319	3611.339	1.5
⌊	CeO	155.9	7653.0	0.032	0.001	1.8
	Bkgd	220.0	12.8	12.750	2.630	20.6

Current Optimization File Data

Current Value	Description
0.76	Nebulizer Gas Flow
10.00	Lens Voltage
1100.00	ICP RF Power
-1985.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	14.5	6350.2
Co	59	33	15.0	133264.7
In	115	33	15.0	202118.5

SmartTune Wizard - Summary

Optimization Summary

Wizard file: C:\Elandata\Wizard\SmartTune\12-0724A.swz

Start Time: 7/24/2012 10:48:33 AM
End Time: 7/24/2012 10:54:19 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
- Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.704)
- Target/Obtained mass (9.0122/9.079), Target/Obtained resolution (0.7/0.700)
- Target/Obtained mass (23.985/23.928), Target/Obtained resolution (0.7/0.720)
- Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.730)
- Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.720)
- Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.712)
- Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.714)

Daily Performance Check - [Passed] Optimum value(s): N/A
- Obtained Intensity (Be 9.0122): 5103
- Obtained Intensity (Bkgd 220): 13
- Obtained Intensity (Co 58.9332): 103507
- Obtained Intensity (In 114.904): 232721
- Obtained Intensity (Li 7.016): 16088
- Obtained Intensity (Mg 23.985): 50915
- Obtained Intensity (Pb 207.977): 91606
- Obtained Intensity (Tl 204.975): 140265
- Obtained Formula (CeO 155.9 / Ce 139.905): 0.032 (=7653 / 238751)
- Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.008 (=1865 / 238751)

SmartTune Wizard - Details

Optimization Details

Wizard file: C:\Elandata\Wizard\SmartTune\12-0724A.swz

Optimization Status

Start Time: 7/24/2012 10:48:33 AM

Mass Calibration and Resolution
Optimization Settings:
Method: C:\Elandata\Method\Tuning-All.mth.
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Iterations: 4
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 5
Optimization Results:
First Pass
Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.704)
Target/Obtained mass (9.0122/9.079), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/23.928), Target/Obtained resolution (0.7/0.720)
Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.730)
Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.720)
Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.712)
Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.714)
[Passed] Optimum value(s): N/A

Daily Performance Check
Optimization Settings:
Method: C:\Elandata\Method\Daily-All.mth.
Intensity Criterion: Be 9.0122 > 1000
Intensity Criterion: Bkgd 220 <= 50
Intensity Criterion: Co 58.9332 > 10000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: Li 7.016 > 2500
Intensity Criterion: Mg 23.985 > 7000
Intensity Criterion: Pb 207.977 > 20000
Intensity Criterion: Tl 204.975 > 40000
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.05
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03
Optimization Results:
First Pass
Obtained Intensity (Be 9.0122): 5103
Obtained Intensity (Bkgd 220): 13
Obtained Intensity (Co 58.9332): 103507
Obtained Intensity (In 114.904): 232721
Obtained Intensity (Li 7.016): 16088
Obtained Intensity (Mg 23.985): 50915
Obtained Intensity (Pb 207.977): 91606
Obtained Intensity (Tl 204.975): 140265
Obtained Formula (CeO 155.9 / Ce 139.905): 0.032 (=7653 / 238751)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.008 (=1865 / 238751)
[Passed] Optimum value(s): N/A

End Time: 7/24/2012 10:54:19 AM

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0724A

Instrument ID: PE ELAN

Analysis Date: 07/24/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	294980	70-125	206486-368725	80-120	235984-353976	0
Re	235858	70-125	165101-294823	80-120	188686-283030	0

Seq ID	QC Type	Rh	Re
001		100	100
002		99	101
003		102	103
004		102	102
005		103	104
006		101	102
007		102	104
008		102	106
009	ICV	103	104
010	ICB	97	100
011	AB	96	95
012	AA	101	102
013	BS	102	103
014	BS	101	102
015	BS	107	107
016	ERA	101	102
017	CCV	102	102
018	CCB	100	101
019	LCS	104	104
020	LRB	101	101
021	S	88	94
022	DIL	91	96
023	S	92	96
024	S	96	98
025	S	90	97
026	S	88	94
027	S	85	90
028	S	86	89
029	S	84	89
030	MS	81	87
031	MSD	82	87
032	CCV	93	95
033	CCB	92	93
034	S	85	92
035	S	82	87
036	S	83	88
037	S	84	90

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0724A

Instrument ID: PE ELAN

Analysis Date: 07/24/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	294980	70-125	206486-368725	80-120	235984-353976	0
Re	235858	70-125	165101-294823	80-120	188686-283030	0

Seq ID	QC Type	Rh	Re
038	S	80	84
039	S	79	83
040	S	82	85
041	S	84	88
042	S	86	91
043	S	90	94
044	CCV	92	93
045		89	90
046	CCB	90	90
047	LCS	90	91
048		88	89
049	LRB	90	92
050	S	86	91
051	DIL	89	91
052	S	85	91
053	MS	83	90
054	MSD	84	90
055	CCV	91	93
056	CCB	89	89

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	Spike (ug/l)	MDL (ug/l)	Prep Batch
Al-27	4/9/2012	0.50	0.189	MTD-040212-1
Sb-121	3/20/2012	1.00	0.105	MTD-032012-3
As-75	3/20/2012	0.05	0.032	MTD-032012-2
Ba-137	3/20/2012	0.50	0.202	MTD-032012-2
Be-9	4/10/2012	0.10	0.079	MTD-041012-1
B-10	3/20/2012	1.00	0.589	MTD-032012-3
B-11	3/20/2012	1.00	0.277	MTD-032012-3
Cd-111	3/20/2012	0.05	0.038	MTD-032012-2
Cd-114	3/20/2012	0.10	0.030	MTD-032012-2
Cr-52	3/20/2012	0.10	0.023	MTD-032012-2
Cr-53	3/20/2012	0.10	0.054	MTD-032012-2
Co-59	3/20/2012	0.10	0.035	MTD-032012-2
Cu-65	3/20/2012	0.50	0.068	MTD-032012-2
Fe-56	4/9/2012	2.00	0.470	MTD-040912-1
Fe-57	4/9/2012	2.00	0.824	MTD-040912-1
Pb-208	3/20/2012	0.10	0.052	MTD-032012-2
Li-7	3/20/2012	1.00	0.166	MTD-032012-3
Mn-55	3/20/2012	0.10	0.187	MTD-032012-2
Mo-95	4/9/2012	0.50	0.442	MTD-040212-1
Ni-60	4/13/2012	0.10	0.035	MTD-041012-1
Se-78	3/20/2012	0.10	0.058	MTD-032012-2
Se-82	3/20/2012	0.50	0.475	MTD-032012-2
Ag-107	3/20/2012	0.10	0.025	MTD-032012-2
Sr-88	3/20/2012	0.10	0.016	MTD-032012-2
Tl-205	4/9/2012	0.50	0.089	MTD-040212-1
Sn-118	3/20/2012	0.10	0.079	MTD-032012-2
Ti-47	3/20/2012	0.50	0.124	MTD-032012-2
V-51	3/20/2012	0.05	0.018	MTD-032012-2
Zn-66	4/9/2012	2.00	0.366	MTD-040912-1

Element/Mass	Date	Spike (mg/l)	MDL (mg/l)	Prep Batch
Ca-43	4/16/2012	0.01	0.0101	MTD-041012-4
Ca-44	4/16/2012	0.01	0.0041	MTD-041012-4
Mg-24	4/16/2012	0.01	0.0006	MTD-041012-4
K-39	4/16/2012	0.01	0.0030	MTD-041012-4
Na-23	4/16/2012	0.10	0.0101	MTD-041012-4

Linear Range June 2012

		Prep Batch	Run Batch
Aluminum	5.0ppm	MTD-061912-5	MT3-12-0619C
Antimony	5.0ppm	MTD-061912-5	MT3-12-0619C
Arsenic	1.0ppm	MTD-061912-5	MT3-12-0619C
Barium	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-10	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-11	5.0ppm	MTD-061912-5	MT3-12-0619C
Beryllium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-111	5.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-114	5.0ppm	MTD-061912-5	MT3-12-0619C
Chromium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cobalt	2.0ppm	MTD-061912-5	MT3-12-0619C
Copper	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-56	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-57	2.0ppm	MTD-061912-5	MT3-12-0619C
Lead	5.0ppm	MTD-061912-5	MT3-12-0619C
Lithium	2.0ppm	MTD-061912-5	MT3-12-0619C
Manganese	1.0ppm	MTD-061912-5	MT3-12-0619C
Molybdenum	1.0ppm	MTD-061912-5	MT3-12-0619C
Nickel	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-78	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-82	5.0ppm	MTD-061912-5	MT3-12-0619C
Silver	1.0ppm	MTD-061912-5	MT3-12-0619C
Strontium-86	5.0ppm	MTD-061912-5	MT3-12-0619C
Thallium	5.0ppm	MTD-061912-5	MT3-12-0619C
Tin	1.0ppm	MTD-061912-5	MT3-12-0619C
Titanium	1.0ppm	MTD-061912-5	MT3-12-0619C
Vanadium	1.0ppm	MTD-061912-5	MT3-12-0619C
Zinc	2.0ppm	MTD-061912-5	MT3-12-0619C

Sodium-23	50ppm	MTD-061912-5	MT3-12-0619B
Magnesium-24	50ppm	MTD-061912-5	MT3-12-0619B
Potassium-39	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-43	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-44	50ppm	MTD-061912-5	MT3-12-0619B

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 001
Method: 10-mich+mo.mth
Acq Time: 11:14:17 Tue 24-Jul-12
Sample Name: Blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1427.612	0	mg/L		3
Cu	65	86.667	0	mg/L		3
Zn	66	440.011	0	mg/L		3
As	75	1913.556	0	mg/L		3
Se	77	33.333	0	mg/L		3
Ag	107	82.500	0	mg/L		3
Cd	111	27.500	0	mg/L		3
Ba	138	740.576	0	mg/L		3
Pb	208	569.185	0	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 002
Method: 10-mich+mo.mth
Acq Time: 11:16:08 Tue 24-Jul-12
Sample Name: std-0.00
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1478.454	0.000020	mg/L		3
Cu	65	101.667	0.000018	mg/L		3
Zn	66	455.011	0.000040	mg/L		3
As	75	1999.082	0.000174	mg/L		3
Se	77	19.167	-0.000336	mg/L		3
Ag	107	80.000	-0.000001	mg/L		3
Cd	111	25.000	-0.000003	mg/L		3
Ba	138	678.840	-0.000008	mg/L		3
Pb	208	610.021	0.000009	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 003
Method: 10-mich+mo.mth
Acq Time: 11:29:56 Tue 24-Jul-12
Sample Name: std-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2931.306	0.000486	mg/L		3
Cu	65	561.684	0.000546	mg/L		3
Zn	66	605.020	0.000342	mg/L		3
As	75	2051.592	0.000186	mg/L		3
Se	77	45.000	0.000263	mg/L		3
Ag	107	1278.423	0.000451	mg/L		3
Cd	111	362.507	0.000488	mg/L		3
Ba	138	4057.357	0.000479	mg/L		3
Pb	208	2244.444	0.000437	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 004
Method: 10-mich+mo.mth
Acq Time: 11:31:52 Tue 24-Jul-12
Sample Name: std-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4377.722	0.000952	mg/L		3
Cu	65	1006.723	0.001053	mg/L		3
Zn	66	863.374	0.000892	mg/L		3
As	75	2365.491	0.000702	mg/L		3
Se	77	80.000	0.001075	mg/L		3
Ag	107	2532.853	0.000919	mg/L		3
Cd	111	719.195	0.001003	mg/L		3
Ba	138	7631.315	0.000991	mg/L		3
Pb	208	3980.872	0.000897	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 005
Method: 10-mich+mo.mth
Acq Time: 11:33:59 Tue 24-Jul-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	16574.263	0.004905	mg/L		3
Cu	65	4613.671	0.005169	mg/L		3
Zn	66	2744.581	0.004922	mg/L		3
As	75	4809.122	0.004851	mg/L		3
Se	77	228.336	0.004526	mg/L		3
Ag	107	13232.124	0.004912	mg/L		3
Cd	111	3476.498	0.004983	mg/L		3
Ba	138	35699.650	0.005014	mg/L		3
Pb	208	19595.263	0.004936	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 006
Method: 10-mich+mo.mth
Acq Time: 11:36:04 Tue 24-Jul-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	59889.165	0.019315	mg/L		3
Cu	65	16903.202	0.019554	mg/L		3
Zn	66	9206.326	0.019140	mg/L		3
As	75	12782.748	0.018837	mg/L		3
Se	77	818.370	0.018637	mg/L		3
Ag	107	50540.104	0.019188	mg/L		3
Cd	111	13015.980	0.019103	mg/L		3
Ba	138	131777.209	0.019141	mg/L		3
Pb	208	75690.483	0.019818	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 007
Method: 10-mich+mo.mth
Acq Time: 11:38:18 Tue 24-Jul-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	151598.695	0.048844	mg/L		3
Cu	65	44527.140	0.050888	mg/L		3
Zn	66	24044.256	0.050744	mg/L		3
As	75	30517.213	0.048803	mg/L		3
Se	77	2149.421	0.049434	mg/L		3
Ag	107	133201.256	0.049848	mg/L		3
Cd	111	34152.366	0.049424	mg/L		3
Ba	138	344885.512	0.049501	mg/L		3
Pb	208	195497.202	0.050368	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 008
Method: 10-mich+mo.mth
Acq Time: 11:40:31 Tue 24-Jul-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	617126.668	0.200360	mg/L		3
Cu	65	174591.540	0.199818	mg/L		3
Zn	66	93394.865	0.199903	mg/L		3
As	75	119214.379	0.200421	mg/L		3
Se	77	8604.908	0.200289	mg/L		3
Ag	107	534468.661	0.200122	mg/L		3
Cd	111	138256.068	0.200234	mg/L		3
Ba	138	1392290.456	0.200210	mg/L		3
Pb	208	787980.352	0.199929	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 009
Method: 10-mich+mo.mth
Acq Time: 11:44:16 Tue 24-Jul-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 07/11/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	299353.973	0.096765	mg/L		3
Cu	65	88490.359	0.101049	mg/L		3
Zn	66	47211.446	0.100399	mg/L		3
As	75	60404.282	0.099702	mg/L		3
Se	77	4405.234	0.101967	mg/L		3
Ag	107	264451.616	0.098829	mg/L		3
Cd	111	69282.209	0.100146	mg/L		3
Ba	138	686959.386	0.098542	mg/L		3
Pb	208	390021.604	0.100639	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 010
Method: 10-mich+mo.mth
Acq Time: 11:49:52 Tue 24-Jul-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1207.580	-0.000062	mg/L		3
Cu	65	44.167	-0.000048	mg/L		3
Zn	66	249.170	-0.000405	mg/L		3
As	75	1891.930	0.000053	mg/L		3
Se	77	35.833	0.000082	mg/L		3
Ag	107	119.167	0.000015	mg/L		3
Cd	111	22.500	-0.000007	mg/L		3
Ba	138	426.477	-0.000045	mg/L		3
Pb	208	146.668	-0.000114	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 011
Method: 10-mich+mo.mth
Acq Time: 11:51:55 Tue 24-Jul-12
Sample Name: Solu-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	70302.514	0.023934	mg/L		3
Cu	63	40041.330	0.023424	mg/L		3
Zn	68	7895.929	0.023765	mg/L		3
As	75	14889.722	0.023804	mg/L		3
Ag	107	48742.830	0.019445	mg/L		3
Cd	114	31652.163	0.020358	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 012
Method: 10-mich+mo.mth
Acq Time: 11:57:41 Tue 24-Jul-12
Sample Name: Solu-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1382.606	-0.000022	mg/L		3
Cu	65	180.835	0.000107	mg/L		3
Zn	66	470.846	0.000053	mg/L		3
As	75	1873.455	-0.000117	mg/L		3
Se	77	44.167	0.000244	mg/L		3
Ag	107	54.167	-0.000011	mg/L		3
Cd	111	24.167	-0.000005	mg/L		3
Ba	138	511.562	-0.000035	mg/L		3
Pb	208	309.172	-0.000071	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 013
Method: 10-mich+mo.mth
Acq Time: 12:11:24 Tue 24-Jul-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2890.460	0.000470	mg/L		3
Cu	65	541.683	0.000521	mg/L		3
Zn	66	618.354	0.000367	mg/L		3
As	75	2233.559	0.000486	mg/L		3
Se	77	54.167	0.000473	mg/L		3
Ag	107	1308.428	0.000461	mg/L		3
Cd	111	332.506	0.000443	mg/L		3
Ba	138	4044.819	0.000475	mg/L		3
Pb	208	2273.618	0.000440	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 014
Method: 10-mich+mo.mth
Acq Time: 12:13:26 Tue 24-Jul-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4477.769	0.001004	mg/L		3
Cu	65	992.554	0.001053	mg/L		3
Zn	66	886.710	0.000967	mg/L		3
As	75	2572.837	0.001116	mg/L		3
Se	77	67.500	0.000803	mg/L		3
Ag	107	2534.520	0.000932	mg/L		3
Cd	111	735.030	0.001040	mg/L		3
Ba	138	7464.495	0.000981	mg/L		3
Pb	208	3960.030	0.000892	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 015
Method: 10-mich+mo.mth
Acq Time: 12:15:26 Tue 24-Jul-12
Sample Name: BS-0.002
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	7544.796	0.001874	mg/L		3
Cu	65	2157.756	0.002263	mg/L		3
Zn	66	1355.935	0.001823	mg/L		3
As	75	3093.779	0.001713	mg/L		3
Se	77	126.668	0.002036	mg/L		3
Ag	107	5540.856	0.001955	mg/L		3
Cd	111	1399.275	0.001899	mg/L		3
Ba	138	14615.549	0.001903	mg/L		3
Pb	208	8137.807	0.001900	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 016
Method: 10-mich+mo.mth
Acq Time: 12:22:26 Tue 24-Jul-12
Sample Name: ERA-P194
Sample Type: Sample
Matrix: Liquid
Comments: dil 5/1
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	363845.018	0.595527	mg/L		3
Cu	65	145030.293	0.838166	mg/L		3
Zn	66	38507.224	0.413443	mg/L		3
As	75	102013.349	0.863831	mg/L		3
Se	77	8630.762	1.014432	mg/L		3
Ag	107	95216.061	0.179933	mg/L		3
Cd	111	15797.049	0.115361	mg/L		3
Ba	138	937597.896	0.680600	mg/L		3
Pb	208	1340292.194	1.766568	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 017
Method: 10-mich+mo.mth
Acq Time: 12:26:03 Tue 24-Jul-12
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	289308.282	0.094063	mg/L		3
Cu	65	86628.389	0.099514	mg/L		3
Zn	66	47779.397	0.102235	mg/L		3
As	75	58474.877	0.097011	mg/L		3
Se	77	4237.656	0.098664	mg/L		3
Ag	107	262060.671	0.098526	mg/L		3
Cd	111	67342.677	0.097927	mg/L		3
Ba	138	668476.318	0.096456	mg/L		3
Pb	208	377151.350	0.099218	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 018
Method: 10-mich+mo.mth
Acq Time: 12:31:48 Tue 24-Jul-12
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1242.585	-0.000061	mg/L		3
Cu	65	59.167	-0.000032	mg/L		3
Zn	66	244.170	-0.000430	mg/L		3
As	75	1910.637	0.000004	mg/L		3
Se	77	29.167	-0.000098	mg/L		3
Ag	107	89.167	0.000003	mg/L		3
Cd	111	14.167	-0.000020	mg/L		3
Ba	138	461.488	-0.000041	mg/L		3
Pb	208	175.835	-0.000107	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 019
Method: 10-mich+mo.mth
Acq Time: 12:33:55 Tue 24-Jul-12
Sample Name: 0724_2 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	149464.523	0.047441	mg/L		3
Cu	65	44186.295	0.049746	mg/L		3
Zn	66	24279.882	0.050482	mg/L		3
As	75	30621.276	0.048211	mg/L		3
Se	77	2196.933	0.049783	mg/L		3
Ag	107	131879.974	0.048628	mg/L		3
Cd	111	34020.203	0.048512	mg/L		3
Ba	138	344060.382	0.048654	mg/L		3
Pb	208	195313.313	0.050530	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 020
Method: 10-mich+mo.mth
Acq Time: 12:44:56 Tue 24-Jul-12
Sample Name: LRB_2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1262.588	-0.000060	mg/L		3
Cu	65	55.000	-0.000038	mg/L		3
Zn	66	125.834	-0.000695	mg/L		3
As	75	1893.223	-0.000077	mg/L		3
Se	77	31.667	-0.000051	mg/L		3
Ag	107	63.334	-0.000008	mg/L		3
Cd	111	19.167	-0.000013	mg/L		3
Ba	138	215.777	-0.000078	mg/L		3
Pb	208	78.334	-0.000133	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 021
Method: 10-mich+mo.mth
Acq Time: 12:46:47 Tue 24-Jul-12
Sample Name: 53243.01s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 238

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	60688.603	5.385249	mg/kg		3
Cu	65	61893.327	19.712302	mg/kg		3
Zn	66	50597.922	30.071510	mg/kg		3
As	75	6324.697	2.213366	mg/kg		3
Se	77	126.668	0.636535	mg/kg		3
Ag	107	743.364	0.069999	mg/kg		3
Cd	112	1554.200	0.312927	mg/kg		3
Ba	138	1471991.867	58.932252	mg/kg		3
Pb	208	155330.794	10.543931	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 022
Method: 10-mich+mo.mth
Acq Time: 12:49:00 Tue 24-Jul-12
Sample Name: 53243.01 dil
Sample Type: Sample
Matrix: Soil
Comments: dil test 5/1
Dilution: 1190

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	13249.649	5.200079	mg/kg		3
Cu	65	12796.501	19.475464	mg/kg		3
Zn	66	10596.172	29.327394	mg/kg		3
As	75	2756.003	2.315525	mg/kg		3
Se	77	35.000	0.145553	mg/kg		3
Ag	107	201.669	0.063364	mg/kg		3
Cd	112	323.760	0.281294	mg/kg		3
Ba	138	312762.274	60.041985	mg/kg		3
Pb	208	32743.864	10.808788	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 023
Method: 10-mich+mo.mth
Acq Time: 12:52:08 Tue 24-Jul-12
Sample Name: 53243.02s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 225

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	30589.725	2.392305	mg/kg		3
Cu	65	15169.321	4.338163	mg/kg		3
Zn	66	16751.254	8.829750	mg/kg		3
As	75	3966.121	0.948786	mg/kg		3
Se	77	59.167	0.167156	mg/kg		3
Ag	107	241.670	0.015587	mg/kg		3
Cd	111	328.339	0.110244	mg/kg		3
Ba	138	519149.558	18.730716	mg/kg		3
Pb	208	100010.468	6.274228	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 024
Method: 10-mich+mo.mth
Acq Time: 12:54:38 Tue 24-Jul-12
Sample Name: 53243.03s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 220

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	46169.465	3.427788	mg/kg		3
Cu	65	89399.173	24.048388	mg/kg		3
Zn	66	20663.467	10.237623	mg/kg		3
As	75	4193.196	0.948633	mg/kg		3
Se	77	144.168	0.616878	mg/kg		3
Ag	107	451.678	0.032815	mg/kg		3
Cd	111	1860.190	0.624582	mg/kg		3
Ba	138	1482063.176	50.106273	mg/kg		3
Pb	208	148810.618	8.978146	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 025
Method: 10-mich+mo.mth
Acq Time: 12:57:33 Tue 24-Jul-12
Sample Name: 53243.04s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 210

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	25246.686	1.856249	mg/kg		3
Cu	65	20401.205	5.540982	mg/kg		3
Zn	66	27128.760	13.690875	mg/kg		3
As	75	4147.284	0.984373	mg/kg		3
Se	77	55.000	0.138809	mg/kg		3
Ag	107	163.335	0.007946	mg/kg		3
Cd	111	620.855	0.205592	mg/kg		3
Ba	138	595646.757	20.381221	mg/kg		3
Pb	208	47300.234	2.727525	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 026
Method: 10-mich+mo.mth
Acq Time: 13:00:04 Tue 24-Jul-12
Sample Name: 53243.05s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 226

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	135862.725	11.472893	mg/kg		3
Cu	65	61262.401	18.352311	mg/kg		3
Zn	66	68905.158	38.602147	mg/kg		3
As	75	20874.852	8.588524	mg/kg		3
Se	77	100.001	0.431781	mg/kg		3
Ag	107	643.356	0.055957	mg/kg		3
Cd	111	405.842	0.144759	mg/kg		3
Ba	138	1785043.078	67.239034	mg/kg		3
Pb	208	131528.834	8.521128	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 032
Method: 10-mich+mo.mth
Acq Time: 13:33:16 Tue 24-Jul-12
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	285351.444	0.102159	mg/L		3
Cu	65	77974.716	0.098588	mg/L		3
Zn	66	42894.309	0.101008	mg/L		3
As	75	55862.855	0.102174	mg/L		3
Se	77	3919.179	0.100417	mg/L		3
Ag	107	239520.852	0.099122	mg/L		3
Cd	111	62656.849	0.100280	mg/L		3
Ba	138	617776.976	0.098118	mg/L		3
Pb	208	356898.597	0.100780	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 033
Method: 10-mich+mo.mth
Acq Time: 13:38:41 Tue 24-Jul-12
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1284.257	-0.000012	mg/L		3
Cu	65	42.500	-0.000048	mg/L		3
Zn	66	212.503	-0.000462	mg/L		3
As	75	1668.790	-0.000182	mg/L		3
Se	77	30.000	-0.000018	mg/L		3
Ag	107	94.167	0.000007	mg/L		3
Cd	111	15.833	-0.000015	mg/L		3
Ba	138	463.946	-0.000035	mg/L		3
Pb	208	138.334	-0.000113	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 044
Method: 10-mich+mo.mth
Acq Time: 14:07:18 Tue 24-Jul-12
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	280417.706	0.101391	mg/L		3
Cu	65	75457.763	0.096355	mg/L		3
Zn	66	41594.943	0.098902	mg/L		3
As	75	53051.214	0.097868	mg/L		3
Se	77	3829.140	0.099096	mg/L		3
Ag	107	234762.885	0.098117	mg/L		3
Cd	111	61457.879	0.099348	mg/L		3
Ba	138	609450.860	0.097759	mg/L		3
Pb	208	342747.603	0.099648	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 045
Method: 10-mich+mo.mth
Acq Time: 14:10:50 Tue 24-Jul-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1180.910	-0.000034	mg/L		3
Cu	65	17.500	-0.000079	mg/L		3
Zn	66	116.667	-0.000681	mg/L		3
As	75	1715.641	0.000019	mg/L		3
Se	77	25.000	-0.000125	mg/L		3
Ag	107	93.334	0.000009	mg/L		3
Cd	111	15.833	-0.000014	mg/L		3
Ba	138	329.821	-0.000055	mg/L		3
Pb	208	122.501	-0.000117	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 046
Method: 10-mich+mo.mth
Acq Time: 14:12:54 Tue 24-Jul-12
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1230.083	-0.000022	mg/L		3
Cu	65	37.500	-0.000053	mg/L		3
Zn	66	185.002	-0.000518	mg/L		3
As	75	1595.834	-0.000258	mg/L		3
Se	77	27.500	-0.000070	mg/L		3
Ag	107	89.167	0.000006	mg/L		3
Cd	111	12.500	-0.000020	mg/L		3
Ba	138	448.942	-0.000036	mg/L		3
Pb	208	170.835	-0.000102	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 047
Method: 10-mich+mo.mth
Acq Time: 14:14:58 Tue 24-Jul-12
Sample Name: 0724_2 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	136693.645	0.050198	mg/L		3
Cu	65	37271.251	0.048527	mg/L		3
Zn	66	20235.001	0.048630	mg/L		3
As	75	27454.885	0.050118	mg/L		3
Se	77	1847.688	0.048424	mg/L		3
Ag	107	115762.850	0.049352	mg/L		3
Cd	111	30740.237	0.050709	mg/L		3
Ba	138	305165.436	0.049908	mg/L		3
Pb	208	171077.330	0.050338	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 048
Method: 10-mich+mo.mth
Acq Time: 14:18:33 Tue 24-Jul-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1188.411	-0.000026	mg/L		3
Cu	65	18.333	-0.000077	mg/L		3
Zn	66	104.167	-0.000708	mg/L		3
As	75	1590.041	-0.000185	mg/L		3
Se	77	35.833	0.000178	mg/L		3
Ag	107	80.834	0.000004	mg/L		3
Cd	111	7.500	-0.000028	mg/L		3
Ba	138	329.840	-0.000054	mg/L		3
Pb	208	139.168	-0.000112	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 049
Method: 10-mich+mo.mth
Acq Time: 14:20:39 Tue 24-Jul-12
Sample Name: LRB_2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1265.088	-0.000008	mg/L		3
Cu	65	34.167	-0.000057	mg/L		3
Zn	66	115.834	-0.000686	mg/L		3
As	75	1712.074	-0.000022	mg/L		3
Se	77	34.167	0.000108	mg/L		3
Ag	107	56.667	-0.000008	mg/L		3
Cd	111	7.500	-0.000028	mg/L		3
Ba	138	290.677	-0.000062	mg/L		3
Pb	208	89.167	-0.000127	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 055
Method: 10-mich+mo.mth
Acq Time: 14:38:21 Tue 24-Jul-12
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	276705.537	0.101134	mg/L		3
Cu	65	74397.350	0.096034	mg/L		3
Zn	66	41163.829	0.098941	mg/L		3
As	75	53702.960	0.100213	mg/L		3
Se	77	3836.643	0.100386	mg/L		3
Ag	107	229116.328	0.096801	mg/L		3
Cd	111	59653.440	0.097475	mg/L		3
Ba	138	598267.708	0.097016	mg/L		3
Pb	208	343308.712	0.099721	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 056
Method: 10-mich+mo.mth
Acq Time: 14:41:52 Tue 24-Jul-12
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1442.614	0.000065	mg/L		3
Cu	65	68.334	-0.000012	mg/L		3
Zn	66	205.836	-0.000460	mg/L		3
As	75	1638.565	-0.000131	mg/L		3
Se	77	35.833	0.000162	mg/L		3
Ag	107	134.168	0.000026	mg/L		3
Cd	111	15.000	-0.000016	mg/L		3
Ba	138	479.736	-0.000030	mg/L		3
Pb	208	147.501	-0.000109	mg/L		3

Metals Digestion

3015A (3050B)

DATE 07/24/12

TIME START 10:00

ANALYST AR

TIME FINISH 10:15

PREP BATCH MTD- 072412-2

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS - 2	----	50	50		—	1
LRB- 2	----	50	50		—	1
53243.01		0.263		dil 5/1 = 1190	80	238
02		0.264			84	225
03		0.267			85	220
04		0.261			91	210
05		0.273			81	226
53273.01		0.285		net wt. 175	86	203
02		0.275		182	80	228
03		0.261		192	84	228
04 MS		0.260		TO #03 192	84	228
05 MSD		0.261		192	84	228
06		0.264		189	92	205
07		0.268		186	86	216
08		0.267		187	79	237
09		0.280		178	92	193
10		0.273		183	90	203
11		0.276		181	92	197
12		0.270		185	85	218
13		0.272		184	86	214
14		0.283		177	97	182
15		0.269		186	97	192

NOTES: *1) Spike values (unless otherwise stated):*
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078 + D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 112563.3

3) HNO_3 Lot # 51332-Omni Trace *4) Centrifuge Tube Lot # 120201-960-1*

5) Balance ID: M1 *Reviewed by:* SM *On* 07/24/12

Form 0: Sequence Log

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	7/24/2012 2:03:26 PM	Calibration Blank	Liquid	
002	7/24/2012 2:05:41 PM	Standard #1	Liquid	
003	7/24/2012 2:07:55 PM	Standard #2	Liquid	
004	7/24/2012 2:10:09 PM	Standard #3	Liquid	
005	7/24/2012 2:12:22 PM	Standard #4	Liquid	
006	7/24/2012 2:14:35 PM	Standard #5	Liquid	
007	7/24/2012 2:16:46 PM	Standard #6	Liquid	
008	7/24/2012 2:20:00 PM	Standard #7	Liquid	
009	7/24/2012 2:23:59 PM	CCV1-2.0 ppb	Liquid	
010	7/24/2012 2:26:18 PM	CCB1	Liquid	CCB
011	7/24/2012 2:30:48 PM	CCV1-2.0 ppb	Liquid	CCV
012	7/24/2012 2:33:06 PM	ICV-5.0	Liquid	ICV
013	7/24/2012 2:36:57 PM	ICB	Liquid	ICB
014	7/24/2012 2:39:14 PM	ERA 8121-05 TV=15.9	Liquid	ERA
015	7/24/2012 2:42:38 PM	BS-0.10	Liquid	BS
016	7/24/2012 2:44:58 PM	07/24 LCS1-2.0 ppb	Soil	LCS
017	7/24/2012 2:47:19 PM	07/24 LRB1	Soil	
018	7/24/2012 2:52:19 PM	07/24 LRB1	Soil	LRB
019	7/24/2012 2:54:34 PM	53243.01s	Soil	S
020	7/24/2012 2:56:46 PM	53243.02s	Soil	S
021	7/24/2012 2:58:58 PM	53243.03s	Soil	S
022	7/24/2012 3:01:11 PM	53243.04s	Soil	S
023	7/24/2012 3:03:24 PM	53243.05s	Soil	S
024	7/24/2012 3:05:38 PM	53259.01s	Soil	S
025	7/24/2012 3:07:53 PM	53273.01s	Soil	S
026	7/24/2012 3:10:08 PM	53273.02s	Soil	S
027	7/24/2012 3:12:21 PM	53273.03s	Soil	S
028	7/24/2012 3:14:34 PM	53273.04s MS-2.0 ppb	Soil	MS
029	7/24/2012 3:16:47 PM	53273.05s MSD	Soil	MSD
030	7/24/2012 3:19:06 PM	CCV2-2.0 ppb	Liquid	CCV
031	7/24/2012 3:21:25 PM	CCB2	Liquid	CCB
032	7/24/2012 3:23:39 PM	53273.06s	Soil	S
033	7/24/2012 3:25:54 PM	53273.07s	Soil	S
034	7/24/2012 3:28:09 PM	53273.08s	Soil	S
035	7/24/2012 3:30:25 PM	53273.09s	Soil	S
036	7/24/2012 3:34:34 PM	53273.10s	Soil	S
037	7/24/2012 3:36:47 PM	53273.11s	Soil	S
038	7/24/2012 3:39:02 PM	53273.12s	Soil	S
039	7/24/2012 3:41:17 PM	53273.13s	Soil	S
040	7/24/2012 3:43:32 PM	53273.14s	Soil	S
041	7/24/2012 3:45:48 PM	53273.15s	Soil	S
042	7/24/2012 3:48:07 PM	CCV3-2.0 ppb	Liquid	CCV
043	7/24/2012 3:50:26 PM	CCB3	Liquid	CCB
044	7/24/2012 3:52:46 PM	07/24 LCS2-2.0 ppb	Liquid	LCS
045	7/24/2012 3:55:06 PM	07/24 LRB2	Liquid	LRB
046	7/24/2012 3:57:23 PM	53176.05s tclp	Liquid	S
047	7/24/2012 3:59:37 PM	53177.01s tclp	Liquid	S
048	7/24/2012 4:01:51 PM	53189.01s tclp	Liquid	S
049	7/24/2012 4:04:06 PM	53278.01s tclp	Liquid	S
050	7/24/2012 4:06:21 PM	53165.01s tclp	Liquid	S
051	7/24/2012 4:08:37 PM	53165.03s tclp	Liquid	S
052	7/24/2012 4:10:54 PM	53165.04s tclp	Liquid	S
053	7/24/2012 4:13:11 PM	53165.02s tclp	Liquid	S

Form 0: Sequence Log

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	7/24/2012 4:15:25 PM	53165.02 MS-2.0 ppb	Liquid	MS
055	7/24/2012 4:17:40 PM	53165.02 MSD	Liquid	MSD
056	7/24/2012 4:19:59 PM	CCV4-2.0 ppb	Liquid	CCV
057	7/24/2012 4:22:18 PM	CCB4	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53243.01
Sample Tag: SB 123 (07-16-12) (6-8)
Date Collected: 07/16/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	61	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53243.02
Sample Tag: SB 124 (07-16-12) (4-6)
Date Collected: 07/16/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	59	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53243.03
Sample Tag: SB 117 (07-16-12) (2-4)
Date Collected: 07/16/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.053	0.050	mg/kg	58	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53243.04
Sample Tag: SB 157 (07-17-12) (3-5)
Date Collected: 07/17/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	56	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53243.05
Sample Tag: SB 157 (07-17-12) (8-10)
Date Collected: 07/17/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	61	07/24/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
011 CCV1-2.0 ppb	CCV	1.0	Hg	1.976	2.0	99	90/110	ug/L	Liquid
012 ICV-5.0	ICV	1.0	Hg	5.267	5.0	105	90/110	ug/L	Liquid
030 CCV2-2.0 ppb	CCV	1.0	Hg	1.915	2.0	96	90/110	ug/L	Liquid
042 CCV3-2.0 ppb	CCV	1.0	Hg	1.963	2.0	98	90/110	ug/L	Liquid
056 CCV4-2.0 ppb	CCV	1.0	Hg	1.956	2.0	98	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: 8121-05

Data Set ID: HG2-12-0724A

Instrument ID: HG QuickTrace

Analysis Date: 07/24/12

Analyst: JRT

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
014 ERA 8121-05 TV=15.9	2.0	Hg	16.16	15.9	102	9.76	21.5	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0175	ug/L	Liquid
013 ICB	ICB	1.0	Hg	<0.03	-0.0198	ug/L	Liquid
018 07/24 LRB1	LRB	50.0	Hg	<1.0	0.7150	ug/kg	Soil
031 CCB2	CCB	1.0	Hg	<0.03	0.0063	ug/L	Liquid
043 CCB3	CCB	1.0	Hg	<0.03	-0.0301	ug/L	Liquid
045 07/24 LRB2	LRB	1.0	Hg	<0.03	-0.0221	ug/L	Liquid
057 CCB4	CCB	1.0	Hg	<0.03	-0.0363	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
015 BS-0.10		1.0	Hg	0.094	ND	0.10	94	70/130	ug/L	Liquid
028 53273.04s	**027 53273.03s**	59.7	Hg	133.0	<50	119.4	111	80/120	ug/kg	Soil
054 53165.02 MS-2.0	**053 53165.02s tclp**	2.0	Hg	4.010	<0.2	4.0	100	80/120	ug/L	Liquid

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
029 53273.05s MSD	**028 53273.04s MS-2.0**	59.7	Hg	138.9	133.0	4	0/20	ug/kg	Soil
055 53165.02 MSD	**054 53165.02 MS-2.0**	2.0	Hg	4.046	4.010	1	0/20	ug/L	Liquid

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
016 07/24 LCS1-2.0 ppb	50.0	Hg	105.0	100	105	85/115	ug/kg	Soil
044 07/24 LCS2-2.0 ppb	1.0	Hg	2.101	2.0	105	85/115	ug/L	Liquid

Form 13: Analysis Run Log

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	7/24/2012 2:03:26 PM	Liquid	Hg
002 Standard #1	7/24/2012 2:05:41 PM	Liquid	Hg
003 Standard #2	7/24/2012 2:07:55 PM	Liquid	Hg
004 Standard #3	7/24/2012 2:10:09 PM	Liquid	Hg
005 Standard #4	7/24/2012 2:12:22 PM	Liquid	Hg
006 Standard #5	7/24/2012 2:14:35 PM	Liquid	Hg
007 Standard #6	7/24/2012 2:16:46 PM	Liquid	Hg
008 Standard #7	7/24/2012 2:20:00 PM	Liquid	Hg
009 CCV1-2.0 ppb	7/24/2012 2:23:59 PM	Liquid	Hg
010 CCB1	7/24/2012 2:26:18 PM	Liquid	Hg
011 CCV1-2.0 ppb	7/24/2012 2:30:48 PM	Liquid	Hg
012 ICV-5.0	7/24/2012 2:33:06 PM	Liquid	Hg
013 ICB	7/24/2012 2:36:57 PM	Liquid	Hg
014 ERA 8121-05 TV=15.9	7/24/2012 2:39:14 PM	Liquid	Hg
015 BS-0.10	7/24/2012 2:42:38 PM	Liquid	Hg
016 07/24 LCS1-2.0 ppb	7/24/2012 2:44:58 PM	Soil	Hg
017 07/24 LRB1	7/24/2012 2:47:19 PM	Soil	Hg
018 07/24 LRB1	7/24/2012 2:52:19 PM	Soil	Hg
019 53243.01s	7/24/2012 2:54:34 PM	Soil	Hg
020 53243.02s	7/24/2012 2:56:46 PM	Soil	Hg
021 53243.03s	7/24/2012 2:58:58 PM	Soil	Hg
022 53243.04s	7/24/2012 3:01:11 PM	Soil	Hg
023 53243.05s	7/24/2012 3:03:24 PM	Soil	Hg
024 53259.01s	7/24/2012 3:05:38 PM	Soil	Hg
025 53273.01s	7/24/2012 3:07:53 PM	Soil	Hg
026 53273.02s	7/24/2012 3:10:08 PM	Soil	Hg
027 53273.03s	7/24/2012 3:12:21 PM	Soil	Hg
028 53273.04s MS-2.0 ppb	7/24/2012 3:14:34 PM	Soil	Hg
029 53273.05s MSD	7/24/2012 3:16:47 PM	Soil	Hg
030 CCV2-2.0 ppb	7/24/2012 3:19:06 PM	Liquid	Hg
031 CCB2	7/24/2012 3:21:25 PM	Liquid	Hg
032 53273.06s	7/24/2012 3:23:39 PM	Soil	Hg
033 53273.07s	7/24/2012 3:25:54 PM	Soil	Hg
034 53273.08s	7/24/2012 3:28:09 PM	Soil	Hg
035 53273.09s	7/24/2012 3:30:25 PM	Soil	Hg
036 53273.10s	7/24/2012 3:34:34 PM	Soil	Hg
037 53273.11s	7/24/2012 3:36:47 PM	Soil	Hg
038 53273.12s	7/24/2012 3:39:02 PM	Soil	Hg
039 53273.13s	7/24/2012 3:41:17 PM	Soil	Hg
040 53273.14s	7/24/2012 3:43:32 PM	Soil	Hg
041 53273.15s	7/24/2012 3:45:48 PM	Soil	Hg
042 CCV3-2.0 ppb	7/24/2012 3:48:07 PM	Liquid	Hg
043 CCB3	7/24/2012 3:50:26 PM	Liquid	Hg
044 07/24 LCS2-2.0 ppb	7/24/2012 3:52:46 PM	Liquid	Hg
045 07/24 LRB2	7/24/2012 3:55:06 PM	Liquid	Hg
046 53176.05s tclp	7/24/2012 3:57:23 PM	Liquid	Hg
047 53177.01s tclp	7/24/2012 3:59:37 PM	Liquid	Hg
048 53189.01s tclp	7/24/2012 4:01:51 PM	Liquid	Hg
049 53278.01s tclp	7/24/2012 4:04:06 PM	Liquid	Hg
050 53165.01s tclp	7/24/2012 4:06:21 PM	Liquid	Hg
051 53165.03s tclp	7/24/2012 4:08:37 PM	Liquid	Hg
052 53165.04s tclp	7/24/2012 4:10:54 PM	Liquid	Hg
053 53165.02s tclp	7/24/2012 4:13:11 PM	Liquid	Hg

Form 13: Analysis Run Log

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
054 53165.02 MS-2.0 ppb	7/24/2012 4:15:25 PM	Liquid	Hg
055 53165.02 MSD	7/24/2012 4:17:40 PM	Liquid	Hg
056 CCV4-2.0 ppb	7/24/2012 4:19:59 PM	Liquid	Hg
057 CCB4	7/24/2012 4:22:18 PM	Liquid	Hg

Data Set: HG2-12-0724A
Run Date: 07/24/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	7/24/2012 2:03:26 PM	Calibration Blank	1072.0000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	7/24/2012 2:05:41 PM	Standard #1	2284.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	7/24/2012 2:07:55 PM	Standard #2	3410.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	7/24/2012 2:10:09 PM	Standard #3	6984.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	7/24/2012 2:12:22 PM	Standard #4	12460.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	7/24/2012 2:14:35 PM	Standard #5	23680.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	7/24/2012 2:16:46 PM	Standard #6	68970.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	7/24/2012 2:20:00 PM	Standard #7	113600.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	7/24/2012 2:23:59 PM	CCV1-2.0 ppb	-131.0000	-0.1186	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	7/24/2012 2:26:18 PM	CCB1	1007.0000	-0.0175	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	7/24/2012 2:30:48 PM	CCV1-2.0 ppb	23440.0000	1.9760	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	7/24/2012 2:33:06 PM	ICV-5.0	60470.0000	5.2670	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	7/24/2012 2:36:57 PM	ICB	981.0000	-0.0198	ug/L	Liquid	1.0	1.0000	1.0000
Hg	014	7/24/2012 2:39:14 PM	ERA 8121-05 TV=15.9	92130.0000	16.1620	ug/L	Liquid	2.0	1.0000	2.0000
Hg	015	7/24/2012 2:42:38 PM	BS-0.10	2260.0000	0.0939	ug/L	Liquid	1.0	1.0000	1.0000
Hg	016	7/24/2012 2:44:58 PM	07/24 LCS1-2.0 ppb	24840.0000	105.0000	ug/kg	Soil	50.0	0.5000	25.0000
Hg	017	7/24/2012 2:47:19 PM	07/24 LRB1	1435.0000	1.0300	ug/kg	Soil	50.0	0.5000	25.0000
Hg	018	7/24/2012 2:52:19 PM	07/24 LRB1	1365.0000	0.7150	ug/kg	Soil	50.0	0.5000	25.0000
Hg	019	7/24/2012 2:54:34 PM	53243.01s	4500.0000	17.9902	ug/kg	Soil	61.4	0.4070	25.0000
Hg	020	7/24/2012 2:56:46 PM	53243.02s	3304.0000	11.0526	ug/kg	Soil	59.2	0.4220	25.0000
Hg	021	7/24/2012 2:58:58 PM	53243.03s	11660.0000	53.4233	ug/kg	Soil	57.5	0.4350	25.0000
Hg	022	7/24/2012 3:01:11 PM	53243.04s	2028.0000	4.0699	ug/kg	Soil	55.6	0.4500	25.0000
Hg	023	7/24/2012 3:03:24 PM	53243.05s	4410.0000	17.3219	ug/kg	Soil	60.8	0.4110	25.0000
Hg	030	7/24/2012 3:19:06 PM	CCV2-2.0 ppb	22750.0000	1.9150	ug/L	Liquid	1.0	1.0000	1.0000
Hg	031	7/24/2012 3:21:25 PM	CCB2	1275.0000	0.0063	ug/L	Liquid	1.0	1.0000	1.0000
Hg	042	7/24/2012 3:48:07 PM	CCV3-2.0 ppb	23300.0000	1.9630	ug/L	Liquid	1.0	1.0000	1.0000
Hg	043	7/24/2012 3:50:26 PM	CCB3	864.7000	-0.0301	ug/L	Liquid	1.0	1.0000	1.0000
Hg	044	7/24/2012 3:52:46 PM	07/24 LCS2-2.0 ppb	24850.0000	2.1010	ug/L	Liquid	1.0	1.0000	1.0000
Hg	045	7/24/2012 3:55:06 PM	07/24 LRB2	954.9000	-0.0221	ug/L	Liquid	1.0	1.0000	1.0000
Hg	056	7/24/2012 4:19:59 PM	CCV4-2.0 ppb	23210.0000	1.9560	ug/L	Liquid	1.0	1.0000	1.0000
Hg	057	7/24/2012 4:22:18 PM	CCB4	795.1000	-0.0363	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 10:30 | Beginning | End | DATE 07/24/12
TIME FINISH: 12:35 | TEMP: block #1 95 °C | block #1 95 °C | ANALYST DPM
PREP BATCH: HGD-072412-1 | block #2 95 °C | block #2 95 °C | REVIEWED BY SM
BALANCE ID: M1 | block #3 95 °C | block #3 95 °C | REVIEW DATE 07/24/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 1	------	0.5	--------	----------	50	25g	
LRB- 1	------	0.5	--------	----------	50	25g	
53234.01	1	0.588				1	
53243.01	1	0.509	80	0.407	61	1	
02	1	0.502	84	0.422	59	1	
03	1	0.512	85	0.435	57	1	
04	1	0.495	91	0.450	56	1	
05	1	0.507	81	0.411	61	1	
53259.01	1	0.499			50	1	
53273.01	1	0.501	86	0.431	58	1	
02	1	0.509	80	0.407	61	1	
03	1	0.499	85	0.424	59	1	
04 MS	1	0.499	84	0.419	60	1	
05 MSD	1	0.499	84	0.419	60	1	
06	1	0.502	92	0.462	54	1	
07	1	0.496	86	0.426	59	1	
08	1	0.498	79	0.393	64	1	
09	1	0.498	92	0.458	54	1	
10	1	0.509	90	0.458	54	1	
11	1	0.500	92	0.460	54	1	
12	1	0.502	85	0.427	58	1	
13	1	0.510	86	0.439	57	1	
14	1	0.498	97	0.483	52	1	
15	1	0.500	97	0.485	52	1	

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 113201 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)
Sand lot # TH121ZEMS

Effective Date 7/10/12

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 07/20/12 Date Finished: 7/23/12 Date Checked: 8/2/12

Time Started: ~~7:30~~ 15:00 Time Finished: 1400 Checked By: BB

Analyst: AMM Temperature: 103°c Batch: TS/TVS 7.20A

Time in Oven: 15:30 Balance ID: 51 Oven ID: OV1

Merit #	Dish #	Dish Wt. (g)	Wet Smpl. + Dish Wt. (g)	Dry Smpl + Dish Wt. (g)	Ash Smpl + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	1	1.37	1.37	1.37		100		
LCS	2	1.32	7.46	9.46		100		
53243.01	3	1.36	11.91	9.80		80	>1%	
Dup 1 .01	4	1.36	11.31	9.27		79		
.02	5	1.36	11.94	10.29		84		
.03	6	1.40	12.40	10.76		85		
.04	7	1.37	10.64	9.83		91		
.05	8	1.34	12.03	9.99		81		
53254 .01	9	1.26	13.55	12.42		92		
.02	10	1.40	13.21	11.83		89		
.03	11	1.35	10.99	9.54		85		
.04	12	1.40	12.53	11.35		89		
.05	13	1.27	9.67	8.72		89		
.06	14	1.27	13.36	12.04		90	>4.0%	
Dup 2 .06	15	1.36	12.91	11.59		89		
.07	16	1.35	15.7	12.46		77		
.08	17	1.37	9.96	8.27		80		
.09	18	1.32	9.55	8.46		87		
.10	19	1.38	12.87	10.69		81		
.11	20	1.35	10.96	9.84		88		
.12	21	1.29	11.38	10.25		89		
.13	22	1.25	13.01	11.28		85		
.14	23	1.35	10.89	9.68		77		
.17	24	1.36	11.84	10.53		86		

% LCS Recovery: 100% Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 1% Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): 1%

Method 5035A (High Level)
Extraction Sheet

Analyst: LBR
Date: 7-20-12
Batch QC ID#: _____

Merit Number	Tare wt (g)	Vial wt (g)	Sample wt.(g)	Methanol (mL)	Sonicate (min)	Time Start / End	Notes
53225.01	30.598	41.096	10.196	10	–	13:00	
02	31.172	41.980	10.554	11	✓		
53227.01	31.012	40.078	9.066	10	✓		
02	30.939	40.871	9.932	10	✓		
03	31.000	41.344	10.344	10	✓		
53228.01	31.001	44.334	13.453	13	✓		
02	30.980	41.501	10.521	11	✓		
03	30.900	41.801	10.961	11	✓		
53229.01	30.996	42.512	11.516	12	✓		
02	30.968	41.944	11.076	11	✓		
03	30.965	40.878	9.913	10	✓		
04	30.750	42.706	11.956	12	✓		
05	31.078	42.602	11.574	12	✓		
06	30.911	42.884	11.978	12	✓		
07	30.978	41.483	10.555	11	✓		
53243.01	30.944	51.898	20.954	21	✓		
02	30.980	56.778	25.798	26	✓		
03	30.832	47.940	17.108	17	✓		
04	30.810	47.763	16.953	17	✓		
05	30.929	53.224	22.300	22	✓		
53254.01	31.305	41.484	10.179	10	✓		
02	31.353	41.943	10.610	11	✓		
03	31.252	41.815	10.563	11	✓		
04	31.121	41.512	10.391	10	✓		
05	31.272	40.836	9.564	10	✓		
06	31.168	41.413	10.245	10	✓		
07	31.270	41.708	10.438	10	✓		
08	31.192	42.087	10.895	11	✓		
09	31.127	41.447	10.320	10	✓		
10	31.223	41.640	10.411	10	✓		
11	31.255	41.791	10.536	11	✓		
12	31.214	41.476	10.232	10	✓		
13	31.234	41.382	10.148	10	✓		
14	31.313	41.328	10.015	10	✓		
15	31.259	41.367	10.078	10	✓		
17	31.041	41.294	10.253	10	✓		
18	31.322	41.550	10.228	10	✓		
53274.75	31.247	41.320	10.073	10	✓		
26	31.186	41.651	10.465	10	✓	13:29	

Balance ID: VI
Methanol Lot: DE695 / 150349

Reviewed By: WAT
Date: 7-20-12

5035A High Level

Prepared by Merit Laboratories, Inc.

Effective Date 6/14/12

Solvent Lot #: 52069
Na2SO4 Lot #: 23k1C512
SSD #: PR120717
MS/LCS #: PP120706 / PP120713

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 7-20-2012
Time Started: 3:00
Time Ended: 5:30
Batch ID#: SP120720S01

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	amr		
	LCS	Sand	30.0 g					1		eV3	
	LCSD	Sand	30.0 g					1			
	LCS#2 DRO MS		30.0					1			
	LCSD#2 DRO MSD		30.0					1			
1	53229.02	Soil	30.0			1ml					
2	.03		30.0								
3	.04		30.0								
4	.05		30.1								
5	.06		30.0								
6	.07		30.0								
7	53230.01		30.0								
8	.02		30.0								
9	.03		30.2								
10	53243.01		30.0								
11	.02		30.0								
12	.03		30.0								
13	.04		30.4			2ml					
14	.05		30.0			1ml					
15	53254.01		30.0								
16	.02		30.0								
17	.03		31.0								
18	.04		30.0								
19	.05		30.0								
20	.06		30.0								

Reviewed by: [signature] On: 7/23 Balance ID: C2

Prepared by: Merit Laboratories, Inc.

Effective Date 8/1/2011

Hexane 51167
Ether/Hexane 51108129/52088
Na_2SO_4 0601C505
H_2SO_4 50328
SSD# 175510
PCB MS ID# 11MS04 Pest MS ID#

PCB/Pesticide Extraction
Method 3550B

Date 7-19-12
Time Started 9:50
Time Ended 16:00
Prep Batch ID# PA120719S01
Balance ID# E2

#	Merit #	Matrix	Sample Wt. (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Alumina Cleanup	Dioxin Cleanup	Turbo Vap	Notes
Initial Q.C.	BLANK	soil	20.0	Hexane	180	1	1		CM			ev2	
	LCS	↓	20.0	↓	↓	↓	↓	1	↓				
	LCSD	↓	20.0	↓	↓	↓	↓	1	↓				
	MS												
	MSD												
1	53202.01	soil	20.0	Hexane	180	1	1		CM			ev2	
2	53211.01	waste	3.3	↓	↓	↓	↓		↓	X		↓	
3	53238.03	sand	20.0										
4	.04	↓	20.0										
5	53239.01	Wipe	Wipe										
6	53243.01	soil	20.0										
7	.02	↓	20.1										
8	.03	↓	20.1										
9	.04	↓	20.0							X			
10	.05	↓	20.1										
11	53245.01	Paint	2.0							X			
12	.02	↓	2.0							X			
13	.03	↓	2.0							X			
14	53248.01	gravel	20.3										
15	.02	sludge	6.0							X	X		
16	53246.01	sludge	5.3	↓	↓	↓	↓		↓	X	X	↓	
17													
18													
19													
20													

Reviewed by: AB On: 8/2/12

Prepared by: Merit Laboratories, Inc.

Merit Laboratories, Inc.

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www.meritlabs.com

C.O.C. PAGE # 1 OF 1

69777

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: SUSAN HOERTT
COMPANY: HALEY & ALDRICH
ADDRESS: 8899 GANDER CREEK DR
CITY: MIAMISBURG STATE: OH ZIP CODE: 45342
PHONE NO.: 937.530.1408 FAX NO.: 937.530.1458 P.O. NO.: —
E-MAIL ADDRESS: SHoertt@haleyaldrich.com QUOTE NO.: —

INVOICE TO

CONTACT NAME: MELANIE SATANEK ☐ SAME
COMPANY: HALEY & ALDRICH
ADDRESS: 5755 GRANGER RD. STE 320
CITY: CLEVELAND STATE: OH ZIP CODE: 44131
PHONE NO.: 216.706.1320 E-MAIL ADDRESS: MSatanek@haleyaldrich.com

PROJECT NO./NAME: RACER GMPT LIVONIA
SAMPLER(S) - PLEASE PRINT/SIGN NAME: COREY BARNETT / C. Barnett

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications N/A
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES
Project Locations
☐ Detroit ☐ New York
☒ Other LIVONIA, MI
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TCL VOC	TCL PAH	TCL PCB	MI 10 METALS	Special Instructions
532430 1	07/16/12	1330	SB123 (07-16-12) (6-8)	S	2	1					1		X	X	X	X	
.02		1410	SB124 (07-16-12) (4-6)	S	2	1					1		X	X	X	X	
.03		1550	SB117 (07-16-12) (2-4)	S	2	1					1		X	X	X	X	
.04	07/17/12	1400	SB157 (07-17-12) (3-5)	S	2	1					1		X	X	X	X	
.05		1420	SB157 (07-17-12) (8-10)	S	2	1					1		X	X	X	X	
.06	07/16/12	0100	0908-071612-0001	L	1		1				•		X				TRIP BLANK

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
C. Barnett / H:A	☒ Sampler	07/18/12	1000
Mod		7-18-12	10:00

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
Andrea Ball	7/18/12	1140

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS

NOTES: TEMP. ON ARRIVAL 4.4

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S53243
Client: HALEYALDRICH (Haley & Aldrich)
Project: RACER GMPT Livonia
Submitted: 07/18/2012 11:40 Login User: ASB

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.4
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☒ No	☐ N/A	Do water VOC or TOX bottles contain headspace	
16.	☐ Yes	☒ No	☐ N/A	COC adequately filled out	Analyses has two different lists
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Prepared by Merit Laboratories

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Accounts Payable

Address: Haley & Aldrich, Inc.
70 Blanchard Rd.
Ste. 430
Burlington, MA 01803-5100

Phone: 617-886-7400 FAX: 617-886-7900

Email: Haley Aldrich Invoice Group

Set ID: S53243 Location: HALEYALDRICH (Haley & Aldrich)

Project: RACER GMPT Livonia PO #: PO12727 Site: Site # 1195

Submitted: 07/18/2012 11:40 Due Date: 08/01/2012 Collected by: Corey Barver Login by: ASB

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S53243.01	SB 123 (07-16-12) (6-8)	Soil	07/16/2012 13:30	69777
S53243.02	SB 124 (07-16-12) (4-6)	Soil	07/16/2012 14:10	69777
S53243.03	SB 117 (07-16-12) (2-4)	Soil	07/16/2012 15:50	69777
S53243.04	SB 157 (07-17-12) (3-5)	Soil	07/17/2012 14:00	69777
S53243.05	SB 157 (07-17-12) (8-10)	Soil	07/17/2012 14:20	69777
S53243.06	0908 -071612-0001	Liquid	07/16/2012 13:00	69777

Samples: S53243.01-05

Analysis Code	Analysis Title	Method	Units	Holding Date
1605S	Metal Digestion	3050B		01/12/2013
PNAEXTS	Semi Volatile Extraction	3550B		07/30/2012
1120S	Extraction, PCB	3550B		07/30/2012
4605	Total Solids	Std M 2540 B	%	08/13/2012
$58260TCL	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	mg/kg	07/30/2012
$PNA8270	Polynuclear Aromatics	SW8270C	mg/kg	08/25/2012
2115SMS	Arsenic	SW6020	mg/kg	01/12/2013
2120SMS	Barium	SW6020	mg/kg	01/12/2013
2135SMS	Cadmium	SW6020	mg/kg	01/12/2013
2145SMS	Chromium	SW6020	mg/kg	01/12/2013
2155SMS	Copper	SW6020	mg/kg	01/12/2013
2165SMS	Lead	SW6020	mg/kg	01/12/2013
2185S	Mercury	SW7471A	mg/kg	08/13/2012
2205SMS	Selenium	SW6020	mg/kg	01/12/2013
2215SMS	Silver	SW6020	mg/kg	01/12/2013
2245SMS	Zinc	SW6020	mg/kg	01/12/2013
1605HGS	Mercury Digestion	SW7471A		08/13/2012
$TCL8082C1	TCL PCB List (Column 1)	SW8082A	mg/kg	08/25/2012
$TCL8082C2	TCL PCB List (Column 2)	SW8082A	mg/kg	08/25/2012
METHEXT	5035 Methanol Extraction	5035		04/11/2015

Samples: S53243.06

Analysis Code	Analysis Title	Method	Units	Holding Date
$8260TCL	TCL Volatile Organics 8260	SW8260B	mg/L	07/30/2012

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HALEY & ALDRICH
RACER GMPT LIVONIA

SDG Batch:
53273

Pages 1 - 654

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HALEY & ALDRICH

PROJECT:
RACER GMPT LIVONIA

SDG Batch:
53273.01

Prepared by:
Merit Laboratories, Inc.

August 7, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53273.01 - .15

	References		Pages		Checklist	
Deliverable	**Merit**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	72	☑	☐
4. **Volatiles Data**			73	331		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			332	437		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
6. **PCB Data**			438	536		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
c. Standards Data (All Instruments)						
Initial Calibration of Multicomponent Data	F. 6	F. VI			☑	☐
Chromatograms and Quantitation Reports for all IC Standards					☑	☐
Calibration Check Standard	F. 7b	F. VII			☑	☐
Chromatograms and Quantitation Reports for all CC Standards					☑	☐
d. Raw QC Data						
Chromatograms and Quantitation Reports - Column 1					☑	☐
Chromatograms and Quantitation Reports - Column 2					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
10. **Miscellaneous Data**			648	650		
Preparation / Extraction logbooks					☑	☐
11. **Shipping / Receiving Documents**			651	654		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53273.01 - .15

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	72	☑	☐
7. **ICP/MS Metals Data**			537	618		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
8. **Mercury Data**			619	646		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
9. **Total Solids Data**			647	647		
Bench Sheet - sample and QC sample evaluation					☑	☐
11. **Shipping / Receiving Documents**			651	654		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: RACER GMPT LIVONIA
Merit IDs: S53273.01-S53273.15

Field Sampling: Corey Barnett performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (07/20/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120727A5:
- The CCC had the compounds Acetone and 2-Butanone (MEK) outside of control limits.

Run-Batch 120731A5:
- The CCC had the compound Dichlorodifluoromethane outside of control limits.

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PCBs: The organic method utilized for this SDG was 8082A (GC/ECD). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barbara Ball

Barb Ball
QA Officer

08/07/12
Date

Analytical Laboratory Report

Report ID: S53273.01(01)
Generated on 08/01/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53273.01-S53273.15
Project: RACER GMPT Livonia
Collected Date: 07/18/2012 - 07/20/2012
Submitted Date/Time: 07/20/2012 15:20
Sampled by: Corey Barnett
P.O. #: PO53273

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (15 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S53273.01	SB-132 (07-18-12)(20-22)	Soil	07/18/2012 14:30
S53273.02	SB-130 (07-18-12)(16-18)	Soil	07/18/2012 16:00
S53273.03	SB-159 (07-19-12)(7-9)	Soil	07/19/2012 08:40
S53273.04	SB-159 (07-19-12)(7-9) MS	Soil	07/19/2012 08:40
S53273.05	SB-159 (07-19-12)(7-9) MSD	Soil	07/19/2012 08:40
S53273.06	SB-158 (07-19-12)(3-5)	Soil	07/19/2012 09:15
S53273.07	SB-138 (07-19-12)(22.5-24.5)	Soil	07/19/2012 13:40
S53273.08	SB-140 (07-19-12)(10-12)	Soil	07/19/2012 15:00
S53273.09	SB-118 (07-19-12)(2-4)	Soil	07/19/2012 16:40
S53273.10	SB-171 (07-20-12)(10-12)	Soil	07/20/2012 08:15
S53273.11	DUP 1 (07-20-12)	Soil	07/20/2012 00:01
S53273.12	SB-147 (07-20-12) (8-10)	Soil	07/20/2012 10:40
S53273.13	SB-148 (07-20-12) (2.5-4.5)	Soil	07/20/2012 11:30
S53273.14	SB-150 (07-20-12) (2-4)	Soil	07/20/2012 13:40
S53273.15	DUP2 (07-20-12)	Soil	07/20/2012 00:01

Analytical Laboratory Report

Lab Sample ID: S53273.01
Sample Tag: SB-132 (07-18-12)(20-22)
Collected Date/Time: 07/18/2012 14:30
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	86	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	4.73	mg/kg	0.20	SW6020	07/24/12 13:08	PER	7440-38-2	
Barium	32.1	mg/kg	1.0	SW6020	07/24/12 13:08	PER	7440-39-3	
Cadmium	0.22	mg/kg	0.20	SW6020	07/24/12 13:08	PER	7440-43-9	
Chromium	5.76	mg/kg	0.50	SW6020	07/24/12 13:08	PER	7440-47-3	
Copper	17.9	mg/kg	0.50	SW6020	07/24/12 13:08	PER	7440-50-8	
Lead	7.96	mg/kg	0.30	SW6020	07/24/12 13:08	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:07	JRT	7439-97-6	
Selenium	0.66	mg/kg	0.50	SW6020	07/24/12 13:08	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:08	PER	7440-22-4	
Zinc	31.4	mg/kg	1.0	SW6020	07/24/12 13:08	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:08	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	83-32-9	

Lab Sample ID: S53273.01 (continued)
Sample Tag: SB-132 (07-18-12)(20-22)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 12:40	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 14:54	WAT	76-13-1	
Acetone	Not detected	ug/kg	990	5035/8260B	07/27/12 14:54	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 14:54	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 14:54	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 14:54	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	990	5035/8260B	07/27/12 14:54	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 14:54	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 14:54	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 14:54	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 14:54	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 14:54	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 14:54	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 14:54	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 14:54	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	75-27-4	
Methyl cyclohexane	100	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	108-87-2	

Lab Sample ID: S53273.01 (continued)
Sample Tag: SB-132 (07-18-12)(20-22)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	07/27/12 14:54	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 14:54	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.02
Sample Tag: SB-130 (07-18-12)(16-18)
Collected Date/Time: 07/18/2012 16:00
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	80	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	3.78	mg/kg	0.20	SW6020	07/24/12 13:11	PER	7440-38-2	
Barium	70.0	mg/kg	1.0	SW6020	07/24/12 13:11	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:11	PER	7440-43-9	
Chromium	6.85	mg/kg	0.50	SW6020	07/24/12 13:11	PER	7440-47-3	
Copper	19.0	mg/kg	0.50	SW6020	07/24/12 13:11	PER	7440-50-8	
Lead	8.76	mg/kg	0.30	SW6020	07/24/12 13:11	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:10	JRT	7439-97-6	
Selenium	0.67	mg/kg	0.50	SW6020	07/24/12 13:11	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:11	PER	7440-22-4	
Zinc	28.6	mg/kg	1.0	SW6020	07/24/12 13:11	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:18	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	83-32-9	

Lab Sample ID: S53273.02 (continued)
Sample Tag: SB-130 (07-18-12)(16-18)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 13:02	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	200	5035/8260B	07/27/12 15:14	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	07/27/12 15:14	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	07/27/12 15:14	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	07/27/12 15:14	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	07/27/12 15:14	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	07/27/12 15:14	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	07/27/12 15:14	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	200	5035/8260B	07/27/12 15:14	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	07/27/12 15:14	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	07/27/12 15:14	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	5035/8260B	07/27/12 15:14	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	07/27/12 15:14	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	156-59-2	
Chloroform	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	07/27/12 15:14	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	07/27/12 15:14	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	56-23-5	
Benzene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	108-87-2	

Lab Sample ID: S53273.02 (continued)
Sample Tag: SB-130 (07-18-12)(16-18)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	10061-01-5	
Toluene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT		
o-Xylene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	95-47-6	
Styrene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	98-82-8	
Bromoform	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	80	5035/8260B	07/27/12 15:14	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	200	5035/8260B	07/27/12 15:14	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.03
Sample Tag: SB-159 (07-19-12)(7-9)
Collected Date/Time: 07/19/2012 08:40
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	1.83	mg/kg	0.20	SW6020	07/24/12 13:16	PER	7440-38-2	
Barium	40.6	mg/kg	1.0	SW6020	07/24/12 13:16	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:16	PER	7440-43-9	
Chromium	5.47	mg/kg	0.50	SW6020	07/24/12 13:16	PER	7440-47-3	
Copper	5.98	mg/kg	0.50	SW6020	07/24/12 13:16	PER	7440-50-8	
Lead	5.84	mg/kg	0.30	SW6020	07/24/12 13:16	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:12	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:16	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:16	PER	7440-22-4	
Zinc	19.6	mg/kg	1.0	SW6020	07/24/12 13:16	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 14:34	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	83-32-9	

Lab Sample ID: S53273.03 (continued)
Sample Tag: SB-159 (07-19-12)(7-9)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 13:25	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/31/12 17:31	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/31/12 17:31	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/31/12 17:31	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/31/12 17:31	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/31/12 17:31	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	07/31/12 17:31	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/31/12 17:31	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/31/12 17:31	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/31/12 17:31	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/31/12 17:31	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/31/12 17:31	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/31/12 17:31	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/31/12 17:31	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/31/12 17:31	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	108-87-2	

Lab Sample ID: S53273.03 (continued)
Sample Tag: SB-159 (07-19-12)(7-9)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	07/31/12 17:31	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/31/12 17:31	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.04
Sample Tag: SB-159 (07-19-12)(7-9) MS
Collected Date/Time: 07/19/2012 08:40
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	84	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	26.6	mg/kg	0.20	SW6020	07/24/12 13:28	PER	7440-38-2	
Barium	65.4	mg/kg	1.0	SW6020	07/24/12 13:28	PER	7440-39-3	
Cadmium	23.9	mg/kg	0.20	SW6020	07/24/12 13:28	PER	7440-43-9	
Chromium	30.5	mg/kg	0.50	SW6020	07/24/12 13:28	PER	7440-47-3	
Copper	27.8	mg/kg	0.50	SW6020	07/24/12 13:28	PER	7440-50-8	
Lead	28.0	mg/kg	0.30	SW6020	07/24/12 13:28	PER	7439-92-1	
Mercury	0.133	mg/kg	0.050	SW7471A	07/24/12 15:14	JRT	7439-97-6	
Selenium	24.9	mg/kg	0.50	SW6020	07/24/12 13:28	PER	7782-49-2	
Silver	22.9	mg/kg	0.10	SW6020	07/24/12 13:28	PER	7440-22-4	
Zinc	42.4	mg/kg	1.0	SW6020	07/24/12 13:28	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	20	ug/kg	330	SW8082A	07/23/12 14:44	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	07/23/12 14:44	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	20	ug/kg	330	SW8082A	07/23/12 14:44	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 14:44	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	07/23/12 14:44	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	1,300	ug/kg	300	SW8270C	07/27/12 13:48	PL	83-32-9	1
1-Sample spiked at 2.0 mg/kg								

Lab Sample ID: S53273.04 (continued)
Sample Tag: SB-159 (07-19-12)(7-9) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	1,200	ug/kg	300	SW8270C	07/27/12 13:48	PL	208-96-8	1
Anthracene	1,200	ug/kg	300	SW8270C	07/27/12 13:48	PL	120-12-7	1
Benzo(a)anthracene	1,400	ug/kg	300	SW8270C	07/27/12 13:48	PL	56-55-3	1
Benzo(a)pyrene	1,400	ug/kg	300	SW8270C	07/27/12 13:48	PL	50-32-8	1
Benzo(b)fluoranthene	1,400	ug/kg	300	SW8270C	07/27/12 13:48	PL	205-99-2	1
Benzo(k)fluoranthene	1,500	ug/kg	300	SW8270C	07/27/12 13:48	PL	207-08-9	1
Benzo(ghi)perylene	1,300	ug/kg	300	SW8270C	07/27/12 13:48	PL	191-24-2	1
Chrysene	1,400	ug/kg	300	SW8270C	07/27/12 13:48	PL	218-01-9	1
Dibenzo(ah)anthracene	1,300	ug/kg	300	SW8270C	07/27/12 13:48	PL	53-70-3	1
Fluoranthene	1,200	ug/kg	300	SW8270C	07/27/12 13:48	PL	206-44-0	1
Fluorene	1,300	ug/kg	300	SW8270C	07/27/12 13:48	PL	86-73-7	1
Indeno(1,2,3-cd)pyrene	1,300	ug/kg	300	SW8270C	07/27/12 13:48	PL	193-39-5	1
Naphthalene	1,200	ug/kg	300	SW8270C	07/27/12 13:48	PL	91-20-3	1
Phenanthrene	1,300	ug/kg	300	SW8270C	07/27/12 13:48	PL	85-01-8	1
Pyrene	1,400	ug/kg	300	SW8270C	07/27/12 13:48	PL	129-00-0	1
2-Methylnaphthalene	1,100	ug/kg	300	SW8270C	07/27/12 13:48	PL	91-57-6	1
1-Methylnaphthalene	1,000	ug/kg	300	SW8270C	07/27/12 13:48	PL	90-12-0	1
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	3,200	ug/kg	100	5035/8260B	07/31/12 20:54	WAT	76-13-1	2
Acetone	3,000	ug/kg	1,100	5035/8260B	07/31/12 20:54	WAT	67-64-1	2
Carbon disulfide	2,600	ug/kg	400	5035/8260B	07/31/12 20:54	WAT	75-15-0	2
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	07/31/12 20:54	WAT	79-20-9	2
tert-Methyl butyl ether (MTBE)	3,200	ug/kg	400	5035/8260B	07/31/12 20:54	WAT	1634-04-4	2
2-Butanone (MEK)	3,200	ug/kg	1,100	5035/8260B	07/31/12 20:54	WAT	78-93-3	2
Dichlorodifluoromethane	2,680	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	75-71-8	2
Chloromethane	2,700	ug/kg	400	5035/8260B	07/31/12 20:54	WAT	74-87-3	2
Vinyl chloride	2,800	ug/kg	100	5035/8260B	07/31/12 20:54	WAT	75-01-4	2
Bromomethane	3,000	ug/kg	400	5035/8260B	07/31/12 20:54	WAT	74-83-9	2
Chloroethane	3,200	ug/kg	400	5035/8260B	07/31/12 20:54	WAT	75-00-3	2
Trichlorofluoromethane	3,400	ug/kg	100	5035/8260B	07/31/12 20:54	WAT	75-69-4	2
1,1-Dichloroethene	2,740	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	75-35-4	2
Methylene chloride	2,700	ug/kg	400	5035/8260B	07/31/12 20:54	WAT	75-09-2	2
trans-1,2-Dichloroethene	2,860	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	156-60-5	2
1,1-Dichloroethane	2,870	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	75-34-3	2
cis-1,2-Dichloroethene	2,920	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	156-59-2	2
Chloroform	2,960	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	67-66-3	2
1,1,1-Trichloroethane	3,190	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	71-55-6	2
Cyclohexane	2,600	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	110-82-7	2
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	07/31/12 20:54	WAT	108-10-1	2
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	07/31/12 20:54	WAT	591-78-6	2
Carbon tetrachloride	3,260	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	56-23-5	2
Benzene	3,030	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	71-43-2	2
1,2-Dichloroethane	3,140	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	107-06-2	2
Trichloroethene	3,220	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	79-01-6	2
1,2-Dichloropropane	3,020	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	78-87-5	2

1-Sample spiked at 2.0 mg/kg
2-Spiked at 2.5mg/kg

Lab Sample ID: S53273.04 (continued)
Sample Tag: SB-159 (07-19-12)(7-9) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Bromodichloromethane	3,240	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	75-27-4	1
Methyl cyclohexane	3,200	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	108-87-2	1
cis-1,3-Dichloropropene	3,270	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	10061-01-5	1
Toluene	3,170	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	108-88-3	1
trans-1,3-Dichloropropene	3,350	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	10061-02-6	1
1,1,2-Trichloroethane	3,140	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	79-00-5	1
Tetrachloroethene	3,170	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	127-18-4	1
Dibromochloromethane	3,420	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	124-48-1	1
1,2-Dibromoethane	3,310	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	106-93-4	1
Chlorobenzene	3,120	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	108-90-7	1
1,1,2,2-Tetrachloroethane	3,220	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	79-34-5	1
Ethylbenzene	3,220	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	100-41-4	1
p,m-Xylene	6,480	ug/kg	70	5035/8260B	07/31/12 20:54	WAT		1
o-Xylene	3,290	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	95-47-6	1
Styrene	3,240	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	100-42-5	1
Isopropylbenzene	3,350	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	98-82-8	1
Bromoform	3,220	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	75-25-2	1
1,3-Dichlorobenzene	3,250	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	541-73-1	1
1,4-Dichlorobenzene	3,190	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	106-46-7	1
1,2-Dichlorobenzene	3,280	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	95-50-1	1
1,2-Dibromo-3-chloropropane	3,690	ug/kg	70	5035/8260B	07/31/12 20:54	WAT	96-12-8	1
1,2,4-Trichlorobenzene	3,600	ug/kg	100	5035/8260B	07/31/12 20:54	WAT	120-82-1	1

1-Spiked at 2.5mg/kg

Analytical Laboratory Report

Lab Sample ID: S53273.05
Sample Tag: SB-159 (07-19-12)(7-9) MSD
Collected Date/Time: 07/19/2012 08:40
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	84	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	26.5	mg/kg	0.20	SW6020	07/24/12 13:30	PER	7440-38-2	
Barium	65.0	mg/kg	1.0	SW6020	07/24/12 13:30	PER	7440-39-3	
Cadmium	23.9	mg/kg	0.20	SW6020	07/24/12 13:30	PER	7440-43-9	
Chromium	30.6	mg/kg	0.50	SW6020	07/24/12 13:30	PER	7440-47-3	
Copper	28.0	mg/kg	0.50	SW6020	07/24/12 13:30	PER	7440-50-8	
Lead	27.9	mg/kg	0.30	SW6020	07/24/12 13:30	PER	7439-92-1	
Mercury	0.139	mg/kg	0.050	SW7471A	07/24/12 15:16	JRT	7439-97-6	
Selenium	25.2	mg/kg	0.50	SW6020	07/24/12 13:30	PER	7782-49-2	
Silver	22.8	mg/kg	0.10	SW6020	07/24/12 13:30	PER	7440-22-4	
Zinc	42.3	mg/kg	1.0	SW6020	07/24/12 13:30	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	20	ug/kg	330	SW8082A	07/23/12 14:55	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	07/23/12 14:55	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	20	ug/kg	330	SW8082A	07/23/12 14:55	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 14:55	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	07/23/12 14:55	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	1,400	ug/kg	300	SW8270C	07/27/12 14:10	PL	83-32-9	1
1-Sample spiked at 2.0 mg/kg								

Lab Sample ID: S53273.05 (continued)
Sample Tag: SB-159 (07-19-12)(7-9) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	1,300	ug/kg	300	SW8270C	07/27/12 14:10	PL	208-96-8	1
Anthracene	1,300	ug/kg	300	SW8270C	07/27/12 14:10	PL	120-12-7	1
Benzo(a)anthracene	1,400	ug/kg	300	SW8270C	07/27/12 14:10	PL	56-55-3	1
Benzo(a)pyrene	1,500	ug/kg	300	SW8270C	07/27/12 14:10	PL	50-32-8	1
Benzo(b)fluoranthene	1,500	ug/kg	300	SW8270C	07/27/12 14:10	PL	205-99-2	1
Benzo(k)fluoranthene	1,500	ug/kg	300	SW8270C	07/27/12 14:10	PL	207-08-9	1
Benzo(ghi)perylene	1,400	ug/kg	300	SW8270C	07/27/12 14:10	PL	191-24-2	1
Chrysene	1,400	ug/kg	300	SW8270C	07/27/12 14:10	PL	218-01-9	1
Dibenzo(ah)anthracene	1,400	ug/kg	300	SW8270C	07/27/12 14:10	PL	53-70-3	1
Fluoranthene	1,300	ug/kg	300	SW8270C	07/27/12 14:10	PL	206-44-0	1
Fluorene	1,400	ug/kg	300	SW8270C	07/27/12 14:10	PL	86-73-7	1
Indeno(1,2,3-cd)pyrene	1,400	ug/kg	300	SW8270C	07/27/12 14:10	PL	193-39-5	1
Naphthalene	1,200	ug/kg	300	SW8270C	07/27/12 14:10	PL	91-20-3	1
Phenanthrene	1,300	ug/kg	300	SW8270C	07/27/12 14:10	PL	85-01-8	1
Pyrene	1,500	ug/kg	300	SW8270C	07/27/12 14:10	PL	129-00-0	1
2-Methylnaphthalene	1,200	ug/kg	300	SW8270C	07/27/12 14:10	PL	91-57-6	1
1-Methylnaphthalene	1,100	ug/kg	300	SW8270C	07/27/12 14:10	PL	90-12-0	1
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	3,600	ug/kg	100	5035/8260B	07/31/12 21:14	WAT	76-13-1	2
Acetone	3,200	ug/kg	1,000	5035/8260B	07/31/12 21:14	WAT	67-64-1	2
Carbon disulfide	2,900	ug/kg	300	5035/8260B	07/31/12 21:14	WAT	75-15-0	2
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/31/12 21:14	WAT	79-20-9	2
tert-Methyl butyl ether (MTBE)	3,500	ug/kg	300	5035/8260B	07/31/12 21:14	WAT	1634-04-4	2
2-Butanone (MEK)	3,300	ug/kg	1,000	5035/8260B	07/31/12 21:14	WAT	78-93-3	2
Dichlorodifluoromethane	3,020	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	75-71-8	2
Chloromethane	3,000	ug/kg	300	5035/8260B	07/31/12 21:14	WAT	74-87-3	2
Vinyl chloride	3,100	ug/kg	100	5035/8260B	07/31/12 21:14	WAT	75-01-4	2
Bromomethane	3,300	ug/kg	300	5035/8260B	07/31/12 21:14	WAT	74-83-9	2
Chloroethane	3,400	ug/kg	300	5035/8260B	07/31/12 21:14	WAT	75-00-3	2
Trichlorofluoromethane	3,800	ug/kg	100	5035/8260B	07/31/12 21:14	WAT	75-69-4	2
1,1-Dichloroethene	3,060	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	75-35-4	2
Methylene chloride	3,000	ug/kg	300	5035/8260B	07/31/12 21:14	WAT	75-09-2	2
trans-1,2-Dichloroethene	3,200	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	156-60-5	2
1,1-Dichloroethane	3,180	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	75-34-3	2
cis-1,2-Dichloroethene	3,230	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	156-59-2	2
Chloroform	3,270	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	67-66-3	2
1,1,1-Trichloroethane	3,560	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	71-55-6	2
Cyclohexane	2,910	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	110-82-7	2
4-Methyl-2-pentanone (MIBK)	3,000	ug/kg	3,000	5035/8260B	07/31/12 21:14	WAT	108-10-1	2
2-Hexanone	4,000	ug/kg	3,000	5035/8260B	07/31/12 21:14	WAT	591-78-6	2
Carbon tetrachloride	3,680	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	56-23-5	2
Benzene	3,270	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	71-43-2	2
1,2-Dichloroethane	3,430	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	107-06-2	2
Trichloroethene	3,540	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	79-01-6	2
1,2-Dichloropropane	3,280	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	78-87-5	2

1-Sample spiked at 2.0 mg/kg
2-Spiked at 2.5mg/kg

Lab Sample ID: S53273.05 (continued)
Sample Tag: SB-159 (07-19-12)(7-9) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Bromodichloromethane	3,560	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	75-27-4	1
Methyl cyclohexane	3,520	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	108-87-2	1
cis-1,3-Dichloropropene	3,540	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	10061-01-5	1
Toluene	3,440	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	108-88-3	1
trans-1,3-Dichloropropene	3,630	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	10061-02-6	1
1,1,2-Trichloroethane	3,420	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	79-00-5	1
Tetrachloroethene	3,410	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	127-18-4	1
Dibromochloromethane	3,840	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	124-48-1	1
1,2-Dibromoethane	3,620	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	106-93-4	1
Chlorobenzene	3,420	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	108-90-7	1
1,1,2,2-Tetrachloroethane	3,470	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	79-34-5	1
Ethylbenzene	3,540	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	100-41-4	1
p,m-Xylene	7,040	ug/kg	70	5035/8260B	07/31/12 21:14	WAT		1
o-Xylene	3,590	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	95-47-6	1
Styrene	3,510	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	100-42-5	1
Isopropylbenzene	3,660	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	98-82-8	1
Bromoform	3,620	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	75-25-2	1
1,3-Dichlorobenzene	3,490	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	541-73-1	1
1,4-Dichlorobenzene	3,380	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	106-46-7	1
1,2-Dichlorobenzene	3,570	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	95-50-1	1
1,2-Dibromo-3-chloropropane	4,050	ug/kg	70	5035/8260B	07/31/12 21:14	WAT	96-12-8	1
1,2,4-Trichlorobenzene	3,700	ug/kg	100	5035/8260B	07/31/12 21:14	WAT	120-82-1	1

1-Spiked at 2.5mg/kg

Analytical Laboratory Report

Lab Sample ID: S53273.06
Sample Tag: SB-158 (07-19-12)(3-5)
Collected Date/Time: 07/19/2012 09:15
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	92	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	1.40	mg/kg	0.20	SW6020	07/24/12 13:40	PER	7440-38-2	
Barium	12.8	mg/kg	1.0	SW6020	07/24/12 13:40	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:40	PER	7440-43-9	
Chromium	2.09	mg/kg	0.50	SW6020	07/24/12 13:40	PER	7440-47-3	
Copper	3.95	mg/kg	0.50	SW6020	07/24/12 13:40	PER	7440-50-8	
Lead	3.32	mg/kg	0.30	SW6020	07/24/12 13:40	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:23	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:40	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:40	PER	7440-22-4	
Zinc	8.31	mg/kg	1.0	SW6020	07/24/12 13:40	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:29	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	83-32-9	

Lab Sample ID: S53273.06 (continued)
Sample Tag: SB-158 (07-19-12)(3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 14:33	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 15:54	WAT	76-13-1	
Acetone	Not detected	ug/kg	880	5035/8260B	07/27/12 15:54	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 15:54	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 15:54	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 15:54	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	880	5035/8260B	07/27/12 15:54	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 15:54	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 15:54	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 15:54	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 15:54	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 15:54	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 15:54	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 15:54	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 15:54	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	108-87-2	

Lab Sample ID: S53273.06 (continued)
Sample Tag: SB-158 (07-19-12)(3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	07/27/12 15:54	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 15:54	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.07
Sample Tag: SB-138 (07-19-12)(22.5-24.5)
Collected Date/Time: 07/19/2012 13:40
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	86	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	4.34	mg/kg	0.20	SW6020	07/24/12 13:43	PER	7440-38-2	
Barium	53.0	mg/kg	1.0	SW6020	07/24/12 13:43	PER	7440-39-3	
Cadmium	0.22	mg/kg	0.20	SW6020	07/24/12 13:43	PER	7440-43-9	
Chromium	5.93	mg/kg	0.50	SW6020	07/24/12 13:43	PER	7440-47-3	
Copper	15.9	mg/kg	0.50	SW6020	07/24/12 13:43	PER	7440-50-8	
Lead	7.34	mg/kg	0.30	SW6020	07/24/12 13:43	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:25	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:43	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:43	PER	7440-22-4	
Zinc	30.5	mg/kg	1.0	SW6020	07/24/12 13:43	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:39	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	83-32-9	

Lab Sample ID: S53273.07 (continued)
Sample Tag: SB-138 (07-19-12)(22.5-24.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 14:55	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 16:14	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/27/12 16:14	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 16:14	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 16:14	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 16:14	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	07/27/12 16:14	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 16:14	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 16:14	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 16:14	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 16:14	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 16:14	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 16:14	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 16:14	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 16:14	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	108-87-2	

Lab Sample ID: S53273.07 (continued)
Sample Tag: SB-138 (07-19-12)(22.5-24.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	07/27/12 16:14	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 16:14	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.08
Sample Tag: SB-140 (07-19-12)(10-12)
Collected Date/Time: 07/19/2012 15:00
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	79	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	1.27	mg/kg	0.20	SW6020	07/24/12 13:45	PER	7440-38-2	
Barium	54.1	mg/kg	1.0	SW6020	07/24/12 13:45	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:45	PER	7440-43-9	
Chromium	4.94	mg/kg	0.50	SW6020	07/24/12 13:45	PER	7440-47-3	
Copper	11.2	mg/kg	0.50	SW6020	07/24/12 13:45	PER	7440-50-8	
Lead	7.38	mg/kg	0.30	SW6020	07/24/12 13:45	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:28	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:45	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:45	PER	7440-22-4	
Zinc	22.5	mg/kg	1.0	SW6020	07/24/12 13:45	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 15:50	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	83-32-9	

Lab Sample ID: S53273.08 (continued)
Sample Tag: SB-140 (07-19-12)(10-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 15:18	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	200	5035/8260B	07/27/12 16:34	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	07/27/12 16:34	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	07/27/12 16:34	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	07/27/12 16:34	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	07/27/12 16:34	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	07/27/12 16:34	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	07/27/12 16:34	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	200	5035/8260B	07/27/12 16:34	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	07/27/12 16:34	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	07/27/12 16:34	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	5035/8260B	07/27/12 16:34	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	07/27/12 16:34	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	156-59-2	
Chloroform	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	07/27/12 16:34	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	07/27/12 16:34	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	56-23-5	
Benzene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	108-87-2	

Lab Sample ID: S53273.08 (continued)
Sample Tag: SB-140 (07-19-12)(10-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	10061-01-5	
Toluene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT		
o-Xylene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	95-47-6	
Styrene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	98-82-8	
Bromoform	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	80	5035/8260B	07/27/12 16:34	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	200	5035/8260B	07/27/12 16:34	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.09
Sample Tag: SB-118 (07-19-12)(2-4)
Collected Date/Time: 07/19/2012 16:40
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	92	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	0.79	mg/kg	0.20	SW6020	07/24/12 13:47	PER	7440-38-2	
Barium	5.78	mg/kg	1.0	SW6020	07/24/12 13:47	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:47	PER	7440-43-9	
Chromium	0.98	mg/kg	0.50	SW6020	07/24/12 13:47	PER	7440-47-3	
Copper	1.73	mg/kg	0.50	SW6020	07/24/12 13:47	PER	7440-50-8	
Lead	1.60	mg/kg	0.30	SW6020	07/24/12 13:47	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:30	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:47	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:47	PER	7440-22-4	
Zinc	5.94	mg/kg	1.0	SW6020	07/24/12 13:47	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:00	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	83-32-9	

Lab Sample ID: S53273.09 (continued)
Sample Tag: SB-118 (07-19-12)(2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 15:41	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 16:53	WAT	76-13-1	
Acetone	Not detected	ug/kg	880	5035/8260B	07/27/12 16:53	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 16:53	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 16:53	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 16:53	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	880	5035/8260B	07/27/12 16:53	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 16:53	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 16:53	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 16:53	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 16:53	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 16:53	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 16:53	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 16:53	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 16:53	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	108-87-2	

Lab Sample ID: S53273.09 (continued)
Sample Tag: SB-118 (07-19-12)(2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	07/27/12 16:53	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 16:53	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.10
Sample Tag: SB-171 (07-20-12)(10-12)
Collected Date/Time: 07/20/2012 08:15
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	90	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	4.48	mg/kg	0.20	SW6020	07/24/12 13:50	PER	7440-38-2	
Barium	19.8	mg/kg	1.0	SW6020	07/24/12 13:50	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:50	PER	7440-43-9	
Chromium	2.83	mg/kg	0.50	SW6020	07/24/12 13:50	PER	7440-47-3	
Copper	13.3	mg/kg	0.50	SW6020	07/24/12 13:50	PER	7440-50-8	
Lead	5.87	mg/kg	0.30	SW6020	07/24/12 13:50	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:34	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:50	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:50	PER	7440-22-4	
Zinc	29.5	mg/kg	1.0	SW6020	07/24/12 13:50	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:11	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	83-32-9	

Lab Sample ID: S53273.10 (continued)
Sample Tag: SB-171 (07-20-12)(10-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 16:03	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 17:13	WAT	76-13-1	
Acetone	Not detected	ug/kg	910	5035/8260B	07/27/12 17:13	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 17:13	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 17:13	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 17:13	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	910	5035/8260B	07/27/12 17:13	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 17:13	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 17:13	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 17:13	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 17:13	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 17:13	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 17:13	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 17:13	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 17:13	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	108-87-2	

Lab Sample ID: S53273.10 (continued)
Sample Tag: SB-171 (07-20-12)(10-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:13	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 17:13	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.11
Sample Tag: DUP 1 (07-20-12)
Collected Date/Time: 07/20/2012 00:01
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	92	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	4.05	mg/kg	0.20	SW6020	07/24/12 13:52	PER	7440-38-2	
Barium	19.8	mg/kg	1.0	SW6020	07/24/12 13:52	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:52	PER	7440-43-9	
Chromium	3.67	mg/kg	0.50	SW6020	07/24/12 13:52	PER	7440-47-3	
Copper	15.1	mg/kg	0.50	SW6020	07/24/12 13:52	PER	7440-50-8	
Lead	5.59	mg/kg	0.30	SW6020	07/24/12 13:52	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:36	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:52	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:52	PER	7440-22-4	
Zinc	24.7	mg/kg	1.0	SW6020	07/24/12 13:52	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:21	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	83-32-9	

Lab Sample ID: S53273.11 (continued)
Sample Tag: DUP 1 (07-20-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 16:26	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 17:33	WAT	76-13-1	
Acetone	Not detected	ug/kg	870	5035/8260B	07/27/12 17:33	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 17:33	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 17:33	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 17:33	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	870	5035/8260B	07/27/12 17:33	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 17:33	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 17:33	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 17:33	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 17:33	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 17:33	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 17:33	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 17:33	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 17:33	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	108-87-2	

Lab Sample ID: S53273.11 (continued)
Sample Tag: DUP 1 (07-20-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	07/27/12 17:33	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 17:33	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.12
Sample Tag: SB-147 (07-20-12) (8-10)
Collected Date/Time: 07/20/2012 10:40
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	3.12	mg/kg	0.20	SW6020	07/24/12 13:54	PER	7440-38-2	
Barium	27.7	mg/kg	1.0	SW6020	07/24/12 13:54	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:54	PER	7440-43-9	
Chromium	5.99	mg/kg	0.50	SW6020	07/24/12 13:54	PER	7440-47-3	
Copper	15.0	mg/kg	0.50	SW6020	07/24/12 13:54	PER	7440-50-8	
Lead	7.30	mg/kg	0.30	SW6020	07/24/12 13:54	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:39	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:54	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:54	PER	7440-22-4	
Zinc	24.8	mg/kg	1.0	SW6020	07/24/12 13:54	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:32	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	83-32-9	

Lab Sample ID: S53273.12 (continued)
Sample Tag: SB-147 (07-20-12) (8-10)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 16:49	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 17:53	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/27/12 17:53	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 17:53	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 17:53	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 17:53	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	07/27/12 17:53	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 17:53	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 17:53	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 17:53	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 17:53	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 17:53	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 17:53	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 17:53	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 17:53	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	108-87-2	

Lab Sample ID: S53273.12 (continued)
Sample Tag: SB-147 (07-20-12) (8-10)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	07/27/12 17:53	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 17:53	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.13
Sample Tag: SB-148 (07-20-12) (2.5-4.5)
Collected Date/Time: 07/20/2012 11:30
Matrix: Soil
COC Reference: 69778

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	86	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	0.97	mg/kg	0.20	SW6020	07/24/12 13:57	PER	7440-38-2	
Barium	27.0	mg/kg	1.0	SW6020	07/24/12 13:57	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:57	PER	7440-43-9	
Chromium	2.26	mg/kg	0.50	SW6020	07/24/12 13:57	PER	7440-47-3	
Copper	5.15	mg/kg	0.50	SW6020	07/24/12 13:57	PER	7440-50-8	
Lead	4.87	mg/kg	0.30	SW6020	07/24/12 13:57	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:41	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:57	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:57	PER	7440-22-4	
Zinc	8.05	mg/kg	1.0	SW6020	07/24/12 13:57	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:42	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	83-32-9	

Lab Sample ID: S53273.13 (continued)
Sample Tag: SB-148 (07-20-12) (2.5-4.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 17:11	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 18:14	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/27/12 18:14	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 18:14	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 18:14	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 18:14	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	07/27/12 18:14	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 18:14	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 18:14	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 18:14	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 18:14	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 18:14	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 18:14	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 18:14	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 18:14	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	108-87-2	

Lab Sample ID: S53273.13 (continued)
Sample Tag: SB-148 (07-20-12) (2.5-4.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	07/27/12 18:14	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 18:14	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.14
Sample Tag: SB-150 (07-20-12) (2-4)
Collected Date/Time: 07/20/2012 13:40
Matrix: Soil
COC Reference: 69779

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	97	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	0.57	mg/kg	0.20	SW6020	07/24/12 13:59	PER	7440-38-2	
Barium	7.58	mg/kg	1.0	SW6020	07/24/12 13:59	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 13:59	PER	7440-43-9	
Chromium	1.50	mg/kg	0.50	SW6020	07/24/12 13:59	PER	7440-47-3	
Copper	4.72	mg/kg	0.50	SW6020	07/24/12 13:59	PER	7440-50-8	
Lead	1.84	mg/kg	0.30	SW6020	07/24/12 13:59	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:43	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 13:59	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 13:59	PER	7440-22-4	
Zinc	6.60	mg/kg	1.0	SW6020	07/24/12 13:59	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 16:53	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	83-32-9	

Lab Sample ID: S53273.14 (continued)
Sample Tag: SB-150 (07-20-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 17:57	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 18:34	WAT	76-13-1	
Acetone	Not detected	ug/kg	780	5035/8260B	07/27/12 18:34	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 18:34	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 18:34	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 18:34	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	780	5035/8260B	07/27/12 18:34	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 18:34	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 18:34	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 18:34	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 18:34	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 18:34	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 18:34	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	156-59-2	
Chloroform	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 18:34	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 18:34	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	56-23-5	
Benzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	108-87-2	

Lab Sample ID: S53273.14 (continued)
Sample Tag: SB-150 (07-20-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	10061-01-5	
Toluene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT		
o-Xylene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	95-47-6	
Styrene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	98-82-8	
Bromoform	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:34	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 18:34	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53273.15
Sample Tag: DUP2 (07-20-12)
Collected Date/Time: 07/20/2012 00:01
Matrix: Soil
COC Reference: 69779

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.2	IR
1	4oz Glass	None	Yes	5.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/23/12 11:41	ADB		
Mercury Digestion	Completed			SW7471A	07/24/12 10:30	JRH		
Metal Digestion	Completed			3050B	07/24/12 10:00	PER		
PNA Extraction	Completed			3550B	07/26/12 12:20	CCM		
Inorganics								
Total Solids	97	%	1	Std M 2540 B	07/24/12 13:02	WAR		
Metals								
Arsenic	0.26	mg/kg	0.20	SW6020	07/24/12 14:01	PER	7440-38-2	
Barium	5.94	mg/kg	1.0	SW6020	07/24/12 14:01	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	07/24/12 14:01	PER	7440-43-9	
Chromium	1.03	mg/kg	0.50	SW6020	07/24/12 14:01	PER	7440-47-3	
Copper	2.80	mg/kg	0.50	SW6020	07/24/12 14:01	PER	7440-50-8	
Lead	1.55	mg/kg	0.30	SW6020	07/24/12 14:01	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/24/12 15:45	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	07/24/12 14:01	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	07/24/12 14:01	PER	7440-22-4	
Zinc	5.65	mg/kg	1.0	SW6020	07/24/12 14:01	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/23/12 17:03	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	83-32-9	

Lab Sample ID: S53273.15 (continued)
Sample Tag: DUP2 (07-20-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	07/27/12 17:34	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	07/27/12 18:54	WAT	76-13-1	
Acetone	Not detected	ug/kg	820	5035/8260B	07/27/12 18:54	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/27/12 18:54	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	07/27/12 18:54	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/27/12 18:54	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	820	5035/8260B	07/27/12 18:54	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/27/12 18:54	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	07/27/12 18:54	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/27/12 18:54	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/27/12 18:54	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/27/12 18:54	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/27/12 18:54	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	156-59-2	
Chloroform	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/27/12 18:54	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/27/12 18:54	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	56-23-5	
Benzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	108-87-2	

Lab Sample ID: S53273.15 (continued)
Sample Tag: DUP2 (07-20-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	10061-01-5	
Toluene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT		
o-Xylene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	95-47-6	
Styrene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	98-82-8	
Bromoform	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	50	5035/8260B	07/27/12 18:54	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/27/12 18:54	WAT	120-82-1	

Quality Control Cover Page

Report ID: S53273.01(01)
Report Date: 08/01/2012
Project: RACER GMPT Livonia
Lab Sample ID(s): S53273.01-S53273.15

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S53273.01	SB-132 (07-18-12)(20-22)	07/18/2012 14:30	Soil	Extraction / Prep., Inorganics, Metals,
S53273.02	SB-130 (07-18-12)(16-18)	07/18/2012 16:00	Soil	Extraction / Prep., Inorganics, Metals,
S53273.03	SB-159 (07-19-12)(7-9)	07/19/2012 08:40	Soil	Extraction / Prep., Inorganics, Metals,
S53273.04	SB-159 (07-19-12)(7-9) MS	07/19/2012 08:40	Soil	Extraction / Prep., Inorganics, Metals,
S53273.05	SB-159 (07-19-12)(7-9) MSD	07/19/2012 08:40	Soil	Extraction / Prep., Inorganics, Metals,
S53273.06	SB-158 (07-19-12)(3-5)	07/19/2012 09:15	Soil	Extraction / Prep., Inorganics, Metals,
S53273.07	SB-138 (07-19-12)(22.5-24.5)	07/19/2012 13:40	Soil	Extraction / Prep., Inorganics, Metals,
S53273.08	SB-140 (07-19-12)(10-12)	07/19/2012 15:00	Soil	Extraction / Prep., Inorganics, Metals,
S53273.09	SB-118 (07-19-12)(2-4)	07/19/2012 16:40	Soil	Extraction / Prep., Inorganics, Metals,
S53273.10	SB-171 (07-20-12)(10-12)	07/20/2012 08:15	Soil	Extraction / Prep., Inorganics, Metals,
S53273.11	DUP 1 (07-20-12)	07/20/2012 00:01	Soil	Extraction / Prep., Inorganics, Metals,
S53273.12	SB-147 (07-20-12) (8-10)	07/20/2012 10:40	Soil	Extraction / Prep., Inorganics, Metals,
S53273.13	SB-148 (07-20-12) (2.5-4.5)	07/20/2012 11:30	Soil	Extraction / Prep., Inorganics, Metals,
S53273.14	SB-150 (07-20-12) (2-4)	07/20/2012 13:40	Soil	Extraction / Prep., Inorganics, Metals,
S53273.15	DUP2 (07-20-12)	07/20/2012 00:01	Soil	Extraction / Prep., Inorganics, Metals,

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S53273.01(01)
Generated on 08/02/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53273.01-S53273.15
Project: RACER GMPT Livonia
Submitted Date/Time: 07/20/2012 15:20
Sampled by: Corey Barnett
P.O. #: PO53273

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-16)
Prep Batch Summary (Pages 17-22)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S53273.01
Sample Tag: SB-132 (07-18-12)(20-22)
Collected Date/Time: 07/18/2012 14:30
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:08	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:08	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:08	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:08	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:08	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:08	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:07	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:08	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:08	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:08	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 15:08	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 15:08	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 12:40	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 14:54	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53273.02
Sample Tag: SB-130 (07-18-12)(16-18)
Collected Date/Time: 07/18/2012 16:00
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:11	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:11	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:11	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:11	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:11	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:11	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:10	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:11	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:11	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:11	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 15:18	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 15:18	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 13:02	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 15:14	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53273.03
Sample Tag: SB-159 (07-19-12)(7-9)
Collected Date/Time: 07/19/2012 08:40
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:16	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:16	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:16	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:16	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:16	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:16	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:12	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:16	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:16	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:16	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 14:34	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 14:34	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 13:25	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/31/12 17:31	120731A5	VF120731S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53273.04
Sample Tag: SB-159 (07-19-12)(7-9) MS
Collected Date/Time: 07/19/2012 08:40
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:28	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:28	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:28	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:28	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:28	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:28	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:14	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:28	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:28	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:28	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 14:44	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 14:44	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 13:48	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/31/12 20:54	120731A5	VF120731S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53273.05
Sample Tag: SB-159 (07-19-12)(7-9) MSD
Collected Date/Time: 07/19/2012 08:40
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:30	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:30	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:30	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:30	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:30	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:30	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:16	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:30	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:30	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:30	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 14:55	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 14:55	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 14:10	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/31/12 21:14	120731A5	VF120731S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53273.06
Sample Tag: SB-158 (07-19-12)(3-5)
Collected Date/Time: 07/19/2012 09:15
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:40	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:40	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:40	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:40	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:40	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:40	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:23	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:40	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:40	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:40	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 15:29	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 15:29	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 14:33	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 15:54	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53273.07
Sample Tag: SB-138 (07-19-12)(22.5-24.5)
Collected Date/Time: 07/19/2012 13:40
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:43	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:43	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:43	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:43	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:43	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:43	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:25	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:43	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:43	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:43	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 15:39	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 15:39	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 14:55	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 16:14	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53273.08
Sample Tag: SB-140 (07-19-12)(10-12)
Collected Date/Time: 07/19/2012 15:00
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:45	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:45	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:45	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:45	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:45	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:45	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:28	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:45	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:45	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:45	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 15:50	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 15:50	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 15:18	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 16:34	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53273.09
Sample Tag: SB-118 (07-19-12)(2-4)
Collected Date/Time: 07/19/2012 16:40
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:47	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:47	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:47	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:47	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:47	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:47	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:30	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:47	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:47	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:47	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 16:00	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 16:00	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 15:41	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 16:53	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53273.10
Sample Tag: SB-171 (07-20-12)(10-12)
Collected Date/Time: 07/20/2012 08:15
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:50	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:50	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:50	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:50	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:50	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:50	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:34	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:50	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:50	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:50	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 16:11	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 16:11	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 16:03	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 17:13	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53273.11
Sample Tag: DUP 1 (07-20-12)
Collected Date/Time: 07/20/2012 00:01
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:36	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:52	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 16:21	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 16:21	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 16:26	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 17:33	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53273.12
Sample Tag: SB-147 (07-20-12) (8-10)
Collected Date/Time: 07/20/2012 10:40
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:39	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:54	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 16:32	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 16:32	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 16:49	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 17:53	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

Lab Sample ID: S53273.13
Sample Tag: SB-148 (07-20-12) (2.5-4.5)
Collected Date/Time: 07/20/2012 11:30
Matrix: Soil
COC Reference: 69778

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:41	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:57	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 16:42	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 16:42	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 17:11	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 18:14	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

Lab Sample ID: S53273.14
Sample Tag: SB-150 (07-20-12) (2-4)
Collected Date/Time: 07/20/2012 13:40
Matrix: Soil
COC Reference: 69779

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 13:59	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 13:59	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 13:59	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 13:59	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 13:59	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 13:59	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:43	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 13:59	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 13:59	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 13:59	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 16:53	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 16:53	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 17:57	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 18:34	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53273.15
Sample Tag: DUP2 (07-20-12)
Collected Date/Time: 07/20/2012 00:01
Matrix: Soil
COC Reference: 69779

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A	TS120723A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	07/24/12 14:01	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Barium	SW6020	07/24/12 14:01	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	07/24/12 14:01	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	07/24/12 14:01	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Copper	SW6020	07/24/12 14:01	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Lead	SW6020	07/24/12 14:01	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/24/12 15:45	HG2-12-0724A	HGD-072412-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	07/24/12 14:01	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Silver	SW6020	07/24/12 14:01	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	07/24/12 14:01	MT2-12-0724A	MTD-072412-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/23/12 17:03	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	07/23/12 17:03	A120723	PA120723S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	07/27/12 17:34	T120727	SP120726S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 18:54	120727A5	VF120727S1	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TS120723A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.01	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.02	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.03	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.04	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.05	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.06	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.07	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.08	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.09	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.10	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.11	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.12	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.13	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.14	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A
S53273.15	Total Solids	Std M 2540 B	07/24/12 13:02	TS120723A

Metals, Prep Batch ID: HGD-072412-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.01	Mercury	SW7471A	07/24/12 15:07	HG2-12-0724A
S53273.02	Mercury	SW7471A	07/24/12 15:10	HG2-12-0724A
S53273.03	Mercury	SW7471A	07/24/12 15:12	HG2-12-0724A
S53273.04	Mercury	SW7471A	07/24/12 15:14	HG2-12-0724A
S53273.05	Mercury	SW7471A	07/24/12 15:16	HG2-12-0724A
S53273.06	Mercury	SW7471A	07/24/12 15:23	HG2-12-0724A
S53273.07	Mercury	SW7471A	07/24/12 15:25	HG2-12-0724A
S53273.08	Mercury	SW7471A	07/24/12 15:28	HG2-12-0724A
S53273.09	Mercury	SW7471A	07/24/12 15:30	HG2-12-0724A
S53273.10	Mercury	SW7471A	07/24/12 15:34	HG2-12-0724A
S53273.11	Mercury	SW7471A	07/24/12 15:36	HG2-12-0724A
S53273.12	Mercury	SW7471A	07/24/12 15:39	HG2-12-0724A
S53273.13	Mercury	SW7471A	07/24/12 15:41	HG2-12-0724A
S53273.14	Mercury	SW7471A	07/24/12 15:43	HG2-12-0724A
S53273.15	Mercury	SW7471A	07/24/12 15:45	HG2-12-0724A

Metals, Prep Batch ID: MTD-072412-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.01	Arsenic	SW6020	07/24/12 13:08	MT2-12-0724A
S53273.01	Barium	SW6020	07/24/12 13:08	MT2-12-0724A
S53273.01	Cadmium	SW6020	07/24/12 13:08	MT2-12-0724A
S53273.01	Chromium	SW6020	07/24/12 13:08	MT2-12-0724A
S53273.01	Copper	SW6020	07/24/12 13:08	MT2-12-0724A
S53273.01	Lead	SW6020	07/24/12 13:08	MT2-12-0724A
S53273.01	Selenium	SW6020	07/24/12 13:08	MT2-12-0724A
S53273.01	Silver	SW6020	07/24/12 13:08	MT2-12-0724A
S53273.01	Zinc	SW6020	07/24/12 13:08	MT2-12-0724A
S53273.02	Arsenic	SW6020	07/24/12 13:11	MT2-12-0724A
S53273.02	Barium	SW6020	07/24/12 13:11	MT2-12-0724A
S53273.02	Cadmium	SW6020	07/24/12 13:11	MT2-12-0724A

Metals, Prep Batch ID: MTD-072412-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.02	Chromium	SW6020	07/24/12 13:11	MT2-12-0724A
S53273.02	Copper	SW6020	07/24/12 13:11	MT2-12-0724A
S53273.02	Lead	SW6020	07/24/12 13:11	MT2-12-0724A
S53273.02	Selenium	SW6020	07/24/12 13:11	MT2-12-0724A
S53273.02	Silver	SW6020	07/24/12 13:11	MT2-12-0724A
S53273.02	Zinc	SW6020	07/24/12 13:11	MT2-12-0724A
S53273.03	Arsenic	SW6020	07/24/12 13:16	MT2-12-0724A
S53273.03	Barium	SW6020	07/24/12 13:16	MT2-12-0724A
S53273.03	Cadmium	SW6020	07/24/12 13:16	MT2-12-0724A
S53273.03	Chromium	SW6020	07/24/12 13:16	MT2-12-0724A
S53273.03	Copper	SW6020	07/24/12 13:16	MT2-12-0724A
S53273.03	Lead	SW6020	07/24/12 13:16	MT2-12-0724A
S53273.03	Selenium	SW6020	07/24/12 13:16	MT2-12-0724A
S53273.03	Silver	SW6020	07/24/12 13:16	MT2-12-0724A
S53273.03	Zinc	SW6020	07/24/12 13:16	MT2-12-0724A
S53273.04	Arsenic	SW6020	07/24/12 13:28	MT2-12-0724A
S53273.04	Barium	SW6020	07/24/12 13:28	MT2-12-0724A
S53273.04	Cadmium	SW6020	07/24/12 13:28	MT2-12-0724A
S53273.04	Chromium	SW6020	07/24/12 13:28	MT2-12-0724A
S53273.04	Copper	SW6020	07/24/12 13:28	MT2-12-0724A
S53273.04	Lead	SW6020	07/24/12 13:28	MT2-12-0724A
S53273.04	Selenium	SW6020	07/24/12 13:28	MT2-12-0724A
S53273.04	Silver	SW6020	07/24/12 13:28	MT2-12-0724A
S53273.04	Zinc	SW6020	07/24/12 13:28	MT2-12-0724A
S53273.05	Arsenic	SW6020	07/24/12 13:30	MT2-12-0724A
S53273.05	Barium	SW6020	07/24/12 13:30	MT2-12-0724A
S53273.05	Cadmium	SW6020	07/24/12 13:30	MT2-12-0724A
S53273.05	Chromium	SW6020	07/24/12 13:30	MT2-12-0724A
S53273.05	Copper	SW6020	07/24/12 13:30	MT2-12-0724A
S53273.05	Lead	SW6020	07/24/12 13:30	MT2-12-0724A
S53273.05	Selenium	SW6020	07/24/12 13:30	MT2-12-0724A
S53273.05	Silver	SW6020	07/24/12 13:30	MT2-12-0724A
S53273.05	Zinc	SW6020	07/24/12 13:30	MT2-12-0724A
S53273.06	Arsenic	SW6020	07/24/12 13:40	MT2-12-0724A
S53273.06	Barium	SW6020	07/24/12 13:40	MT2-12-0724A
S53273.06	Cadmium	SW6020	07/24/12 13:40	MT2-12-0724A
S53273.06	Chromium	SW6020	07/24/12 13:40	MT2-12-0724A
S53273.06	Copper	SW6020	07/24/12 13:40	MT2-12-0724A
S53273.06	Lead	SW6020	07/24/12 13:40	MT2-12-0724A
S53273.06	Selenium	SW6020	07/24/12 13:40	MT2-12-0724A
S53273.06	Silver	SW6020	07/24/12 13:40	MT2-12-0724A
S53273.06	Zinc	SW6020	07/24/12 13:40	MT2-12-0724A
S53273.07	Arsenic	SW6020	07/24/12 13:43	MT2-12-0724A
S53273.07	Barium	SW6020	07/24/12 13:43	MT2-12-0724A
S53273.07	Cadmium	SW6020	07/24/12 13:43	MT2-12-0724A
S53273.07	Chromium	SW6020	07/24/12 13:43	MT2-12-0724A
S53273.07	Copper	SW6020	07/24/12 13:43	MT2-12-0724A
S53273.07	Lead	SW6020	07/24/12 13:43	MT2-12-0724A
S53273.07	Selenium	SW6020	07/24/12 13:43	MT2-12-0724A

Metals, Prep Batch ID: MTD-072412-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.07	Silver	SW6020	07/24/12 13:43	MT2-12-0724A
S53273.07	Zinc	SW6020	07/24/12 13:43	MT2-12-0724A
S53273.08	Arsenic	SW6020	07/24/12 13:45	MT2-12-0724A
S53273.08	Barium	SW6020	07/24/12 13:45	MT2-12-0724A
S53273.08	Cadmium	SW6020	07/24/12 13:45	MT2-12-0724A
S53273.08	Chromium	SW6020	07/24/12 13:45	MT2-12-0724A
S53273.08	Copper	SW6020	07/24/12 13:45	MT2-12-0724A
S53273.08	Lead	SW6020	07/24/12 13:45	MT2-12-0724A
S53273.08	Selenium	SW6020	07/24/12 13:45	MT2-12-0724A
S53273.08	Silver	SW6020	07/24/12 13:45	MT2-12-0724A
S53273.08	Zinc	SW6020	07/24/12 13:45	MT2-12-0724A
S53273.09	Arsenic	SW6020	07/24/12 13:47	MT2-12-0724A
S53273.09	Barium	SW6020	07/24/12 13:47	MT2-12-0724A
S53273.09	Cadmium	SW6020	07/24/12 13:47	MT2-12-0724A
S53273.09	Chromium	SW6020	07/24/12 13:47	MT2-12-0724A
S53273.09	Copper	SW6020	07/24/12 13:47	MT2-12-0724A
S53273.09	Lead	SW6020	07/24/12 13:47	MT2-12-0724A
S53273.09	Selenium	SW6020	07/24/12 13:47	MT2-12-0724A
S53273.09	Silver	SW6020	07/24/12 13:47	MT2-12-0724A
S53273.09	Zinc	SW6020	07/24/12 13:47	MT2-12-0724A
S53273.10	Arsenic	SW6020	07/24/12 13:50	MT2-12-0724A
S53273.10	Barium	SW6020	07/24/12 13:50	MT2-12-0724A
S53273.10	Cadmium	SW6020	07/24/12 13:50	MT2-12-0724A
S53273.10	Chromium	SW6020	07/24/12 13:50	MT2-12-0724A
S53273.10	Copper	SW6020	07/24/12 13:50	MT2-12-0724A
S53273.10	Lead	SW6020	07/24/12 13:50	MT2-12-0724A
S53273.10	Selenium	SW6020	07/24/12 13:50	MT2-12-0724A
S53273.10	Silver	SW6020	07/24/12 13:50	MT2-12-0724A
S53273.10	Zinc	SW6020	07/24/12 13:50	MT2-12-0724A
S53273.11	Arsenic	SW6020	07/24/12 13:52	MT2-12-0724A
S53273.11	Barium	SW6020	07/24/12 13:52	MT2-12-0724A
S53273.11	Cadmium	SW6020	07/24/12 13:52	MT2-12-0724A
S53273.11	Chromium	SW6020	07/24/12 13:52	MT2-12-0724A
S53273.11	Copper	SW6020	07/24/12 13:52	MT2-12-0724A
S53273.11	Lead	SW6020	07/24/12 13:52	MT2-12-0724A
S53273.11	Selenium	SW6020	07/24/12 13:52	MT2-12-0724A
S53273.11	Silver	SW6020	07/24/12 13:52	MT2-12-0724A
S53273.11	Zinc	SW6020	07/24/12 13:52	MT2-12-0724A
S53273.12	Arsenic	SW6020	07/24/12 13:54	MT2-12-0724A
S53273.12	Barium	SW6020	07/24/12 13:54	MT2-12-0724A
S53273.12	Cadmium	SW6020	07/24/12 13:54	MT2-12-0724A
S53273.12	Chromium	SW6020	07/24/12 13:54	MT2-12-0724A
S53273.12	Copper	SW6020	07/24/12 13:54	MT2-12-0724A
S53273.12	Lead	SW6020	07/24/12 13:54	MT2-12-0724A
S53273.12	Selenium	SW6020	07/24/12 13:54	MT2-12-0724A
S53273.12	Silver	SW6020	07/24/12 13:54	MT2-12-0724A
S53273.12	Zinc	SW6020	07/24/12 13:54	MT2-12-0724A
S53273.13	Arsenic	SW6020	07/24/12 13:57	MT2-12-0724A
S53273.13	Barium	SW6020	07/24/12 13:57	MT2-12-0724A

Metals, Prep Batch ID: MTD-072412-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.13	Cadmium	SW6020	07/24/12 13:57	MT2-12-0724A
S53273.13	Chromium	SW6020	07/24/12 13:57	MT2-12-0724A
S53273.13	Copper	SW6020	07/24/12 13:57	MT2-12-0724A
S53273.13	Lead	SW6020	07/24/12 13:57	MT2-12-0724A
S53273.13	Selenium	SW6020	07/24/12 13:57	MT2-12-0724A
S53273.13	Silver	SW6020	07/24/12 13:57	MT2-12-0724A
S53273.13	Zinc	SW6020	07/24/12 13:57	MT2-12-0724A
S53273.14	Arsenic	SW6020	07/24/12 13:59	MT2-12-0724A
S53273.14	Barium	SW6020	07/24/12 13:59	MT2-12-0724A
S53273.14	Cadmium	SW6020	07/24/12 13:59	MT2-12-0724A
S53273.14	Chromium	SW6020	07/24/12 13:59	MT2-12-0724A
S53273.14	Copper	SW6020	07/24/12 13:59	MT2-12-0724A
S53273.14	Lead	SW6020	07/24/12 13:59	MT2-12-0724A
S53273.14	Selenium	SW6020	07/24/12 13:59	MT2-12-0724A
S53273.14	Silver	SW6020	07/24/12 13:59	MT2-12-0724A
S53273.14	Zinc	SW6020	07/24/12 13:59	MT2-12-0724A
S53273.15	Arsenic	SW6020	07/24/12 14:01	MT2-12-0724A
S53273.15	Barium	SW6020	07/24/12 14:01	MT2-12-0724A
S53273.15	Cadmium	SW6020	07/24/12 14:01	MT2-12-0724A
S53273.15	Chromium	SW6020	07/24/12 14:01	MT2-12-0724A
S53273.15	Copper	SW6020	07/24/12 14:01	MT2-12-0724A
S53273.15	Lead	SW6020	07/24/12 14:01	MT2-12-0724A
S53273.15	Selenium	SW6020	07/24/12 14:01	MT2-12-0724A
S53273.15	Silver	SW6020	07/24/12 14:01	MT2-12-0724A
S53273.15	Zinc	SW6020	07/24/12 14:01	MT2-12-0724A

Organics - PCBs/Pesticides, Prep Batch ID: PA120723S01

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.01	TCL PCB List (Column 1)	SW8082A	07/23/12 15:08	A120723
S53273.01	TCL PCB List (Column 2)	SW8082A	07/23/12 15:08	A120723
S53273.02	TCL PCB List (Column 1)	SW8082A	07/23/12 15:18	A120723
S53273.02	TCL PCB List (Column 2)	SW8082A	07/23/12 15:18	A120723
S53273.03	TCL PCB List (Column 1)	SW8082A	07/23/12 14:34	A120723
S53273.03	TCL PCB List (Column 2)	SW8082A	07/23/12 14:34	A120723
S53273.04	TCL PCB List (Column 1)	SW8082A	07/23/12 14:44	A120723
S53273.04	TCL PCB List (Column 2)	SW8082A	07/23/12 14:44	A120723
S53273.05	TCL PCB List (Column 1)	SW8082A	07/23/12 14:55	A120723
S53273.05	TCL PCB List (Column 2)	SW8082A	07/23/12 14:55	A120723
S53273.06	TCL PCB List (Column 1)	SW8082A	07/23/12 15:29	A120723
S53273.06	TCL PCB List (Column 2)	SW8082A	07/23/12 15:29	A120723
S53273.07	TCL PCB List (Column 1)	SW8082A	07/23/12 15:39	A120723
S53273.07	TCL PCB List (Column 2)	SW8082A	07/23/12 15:39	A120723
S53273.08	TCL PCB List (Column 1)	SW8082A	07/23/12 15:50	A120723
S53273.08	TCL PCB List (Column 2)	SW8082A	07/23/12 15:50	A120723
S53273.09	TCL PCB List (Column 1)	SW8082A	07/23/12 16:00	A120723
S53273.09	TCL PCB List (Column 2)	SW8082A	07/23/12 16:00	A120723
S53273.10	TCL PCB List (Column 1)	SW8082A	07/23/12 16:11	A120723
S53273.10	TCL PCB List (Column 2)	SW8082A	07/23/12 16:11	A120723

Organics - PCBs/Pesticides, Prep Batch ID: PA120723S01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.11	TCL PCB List (Column 1)	SW8082A	07/23/12 16:21	A120723
S53273.11	TCL PCB List (Column 2)	SW8082A	07/23/12 16:21	A120723
S53273.12	TCL PCB List (Column 1)	SW8082A	07/23/12 16:32	A120723
S53273.12	TCL PCB List (Column 2)	SW8082A	07/23/12 16:32	A120723
S53273.13	TCL PCB List (Column 1)	SW8082A	07/23/12 16:42	A120723
S53273.13	TCL PCB List (Column 2)	SW8082A	07/23/12 16:42	A120723
S53273.14	TCL PCB List (Column 1)	SW8082A	07/23/12 16:53	A120723
S53273.14	TCL PCB List (Column 2)	SW8082A	07/23/12 16:53	A120723
S53273.15	TCL PCB List (Column 1)	SW8082A	07/23/12 17:03	A120723
S53273.15	TCL PCB List (Column 2)	SW8082A	07/23/12 17:03	A120723

Organics - Semi-Volatiles, Prep Batch ID: SP120726S01

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.01	Polynuclear Aromatics	SW8270C	07/27/12 12:40	T120727
S53273.02	Polynuclear Aromatics	SW8270C	07/27/12 13:02	T120727
S53273.03	Polynuclear Aromatics	SW8270C	07/27/12 13:25	T120727
S53273.04	Polynuclear Aromatics	SW8270C	07/27/12 13:48	T120727
S53273.05	Polynuclear Aromatics	SW8270C	07/27/12 14:10	T120727
S53273.06	Polynuclear Aromatics	SW8270C	07/27/12 14:33	T120727
S53273.07	Polynuclear Aromatics	SW8270C	07/27/12 14:55	T120727
S53273.08	Polynuclear Aromatics	SW8270C	07/27/12 15:18	T120727
S53273.09	Polynuclear Aromatics	SW8270C	07/27/12 15:41	T120727
S53273.10	Polynuclear Aromatics	SW8270C	07/27/12 16:03	T120727
S53273.11	Polynuclear Aromatics	SW8270C	07/27/12 16:26	T120727
S53273.12	Polynuclear Aromatics	SW8270C	07/27/12 16:49	T120727
S53273.13	Polynuclear Aromatics	SW8270C	07/27/12 17:11	T120727
S53273.14	Polynuclear Aromatics	SW8270C	07/27/12 17:57	T120727
S53273.15	Polynuclear Aromatics	SW8270C	07/27/12 17:34	T120727

Organics - Volatiles, Prep Batch ID: VF120727S1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.01	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 14:54	120727A5
S53273.02	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 15:14	120727A5
S53273.06	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 15:54	120727A5
S53273.07	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 16:14	120727A5
S53273.08	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 16:34	120727A5
S53273.09	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 16:53	120727A5
S53273.10	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 17:13	120727A5
S53273.11	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 17:33	120727A5
S53273.12	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 17:53	120727A5
S53273.13	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 18:14	120727A5
S53273.14	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 18:34	120727A5
S53273.15	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/27/12 18:54	120727A5

Organics - Volatiles, Prep Batch ID: VF120731S1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53273.03	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/31/12 17:31	120731A5
S53273.04	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/31/12 20:54	120731A5
S53273.05	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	07/31/12 21:14	120731A5

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes

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Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb27a.d	07/27/12 11:16	50ng/bfb 1s0727 [none]	WW	IP	**1**	
spcc27a.d	07/27/12 11:49	spcc/ccc 1s0727 1v0727 [none]	WW	CV	**1** **4**	
lcss27a.d	07/27/12 12:19	blank ms 1s0727 1m0727 vf120727s1	SO	MS	**1**	
lcss27b.d	07/27/12 12:39	blank msd 1s0727 1m0727 vf120727s1	SO	MS	**1**	
blks27a.d	07/27/12 13:58	100ul blank 1s0727 vf120727s1	SO	Bl	**1**	
5327301.d	07/27/12 14:54	100ul 1s0727 vf120727s1	SO		**1**	
5327302.d	07/27/12 15:14	100ul 1s0727 vf120727s1	SO		**1**	
5327306.d	07/27/12 15:54	100ul 1s0727 vf120727s1	SO		**1**	
5327307.d	07/27/12 16:14	100ul 1s0727 vf120727s1	SO		**1**	
5327308.d	07/27/12 16:34	100ul 1s0727 vf120727s1	SO		**1**	
5327309.d	07/27/12 16:53	100ul 1s0727 vf120727s1	SO		**1**	
5327310.d	07/27/12 17:13	100ul 1s0727 vf120727s1	SO		**1**	
5327311.d	07/27/12 17:33	100ul 1s0727 vf120727s1	SO		**1**	
5327312.d	07/27/12 17:53	100ul 1s0727 vf120727s1	SO		**1**	
5327313.d	07/27/12 18:14	100ul 1s0727 vf120727s1	SO		**1**	
5327314.d	07/27/12 18:34	100ul 1s0727 vf120727s1	SO		**1**	
5327315.d	07/27/12 18:54	100ul 1s0727 vf120727s1	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	12
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes

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Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb31a.d	07/31/12 11:28	50ng/bfb 1s0731 [none]	WW	IP	**1**	
spcc31a.d	07/31/12 11:56	spcc/ccc 1s0731 1v0731 [none]	WW	CV	**1**	**4**
lcss31a.d	07/31/12 12:25	100ul blankms 1s0731 1m0731 vf120731s1	SO	MS	**1**	
lcss31b.d	07/31/12 12:46	100ul blankmsd 1s0731 1m0731 vf120731s1	SO	MS	**1**	
blks31a.d	07/31/12 14:07	100ul blank 1s0731 vf120731s1	SO	Bl	**1**	
5327303.d	07/31/12 17:31	100ul 1s0731 vf120731s1	SO		**1**	
5327304m.d	07/31/12 20:54	100ul ms 1s0731 1m0731 vf120731s1	SO	MS	**1**	
5327305n.d	07/31/12 21:14	100ul msd 1s0731 1m0731 vf120731s1	SO	MS	**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	3
Water Duplicates:	0	Soil Duplicates:	2
Water Spikes:	0	Soil Spikes:	4
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc27a.d	4-Bromofluorobenzene	49.9/ 50.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	46.3/ 50.0	n/a	77.0/121.0	
	Toluene-D8	50.3/ 50.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcss27a.d	4-Bromofluorobenzene	50.7/ 50.0	101.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.1/ 50.0	92.2	71.0/124.0	
	Toluene-D8	49.6/ 50.0	99.1	83.0/120.0	
				Total Outliers: 0	
lcss27b.d	4-Bromofluorobenzene	50.5/ 50.0	101.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.7/ 50.0	93.3	71.0/124.0	
	Toluene-D8	50.8/ 50.0	101.5	83.0/120.0	
				Total Outliers: 0	
blks27a.d	4-Bromofluorobenzene	51.0/ 50.0	102.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.8/ 50.0	87.5	71.0/124.0	
	Toluene-D8	49.1/ 50.0	98.2	83.0/120.0	
				Total Outliers: 0	
5327301.d	4-Bromofluorobenzene	49.9/ 50.0	99.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.2/ 50.0	86.4	71.0/124.0	
	Toluene-D8	48.7/ 50.0	97.4	83.0/120.0	
				Total Outliers: 0	
5327302.d	4-Bromofluorobenzene	50.9/ 50.0	101.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.8/ 50.0	87.6	71.0/124.0	
	Toluene-D8	49.4/ 50.0	98.9	83.0/120.0	
				Total Outliers: 0	
5327306.d	4-Bromofluorobenzene	49.8/ 50.0	99.6	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.9/ 50.0	87.8	71.0/124.0	
	Toluene-D8	49.6/ 50.0	99.2	83.0/120.0	
				Total Outliers: 0	
5327307.d	4-Bromofluorobenzene	50.2/ 50.0	100.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.3/ 50.0	88.6	71.0/124.0	
	Toluene-D8	49.4/ 50.0	98.8	83.0/120.0	
				Total Outliers: 0	
5327308.d	4-Bromofluorobenzene	50.1/ 50.0	100.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.4/ 50.0	88.8	71.0/124.0	
	Toluene-D8	48.9/ 50.0	97.7	83.0/120.0	
				Total Outliers: 0	
5327309.d	4-Bromofluorobenzene	50.1/ 50.0	100.3	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.4/ 50.0	88.8	71.0/124.0	
	Toluene-D8	49.5/ 50.0	98.9	83.0/120.0	
				Total Outliers: 0	
5327310.d	4-Bromofluorobenzene	49.9/ 50.0	99.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.0/ 50.0	89.9	71.0/124.0	
	Toluene-D8	48.8/ 50.0	97.7	83.0/120.0	
				Total Outliers: 0	
5327311.d	4-Bromofluorobenzene	50.7/ 50.0	101.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.0/ 50.0	89.9	71.0/124.0	
	Toluene-D8	49.3/ 50.0	98.5	83.0/120.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5327312.d	4-Bromofluorobenzene	49.4/ 50.0	98.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.3/ 50.0	88.6	71.0/124.0	
	Toluene-D8	49.1/ 50.0	98.2	83.0/120.0	
				Total Outliers:	**0**
5327313.d	4-Bromofluorobenzene	49.7/ 50.0	99.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.7/ 50.0	89.4	71.0/124.0	
	Toluene-D8	49.3/ 50.0	98.6	83.0/120.0	
				Total Outliers:	**0**
5327314.d	4-Bromofluorobenzene	49.6/ 50.0	99.2	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.7/ 50.0	87.5	71.0/124.0	
	Toluene-D8	48.3/ 50.0	96.6	83.0/120.0	
				Total Outliers:	**0**
5327315.d	4-Bromofluorobenzene	49.5/ 50.0	99.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.4/ 50.0	86.8	71.0/124.0	
	Toluene-D8	49.0/ 50.0	98.1	83.0/120.0	
				Total Outliers:	**0**

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
spcc31a.d	4-Bromofluorobenzene	50.1/ 50.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	46.0/ 50.0	n/a	77.0/121.0	
	Toluene-D8	50.7/ 50.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcss31a.d	4-Bromofluorobenzene	50.2/ 50.0	100.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.5/ 50.0	93.0	71.0/124.0	
	Toluene-D8	50.6/ 50.0	101.3	83.0/120.0	
				Total Outliers: 0	
lcss31b.d	4-Bromofluorobenzene	50.2/ 50.0	100.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	48.0/ 50.0	96.1	71.0/124.0	
	Toluene-D8	50.5/ 50.0	101.1	83.0/120.0	
				Total Outliers: 0	
blks31a.d	4-Bromofluorobenzene	50.5/ 50.0	101.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.3/ 50.0	90.5	71.0/124.0	
	Toluene-D8	49.4/ 50.0	98.7	83.0/120.0	
				Total Outliers: 0	
5327303.d	4-Bromofluorobenzene	50.3/ 50.0	100.5	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.3/ 50.0	94.5	71.0/124.0	
	Toluene-D8	49.3/ 50.0	98.6	83.0/120.0	
				Total Outliers: 0	
5327304m.d	4-Bromofluorobenzene	49.9/ 50.0	99.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	49.7/ 50.0	99.4	71.0/124.0	
	Toluene-D8	50.4/ 50.0	100.8	83.0/120.0	
				Total Outliers: 0	
5327305n.d	4-Bromofluorobenzene	49.6/ 50.0	99.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	50.3/ 50.0	100.7	71.0/124.0	
	Toluene-D8	50.5/ 50.0	101.0	83.0/120.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Dup File : lcss27b.d
Dup ID : LCS1
Prep Batch: vf120727s1
Prep Date : 07/27/12
Parent File: lcss27a.d

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
1,1,2-trichloro-1,2,2-trifluoroethane	57.42/ 50.76	12.3/25.0	SO
diethyl ether (*)	49.50/ 44.33	11.0/25.0	
acetone (*)	34.39/ 32.16	6.7/25.0	
methyl iodide (iodomethane) (*)	51.12/ 46.28	9.9/25.0	
carbon disulfide (*)	48.14/ 43.39	10.4/25.0	
methyl acetate	42.29/ 39.29	7.4/25.0	
tert-methyl butyl ether (mtbe) (*)	50.19/ 45.38	10.1/25.0	
acrylonitrile (*)	47.19/ 43.50	8.1/25.0	
2-butanone (mek) (*)	35.61/ 32.17	10.2/25.0	
dichlorodifluoromethane	50.40/ 46.39	8.3/25.0	
chloromethane (spcc)	51.15/ 44.13	14.7/25.0	
vinyl chloride (ccc)	52.53/ 46.29	12.6/25.0	
bromomethane	53.32/ 45.64	15.5/25.0	
chloroethane	55.23/ 48.48	13.0/25.0	
trichlorofluoromethane	61.74/ 55.54	10.6/25.0	
1,1-dichloroethene (ccc/ms)	50.18/ 46.18	8.3/25.0	
methylene chloride	46.19/ 42.38	8.6/25.0	
trans-1,2-dichloroethene	49.57/ 45.66	8.2/25.0	
1,1-dichloroethane (spcc)	48.82/ 44.64	8.9/25.0	
cis-1,2-dichloroethene	49.93/ 45.19	10.0/25.0	
tetrahydrofuran	39.99/ 36.81	8.3/25.0	
chloroform (ccc)	50.31/ 45.32	10.4/25.0	
bromochloromethane	49.46/ 44.86	9.8/25.0	
1,1,1-trichloroethane	55.45/ 49.74	10.9/25.0	
1,1-dichloropropene	2.70/ 0.00	200.0/25.0*	
cyclohexane	48.03/ 43.68	9.5/25.0	
4-methyl-2-pentanone (mibk) (*)	47.36/ 43.25	9.1/25.0	
2-hexanone (*)	44.18/ 40.42	8.9/25.0	
carbon tetrachloride	59.23/ 54.39	8.5/25.0	
benzene (ms)	52.49/ 47.81	9.3/25.0	
1,2-dichloroethane	52.66/ 48.18	8.9/25.0	
trichloroethene (ms)	55.29/ 50.10	9.8/25.0	
1,2-dichloropropane (ccc)	51.77/ 46.47	10.8/25.0	
bromodichloromethane	56.22/ 49.94	11.8/25.0	
methyl cyclohexane	56.39/ 52.35	7.4/25.0	
dibromomethane	54.68/ 49.61	9.7/25.0	
cis-1,3-dichloropropene	56.19/ 50.16	11.3/25.0	
toluene (ccc/ms)	55.23/ 49.09	11.8/25.0	
trans-1,3-dichloropropene	57.12/ 51.04	11.2/25.0	
1,1,2-trichloroethane	52.13/ 45.78	13.0/25.0	
tetrachloroethene	55.51/ 50.07	10.3/25.0	
trans-1,4-dichloro-2-butene	51.38/ 49.26	4.2/25.0	
dibromochloromethane	58.46/ 52.28	11.2/25.0	
1,2-dibromoethane	53.95/ 49.05	9.5/25.0	
chlorobenzene (spcc/ms)	54.18/ 48.99	10.1/25.0	
1,1,1,2-tetrachloroethane	57.08/ 51.21	10.8/25.0	
ethylbenzene (ccc)	56.37/ 51.26	9.5/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
p,m-xylene	112.99/102.71	9.5/25.0	
o-xylene	57.10/ 51.34	10.6/25.0	
styrene	55.75/ 50.82	9.3/25.0	
isopropylbenzene	58.33/ 52.59	10.3/25.0	
bromoform (spcc)	53.76/ 49.85	7.5/25.0	
1,1,2,2-tetrachloroethane (spcc)	51.74/ 48.18	7.1/25.0	
1,2,3-trichloropropane	51.77/ 49.03	5.4/25.0	
n-propylbenzene	58.14/ 53.33	8.6/25.0	
bromobenzene	55.24/ 50.06	9.8/25.0	
1,3,5-trimethylbenzene	57.64/ 52.09	10.1/25.0	
tert-butylbenzene	58.01/ 53.26	8.5/25.0	
1,2,4-trimethylbenzene	58.85/ 53.81	8.9/25.0	
sec-butylbenzene	58.31/ 51.81	11.8/25.0	
p-isopropyltoluene	60.06/ 53.51	11.5/25.0	
1,3-dichlorobenzene	54.85/ 50.30	8.7/25.0	
1,4-dichlorobenzene	53.88/ 48.97	9.5/25.0	
1,2-dichlorobenzene	54.24/ 49.27	9.6/25.0	
1,2,3-trimethylbenzene	55.25/ 48.89	12.2/25.0	
n-butylbenzene	58.04/ 52.43	10.2/25.0	
hexachloroethane	53.53/ 48.18	10.5/25.0	
1,2-dibromo-3-chloropropane	53.18/ 50.04	6.1/25.0	
1,2,4-trichlorobenzene	58.68/ 53.35	9.5/25.0	
1,2,3-trichlorobenzene	57.80/ 52.90	8.9/25.0	
naphthalene	58.59/ 53.57	9.0/25.0	
2-methylnaphthalene	56.75/ 52.24	8.3/25.0	
[end of compound list]			
		Total Outliers:	**1**

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcss31b.d			
Dup ID : LCS1			
Prep Batch: vf120731s1			
Prep Date : 07/31/12			
Parent File: lcss31a.d			
1,1,2-trichloro-1,2,2-trifluoroethane	52.61/ 47.71	9.8/25.0	SO
diethyl ether (*)	45.97/ 41.27	10.8/25.0	
acetone (*)	38.52/ 35.27	8.8/25.0	
methyl iodide (iodomethane) (*)	49.16/ 44.49	10.0/25.0	
carbon disulfide (*)	46.15/ 41.19	11.4/25.0	
methyl acetate	43.57/ 39.22	10.5/25.0	
tert-methyl butyl ether (mtbe) (*)	49.66/ 45.25	9.3/25.0	
acrylonitrile (*)	47.45/ 43.57	8.5/25.0	
2-butanone (mek) (*)	42.82/ 37.02	14.5/25.0	
dichlorodifluoromethane	46.19/ 43.61	5.7/25.0	
chloromethane (spcc)	46.11/ 41.30	11.0/25.0	
vinyl chloride (ccc)	48.83/ 43.16	12.3/25.0	
bromomethane	49.40/ 43.63	12.4/25.0	
chloroethane	51.87/ 47.15	9.5/25.0	
trichlorofluoromethane	54.04/ 49.94	7.9/25.0	
1,1-dichloroethene (ccc/ms)	47.79/ 42.86	10.9/25.0	
methylene chloride	45.02/ 40.86	9.7/25.0	
trans-1,2-dichloroethene	48.57/ 44.13	9.6/25.0	
1,1-dichloroethane (spcc)	47.52/ 42.88	10.3/25.0	
cis-1,2-dichloroethene	48.40/ 43.99	9.5/25.0	
tetrahydrofuran	41.29/ 37.63	9.3/25.0	
chloroform (ccc)	48.58/ 43.89	10.1/25.0	
bromochloromethane	48.12/ 43.38	10.4/25.0	
1,1,1-trichloroethane	53.29/ 47.70	11.1/25.0	
1,1-dichloropropene	2.50/ 2.27	9.6/25.0	
cyclohexane	44.79/ 41.19	8.4/25.0	
4-methyl-2-pentanone (mibk) (*)	48.48/ 44.09	9.5/25.0	
2-hexanone (*)	49.36/ 43.05	13.7/25.0	
carbon tetrachloride	56.32/ 51.21	9.5/25.0	
benzene (ms)	49.76/ 45.77	8.4/25.0	
1,2-dichloroethane	50.86/ 46.18	9.6/25.0	
trichloroethene (ms)	52.90/ 48.30	9.1/25.0	
1,2-dichloropropane (ccc)	49.55/ 45.43	8.7/25.0	
bromodichloromethane	53.59/ 49.27	8.4/25.0	
methyl cyclohexane	54.34/ 49.01	10.3/25.0	
dibromomethane	53.25/ 48.86	8.6/25.0	
cis-1,3-dichloropropene	55.02/ 49.88	9.8/25.0	
toluene (ccc/ms)	52.56/ 48.28	8.5/25.0	
trans-1,3-dichloropropene	56.11/ 51.39	8.8/25.0	
1,1,2-trichloroethane	50.06/ 46.40	7.6/25.0	
tetrachloroethene	53.40/ 48.08	10.5/25.0	
trans-1,4-dichloro-2-butene	52.55/ 49.34	6.3/25.0	
dibromochloromethane	57.74/ 52.16	10.2/25.0	
1,2-dibromoethane	53.34/ 48.91	8.7/25.0	
chlorobenzene (spcc/ms)	52.51/ 47.87	9.2/25.0	
1,1,1,2-tetrachloroethane	54.83/ 50.02	9.2/25.0	
ethylbenzene (ccc)	54.40/ 49.30	9.8/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
p,m-xylene	108.91/ 99.63	8.9/25.0	
o-xylene	54.48/ 49.55	9.5/25.0	
styrene	54.05/ 49.18	9.4/25.0	
isopropylbenzene	55.33/ 50.37	9.4/25.0	
bromoform (spcc)	53.68/ 49.53	8.0/25.0	
1,1,2,2-tetrachloroethane (spcc)	52.05/ 47.46	9.2/25.0	
1,2,3-trichloropropane	52.75/ 48.10	9.2/25.0	
n-propylbenzene	56.05/ 50.86	9.7/25.0	
bromobenzene	53.27/ 48.50	9.4/25.0	
1,3,5-trimethylbenzene	55.21/ 50.17	9.6/25.0	
tert-butylbenzene	56.15/ 50.91	9.8/25.0	
1,2,4-trimethylbenzene	56.89/ 51.51	9.9/25.0	
sec-butylbenzene	56.20/ 50.52	10.6/25.0	
p-isopropyltoluene	57.82/ 52.73	9.2/25.0	
1,3-dichlorobenzene	53.76/ 49.58	8.1/25.0	
1,4-dichlorobenzene	52.36/ 48.38	7.9/25.0	
1,2-dichlorobenzene	53.06/ 48.56	8.9/25.0	
1,2,3-trimethylbenzene	52.85/ 48.20	9.2/25.0	
n-butylbenzene	56.17/ 50.99	9.7/25.0	
hexachloroethane	52.13/ 46.90	10.6/25.0	
1,2-dibromo-3-chloropropane	56.03/ 50.01	11.4/25.0	
1,2,4-trichlorobenzene	58.65/ 52.62	10.8/25.0	
1,2,3-trichlorobenzene	59.70/ 52.63	12.6/25.0	
naphthalene	60.69/ 53.32	12.9/25.0	
2-methylnaphthalene	62.47/ 52.27	17.8/25.0	
[end of compound list]			
		Total Outliers: 0	

Dup File : 5327305n.d
Dup ID : S53273.05
Prep Batch: vf120731s1
Prep Date : 07/31/12
Parent File: 5327304m.d

1,1,2-trichloro-1,2,2-trifluoroethane	52.39/ 45.32	14.5/25.0	SO
diethyl ether (*)	47.08/ 41.24	13.2/25.0	
acetone (*)	46.82/ 42.06	10.7/25.0	
methyl iodide (iodomethane) (*)	47.73/ 41.45	14.1/25.0	
carbon disulfide (*)	42.72/ 36.41	15.9/25.0	
methyl acetate	44.48/ 39.22	12.6/25.0	
tert-methyl butyl ether (mtbe) (*)	50.86/ 45.00	12.2/25.0	
acrylonitrile (*)	49.18/ 43.85	11.5/25.0	
2-butanone (mek) (*)	48.89/ 45.92	6.3/25.0	
dichlorodifluoromethane	44.32/ 38.22	14.8/25.0	
chloromethane (spcc)	44.21/ 38.09	14.9/25.0	
vinyl chloride (ccc)	46.21/ 39.59	15.4/25.0	
bromomethane	48.47/ 42.20	13.8/25.0	
chloroethane	50.53/ 45.29	10.9/25.0	
trichlorofluoromethane	55.38/ 48.21	13.8/25.0	
1,1-dichloroethene (ccc/ms)	44.98/ 39.03	14.2/25.0	
methylene chloride	44.00/ 38.46	13.4/25.0	
trans-1,2-dichloroethene	46.94/ 40.69	14.3/25.0	
1,1-dichloroethane (spcc)	46.73/ 40.88	13.4/25.0	
cis-1,2-dichloroethene	47.50/ 41.64	13.1/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
tetrahydrofuran	43.98/ 39.64	10.4/25.0	
chloroform (ccc)	48.05/ 42.10	13.2/25.0	
bromochloromethane	47.62/ 42.44	11.5/25.0	
1,1,1-trichloroethane	52.27/ 45.46	13.9/25.0	
cyclohexane	42.77/ 37.00	14.5/25.0	
4-methyl-2-pentanone (mibk) (*)	50.11/ 45.16	10.4/25.0	
2-hexanone (*)	53.57/ 49.11	8.7/25.0	
carbon tetrachloride	54.03/ 46.46	15.1/25.0	
benzene (ms)	47.97/ 43.13	10.6/25.0	
1,2-dichloroethane	50.35/ 44.76	11.8/25.0	
trichloroethene (ms)	51.99/ 45.88	12.5/25.0	
1,2-dichloropropane (ccc)	48.15/ 43.04	11.2/25.0	
bromodichloromethane	52.33/ 46.15	12.6/25.0	
methyl cyclohexane	51.69/ 45.64	12.4/25.0	
dibromomethane	52.61/ 47.04	11.2/25.0	
cis-1,3-dichloropropene	52.00/ 46.53	11.1/25.0	
toluene (ccc/ms)	50.51/ 45.15	11.2/25.0	
trans-1,3-dichloropropene	53.33/ 47.65	11.2/25.0	
1,1,2-trichloroethane	50.29/ 44.69	11.8/25.0	
tetrachloroethene	50.06/ 45.10	10.4/25.0	
trans-1,4-dichloro-2-butene	50.90/ 45.73	10.7/25.0	
dibromochloromethane	56.33/ 48.74	14.4/25.0	
1,2-dibromoethane	53.20/ 47.11	12.1/25.0	
chlorobenzene (spcc/ms)	50.15/ 44.50	11.9/25.0	
1,1,1,2-tetrachloroethane	53.77/ 47.22	13.0/25.0	
ethylbenzene (ccc)	51.92/ 45.87	12.4/25.0	
p,m-xylene	103.41/ 92.24	11.4/25.0	
o-xylene	52.65/ 46.87	11.6/25.0	
styrene	51.48/ 46.09	11.0/25.0	
isopropylbenzene	53.75/ 47.70	11.9/25.0	
bromoform (spcc)	53.23/ 45.86	14.9/25.0	
1,1,2,2-tetrachloroethane (spcc)	50.91/ 45.84	10.5/25.0	
1,2,3-trichloropropane	53.37/ 48.05	10.5/25.0	
n-propylbenzene	53.44/ 47.37	12.0/25.0	
bromobenzene	51.16/ 45.54	11.6/25.0	
1,3,5-trimethylbenzene	53.43/ 47.08	12.6/25.0	
tert-butylbenzene	55.27/ 48.80	12.4/25.0	
1,2,4-trimethylbenzene	54.15/ 48.18	11.7/25.0	
sec-butylbenzene	56.23/ 49.96	11.8/25.0	
p-isopropyltoluene	57.00/ 51.21	10.7/25.0	
1,3-dichlorobenzene	51.27/ 46.30	10.2/25.0	
1,4-dichlorobenzene	49.68/ 45.42	9.0/25.0	
1,2-dichlorobenzene	52.46/ 46.69	11.6/25.0	
1,2,3-trimethylbenzene	52.87/ 47.17	11.4/25.0	
n-butylbenzene	53.23/ 48.06	10.2/25.0	
hexachloroethane	52.13/ 44.92	14.9/25.0	
1,2-dibromo-3-chloropropane	59.49/ 52.56	12.4/25.0	
1,2,4-trichlorobenzene	53.91/ 50.95	5.6/25.0	
1,2,3-trichlorobenzene	57.22/ 52.65	8.3/25.0	
naphthalene	63.05/ 57.36	9.5/25.0	
2-methylnaphthalene	62.69/ 60.96	2.8/25.0	
[end of compound list]			

Total Outliers: 0

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss27a.d
Spike ID : LCS1
Prep Batch: vf120727s1
Prep Date : 07/27/12
Parent File: blks27a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	50.76/	0.00	50.00	101.5	56.9/138.1	SO
Diethyl ether	44.33/	0.00	50.00	88.7	51.7/123.0	
Acetone	32.16/	2.16	50.00	64.3	25.3/155.1	
Methyl iodide	46.28/	0.00	50.00	92.6	56.9/110.8	
Carbon disulfide	43.39/	0.00	50.00	86.8	57.0/123.0	
Methyl acetate	39.29/	0.00	50.00	78.6	54.4/133.5	
tert-Methyl butyl ether	45.38/	0.00	50.00	90.8	67.5/123.7	
Acrylonitrile	43.50/	0.00	50.00	87.0	58.7/133.0	
2-Butanone	32.17/	0.00	50.00	64.3	38.7/136.9	
Dichlorodifluoromethane	46.39/	0.00	50.00	92.8	10.0/171.8	
Chloromethane	44.13/	0.00	50.00	88.3	30.2/152.7	
Vinyl Chloride	46.29/	0.00	50.00	92.6	45.3/138.7	
Bromomethane	45.64/	0.00	50.00	91.3	10.0/157.4	
Chloroethane	48.48/	0.00	50.00	97.0	10.0/169.1	
Trichlorofluoromethane	55.54/	0.00	50.00	111.1	25.7/157.8	
1,1-Dichloroethene	46.18/	0.00	50.00	92.4	59.2/137.5	
Methylene Chloride	42.38/	0.00	50.00	84.8	70.5/121.5	
trans-1,2-Dichloroethene	45.66/	0.00	50.00	91.3	72.5/128.8	
1,1-Dichloroethane	44.64/	0.00	50.00	89.3	72.5/123.4	
cis-1,2-Dichloroethene	45.19/	0.00	50.00	90.4	75.0/120.5	
Tetrahydrofuran	36.81/	2.61	50.00	73.6	48.2/125.7	
Chloroform	45.32/	0.00	50.00	90.6	74.6/123.2	
Bromochloromethane	44.86/	0.00	50.00	89.7	72.3/122.8	
1,1,1-Trichloroethane	49.74/	0.00	50.00	99.5	73.8/128.9	
Cyclohexane	43.68/	0.00	50.00	87.4	42.4/147.1	
4-Methyl-2-pentanone	43.25/	0.00	50.00	86.5	60.4/133.8	
2-Hexanone	40.42/	0.00	50.00	80.8	45.7/141.9	
Carbon Tetrachloride	54.39/	0.00	50.00	108.8	70.1/132.7	
Benzene	47.81/	0.00	50.00	95.6	74.6/128.9	
1,2-Dichloroethane	48.18/	0.00	50.00	96.4	73.2/125.4	
Trichloroethene	50.10/	0.00	50.00	100.2	74.1/127.6	
1,2-Dichloropropane	46.47/	0.00	50.00	92.9	77.6/124.4	
Bromodichloromethane	49.94/	0.00	50.00	99.9	76.7/128.4	
Methyl cyclohexane	52.35/	0.00	50.00	104.7	53.7/148.2	
Dibromomethane	49.61/	0.00	50.00	99.2	72.5/127.3	
cis-1,3-Dichloropropene	50.16/	0.00	50.00	100.3	79.3/128.3	
Toluene	49.09/	0.00	50.00	98.2	74.8/129.2	
trans-1,3-Dichloropropene	51.04/	0.00	50.00	102.1	74.5/129.7	
1,1,2-Trichloroethane	45.78/	0.00	50.00	91.6	71.3/125.7	
Tetrachloroethene	50.07/	0.00	50.00	100.1	73.0/124.7	
trans-1,4-Dichloro-2-butene	49.26/	0.00	50.00	98.5	58.3/143.3	
Dibromochloromethane	52.28/	0.00	50.00	104.6	68.9/132.7	
1,2-Dibromoethane	49.05/	0.00	50.00	98.1	71.4/129.3	
Chlorobenzene	48.99/	0.00	50.00	98.0	74.2/128.1	
1,1,1,2-Tetrachloroethane	51.21/	0.00	50.00	102.4	76.6/133.0	
Ethylbenzene	51.26/	0.00	50.00	102.5	77.7/130.4	
p,m-Xylene	102.71/	0.00	100.00	102.7	79.8/132.0	
o-Xylene	51.34/	0.00	50.00	102.7	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	50.82/	0.00	50.00	101.6	71.3/119.3	
Isopropylbenzene	52.59/	0.00	50.00	105.2	70.3/128.2	
Bromoform	49.85/	0.00	50.00	99.7	54.7/137.4	
1,1,2,2-Tetrachloroethane	48.18/	0.00	50.00	96.4	65.4/134.9	
1,2,3-Trichloropropane	49.03/	0.00	50.00	98.1	67.2/154.5	
n-Propylbenzene	53.33/	0.00	50.00	106.7	77.3/135.2	
Bromobenzene	50.06/	0.00	50.00	100.1	74.0/132.4	
1,3,5-Trimethylbenzene	52.09/	0.00	50.00	104.2	75.6/137.0	
tert-Butylbenzene	53.26/	0.00	50.00	106.5	75.6/134.6	
1,2,4-Trimethylbenzene	53.81/	0.00	50.00	107.6	76.9/139.1	
sec-Butylbenzene	51.81/	0.00	50.00	103.6	72.7/135.6	
p-Isopropyltoluene	53.51/	0.00	50.00	107.0	77.1/140.9	
1,3-Dichlorobenzene	50.30/	0.00	50.00	100.6	77.3/131.0	
1,4-Dichlorobenzene	48.97/	0.00	50.00	97.9	33.1/125.8	
1,2-Dichlorobenzene	49.27/	0.00	50.00	98.5	73.5/132.7	
1,2,3-Trimethylbenzene	48.89/	0.00	50.00	97.8	70.9/130.2	
n-Butylbenzene	52.43/	0.00	50.00	104.9	75.0/138.6	
Hexachloroethane	48.18/	0.00	50.00	96.4	55.5/129.0	
1,2-Dibromo-3-Chloropropane	50.04/	0.00	50.00	100.1	54.1/156.4	
1,2,4-Trichlorobenzene	53.35/	0.00	50.00	106.7	37.1/131.3	
1,2,3-Trichlorobenzene	52.90/	0.00	50.00	105.8	59.4/157.9	
Naphthalene	53.57/	0.00	50.00	107.1	39.3/129.2	
2-Methylnaphthalene	52.24/	0.00	50.00	104.5	10.0/175.9	
					Total Outliers:	**0**

Spike File : lcss27b.d
Spike ID : LCS1
Prep Batch: vf120727s1
Prep Date : 07/27/12
Parent File: blks27a.d

1,1,2-Trichloro-1,2,2-trifluor	57.42/	0.00	50.00	114.8	56.9/138.1	SO
Diethyl ether	49.50/	0.00	50.00	99.0	51.7/123.0	
Acetone	34.39/	2.16	50.00	68.8	25.3/155.1	
Methyl iodide	51.12/	0.00	50.00	102.2	56.9/110.8	
Carbon disulfide	48.14/	0.00	50.00	96.3	57.0/123.0	
Methyl acetate	42.29/	0.00	50.00	84.6	54.4/133.5	
tert-Methyl butyl ether	50.19/	0.00	50.00	100.4	67.5/123.7	
Acrylonitrile	47.19/	0.00	50.00	94.4	58.7/133.0	
2-Butanone	35.61/	0.00	50.00	71.2	38.7/136.9	
Dichlorodifluoromethane	50.40/	0.00	50.00	100.8	10.0/171.8	
Chloromethane	51.15/	0.00	50.00	102.3	30.2/152.7	
Vinyl Chloride	52.53/	0.00	50.00	105.1	45.3/138.7	
Bromomethane	53.32/	0.00	50.00	106.6	10.0/157.4	
Chloroethane	55.23/	0.00	50.00	110.5	10.0/169.1	
Trichlorofluoromethane	61.74/	0.00	50.00	123.5	25.7/157.8	
1,1-Dichloroethene	50.18/	0.00	50.00	100.4	59.2/137.5	
Methylene Chloride	46.19/	0.00	50.00	92.4	70.5/121.5	
trans-1,2-Dichloroethene	49.57/	0.00	50.00	99.1	72.5/128.8	
1,1-Dichloroethane	48.82/	0.00	50.00	97.6	72.5/123.4	
cis-1,2-Dichloroethene	49.93/	0.00	50.00	99.9	75.0/120.5	
Tetrahydrofuran	39.99/	2.61	50.00	80.0	48.2/125.7	
Chloroform	50.31/	0.00	50.00	100.6	74.6/123.2	
Bromochloromethane	49.46/	0.00	50.00	98.9	72.3/122.8	
1,1,1-Trichloroethane	55.45/	0.00	50.00	110.9	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	48.03/	0.00	50.00	96.1	42.4/147.1	
4-Methyl-2-pentanone	47.36/	0.00	50.00	94.7	60.4/133.8	
2-Hexanone	44.18/	0.00	50.00	88.4	45.7/141.9	
Carbon Tetrachloride	59.23/	0.00	50.00	118.5	70.1/132.7	
Benzene	52.49/	0.00	50.00	105.0	74.6/128.9	
1,2-Dichloroethane	52.66/	0.00	50.00	105.3	73.2/125.4	
Trichloroethene	55.29/	0.00	50.00	110.6	74.1/127.6	
1,2-Dichloropropane	51.77/	0.00	50.00	103.5	77.6/124.4	
Bromodichloromethane	56.22/	0.00	50.00	112.4	76.7/128.4	
Methyl cyclohexane	56.39/	0.00	50.00	112.8	53.7/148.2	
Dibromomethane	54.68/	0.00	50.00	109.4	72.5/127.3	
cis-1,3-Dichloropropene	56.19/	0.00	50.00	112.4	79.3/128.3	
Toluene	55.23/	0.00	50.00	110.5	74.8/129.2	
trans-1,3-Dichloropropene	57.12/	0.00	50.00	114.2	74.5/129.7	
1,1,2-Trichloroethane	52.13/	0.00	50.00	104.3	71.3/125.7	
Tetrachloroethene	55.51/	0.00	50.00	111.0	73.0/124.7	
trans-1,4-Dichloro-2-butene	51.38/	0.00	50.00	102.8	58.3/143.3	
Dibromochloromethane	58.46/	0.00	50.00	116.9	68.9/132.7	
1,2-Dibromoethane	53.95/	0.00	50.00	107.9	71.4/129.3	
Chlorobenzene	54.18/	0.00	50.00	108.4	74.2/128.1	
1,1,1,2-Tetrachloroethane	57.08/	0.00	50.00	114.2	76.6/133.0	
Ethylbenzene	56.37/	0.00	50.00	112.7	77.7/130.4	
p,m-Xylene	112.99/	0.00	100.00	113.0	79.8/132.0	
o-Xylene	57.10/	0.00	50.00	114.2	79.4/132.3	
Styrene	55.75/	0.00	50.00	111.5	71.3/119.3	
Isopropylbenzene	58.33/	0.00	50.00	116.7	70.3/128.2	
Bromoform	53.76/	0.00	50.00	107.5	54.7/137.4	
1,1,2,2-Tetrachloroethane	51.74/	0.00	50.00	103.5	65.4/134.9	
1,2,3-Trichloropropane	51.77/	0.00	50.00	103.5	67.2/154.5	
n-Propylbenzene	58.14/	0.00	50.00	116.3	77.3/135.2	
Bromobenzene	55.24/	0.00	50.00	110.5	74.0/132.4	
1,3,5-Trimethylbenzene	57.64/	0.00	50.00	115.3	75.6/137.0	
tert-Butylbenzene	58.01/	0.00	50.00	116.0	75.6/134.6	
1,2,4-Trimethylbenzene	58.85/	0.00	50.00	117.7	76.9/139.1	
sec-Butylbenzene	58.31/	0.00	50.00	116.6	72.7/135.6	
p-Isopropyltoluene	60.06/	0.00	50.00	120.1	77.1/140.9	
1,3-Dichlorobenzene	54.85/	0.00	50.00	109.7	77.3/131.0	
1,4-Dichlorobenzene	53.88/	0.00	50.00	107.8	33.1/125.8	
1,2-Dichlorobenzene	54.24/	0.00	50.00	108.5	73.5/132.7	
1,2,3-Trimethylbenzene	55.25/	0.00	50.00	110.5	70.9/130.2	
n-Butylbenzene	58.04/	0.00	50.00	116.1	75.0/138.6	
Hexachloroethane	53.53/	0.00	50.00	107.1	55.5/129.0	
1,2-Dibromo-3-Chloropropane	53.18/	0.00	50.00	106.4	54.1/156.4	
1,2,4-Trichlorobenzene	58.68/	0.00	50.00	117.4	37.1/131.3	
1,2,3-Trichlorobenzene	57.80/	0.00	50.00	115.6	59.4/157.9	
Naphthalene	58.59/	0.00	50.00	117.2	39.3/129.2	
2-Methylnaphthalene	56.75/	0.00	50.00	113.5	10.0/175.9	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss31a.d
Spike ID : LCS1
Prep Batch: vf120731s1
Prep Date : 07/31/12
Parent File: blks31a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	47.71/	0.00	50.00	95.4	56.9/138.1	SO
Diethyl ether	41.27/	0.00	50.00	82.5	51.7/123.0	
Acetone	35.27/	0.00	50.00	70.5	25.3/155.1	
Methyl iodide	44.49/	0.00	50.00	89.0	56.9/110.8	
Carbon disulfide	41.19/	0.00	50.00	82.4	57.0/123.0	
Methyl acetate	39.22/	0.00	50.00	78.4	54.4/133.5	
tert-Methyl butyl ether	45.25/	0.00	50.00	90.5	67.5/123.7	
Acrylonitrile	43.57/	0.00	50.00	87.1	58.7/133.0	
2-Butanone	37.02/	0.00	50.00	74.0	38.7/136.9	
Dichlorodifluoromethane	43.61/	0.00	50.00	87.2	10.0/171.8	
Chloromethane	41.30/	0.00	50.00	82.6	30.2/152.7	
Vinyl Chloride	43.16/	0.00	50.00	86.3	45.3/138.7	
Bromomethane	43.63/	0.00	50.00	87.3	10.0/157.4	
Chloroethane	47.15/	0.00	50.00	94.3	10.0/169.1	
Trichlorofluoromethane	49.94/	0.00	50.00	99.9	25.7/157.8	
1,1-Dichloroethene	42.86/	0.00	50.00	85.7	59.2/137.5	
Methylene Chloride	40.86/	0.00	50.00	81.7	70.5/121.5	
trans-1,2-Dichloroethene	44.13/	0.00	50.00	88.3	72.5/128.8	
1,1-Dichloroethane	42.88/	0.00	50.00	85.8	72.5/123.4	
cis-1,2-Dichloroethene	43.99/	0.00	50.00	88.0	75.0/120.5	
Tetrahydrofuran	37.63/	2.90	50.00	75.3	48.2/125.7	
Chloroform	43.89/	0.00	50.00	87.8	74.6/123.2	
Bromochloromethane	43.38/	0.00	50.00	86.8	72.3/122.8	
1,1,1-Trichloroethane	47.70/	0.00	50.00	95.4	73.8/128.9	
Cyclohexane	41.19/	0.00	50.00	82.4	42.4/147.1	
4-Methyl-2-pentanone	44.09/	0.00	50.00	88.2	60.4/133.8	
2-Hexanone	43.05/	0.00	50.00	86.1	45.7/141.9	
Carbon Tetrachloride	51.21/	0.00	50.00	102.4	70.1/132.7	
Benzene	45.77/	0.00	50.00	91.5	74.6/128.9	
1,2-Dichloroethane	46.18/	0.00	50.00	92.4	73.2/125.4	
Trichloroethene	48.30/	0.00	50.00	96.6	74.1/127.6	
1,2-Dichloropropane	45.43/	0.00	50.00	90.9	77.6/124.4	
Bromodichloromethane	49.27/	0.00	50.00	98.5	76.7/128.4	
Methyl cyclohexane	49.01/	0.00	50.00	98.0	53.7/148.2	
Dibromomethane	48.86/	0.00	50.00	97.7	72.5/127.3	
cis-1,3-Dichloropropene	49.88/	0.00	50.00	99.8	79.3/128.3	
Toluene	48.28/	0.00	50.00	96.6	74.8/129.2	
trans-1,3-Dichloropropene	51.39/	0.00	50.00	102.8	74.5/129.7	
1,1,2-Trichloroethane	46.40/	0.00	50.00	92.8	71.3/125.7	
Tetrachloroethene	48.08/	0.00	50.00	96.2	73.0/124.7	
trans-1,4-Dichloro-2-butene	49.34/	0.00	50.00	98.7	58.3/143.3	
Dibromochloromethane	52.16/	0.00	50.00	104.3	68.9/132.7	
1,2-Dibromoethane	48.91/	0.00	50.00	97.8	71.4/129.3	
Chlorobenzene	47.87/	0.00	50.00	95.7	74.2/128.1	
1,1,1,2-Tetrachloroethane	50.02/	0.00	50.00	100.0	76.6/133.0	
Ethylbenzene	49.30/	0.00	50.00	98.6	77.7/130.4	
p,m-Xylene	99.63/	0.00	100.00	99.6	79.8/132.0	
o-Xylene	49.55/	0.00	50.00	99.1	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	49.18/	0.00	50.00	98.4	71.3/119.3	
Isopropylbenzene	50.37/	0.00	50.00	100.7	70.3/128.2	
Bromoform	49.53/	0.00	50.00	99.1	54.7/137.4	
1,1,2,2-Tetrachloroethane	47.46/	0.00	50.00	94.9	65.4/134.9	
1,2,3-Trichloropropane	48.10/	0.00	50.00	96.2	67.2/154.5	
n-Propylbenzene	50.86/	0.00	50.00	101.7	77.3/135.2	
Bromobenzene	48.50/	0.00	50.00	97.0	74.0/132.4	
1,3,5-Trimethylbenzene	50.17/	0.00	50.00	100.3	75.6/137.0	
tert-Butylbenzene	50.91/	0.00	50.00	101.8	75.6/134.6	
1,2,4-Trimethylbenzene	51.51/	0.00	50.00	103.0	76.9/139.1	
sec-Butylbenzene	50.52/	0.00	50.00	101.0	72.7/135.6	
p-Isopropyltoluene	52.73/	0.00	50.00	105.5	77.1/140.9	
1,3-Dichlorobenzene	49.58/	0.00	50.00	99.2	77.3/131.0	
1,4-Dichlorobenzene	48.38/	0.00	50.00	96.8	33.1/125.8	
1,2-Dichlorobenzene	48.56/	0.00	50.00	97.1	73.5/132.7	
1,2,3-Trimethylbenzene	48.20/	0.00	50.00	96.4	70.9/130.2	
n-Butylbenzene	50.99/	0.00	50.00	102.0	75.0/138.6	
Hexachloroethane	46.90/	0.00	50.00	93.8	55.5/129.0	
1,2-Dibromo-3-Chloropropane	50.01/	0.00	50.00	100.0	54.1/156.4	
1,2,4-Trichlorobenzene	52.62/	0.00	50.00	105.2	37.1/131.3	
1,2,3-Trichlorobenzene	52.63/	0.00	50.00	105.3	59.4/157.9	
Naphthalene	53.32/	0.00	50.00	106.6	39.3/129.2	
2-Methylnaphthalene	52.27/	0.00	50.00	104.5	10.0/175.9	
					Total Outliers:	**0**

Spike File : lcss31b.d
Spike ID : LCS1
Prep Batch: vf120731s1
Prep Date : 07/31/12
Parent File: blks31a.d

1,1,2-Trichloro-1,2,2-trifluor	52.61/	0.00	50.00	105.2	56.9/138.1	SO
Diethyl ether	45.97/	0.00	50.00	91.9	51.7/123.0	
Acetone	38.52/	0.00	50.00	77.0	25.3/155.1	
Methyl iodide	49.16/	0.00	50.00	98.3	56.9/110.8	
Carbon disulfide	46.15/	0.00	50.00	92.3	57.0/123.0	
Methyl acetate	43.57/	0.00	50.00	87.1	54.4/133.5	
tert-Methyl butyl ether	49.66/	0.00	50.00	99.3	67.5/123.7	
Acrylonitrile	47.45/	0.00	50.00	94.9	58.7/133.0	
2-Butanone	42.82/	0.00	50.00	85.6	38.7/136.9	
Dichlorodifluoromethane	46.19/	0.00	50.00	92.4	10.0/171.8	
Chloromethane	46.11/	0.00	50.00	92.2	30.2/152.7	
Vinyl Chloride	48.83/	0.00	50.00	97.7	45.3/138.7	
Bromomethane	49.40/	0.00	50.00	98.8	10.0/157.4	
Chloroethane	51.87/	0.00	50.00	103.7	10.0/169.1	
Trichlorofluoromethane	54.04/	0.00	50.00	108.1	25.7/157.8	
1,1-Dichloroethene	47.79/	0.00	50.00	95.6	59.2/137.5	
Methylene Chloride	45.02/	0.00	50.00	90.0	70.5/121.5	
trans-1,2-Dichloroethene	48.57/	0.00	50.00	97.1	72.5/128.8	
1,1-Dichloroethane	47.52/	0.00	50.00	95.0	72.5/123.4	
cis-1,2-Dichloroethene	48.40/	0.00	50.00	96.8	75.0/120.5	
Tetrahydrofuran	41.29/	2.90	50.00	82.6	48.2/125.7	
Chloroform	48.58/	0.00	50.00	97.2	74.6/123.2	
Bromochloromethane	48.12/	0.00	50.00	96.2	72.3/122.8	
1,1,1-Trichloroethane	53.29/	0.00	50.00	106.6	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	44.79/	0.00	50.00	89.6	42.4/147.1	
4-Methyl-2-pentanone	48.48/	0.00	50.00	97.0	60.4/133.8	
2-Hexanone	49.36/	0.00	50.00	98.7	45.7/141.9	
Carbon Tetrachloride	56.32/	0.00	50.00	112.6	70.1/132.7	
Benzene	49.76/	0.00	50.00	99.5	74.6/128.9	
1,2-Dichloroethane	50.86/	0.00	50.00	101.7	73.2/125.4	
Trichloroethene	52.90/	0.00	50.00	105.8	74.1/127.6	
1,2-Dichloropropane	49.55/	0.00	50.00	99.1	77.6/124.4	
Bromodichloromethane	53.59/	0.00	50.00	107.2	76.7/128.4	
Methyl cyclohexane	54.34/	0.00	50.00	108.7	53.7/148.2	
Dibromomethane	53.25/	0.00	50.00	106.5	72.5/127.3	
cis-1,3-Dichloropropene	55.02/	0.00	50.00	110.0	79.3/128.3	
Toluene	52.56/	0.00	50.00	105.1	74.8/129.2	
trans-1,3-Dichloropropene	56.11/	0.00	50.00	112.2	74.5/129.7	
1,1,2-Trichloroethane	50.06/	0.00	50.00	100.1	71.3/125.7	
Tetrachloroethene	53.40/	0.00	50.00	106.8	73.0/124.7	
trans-1,4-Dichloro-2-butene	52.55/	0.00	50.00	105.1	58.3/143.3	
Dibromochloromethane	57.74/	0.00	50.00	115.5	68.9/132.7	
1,2-Dibromoethane	53.34/	0.00	50.00	106.7	71.4/129.3	
Chlorobenzene	52.51/	0.00	50.00	105.0	74.2/128.1	
1,1,1,2-Tetrachloroethane	54.83/	0.00	50.00	109.7	76.6/133.0	
Ethylbenzene	54.40/	0.00	50.00	108.8	77.7/130.4	
p,m-Xylene	108.91/	0.00	100.00	108.9	79.8/132.0	
o-Xylene	54.48/	0.00	50.00	109.0	79.4/132.3	
Styrene	54.05/	0.00	50.00	108.1	71.3/119.3	
Isopropylbenzene	55.33/	0.00	50.00	110.7	70.3/128.2	
Bromoform	53.68/	0.00	50.00	107.4	54.7/137.4	
1,1,2,2-Tetrachloroethane	52.05/	0.00	50.00	104.1	65.4/134.9	
1,2,3-Trichloropropane	52.75/	0.00	50.00	105.5	67.2/154.5	
n-Propylbenzene	56.05/	0.00	50.00	112.1	77.3/135.2	
Bromobenzene	53.27/	0.00	50.00	106.5	74.0/132.4	
1,3,5-Trimethylbenzene	55.21/	0.00	50.00	110.4	75.6/137.0	
tert-Butylbenzene	56.15/	0.00	50.00	112.3	75.6/134.6	
1,2,4-Trimethylbenzene	56.89/	0.00	50.00	113.8	76.9/139.1	
sec-Butylbenzene	56.20/	0.00	50.00	112.4	72.7/135.6	
p-Isopropyltoluene	57.82/	0.00	50.00	115.6	77.1/140.9	
1,3-Dichlorobenzene	53.76/	0.00	50.00	107.5	77.3/131.0	
1,4-Dichlorobenzene	52.36/	0.00	50.00	104.7	33.1/125.8	
1,2-Dichlorobenzene	53.06/	0.00	50.00	106.1	73.5/132.7	
1,2,3-Trimethylbenzene	52.85/	0.00	50.00	105.7	70.9/130.2	
n-Butylbenzene	56.17/	0.00	50.00	112.3	75.0/138.6	
Hexachloroethane	52.13/	0.00	50.00	104.3	55.5/129.0	
1,2-Dibromo-3-Chloropropane	56.03/	0.00	50.00	112.1	54.1/156.4	
1,2,4-Trichlorobenzene	58.65/	0.00	50.00	117.3	37.1/131.3	
1,2,3-Trichlorobenzene	59.70/	0.00	50.00	119.4	59.4/157.9	
Naphthalene	60.69/	0.00	50.00	121.4	39.3/129.2	
2-Methylnaphthalene	62.47/	0.00	50.00	124.9	10.0/175.9	

Total Outliers: 0

Spike File : 5327304m.d
Spike ID : S53273.04
Prep Batch: vf120731s1
Prep Date : 07/31/12
Parent File: 5327303.d

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	45.32/	0.00	50.00	90.6	56.9/138.1	SO
Diethyl ether	41.24/	0.00	50.00	82.5	51.7/123.0	
Acetone	42.06/	2.15	50.00	79.8	25.3/155.1	
Methyl iodide	41.45/	0.00	50.00	82.9	56.9/110.8	
Carbon disulfide	36.41/	0.00	50.00	72.8	57.0/123.0	
Methyl acetate	39.22/	0.00	50.00	78.4	54.4/133.5	
tert-Methyl butyl ether	45.00/	0.00	50.00	90.0	67.5/123.7	
Acrylonitrile	43.85/	0.00	50.00	87.7	58.7/133.0	
2-Butanone	45.92/	0.00	50.00	91.8	38.7/136.9	
Dichlorodifluoromethane	38.22/	0.00	50.00	76.4	10.0/171.8	
Chloromethane	38.09/	0.00	50.00	76.2	30.2/152.7	
Vinyl Chloride	39.59/	0.00	50.00	79.2	45.3/138.7	
Bromomethane	42.20/	0.00	50.00	84.4	10.0/157.4	
Chloroethane	45.29/	0.00	50.00	90.6	10.0/169.1	
Trichlorofluoromethane	48.21/	0.00	50.00	96.4	25.7/157.8	
1,1-Dichloroethene	39.03/	0.00	50.00	78.1	59.2/137.5	
Methylene Chloride	38.46/	0.00	50.00	76.9	70.5/121.5	
trans-1,2-Dichloroethene	40.69/	0.00	50.00	81.4	72.5/128.8	
1,1-Dichloroethane	40.88/	0.00	50.00	81.8	72.5/123.4	
cis-1,2-Dichloroethene	41.64/	0.00	50.00	83.3	75.0/120.5	
Tetrahydrofuran	39.64/	3.50	50.00	72.3	48.2/125.7	
Chloroform	42.10/	0.00	50.00	84.2	74.6/123.2	
Bromochloromethane	42.44/	0.00	50.00	84.9	72.3/122.8	
1,1,1-Trichloroethane	45.46/	0.00	50.00	90.9	73.8/128.9	
Cyclohexane	37.00/	0.00	50.00	74.0	42.4/147.1	
4-Methyl-2-pentanone	45.16/	0.00	50.00	90.3	60.4/133.8	
2-Hexanone	49.11/	0.00	50.00	98.2	45.7/141.9	
Carbon Tetrachloride	46.46/	0.00	50.00	92.9	70.1/132.7	
Benzene	43.13/	0.00	50.00	86.3	74.6/128.9	
1,2-Dichloroethane	44.76/	0.00	50.00	89.5	73.2/125.4	
Trichloroethene	45.88/	0.00	50.00	91.8	74.1/127.6	
1,2-Dichloropropane	43.04/	0.00	50.00	86.1	77.6/124.4	
Bromodichloromethane	46.15/	0.00	50.00	92.3	76.7/128.4	
Methyl cyclohexane	45.64/	0.00	50.00	91.3	53.7/148.2	
Dibromomethane	47.04/	0.00	50.00	94.1	72.5/127.3	
cis-1,3-Dichloropropene	46.53/	0.00	50.00	93.1	79.3/128.3	
Toluene	45.15/	0.00	50.00	90.3	74.8/129.2	
trans-1,3-Dichloropropene	47.65/	0.00	50.00	95.3	74.5/129.7	
1,1,2-Trichloroethane	44.69/	0.00	50.00	89.4	71.3/125.7	
Tetrachloroethene	45.10/	0.00	50.00	90.2	73.0/124.7	
trans-1,4-Dichloro-2-butene	45.73/	0.00	50.00	91.5	58.3/143.3	
Dibromochloromethane	48.74/	0.00	50.00	97.5	68.9/132.7	
1,2-Dibromoethane	47.11/	0.00	50.00	94.2	71.4/129.3	
Chlorobenzene	44.50/	0.00	50.00	89.0	74.2/128.1	
1,1,1,2-Tetrachloroethane	47.22/	0.00	50.00	94.4	76.6/133.0	
Ethylbenzene	45.87/	0.00	50.00	91.7	77.7/130.4	
p,m-Xylene	92.24/	0.00	100.00	92.2	79.8/132.0	
o-Xylene	46.87/	0.00	50.00	93.7	79.4/132.3	
Styrene	46.09/	0.00	50.00	92.2	71.3/119.3	
Isopropylbenzene	47.70/	0.00	50.00	95.4	70.3/128.2	
Bromoform	45.86/	0.00	50.00	91.7	54.7/137.4	
1,1,2,2-Tetrachloroethane	45.84/	0.00	50.00	91.7	65.4/134.9	
1,2,3-Trichloropropane	48.05/	0.00	50.00	96.1	67.2/154.5	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
n-Propylbenzene	47.37/	0.00	50.00	94.7	77.3/135.2	
Bromobenzene	45.54/	0.00	50.00	91.1	74.0/132.4	
1,3,5-Trimethylbenzene	47.08/	0.00	50.00	94.2	75.6/137.0	
tert-Butylbenzene	48.80/	0.00	50.00	97.6	75.6/134.6	
1,2,4-Trimethylbenzene	48.18/	0.00	50.00	96.4	76.9/139.1	
sec-Butylbenzene	49.96/	0.00	50.00	99.9	72.7/135.6	
p-Isopropyltoluene	51.21/	0.00	50.00	102.4	77.1/140.9	
1,3-Dichlorobenzene	46.30/	0.00	50.00	92.6	77.3/131.0	
1,4-Dichlorobenzene	45.42/	0.00	50.00	90.8	33.1/125.8	
1,2-Dichlorobenzene	46.69/	0.00	50.00	93.4	73.5/132.7	
1,2,3-Trimethylbenzene	47.17/	0.00	50.00	94.3	70.9/130.2	
n-Butylbenzene	48.06/	0.00	50.00	96.1	75.0/138.6	
Hexachloroethane	44.92/	0.00	50.00	89.8	55.5/129.0	
1,2-Dibromo-3-Chloropropane	52.56/	0.00	50.00	105.1	54.1/156.4	
1,2,4-Trichlorobenzene	50.95/	0.00	50.00	101.9	37.1/131.3	
1,2,3-Trichlorobenzene	52.65/	0.00	50.00	105.3	59.4/157.9	
Naphthalene	57.36/	0.00	50.00	114.7	39.3/129.2	
2-Methylnaphthalene	60.96/	0.00	50.00	121.9	10.0/175.9	
					Total Outliers:	**0**

Spike File : 5327305n.d
Spike ID : S53273.05
Prep Batch: vf120731s1
Prep Date : 07/31/12
Parent File: 5327303.d

1,1,2-Trichloro-1,2,2-trifluor	52.39/	0.00	50.00	104.8	56.9/138.1	SO
Diethyl ether	47.08/	0.00	50.00	94.2	51.7/123.0	
Acetone	46.82/	2.15	50.00	89.3	25.3/155.1	
Methyl iodide	47.73/	0.00	50.00	95.5	56.9/110.8	
Carbon disulfide	42.72/	0.00	50.00	85.4	57.0/123.0	
Methyl acetate	44.48/	0.00	50.00	89.0	54.4/133.5	
tert-Methyl butyl ether	50.86/	0.00	50.00	101.7	67.5/123.7	
Acrylonitrile	49.18/	0.00	50.00	98.4	58.7/133.0	
2-Butanone	48.89/	0.00	50.00	97.8	38.7/136.9	
Dichlorodifluoromethane	44.32/	0.00	50.00	88.6	10.0/171.8	
Chloromethane	44.21/	0.00	50.00	88.4	30.2/152.7	
Vinyl Chloride	46.21/	0.00	50.00	92.4	45.3/138.7	
Bromomethane	48.47/	0.00	50.00	96.9	10.0/157.4	
Chloroethane	50.53/	0.00	50.00	101.1	10.0/169.1	
Trichlorofluoromethane	55.38/	0.00	50.00	110.8	25.7/157.8	
1,1-Dichloroethene	44.98/	0.00	50.00	90.0	59.2/137.5	
Methylene Chloride	44.00/	0.00	50.00	88.0	70.5/121.5	
trans-1,2-Dichloroethene	46.94/	0.00	50.00	93.9	72.5/128.8	
1,1-Dichloroethane	46.73/	0.00	50.00	93.5	72.5/123.4	
cis-1,2-Dichloroethene	47.50/	0.00	50.00	95.0	75.0/120.5	
Tetrahydrofuran	43.98/	3.50	50.00	81.0	48.2/125.7	
Chloroform	48.05/	0.00	50.00	96.1	74.6/123.2	
Bromochloromethane	47.62/	0.00	50.00	95.2	72.3/122.8	
1,1,1-Trichloroethane	52.27/	0.00	50.00	104.5	73.8/128.9	
Cyclohexane	42.77/	0.00	50.00	85.5	42.4/147.1	
4-Methyl-2-pentanone	50.11/	0.00	50.00	100.2	60.4/133.8	
2-Hexanone	53.57/	0.00	50.00	107.1	45.7/141.9	
Carbon Tetrachloride	54.03/	0.00	50.00	108.1	70.1/132.7	
Benzene	47.97/	0.00	50.00	95.9	74.6/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,2-Dichloroethane	50.35/	0.00	50.00	100.7	73.2/125.4	
Trichloroethene	51.99/	0.00	50.00	104.0	74.1/127.6	
1,2-Dichloropropane	48.15/	0.00	50.00	96.3	77.6/124.4	
Bromodichloromethane	52.33/	0.00	50.00	104.7	76.7/128.4	
Methyl cyclohexane	51.69/	0.00	50.00	103.4	53.7/148.2	
Dibromomethane	52.61/	0.00	50.00	105.2	72.5/127.3	
cis-1,3-Dichloropropene	52.00/	0.00	50.00	104.0	79.3/128.3	
Toluene	50.51/	0.00	50.00	101.0	74.8/129.2	
trans-1,3-Dichloropropene	53.33/	0.00	50.00	106.7	74.5/129.7	
1,1,2-Trichloroethane	50.29/	0.00	50.00	100.6	71.3/125.7	
Tetrachloroethene	50.06/	0.00	50.00	100.1	73.0/124.7	
trans-1,4-Dichloro-2-butene	50.90/	0.00	50.00	101.8	58.3/143.3	
Dibromochloromethane	56.33/	0.00	50.00	112.7	68.9/132.7	
1,2-Dibromoethane	53.20/	0.00	50.00	106.4	71.4/129.3	
Chlorobenzene	50.15/	0.00	50.00	100.3	74.2/128.1	
1,1,1,2-Tetrachloroethane	53.77/	0.00	50.00	107.5	76.6/133.0	
Ethylbenzene	51.92/	0.00	50.00	103.8	77.7/130.4	
p,m-Xylene	103.41/	0.00	100.00	103.4	79.8/132.0	
o-Xylene	52.65/	0.00	50.00	105.3	79.4/132.3	
Styrene	51.48/	0.00	50.00	103.0	71.3/119.3	
Isopropylbenzene	53.75/	0.00	50.00	107.5	70.3/128.2	
Bromoform	53.23/	0.00	50.00	106.5	54.7/137.4	
1,1,2,2-Tetrachloroethane	50.91/	0.00	50.00	101.8	65.4/134.9	
1,2,3-Trichloropropane	53.37/	0.00	50.00	106.7	67.2/154.5	
n-Propylbenzene	53.44/	0.00	50.00	106.9	77.3/135.2	
Bromobenzene	51.16/	0.00	50.00	102.3	74.0/132.4	
1,3,5-Trimethylbenzene	53.43/	0.00	50.00	106.9	75.6/137.0	
tert-Butylbenzene	55.27/	0.00	50.00	110.5	75.6/134.6	
1,2,4-Trimethylbenzene	54.15/	0.00	50.00	108.3	76.9/139.1	
sec-Butylbenzene	56.23/	0.00	50.00	112.5	72.7/135.6	
p-Isopropyltoluene	57.00/	0.00	50.00	114.0	77.1/140.9	
1,3-Dichlorobenzene	51.27/	0.00	50.00	102.5	77.3/131.0	
1,4-Dichlorobenzene	49.68/	0.00	50.00	99.4	33.1/125.8	
1,2-Dichlorobenzene	52.46/	0.00	50.00	104.9	73.5/132.7	
1,2,3-Trimethylbenzene	52.87/	0.00	50.00	105.7	70.9/130.2	
n-Butylbenzene	53.23/	0.00	50.00	106.5	75.0/138.6	
Hexachloroethane	52.13/	0.00	50.00	104.3	55.5/129.0	
1,2-Dibromo-3-Chloropropane	59.49/	0.00	50.00	119.0	54.1/156.4	
1,2,4-Trichlorobenzene	53.91/	0.00	50.00	107.8	37.1/131.3	
1,2,3-Trichlorobenzene	57.22/	0.00	50.00	114.4	59.4/157.9	
Naphthalene	63.05/	0.00	50.00	126.1	39.3/129.2	
2-Methylnaphthalene	62.69/	0.00	50.00	125.4	10.0/175.9	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks27a.d (100ul blank 1s0727)
Blank ID : BLANK1
Prep Batch: vf120727s1
Prep Date : 07/27/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		11	50
Diethyl ether (*)	Not detected		16	50
Acetone (*)	Not detected		340	500
Methyl iodide (iodomethane) (*	Not detected		5.4	50
Carbon disulfide (*)	Not detected		6.9	50
Methyl Acetate	Not detected		20	50
tert-Methyl butyl ether (MTBE)	Not detected		9.2	50
Acrylonitrile (*)	Not detected		37	50
2-Butanone (MEK) (*)	Not detected		25	500
Dichlorodifluoromethane	Not detected		11	50
Chloromethane (SPCC)	Not detected		9.9	50
Vinyl Chloride (CCC)	Not detected		10.0	50
Bromomethane	Not detected		11	50
Chloroethane	Not detected		11	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		7.8	50
1,1-Dichloroethene (CCC/MS)	Not detected		11	50
Methylene Chloride	Not detected		11	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		8.5	50
cis-1,2-Dichloroethene	Not detected		7.9	50
Tetrahydrofuran	2.61	130.5	83	500
Chloroform (CCC)	Not detected		7.8	50
Bromochloromethane	Not detected		11	50
1,1,1-Trichloroethane	Not detected		6.4	50
1,1-Dichloropropene	Not detected		8.2	50
Cyclohexane	Not detected		18	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		22	50
2-Hexanone (*)	Not detected		13	50
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		7.3	50
Benzene (MS)	Not detected		9.2	50
1,2-Dichloroethane	Not detected		11	50
Trichloroethene (MS)	Not detected		9.4	50
1,2-Dichloropropane (CCC)	Not detected		6.5	50
Bromodichloromethane	Not detected		7.4	50
Methyl Cyclohexane	Not detected		9.6	50
Dibromomethane	Not detected		7.7	50
cis-1,3-Dichloropropene	Not detected		7.3	50
Toluene (CCC/MS)	Not detected		8.4	50
trans-1,3-Dichloropropene	Not detected		6.4	50
1,1,2-Trichloroethane	Not detected		9.2	50
Tetrachloroethene	Not detected		9.0	50
trans-1,4-Dichloro-2-butene	Not detected		18	50
Dibromochloromethane	Not detected		6.1	50
1,2-Dibromoethane	Not detected		6.2	50
Chlorobenzene (SPCC/MS)	Not detected		8.1	50
1,1,1,2-Tetrachloroethane	Not detected		6.1	50
Ethylbenzene (CCC)	Not detected		9.6	50
p,m-Xylene	Not detected		18	50
o-Xylene	Not detected		9.1	50
Styrene	Not detected		9.6	50
Isopropylbenzene	Not detected		8.6	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks27a.d (100ul blank 1s0727)
Blank ID : BLANK1
Prep Batch: vf120727s1
Prep Date : 07/27/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		9.9	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.2	50
1,2,3-Trichloropropane	Not detected		18	50
n-Propylbenzene	Not detected		8.8	50
Bromobenzene	Not detected		9.5	50
1,3,5-Trimethylbenzene	Not detected		8.8	50
tert-Butylbenzene	Not detected		10	50
1,2,4-Trimethylbenzene	Not detected		9.9	50
sec-Butylbenzene	Not detected		10	50
p-Isopropyltoluene	Not detected		10	50
1,3-Dichlorobenzene	Not detected		10	50
1,4-Dichlorobenzene	Not detected		8.5	50
1,2-Dichlorobenzene	Not detected		11	50
1,2,3-Trimethylbenzene	Not detected		6.7	50
n-Butylbenzene	Not detected		4.1	50
Hexachloroethane	Not detected		6.5	50
1,2-Dibromo-3-Chloropropane	Not detected		11	50
1,2,4-Trichlorobenzene	Not detected		6.6	50
Hexachlorobutadiene	Not detected		11	50
1,2,3-Trichlorobenzene	Not detected		7.6	50
Naphthalene	Not detected		6.7	50
2-Methylnaphthalene	Not detected		7.8	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks31a.d (100ul blank 1s0731)
Blank ID : BLANK1
Prep Batch: vf120731s1
Prep Date : 07/31/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		11	50
Diethyl ether (*)	Not detected		16	50
Acetone (*)	Not detected		340	500
Methyl iodide (iodomethane) (*	Not detected		5.4	50
Carbon disulfide (*)	Not detected		6.9	50
Methyl Acetate	Not detected		20	50
tert-Methyl butyl ether (MTBE)	Not detected		9.2	50
Acrylonitrile (*)	Not detected		37	50
2-Butanone (MEK) (*)	Not detected		25	500
Dichlorodifluoromethane	Not detected		11	50
Chloromethane (SPCC)	Not detected		9.9	50
Vinyl Chloride (CCC)	Not detected		10.0	50
Bromomethane	Not detected		11	50
Chloroethane	Not detected		11	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		7.8	50
1,1-Dichloroethene (CCC/MS)	Not detected		11	50
Methylene Chloride	Not detected		11	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		8.5	50
cis-1,2-Dichloroethene	Not detected		7.9	50
Tetrahydrofuran	2.90	145.0	83	500
Chloroform (CCC)	Not detected		7.8	50
Bromochloromethane	Not detected		11	50
1,1,1-Trichloroethane	Not detected		6.4	50
1,1-Dichloropropene	Not detected		8.2	50
Cyclohexane	Not detected		18	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		22	50
2-Hexanone (*)	Not detected		13	50
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		7.3	50
Benzene (MS)	Not detected		9.2	50
1,2-Dichloroethane	Not detected		11	50
Trichloroethene (MS)	Not detected		9.4	50
1,2-Dichloropropane (CCC)	Not detected		6.5	50
Bromodichloromethane	Not detected		7.4	50
Methyl Cyclohexane	Not detected		9.6	50
Dibromomethane	Not detected		7.7	50
cis-1,3-Dichloropropene	Not detected		7.3	50
Toluene (CCC/MS)	Not detected		8.4	50
trans-1,3-Dichloropropene	Not detected		6.4	50
1,1,2-Trichloroethane	Not detected		9.2	50
Tetrachloroethene	Not detected		9.0	50
trans-1,4-Dichloro-2-butene	Not detected		18	50
Dibromochloromethane	Not detected		6.1	50
1,2-Dibromoethane	Not detected		6.2	50
Chlorobenzene (SPCC/MS)	Not detected		8.1	50
1,1,1,2-Tetrachloroethane	Not detected		6.1	50
Ethylbenzene (CCC)	Not detected		9.6	50
p,m-Xylene	Not detected		18	50
o-Xylene	Not detected		9.1	50
Styrene	Not detected		9.6	50
Isopropylbenzene	Not detected		8.6	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks31a.d (100ul blank 1s0731)
Blank ID : BLANK1
Prep Batch: vf120731s1
Prep Date : 07/31/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		9.9	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.2	50
1,2,3-Trichloropropane	Not detected		18	50
n-Propylbenzene	Not detected		8.8	50
Bromobenzene	Not detected		9.5	50
1,3,5-Trimethylbenzene	Not detected		8.8	50
tert-Butylbenzene	Not detected		10	50
1,2,4-Trimethylbenzene	Not detected		9.9	50
sec-Butylbenzene	Not detected		10	50
p-Isopropyltoluene	Not detected		10	50
1,3-Dichlorobenzene	Not detected		10	50
1,4-Dichlorobenzene	Not detected		8.5	50
1,2-Dichlorobenzene	Not detected		11	50
1,2,3-Trimethylbenzene	Not detected		6.7	50
n-Butylbenzene	Not detected		4.1	50
Hexachloroethane	Not detected		6.5	50
1,2-Dibromo-3-Chloropropane	Not detected		11	50
1,2,4-Trichlorobenzene	Not detected		6.6	50
Hexachlorobutadiene	Not detected		11	50
1,2,3-Trichlorobenzene	Not detected		7.6	50
Naphthalene	Not detected		6.7	50
2-Methylnaphthalene	Not detected		7.8	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks27a.d
Method Blank Prep Date: 07/27/12
Blank/LCS Preparation Batch: vf120727s1

LCS Data File: lcss27a.d
LCS Prep Date: 07/27/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53273.01	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.02	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.06	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.07	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.08	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.09	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.10	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.11	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.12	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.13	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.14	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.15	120727A5	VF120727S1	07/27/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53285.18	120727A5	VF120727S1	07/27/12	Volatile Organics 5035	$58260
S53285.19	120727A5	VF120727S1	07/27/12	Volatile Organics 5035	$58260
S53285.20	120727A5	VF120727S1	07/27/12	Volatile Organics 5035	$58260

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks31a.d
Method Blank Prep Date: 07/31/12
Blank/LCS Preparation Batch: vf120731s1

LCS Data File: lcss31a.d
LCS Prep Date: 07/31/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53265.03	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53273.03	120731A5	VF120731S1	07/31/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.04	120731A5	VF120731S1	07/31/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53273.05	120731A5	VF120731S1	07/31/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53286.06	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.07	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.08	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.10	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.11	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.12	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.13	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.14	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.15	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.16	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.17	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.18	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.20	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.21	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.22	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.24	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260
S53286.25	120731A5	VF120731S1	07/31/12	Volatile Organics 5035	$58260

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb27a.d	07/27/12 11:16	50	95	8.0	40.0	10.3	3308	PASS
		75	95	30.0	66.0	37.1	11966	PASS
		95	95	100.0	100.0	100.0	32224	PASS
		96	95	5.0	9.0	7.3	2344	PASS
		173	174	0.0	2.0	0.5	187	PASS
		174	95	50.0	120.0	116.9	37656	PASS
		175	174	4.0	9.0	7.4	2788	PASS
		176	174	93.0	101.0	94.4	35544	PASS
		177	176	5.0	9.0	6.8	2425	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb31a.d	07/31/12 11:28	50	95	8.0	40.0	11.2	4001	PASS
		75	95	30.0	66.0	38.0	13587	PASS
		95	95	100.0	100.0	100.0	35784	PASS
		96	95	5.0	9.0	6.5	2316	PASS
		173	174	0.0	2.0	0.6	222	PASS
		174	95	50.0	120.0	111.6	39936	PASS
		175	174	4.0	9.0	6.6	2620	PASS
		176	174	93.0	101.0	96.5	38528	PASS
		177	176	5.0	9.0	6.5	2516	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc27a.d	07/27/12 11:49	Pentafluorobenzene	534499/ 3.96	267250- 1068998	3.46- 4.46
		1,4-Difluorobenzene	603369/ 4.32	301685- 1206738	3.82- 4.82
		Chlorobenzene-D5	216010/ 5.69	108005- 432020	5.19- 6.19
		1,4-Dichlorobenzene-D4	288865/ 6.78	144433- 577730	6.28- 7.28
				Total Outliers: N/A	
lcss27a.d	07/27/12 12:19	Pentafluorobenzene	578491/ 3.96	Ratio: 1.082	Diff.: 0.00
		1,4-Difluorobenzene	644702/ 4.32	Ratio: 1.069	Diff.: 0.00
		Chlorobenzene-D5	228867/ 5.68	Ratio: 1.060	Diff.: -0.01
		1,4-Dichlorobenzene-D4	317197/ 6.78	Ratio: 1.098	Diff.: 0.00
				Total Outliers: 0	
lcss27b.d	07/27/12 12:39	Pentafluorobenzene	525686/ 3.96	Ratio: 0.984	Diff.: 0.00
		1,4-Difluorobenzene	594016/ 4.32	Ratio: 0.984	Diff.: 0.00
		Chlorobenzene-D5	215943/ 5.69	Ratio: 1.000	Diff.: 0.00
		1,4-Dichlorobenzene-D4	292406/ 6.77	Ratio: 1.012	Diff.: -0.01
				Total Outliers: 0	
blks27a.d	07/27/12 13:58	Pentafluorobenzene	547760/ 3.96	Ratio: 1.025	Diff.: 0.00
		1,4-Difluorobenzene	612079/ 4.32	Ratio: 1.014	Diff.: 0.00
		Chlorobenzene-D5	215792/ 5.68	Ratio: 0.999	Diff.: -0.01
		1,4-Dichlorobenzene-D4	308047/ 6.77	Ratio: 1.066	Diff.: -0.01
				Total Outliers: 0	
5327301.d	07/27/12 14:54	Pentafluorobenzene	527232/ 3.96	Ratio: 0.986	Diff.: 0.00
		1,4-Difluorobenzene	583953/ 4.32	Ratio: 0.968	Diff.: 0.00
		Chlorobenzene-D5	202369/ 5.68	Ratio: 0.937	Diff.: -0.01
		1,4-Dichlorobenzene-D4	284266/ 6.77	Ratio: 0.984	Diff.: -0.01
				Total Outliers: 0	
5327302.d	07/27/12 15:14	Pentafluorobenzene	586722/ 3.96	Ratio: 1.098	Diff.: 0.00
		1,4-Difluorobenzene	650813/ 4.32	Ratio: 1.079	Diff.: 0.00
		Chlorobenzene-D5	231358/ 5.68	Ratio: 1.071	Diff.: -0.01
		1,4-Dichlorobenzene-D4	331017/ 6.77	Ratio: 1.146	Diff.: -0.01
				Total Outliers: 0	
5327306.d	07/27/12 15:54	Pentafluorobenzene	560279/ 3.96	Ratio: 1.048	Diff.: 0.00
		1,4-Difluorobenzene	618897/ 4.32	Ratio: 1.026	Diff.: 0.00
		Chlorobenzene-D5	219498/ 5.68	Ratio: 1.016	Diff.: -0.01
		1,4-Dichlorobenzene-D4	303962/ 6.77	Ratio: 1.052	Diff.: -0.01
				Total Outliers: 0	
5327307.d	07/27/12 16:14	Pentafluorobenzene	556530/ 3.96	Ratio: 1.041	Diff.: 0.00
		1,4-Difluorobenzene	616470/ 4.32	Ratio: 1.022	Diff.: 0.00
		Chlorobenzene-D5	218153/ 5.68	Ratio: 1.010	Diff.: -0.01
		1,4-Dichlorobenzene-D4	303452/ 6.77	Ratio: 1.050	Diff.: -0.01
				Total Outliers: 0	
5327308.d	07/27/12 16:34	Pentafluorobenzene	542601/ 3.96	Ratio: 1.015	Diff.: 0.00
		1,4-Difluorobenzene	612143/ 4.32	Ratio: 1.015	Diff.: 0.00
		Chlorobenzene-D5	213426/ 5.68	Ratio: 0.988	Diff.: -0.01
		1,4-Dichlorobenzene-D4	302260/ 6.77	Ratio: 1.046	Diff.: -0.01
				Total Outliers: 0	
5327309.d	07/27/12 16:53	Pentafluorobenzene	571288/ 3.96	Ratio: 1.069	Diff.: 0.00
		1,4-Difluorobenzene	647258/ 4.32	Ratio: 1.073	Diff.: 0.00
		Chlorobenzene-D5	229246/ 5.68	Ratio: 1.061	Diff.: -0.01
		1,4-Dichlorobenzene-D4	321946/ 6.77	Ratio: 1.115	Diff.: -0.01
				Total Outliers: 0	
5327310.d	07/27/12 17:13	Pentafluorobenzene	563847/ 3.96	Ratio: 1.055	Diff.: 0.00
		1,4-Difluorobenzene	641719/ 4.32	Ratio: 1.064	Diff.: 0.00
		Chlorobenzene-D5	223092/ 5.68	Ratio: 1.033	Diff.: -0.01
		1,4-Dichlorobenzene-D4	312604/ 6.77	Ratio: 1.082	Diff.: -0.01
				Total Outliers: 0	

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Analytical Batch: 120727a5.2
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5327311.d	07/27/12 17:33	Pentafluorobenzene	528999/ 3.96	Ratio: 0.990	Diff.: 0.00
		1,4-Difluorobenzene	594725/ 4.32	Ratio: 0.986	Diff.: 0.00
		Chlorobenzene-D5	208762/ 5.68	Ratio: 0.966	Diff.: -0.01
		1,4-Dichlorobenzene-D4	293615/ 6.77	Ratio: 1.016	Diff.: -0.01
					Total Outliers: 0
5327312.d	07/27/12 17:53	Pentafluorobenzene	561042/ 3.96	Ratio: 1.050	Diff.: 0.00
		1,4-Difluorobenzene	632136/ 4.32	Ratio: 1.048	Diff.: 0.00
		Chlorobenzene-D5	222197/ 5.68	Ratio: 1.029	Diff.: -0.01
		1,4-Dichlorobenzene-D4	305691/ 6.77	Ratio: 1.058	Diff.: -0.01
					Total Outliers: 0
5327313.d	07/27/12 18:14	Pentafluorobenzene	561568/ 3.96	Ratio: 1.051	Diff.: 0.00
		1,4-Difluorobenzene	633598/ 4.32	Ratio: 1.050	Diff.: 0.00
		Chlorobenzene-D5	224271/ 5.68	Ratio: 1.038	Diff.: -0.01
		1,4-Dichlorobenzene-D4	312367/ 6.77	Ratio: 1.081	Diff.: -0.01
					Total Outliers: 0
5327314.d	07/27/12 18:34	Pentafluorobenzene	534525/ 3.96	Ratio: 1.000	Diff.: 0.00
		1,4-Difluorobenzene	601060/ 4.32	Ratio: 0.996	Diff.: 0.00
		Chlorobenzene-D5	203682/ 5.68	Ratio: 0.943	Diff.: -0.01
		1,4-Dichlorobenzene-D4	277231/ 6.77	Ratio: 0.960	Diff.: -0.01
					Total Outliers: 0
5327315.d	07/27/12 18:54	Pentafluorobenzene	549509/ 3.96	Ratio: 1.028	Diff.: 0.00
		1,4-Difluorobenzene	613087/ 4.32	Ratio: 1.016	Diff.: 0.00
		Chlorobenzene-D5	209889/ 5.68	Ratio: 0.972	Diff.: -0.01
		1,4-Dichlorobenzene-D4	284018/ 6.77	Ratio: 0.983	Diff.: -0.01
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc31a.d	07/31/12 11:56	Pentafluorobenzene	549171/ 3.96	274586- 1098342	3.46- 4.46
		1,4-Difluorobenzene	615930/ 4.32	307965- 1231860	3.82- 4.82
		Chlorobenzene-D5	225049/ 5.68	112525- 450098	5.18- 6.18
		1,4-Dichlorobenzene-D4	305555/ 6.78	152778- 611110	6.28- 7.28
				Total Outliers: N/A	
lcss31a.d	07/31/12 12:25	Pentafluorobenzene	582160/ 3.96	Ratio: 1.060	Diff.: 0.00
		1,4-Difluorobenzene	657498/ 4.32	Ratio: 1.067	Diff.: 0.00
		Chlorobenzene-D5	236415/ 5.68	Ratio: 1.051	Diff.: 0.00
		1,4-Dichlorobenzene-D4	320066/ 6.77	Ratio: 1.047	Diff.: -0.01
				Total Outliers: 0	
lcss31b.d	07/31/12 12:46	Pentafluorobenzene	542300/ 3.96	Ratio: 0.987	Diff.: 0.00
		1,4-Difluorobenzene	620524/ 4.32	Ratio: 1.007	Diff.: 0.00
		Chlorobenzene-D5	222780/ 5.68	Ratio: 0.990	Diff.: 0.00
		1,4-Dichlorobenzene-D4	301865/ 6.77	Ratio: 0.988	Diff.: -0.01
				Total Outliers: 0	
blks31a.d	07/31/12 14:07	Pentafluorobenzene	596586/ 3.96	Ratio: 1.086	Diff.: 0.00
		1,4-Difluorobenzene	668522/ 4.32	Ratio: 1.085	Diff.: 0.00
		Chlorobenzene-D5	233728/ 5.68	Ratio: 1.039	Diff.: 0.00
		1,4-Dichlorobenzene-D4	331949/ 6.77	Ratio: 1.086	Diff.: -0.01
				Total Outliers: 0	
5327303.d	07/31/12 17:31	Pentafluorobenzene	518147/ 3.96	Ratio: 0.944	Diff.: 0.00
		1,4-Difluorobenzene	586550/ 4.32	Ratio: 0.952	Diff.: 0.00
		Chlorobenzene-D5	211814/ 5.68	Ratio: 0.941	Diff.: 0.00
		1,4-Dichlorobenzene-D4	296026/ 6.77	Ratio: 0.969	Diff.: -0.01
				Total Outliers: 0	
5327304m.d	07/31/12 20:54	Pentafluorobenzene	516340/ 3.96	Ratio: 0.940	Diff.: 0.00
		1,4-Difluorobenzene	599519/ 4.32	Ratio: 0.973	Diff.: 0.00
		Chlorobenzene-D5	217476/ 5.68	Ratio: 0.966	Diff.: 0.00
		1,4-Dichlorobenzene-D4	287573/ 6.77	Ratio: 0.941	Diff.: -0.01
				Total Outliers: 0	
5327305n.d	07/31/12 21:14	Pentafluorobenzene	496371/ 3.96	Ratio: 0.904	Diff.: 0.00
		1,4-Difluorobenzene	580311/ 4.32	Ratio: 0.942	Diff.: 0.00
		Chlorobenzene-D5	208081/ 5.68	Ratio: 0.925	Diff.: 0.00
		1,4-Dichlorobenzene-D4	274866/ 6.77	Ratio: 0.900	Diff.: -0.01
				Total Outliers: 0	

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.01
Data File: 5327301.d
Date Received: 07/20/12

Tag: SB-132 (07-18-12)(20-22)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 66.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	990	450	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.1	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	27	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	990	33	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	10	ug/kg		
67-66-3	Chloroform	Not detected	70	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.5	ug/kg		
110-82-7	Cyclohexane	Not detected	70	24	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	29	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.6	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.5	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	9.8	ug/kg		
108-87-2	Methyl cyclohexane	100	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.6	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.4	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.0	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.2	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.5	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	24	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	11	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.7	ug/kg		
Total Solids							
TSOLIDS	Total Solids	86	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (86%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (97%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.01
Data File: 5327301.d
Date Received: 07/20/12

Tag: SB-132 (07-18-12)(20-22)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.02
Data File: 5327302.d
Date Received: 07/20/12

Tag: SB-130 (07-18-12)(16-18)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 75.8

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	200	16	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	1100	510	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	10	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	31	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	37	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	80	17	ug/kg		
74-87-3	Chloromethane	Not detected	400	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	200	15	ug/kg		
74-83-9	Bromomethane	Not detected	400	16	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	200	12	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	80	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	16	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	80	13	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	80	13	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	80	12	ug/kg		
67-66-3	Chloroform	Not detected	80	12	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	80	9.7	ug/kg		
110-82-7	Cyclohexane	Not detected	80	28	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	33	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	19	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	80	11	ug/kg		
71-43-2	Benzene	Not detected	80	14	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	80	17	ug/kg		
79-01-6	Trichloroethene	Not detected	80	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	80	9.8	ug/kg		
75-27-4	Bromodichloromethane	Not detected	80	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	80	15	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	80	11	ug/kg		
108-88-3	Toluene	Not detected	80	13	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	80	9.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	80	14	ug/kg		
127-18-4	Tetrachloroethene	Not detected	80	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	80	9.2	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	80	9.4	ug/kg		
108-90-7	Chlorobenzene	Not detected	80	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	80	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	80	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	80	27	ug/kg		
95-47-6	o-Xylene	Not detected	80	14	ug/kg		
100-42-5	Styrene	Not detected	80	15	ug/kg		
98-82-8	Isopropylbenzene	Not detected	80	13	ug/kg		
75-25-2	Bromoform	Not detected	80	15	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	80	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	80	13	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	80	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	80	16	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	200	10	ug/kg		
Total Solids							
TSOLIDS	Total Solids	80	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (88%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (102%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.02
Data File: 5327302.d
Date Received: 07/20/12

Tag: SB-130 (07-18-12)(16-18)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731a5.2

LIMS ID: S53273.03
Data File: 5327303.d
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9)
Notes: 100ul 1s0731
s/50 id:vf120731s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 67.5

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	07/31/12	
67-64-1	Acetone	Not detected	1000	460	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.3	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	33	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.6	ug/kg		
110-82-7	Cyclohexane	Not detected	70	25	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	29	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.8	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10.0	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.8	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.2	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.4	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.7	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	24	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/31/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (95%)				07/31/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731a5.2

LIMS ID: S53273.03
Data File: 5327303.d
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9)
Notes: 100ul 1s0731
s/50 id:vf120731s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731a5.2

LIMS ID: S53273.04
Data File: 5327304m.d
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MS
Notes: 100ul ms 1s0731 1m0731
s/50 id:vf120731s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 70.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	3200	100	15	ug/kg	07/31/12	*
67-64-1	Acetone	3000	1100	470	ug/kg		*
75-15-0	Carbon disulfide	2600	400	9.7	ug/kg		*
79-20-9	Methyl Acetate	Not detected	4000	29	ug/kg		*
1634-04-4	tert-Methyl butyl ether (MTBE)	3200	400	13	ug/kg		*
78-93-3	2-Butanone (MEK)	3200	1100	35	ug/kg		*
75-71-8	Dichlorodifluoromethane	2680	70	16	ug/kg		*
74-87-3	Chloromethane	2700	400	14	ug/kg		*
75-01-4	Vinyl chloride	2800	100	14	ug/kg		*
74-83-9	Bromomethane	3000	400	15	ug/kg		*
75-00-3	Chloroethane	3200	400	15	ug/kg		*
75-69-4	Trichlorofluoromethane	3400	100	11	ug/kg		*
75-35-4	1,1-Dichloroethene	2740	70	15	ug/kg		*
75-09-2	Methylene chloride	2700	400	15	ug/kg		*
156-60-5	trans-1,2-Dichloroethene	2860	70	12	ug/kg		*
75-34-3	1,1-Dichloroethane	2870	70	12	ug/kg		*
156-59-2	cis-1,2-Dichloroethene	2920	70	11	ug/kg		*
67-66-3	Chloroform	2960	70	11	ug/kg		*
71-55-6	1,1,1-Trichloroethane	3190	70	9.0	ug/kg		*
110-82-7	Cyclohexane	2600	70	26	ug/kg		*
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	30	ug/kg		*
591-78-6	2-Hexanone	Not detected	4000	18	ug/kg		*
56-23-5	Carbon tetrachloride	3260	70	10	ug/kg		*
71-43-2	Benzene	3030	70	13	ug/kg		*
107-06-2	1,2-Dichloroethane	3140	70	16	ug/kg		*
79-01-6	Trichloroethene	3220	70	13	ug/kg		*
78-87-5	1,2-Dichloropropane	3020	70	9.1	ug/kg		*
75-27-4	Bromodichloromethane	3240	70	10	ug/kg		*
108-87-2	Methyl cyclohexane	3200	70	13	ug/kg		*
10061-01-5	cis-1,3-Dichloropropene	3270	70	10	ug/kg		*
108-88-3	Toluene	3170	70	12	ug/kg		*
10061-02-6	trans-1,3-Dichloropropene	3350	70	8.9	ug/kg		*
79-00-5	1,1,2-Trichloroethane	3140	70	13	ug/kg		*
127-18-4	Tetrachloroethene	3170	70	13	ug/kg		*
124-48-1	Dibromochloromethane	3420	70	8.5	ug/kg		*
106-93-4	1,2-Dibromoethane	3310	70	8.7	ug/kg		*
108-90-7	Chlorobenzene	3120	70	11	ug/kg		*
79-34-5	1,1,2,2-Tetrachloroethane	3220	70	10	ug/kg		*
100-41-4	Ethylbenzene	3220	70	13	ug/kg		*
M/P-XYLENE	p,m-Xylene	6480	70	25	ug/kg		*
95-47-6	o-Xylene	3290	70	13	ug/kg		*
100-42-5	Styrene	3240	70	13	ug/kg		*
98-82-8	Isopropylbenzene	3350	70	12	ug/kg		*
75-25-2	Bromoform	3220	70	14	ug/kg		*
541-73-1	1,3-Dichlorobenzene	3250	70	14	ug/kg		*
106-46-7	1,4-Dichlorobenzene	3190	70	12	ug/kg		*
95-50-1	1,2-Dichlorobenzene	3280	70	15	ug/kg		*
96-12-8	1,2-Dibromo-3-chloropropane	3690	70	15	ug/kg		*
120-82-1	1,2,4-Trichlorobenzene	3600	100	9.3	ug/kg		*
Total Solids							
TSOLIDS	Total Solids	84	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/31/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (99%)				07/31/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (101%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731a5.2

LIMS ID: S53273.04
Data File: 5327304m.d
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MS
Notes: 100ul ms 1s0731 1m0731
s/50 id:vf120731s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731a5.2

LIMS ID: S53273.05
Data File: 5327305n.d
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MSD
Notes: 100ul msd 1s0731 1m0731
s/50 id:vf120731s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 68.1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	3600	100	14	ug/kg	07/31/12	*
67-64-1	Acetone	3200	1000	460	ug/kg		*
75-15-0	Carbon disulfide	2900	300	9.4	ug/kg		*
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		*
1634-04-4	tert-Methyl butyl ether (MTBE)	3500	300	12	ug/kg		*
78-93-3	2-Butanone (MEK)	3300	1000	34	ug/kg		*
75-71-8	Dichlorodifluoromethane	3020	70	15	ug/kg		*
74-87-3	Chloromethane	3000	300	13	ug/kg		*
75-01-4	Vinyl chloride	3100	100	14	ug/kg		*
74-83-9	Bromomethane	3300	300	14	ug/kg		*
75-00-3	Chloroethane	3400	300	15	ug/kg		*
75-69-4	Trichlorofluoromethane	3800	100	11	ug/kg		*
75-35-4	1,1-Dichloroethene	3060	70	15	ug/kg		*
75-09-2	Methylene chloride	3000	300	15	ug/kg		*
156-60-5	trans-1,2-Dichloroethene	3200	70	12	ug/kg		*
75-34-3	1,1-Dichloroethane	3180	70	12	ug/kg		*
156-59-2	cis-1,2-Dichloroethene	3230	70	11	ug/kg		*
67-66-3	Chloroform	3270	70	11	ug/kg		*
71-55-6	1,1,1-Trichloroethane	3560	70	8.7	ug/kg		*
110-82-7	Cyclohexane	2910	70	25	ug/kg		*
108-10-1	4-Methyl-2-pentanone (MIBK)	3000	3000	29	ug/kg		*
591-78-6	2-Hexanone	4000	3000	17	ug/kg		*
56-23-5	Carbon tetrachloride	3680	70	9.9	ug/kg		*
71-43-2	Benzene	3270	70	13	ug/kg		*
107-06-2	1,2-Dichloroethane	3430	70	15	ug/kg		*
79-01-6	Trichloroethene	3540	70	13	ug/kg		*
78-87-5	1,2-Dichloropropane	3280	70	8.8	ug/kg		*
75-27-4	Bromodichloromethane	3560	70	10	ug/kg		*
108-87-2	Methyl cyclohexane	3520	70	13	ug/kg		*
10061-01-5	cis-1,3-Dichloropropene	3540	70	9.9	ug/kg		*
108-88-3	Toluene	3440	70	11	ug/kg		*
10061-02-6	trans-1,3-Dichloropropene	3630	70	8.6	ug/kg		*
79-00-5	1,1,2-Trichloroethane	3420	70	12	ug/kg		*
127-18-4	Tetrachloroethene	3410	70	12	ug/kg		*
124-48-1	Dibromochloromethane	3840	70	8.2	ug/kg		*
106-93-4	1,2-Dibromoethane	3620	70	8.4	ug/kg		*
108-90-7	Chlorobenzene	3420	70	11	ug/kg		*
79-34-5	1,1,2,2-Tetrachloroethane	3470	70	9.8	ug/kg		*
100-41-4	Ethylbenzene	3540	70	13	ug/kg		*
M/P-XYLENE	p,m-Xylene	7040	70	25	ug/kg		*
95-47-6	o-Xylene	3590	70	12	ug/kg		*
100-42-5	Styrene	3510	70	13	ug/kg		*
98-82-8	Isopropylbenzene	3660	70	12	ug/kg		*
75-25-2	Bromoform	3620	70	13	ug/kg		*
541-73-1	1,3-Dichlorobenzene	3490	70	14	ug/kg		*
106-46-7	1,4-Dichlorobenzene	3380	70	12	ug/kg		*
95-50-1	1,2-Dichlorobenzene	3570	70	15	ug/kg		*
96-12-8	1,2-Dibromo-3-chloropropane	4050	70	15	ug/kg		*
120-82-1	1,2,4-Trichlorobenzene	3700	100	9.0	ug/kg		*
Total Solids							
TSOLIDS	Total Solids	84	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/31/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (101%)				07/31/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (101%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731a5.2

LIMS ID: S53273.05
Data File: 5327305n.d
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MSD
Notes: 100ul msd 1s0731 1m0731
s/50 id:vf120731s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.06
Data File: 5327306.d
Date Received: 07/20/12

Tag: SB-158 (07-19-12)(3-5)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 58.7

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	12	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	880	400	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.1	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	24	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	880	29	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	12	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.2	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	9.9	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10.0	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.3	ug/kg		
67-66-3	Chloroform	Not detected	60	9.1	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.5	ug/kg		
110-82-7	Cyclohexane	Not detected	60	22	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	25	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.5	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	13	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.6	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.7	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	11	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.5	ug/kg		
108-88-3	Toluene	Not detected	60	9.9	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.5	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.5	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.5	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	21	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	11	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	10.0	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.7	ug/kg		
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (88%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.06
Data File: 5327306.d
Date Received: 07/20/12

Tag: SB-158 (07-19-12)(3-5)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.07
Data File: 5327307.d
Date Received: 07/20/12

Tag: SB-138 (07-19-12)(22.5-24.5)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 66.9

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	1000	450	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.2	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	27	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	33	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.6	ug/kg		
110-82-7	Cyclohexane	Not detected	70	25	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	29	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.7	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.6	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	9.9	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.7	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.5	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.6	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	24	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	11	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.8	ug/kg		
Total Solids							
TSOLIDS	Total Solids	86	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (89%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.07
Data File: 5327307.d
Date Received: 07/20/12

Tag: SB-138 (07-19-12)(22.5-24.5)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.08
Data File: 5327308.d
Date Received: 07/20/12

Tag: SB-140 (07-19-12)(10-12)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 76.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	200	16	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	1100	510	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	11	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	31	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	38	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	80	17	ug/kg		
74-87-3	Chloromethane	Not detected	400	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	200	15	ug/kg		
74-83-9	Bromomethane	Not detected	400	16	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	200	12	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	80	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	16	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	80	13	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	80	13	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	80	12	ug/kg		
67-66-3	Chloroform	Not detected	80	12	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	80	9.8	ug/kg		
110-82-7	Cyclohexane	Not detected	80	28	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	33	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	19	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	80	11	ug/kg		
71-43-2	Benzene	Not detected	80	14	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	80	17	ug/kg		
79-01-6	Trichloroethene	Not detected	80	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	80	9.8	ug/kg		
75-27-4	Bromodichloromethane	Not detected	80	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	80	15	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	80	11	ug/kg		
108-88-3	Toluene	Not detected	80	13	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	80	9.7	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	80	14	ug/kg		
127-18-4	Tetrachloroethene	Not detected	80	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	80	9.2	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	80	9.4	ug/kg		
108-90-7	Chlorobenzene	Not detected	80	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	80	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	80	15	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	80	28	ug/kg		
95-47-6	o-Xylene	Not detected	80	14	ug/kg		
100-42-5	Styrene	Not detected	80	15	ug/kg		
98-82-8	Isopropylbenzene	Not detected	80	13	ug/kg		
75-25-2	Bromoform	Not detected	80	15	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	80	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	80	13	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	80	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	80	16	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	200	10	ug/kg		
Total Solids							
TSOLIDS	Total Solids	79	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (89%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.08
Data File: 5327308.d
Date Received: 07/20/12

Tag: SB-140 (07-19-12)(10-12)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.09
Data File: 5327309.d
Date Received: 07/20/12

Tag: SB-118 (07-19-12)(2-4)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 58.5

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	12	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	880	390	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.1	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	24	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	880	29	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	12	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.1	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	12	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	9.9	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	9.9	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.2	ug/kg		
67-66-3	Chloroform	Not detected	60	9.1	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.5	ug/kg		
110-82-7	Cyclohexane	Not detected	60	21	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	25	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.5	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	13	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.5	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.7	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	11	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.5	ug/kg		
108-88-3	Toluene	Not detected	60	9.8	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.4	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.5	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.4	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	21	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	11	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	9.9	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.7	ug/kg		
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (89%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.09
Data File: 5327309.d
Date Received: 07/20/12

Tag: SB-118 (07-19-12)(2-4)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.10
Data File: 5327310.d
Date Received: 07/20/12

Tag: SB-171 (07-20-12)(10-12)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 60.9

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	910	410	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.4	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	25	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	910	30	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.5	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.6	ug/kg		
67-66-3	Chloroform	Not detected	60	9.4	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.8	ug/kg		
110-82-7	Cyclohexane	Not detected	60	22	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	26	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.8	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.9	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.0	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.8	ug/kg		
108-88-3	Toluene	Not detected	60	10	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.7	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.4	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.6	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.9	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.8	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	22	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	10	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.0	ug/kg		
Total Solids							
TSOLIDS	Total Solids	90	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (90%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.10
Data File: 5327310.d
Date Received: 07/20/12

Tag: SB-171 (07-20-12)(10-12)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.11
Data File: 5327311.d
Date Received: 07/20/12

Tag: DUP 1 (07-20-12)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 58.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	12	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	870	390	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.0	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	24	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	870	29	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	12	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.1	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	12	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	9.8	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	9.9	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.2	ug/kg		
67-66-3	Chloroform	Not detected	60	9.0	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.4	ug/kg		
110-82-7	Cyclohexane	Not detected	60	21	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	25	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.4	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	13	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.5	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.6	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	11	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.4	ug/kg		
108-88-3	Toluene	Not detected	60	9.8	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.4	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	10	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.0	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.2	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.4	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.4	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	21	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	11	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10.0	ug/kg		
75-25-2	Bromoform	Not detected	60	11	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	9.9	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	12	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.7	ug/kg		
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (90%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.11
Data File: 5327311.d
Date Received: 07/20/12

Tag: DUP 1 (07-20-12)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.12
Data File: 5327312.d
Date Received: 07/20/12

Tag: SB-147 (07-20-12) (8-10)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 66.4

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	1000	450	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.2	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	27	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	33	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	10	ug/kg		
67-66-3	Chloroform	Not detected	70	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.5	ug/kg		
110-82-7	Cyclohexane	Not detected	70	24	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	29	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.6	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.6	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	9.8	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.6	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.4	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.0	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.2	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.6	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	24	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	11	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.8	ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (89%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.12
Data File: 5327312.d
Date Received: 07/20/12

Tag: SB-147 (07-20-12) (8-10)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.13
Data File: 5327313.d
Date Received: 07/20/12

Tag: SB-148 (07-20-12) (2.5-4.5)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 66.7

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	1000	450	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.2	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	27	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	33	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.5	ug/kg		
110-82-7	Cyclohexane	Not detected	70	24	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	29	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.7	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.6	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	9.9	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.7	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.5	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.6	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	24	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	11	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.8	ug/kg		
Total Solids							
TSOLIDS	Total Solids	86	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (89%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.13
Data File: 5327313.d
Date Received: 07/20/12

Tag: SB-148 (07-20-12) (2.5-4.5)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.14
Data File: 5327314.d
Date Received: 07/20/12

Tag: SB-150 (07-20-12) (2-4)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 52.3

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	11	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	780	350	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	7.2	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	21	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	9.6	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	780	26	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	50	12	ug/kg		
74-87-3	Chloromethane	Not detected	300	10	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	10	ug/kg		
74-83-9	Bromomethane	Not detected	300	11	ug/kg		
75-00-3	Chloroethane	Not detected	300	11	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	8.2	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	50	11	ug/kg		
75-09-2	Methylene chloride	Not detected	300	11	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	50	8.8	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	50	8.9	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	50	8.3	ug/kg		
67-66-3	Chloroform	Not detected	50	8.1	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	50	6.7	ug/kg		
110-82-7	Cyclohexane	Not detected	50	19	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	23	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	13	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	50	7.6	ug/kg		
71-43-2	Benzene	Not detected	50	9.6	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	50	12	ug/kg		
79-01-6	Trichloroethene	Not detected	50	9.8	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	50	6.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	50	7.7	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	50	10	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	7.6	ug/kg		
108-88-3	Toluene	Not detected	50	8.8	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	6.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	50	9.6	ug/kg		
127-18-4	Tetrachloroethene	Not detected	50	9.4	ug/kg		
124-48-1	Dibromochloromethane	Not detected	50	6.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	50	6.5	ug/kg		
108-90-7	Chlorobenzene	Not detected	50	8.5	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	7.5	ug/kg		
100-41-4	Ethylbenzene	Not detected	50	10.0	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	50	19	ug/kg		
95-47-6	o-Xylene	Not detected	50	9.5	ug/kg		
100-42-5	Styrene	Not detected	50	10	ug/kg		
98-82-8	Isopropylbenzene	Not detected	50	8.9	ug/kg		
75-25-2	Bromoform	Not detected	50	10	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	50	11	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	50	8.9	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	50	11	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	50	11	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	6.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	97	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (88%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (97%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.14
Data File: 5327314.d
Date Received: 07/20/12

Tag: SB-150 (07-20-12) (2-4)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.15
Data File: 5327315.d
Date Received: 07/20/12

Tag: DUP2 (07-20-12)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 54.4

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	12	ug/kg	07/27/12	
67-64-1	Acetone	Not detected	820	370	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	7.5	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	22	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	10.0	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	820	27	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	50	12	ug/kg		
74-87-3	Chloromethane	Not detected	300	11	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	11	ug/kg		
74-83-9	Bromomethane	Not detected	300	11	ug/kg		
75-00-3	Chloroethane	Not detected	300	12	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	8.5	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	50	12	ug/kg		
75-09-2	Methylene chloride	Not detected	300	12	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	50	9.2	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	50	9.2	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	50	8.6	ug/kg		
67-66-3	Chloroform	Not detected	50	8.4	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	50	7.0	ug/kg		
110-82-7	Cyclohexane	Not detected	50	20	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	24	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	14	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	50	7.9	ug/kg		
71-43-2	Benzene	Not detected	50	10	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	50	12	ug/kg		
79-01-6	Trichloroethene	Not detected	50	10	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	50	7.0	ug/kg		
75-27-4	Bromodichloromethane	Not detected	50	8.1	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	50	10	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	7.9	ug/kg		
108-88-3	Toluene	Not detected	50	9.1	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	6.9	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	50	10.0	ug/kg		
127-18-4	Tetrachloroethene	Not detected	50	9.8	ug/kg		
124-48-1	Dibromochloromethane	Not detected	50	6.6	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	50	6.7	ug/kg		
108-90-7	Chlorobenzene	Not detected	50	8.8	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	7.8	ug/kg		
100-41-4	Ethylbenzene	Not detected	50	10	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	50	20	ug/kg		
95-47-6	o-Xylene	Not detected	50	9.9	ug/kg		
100-42-5	Styrene	Not detected	50	10	ug/kg		
98-82-8	Isopropylbenzene	Not detected	50	9.3	ug/kg		
75-25-2	Bromoform	Not detected	50	11	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	50	11	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	50	9.2	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	50	12	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	50	12	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.2	ug/kg		
Total Solids							
TSOLIDS	Total Solids	97	1		%	07/24/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (87%)				07/27/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120727a5.2

LIMS ID: S53273.15
Data File: 5327315.d
Date Received: 07/20/12

Tag: DUP2 (07-20-12)
Notes: 100ul 1s0727
s/50 id:vf120727s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
Analytical Batch: 120731a5.2
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327301.d Vial: 7
Acq On : 27 Jul 12 2:54 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

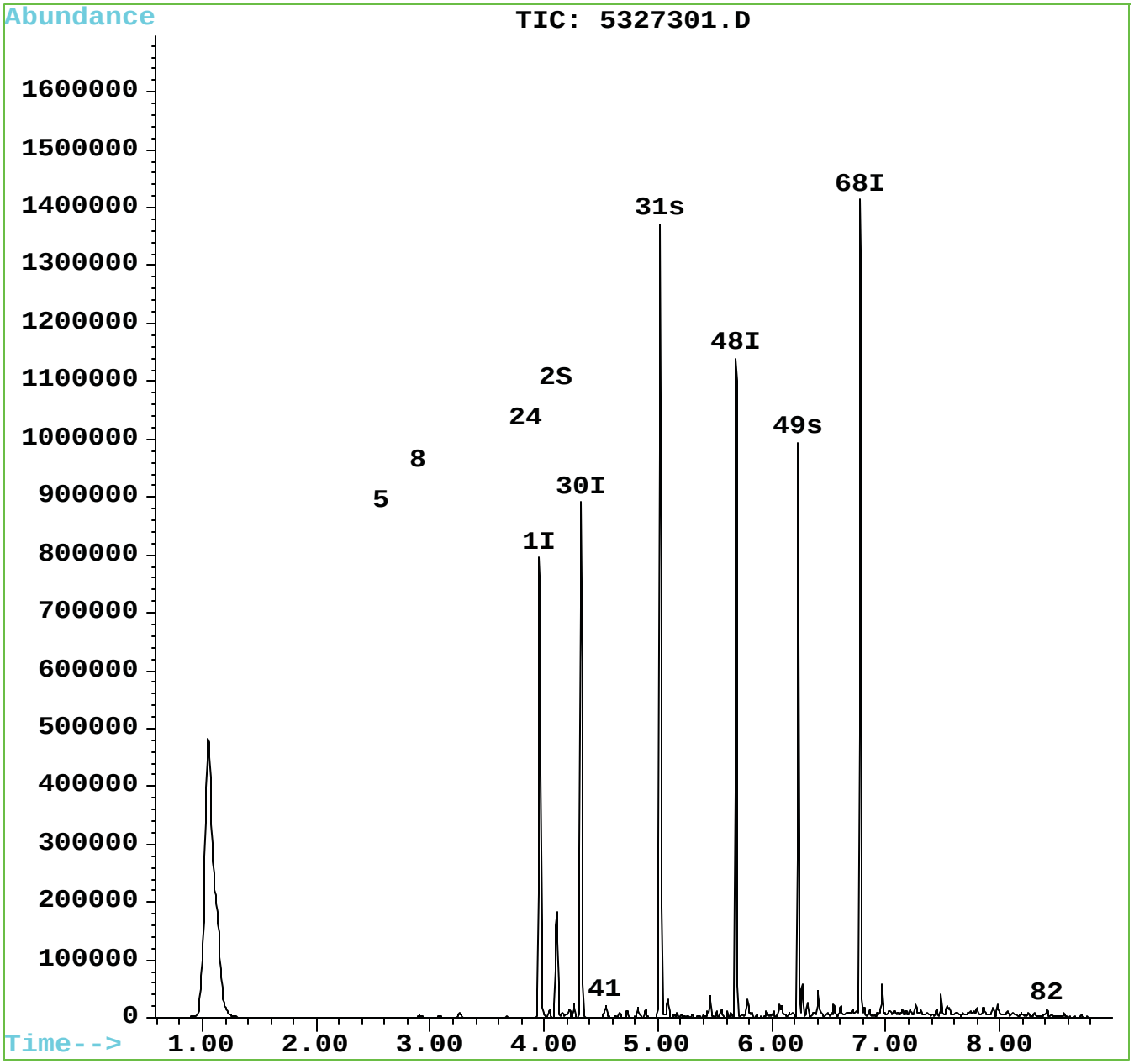
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	527232	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	583953	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	202369	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	284266	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	86167	43.22	ug/l	86.4
31) TOLUENE-D8 (S)	5.02	98	574896	48.72	ug/l	97.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	240169	49.90	ug/l	99.8
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	651	3.32	ug/l	5
8) Methyl Acetate	2.90	43	3989	5.60	ug/l #	4
24) Tetrahydrofuran	3.84	42	730	2.51	ug/l #	
41) Methyl Cyclohexane	4.54	55	4922	1.49	ug/l	8
82) 2-Methylnaphthalene	8.41	142	3368	1.03	ug/l	8

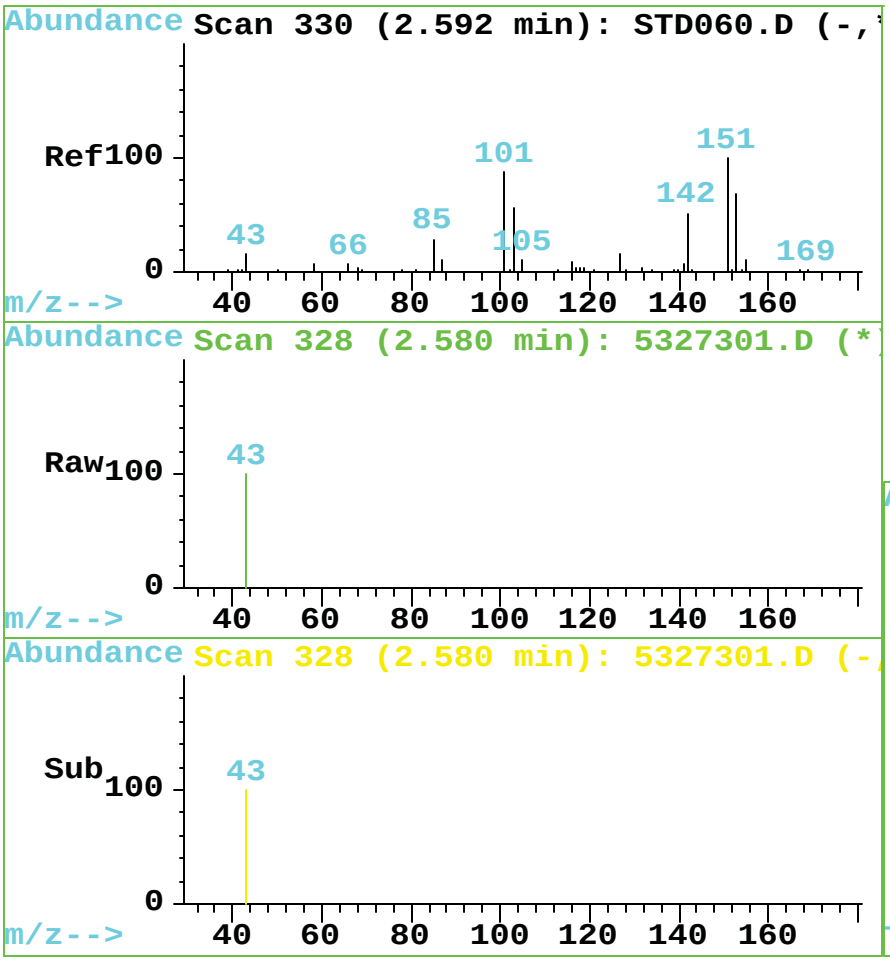
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327301.d Vial: 7
Acq On : 27 Jul 12 2:54 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

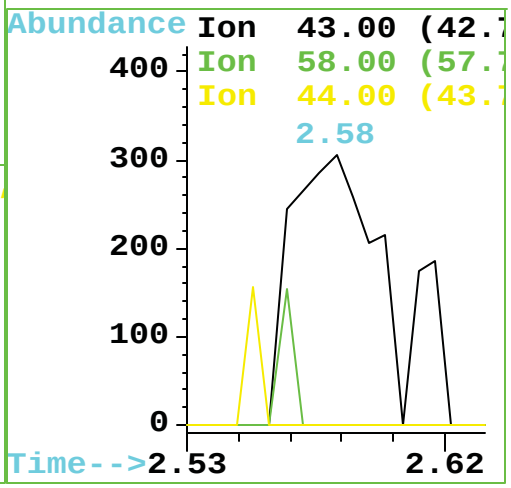


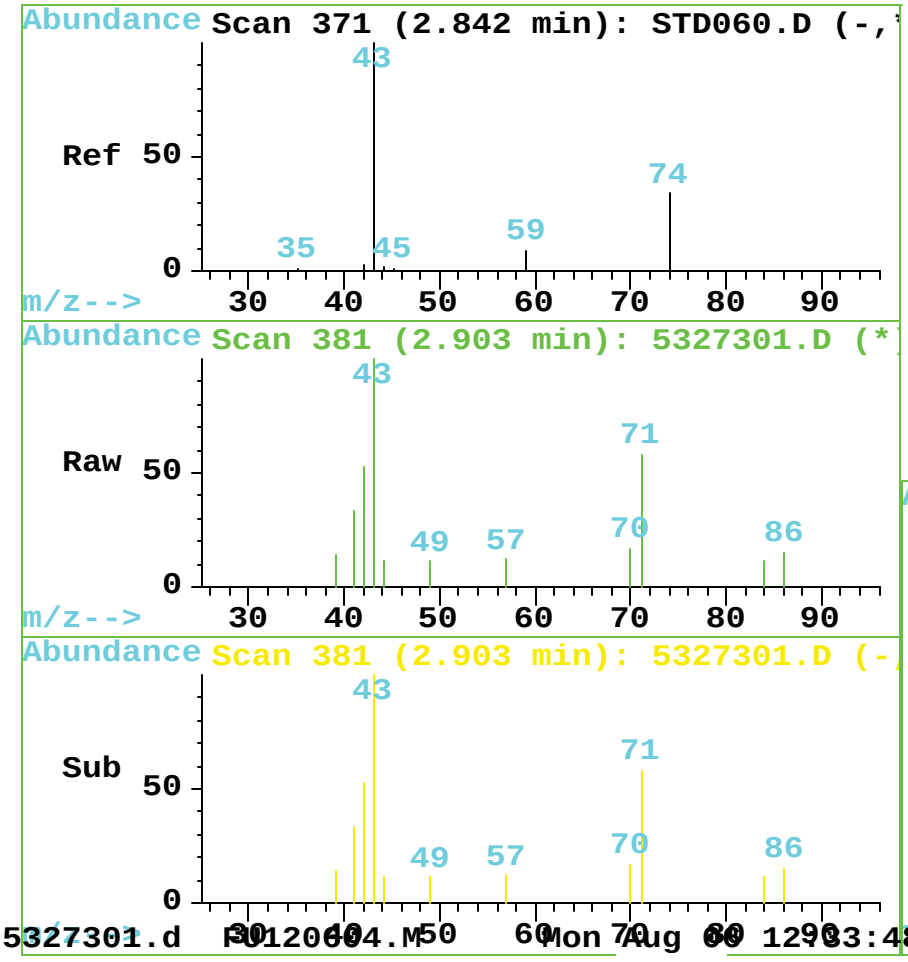


#5
Acetone (*)
Concen: 3.32 ug/l
RT: 2.58 min Scan# 328
Delta R.T. 0.01 min
Lab File: 5327301.d
Acq: 27 Jul 12 2:54 pm

Tgt Ion:43 Resp: 651

Ion	Ratio	Lower	Upper
43	100		
58	8.6	2.5	62.5
44	8.8	0.0	32.2
0	0.0	0.0	0.0

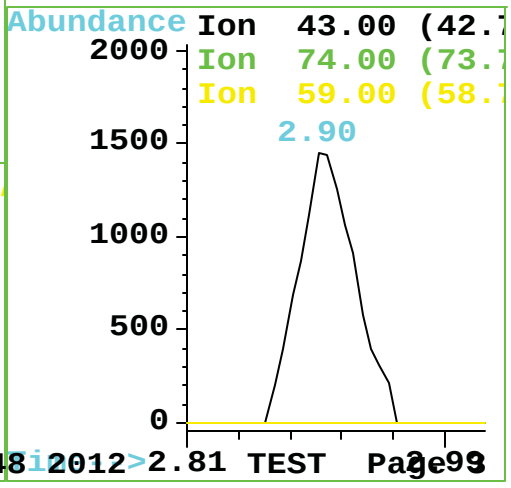


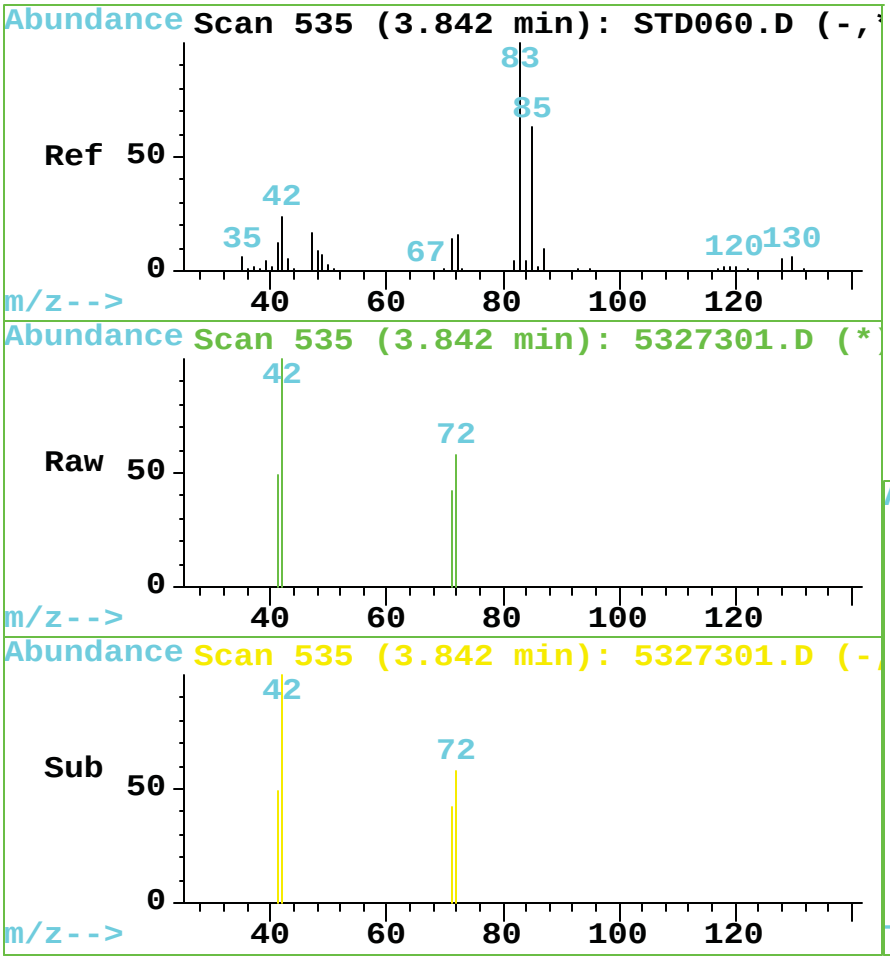


#8
Methyl Acetate
Concen: 5.60 ug/l
RT: 2.90 min Scan# 381
Delta R.T. 0.07 min
Lab File: 5327301.d
Acq: 27 Jul 12 2:54 pm

Tgt Ion:43 Resp: 3989

Ion	Ratio	Lower	Upper
43	100		
74	0.0	4.8	64.8#
59	0.0	0.0	40.3
0	0.0	0.0	0.0

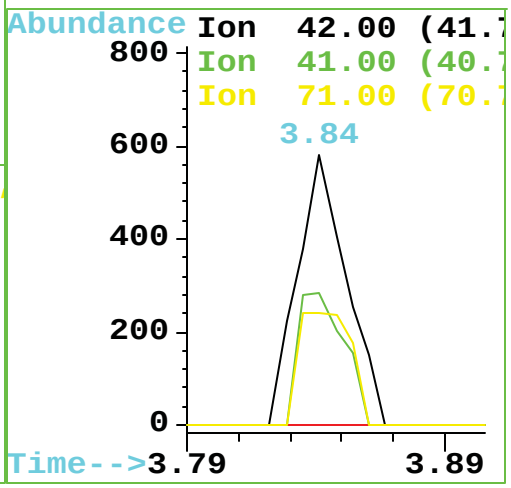


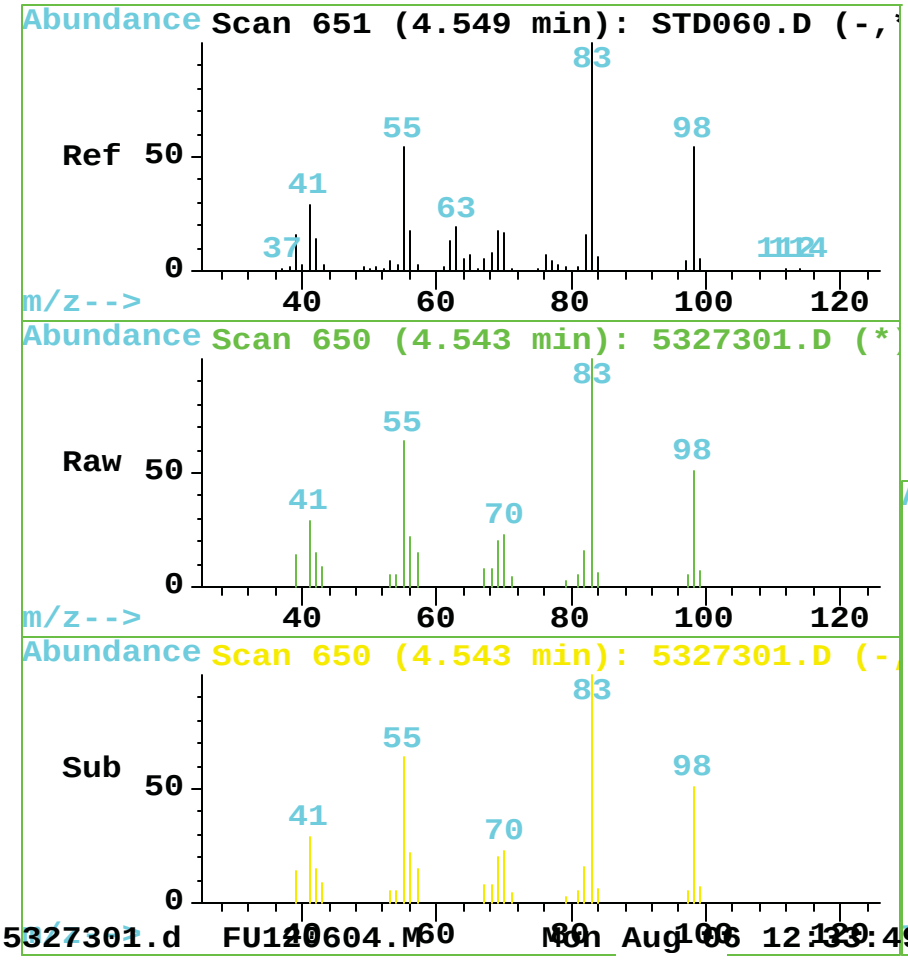


#24
Tetrahydrofuran
Concen: 2.51 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327301.d
Acq: 27 Jul 12 2:54 pm

Tgt Ion:42 Resp: 730

Ion	Ratio	Lower	Upper
42	100		
41	46.3	222.5	282.5#
71	44.9	24.9	84.9
0	0.0	0.0	0.0

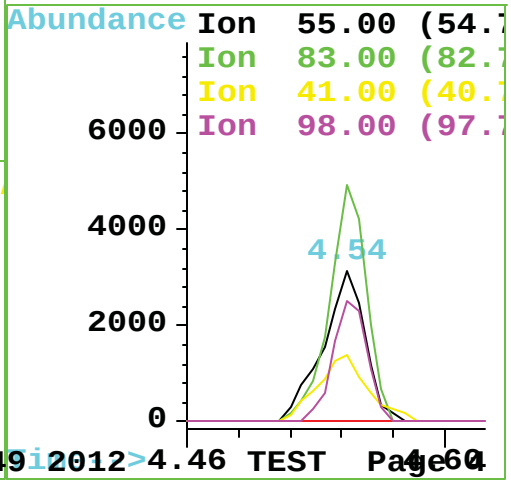


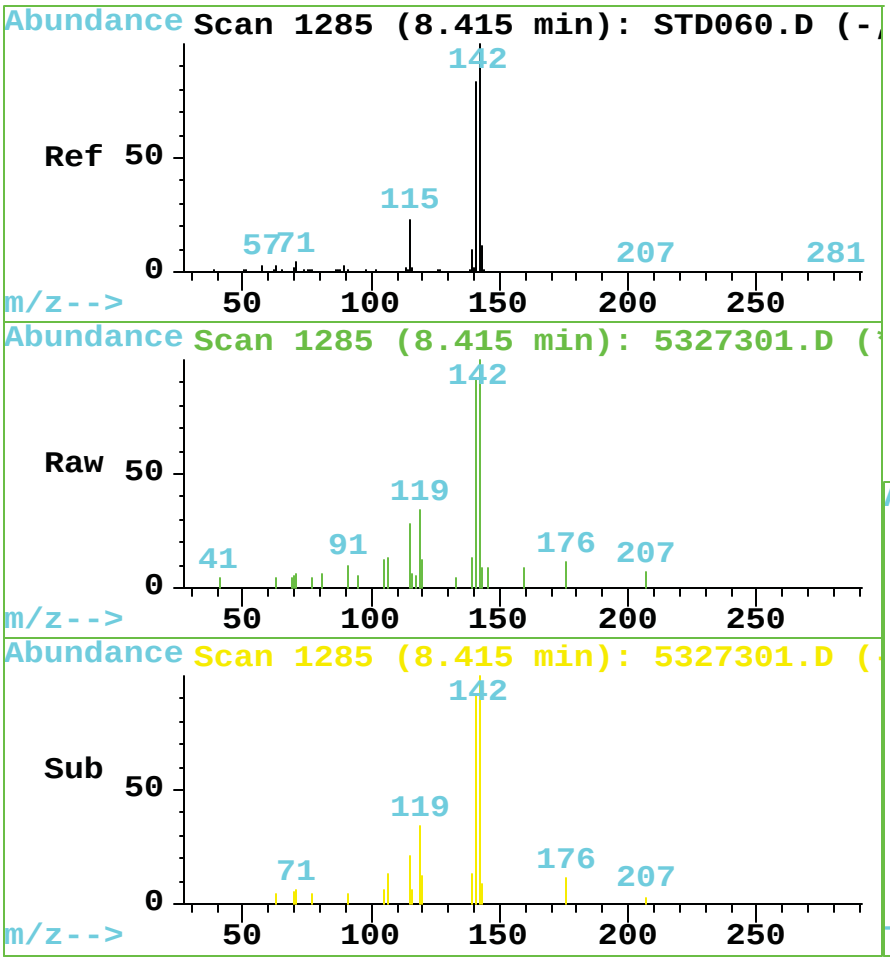


#41
Methyl Cyclohexane
Concen: 1.49 ug/l
RT: 4.54 min Scan# 650
Delta R.T. 0.00 min
Lab File: 5327301.d
Acq: 27 Jul 12 2:54 pm

Tgt Ion:55 Resp: 4922

Ion	Ratio	Lower	Upper
55	100		
83	137.1	131.0	191.0
41	53.4	42.0	102.0
98	65.6	55.3	115.3

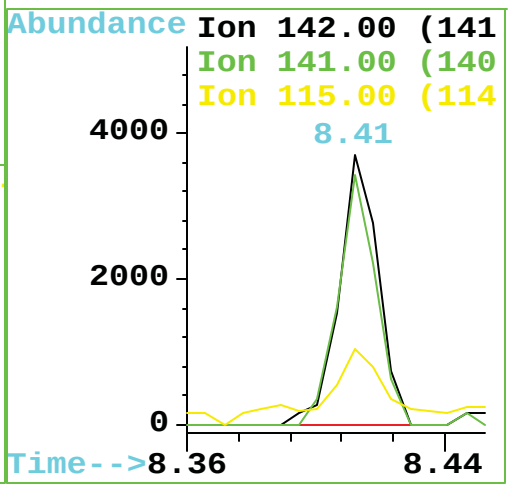




#82
2-Methylnaphthalene
Concen: 1.03 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5327301.d
Acq: 27 Jul 12 2:54 pm

Tgt Ion:142 Resp: 3368

Ion	Ratio	Lower	Upper
142	100		
141	89.4	55.8	115.8
115	46.0	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327302.d Vial: 8
Acq On : 27 Jul 12 3:14 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

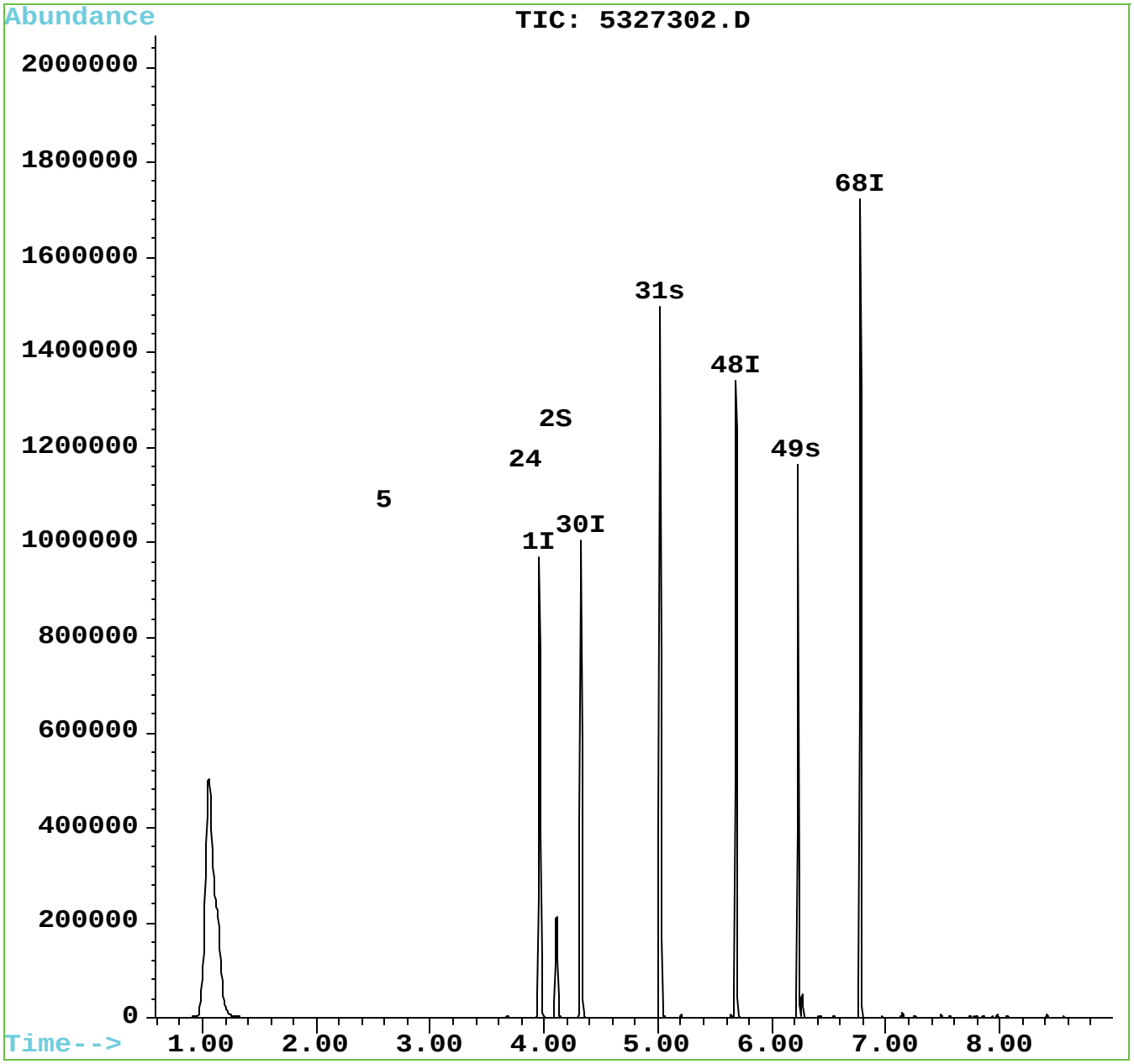
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	586722	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	650813	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	231358	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	331017	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	97118	43.78	ug/l	87.5
31) TOLUENE-D8 (S)	5.02	98	650148	49.44	ug/l	98.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	280220	50.93	ug/l	101.8
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	501	2.29	ug/l #	4
24) Tetrahydrofuran	3.84	42	678	2.09	ug/l #	

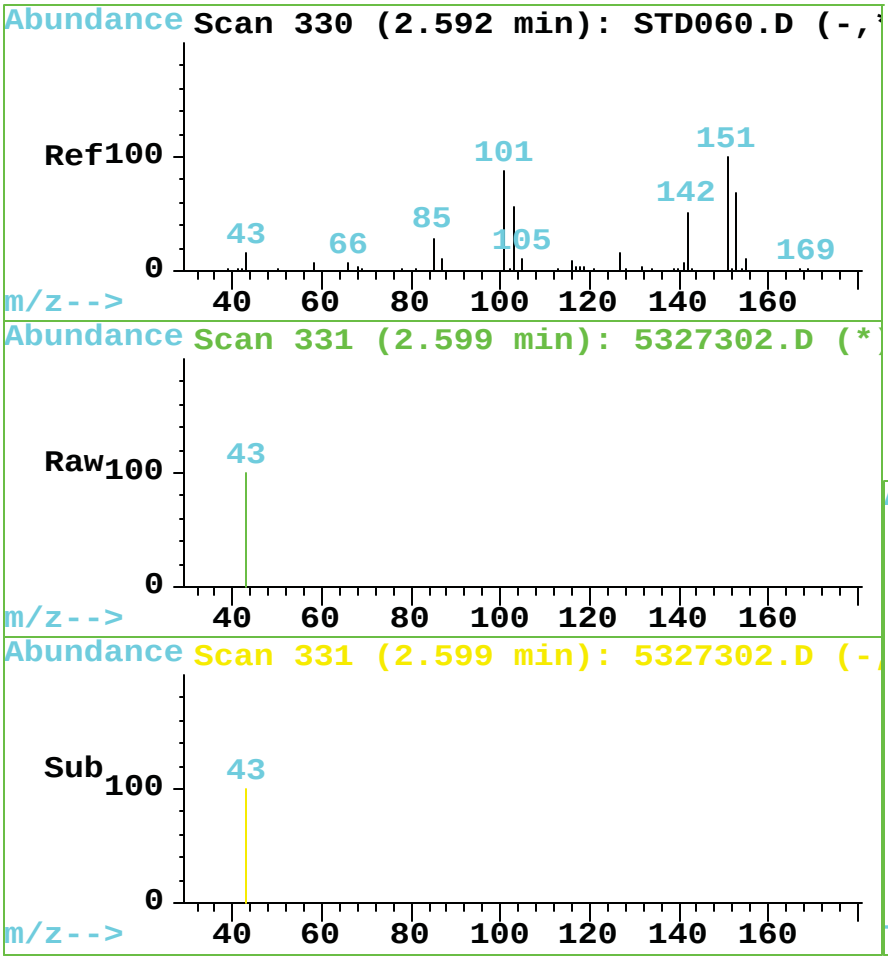
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327302.d Vial: 8
Acq On : 27 Jul 12 3:14 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

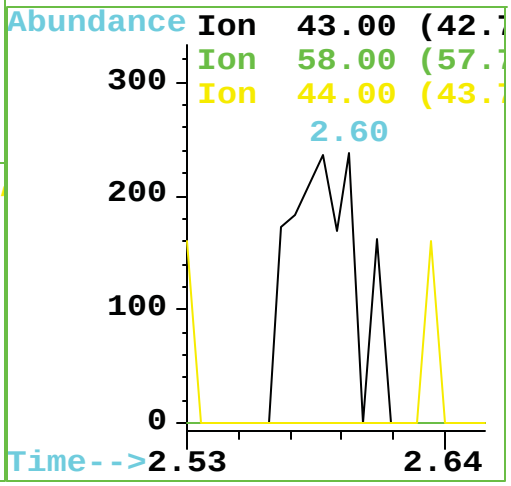


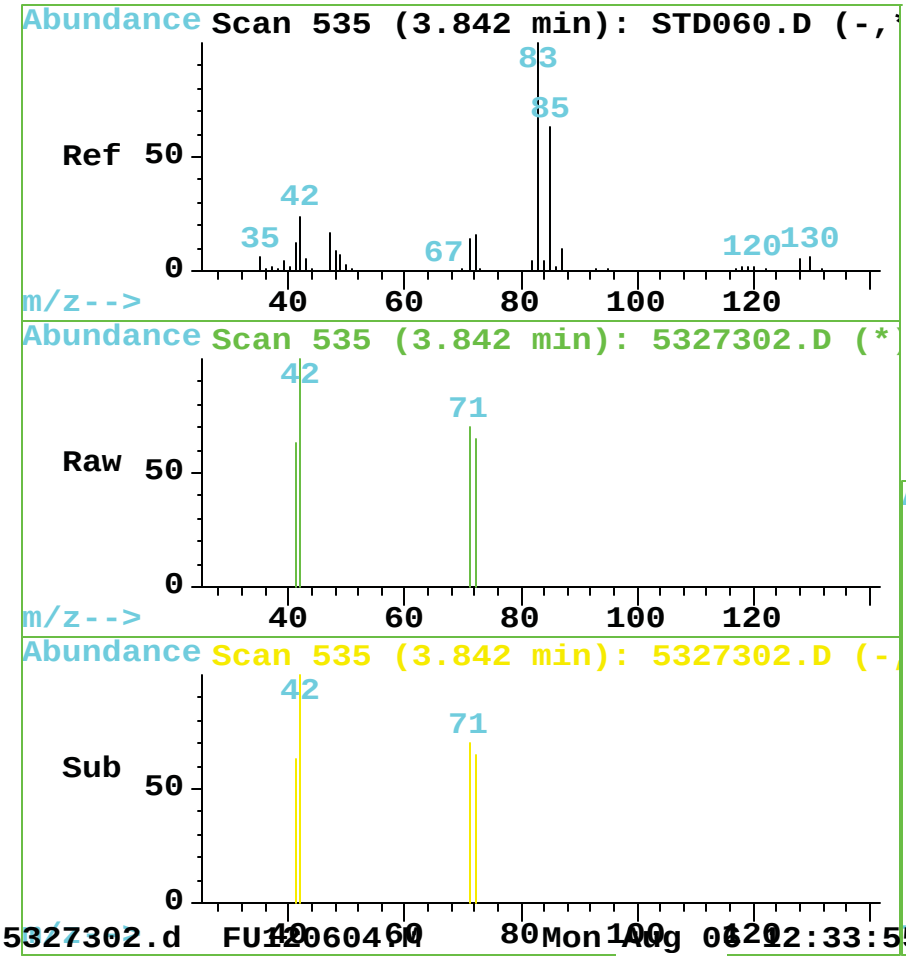


#5
Acetone (*)
Concen: 2.29 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5327302.d
Acq: 27 Jul 12 3:14 pm

Tgt Ion:43 Resp: 501

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	11.8	0.0	32.2
0	0.0	0.0	0.0

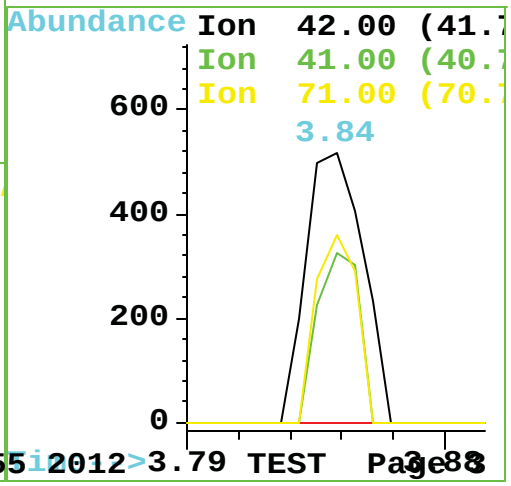




#24
Tetrahydrofuran
Concen: 2.09 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327302.d
Acq: 27 Jul 12 3:14 pm

Tgt Ion:42 Resp: 678

Ion	Ratio	Lower	Upper
42	100		
41	46.2	222.5	282.5#
71	50.0	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327303.d Vial: 15
Acq On : 31 Jul 12 5:31 pm Operator: wat
Sample : 100ul 1s0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Jul 31 22:34 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

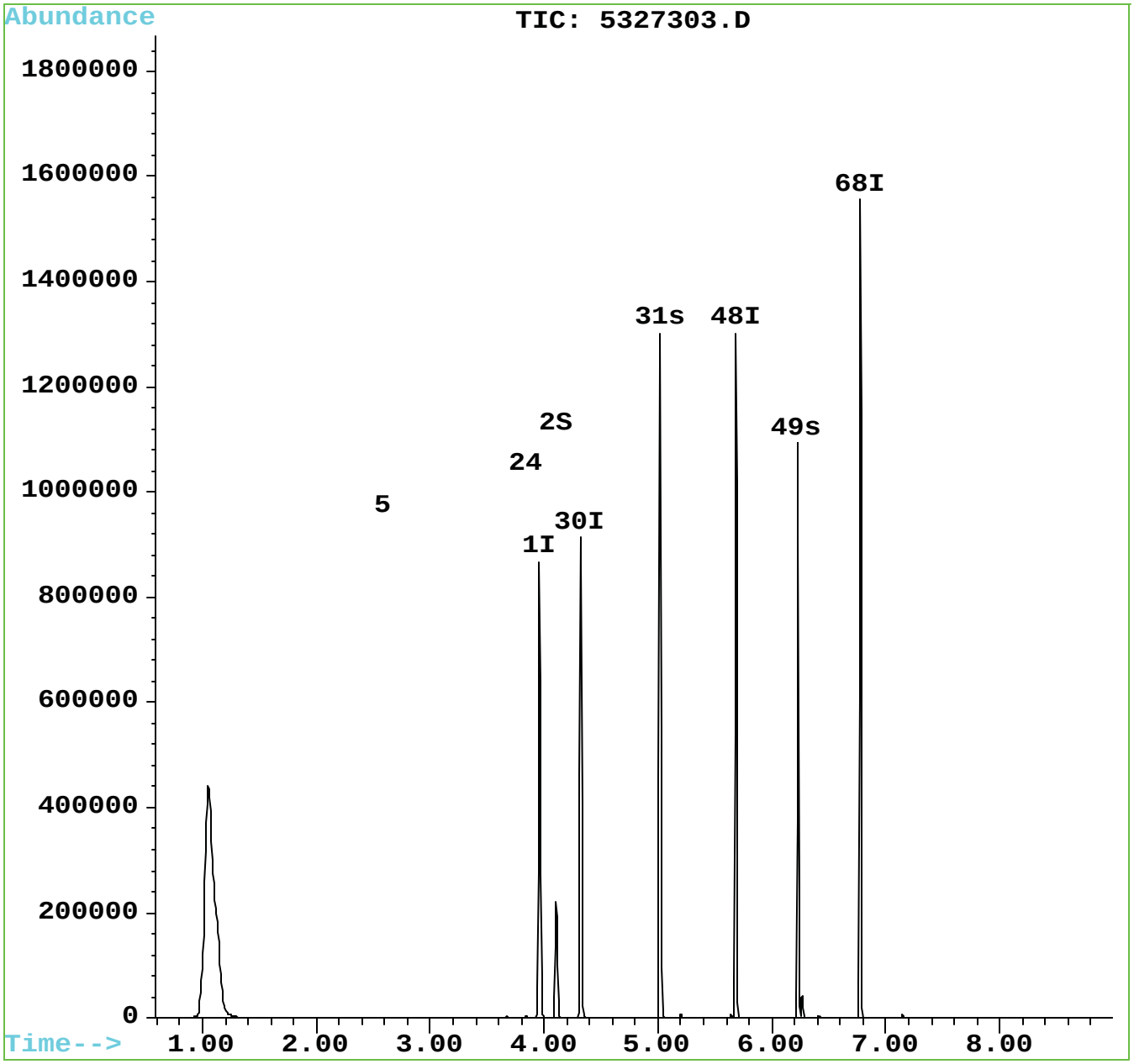
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	518147	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	586550	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	211814	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	296026	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	92615	47.27	ug/l	94.5
31) TOLUENE-D8 (S)	5.02	98	584217	49.30	ug/l	98.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	253151	50.25	ug/l	100.5
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	414	2.15	ug/l #	4
24) Tetrahydrofuran	3.84	42	1001	3.50	ug/l #	

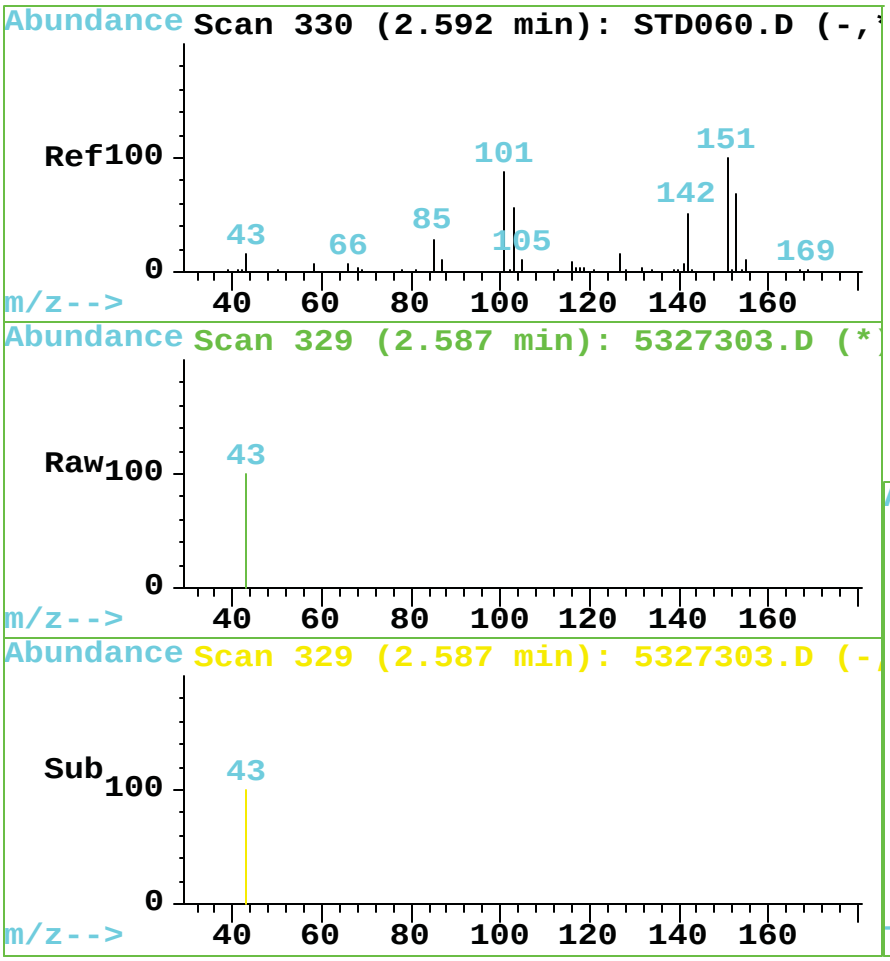
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327303.d Vial: 15
Acq On : 31 Jul 12 5:31 pm Operator: wat
Sample : 100ul 1s0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Jul 31 22:34 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

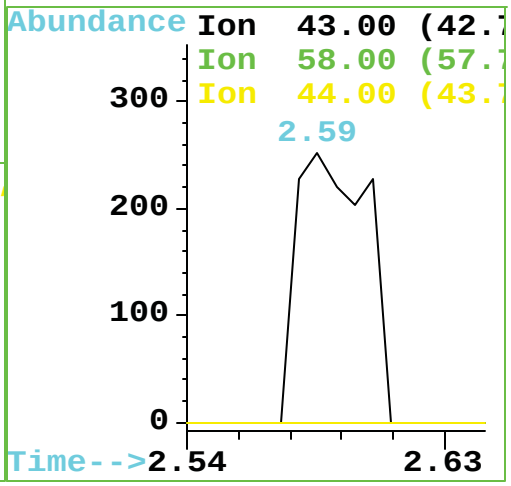


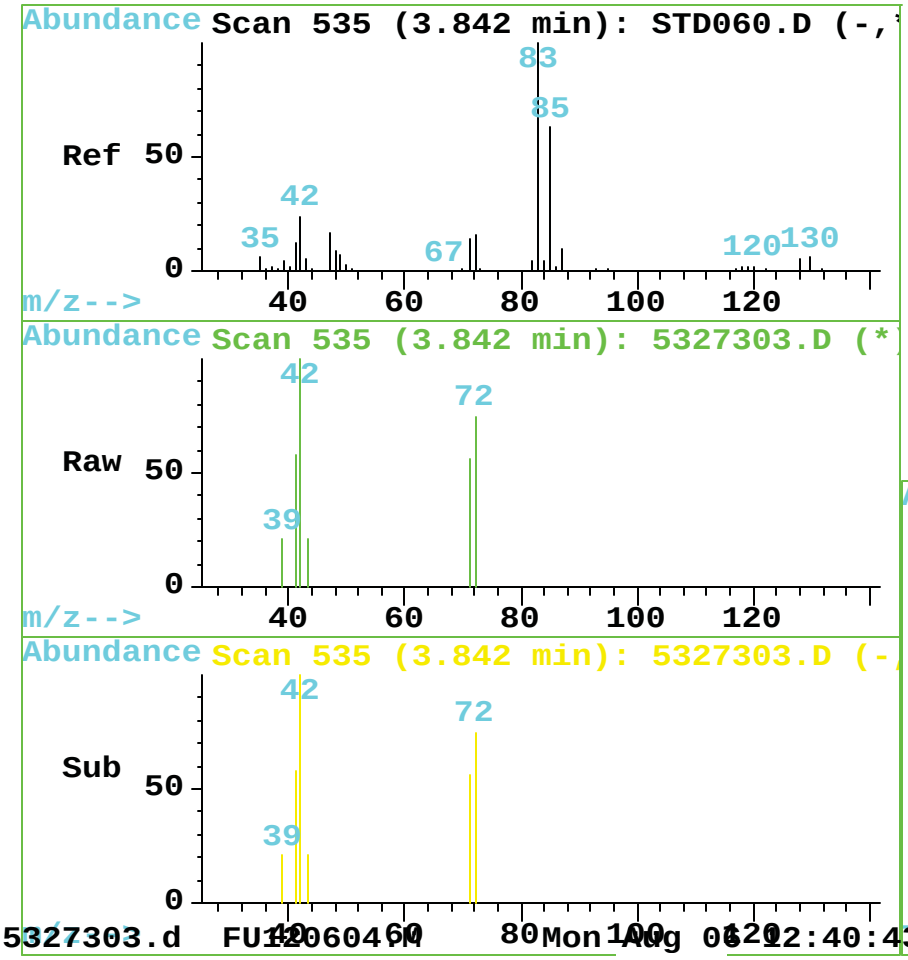


#5
Acetone (*)
Concen: 2.15 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5327303.d
Acq: 31 Jul 12 5:31 pm

Tgt Ion:43 Resp: 414

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

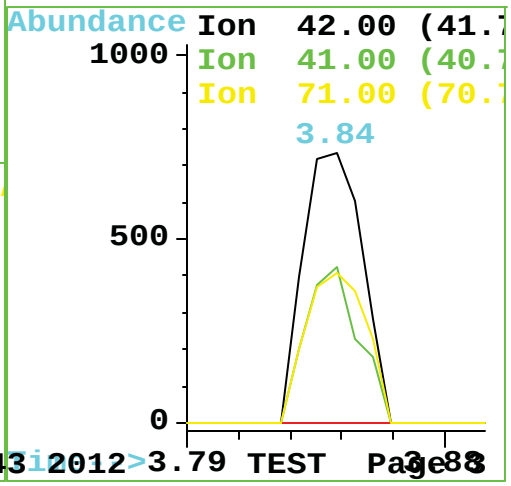




#24
Tetrahydrofuran
Concen: 3.50 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327303.d
Acq: 31 Jul 12 5:31 pm

Tgt Ion:42 Resp: 1001

Ion	Ratio	Lower	Upper
42	100		
41	51.5	222.5	282.5#
71	57.1	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327304m.d Vial: 25
Acq On : 31 Jul 12 8:54 pm Operator: wat
Sample : 100ul ms 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:53 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	516340	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	599519	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	217476	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	287573	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	97006	49.69	ug/l		99.3
31) TOLUENE-D8 (S)	5.02	98	610425	50.39	ug/l		100.7
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	258182	49.92	ug/l		99.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	150464	45.32	ug/l		9
4) Diethyl ether (*)	2.35	74	39341	41.24	ug/l		9
5) Acetone (*)	2.60	43	8084	42.06	ug/l	#	8
6) Methyl iodide (iodomethane	2.62	142	288973	41.45	ug/l		9
7) Carbon disulfide (*)	2.67	76	359126	36.41	ug/l		9
8) Methyl Acetate	2.84	43	27343	39.22	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	216762	45.00	ug/l		9
10) Acrylonitrile (*)	3.08	53	18561	43.85	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	13693	45.92	ug/l		9
12) Dichlorodifluoromethane	1.23	85	79612	38.22	ug/l		9
13) Chloromethane (SPCC)	1.34	50	90208	38.09	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	105509	39.59	ug/l		9
15) Bromomethane	1.73	94	49950	42.20	ug/l		9
16) Chloroethane	1.82	64	25728	45.29	ug/l		9
18) Trichlorofluoromethane	2.11	101	149712	48.21	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	128739	39.03	ug/l		8
20) Methylene Chloride	2.90	84	122645	38.46	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	139771	40.69	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	175818	40.88	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	149643	41.64	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11293	39.64	ug/l	#	
25) Chloroform (CCC)	3.85	83	194669	42.10	ug/l		9
26) Bromochloromethane	3.81	130	97594	42.44	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	205787	45.46	ug/l	#	4
29) Cyclohexane	3.98	42	38690	37.00	ug/l	#	2
32) 4-Methyl-2-pentanone (MIBK	4.96	58	17265	45.16	ug/l		8
33) 2-Hexanone (*)	5.34	58	14633	49.11	ug/l		9
35) Carbon Tetrachloride	4.04	117	197530	46.46	ug/l		9
36) Benzene (MS)	4.14	78	516797	43.13	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327304m.d Vial: 25
Acq On : 31 Jul 12 8:54 pm Operator: wat
Sample : 100ul ms 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:53 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
37) 1,2-Dichloroethane	4.15	62	97140	44.76 ug/l	9
38) Trichloroethene (MS)	4.45	95	150006	45.88 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	100245	43.04 ug/l	9
40) Bromodichloromethane	4.68	83	134416	46.15 ug/l	9
41) Methyl Cyclohexane	4.54	55	154501	45.64 ug/l	8
42) Dibromomethane	4.62	174	106454	47.04 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	169032	46.53 ug/l	9
44) Toluene (CCC/MS)	5.05	91	634847	45.15 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	130190	47.65 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	67223	44.69 ug/l	9
47) Tetrachloroethene	5.31	166	262030	45.10 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	13744	45.73 ug/l #	7
51) Dibromochloromethane	5.42	129	120923	48.74 ug/l	9
52) 1,2-Dibromoethane	5.48	107	93992	47.11 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	448148	44.50 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	158903	47.22 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	692638	45.87 ug/l	9
56) p,m-Xylene	5.79	106	595019	92.24 ug/l	9
57) o-Xylene	5.98	91	539557	46.87 ug/l	9
58) Styrene	5.99	104	431803	46.09 ug/l	9
59) Isopropylbenzene	6.15	105	810234	47.70 ug/l	9
60) Bromoform (SPCC)	6.09	173	79145	45.86 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	85220	45.84 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	29454	48.05 ug/l #	8
63) n-Propylbenzene	6.34	91	827398	47.37 ug/l	9
64) Bromobenzene	6.31	156	218184	45.54 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	368931	47.08 ug/l	9
66) tert-Butylbenzene	6.58	91	391120	48.80 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	398740	48.18 ug/l	9
69) sec-Butylbenzene	6.68	105	910590	49.96 ug/l	9
70) p-Isopropyltoluene	6.75	119	788050	51.21 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	389162	46.30 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	391947	45.42 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	364876	46.69 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	600277	47.17 ug/l	9
75) n-Butylbenzene	6.95	91	585975	48.06 ug/l	9
76) Hexachloroethane	7.10	201	163760	44.92 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	22754	52.56 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	271822	50.95 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	229637	52.65 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327304m.d Vial: 25
Acq On : 31 Jul 12 8:54 pm Operator: wat
Sample : 100ul ms 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:53 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

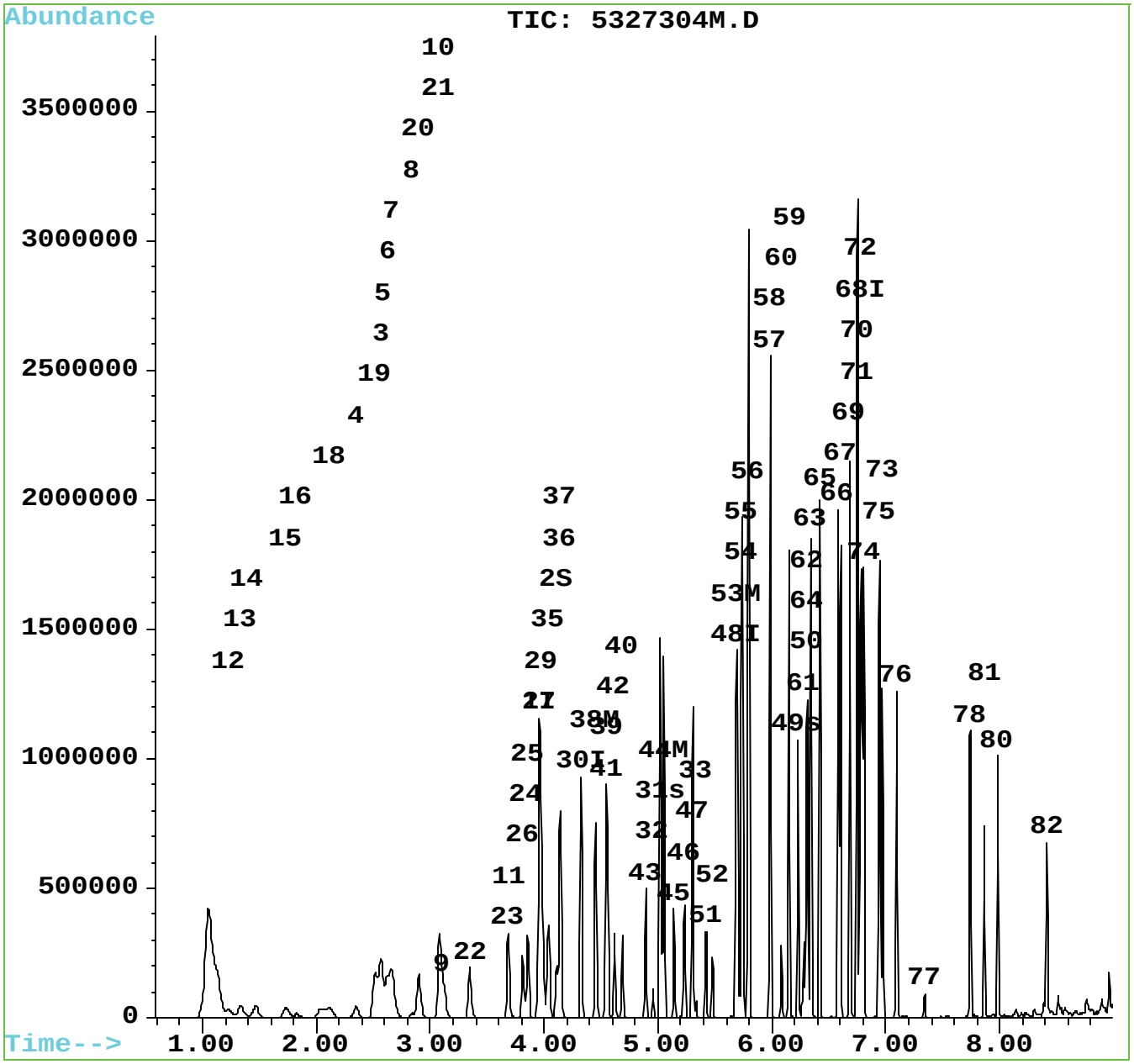
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
81)	Naphthalene	7.87	128	374456	57.36 ug/l	9
82)	2-Methylnaphthalene	8.41	142	201574	60.96 ug/l	9

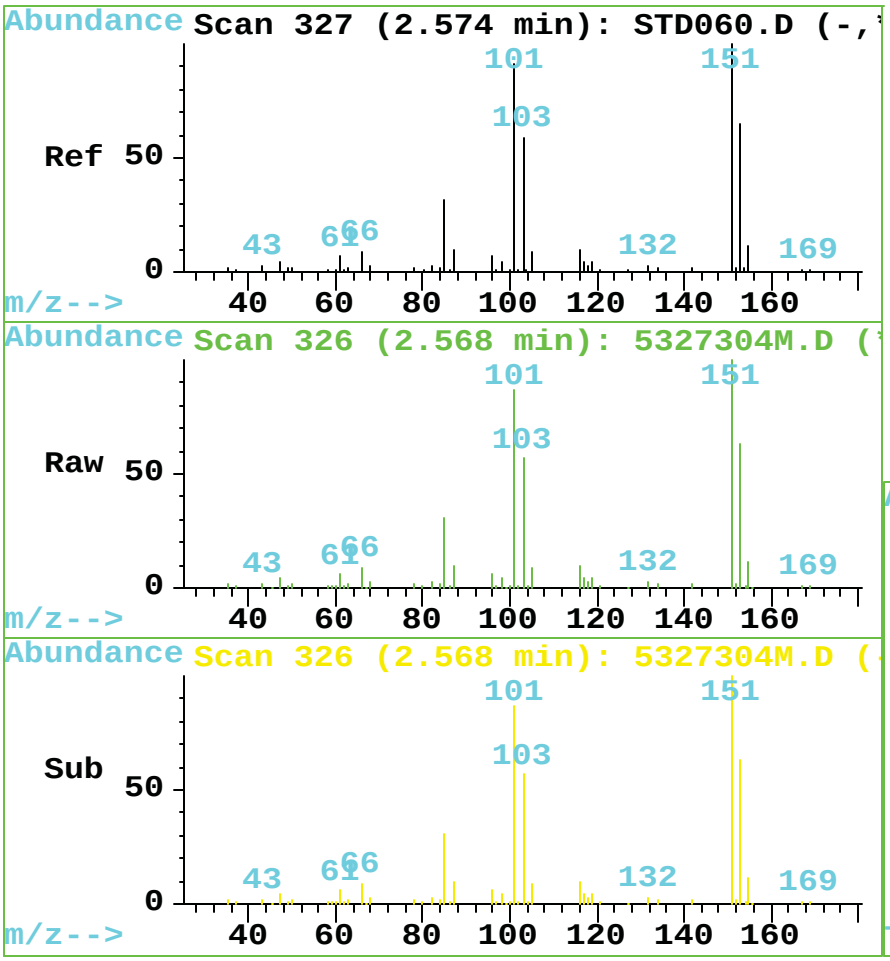
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327304m.d Vial: 25
Acq On : 31 Jul 12 8:54 pm Operator: wat
Sample : 100ul ms 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:53 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

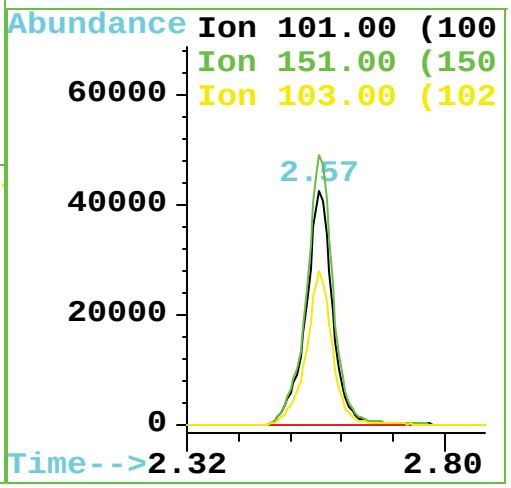


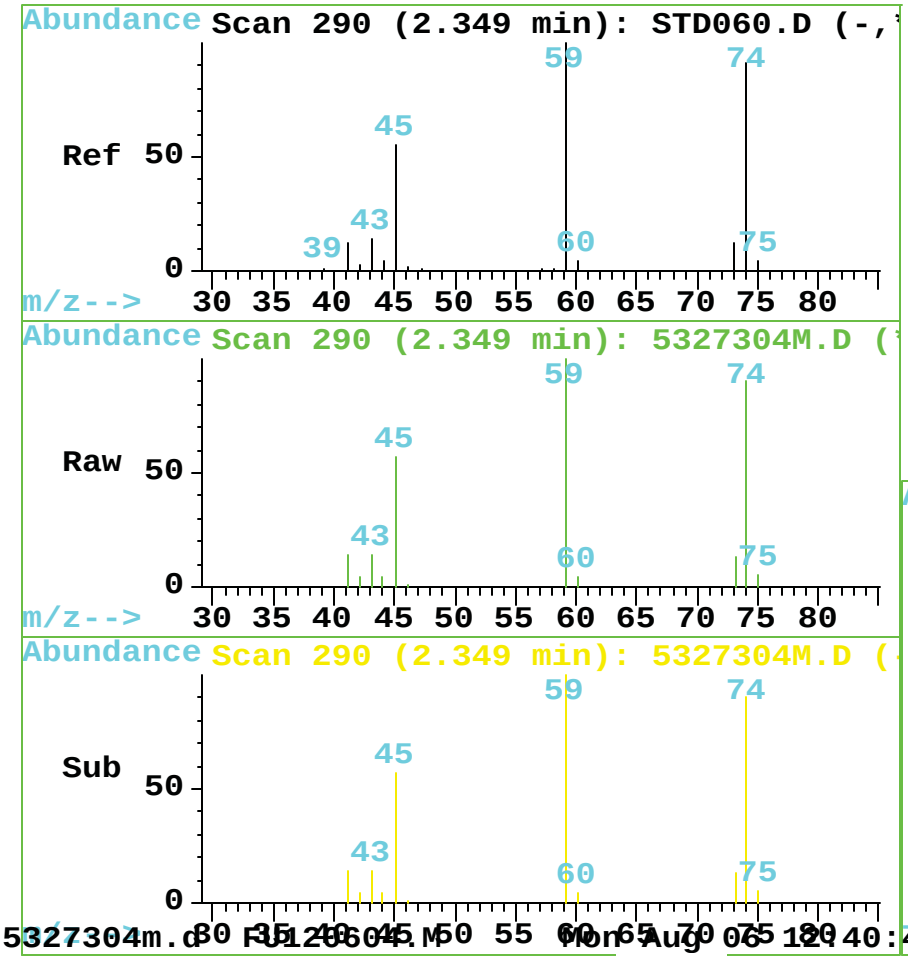


#3
1,1,2-Trichloro-1,2,2-trif
Concen: 45.32 ug/l
RT: 2.57 min Scan# 326
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:101 Resp: 150464

Ion	Ratio	Lower	Upper
101	100		
151	116.4	76.1	136.1
103	64.7	35.2	95.2
0	0.0	0.0	0.0

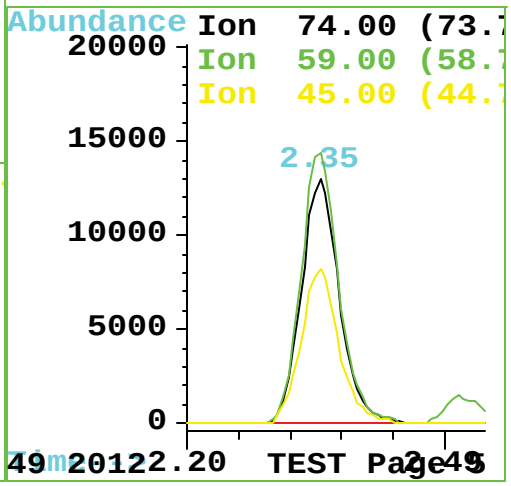


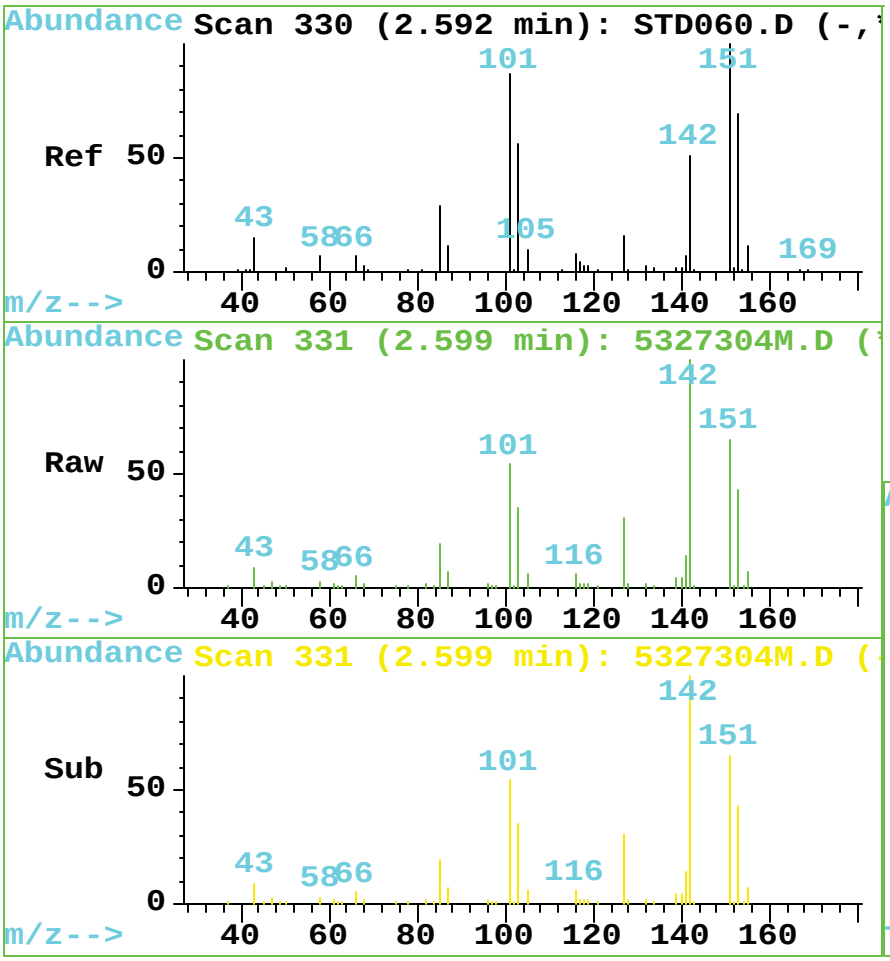


#4
Diethyl ether (*)
Concen: 41.24 ug/l
RT: 2.35 min Scan# 290
Delta R.T. 0.02 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:74 Resp: 39341

Ion	Ratio	Lower	Upper
74	100		
59	110.3	86.2	146.2
45	62.7	37.4	97.4
0	0.0	0.0	0.0

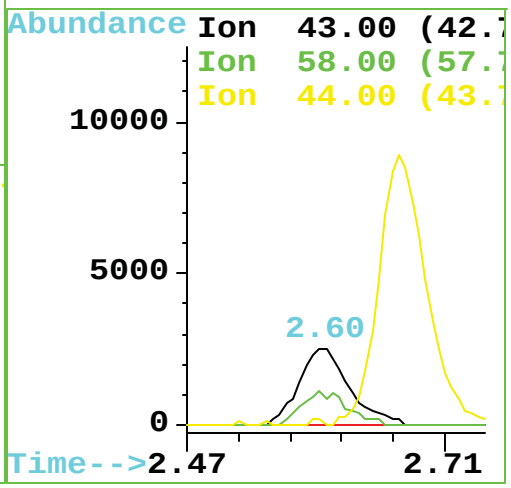


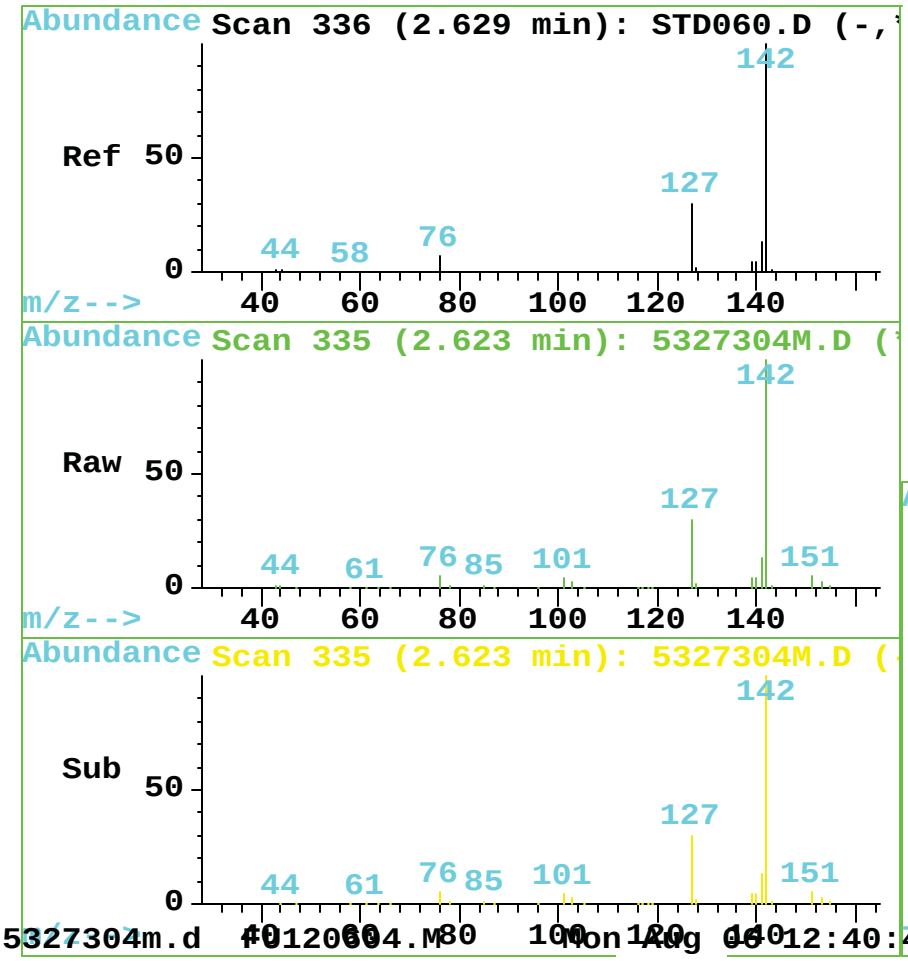


#5
Acetone (*)
Concen: 42.06 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:43 Resp: 8084

Ion	Ratio	Lower	Upper
43	100		
58	40.3	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

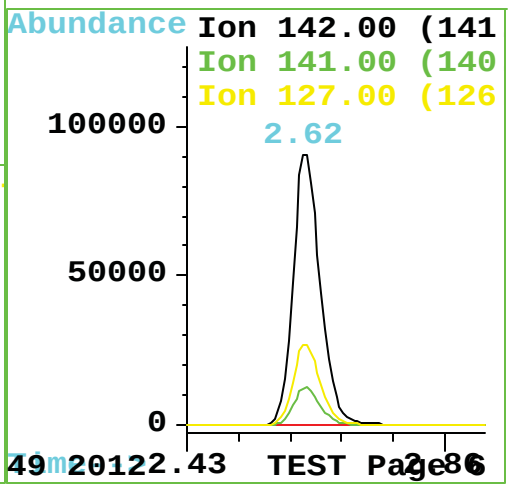


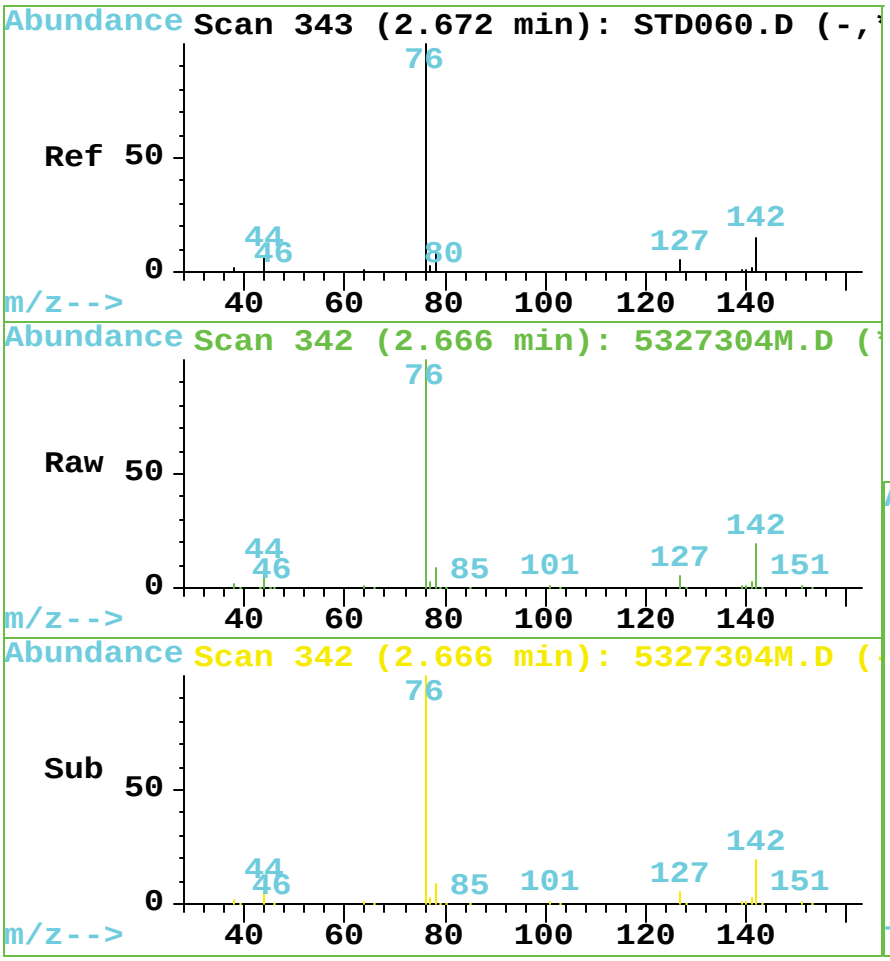


#6
Methyl iodide (iodomethane
Concen: 41.45 ug/l
RT: 2.62 min Scan# 335
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:142 Resp: 288973

Ion	Ratio	Lower	Upper
142	100		
141	13.4	0.0	43.8
127	30.0	5.1	65.1
0	0.0	0.0	0.0

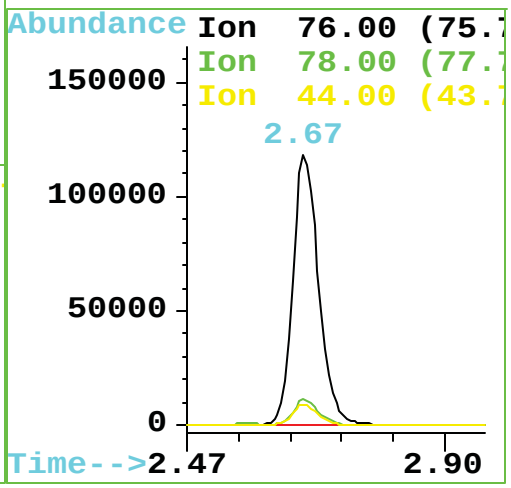


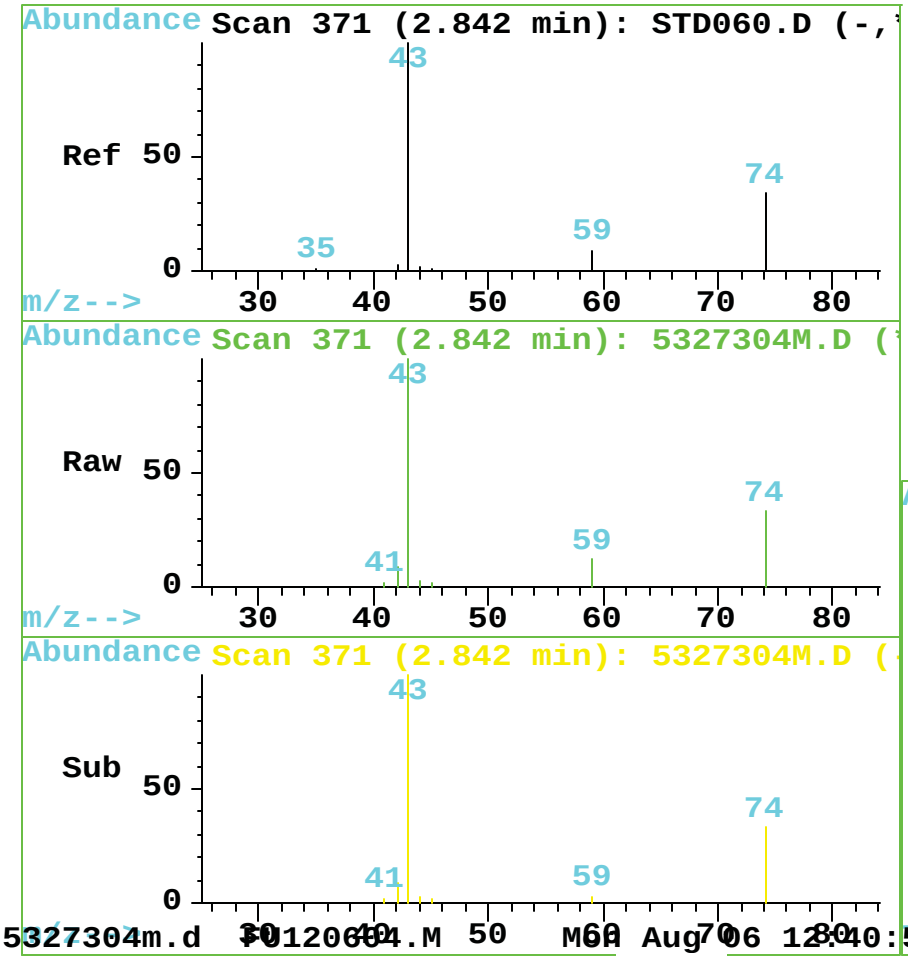


#7
Carbon disulfide (*)
Concen: 36.41 ug/l
RT: 2.67 min Scan# 342
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:76 Resp: 359126

Ion	Ratio	Lower	Upper
76	100		
78	9.0	0.0	39.3
44	7.6	0.0	40.9
0	0.0	0.0	0.0

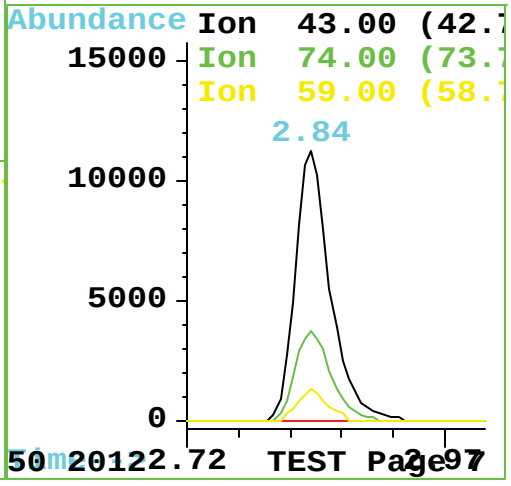


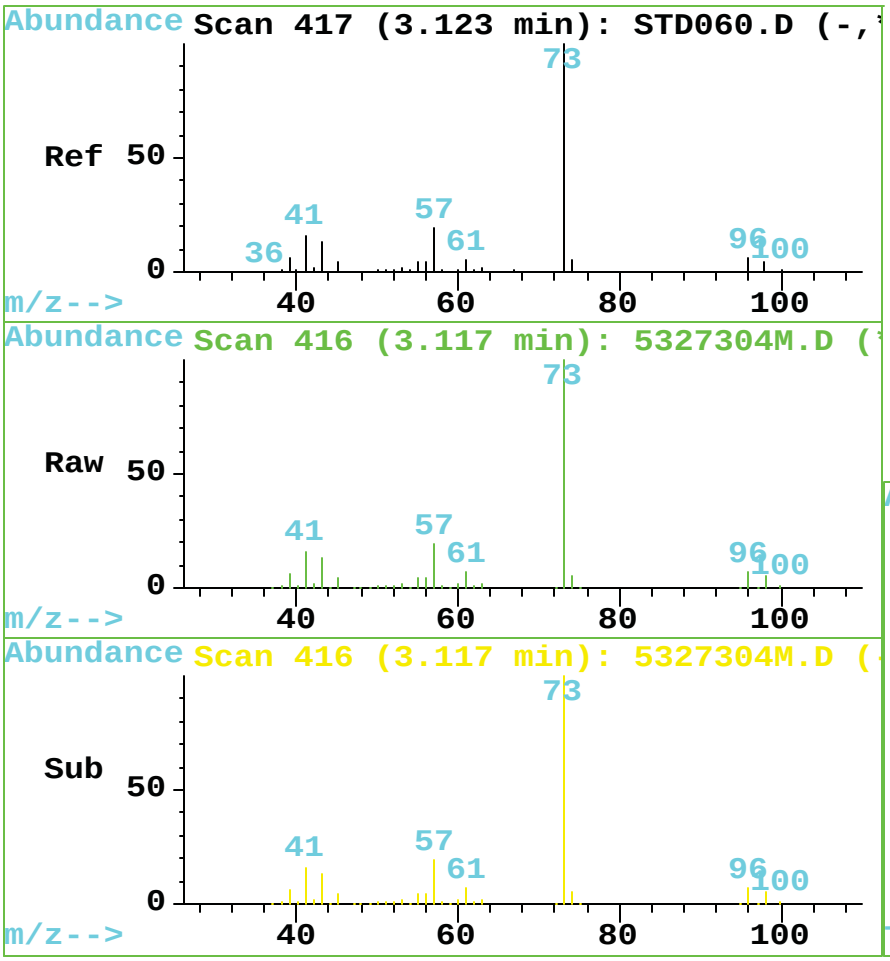


#8
Methyl Acetate
Concen: 39.22 ug/l
RT: 2.84 min Scan# 371
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:43 Resp: 27343

Ion	Ratio	Lower	Upper
43	100		
74	34.2	4.8	64.8
59	9.7	0.0	40.3
0	0.0	0.0	0.0

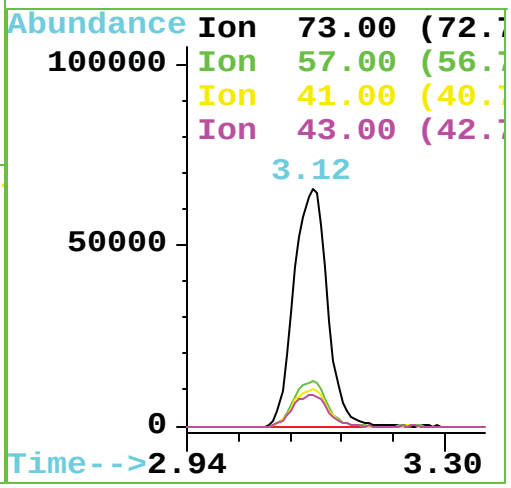


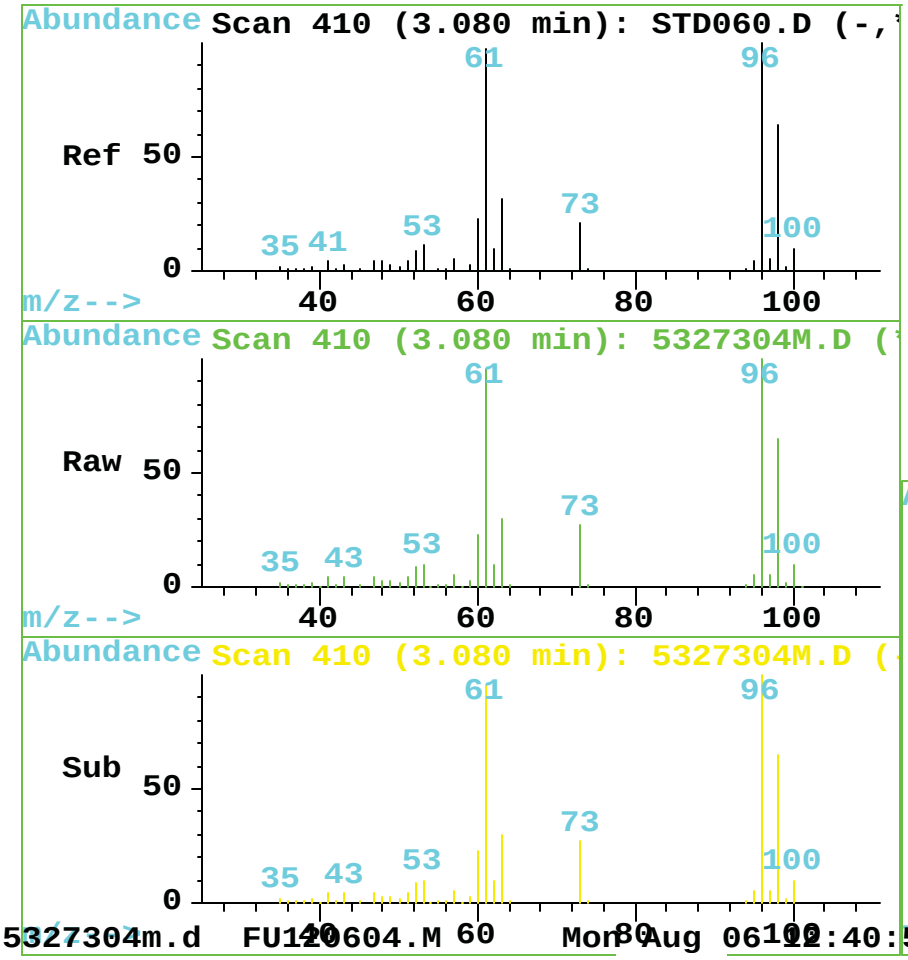


#9
tert-Methyl butyl ether (M
Concen: 45.00 ug/l
RT: 3.12 min Scan# 416
Delta R.T. 0.02 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:73 Resp: 216762

Ion	Ratio	Lower	Upper
73	100		
57	18.5	0.0	48.6
41	15.4	0.0	46.3
43	13.2	0.0	47.6

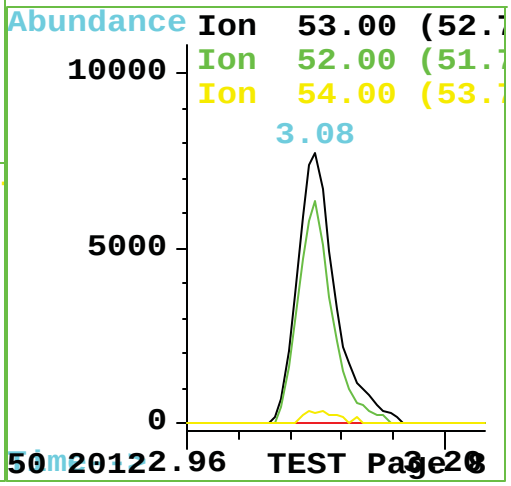


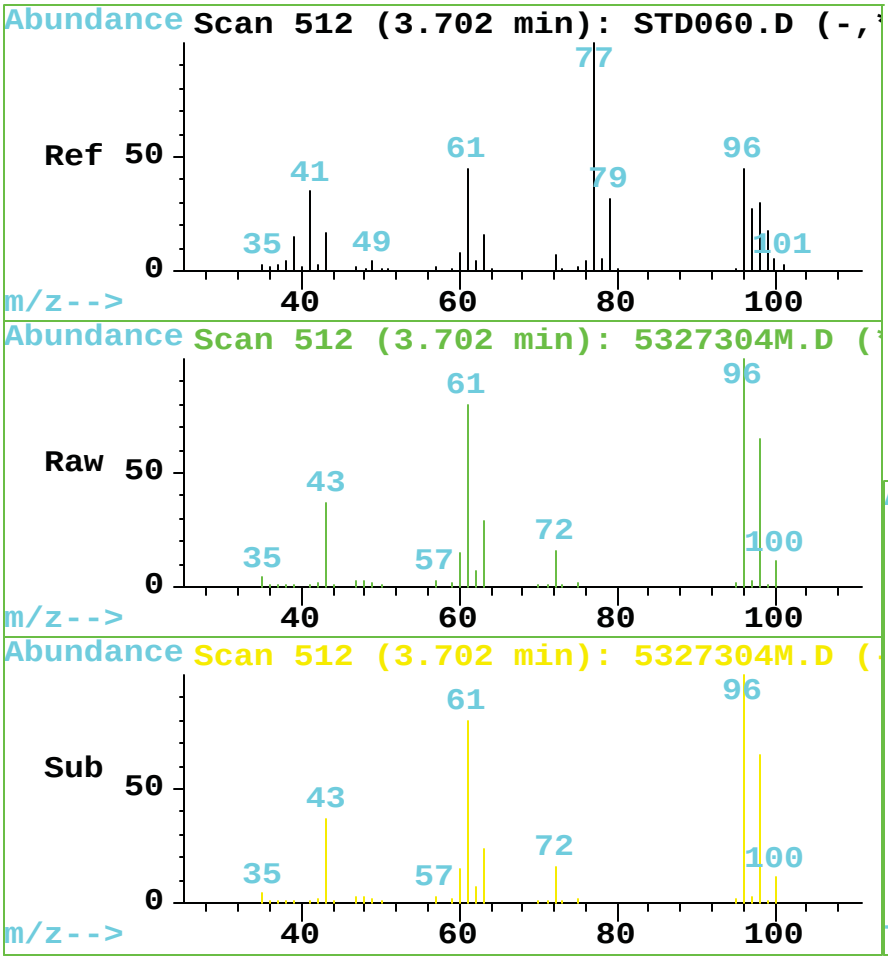


#10
Acrylonitrile (*)
Concen: 43.85 ug/l
RT: 3.08 min Scan# 410
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:53 Resp: 18561

Ion	Ratio	Lower	Upper
53	100		
52	73.3	45.4	105.4
54	3.9	0.0	32.6
0	0.0	0.0	0.0

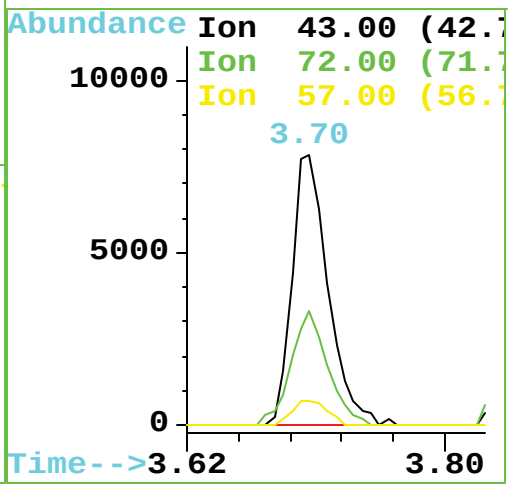


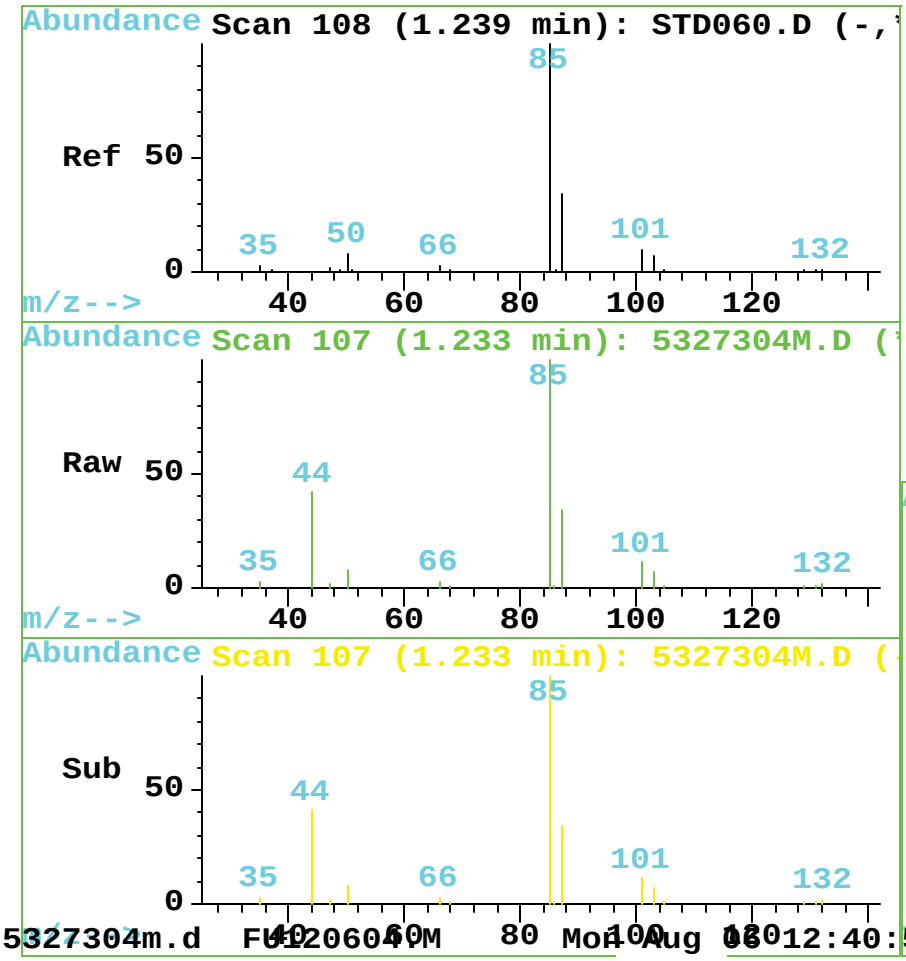


#11
2-Butanone (MEK) (*)
Concen: 45.92 ug/l
RT: 3.70 min Scan# 512
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:43 Resp: 13693

Ion	Ratio	Lower	Upper
43	100		
72	42.6	9.3	69.3
57	8.6	0.0	38.8
0	0.0	0.0	0.0

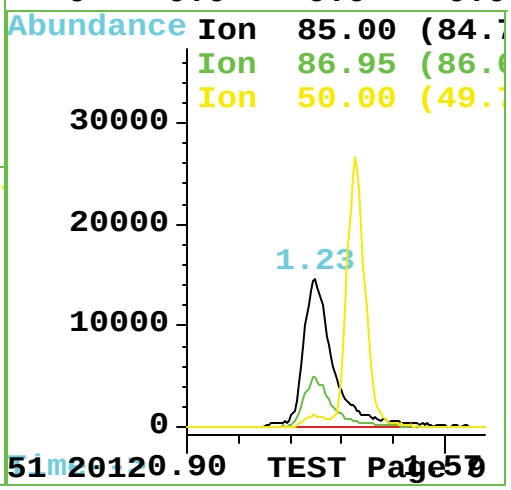


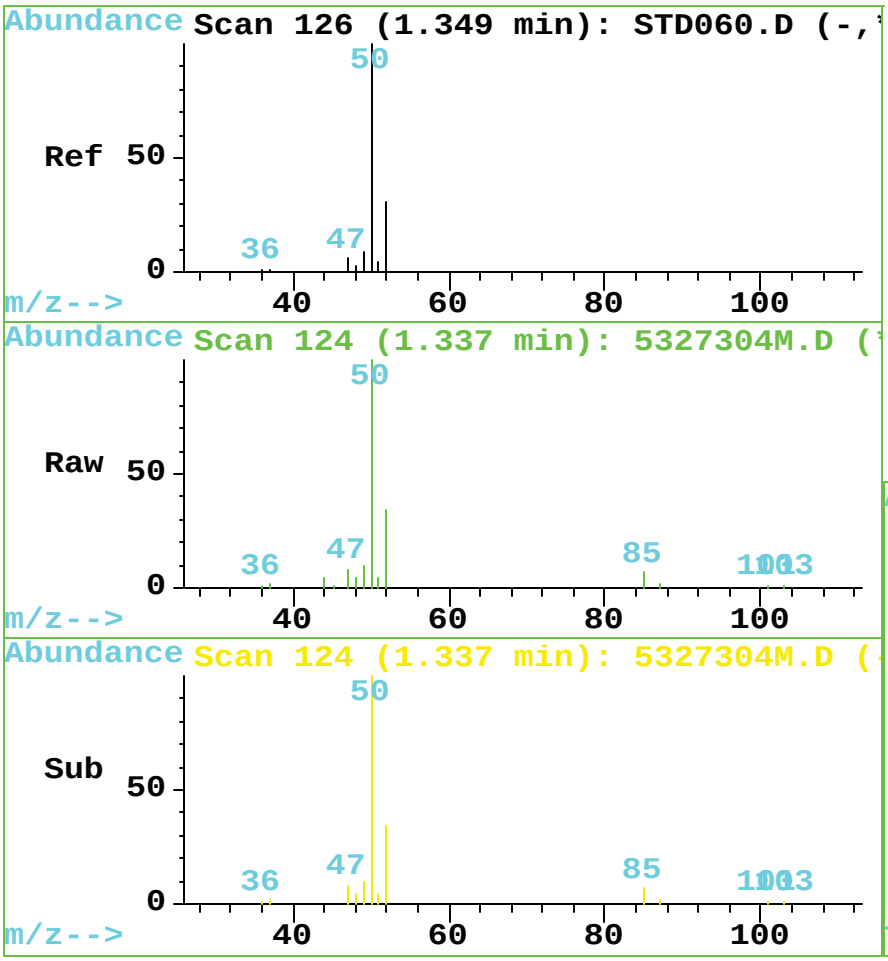


#12
Dichlorodifluoromethane
Concen: 38.22 ug/l
RT: 1.23 min Scan# 107
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:85 Resp: 79612

Ion	Ratio	Lower	Upper
85	100		
87	31.7	2.5	62.5
50	5.6	0.0	36.8
0	0.0	0.0	0.0

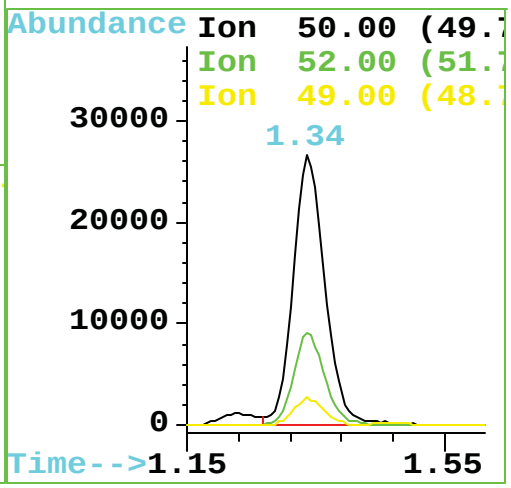


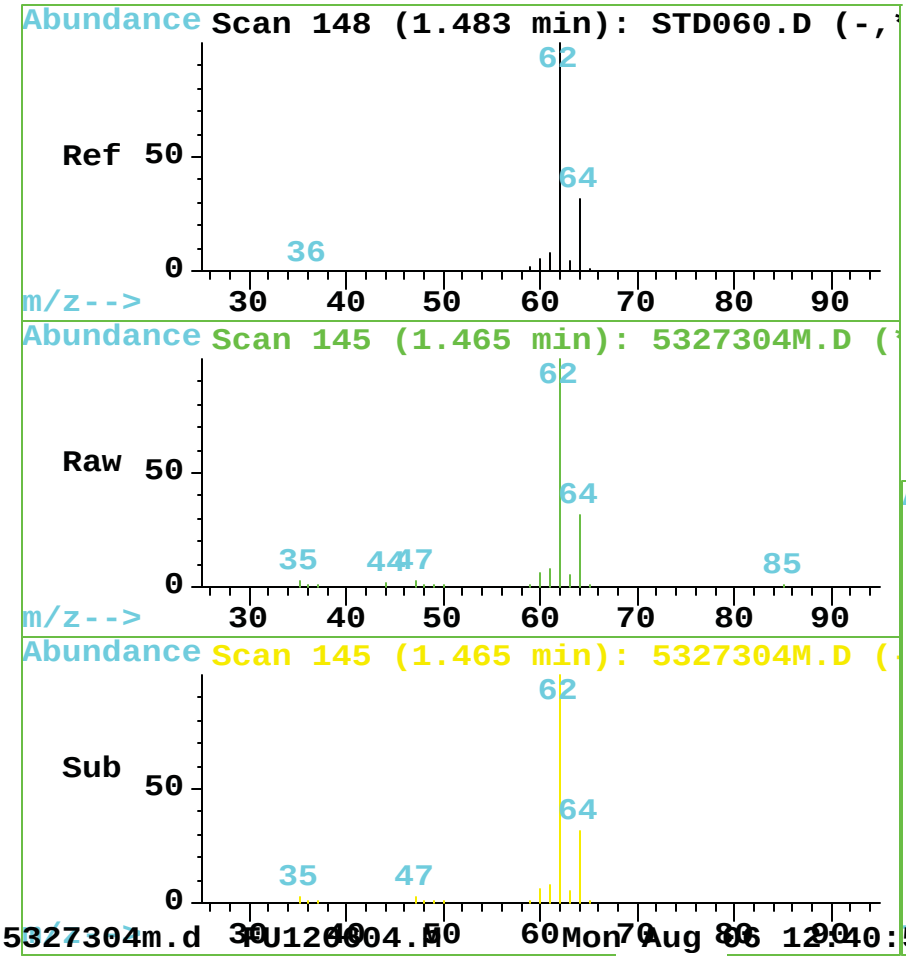


#13
Chloromethane (SPCC)
Concen: 38.09 ug/l
RT: 1.34 min Scan# 124
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:50 Resp: 90208

Ion	Ratio	Lower	Upper
50	100		
52	33.1	2.5	62.5
49	9.4	0.0	41.2
0	0.0	0.0	0.0

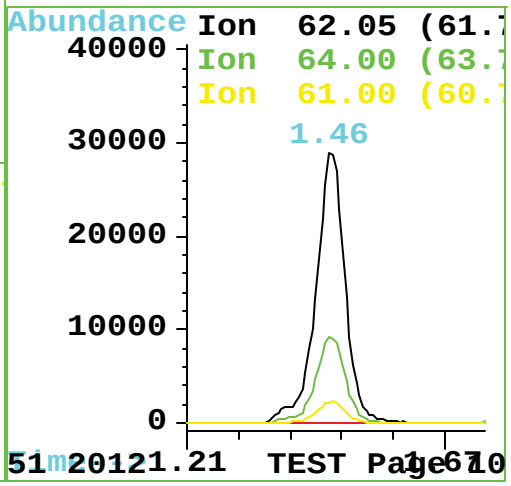


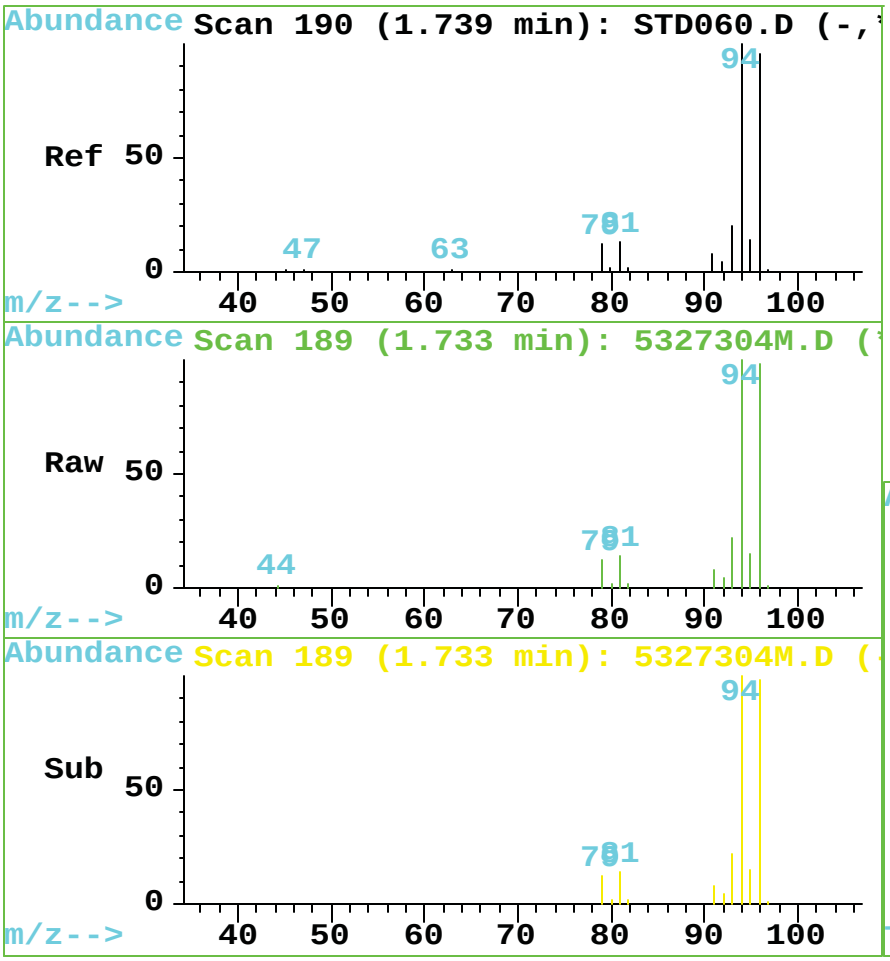


#14
Vinyl Chloride (CCC)
Concen: 39.59 ug/l
RT: 1.46 min Scan# 145
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:62.05 Resp: 10550

Ion	Ratio	Lower	Upper
62	100		
64	32.7	3.8	63.8
61	7.8	0.0	38.3
0	0.0	0.0	0.0

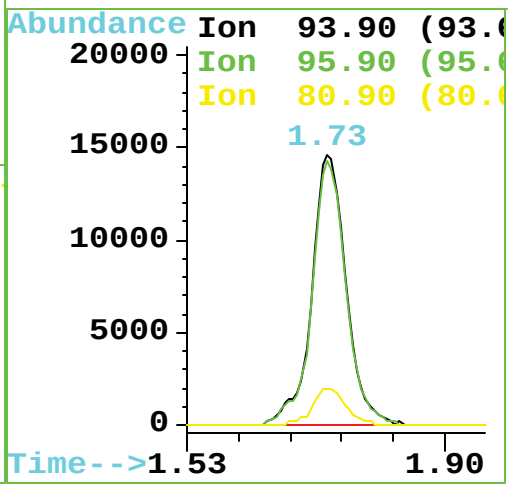


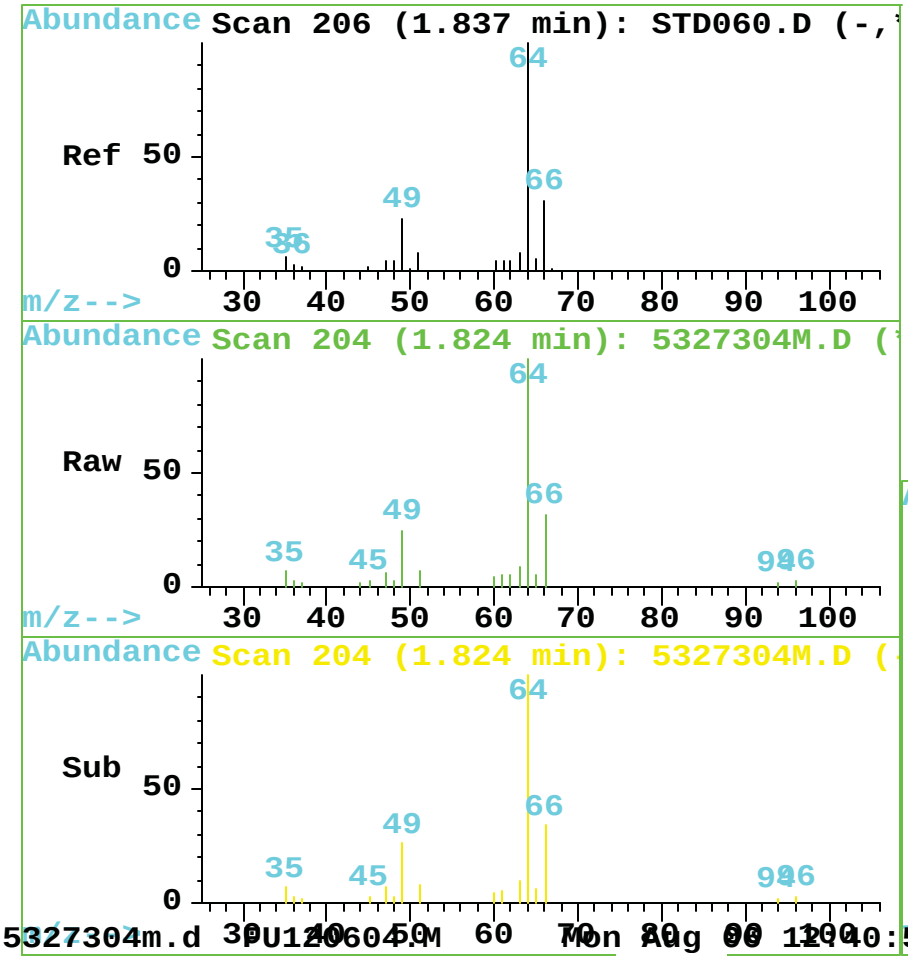


#15
Bromomethane
Concen: 42.20 ug/l
RT: 1.73 min Scan# 189
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:93.9 Resp: 49950

Ion	Ratio	Lower	Upper
94	100		
96	97.1	64.8	124.8
81	13.1	0.0	43.5
0	0.0	0.0	0.0

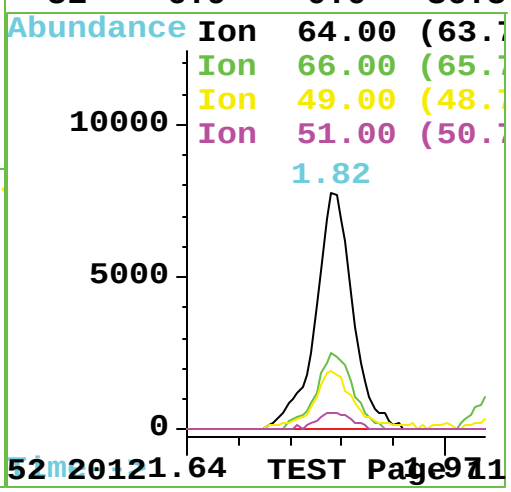


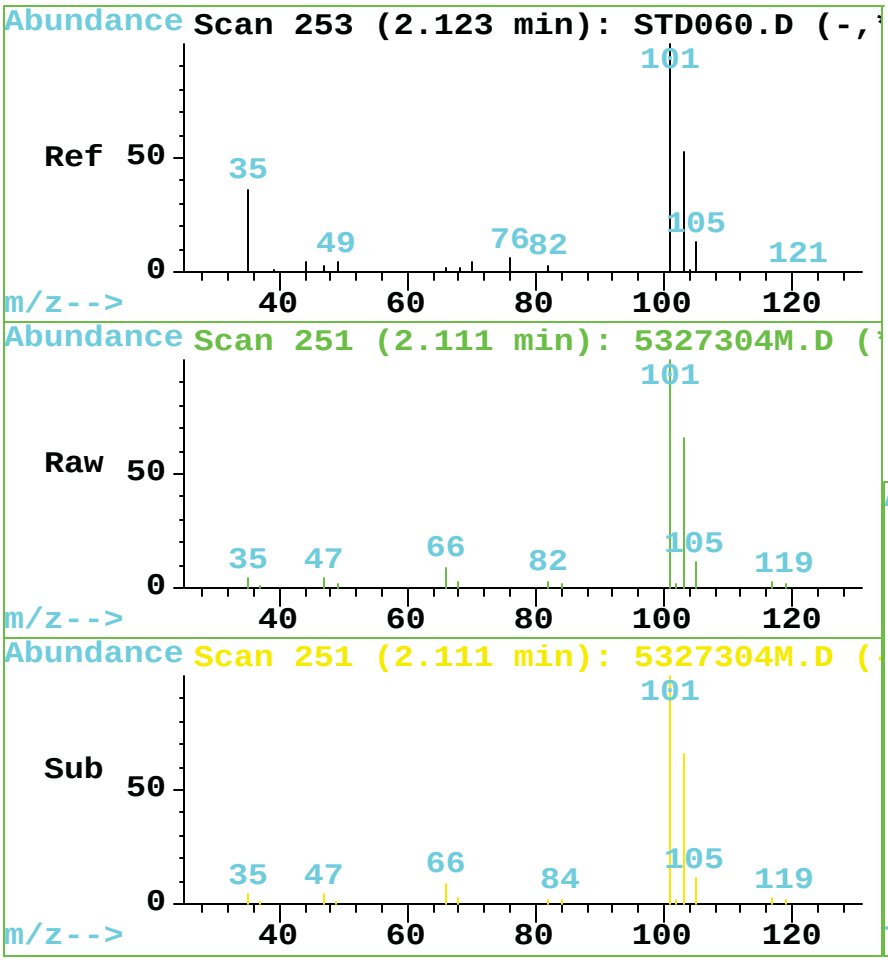


#16
Chloroethane
Concen: 45.29 ug/l
RT: 1.82 min Scan# 204
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:64 Resp: 25728

Ion	Ratio	Lower	Upper
64	100		
66	32.1	2.8	62.8
49	28.4	0.0	54.8
51	6.9	0.0	36.5

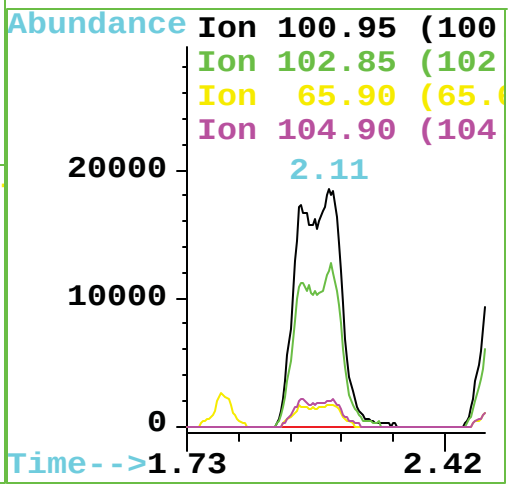


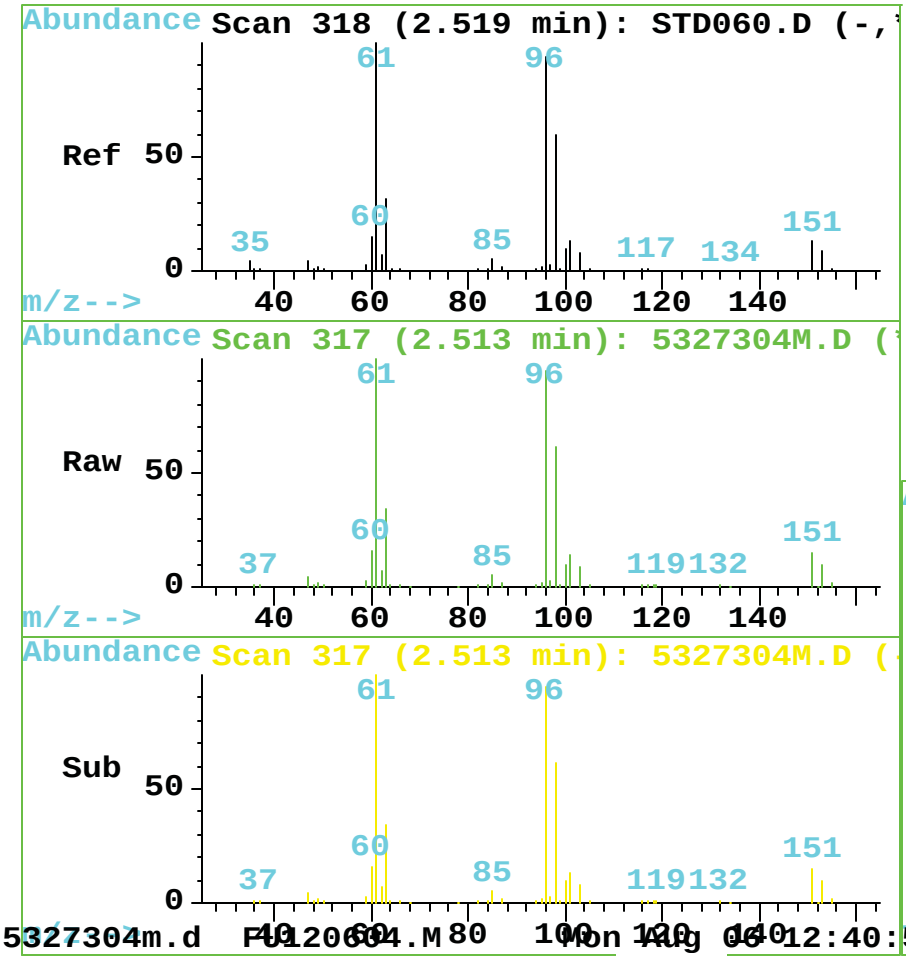


#18
Trichlorofluoromethane
Concen: 48.21 ug/l m
RT: 2.11 min Scan# 251
Delta R.T. 0.06 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:100.95 Resp: 1497

Ion	Ratio	Lower	Upper
101	100		
103	65.6	34.1	94.1
66	8.5	0.0	40.0
105	10.7	0.0	40.1

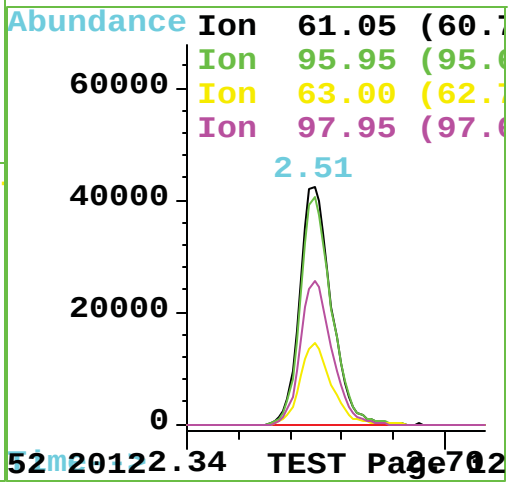


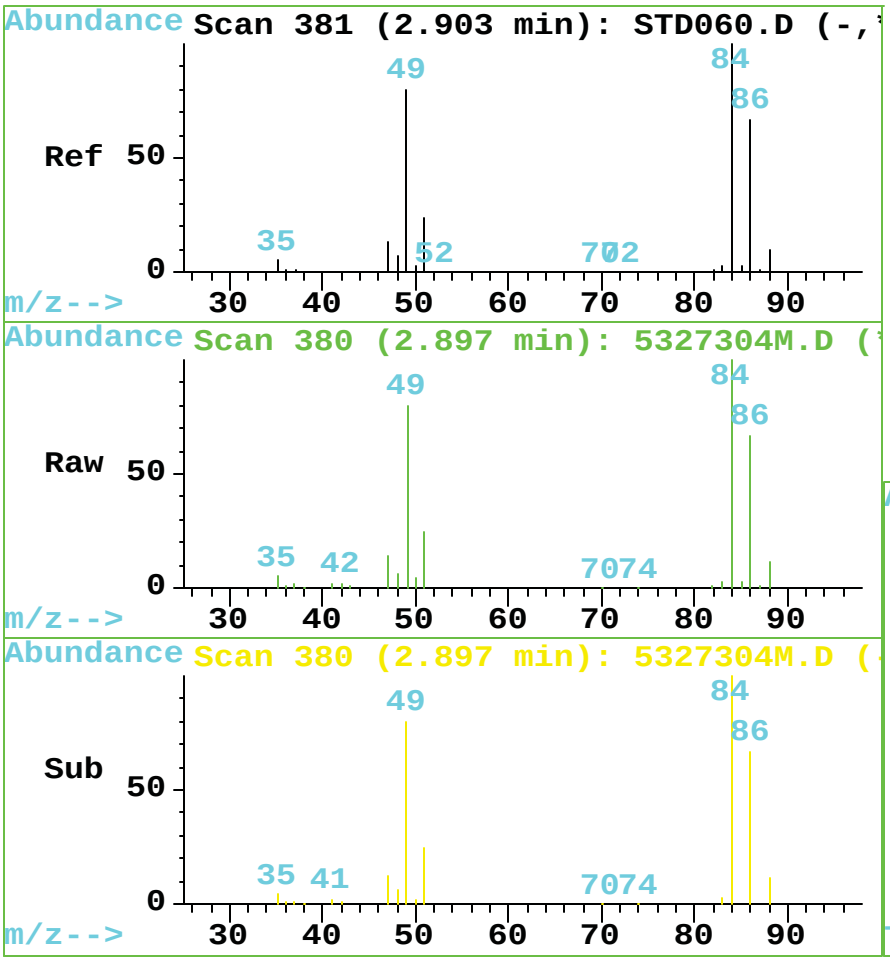


#19
1,1-Dichloroethene (CCC/MS
Concen: 39.03 ug/l
RT: 2.51 min Scan# 317
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:61.05 Resp: 12873

Ion	Ratio	Lower	Upper
61	100		
96	94.7	44.2	104.2
63	33.2	2.8	62.8
98	60.1	18.3	78.3

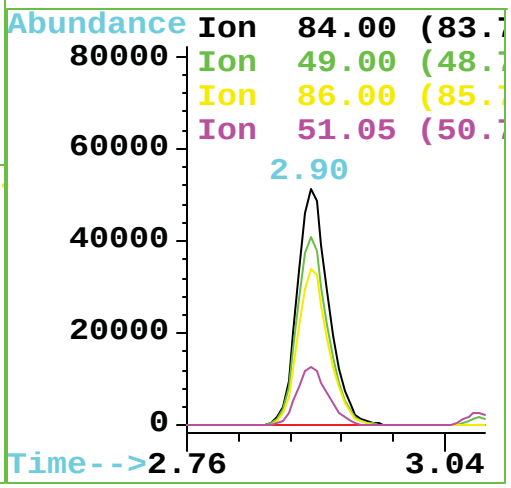


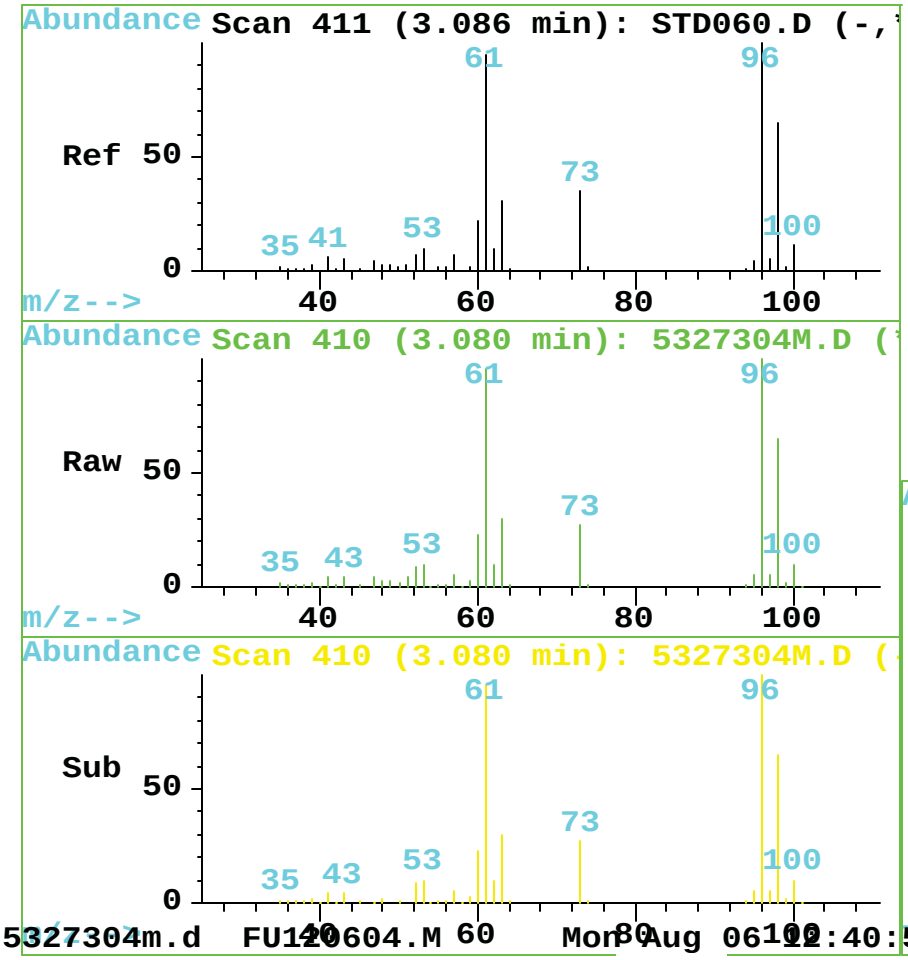


#20
Methylene Chloride
Concen: 38.46 ug/l
RT: 2.90 min Scan# 380
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:84 Resp: 122645

Ion	Ratio	Lower	Upper
84	100		
49	79.1	59.2	119.2
86	65.6	34.7	94.7
51	24.9	0.0	58.1

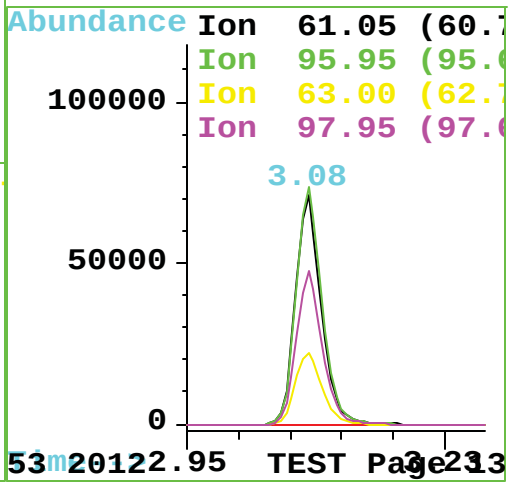


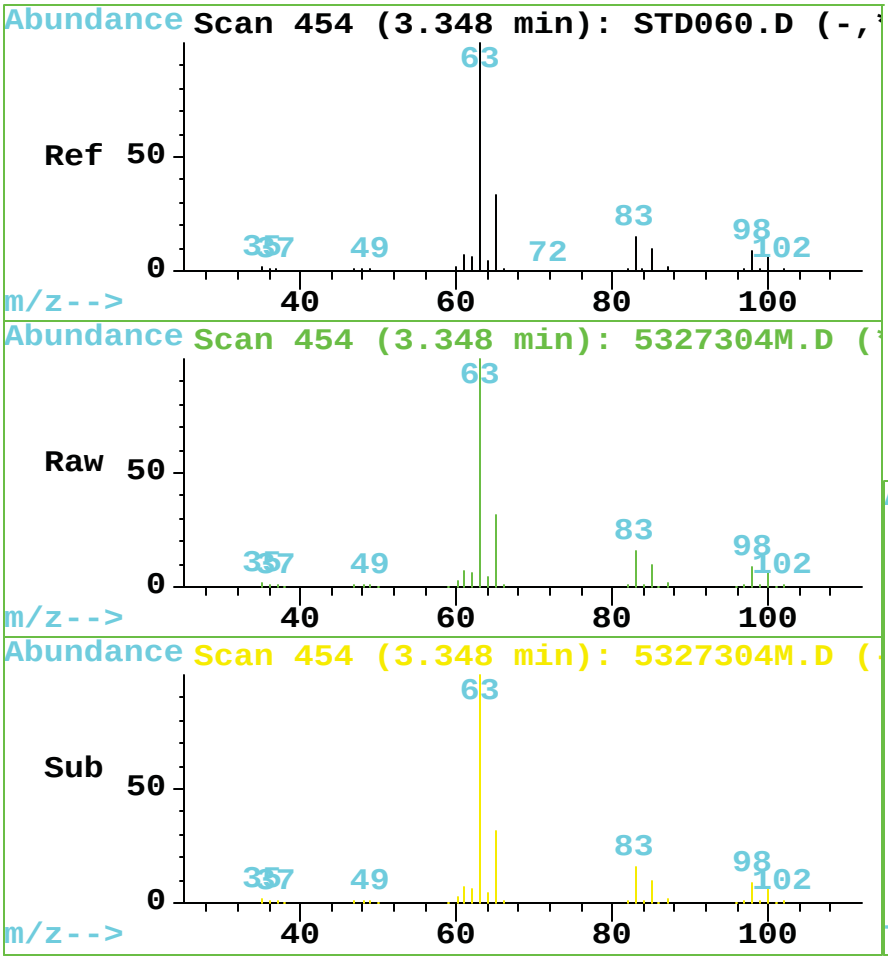


#21
trans-1,2-Dichloroethene
Concen: 40.69 ug/l
RT: 3.08 min Scan# 410
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:61.05 Resp: 13977

Ion	Ratio	Lower	Upper
61	100		
96	104.1	56.7	116.7
63	32.5	2.7	62.7
98	67.0	25.6	85.6

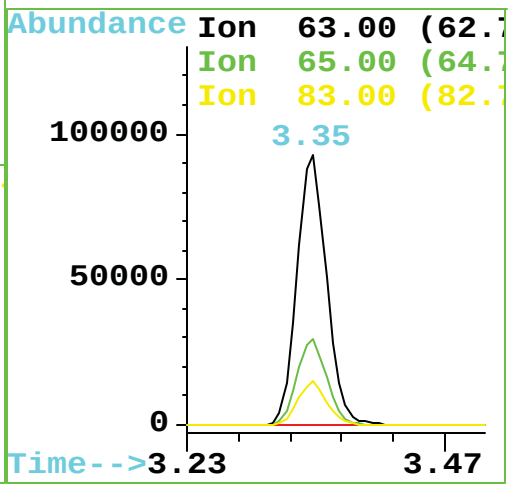


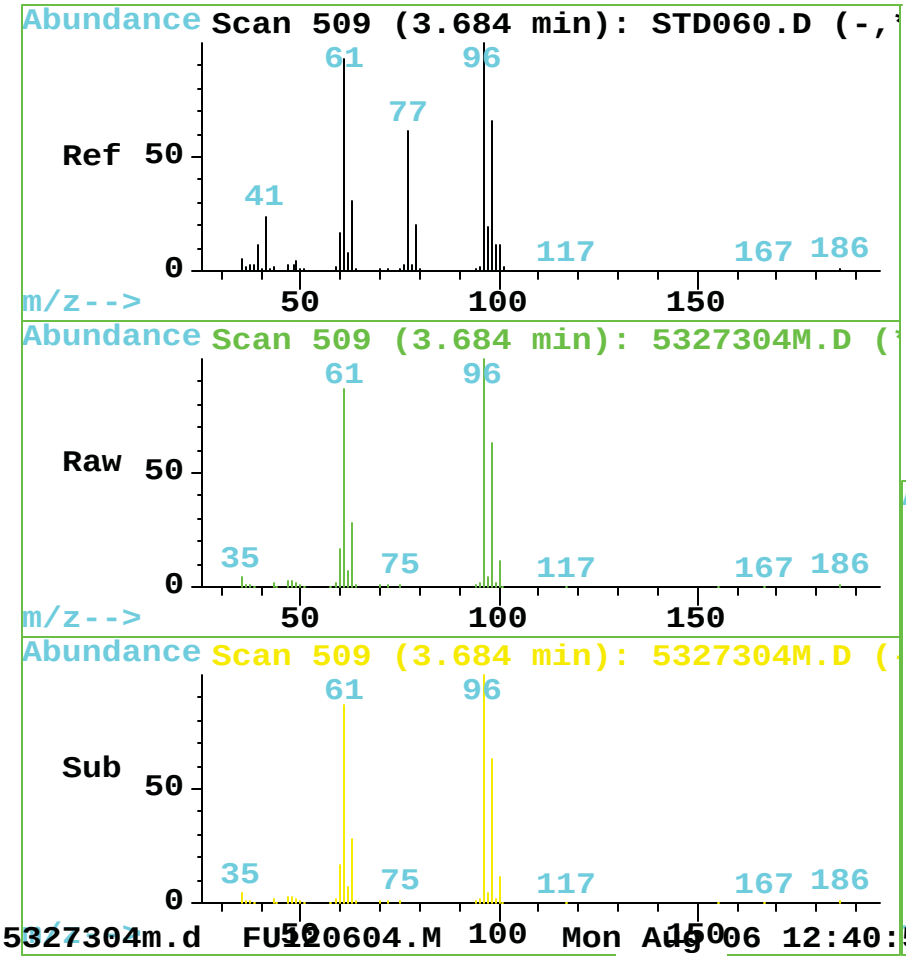


#22
1,1-Dichloroethane (SPCC)
Concen: 40.88 ug/l
RT: 3.35 min Scan# 454
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:63 Resp: 175818

Ion	Ratio	Lower	Upper
63	100		
65	32.2	2.0	62.0
83	15.7	0.0	44.9
0	0.0	0.0	0.0

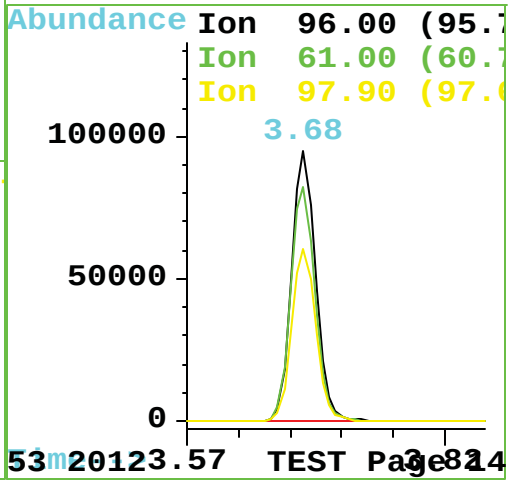


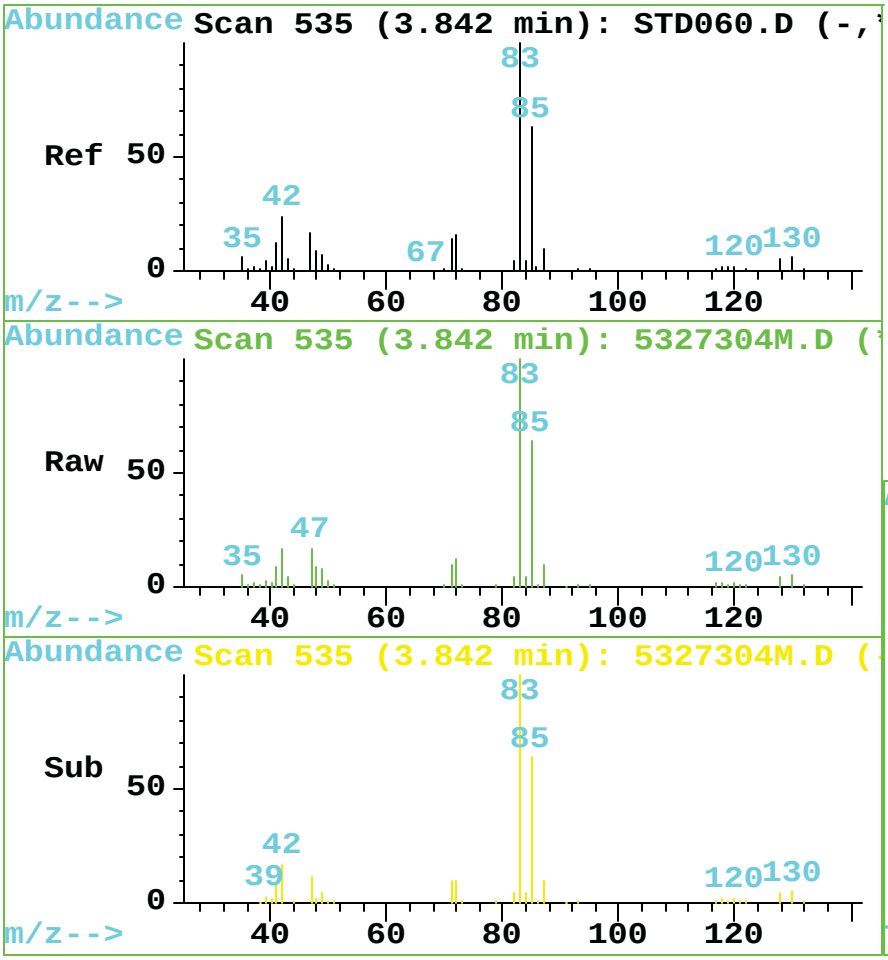


#23
cis-1,2-Dichloroethene
Concen: 41.64 ug/l
RT: 3.68 min Scan# 509
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:96 Resp: 149643

Ion	Ratio	Lower	Upper
96	100		
61	87.6	90.9	150.9#
98	64.0	34.6	94.6
0	0.0	0.0	0.0

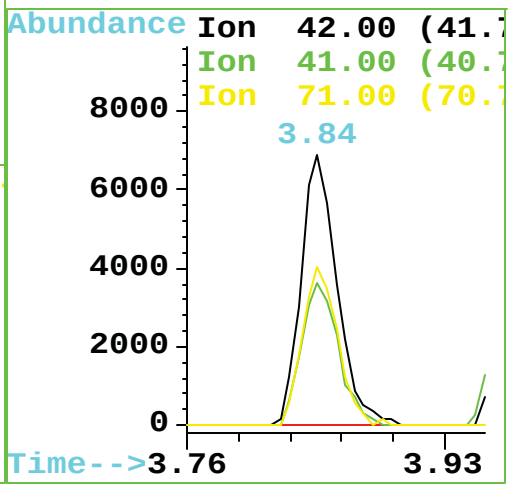


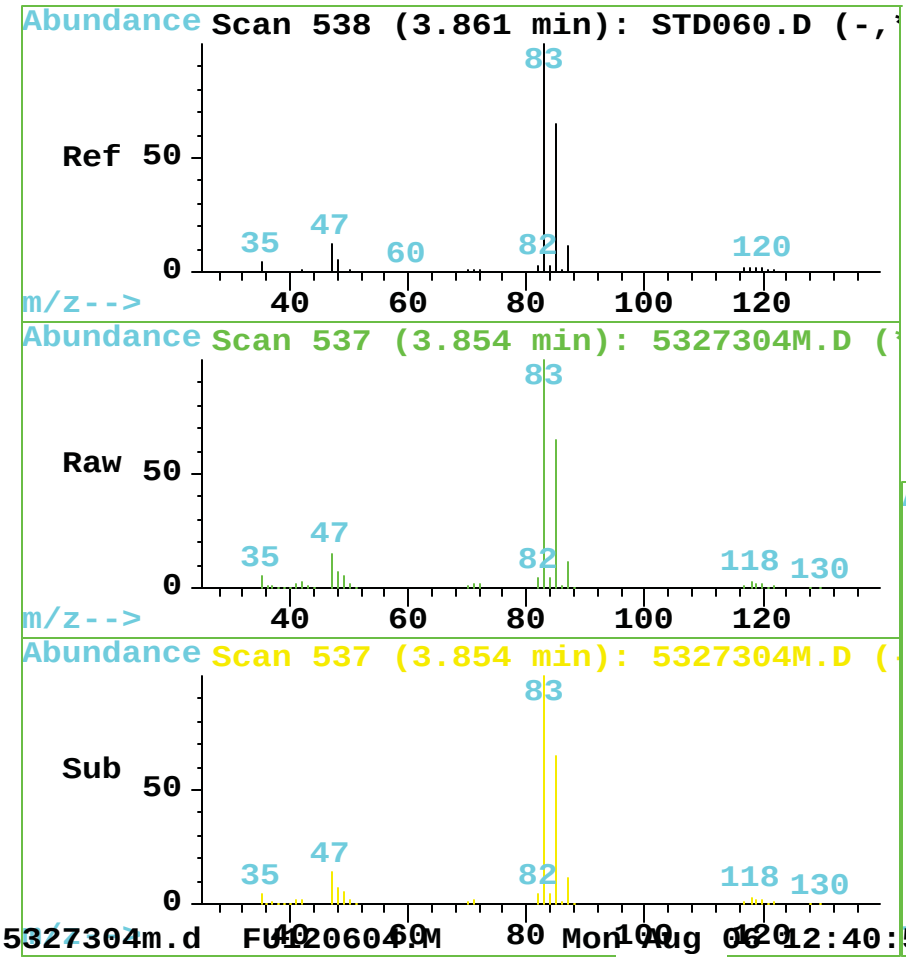


#24
Tetrahydrofuran
Concen: 39.64 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:42 Resp: 11293

Ion	Ratio	Lower	Upper
42	100		
41	54.3	222.5	282.5#
71	57.9	24.9	84.9
0	0.0	0.0	0.0

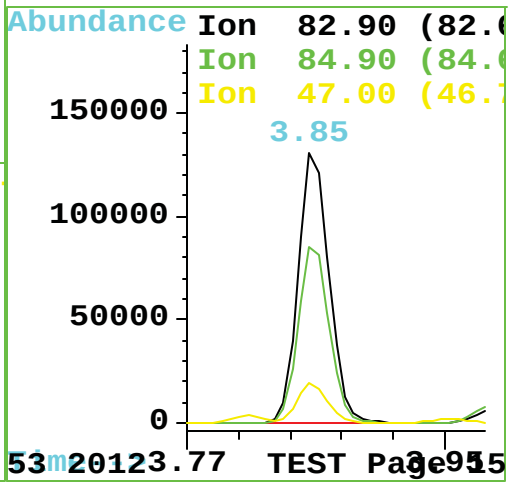


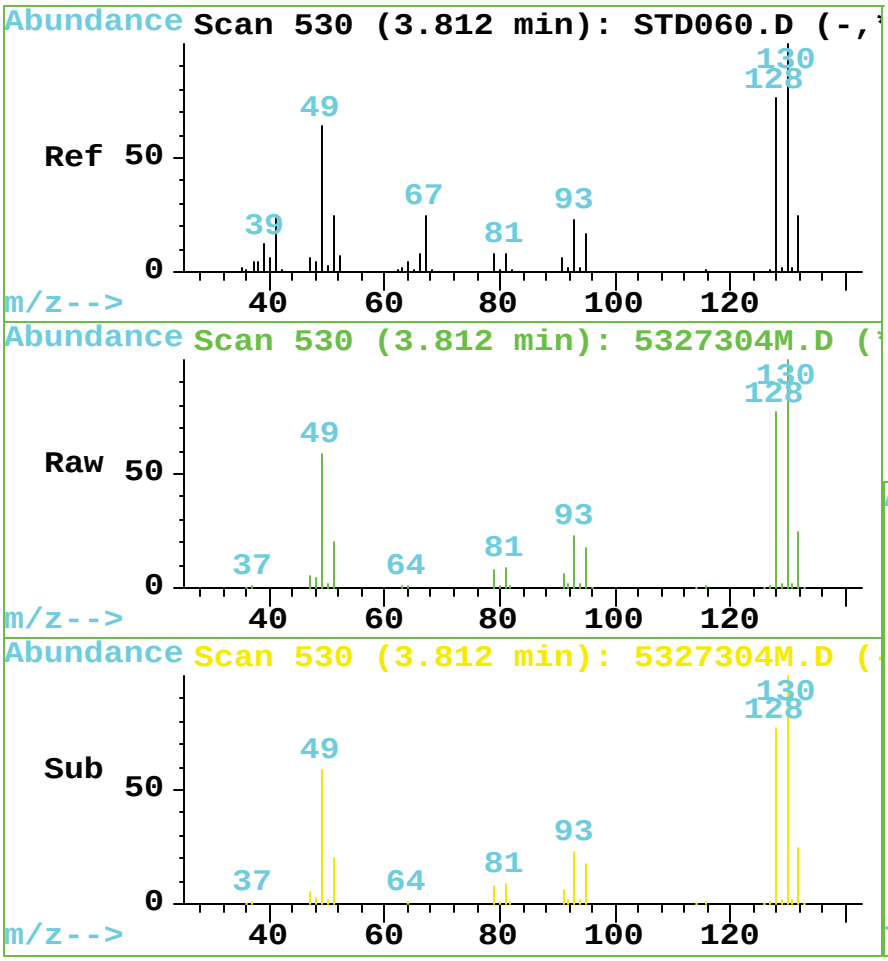


#25
Chloroform (CCC)
Concen: 42.10 ug/l
RT: 3.85 min Scan# 537
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:82.9 Resp: 194669

Ion	Ratio	Lower	Upper
83	100		
85	65.7	35.0	95.0
47	14.5	0.0	48.4
0	0.0	0.0	0.0

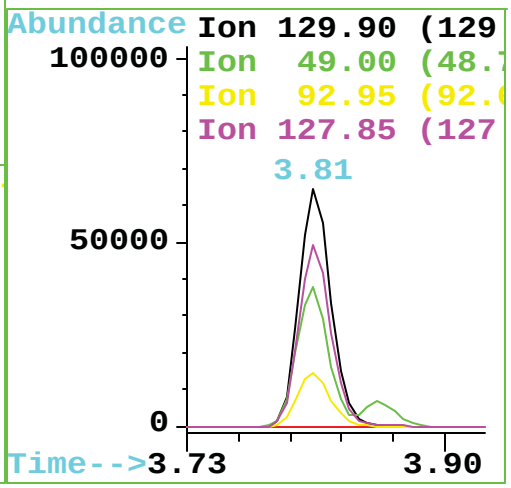


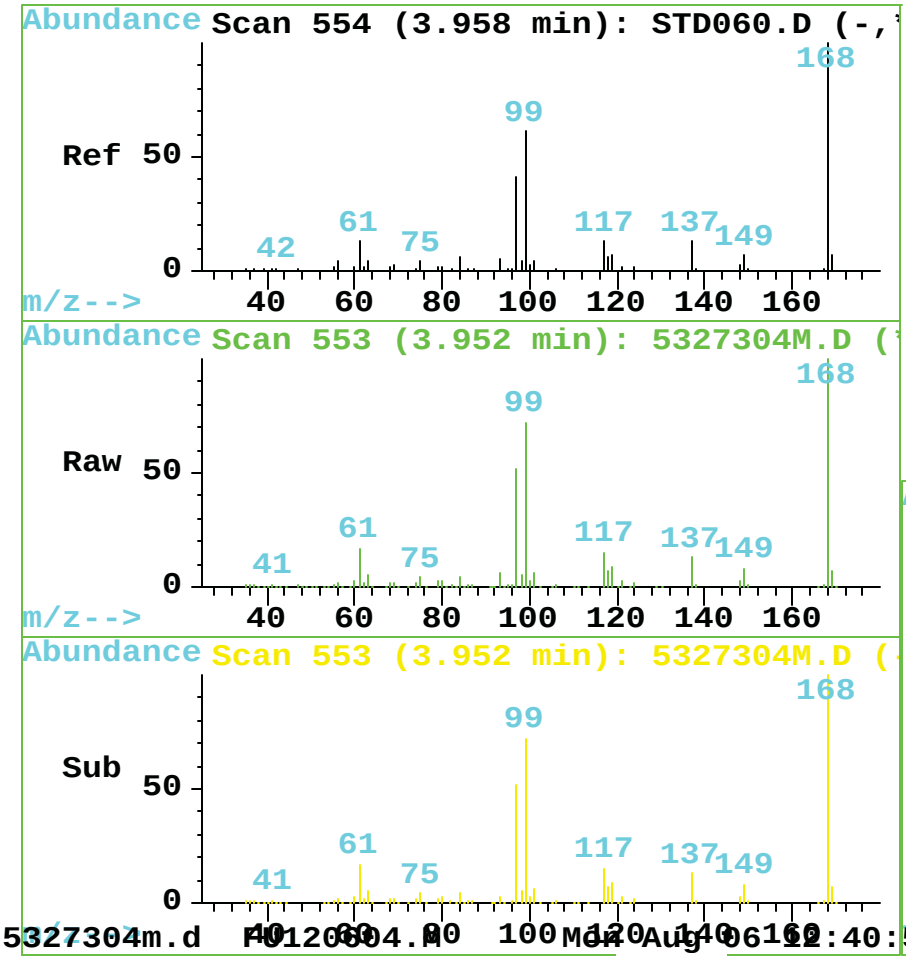


#26
Bromochloromethane
Concen: 42.44 ug/l
RT: 3.81 min Scan# 530
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:129.9 Resp: 9759

Ion	Ratio	Lower	Upper
130	100		
49	59.4	41.7	101.7
93	23.0	0.0	58.1
128	76.3	45.4	105.4

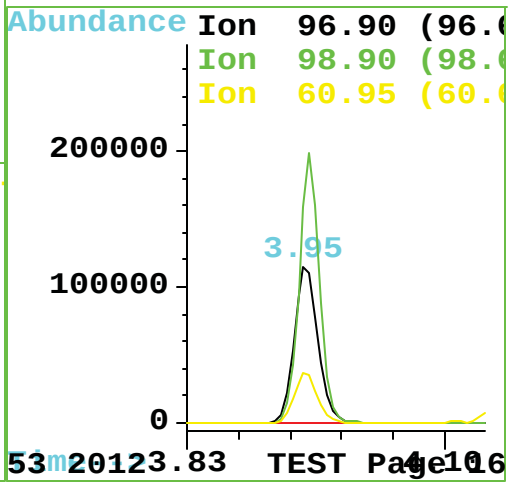


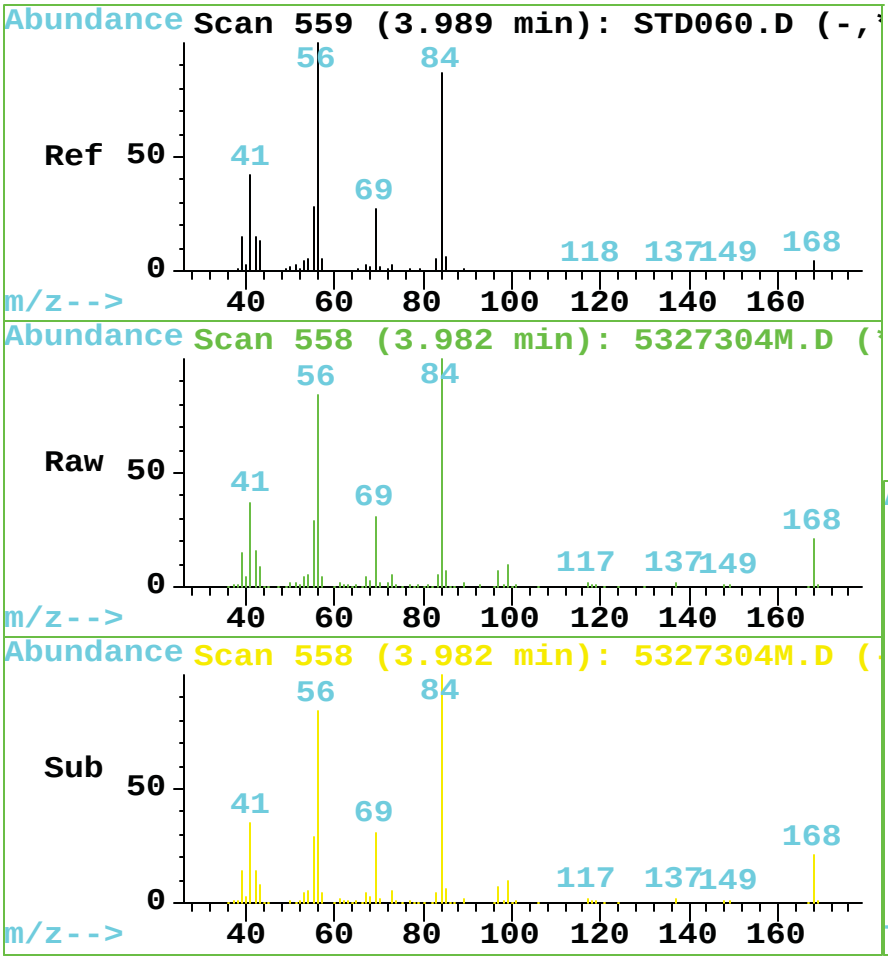


#27
1,1,1-Trichloroethane
Concen: 45.46 ug/l
RT: 3.95 min Scan# 553
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:96.9 Resp: 205787

Ion	Ratio	Lower	Upper
97	100		
99	145.6	214.4	274.4#
61	31.3	12.5	72.5
0	0.0	0.0	0.0

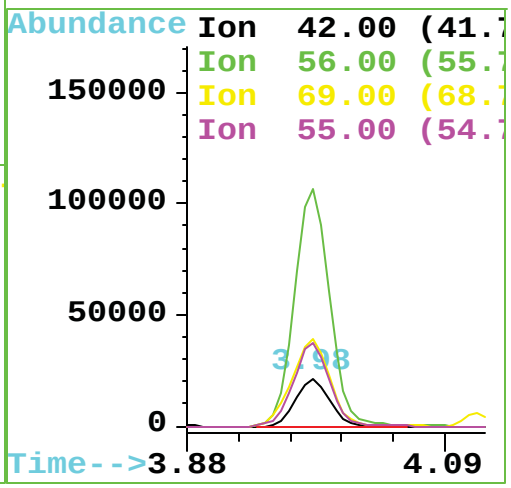


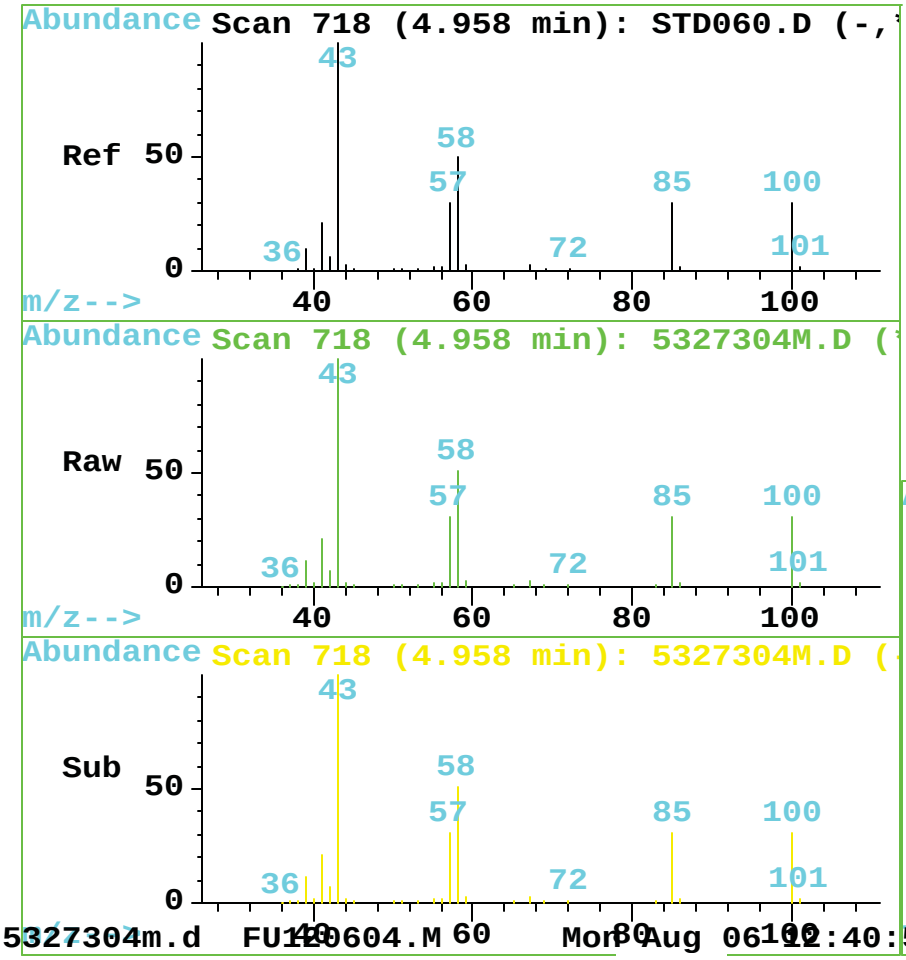


#29
Cyclohexane
Concen: 37.00 ug/l
RT: 3.98 min Scan# 558
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:42 Resp: 38690

Ion	Ratio	Lower	Upper
42	100		
56	521.2	958.1	1018.1#
69	206.4	188.2	248.2
55	184.9	209.1	269.1#

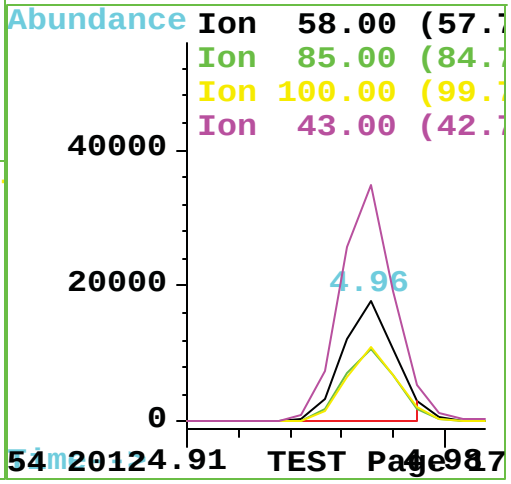


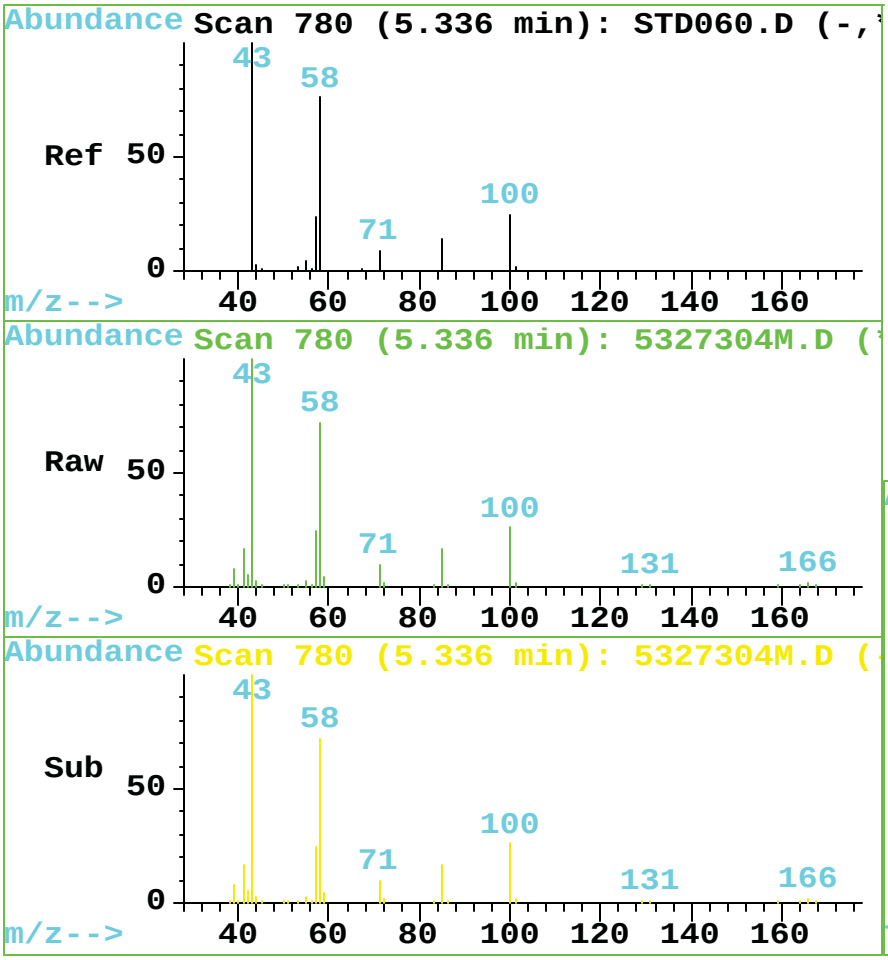


#32
4-Methyl-2-pentanone (MIBK
Concen: 45.16 ug/l
RT: 4.96 min Scan# 718
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:58 Resp: 17265

Ion	Ratio	Lower	Upper
58	100		
85	61.3	33.3	93.3
100	60.1	29.4	89.4
43	199.1	197.3	257.3

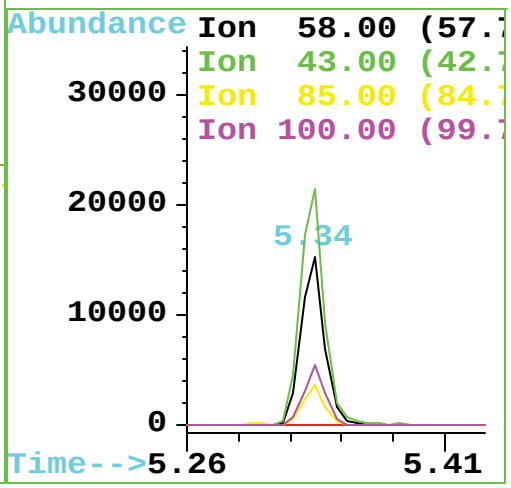


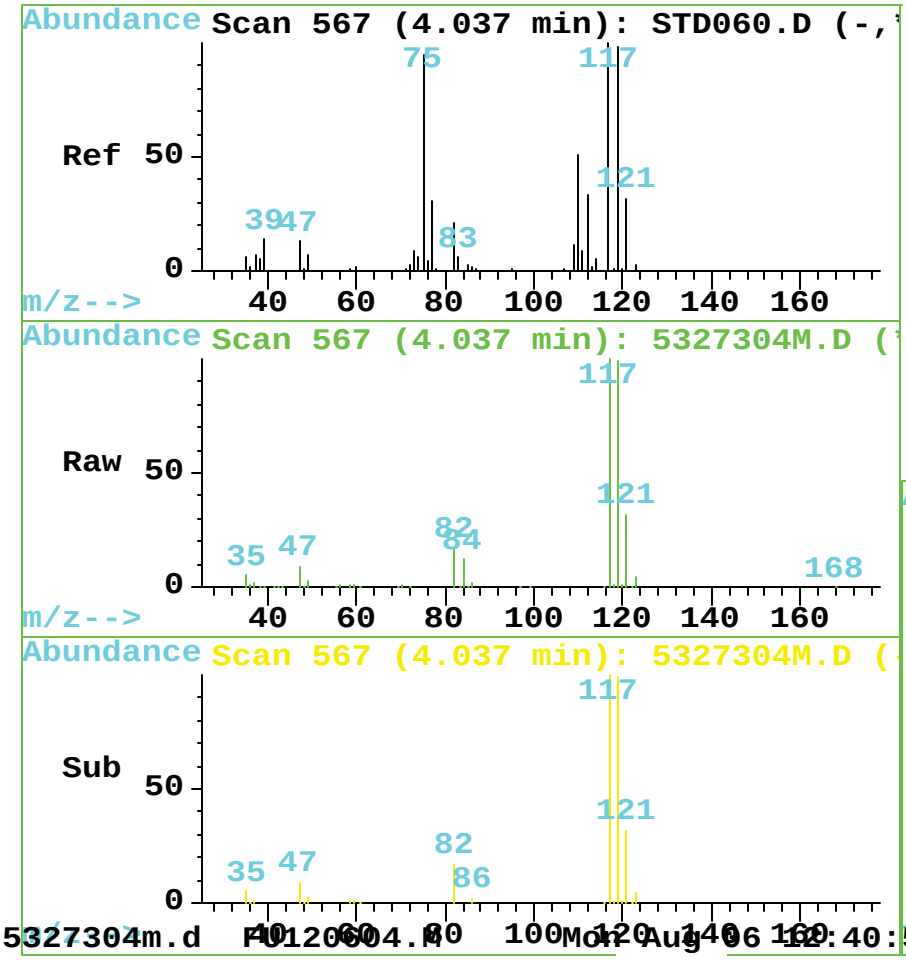


#33
2-Hexanone (*)
Concen: 49.11 ug/l
RT: 5.34 min Scan# 780
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:58 Resp: 14633

Ion	Ratio	Lower	Upper
58	100		
43	143.1	122.2	182.2
85	23.0	0.0	52.9
100	33.0	2.6	62.6

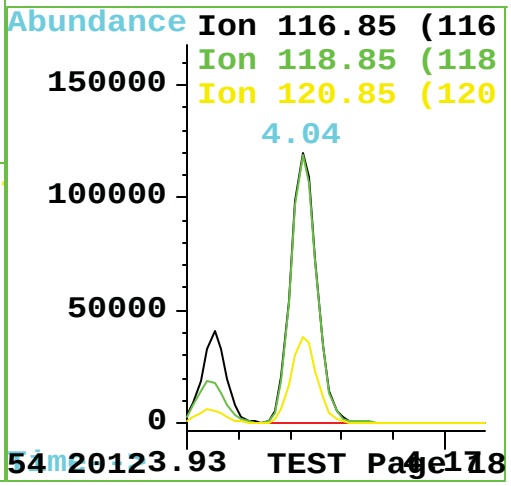


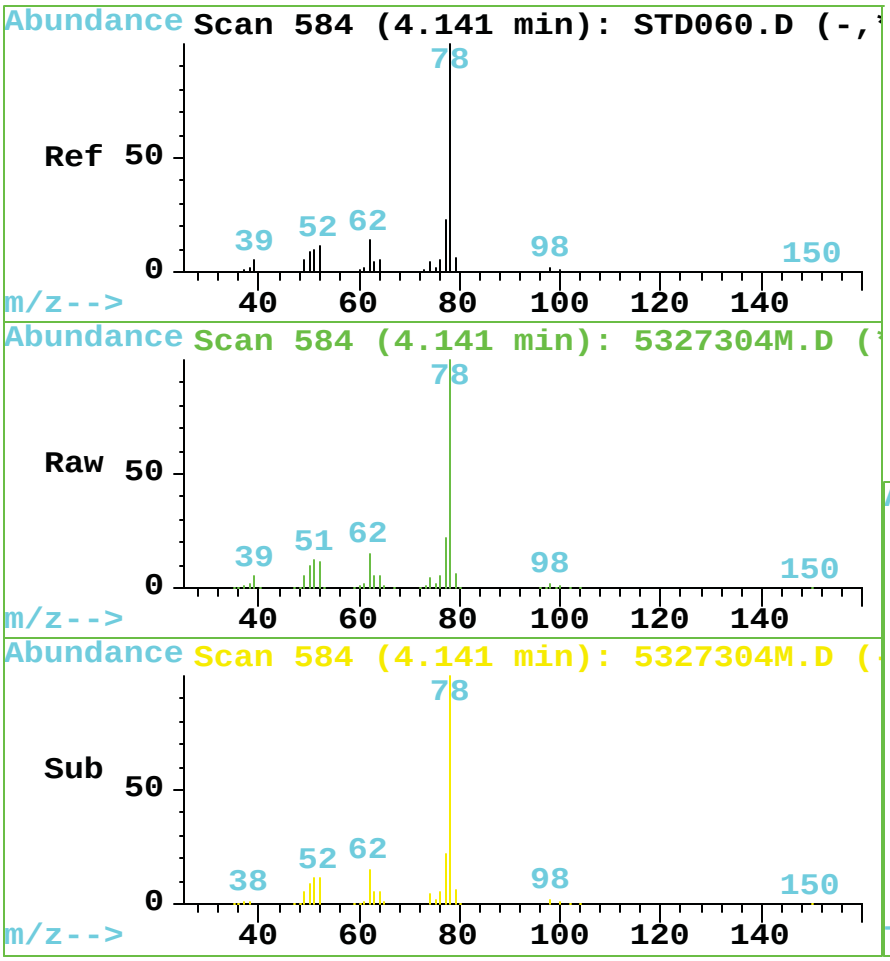


#35
Carbon Tetrachloride
Concen: 46.46 ug/l
RT: 4.04 min Scan# 567
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:116.85 Resp: 1975

Ion	Ratio	Lower	Upper
117	100		
119	98.2	65.5	125.5
121	31.9	0.5	60.5
0	0.0	0.0	0.0

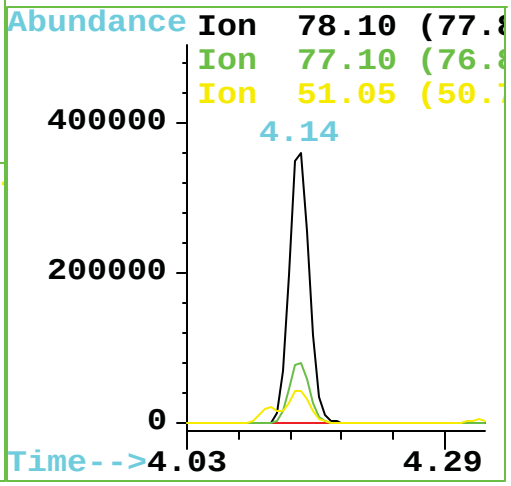


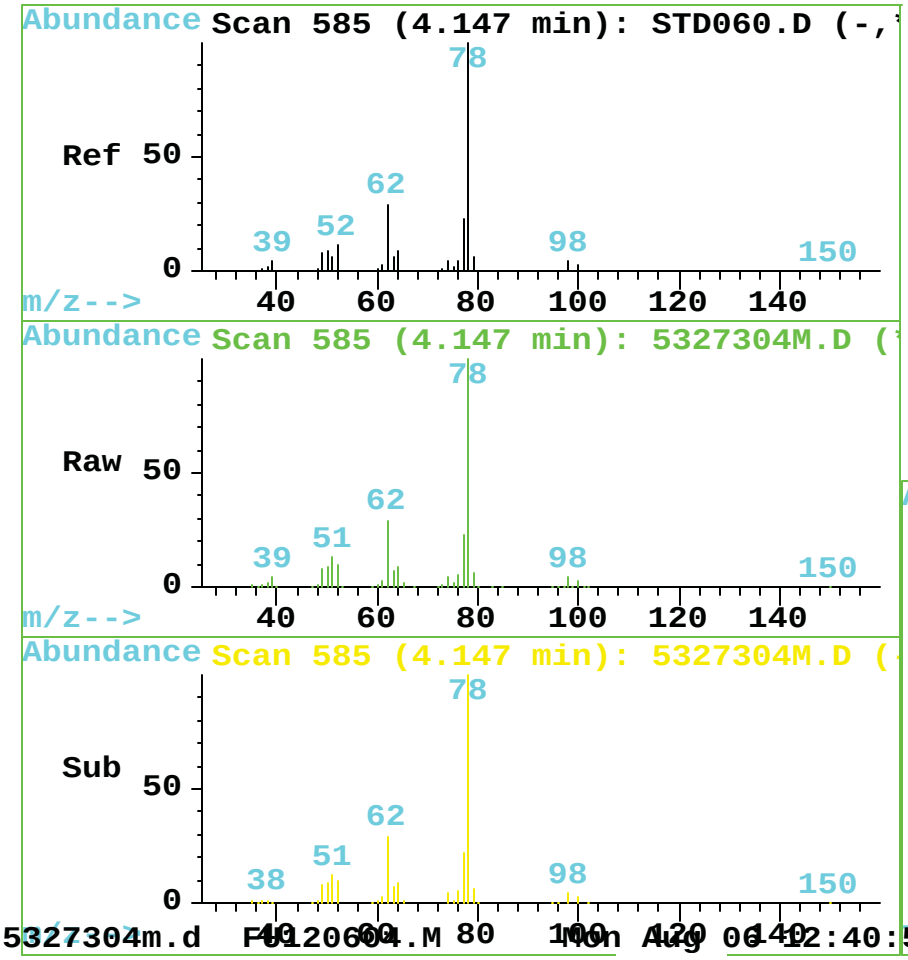


#36
Benzene (MS)
Concen: 43.13 ug/l
RT: 4.14 min Scan# 584
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:78.1 Resp: 516797

Ion	Ratio	Lower	Upper
78	100		
77	22.5	0.0	52.9
51	11.9	0.0	44.8
0	0.0	0.0	0.0

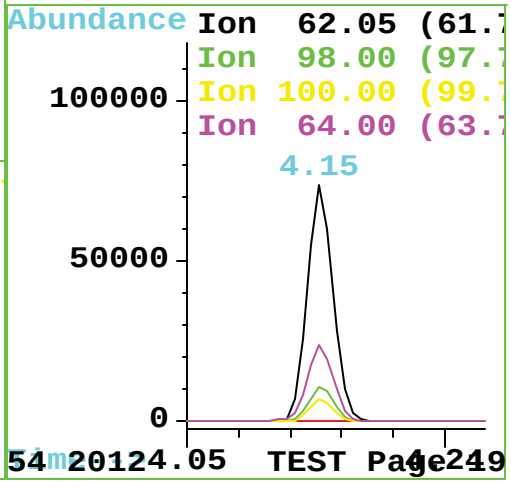


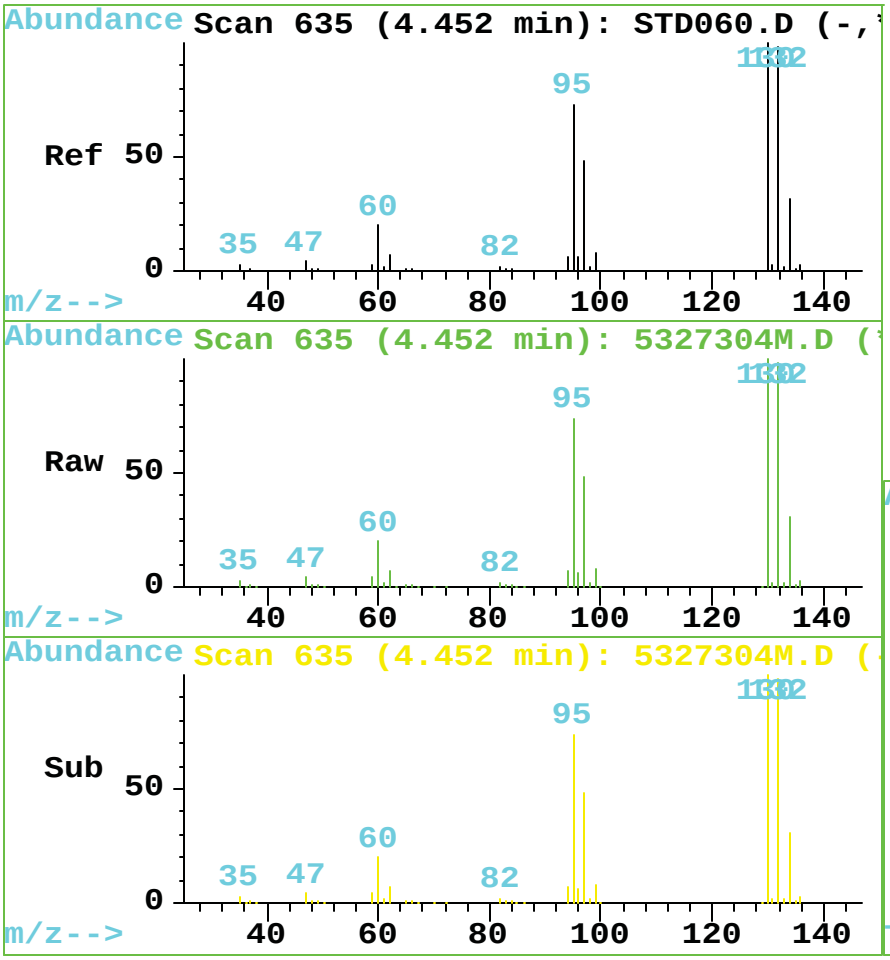


#37
1,2-Dichloroethane
Concen: 44.76 ug/l
RT: 4.15 min Scan# 585
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:62.05 Resp: 9714

Ion	Ratio	Lower	Upper
62	100		
98	14.7	0.0	40.9
100	9.7	0.0	37.0
64	33.6	3.1	63.1

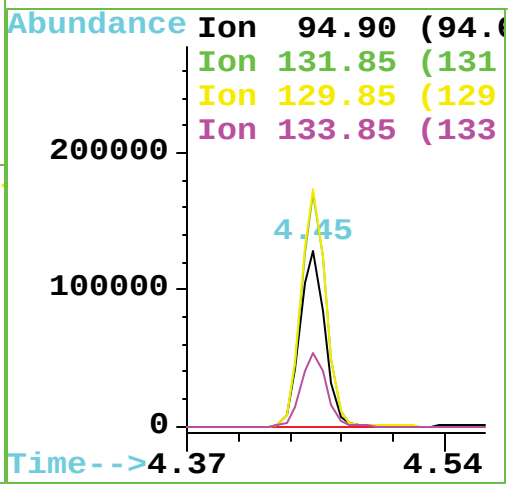


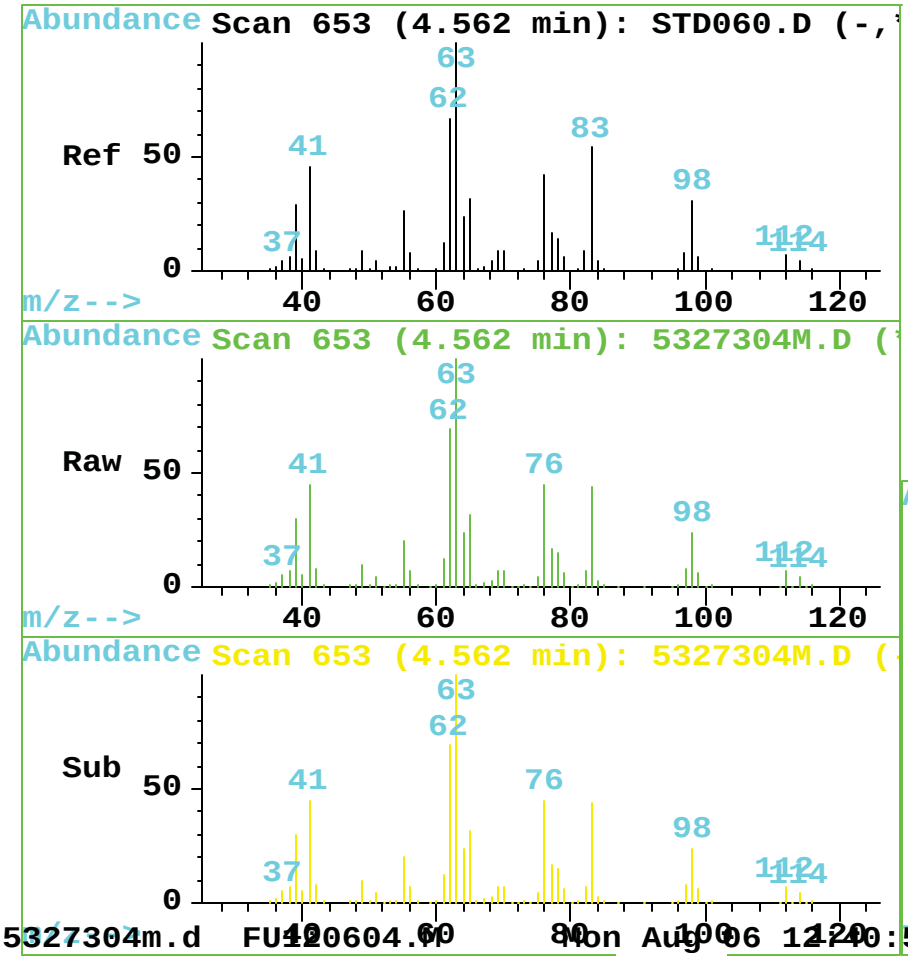


#38
Trichloroethene (MS)
Concen: 45.88 ug/l
RT: 4.45 min Scan# 635
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:94.9 Resp: 150006

Ion	Ratio	Lower	Upper
95	100		
132	131.3	90.7	150.7
130	134.3	93.9	153.9
134	42.0	8.4	68.4

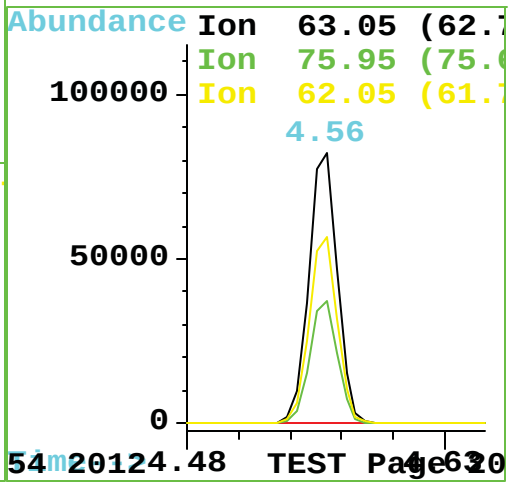


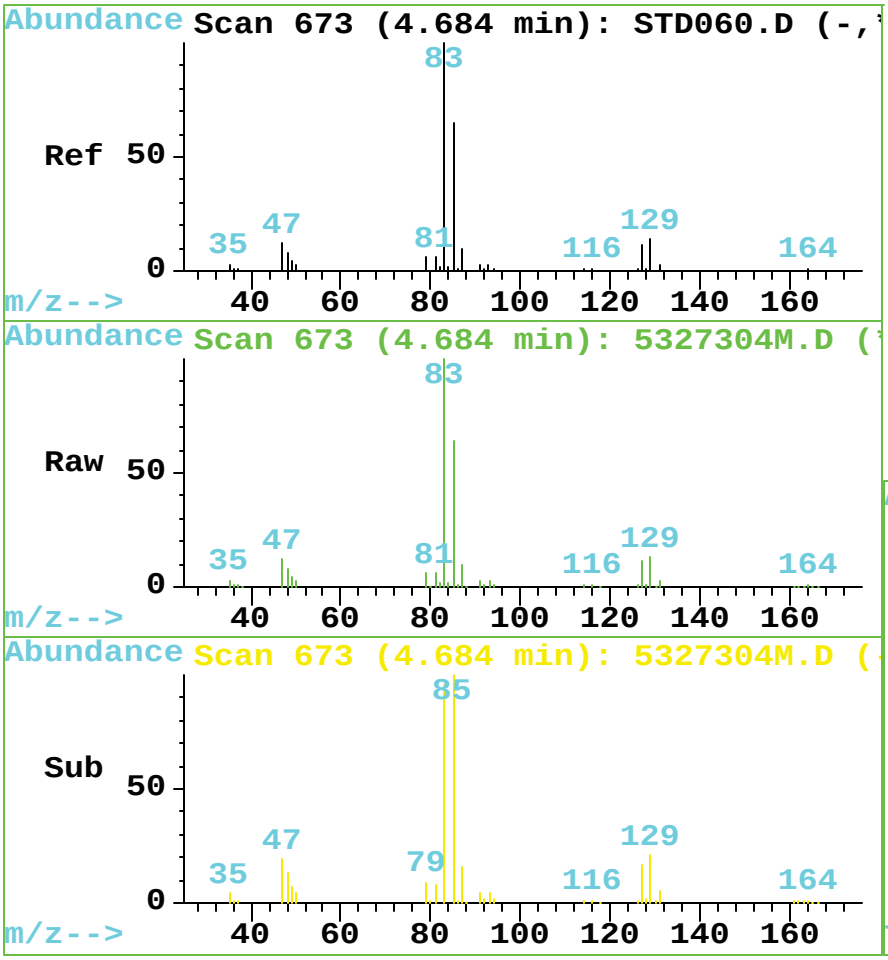


#39
1,2-Dichloropropane (CCC)
Concen: 43.04 ug/l
RT: 4.56 min Scan# 653
Delta R.T. 0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:63.05 Resp: 10024

Ion	Ratio	Lower	Upper
63	100		
76	43.9	23.2	83.2
62	68.0	37.6	97.6
0	0.0	0.0	0.0

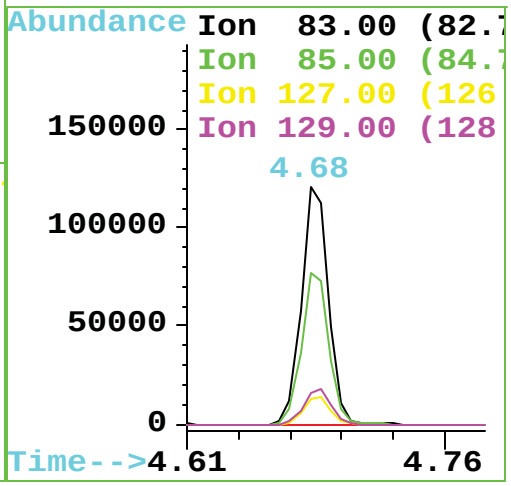


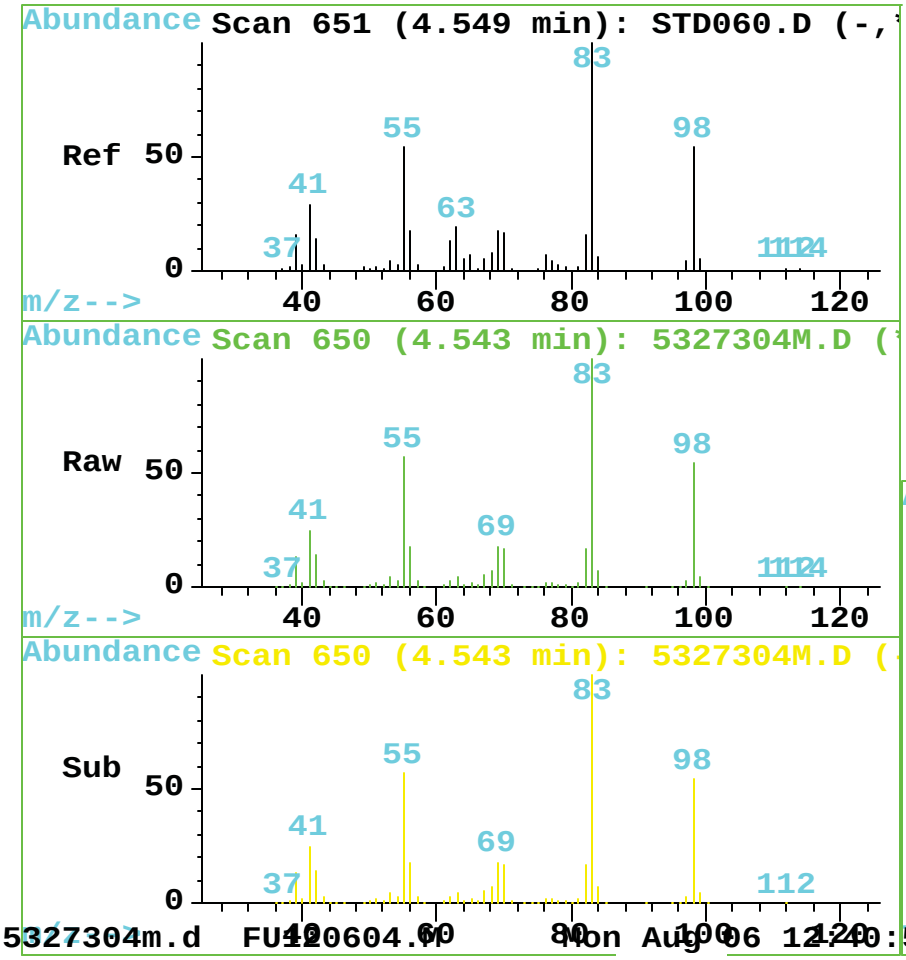


#40
Bromodichloromethane
Concen: 46.15 ug/l
RT: 4.68 min Scan# 673
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:83 Resp: 134416

Ion	Ratio	Lower	Upper
83	100		
85	64.3	33.6	93.6
127	11.2	0.0	40.3
129	14.7	0.0	43.6

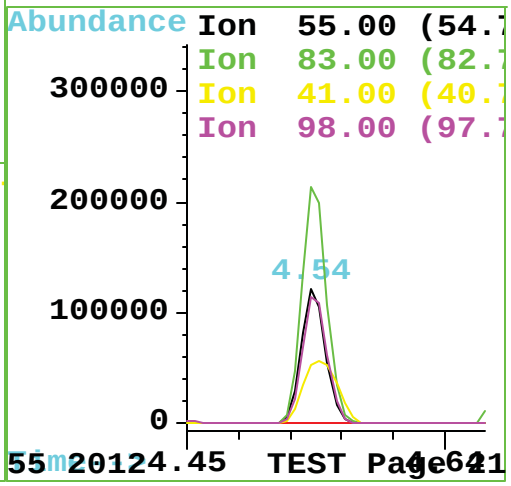


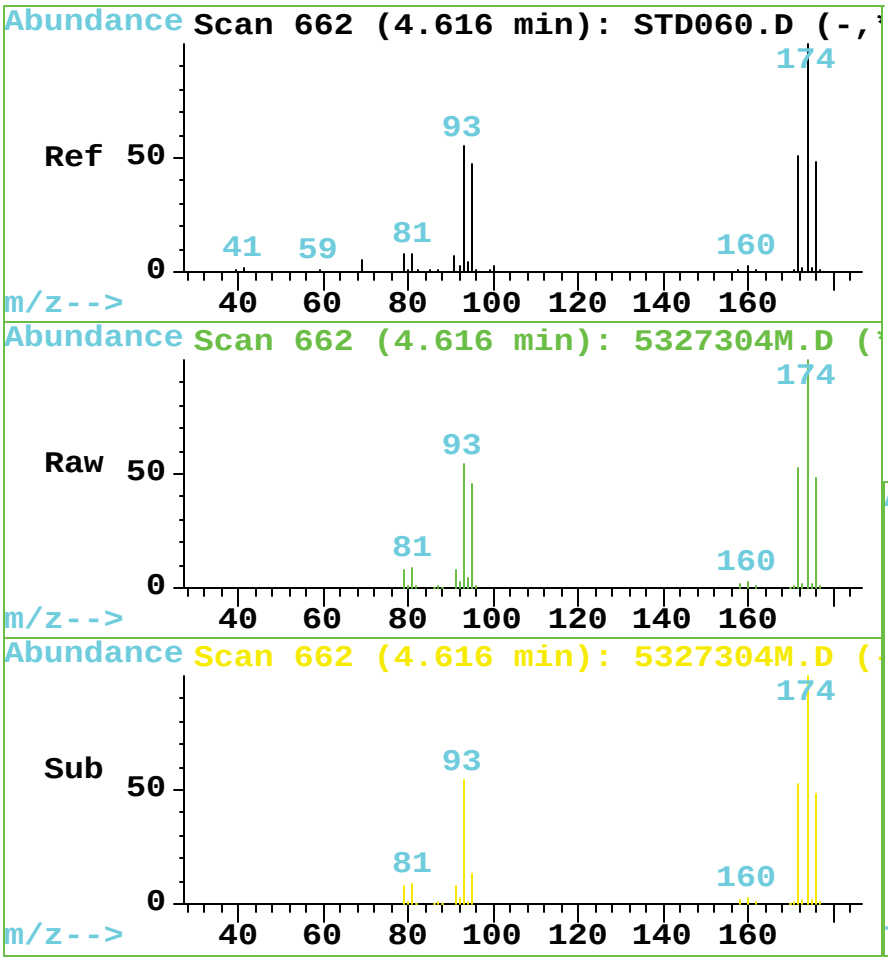


#41
Methyl Cyclohexane
Concen: 45.64 ug/l
RT: 4.54 min Scan# 650
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:55 Resp: 154501

Ion	Ratio	Lower	Upper
55	100		
83	180.5	131.0	191.0
41	65.6	42.0	102.0
98	97.2	55.3	115.3

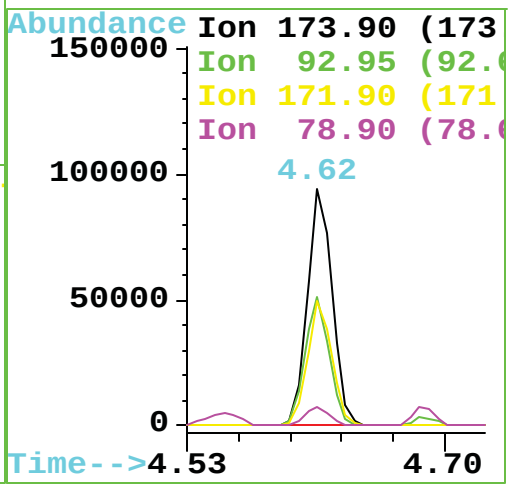


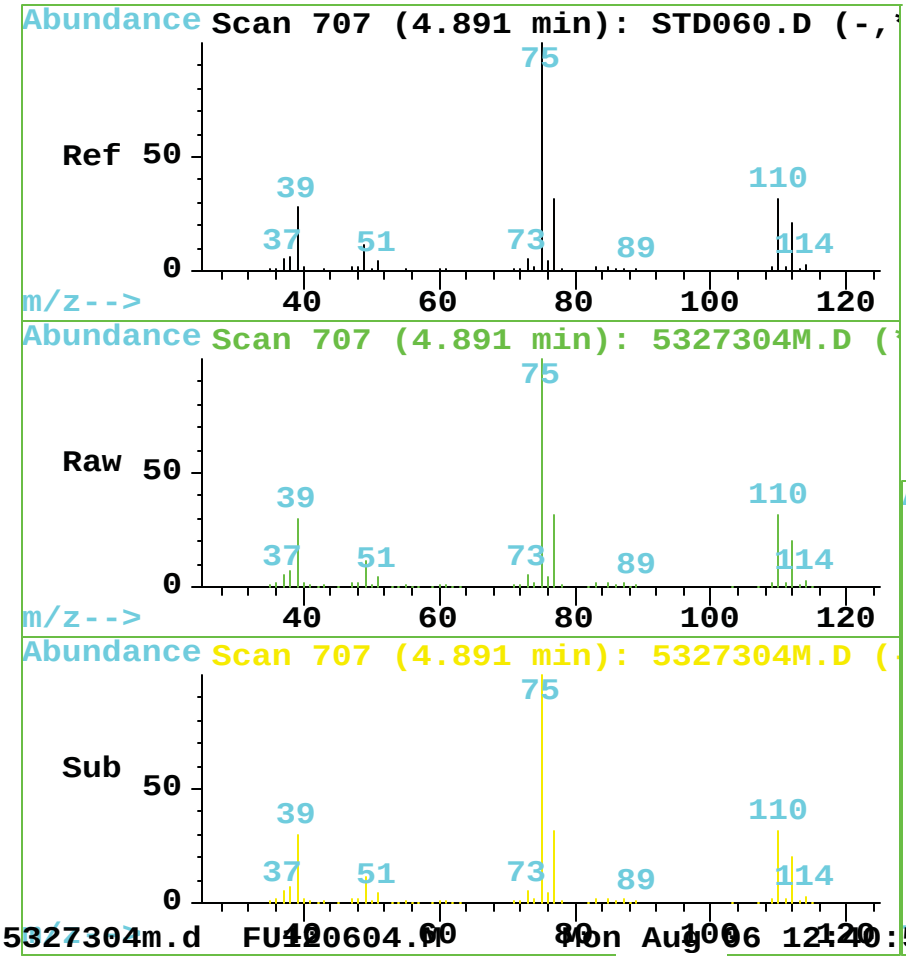


#42
Dibromomethane
Concen: 47.04 ug/l
RT: 4.62 min Scan# 662
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:173.9 Resp: 10645

Ion	Ratio	Lower	Upper
174	100		
93	53.7	32.9	92.9
172	51.8	19.9	79.9
79	8.3	0.0	43.6

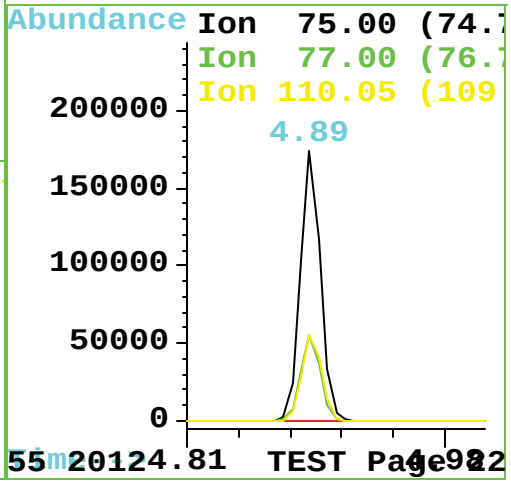


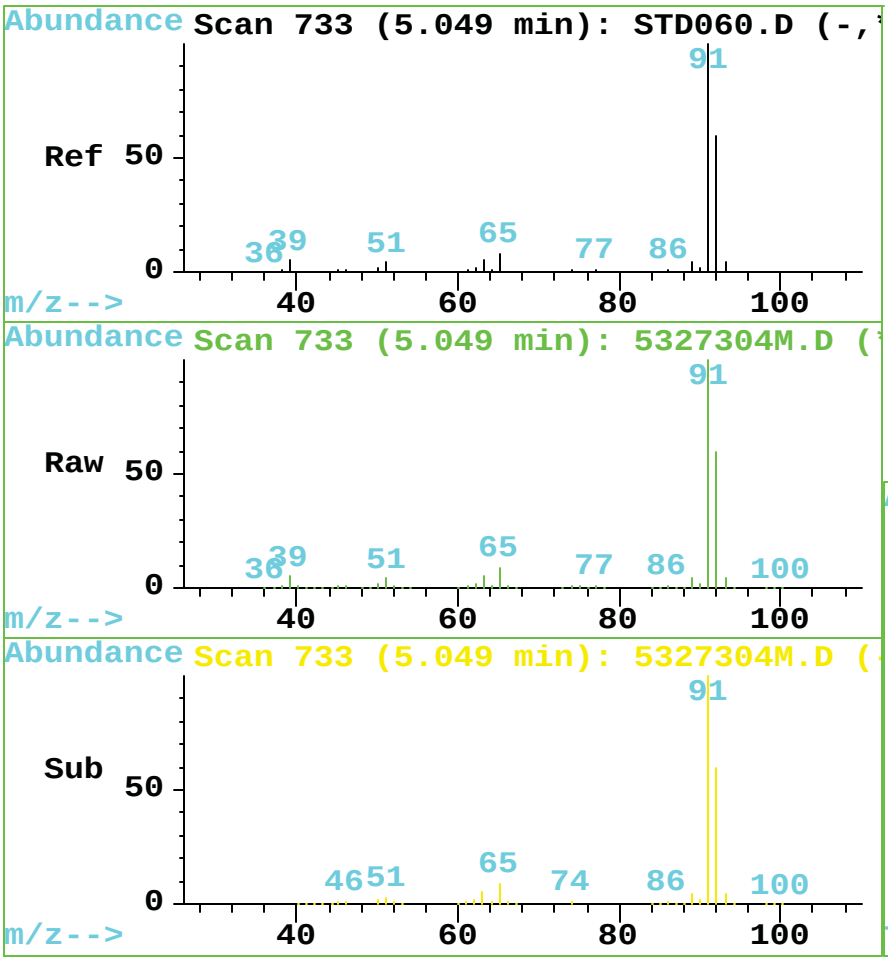


#43
cis-1,3-Dichloropropene
Concen: 46.53 ug/l
RT: 4.89 min Scan# 707
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:75 Resp: 169032

Ion	Ratio	Lower	Upper
75	100		
77	31.6	2.0	62.0
110	32.0	0.0	58.0
0	0.0	0.0	0.0

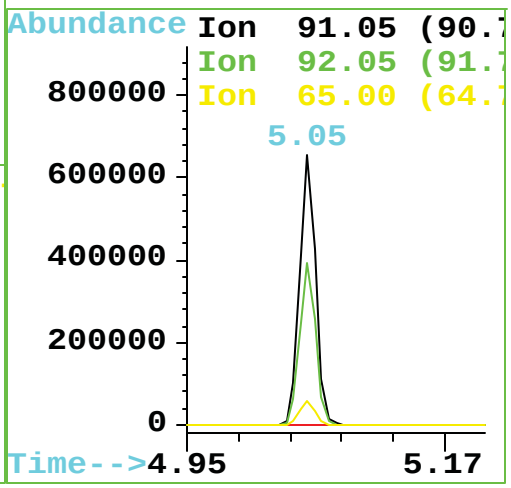


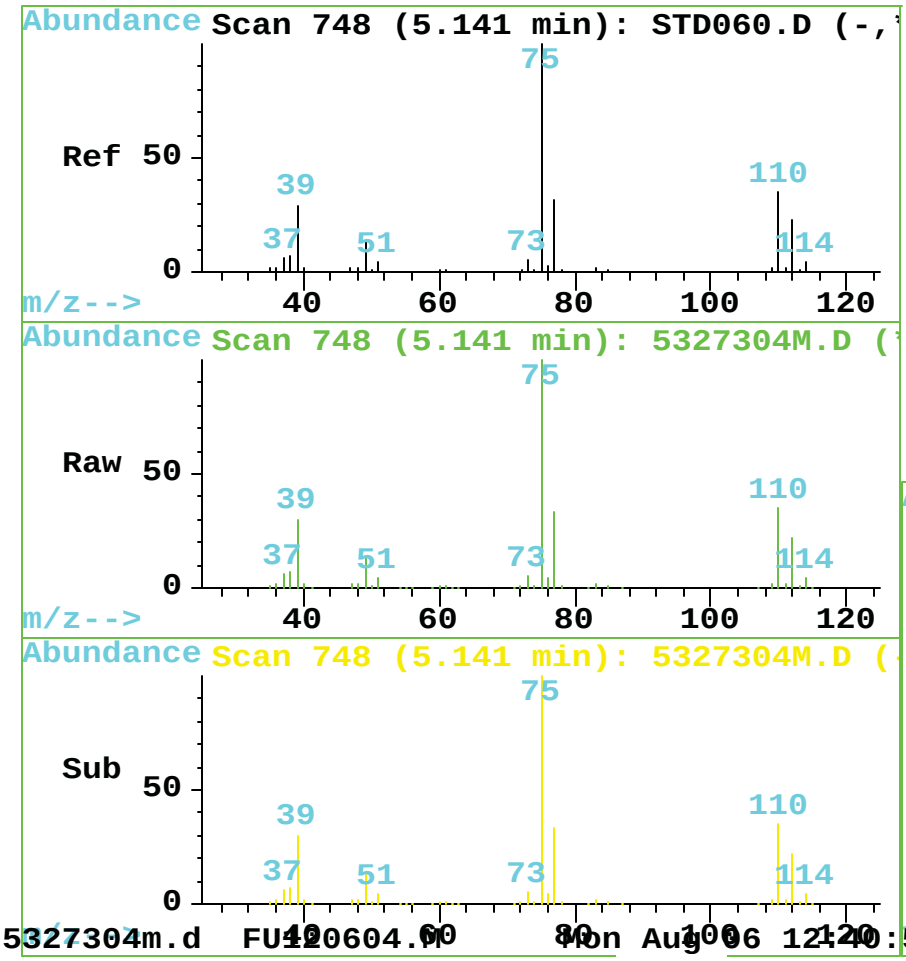


#44
Toluene (CCC/MS)
Concen: 45.15 ug/l
RT: 5.05 min Scan# 733
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:91.05 Resp: 63484

Ion	Ratio	Lower	Upper
91	100		
92	60.1	30.0	90.0
65	8.7	0.0	40.0
0	0.0	0.0	0.0

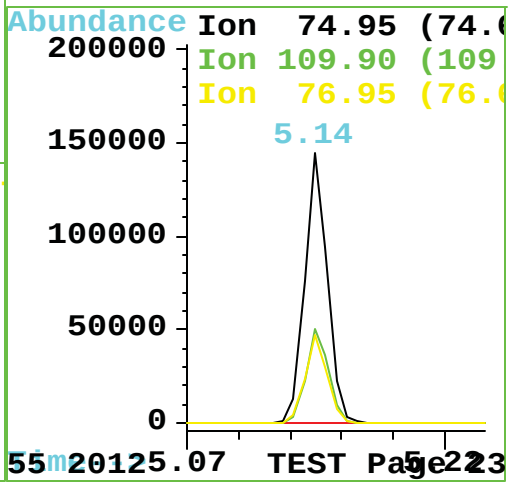


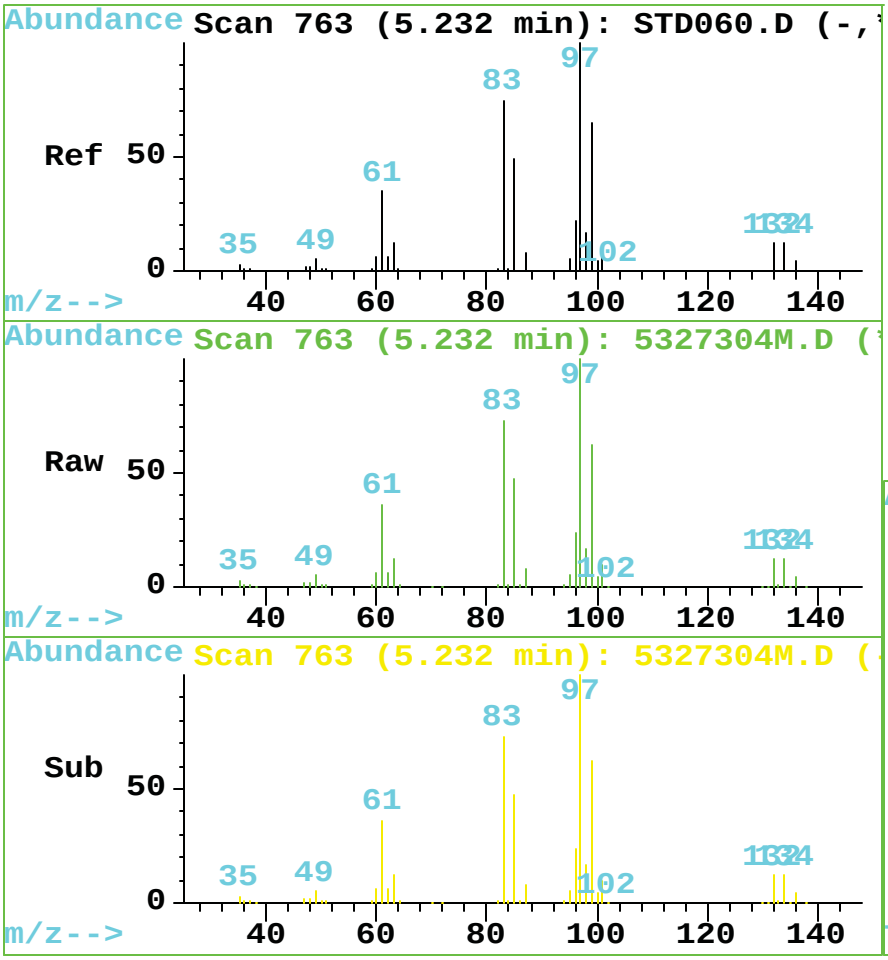


#45
trans-1,3-Dichloropropene
Concen: 47.65 ug/l
RT: 5.14 min Scan# 748
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:74.95 Resp: 13019

Ion	Ratio	Lower	Upper
75	100		
110	34.9	0.0	58.2
77	32.2	1.0	61.0
0	0.0	0.0	0.0

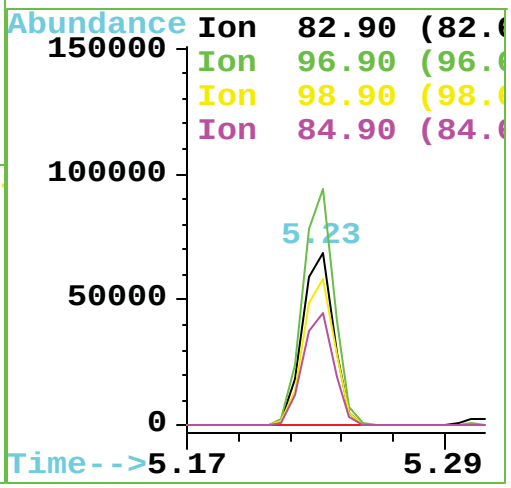


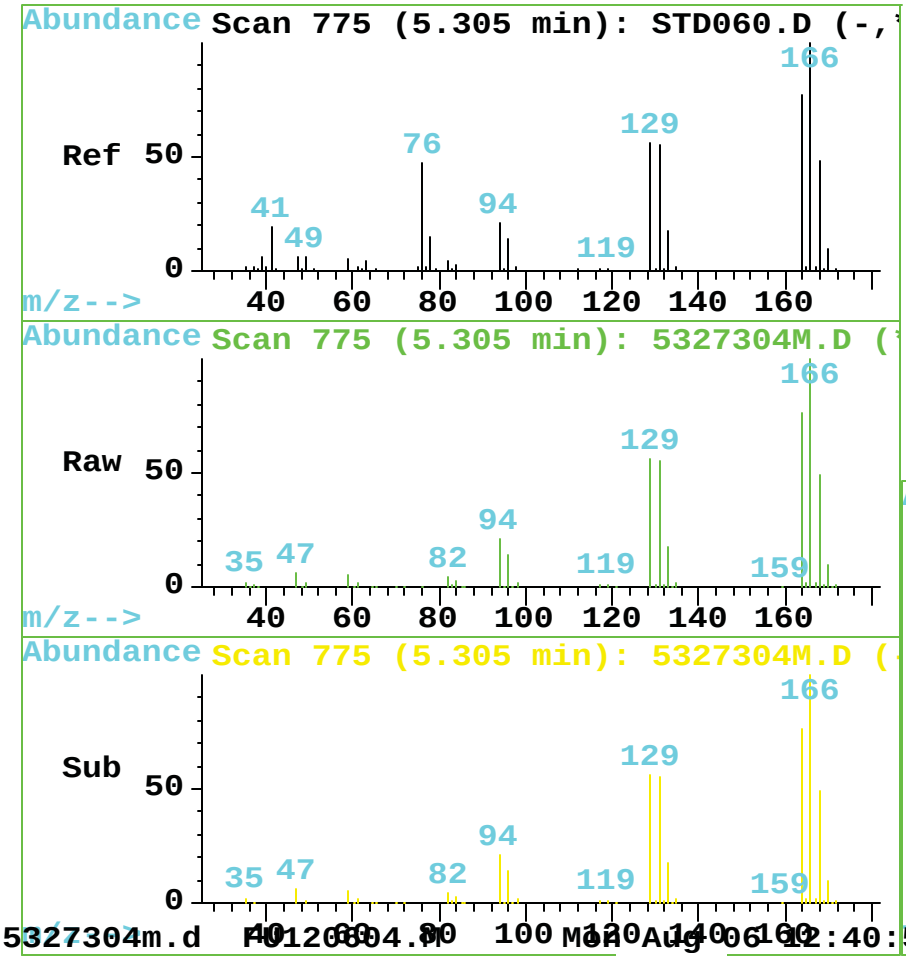


#46
1,1,2-Trichloroethane
Concen: 44.69 ug/l
RT: 5.23 min Scan# 763
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:82.9 Resp: 67223

Ion	Ratio	Lower	Upper
83	100		
97	135.9	104.2	164.2
99	85.3	54.5	114.5
85	65.1	36.7	96.7

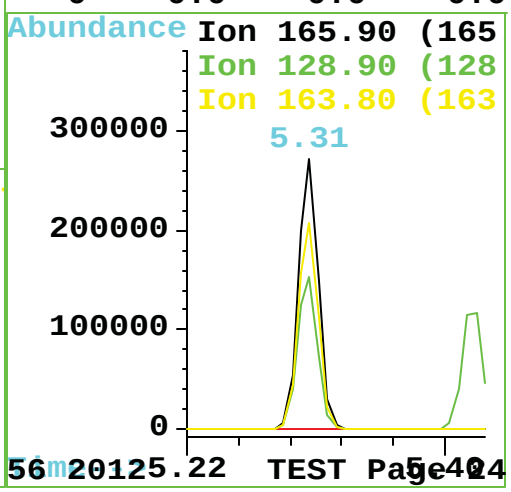


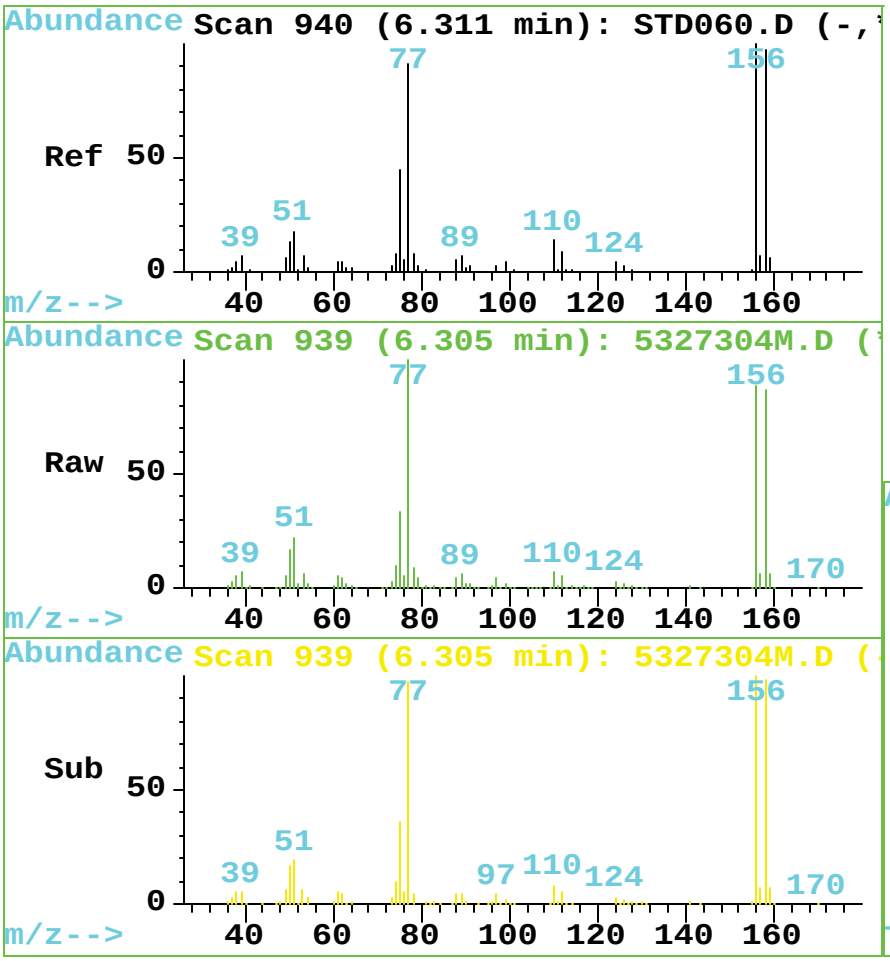


#47
Tetrachloroethene
Concen: 45.10 ug/l
RT: 5.31 min Scan# 775
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:165.9 Resp: 26203

Ion	Ratio	Lower	Upper
166	100		
129	57.3	31.8	91.8
164	77.0	47.4	107.4
0	0.0	0.0	0.0

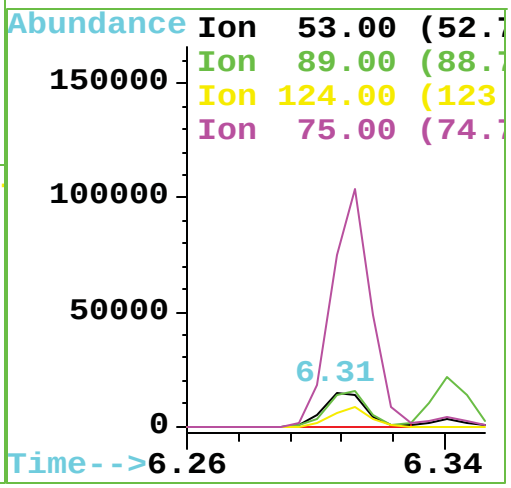


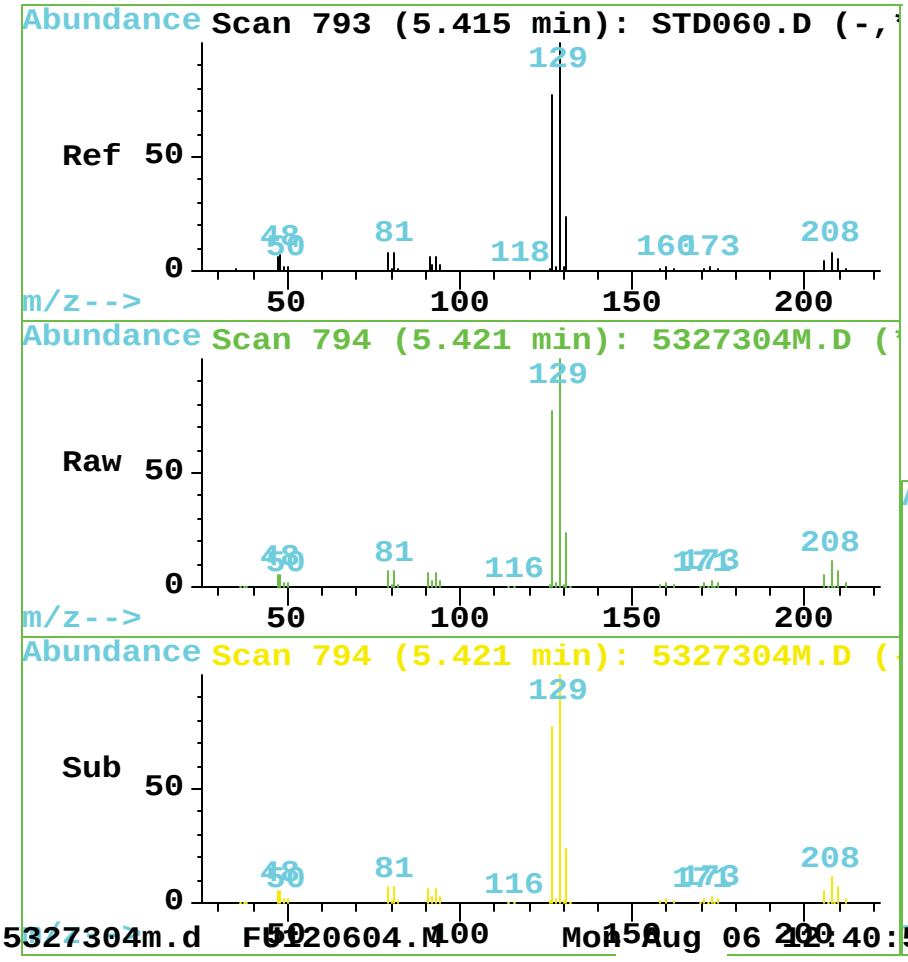


#50
trans-1,4-Dichloro-2-buten
Concen: 45.73 ug/l
RT: 6.31 min Scan# 939
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:53 Resp: 13744

Ion	Ratio	Lower	Upper
53	100		
89	99.6	53.8	113.8
124	50.1	6.0	66.0
75	689.5	570.7	630.7#

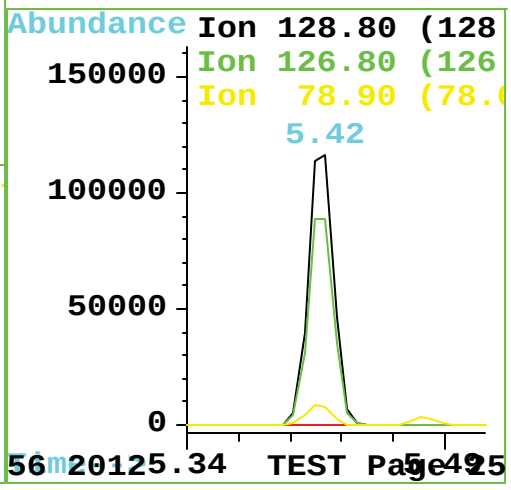


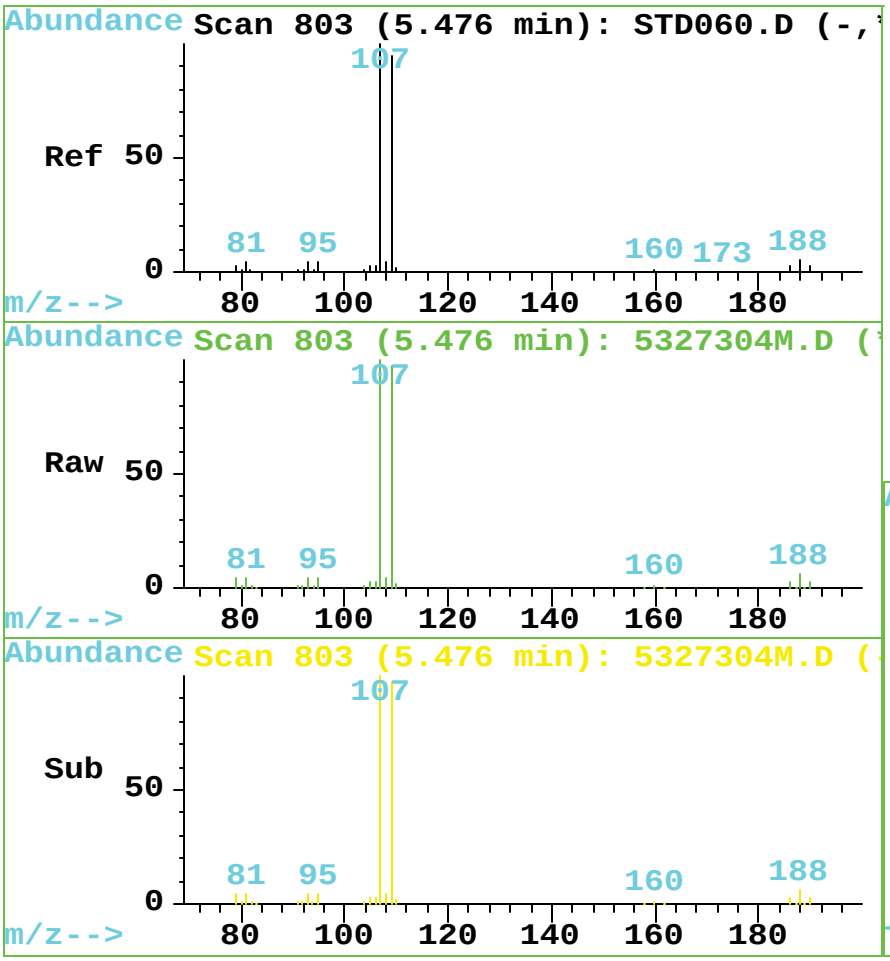


#51
Dibromochloromethane
Concen: 48.74 ug/l
RT: 5.42 min Scan# 794
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:128.8 Resp: 12092

Ion	Ratio	Lower	Upper
129	100		
127	76.7	47.0	107.0
79	7.4	0.0	40.2
0	0.0	0.0	0.0

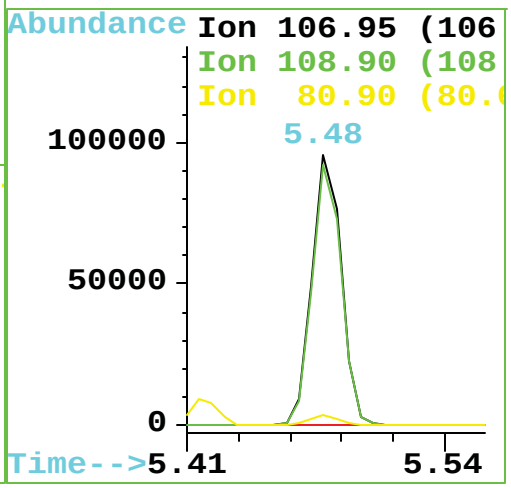


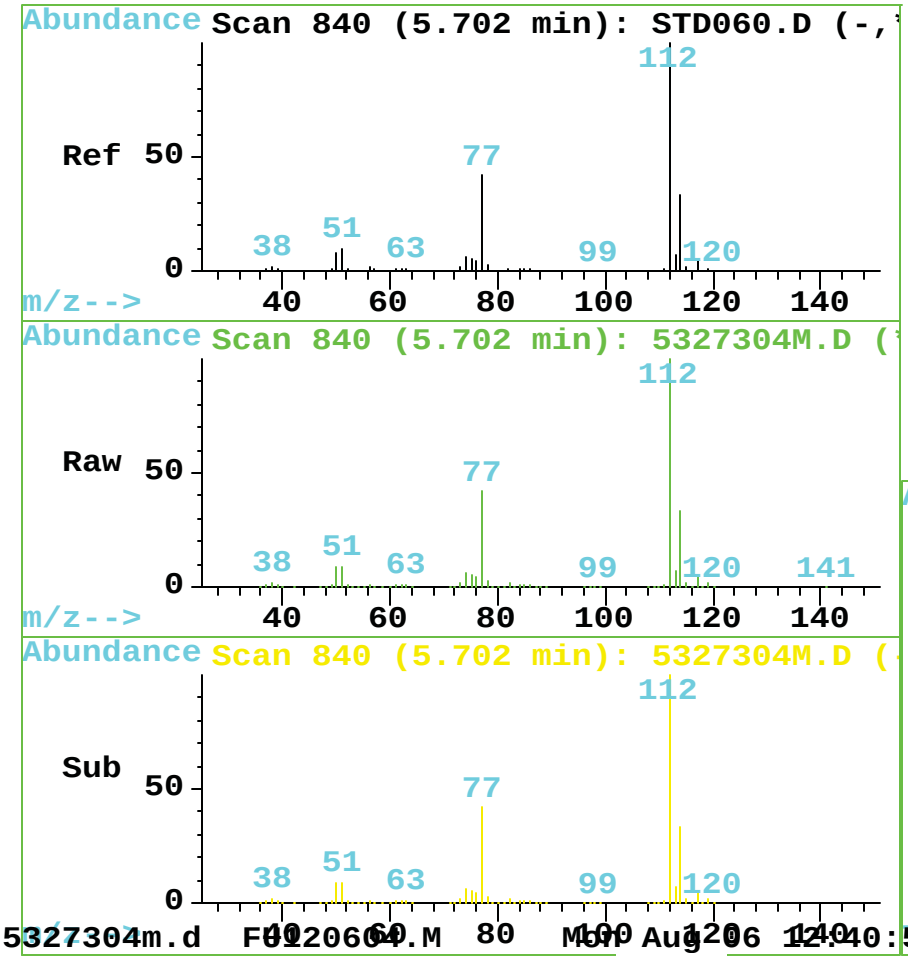


#52
1,2-Dibromoethane
Concen: 47.11 ug/l
RT: 5.48 min Scan# 803
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:106.95 Resp: 939

Ion	Ratio	Lower	Upper
107	100		
109	96.4	64.8	124.8
81	3.6	0.0	35.1
0	0.0	0.0	0.0

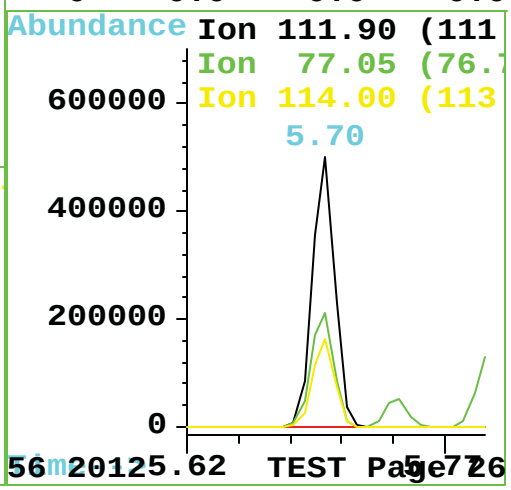


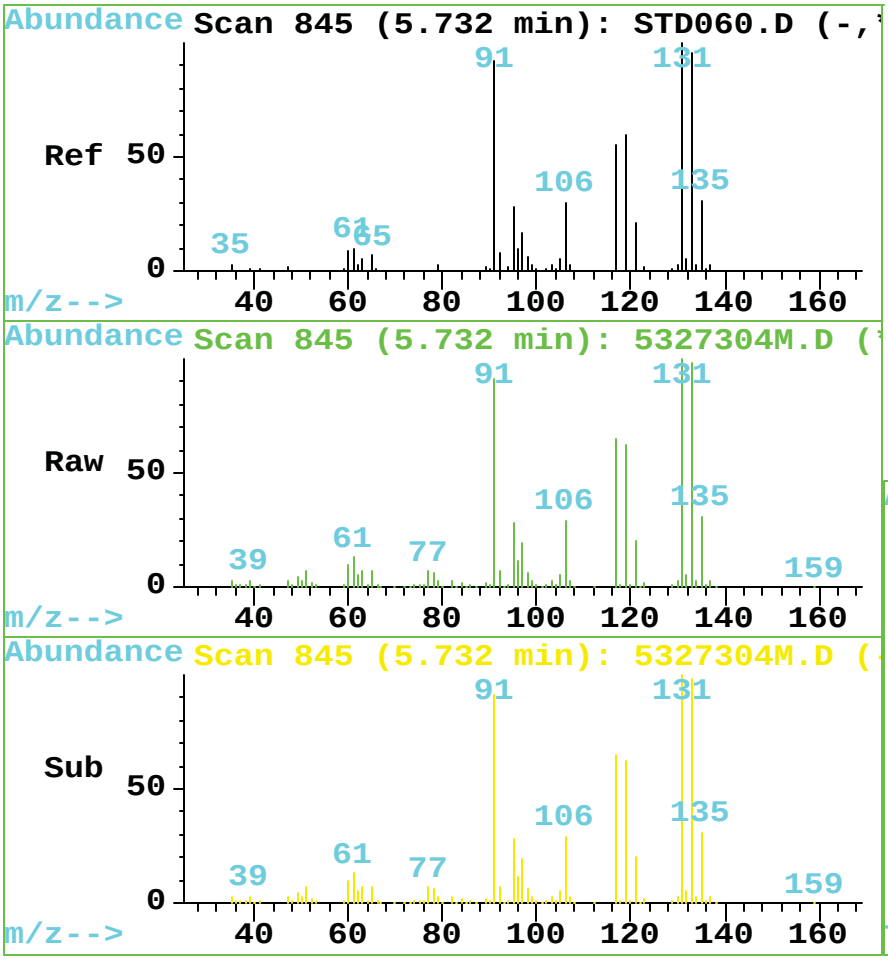


#53
Chlorobenzene (SPCC/MS)
Concen: 44.50 ug/l
RT: 5.70 min Scan# 840
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:111.9 Resp: 44814

Ion	Ratio	Lower	Upper
112	100		
77	44.0	21.6	81.6
114	32.4	2.4	62.4
0	0.0	0.0	0.0

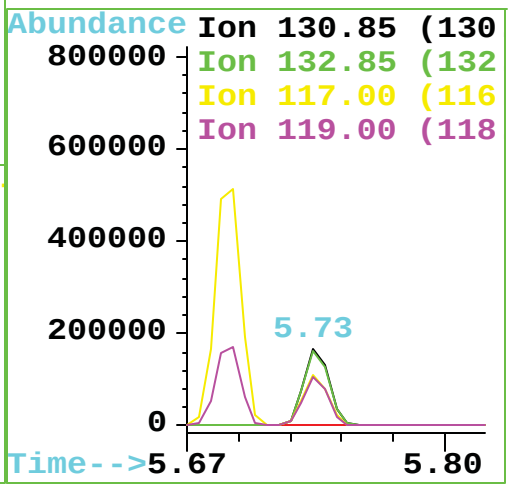


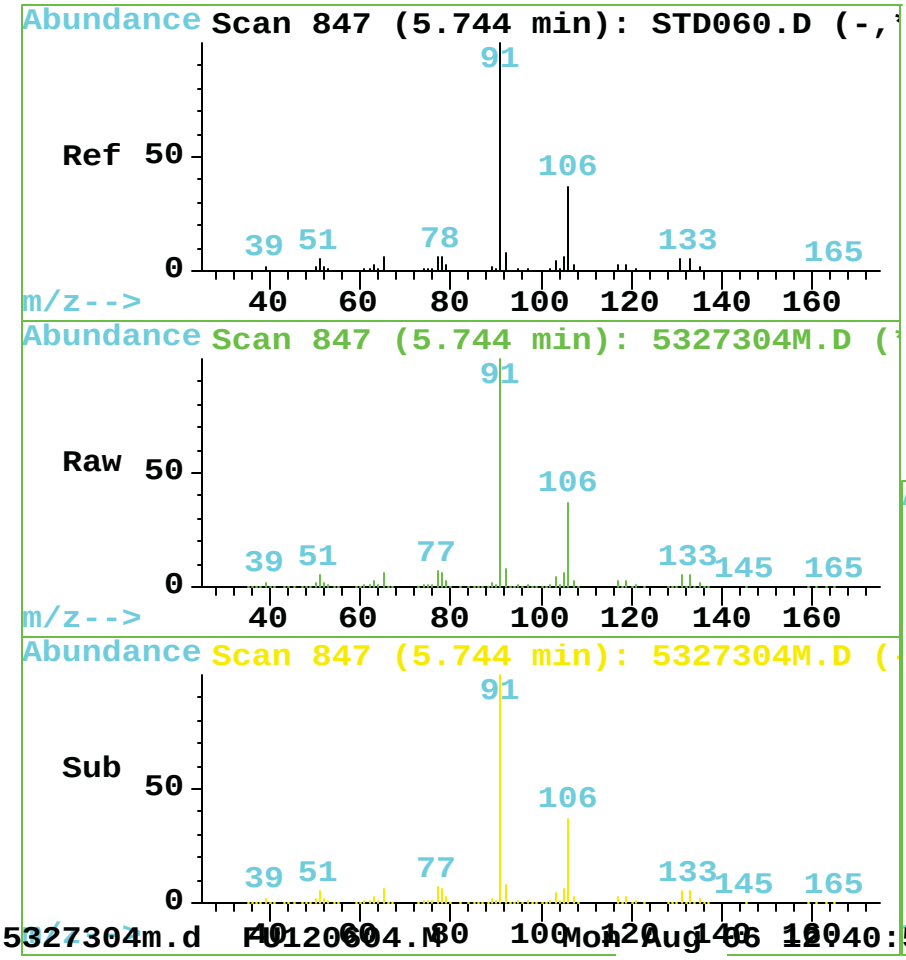


#54
1,1,1,2-Tetrachloroethane
Concen: 47.22 ug/l
RT: 5.73 min Scan# 845
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:130.85 Resp: 1589

Ion	Ratio	Lower	Upper
131	100		
133	97.6	65.8	125.8
117	64.2	30.1	90.1
119	61.5	27.4	87.4

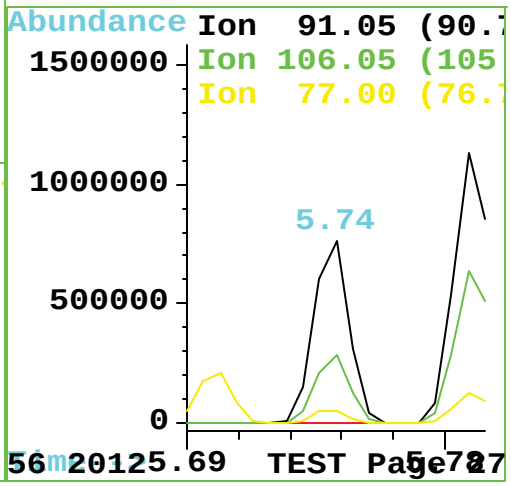


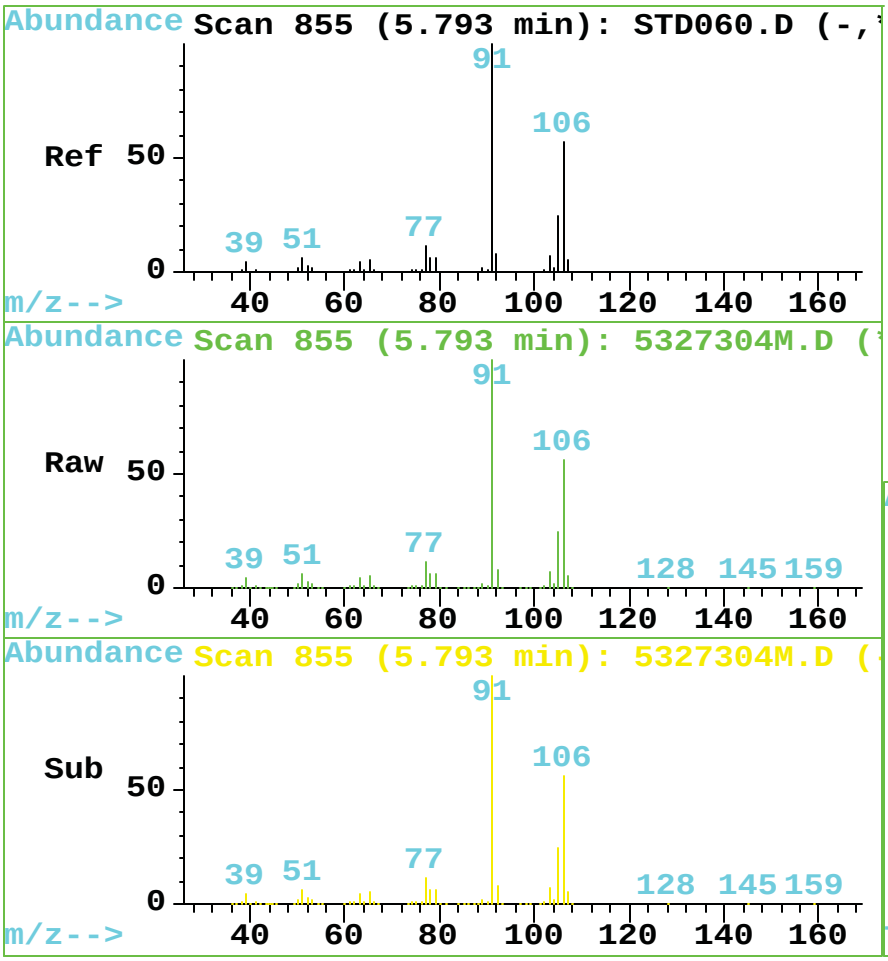


#55
Ethylbenzene (CCC)
Concen: 45.87 ug/l
RT: 5.74 min Scan# 847
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:91.05 Resp: 69263

Ion	Ratio	Lower	Upper
91	100		
106	36.6	3.8	63.8
77	7.2	0.0	37.9
0	0.0	0.0	0.0

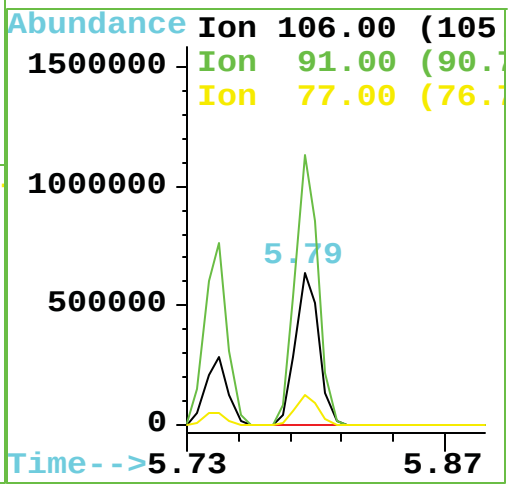


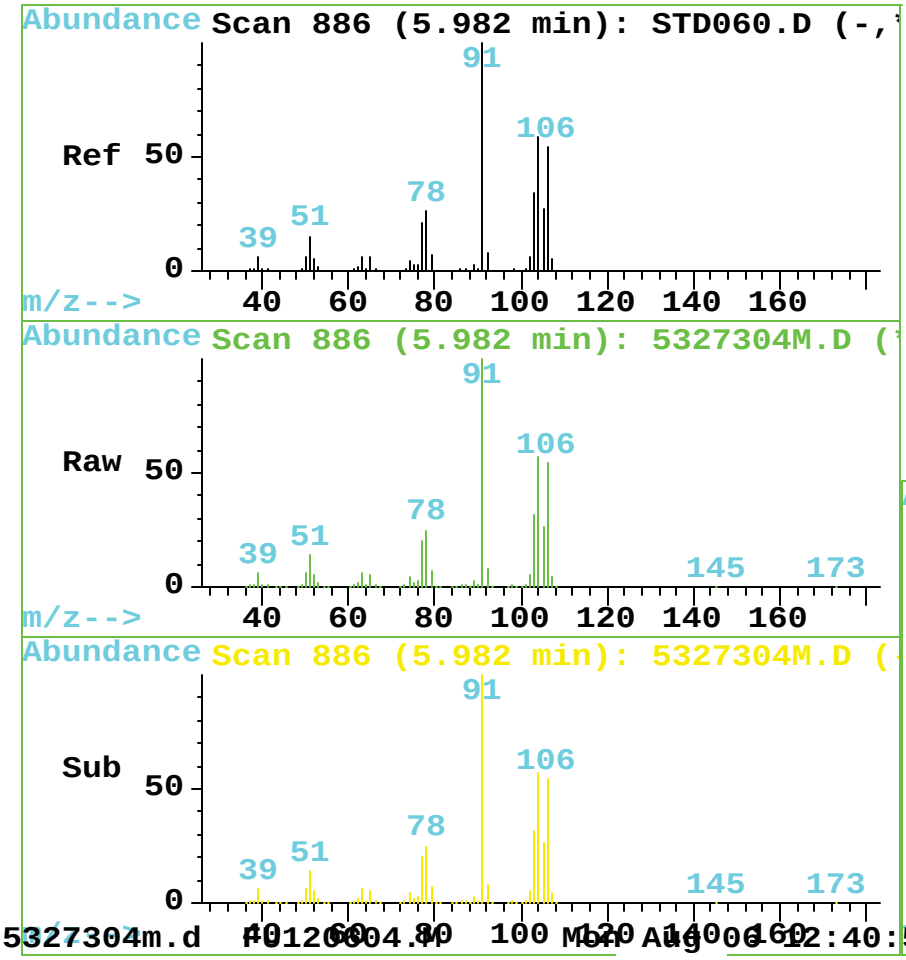


#56
p,m-Xylene
Concen: 92.24 ug/l
RT: 5.79 min Scan# 855
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:106 Resp: 595019

Ion	Ratio	Lower	Upper
106	100		
91	175.3	160.1	220.1
77	19.4	0.0	52.4
0	0.0	0.0	0.0

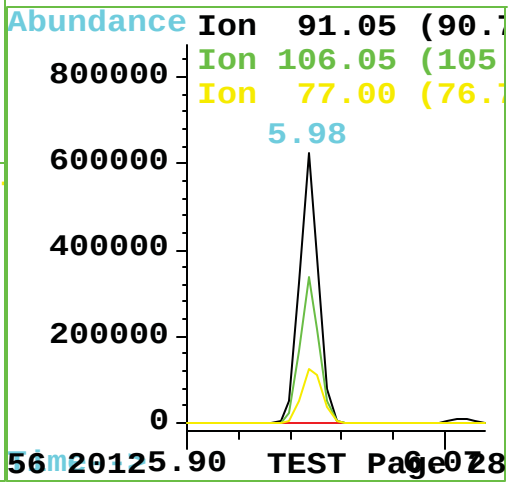


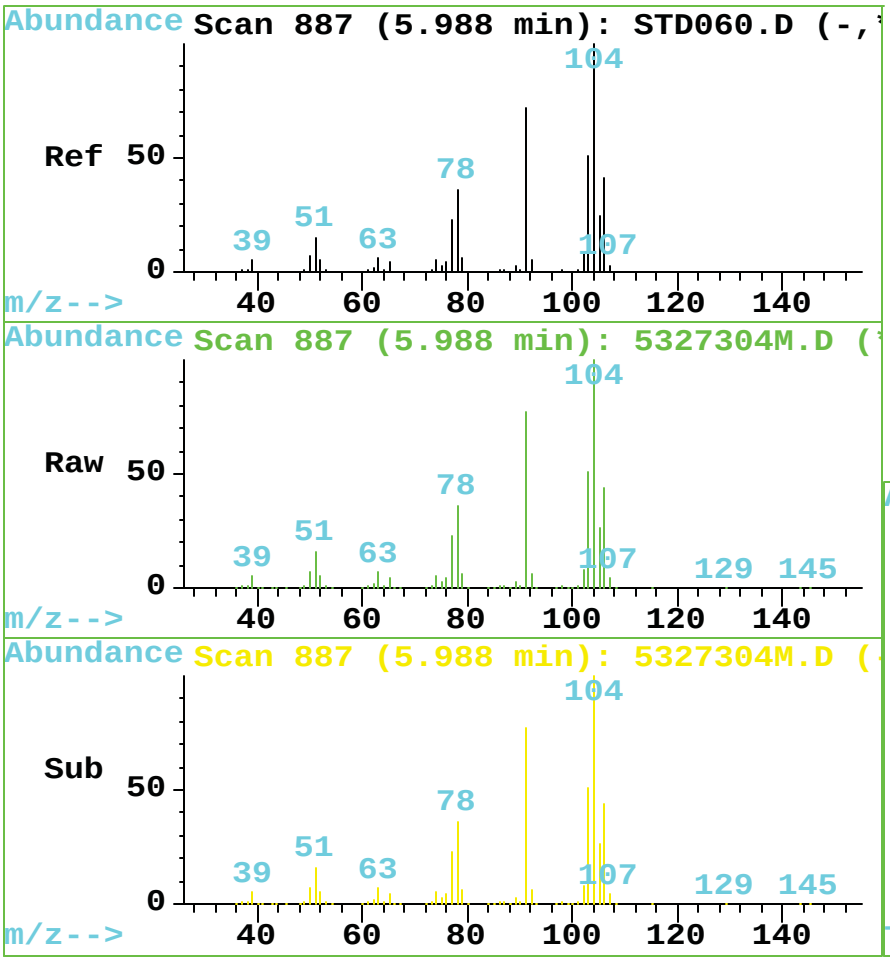


#57
o-Xylene
Concen: 46.87 ug/l
RT: 5.98 min Scan# 886
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:91.05 Resp: 53955

Ion	Ratio	Lower	Upper
91	100		
106	54.5	20.0	80.0
77	22.7	0.0	54.7
0	0.0	0.0	0.0

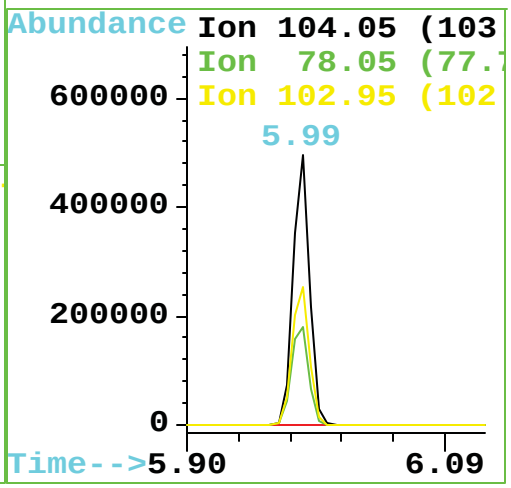


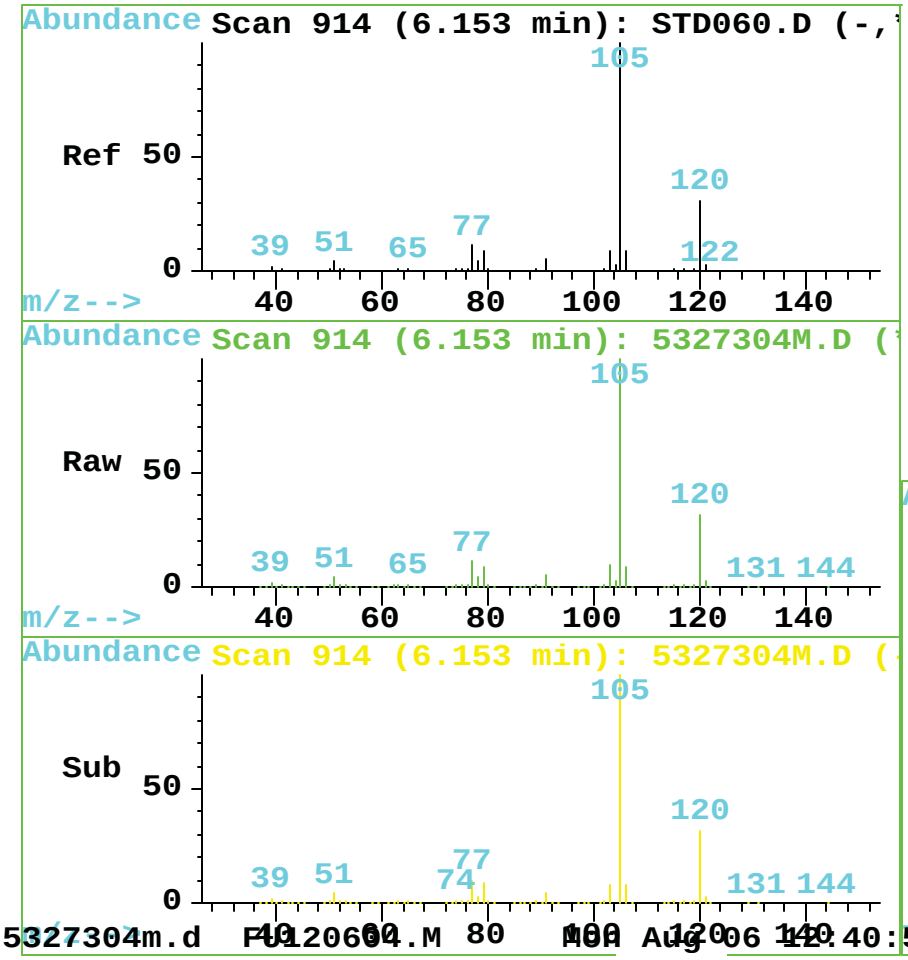


#58
Styrene
Concen: 46.09 ug/l
RT: 5.99 min Scan# 887
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:104.05 Resp: 4318

Ion	Ratio	Lower	Upper
104	100		
78	39.3	15.3	75.3
103	53.6	24.1	84.1
0	0.0	0.0	0.0

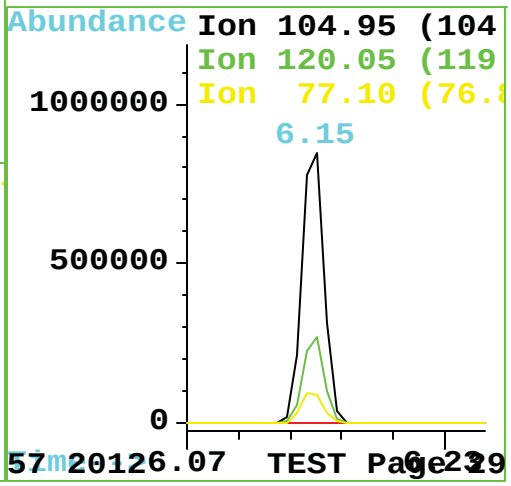


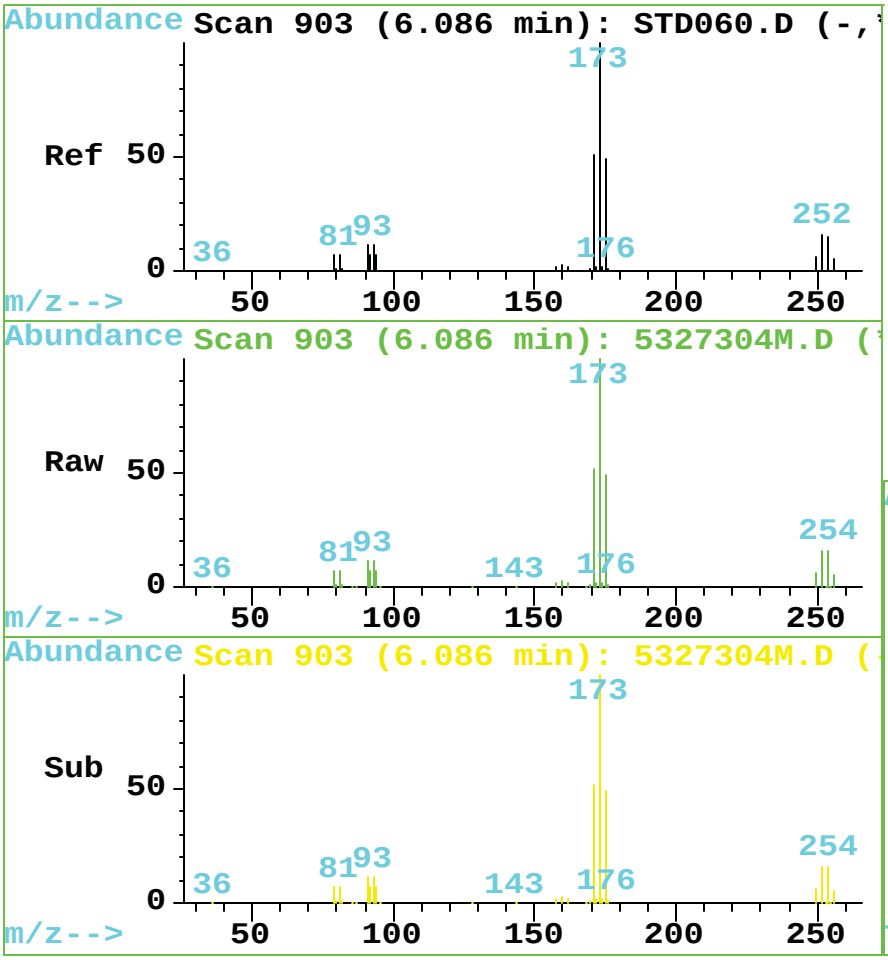


#59
Isopropylbenzene
Concen: 47.70 ug/l
RT: 6.15 min Scan# 914
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:104.95 Resp: 8102

Ion	Ratio	Lower	Upper
105	100		
120	30.6	0.0	58.6
77	11.2	0.0	43.1
0	0.0	0.0	0.0

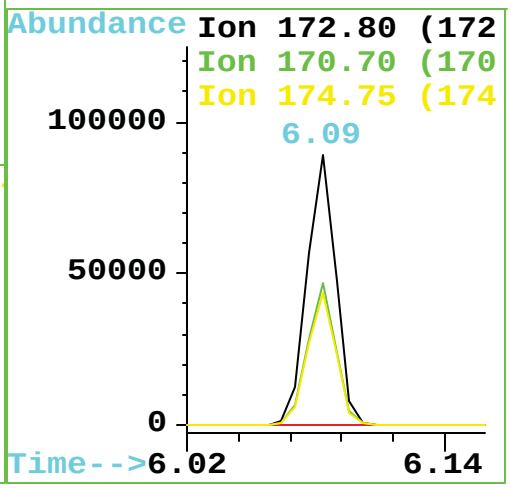


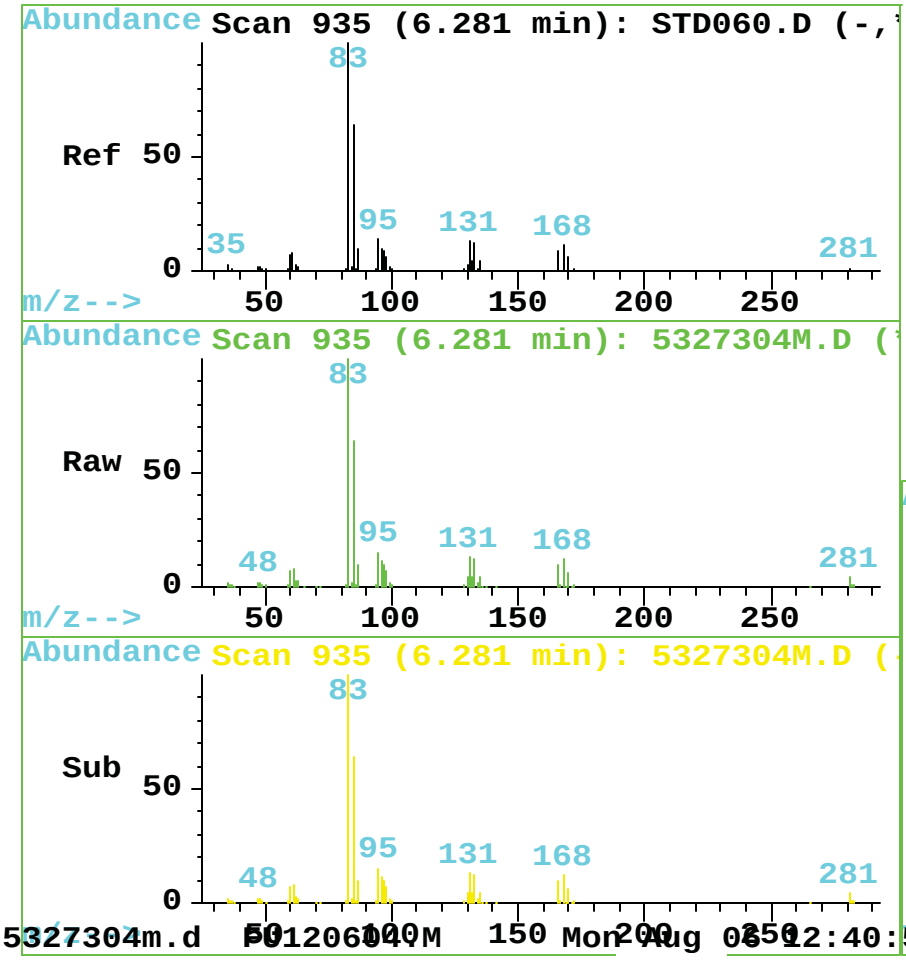


#60
Bromoform (SPCC)
Concen: 45.86 ug/l
RT: 6.09 min Scan# 903
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:172.8 Resp: 7914

Ion	Ratio	Lower	Upper
173	100		
171	51.4	19.9	79.9
175	48.3	17.5	77.5
0	0.0	0.0	0.0

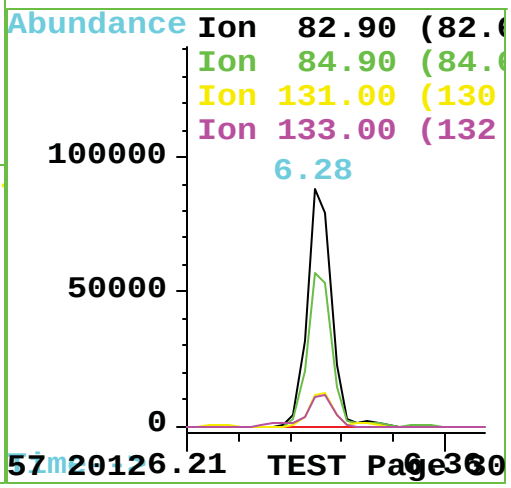


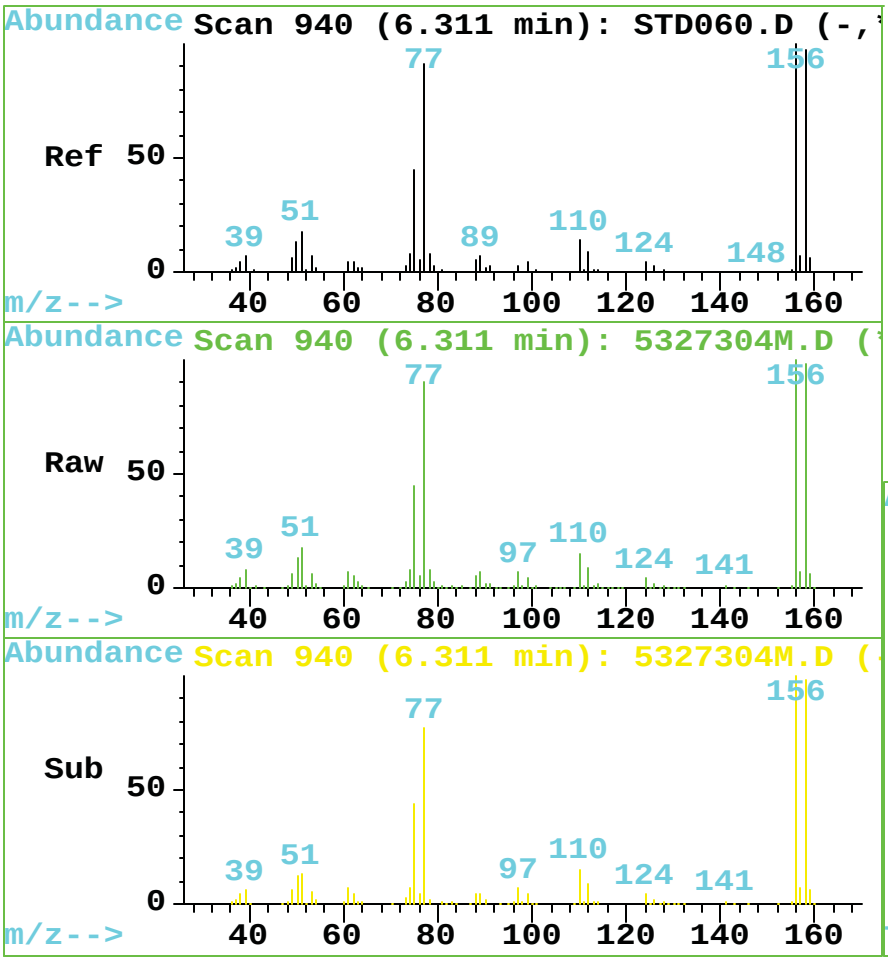


#61
1,1,2,2-Tetrachloroethane
Concen: 45.84 ug/l
RT: 6.28 min Scan# 935
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:82.9 Resp: 85220

Ion	Ratio	Lower	Upper
83	100		
85	65.4	34.6	94.6
131	14.8	0.0	44.8
133	14.6	0.0	45.6

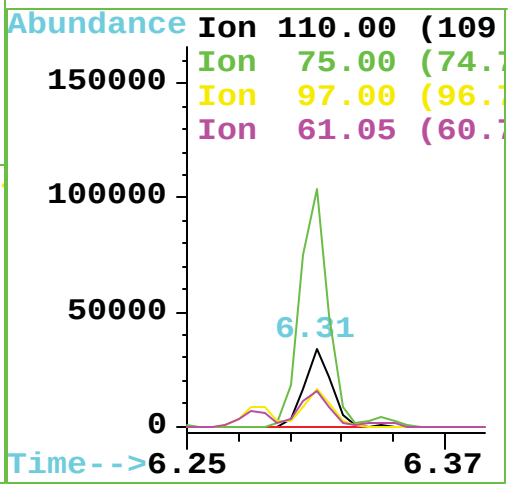


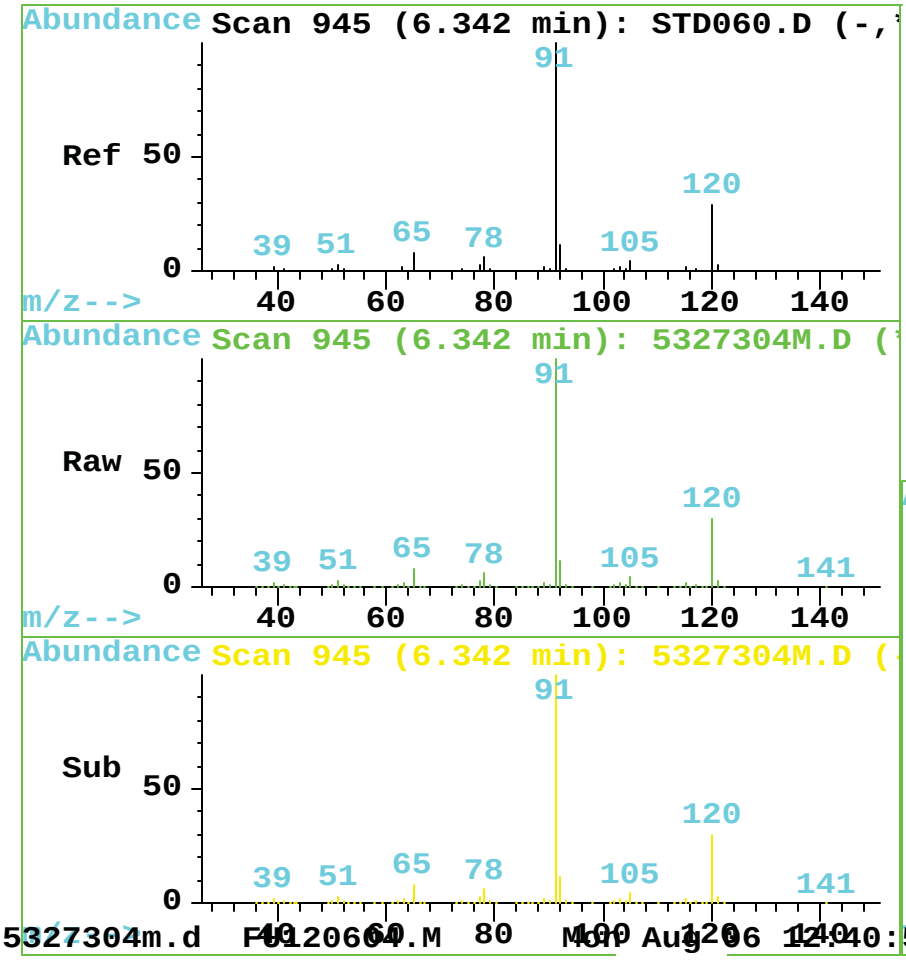


#62
1,2,3-Trichloropropane
Concen: 48.05 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:110 Resp: 29454

Ion	Ratio	Lower	Upper
110	100		
75	321.7	327.3	387.3#
97	45.6	15.8	75.8
61	48.6	24.6	84.6

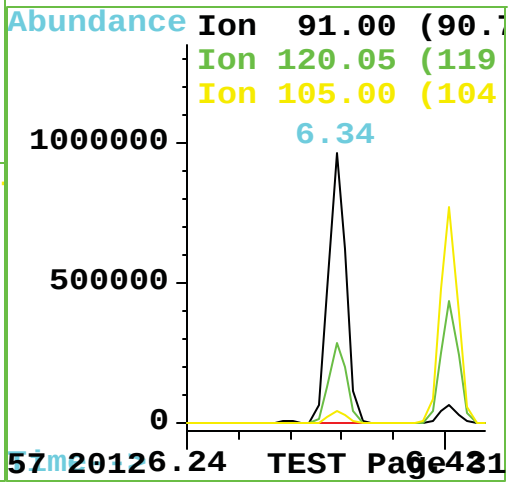


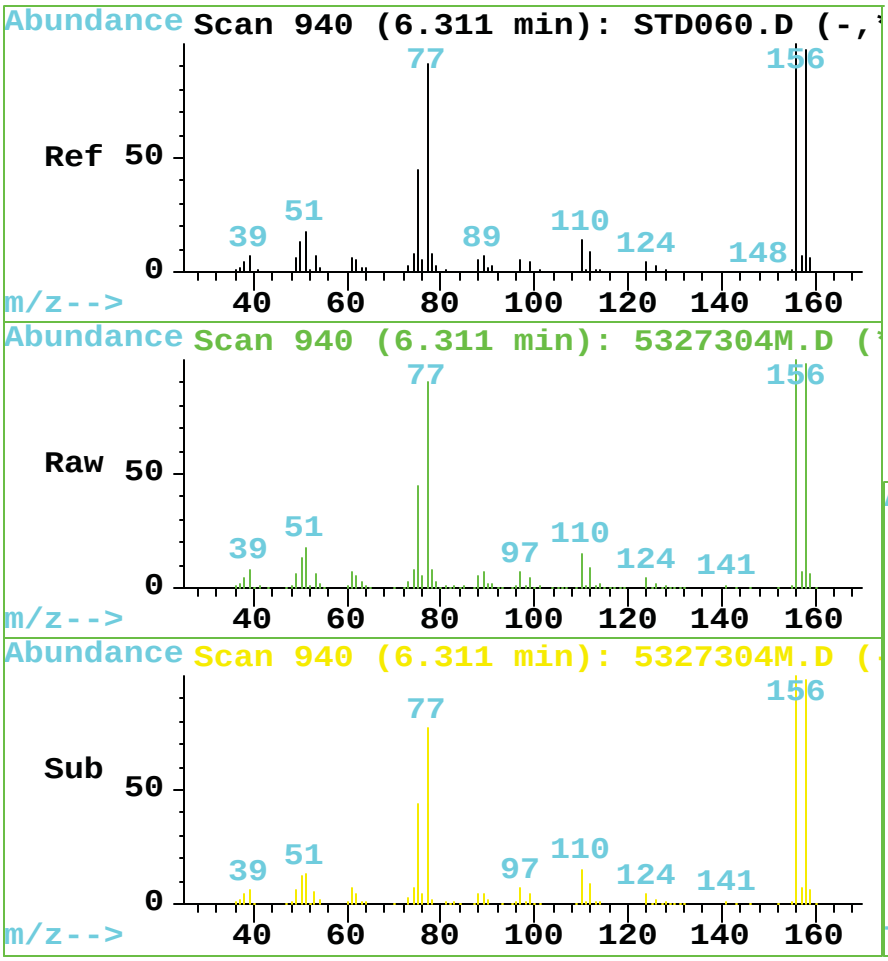


#63
n-Propylbenzene
Concen: 47.37 ug/l
RT: 6.34 min Scan# 945
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:91 Resp: 827398

Ion	Ratio	Lower	Upper
91	100		
120	30.0	0.0	57.3
105	4.2	0.0	34.1
0	0.0	0.0	0.0

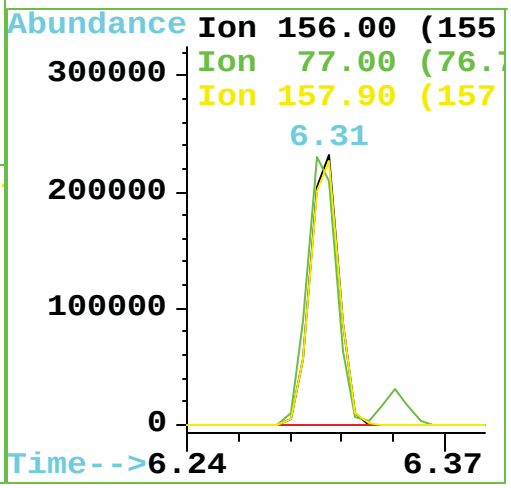


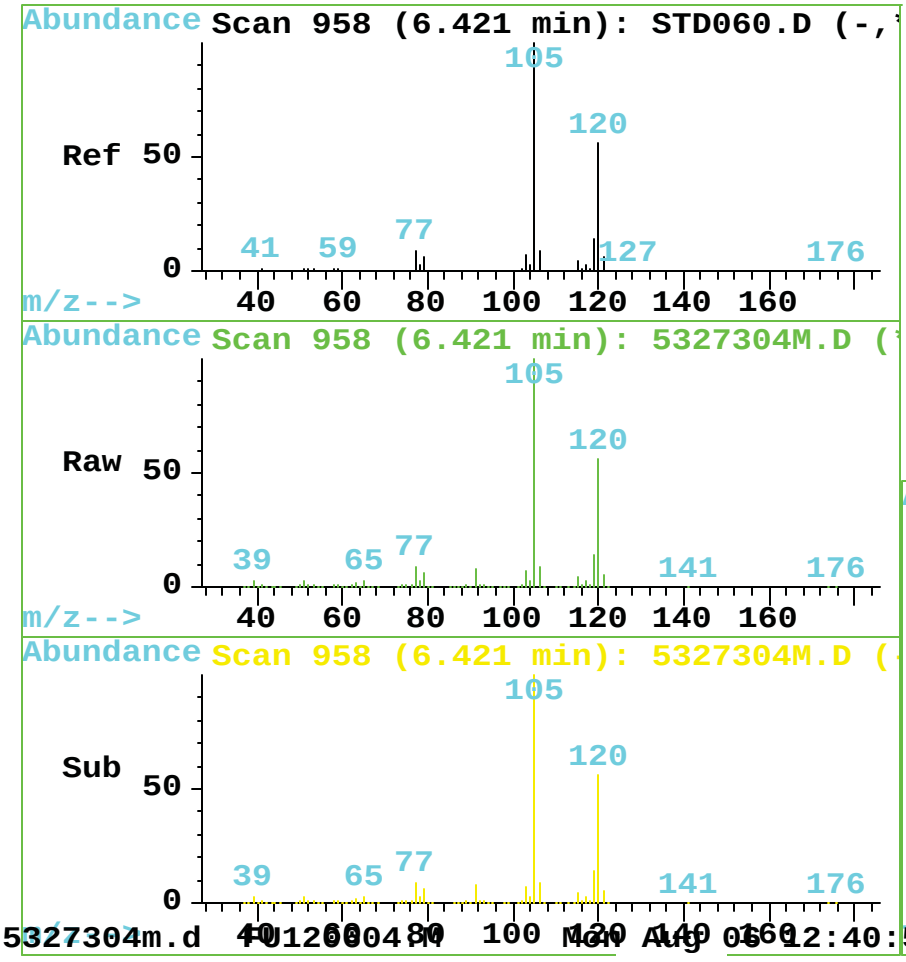


#64
Bromobenzene
Concen: 45.54 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:156 Resp: 218184

Ion	Ratio	Lower	Upper
156	100		
77	102.7	96.5	156.5
158	98.6	68.0	128.0
0	0.0	0.0	0.0

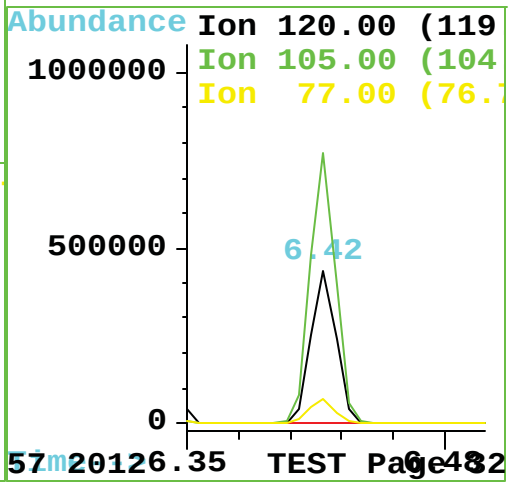


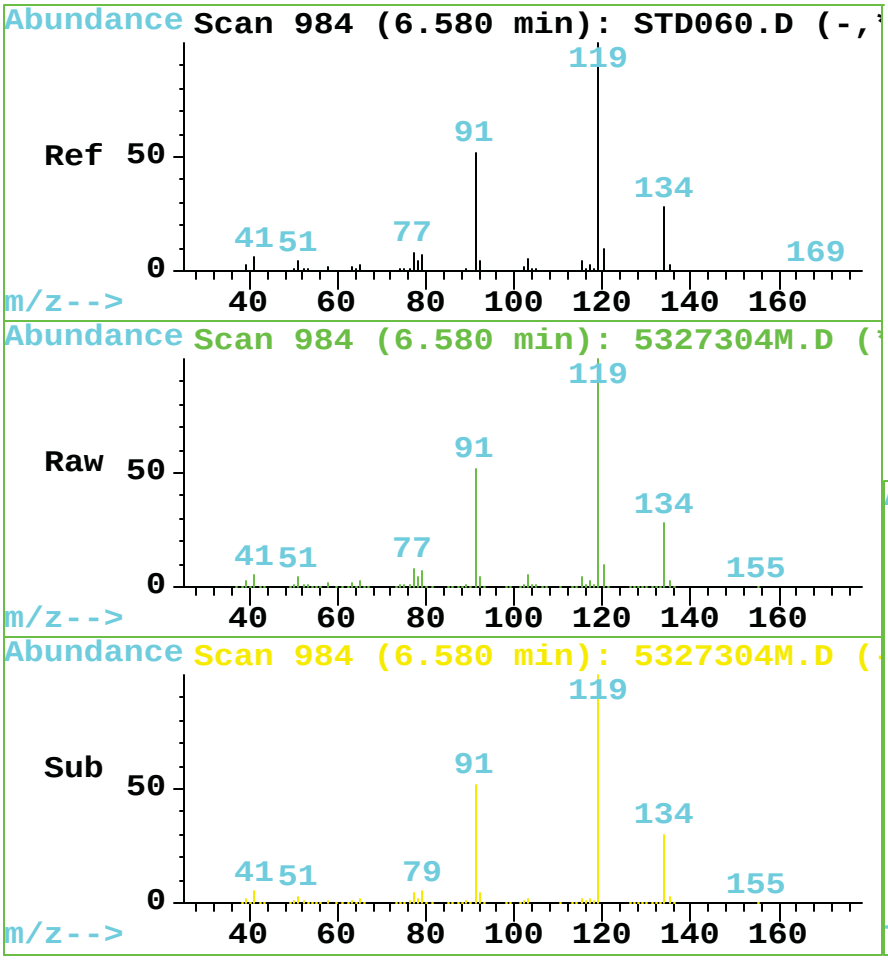


#65
1,3,5-Trimethylbenzene
Concen: 47.08 ug/l
RT: 6.42 min Scan# 958
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:120 Resp: 368931

Ion	Ratio	Lower	Upper
120	100		
105	178.0	162.2	222.2
77	16.3	0.0	51.0
0	0.0	0.0	0.0

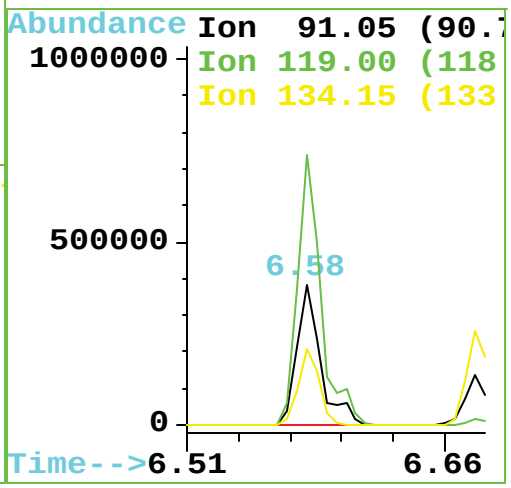


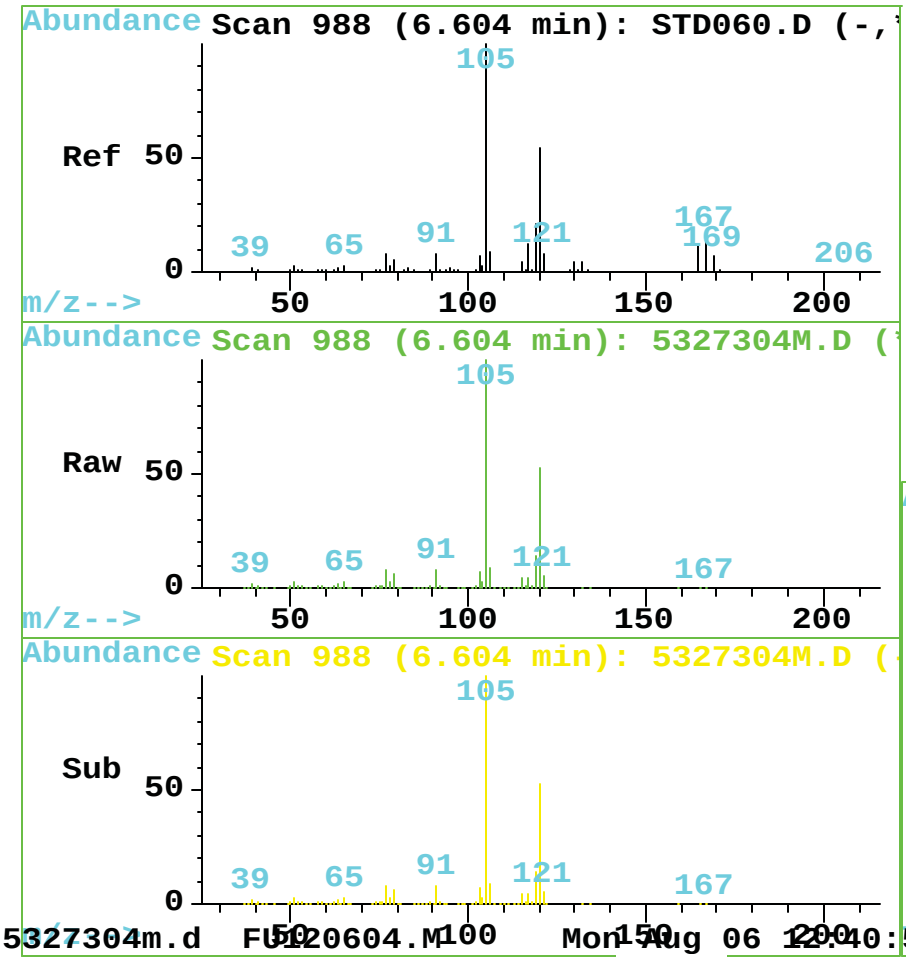


#66
tert-Butylbenzene
Concen: 48.80 ug/l
RT: 6.58 min Scan# 984
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:91.05 Resp: 39112

Ion	Ratio	Lower	Upper
91	100		
119	189.7	148.4	208.4
134	47.0	11.4	71.4
0	0.0	0.0	0.0

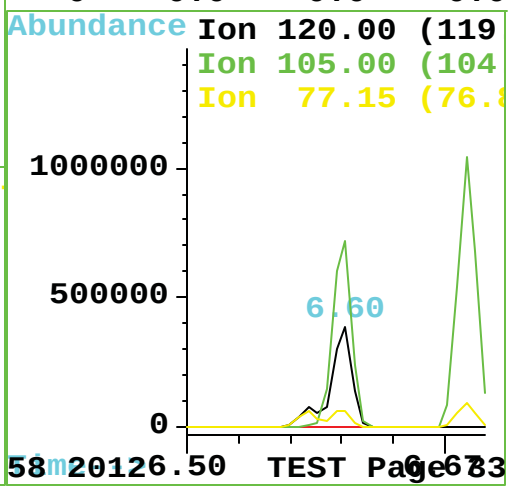


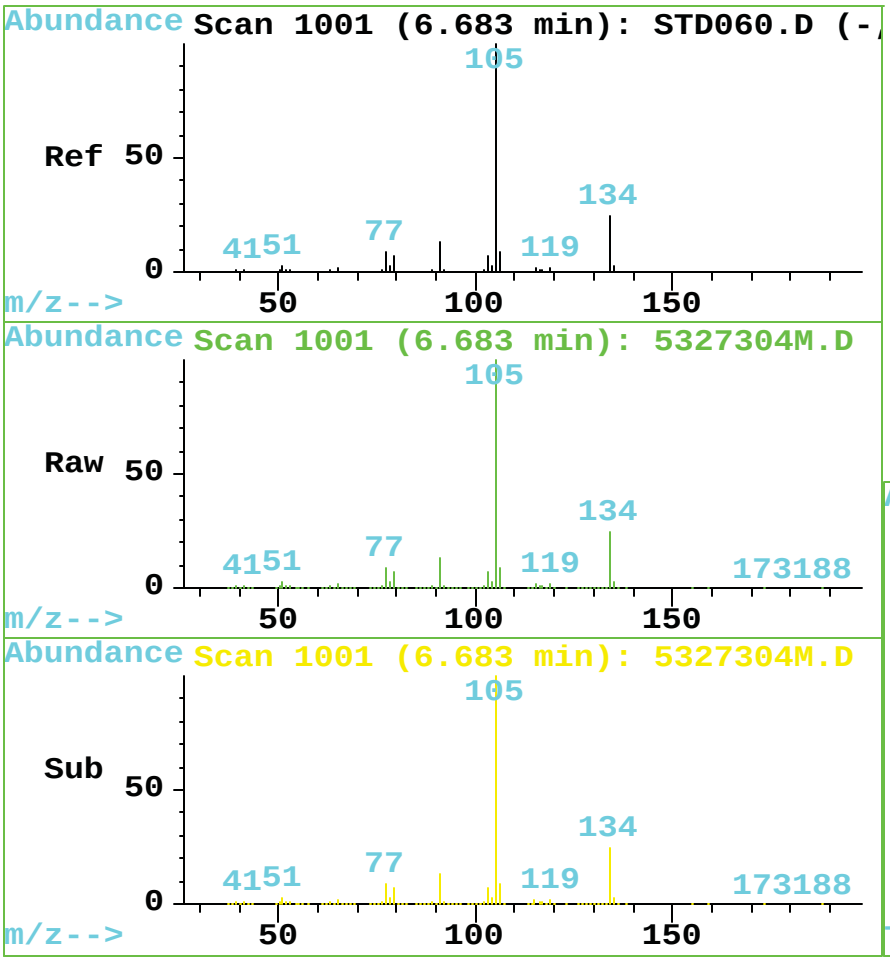


#67
1,2,4-Trimethylbenzene
Concen: 48.18 ug/l
RT: 6.60 min Scan# 988
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:120 Resp: 398740

Ion	Ratio	Lower	Upper
120	100		
105	160.3	144.1	204.1
77	12.7	0.0	45.7
0	0.0	0.0	0.0

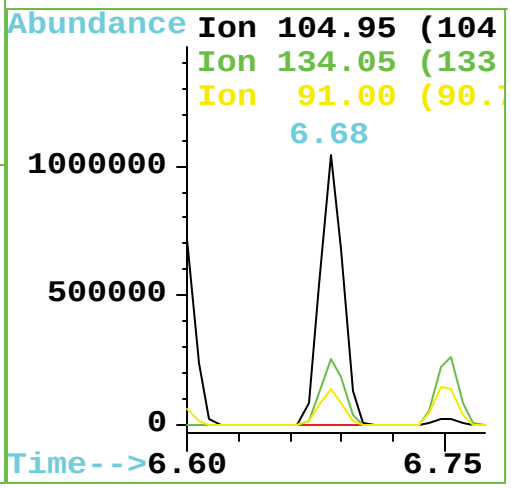


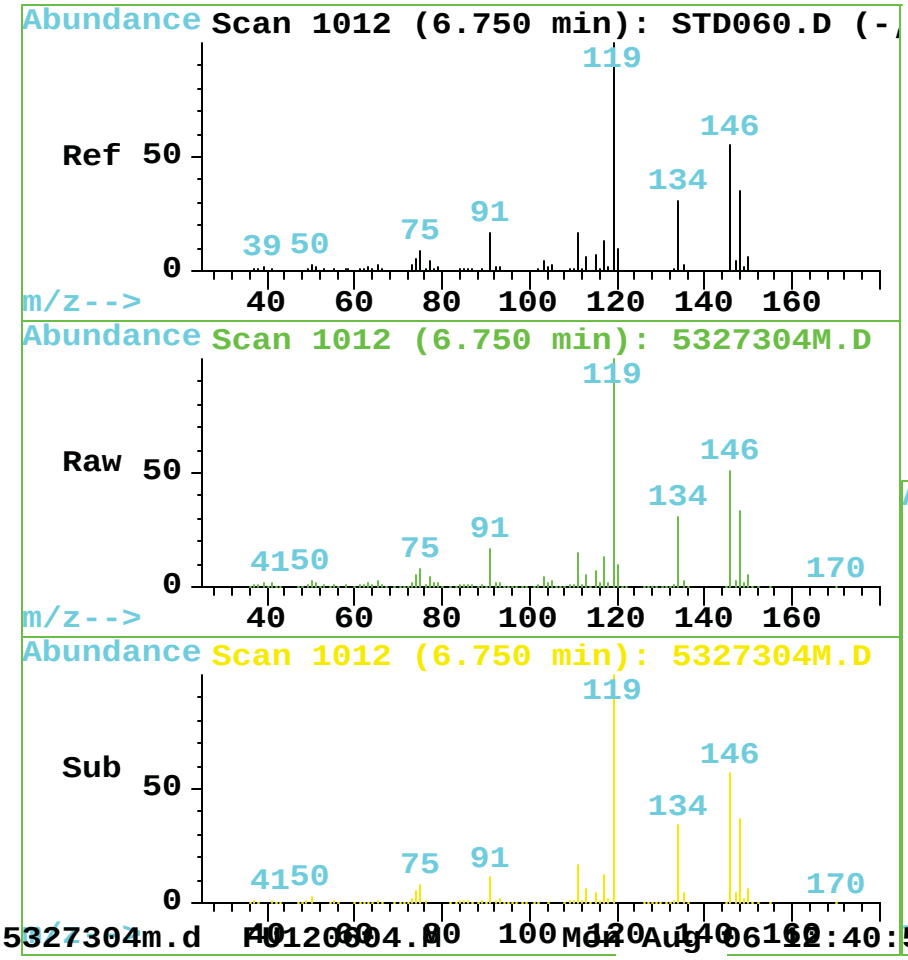


#69
sec-Butylbenzene
Concen: 49.96 ug/l
RT: 6.68 min Scan# 1001
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:104.95 Resp: 9105

Ion	Ratio	Lower	Upper
105	100		
134	25.2	0.0	53.6
91	13.4	0.0	44.8
0	0.0	0.0	0.0

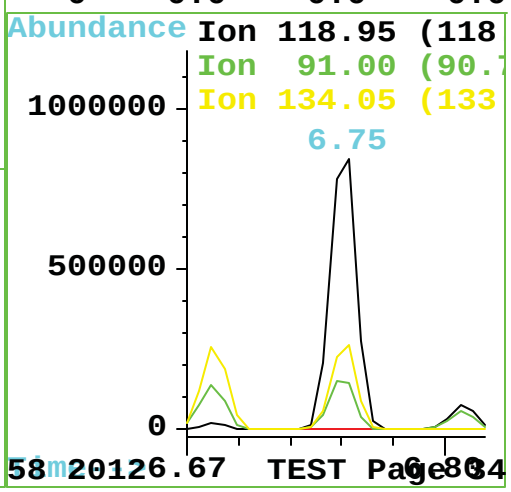


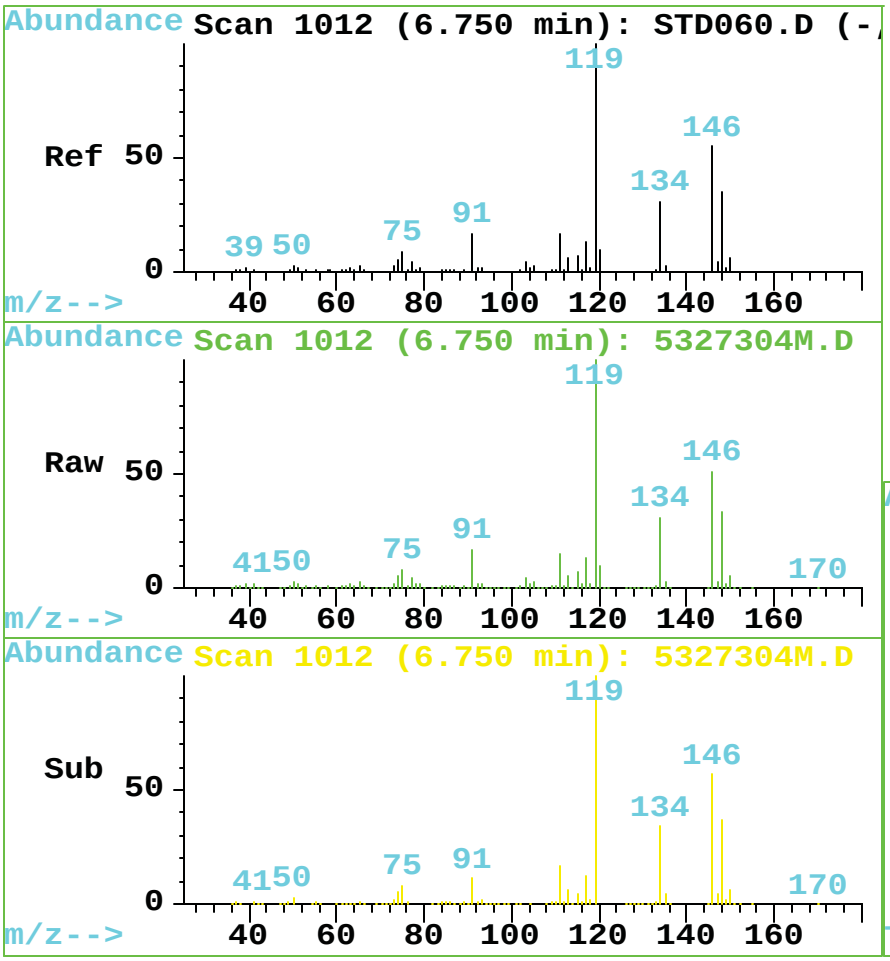


#70
p-Isopropyltoluene
Concen: 51.21 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:118.95 Resp: 7880

Ion	Ratio	Lower	Upper
119	100		
91	18.0	0.0	50.6
134	29.9	0.0	58.1
0	0.0	0.0	0.0

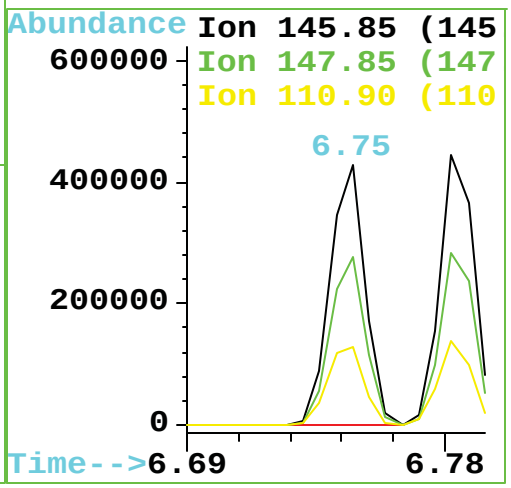


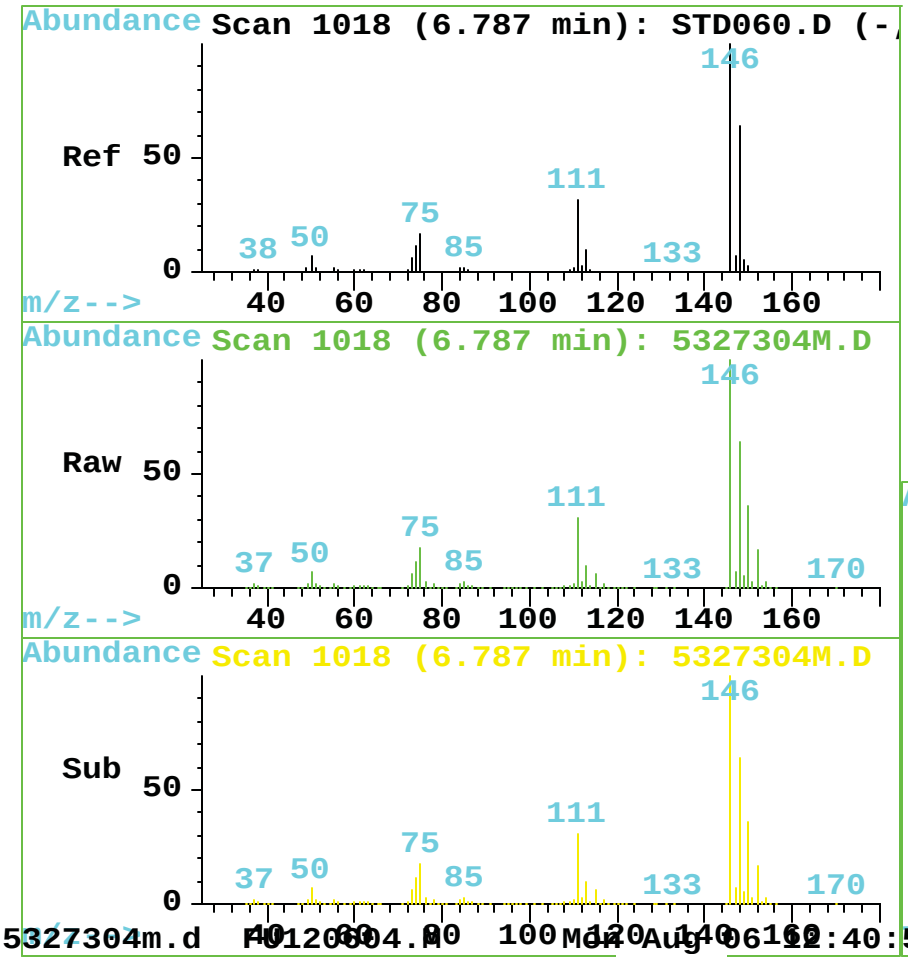


#71
1,3-Dichlorobenzene
Concen: 46.30 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:145.85 Resp: 3891

Ion	Ratio	Lower	Upper
146	100		
148	64.8	34.8	94.8
111	31.8	6.2	66.2
0	0.0	0.0	0.0

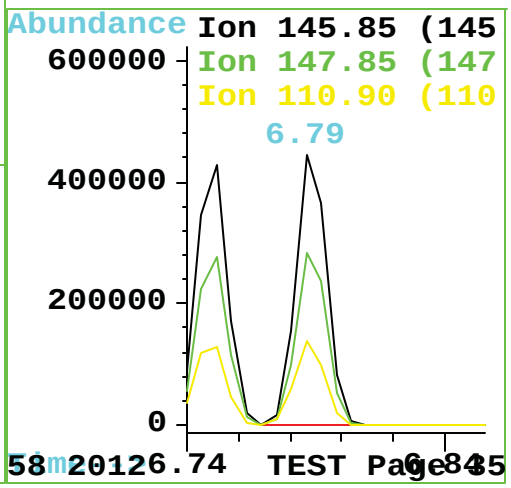


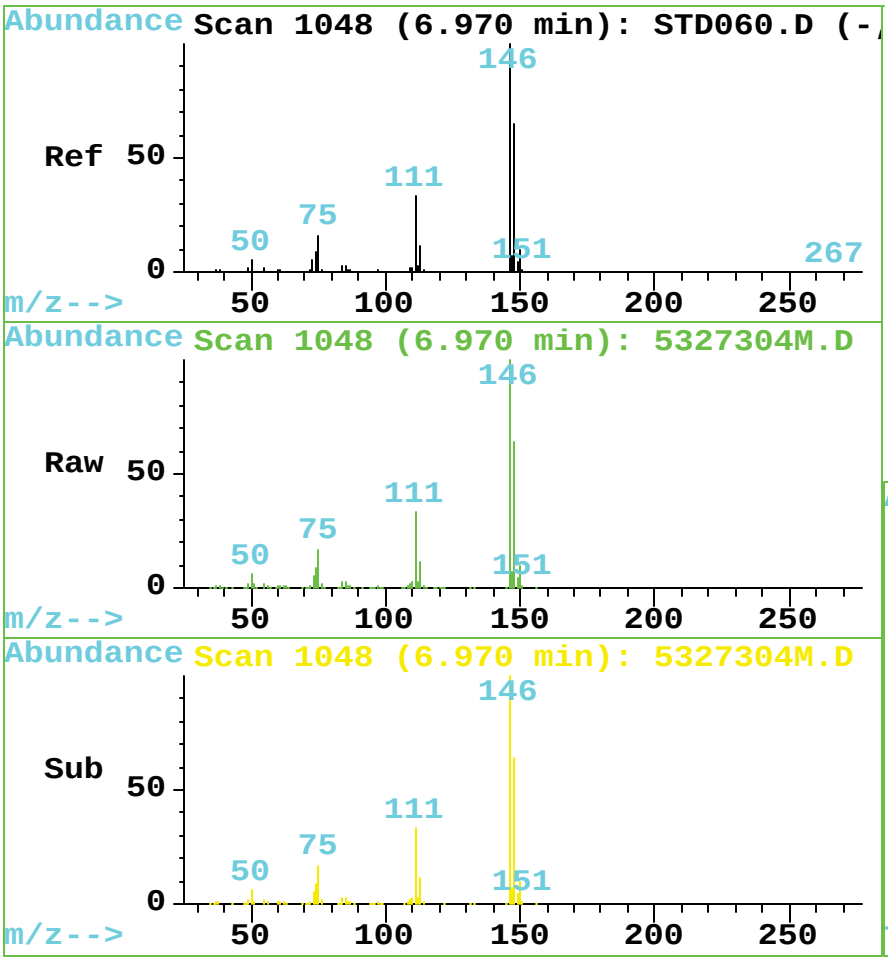


#72
1,4-Dichlorobenzene
Concen: 45.42 ug/l
RT: 6.79 min Scan# 1018
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:145.85 Resp: 3919

Ion	Ratio	Lower	Upper
146	100		
148	64.3	33.9	93.9
111	30.5	5.2	65.2
0	0.0	0.0	0.0

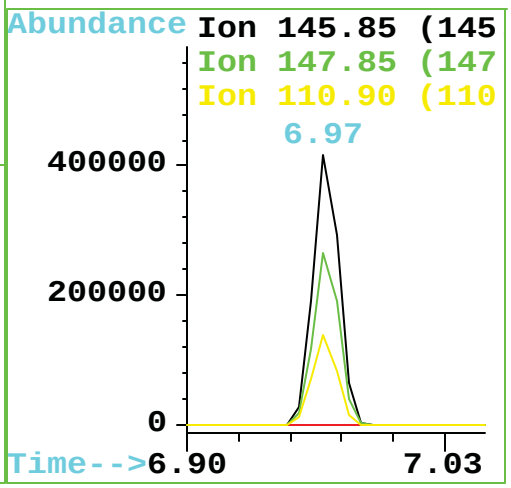


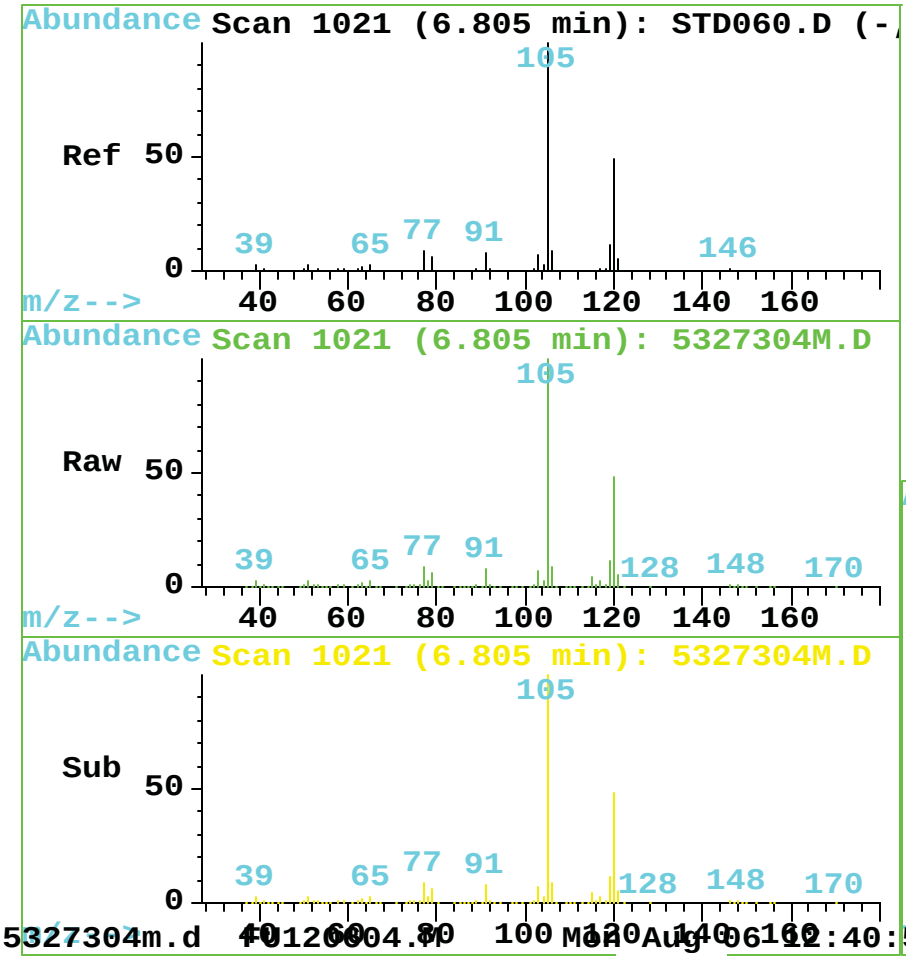


#73
1,2-Dichlorobenzene
Concen: 46.69 ug/l
RT: 6.97 min Scan# 1048
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:145.85 Resp: 3648

Ion	Ratio	Lower	Upper
146	100		
148	64.0	34.1	94.1
111	32.2	6.5	66.5
0	0.0	0.0	0.0

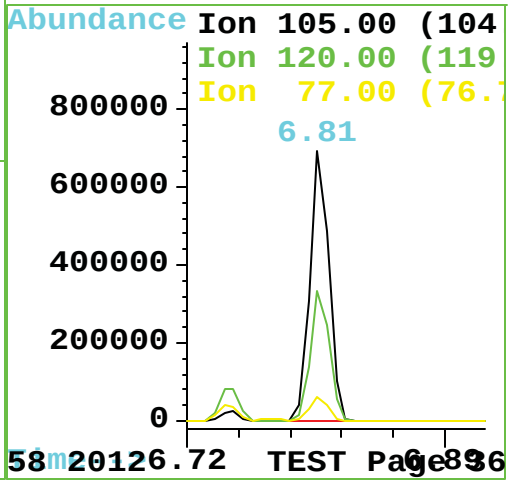


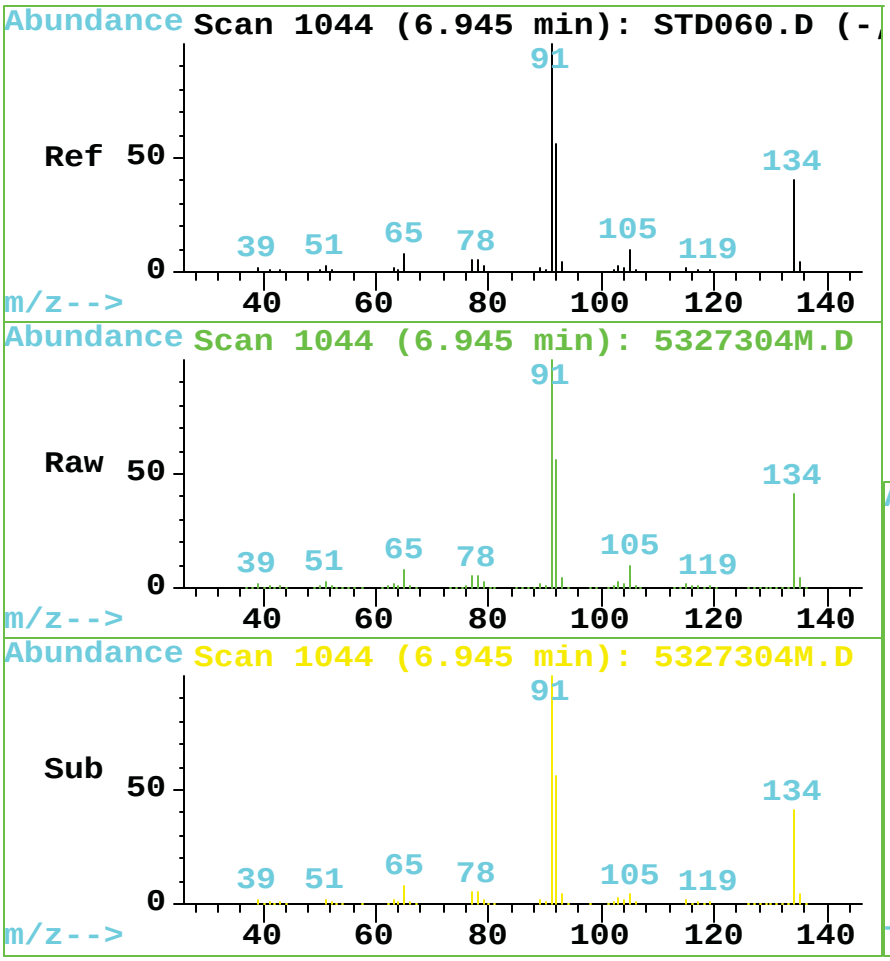


#74
1,2,3-Trimethylbenzene
Concen: 47.17 ug/l
RT: 6.81 min Scan# 1021
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:105 Resp: 600277

Ion	Ratio	Lower	Upper
105	100		
120	48.7	15.1	75.1
77	9.0	0.0	40.2
0	0.0	0.0	0.0

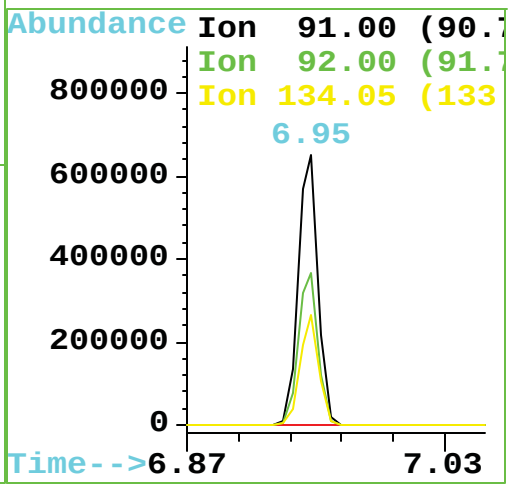


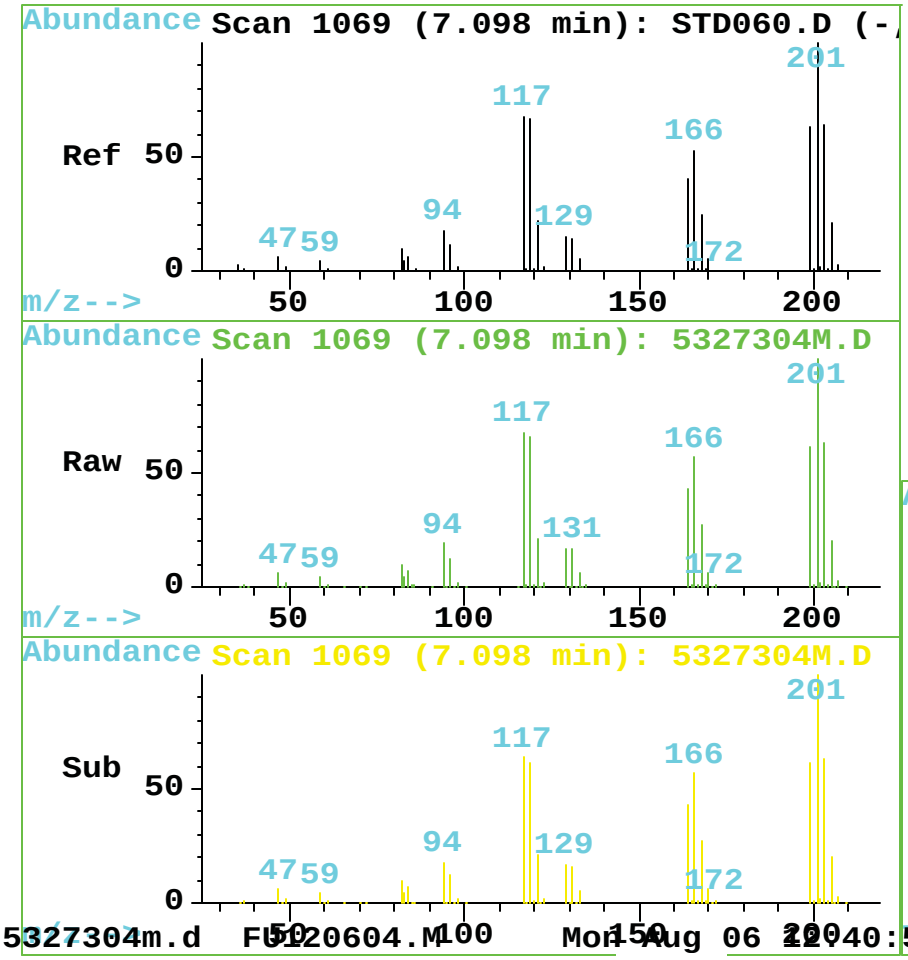


#75
n-Butylbenzene
Concen: 48.06 ug/l
RT: 6.95 min Scan# 1044
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:91 Resp: 585975

Ion	Ratio	Lower	Upper
91	100		
92	55.8	25.5	85.5
134	38.5	4.2	64.2
0	0.0	0.0	0.0

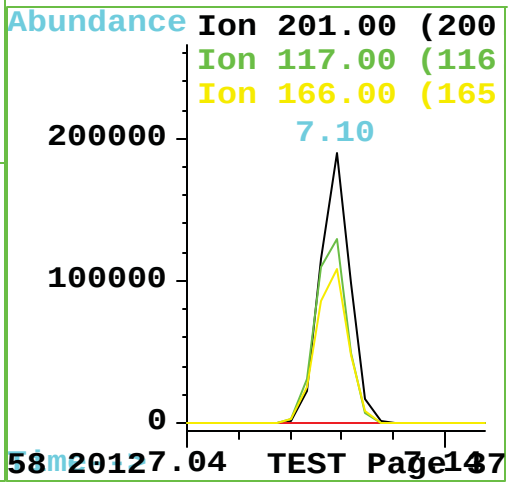


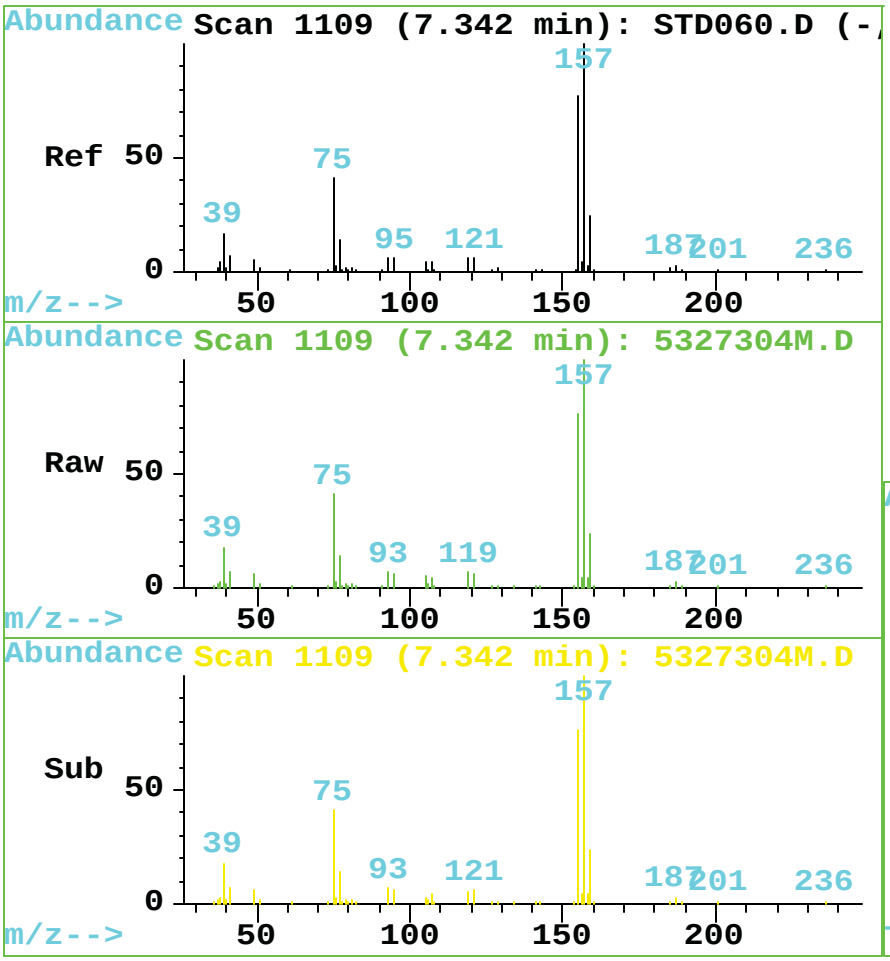


#76
Hexachloroethane
Concen: 44.92 ug/l
RT: 7.10 min Scan# 1069
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:201 Resp: 163760

Ion	Ratio	Lower	Upper
201	100		
117	73.4	50.2	110.2
166	62.1	38.0	98.0
0	0.0	0.0	0.0

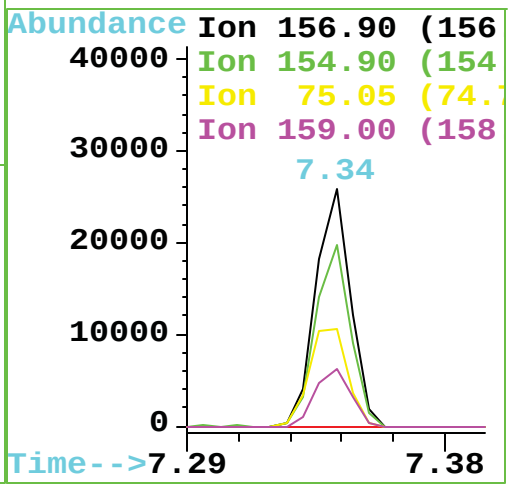


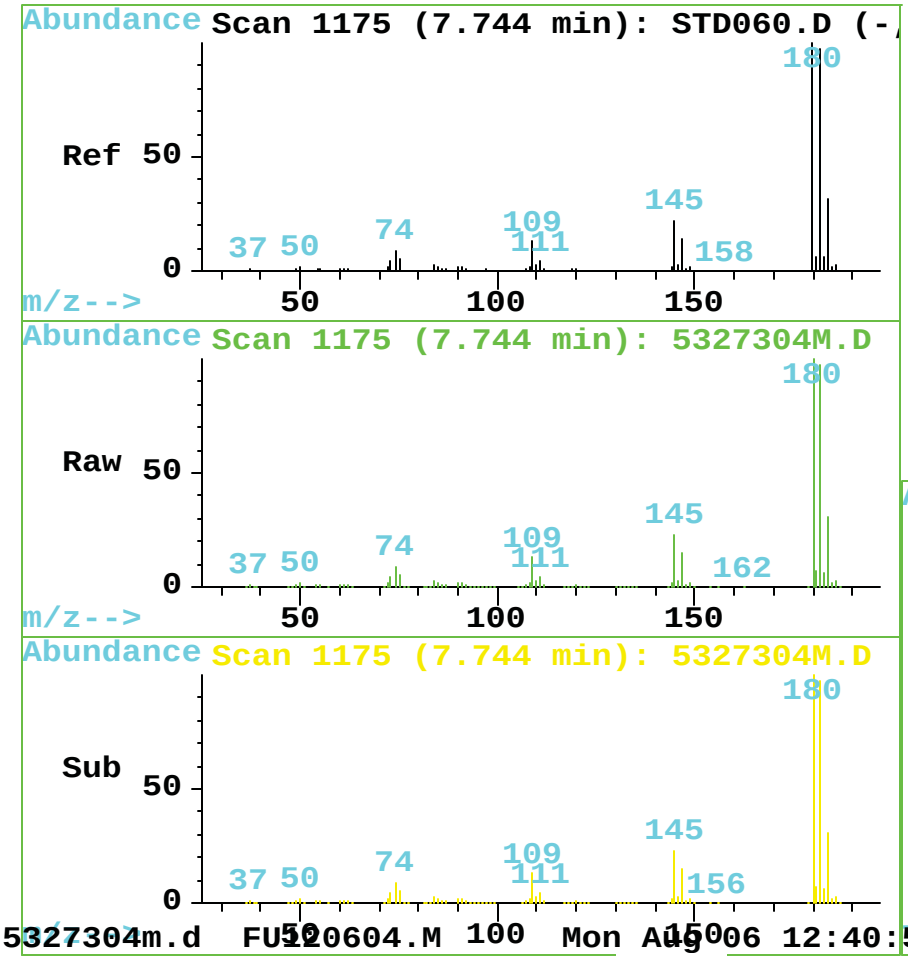


#77
1,2-Dibromo-3-Chloropropan
Concen: 52.56 ug/l
RT: 7.34 min Scan# 1109
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:156.9 Resp: 2275

Ion	Ratio	Lower	Upper
157	100		
155	76.8	46.1	106.1
75	46.6	34.3	94.3
159	24.4	0.0	54.7

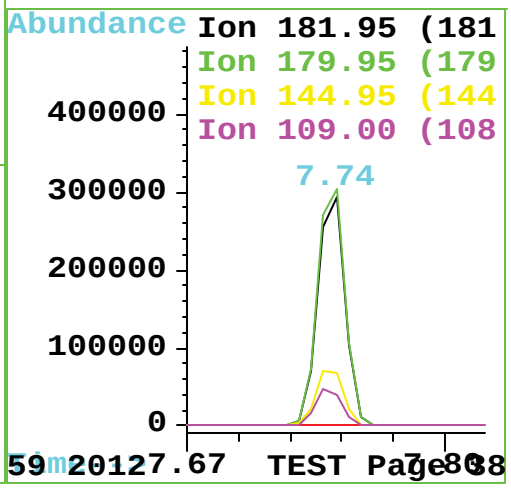


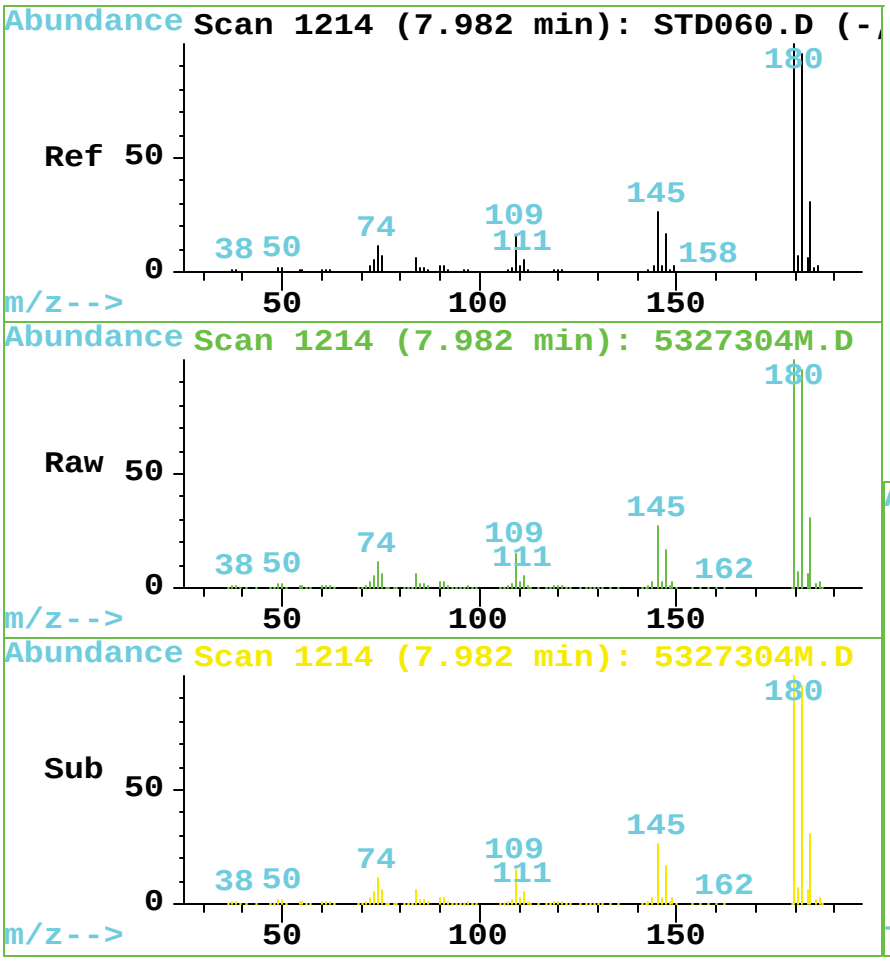


#78
1,2,4-Trichlorobenzene
Concen: 50.95 ug/l
RT: 7.74 min Scan# 1175
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:181.95 Resp: 2718

Ion	Ratio	Lower	Upper
182	100		
180	104.0	74.1	134.1
145	25.5	0.0	57.2
109	15.9	0.0	48.9

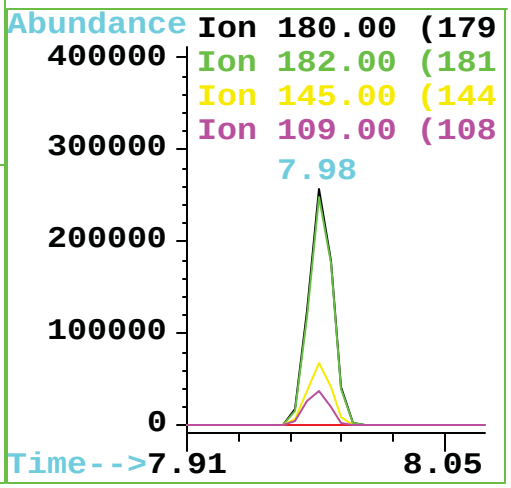


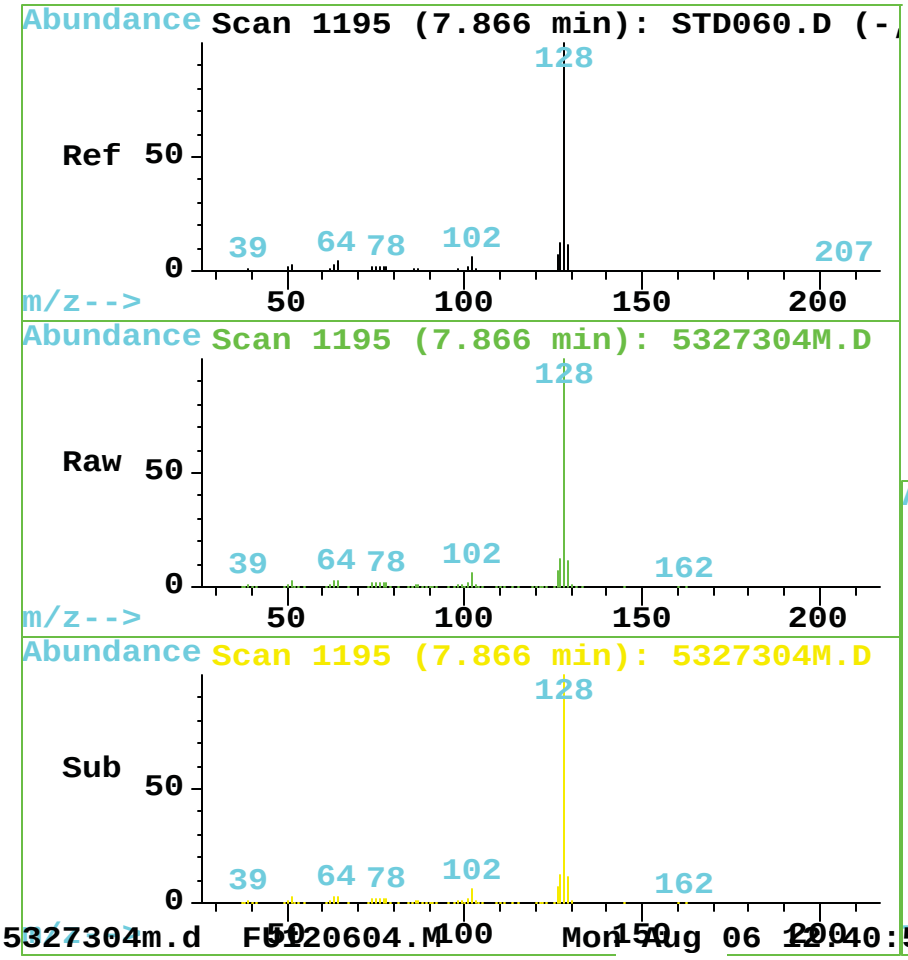


#80
1,2,3-Trichlorobenzene
Concen: 52.65 ug/l
RT: 7.98 min Scan# 1214
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:180 Resp: 229637

Ion	Ratio	Lower	Upper
180	100		
182	96.4	66.9	126.9
145	26.8	0.0	57.7
109	15.4	0.0	48.8

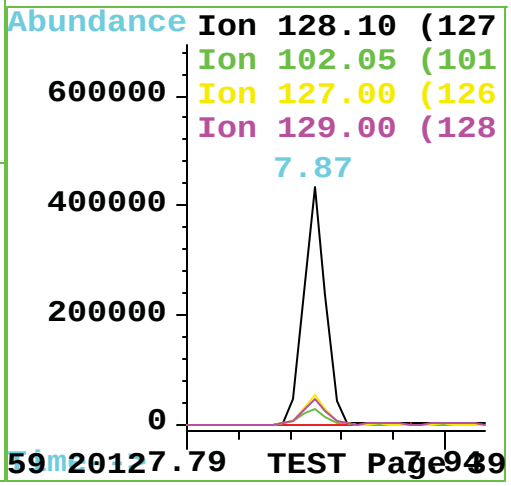


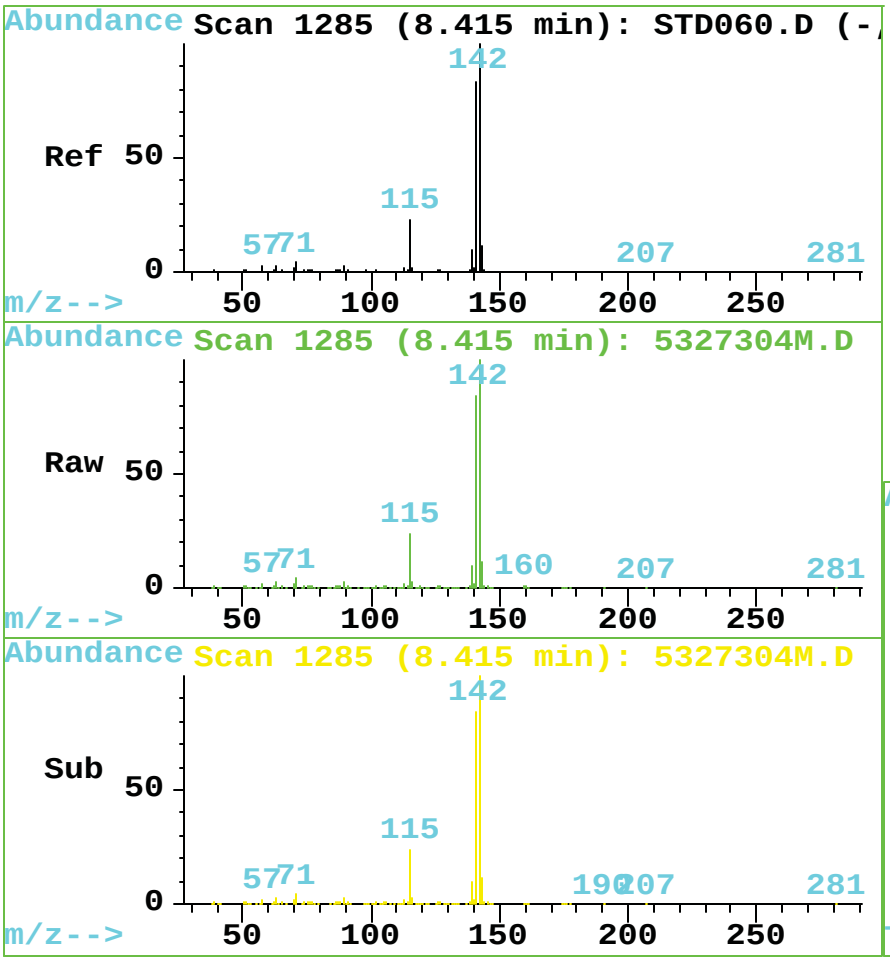


#81
Naphthalene
Concen: 57.36 ug/l
RT: 7.87 min Scan# 1195
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:128.1 Resp: 37445

Ion	Ratio	Lower	Upper
128	100		
102	6.5	0.0	37.4
127	12.1	0.0	42.3
129	10.9	0.0	40.6

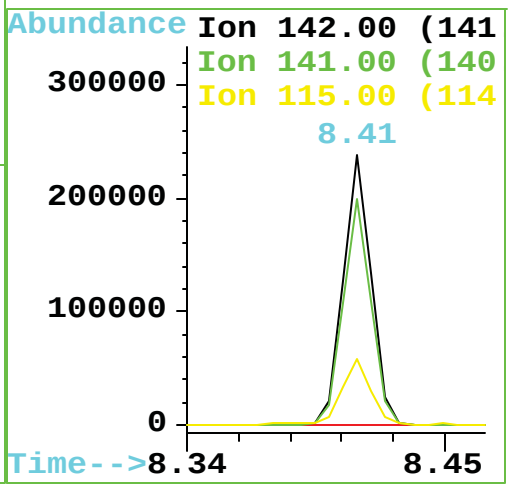




#82
2-Methylnaphthalene
Concen: 60.96 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5327304m.d
Acq: 31 Jul 12 8:54 pm

Tgt Ion:142 Resp: 201574

Ion	Ratio	Lower	Upper
142	100		
141	83.8	55.8	115.8
115	25.9	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327305n.d Vial: 26
Acq On : 31 Jul 12 9:14 pm Operator: wat
Sample : 100ul msd 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:53 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	496371	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	580311	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	208081	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	274866	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	94484	50.34	ug/l		100.6
31) TOLUENE-D8 (S)	5.02	98	592332	50.52	ug/l		101.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	245326	49.57	ug/l		99.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	167206	52.39	ug/l		9
4) Diethyl ether (*)	2.35	74	43172	47.08	ug/l		9
5) Acetone (*)	2.59	43	8652	46.82	ug/l	#	8
6) Methyl iodide (iodomethane	2.62	142	319901	47.73	ug/l		9
7) Carbon disulfide (*)	2.67	76	405090	42.72	ug/l		9
8) Methyl Acetate	2.84	43	29809	44.48	ug/l		10
9) tert-Methyl butyl ether (M	3.12	73	235496	50.86	ug/l		9
10) Acrylonitrile (*)	3.08	53	20016	49.18	ug/l		10
11) 2-Butanone (MEK) (*)	3.70	43	14015	48.89	ug/l		9
12) Dichlorodifluoromethane	1.24	85	88926	44.32	ug/l		9
13) Chloromethane (SPCC)	1.34	50	100657	44.21	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	118365	46.21	ug/l		9
15) Bromomethane	1.73	94	55147	48.47	ug/l		9
16) Chloroethane	1.82	64	27595	50.53	ug/l		9
18) Trichlorofluoromethane	2.11	101	165320	55.38	ug/l	#	6
19) 1,1-Dichloroethene (CCC/MS	2.51	61	142640	44.98	ug/l		8
20) Methylene Chloride	2.90	84	134870	44.00	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	154995	46.94	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	193201	46.73	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	164103	47.50	ug/l	#	8
24) Tetrahydrofuran	3.84	42	12046	43.98	ug/l	#	
25) Chloroform (CCC)	3.85	83	213587	48.05	ug/l		9
26) Bromochloromethane	3.81	130	105283	47.62	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	227468	52.27	ug/l	#	4
29) Cyclohexane	3.98	42	43001	42.77	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	18545	50.11	ug/l		8
33) 2-Hexanone (*)	5.34	58	15451	53.57	ug/l		9
35) Carbon Tetrachloride	4.04	117	222339	54.03	ug/l		9
36) Benzene (MS)	4.13	78	556358	47.97	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327305n.d Vial: 26
Acq On : 31 Jul 12 9:14 pm Operator: wat
Sample : 100ul msd 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:53 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
37) 1,2-Dichloroethane	4.15	62	105777	50.35 ug/l	9
38) Trichloroethene (MS)	4.45	95	164521	51.99 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	108556	48.15 ug/l	9
40) Bromodichloromethane	4.68	83	147550	52.33 ug/l	9
41) Methyl Cyclohexane	4.54	55	169373	51.69 ug/l	8
42) Dibromomethane	4.62	174	115251	52.61 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	182837	52.00 ug/l	9
44) Toluene (CCC/MS)	5.05	91	687425	50.51 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	141042	53.33 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	73222	50.29 ug/l	9
47) Tetrachloroethene	5.31	166	281537	50.06 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	14637	50.90 ug/l #	6
51) Dibromochloromethane	5.42	129	133728	56.33 ug/l	9
52) 1,2-Dibromoethane	5.48	107	101563	53.20 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	483252	50.15 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	173122	53.77 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	750091	51.92 ug/l	9
56) p,m-Xylene	5.79	106	638273	103.41 ug/l	9
57) o-Xylene	5.98	91	579908	52.65 ug/l	9
58) Styrene	5.99	104	461511	51.48 ug/l	9
59) Isopropylbenzene	6.15	105	873464	53.75 ug/l	9
60) Bromoform (SPCC)	6.09	173	88387	53.23 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	90556	50.91 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	31300	53.37 ug/l	8
63) n-Propylbenzene	6.34	91	893096	53.44 ug/l	9
64) Bromobenzene	6.31	156	234485	51.16 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	400600	53.43 ug/l	9
66) tert-Butylbenzene	6.58	91	423820	55.27 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	428784	54.15 ug/l	9
69) sec-Butylbenzene	6.68	105	979516	56.23 ug/l	9
70) p-Isopropyltoluene	6.75	119	838462	57.00 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	411902	51.27 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	409708	49.68 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	391882	52.46 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	643031	52.87 ug/l	9
75) n-Butylbenzene	6.95	91	620341	53.23 ug/l	9
76) Hexachloroethane	7.10	201	181750	52.13 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	24772	59.49 ug/l	8
78) 1,2,4-Trichlorobenzene	7.74	182	274917	53.91 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	238559	57.22 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327305n.d Vial: 26
Acq On : 31 Jul 12 9:14 pm Operator: wat
Sample : 100ul msd 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:53 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

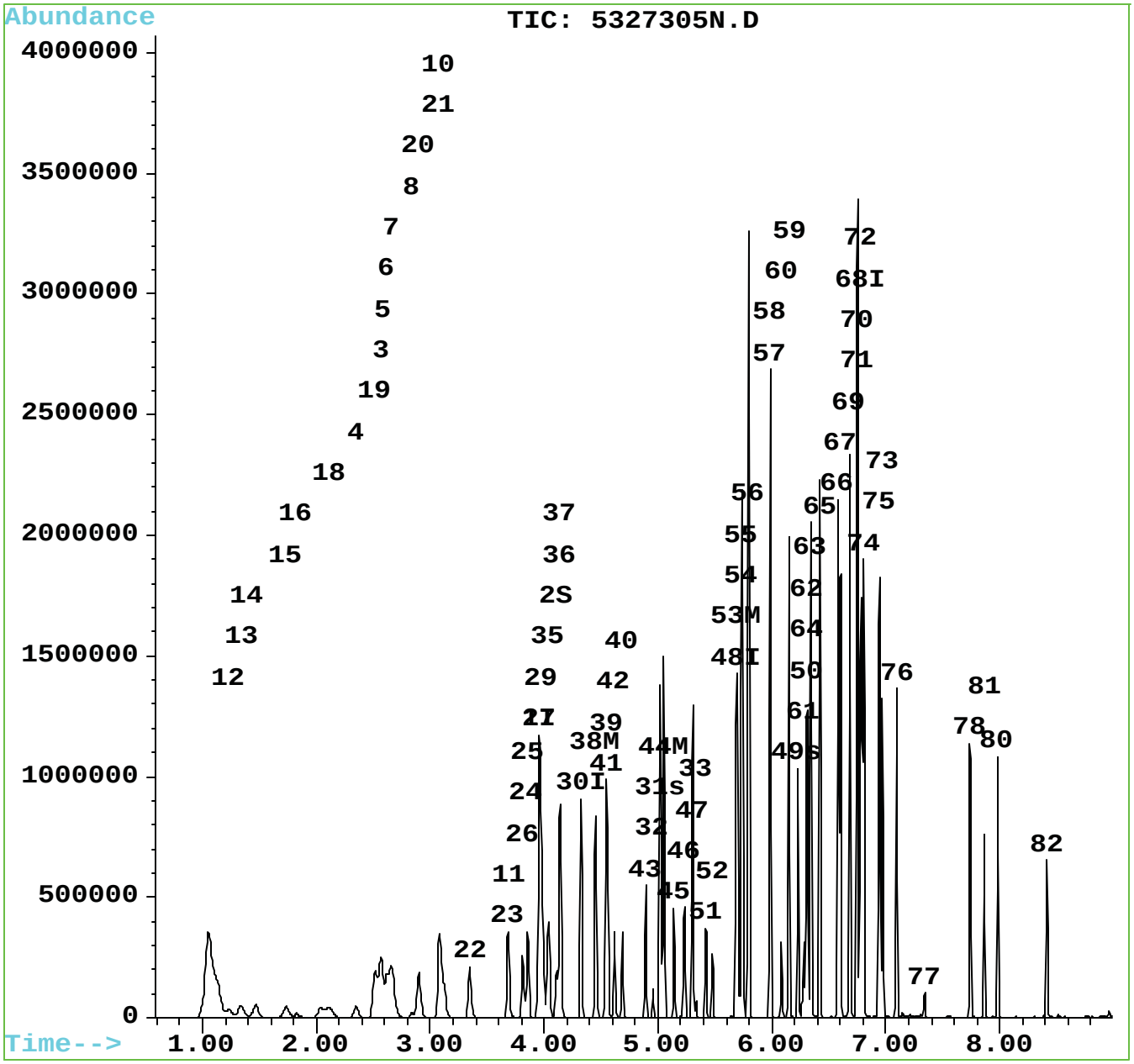
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
81)	Naphthalene	7.87	128	393444	63.05 ug/l	9
82)	2-Methylnaphthalene	8.41	142	198149	62.69 ug/l	9

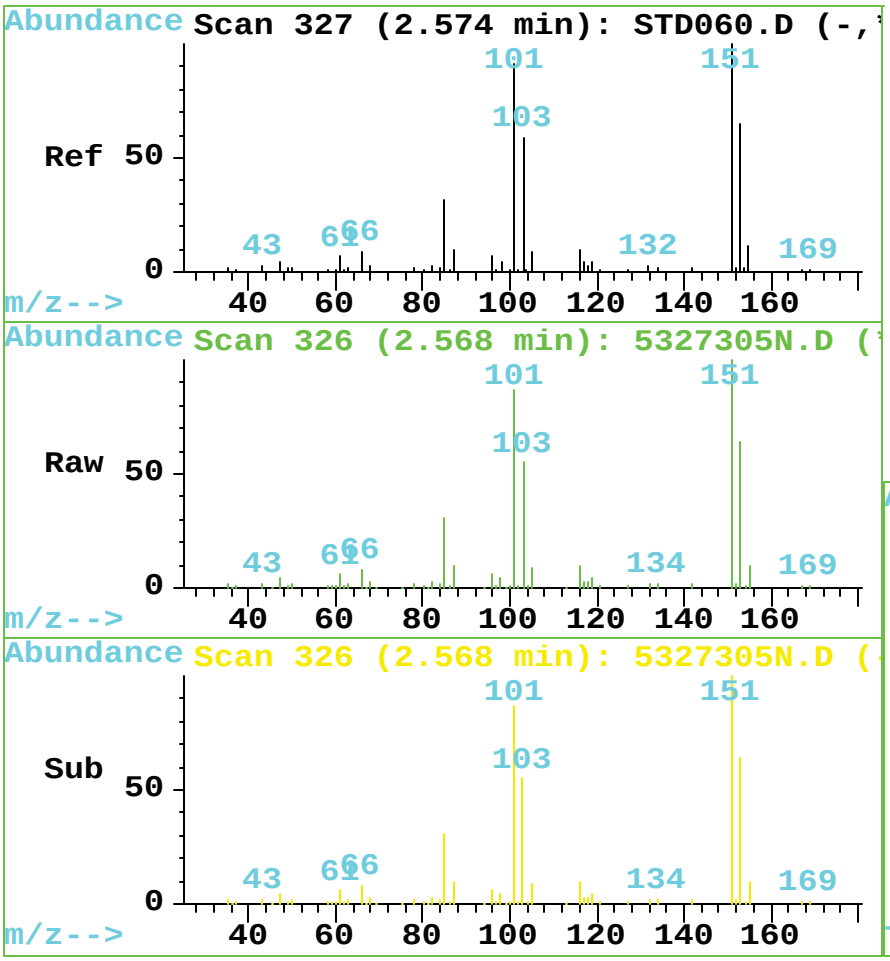
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\5327305n.d Vial: 26
Acq On : 31 Jul 12 9:14 pm Operator: wat
Sample : 100ul msd 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:53 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

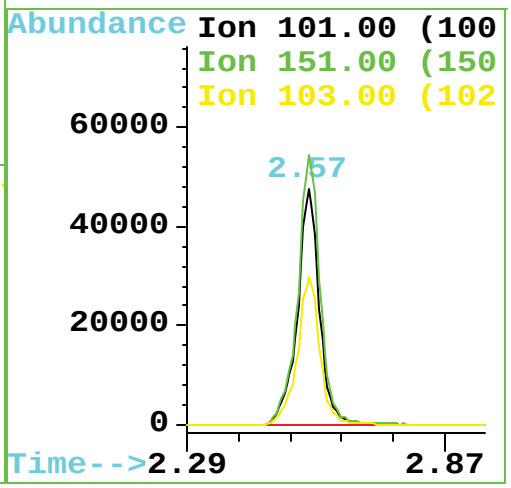


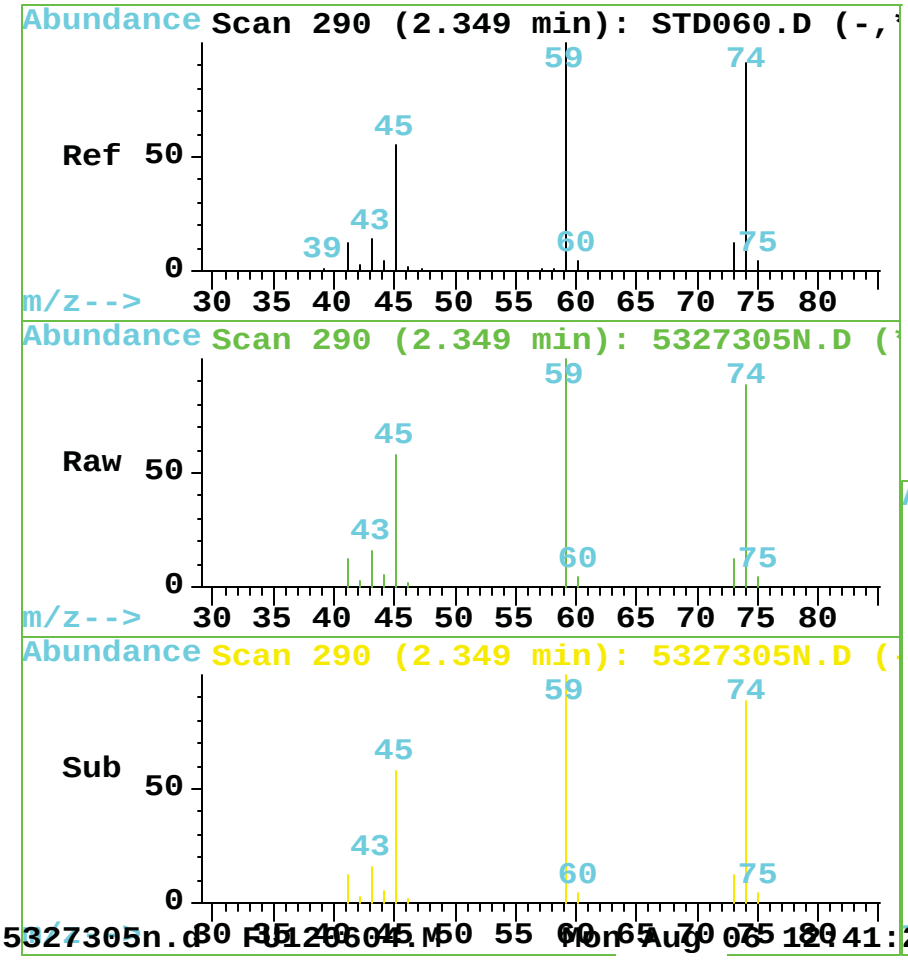


#3
1,1,2-Trichloro-1,2,2-trif
Concen: 52.39 ug/l
RT: 2.57 min Scan# 326
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:101 Resp: 167206

Ion	Ratio	Lower	Upper
101	100		
151	116.2	76.1	136.1
103	63.7	35.2	95.2
0	0.0	0.0	0.0

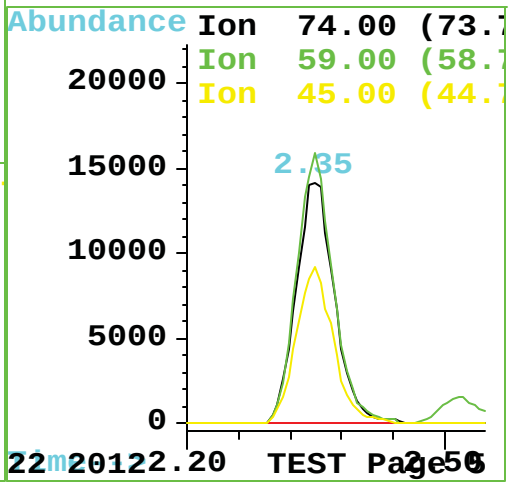


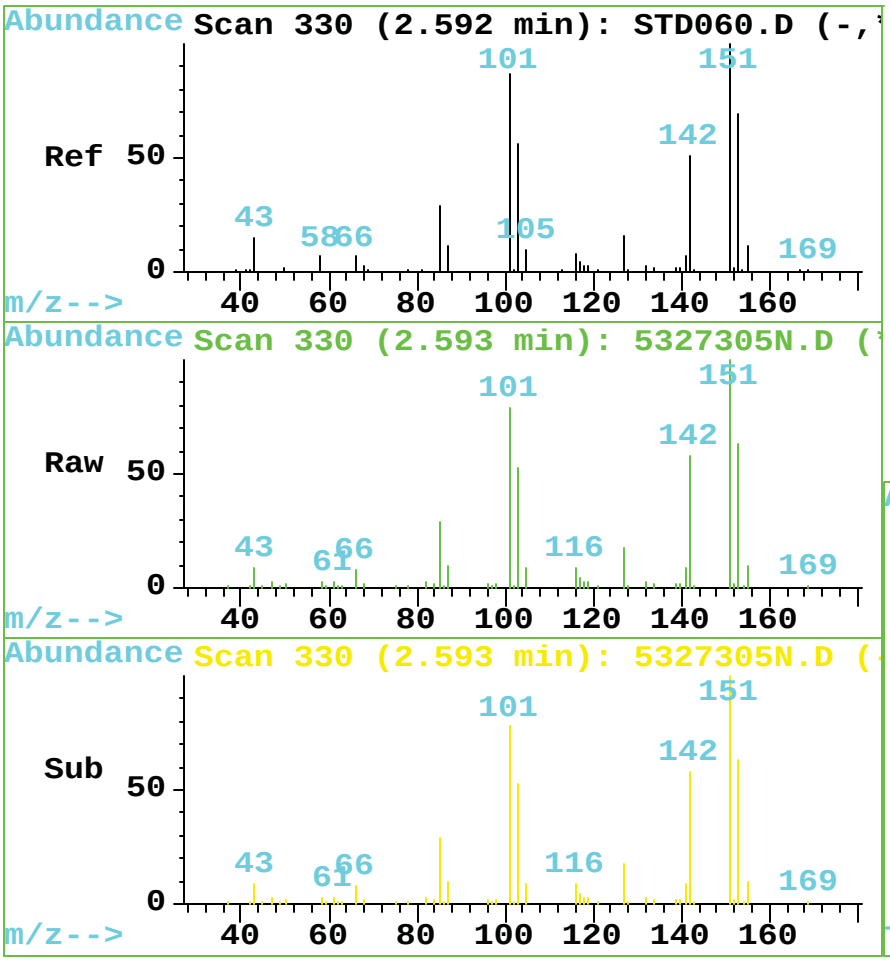


#4
Diethyl ether (*)
Concen: 47.08 ug/l
RT: 2.35 min Scan# 290
Delta R.T. 0.02 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:74 Resp: 43172

Ion	Ratio	Lower	Upper
74	100		
59	106.9	86.2	146.2
45	62.5	37.4	97.4
0	0.0	0.0	0.0

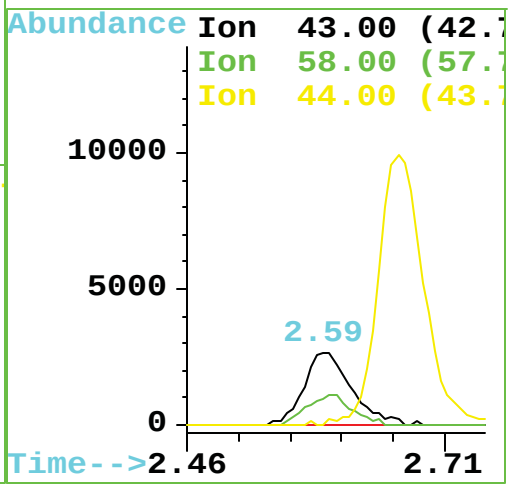


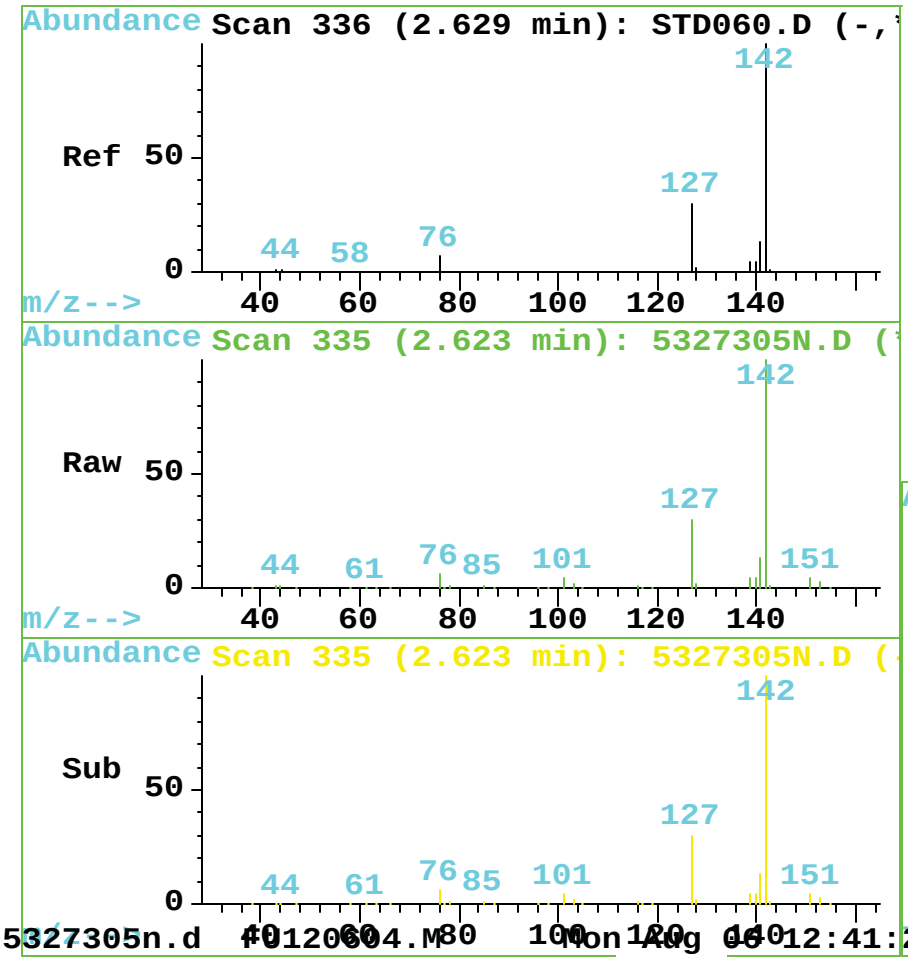


#5
Acetone (*)
Concen: 46.82 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:43 Resp: 8652

Ion	Ratio	Lower	Upper
43	100		
58	39.4	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

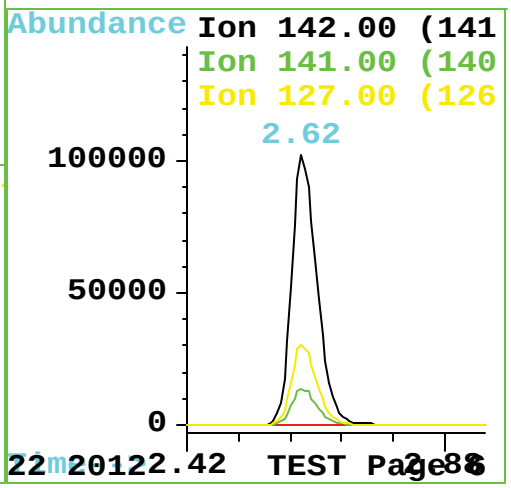


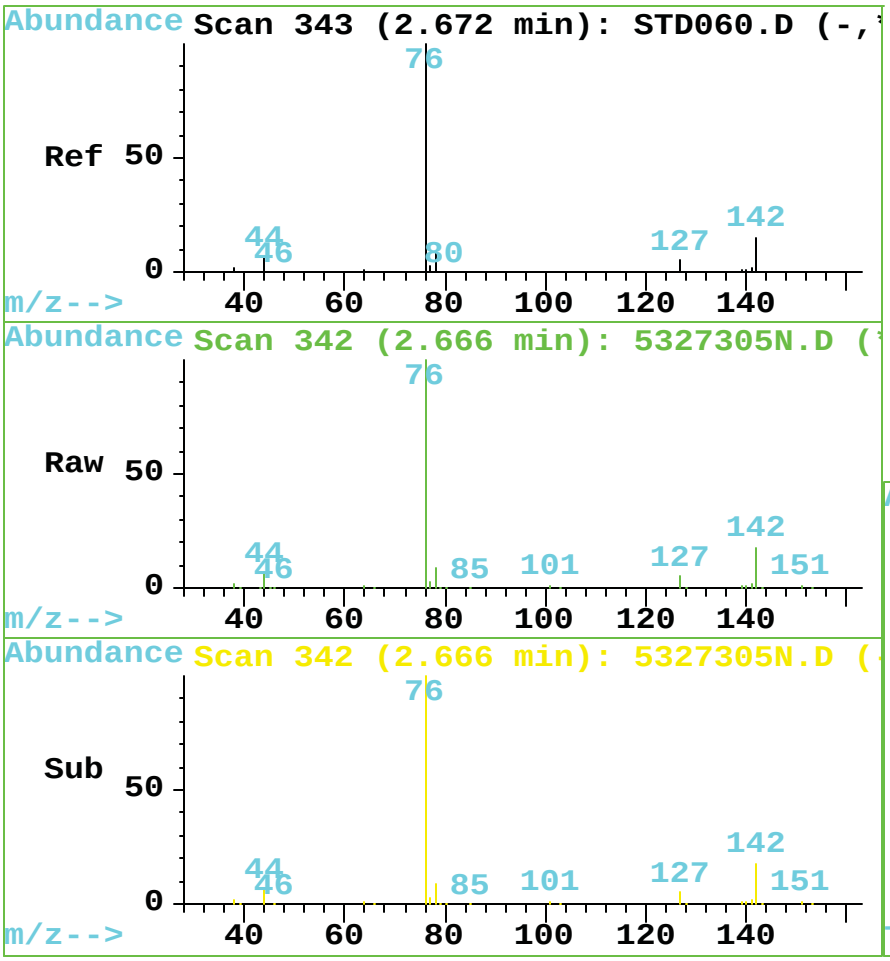


#6
Methyl iodide (iodomethane
Concen: 47.73 ug/l
RT: 2.62 min Scan# 335
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:142 Resp: 319901

Ion	Ratio	Lower	Upper
142	100		
141	13.4	0.0	43.8
127	29.8	5.1	65.1
0	0.0	0.0	0.0

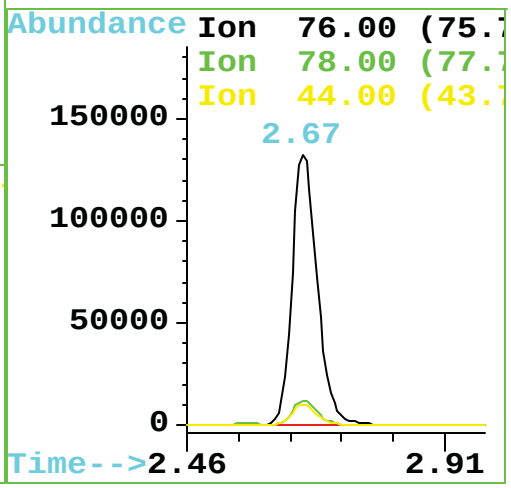


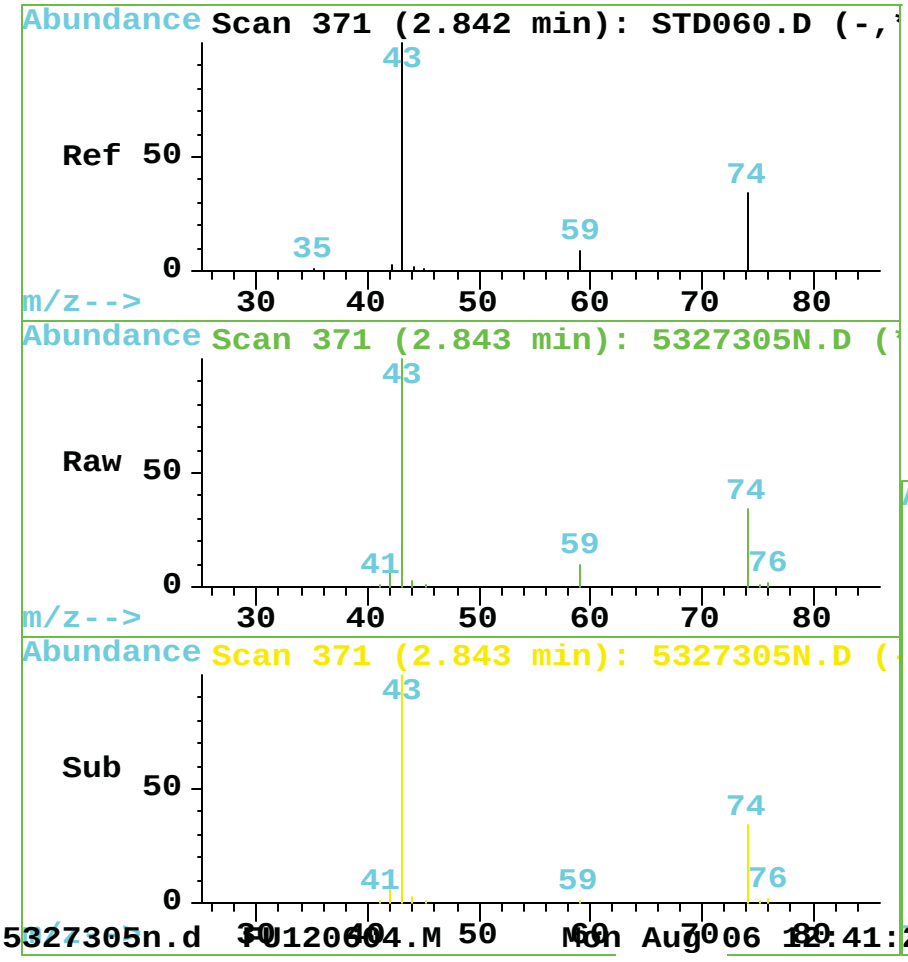


#7
Carbon disulfide (*)
Concen: 42.72 ug/l
RT: 2.67 min Scan# 342
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:76 Resp: 405090

Ion	Ratio	Lower	Upper
76	100		
78	9.1	0.0	39.3
44	7.6	0.0	40.9
0	0.0	0.0	0.0

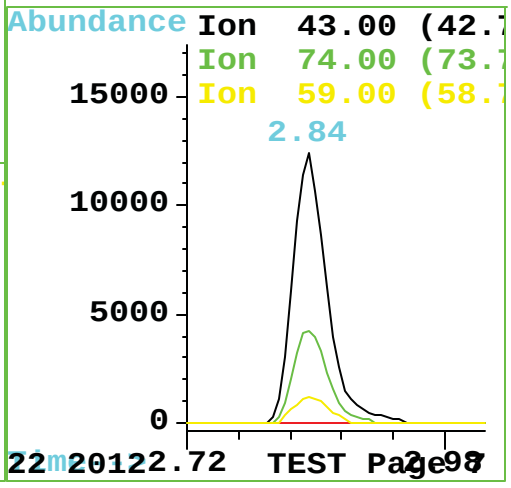


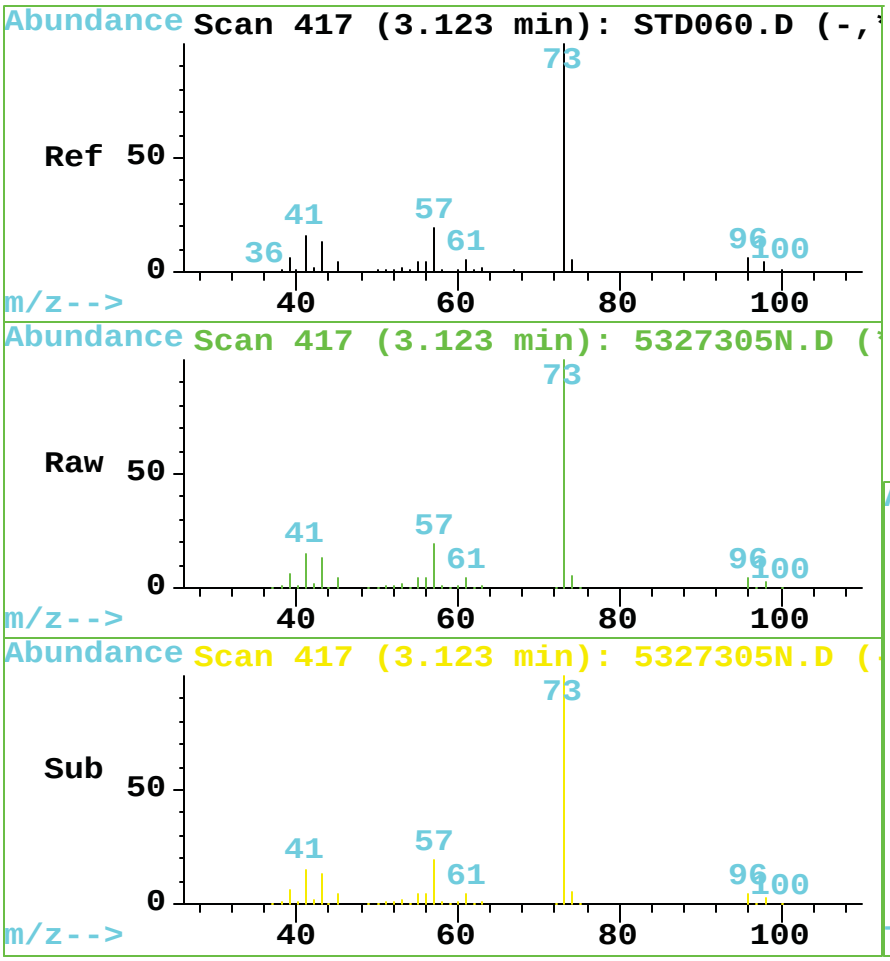


#8
Methyl Acetate
Concen: 44.48 ug/l
RT: 2.84 min Scan# 371
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:43 Resp: 29809

Ion	Ratio	Lower	Upper
43	100		
74	34.8	4.8	64.8
59	9.8	0.0	40.3
0	0.0	0.0	0.0

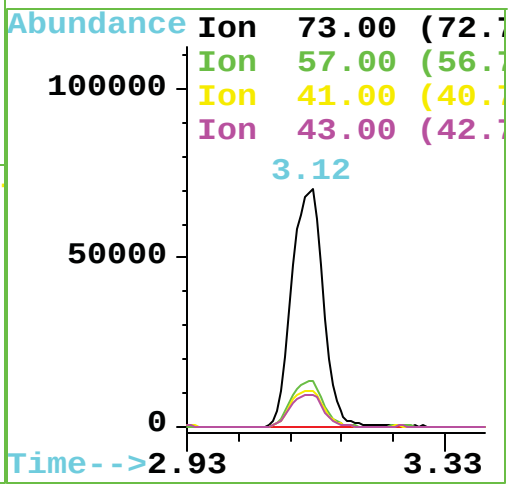


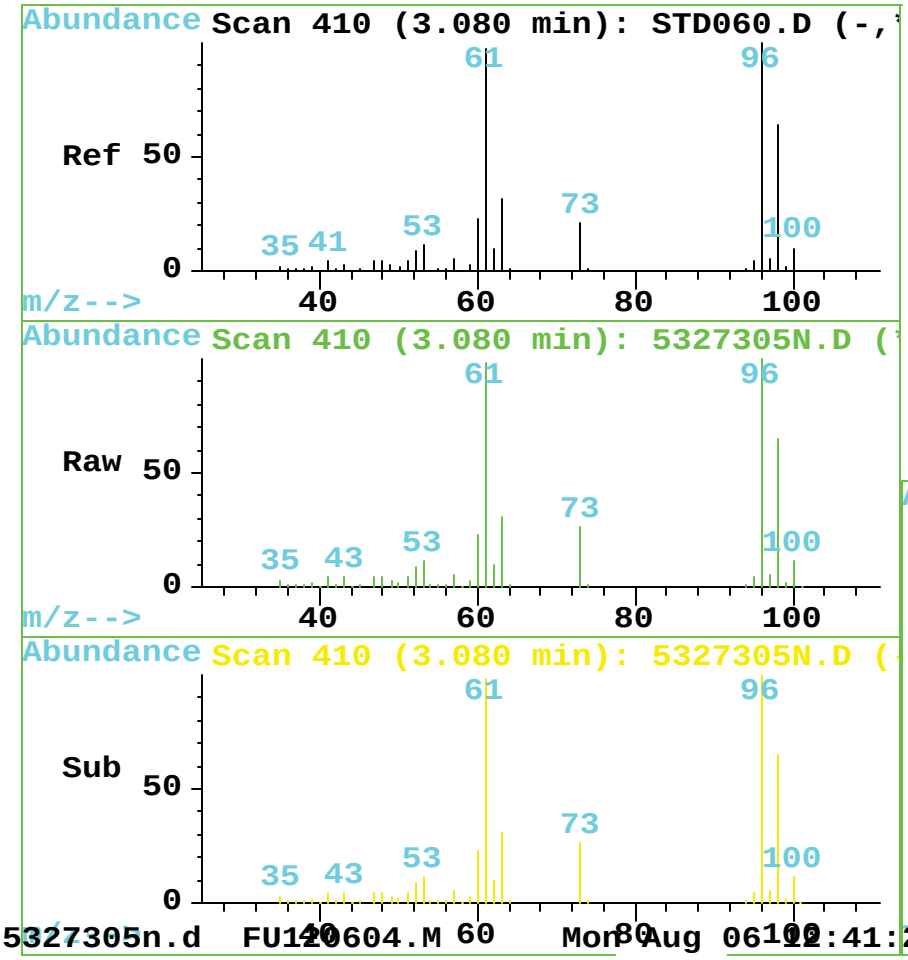


#9
tert-Methyl butyl ether (M
Concen: 50.86 ug/l
RT: 3.12 min Scan# 417
Delta R.T. 0.02 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:73 Resp: 235496

Ion	Ratio	Lower	Upper
73	100		
57	18.8	0.0	48.6
41	15.2	0.0	46.3
43	13.4	0.0	47.6

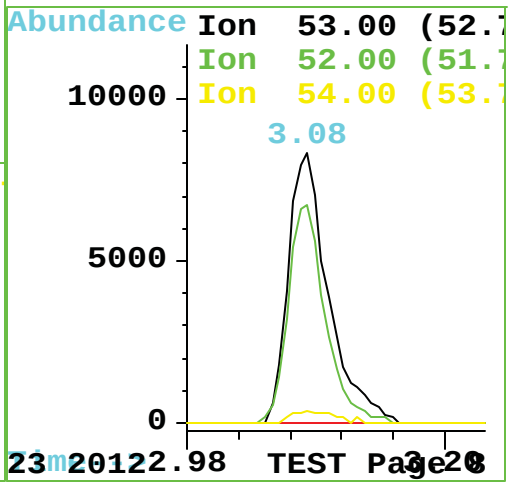


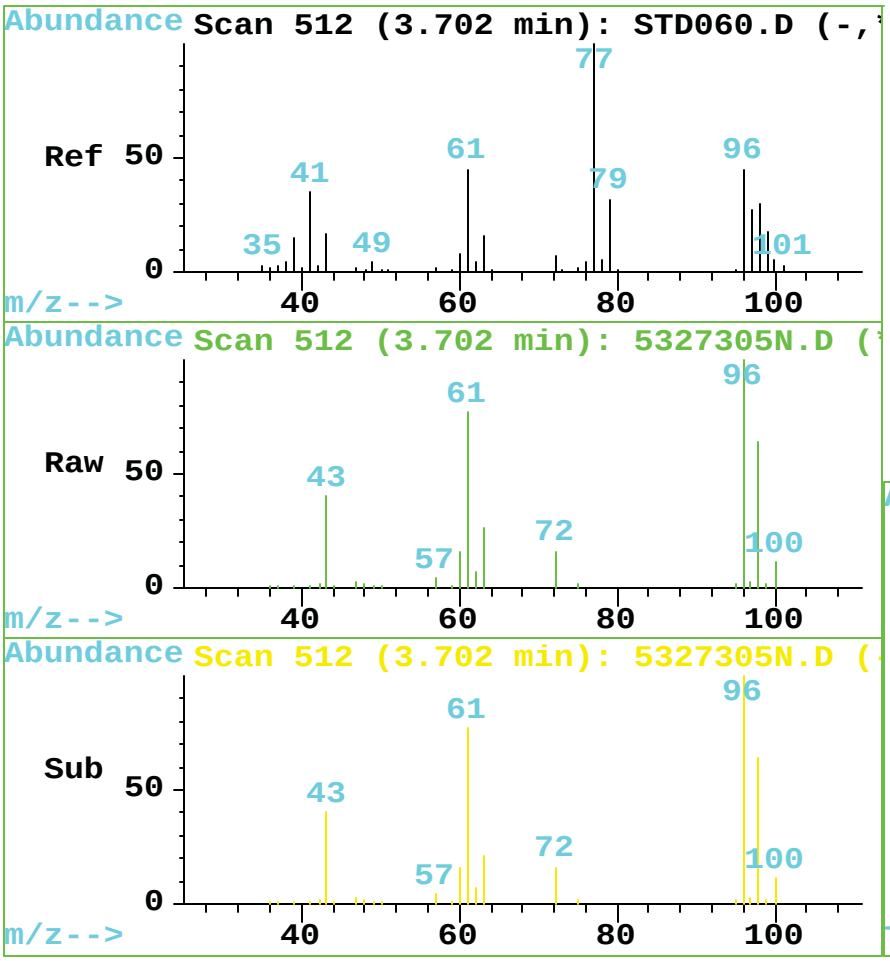


#10
Acrylonitrile (*)
Concen: 49.18 ug/l
RT: 3.08 min Scan# 410
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:53 Resp: 20016

Ion	Ratio	Lower	Upper
53	100		
52	75.2	45.4	105.4
54	5.0	0.0	32.6
0	0.0	0.0	0.0

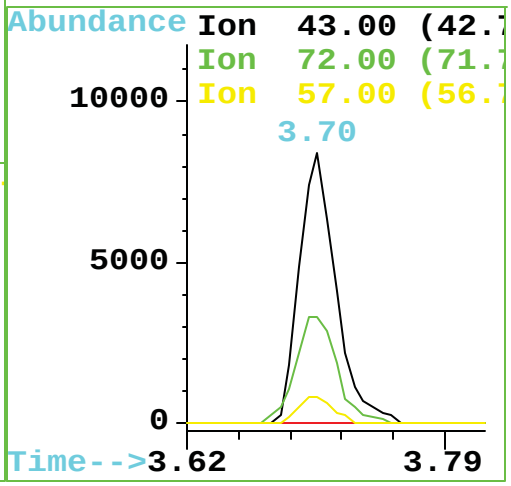


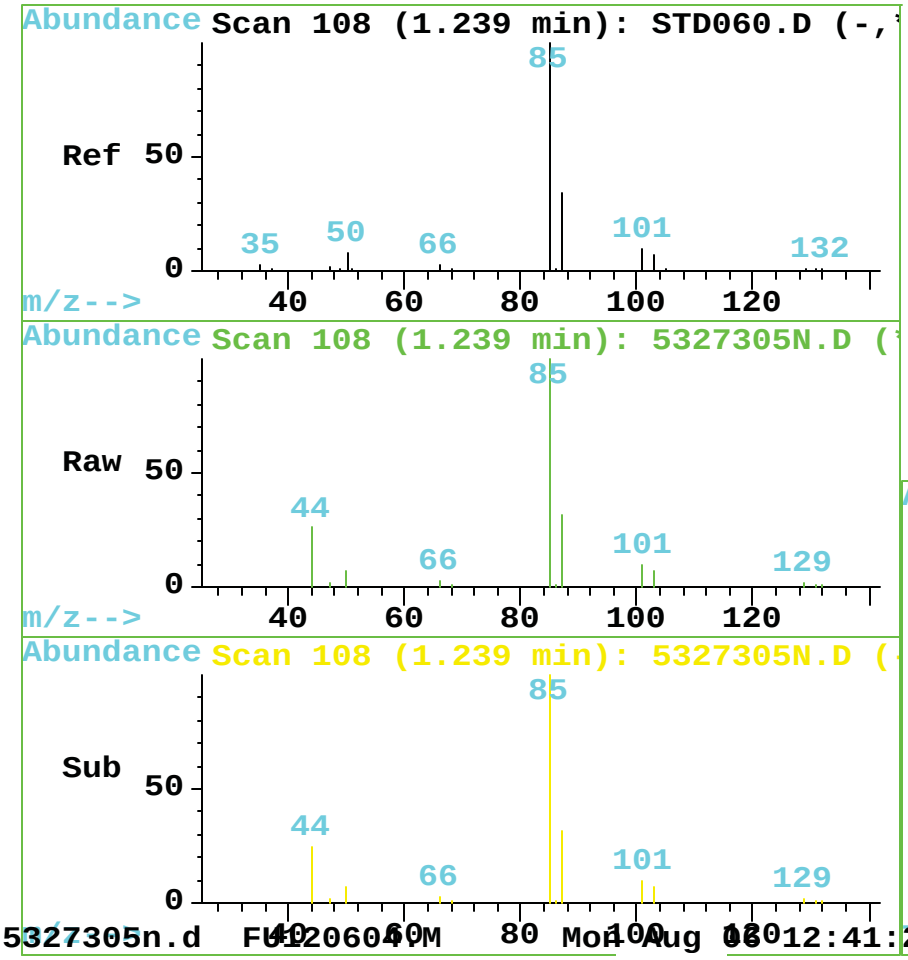


#11
2-Butanone (MEK) (*)
Concen: 48.89 ug/l
RT: 3.70 min Scan# 512
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:43 Resp: 14015

Ion	Ratio	Lower	Upper
43	100		
72	44.7	9.3	69.3
57	9.2	0.0	38.8
0	0.0	0.0	0.0

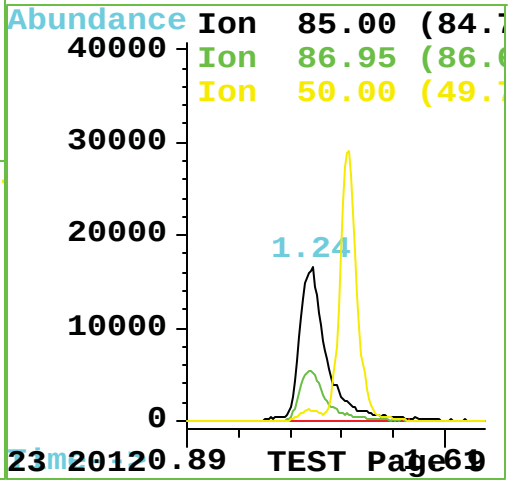


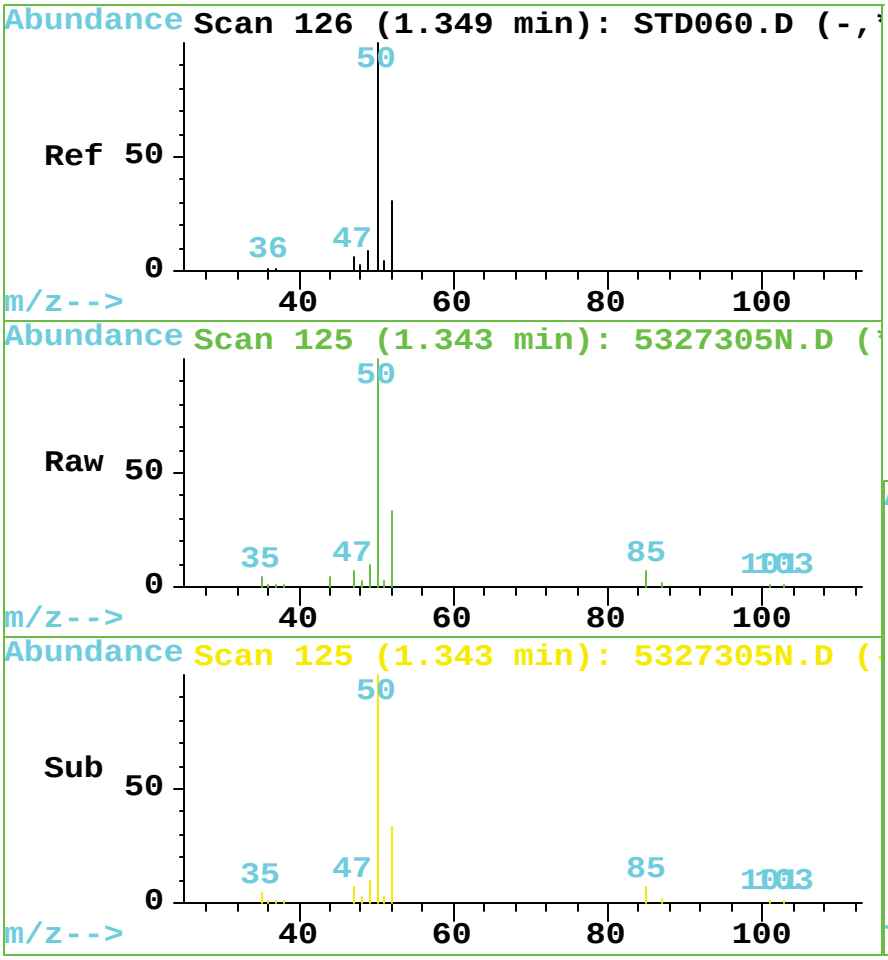


#12
Dichlorodifluoromethane
Concen: 44.32 ug/l
RT: 1.24 min Scan# 108
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:85 Resp: 88926

Ion	Ratio	Lower	Upper
85	100		
87	32.2	2.5	62.5
50	5.4	0.0	36.8
0	0.0	0.0	0.0

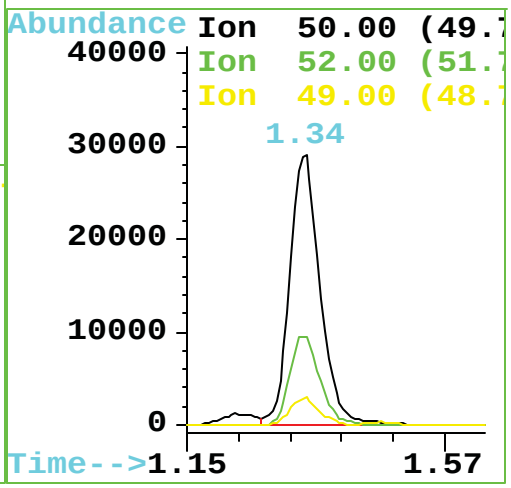


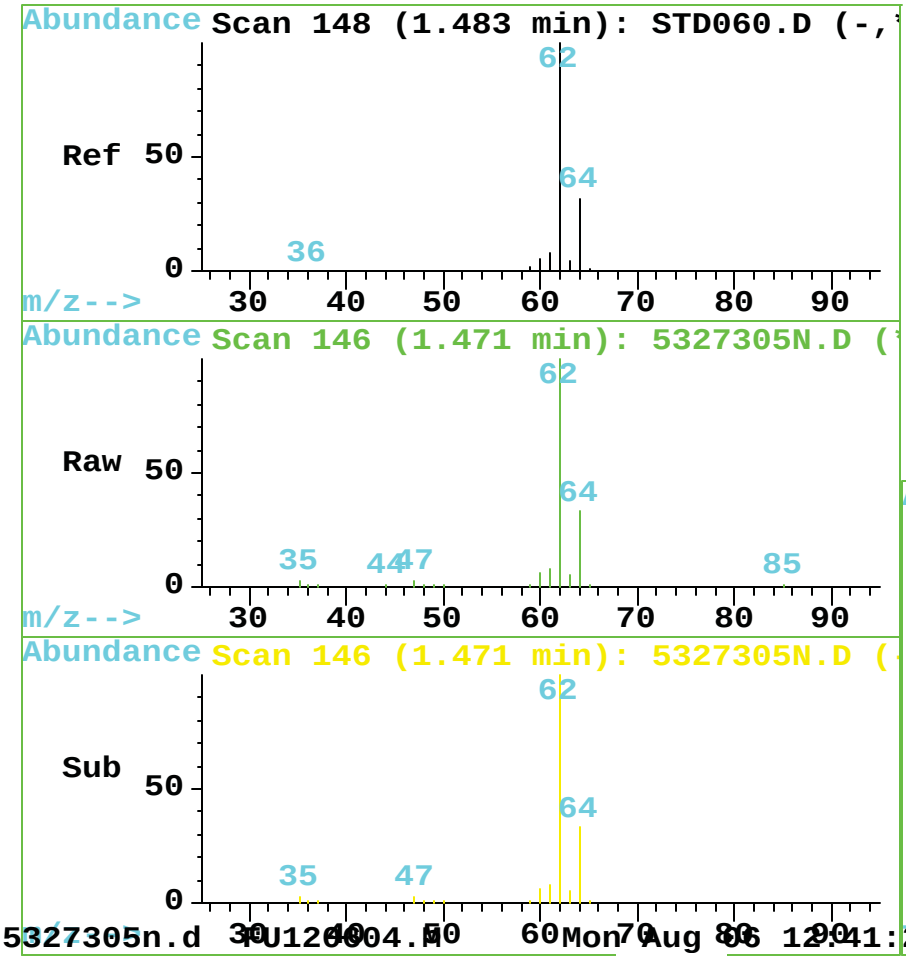


#13
Chloromethane (SPCC)
Concen: 44.21 ug/l
RT: 1.34 min Scan# 125
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:50 Resp: 100657

Ion	Ratio	Lower	Upper
50	100		
52	32.5	2.5	62.5
49	9.7	0.0	41.2
0	0.0	0.0	0.0

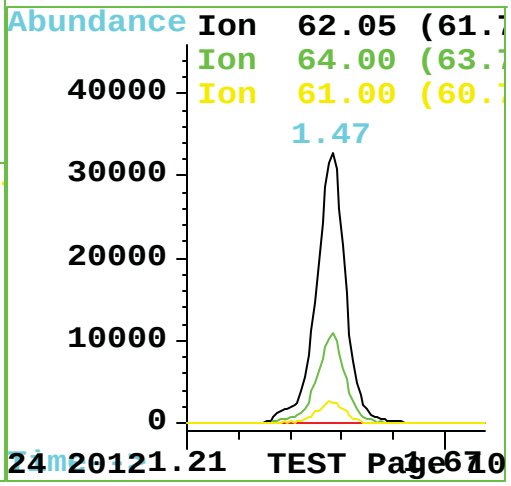


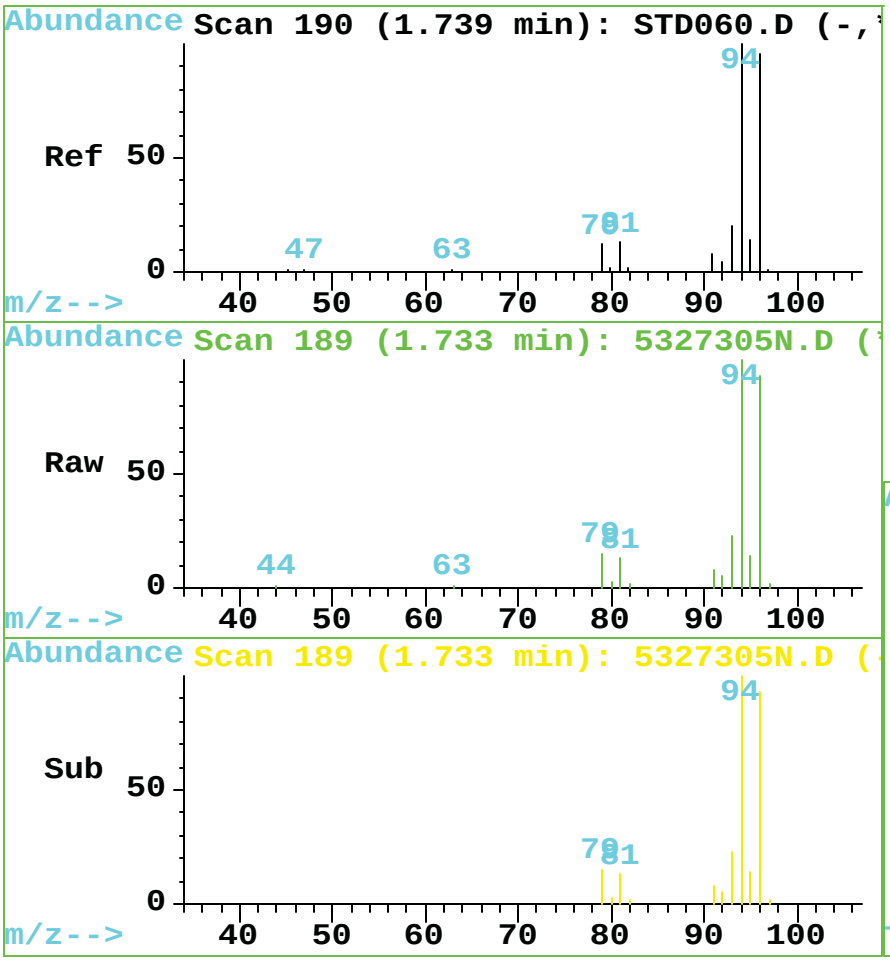


#14
Vinyl Chloride (CCC)
Concen: 46.21 ug/l
RT: 1.47 min Scan# 146
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:62.05 Resp: 11836

Ion	Ratio	Lower	Upper
62	100		
64	32.3	3.8	63.8
61	7.7	0.0	38.3
0	0.0	0.0	0.0

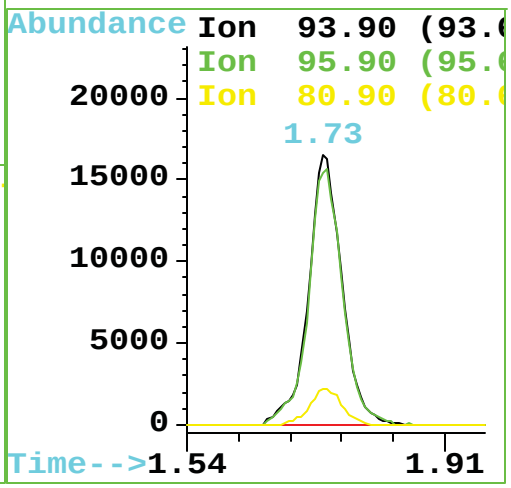


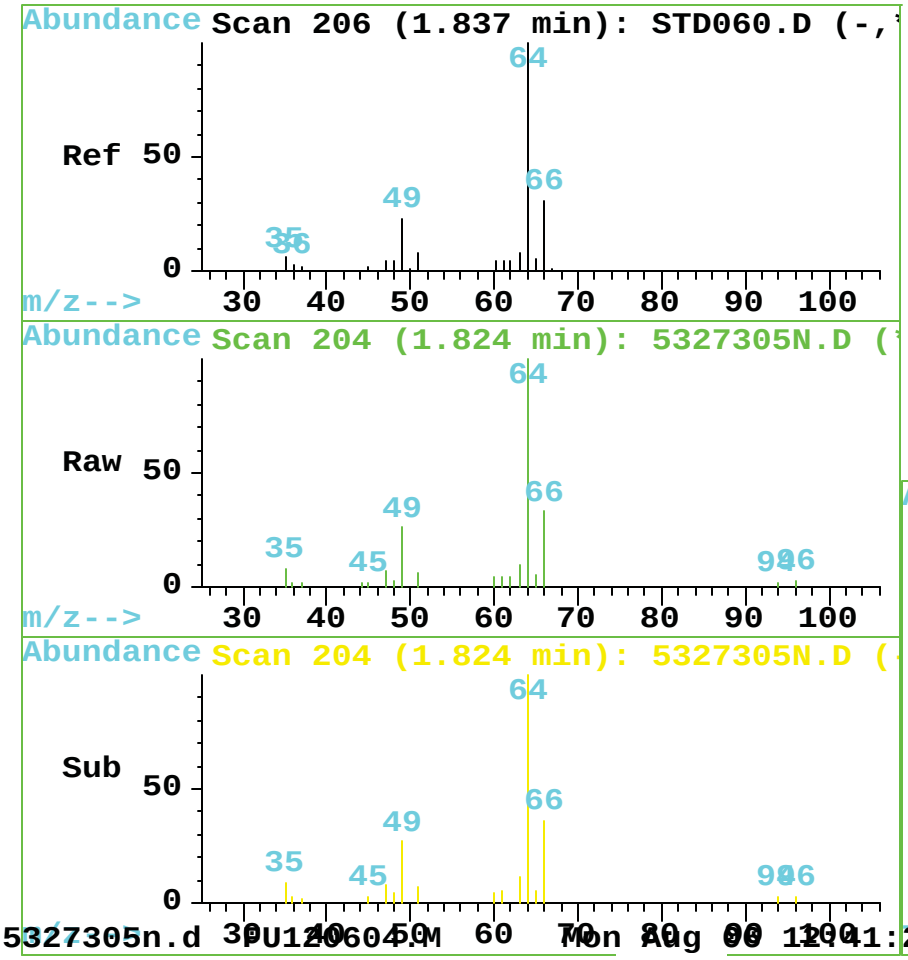


#15
Bromomethane
Concen: 48.47 ug/l
RT: 1.73 min Scan# 189
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:93.9 Resp: 55147

Ion	Ratio	Lower	Upper
94	100		
96	96.5	64.8	124.8
81	13.3	0.0	43.5
0	0.0	0.0	0.0

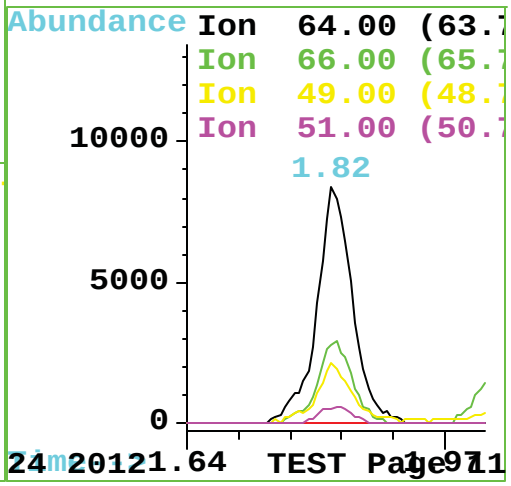


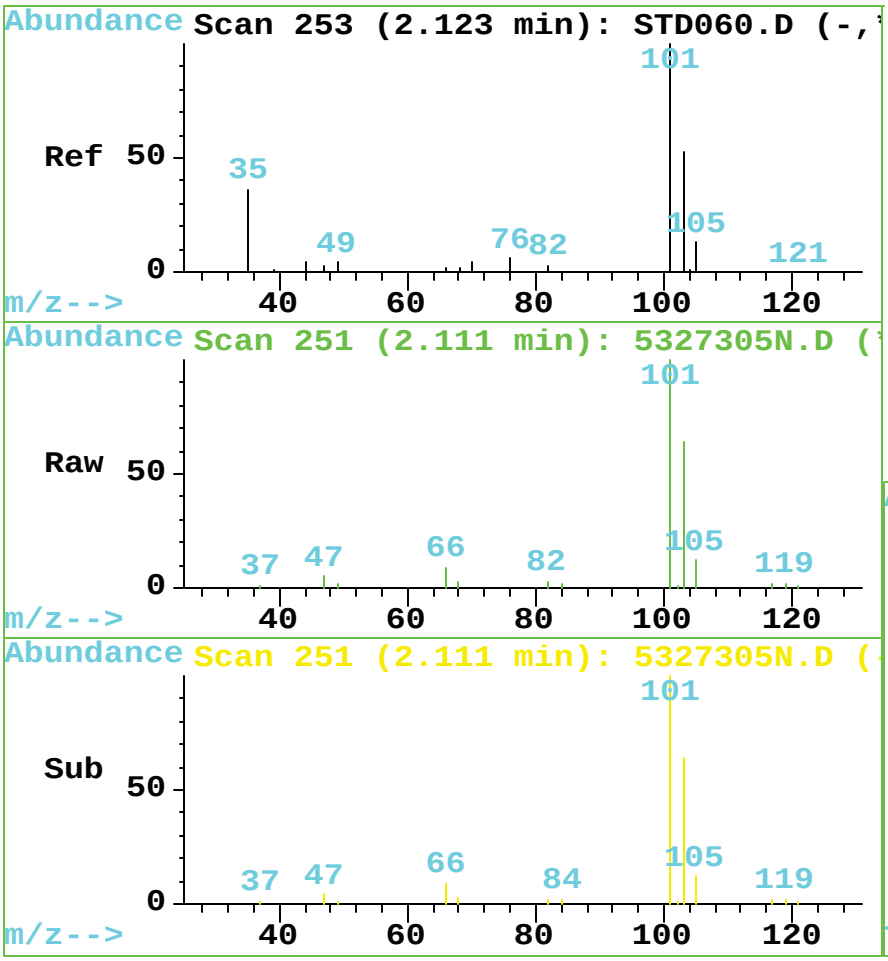


#16
Chloroethane
Concen: 50.53 ug/l
RT: 1.82 min Scan# 204
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:64 Resp: 27595

Ion	Ratio	Lower	Upper
64	100		
66	34.4	2.8	62.8
49	26.7	0.0	54.8
51	6.8	0.0	36.5

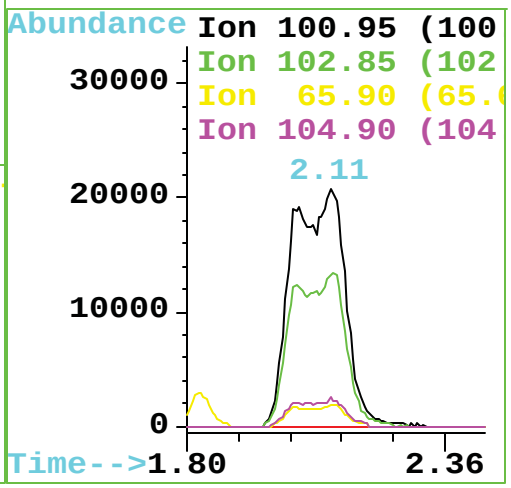


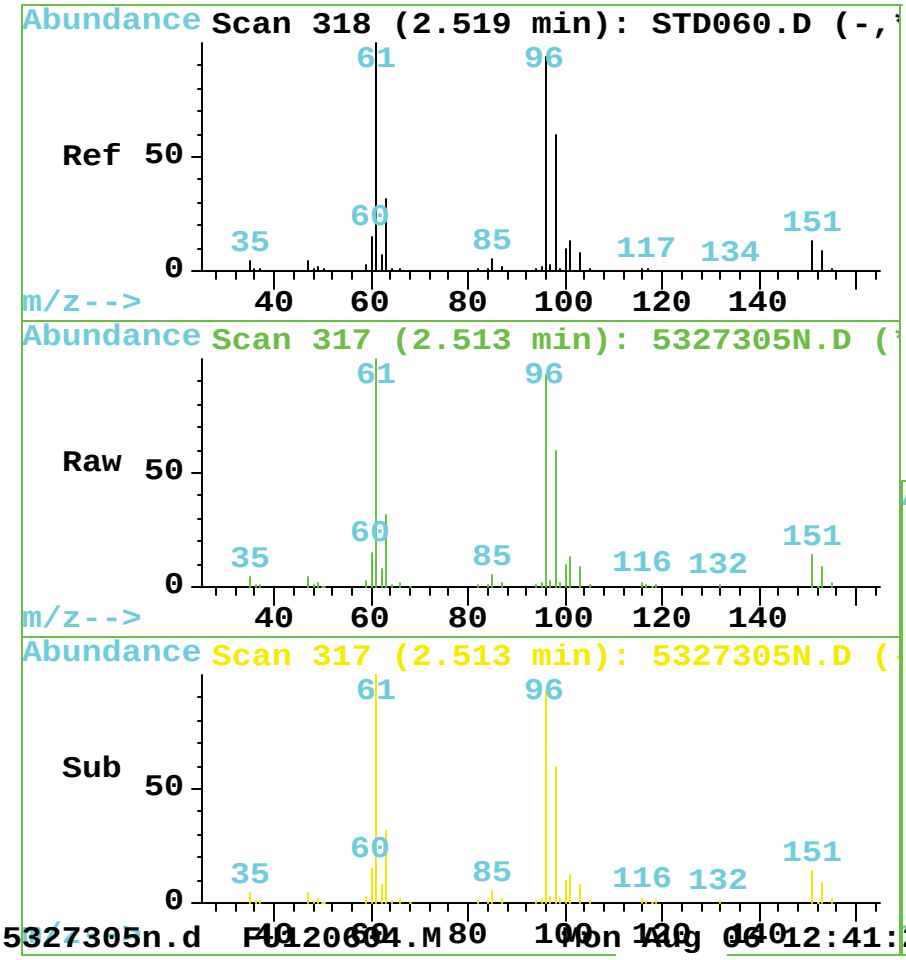


#18
Trichlorofluoromethane
Concen: 55.38 ug/l
RT: 2.11 min Scan# 251
Delta R.T. 0.06 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:100.95 Resp: 1653

Ion	Ratio	Lower	Upper
101	100		
103	27.3	34.1	94.1#
66	3.6	0.0	40.0
105	4.0	0.0	40.1

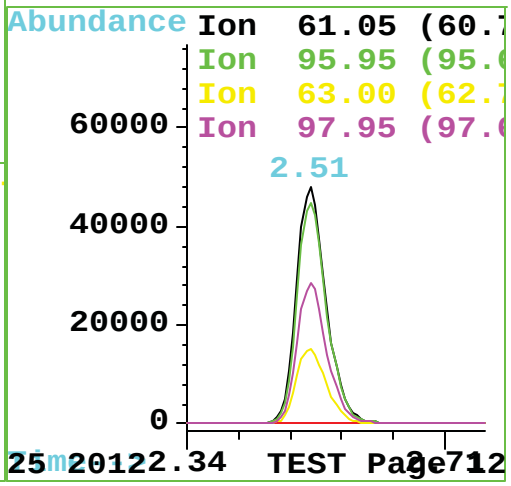


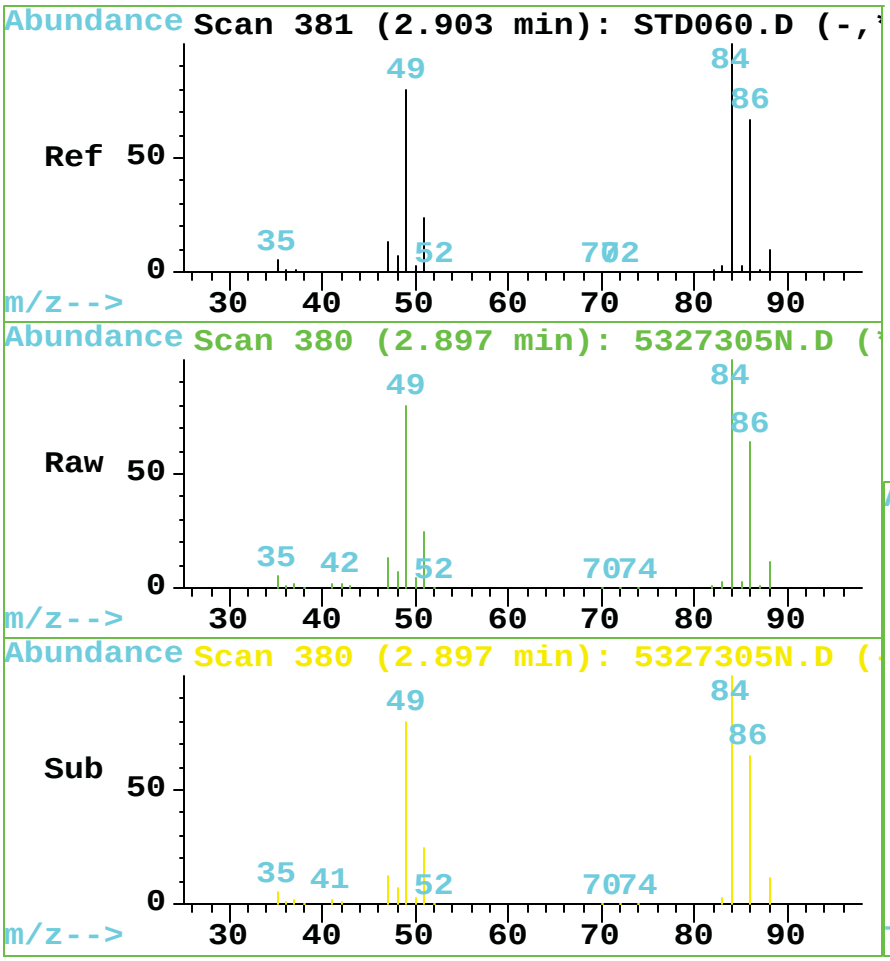


#19
1,1-Dichloroethene (CCC/MS
Concen: 44.98 ug/l
RT: 2.51 min Scan# 317
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:61.05 Resp: 14264

Ion	Ratio	Lower	Upper
61	100		
96	93.4	44.2	104.2
63	32.7	2.8	62.8
98	59.6	18.3	78.3

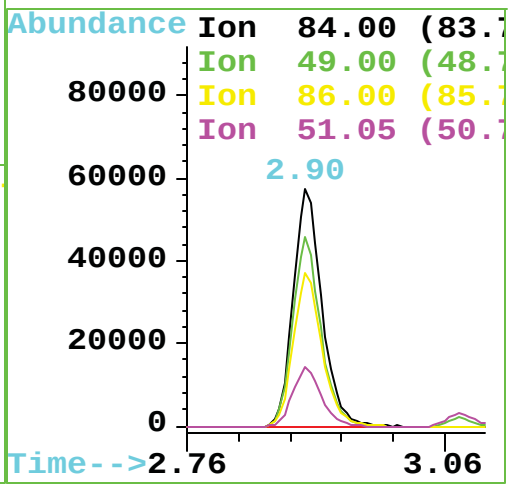


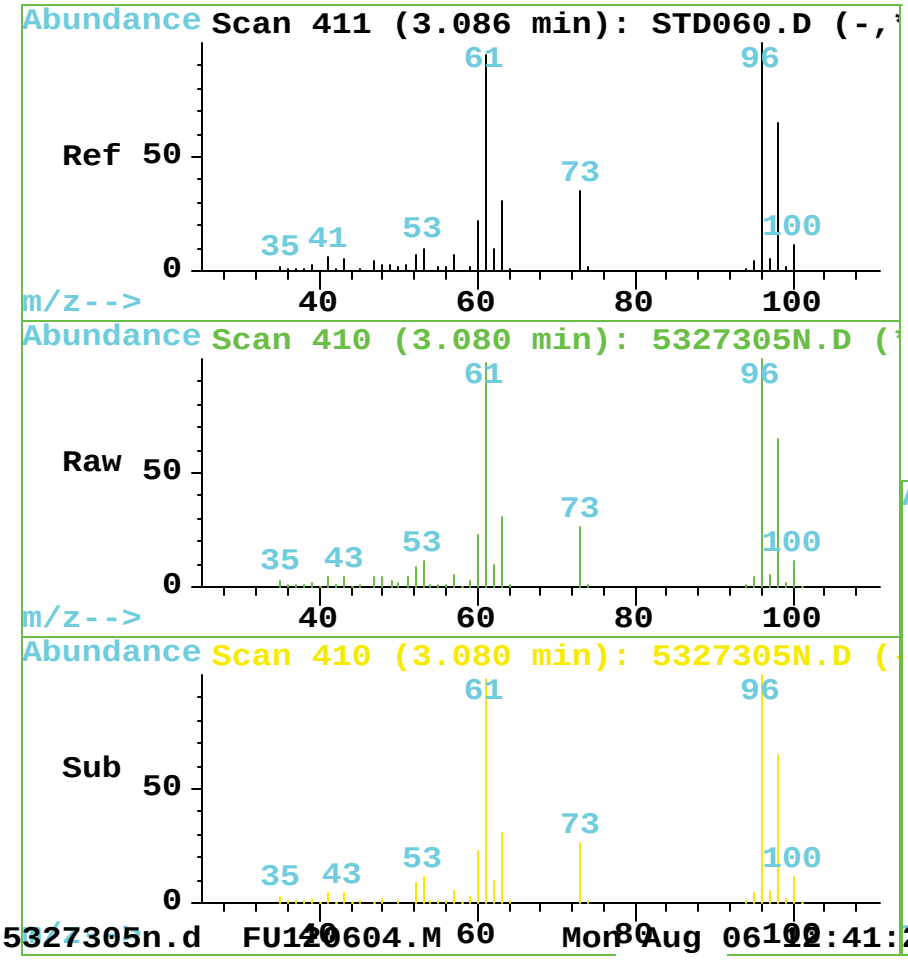


#20
Methylene Chloride
Concen: 44.00 ug/l
RT: 2.90 min Scan# 380
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:84 Resp: 134870

Ion	Ratio	Lower	Upper
84	100		
49	78.5	59.2	119.2
86	64.5	34.7	94.7
51	24.6	0.0	58.1

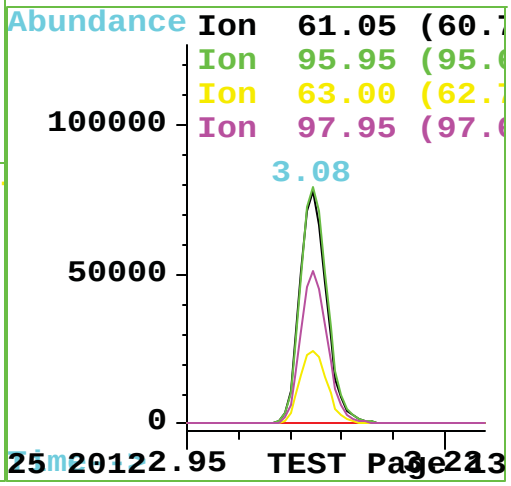


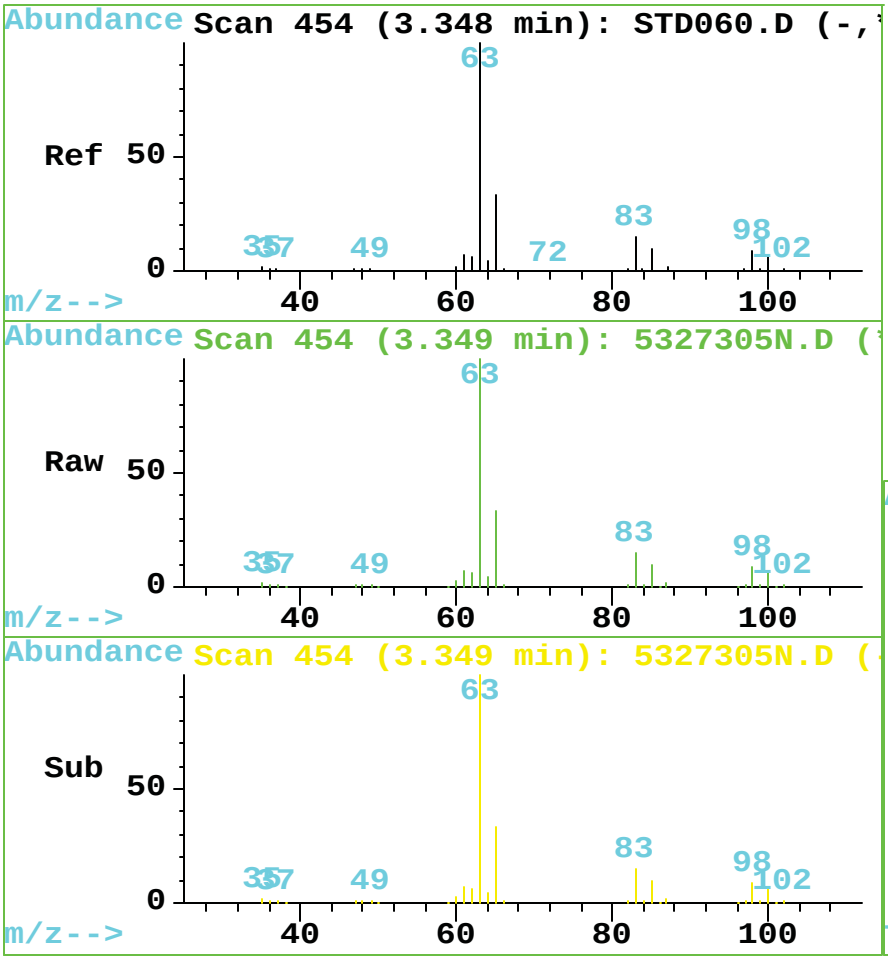


#21
trans-1,2-Dichloroethene
Concen: 46.94 ug/l
RT: 3.08 min Scan# 410
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:61.05 Resp: 15499

Ion	Ratio	Lower	Upper
61	100		
96	102.6	56.7	116.7
63	32.6	2.7	62.7
98	65.8	25.6	85.6

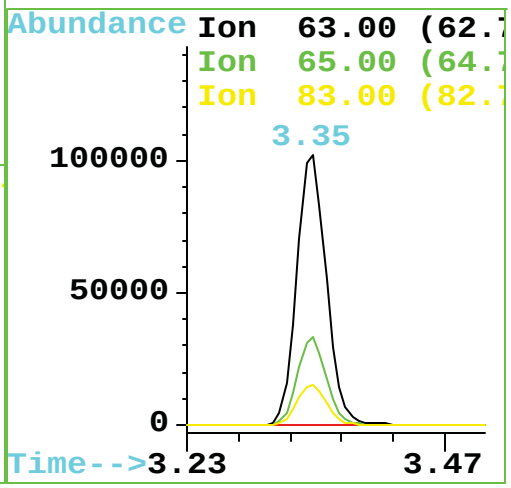


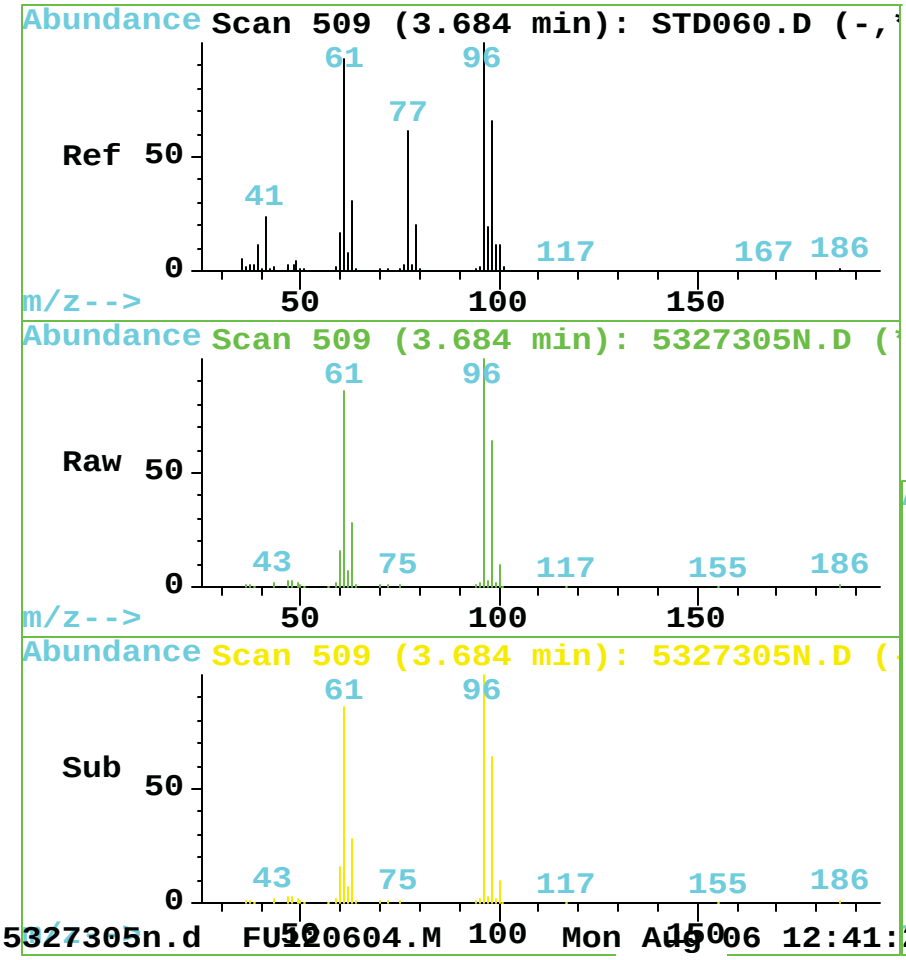


#22
1,1-Dichloroethane (SPCC)
Concen: 46.73 ug/l
RT: 3.35 min Scan# 454
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:63 Resp: 193201

Ion	Ratio	Lower	Upper
63	100		
65	32.1	2.0	62.0
83	15.2	0.0	44.9
0	0.0	0.0	0.0

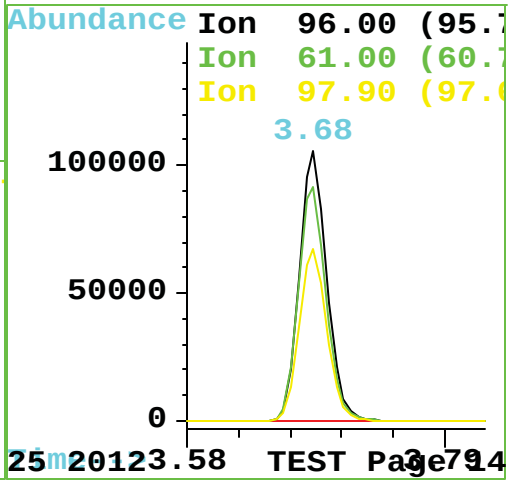


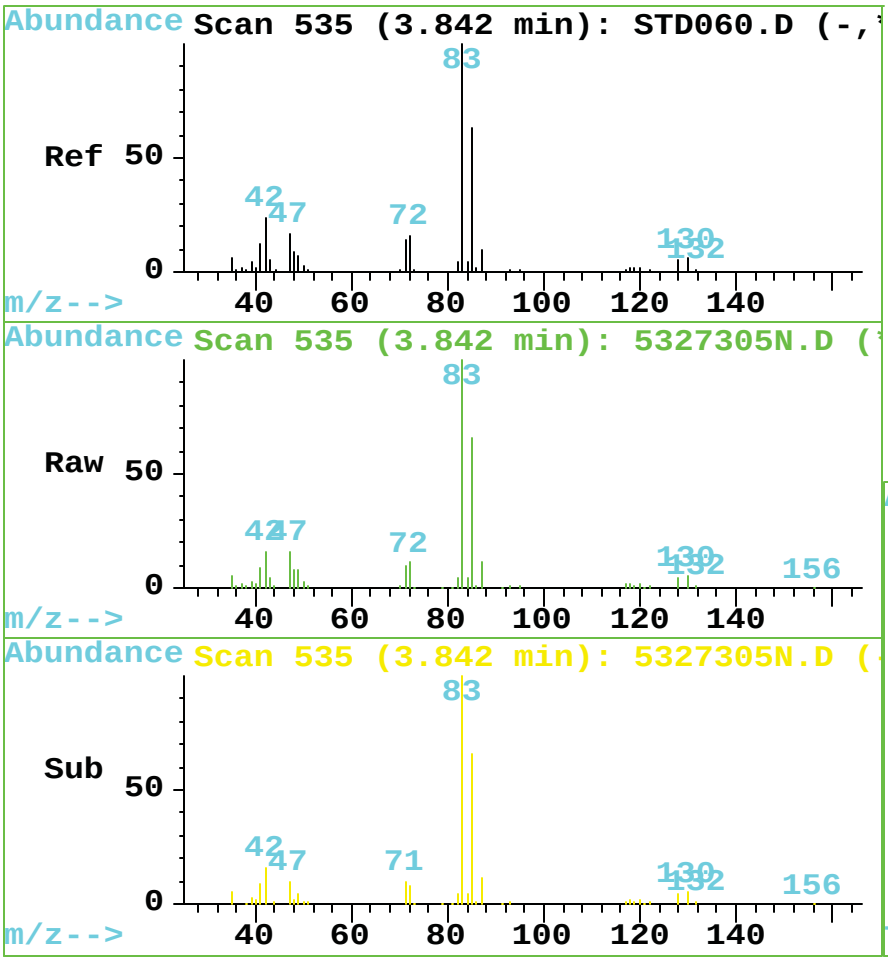


#23
cis-1,2-Dichloroethene
Concen: 47.50 ug/l
RT: 3.68 min Scan# 509
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:96 Resp: 164103

Ion	Ratio	Lower	Upper
96	100		
61	88.0	90.9	150.9#
98	64.5	34.6	94.6
0	0.0	0.0	0.0

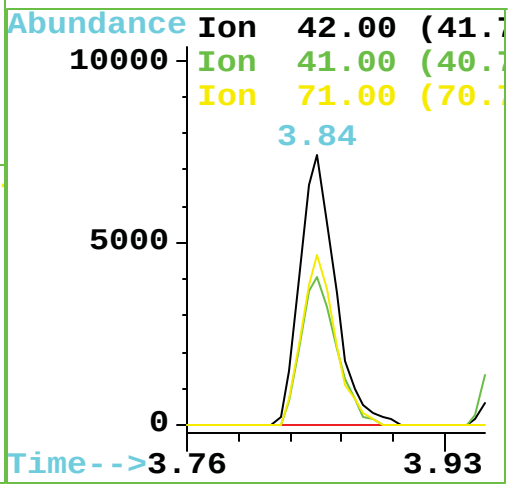


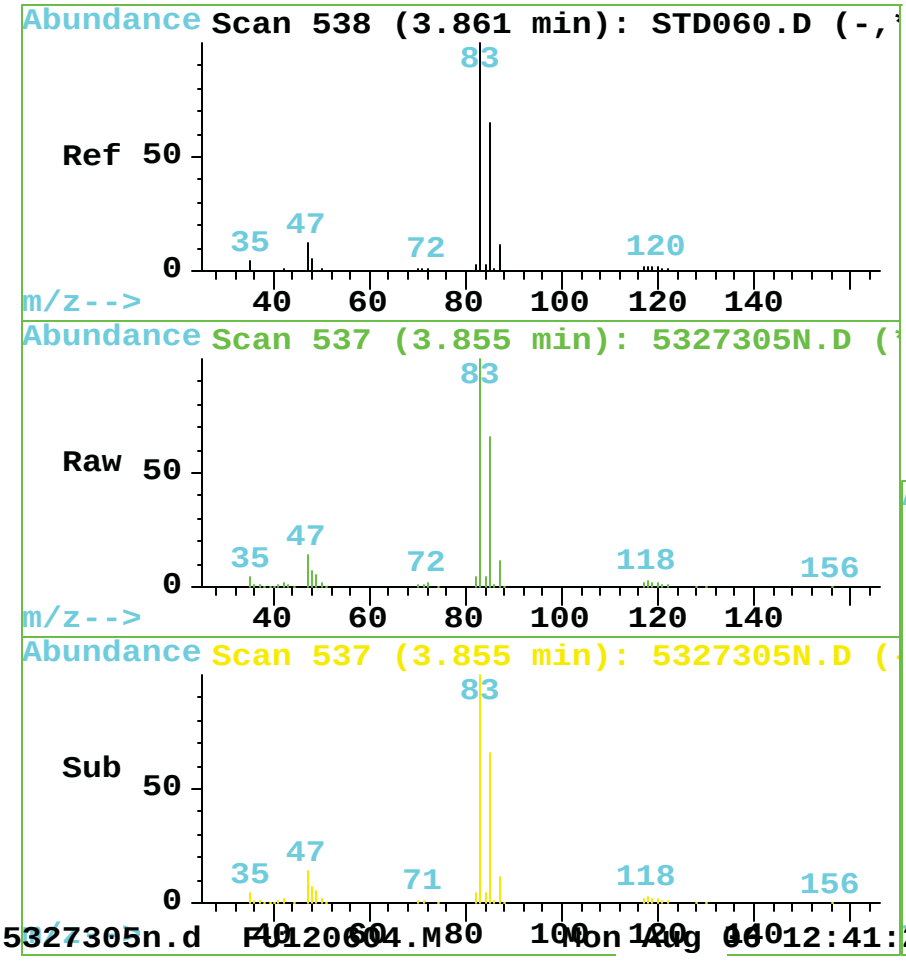


#24
Tetrahydrofuran
Concen: 43.98 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:42 Resp: 12046

Ion	Ratio	Lower	Upper
42	100		
41	55.3	222.5	282.5#
71	59.6	24.9	84.9
0	0.0	0.0	0.0

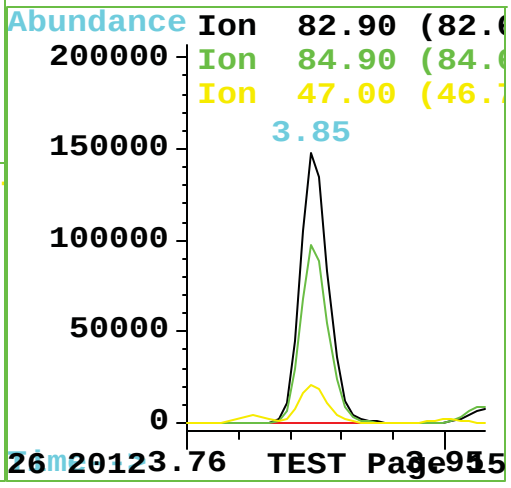


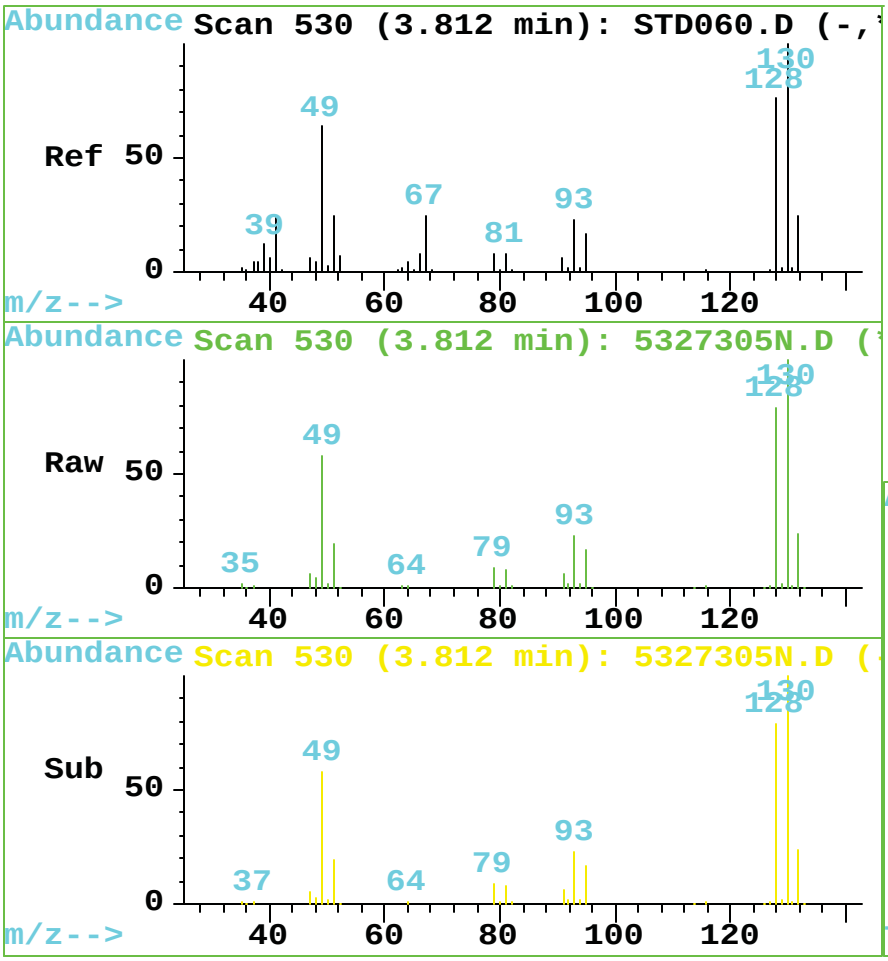


#25
Chloroform (CCC)
Concen: 48.05 ug/l
RT: 3.85 min Scan# 537
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:82.9 Resp: 213587

Ion	Ratio	Lower	Upper
83	100		
85	65.8	35.0	95.0
47	14.5	0.0	48.4
0	0.0	0.0	0.0

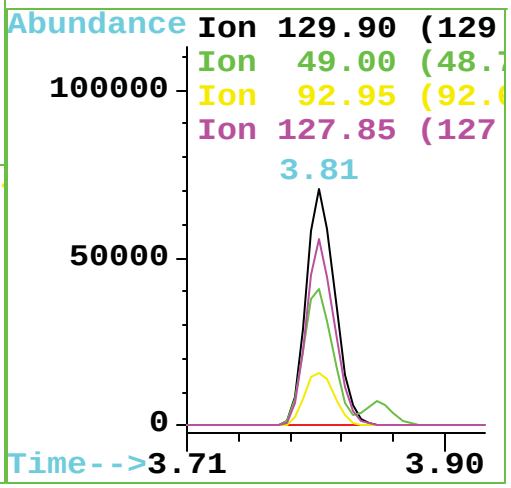


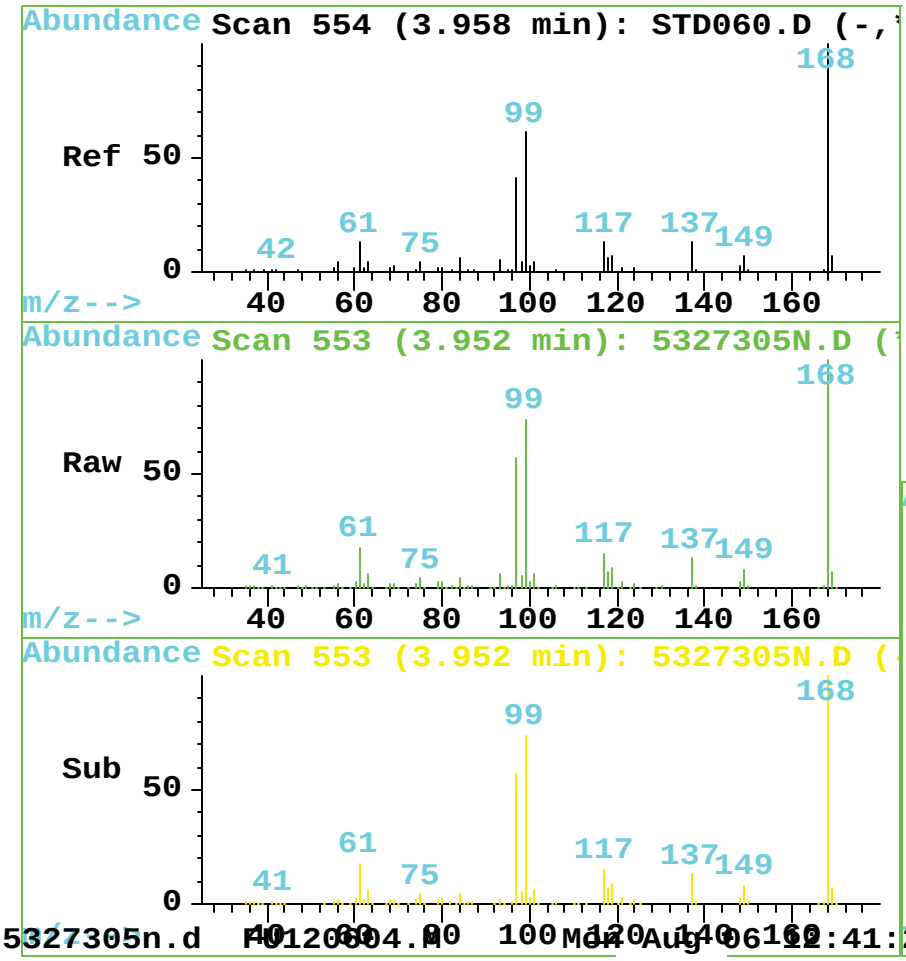


#26
Bromochloromethane
Concen: 47.62 ug/l
RT: 3.81 min Scan# 530
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:129.9 Resp: 10528

Ion	Ratio	Lower	Upper
130	100		
49	59.1	41.7	101.7
93	23.6	0.0	58.1
128	76.7	45.4	105.4

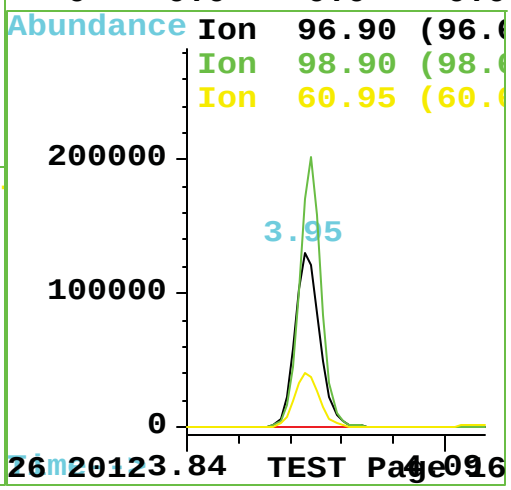


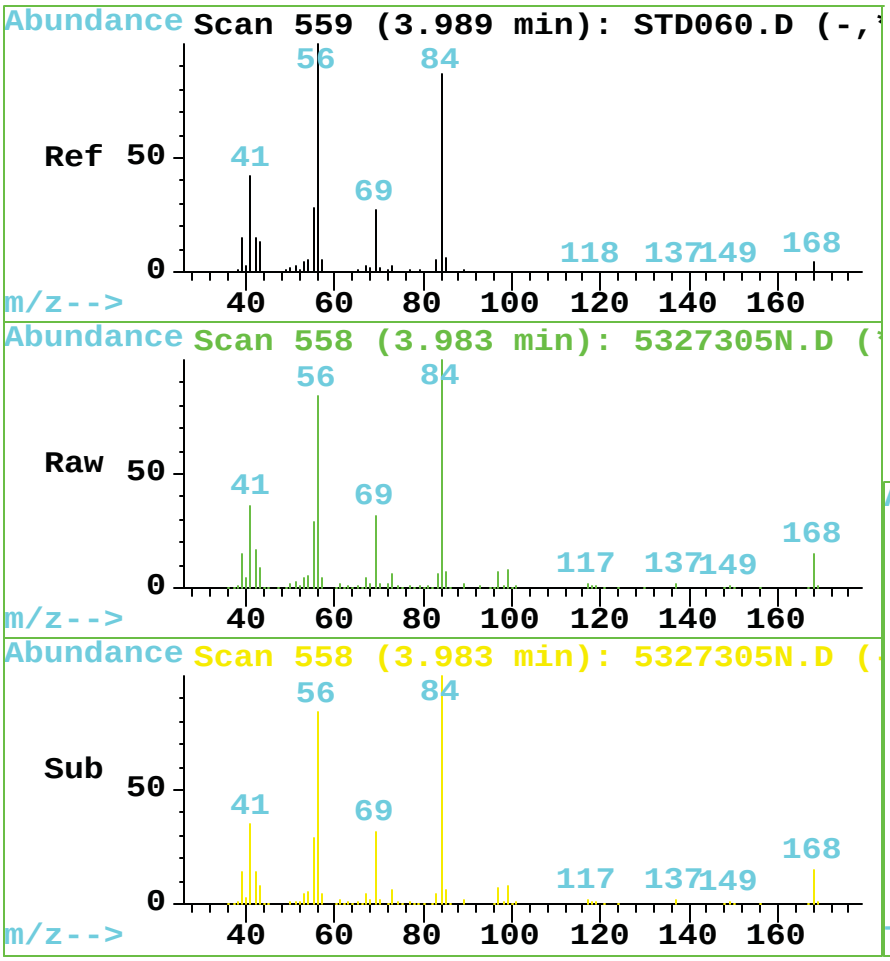


#27
1,1,1-Trichloroethane
Concen: 52.27 ug/l
RT: 3.95 min Scan# 553
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:96.9 Resp: 227468

Ion	Ratio	Lower	Upper
97	100		
99	134.7	214.4	274.4#
61	31.4	12.5	72.5
0	0.0	0.0	0.0

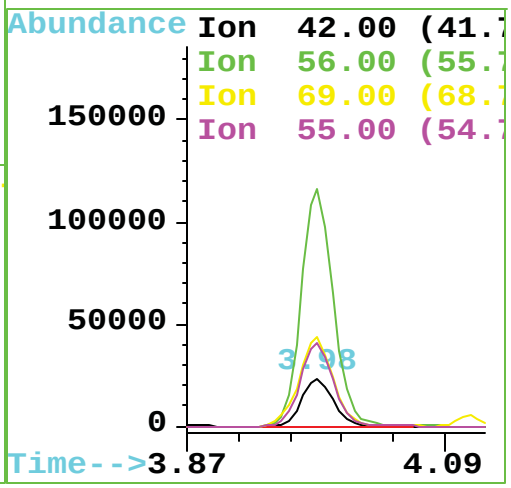


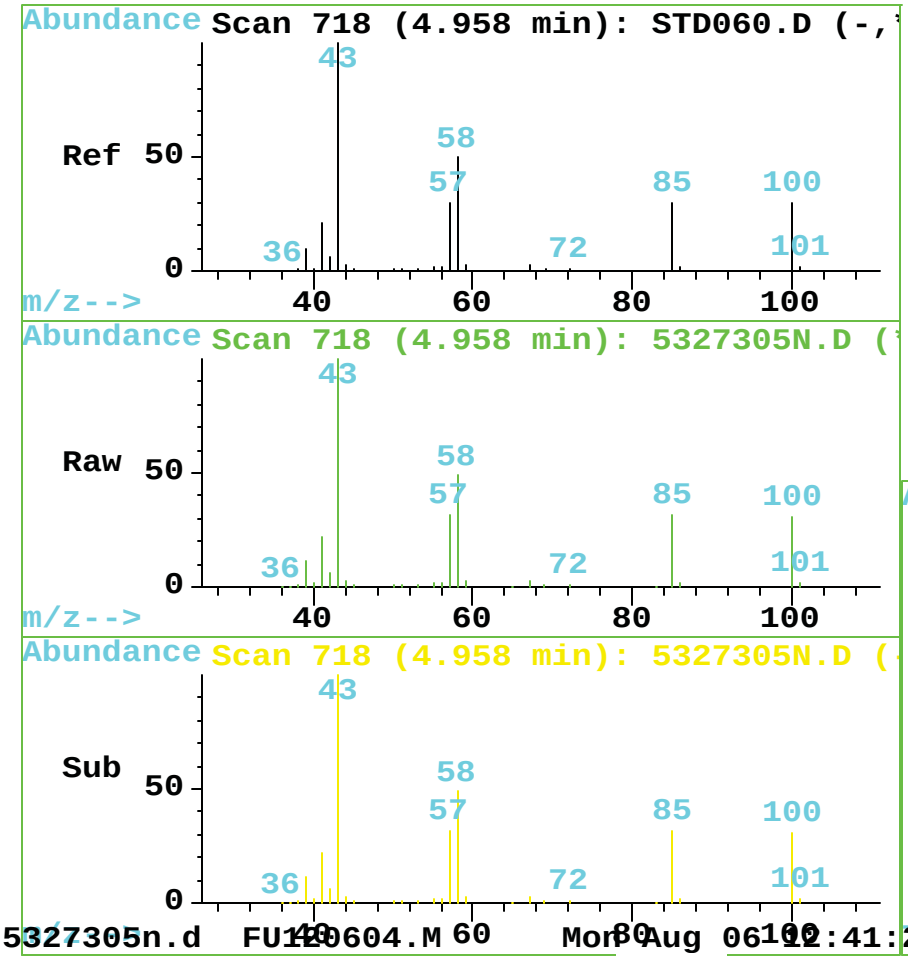


#29
Cyclohexane
Concen: 42.77 ug/l
RT: 3.98 min Scan# 558
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:42 Resp: 43001

Ion	Ratio	Lower	Upper
42	100		
56	510.8	958.1	1018.1#
69	202.2	188.2	248.2
55	182.4	209.1	269.1#

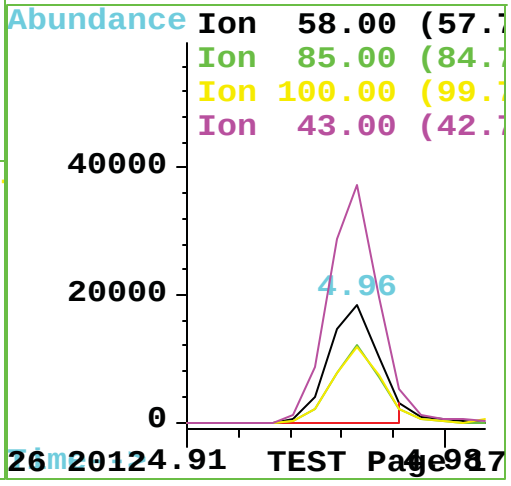


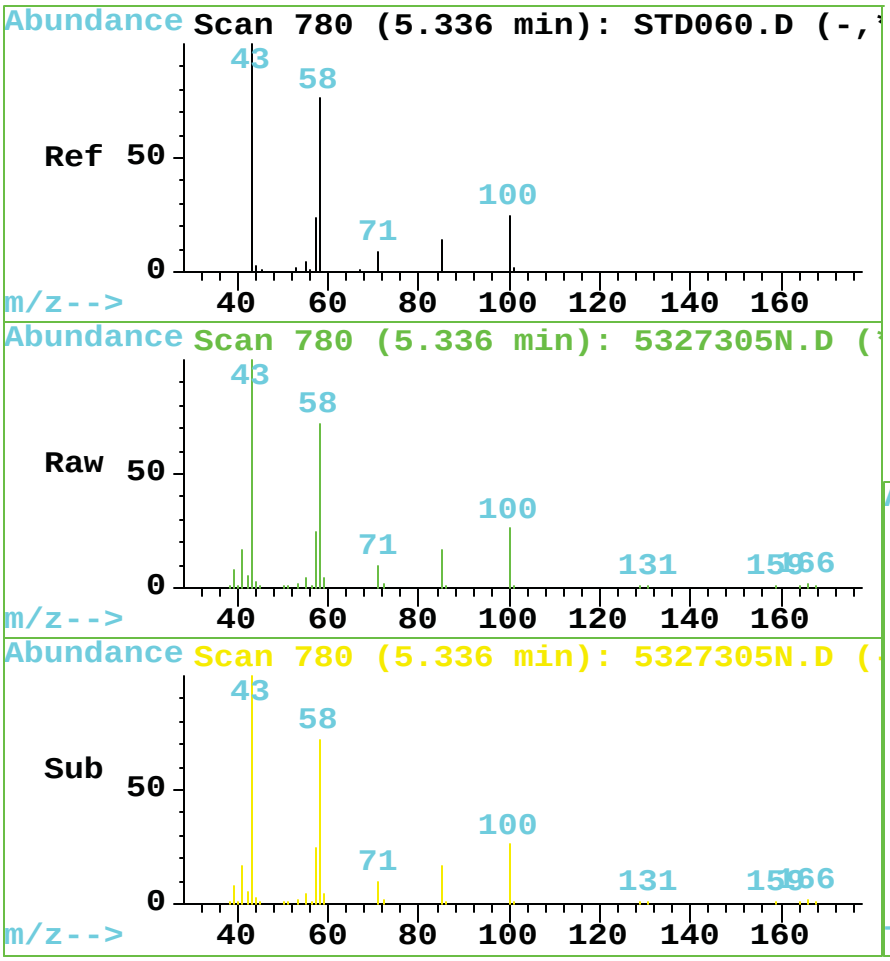


#32
4-Methyl-2-pentanone (MIBK
Concen: 50.11 ug/l
RT: 4.96 min Scan# 718
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:58 Resp: 18545

Ion	Ratio	Lower	Upper
58	100		
85	61.3	33.3	93.3
100	61.0	29.4	89.4
43	197.8	197.3	257.3

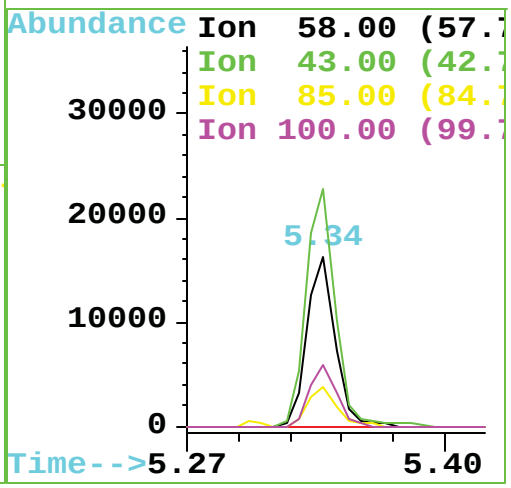


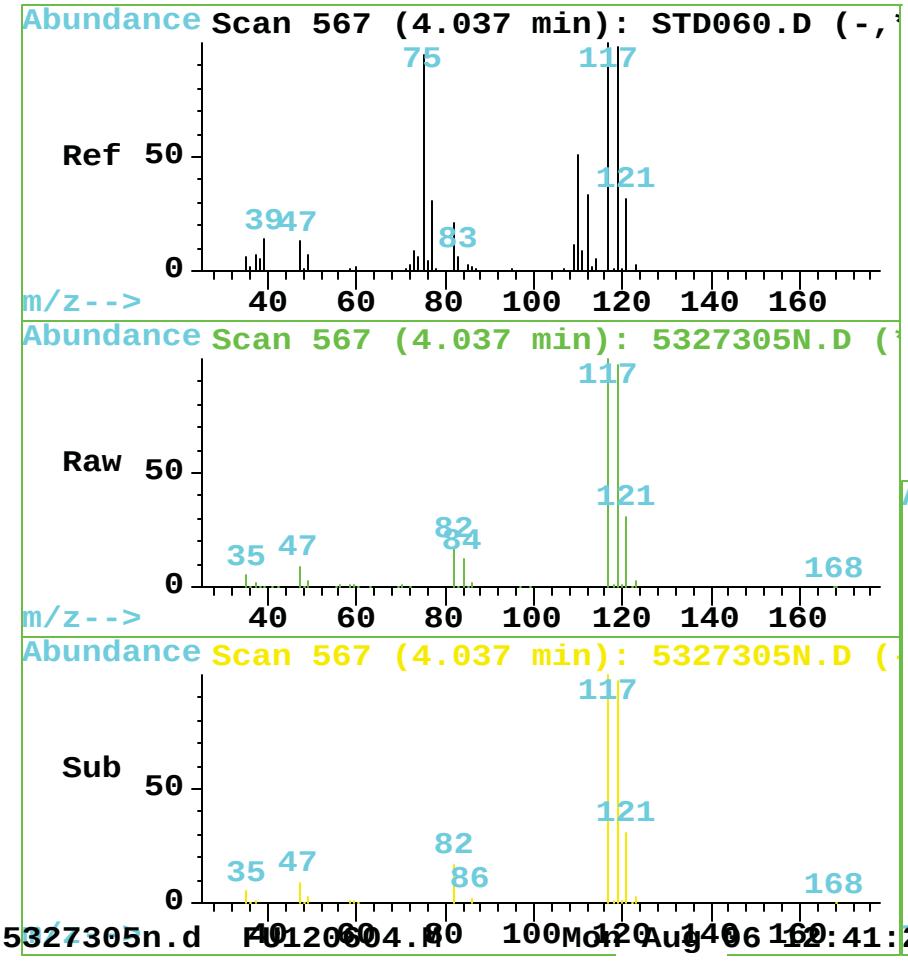


#33
2-Hexanone (*)
Concen: 53.57 ug/l
RT: 5.34 min Scan# 780
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:58 Resp: 15451

Ion	Ratio	Lower	Upper
58	100		
43	145.0	122.2	182.2
85	23.7	0.0	52.9
100	34.6	2.6	62.6

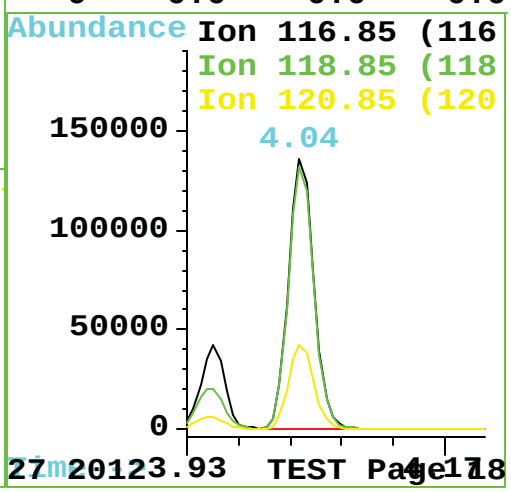


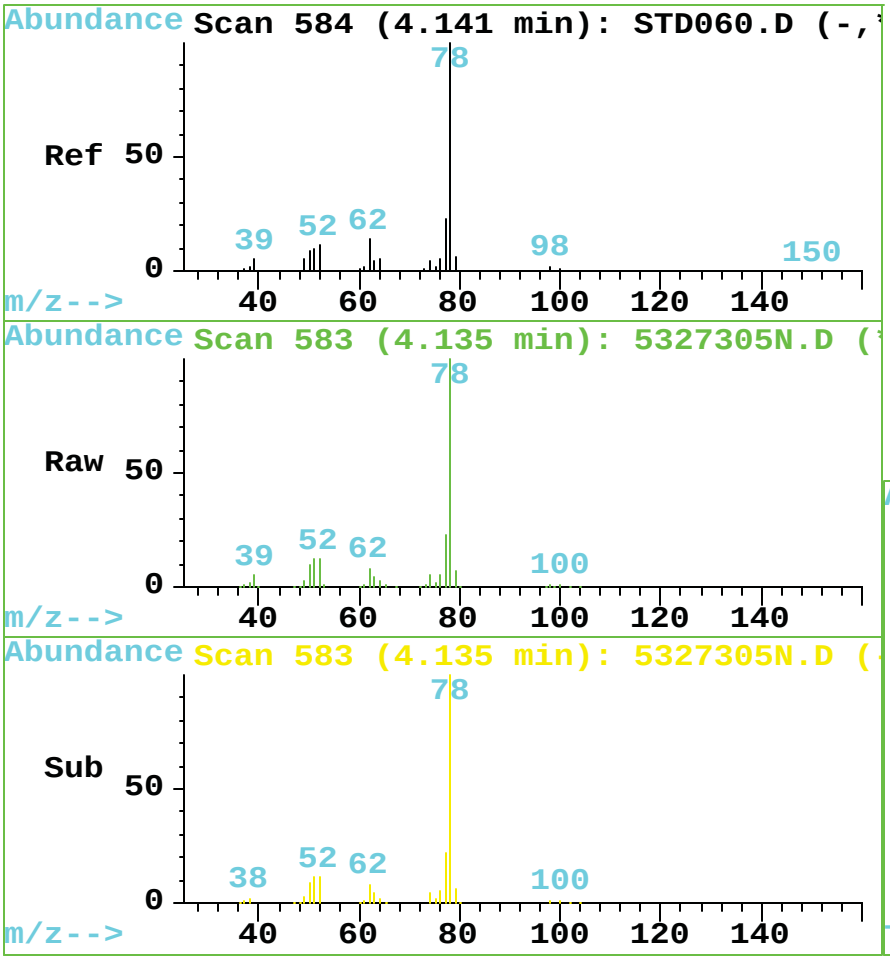


#35
Carbon Tetrachloride
Concen: 54.03 ug/l
RT: 4.04 min Scan# 567
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:116.85 Resp: 2223

Ion	Ratio	Lower	Upper
117	100		
119	97.0	65.5	125.5
121	31.3	0.5	60.5
0	0.0	0.0	0.0

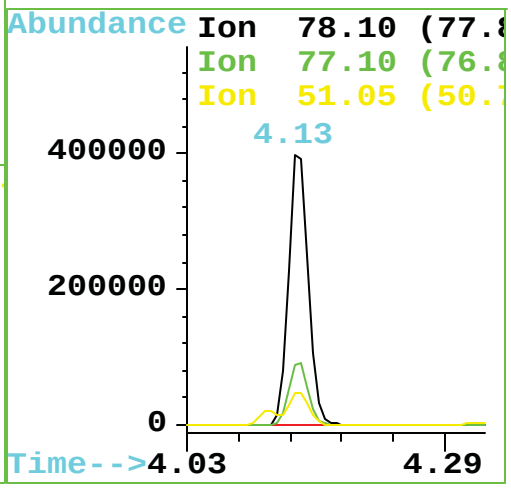


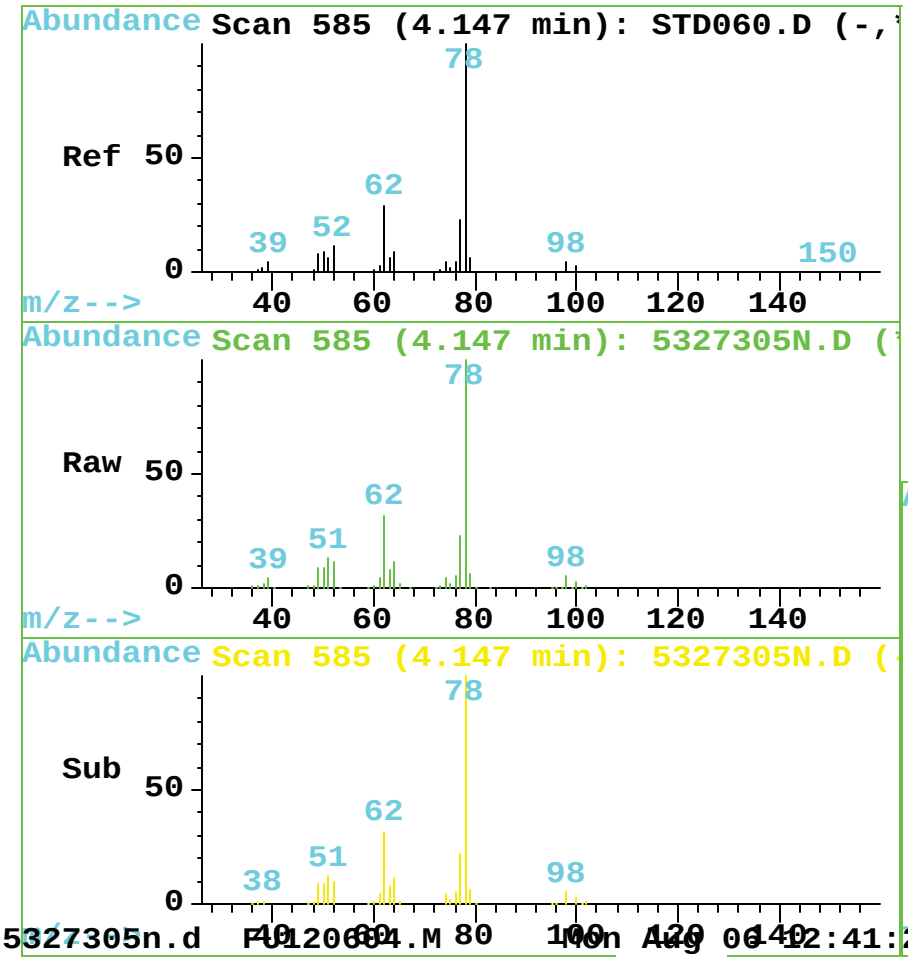


#36
Benzene (MS)
Concen: 47.97 ug/l
RT: 4.13 min Scan# 583
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:78.1 Resp: 556358

Ion	Ratio	Lower	Upper
78	100		
77	22.7	0.0	52.9
51	13.0	0.0	44.8
0	0.0	0.0	0.0

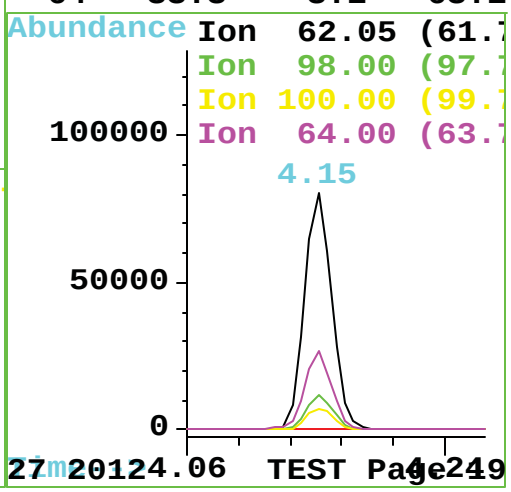


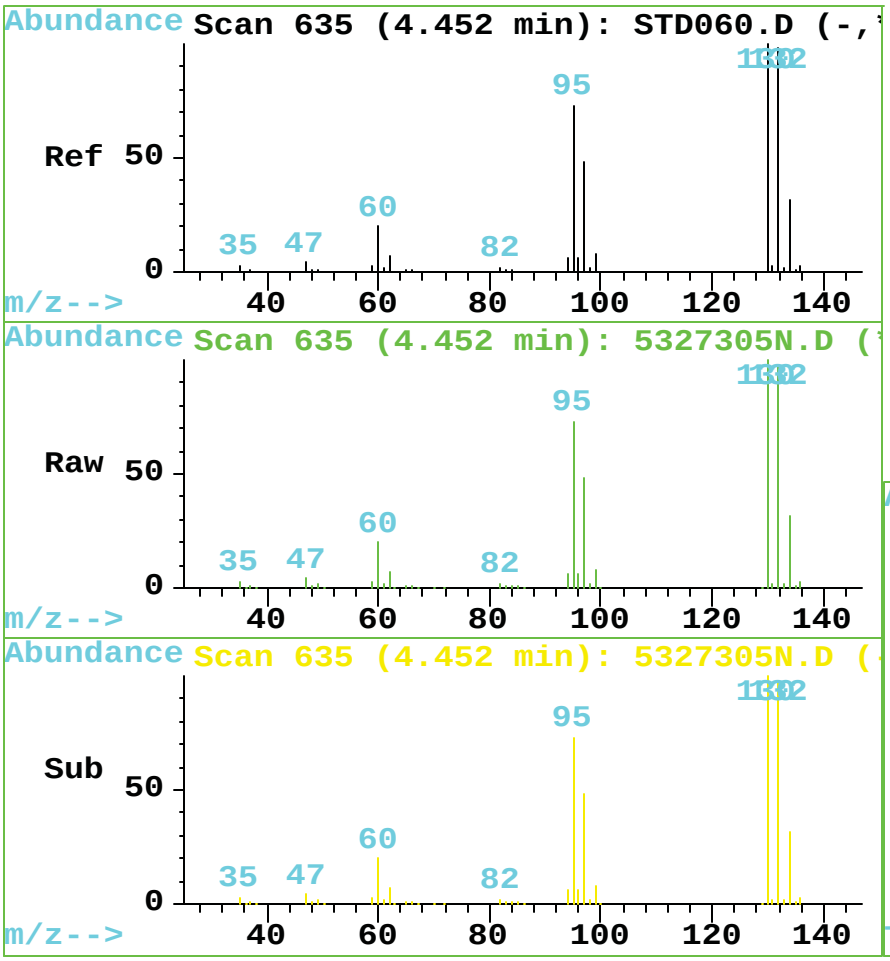


#37
1,2-Dichloroethane
Concen: 50.35 ug/l
RT: 4.15 min Scan# 585
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:62.05 Resp: 10577

Ion	Ratio	Lower	Upper
62	100		
98	14.4	0.0	40.9
100	9.3	0.0	37.0
64	33.3	3.1	63.1

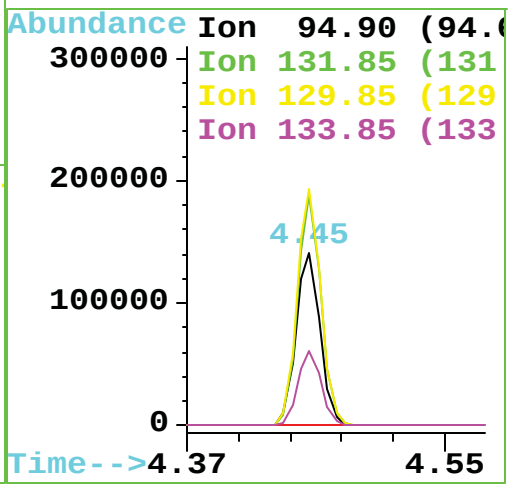


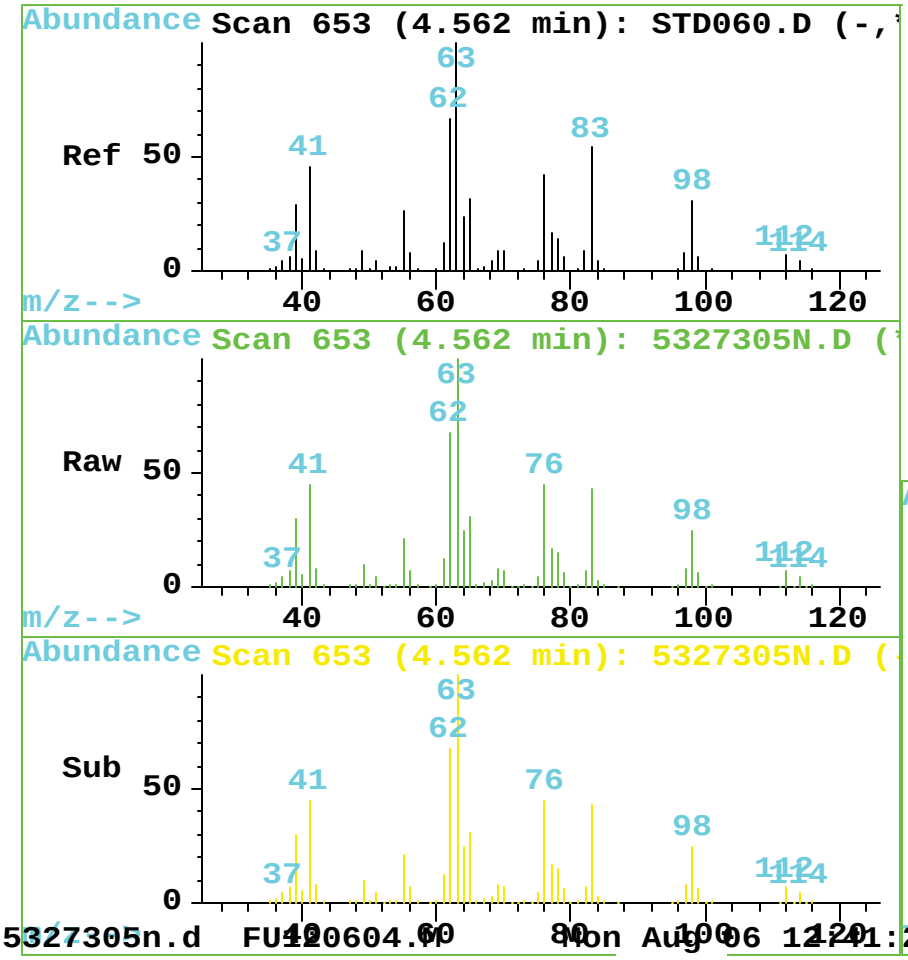


#38
Trichloroethene (MS)
Concen: 51.99 ug/l
RT: 4.45 min Scan# 635
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:94.9 Resp: 164521

Ion	Ratio	Lower	Upper
95	100		
132	130.8	90.7	150.7
130	135.2	93.9	153.9
134	42.7	8.4	68.4

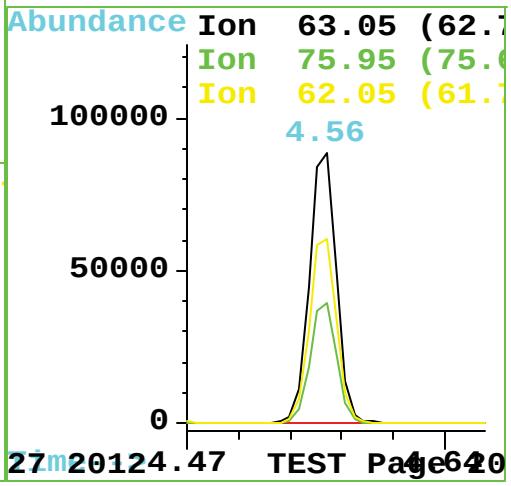


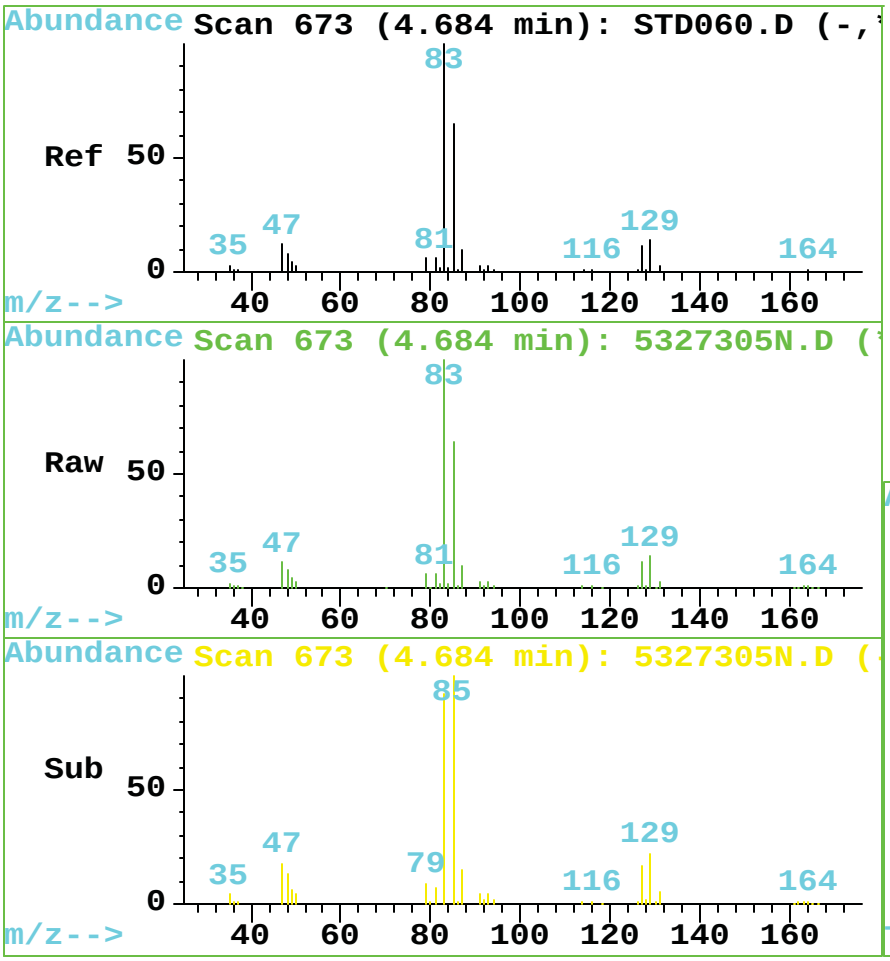


#39
1,2-Dichloropropane (CCC)
Concen: 48.15 ug/l
RT: 4.56 min Scan# 653
Delta R.T. 0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:63.05 Resp: 10855

Ion	Ratio	Lower	Upper
63	100		
76	43.6	23.2	83.2
62	68.6	37.6	97.6
0	0.0	0.0	0.0

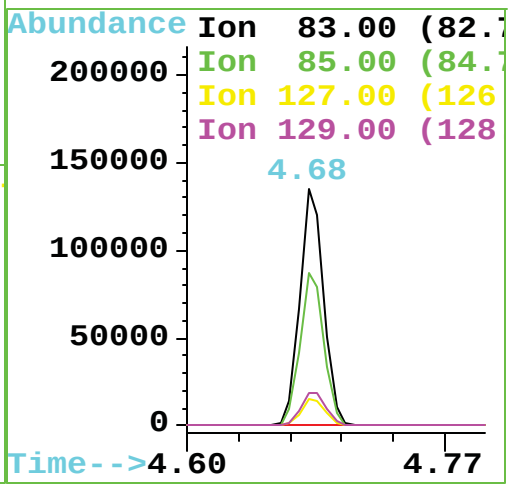


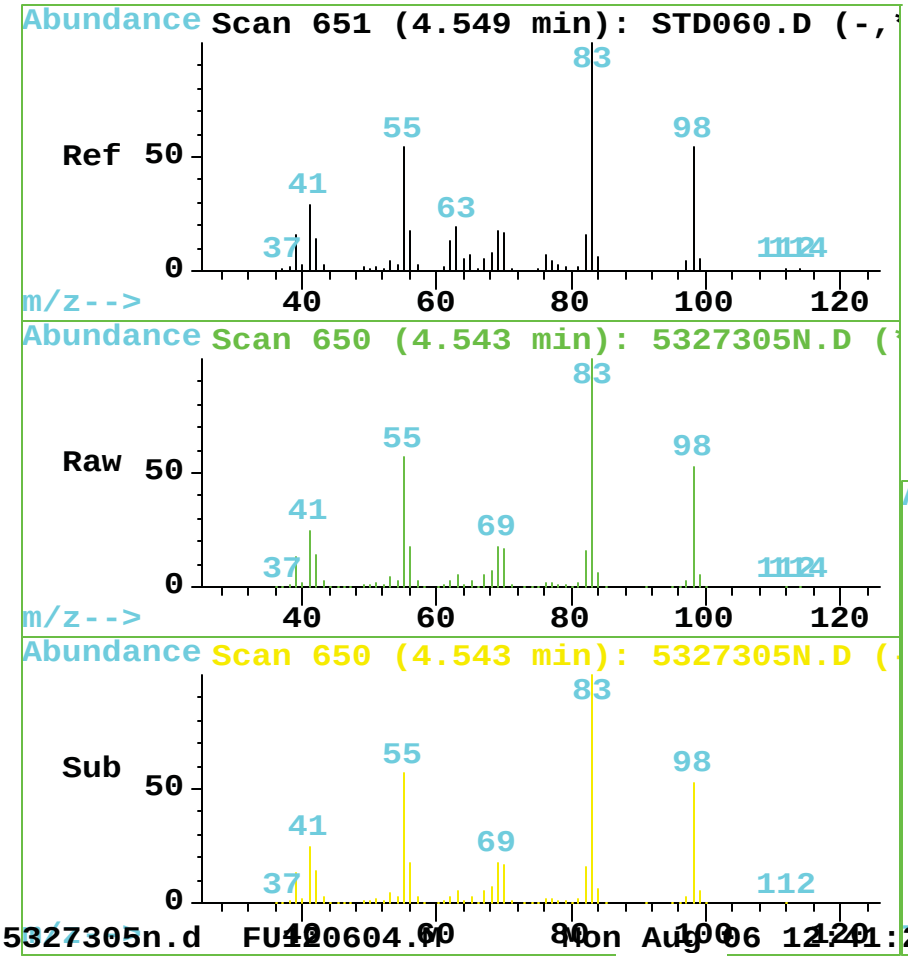


#40
Bromodichloromethane
Concen: 52.33 ug/l
RT: 4.68 min Scan# 673
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:83 Resp: 147550

Ion	Ratio	Lower	Upper
83	100		
85	64.6	33.6	93.6
127	11.4	0.0	40.3
129	14.8	0.0	43.6

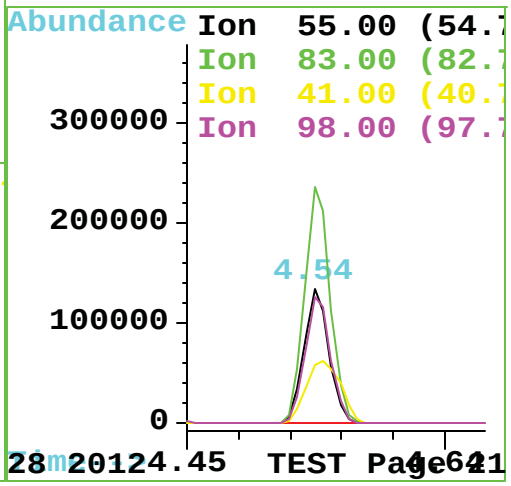


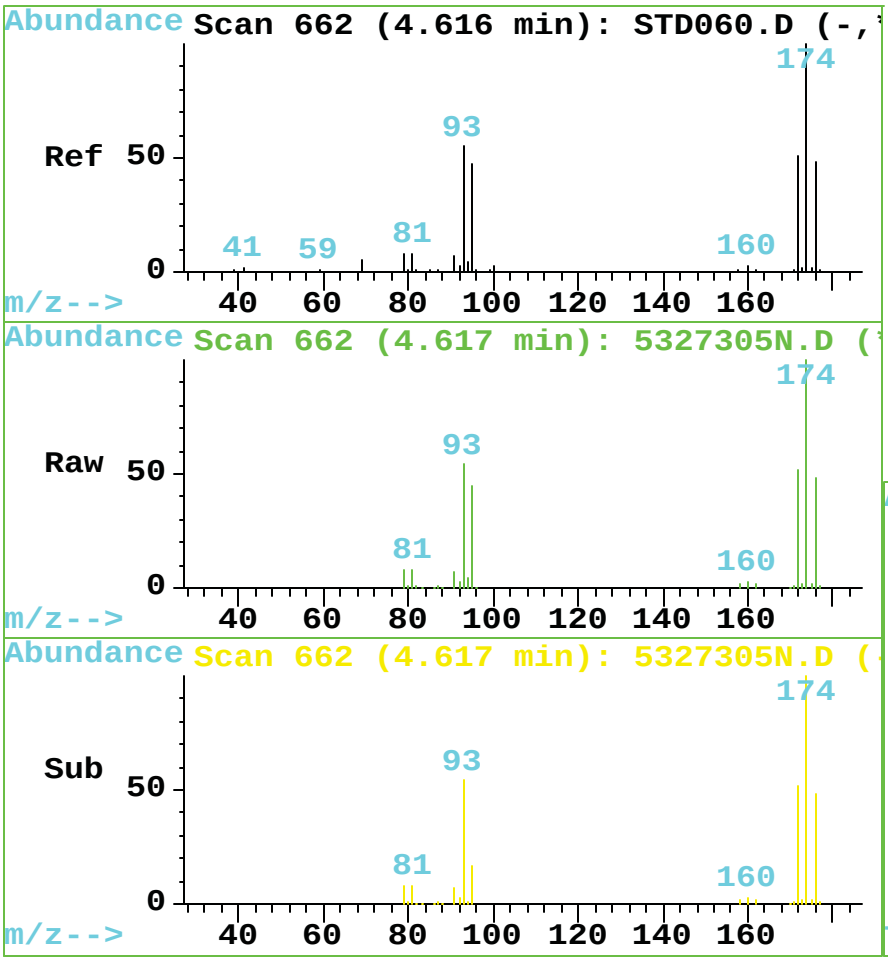


#41
Methyl Cyclohexane
Concen: 51.69 ug/l
RT: 4.54 min Scan# 650
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:55 Resp: 169373

Ion	Ratio	Lower	Upper
55	100		
83	180.2	131.0	191.0
41	65.1	42.0	102.0
98	96.8	55.3	115.3

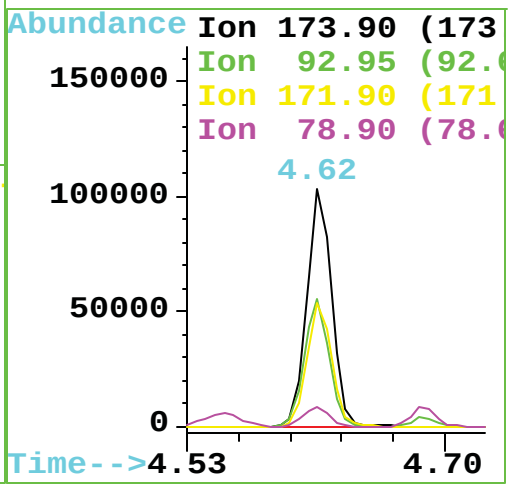


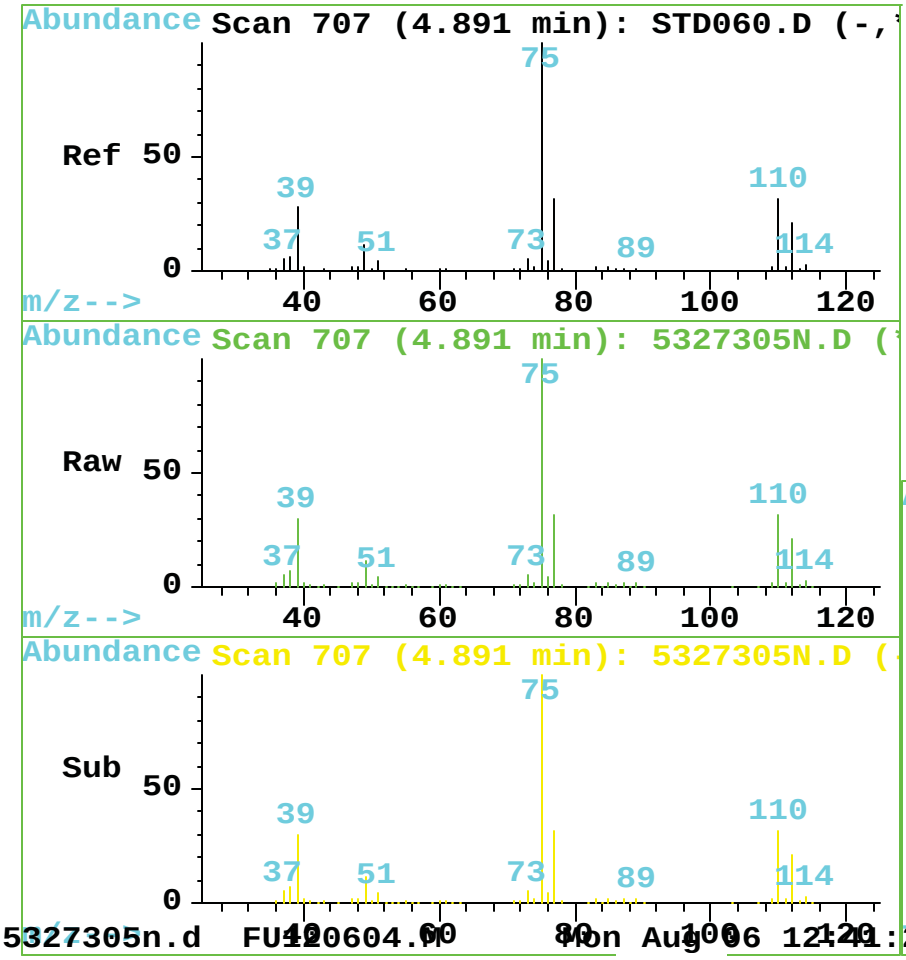


#42
Dibromomethane
Concen: 52.61 ug/l
RT: 4.62 min Scan# 662
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:173.9 Resp: 11525

Ion	Ratio	Lower	Upper
174	100		
93	53.7	32.9	92.9
172	51.5	19.9	79.9
79	8.2	0.0	43.6

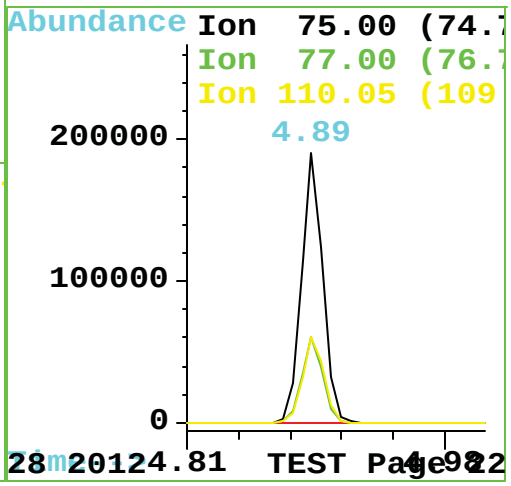


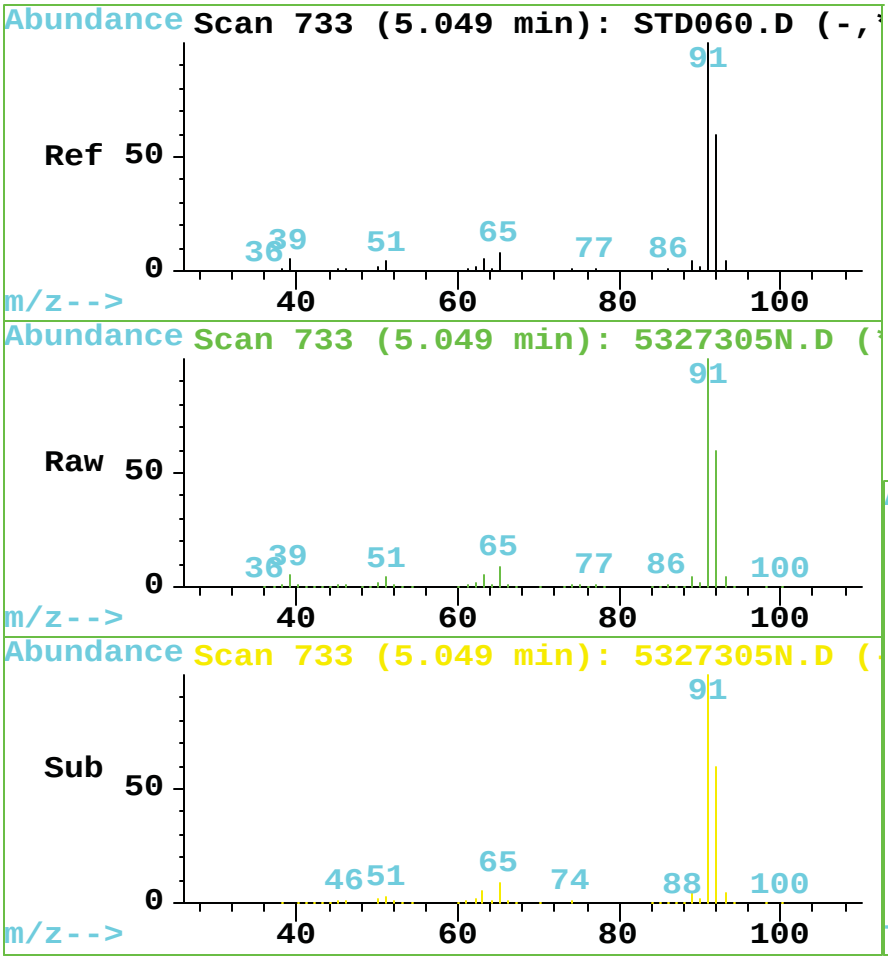


#43
cis-1,3-Dichloropropene
Concen: 52.00 ug/l
RT: 4.89 min Scan# 707
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:75 Resp: 182837

Ion	Ratio	Lower	Upper
75	100		
77	31.7	2.0	62.0
110	32.2	0.0	58.0
0	0.0	0.0	0.0

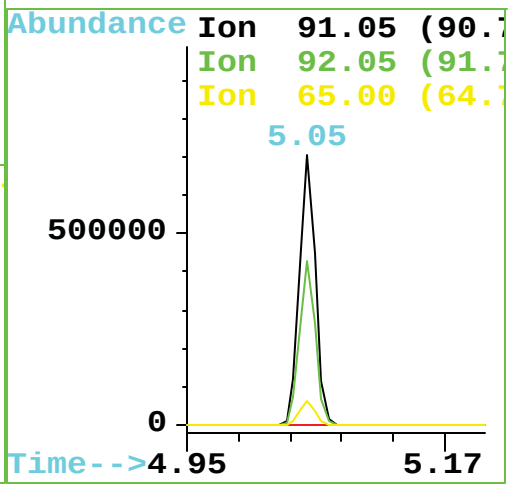


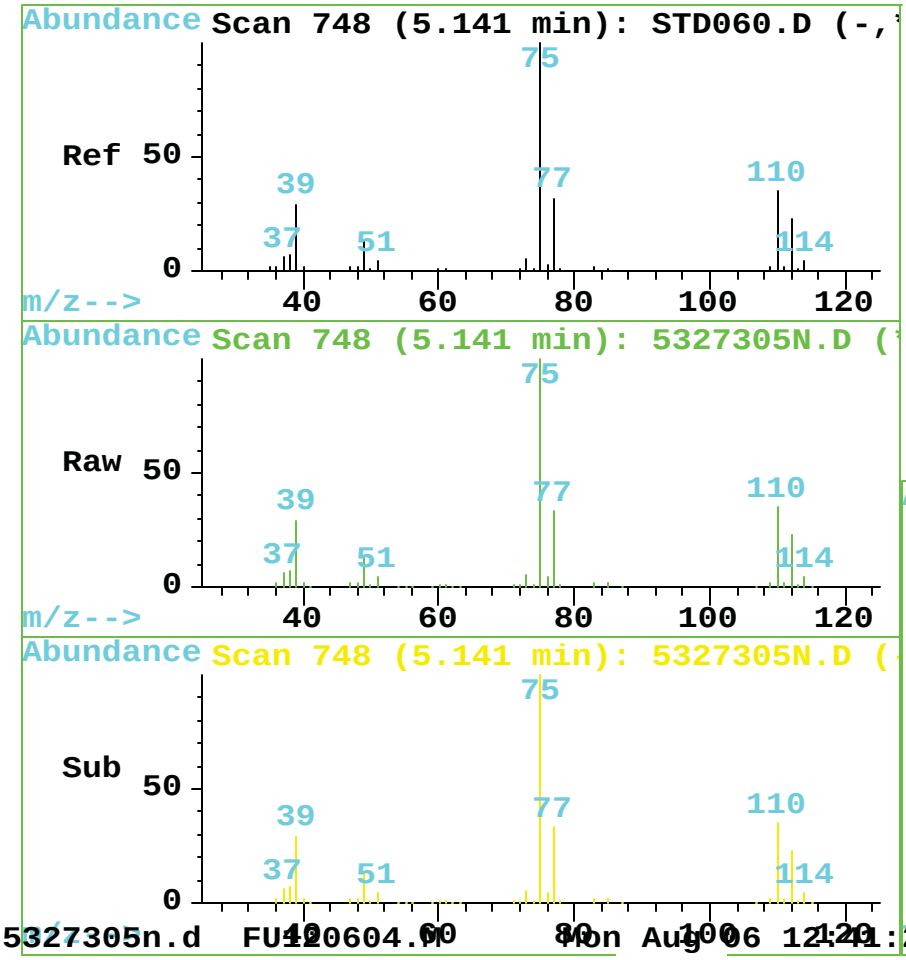


#44
Toluene (CCC/MS)
Concen: 50.51 ug/l
RT: 5.05 min Scan# 733
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:91.05 Resp: 68742

Ion	Ratio	Lower	Upper
91	100		
92	60.3	30.0	90.0
65	8.7	0.0	40.0
0	0.0	0.0	0.0

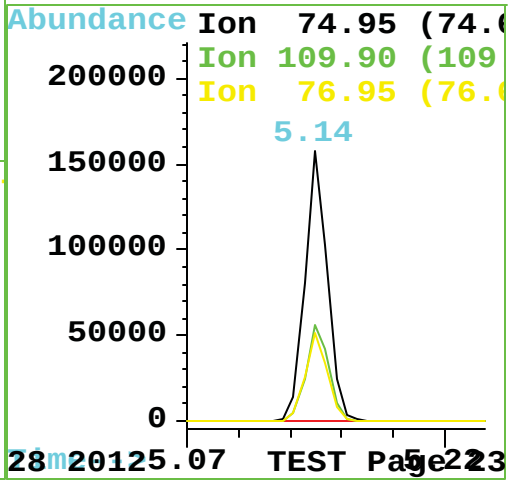


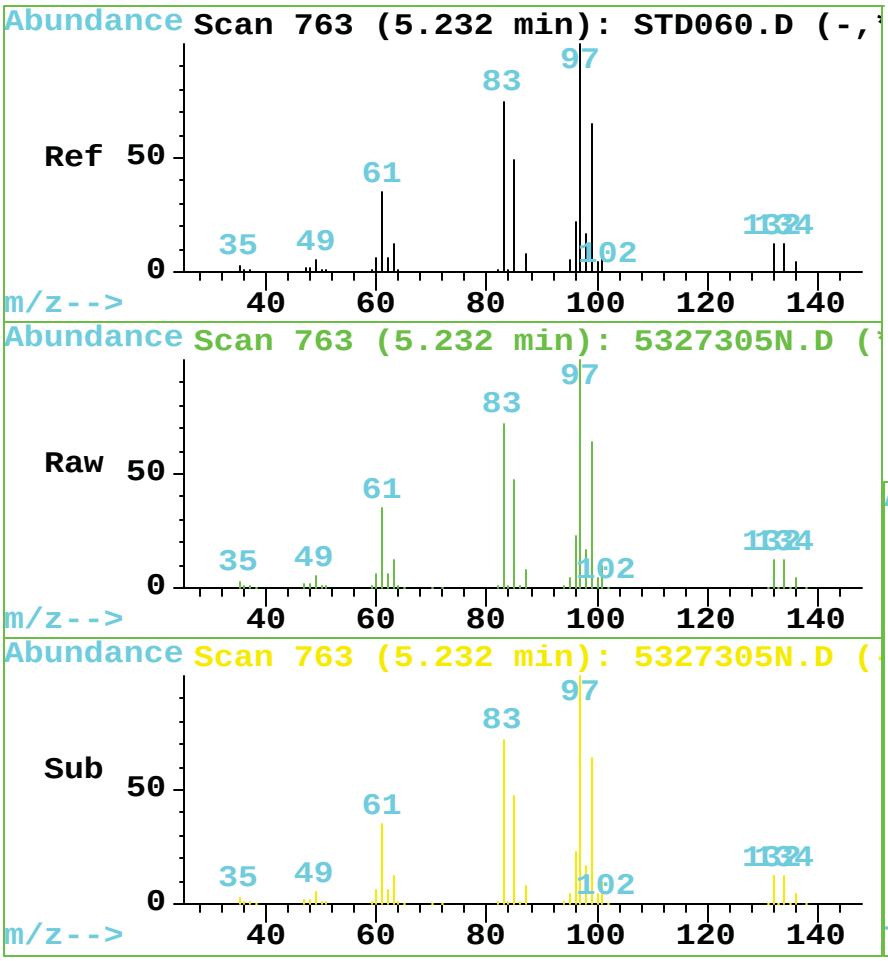


#45
trans-1,3-Dichloropropene
Concen: 53.33 ug/l
RT: 5.14 min Scan# 748
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:74.95 Resp: 14104

Ion	Ratio	Lower	Upper
75	100		
110	36.0	0.0	58.2
77	32.5	1.0	61.0
0	0.0	0.0	0.0

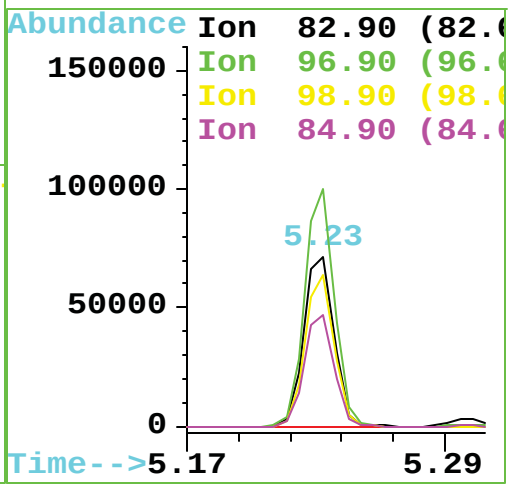


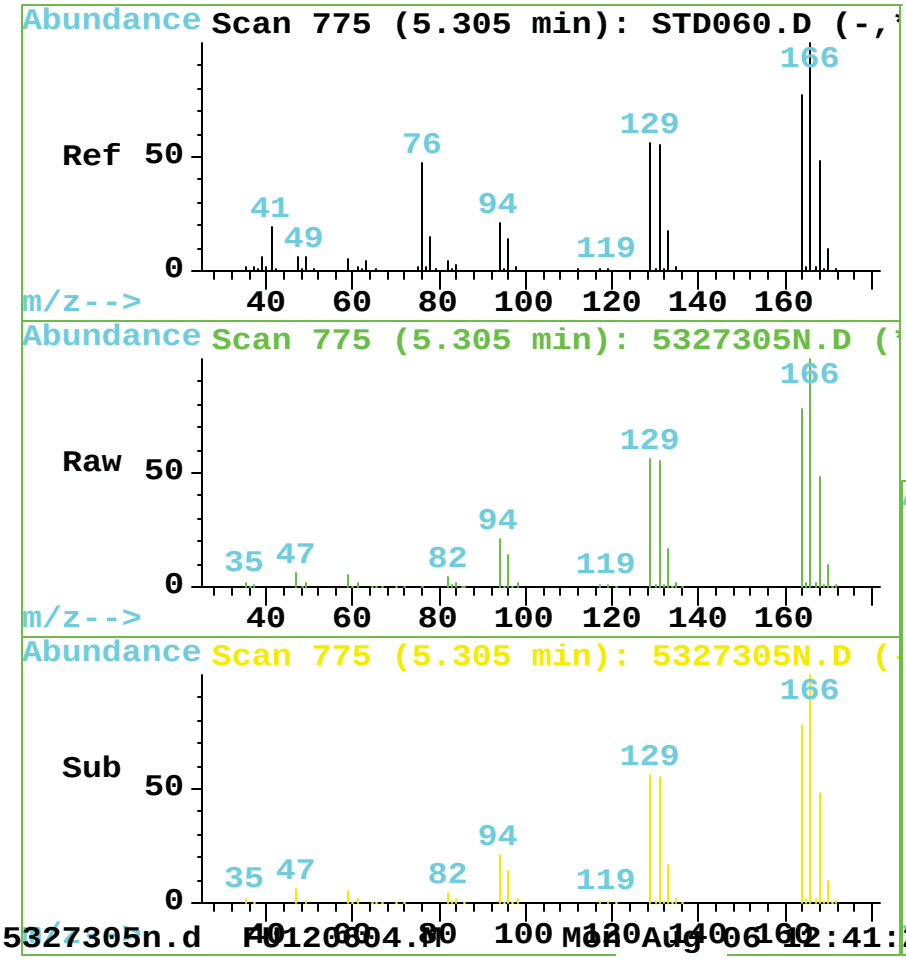


#46
1,1,2-Trichloroethane
Concen: 50.29 ug/l
RT: 5.23 min Scan# 763
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:82.9 Resp: 73222

Ion	Ratio	Lower	Upper
83	100		
97	135.4	104.2	164.2
99	85.3	54.5	114.5
85	64.8	36.7	96.7

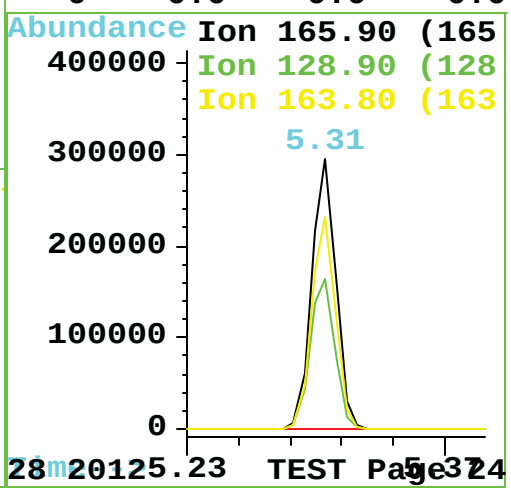


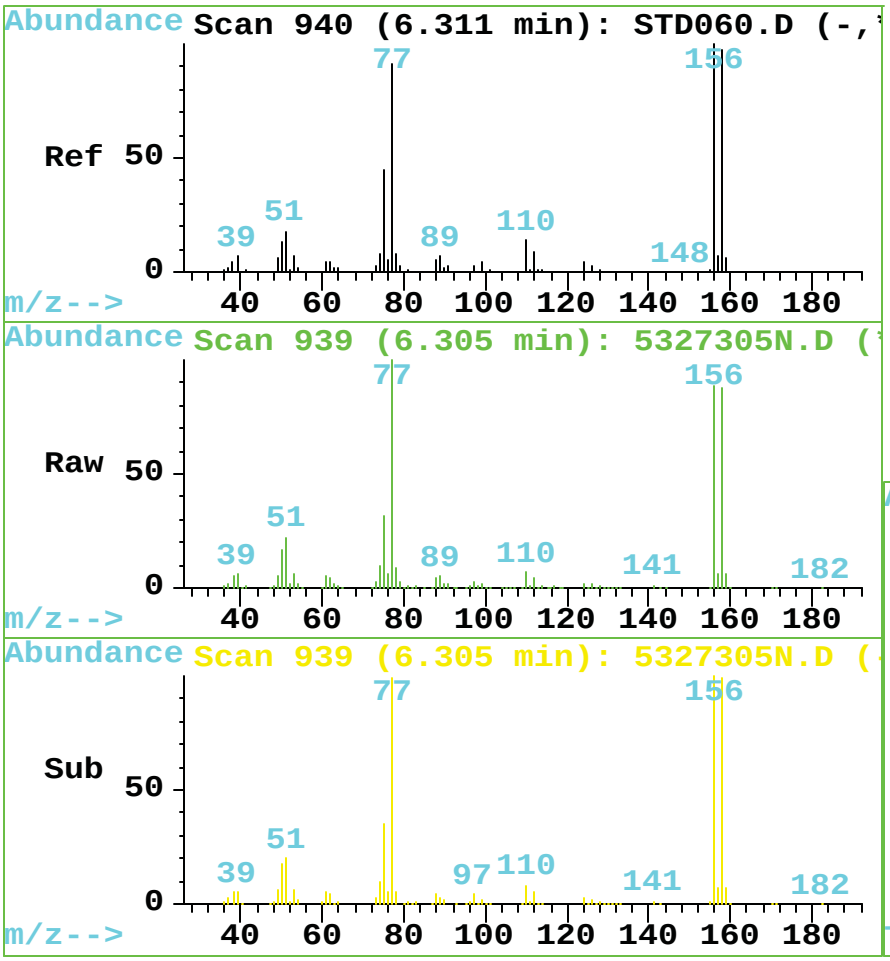


#47
Tetrachloroethene
Concen: 50.06 ug/l
RT: 5.31 min Scan# 775
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:165.9 Resp: 28153

Ion	Ratio	Lower	Upper
166	100		
129	57.2	31.8	91.8
164	78.1	47.4	107.4
0	0.0	0.0	0.0

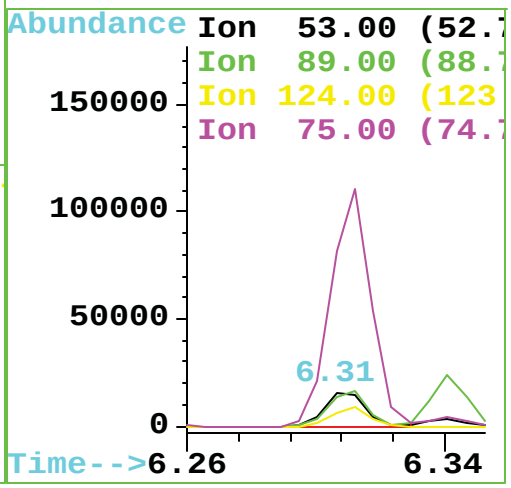


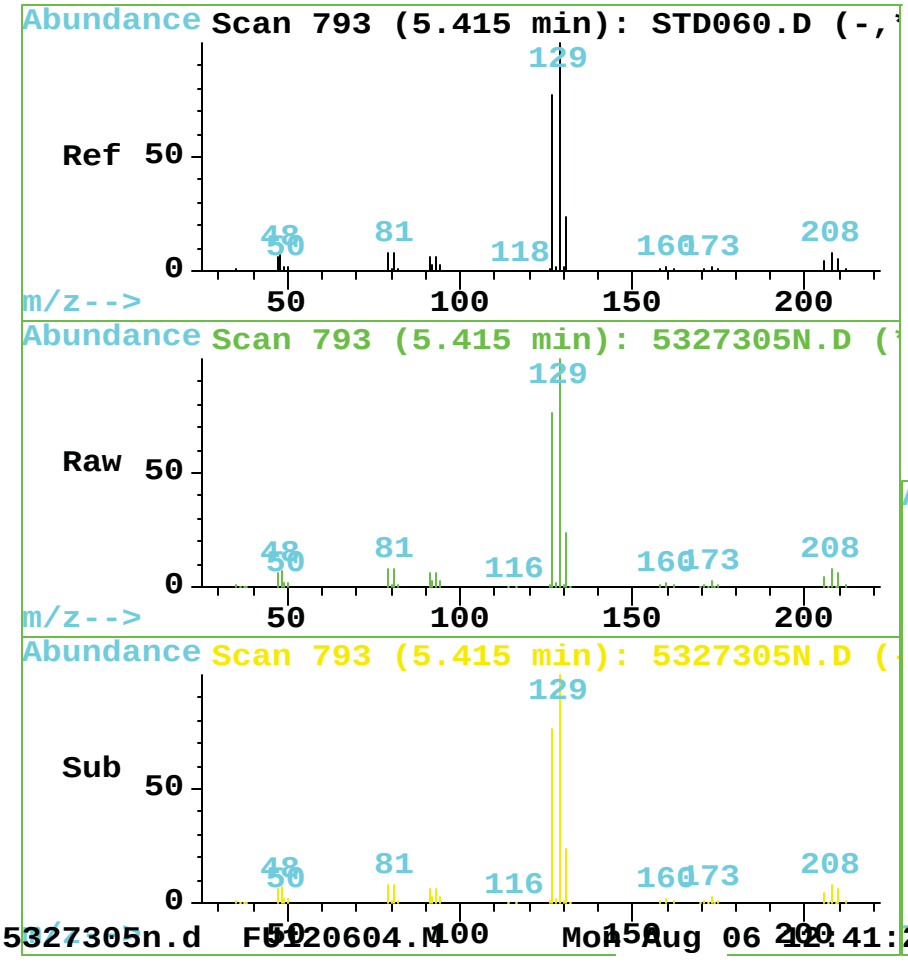


#50
trans-1,4-Dichloro-2-buten
Concen: 50.90 ug/l
RT: 6.31 min Scan# 939
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:53 Resp: 14637

Ion	Ratio	Lower	Upper
53	100		
89	102.0	53.8	113.8
124	50.2	6.0	66.0
75	702.0	570.7	630.7#

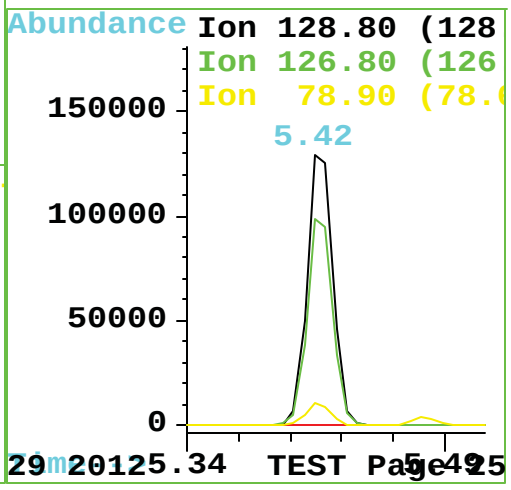


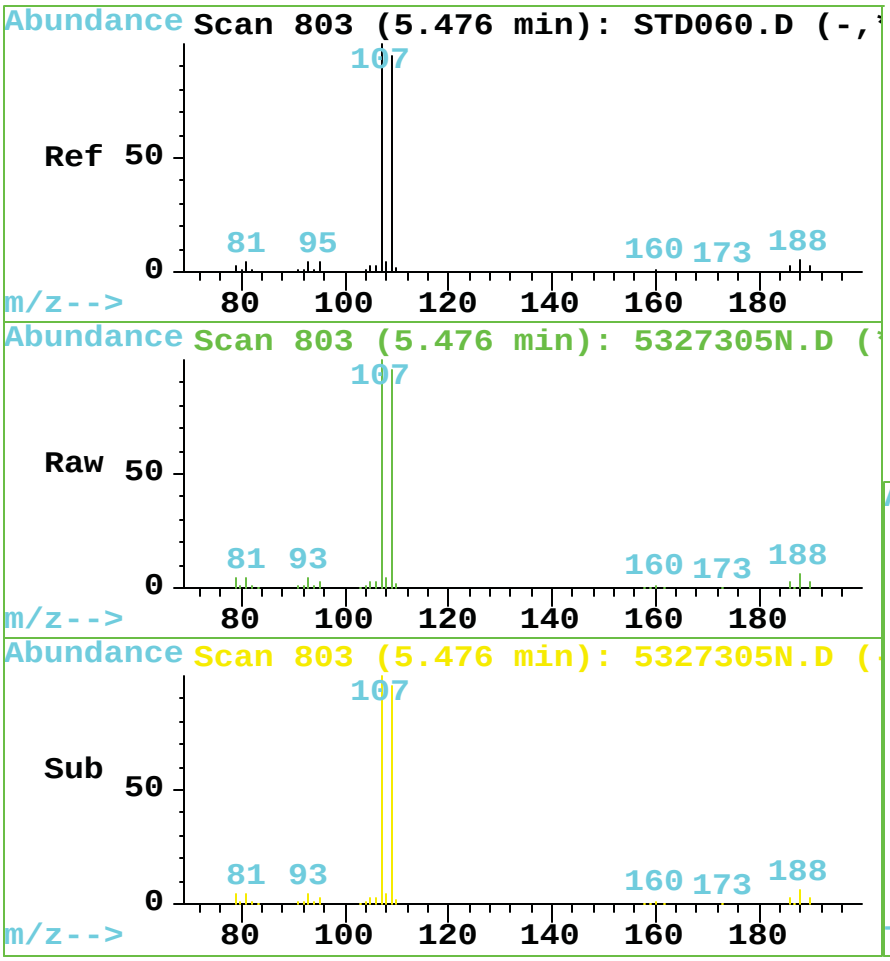


#51
Dibromochloromethane
Concen: 56.33 ug/l
RT: 5.42 min Scan# 793
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:128.8 Resp: 13372

Ion	Ratio	Lower	Upper
129	100		
127	75.9	47.0	107.0
79	7.4	0.0	40.2
0	0.0	0.0	0.0

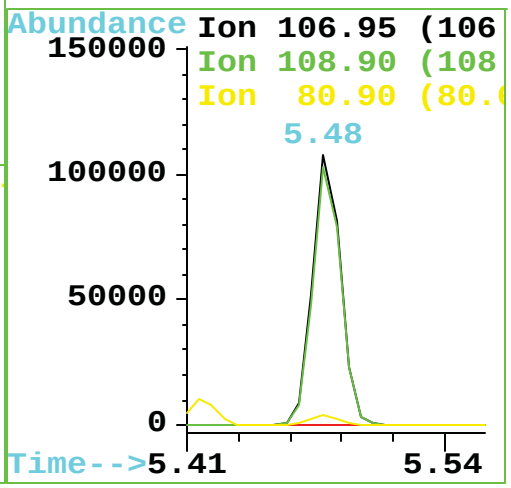


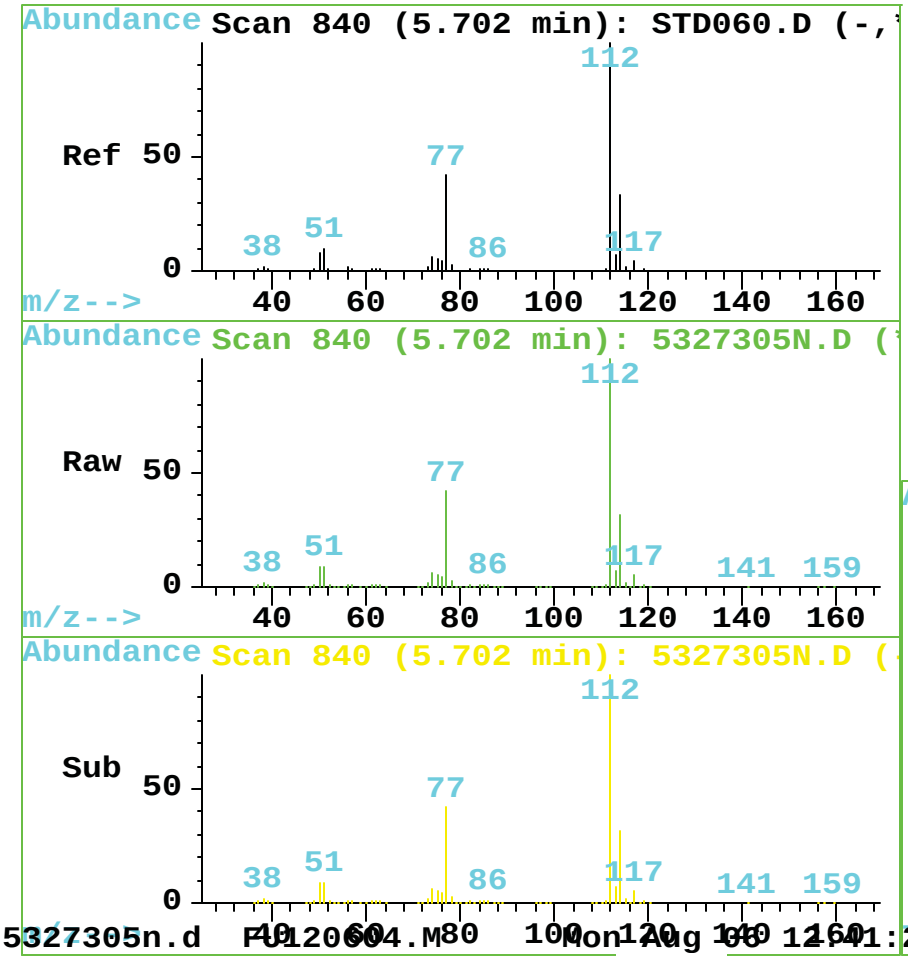


#52
1,2-Dibromoethane
Concen: 53.20 ug/l
RT: 5.48 min Scan# 803
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:106.95 Resp: 1015

Ion	Ratio	Lower	Upper
107	100		
109	96.1	64.8	124.8
81	3.6	0.0	35.1
0	0.0	0.0	0.0

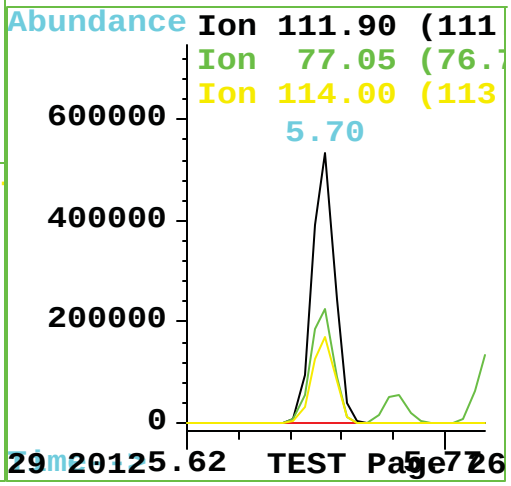


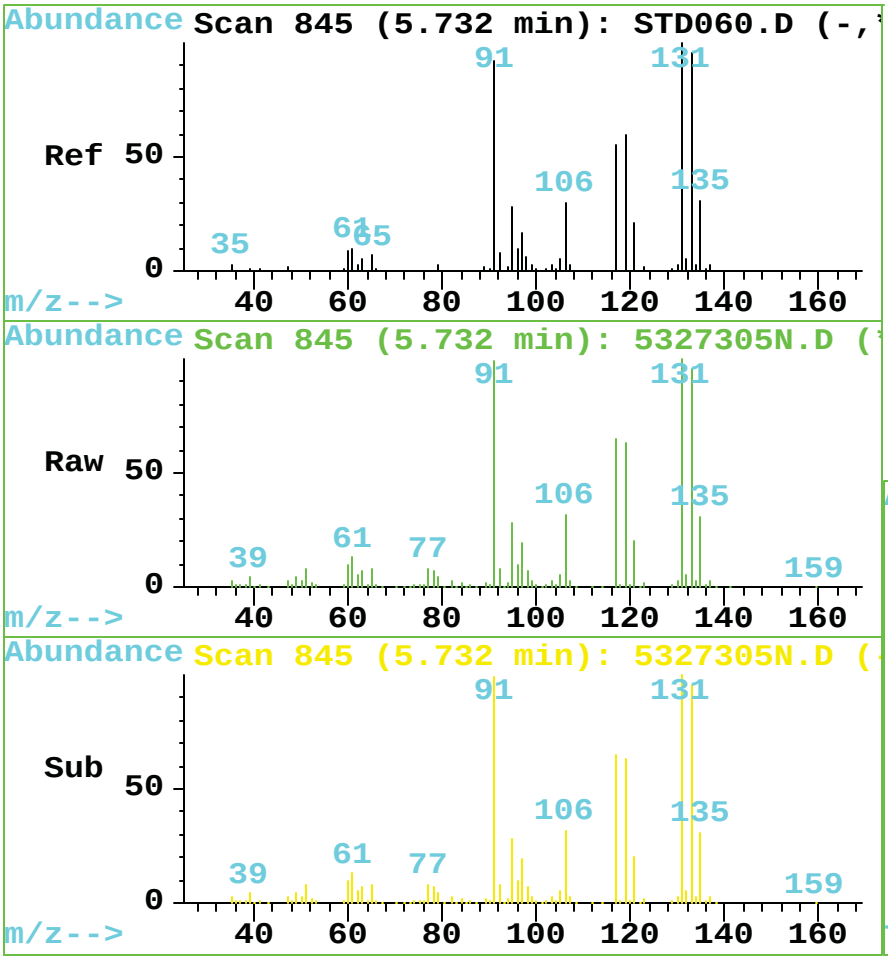


#53
Chlorobenzene (SPCC/MS)
Concen: 50.15 ug/l
RT: 5.70 min Scan# 840
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:111.9 Resp: 48325

Ion	Ratio	Lower	Upper
112	100		
77	44.0	21.6	81.6
114	32.3	2.4	62.4
0	0.0	0.0	0.0

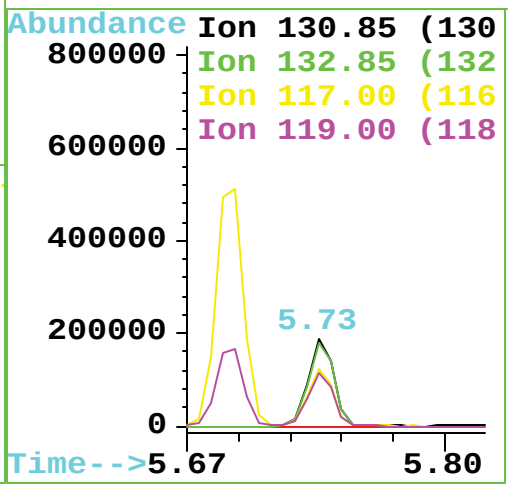


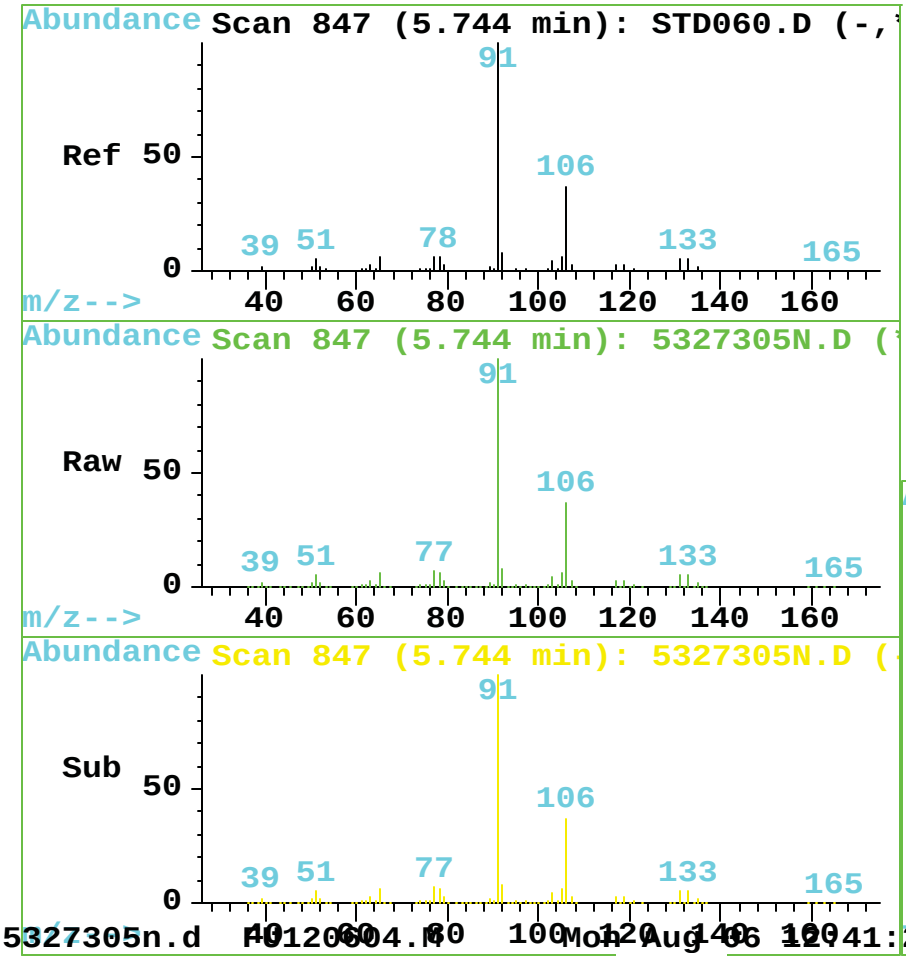


#54
1,1,1,2-Tetrachloroethane
Concen: 53.77 ug/l
RT: 5.73 min Scan# 845
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:130.85 Resp: 1731

Ion	Ratio	Lower	Upper
131	100		
133	96.7	65.8	125.8
117	64.1	30.1	90.1
119	61.7	27.4	87.4

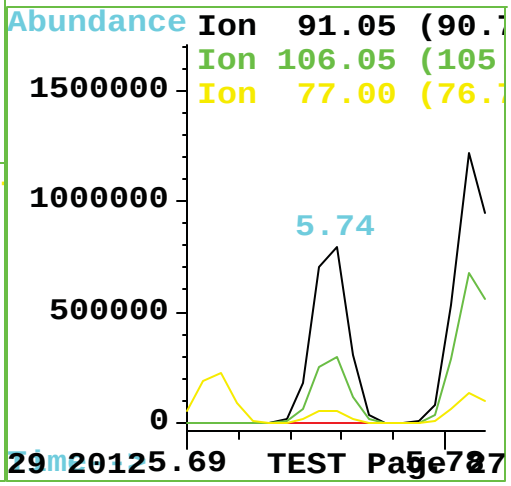


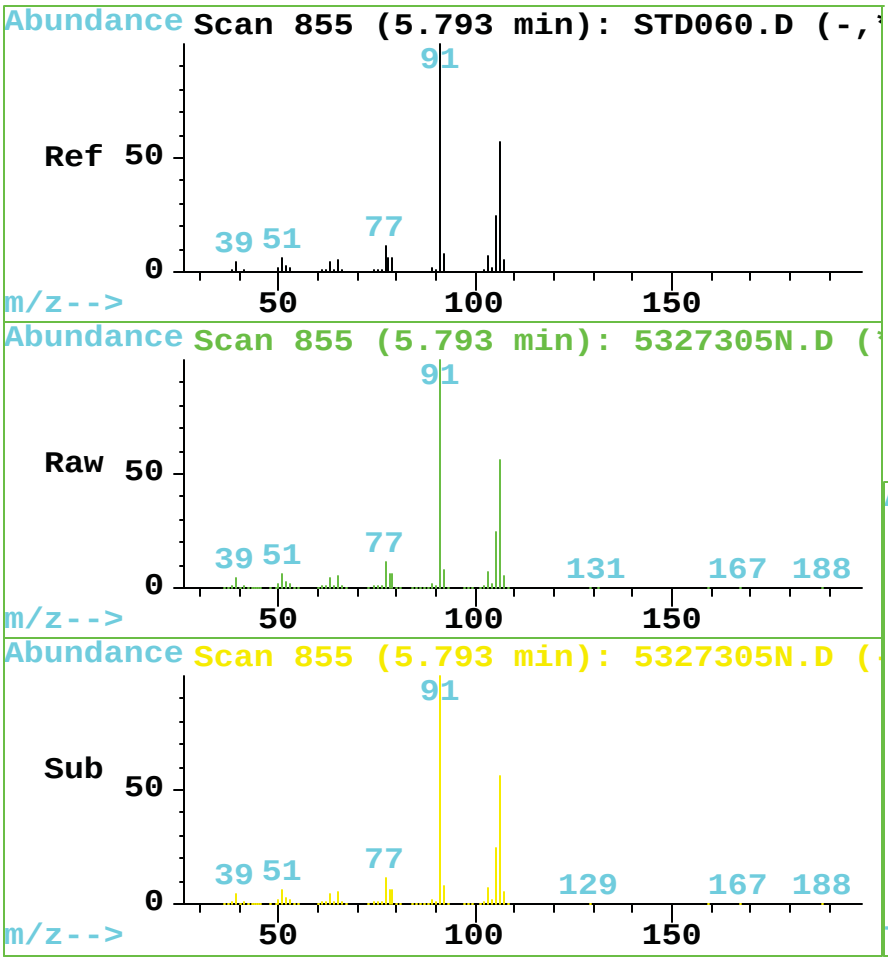


#55
Ethylbenzene (CCC)
Concen: 51.92 ug/l
RT: 5.74 min Scan# 847
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:91.05 Resp: 75009

Ion	Ratio	Lower	Upper
91	100		
106	36.6	3.8	63.8
77	7.2	0.0	37.9
0	0.0	0.0	0.0

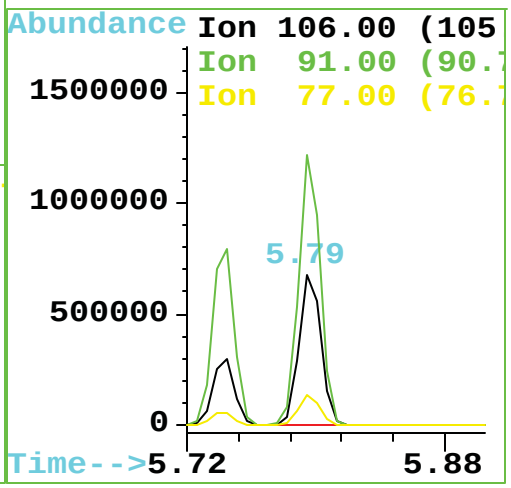


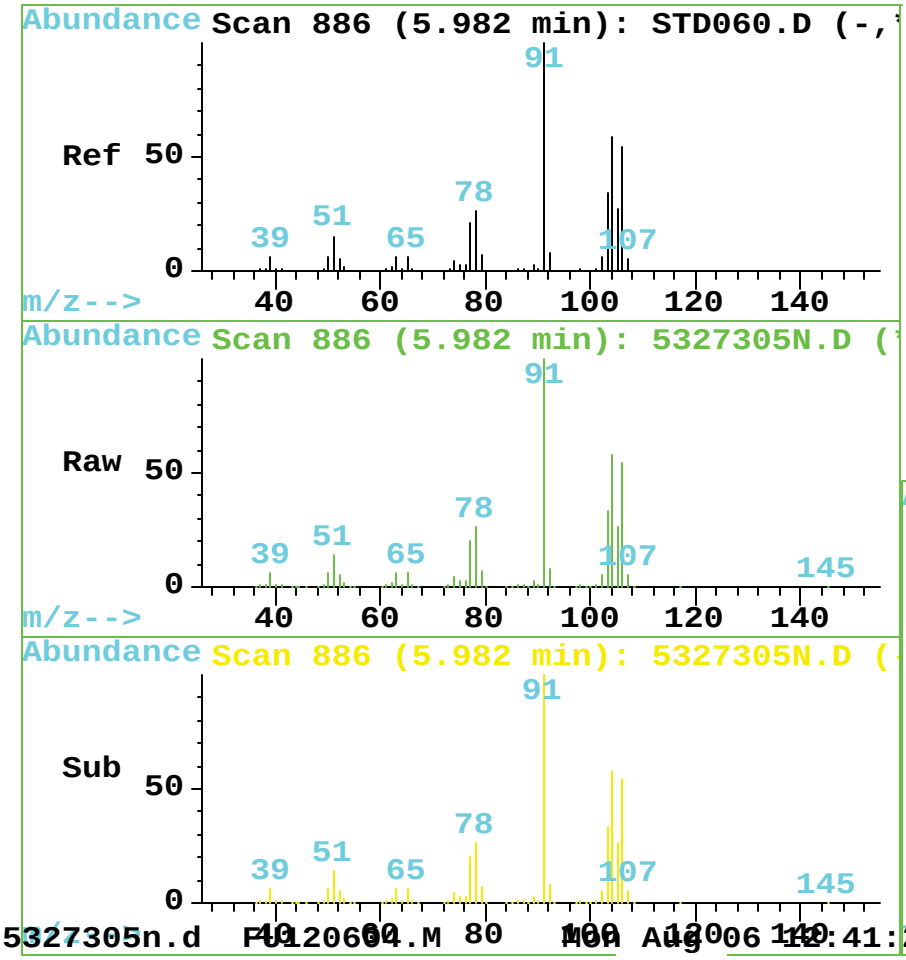


#56
p,m-Xylene
Concen: 103.41 ug/l
RT: 5.79 min Scan# 855
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:106 Resp: 638273

Ion	Ratio	Lower	Upper
106	100		
91	175.5	160.1	220.1
77	19.2	0.0	52.4
0	0.0	0.0	0.0

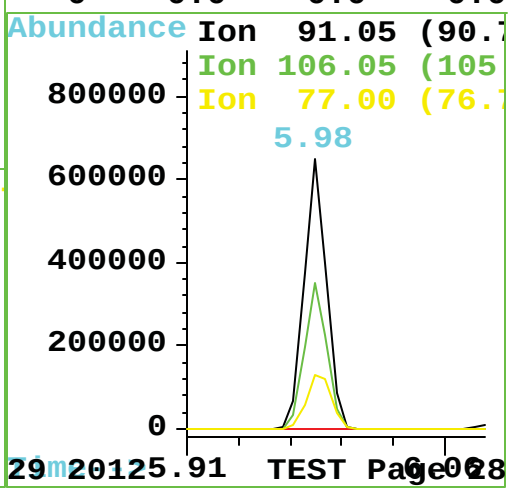


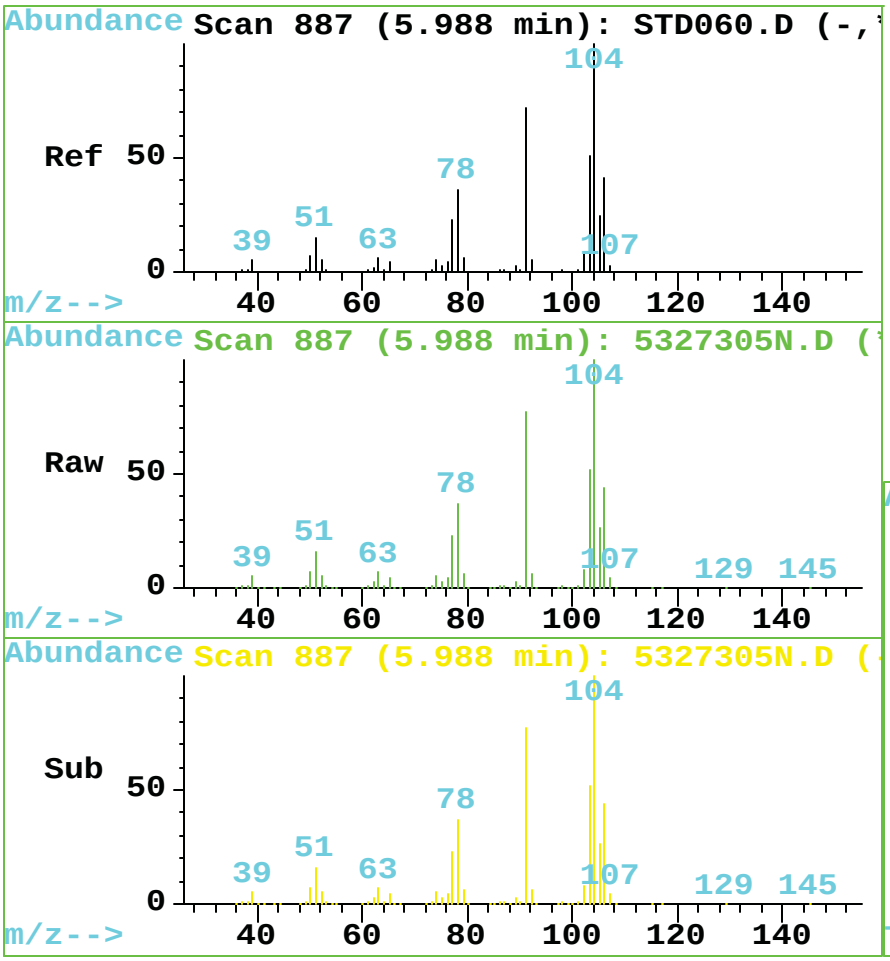


#57
o-Xylene
Concen: 52.65 ug/l
RT: 5.98 min Scan# 886
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:91.05 Resp: 57990

Ion	Ratio	Lower	Upper
91	100		
106	54.4	20.0	80.0
77	23.0	0.0	54.7
0	0.0	0.0	0.0

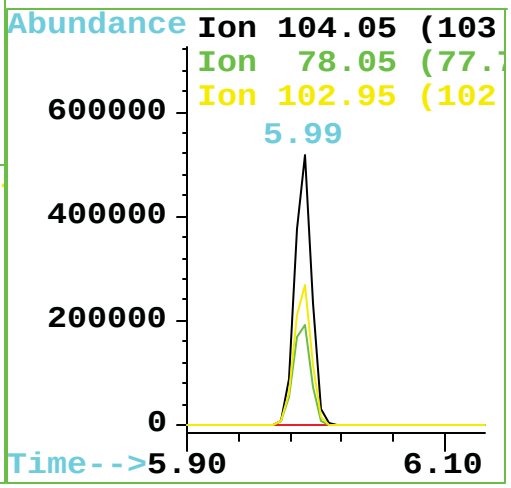


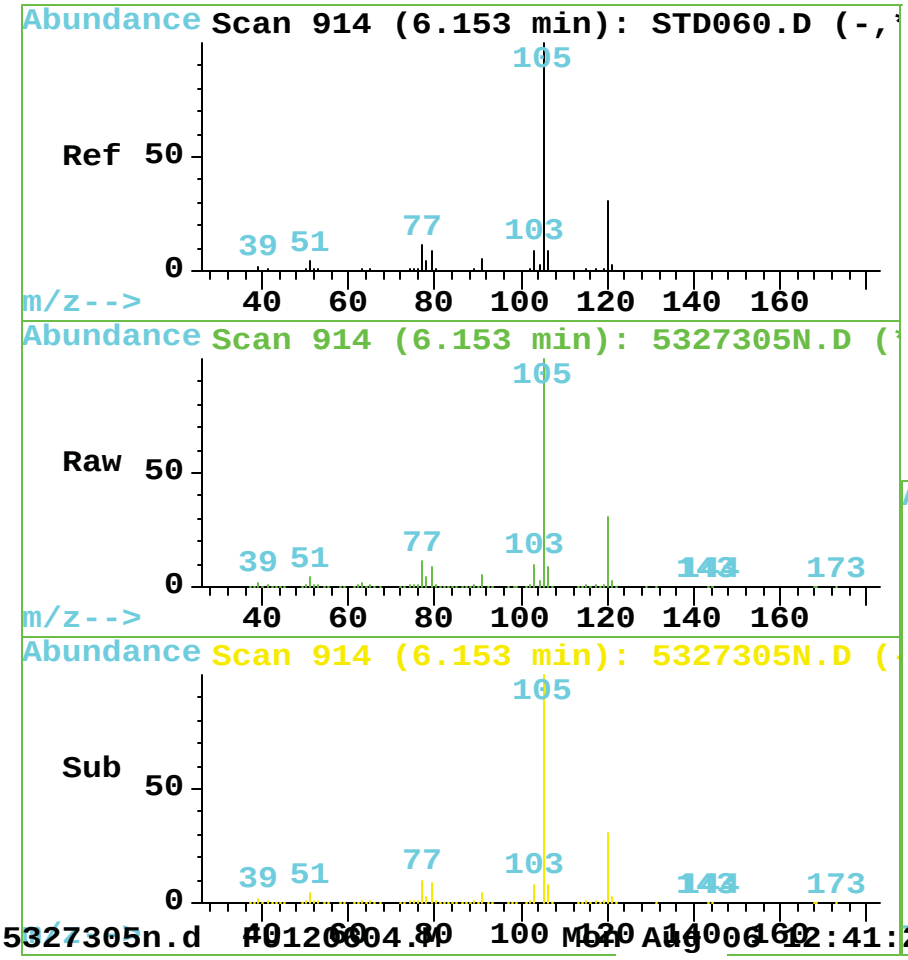


#58
Styrene
Concen: 51.48 ug/l
RT: 5.99 min Scan# 887
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:104.05 Resp: 4615

Ion	Ratio	Lower	Upper
104	100		
78	40.0	15.3	75.3
103	54.0	24.1	84.1
0	0.0	0.0	0.0

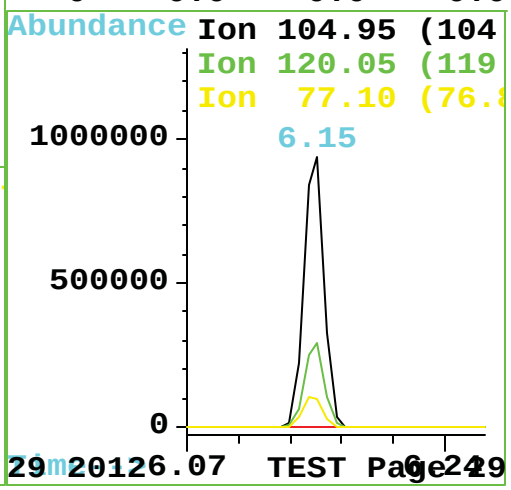


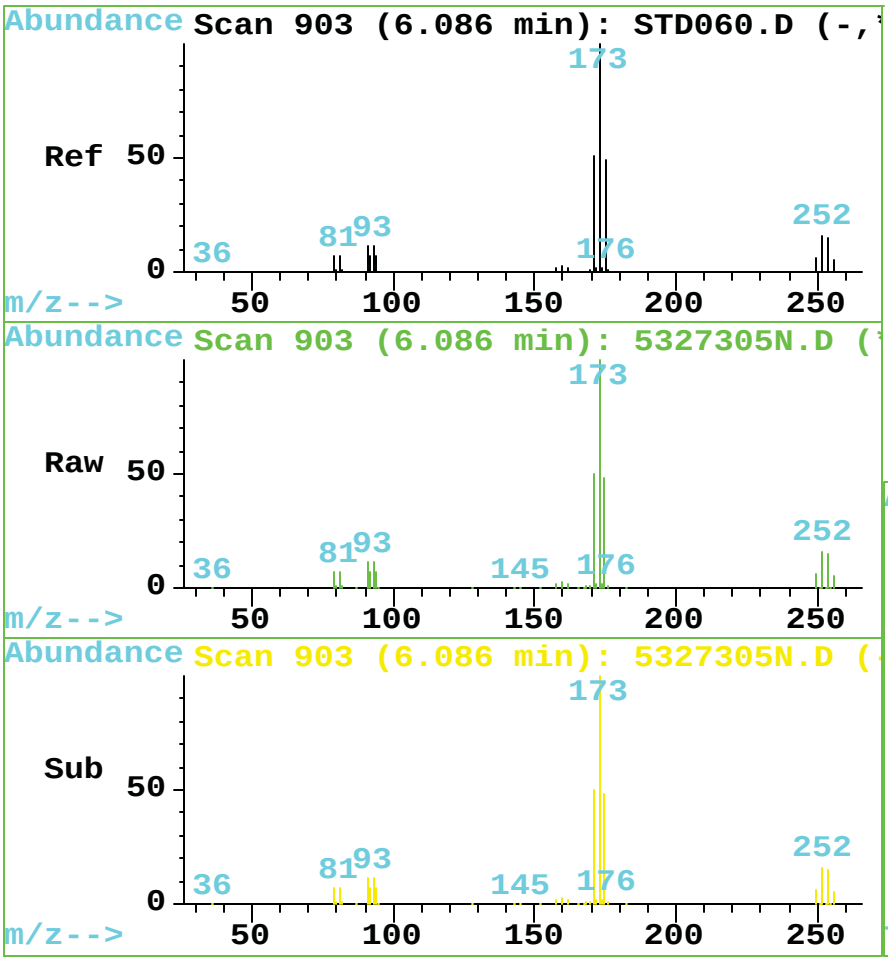


#59
Isopropylbenzene
Concen: 53.75 ug/l
RT: 6.15 min Scan# 914
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:104.95 Resp: 8734

Ion	Ratio	Lower	Upper
105	100		
120	30.6	0.0	58.6
77	11.3	0.0	43.1
0	0.0	0.0	0.0

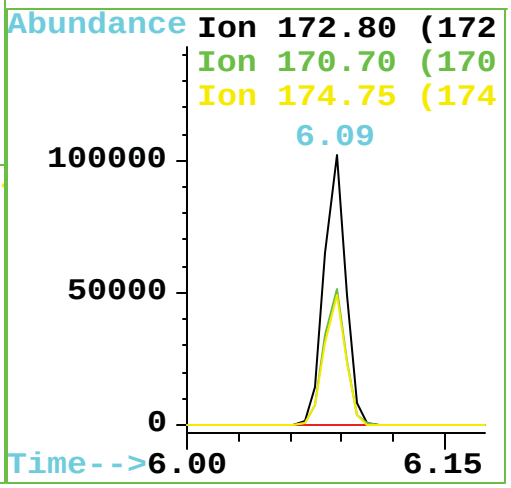


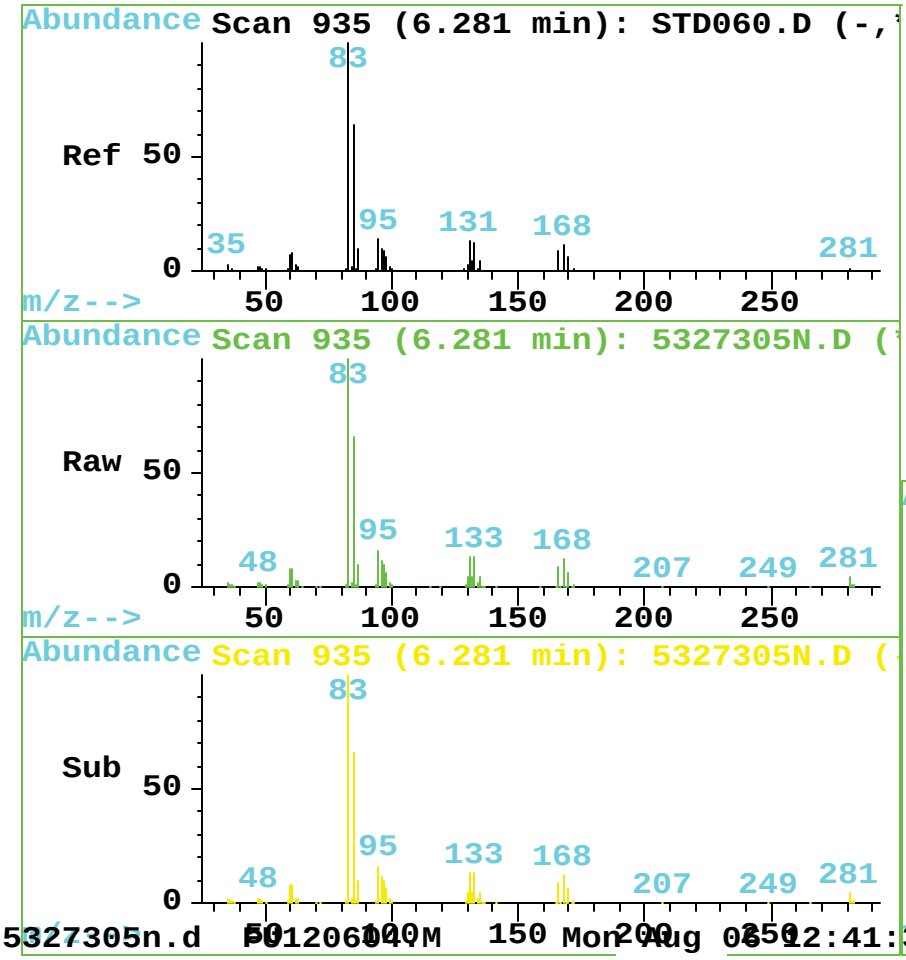


#60
Bromoform (SPCC)
Concen: 53.23 ug/l
RT: 6.09 min Scan# 903
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:172.8 Resp: 8838

Ion	Ratio	Lower	Upper
173	100		
171	50.7	19.9	79.9
175	48.1	17.5	77.5
0	0.0	0.0	0.0

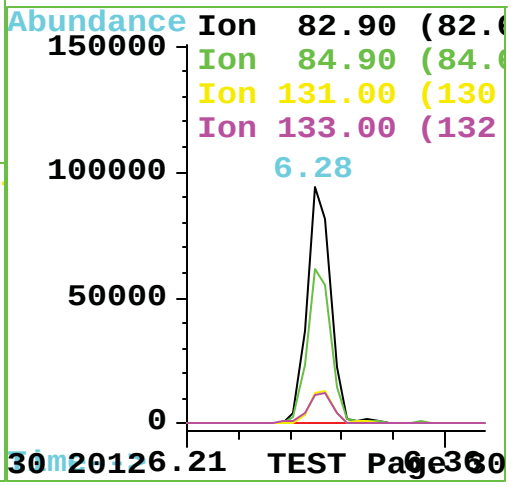


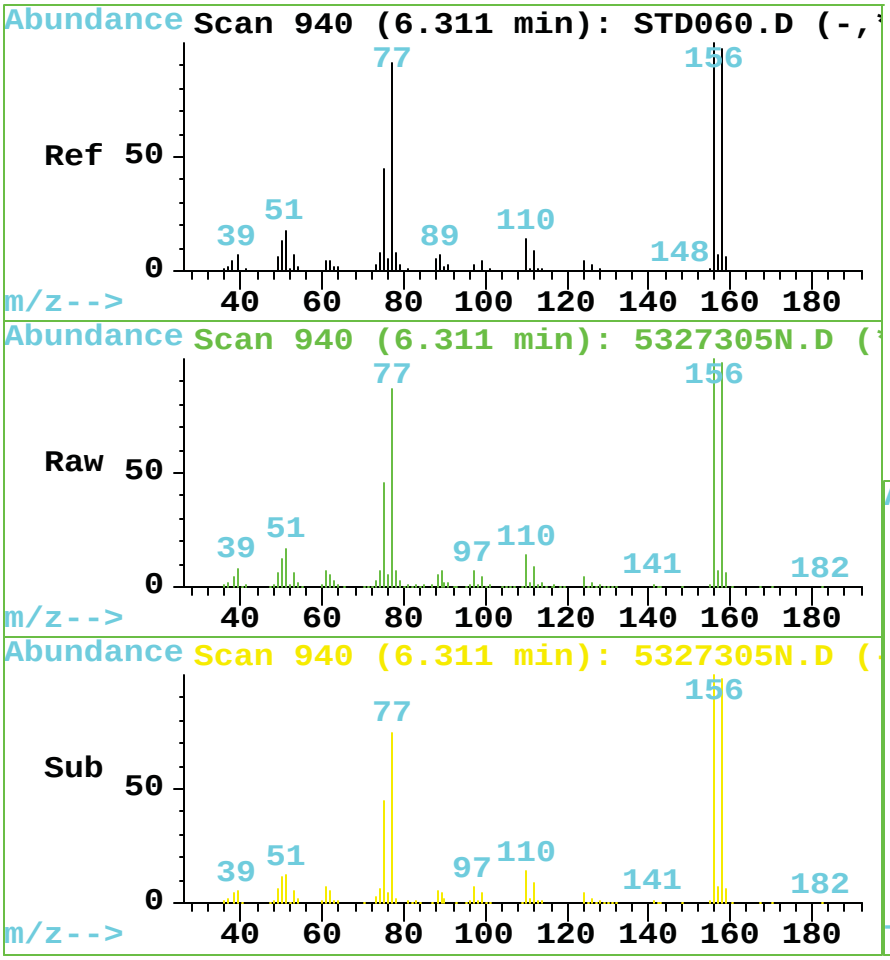


#61
1,1,2,2-Tetrachloroethane
Concen: 50.91 ug/l
RT: 6.28 min Scan# 935
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:82.9 Resp: 90556

Ion	Ratio	Lower	Upper
83	100		
85	66.0	34.6	94.6
131	15.1	0.0	44.8
133	14.8	0.0	45.6

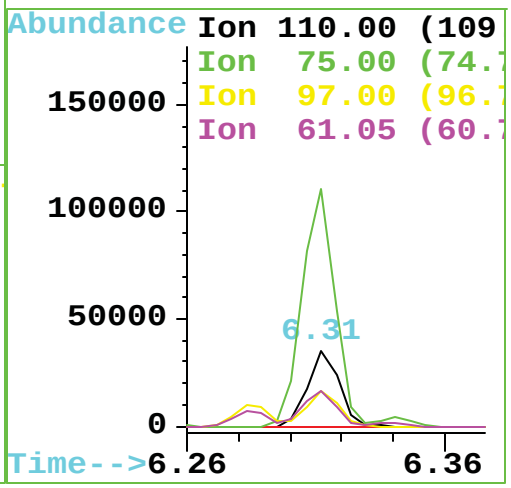


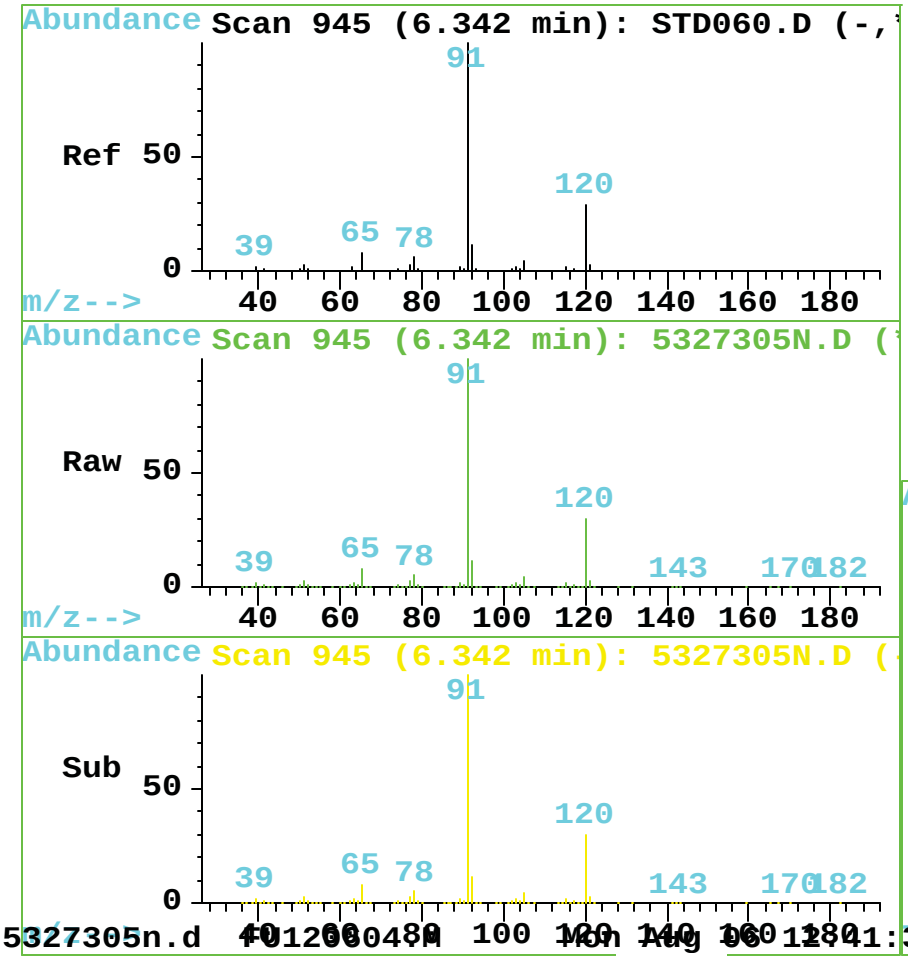


#62
1,2,3-Trichloropropane
Concen: 53.37 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:110 Resp: 31300

Ion	Ratio	Lower	Upper
110	100		
75	328.3	327.3	387.3
97	44.8	15.8	75.8
61	49.6	24.6	84.6

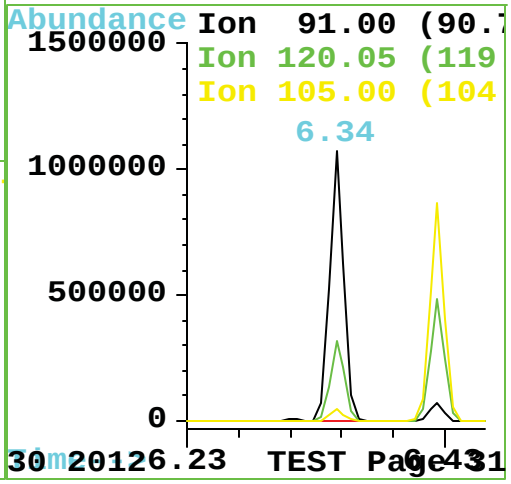


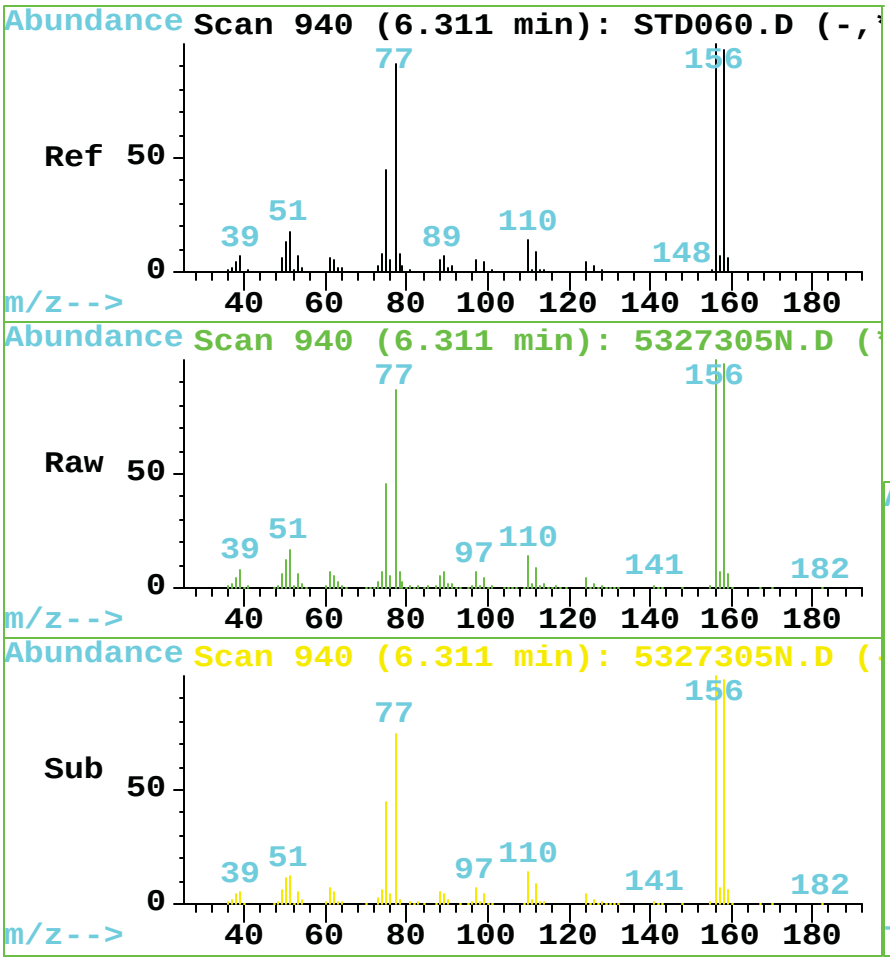


#63
n-Propylbenzene
Concen: 53.44 ug/l
RT: 6.34 min Scan# 945
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:91 Resp: 893096

Ion	Ratio	Lower	Upper
91	100		
120	30.1	0.0	57.3
105	4.1	0.0	34.1
0	0.0	0.0	0.0

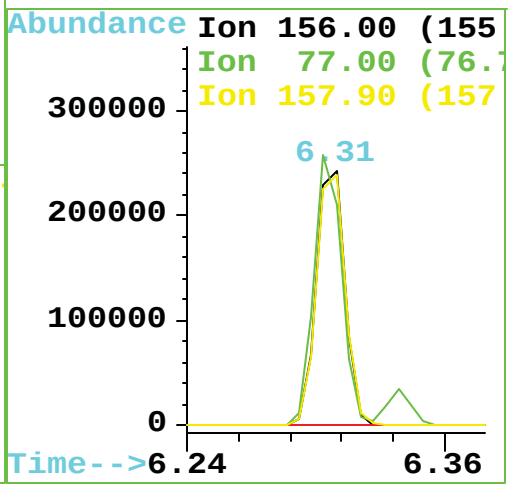


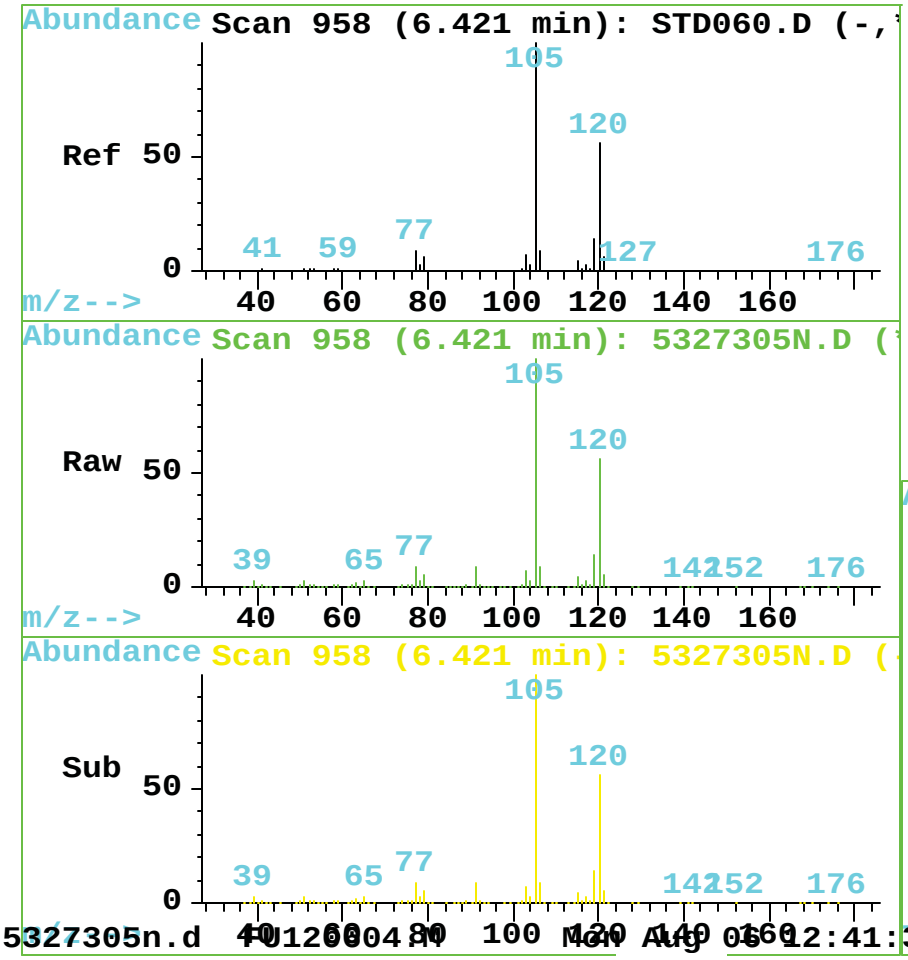


#64
Bromobenzene
Concen: 51.16 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:156 Resp: 234485

Ion	Ratio	Lower	Upper
156	100		
77	102.9	96.5	156.5
158	98.8	68.0	128.0
0	0.0	0.0	0.0

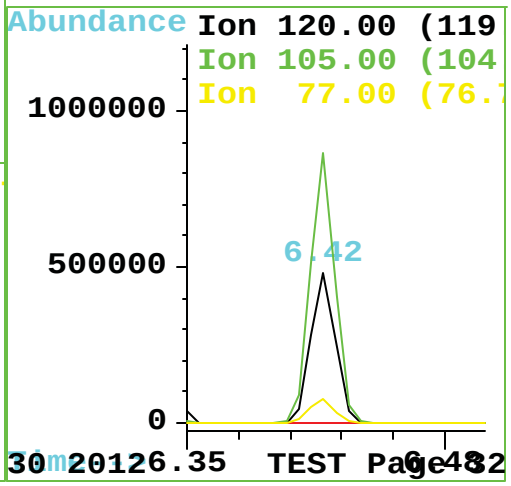


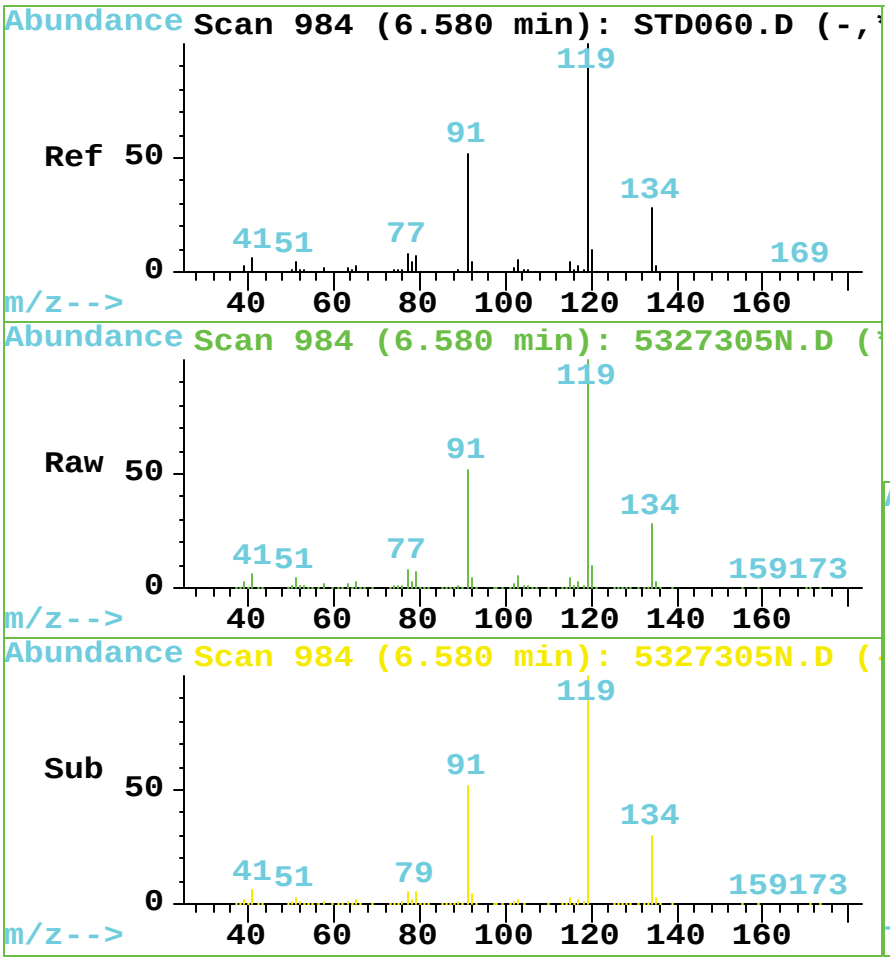


#65
1,3,5-Trimethylbenzene
Concen: 53.43 ug/l
RT: 6.42 min Scan# 958
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:120 Resp: 400600

Ion	Ratio	Lower	Upper
120	100		
105	177.0	162.2	222.2
77	16.3	0.0	51.0
0	0.0	0.0	0.0

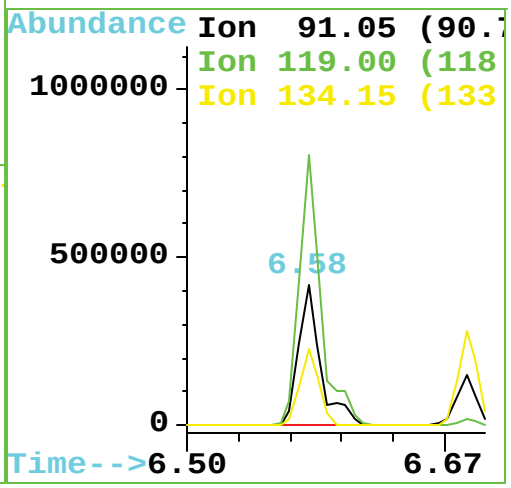


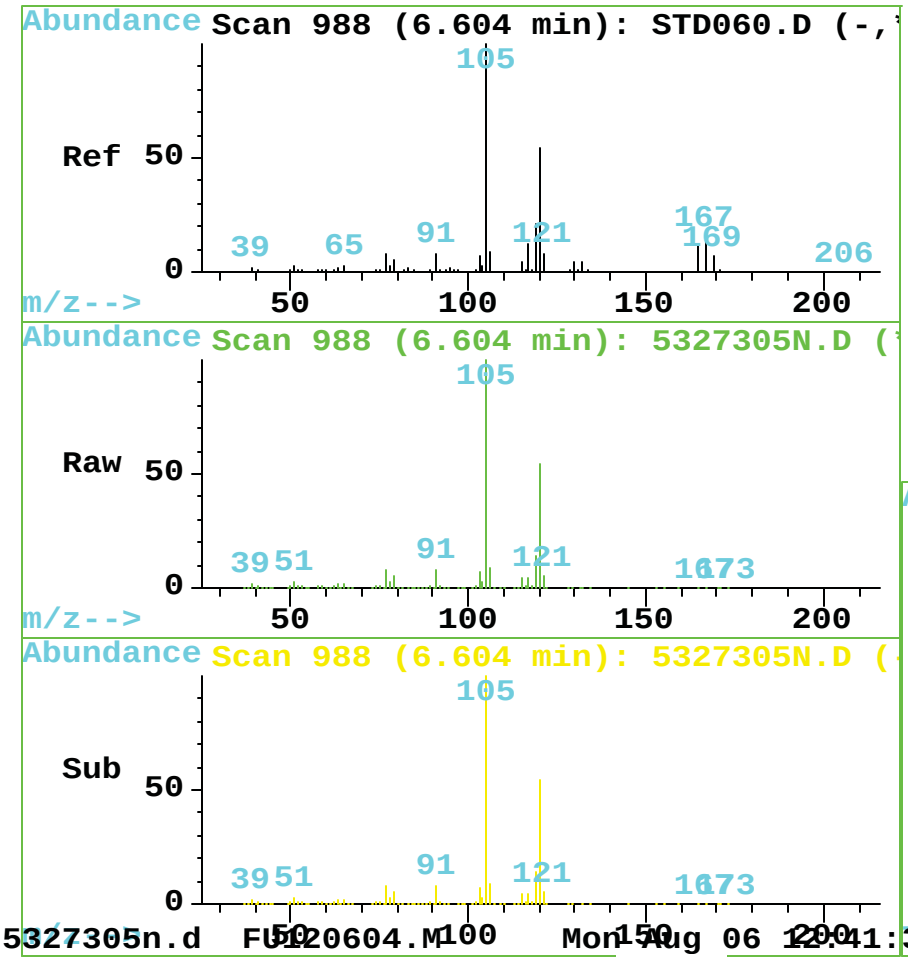


#66
tert-Butylbenzene
Concen: 55.27 ug/l
RT: 6.58 min Scan# 984
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:91.05 Resp: 42382

Ion	Ratio	Lower	Upper
91	100		
119	189.1	148.4	208.4
134	47.0	11.4	71.4
0	0.0	0.0	0.0

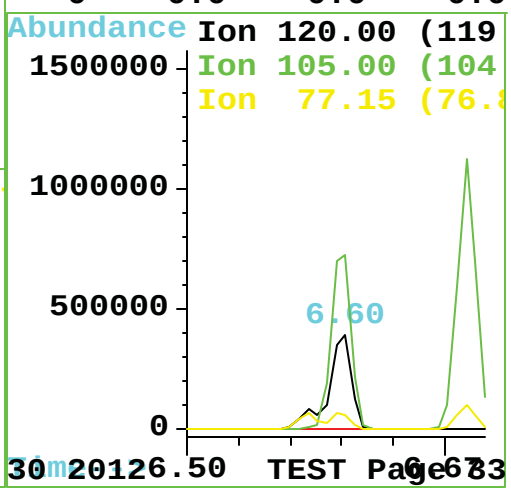


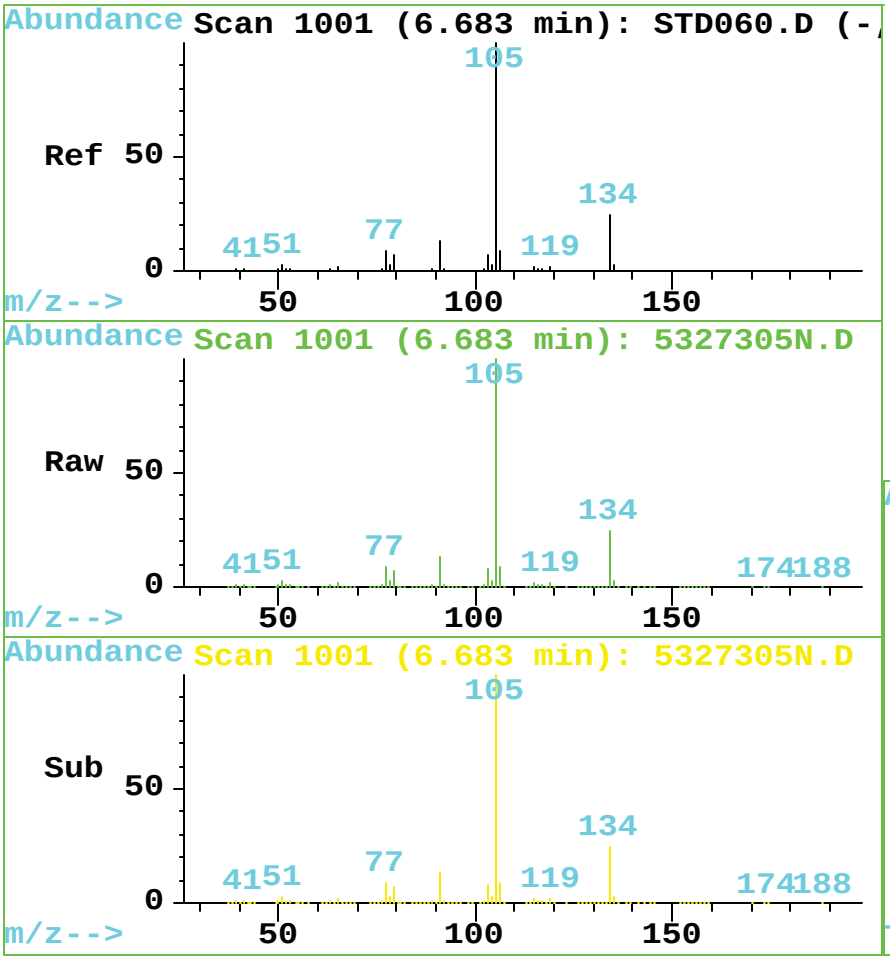


#67
1,2,4-Trimethylbenzene
Concen: 54.15 ug/l
RT: 6.60 min Scan# 988
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:120 Resp: 428784

Ion	Ratio	Lower	Upper
120	100		
105	160.6	144.1	204.1
77	12.3	0.0	45.7
0	0.0	0.0	0.0

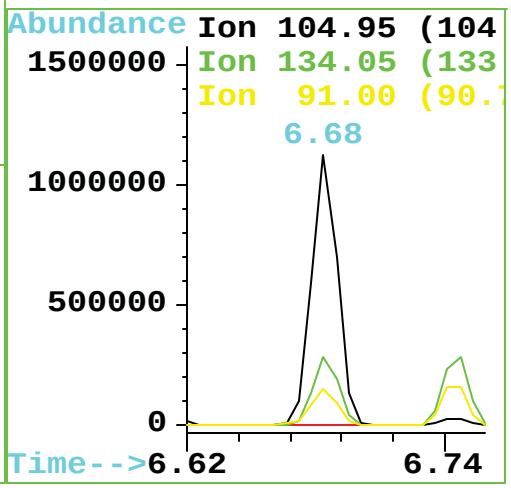


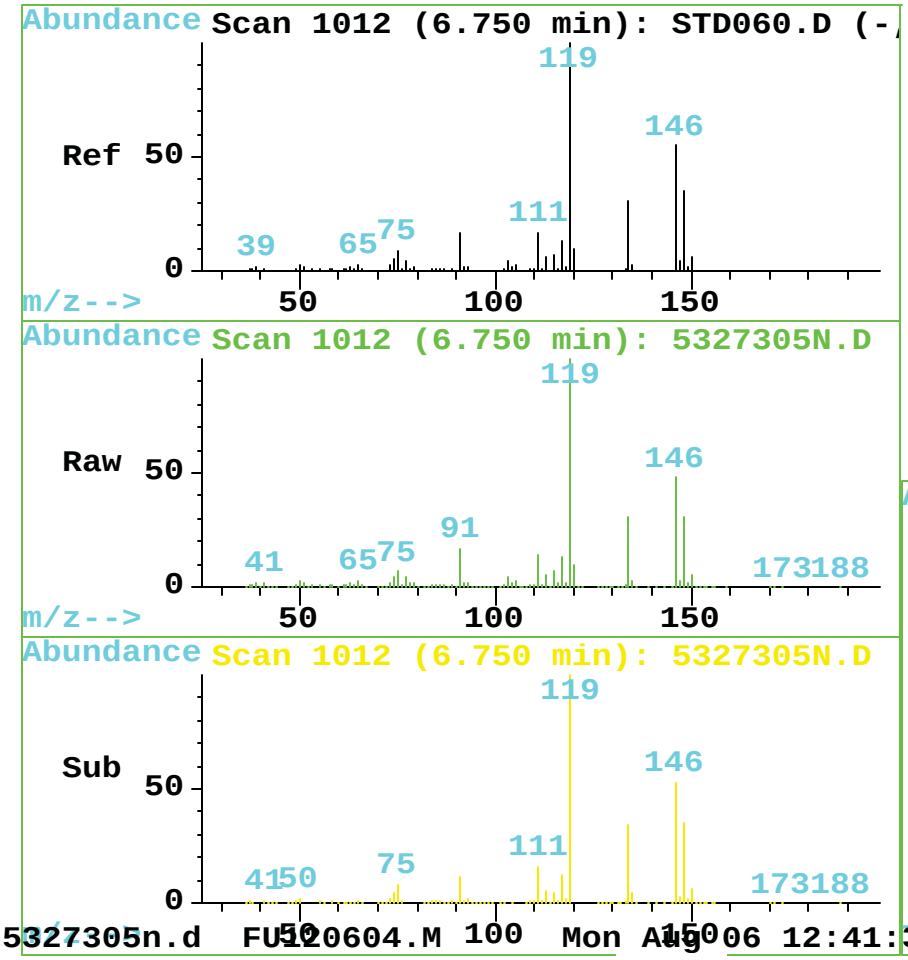


#69
sec-Butylbenzene
Concen: 56.23 ug/l
RT: 6.68 min Scan# 1001
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:104.95 Resp: 9795

Ion	Ratio	Lower	Upper
105	100		
134	25.5	0.0	53.6
91	13.5	0.0	44.8
0	0.0	0.0	0.0

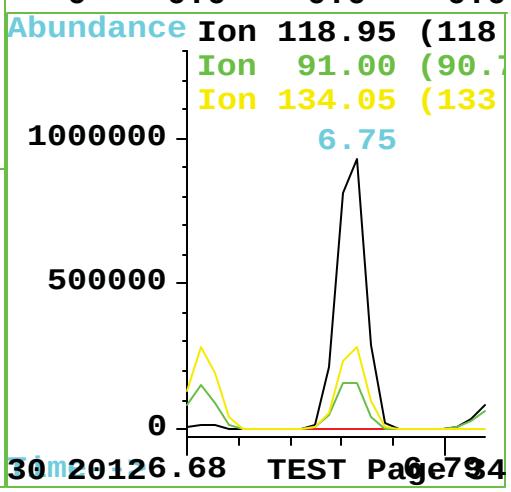


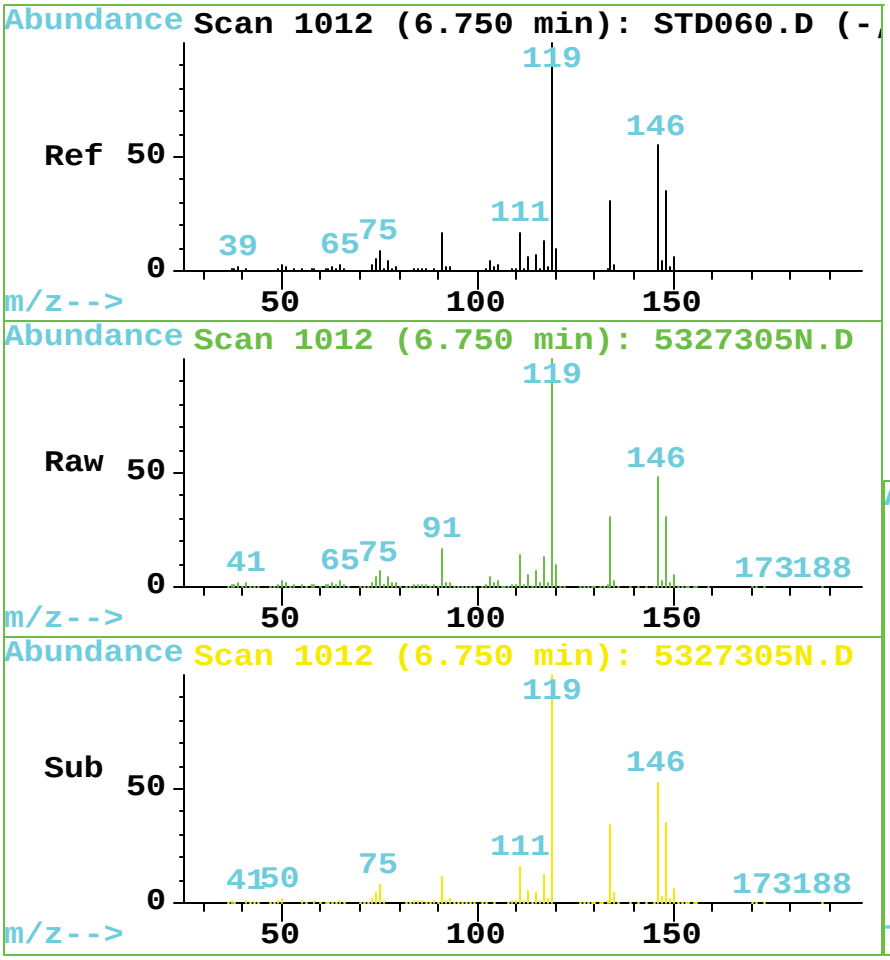


#70
p-Isopropyltoluene
Concen: 57.00 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:118.95 Resp: 8384

Ion	Ratio	Lower	Upper
119	100		
91	18.1	0.0	50.6
134	29.9	0.0	58.1
0	0.0	0.0	0.0

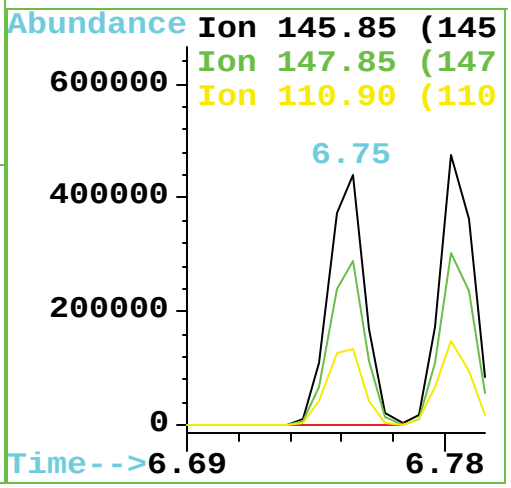


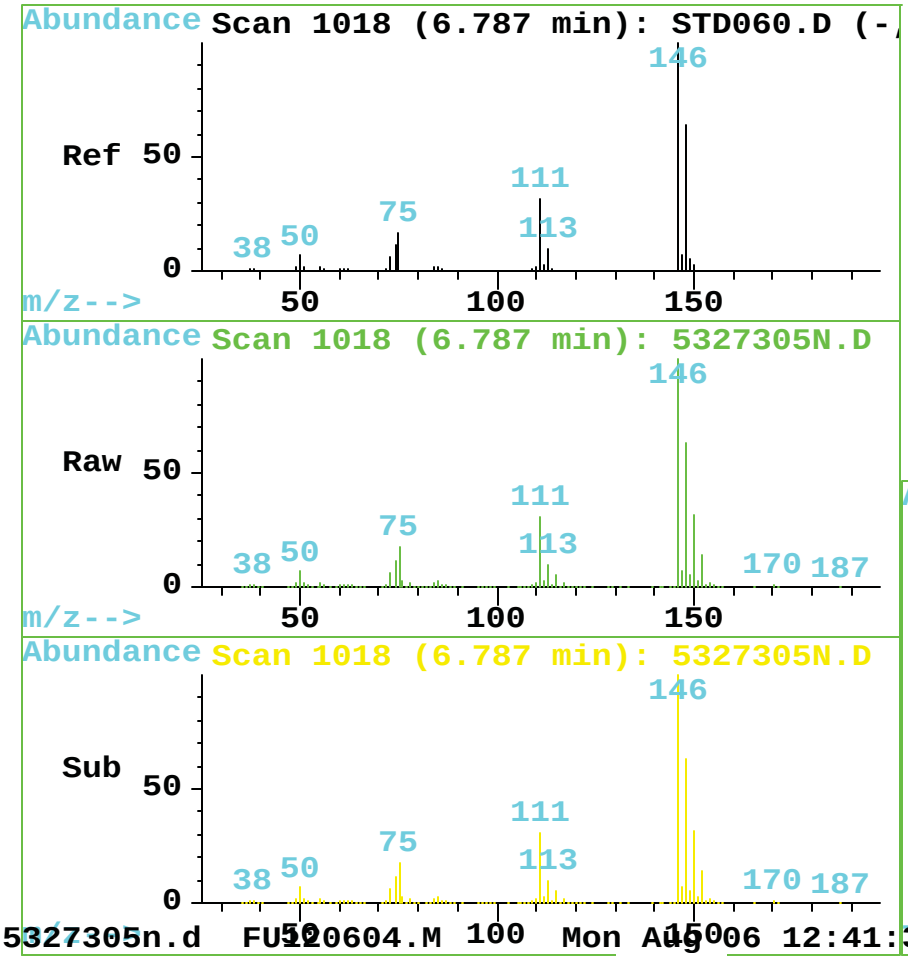


#71
1,3-Dichlorobenzene
Concen: 51.27 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:145.85 Resp: 4119

Ion	Ratio	Lower	Upper
146	100		
148	64.6	34.8	94.8
111	31.6	6.2	66.2
0	0.0	0.0	0.0

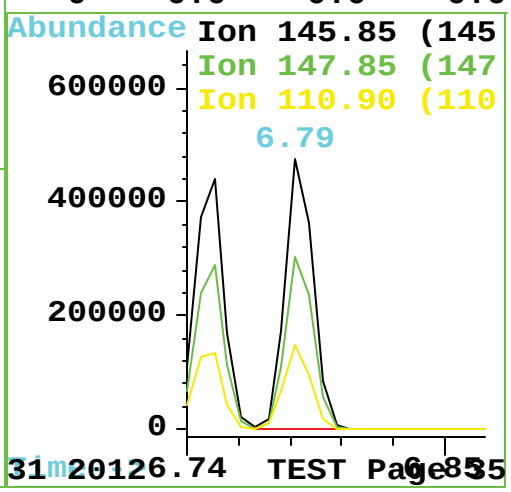


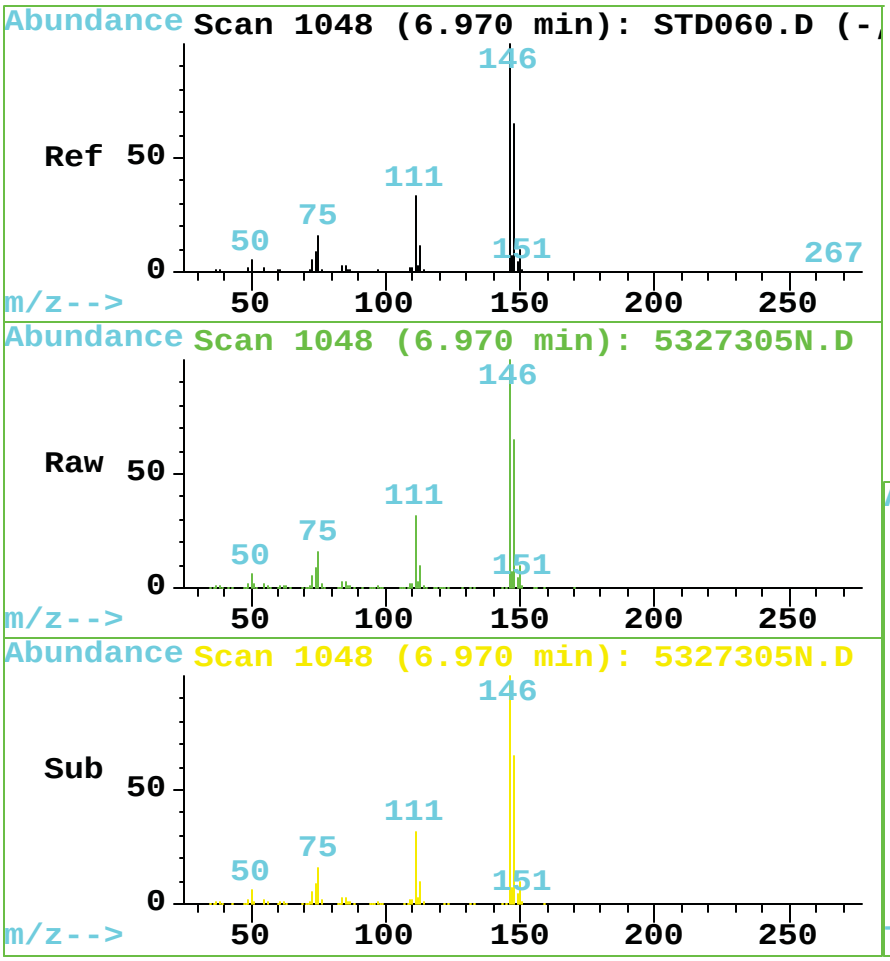


#72
1,4-Dichlorobenzene
Concen: 49.68 ug/l
RT: 6.79 min Scan# 1018
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:145.85 Resp: 4097

Ion	Ratio	Lower	Upper
146	100		
148	63.9	33.9	93.9
111	30.3	5.2	65.2
0	0.0	0.0	0.0

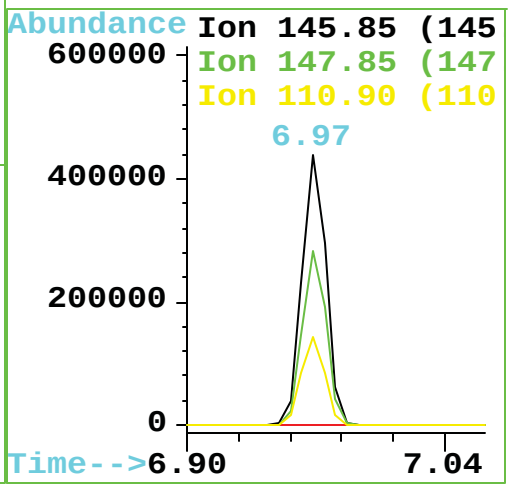


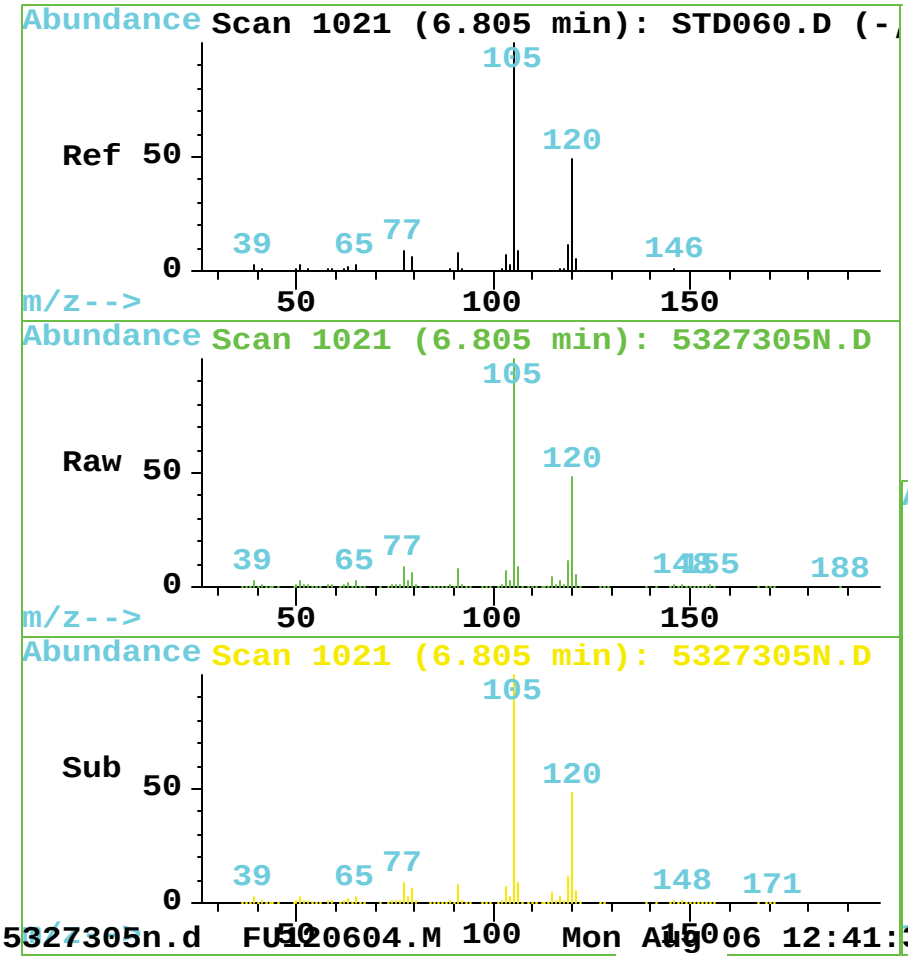


#73
1,2-Dichlorobenzene
Concen: 52.46 ug/l
RT: 6.97 min Scan# 1048
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:145.85 Resp: 3918

Ion	Ratio	Lower	Upper
146	100		
148	64.3	34.1	94.1
111	32.0	6.5	66.5
0	0.0	0.0	0.0

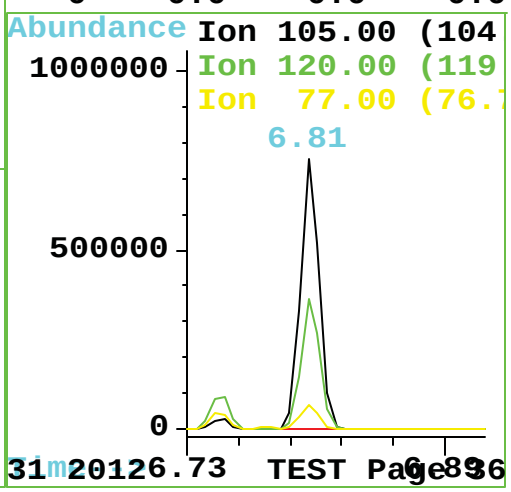


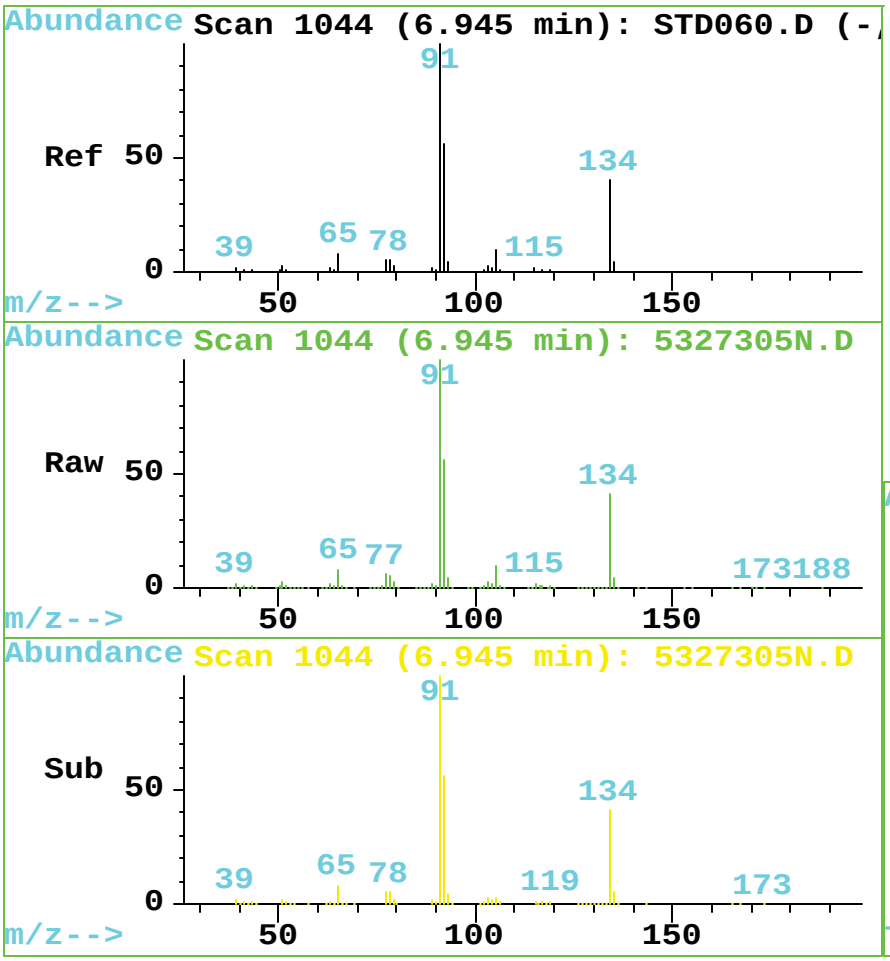


#74
1,2,3-Trimethylbenzene
Concen: 52.87 ug/l
RT: 6.81 min Scan# 1021
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:105 Resp: 643031

Ion	Ratio	Lower	Upper
105	100		
120	48.8	15.1	75.1
77	9.0	0.0	40.2
0	0.0	0.0	0.0

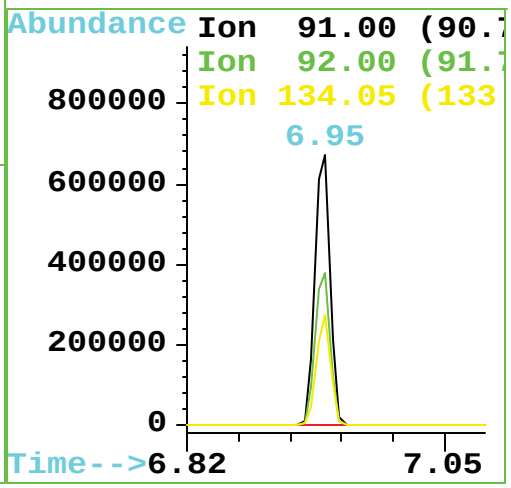


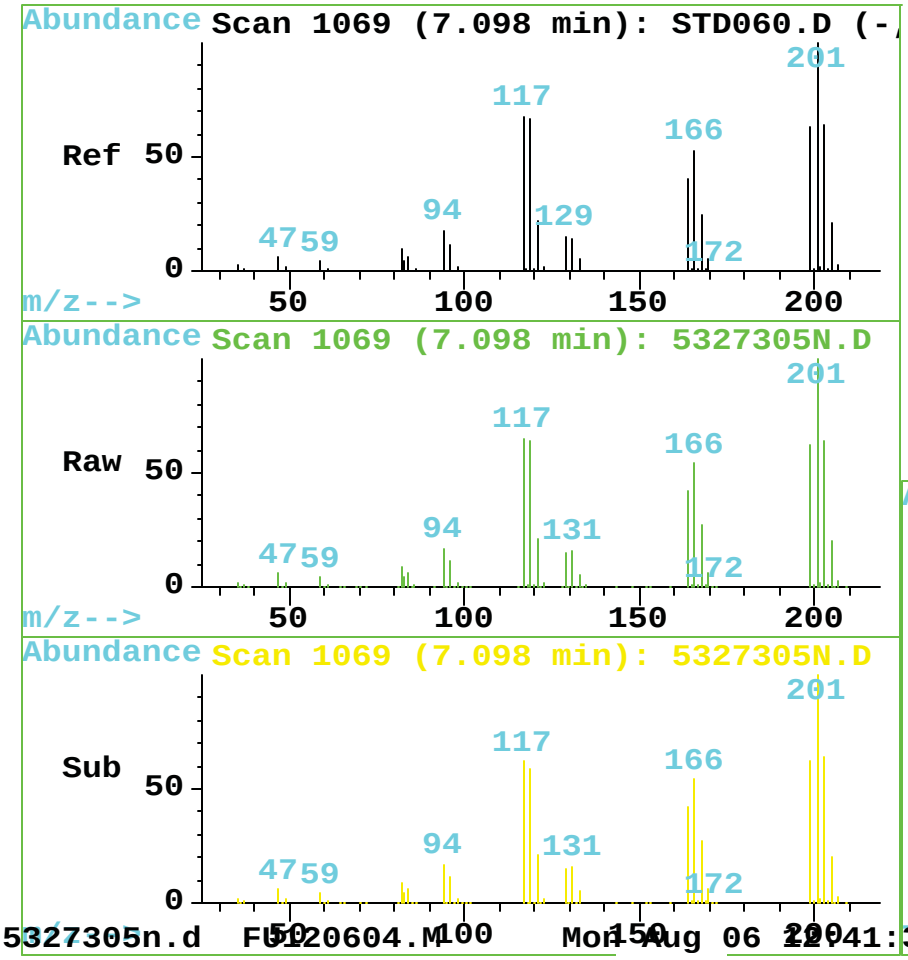


#75
n-Butylbenzene
Concen: 53.23 ug/l
RT: 6.95 min Scan# 1044
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:91 Resp: 620341

Ion	Ratio	Lower	Upper
91	100		
92	56.0	25.5	85.5
134	38.3	4.2	64.2
0	0.0	0.0	0.0

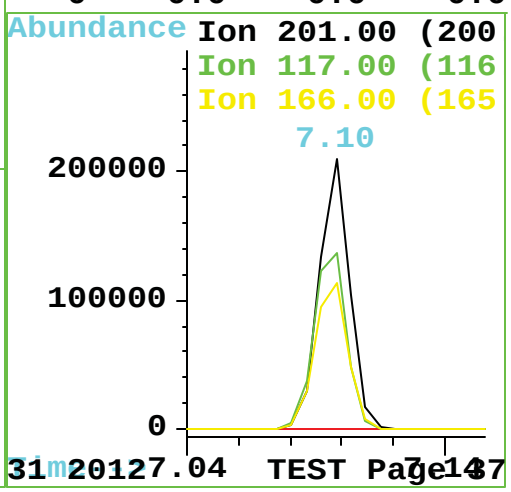


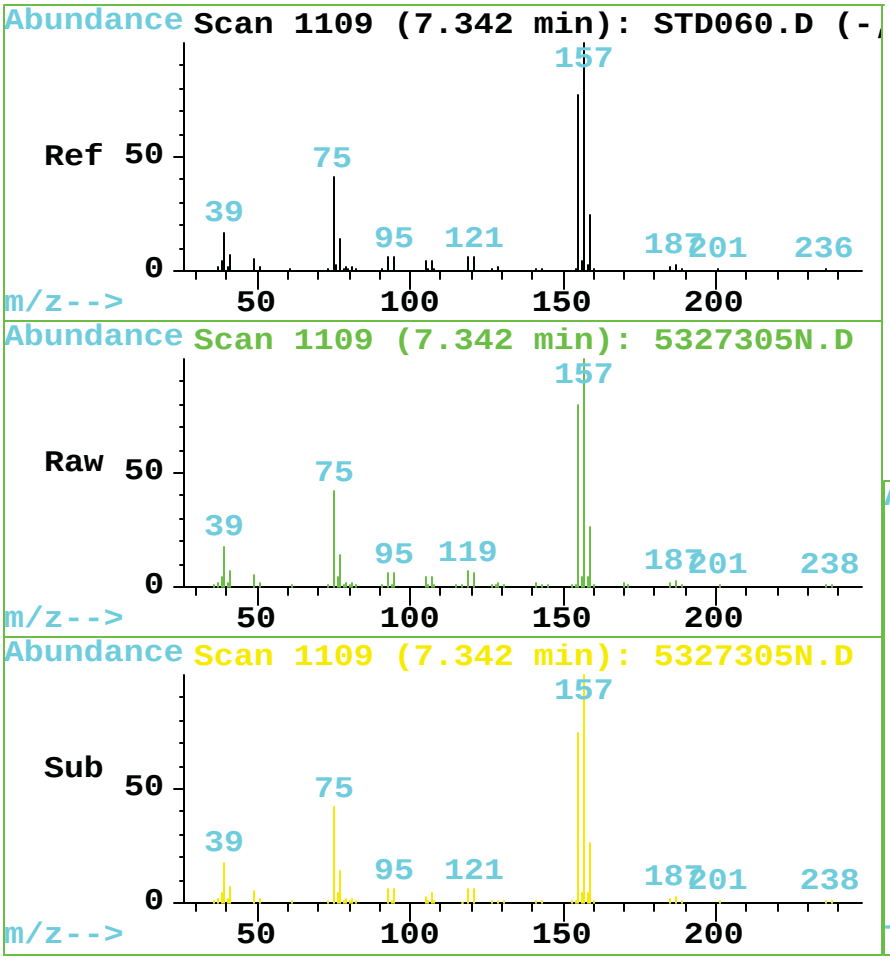


#76
Hexachloroethane
Concen: 52.13 ug/l
RT: 7.10 min Scan# 1069
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:201 Resp: 181750

Ion	Ratio	Lower	Upper
201	100		
117	71.9	50.2	110.2
166	59.6	38.0	98.0
0	0.0	0.0	0.0

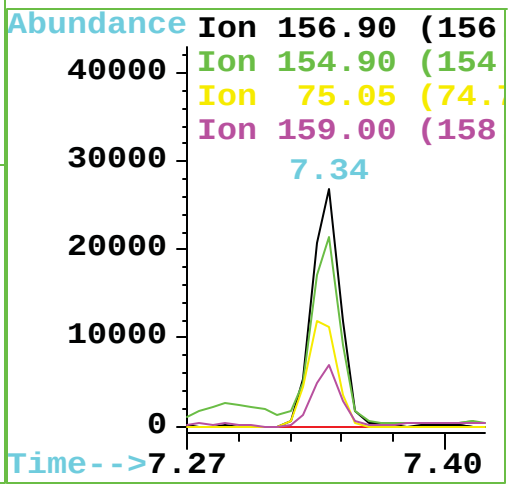


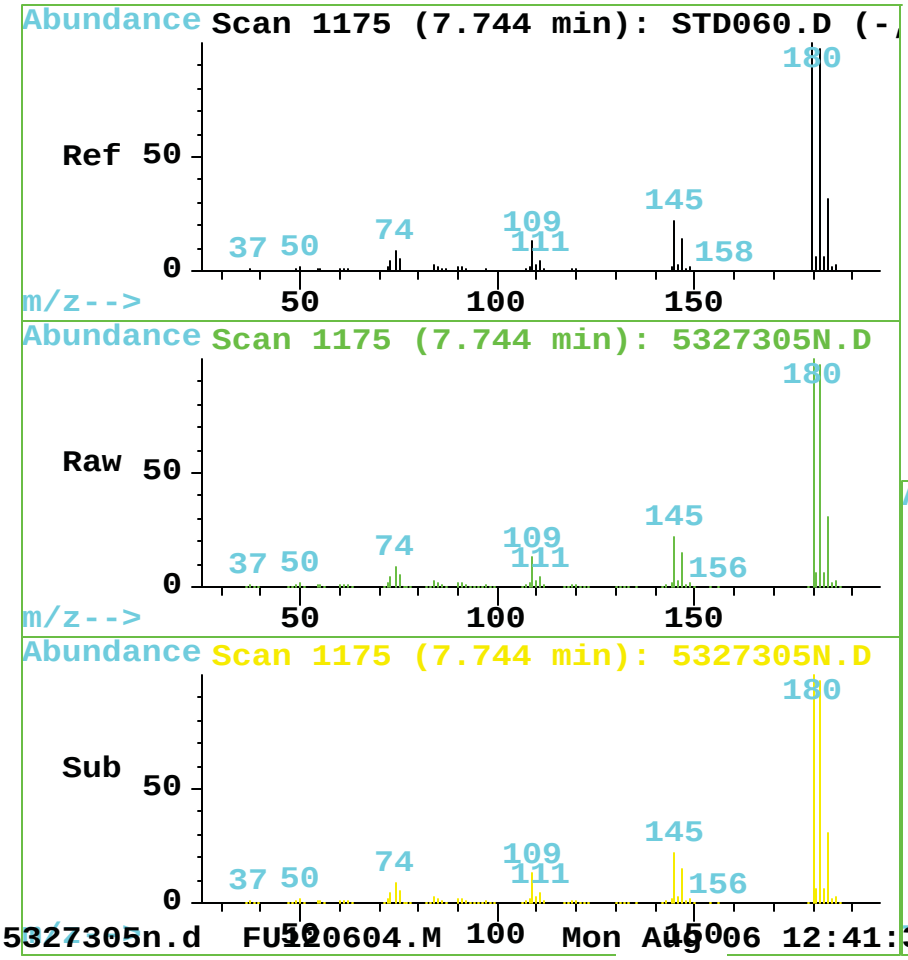


#77
1,2-Dibromo-3-Chloropropan
Concen: 59.49 ug/l
RT: 7.34 min Scan# 1109
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:156.9 Resp: 2477

Ion	Ratio	Lower	Upper
157	100		
155	81.8	46.1	106.1
75	47.1	34.3	94.3
159	25.4	0.0	54.7

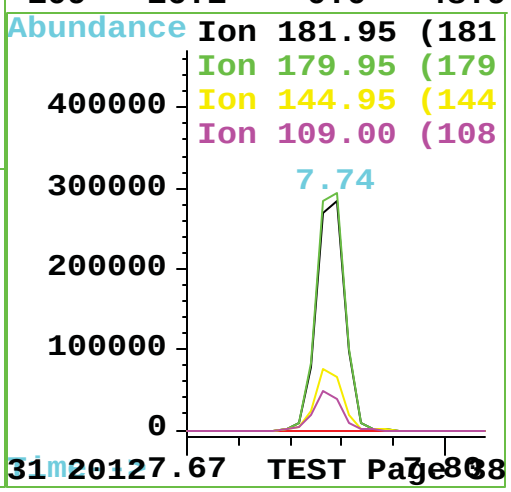


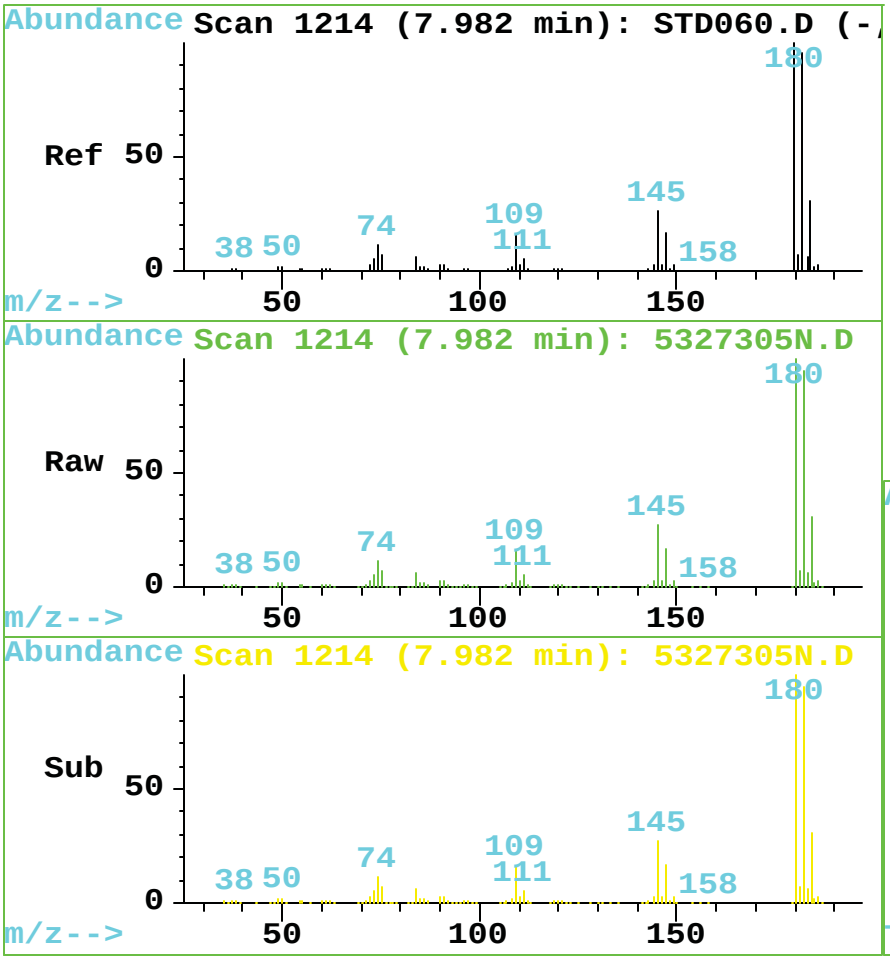


#78
1,2,4-Trichlorobenzene
Concen: 53.91 ug/l
RT: 7.74 min Scan# 1175
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:181.95 Resp: 2749

Ion	Ratio	Lower	Upper
182	100		
180	104.1	74.1	134.1
145	25.3	0.0	57.2
109	16.1	0.0	48.9

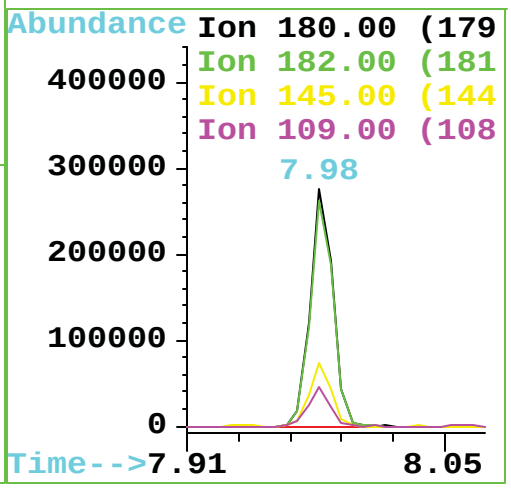


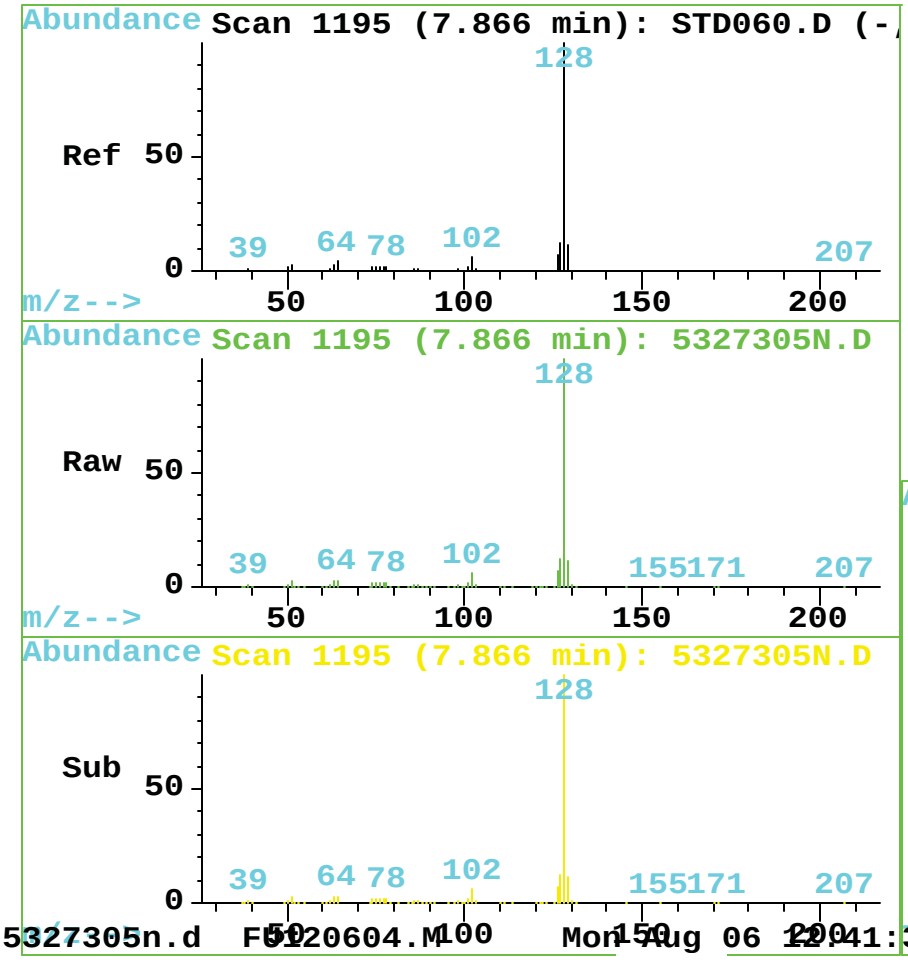


#80
1,2,3-Trichlorobenzene
Concen: 57.22 ug/l
RT: 7.98 min Scan# 1214
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:180 Resp: 238559

Ion	Ratio	Lower	Upper
180	100		
182	96.6	66.9	126.9
145	25.9	0.0	57.7
109	15.6	0.0	48.8

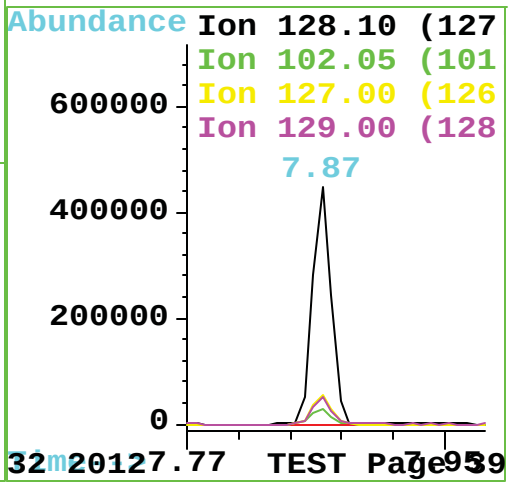


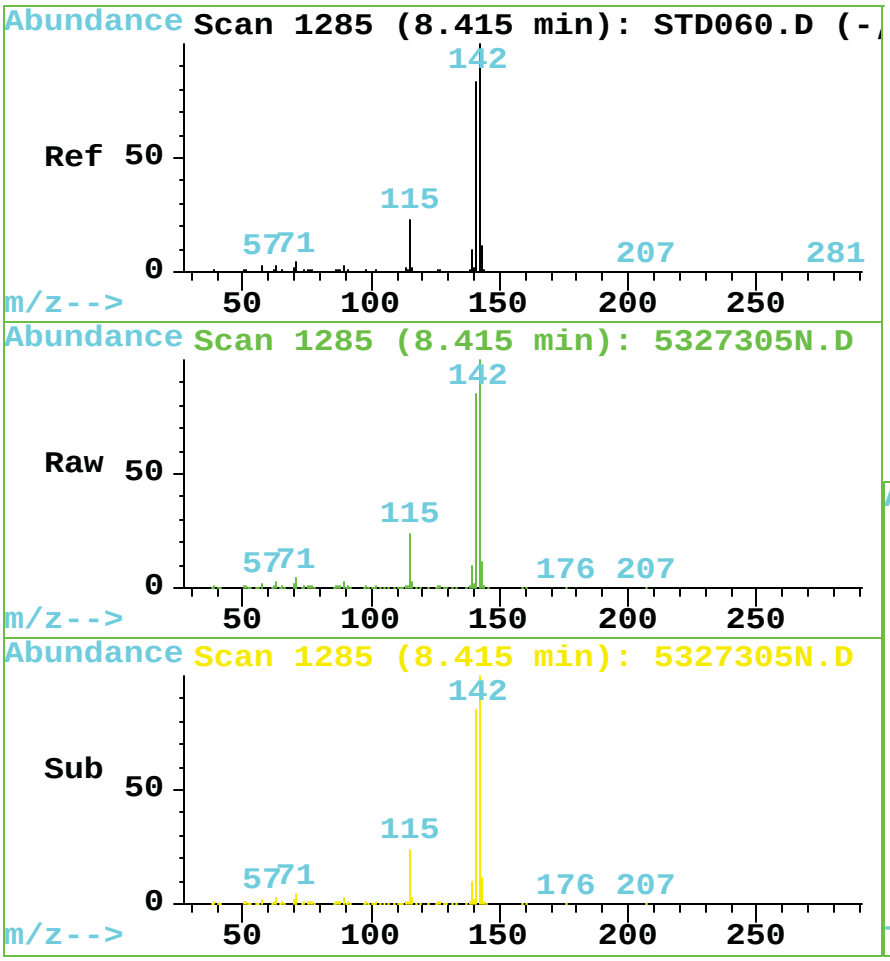


#81
Naphthalene
Concen: 63.05 ug/l
RT: 7.87 min Scan# 1195
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:128.1 Resp: 39344

Ion	Ratio	Lower	Upper
128	100		
102	6.4	0.0	37.4
127	12.2	0.0	42.3
129	11.0	0.0	40.6

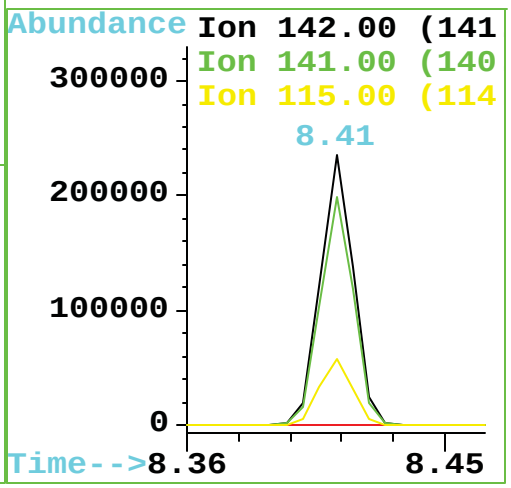




#82
2-Methylnaphthalene
Concen: 62.69 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5327305n.d
Acq: 31 Jul 12 9:14 pm

Tgt Ion:142 Resp: 198149

Ion	Ratio	Lower	Upper
142	100		
141	84.8	55.8	115.8
115	24.8	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327306.d Vial: 10
Acq On : 27 Jul 12 3:54 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

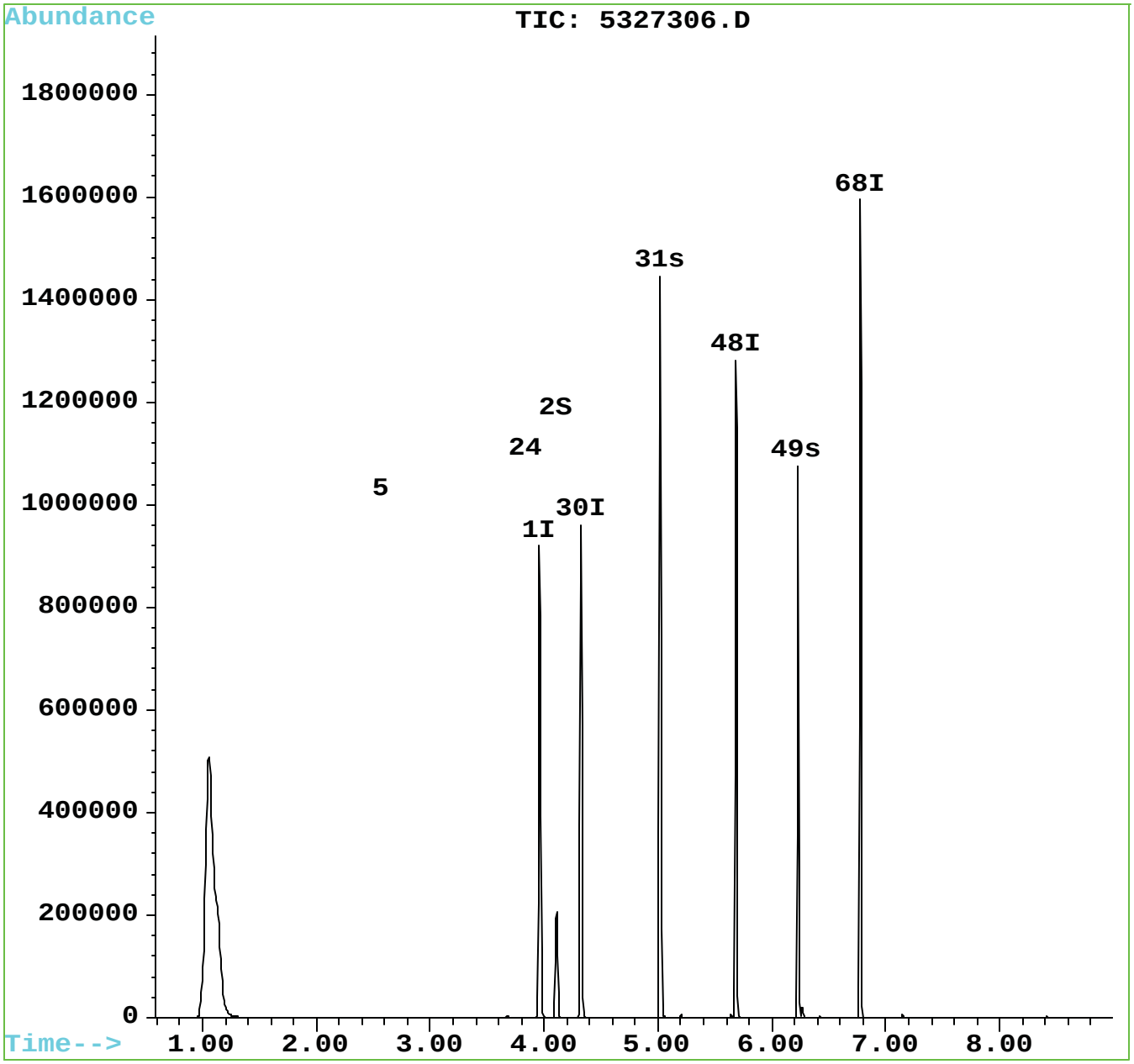
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	560279	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	618897	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	219498	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	303962	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	93026	43.91	ug/l	87.8
31) TOLUENE-D8 (S)	5.02	98	620432	49.61	ug/l	99.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	260023	49.81	ug/l	99.6
Target Compounds						Qvalu
5) Acetone (*)	2.57	43	491	2.35	ug/l #	4
24) Tetrahydrofuran	3.84	42	666	2.15	ug/l #	1

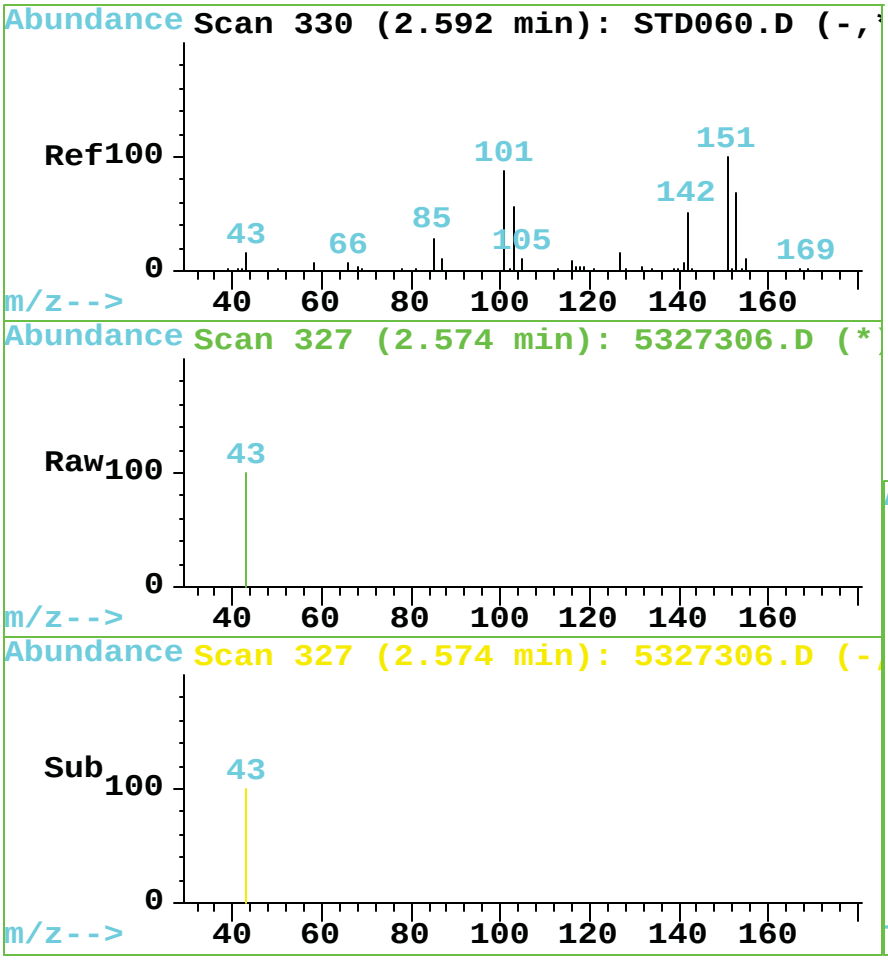
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327306.d Vial: 10
Acq On : 27 Jul 12 3:54 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

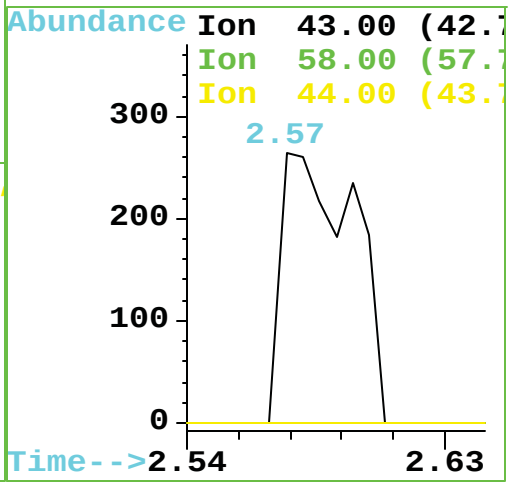


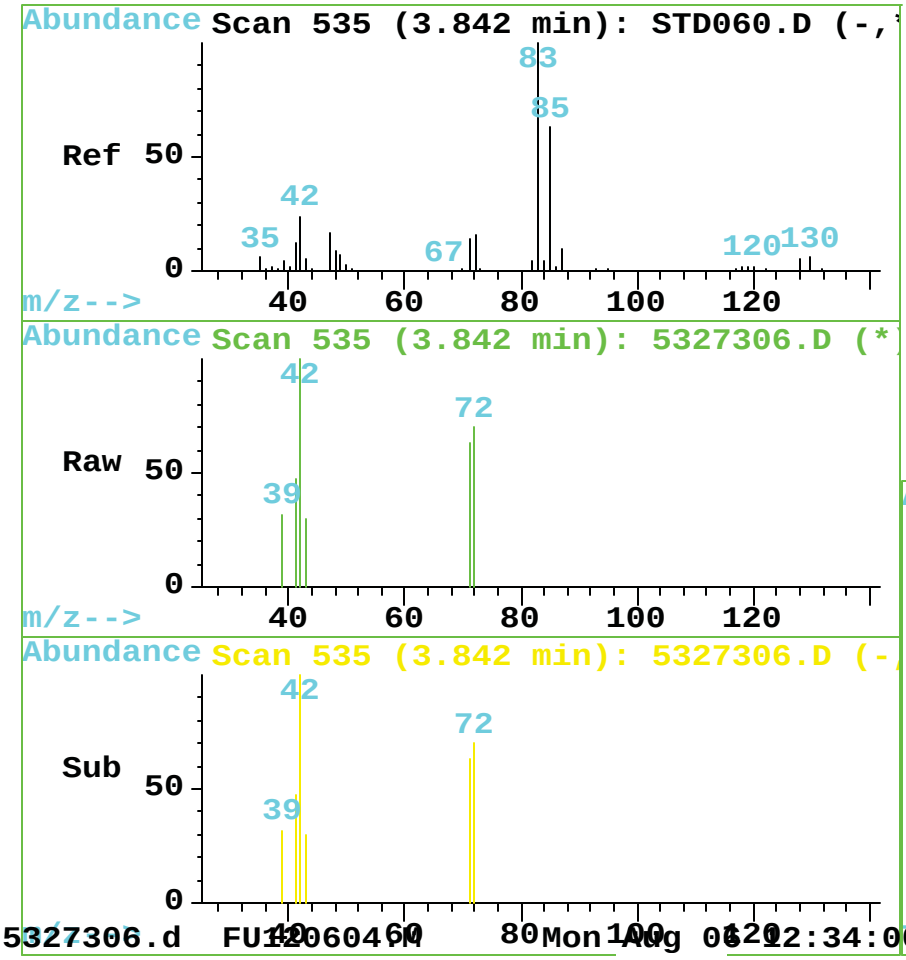


#5
Acetone (*)
Concen: 2.35 ug/l
RT: 2.57 min Scan# 327
Delta R.T. 0.00 min
Lab File: 5327306.d
Acq: 27 Jul 12 3:54 pm

Tgt Ion:43 Resp: 491

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

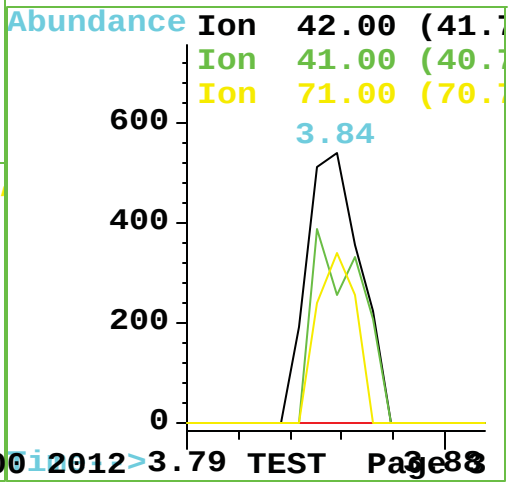




#24
Tetrahydrofuran
Concen: 2.15 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327306.d
Acq: 27 Jul 12 3:54 pm

Tgt Ion:42 Resp: 666

Ion	Ratio	Lower	Upper
42	100		
41	64.9	222.5	282.5#
71	46.1	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327307.d Vial: 11
Acq On : 27 Jul 12 4:14 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

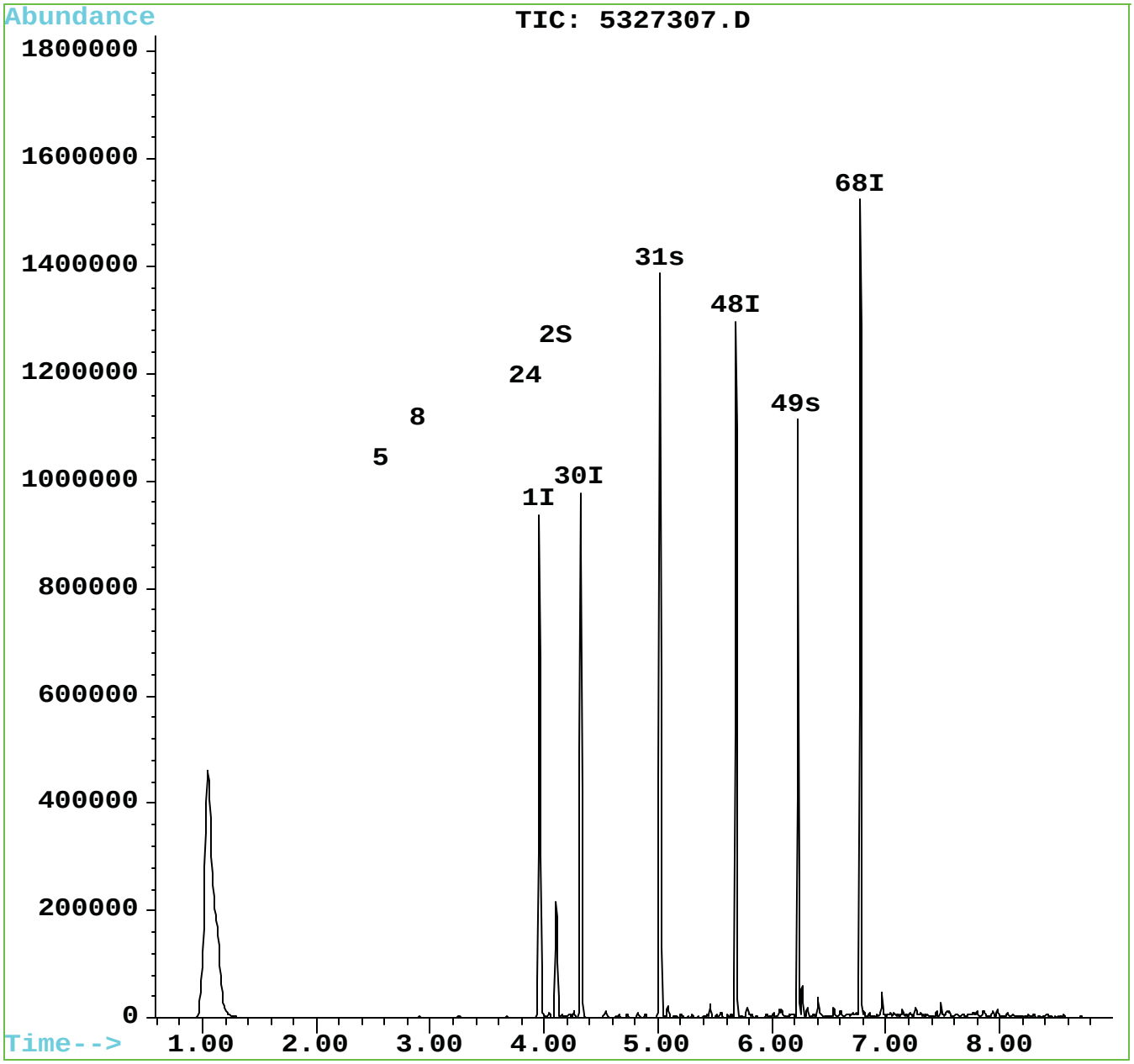
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	556530	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	616470	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	218153	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	303452	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	93228	44.30	ug/l	88.6
31) TOLUENE-D8 (S)	5.02	98	615334	49.40	ug/l	98.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	260338	50.18	ug/l	100.3
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	456	2.20	ug/l #	4
8) Methyl Acetate	2.90	43	2230	2.97	ug/l #	4
24) Tetrahydrofuran	3.84	42	742	2.42	ug/l #	

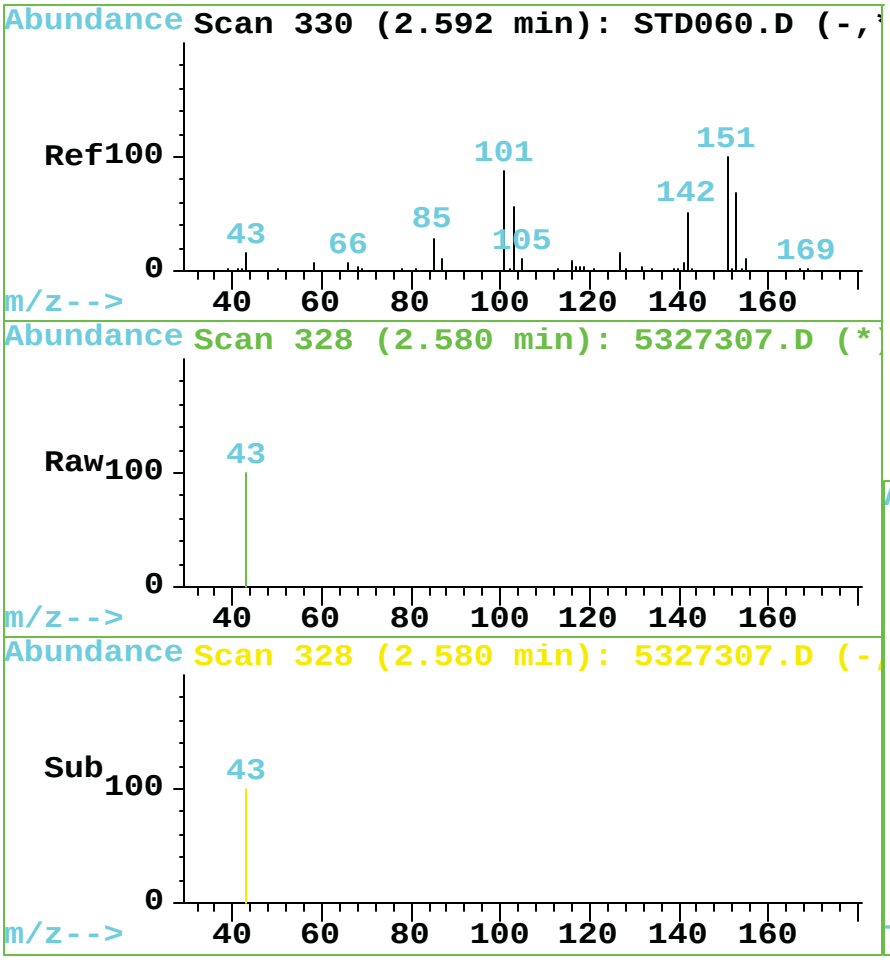
(#) = qualifier out of range (m) = manual integration
5327307.d FU120604.M Mon Aug 06 12:34:05 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327307.d Vial: 11
Acq On : 27 Jul 12 4:14 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:42 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

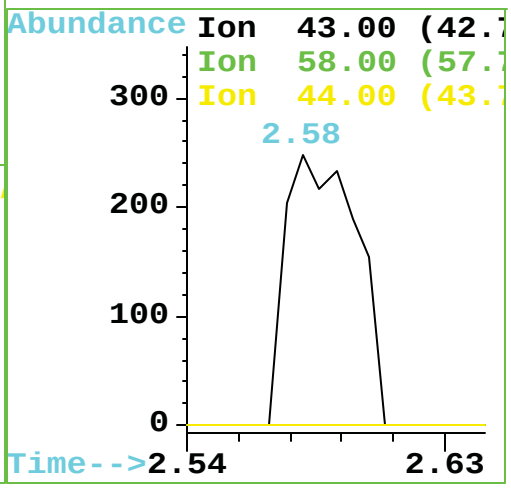


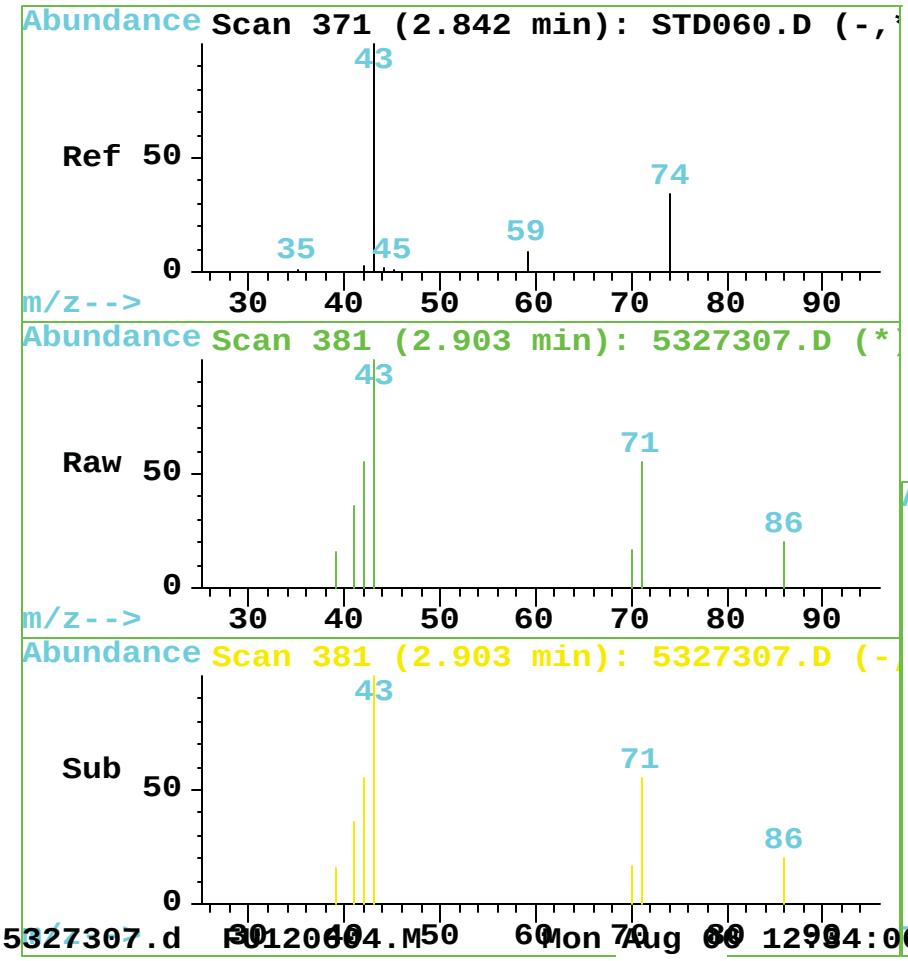


#5
Acetone (*)
Concen: 2.20 ug/l
RT: 2.58 min Scan# 328
Delta R.T. 0.01 min
Lab File: 5327307.d
Acq: 27 Jul 12 4:14 pm

Tgt Ion:43 Resp: 456

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

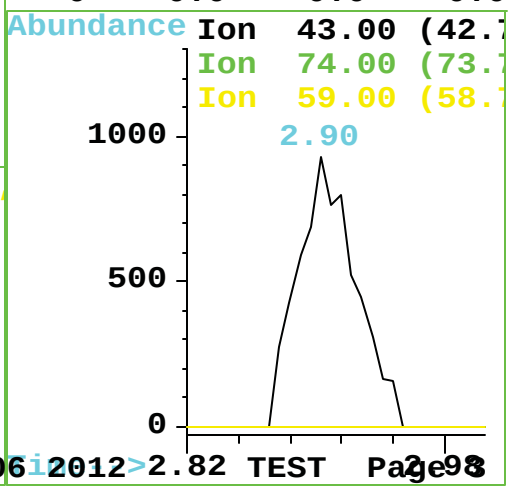


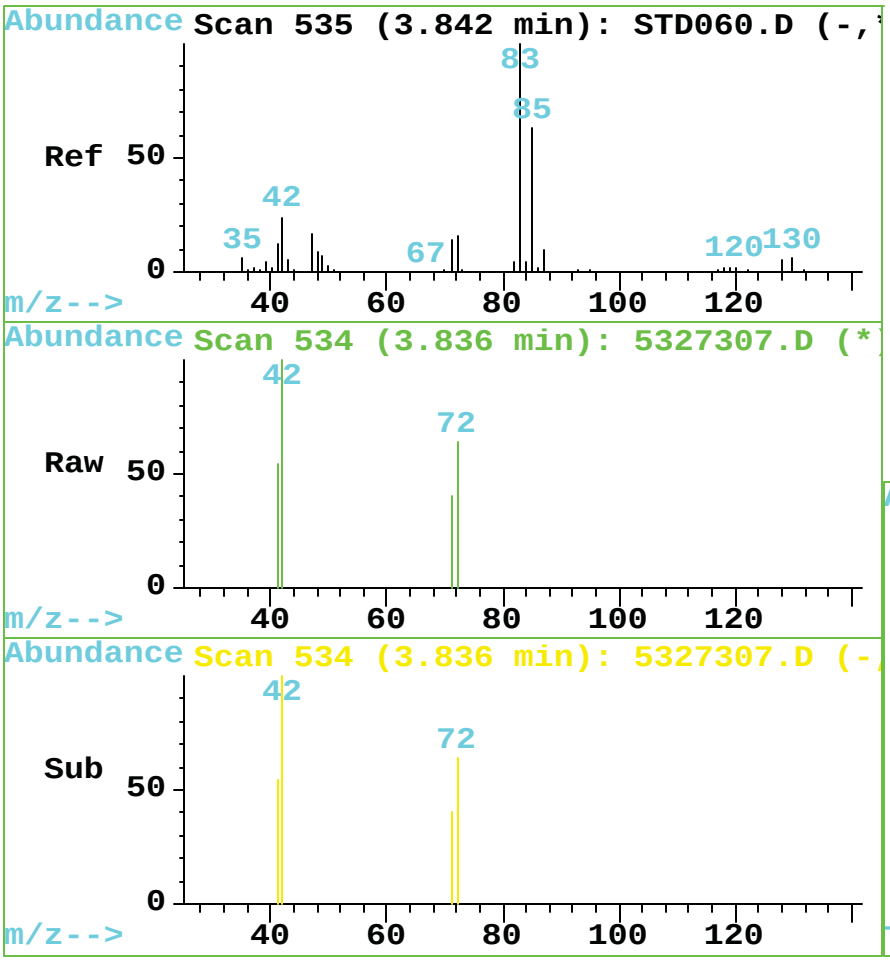


#8
Methyl Acetate
Concen: 2.97 ug/l
RT: 2.90 min Scan# 381
Delta R.T. 0.07 min
Lab File: 5327307.d
Acq: 27 Jul 12 4:14 pm

Tgt Ion:43 Resp: 2230

Ion	Ratio	Lower	Upper
43	100		
74	0.0	4.8	64.8#
59	0.0	0.0	40.3
0	0.0	0.0	0.0

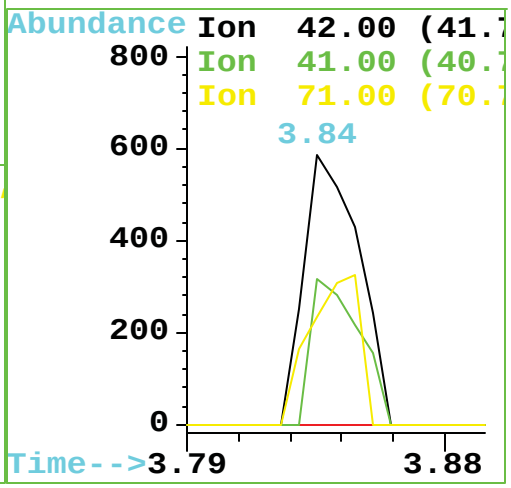




#24
Tetrahydrofuran
Concen: 2.42 ug/l
RT: 3.84 min Scan# 534
Delta R.T. 0.00 min
Lab File: 5327307.d
Acq: 27 Jul 12 4:14 pm

Tgt Ion:42 Resp: 742

Ion	Ratio	Lower	Upper
42	100		
41	48.0	222.5	282.5#
71	50.8	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327308.d Vial: 12
Acq On : 27 Jul 12 4:34 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

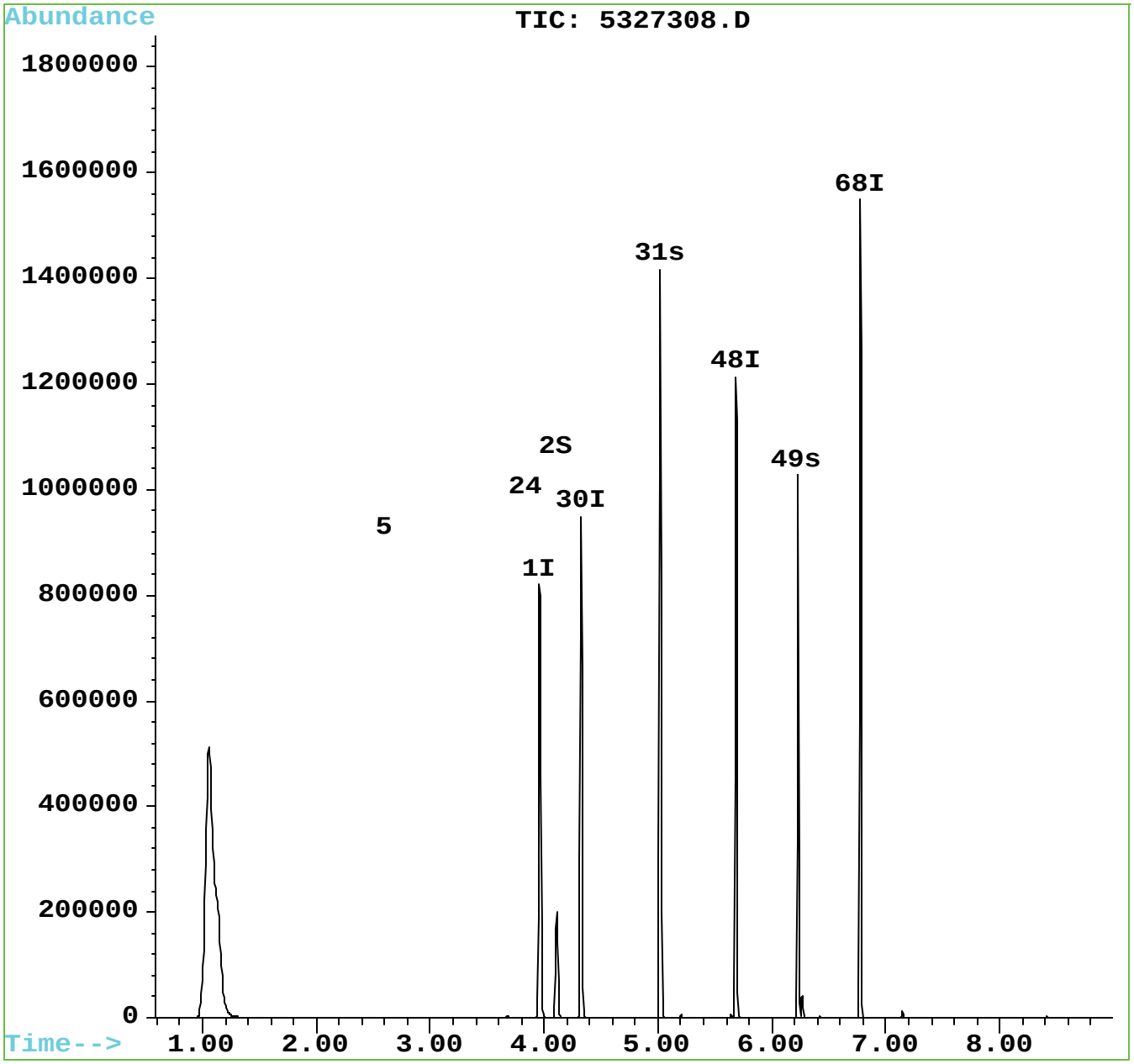
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	542601	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	612143	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	213426	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	302260	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	91120	44.41	ug/l	88.8
31) TOLUENE-D8 (S)	5.02	98	604262	48.85	ug/l	97.7
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	254038	50.05	ug/l	100.1
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	595	2.95	ug/l #	4
24) Tetrahydrofuran	3.84	42	752	2.51	ug/l #	

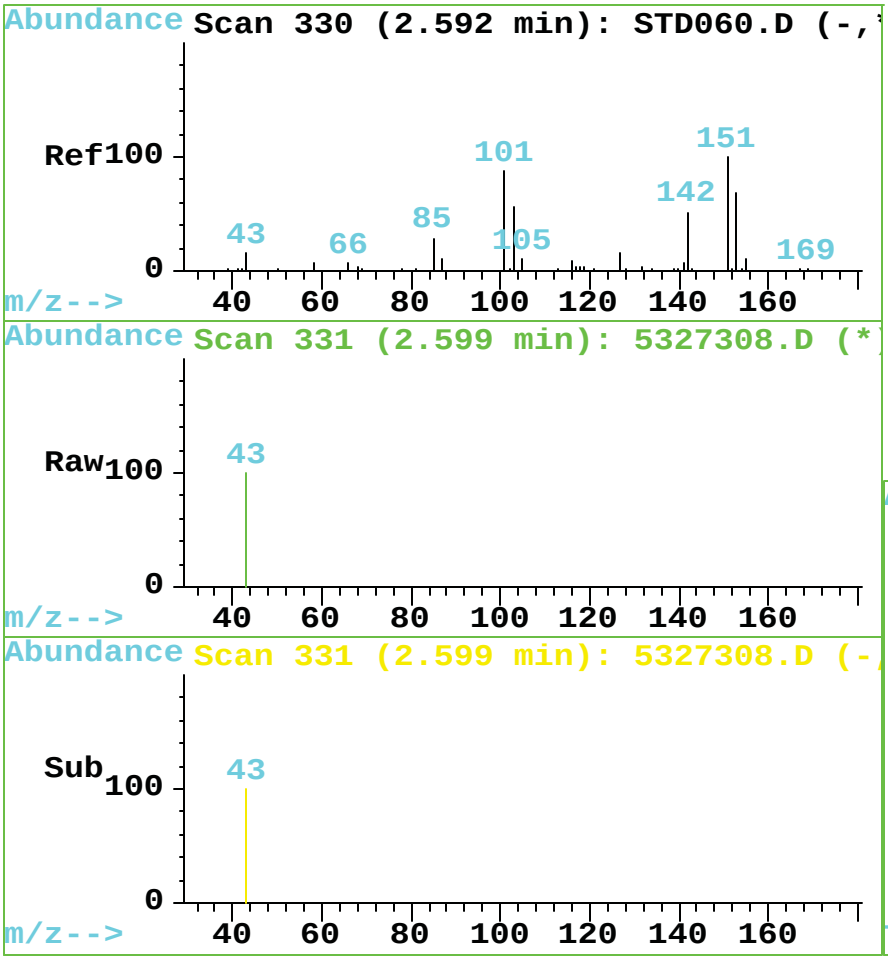
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327308.d Vial: 12
Acq On : 27 Jul 12 4:34 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

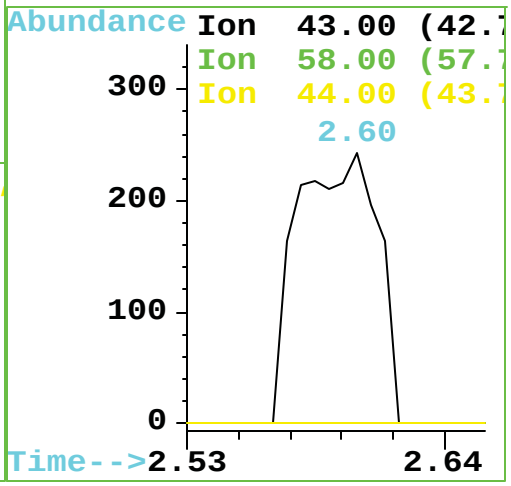


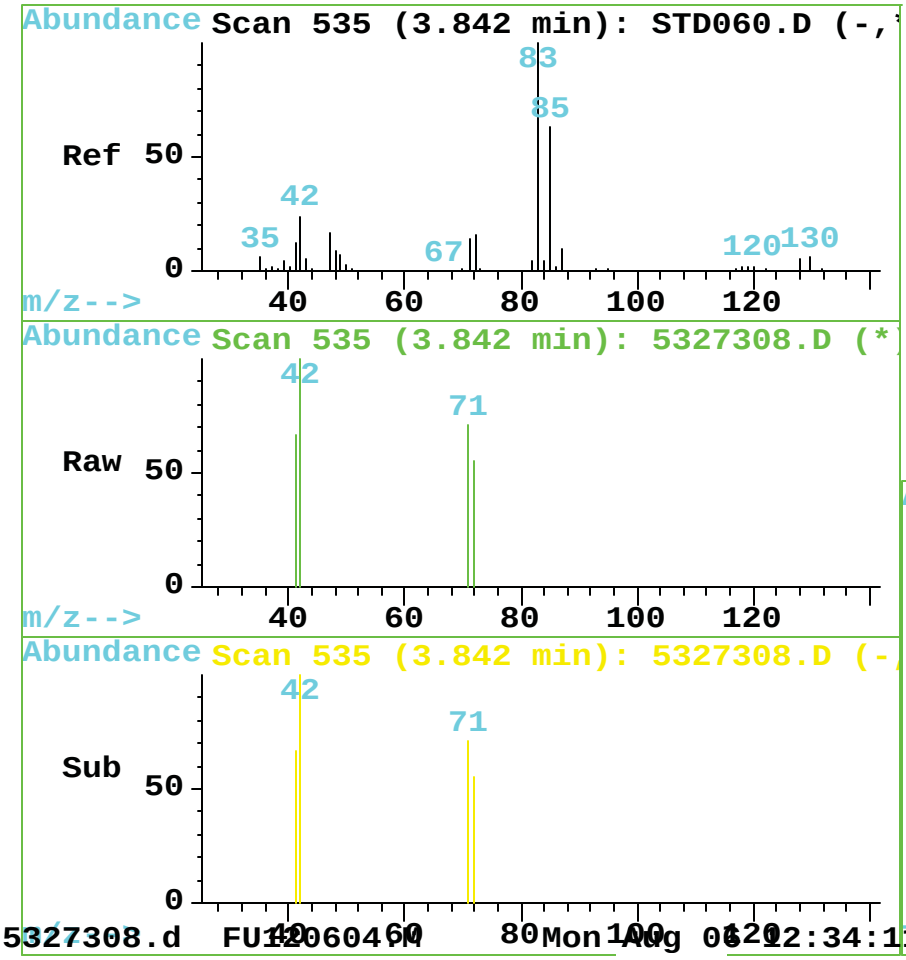


#5
Acetone (*)
Concen: 2.95 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5327308.d
Acq: 27 Jul 12 4:34 pm

Tgt Ion:43 Resp: 595

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

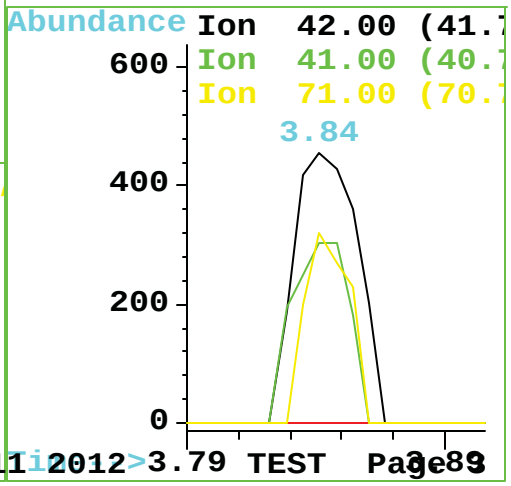




#24
Tetrahydrofuran
Concen: 2.51 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327308.d
Acq: 27 Jul 12 4:34 pm

Tgt Ion:42 Resp: 752

Ion	Ratio	Lower	Upper
42	100		
41	60.2	222.5	282.5#
71	49.7	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327309.d Vial: 13
Acq On : 27 Jul 12 4:53 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

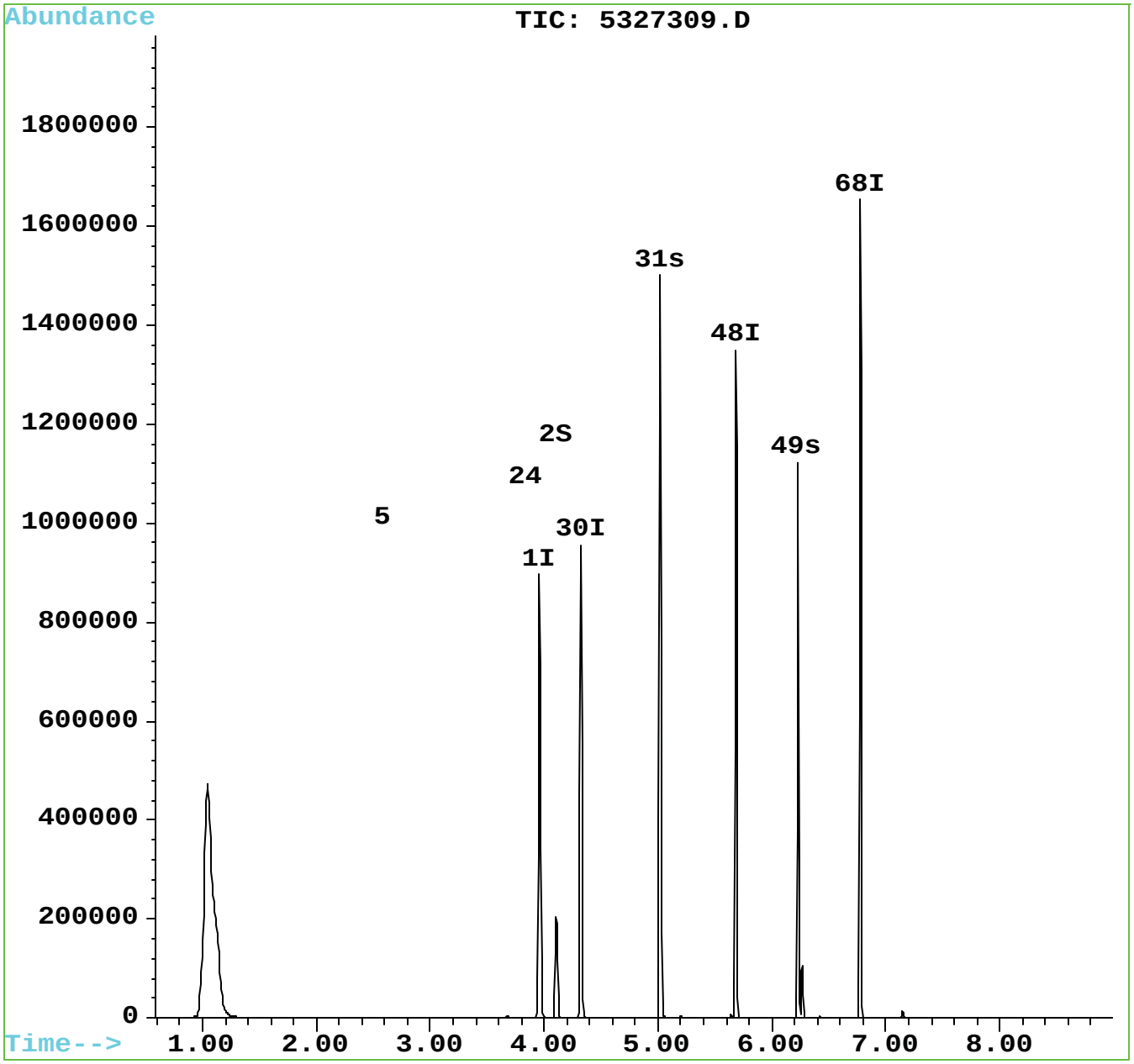
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	571288	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	647258	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	229246	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	321946	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	95870	44.38	ug/l	88.7
31) TOLUENE-D8 (S)	5.02	98	646888	49.46	ug/l	98.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	273318	50.13	ug/l	100.2
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	410	1.93	ug/l #	4
24) Tetrahydrofuran	3.84	42	692	2.20	ug/l #	

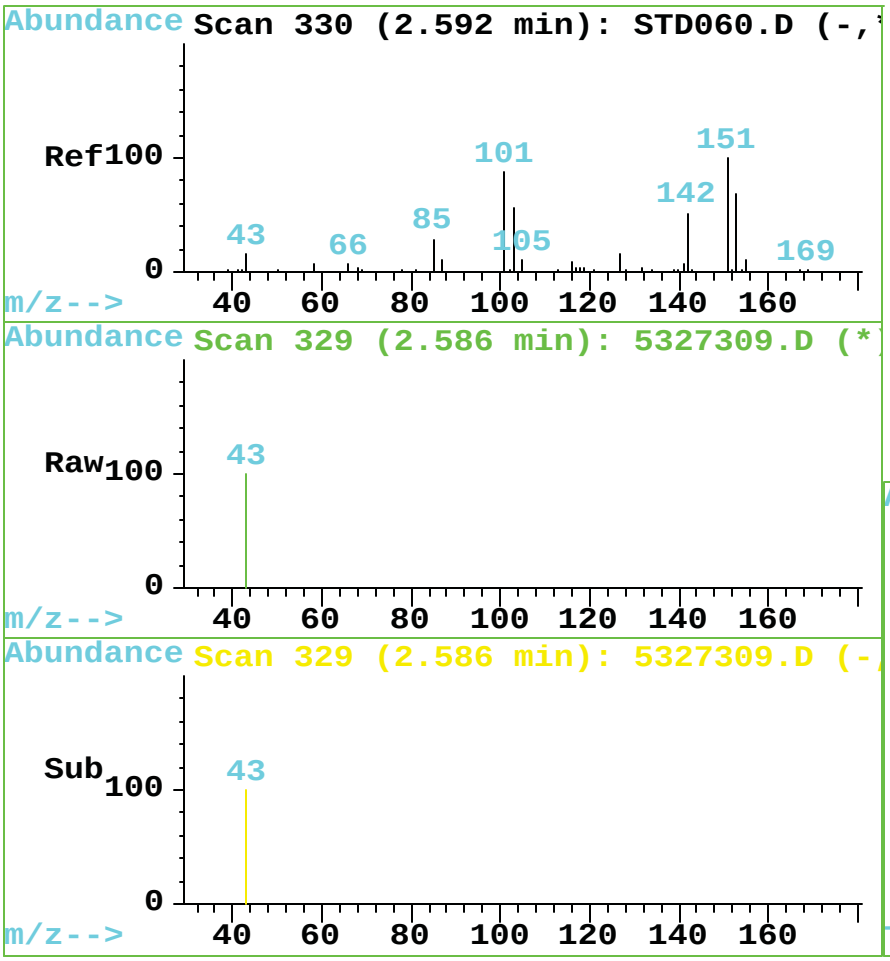
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327309.d Vial: 13
Acq On : 27 Jul 12 4:53 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

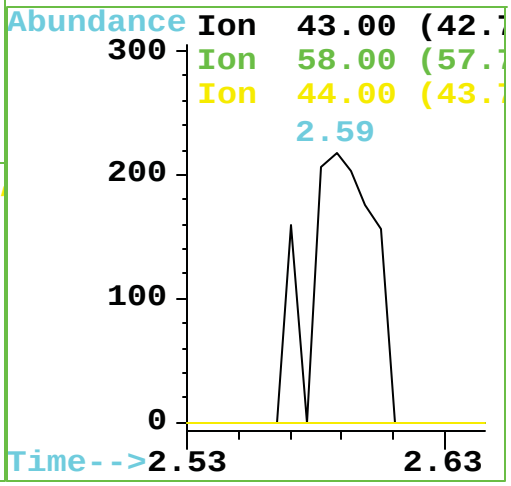


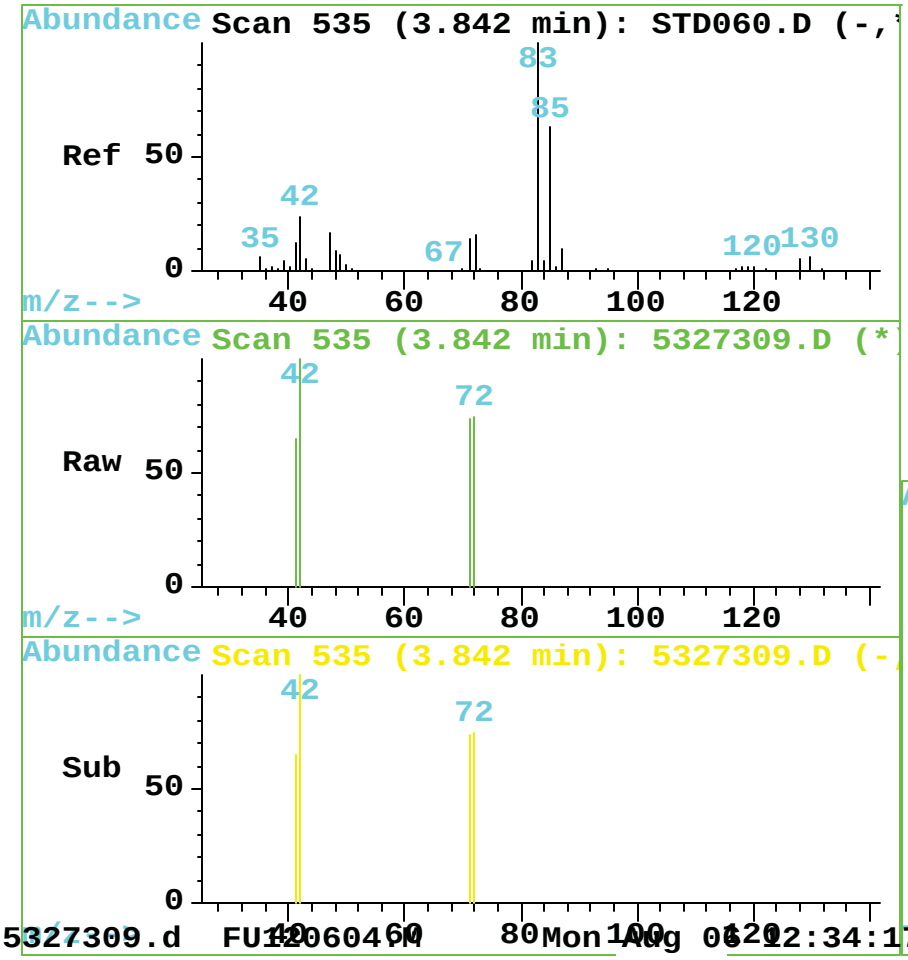


#5
Acetone (*)
Concen: 1.93 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5327309.d
Acq: 27 Jul 12 4:53 pm

Tgt Ion:43 Resp: 410

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

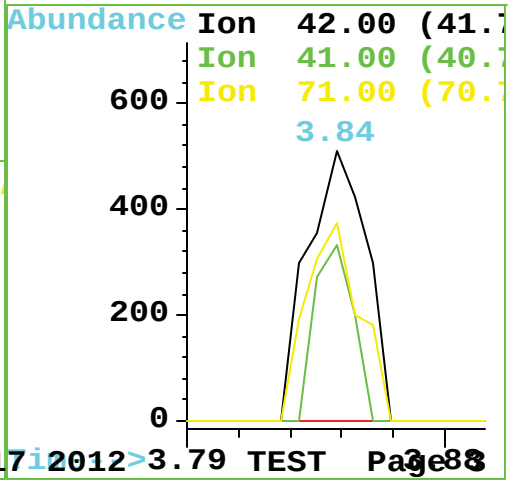




#24
Tetrahydrofuran
Concen: 2.20 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327309.d
Acq: 27 Jul 12 4:53 pm

Tgt Ion:42 Resp: 692

Ion	Ratio	Lower	Upper
42	100		
41	42.6	222.5	282.5#
71	66.5	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327310.d Vial: 14
Acq On : 27 Jul 12 5:13 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

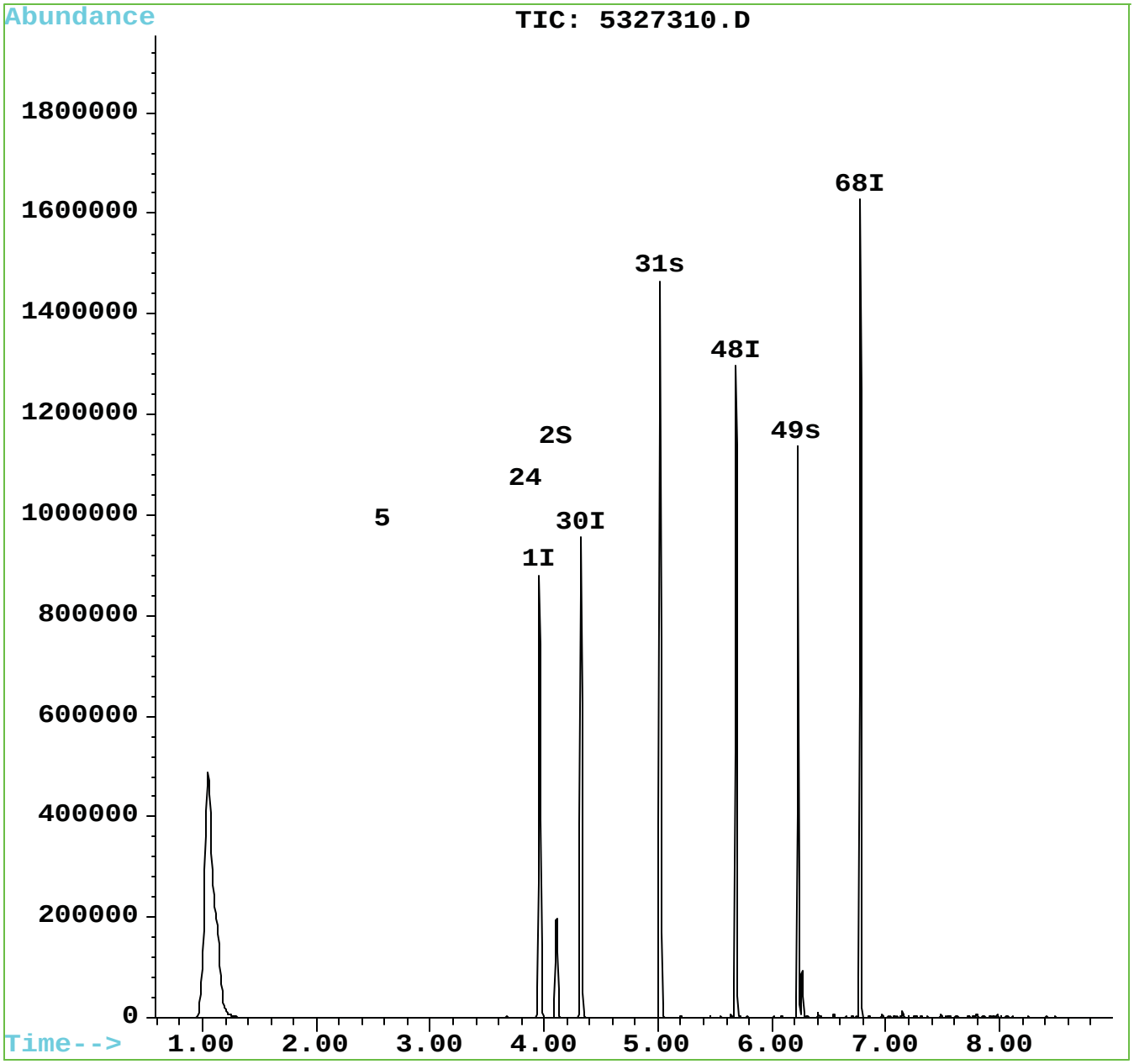
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	563847	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	641719	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	223092	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	312604	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	95866	44.97	ug/l	89.9
31) TOLUENE-D8 (S)	5.02	98	633254	48.84	ug/l	97.6
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	264909	49.93	ug/l	99.8
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	396	1.89	ug/l #	4
24) Tetrahydrofuran	3.85	42	813	2.61	ug/l #	

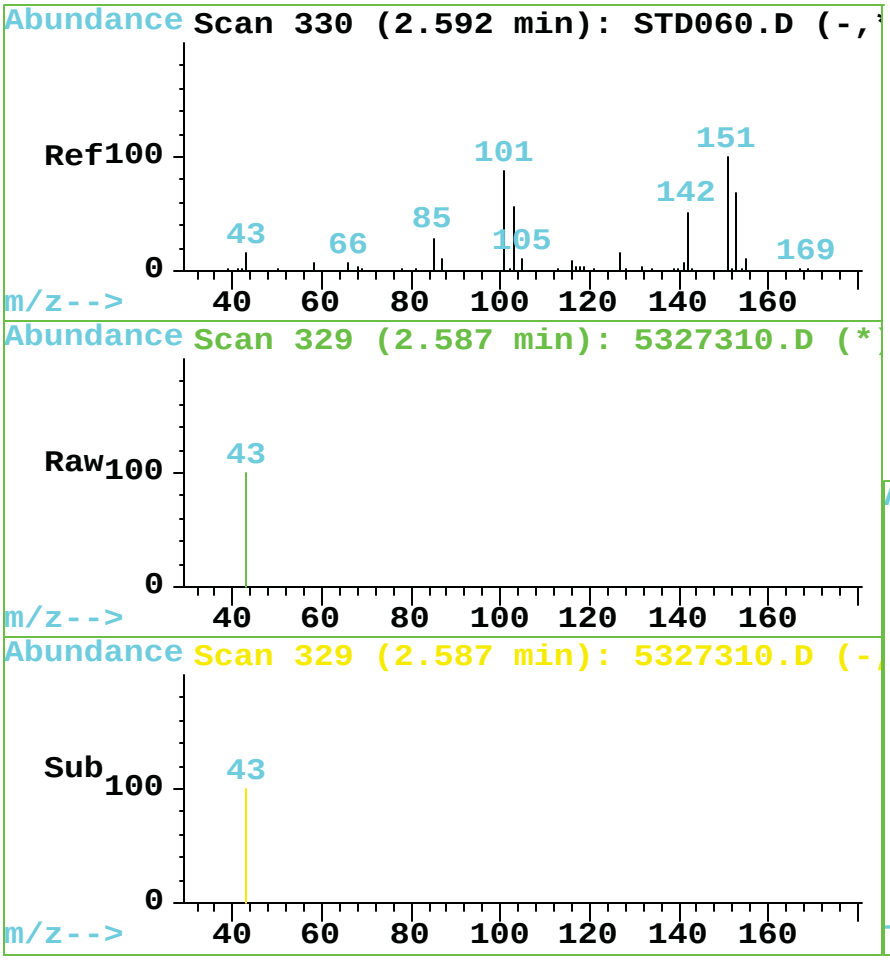
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327310.d Vial: 14
Acq On : 27 Jul 12 5:13 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

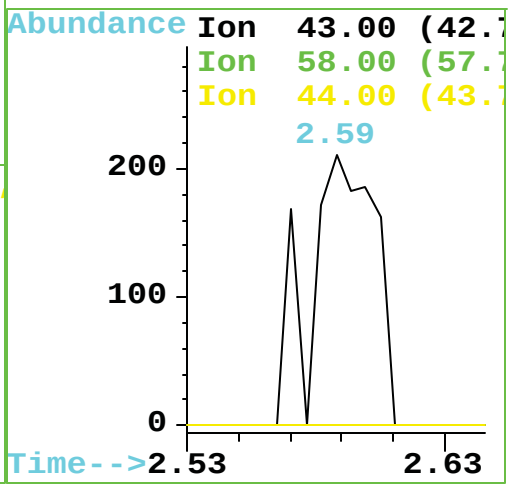


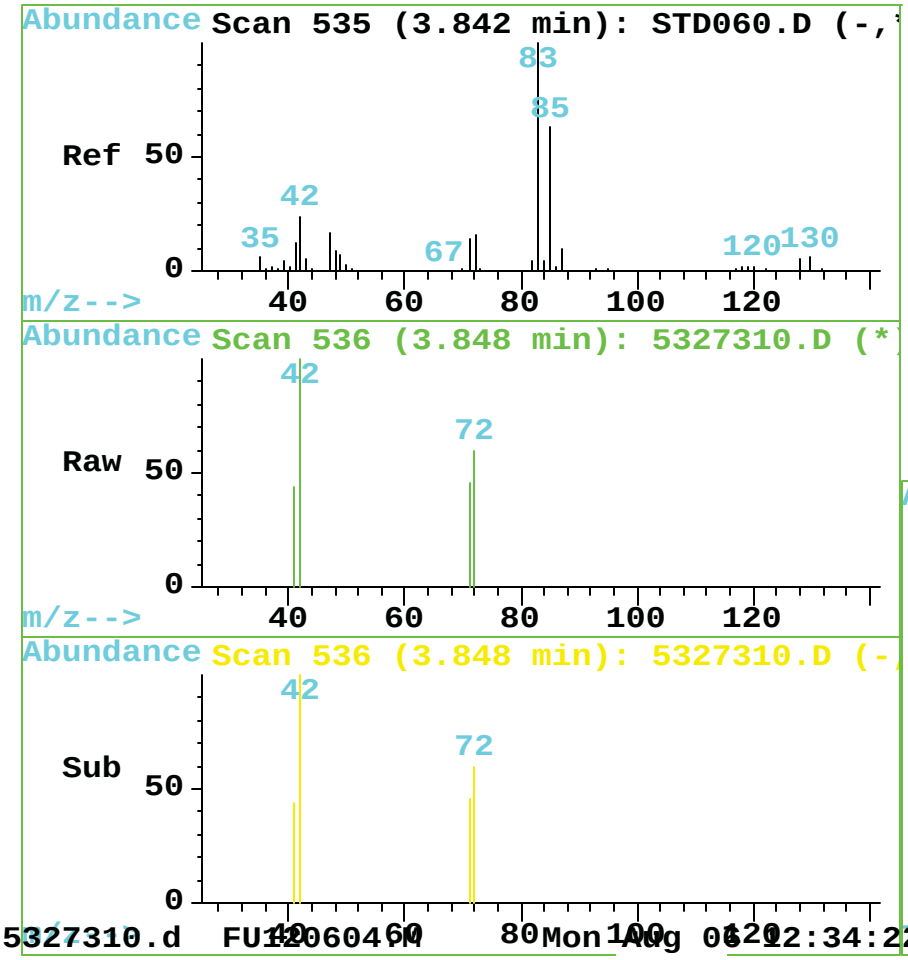


#5
Acetone (*)
Concen: 1.89 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5327310.d
Acq: 27 Jul 12 5:13 pm

Tgt Ion:43 Resp: 396

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

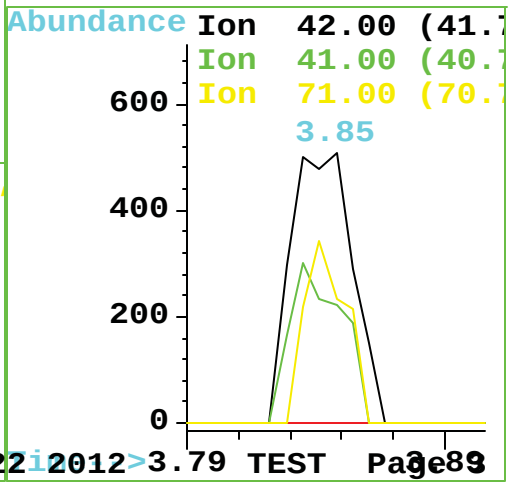




#24
Tetrahydrofuran
Concen: 2.61 ug/l
RT: 3.85 min Scan# 536
Delta R.T. 0.01 min
Lab File: 5327310.d
Acq: 27 Jul 12 5:13 pm

Tgt Ion:42 Resp: 813

Ion	Ratio	Lower	Upper
42	100		
41	50.1	222.5	282.5#
71	45.4	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327311.d Vial: 15
Acq On : 27 Jul 12 5:33 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

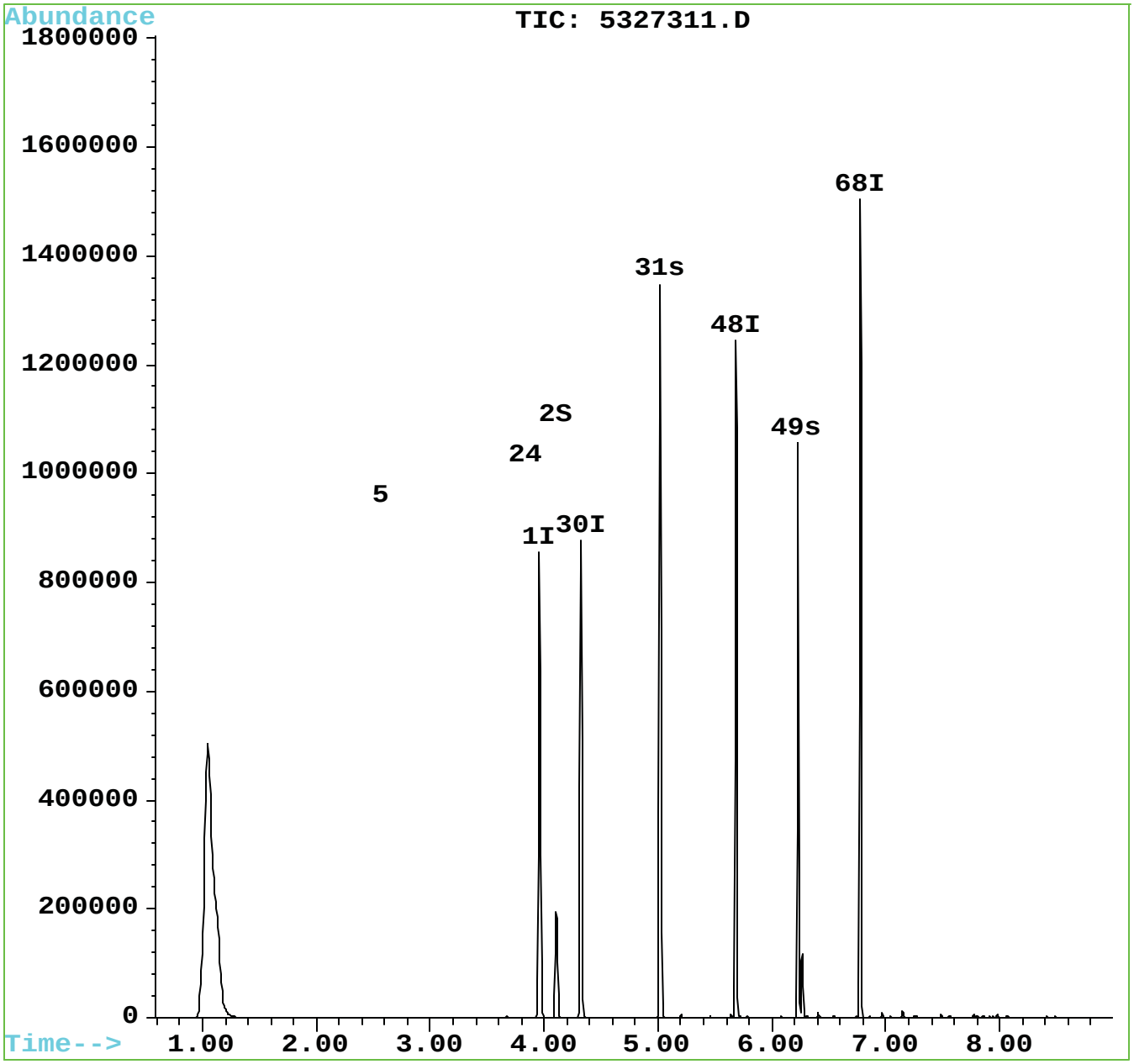
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	528999	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	594725	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	208762	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	293615	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	89946	44.97	ug/l	89.9
31) TOLUENE-D8 (S)	5.02	98	592078	49.27	ug/l	98.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	251596	50.68	ug/l	101.3
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	511	2.59	ug/l #	4
24) Tetrahydrofuran	3.84	42	726	2.49	ug/l #	

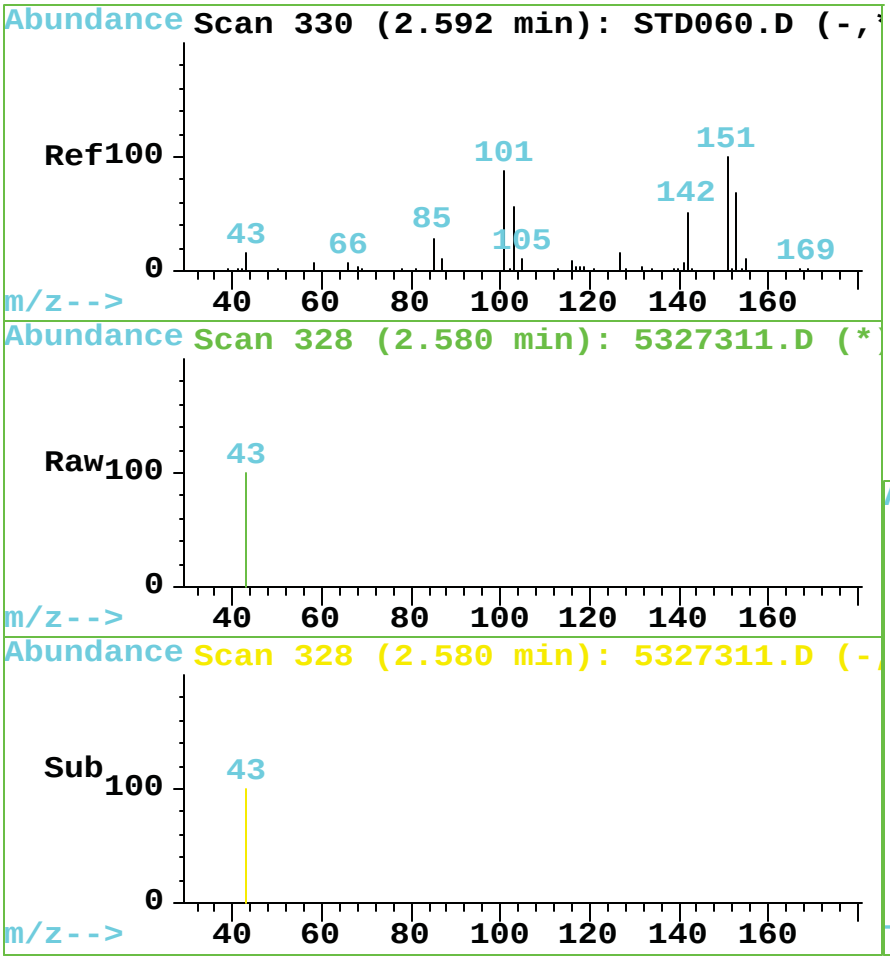
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327311.d Vial: 15
Acq On : 27 Jul 12 5:33 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

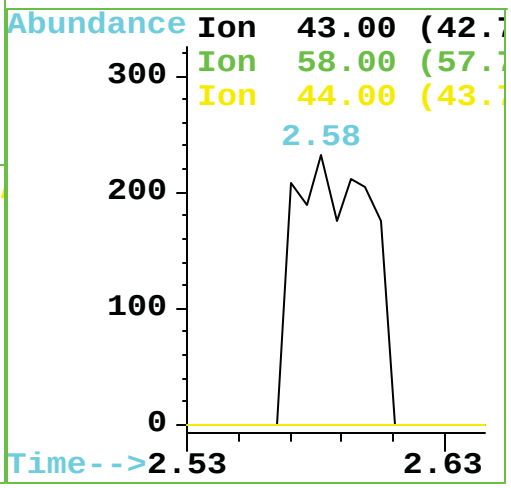


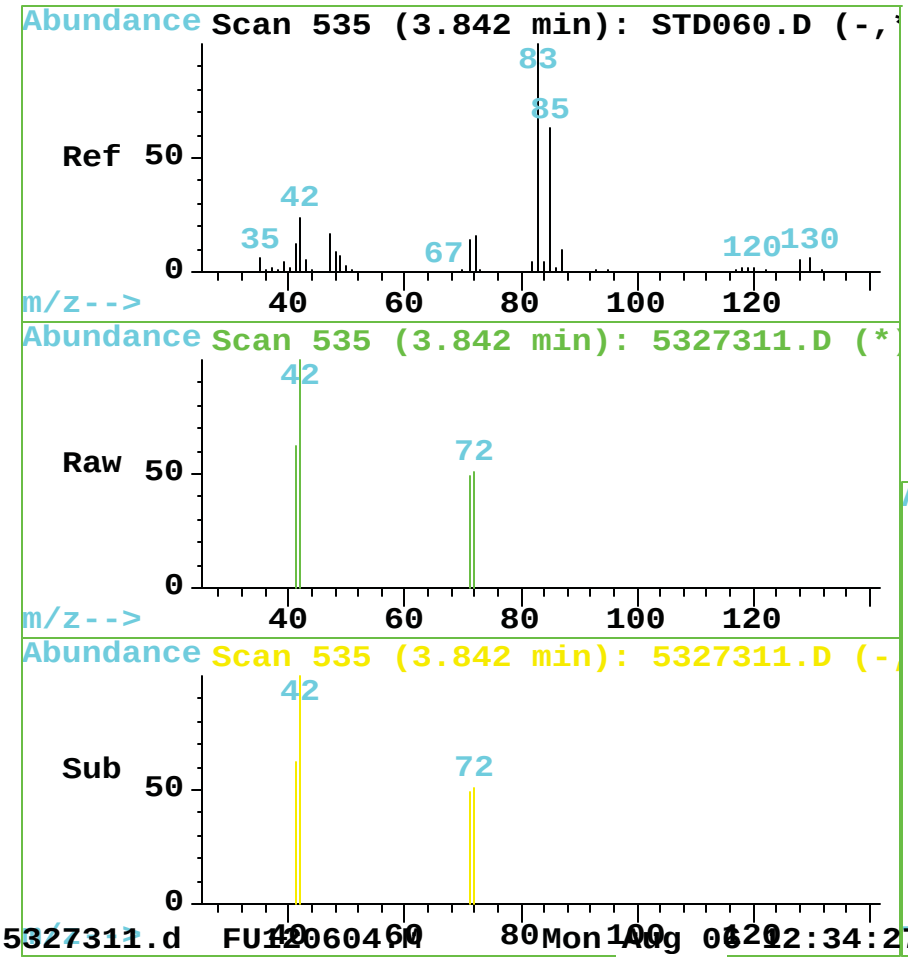


#5
Acetone (*)
Concen: 2.59 ug/l
RT: 2.58 min Scan# 328
Delta R.T. 0.01 min
Lab File: 5327311.d
Acq: 27 Jul 12 5:33 pm

Tgt Ion:43 Resp: 511

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

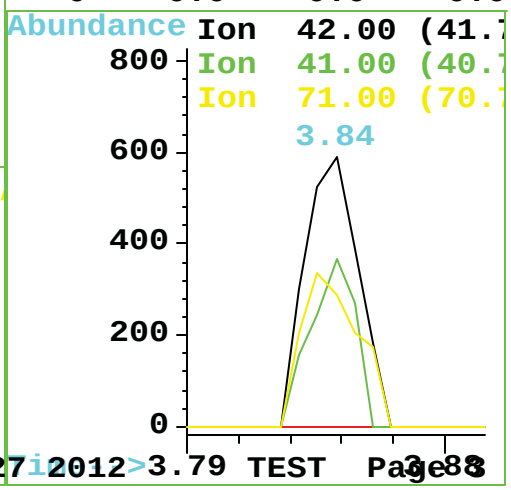




#24
Tetrahydrofuran
Concen: 2.49 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327311.d
Acq: 27 Jul 12 5:33 pm

Tgt Ion:42 Resp: 726

Ion	Ratio	Lower	Upper
42	100		
41	52.3	222.5	282.5#
71	61.0	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327312.d Vial: 16
Acq On : 27 Jul 12 5:53 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

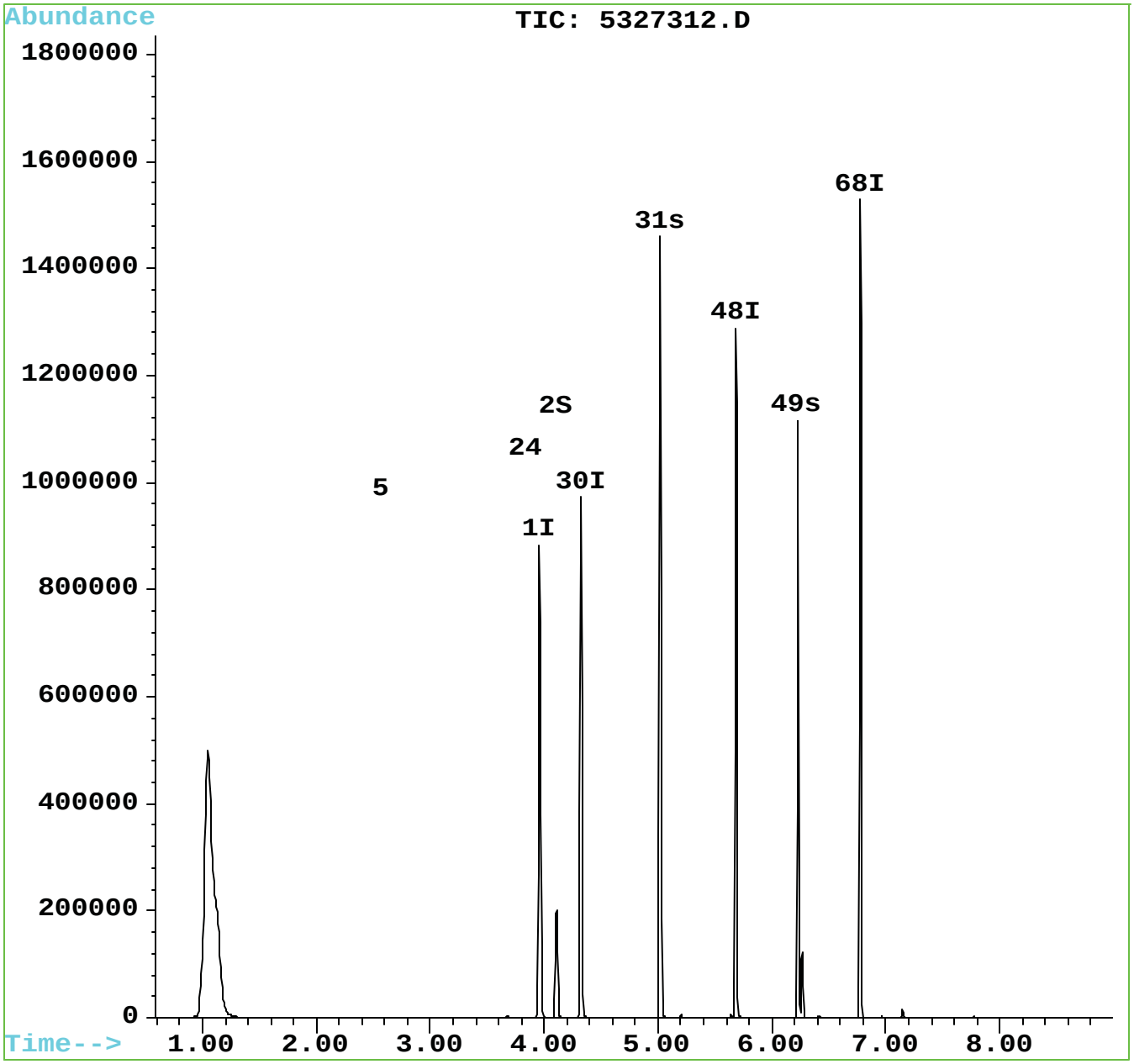
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	561042	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	632136	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	222197	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	305691	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	94023	44.32	ug/l	88.6
31) TOLUENE-D8 (S)	5.02	98	626967	49.09	ug/l	98.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	261225	49.43	ug/l	98.8
Target Compounds						Qvalu
5) Acetone (*)	2.57	43	432	2.07	ug/l #	4
24) Tetrahydrofuran	3.84	42	693	2.24	ug/l #	

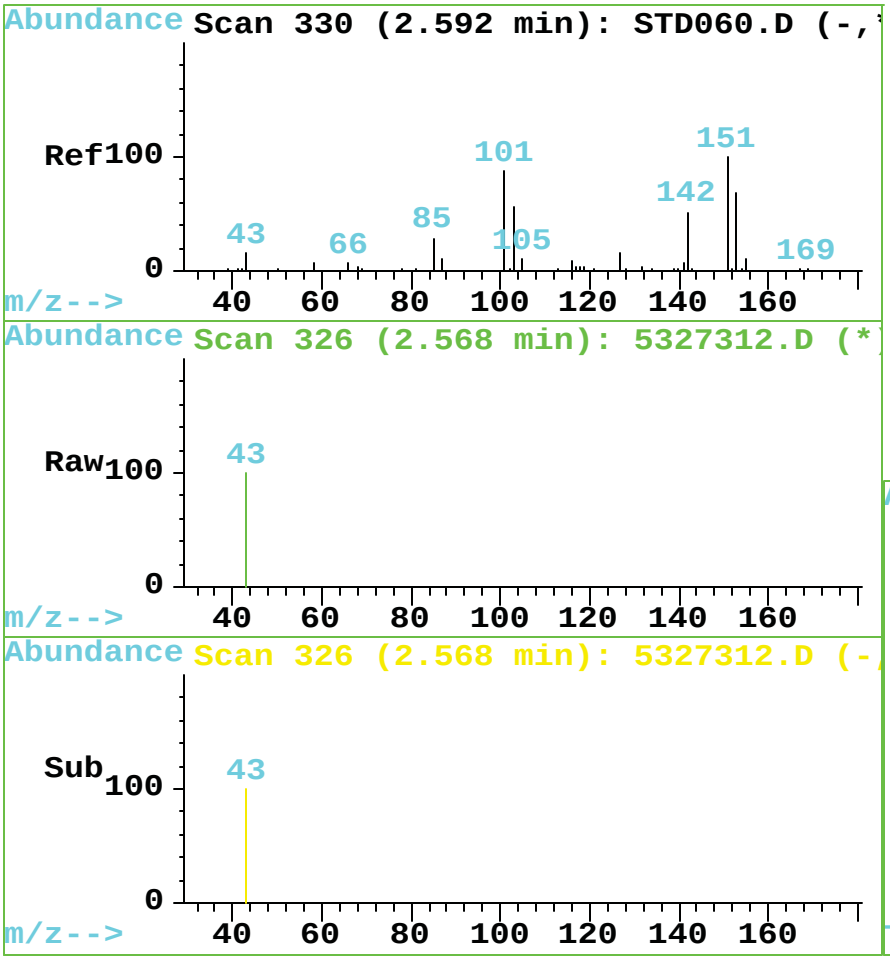
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327312.d Vial: 16
Acq On : 27 Jul 12 5:53 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

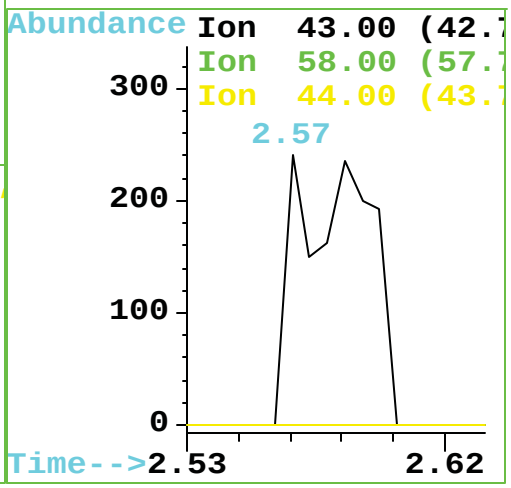


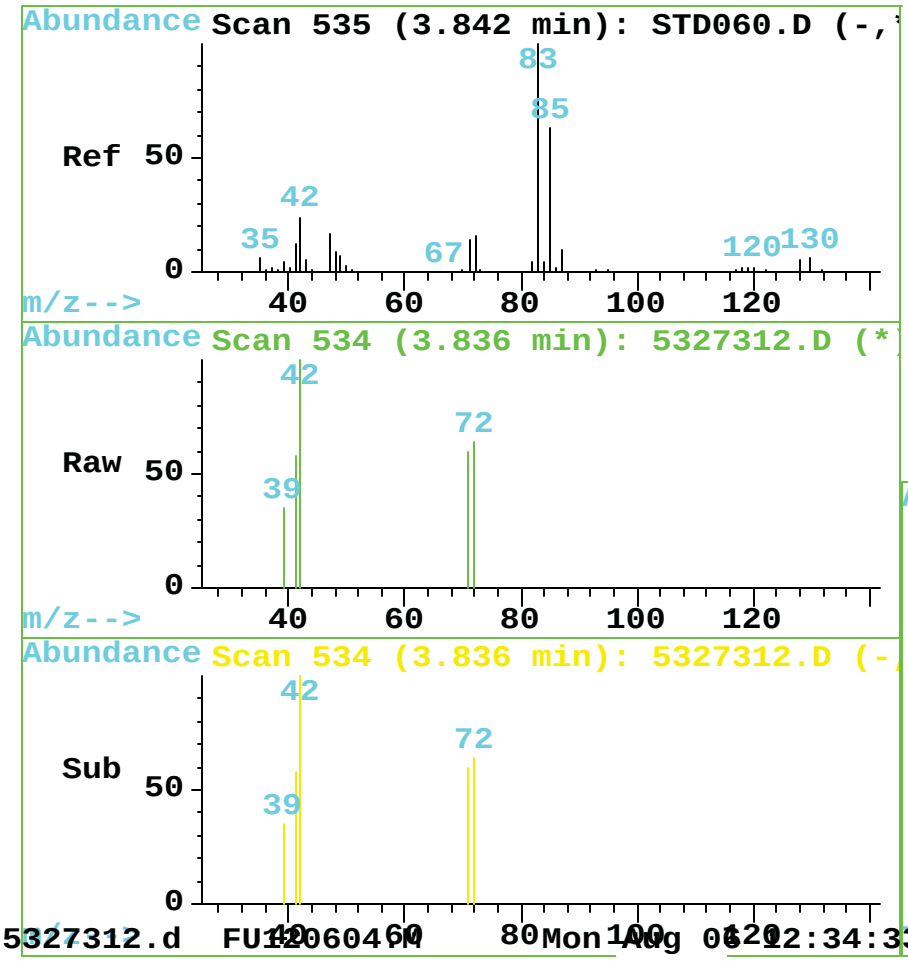


#5
Acetone (*)
Concen: 2.07 ug/l
RT: 2.57 min Scan# 326
Delta R.T. -0.01 min
Lab File: 5327312.d
Acq: 27 Jul 12 5:53 pm

Tgt Ion:43 Resp: 432

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

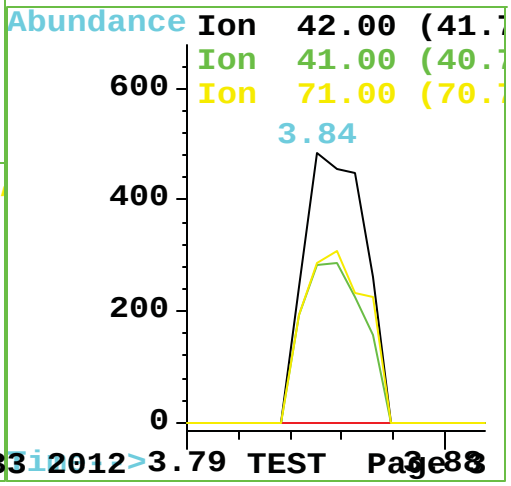




#24
Tetrahydrofuran
Concen: 2.24 ug/l
RT: 3.84 min Scan# 534
Delta R.T. 0.00 min
Lab File: 5327312.d
Acq: 27 Jul 12 5:53 pm

Tgt Ion:42 Resp: 693

Ion	Ratio	Lower	Upper
42	100		
41	60.5	222.5	282.5#
71	65.9	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327313.d Vial: 17
Acq On : 27 Jul 12 6:14 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

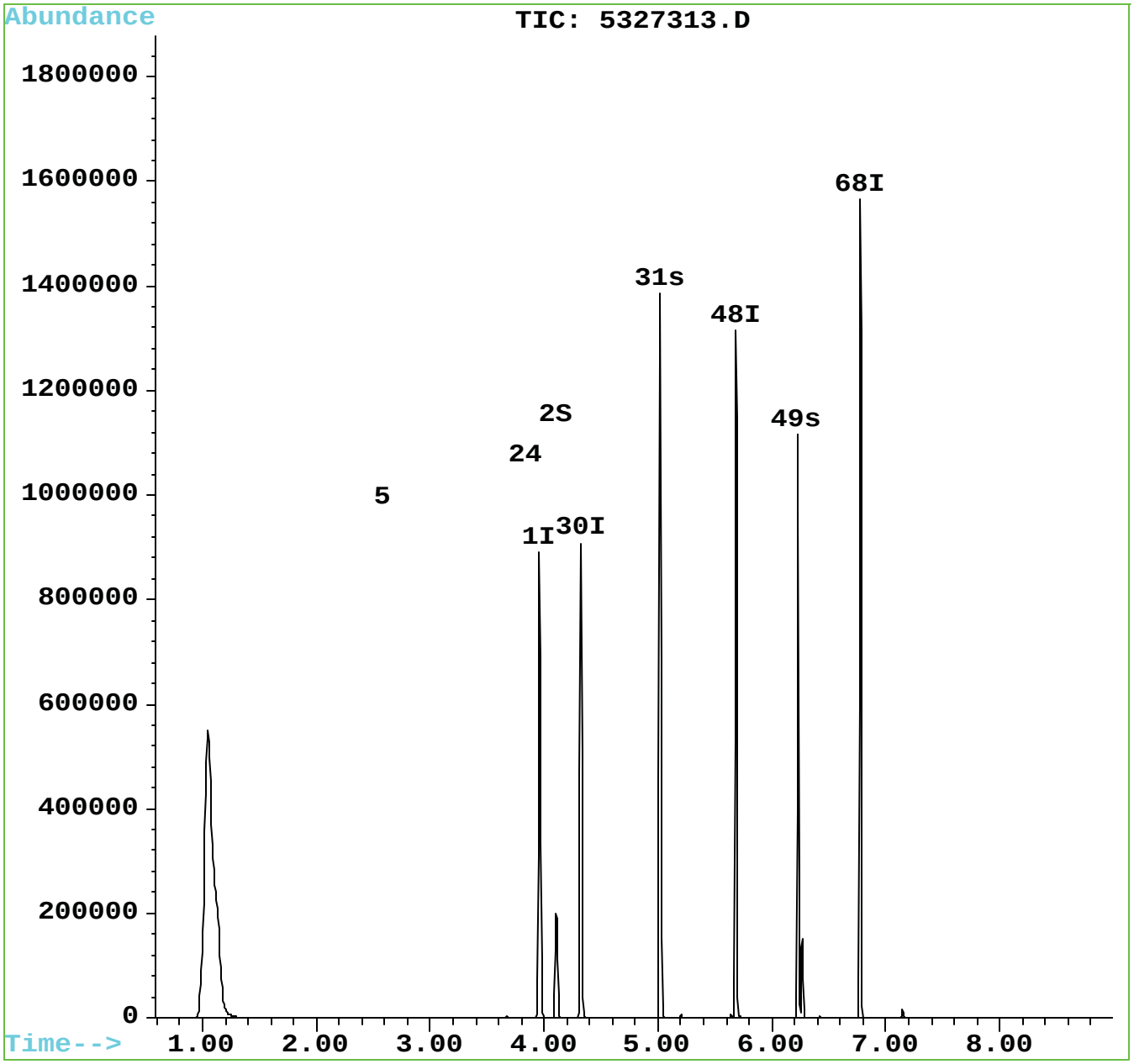
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	561568	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	633598	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	224271	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	312367	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	94897	44.69	ug/l	89.3
31) TOLUENE-D8 (S)	5.02	98	630834	49.28	ug/l	98.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	265139	49.71	ug/l	99.4
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	329	1.57	ug/l #	4
24) Tetrahydrofuran	3.84	42	762	2.46	ug/l #	

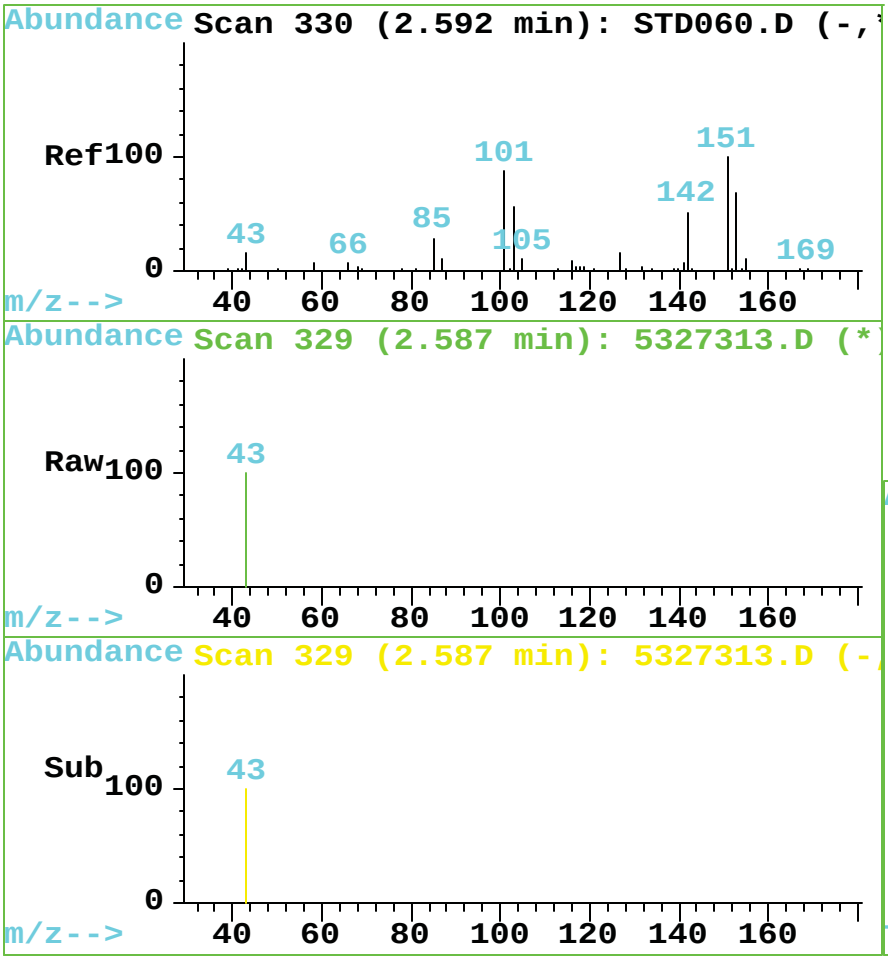
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327313.d Vial: 17
Acq On : 27 Jul 12 6:14 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

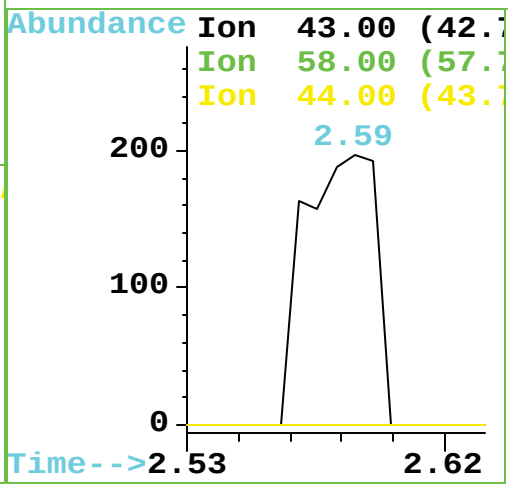


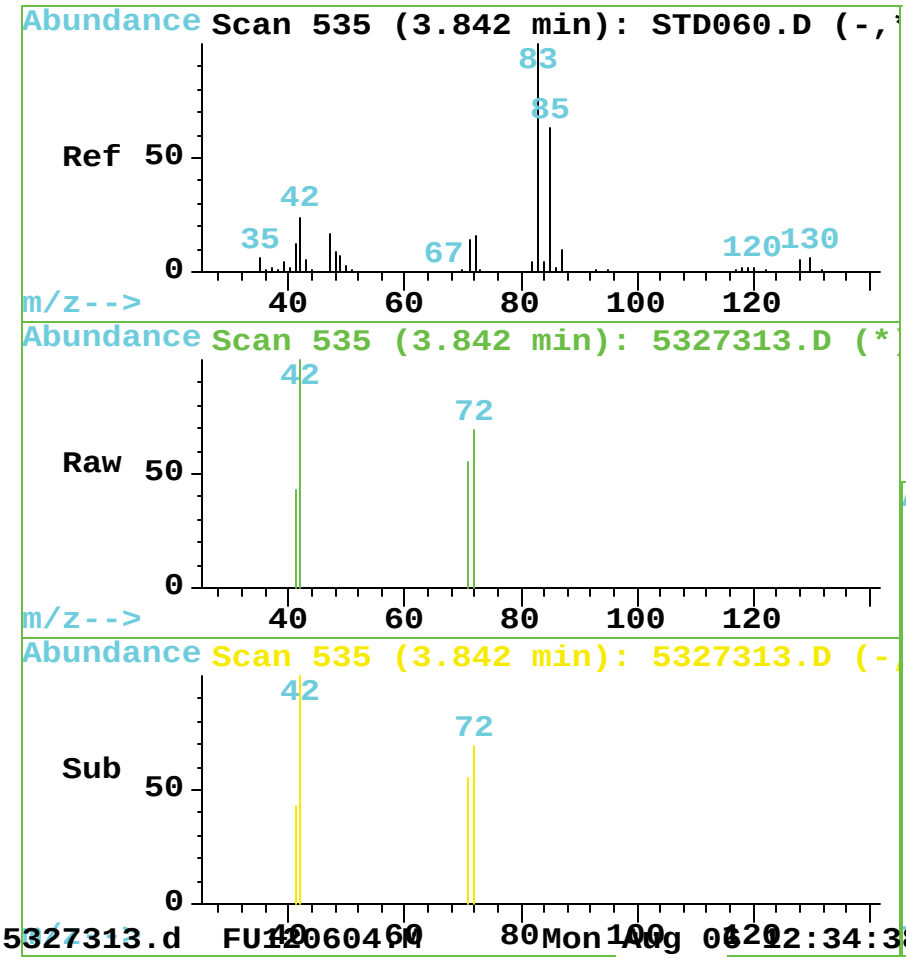


#5
Acetone (*)
Concen: 1.57 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5327313.d
Acq: 27 Jul 12 6:14 pm

Tgt Ion:43 Resp: 329

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

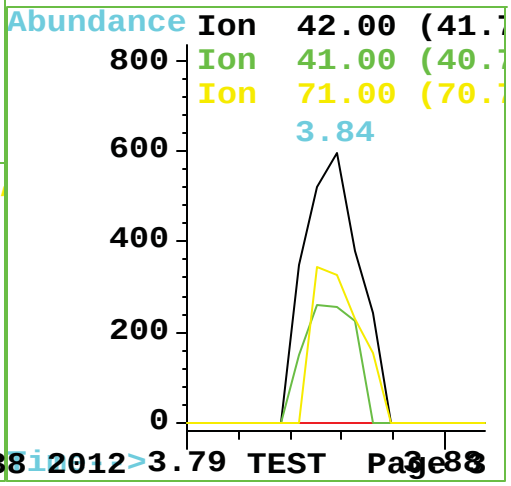




#24
Tetrahydrofuran
Concen: 2.46 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327313.d
Acq: 27 Jul 12 6:14 pm

Tgt Ion:42 Resp: 762

Ion	Ratio	Lower	Upper
42	100		
41	43.0	222.5	282.5#
71	50.5	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327314.d Vial: 18
Acq On : 27 Jul 12 6:34 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

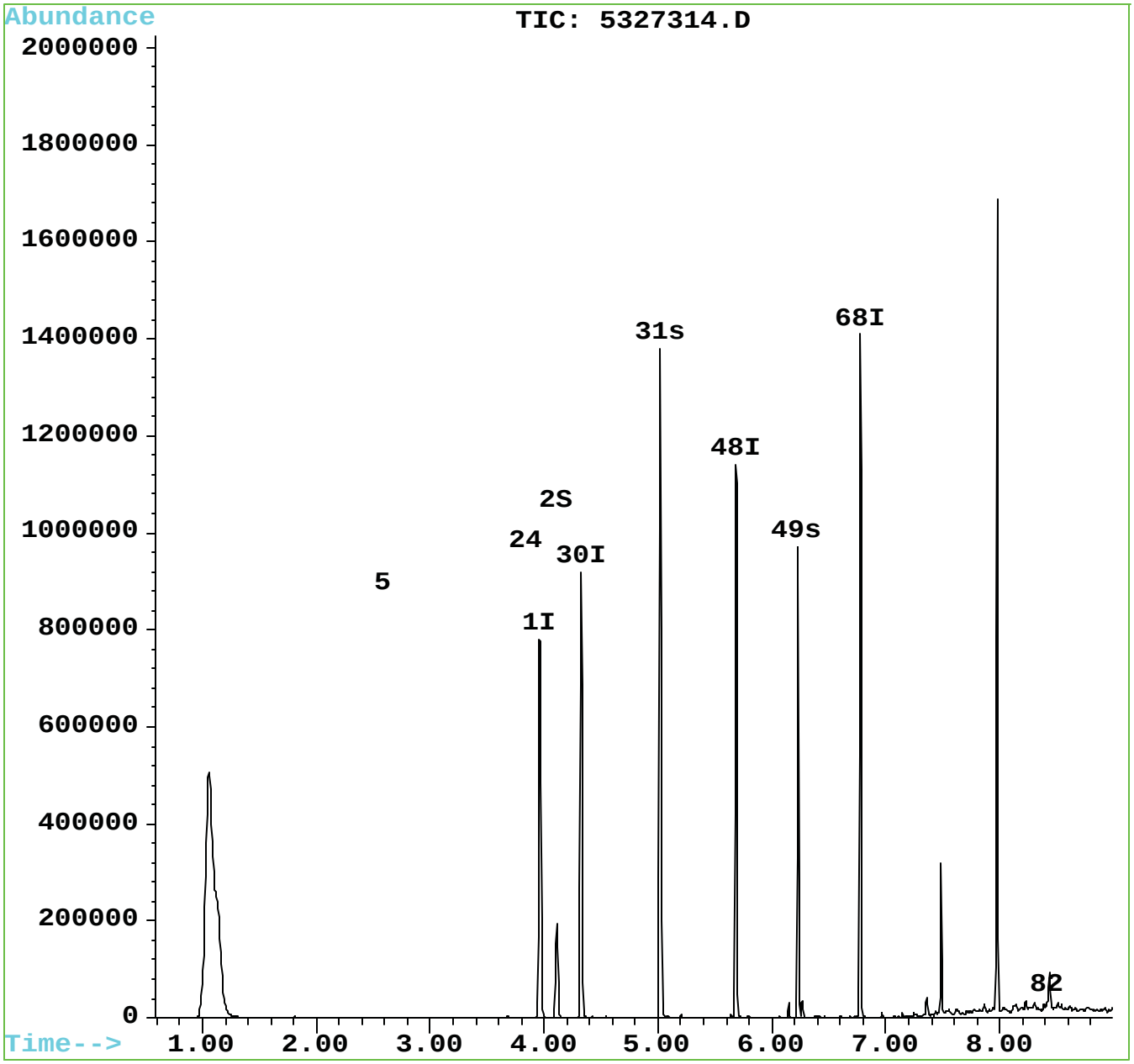
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	534525	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	601060	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	203682	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	277231	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	88391	43.74	ug/l	87.4
31) TOLUENE-D8 (S)	5.02	98	586382	48.28	ug/l	96.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	240355	49.62	ug/l	99.2
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	1154	5.80	ug/l #	6
24) Tetrahydrofuran	3.84	42	694	2.35	ug/l #	
82) 2-Methylnaphthalene	8.41	142	4529	1.42	ug/l	9

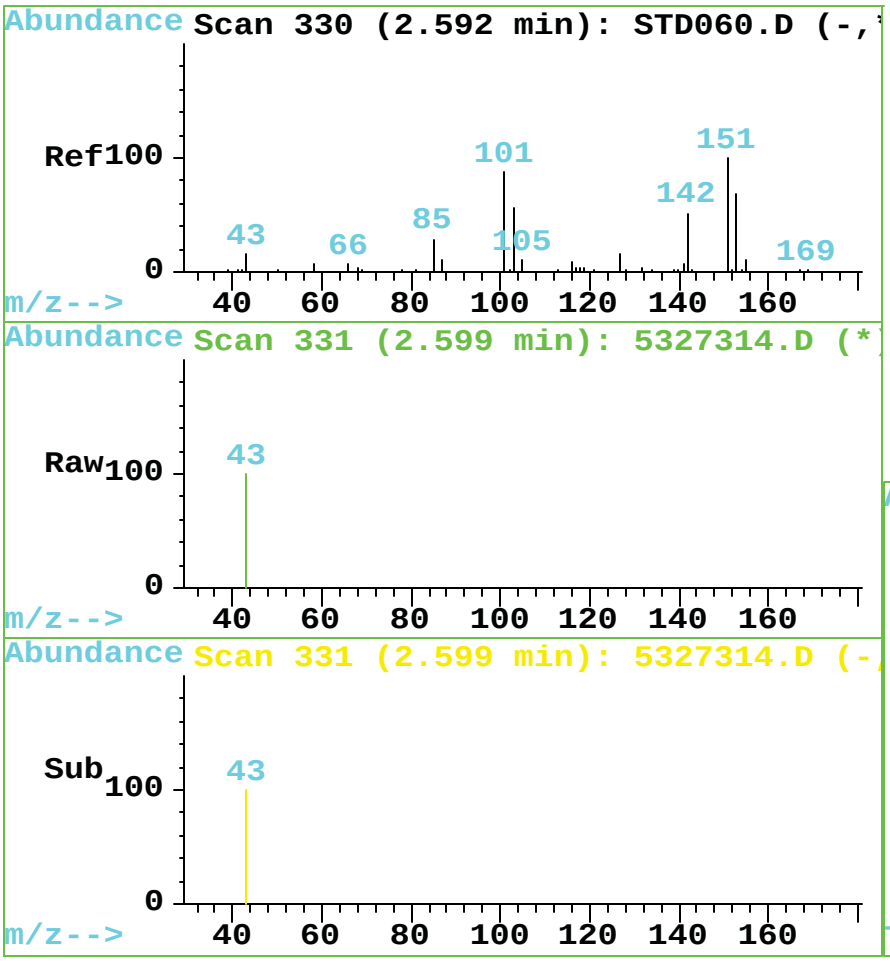
(#) = qualifier out of range (m) = manual integration
5327314.d FU120604.M Mon Aug 06 12:34:43 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327314.d Vial: 18
Acq On : 27 Jul 12 6:34 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

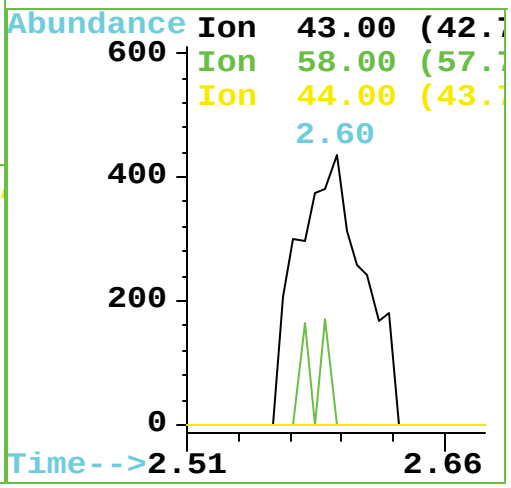


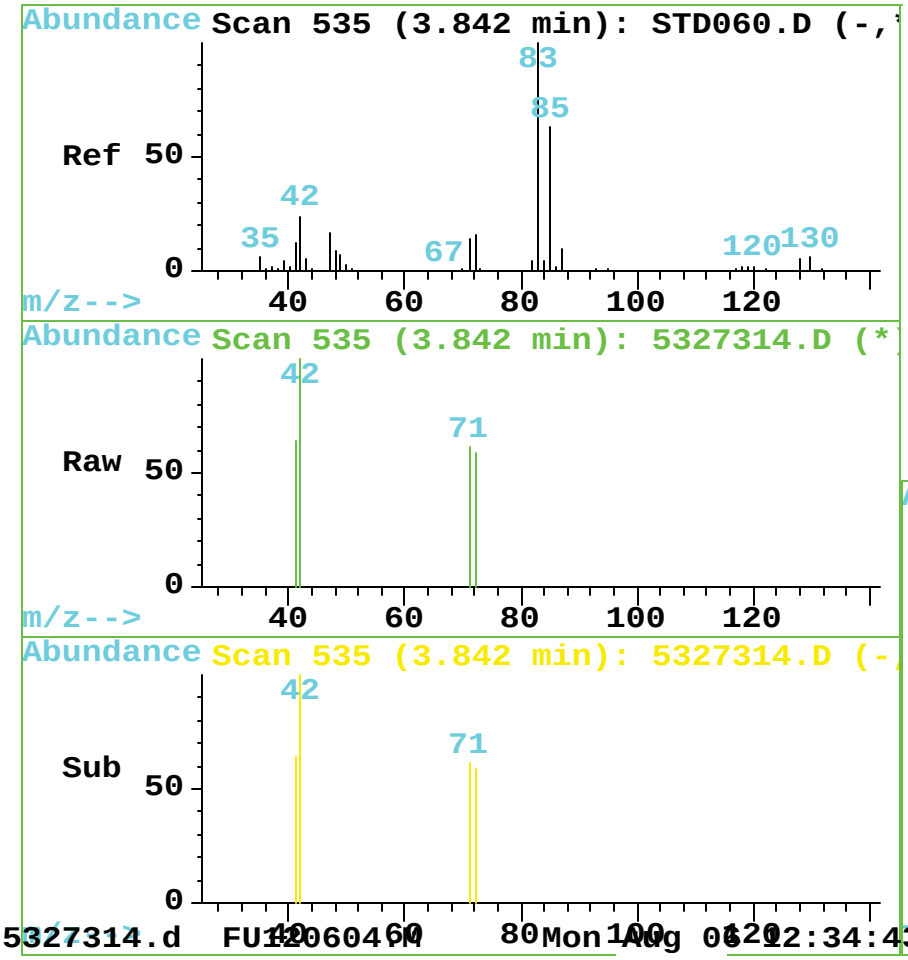


#5
Acetone (*)
Concen: 5.80 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5327314.d
Acq: 27 Jul 12 6:34 pm

Tgt Ion:43 Resp: 1154

Ion	Ratio	Lower	Upper
43	100		
58	10.7	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

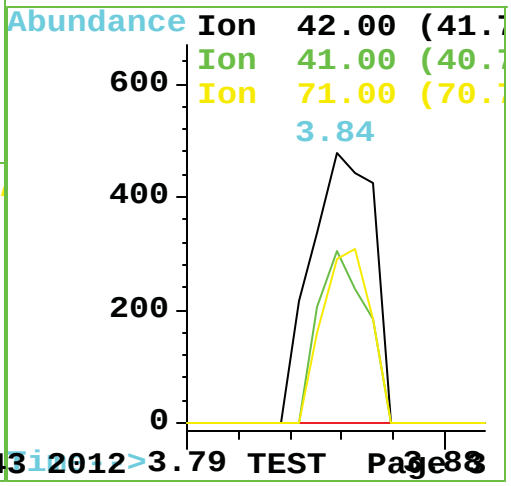


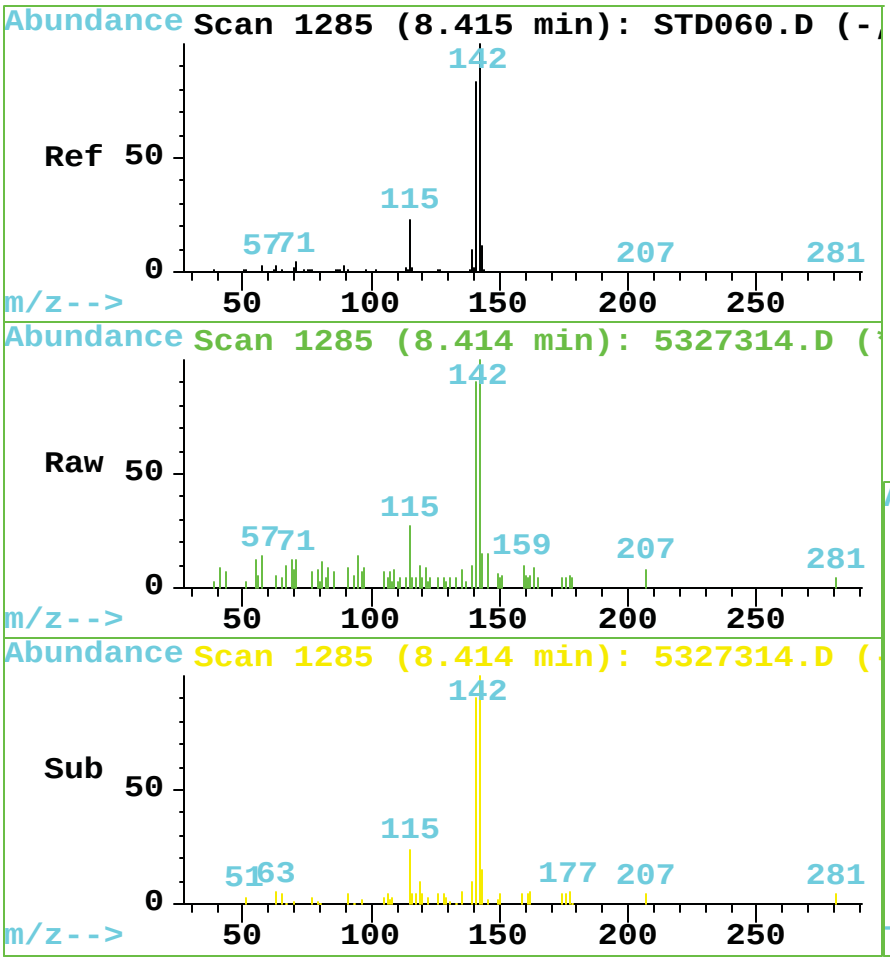


#24
Tetrahydrofuran
Concen: 2.35 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327314.d
Acq: 27 Jul 12 6:34 pm

Tgt Ion:42 Resp: 694

Ion	Ratio	Lower	Upper
42	100		
41	49.3	222.5	282.5#
71	49.7	24.9	84.9
0	0.0	0.0	0.0

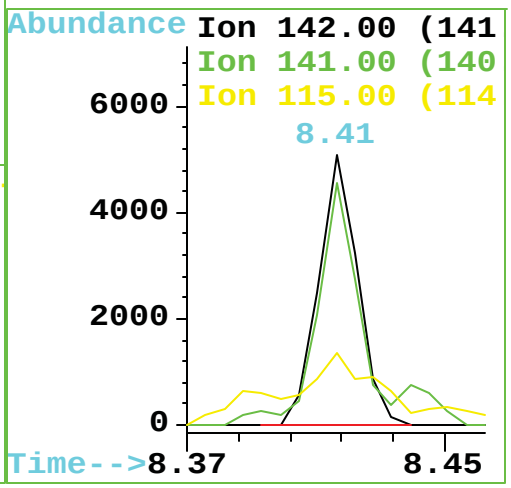




#82
2-Methylnaphthalene
Concen: 1.42 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5327314.d
Acq: 27 Jul 12 6:34 pm

Tgt Ion:142 Resp: 4529

Ion	Ratio	Lower	Upper
142	100		
141	93.9	55.8	115.8
115	32.7	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327315.d Vial: 19
Acq On : 27 Jul 12 6:54 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

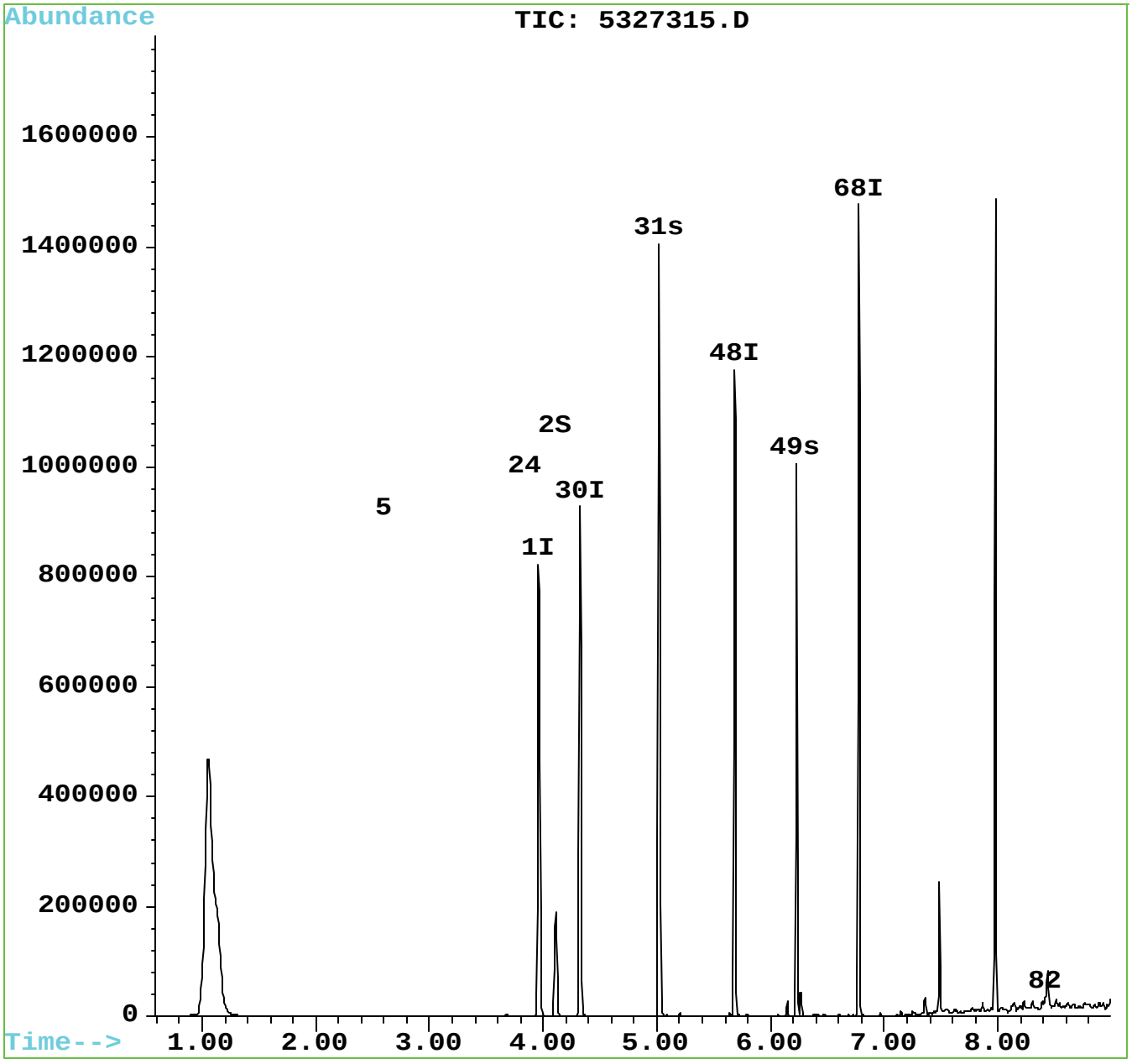
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	549509	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	613087	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	209889	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	284018	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	90198	43.41	ug/l	86.8
31) TOLUENE-D8 (S)	5.02	98	607370	49.03	ug/l	98.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	247157	49.51	ug/l	99.0
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	1030	5.04	ug/l	5
24) Tetrahydrofuran	3.84	42	692	2.28	ug/l #	
82) 2-Methylnaphthalene	8.41	142	5060	1.55	ug/l	8

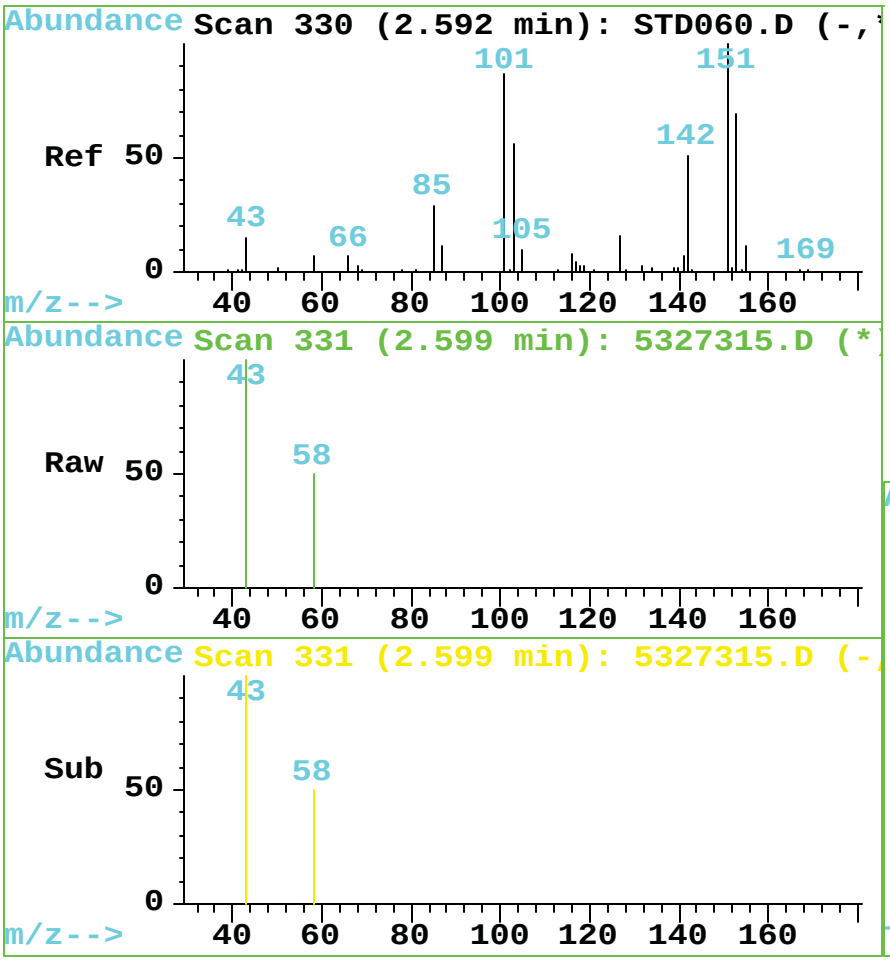
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\5327315.d Vial: 19
Acq On : 27 Jul 12 6:54 pm Operator: lbr
Sample : 100ul 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:43 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

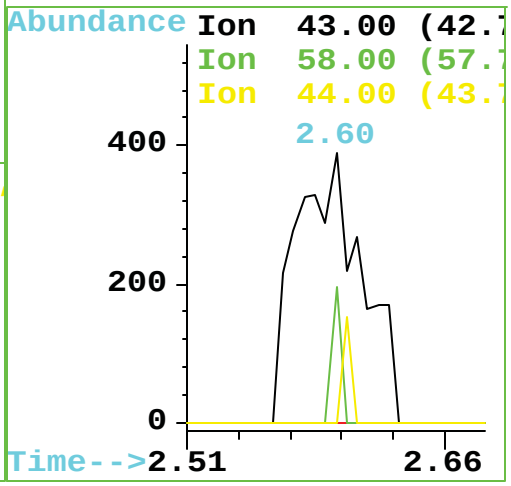


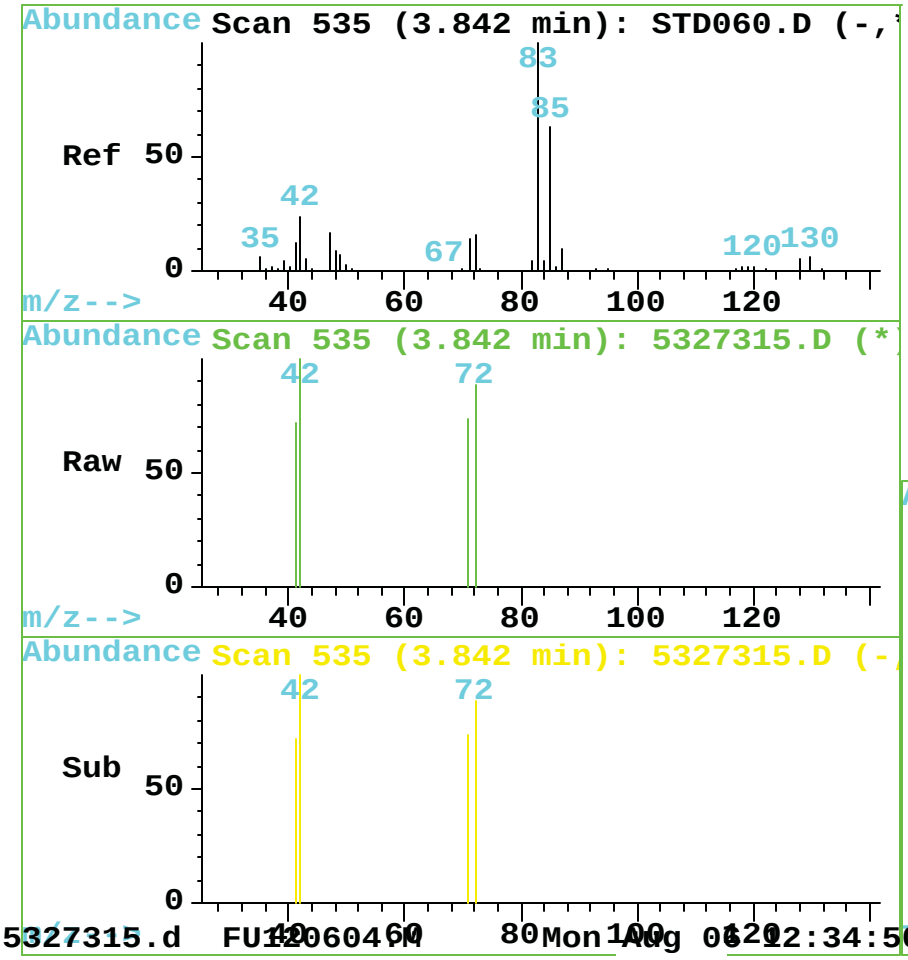


#5
Acetone (*)
Concen: 5.04 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5327315.d
Acq: 27 Jul 12 6:54 pm

Tgt Ion:43 Resp: 1030

Ion	Ratio	Lower	Upper
43	100		
58	6.9	2.5	62.5
44	5.4	0.0	32.2
0	0.0	0.0	0.0

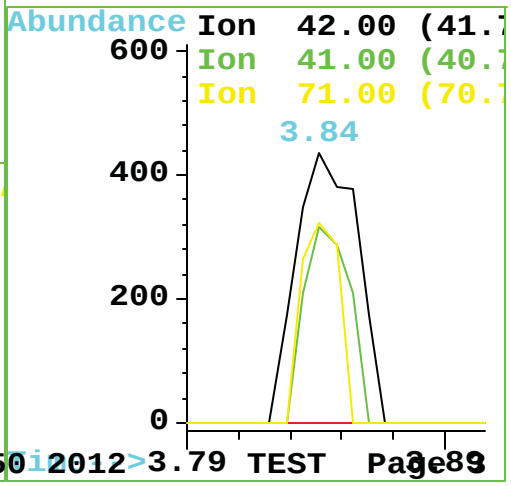


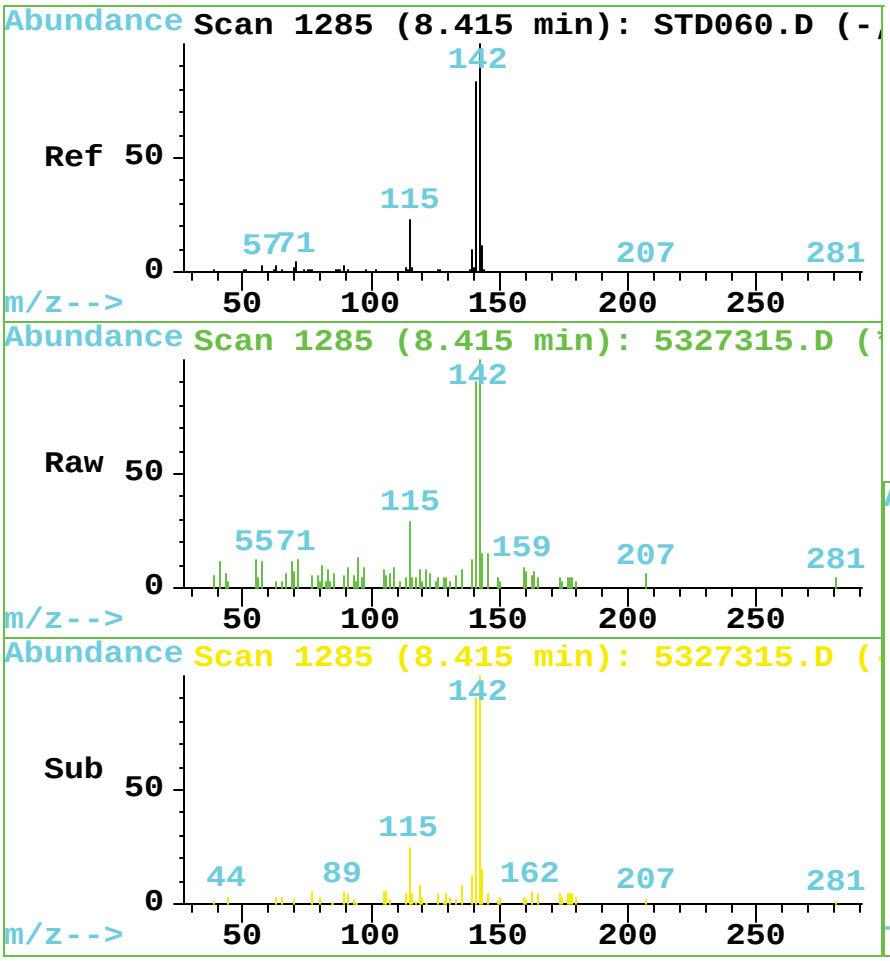


#24
Tetrahydrofuran
Concen: 2.28 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5327315.d
Acq: 27 Jul 12 6:54 pm

Tgt Ion:42 Resp: 692

Ion	Ratio	Lower	Upper
42	100		
41	54.0	222.5	282.5#
71	46.2	24.9	84.9
0	0.0	0.0	0.0

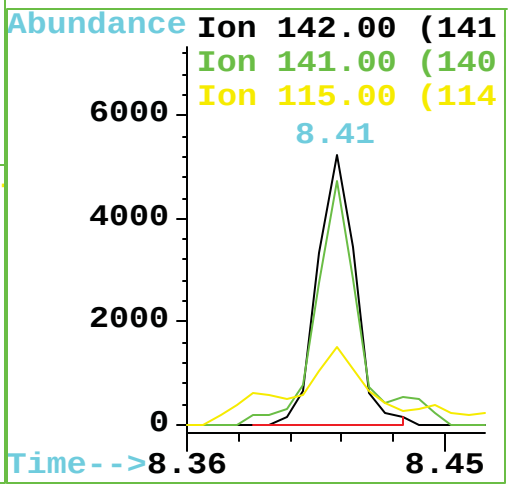




#82
2-Methylnaphthalene
Concen: 1.55 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5327315.d
Acq: 27 Jul 12 6:54 pm

Tgt Ion:142 Resp: 5060

Ion	Ratio	Lower	Upper
142	100		
141	93.4	55.8	115.8
115	56.6	0.0	58.8
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.189	1.69	0.187	0.194	0.190	0.185	0.188	0.191				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.321	2.04	0.310	0.321	0.323	0.320	0.324	0.330				
	Diethyl ether (*)	A	0.093	2.34	0.090	0.096	0.091	0.092	0.092	0.094				
	Acetone (*)	LO	0.020	16.90		0.025	0.017	0.021	0.017	0.019	0.99	0.00	0.019	0.00
	Methyl iodide (iodomethane) (*	A	0.675	1.86	0.663	0.675	0.665	0.669	0.683	0.696				
	Carbon disulfide (*)	LO	0.837	15.25	0.624	0.764	0.829	0.900	0.937	0.966	1.00	0.00	0.955	0.00
	Methyl Acetate	A	0.068	5.50	0.074	0.069	0.067	0.064	0.064	0.068				
	tert-Methyl butyl ether (MTBE)	A	0.467	4.09	0.442	0.460	0.462	0.461	0.475	0.499				
	Acrylonitrile (*)	A	0.041	12.24	0.031	0.045	0.043	0.042	0.042	0.043				
	2-Butanone (MEK) (*)	LO	0.034	21.27		0.046	0.033	0.033	0.028	0.029	1.00	0.00	0.029	0.00
	Dichlorodifluoromethane	QO	0.183	19.21	0.118	0.179	0.178	0.203	0.208	0.213	1.00	0.00	0.199	0.00
	Chloromethane (SPCC)	A	0.230	3.47	0.214	0.234	0.229	0.231	0.236	0.233				
	Vinyl Chloride (CCC)	A	0.258	3.98	0.240	0.262	0.260	0.263	0.270	0.254				
	Bromomethane	A	0.115	5.21	0.104	0.121	0.114	0.114	0.117	0.119				
	Chloroethane	A	0.055	9.88	0.044	0.057	0.056	0.056	0.057	0.059				
	Acrolein	A												
	Trichlorofluoromethane	A	0.301	5.21	0.283	0.308	0.281	0.300	0.315	0.317				
	1,1-Dichloroethene (CCC/MS)	A	0.320	3.94	0.307	0.313	0.333	0.334	0.306	0.324				
	Methylene Chloride	A	0.309	6.48	0.349	0.306	0.299	0.296	0.299	0.304				
	trans-1,2-Dichloroethene	A	0.333	0.80	0.329	0.332	0.336	0.330	0.334	0.334				
	1,1-Dichloroethane (SPCC)	A	0.417	1.85	0.403	0.418	0.419	0.413	0.421	0.425				
	cis-1,2-Dichloroethene	A	0.348	0.98	0.345	0.346	0.354	0.346	0.350	0.347				
	Tetrahydrofuran	A	0.027	13.06		0.033	0.029	0.025	0.025	0.025				
	Chloroform (CCC)	A	0.448	1.09	0.445	0.454	0.451	0.440	0.448	0.449				
	Bromochloromethane	A	0.223	1.41	0.218	0.224	0.223	0.220	0.223	0.227				
	1,1,1-Trichloroethane	A	0.438	6.04	0.388	0.433	0.446	0.446	0.456	0.461				
	1,1-Dichloropropene	A	0.367	3.62	0.365	0.377	0.386	0.365	0.363	0.347				
	Cyclohexane	A	0.101	6.77	0.104	0.107	0.110	0.096	0.099	0.092				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.010	5.44	1.018	1.058	1.063	1.016	0.994	0.912				
	4-Methyl-2-pentanone (MIBK) (*	LO	0.029	17.01	0.019	0.028	0.030	0.031	0.031	0.032	1.00	0.00	0.032	0.00
	2-Hexanone (*)	A	0.025	11.08	0.021	0.023	0.023	0.027	0.026	0.028				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.355	5.17	0.320	0.350	0.364	0.367	0.369	0.358				
	Benzene (MS)	A	1.000	6.75	1.062	1.044	1.050	0.993	0.962	0.886				
	1,2-Dichloroethane	A	0.181	4.10	0.190	0.184	0.187	0.179	0.176	0.170				
	Trichloroethene (MS)	A	0.273	2.82	0.268	0.278	0.283	0.274	0.272	0.261				
	1,2-Dichloropropane (CCC)	A	0.195	6.61	0.204	0.204	0.203	0.195	0.190	0.171				
	Bromodichloromethane	A	0.243	10.47	0.195	0.234	0.251	0.257	0.262	0.258				
	Methyl Cyclohexane	A	0.283	6.15	0.281	0.296	0.300	0.287	0.280	0.251				
	Dibromomethane	A	0.189	3.98	0.174	0.189	0.194	0.193	0.193	0.189				
	cis-1,3-Dichloropropene	A	0.303	10.83	0.238	0.301	0.318	0.322	0.324	0.314				
	Toluene (CCC/MS)	A	1.173	6.12	1.178	1.235	1.244	1.184	1.149	1.046				
	trans-1,3-Dichloropropene	A	0.228	12.49	0.174	0.218	0.239	0.244	0.248	0.244				
	1,1,2-Trichloroethane	A	0.125	1.47	0.127	0.125	0.127	0.125	0.125	0.122				
	Tetrachloroethene	A	0.485	6.21	0.494	0.491	0.525	0.472	0.491	0.434				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	1.189	4.16	1.270	1.200	1.204	1.160	1.178	1.123				
	trans-1,4-Dichloro-2-butene	A	0.069	6.87	0.061	0.071	0.075	0.070	0.071	0.067				
	Dibromochloromethane	A	0.570	14.80	0.417	0.536	0.580	0.618	0.630	0.641				
	1,2-Dibromoethane	A	0.459	4.13	0.422	0.455	0.470	0.466	0.469	0.471				
	Chlorobenzene (SPCC/MS)	A	2.315	6.75	2.518	2.398	2.396	2.276	2.232	2.072				
	1,1,1,2-Tetrachloroethane	A	0.774	6.88	0.684	0.808	0.821	0.805	0.788	0.735				
	Ethylbenzene (CCC)	A	3.471	8.72	3.621	3.696	3.733	3.487	3.372	2.918				
	p,m-Xylene	A	1.483	14.01	1.631	1.642	1.639	1.488	1.381	1.117				
	o-Xylene	A	2.647	10.04	2.798	2.845	2.865	2.662	2.546	2.164				
	Styrene	A	2.154	10.38	2.010	2.320	2.398	2.251	2.155	1.790				
	Isopropylbenzene	A	3.905	7.55	3.731	4.156	4.257	3.971	3.870	3.445				
	Bromoform (SPCC)	QO	0.364	19.60	0.250	0.320	0.353	0.395	0.420	0.443	1.00	0.00	0.383	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.427	4.34	0.390	0.436	0.440	0.432	0.434	0.432				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	1,2,3-Trichloropropane	A	0.141	4.87	0.151	0.143	0.145	0.138	0.136	0.132				
	n-Propylbenzene	A	4.016	7.55	3.862	4.278	4.350	4.072	4.020	3.514				
	Bromobenzene	A	1.102	4.68	1.138	1.138	1.143	1.097	1.084	1.009				
	1,3,5-Trimethylbenzene	A	1.801	8.11	1.769	1.930	1.960	1.819	1.780	1.550				
	tert-Butylbenzene	A	1.843	6.47	1.765	1.943	1.980	1.861	1.852	1.654				
	1,2,4-Trimethylbenzene	A	1.903	10.03	1.881	2.038	2.118	1.941	1.874	1.564				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.169	8.51	2.891	3.389	3.456	3.301	3.179	2.798				
	p-Isopropyltoluene	A	2.676	10.95	2.508	2.945	2.977	2.785	2.639	2.202				
	1,3-Dichlorobenzene	A	1.462	12.17	1.620	1.583	1.585	1.457	1.370	1.154				
	1,4-Dichlorobenzene	A	1.500	5.88	1.605	1.548	1.558	1.471	1.461	1.359				
	1,2-Dichlorobenzene	A	1.359	4.10	1.399	1.411	1.407	1.334	1.329	1.273				
	1,2,3-Trimethylbenzene	A	2.213	5.18	2.172	2.302	2.344	2.247	2.190	2.020				
	n-Butylbenzene	A	2.120	6.98	1.974	2.225	2.296	2.167	2.146	1.912				
	Hexachloroethane	QO	0.565	17.65	0.389	0.514	0.574	0.621	0.650	0.640	1.00	0.00	0.632	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.070	20.12	0.045	0.066	0.068	0.073	0.080	0.085	1.00	0.00	0.071	0.00
	1,2,4-Trichlorobenzene	A	0.928	2.87	0.941	0.913	0.949	0.912	0.961	0.891				
	Hexachlorobutadiene	A	0.882	4.04	0.921	0.886	0.887	0.862	0.912	0.823				
	1,2,3-Trichlorobenzene	A	0.758	4.14	0.807	0.738	0.759	0.732	0.784	0.730				
	Naphthalene	A	1.135	6.37	1.023	1.081	1.148	1.149	1.222	1.187				
	2-Methylnaphthalene	LO	0.504	16.36	0.448	0.392	0.472	0.525	0.615	0.571	1.00	0.00	0.575	0.00

Calibration Date: 06/04/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): fu120604.M (Mean %RSD: 7.41)

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.189	1.69	0.187	0.194	0.190	0.185	0.188	0.191				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.321	2.04	0.310	0.321	0.323	0.320	0.324	0.330				
	Diethyl ether (*)	A	0.093	2.34	0.090	0.096	0.091	0.092	0.092	0.094				
	Acetone (*)	LO	0.020	16.90		0.025	0.017	0.021	0.017	0.019	0.99	0.00	0.019	0.00
	Methyl iodide (iodomethane) (*	A	0.675	1.86	0.663	0.675	0.665	0.669	0.683	0.696				
	Carbon disulfide (*)	LO	0.837	15.25	0.624	0.764	0.829	0.900	0.937	0.966	1.00	0.00	0.955	0.00
	Methyl Acetate	A	0.068	5.50	0.074	0.069	0.067	0.064	0.064	0.068				
	tert-Methyl butyl ether (MTBE)	A	0.467	4.09	0.442	0.460	0.462	0.461	0.475	0.499				
	Acrylonitrile (*)	A	0.041	12.24	0.031	0.045	0.043	0.042	0.042	0.043				
	2-Butanone (MEK) (*)	LO	0.034	21.27		0.046	0.033	0.033	0.028	0.029	1.00	0.00	0.029	0.00
	Dichlorodifluoromethane	QO	0.183	19.21	0.118	0.179	0.178	0.203	0.208	0.213	1.00	0.00	0.199	0.00
	Chloromethane (SPCC)	A	0.230	3.47	0.214	0.234	0.229	0.231	0.236	0.233				
	Vinyl Chloride (CCC)	A	0.258	3.98	0.240	0.262	0.260	0.263	0.270	0.254				
	Bromomethane	A	0.115	5.21	0.104	0.121	0.114	0.114	0.117	0.119				
	Chloroethane	A	0.055	9.88	0.044	0.057	0.056	0.056	0.057	0.059				
	Acrolein	A												
	Trichlorofluoromethane	A	0.301	5.21	0.283	0.308	0.281	0.300	0.315	0.317				
	1,1-Dichloroethene (CCC/MS)	A	0.320	3.94	0.307	0.313	0.333	0.334	0.306	0.324				
	Methylene Chloride	A	0.309	6.48	0.349	0.306	0.299	0.296	0.299	0.304				
	trans-1,2-Dichloroethene	A	0.333	0.80	0.329	0.332	0.336	0.330	0.334	0.334				
	1,1-Dichloroethane (SPCC)	A	0.417	1.85	0.403	0.418	0.419	0.413	0.421	0.425				
	cis-1,2-Dichloroethene	A	0.348	0.98	0.345	0.346	0.354	0.346	0.350	0.347				
	Tetrahydrofuran	A	0.027	13.06		0.033	0.029	0.025	0.025	0.025				
	Chloroform (CCC)	A	0.448	1.09	0.445	0.454	0.451	0.440	0.448	0.449				
	Bromochloromethane	A	0.223	1.41	0.218	0.224	0.223	0.220	0.223	0.227				
	1,1,1-Trichloroethane	A	0.438	6.04	0.388	0.433	0.446	0.446	0.456	0.461				
	1,1-Dichloropropene	A	0.367	3.62	0.365	0.377	0.386	0.365	0.363	0.347				
	Cyclohexane	A	0.101	6.77	0.104	0.107	0.110	0.096	0.099	0.092				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.010	5.44	1.018	1.058	1.063	1.016	0.994	0.912				
	4-Methyl-2-pentanone (MIBK) (*	LO	0.029	17.01	0.019	0.028	0.030	0.031	0.031	0.032	1.00	0.00	0.032	0.00
	2-Hexanone (*)	A	0.025	11.08	0.021	0.023	0.023	0.027	0.026	0.028				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.355	5.17	0.320	0.350	0.364	0.367	0.369	0.358				
	Benzene (MS)	A	1.000	6.75	1.062	1.044	1.050	0.993	0.962	0.886				
	1,2-Dichloroethane	A	0.181	4.10	0.190	0.184	0.187	0.179	0.176	0.170				
	Trichloroethene (MS)	A	0.273	2.82	0.268	0.278	0.283	0.274	0.272	0.261				
	1,2-Dichloropropane (CCC)	A	0.195	6.61	0.204	0.204	0.203	0.195	0.190	0.171				
	Bromodichloromethane	A	0.243	10.47	0.195	0.234	0.251	0.257	0.262	0.258				
	Methyl Cyclohexane	A	0.283	6.15	0.281	0.296	0.300	0.287	0.280	0.251				
	Dibromomethane	A	0.189	3.98	0.174	0.189	0.194	0.193	0.193	0.189				
	cis-1,3-Dichloropropene	A	0.303	10.83	0.238	0.301	0.318	0.322	0.324	0.314				
	Toluene (CCC/MS)	A	1.173	6.12	1.178	1.235	1.244	1.184	1.149	1.046				
	trans-1,3-Dichloropropene	A	0.228	12.49	0.174	0.218	0.239	0.244	0.248	0.244				
	1,1,2-Trichloroethane	A	0.125	1.47	0.127	0.125	0.127	0.125	0.125	0.122				
	Tetrachloroethene	A	0.485	6.21	0.494	0.491	0.525	0.472	0.491	0.434				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	1.189	4.16	1.270	1.200	1.204	1.160	1.178	1.123				
	trans-1,4-Dichloro-2-butene	A	0.069	6.87	0.061	0.071	0.075	0.070	0.071	0.067				
	Dibromochloromethane	A	0.570	14.80	0.417	0.536	0.580	0.618	0.630	0.641				
	1,2-Dibromoethane	A	0.459	4.13	0.422	0.455	0.470	0.466	0.469	0.471				
	Chlorobenzene (SPCC/MS)	A	2.315	6.75	2.518	2.398	2.396	2.276	2.232	2.072				
	1,1,1,2-Tetrachloroethane	A	0.774	6.88	0.684	0.808	0.821	0.805	0.788	0.735				
	Ethylbenzene (CCC)	A	3.471	8.72	3.621	3.696	3.733	3.487	3.372	2.918				
	p,m-Xylene	A	1.483	14.01	1.631	1.642	1.639	1.488	1.381	1.117				
	o-Xylene	A	2.647	10.04	2.798	2.845	2.865	2.662	2.546	2.164				
	Styrene	A	2.154	10.38	2.010	2.320	2.398	2.251	2.155	1.790				
	Isopropylbenzene	A	3.905	7.55	3.731	4.156	4.257	3.971	3.870	3.445				
	Bromoform (SPCC)	QO	0.364	19.60	0.250	0.320	0.353	0.395	0.420	0.443	1.00	0.00	0.383	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.427	4.34	0.390	0.436	0.440	0.432	0.434	0.432				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	1,2,3-Trichloropropane	A	0.141	4.87	0.151	0.143	0.145	0.138	0.136	0.132				
	n-Propylbenzene	A	4.016	7.55	3.862	4.278	4.350	4.072	4.020	3.514				
	Bromobenzene	A	1.102	4.68	1.138	1.138	1.143	1.097	1.084	1.009				
	1,3,5-Trimethylbenzene	A	1.801	8.11	1.769	1.930	1.960	1.819	1.780	1.550				
	tert-Butylbenzene	A	1.843	6.47	1.765	1.943	1.980	1.861	1.852	1.654				
	1,2,4-Trimethylbenzene	A	1.903	10.03	1.881	2.038	2.118	1.941	1.874	1.564				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.169	8.51	2.891	3.389	3.456	3.301	3.179	2.798				
	p-Isopropyltoluene	A	2.676	10.95	2.508	2.945	2.977	2.785	2.639	2.202				
	1,3-Dichlorobenzene	A	1.462	12.17	1.620	1.583	1.585	1.457	1.370	1.154				
	1,4-Dichlorobenzene	A	1.500	5.88	1.605	1.548	1.558	1.471	1.461	1.359				
	1,2-Dichlorobenzene	A	1.359	4.10	1.399	1.411	1.407	1.334	1.329	1.273				
	1,2,3-Trimethylbenzene	A	2.213	5.18	2.172	2.302	2.344	2.247	2.190	2.020				
	n-Butylbenzene	A	2.120	6.98	1.974	2.225	2.296	2.167	2.146	1.912				
	Hexachloroethane	QO	0.565	17.65	0.389	0.514	0.574	0.621	0.650	0.640	1.00	0.00	0.632	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.070	20.12	0.045	0.066	0.068	0.073	0.080	0.085	1.00	0.00	0.071	0.00
	1,2,4-Trichlorobenzene	A	0.928	2.87	0.941	0.913	0.949	0.912	0.961	0.891				
	Hexachlorobutadiene	A	0.882	4.04	0.921	0.886	0.887	0.862	0.912	0.823				
	1,2,3-Trichlorobenzene	A	0.758	4.14	0.807	0.738	0.759	0.732	0.784	0.730				
	Naphthalene	A	1.135	6.37	1.023	1.081	1.148	1.149	1.222	1.187				
	2-Methylnaphthalene	LO	0.504	16.36	0.448	0.392	0.472	0.525	0.615	0.571	1.00	0.00	0.575	0.00

Calibration Date: 06/04/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): fu120604.M (Mean %RSD: 7.41)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\urborg.fft\methods\fu120604.m\

Injection Time	Calibration Data File
06/04/12 15:11	bfb04c.d
06/04/12 17:12	std001.d
06/04/12 17:33	std010.d
06/04/12 17:53	std020.d
06/04/12 18:13	std060.d
06/04/12 18:33	std100.d
06/04/12 18:53	std200.d

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

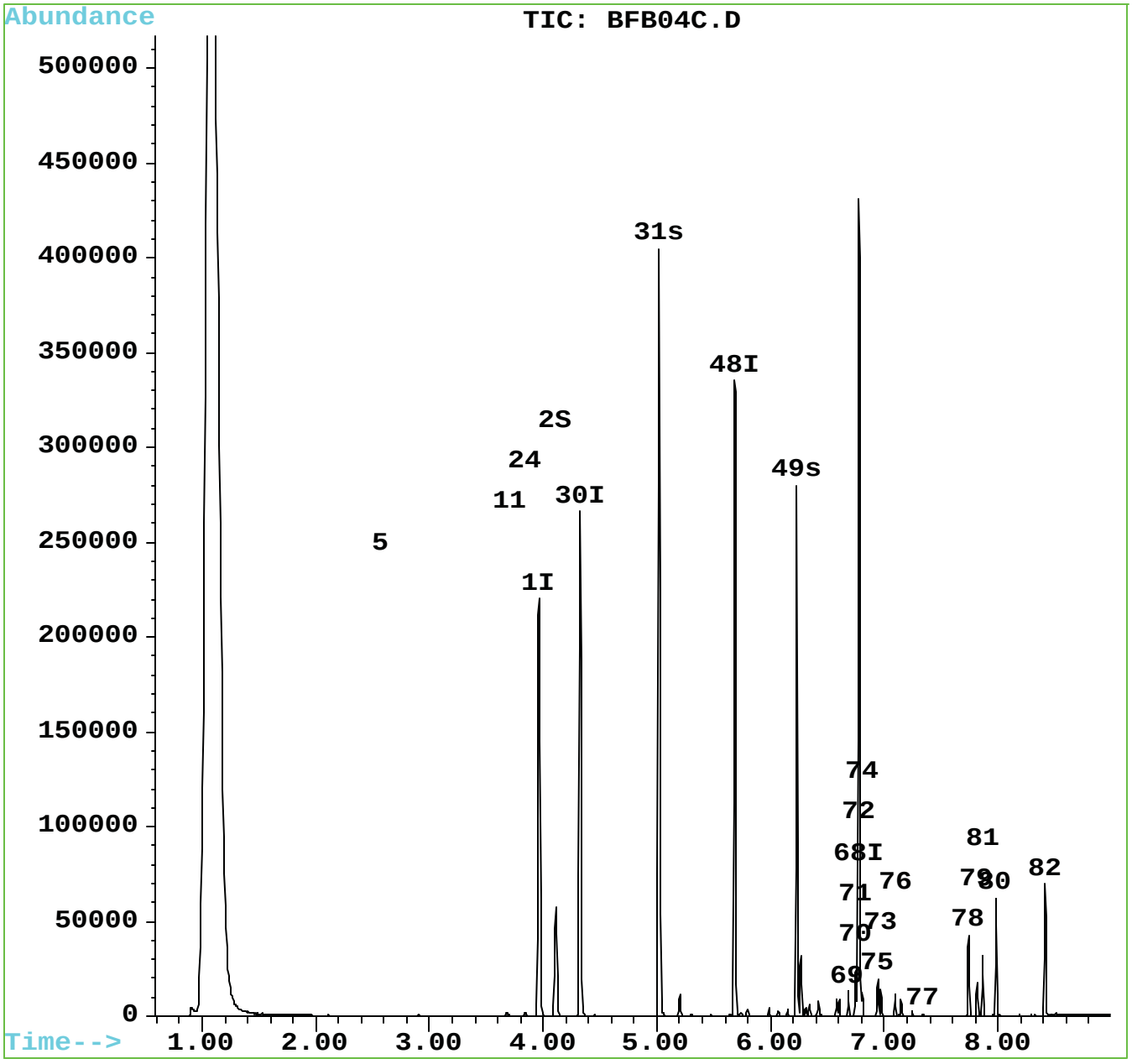
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	149094	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	170397	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	58855	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	89237	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	25625	45.46	ug/l		90.9
31) TOLUENE-D8 (S)	5.02	98	166719	48.42	ug/l		96.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	68907	49.23	ug/l		98.4
Target Compounds							Qvalu
5) Acetone (*)	2.57	43	63	1.14	ug/l	#	
11) 2-Butanone (MEK) (*)	3.70	43	336	3.90	ug/l	#	4
24) Tetrahydrofuran	3.84	42	879	10.69	ug/l	#	
69) sec-Butylbenzene	6.68	105	5698	1.01	ug/l		9
70) p-Isopropyltoluene	6.74	119	5654	1.18	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	4460	1.71	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	4908	1.83	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	4574	1.89	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	4618	1.17	ug/l		9
75) n-Butylbenzene	6.95	91	6419	1.70	ug/l		9
76) Hexachloroethane	7.10	201	1448	1.28	ug/l		7
77) 1,2-Dibromo-3-Chloropropan	7.34	157	330	2.57	ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.74	182	10848	6.55	ug/l		9
79) Hexachlorobutadiene	7.82	225	2912	1.85	ug/l		9
80) 1,2,3-Trichlorobenzene	7.98	180	15542	11.48	ug/l		9
81) Naphthalene	7.87	128	17573	8.67	ug/l		9
82) 2-Methylnaphthalene	8.41	142	23182	22.59	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

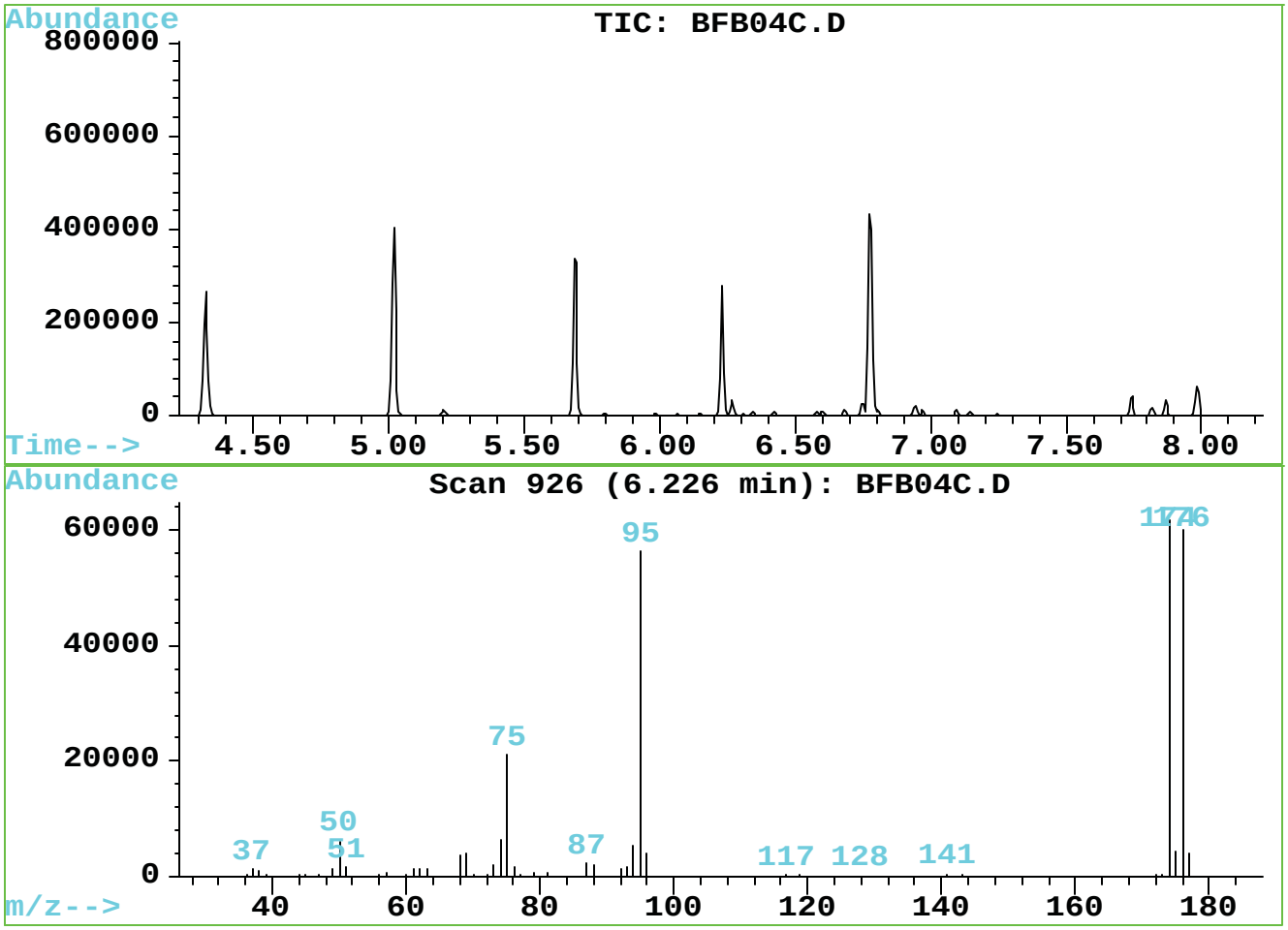
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.9	6123	PASS
75	95	30	66	37.5	21088	PASS
95	95	100	100	100.0	56240	PASS
96	95	5	9	7.1	4010	PASS
173	174	0	2	0.5	328	PASS
174	95	50	120	109.6	61664	PASS
175	174	4	9	6.9	4224	PASS
176	174	93	101	97.4	60088	PASS
177	176	5	9	6.5	3929	PASS

BFB04C.D FU120604.M Thu Jul 12 16:20:21 2012 TEST

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	700150	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	808489	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288497	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	414328	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	2614	1.37	ug/l		2.7
31) TOLUENE-D8 (S)	5.02	98	16460	1.01	ug/l		2.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	7329	1.11	ug/l		2.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	4345	0.88	ug/l		9
4) Diethyl ether (*)	2.35	74	1265	1.68	ug/l		8
5) Acetone (*)	2.59	43	1101	2.69	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	9290	1.12	ug/l		9
7) Carbon disulfide (*)	2.68	76	8736	0.59	ug/l		8
8) Methyl Acetate	2.84	43	1042	0.81	ug/l	#	5
9) tert-Methyl butyl ether (M	3.11	73	6186	1.24	ug/l		8
10) Acrylonitrile (*)	3.09	53	434	0.50	ug/l	#	9
11) 2-Butanone (MEK) (*)	3.70	43	2004	3.80	ug/l		9
12) Dichlorodifluoromethane	1.22	85	1656	0.44	ug/l	#	6
13) Chloromethane (SPCC)	1.34	50	2994	0.81	ug/l	#	8
14) Vinyl Chloride (CCC)	1.45	62	3355	0.75	ug/l	#	8
15) Bromomethane	1.73	94	1457	1.03	ug/l	#	9
16) Chloroethane	1.84	64	621	0.74	ug/l	#	2
18) Trichlorofluoromethane	2.12	101	3960	1.12	ug/l	m	6
19) 1,1-Dichloroethene (CCC/MS	2.52	61	4293	0.93	ug/l		8
20) Methylene Chloride	2.90	84	4885	1.44	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	4602	1.00	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	5643	1.09	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	4836	1.18	ug/l		8
24) Tetrahydrofuran	3.84	42	1414	2.47	ug/l	#	
25) Chloroform (CCC)	3.85	83	6228	1.22	ug/l		9
26) Bromochloromethane	3.81	130	3055	1.31	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	5438	0.89	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	5116	0.93	ug/l		9
29) Cyclohexane	3.98	42	1455	0.86	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	308	0.50	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	345	0.65	ug/l	#	7
35) Carbon Tetrachloride	4.04	117	5180	0.78	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.13	78	17168	1.05 ug/l	9
37) 1,2-Dichloroethane	4.15	62	3072	1.26 ug/l	9
38) Trichloroethene (MS)	4.45	95	4332	0.89 ug/l	8
39) 1,2-Dichloropropane (CCC)	4.56	63	3296	1.20 ug/l	9
40) Bromodichloromethane	4.68	83	3156	0.99 ug/l	9
41) Methyl Cyclohexane	4.54	55	4537	0.76 ug/l	9
42) Dibromomethane	4.62	174	2816	1.09 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	3853	0.95 ug/l	9
44) Toluene (CCC/MS)	5.05	91	19045	1.00 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	2821	0.93 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	2059	1.20 ug/l	9
47) Tetrachloroethene	5.31	166	7985	0.77 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	354	0.70 ug/l #	6
51) Dibromochloromethane	5.42	129	2406	0.72 ug/l	9
52) 1,2-Dibromoethane	5.48	107	2435	0.94 ug/l #	9
53) Chlorobenzene (SPCC/MS)	5.70	112	14530	1.08 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.73	131	3946	0.98 ug/l #	7
55) Ethylbenzene (CCC)	5.74	91	20894	0.91 ug/l	9
56) p,m-Xylene	5.79	106	18819	1.92 ug/l	8
57) o-Xylene	5.98	91	16146	0.99 ug/l	9
58) Styrene	5.99	104	11598	0.91 ug/l	9
59) Isopropylbenzene	6.15	105	21529	0.80 ug/l	9
60) Bromoform (SPCC)	6.09	173	1444	0.64 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	2250	0.92 ug/l	8
62) 1,2,3-Trichloropropane	6.31	110	873	0.88 ug/l #	7
63) n-Propylbenzene	6.34	91	22281	0.79 ug/l	9
64) Bromobenzene	6.31	156	6565	1.07 ug/l	9
65) 1,3,5-Trimethylbenzene	6.42	120	10207	0.87 ug/l	8
66) tert-Butylbenzene	6.58	91	10186	0.81 ug/l	8
67) 1,2,4-Trimethylbenzene	6.60	120	10851	0.88 ug/l	9
69) sec-Butylbenzene	6.68	105	23956	0.71 ug/l	9
70) p-Isopropyltoluene	6.75	119	20779	0.75 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	13421	1.06 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	13301	1.05 ug/l	8
73) 1,2-Dichlorobenzene	6.97	146	11592	1.05 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	17998	0.98 ug/l	9
75) n-Butylbenzene	6.95	91	16359	0.73 ug/l	9
76) Hexachloroethane	7.10	201	3221	0.57 ug/l #	6
77) 1,2-Dibromo-3-Chloropropan	7.34	157	377	0.43 ug/l #	7
78) 1,2,4-Trichlorobenzene	7.74	182	7794	0.99 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

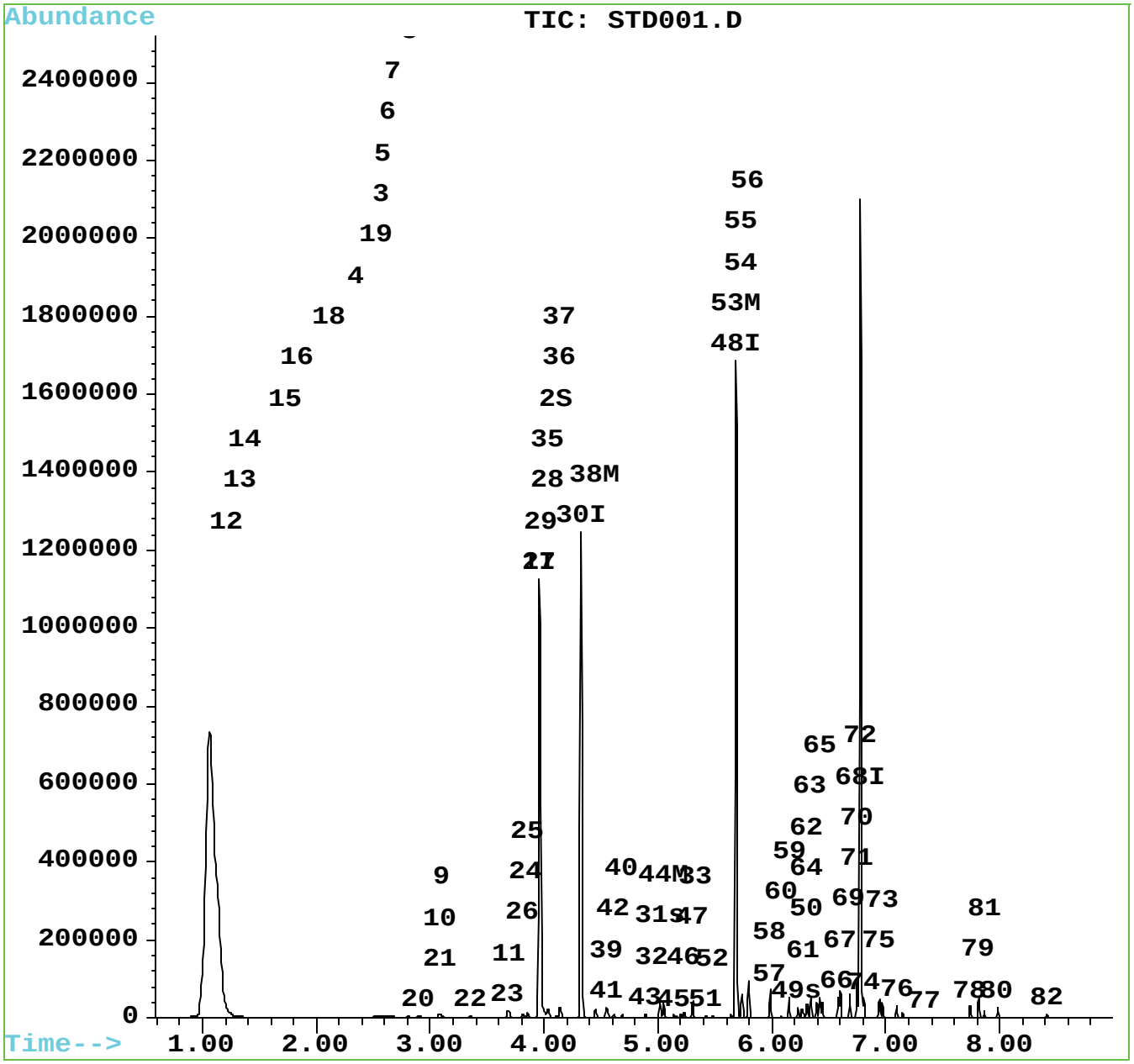
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	7628	0.81	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	6691	1.04	ug/l	9
81)	Naphthalene	7.87	128	8480	0.73	ug/l	9
82)	2-Methylnaphthalene	8.41	142	3709	0.79	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	682071	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	801325	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288586	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	394725	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	26439	14.21	ug/l		28.4
31) TOLUENE-D8 (S)	5.02	98	169634	10.50	ug/l		21.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	69262	10.51	ug/l		21.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	43785	9.08	ug/l		9
4) Diethyl ether (*)	2.35	74	13061	17.75	ug/l		9
5) Acetone (*)	2.59	43	3379	8.48	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	92043	11.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	104193	7.28	ug/l		9
8) Methyl Acetate	2.84	43	9355	7.51	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	62726	12.90	ug/l		9
10) Acrylonitrile (*)	3.08	53	6179	7.36	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	6284	12.23	ug/l		9
12) Dichlorodifluoromethane	1.23	85	24480	6.75	ug/l	#	5
13) Chloromethane (SPCC)	1.34	50	31951	8.92	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	35708	8.22	ug/l		9
15) Bromomethane	1.73	94	16455	11.98	ug/l		9
16) Chloroethane	1.83	64	7811	9.60	ug/l		8
18) Trichlorofluoromethane	2.12	101	42017	12.15	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	42759	9.53	ug/l		8
20) Methylene Chloride	2.90	84	41726	12.59	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	45284	10.11	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	57014	11.28	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	47225	11.79	ug/l		8
24) Tetrahydrofuran	3.84	42	4482	8.04	ug/l		8
25) Chloroform (CCC)	3.85	83	61944	12.44	ug/l		9
26) Bromochloromethane	3.81	130	30607	13.45	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	59062	9.90	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	51446	9.59	ug/l		9
29) Cyclohexane	3.98	42	14529	8.79	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	4526	7.43	ug/l		9
33) 2-Hexanone (*)	5.34	58	3739	7.03	ug/l		9
35) Carbon Tetrachloride	4.04	117	56039	8.46	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	167262	10.36 ug/l	9
37) 1,2-Dichloroethane	4.15	62	29557	12.25 ug/l	9
38) Trichloroethene (MS)	4.45	95	44502	9.19 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	32643	11.98 ug/l	9
40) Bromodichloromethane	4.68	83	37532	11.83 ug/l	9
41) Methyl Cyclohexane	4.54	55	47431	8.07 ug/l	9
42) Dibromomethane	4.62	174	30292	11.86 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	48244	12.06 ug/l	9
44) Toluene (CCC/MS)	5.05	91	197973	10.46 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	34925	11.65 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	20058	11.76 ug/l	9
47) Tetrachloroethene	5.31	166	78758	7.65 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	4076	8.03 ug/l #	8
51) Dibromochloromethane	5.42	129	30965	9.25 ug/l	9
52) 1,2-Dibromoethane	5.48	107	26247	10.12 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	138379	10.24 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	46654	11.55 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	213344	9.25 ug/l	9
56) p,m-Xylene	5.79	106	189596	19.33 ug/l	8
57) o-Xylene	5.98	91	164221	10.10 ug/l	9
58) Styrene	5.99	104	133879	10.53 ug/l	9
59) Isopropylbenzene	6.15	105	239852	8.91 ug/l	9
60) Bromoform (SPCC)	6.09	173	18451	8.11 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	25150	10.29 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	8275	8.34 ug/l	8
63) n-Propylbenzene	6.34	91	246890	8.70 ug/l	9
64) Bromobenzene	6.31	156	65654	10.74 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	111420	9.50 ug/l	8
66) tert-Butylbenzene	6.58	91	112146	8.93 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	117646	9.49 ug/l	9
69) sec-Butylbenzene	6.68	105	267519	8.38 ug/l	9
70) p-Isopropyltoluene	6.75	119	232466	8.82 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	124985	10.32 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	122183	10.08 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	111374	10.57 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	181720	10.42 ug/l	9
75) n-Butylbenzene	6.95	91	175684	8.18 ug/l	9
76) Hexachloroethane	7.10	201	40609	7.46 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	5208	6.12 ug/l	8
78) 1,2,4-Trichlorobenzene	7.74	182	72052	9.63 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

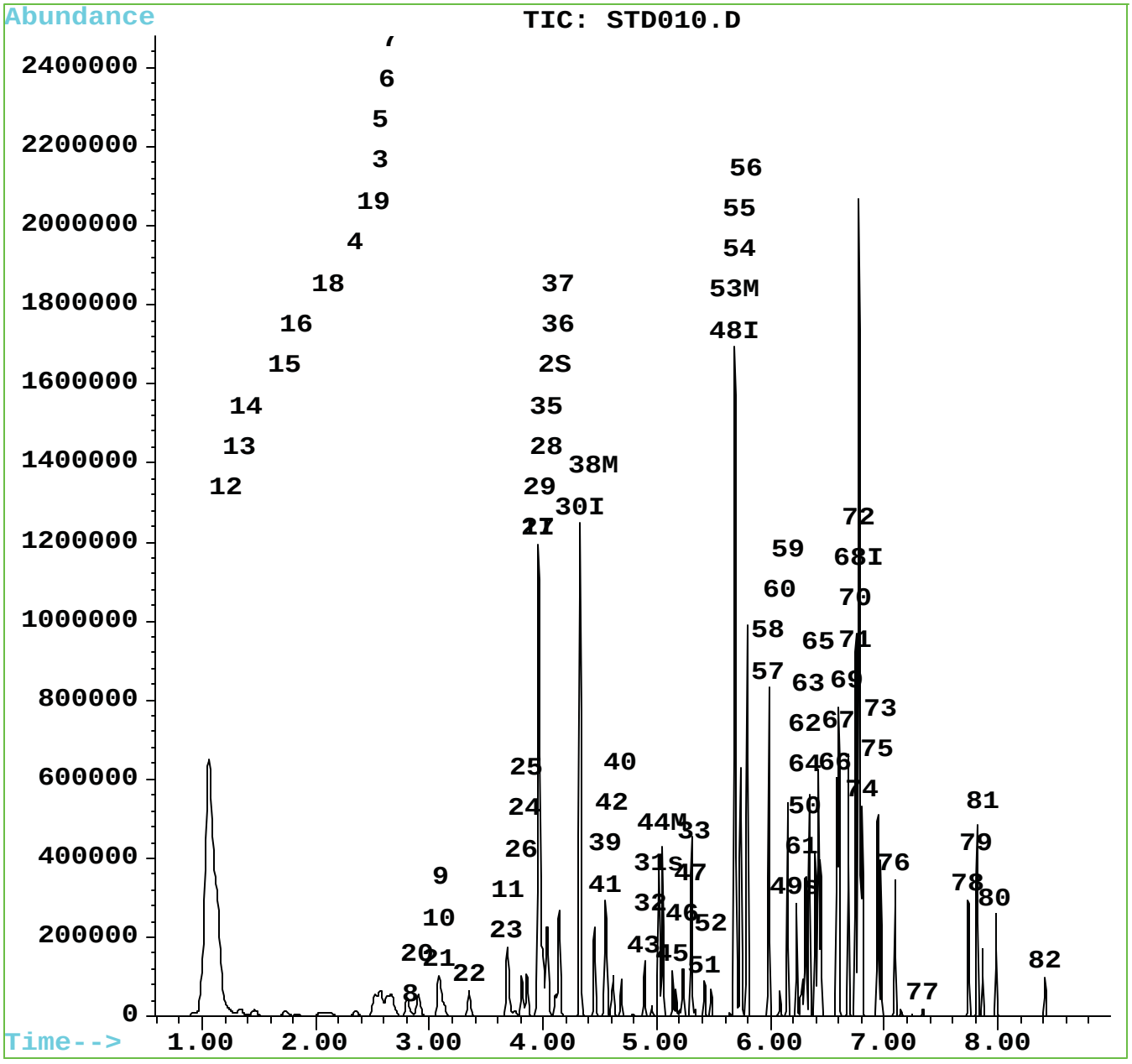
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	69955	7.80	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	58236	9.54	ug/l	9
81)	Naphthalene	7.87	128	85357	7.76	ug/l	9
82)	2-Methylnaphthalene	8.41	142	30930	6.85	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	709486	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	825373	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	299894	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	409867	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	53897	27.85	ug/l		55.7
31) TOLUENE-D8 (S)	5.02	98	351021	21.10	ug/l		42.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	144461	21.10	ug/l		42.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	91781	18.31	ug/l		9
4) Diethyl ether (*)	2.35	74	25711	33.60	ug/l		9
5) Acetone (*)	2.60	43	4942	11.93	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	188646	22.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	235375	15.82	ug/l		9
8) Methyl Acetate	2.85	43	18887	14.57	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	131145	25.92	ug/l		9
10) Acrylonitrile (*)	3.08	53	12124	13.89	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	9327	17.45	ug/l		9
12) Dichlorodifluoromethane	1.23	85	50440	13.36	ug/l		9
13) Chloromethane (SPCC)	1.34	50	64854	17.41	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	73753	16.33	ug/l		9
15) Bromomethane	1.73	94	32316	22.61	ug/l		9
16) Chloroethane	1.83	64	15915	18.80	ug/l		9
18) Trichlorofluoromethane	2.12	101	79626	22.13	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	94639	20.29	ug/l		8
20) Methylene Chloride	2.90	84	84820	24.61	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	95379	20.46	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	118876	22.61	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	100420	24.10	ug/l		8
24) Tetrahydrofuran	3.84	42	8270	14.27	ug/l		9
25) Chloroform (CCC)	3.86	83	127954	24.71	ug/l		9
26) Bromochloromethane	3.81	130	63310	26.75	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	126518	20.39	ug/l		9
28) 1,1-Dichloropropene	4.03	75	109525	19.62	ug/l		9
29) Cyclohexane	3.98	42	31157	18.13	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	9937	15.84	ug/l		9
33) 2-Hexanone (*)	5.34	58	7624	13.86	ug/l		9
35) Carbon Tetrachloride	4.04	117	120064	17.61	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	346640	20.85 ug/l	9
37) 1,2-Dichloroethane	4.15	62	61814	24.88 ug/l	9
38) Trichloroethene (MS)	4.45	95	93456	18.74 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	66909	23.84 ug/l	9
40) Bromodichloromethane	4.68	83	83011	25.40 ug/l	9
41) Methyl Cyclohexane	4.54	55	98953	16.34 ug/l	8
42) Dibromomethane	4.62	174	64214	24.41 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	105104	25.51 ug/l	9
44) Toluene (CCC/MS)	5.05	91	410707	21.07 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	79001	25.57 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	42064	23.95 ug/l	9
47) Tetrachloroethene	5.31	166	173216	16.33 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	8960	16.98 ug/l #	8
51) Dibromochloromethane	5.42	129	69610	20.02 ug/l	9
52) 1,2-Dibromoethane	5.48	107	56350	20.90 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	287425	20.47 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	98529	23.48 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	447837	18.69 ug/l	9
56) p,m-Xylene	5.79	106	393276	38.59 ug/l	8
57) o-Xylene	5.98	91	343694	20.34 ug/l	9
58) Styrene	5.99	104	287633	21.77 ug/l	9
59) Isopropylbenzene	6.15	105	510716	18.27 ug/l	9
60) Bromoform (SPCC)	6.09	173	42375	17.80 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	52746	20.76 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	17382	16.87 ug/l	9
63) n-Propylbenzene	6.34	91	521769	17.68 ug/l	9
64) Bromobenzene	6.31	156	137054	21.58 ug/l	9
65) 1,3,5-Trimethylbenzene	6.42	120	235119	19.28 ug/l	8
66) tert-Butylbenzene	6.58	91	237568	18.20 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	254120	19.73 ug/l	8
69) sec-Butylbenzene	6.68	105	566596	17.09 ug/l	9
70) p-Isopropyltoluene	6.74	119	488044	17.83 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	259870	20.67 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	255459	20.30 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	230653	21.09 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	384373	21.22 ug/l	9
75) n-Butylbenzene	6.95	91	376350	16.87 ug/l	9
76) Hexachloroethane	7.10	201	94123	16.60 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	11200	12.58 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	155584	20.02 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

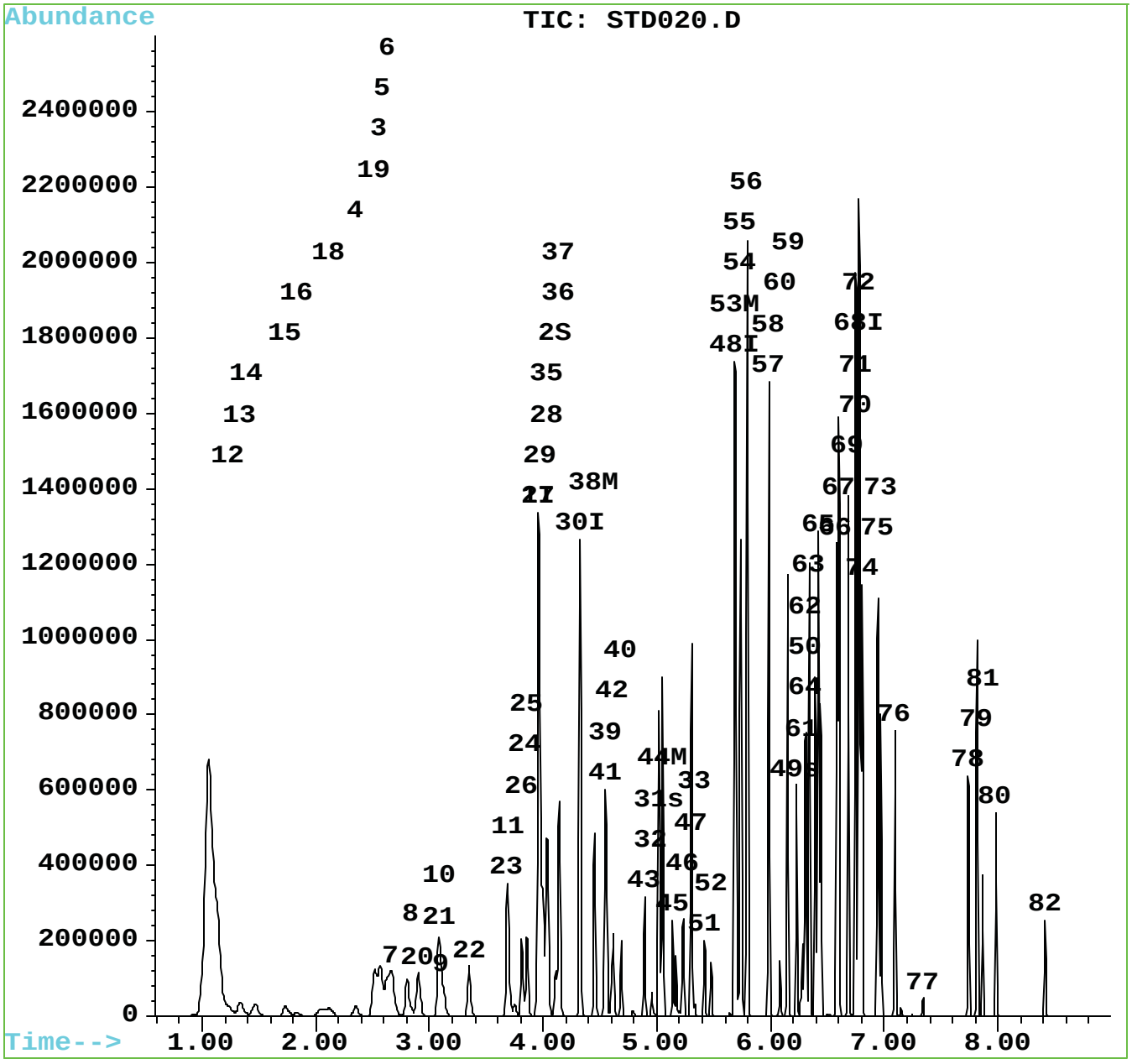
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	145427	15.61 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	124462	19.64 ug/l	9
81)	Naphthalene	7.87	128	188147	16.48 ug/l	9
82)	2-Methylnaphthalene	8.41	142	77365	16.33 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	718453	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	838217	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	305349	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	406145	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	159458	81.36	ug/l		162.7
31) TOLUENE-D8 (S)	5.02	98	1021635	60.46	ug/l		120.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	425016	60.98	ug/l		121.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	275989	54.36	ug/l		9
4) Diethyl ether (*)	2.35	74	79137	102.12	ug/l		9
5) Acetone (*)	2.59	43	17957	42.81	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	576645	67.45	ug/l		9
7) Carbon disulfide (*)	2.67	76	775809	51.48	ug/l		9
8) Methyl Acetate	2.84	43	54937	41.85	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	397720	77.63	ug/l		9
10) Acrylonitrile (*)	3.08	53	36473	41.27	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	28683	53.00	ug/l		9
12) Dichlorodifluoromethane	1.24	85	175155	45.82	ug/l		9
13) Chloromethane (SPCC)	1.35	50	199235	52.82	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	227100	49.64	ug/l		9
15) Bromomethane	1.74	94	97960	67.68	ug/l		9
16) Chloroethane	1.84	64	48474	56.54	ug/l		9
18) Trichlorofluoromethane	2.12	101	258964	71.07	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.52	61	287633	60.89	ug/l		8
20) Methylene Chloride	2.90	84	254920	73.03	ug/l		9
21) trans-1,2-Dichloroethene	3.09	61	284751	60.33	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	356405	66.94	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	298452	70.73	ug/l		8
24) Tetrahydrofuran	3.84	42	21830	37.19	ug/l		9
25) Chloroform (CCC)	3.86	83	379380	72.36	ug/l		9
26) Bromochloromethane	3.81	130	189594	79.11	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	384589	61.20	ug/l	#	3
28) 1,1-Dichloropropene	4.03	75	314724	55.68	ug/l		9
29) Cyclohexane	3.99	42	82335	47.31	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	31183	48.94	ug/l		9
33) 2-Hexanone (*)	5.34	58	27660	48.50	ug/l		9
35) Carbon Tetrachloride	4.04	117	369330	53.33	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	998814	59.16 ug/l	9
37) 1,2-Dichloroethane	4.15	62	179875	71.29 ug/l	9
38) Trichloroethene (MS)	4.45	95	275694	54.44 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	195965	68.74 ug/l	9
40) Bromodichloromethane	4.68	83	258599	77.91 ug/l	9
41) Methyl Cyclohexane	4.55	55	289075	47.00 ug/l	8
42) Dibromomethane	4.62	174	194155	72.68 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	324088	77.44 ug/l	9
44) Toluene (CCC/MS)	5.05	91	1190657	60.15 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	245175	78.15 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	126122	70.70 ug/l	9
47) Tetrachloroethene	5.31	166	475083	44.11 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	25702	47.84 ug/l #	7
51) Dibromochloromethane	5.42	129	226338	63.93 ug/l	9
52) 1,2-Dibromoethane	5.48	107	170570	62.14 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	834134	58.35 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	295143	69.09 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	1277879	52.37 ug/l	9
56) p,m-Xylene	5.79	106	1090584	105.11 ug/l	8
57) o-Xylene	5.98	91	975511	56.71 ug/l	9
58) Styrene	5.99	104	824730	61.29 ug/l	9
59) Isopropylbenzene	6.15	105	1455204	51.12 ug/l	9
60) Bromoform (SPCC)	6.09	173	144672	58.16 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	158438	61.24 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	50455	48.09 ug/l	9
63) n-Propylbenzene	6.34	91	1492185	49.67 ug/l	9
64) Bromobenzene	6.31	156	402124	62.17 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	666617	53.70 ug/l	9
66) tert-Butylbenzene	6.58	91	681991	51.32 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	711162	54.22 ug/l	9
69) sec-Butylbenzene	6.68	105	1608849	48.98 ug/l	9
70) p-Isopropyltoluene	6.75	119	1357400	50.03 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	709873	56.97 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	716942	57.49 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	650136	59.98 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	1095014	61.02 ug/l	9
75) n-Butylbenzene	6.95	91	1056273	47.79 ug/l	9
76) Hexachloroethane	7.10	201	302724	53.07 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	35812	39.31 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	444417	57.72 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

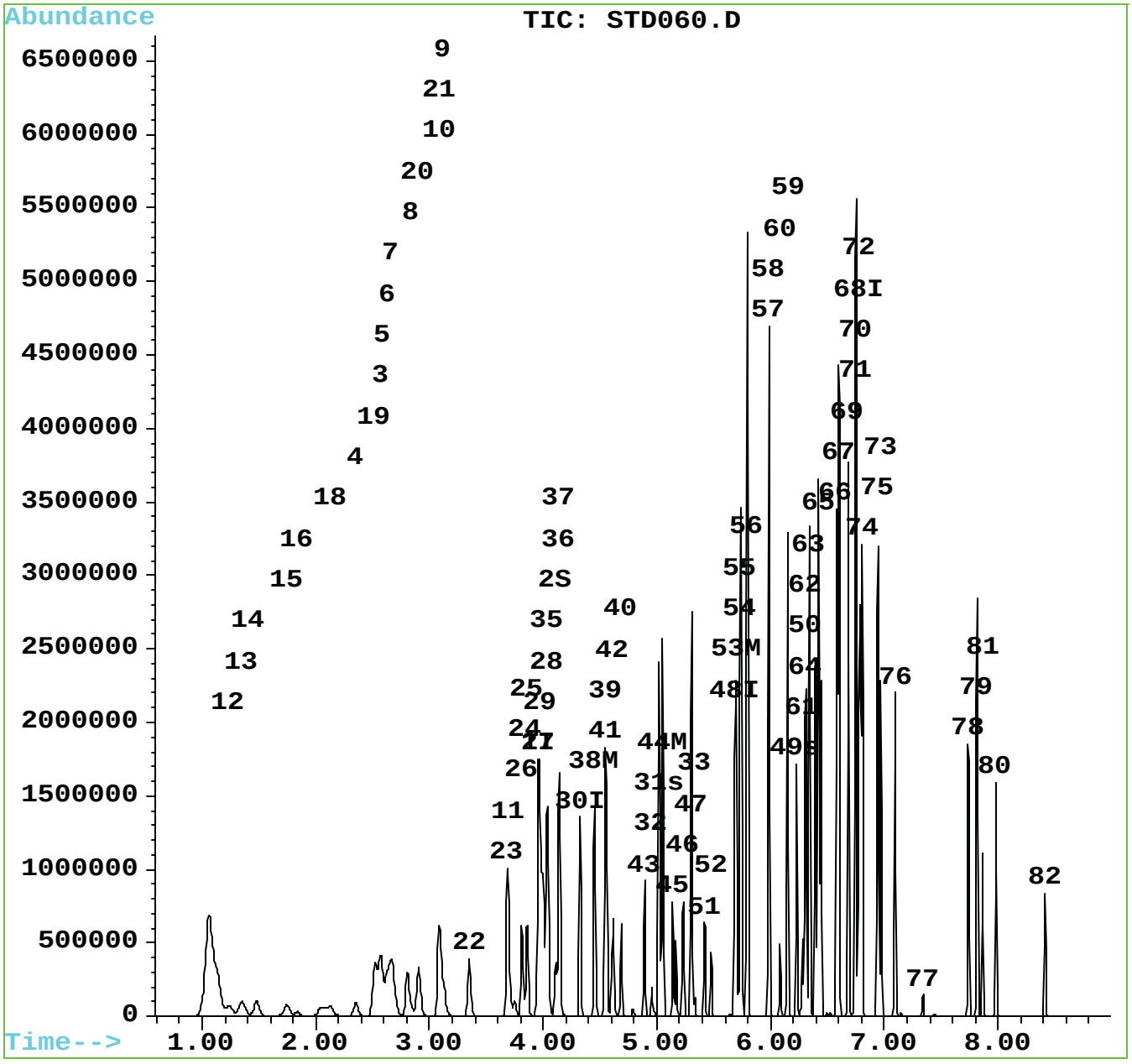
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79) Hexachlorobutadiene	7.82	225	420276	45.53 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	356654	56.79 ug/l	9
81) Naphthalene	7.87	128	559897	49.50 ug/l	9
82) 2-Methylnaphthalene	8.41	142	255721	52.36 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	708225	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	842056	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	310341	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	420177	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	266464	137.93	ug/l		275.8
31) TOLUENE-D8 (S)	5.02	98	1674468	98.65	ug/l		197.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	730962	103.18	ug/l		206.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	458452	91.60	ug/l		9
4) Diethyl ether (*)	2.35	74	130554	170.91	ug/l		9
5) Acetone (*)	2.60	43	24499	59.25	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	967325	114.78	ug/l		9
7) Carbon disulfide (*)	2.67	76	1327315	89.35	ug/l		9
8) Methyl Acetate	2.84	43	90663	70.06	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	672818	133.22	ug/l		9
10) Acrylonitrile (*)	3.08	53	59377	68.16	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	40056	75.08	ug/l		8
12) Dichlorodifluoromethane	1.23	85	294663	78.20	ug/l		9
13) Chloromethane (SPCC)	1.35	50	334048	89.83	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	381940	84.70	ug/l		9
15) Bromomethane	1.75	94	165451	115.97	ug/l		9
16) Chloroethane	1.83	64	81311	96.21	ug/l		9
18) Trichlorofluoromethane	2.13	101	446143	124.21	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	432880	92.96	ug/l		8
20) Methylene Chloride	2.90	84	424114	123.26	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	473743	101.83	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	595985	113.55	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	495434	119.10	ug/l		8
24) Tetrahydrofuran	3.84	42	35840	61.95	ug/l		9
25) Chloroform (CCC)	3.86	83	634132	122.70	ug/l		9
26) Bromochloromethane	3.81	130	316285	133.88	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	646098	104.29	ug/l	#	2
28) 1,1-Dichloropropene	4.03	75	514252	92.29	ug/l		9
29) Cyclohexane	3.99	42	140936	82.15	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	52354	81.80	ug/l		9
33) 2-Hexanone (*)	5.34	58	43937	75.48	ug/l		9
35) Carbon Tetrachloride	4.04	117	620967	89.26	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.14	78	1620241	95.53	ug/l		9
37) 1,2-Dichloroethane	4.15	62	295703	116.66	ug/l		9
38) Trichloroethene (MS)	4.45	95	458355	90.09	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	319257	111.48	ug/l		9
40) Bromodichloromethane	4.68	83	440414	132.08	ug/l		9
41) Methyl Cyclohexane	4.54	55	470767	76.20	ug/l		8
42) Dibromomethane	4.62	174	324265	120.84	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	545507	129.75	ug/l		9
44) Toluene (CCC/MS)	5.05	91	1935644	97.34	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	417540	132.49	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	210750	117.60	ug/l		9
47) Tetrachloroethene	5.31	166	827035	76.44	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	44222	80.98	ug/l	#	7
51) Dibromochloromethane	5.42	129	390996	108.67	ug/l		9
52) 1,2-Dibromoethane	5.48	107	291010	104.31	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	1385172	95.34	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	489204	112.67	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	2092868	84.40	ug/l		9
56) p,m-Xylene	5.79	106	1714294	162.56	ug/l		9
57) o-Xylene	5.98	91	1580494	90.41	ug/l		9
58) Styrene	5.99	104	1337756	97.82	ug/l		9
59) Isopropylbenzene	6.15	105	2402114	83.02	ug/l		9
60) Bromoform (SPCC)	6.09	173	260844	100.47	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	269439	102.47	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	84719	79.44	ug/l		9
63) n-Propylbenzene	6.34	91	2494881	81.71	ug/l		9
64) Bromobenzene	6.31	156	672863	102.36	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	1105110	87.59	ug/l		9
66) tert-Butylbenzene	6.58	91	1149321	85.10	ug/l		8
67) 1,2,4-Trimethylbenzene	6.60	120	1163043	87.25	ug/l		9
69) sec-Butylbenzene	6.68	105	2671833	78.62	ug/l		9
70) p-Isopropyltoluene	6.75	119	2217346	79.00	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	1151355	89.31	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	1227498	95.14	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	1117041	99.62	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	1840375	99.13	ug/l		9
75) n-Butylbenzene	6.95	91	1803285	78.87	ug/l		9
76) Hexachloroethane	7.10	201	546020	91.11	ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	67377	69.05	ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	807872	101.42	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

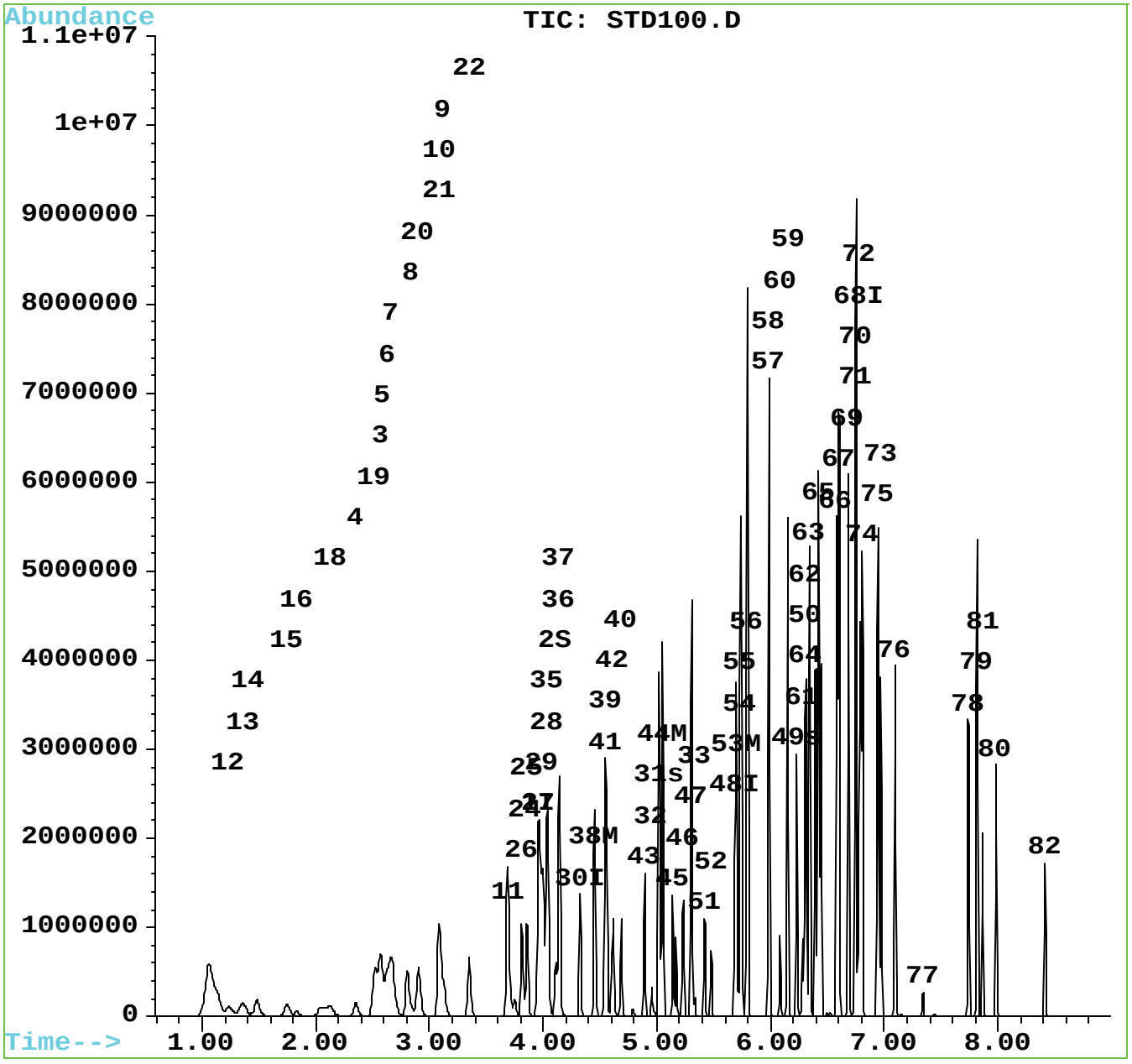
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	766294	80.25	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	658965	101.43	ug/l	9
81)	Naphthalene	7.87	128	1027251	87.78	ug/l	9
82)	2-Methylnaphthalene	8.41	142	517086	97.58	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	688743	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	845341	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	308126	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	406115	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	525719	279.82	ug/l		559.6
31) TOLUENE-D8 (S)	5.02	98	3083752	180.96	ug/l		361.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	1383700	196.72	ug/l		393.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	910425	187.06	ug/l		9
4) Diethyl ether (*)	2.35	74	257886	347.15	ug/l		9
5) Acetone (*)	2.60	43	51628	128.38	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	1916805	233.87	ug/l		9
7) Carbon disulfide (*)	2.67	76	2662579	184.32	ug/l		9
8) Methyl Acetate	2.84	43	186727	148.37	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	1373395	279.62	ug/l		9
10) Acrylonitrile (*)	3.08	53	117707	138.93	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	78647	151.59	ug/l		8
12) Dichlorodifluoromethane	1.23	85	585957	159.91	ug/l		9
13) Chloromethane (SPCC)	1.37	50	640687	177.17	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	699592	159.53	ug/l		9
15) Bromomethane	1.75	94	327119	235.77	ug/l		9
16) Chloroethane	1.83	64	161920	197.00	ug/l		9
18) Trichlorofluoromethane	2.12	101	874370	250.32	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	891921	196.95	ug/l		8
20) Methylene Chloride	2.90	84	837145	250.19	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	920836	203.52	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	1170821	229.39	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	955274	236.15	ug/l		8
24) Tetrahydrofuran	3.84	42	69742	123.96	ug/l		9
25) Chloroform (CCC)	3.85	83	1237261	246.16	ug/l		9
26) Bromochloromethane	3.81	130	626413	272.65	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	1270184	210.83	ug/l	#	1
28) 1,1-Dichloropropene	4.03	75	955460	176.31	ug/l		9
29) Cyclohexane	3.99	42	254634	152.62	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	108848	169.40	ug/l		9
33) 2-Hexanone (*)	5.34	58	93899	153.65	ug/l		9
35) Carbon Tetrachloride	4.04	117	1209587	173.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.14	78	2994921	175.89	ug/l		9
37) 1,2-Dichloroethane	4.15	62	574923	225.94	ug/l		9
38) Trichloroethene (MS)	4.45	95	882992	172.88	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	577886	201.01	ug/l		9
40) Bromodichloromethane	4.68	83	872875	260.76	ug/l		9
41) Methyl Cyclohexane	4.54	55	847603	136.66	ug/l		8
42) Dibromomethane	4.62	174	640027	237.58	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	1061342	251.47	ug/l		9
44) Toluene (CCC/MS)	5.05	91	3536540	177.16	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	824716	260.67	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	413284	229.72	ug/l		9
47) Tetrachloroethene	5.31	166	1468387	135.19	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	81968	151.19	ug/l	#	8
51) Dibromochloromethane	5.42	129	790200	221.19	ug/l		9
52) 1,2-Dibromoethane	5.48	107	580990	209.74	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	2554280	177.08	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	905805	210.11	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	3596434	146.07	ug/l		9
56) p,m-Xylene	5.80	106	2753302	262.96	ug/l		9
57) o-Xylene	5.98	91	2667192	153.66	ug/l		9
58) Styrene	5.99	104	2206761	162.53	ug/l		9
59) Isopropylbenzene	6.15	105	4245829	147.80	ug/l		9
60) Bromoform (SPCC)	6.09	173	546176	199.61	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.29	83	532985	204.16	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	162450	153.42	ug/l		8
63) n-Propylbenzene	6.34	91	4330762	142.86	ug/l		9
64) Bromobenzene	6.31	156	1243615	190.55	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	1910200	152.49	ug/l		9
66) tert-Butylbenzene	6.58	91	2038129	152.00	ug/l		8
67) 1,2,4-Trimethylbenzene	6.60	120	1928173	145.69	ug/l		9
69) sec-Butylbenzene	6.68	105	4544434	138.36	ug/l		9
70) p-Isopropyltoluene	6.75	119	3576681	131.84	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	1874024	150.41	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	2207783	177.05	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	2067733	190.79	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	3281860	182.89	ug/l		9
75) n-Butylbenzene	6.95	91	3105508	140.52	ug/l		9
76) Hexachloroethane	7.10	201	1039766	173.73	ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	138631	136.48	ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	1446629	187.89	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

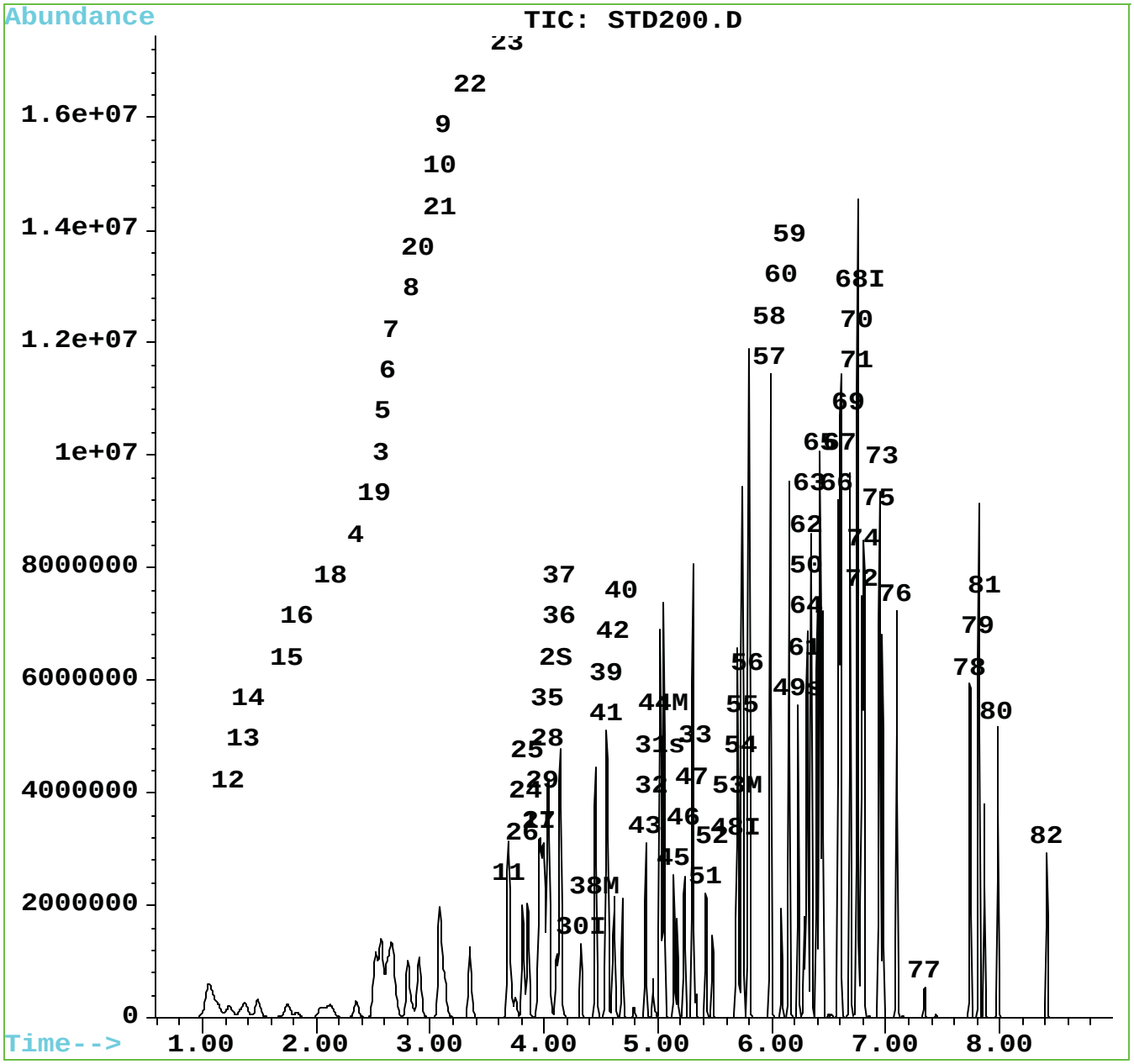
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	1337439	144.91	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	1185710	188.82	ug/l	9
81)	Naphthalene	7.87	128	1928293	170.48	ug/l	9
82)	2-Methylnaphthalene	8.41	142	927349	168.70	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120727a5.2
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc27a.d	07/27/12 11:49	1,1,2-Trichloro-1,2,2-trifluoroethane	0.334	0.05
		Diethyl ether	0.087	0.05
		Acetone	0.013	0.01
		Methyl iodide	0.676	0.05
		Carbon disulfide	0.861	0.05
		Methyl acetate	0.059	0.05
		tert-Methyl butyl ether	0.446	0.05
		Acrylonitrile	0.038	0.01
		2-Butanone	0.022	0.01
		Dichlorodifluoromethane	0.212	0.05
		Chloromethane	0.217	0.10
		Vinyl Chloride	0.269	0.05
		Bromomethane	0.113	0.05
		Chloroethane	0.056	0.05
		Trichlorofluoromethane	0.331	0.05
		1,1-Dichloroethene	0.305	0.05
		Methylene Chloride	0.281	0.05
		trans-1,2-Dichloroethene	0.330	0.05
		1,1-Dichloroethane	0.406	0.10
		cis-1,2-Dichloroethene	0.344	0.05
		Tetrahydrofuran	0.024	0.01
		Chloroform	0.442	0.05
		Bromochloromethane	0.218	0.05
		1,1,1-Trichloroethane	0.470	0.05
		Cyclohexane	0.108	0.05
		4-Methyl-2-pentanone	0.029	0.01
		2-Hexanone	0.021	0.01
		Carbon Tetrachloride	0.406	0.05
		Benzene	1.041	0.05
		1,2-Dichloroethane	0.190	0.05
		Trichloroethene	0.297	0.05
		1,2-Dichloropropane	0.199	0.05
		Bromodichloromethane	0.265	0.05
		Methyl cyclohexane	0.300	0.05
		Dibromomethane	0.207	0.05
		cis-1,3-Dichloropropene	0.336	0.05
		Toluene	1.287	0.05
		trans-1,3-Dichloropropene	0.257	0.05
		1,1,2-Trichloroethane	0.128	0.05
		Tetrachloroethene	0.538	0.05
		trans-1,4-Dichloro-2-butene	0.072	0.05
		Dibromochloromethane	0.658	0.05
		1,2-Dibromoethane	0.502	0.05
		Chlorobenzene	2.464	0.30
		1,1,1,2-Tetrachloroethane	0.868	0.05
		Ethylbenzene	3.886	0.05
		p,m-Xylene	1.671	0.05
		o-Xylene	2.945	0.05
		Styrene	2.455	0.05
		Isopropylbenzene	4.464	0.05
		Bromoform	0.420	0.10
		1,1,2,2-Tetrachloroethane	0.448	0.30
		1,2,3-Trichloropropane	0.148	0.05
		n-Propylbenzene	4.483	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120727a5.2
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	1.184	0.05
		1,3,5-Trimethylbenzene	2.038	0.05
		tert-Butylbenzene	2.086	0.05
		1,2,4-Trimethylbenzene	2.129	0.05
		sec-Butylbenzene	3.651	0.05
		p-Isopropyltoluene	3.134	0.05
		1,3-Dichlorobenzene	1.599	0.05
		1,4-Dichlorobenzene	1.612	0.05
		1,2-Dichlorobenzene	1.442	0.05
		1,2,3-Trimethylbenzene	2.377	0.05
		n-Butylbenzene	2.383	0.05
		Hexachloroethane	0.668	0.05
		1,2-Dibromo-3-Chloropropane	0.078	0.05
		1,2,4-Trichlorobenzene	1.025	0.05
		1,2,3-Trichlorobenzene	0.789	0.05
		Naphthalene	1.220	0.05
		2-Methylnaphthalene	0.539	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120731a5.2
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc31a.d	07/31/12 11:56	1,1,2-Trichloro-1,2,2-trifluoroethane	0.324	0.05
		Diethyl ether	0.084	0.05
		Acetone	0.016	0.01
		Methyl iodide	0.663	0.05
		Carbon disulfide	0.868	0.05
		Methyl acetate	0.057	0.05
		tert-Methyl butyl ether	0.438	0.05
		Acrylonitrile	0.037	0.01
		2-Butanone	0.025	0.01
		Dichlorodifluoromethane	0.249	0.05
		Chloromethane	0.224	0.10
		Vinyl Chloride	0.276	0.05
		Bromomethane	0.115	0.05
		Chloroethane	0.057	0.05
		Trichlorofluoromethane	0.332	0.05
		1,1-Dichloroethene	0.298	0.05
		Methylene Chloride	0.272	0.05
		trans-1,2-Dichloroethene	0.318	0.05
		1,1-Dichloroethane	0.386	0.10
		cis-1,2-Dichloroethene	0.327	0.05
		Tetrahydrofuran	0.024	0.01
		Chloroform	0.417	0.05
		Bromochloromethane	0.205	0.05
		1,1,1-Trichloroethane	0.456	0.05
		Cyclohexane	0.097	0.05
		4-Methyl-2-pentanone	0.030	0.01
		2-Hexanone	0.024	0.01
		Carbon Tetrachloride	0.391	0.05
		Benzene	0.983	0.05
		1,2-Dichloroethane	0.178	0.05
		Trichloroethene	0.276	0.05
		1,2-Dichloropropane	0.187	0.05
		Bromodichloromethane	0.251	0.05
		Methyl cyclohexane	0.292	0.05
		Dibromomethane	0.193	0.05
		cis-1,3-Dichloropropene	0.319	0.05
		Toluene	1.209	0.05
		trans-1,3-Dichloropropene	0.244	0.05
		1,1,2-Trichloroethane	0.120	0.05
		Tetrachloroethene	0.501	0.05
		trans-1,4-Dichloro-2-butene	0.070	0.05
		Dibromochloromethane	0.616	0.05
		1,2-Dibromoethane	0.462	0.05
		Chlorobenzene	2.317	0.30
		1,1,1,2-Tetrachloroethane	0.822	0.05
		Ethylbenzene	3.605	0.05
		p,m-Xylene	1.566	0.05
		o-Xylene	2.786	0.05
		Styrene	2.346	0.05
		Isopropylbenzene	4.224	0.05
		Bromoform	0.405	0.10
		1,1,2,2-Tetrachloroethane	0.428	0.30
		1,2,3-Trichloropropane	0.139	0.05
		n-Propylbenzene	4.242	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120731a5.2
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	1.124	0.05
		1,3,5-Trimethylbenzene	1.953	0.05
		tert-Butylbenzene	1.985	0.05
		1,2,4-Trimethylbenzene	2.037	0.05
		sec-Butylbenzene	3.429	0.05
		p-Isopropyltoluene	2.947	0.05
		1,3-Dichlorobenzene	1.503	0.05
		1,4-Dichlorobenzene	1.518	0.05
		1,2-Dichlorobenzene	1.362	0.05
		1,2,3-Trimethylbenzene	2.269	0.05
		n-Butylbenzene	2.275	0.05
		Hexachloroethane	0.645	0.05
		1,2-Dibromo-3-Chloropropane	0.078	0.05
		1,2,4-Trichlorobenzene	1.010	0.05
		1,2,3-Trichlorobenzene	0.790	0.05
		Naphthalene	1.211	0.05
		2-Methylnaphthalene	0.531	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
spcc27a.d	07/27/12 11:49	1,1,2-Trichloro-1,2,2-trifluoroet	52.0/ 50.0		4.0/ 20.0
		Diethyl ether	47.3/ 50.0		5.4/ 20.0
		Acetone	33.6/ 50.0	*	32.7/ 20.0
		Methyl iodide	50.1/ 50.0		0.1/ 20.0
		Carbon disulfide	45.1/ 50.0		9.9/ 20.0
		Methyl acetate	43.1/ 50.0		13.8/ 20.0
		tert-Methyl butyl ether	47.9/ 50.0		4.2/ 20.0
		Acrylonitrile	46.9/ 50.0		6.1/ 20.0
		2-Butanone	37.2/ 50.0	*	25.6/ 20.0
		Dichlorodifluoromethane	52.2/ 50.0		4.5/ 20.0
		Chloromethane	47.4/ 50.0		5.3/ 20.0
		Vinyl Chloride	52.2/ 50.0		4.3/ 20.0
		Bromomethane	49.1/ 50.0		1.9/ 20.0
		Chloroethane	50.5/ 50.0		1.1/ 20.0
		Trichlorofluoromethane	55.0/ 50.0		10.0/ 20.0
		1,1-Dichloroethene	47.8/ 50.0		4.4/ 20.0
		Methylene Chloride	45.5/ 50.0		9.0/ 20.0
		trans-1,2-Dichloroethene	49.6/ 50.0		0.8/ 20.0
		1,1-Dichloroethane	48.8/ 50.0		2.3/ 20.0
		cis-1,2-Dichloroethene	49.5/ 50.0		1.1/ 20.0
		Tetrahydrofuran	43.7/ 50.0		12.7/ 20.0
		Chloroform	49.4/ 50.0		1.3/ 20.0
		Bromochloromethane	48.8/ 50.0		2.4/ 20.0
		1,1,1-Trichloroethane	53.7/ 50.0		7.4/ 20.0
		Cyclohexane	53.6/ 50.0		7.2/ 20.0
		4-Methyl-2-pentanone	46.1/ 50.0		7.8/ 20.0
		2-Hexanone	42.2/ 50.0		15.5/ 20.0
		Carbon Tetrachloride	57.1/ 50.0		14.2/ 20.0
		Benzene	52.1/ 50.0		4.2/ 20.0
		1,2-Dichloroethane	52.4/ 50.0		4.7/ 20.0
		Trichloroethene	54.5/ 50.0		8.9/ 20.0
		1,2-Dichloropropane	51.4/ 50.0		2.7/ 20.0
		Bromodichloromethane	54.5/ 50.0		9.0/ 20.0
		Methyl cyclohexane	53.3/ 50.0		6.5/ 20.0
		Dibromomethane	54.9/ 50.0		9.7/ 20.0
		cis-1,3-Dichloropropene	55.5/ 50.0		11.0/ 20.0
		Toluene	54.9/ 50.0		9.7/ 20.0
		trans-1,3-Dichloropropene	56.5/ 50.0		12.9/ 20.0
		1,1,2-Trichloroethane	51.2/ 50.0		2.3/ 20.0
		Tetrachloroethene	55.5/ 50.0		10.9/ 20.0
		trans-1,4-Dichloro-2-butene	52.5/ 50.0		4.9/ 20.0
		Dibromochloromethane	57.7/ 50.0		15.4/ 20.0
		1,2-Dibromoethane	54.7/ 50.0		9.3/ 20.0
		Chlorobenzene	53.2/ 50.0		6.4/ 20.0
		1,1,1,2-Tetrachloroethane	56.1/ 50.0		12.1/ 20.0
		Ethylbenzene	56.0/ 50.0		11.9/ 20.0
		p,m-Xylene	112.7/100.0		12.7/ 20.0
		o-Xylene	55.6/ 50.0		11.2/ 20.0
		Styrene	57.0/ 50.0		14.0/ 20.0
		Isopropylbenzene	57.2/ 50.0		14.3/ 20.0
		Bromoform	52.7/ 50.0		5.4/ 20.0
		1,1,2,2-Tetrachloroethane	52.5/ 50.0		4.9/ 20.0
		1,2,3-Trichloropropane	52.3/ 50.0		4.6/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120727a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	55.8/ 50.0	11.6/ 20.0
		Bromobenzene	53.8/ 50.0	7.6/ 20.0
		1,3,5-Trimethylbenzene	56.6/ 50.0	13.1/ 20.0
		tert-Butylbenzene	56.6/ 50.0	13.2/ 20.0
		1,2,4-Trimethylbenzene	55.9/ 50.0	11.9/ 20.0
		sec-Butylbenzene	57.6/ 50.0	15.2/ 20.0
		p-Isopropyltoluene	58.6/ 50.0	17.1/ 20.0
		1,3-Dichlorobenzene	54.7/ 50.0	9.4/ 20.0
		1,4-Dichlorobenzene	53.7/ 50.0	7.5/ 20.0
		1,2-Dichlorobenzene	53.1/ 50.0	6.1/ 20.0
		1,2,3-Trimethylbenzene	53.7/ 50.0	7.4/ 20.0
		n-Butylbenzene	56.2/ 50.0	12.4/ 20.0
		Hexachloroethane	52.7/ 50.0	5.4/ 20.0
		1,2-Dibromo-3-Chloropropane	52.2/ 50.0	4.4/ 20.0
		1,2,4-Trichlorobenzene	55.2/ 50.0	10.4/ 20.0
		1,2,3-Trichlorobenzene	52.1/ 50.0	4.1/ 20.0
		Naphthalene	53.7/ 50.0	7.5/ 20.0
		2-Methylnaphthalene	46.9/ 50.0	6.3/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
spcc31a.d	07/31/12 11:56	1,1,2-Trichloro-1,2,2-trifluoroet	50.5/ 50.0		1.0/ 20.0
		Diethyl ether	45.9/ 50.0		8.3/ 20.0
		Acetone	41.4/ 50.0		17.2/ 20.0
		Methyl iodide	49.1/ 50.0		1.7/ 20.0
		Carbon disulfide	45.5/ 50.0		9.1/ 20.0
		Methyl acetate	41.7/ 50.0		16.7/ 20.0
		tert-Methyl butyl ether	47.0/ 50.0		6.0/ 20.0
		Acrylonitrile	45.0/ 50.0		10.1/ 20.0
		2-Butanone	42.6/ 50.0		14.8/ 20.0
		Dichlorodifluoromethane	61.4/ 50.0	*	22.8/ 20.0
		Chloromethane	48.8/ 50.0		2.3/ 20.0
		Vinyl Chloride	53.4/ 50.0		6.8/ 20.0
		Bromomethane	50.0/ 50.0		0.1/ 20.0
		Chloroethane	52.0/ 50.0		4.1/ 20.0
		Trichlorofluoromethane	55.2/ 50.0		10.4/ 20.0
		1,1-Dichloroethene	46.7/ 50.0		6.6/ 20.0
		Methylene Chloride	44.0/ 50.0		12.1/ 20.0
		trans-1,2-Dichloroethene	47.8/ 50.0		4.4/ 20.0
		1,1-Dichloroethane	46.4/ 50.0		7.3/ 20.0
		cis-1,2-Dichloroethene	47.0/ 50.0		6.1/ 20.0
		Tetrahydrofuran	42.7/ 50.0		14.6/ 20.0
		Chloroform	46.5/ 50.0		7.0/ 20.0
		Bromochloromethane	45.9/ 50.0		8.2/ 20.0
		1,1,1-Trichloroethane	52.0/ 50.0		4.0/ 20.0
		Cyclohexane	48.0/ 50.0		4.0/ 20.0
		4-Methyl-2-pentanone	46.4/ 50.0		7.1/ 20.0
		2-Hexanone	48.2/ 50.0		3.5/ 20.0
		Carbon Tetrachloride	55.1/ 50.0		10.2/ 20.0
		Benzene	49.2/ 50.0		1.6/ 20.0
		1,2-Dichloroethane	49.2/ 50.0		1.6/ 20.0
		Trichloroethene	50.6/ 50.0		1.3/ 20.0
		1,2-Dichloropropane	48.1/ 50.0		3.7/ 20.0
		Bromodichloromethane	51.7/ 50.0		3.4/ 20.0
		Methyl cyclohexane	51.8/ 50.0		3.7/ 20.0
		Dibromomethane	51.0/ 50.0		2.0/ 20.0
		cis-1,3-Dichloropropene	52.6/ 50.0		5.1/ 20.0
		Toluene	51.5/ 50.0		3.1/ 20.0
		trans-1,3-Dichloropropene	53.5/ 50.0		7.0/ 20.0
		1,1,2-Trichloroethane	48.2/ 50.0		3.7/ 20.0
		Tetrachloroethene	51.6/ 50.0		3.3/ 20.0
		trans-1,4-Dichloro-2-butene	50.9/ 50.0		1.7/ 20.0
		Dibromochloromethane	54.0/ 50.0		8.0/ 20.0
		1,2-Dibromoethane	50.3/ 50.0		0.7/ 20.0
		Chlorobenzene	50.0/ 50.0		0.1/ 20.0
		1,1,1,2-Tetrachloroethane	53.1/ 50.0		6.1/ 20.0
		Ethylbenzene	51.9/ 50.0		3.9/ 20.0
		p,m-Xylene	105.6/100.0		5.6/ 20.0
		o-Xylene	52.6/ 50.0		5.2/ 20.0
		Styrene	54.5/ 50.0		8.9/ 20.0
		Isopropylbenzene	54.1/ 50.0		8.2/ 20.0
		Bromoform	50.8/ 50.0		1.7/ 20.0
		1,1,2,2-Tetrachloroethane	50.1/ 50.0		0.3/ 20.0
		1,2,3-Trichloropropane	49.5/ 50.0		1.1/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120731a5.2
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	52.8/ 50.0	5.6/ 20.0
		Bromobenzene	51.1/ 50.0	2.1/ 20.0
		1,3,5-Trimethylbenzene	54.2/ 50.0	8.4/ 20.0
		tert-Butylbenzene	53.8/ 50.0	7.7/ 20.0
		1,2,4-Trimethylbenzene	53.5/ 50.0	7.0/ 20.0
		sec-Butylbenzene	54.1/ 50.0	8.2/ 20.0
		p-Isopropyltoluene	55.1/ 50.0	10.1/ 20.0
		1,3-Dichlorobenzene	51.5/ 50.0	2.9/ 20.0
		1,4-Dichlorobenzene	50.6/ 50.0	1.2/ 20.0
		1,2-Dichlorobenzene	50.1/ 50.0	0.2/ 20.0
		1,2,3-Trimethylbenzene	51.3/ 50.0	2.6/ 20.0
		n-Butylbenzene	53.7/ 50.0	7.3/ 20.0
		Hexachloroethane	50.9/ 50.0	1.8/ 20.0
		1,2-Dibromo-3-Chloropropane	52.1/ 50.0	4.2/ 20.0
		1,2,4-Trichlorobenzene	54.4/ 50.0	8.9/ 20.0
		1,2,3-Trichlorobenzene	52.1/ 50.0	4.2/ 20.0
		Naphthalene	53.4/ 50.0	6.7/ 20.0
		2-Methylnaphthalene	46.2/ 50.0	7.6/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\spcc27a.d Vial: 2
Acq On : 27 Jul 12 11:49 am Operator: lbr
Sample : spcc/ccc 1s0727 1v0727 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	534499	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	603369	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	216010	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	288865	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	93572	46.30	ug/l		92.6
31) TOLUENE-D8 (S)	5.02	98	613568	50.33	ug/l		100.6
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	256334	49.90	ug/l		99.7
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	178697	52.00	ug/l		9
4) Diethyl ether (*)	2.35	74	46725	47.32	ug/l		9
5) Acetone (*)	2.59	43	6692	33.63	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	361352	50.07	ug/l		9
7) Carbon disulfide (*)	2.67	76	460228	45.07	ug/l		9
8) Methyl Acetate	2.84	43	31111	43.11	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	238742	47.88	ug/l		9
10) Acrylonitrile (*)	3.08	53	20570	46.94	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	11479	37.19	ug/l		9
12) Dichlorodifluoromethane	1.23	85	113173	52.24	ug/l		9
13) Chloromethane (SPCC)	1.35	50	116077	47.35	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	143911	52.17	ug/l		9
15) Bromomethane	1.74	94	60109	49.06	ug/l		9
16) Chloroethane	1.83	64	29721	50.54	ug/l		9
18) Trichlorofluoromethane	2.10	101	176798	55.00	ug/l	#	3
19) 1,1-Dichloroethene (CCC/MS	2.51	61	163260	47.81	ug/l		8
20) Methylene Chloride	2.90	84	150228	45.51	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	176416	49.62	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	217447	48.84	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	184028	49.47	ug/l		8
24) Tetrahydrofuran	3.84	42	12876	43.66	ug/l		9
25) Chloroform (CCC)	3.86	83	236217	49.35	ug/l		9
26) Bromochloromethane	3.81	130	116220	48.82	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	251596	53.69	ug/l	#	4
28) 1,1-Dichloropropene	4.03	75	205614	52.38	ug/l		9
29) Cyclohexane	3.98	42	58023	53.60	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	17732	46.09	ug/l		9
33) 2-Hexanone (*)	5.34	58	12668	42.24	ug/l		9
35) Carbon Tetrachloride	4.04	117	244386	57.12	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\spcc27a.d Vial: 2
Acq On : 27 Jul 12 11:49 am Operator: lbr
Sample : spcc/ccc 1s0727 1v0727 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	628219	52.09 ug/l	9
37) 1,2-Dichloroethane	4.15	62	114370	52.36 ug/l	9
38) Trichloroethene (MS)	4.45	95	179189	54.46 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	120417	51.37 ug/l	9
40) Bromodichloromethane	4.68	83	159755	54.50 ug/l	9
41) Methyl Cyclohexane	4.54	55	181430	53.26 ug/l	8
42) Dibromomethane	4.62	174	124943	54.85 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	202901	55.50 ug/l	9
44) Toluene (CCC/MS)	5.05	91	776249	54.85 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	155253	56.46 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	77457	51.17 ug/l	9
47) Tetrachloroethene	5.31	166	324403	55.47 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	15661	52.47 ug/l #	7
51) Dibromochloromethane	5.42	129	142214	57.71 ug/l	9
52) 1,2-Dibromoethane	5.48	107	108330	54.66 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	532310	53.22 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	187378	56.06 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	839271	55.96 ug/l	9
56) p,m-Xylene	5.79	106	722058	112.69 ug/l	9
57) o-Xylene	5.98	91	635977	55.62 ug/l	9
58) Styrene	5.99	104	530315	56.99 ug/l	9
59) Isopropylbenzene	6.15	105	964276	57.16 ug/l	9
60) Bromoform (SPCC)	6.09	173	90758	52.68 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	96890	52.47 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	31855	52.32 ug/l	9
63) n-Propylbenzene	6.34	91	968369	55.82 ug/l	9
64) Bromobenzene	6.31	156	255899	53.78 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	440209	56.56 ug/l	9
66) tert-Butylbenzene	6.58	91	450414	56.58 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	459740	55.93 ug/l	9
69) sec-Butylbenzene	6.68	105	1054658	57.61 ug/l	9
70) p-Isopropyltoluene	6.75	119	905102	58.55 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	461962	54.72 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	465767	53.74 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	416486	53.06 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	686455	53.70 ug/l	9
75) n-Butylbenzene	6.95	91	688455	56.21 ug/l	9
76) Hexachloroethane	7.10	201	193115	52.71 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	22702	52.22 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	295873	55.21 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\spcc27a.d Vial: 2
Acq On : 27 Jul 12 11:49 am Operator: lbr
Sample : spcc/ccc 1s0727 1v0727 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

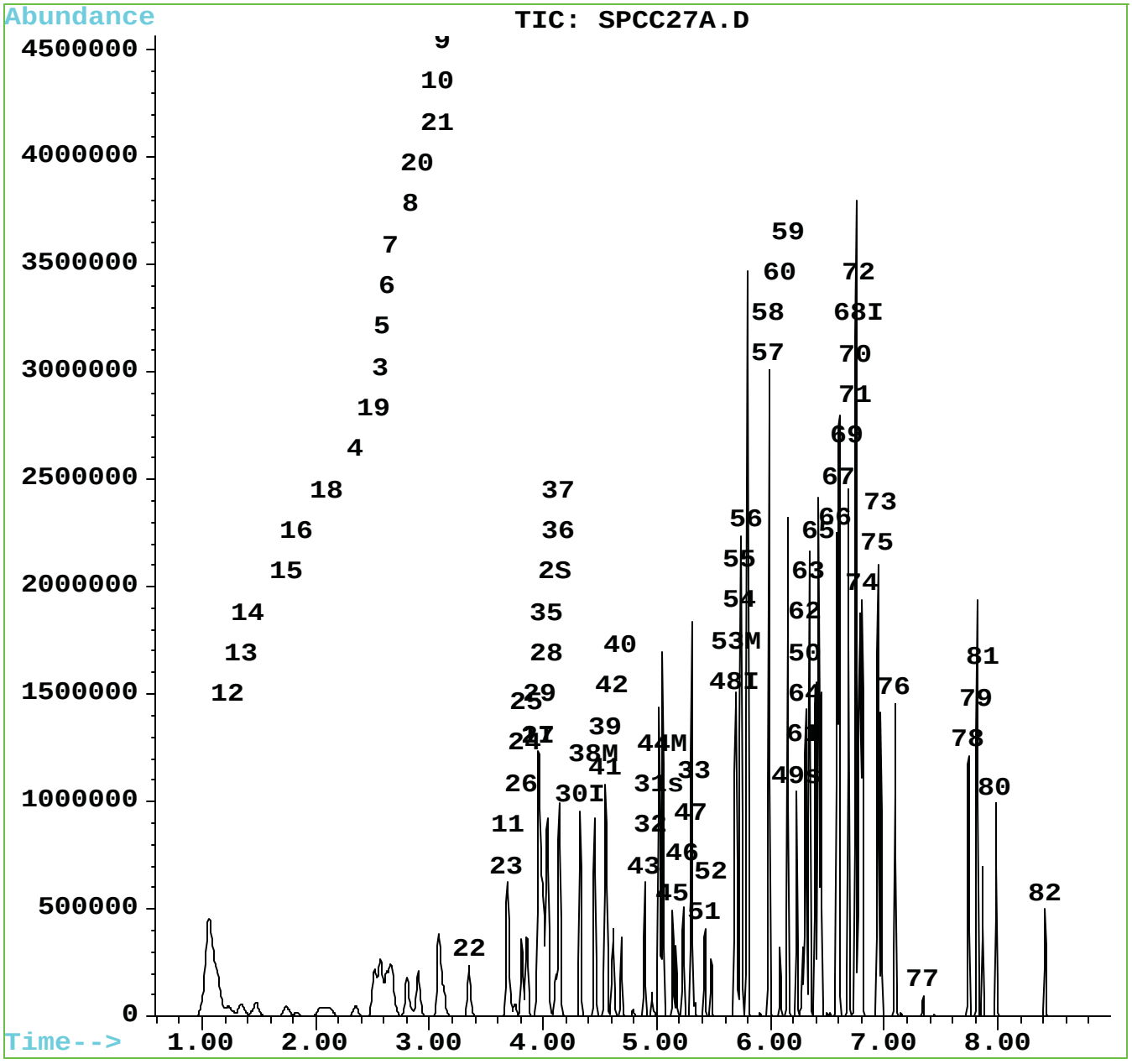
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	280126	54.98 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	228137	52.07 ug/l	9
81)	Naphthalene	7.87	128	352393	53.74 ug/l	9
82)	2-Methylnaphthalene	8.41	142	155627	46.85 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\spcc27a.d Vial: 2
Acq On : 27 Jul 12 11:49 am Operator: lbr
Sample : spcc/ccc 1s0727 1v0727 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\spcc31a.d Vial: 2
Acq On : 31 Jul 12 11:56 am Operator: lbr
Sample : spcc/ccc 1s0731 1v0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 31 22:36 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	549171	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	615930	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	225049	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	305555	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	95577	46.03	ug/l		92.0
31) TOLUENE-D8 (S)	5.02	98	631008	50.70	ug/l		101.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	268231	50.12	ug/l		100.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	178377	50.52	ug/l		9
4) Diethyl ether (*)	2.35	74	46537	45.87	ug/l		9
5) Acetone (*)	2.59	43	8468	41.42	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	364344	49.14	ug/l		9
7) Carbon disulfide (*)	2.67	76	477022	45.47	ug/l		9
8) Methyl Acetate	2.84	43	30893	41.66	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	240721	46.99	ug/l		9
10) Acrylonitrile (*)	3.07	53	20246	44.97	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	13509	42.59	ug/l		9
12) Dichlorodifluoromethane	1.23	85	137049	61.38	ug/l		9
13) Chloromethane (SPCC)	1.35	50	122998	48.83	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	151405	53.42	ug/l		9
15) Bromomethane	1.74	94	62905	49.97	ug/l		9
16) Chloroethane	1.83	64	31440	52.03	ug/l		9
18) Trichlorofluoromethane	2.04	101	182347	55.21	ug/l	#	3
19) 1,1-Dichloroethene (CCC/MS	2.51	61	163836	46.70	ug/l		8
20) Methylene Chloride	2.90	84	149131	43.97	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	174687	47.82	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	212072	46.36	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	179538	46.97	ug/l		8
24) Tetrahydrofuran	3.84	42	12939	42.70	ug/l		9
25) Chloroform (CCC)	3.85	83	228638	46.49	ug/l		9
26) Bromochloromethane	3.81	130	112288	45.91	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	250407	52.00	ug/l	#	4
28) 1,1-Dichloropropene	4.03	75	194467	48.21	ug/l		9
29) Cyclohexane	3.98	42	53400	48.01	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	18237	46.43	ug/l		9
33) 2-Hexanone (*)	5.34	58	14767	48.23	ug/l		9
35) Carbon Tetrachloride	4.04	117	240573	55.08	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\spcc31a.d Vial: 2
Acq On : 31 Jul 12 11:56 am Operator: lbr
Sample : spcc/ccc 1s0731 1v0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 31 22:36 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.13	78	605698	49.20	ug/l		9
37)	1,2-Dichloroethane	4.15	62	109685	49.19	ug/l		9
38)	Trichloroethene (MS)	4.45	95	170093	50.64	ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	115192	48.14	ug/l		9
40)	Bromodichloromethane	4.68	83	154754	51.71	ug/l		9
41)	Methyl Cyclohexane	4.54	55	180292	51.84	ug/l		8
42)	Dibromomethane	4.62	174	118610	51.01	ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	196145	52.56	ug/l		9
44)	Toluene (CCC/MS)	5.05	91	744574	51.54	ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	150150	53.49	ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	74430	48.17	ug/l		9
47)	Tetrachloroethene	5.31	166	308286	51.64	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	15821	50.87	ug/l	#	7
51)	Dibromochloromethane	5.42	129	138672	54.01	ug/l		9
52)	1,2-Dibromoethane	5.48	107	103907	50.33	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	521482	50.04	ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	184822	53.07	ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	811373	51.93	ug/l		9
56)	p,m-Xylene	5.79	106	704934	105.60	ug/l		9
57)	o-Xylene	5.98	91	626896	52.62	ug/l		9
58)	Styrene	5.99	104	527872	54.45	ug/l		9
59)	Isopropylbenzene	6.15	105	950507	54.08	ug/l		9
60)	Bromoform (SPCC)	6.09	173	91109	50.83	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.28	83	96434	50.13	ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	31369	49.45	ug/l		9
63)	n-Propylbenzene	6.34	91	954528	52.81	ug/l		9
64)	Bromobenzene	6.31	156	253107	51.06	ug/l		8
65)	1,3,5-Trimethylbenzene	6.42	120	439325	54.18	ug/l		9
66)	tert-Butylbenzene	6.58	91	446534	53.84	ug/l	#	7
67)	1,2,4-Trimethylbenzene	6.60	120	458357	53.52	ug/l		9
69)	sec-Butylbenzene	6.68	105	1047799	54.11	ug/l		9
70)	p-Isopropyltoluene	6.75	119	900280	55.06	ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	459494	51.45	ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	463908	50.60	ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	416008	50.10	ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	693451	51.29	ug/l		9
75)	n-Butylbenzene	6.95	91	695166	53.66	ug/l		9
76)	Hexachloroethane	7.10	201	197248	50.90	ug/l		8
77)	1,2-Dibromo-3-Chloropropan	7.34	157	23947	52.09	ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	308559	54.43	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\spcc31a.d Vial: 2
Acq On : 31 Jul 12 11:56 am Operator: lbr
Sample : spcc/ccc 1s0731 1v0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 31 22:36 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

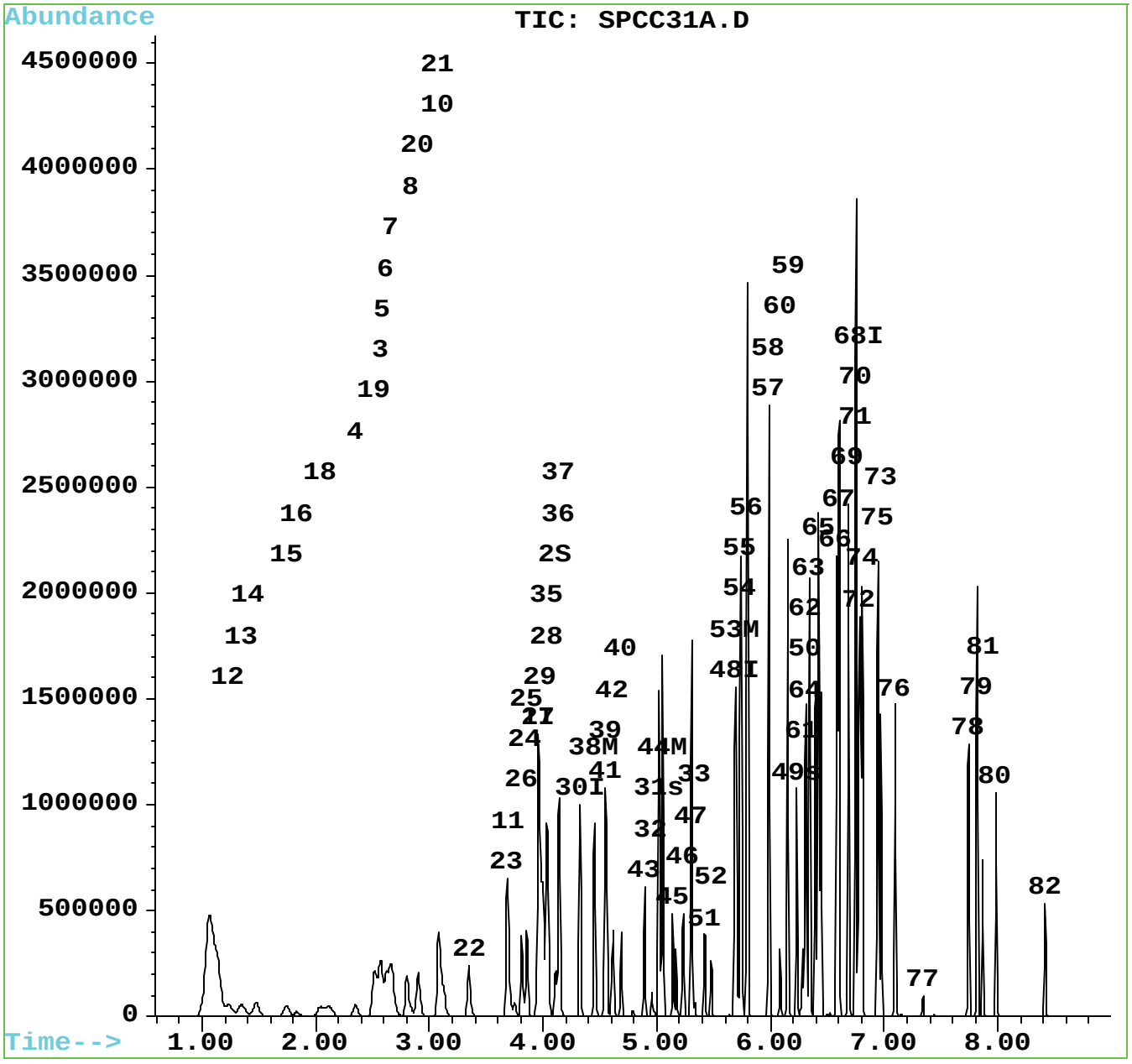
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	289403	53.70 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	241533	52.12 ug/l	9
81)	Naphthalene	7.87	128	370059	53.35 ug/l	9
82)	2-Methylnaphthalene	8.41	142	162308	46.19 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\spcc31a.d Vial: 2
Acq On : 31 Jul 12 11:56 am Operator: lbr
Sample : spcc/ccc 1s0731 1v0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 31 22:36 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\bfb27a.d Vial: 1
Acq On : 27 Jul 12 11:16 am Operator: lbr
Sample : 50ng/bfb 1s0727 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

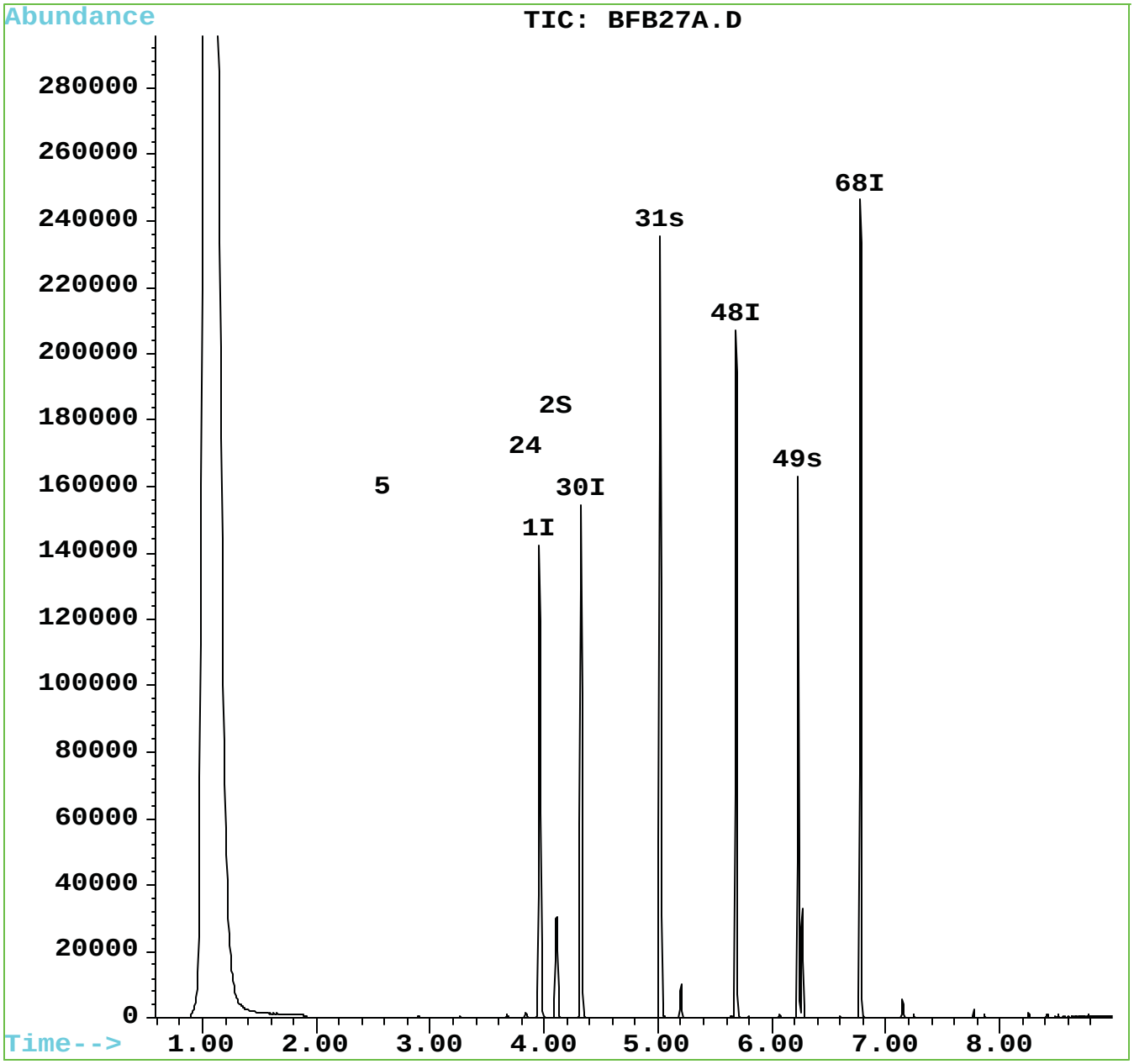
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	90197	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	101541	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	35365	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	51540	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	15190	44.54	ug/l	89.0
31) TOLUENE-D8 (S)	5.02	98	100118	48.80	ug/l	97.6
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	41255	49.05	ug/l	98.1
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	404	12.03	ug/l #	4
24) Tetrahydrofuran	3.84	42	766	15.39	ug/l #	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\bfb27a.d Vial: 1
Acq On : 27 Jul 12 11:16 am Operator: lbr
Sample : 50ng/bfb 1s0727 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

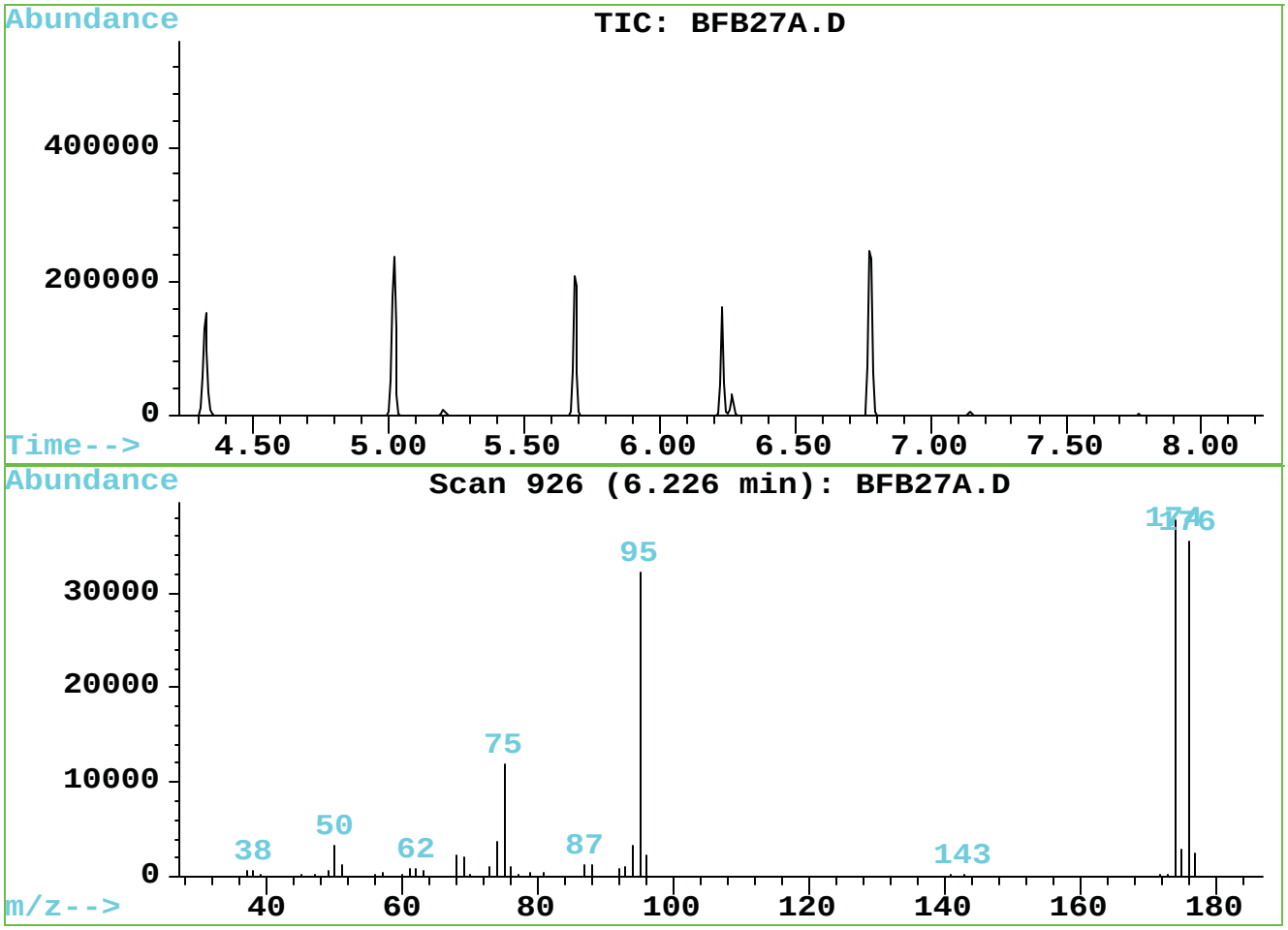
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\DATA\120727A5\BFB27A.D Vial: 1
Acq On : 27 Jul 12 11:16 am Operator: lbr
Sample : 50ng/bfb 1s0727 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.3	3308	PASS
75	95	30	66	37.1	11966	PASS
95	95	100	100	100.0	32224	PASS
96	95	5	9	7.3	2344	PASS
173	174	0	2	0.5	187	PASS
174	95	50	120	116.9	37656	PASS
175	174	4	9	7.4	2788	PASS
176	174	93	101	94.4	35544	PASS
177	176	5	9	6.8	2425	PASS

BFB27A.D FU120604.M Mon Aug 06 12:36:08 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\bfb31a.d Vial: 1
Acq On : 31 Jul 12 11:28 am Operator: lbr
Sample : 50ng/bfb 1s0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 31 22:36 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

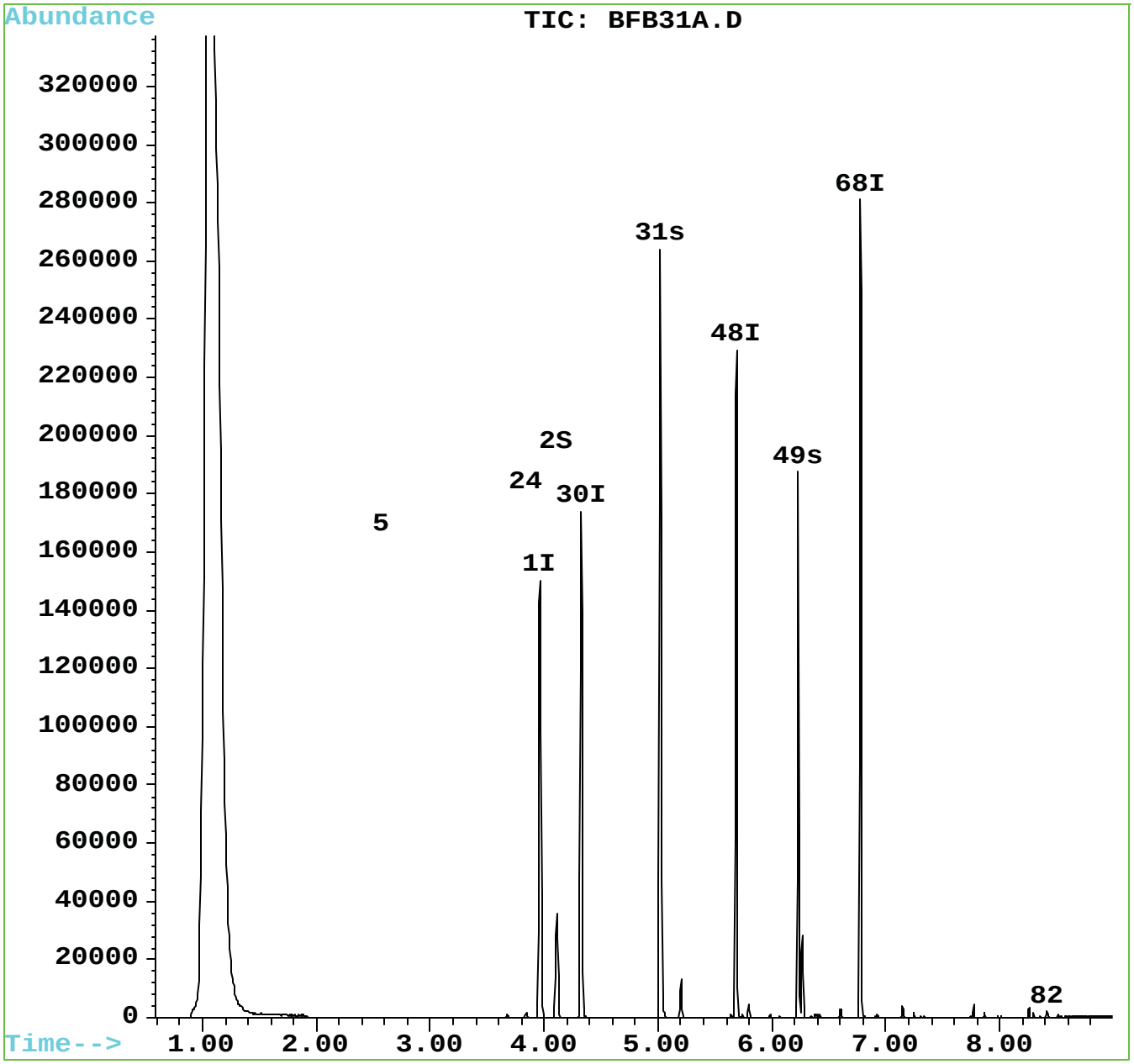
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	104278	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	115066	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	39397	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	56527	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	16657	42.25	ug/l	84.4
31) TOLUENE-D8 (S)	5.02	98	113862	48.97	ug/l	97.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	45655	48.73	ug/l	97.4
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	279	7.19	ug/l #	4
24) Tetrahydrofuran	3.84	42	816	14.18	ug/l #	
82) 2-Methylnaphthalene	8.41	142	727	1.12	ug/l	8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\bfb31a.d Vial: 1
Acq On : 31 Jul 12 11:28 am Operator: lbr
Sample : 50ng/bfb 1s0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 31 22:36 19112

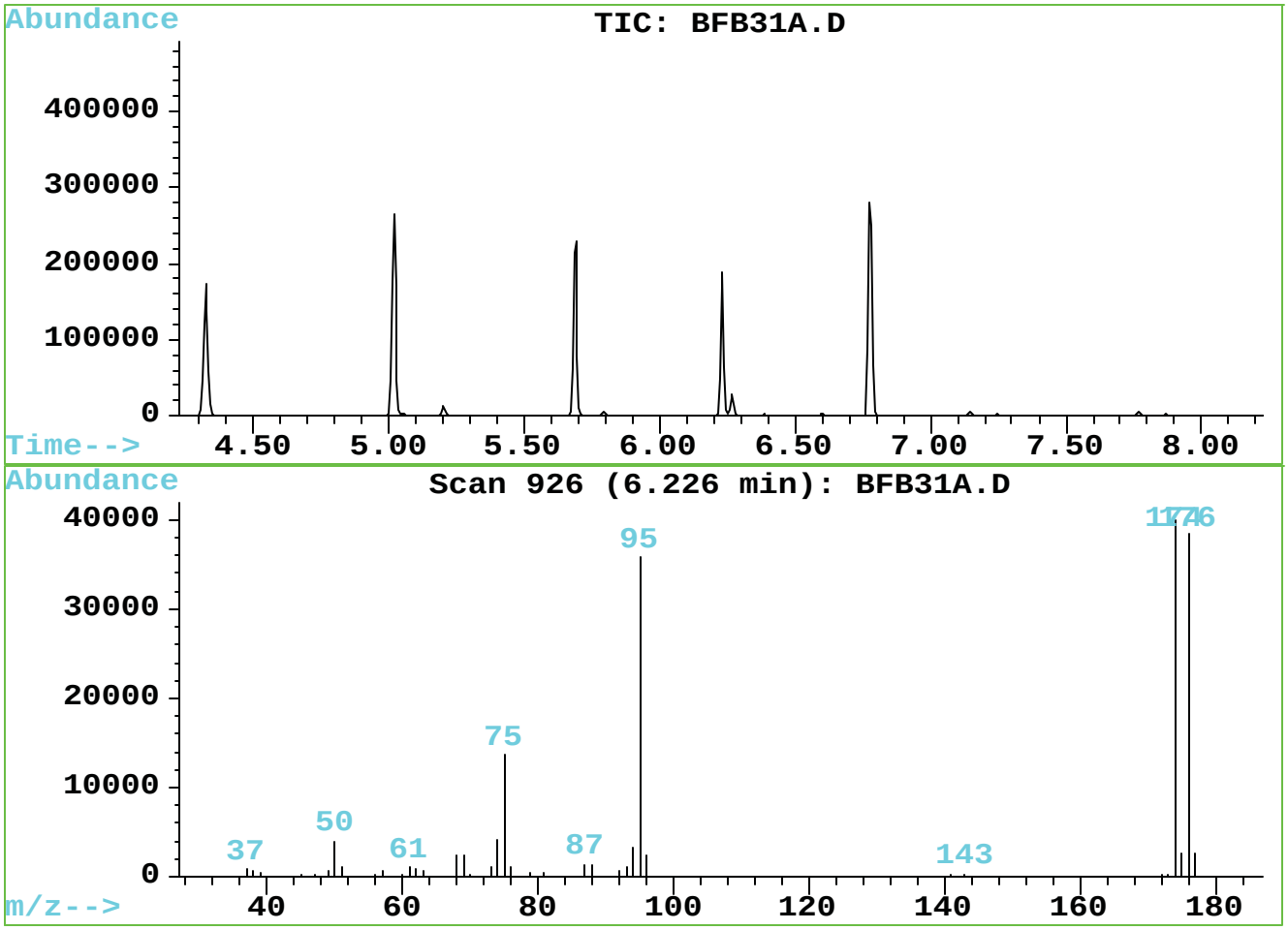
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\DATA\120731A5\BFB31A.D Vial: 1
Acq On : 31 Jul 12 11:28 am Operator: lbr
Sample : 50ng/bfb 1s0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	11.2	4001	PASS
75	95	30	66	38.0	13587	PASS
95	95	100	100	100.0	35784	PASS
96	95	5	9	6.5	2316	PASS
173	174	0	2	0.6	222	PASS
174	95	50	120	111.6	39936	PASS
175	174	4	9	6.6	2620	PASS
176	174	93	101	96.5	38528	PASS
177	176	5	9	6.5	2516	PASS

BFB31A.D FU120604.M Mon Aug 06 12:43:12 2012 TEST

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\blks27a.d Vial: 6
Acq On : 27 Jul 12 1:58 pm Operator: lbr
Sample : 100ul blank 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

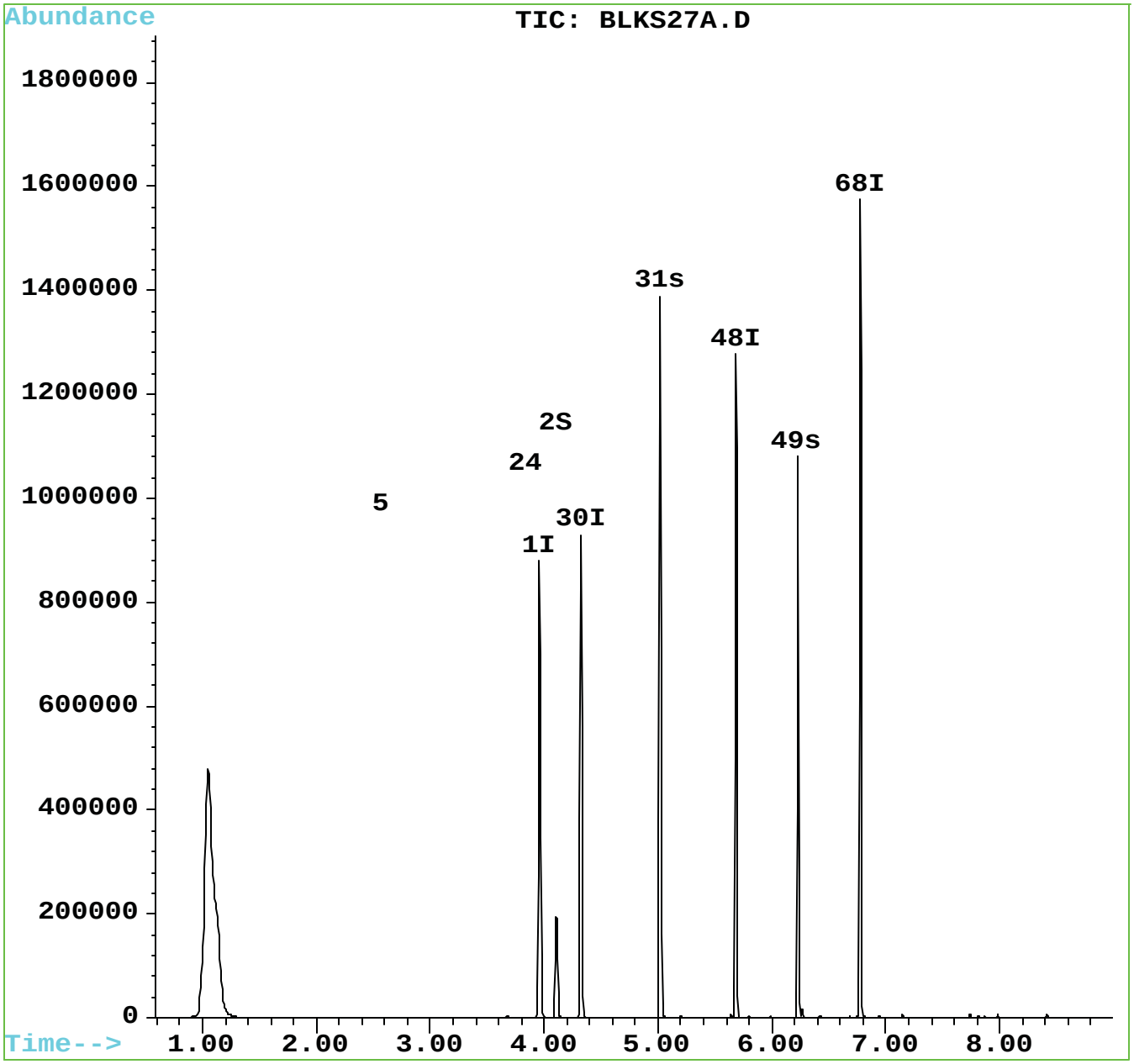
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	547760	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	612079	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	215792	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	308047	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	90650	43.77	ug/l	87.5
31) TOLUENE-D8 (S)	5.02	98	607251	49.10	ug/l	98.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	261784	51.01	ug/l	102.0
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	440	2.16	ug/l #	6
24) Tetrahydrofuran	3.84	42	790	2.61	ug/l #	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\blks27a.d Vial: 6
Acq On : 27 Jul 12 1:58 pm Operator: lbr
Sample : 100ul blank 1s0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\blks31a.d Vial: 5
Acq On : 31 Jul 12 2:07 pm Operator: wat
Sample : 100ul blank 1s0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Jul 31 22:36 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

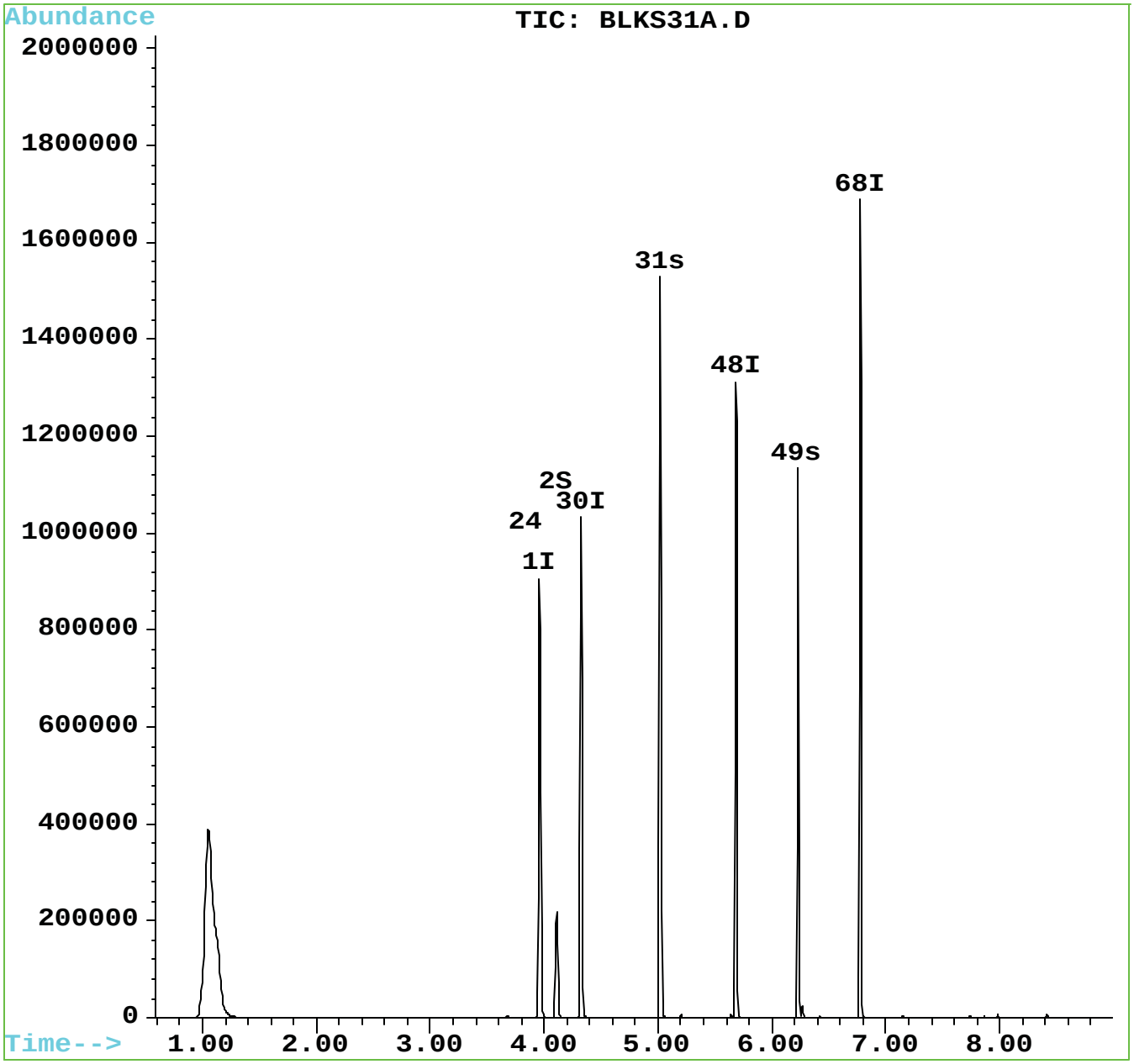
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	596586	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	668522	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	233728	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	331949	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	102123	45.27	ug/l	90.5
31) TOLUENE-D8 (S)	5.02	98	666583	49.35	ug/l	98.7
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	280830	50.52	ug/l	101.0
Target Compounds						Qvalu
24) Tetrahydrofuran	3.84	42	954	2.90	ug/l	#

(#) = qualifier out of range (m) = manual integration
blks31a.d FU120604.M Mon Aug 06 12:41:58 2012 TEST Page 1

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\blks31a.d Vial: 5
Acq On : 31 Jul 12 2:07 pm Operator: wat
Sample : 100ul blank 1s0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Jul 31 22:36 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\lcss27a.d Vial: 3
Acq On : 27 Jul 12 12:19 pm Operator: lbr
Sample : blank ms 1s0727 1m0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	578491	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	644702	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	228867	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	317197	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	100855	46.11	ug/l		92.2
31) TOLUENE-D8 (S)	5.02	98	645759	49.57	ug/l		99.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	276062	50.72	ug/l		101.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	188786	50.76	ug/l		9
4) Diethyl ether (*)	2.34	74	47378	44.33	ug/l		9
5) Acetone (*)	2.59	43	6926	32.16	ug/l		9
6) Methyl iodide (iodomethane	2.62	142	361489	46.28	ug/l		9
7) Carbon disulfide (*)	2.67	76	479472	43.39	ug/l		9
8) Methyl Acetate	2.84	43	30690	39.29	ug/l		10
9) tert-Methyl butyl ether (M	3.12	73	244912	45.38	ug/l		9
10) Acrylonitrile (*)	3.07	53	20633	43.50	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	10748	32.17	ug/l		9
12) Dichlorodifluoromethane	1.23	85	108546	46.39	ug/l		9
13) Chloromethane (SPCC)	1.35	50	117083	44.13	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	138207	46.29	ug/l		9
15) Bromomethane	1.74	94	60520	45.64	ug/l		10
16) Chloroethane	1.83	64	30859	48.48	ug/l		9
18) Trichlorofluoromethane	2.04	101	193200	55.54	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	170646	46.18	ug/l		8
20) Methylene Chloride	2.90	84	151383	42.38	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	175713	45.66	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	215130	44.64	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	181938	45.19	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11748	36.81	ug/l	#	
25) Chloroform (CCC)	3.85	83	234762	45.32	ug/l		9
26) Bromochloromethane	3.81	130	115583	44.86	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	252269	49.74	ug/l	#	4
29) Cyclohexane	3.98	42	51179	43.68	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	17780	43.25	ug/l		8
33) 2-Hexanone (*)	5.34	58	12954	40.42	ug/l		9
35) Carbon Tetrachloride	4.04	117	248629	54.39	ug/l		9
36) Benzene (MS)	4.13	78	616073	47.81	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\lcss27a.d Vial: 3
Acq On : 27 Jul 12 12:19 pm Operator: lbr
Sample : blank ms 1s0727 1m0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
37) 1,2-Dichloroethane	4.15	62	112451	48.18	ug/l		9
38) Trichloroethene (MS)	4.45	95	176161	50.10	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	116396	46.47	ug/l		9
40) Bromodichloromethane	4.68	83	156424	49.94	ug/l		9
41) Methyl Cyclohexane	4.54	55	190556	52.35	ug/l		8
42) Dibromomethane	4.62	174	120747	49.61	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	195939	50.16	ug/l		9
44) Toluene (CCC/MS)	5.05	91	742324	49.09	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	149969	51.04	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	74042	45.78	ug/l		9
47) Tetrachloroethene	5.31	166	312855	50.07	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	15579	49.26	ug/l	#	7
51) Dibromochloromethane	5.42	129	136501	52.28	ug/l		9
52) 1,2-Dibromoethane	5.48	107	102999	49.05	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	519208	48.99	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	181345	51.21	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	814491	51.26	ug/l		9
56) p,m-Xylene	5.79	106	697287	102.71	ug/l		9
57) o-Xylene	5.98	91	622042	51.34	ug/l		9
58) Styrene	5.99	104	501104	50.82	ug/l		9
59) Isopropylbenzene	6.15	105	940104	52.59	ug/l		9
60) Bromoform (SPCC)	6.09	173	90808	49.85	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	94261	48.18	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	31630	49.03	ug/l		9
63) n-Propylbenzene	6.34	91	980360	53.33	ug/l		9
64) Bromobenzene	6.31	156	252383	50.06	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	429525	52.09	ug/l		9
66) tert-Butylbenzene	6.58	91	449210	53.26	ug/l		9
67) 1,2,4-Trimethylbenzene	6.60	120	468697	53.81	ug/l		9
69) sec-Butylbenzene	6.68	105	1041587	51.81	ug/l		9
70) p-Isopropyltoluene	6.75	119	908325	53.51	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	466274	50.30	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	466058	48.97	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	424747	49.27	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	686235	48.89	ug/l		9
75) n-Butylbenzene	6.95	91	705169	52.43	ug/l		9
76) Hexachloroethane	7.10	201	193797	48.18	ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	23838	50.04	ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	313992	53.35	ug/l		9
80) 1,2,3-Trichlorobenzene	7.98	180	254497	52.90	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\lcss27a.d Vial: 3
Acq On : 27 Jul 12 12:19 pm Operator: lbr
Sample : blank ms 1s0727 1m0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

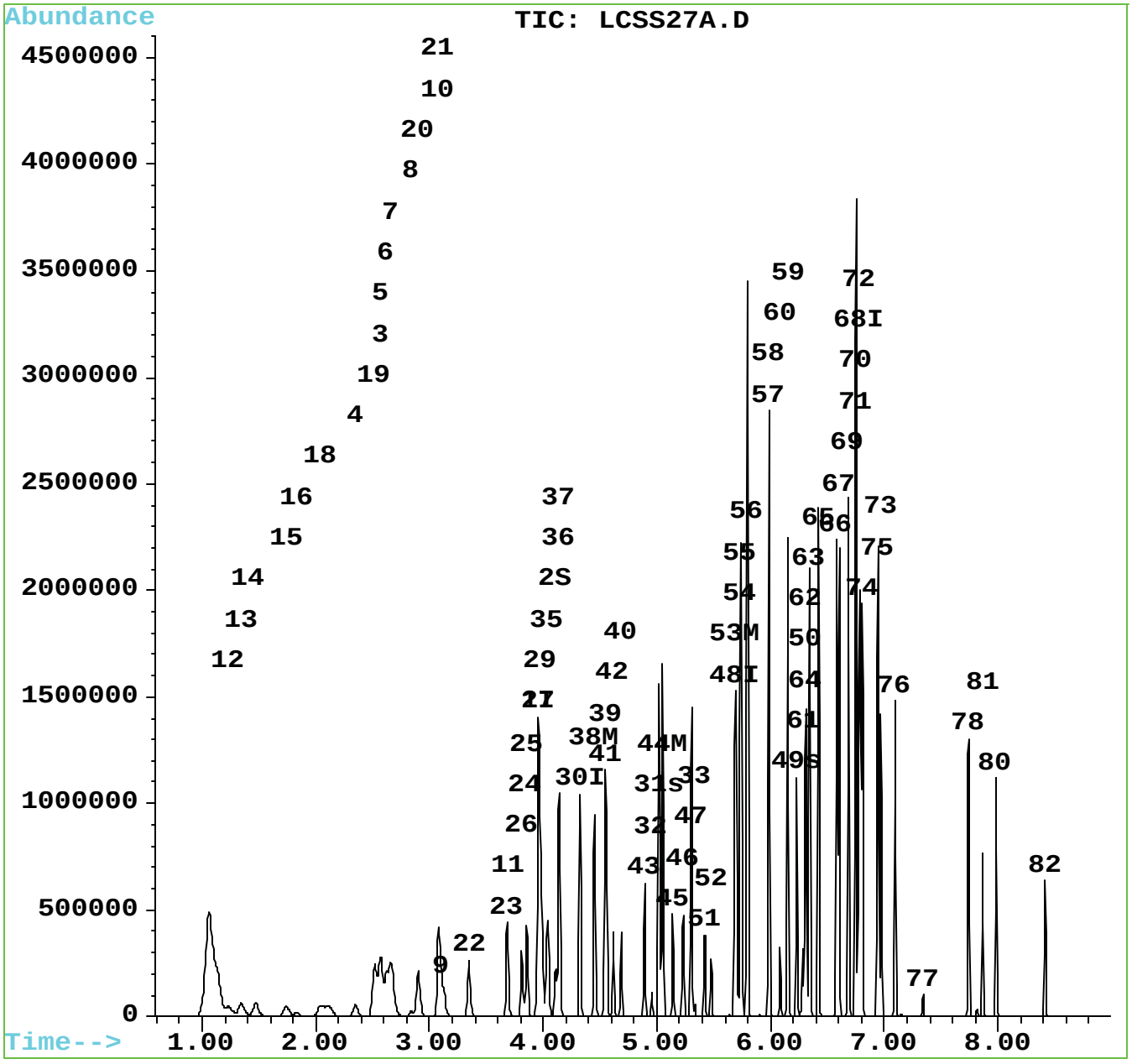
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
81) Naphthalene	7.87	128	385729	53.57 ug/l	9
82) 2-Methylnaphthalene	8.41	142	190543	52.24 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\lcss27a.d Vial: 3
Acq On : 27 Jul 12 12:19 pm Operator: lbr
Sample : blank ms 1s0727 1m0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\lcss27b.d Vial: 4
Acq On : 27 Jul 12 12:39 pm Operator: lbr
Sample : blank msd 1s0727 1m0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	525686	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	594016	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	215943	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	292406	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	92736	46.66	ug/l		93.3
31) TOLUENE-D8 (S)	5.02	98	609217	50.76	ug/l		101.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	259545	50.54	ug/l		101.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	194075	57.42	ug/l		9
4) Diethyl ether (*)	2.35	74	48079	49.50	ug/l		9
5) Acetone (*)	2.59	43	6730	34.39	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	362856	51.12	ug/l		9
7) Carbon disulfide (*)	2.67	76	483443	48.14	ug/l		9
8) Methyl Acetate	2.84	43	30018	42.29	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	246119	50.19	ug/l		9
10) Acrylonitrile (*)	3.07	53	20337	47.19	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	10812	35.61	ug/l		9
12) Dichlorodifluoromethane	1.23	85	107327	50.40	ug/l		9
13) Chloromethane (SPCC)	1.35	50	123334	51.15	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	142515	52.53	ug/l		9
15) Bromomethane	1.75	94	64259	53.32	ug/l		9
16) Chloroethane	1.83	64	31943	55.23	ug/l		9
18) Trichlorofluoromethane	2.04	101	195185	61.74	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	168521	50.18	ug/l		8
20) Methylene Chloride	2.90	84	149939	46.19	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	173357	49.57	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	213795	48.82	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	182689	49.93	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11599	39.99	ug/l	#	
25) Chloroform (CCC)	3.85	83	236832	50.31	ug/l		9
26) Bromochloromethane	3.81	130	115799	49.46	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	255601	55.45	ug/l	#	4
28) 1,1-Dichloropropene	4.14	75	10419	2.70	ug/l	#	
29) Cyclohexane	3.98	42	51136	48.03	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	17940	47.36	ug/l		8
33) 2-Hexanone (*)	5.34	58	13045	44.18	ug/l		9
35) Carbon Tetrachloride	4.04	117	249471	59.23	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\lcss27b.d Vial: 4
Acq On : 27 Jul 12 12:39 pm Operator: lbr
Sample : blank msd 1s0727 1m0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	623170	52.49 ug/l	9
37) 1,2-Dichloroethane	4.15	62	113252	52.66 ug/l	9
38) Trichloroethene (MS)	4.45	95	179112	55.29 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	119462	51.77 ug/l	9
40) Bromodichloromethane	4.68	83	162249	56.22 ug/l	9
41) Methyl Cyclohexane	4.54	55	189138	56.39 ug/l	8
42) Dibromomethane	4.62	174	122611	54.68 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	202242	56.19 ug/l	9
44) Toluene (CCC/MS)	5.05	91	769434	55.23 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	154641	57.12 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	77689	52.13 ug/l	9
47) Tetrachloroethene	5.31	166	319562	55.51 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	15333	51.38 ug/l #	7
51) Dibromochloromethane	5.42	129	144016	58.46 ug/l	9
52) 1,2-Dibromoethane	5.48	107	106874	53.95 ug/l	10
53) Chlorobenzene (SPCC/MS)	5.70	112	541793	54.18 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	190732	57.08 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	845165	56.37 ug/l	9
56) p,m-Xylene	5.79	106	723730	112.99 ug/l	9
57) o-Xylene	5.98	91	652794	57.10 ug/l	9
58) Styrene	5.99	104	518615	55.75 ug/l	9
59) Isopropylbenzene	6.15	105	983848	58.33 ug/l	9
60) Bromoform (SPCC)	6.09	173	92679	53.76 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	95496	51.74 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	31509	51.77 ug/l	9
63) n-Propylbenzene	6.34	91	1008296	58.14 ug/l	9
64) Bromobenzene	6.31	156	262773	55.24 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	448490	57.64 ug/l	9
66) tert-Butylbenzene	6.58	91	461619	58.01 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	483637	58.85 ug/l	9
69) sec-Butylbenzene	6.68	105	1080569	58.31 ug/l	9
70) p-Isopropyltoluene	6.75	119	939847	60.06 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	468743	54.85 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	472766	53.88 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	431036	54.24 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	714843	55.25 ug/l	9
75) n-Butylbenzene	6.95	91	719632	58.04 ug/l	9
76) Hexachloroethane	7.10	201	198542	53.53 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	23421	53.18 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	318336	58.68 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\lcss27b.d Vial: 4
Acq On : 27 Jul 12 12:39 pm Operator: lbr
Sample : blank msd 1s0727 1m0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

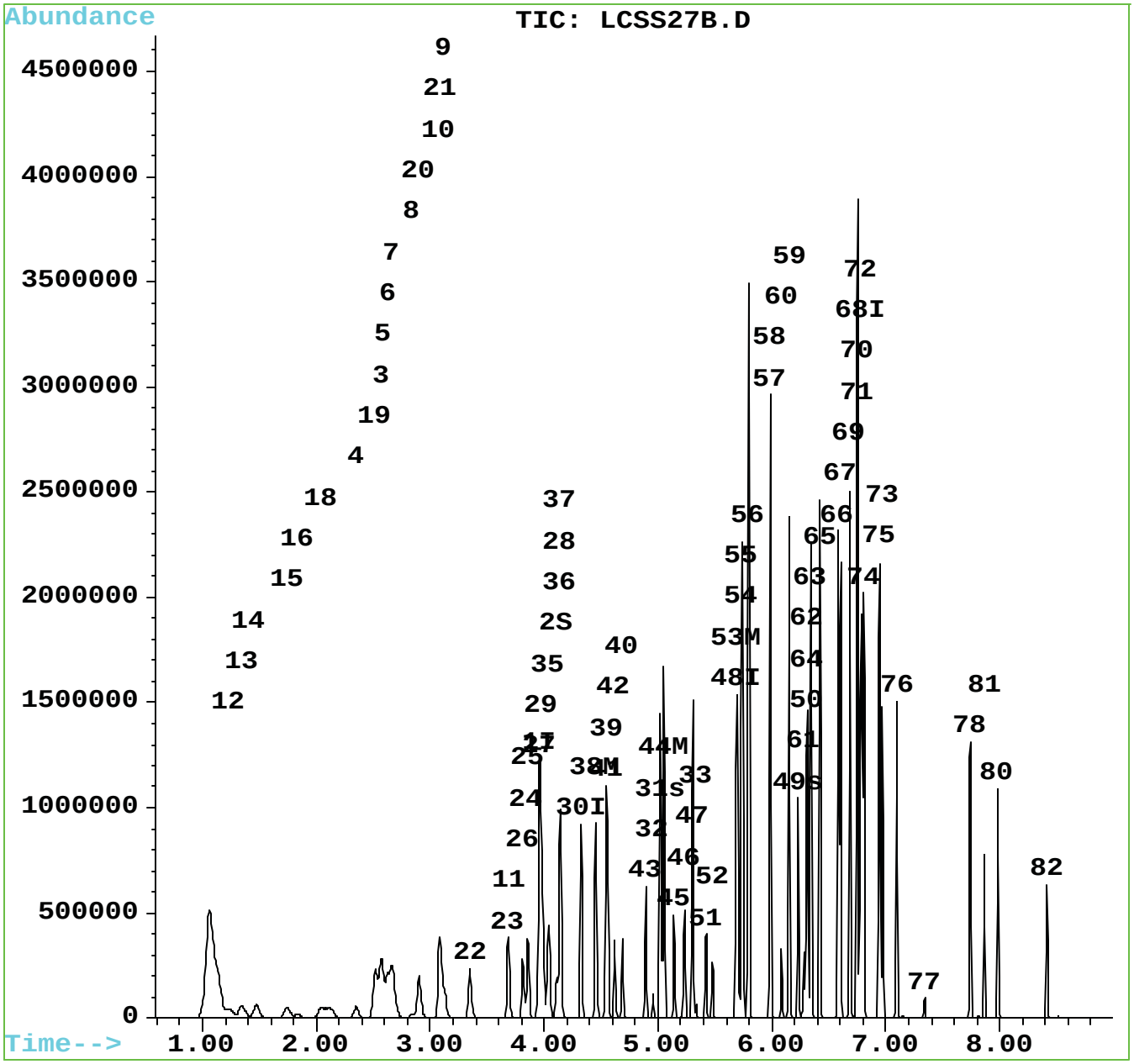
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	256358	57.80 ug/l	9
81)	Naphthalene	7.87	128	388917	58.59 ug/l	9
82)	2-Methylnaphthalene	8.41	142	190814	56.75 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120727a5\lcss27b.d Vial: 4
Acq On : 27 Jul 12 12:39 pm Operator: lbr
Sample : blank msd 1s0727 1m0727 Inst : Urborg
Misc : s/50 id:vf120727s1 Multiplr: 1.00
Quant Time: Jul 30 10:44 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\lcss31a.d Vial: 3
Acq On : 31 Jul 12 12:25 pm Operator: wat
Sample : 100ul blankms 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	582160	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	657498	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	236415	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	320066	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	102379	46.51	ug/l		93.0
31) TOLUENE-D8 (S)	5.02	98	672703	50.64	ug/l		101.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	282117	50.18	ug/l		100.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	178589	47.71	ug/l		9
4) Diethyl ether (*)	2.34	74	44385	41.27	ug/l		9
5) Acetone (*)	2.59	43	7643	35.27	ug/l	#	9
6) Methyl iodide (iodomethane	2.62	142	349690	44.49	ug/l		9
7) Carbon disulfide (*)	2.66	76	458111	41.19	ug/l		9
8) Methyl Acetate	2.84	43	30827	39.22	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	245724	45.25	ug/l		9
10) Acrylonitrile (*)	3.07	53	20797	43.57	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	12447	37.02	ug/l		9
12) Dichlorodifluoromethane	1.23	85	102597	43.61	ug/l		9
13) Chloromethane (SPCC)	1.34	50	110274	41.30	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	129681	43.16	ug/l		9
15) Bromomethane	1.73	94	58223	43.63	ug/l		9
16) Chloroethane	1.82	64	30201	47.15	ug/l		9
18) Trichlorofluoromethane	2.10	101	174844	49.94	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	159392	42.86	ug/l		8
20) Methylene Chloride	2.90	84	146884	40.86	ug/l		9
21) trans-1,2-Dichloroethene	3.07	61	170920	44.13	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.34	63	207931	42.88	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	178234	43.99	ug/l	#	8
24) Tetrahydrofuran	3.84	42	12086	37.63	ug/l	#	
25) Chloroform (CCC)	3.85	83	228799	43.89	ug/l		9
26) Bromochloromethane	3.81	130	112474	43.38	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	243454	47.70	ug/l	#	4
28) 1,1-Dichloropropene	4.13	75	9726	2.27	ug/l	#	
29) Cyclohexane	3.98	42	48569	41.19	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	18488	44.09	ug/l		8
33) 2-Hexanone (*)	5.34	58	14069	43.05	ug/l		9
35) Carbon Tetrachloride	4.04	117	238780	51.21	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\lcss31a.d Vial: 3
Acq On : 31 Jul 12 12:25 pm Operator: wat
Sample : 100ul blankms 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.13	78	601520	45.77 ug/l	9
37) 1,2-Dichloroethane	4.15	62	109926	46.18 ug/l	9
38) Trichloroethene (MS)	4.45	95	173204	48.30 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	116056	45.43 ug/l	9
40) Bromodichloromethane	4.68	83	157384	49.27 ug/l	9
41) Methyl Cyclohexane	4.54	55	181929	49.01 ug/l	8
42) Dibromomethane	4.62	174	121270	48.86 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	198705	49.88 ug/l	9
44) Toluene (CCC/MS)	5.05	91	744536	48.28 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	153988	51.39 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	76539	46.40 ug/l	9
47) Tetrachloroethene	5.31	166	306368	48.08 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	16120	49.34 ug/l #	8
51) Dibromochloromethane	5.42	129	140691	52.16 ug/l	9
52) 1,2-Dibromoethane	5.48	107	106077	48.91 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	524051	47.87 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	183004	50.02 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	809112	49.30 ug/l	9
56) p,m-Xylene	5.79	106	698679	99.63 ug/l	9
57) o-Xylene	5.98	91	620083	49.55 ug/l	9
58) Styrene	5.99	104	500844	49.18 ug/l	9
59) Isopropylbenzene	6.15	105	930120	50.37 ug/l	9
60) Bromoform (SPCC)	6.09	173	93173	49.53 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	95911	47.46 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	32054	48.10 ug/l	9
63) n-Propylbenzene	6.34	91	965774	50.86 ug/l	9
64) Bromobenzene	6.31	156	252569	48.50 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	427354	50.17 ug/l	9
66) tert-Butylbenzene	6.58	91	443538	50.91 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	463464	51.51 ug/l	9
69) sec-Butylbenzene	6.68	105	1024754	50.52 ug/l	9
70) p-Isopropyltoluene	6.75	119	903102	52.73 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	463756	49.58 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	464663	48.38 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	422383	48.56 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	682716	48.20 ug/l	9
75) n-Butylbenzene	6.95	91	691911	50.99 ug/l	9
76) Hexachloroethane	7.10	201	190329	46.90 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	24040	50.01 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	312488	52.62 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\lcss31a.d Vial: 3
Acq On : 31 Jul 12 12:25 pm Operator: wat
Sample : 100ul blankms 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

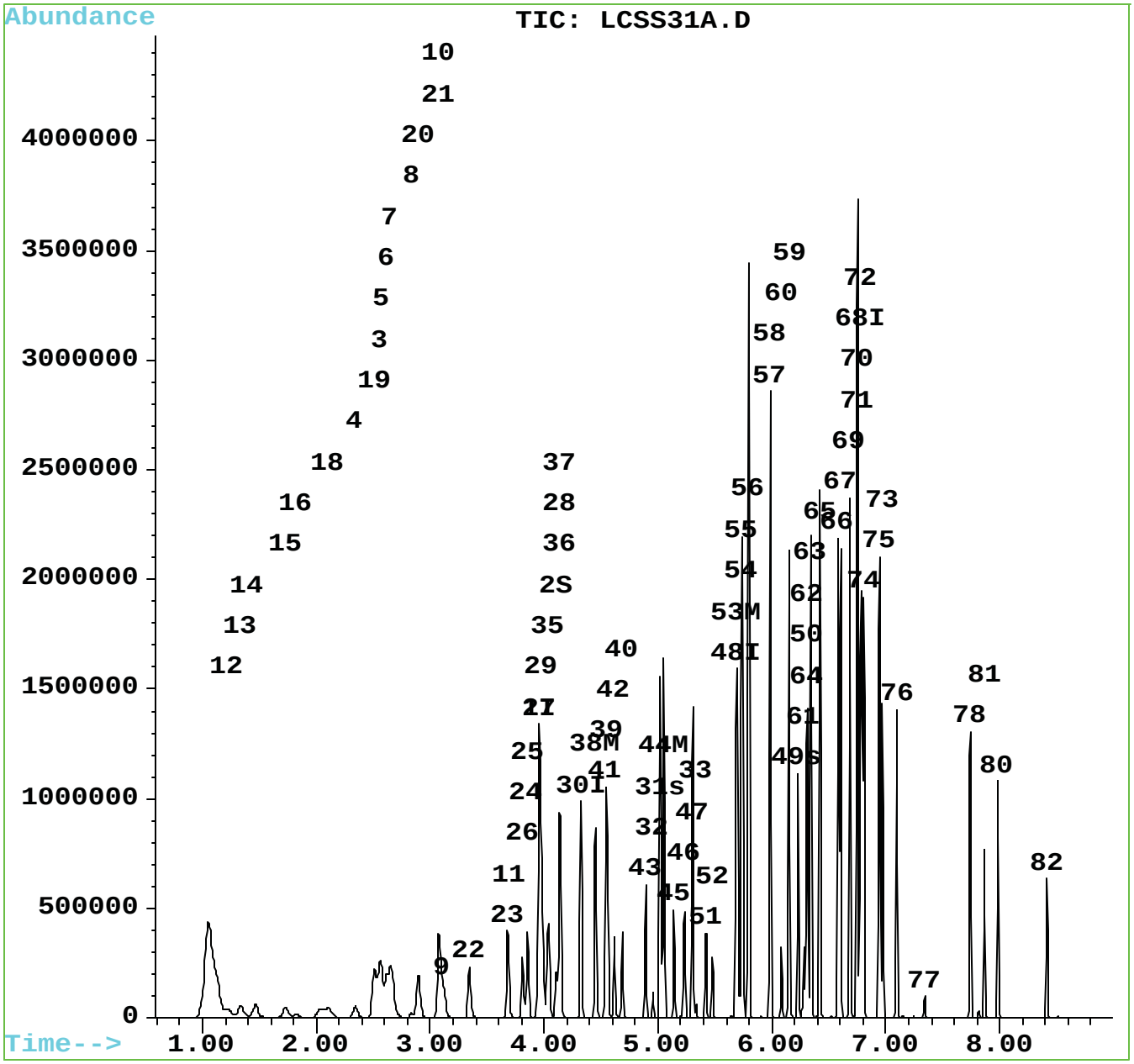
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	255492	52.63 ug/l	9
81)	Naphthalene	7.87	128	387453	53.32 ug/l	9
82)	2-Methylnaphthalene	8.41	142	192375	52.27 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\lcss31a.d Vial: 3
Acq On : 31 Jul 12 12:25 pm Operator: wat
Sample : 100ul blankms 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\lcss31b.d Vial: 4
Acq On : 31 Jul 12 12:46 pm Operator: wat
Sample : 100ul blankmsd 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	542300	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	620524	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	222780	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	301865	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	98505	48.04	ug/l		96.0
31) TOLUENE-D8 (S)	5.02	98	633530	50.53	ug/l		101.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	265861	50.18	ug/l		100.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	183452	52.61	ug/l		9
4) Diethyl ether (*)	2.35	74	46058	45.97	ug/l		9
5) Acetone (*)	2.59	43	7776	38.52	ug/l	#	9
6) Methyl iodide (iodomethane	2.62	142	359912	49.16	ug/l		9
7) Carbon disulfide (*)	2.67	76	478077	46.15	ug/l		9
8) Methyl Acetate	2.84	43	31904	43.57	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	251206	49.66	ug/l		9
10) Acrylonitrile (*)	3.08	53	21099	47.45	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	13410	42.82	ug/l		9
12) Dichlorodifluoromethane	1.23	85	101324	46.19	ug/l		9
13) Chloromethane (SPCC)	1.34	50	114689	46.11	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	136646	48.83	ug/l		9
15) Bromomethane	1.73	94	61407	49.40	ug/l		9
16) Chloroethane	1.82	64	30948	51.87	ug/l		9
18) Trichlorofluoromethane	2.11	101	176231	54.04	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	165546	47.79	ug/l		8
20) Methylene Chloride	2.90	84	150770	45.02	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	175208	48.57	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	214676	47.52	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	182696	48.40	ug/l	#	8
24) Tetrahydrofuran	3.84	42	12354	41.29	ug/l	#	
25) Chloroform (CCC)	3.85	83	235944	48.58	ug/l		9
26) Bromochloromethane	3.81	130	116220	48.12	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	253367	53.29	ug/l	#	4
28) 1,1-Dichloropropene	4.13	75	9964	2.50	ug/l	#	
29) Cyclohexane	3.98	42	49196	44.79	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	19185	48.48	ug/l		8
33) 2-Hexanone (*)	5.34	58	15223	49.36	ug/l		9
35) Carbon Tetrachloride	4.04	117	247816	56.32	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\lcss31b.d Vial: 4
Acq On : 31 Jul 12 12:46 pm Operator: wat
Sample : 100ul blankmsd 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.13	78	617206	49.76 ug/l	9
37) 1,2-Dichloroethane	4.15	62	114253	50.86 ug/l	9
38) Trichloroethene (MS)	4.45	95	179007	52.90 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	119451	49.55 ug/l	9
40) Bromodichloromethane	4.68	83	161576	53.59 ug/l	9
41) Methyl Cyclohexane	4.54	55	190390	54.34 ug/l	8
42) Dibromomethane	4.62	174	124746	53.25 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	206840	55.02 ug/l	9
44) Toluene (CCC/MS)	5.05	91	764946	52.56 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	158693	56.11 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	77937	50.06 ug/l	9
47) Tetrachloroethene	5.31	166	321172	53.40 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	16178	52.55 ug/l #	7
51) Dibromochloromethane	5.42	129	146756	57.74 ug/l	9
52) 1,2-Dibromoethane	5.48	107	109024	53.34 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	541689	52.51 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	189017	54.83 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	841410	54.40 ug/l	9
56) p,m-Xylene	5.79	106	719662	108.91 ug/l	9
57) o-Xylene	5.98	91	642556	54.48 ug/l	9
58) Styrene	5.99	104	518752	54.05 ug/l	9
59) Isopropylbenzene	6.15	105	962726	55.33 ug/l	9
60) Bromoform (SPCC)	6.09	173	95457	53.68 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	99112	52.05 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	33122	52.75 ug/l	9
63) n-Propylbenzene	6.34	91	1002934	56.05 ug/l	9
64) Bromobenzene	6.31	156	261391	53.27 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	443166	55.21 ug/l	9
66) tert-Butylbenzene	6.58	91	461005	56.15 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	482303	56.89 ug/l	9
69) sec-Butylbenzene	6.68	105	1075260	56.20 ug/l	9
70) p-Isopropyltoluene	6.75	119	934043	57.82 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	474297	53.76 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	474275	52.36 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	435286	53.06 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	705977	52.85 ug/l	9
75) n-Butylbenzene	6.95	91	718877	56.17 ug/l	9
76) Hexachloroethane	7.10	201	199604	52.13 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	25543	56.03 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	328457	58.65 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\lcss31b.d Vial: 4
Acq On : 31 Jul 12 12:46 pm Operator: wat
Sample : 100ul blankmsd 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration

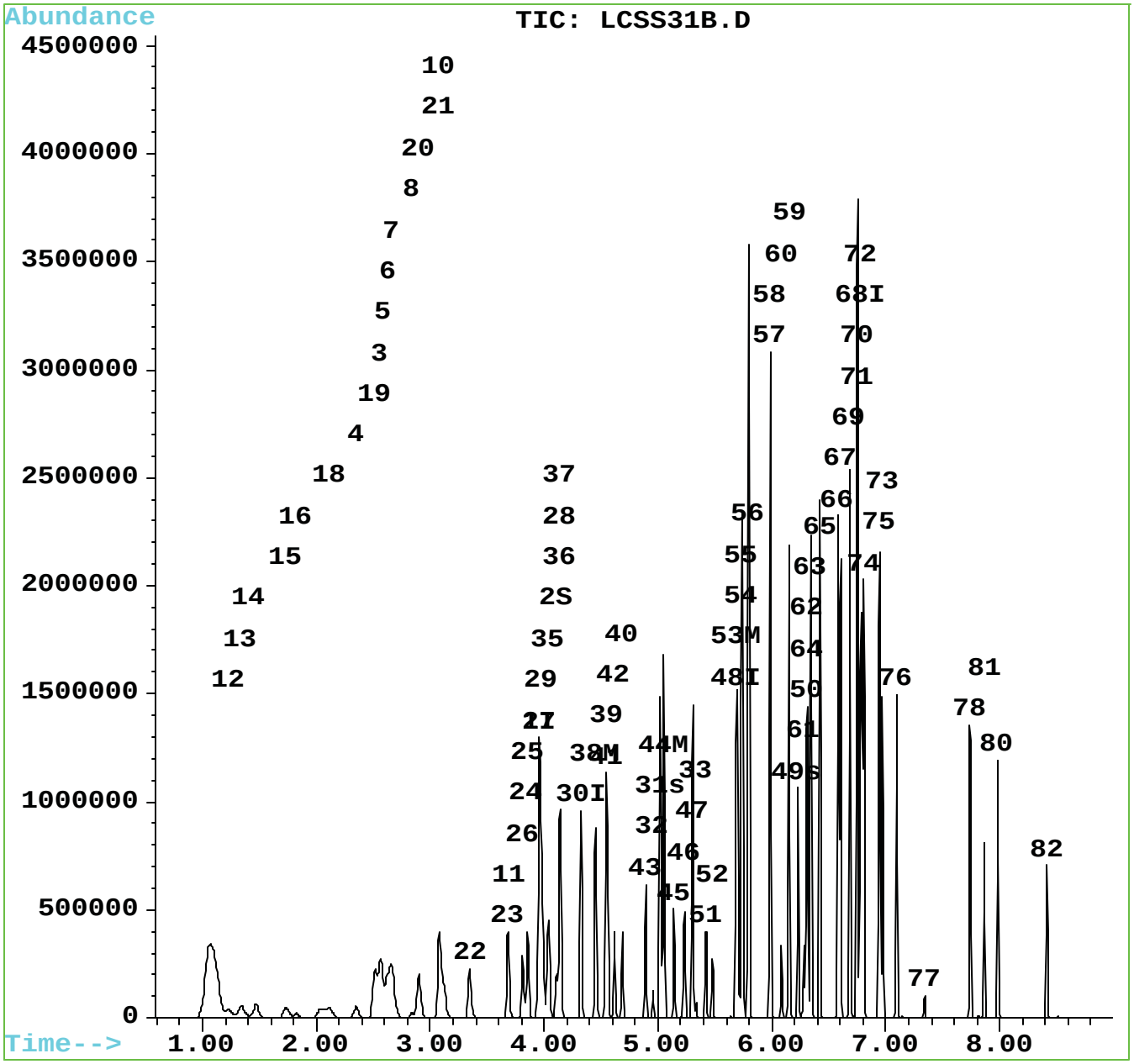
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	273342	59.70 ug/l	9
81)	Naphthalene	7.87	128	415913	60.69 ug/l	9
82)	2-Methylnaphthalene	8.41	142	216844	62.47 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731a5\lcss31b.d Vial: 4
Acq On : 31 Jul 12 12:46 pm Operator: wat
Sample : 100ul blankmsd 1s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s1 Multiplr: 1.00
Quant Time: Aug 1 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:38:24 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120727.1
Heated Purge: N/A

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Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d27a.d	07/27/12 10:31	dftpp std (120621) [none]	WW	IP	**1**	
spnn27a.d	07/27/12 10:54	pna std 50 (120314) [none]	WW	CV	**1**	
blks27a.d	07/27/12 11:55	pna-s 30g/1ml df:1 sp120726s01	SO	Bl	**1**	
lcss27a.d	07/27/12 12:17	pna-s 30g/1ml df:1 sp120726s01	SO	MS	**1**	
5327301.d	07/27/12 12:40	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327302.d	07/27/12 13:02	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327303.d	07/27/12 13:25	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327304m.d	07/27/12 13:48	pna-s 30g/1ml df:6 sp120726s01	SO	MS	**1**	
5327305n.d	07/27/12 14:10	pna-s 30g/1ml df:6 sp120726s01	SO	MS	**1**	
5327306.d	07/27/12 14:33	pna-s 30g/1ml df:10 sp120726s01	SO		**1**	
5327307.d	07/27/12 14:55	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327308.d	07/27/12 15:18	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327309.d	07/27/12 15:41	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327310.d	07/27/12 16:03	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327311.d	07/27/12 16:26	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327312.d	07/27/12 16:49	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327313.d	07/27/12 17:11	pna-s 30g/1ml df:6 sp120726s01	SO		**1**	
5327315.d	07/27/12 17:34	pna-s 30g/2ml df:60 sp120726s01	SO		**1**	
5327314.d	07/27/12 17:57	pna-s 30g/3ml df:40 sp120726s01	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	15
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	3
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120727.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spnn27a.d	2-Fluorobiphenyl	54.2/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	52.6/100.0	n/a	10.0/114.0	
	Terphenyl-D14	53.3/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blks27a.d	2-Fluorobiphenyl	86.7/100.0	86.7	10.0/115.0	SO
	Nitrobenzene-D5	66.8/100.0	66.8	18.5/120.0	
	Terphenyl-D14	106.6/100.0	106.6	10.3/137.0	
				Total Outliers: 0	
lcss27a.d	2-Fluorobiphenyl	21.2/100.0	21.2	10.0/115.0	SO
	Nitrobenzene-D5	68.9/100.0	68.9	18.5/120.0	
	Terphenyl-D14	103.5/100.0	103.5	10.3/137.0	
				Total Outliers: 0	
5327301.d	2-Fluorobiphenyl	45.6/100.0	45.6	10.0/115.0	SO
	Nitrobenzene-D5	57.8/100.0	57.8	18.5/120.0	
	Terphenyl-D14	50.0/100.0	50.0	10.3/137.0	
				Total Outliers: 0	
5327302.d	2-Fluorobiphenyl	52.4/100.0	52.4	10.0/115.0	SO
	Nitrobenzene-D5	65.2/100.0	65.2	18.5/120.0	
	Terphenyl-D14	57.7/100.0	57.7	10.3/137.0	
				Total Outliers: 0	
5327303.d	2-Fluorobiphenyl	58.8/100.0	58.8	10.0/115.0	SO
	Nitrobenzene-D5	68.4/100.0	68.4	18.5/120.0	
	Terphenyl-D14	65.5/100.0	65.5	10.3/137.0	
				Total Outliers: 0	
5327304m.d	2-Fluorobiphenyl	63.6/100.0	63.6	10.0/115.0	SO
	Nitrobenzene-D5	65.4/100.0	65.4	18.5/120.0	
	Terphenyl-D14	71.7/100.0	71.7	10.3/137.0	
				Total Outliers: 0	
5327305n.d	2-Fluorobiphenyl	65.0/100.0	65.0	10.0/115.0	SO
	Nitrobenzene-D5	68.9/100.0	68.9	18.5/120.0	
	Terphenyl-D14	71.8/100.0	71.8	10.3/137.0	
				Total Outliers: 0	
5327306.d	2-Fluorobiphenyl	71.6/100.0	71.6	10.0/115.0	SO
	Nitrobenzene-D5	69.5/100.0	69.5	18.5/120.0	
	Terphenyl-D14	81.8/100.0	81.8	10.3/137.0	
				Total Outliers: 0	
5327307.d	2-Fluorobiphenyl	55.4/100.0	55.4	10.0/115.0	SO
	Nitrobenzene-D5	69.4/100.0	69.4	18.5/120.0	
	Terphenyl-D14	59.8/100.0	59.8	10.3/137.0	
				Total Outliers: 0	
5327308.d	2-Fluorobiphenyl	50.2/100.0	50.2	10.0/115.0	SO
	Nitrobenzene-D5	64.1/100.0	64.1	18.5/120.0	
	Terphenyl-D14	53.9/100.0	53.9	10.3/137.0	
				Total Outliers: 0	
5327309.d	2-Fluorobiphenyl	62.6/100.0	62.6	10.0/115.0	SO
	Nitrobenzene-D5	61.2/100.0	61.2	18.5/120.0	
	Terphenyl-D14	71.0/100.0	71.0	10.3/137.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120727.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5327310.d	2-Fluorobiphenyl	66.4/100.0	66.4	10.0/115.0	SO
	Nitrobenzene-D5	71.9/100.0	71.9	18.5/120.0	
	Terphenyl-D14	69.3/100.0	69.3	10.3/137.0	
				Total Outliers:	**0**
5327311.d	2-Fluorobiphenyl	61.6/100.0	61.6	10.0/115.0	SO
	Nitrobenzene-D5	70.9/100.0	70.9	18.5/120.0	
	Terphenyl-D14	64.6/100.0	64.6	10.3/137.0	
				Total Outliers:	**0**
5327312.d	2-Fluorobiphenyl	51.0/100.0	51.0	10.0/115.0	SO
	Nitrobenzene-D5	60.6/100.0	60.6	18.5/120.0	
	Terphenyl-D14	58.8/100.0	58.8	10.3/137.0	
				Total Outliers:	**0**
5327313.d	2-Fluorobiphenyl	61.4/100.0	61.4	10.0/115.0	SO
	Nitrobenzene-D5	65.3/100.0	65.3	18.5/120.0	
	Terphenyl-D14	69.7/100.0	69.7	10.3/137.0	
				Total Outliers:	**0**
5327315.d	2-Fluorobiphenyl	86.3/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	79.8/100.0	n/a	18.5/120.0	
	Terphenyl-D14	87.1/100.0	n/a	10.3/137.0	
				Total Outliers:	**n/a**
5327314.d	2-Fluorobiphenyl	75.7/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	80.0/100.0	n/a	18.5/120.0	
	Terphenyl-D14	79.8/100.0	n/a	10.3/137.0	
				Total Outliers:	**n/a**

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120727.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : 5327305n.d			
Dup ID : S53273.05			
Prep Batch: sp120726s01			
Prep Date : 07/26/12			
Parent File: 5327304m.d			
naphthalene	30.87/ 29.97	3.0/25.0	SO
2-methylnaphthalene	29.94/ 27.80	7.4/25.0	
1-methylnaphthalene	27.55/ 26.19	5.1/25.0	
acenaphthylene	32.57/ 30.75	5.7/25.0	
acenaphthene **	34.47/ 32.04	7.3/25.0	
fluorene	34.22/ 31.96	6.8/25.0	
phenanthrene	32.73/ 31.55	3.7/25.0	
anthracene	32.42/ 29.91	8.1/25.0	
fluoranthene	33.15/ 31.38	5.5/25.0	
pyrene **	36.72/ 35.69	2.8/25.0	
benzo(a)anthracene	34.65/ 34.20	1.3/25.0	
chrysene	35.27/ 34.12	3.3/25.0	
benzo(b)fluoranthene	37.93/ 34.64	9.1/25.0	
benzo(k)fluoranthene	38.47/ 37.15	3.5/25.0	
benzo(a)pyrene	37.43/ 35.18	6.2/25.0	
indeno(1,2,3-cd)pyrene	35.64/ 33.88	5.1/25.0	
dibenzo(ah)anthracene	35.40/ 33.52	5.5/25.0	
benzo(ghi)perylene	35.20/ 33.11	6.1/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120727.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss27a.d						
Spike ID : LCS1						
Prep Batch: sp120726s01						
Prep Date : 07/26/12						
Parent File: blks27a.d						
1-Methylnaphthalene	30.02/	0.00	50.00	60.0	10.0/120.0	SO
2-Methylnaphthalene	32.37/	0.00	50.00	64.7	35.6/120.0	
Acenaphthene	37.08/	0.00	50.00	74.2	10.0/121.0	
Acenaphthylene	36.23/	0.00	50.00	72.5	35.4/127.7	
Anthracene	35.83/	0.00	50.00	71.7	32.3/142.4	
Benzo(a)anthracene	37.22/	0.00	50.00	74.4	36.7/134.7	
Benzo(a)pyrene	38.61/	0.00	50.00	77.2	10.0/140.8	
Benzo(b)fluoranthene	38.36/	0.00	50.00	76.7	29.0/152.7	
Benzo(ghi)perylene	36.71/	0.00	50.00	73.4	45.2/130.7	
Benzo(k)fluoranthene	43.93/	0.00	50.00	87.9	29.8/136.0	
Chrysene	37.99/	0.00	50.00	76.0	38.7/137.1	
Dibenzo(ah)anthracene	40.10/	0.00	50.00	80.2	45.3/130.8	
Fluorene	37.45/	0.00	50.00	74.9	37.8/127.8	
Fluoranthene	36.64/	0.00	50.00	73.3	10.0/145.8	
Indeno(1,2,3-cd)pyrene	39.39/	0.00	50.00	78.8	39.2/137.4	
Naphthalene	32.76/	0.00	50.00	65.5	10.0/110.0	
Phenanthrene	36.78/	0.00	50.00	73.6	36.4/143.0	
Pyrene	38.86/	0.00	50.00	77.7	10.0/135.8	
					Total Outliers:	**0**
Spike File : 5327304m.d						
Spike ID : S53273.04						
Prep Batch: sp120726s01						
Prep Date : 07/26/12						
Parent File: 5327303.d						
1-Methylnaphthalene	26.19/	0.00	50.00	52.4	10.0/120.0	SO
2-Methylnaphthalene	27.80/	0.00	50.00	55.6	35.6/120.0	
Acenaphthene	32.04/	0.00	50.00	64.1	10.0/121.0	
Acenaphthylene	30.75/	0.00	50.00	61.5	35.4/127.7	
Anthracene	29.91/	0.00	50.00	59.8	32.3/142.4	
Benzo(a)anthracene	34.20/	0.00	50.00	68.4	36.7/134.7	
Benzo(a)pyrene	35.18/	0.00	50.00	70.4	10.0/140.8	
Benzo(b)fluoranthene	34.64/	0.00	50.00	69.3	29.0/152.7	
Benzo(ghi)perylene	33.11/	0.00	50.00	66.2	45.2/130.7	
Benzo(k)fluoranthene	37.15/	0.00	50.00	74.3	29.8/136.0	
Chrysene	34.12/	0.00	50.00	68.2	38.7/137.1	
Dibenzo(ah)anthracene	33.52/	0.00	50.00	67.0	45.3/130.8	
Fluorene	31.96/	0.00	50.00	63.9	37.8/127.8	
Fluoranthene	31.38/	0.00	50.00	62.8	10.0/145.8	
Indeno(1,2,3-cd)pyrene	33.88/	0.00	50.00	67.8	39.2/137.4	
Naphthalene	29.97/	0.00	50.00	59.9	10.0/110.0	
Phenanthrene	31.55/	0.00	50.00	63.1	36.4/143.0	
Pyrene	35.69/	0.00	50.00	71.4	10.0/135.8	
					Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120727.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : 5327305n.d						
Spike ID : S53273.05						
Prep Batch: sp120726s01						
Prep Date : 07/26/12						
Parent File: 5327303.d						
1-Methylnaphthalene	27.55/	0.00	50.00	55.1	10.0/120.0	SO
2-Methylnaphthalene	29.94/	0.00	50.00	59.9	35.6/120.0	
Acenaphthene	34.47/	0.00	50.00	68.9	10.0/121.0	
Acenaphthylene	32.57/	0.00	50.00	65.1	35.4/127.7	
Anthracene	32.42/	0.00	50.00	64.8	32.3/142.4	
Benzo(a)anthracene	34.65/	0.00	50.00	69.3	36.7/134.7	
Benzo(a)pyrene	37.43/	0.00	50.00	74.9	10.0/140.8	
Benzo(b)fluoranthene	37.93/	0.00	50.00	75.9	29.0/152.7	
Benzo(ghi)perylene	35.20/	0.00	50.00	70.4	45.2/130.7	
Benzo(k)fluoranthene	38.47/	0.00	50.00	76.9	29.8/136.0	
Chrysene	35.27/	0.00	50.00	70.5	38.7/137.1	
Dibenzo(ah)anthracene	35.40/	0.00	50.00	70.8	45.3/130.8	
Fluorene	34.22/	0.00	50.00	68.4	37.8/127.8	
Fluoranthene	33.15/	0.00	50.00	66.3	10.0/145.8	
Indeno(1,2,3-cd)pyrene	35.64/	0.00	50.00	71.3	39.2/137.4	
Naphthalene	30.87/	0.00	50.00	61.7	10.0/110.0	
Phenanthrene	32.73/	0.00	50.00	65.5	36.4/143.0	
Pyrene	36.72/	0.00	50.00	73.4	10.0/135.8	
					Total Outliers:	**0**

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120727.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blks27a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120726s01
Prep Date : 07/26/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [mg/kg]	RL [mg/kg]
Benzo(b)fluoranthene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Benzo(a)pyrene	Not detected		0.3	20
Benzo(ghi)perylene	Not detected		0.5	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(a)anthracene	Not detected		0.4	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
1-Methylnaphthalene	Not detected		0.4	20
2-Methylnaphthalene	Not detected		0.2	20
Acenaphthylene	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Naphthalene	Not detected		0.2	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120727.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks27a.d
Method Blank Prep Date: 07/26/12
Blank/LCS Preparation Batch: sp120726s01

LCS Data File: lcss27a.d
LCS Prep Date: 07/26/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53273.01	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.02	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.03	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.04	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.05	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.06	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.07	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.08	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.09	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.10	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.11	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.12	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.13	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.14	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270
S53273.15	SP120726S01		07/26/12	Semi Volatile Extraction	PNAEXTS
	T120727	SP120726S01	07/27/12	Polynuclear Aromatics	$PNA8270

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120727.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d27a.d	07/27/12 10:31	51	198	30.0	80.0	50.3	55688	PASS
		68	69	0.0	2.0	1.7	691	PASS
		69	198	0.0	100.0	36.4	40352	PASS
		70	69	0.0	2.0	1.1	424	PASS
		127	198	25.0	75.0	50.2	55544	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	110752	PASS
		199	198	5.0	9.0	6.7	7410	PASS
		275	198	10.0	30.0	27.7	30728	PASS
		365	198	1.0	100.0	4.5	4988	PASS
		441	443	0.0	100.0	70.4	16054	PASS
		442	198	40.0	110.0	98.1	108680	PASS
		443	442	15.0	24.0	21.0	22808	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120727.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn27a.d	07/27/12 10:54	1,4-Dichlorobenzene-D4	64928/ 5.11	32464- 129856	4.61- 5.61
		Naphthalene-D8	296183/ 6.06	148092- 592366	5.56- 6.56
		Acenaphthalene-D10	178142/ 7.44	89071- 356284	6.94- 7.94
		Phenanthrene-D10	303400/ 8.72	151700- 606800	8.22- 9.22
		Chrysene-D12	358931/11.52	179466- 717862	11.02-12.02
		Perylene-D12	302923/13.42	151462- 605846	12.92-13.92
					Total Outliers: N/A
blks27a.d	07/27/12 11:55	1,4-Dichlorobenzene-D4	71946/ 5.11	Ratio: 1.108	Diff.: 0.00
		Naphthalene-D8	340151/ 6.06	Ratio: 1.148	Diff.: 0.00
		Acenaphthalene-D10	202003/ 7.44	Ratio: 1.134	Diff.: 0.00
		Phenanthrene-D10	358826/ 8.73	Ratio: 1.183	Diff.: 0.01
		Chrysene-D12	387012/11.52	Ratio: 1.078	Diff.: 0.00
		Perylene-D12	317284/13.43	Ratio: 1.047	Diff.: 0.01
					Total Outliers: 0
lcss27a.d	07/27/12 12:17	1,4-Dichlorobenzene-D4	70753/ 5.11	Ratio: 1.090	Diff.: 0.00
		Naphthalene-D8	334639/ 6.06	Ratio: 1.130	Diff.: 0.00
		Acenaphthalene-D10	201303/ 7.44	Ratio: 1.130	Diff.: 0.00
		Phenanthrene-D10	362777/ 8.73	Ratio: 1.196	Diff.: 0.01
		Chrysene-D12	424493/11.52	Ratio: 1.183	Diff.: 0.00
		Perylene-D12	349934/13.43	Ratio: 1.155	Diff.: 0.01
					Total Outliers: 0
5327301.d	07/27/12 12:40	1,4-Dichlorobenzene-D4	69394/ 5.12	Ratio: 1.069	Diff.: 0.01
		Naphthalene-D8	321376/ 6.07	Ratio: 1.085	Diff.: 0.01
		Acenaphthalene-D10	196698/ 7.45	Ratio: 1.104	Diff.: 0.01
		Phenanthrene-D10	351454/ 8.74	Ratio: 1.158	Diff.: 0.02
		Chrysene-D12	383393/11.52	Ratio: 1.068	Diff.: 0.00
		Perylene-D12	313712/13.44	Ratio: 1.036	Diff.: 0.02
					Total Outliers: 0
5327302.d	07/27/12 13:02	1,4-Dichlorobenzene-D4	60038/ 5.11	Ratio: 0.925	Diff.: 0.00
		Naphthalene-D8	281495/ 6.06	Ratio: 0.950	Diff.: 0.00
		Acenaphthalene-D10	171213/ 7.44	Ratio: 0.961	Diff.: 0.00
		Phenanthrene-D10	315630/ 8.72	Ratio: 1.040	Diff.: 0.00
		Chrysene-D12	330052/11.51	Ratio: 0.920	Diff.: -0.01
		Perylene-D12	275911/13.42	Ratio: 0.911	Diff.: 0.00
					Total Outliers: 0
5327303.d	07/27/12 13:25	1,4-Dichlorobenzene-D4	60446/ 5.11	Ratio: 0.931	Diff.: 0.00
		Naphthalene-D8	280319/ 6.06	Ratio: 0.946	Diff.: 0.00
		Acenaphthalene-D10	170464/ 7.44	Ratio: 0.957	Diff.: 0.00
		Phenanthrene-D10	308240/ 8.72	Ratio: 1.016	Diff.: 0.00
		Chrysene-D12	331321/11.51	Ratio: 0.923	Diff.: -0.01
		Perylene-D12	278149/13.42	Ratio: 0.918	Diff.: 0.00
					Total Outliers: 0
5327304m.d	07/27/12 13:48	1,4-Dichlorobenzene-D4	61972/ 5.12	Ratio: 0.954	Diff.: 0.01
		Naphthalene-D8	291194/ 6.07	Ratio: 0.983	Diff.: 0.01
		Acenaphthalene-D10	176715/ 7.45	Ratio: 0.992	Diff.: 0.01
		Phenanthrene-D10	321589/ 8.74	Ratio: 1.060	Diff.: 0.02
		Chrysene-D12	350831/11.52	Ratio: 0.977	Diff.: 0.00
		Perylene-D12	295046/13.44	Ratio: 0.974	Diff.: 0.02
					Total Outliers: 0
5327305n.d	07/27/12 14:10	1,4-Dichlorobenzene-D4	57971/ 5.11	Ratio: 0.893	Diff.: 0.00
		Naphthalene-D8	274196/ 6.06	Ratio: 0.926	Diff.: 0.00
		Acenaphthalene-D10	165269/ 7.44	Ratio: 0.928	Diff.: 0.00
		Phenanthrene-D10	298875/ 8.72	Ratio: 0.985	Diff.: 0.00
		Chrysene-D12	330162/11.51	Ratio: 0.920	Diff.: -0.01
		Perylene-D12	270772/13.42	Ratio: 0.894	Diff.: 0.00
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120727.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5327306.d	07/27/12 14:33	1,4-Dichlorobenzene-D4	60912/ 5.12	Ratio: 0.938	Diff.: 0.01
		Naphthalene-D8	287069/ 6.07	Ratio: 0.969	Diff.: 0.01
		Acenaphthalene-D10	174885/ 7.45	Ratio: 0.982	Diff.: 0.01
		Phenanthrene-D10	319393/ 8.74	Ratio: 1.053	Diff.: 0.02
		Chrysene-D12	367428/11.52	Ratio: 1.024	Diff.: 0.00
		Perylene-D12	308594/13.44	Ratio: 1.019	Diff.: 0.02
					Total Outliers: 0
5327307.d	07/27/12 14:55	1,4-Dichlorobenzene-D4	64819/ 5.11	Ratio: 0.998	Diff.: 0.00
		Naphthalene-D8	303956/ 6.06	Ratio: 1.026	Diff.: 0.00
		Acenaphthalene-D10	184769/ 7.44	Ratio: 1.037	Diff.: 0.00
		Phenanthrene-D10	327730/ 8.72	Ratio: 1.080	Diff.: 0.00
		Chrysene-D12	359629/11.51	Ratio: 1.002	Diff.: -0.01
		Perylene-D12	293353/13.42	Ratio: 0.968	Diff.: 0.00
					Total Outliers: 0
5327308.d	07/27/12 15:18	1,4-Dichlorobenzene-D4	62204/ 5.12	Ratio: 0.958	Diff.: 0.01
		Naphthalene-D8	288511/ 6.07	Ratio: 0.974	Diff.: 0.01
		Acenaphthalene-D10	173600/ 7.45	Ratio: 0.975	Diff.: 0.01
		Phenanthrene-D10	309001/ 8.74	Ratio: 1.018	Diff.: 0.02
		Chrysene-D12	334213/11.52	Ratio: 0.931	Diff.: 0.00
		Perylene-D12	278830/13.44	Ratio: 0.920	Diff.: 0.02
					Total Outliers: 0
5327309.d	07/27/12 15:41	1,4-Dichlorobenzene-D4	67191/ 5.11	Ratio: 1.035	Diff.: 0.00
		Naphthalene-D8	318557/ 6.06	Ratio: 1.076	Diff.: 0.00
		Acenaphthalene-D10	193574/ 7.44	Ratio: 1.087	Diff.: 0.00
		Phenanthrene-D10	341379/ 8.72	Ratio: 1.125	Diff.: 0.00
		Chrysene-D12	376525/11.51	Ratio: 1.049	Diff.: -0.01
		Perylene-D12	316669/13.42	Ratio: 1.045	Diff.: 0.00
					Total Outliers: 0
5327310.d	07/27/12 16:03	1,4-Dichlorobenzene-D4	60144/ 5.12	Ratio: 0.926	Diff.: 0.01
		Naphthalene-D8	281322/ 6.07	Ratio: 0.950	Diff.: 0.01
		Acenaphthalene-D10	172102/ 7.45	Ratio: 0.966	Diff.: 0.01
		Phenanthrene-D10	312105/ 8.74	Ratio: 1.029	Diff.: 0.02
		Chrysene-D12	341855/11.52	Ratio: 0.952	Diff.: 0.00
		Perylene-D12	286997/13.44	Ratio: 0.947	Diff.: 0.02
					Total Outliers: 0
5327311.d	07/27/12 16:26	1,4-Dichlorobenzene-D4	61070/ 5.13	Ratio: 0.941	Diff.: 0.02
		Naphthalene-D8	286131/ 6.07	Ratio: 0.966	Diff.: 0.01
		Acenaphthalene-D10	175682/ 7.45	Ratio: 0.986	Diff.: 0.01
		Phenanthrene-D10	319431/ 8.74	Ratio: 1.053	Diff.: 0.02
		Chrysene-D12	344513/11.52	Ratio: 0.960	Diff.: 0.00
		Perylene-D12	286682/13.44	Ratio: 0.946	Diff.: 0.02
					Total Outliers: 0
5327312.d	07/27/12 16:49	1,4-Dichlorobenzene-D4	61064/ 5.12	Ratio: 0.940	Diff.: 0.01
		Naphthalene-D8	281829/ 6.07	Ratio: 0.952	Diff.: 0.01
		Acenaphthalene-D10	169704/ 7.45	Ratio: 0.953	Diff.: 0.01
		Phenanthrene-D10	304400/ 8.74	Ratio: 1.003	Diff.: 0.02
		Chrysene-D12	329711/11.52	Ratio: 0.919	Diff.: 0.00
		Perylene-D12	278107/13.44	Ratio: 0.918	Diff.: 0.02
					Total Outliers: 0
5327313.d	07/27/12 17:11	1,4-Dichlorobenzene-D4	58871/ 5.11	Ratio: 0.907	Diff.: 0.00
		Naphthalene-D8	275847/ 6.06	Ratio: 0.931	Diff.: 0.00
		Acenaphthalene-D10	166532/ 7.44	Ratio: 0.935	Diff.: 0.00
		Phenanthrene-D10	291130/ 8.72	Ratio: 0.960	Diff.: 0.00
		Chrysene-D12	309346/11.51	Ratio: 0.862	Diff.: -0.01
		Perylene-D12	265133/13.41	Ratio: 0.875	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120727.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5327315.d	07/27/12 17:34	1,4-Dichlorobenzene-D4	62526/ 5.11	Ratio: 0.963	Diff.: 0.00
		Naphthalene-D8	303006/ 6.06	Ratio: 1.023	Diff.: 0.00
		Acenaphthalene-D10	196137/ 7.44	Ratio: 1.101	Diff.: 0.00
		Phenanthrene-D10	391209/ 8.73	Ratio: 1.289	Diff.: 0.01
		Chrysene-D12	432903/11.52	Ratio: 1.206	Diff.: 0.00
		Perylene-D12	343534/13.43	Ratio: 1.134	Diff.: 0.01
					Total Outliers: 0
5327314.d	07/27/12 17:57	1,4-Dichlorobenzene-D4	72234/ 5.11	Ratio: 1.113	Diff.: 0.00
		Naphthalene-D8	341353/ 6.06	Ratio: 1.153	Diff.: 0.00
		Acenaphthalene-D10	213445/ 7.44	Ratio: 1.198	Diff.: 0.00
		Phenanthrene-D10	400006/ 8.73	Ratio: 1.318	Diff.: 0.01
		Chrysene-D12	442334/11.52	Ratio: 1.232	Diff.: 0.00
		Perylene-D12	335455/13.43	Ratio: 1.107	Diff.: 0.01
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.01
Data File: 5327301.d
Date Received: 07/20/12

Tag: SB-132 (07-18-12)(20-22)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	86	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (46%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (58%)					
98904-43-9	Terphenyl-D14	Pass (50%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.02
Data File: 5327302.d
Date Received: 07/20/12

Tag: SB-130 (07-18-12)(16-18)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	80	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (52%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (65%)					
98904-43-9	Terphenyl-D14	Pass (58%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.03
Data File: 5327303.d
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (59%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (68%)					
98904-43-9	Terphenyl-D14	Pass (66%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.04
Data File: 5327304m.d
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MS
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	1300	300		ug/kg	07/27/12	*
208-96-8	Acenaphthylene	1200	300		ug/kg		*
120-12-7	Anthracene	1200	300		ug/kg		*
56-55-3	Benzo(a)anthracene	1400	300		ug/kg		*
50-32-8	Benzo(a)pyrene	1400	300		ug/kg		*
205-99-2	Benzo(b)fluoranthene	1400	300		ug/kg		*
207-08-9	Benzo(k)fluoranthene	1500	300		ug/kg		*
191-24-2	Benzo(ghi)perylene	1300	300		ug/kg		*
218-01-9	Chrysene	1400	300		ug/kg		*
53-70-3	Dibenzo(ah)anthracene	1300	300		ug/kg		*
206-44-0	Fluoranthene	1200	300		ug/kg		*
86-73-7	Fluorene	1300	300		ug/kg		*
193-39-5	Indeno(1,2,3-cd)pyrene	1300	300		ug/kg		*
91-20-3	Naphthalene	1200	300		ug/kg		*
85-01-8	Phenanthrene	1300	300		ug/kg		*
129-00-0	Pyrene	1400	300		ug/kg		*
91-57-6	2-Methylnaphthalene	1100	300		ug/kg		*
90-12-0	1-Methylnaphthalene	1000	300		ug/kg		*
Total Solids							
TSOLIDS	Total Solids	84	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (64%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (65%)					
98904-43-9	Terphenyl-D14	Pass (72%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.05
Data File: 5327305n.d
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MSD
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	1400	300		ug/kg	07/27/12	*
208-96-8	Acenaphthylene	1300	300		ug/kg		*
120-12-7	Anthracene	1300	300		ug/kg		*
56-55-3	Benzo(a)anthracene	1400	300		ug/kg		*
50-32-8	Benzo(a)pyrene	1500	300		ug/kg		*
205-99-2	Benzo(b)fluoranthene	1500	300		ug/kg		*
207-08-9	Benzo(k)fluoranthene	1500	300		ug/kg		*
191-24-2	Benzo(ghi)perylene	1400	300		ug/kg		*
218-01-9	Chrysene	1400	300		ug/kg		*
53-70-3	Dibenzo(ah)anthracene	1400	300		ug/kg		*
206-44-0	Fluoranthene	1300	300		ug/kg		*
86-73-7	Fluorene	1400	300		ug/kg		*
193-39-5	Indeno(1,2,3-cd)pyrene	1400	300		ug/kg		*
91-20-3	Naphthalene	1200	300		ug/kg		*
85-01-8	Phenanthrene	1300	300		ug/kg		*
129-00-0	Pyrene	1500	300		ug/kg		*
91-57-6	2-Methylnaphthalene	1200	300		ug/kg		*
90-12-0	1-Methylnaphthalene	1100	300		ug/kg		*
Total Solids							
TSOLIDS	Total Solids	84	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (65%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (69%)					
98904-43-9	Terphenyl-D14	Pass (72%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.06
Data File: 5327306.d
Date Received: 07/20/12

Tag: SB-158 (07-19-12)(3-5)
Notes: pna-s 30g/1ml df:10
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 10

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (72%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (70%)					
98904-43-9	Terphenyl-D14	Pass (82%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.07
Data File: 5327307.d
Date Received: 07/20/12

Tag: SB-138 (07-19-12)(22.5-24.5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	86	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (55%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (69%)					
98904-43-9	Terphenyl-D14	Pass (60%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.08
Data File: 5327308.d
Date Received: 07/20/12

Tag: SB-140 (07-19-12)(10-12)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	79	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (50%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (64%)					
98904-43-9	Terphenyl-D14	Pass (54%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.09
Data File: 5327309.d
Date Received: 07/20/12

Tag: SB-118 (07-19-12)(2-4)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (63%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (61%)					
98904-43-9	Terphenyl-D14	Pass (71%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.10
Data File: 5327310.d
Date Received: 07/20/12

Tag: SB-171 (07-20-12)(10-12)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	90	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (66%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (72%)					
98904-43-9	Terphenyl-D14	Pass (69%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.11
Data File: 5327311.d
Date Received: 07/20/12

Tag: DUP 1 (07-20-12)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (62%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (71%)					
98904-43-9	Terphenyl-D14	Pass (65%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.12
Data File: 5327312.d
Date Received: 07/20/12

Tag: SB-147 (07-20-12) (8-10)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (51%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (61%)					
98904-43-9	Terphenyl-D14	Pass (59%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.13
Data File: 5327313.d
Date Received: 07/20/12

Tag: SB-148 (07-20-12) (2.5-4.5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	86	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (61%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (65%)					
98904-43-9	Terphenyl-D14	Pass (70%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.14
Data File: 5327314.d
Date Received: 07/20/12

Tag: SB-150 (07-20-12) (2-4)
Notes: pna-s 30g/3ml df:40
sd/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 40

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	97	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (76%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (80%)					
98904-43-9	Terphenyl-D14	Pass (80%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120727.1

LIMS ID: S53273.15
Data File: 5327315.d
Date Received: 07/20/12

Tag: DUP2 (07-20-12)
Notes: pna-s 30g/2ml df:60
sd/1; id:sp120726s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 60

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	07/27/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	97	1		%	07/24/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/26/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				07/27/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (86%)				07/27/12	
4165-60-0	Nitrobenzene-D5	Pass (80%)					
98904-43-9	Terphenyl-D14	Pass (87%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
Analytical Batch: t120727.1
GC Column: DB-5/L:30m/D:0.25mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327301.d Vial: 5
Acq On : 27 Jul 12 12:40 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:26 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

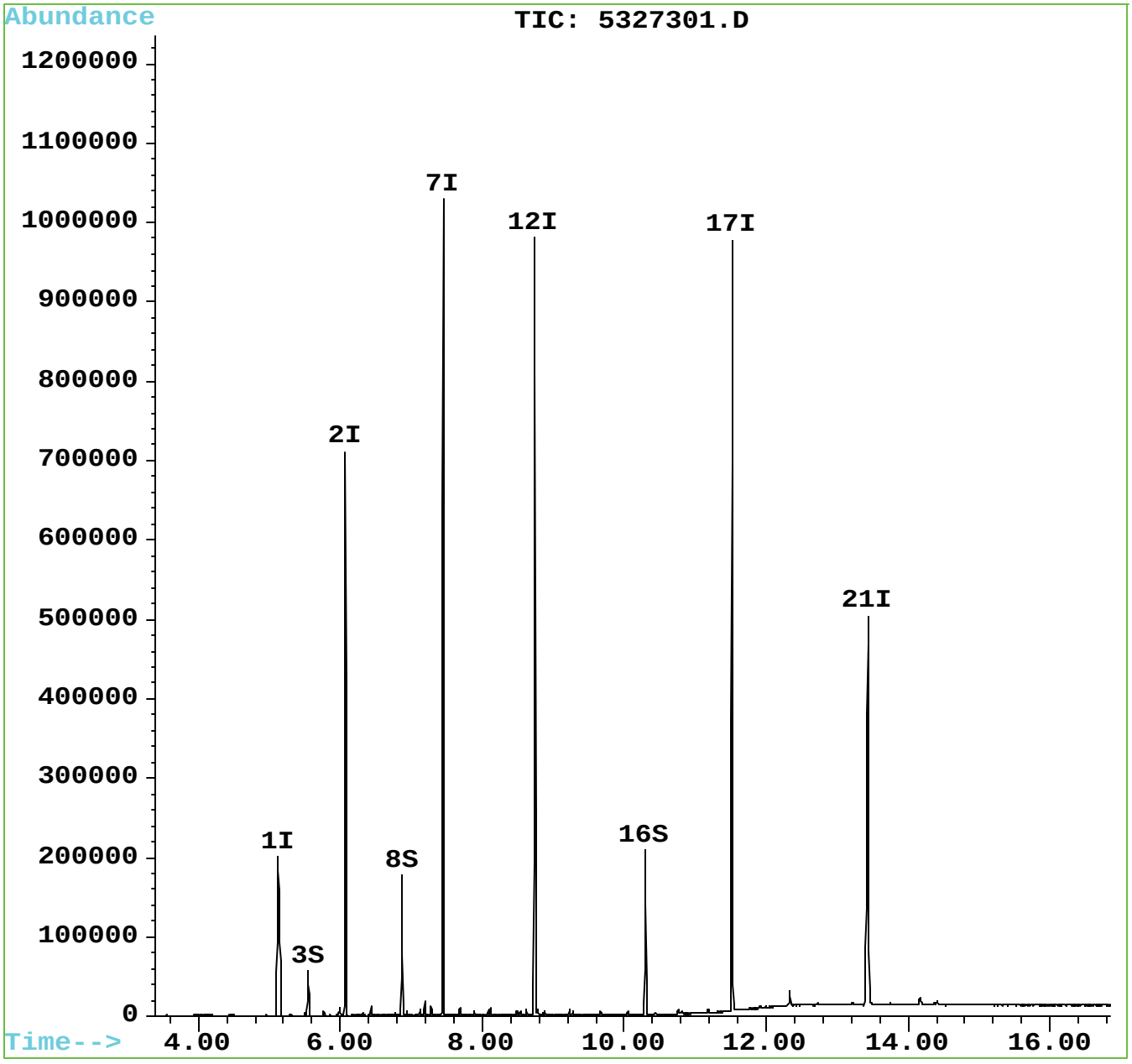
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	69394	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	321376	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	196698	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	351454	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	383393	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	313712	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	23142	96.26	ng/ul	96.2
8) 2-Fluorobiphenyl	6.87	172	45793	75.98	ng/ul	75.9
16) Terphenyl-D14	10.30	244	62153	83.27	ng/ul	83.2
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327301.d Vial: 5
Acq On : 27 Jul 12 12:40 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:26 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327302.d Vial: 6
Acq On : 27 Jul 12 1:02 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

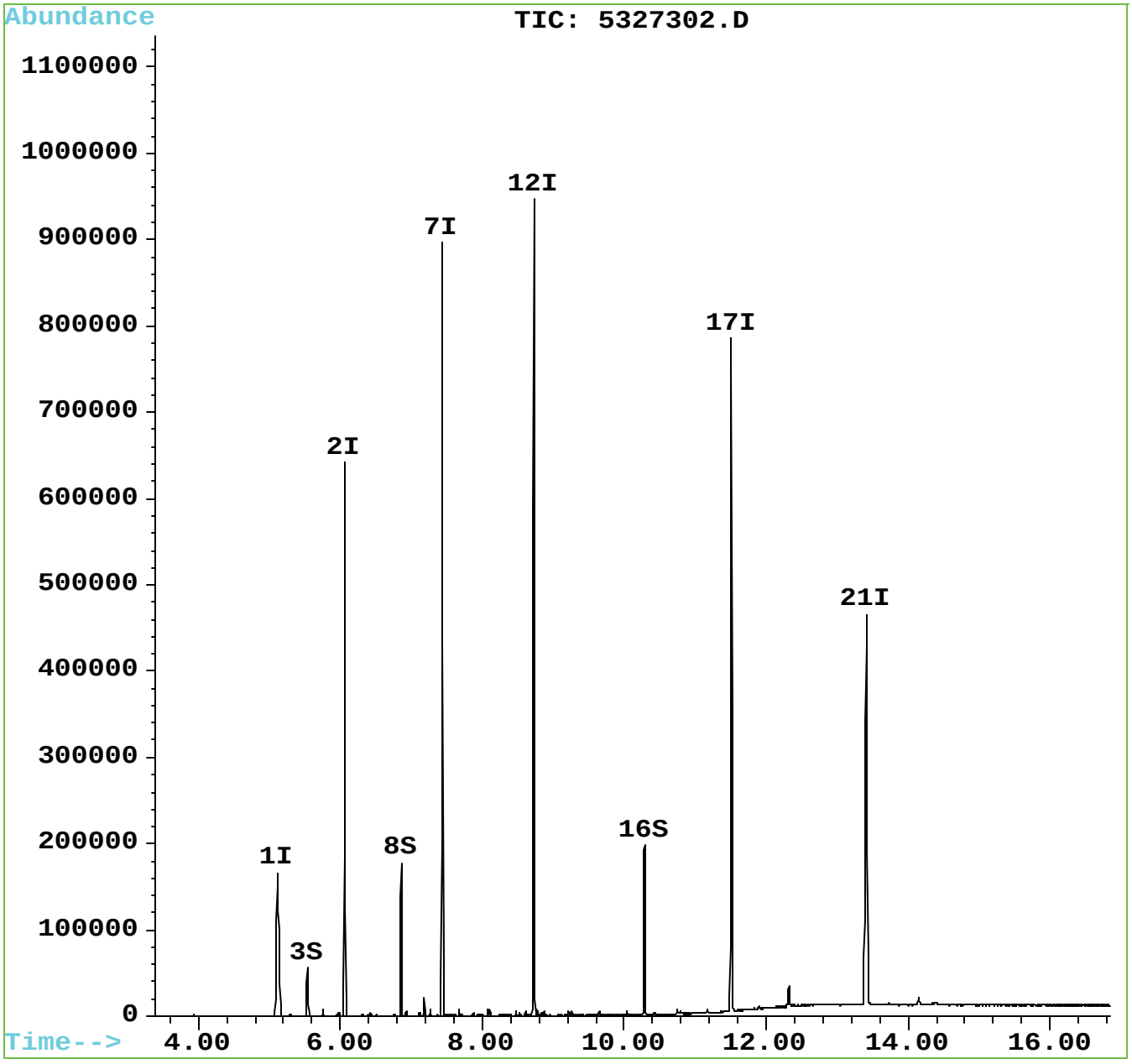
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	60038	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	281495	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	171213	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	315630	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	330052	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	275911	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	22898	108.73	ng/ul	108.7
8) 2-Fluorobiphenyl	6.86	172	45802	87.30	ng/ul	87.3
16) Terphenyl-D14	10.29	244	64477	96.18	ng/ul	96.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327302.d Vial: 6
Acq On : 27 Jul 12 1:02 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327303.d Vial: 7
Acq On : 27 Jul 12 1:25 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

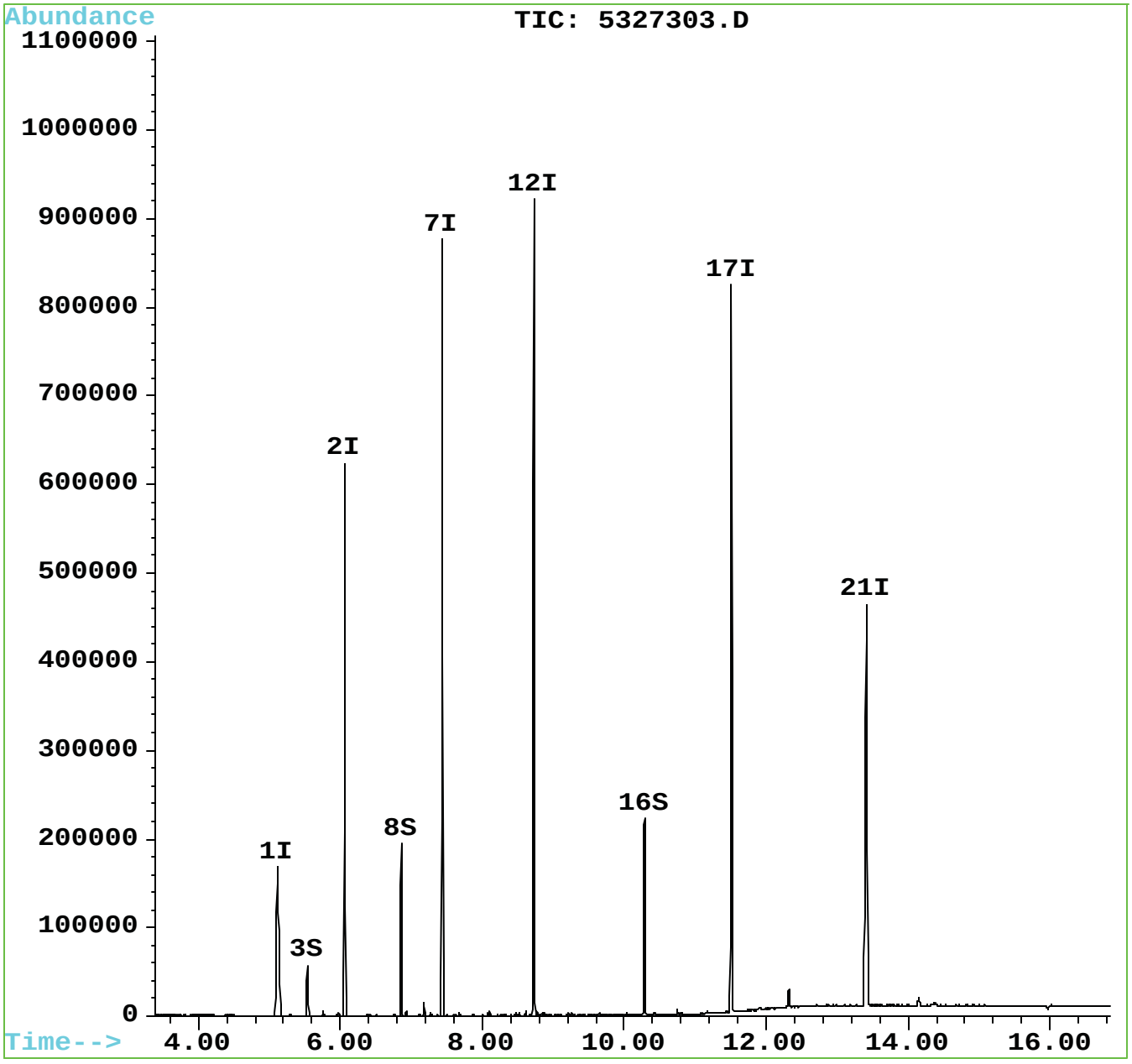
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	60446	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	280319	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	170464	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	308240	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	331321	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	278149	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	23920	114.06	ng/ul	114.0
8) 2-Fluorobiphenyl	6.86	172	51191	98.00	ng/ul	98.0
16) Terphenyl-D14	10.29	244	71455	109.15	ng/ul	109.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327303.d Vial: 7
Acq On : 27 Jul 12 1:25 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327304m.d Vial: 8
Acq On : 27 Jul 12 1:48 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

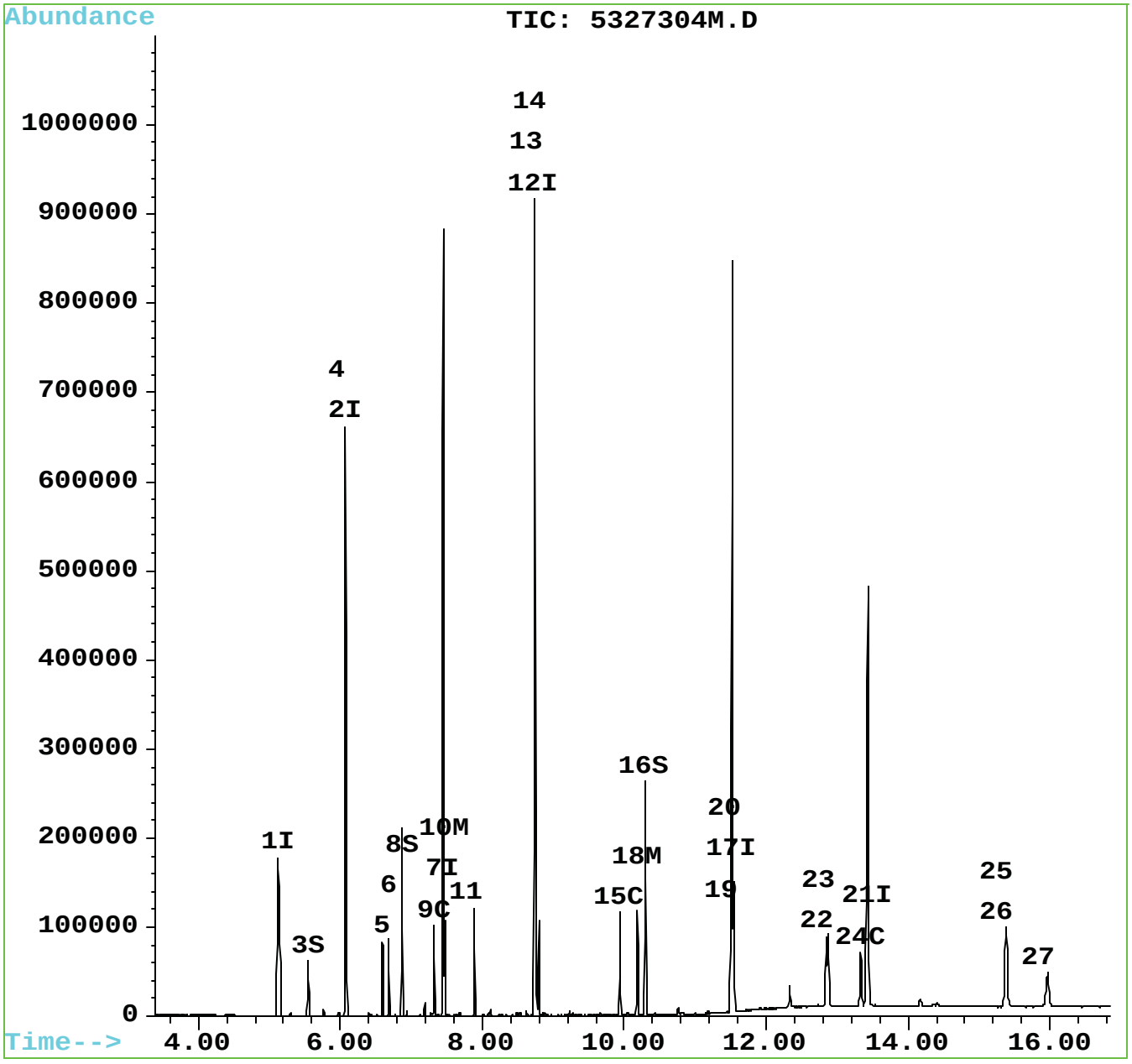
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	61972	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	291194	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	176715	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	321589	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	350831	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	295046	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	23752	109.03	ng/ul	109.0
8) 2-Fluorobiphenyl	6.87	172	57389	105.98	ng/ul	105.9
16) Terphenyl-D14	10.30	244	81641	119.53	ng/ul	119.5
Target Compounds						Qvalu
4) Naphthalene	6.08	128	36125	4.99	ng/ul	9
5) 2-Methylnaphthalene	6.59	141	18769	4.63	ng/ul	9
6) 1-Methylnaphthalene	6.68	142	20585	4.37	ng/ul	9
9) Acenaphthylene	7.32	152	37112	5.13	ng/ul	9
10) Acenaphthene **	7.47	154	23076	5.34	ng/ul	9
11) Fluorene	7.89	166	29725	5.33	ng/ul	9
13) Phenanthrene	8.76	178	44235	5.26	ng/ul	10
14) Anthracene	8.79	178	42345	4.99	ng/ul	9
15) Fluoranthene	9.94	202	49586	5.23	ng/ul	9
18) Pyrene **	10.18	202	51121	5.95	ng/ul	9
19) Benzo(a)anthracene	11.50	228	49412	5.70	ng/ul	10
20) Chrysene	11.55	228	48428	5.69	ng/ul	10
22) Benzo(b)fluoranthene	12.85	252	44561	5.77	ng/ul	9
23) Benzo(k)fluoranthene	12.88	252	43962	6.19	ng/ul	9
24) Benzo(a)pyrene	13.34	252	37861	5.86	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.38	276	48957	5.65	ng/ul	9
26) Dibenzo(ah)anthracene	15.38	278	41024	5.59	ng/ul	9
27) Benzo(ghi)perylene	15.97	276	38671	5.52	ng/ul	9

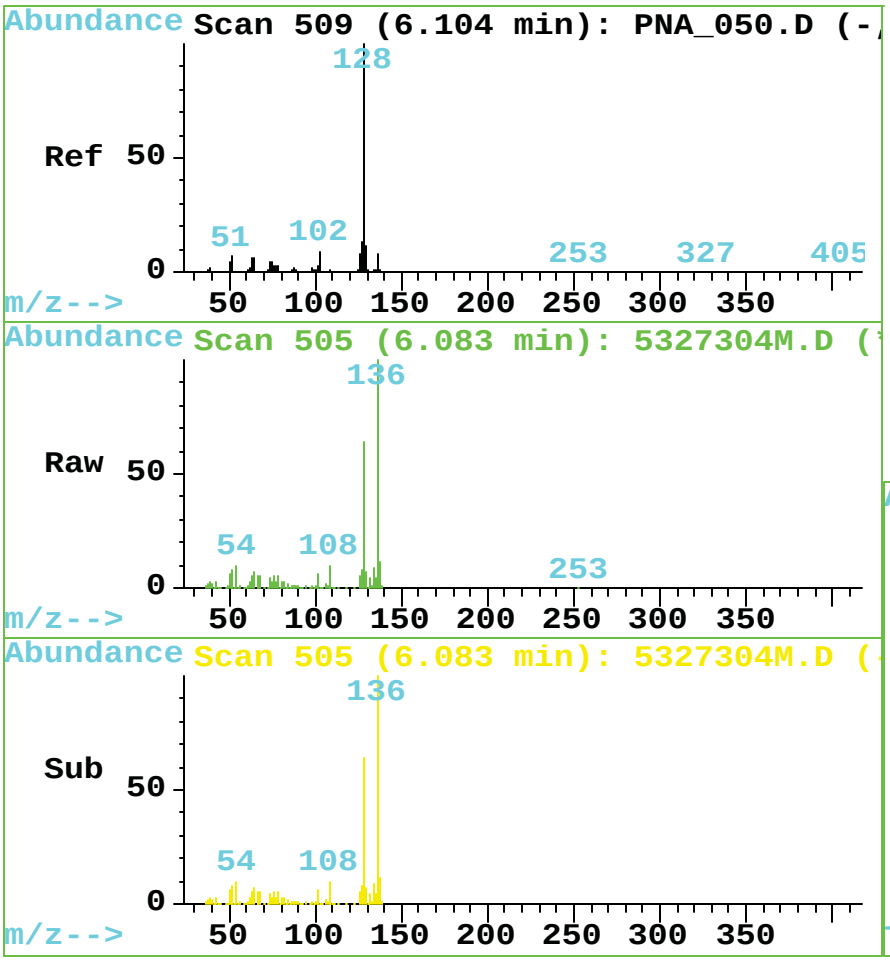
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327304m.d Vial: 8
Acq On : 27 Jul 12 1:48 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

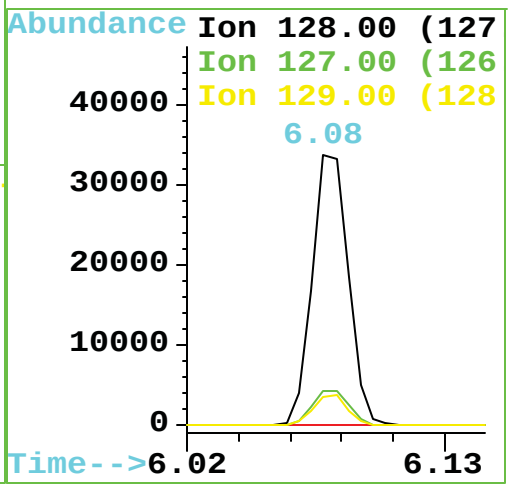


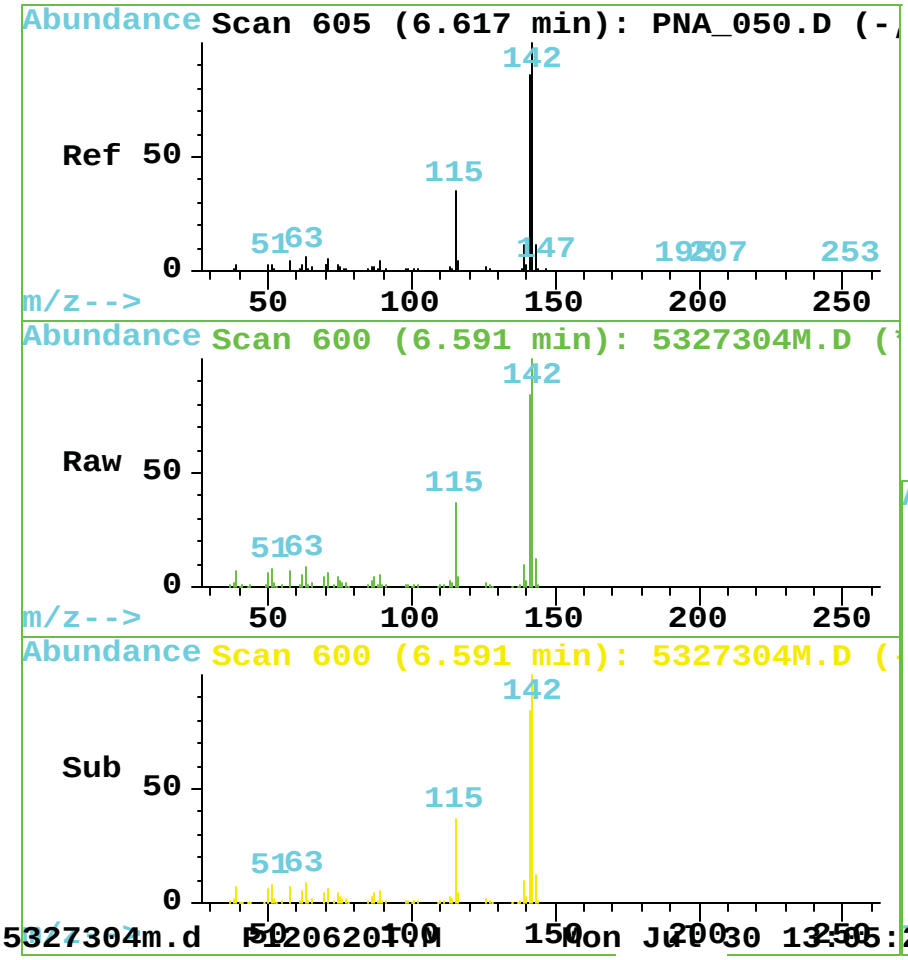


#4
Naphthalene
Concen: 4.99 ng/ul
RT: 6.08 min Scan# 505
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:128 Resp: 36125

Ion	Ratio	Lower	Upper
128	100		
127	12.8	0.0	43.0
129	10.7	0.0	41.1
0	0.0	0.0	0.0

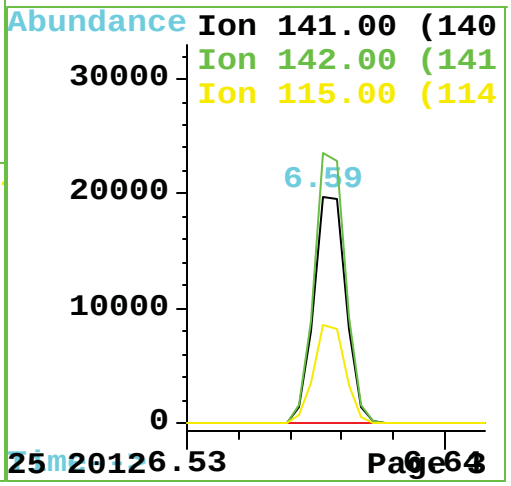


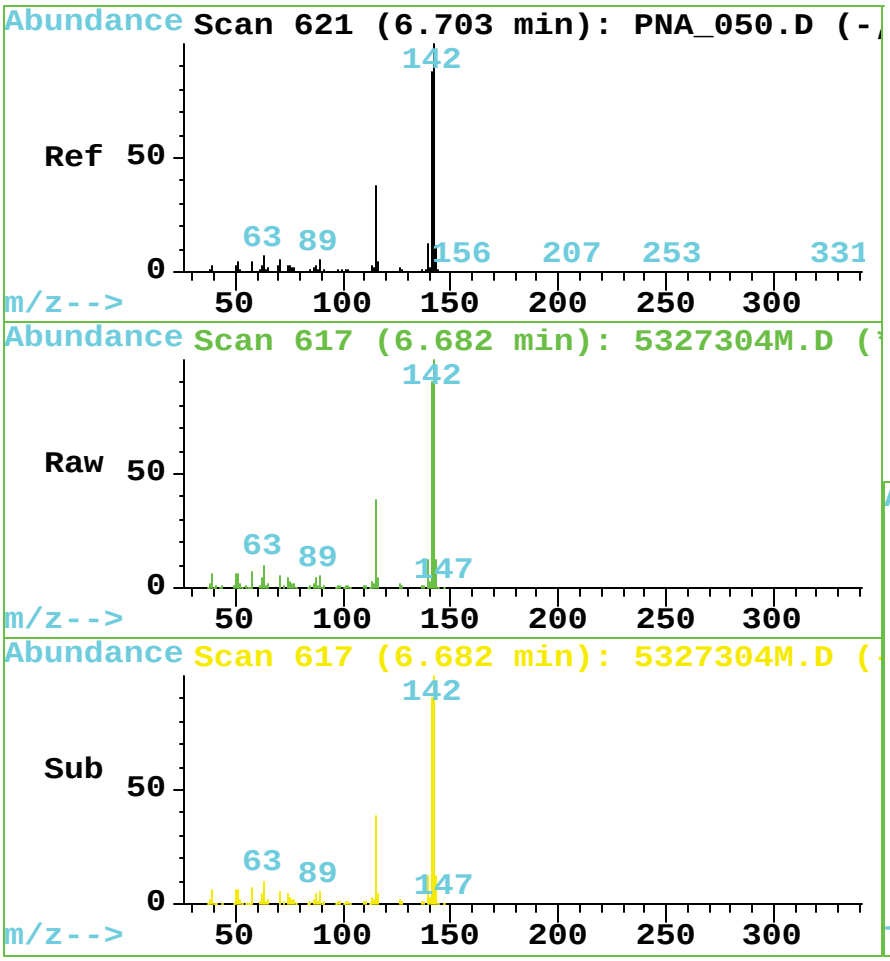


#5
2-Methylnaphthalene
Concen: 4.63 ng/ul
RT: 6.59 min Scan# 600
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:141 Resp: 18769

Ion	Ratio	Lower	Upper
141	100		
142	116.2	82.2	152.5
115	42.7	29.2	54.3
0	0.0	0.0	0.0

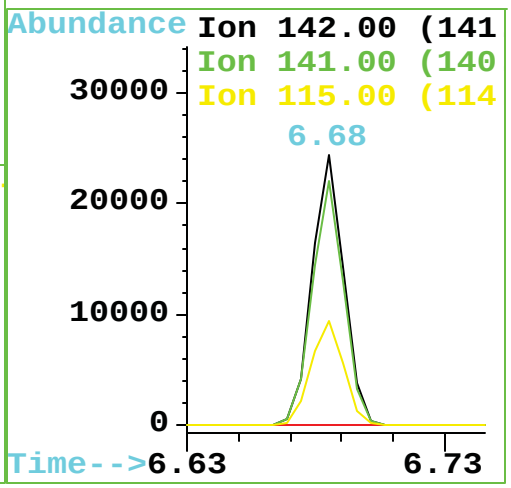


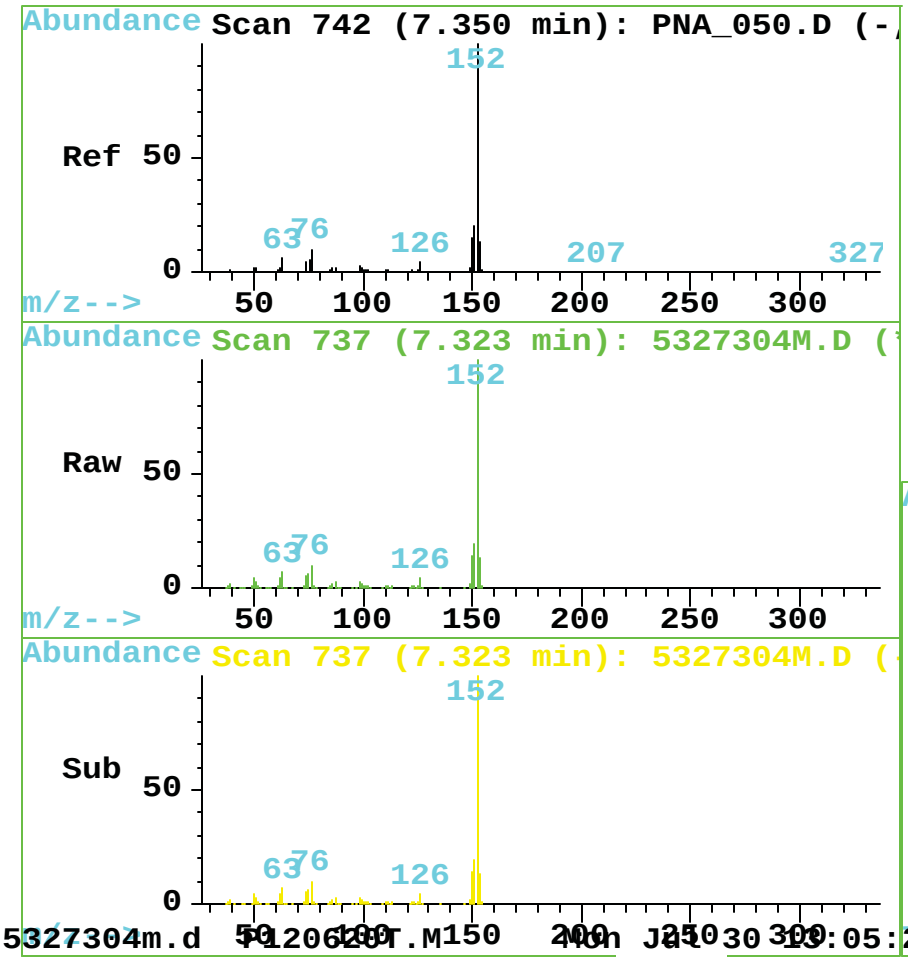


#6
1-Methylnaphthalene
Concen: 4.37 ng/ul
RT: 6.68 min Scan# 617
Delta R.T. -0.00 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:142 Resp: 20585

Ion	Ratio	Lower	Upper
142	100		
141	90.0	70.6	105.9
115	39.8	30.1	45.1
0	0.0	0.0	0.0

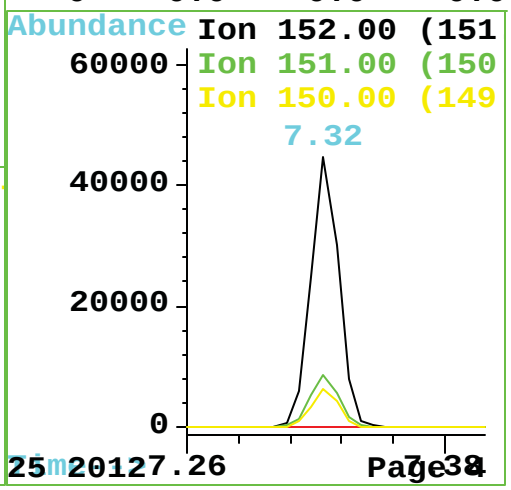


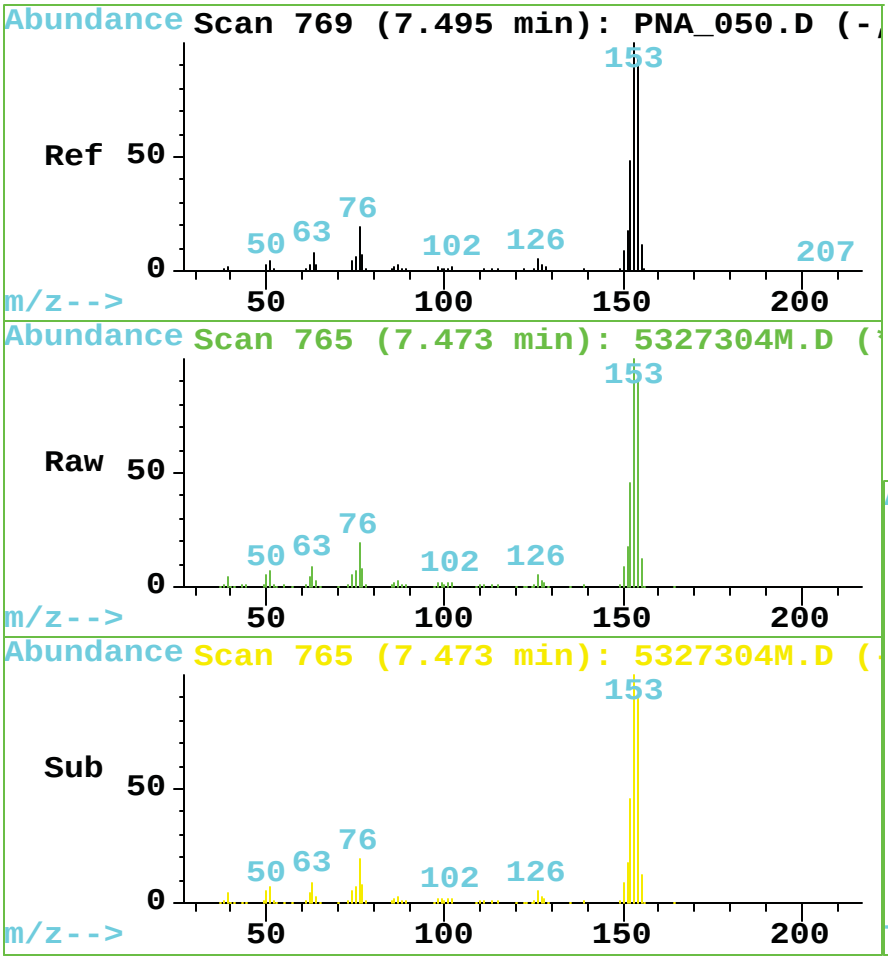


#9
Acenaphthylene
Concen: 5.13 ng/ul
RT: 7.32 min Scan# 737
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:152 Resp: 37112

Ion	Ratio	Lower	Upper
152	100		
151	19.7	0.0	50.1
150	14.1	0.0	44.4
0	0.0	0.0	0.0

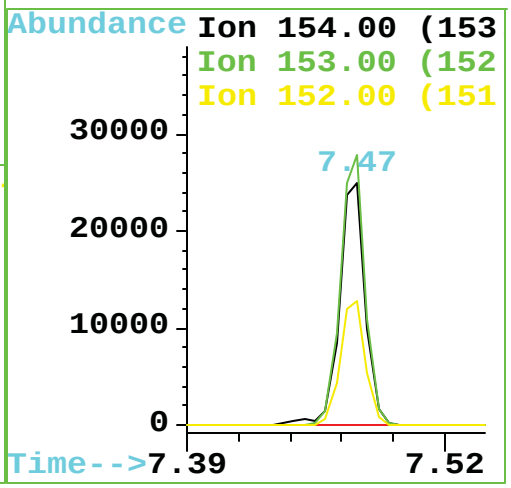


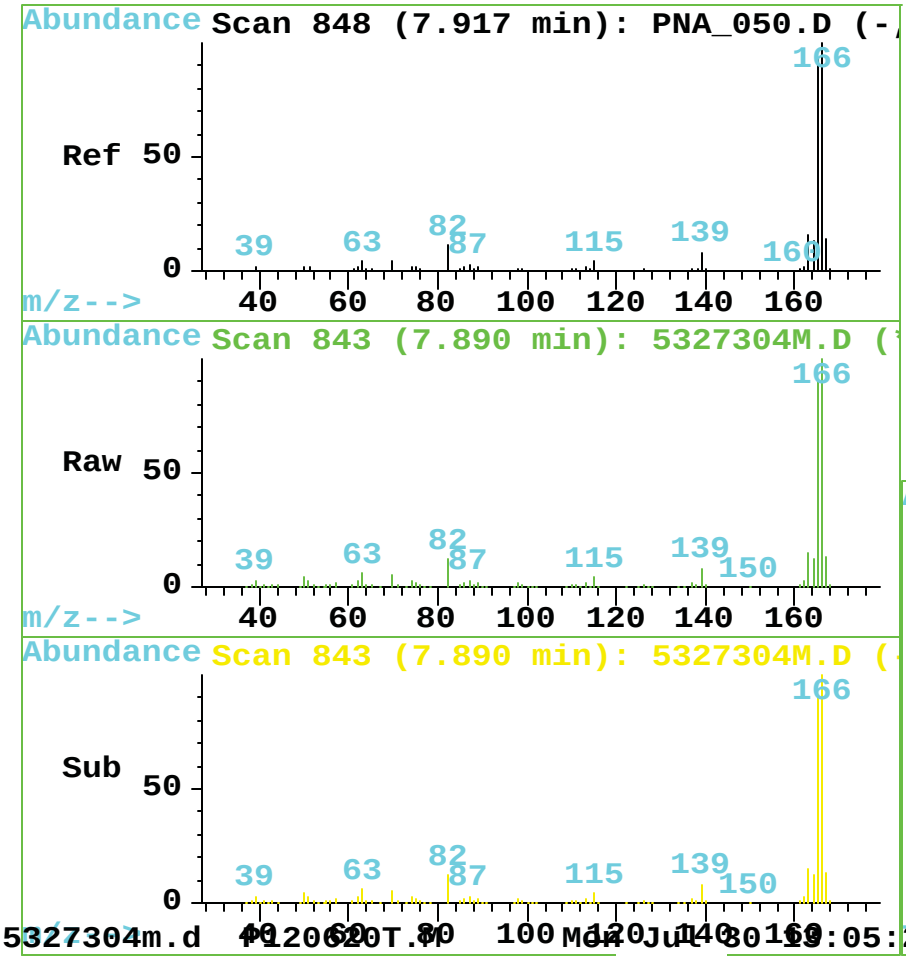


#10
Acenaphthene **
Concen: 5.34 ng/ul
RT: 7.47 min Scan# 765
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:154 Resp: 23076

Ion	Ratio	Lower	Upper
154	100		
153	106.6	76.9	136.9
152	50.0	26.1	76.1
0	0.0	0.0	0.0

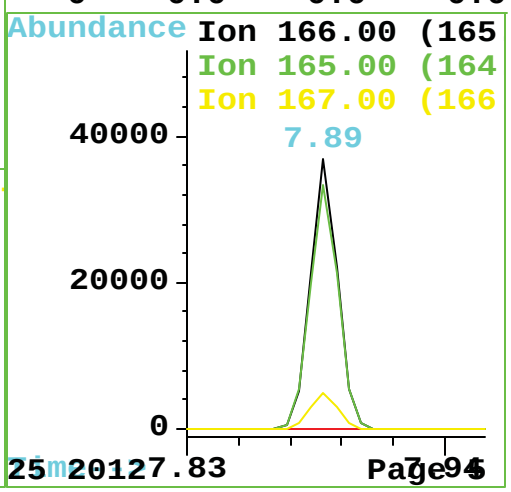


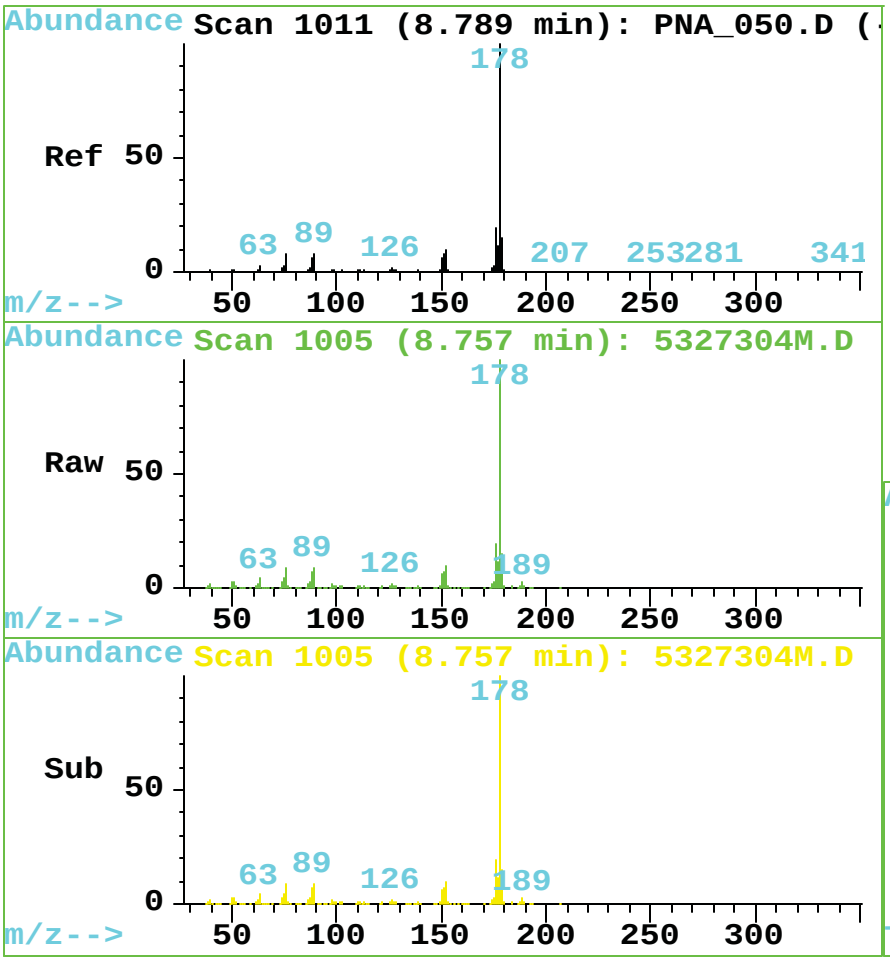


#11
Fluorene
Concen: 5.33 ng/ul
RT: 7.89 min Scan# 843
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:166 Resp: 29725

Ion	Ratio	Lower	Upper
166	100		
165	93.8	63.1	123.1
167	13.6	0.0	43.4
0	0.0	0.0	0.0

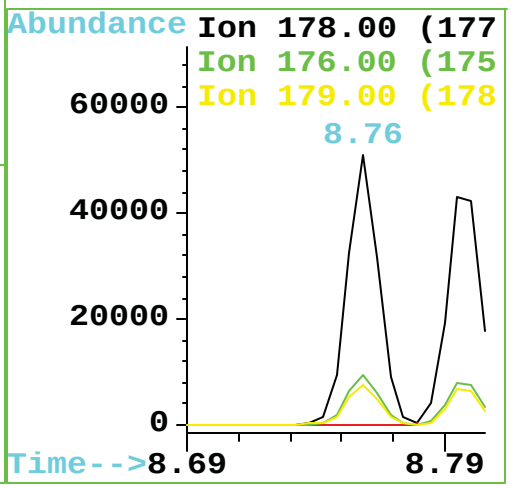


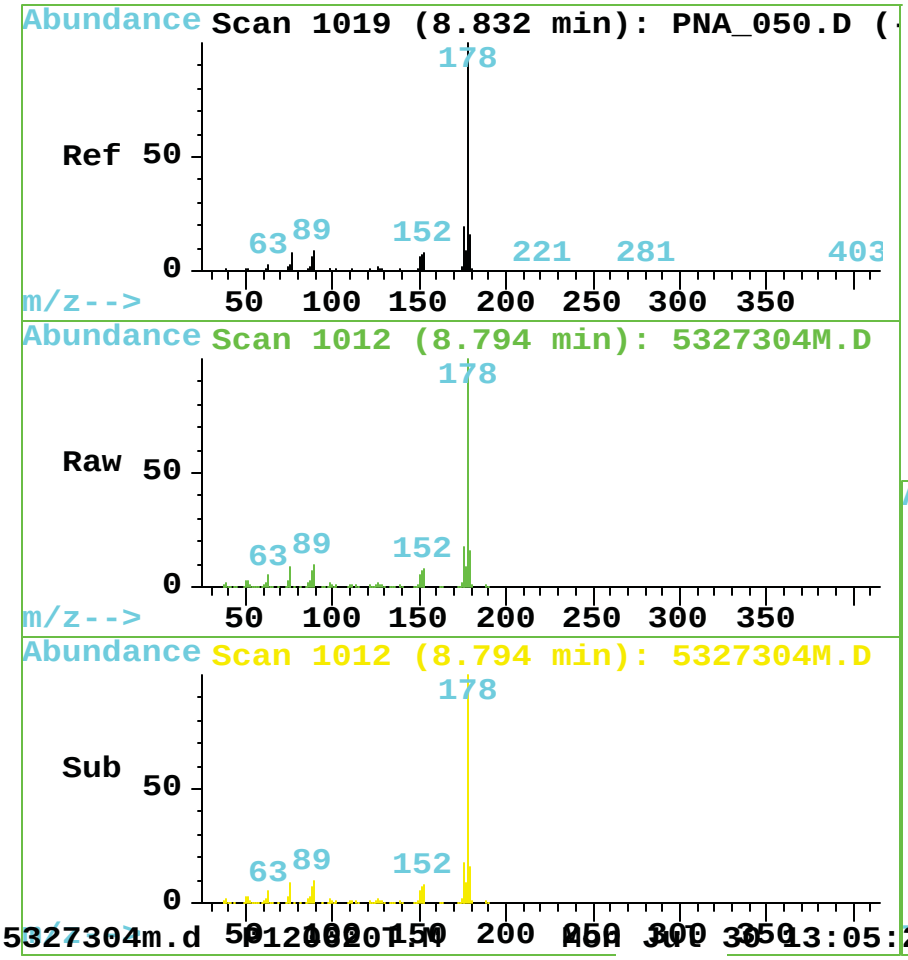


#13
Phenanthrene
Concen: 5.26 ng/ul
RT: 8.76 min Scan# 1005
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:178 Resp: 44235

Ion	Ratio	Lower	Upper
178	100		
176	19.3	0.0	49.3
179	15.7	0.0	45.3
0	0.0	0.0	0.0

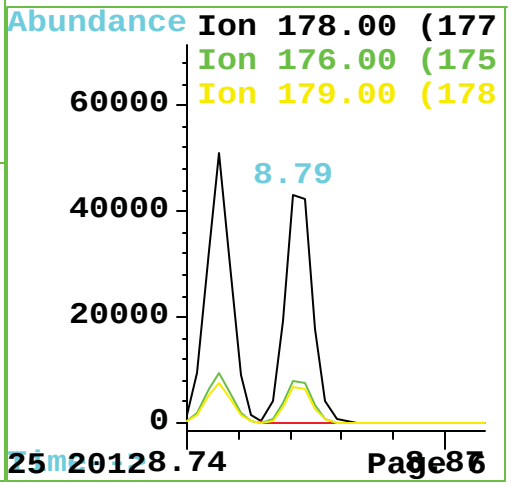


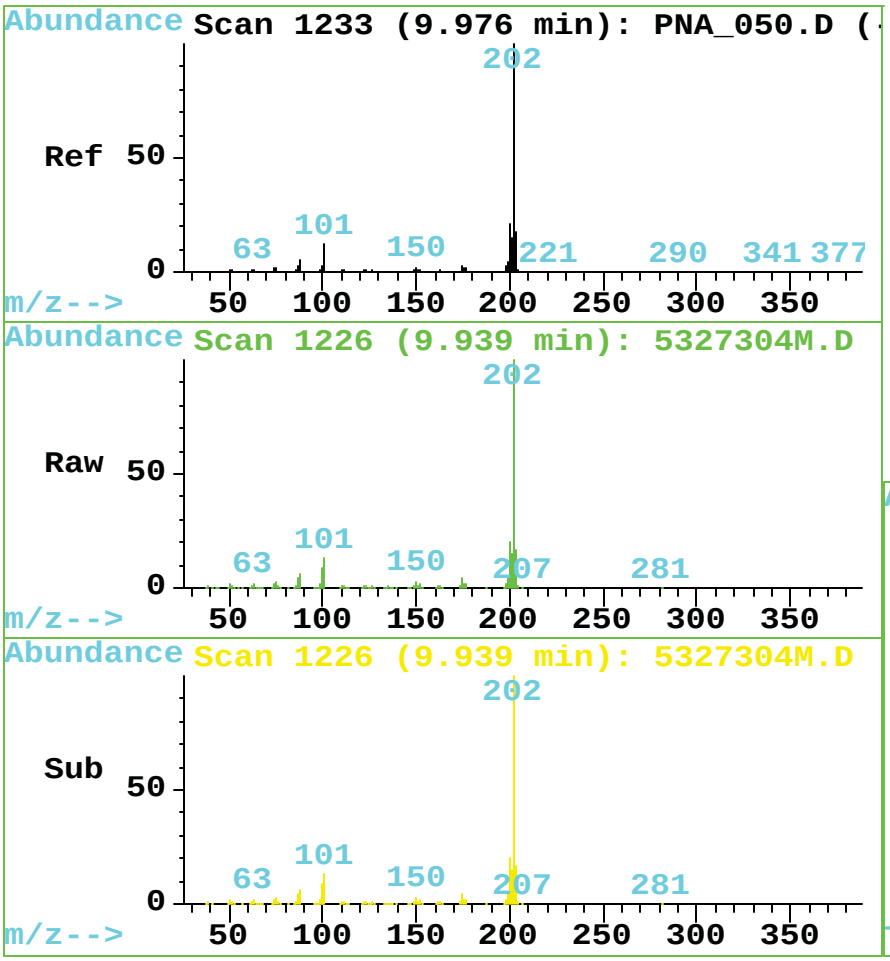


#14
Anthracene
Concen: 4.99 ng/ul
RT: 8.79 min Scan# 1012
Delta R.T. -0.02 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:178 Resp: 42345

Ion	Ratio	Lower	Upper
178	100		
176	18.7	0.0	49.0
179	15.4	0.0	45.6
0	0.0	0.0	0.0

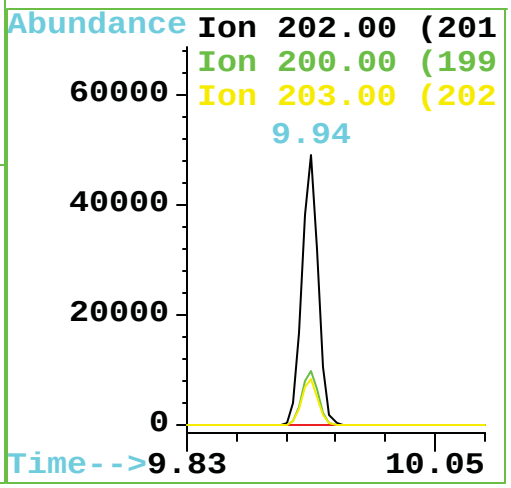


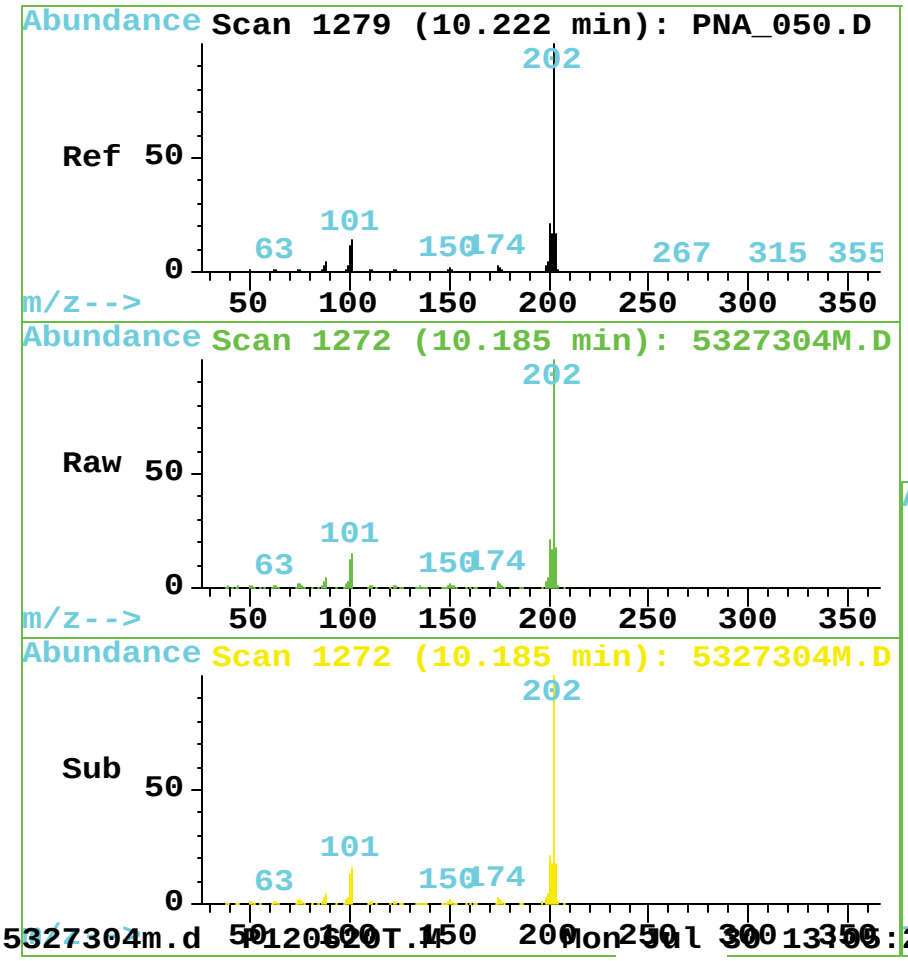


#15
Fluoranthene
Concen: 5.23 ng/ul
RT: 9.94 min Scan# 1226
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:202 Resp: 49586

Ion	Ratio	Lower	Upper
202	100		
200	20.1	0.0	50.9
203	17.2	0.0	47.6
0	0.0	0.0	0.0

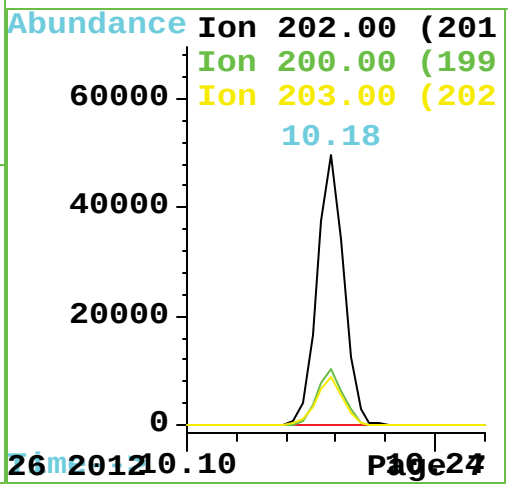


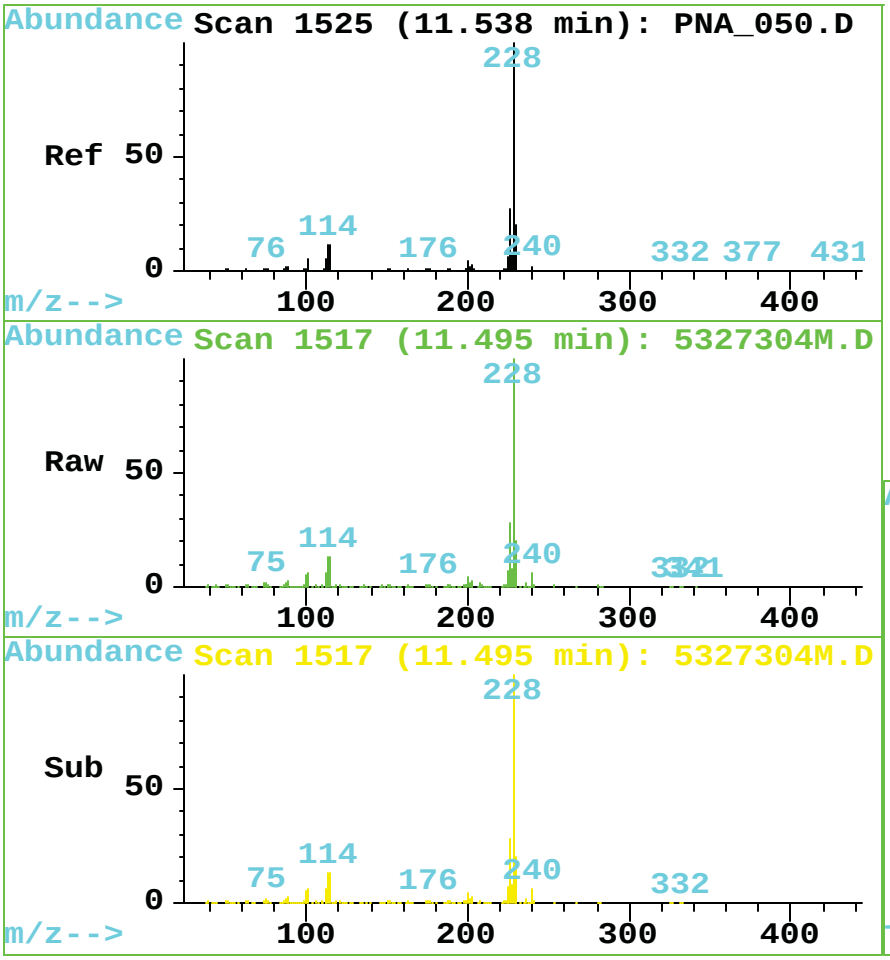


#18
Pyrene **
Concen: 5.95 ng/ul
RT: 10.18 min Scan# 1272
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:202 Resp: 51121

Ion	Ratio	Lower	Upper
202	100		
200	20.4	0.0	51.0
203	18.0	0.0	47.7
0	0.0	0.0	0.0

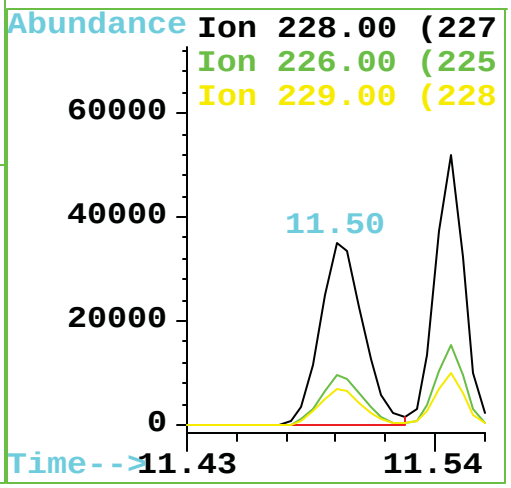


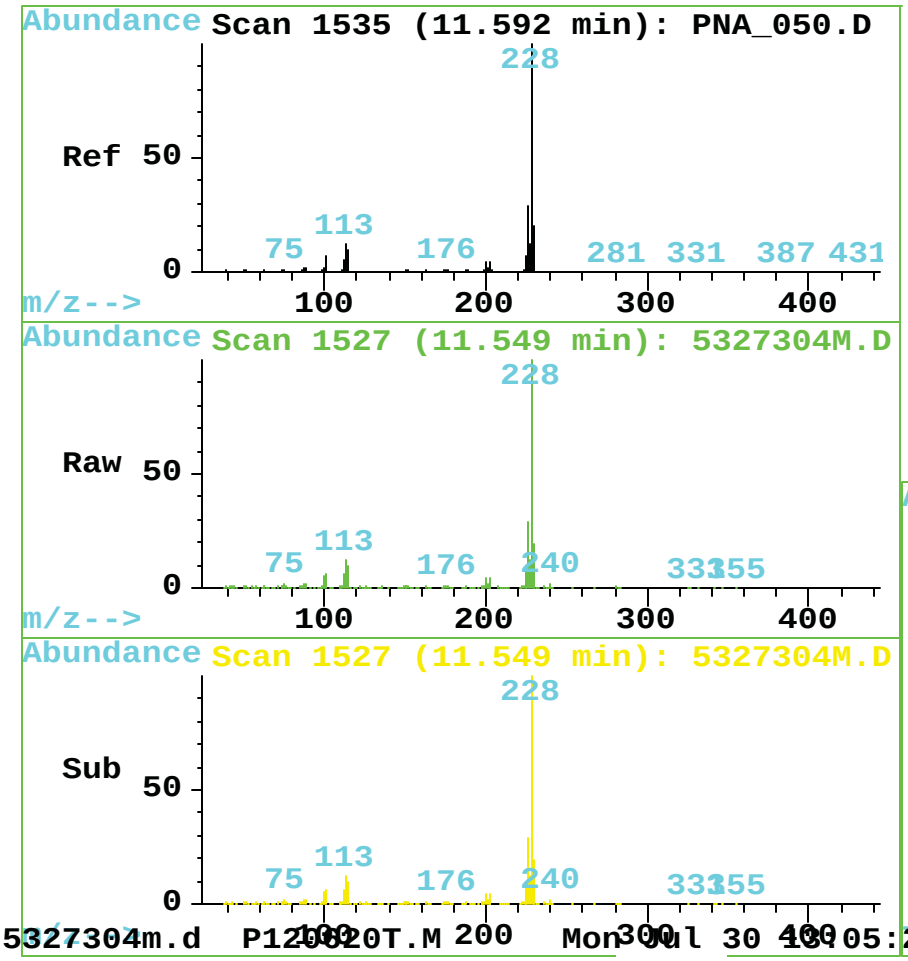


#19
Benzo(a)anthracene
Concen: 5.70 ng/ul
RT: 11.50 min Scan# 1517
Delta R.T. -0.02 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:228 Resp: 49412

Ion	Ratio	Lower	Upper
228	100		
226	26.7	0.0	57.0
229	19.7	0.0	49.7
0	0.0	0.0	0.0

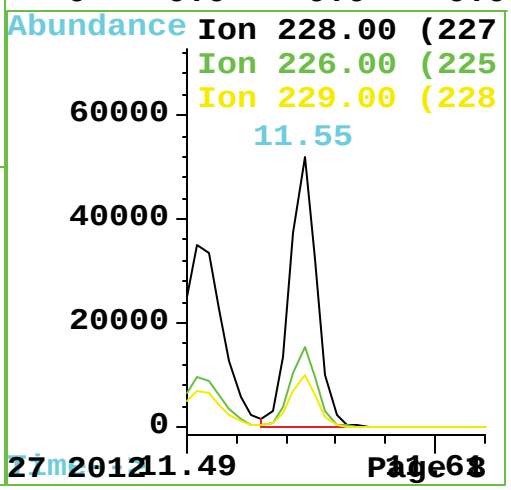


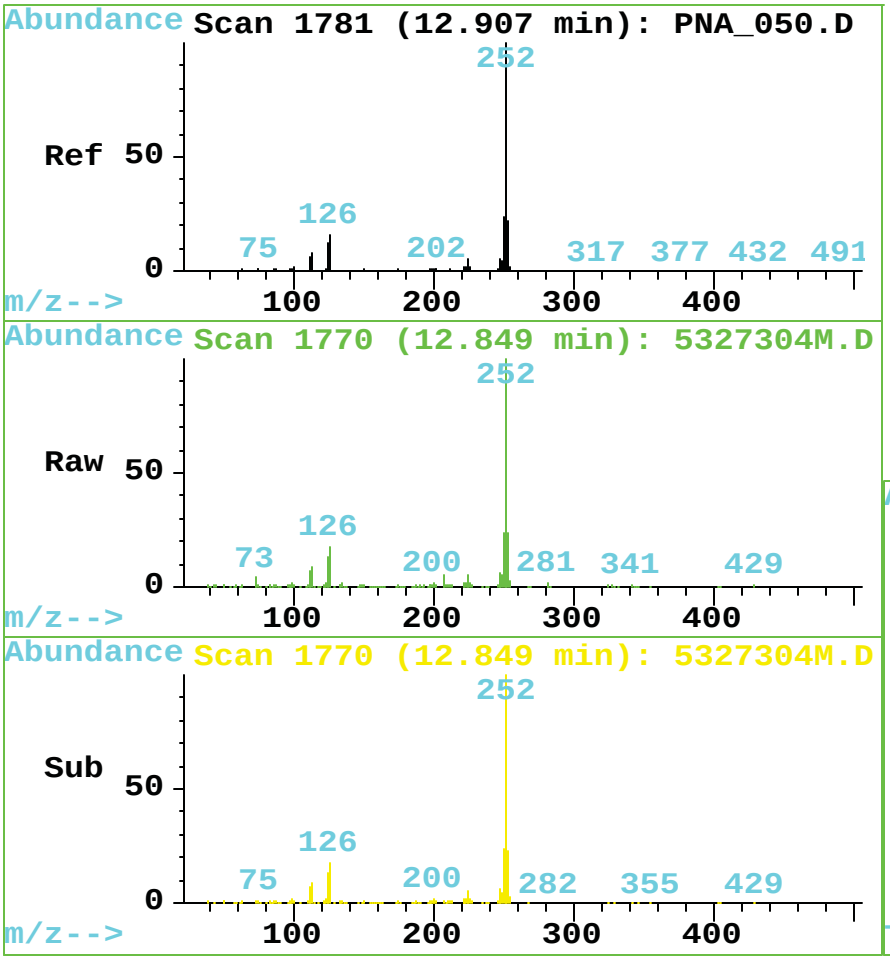


#20
Chrysene
Concen: 5.69 ng/ul
RT: 11.55 min Scan# 1527
Delta R.T. -0.02 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:228 Resp: 48428

Ion	Ratio	Lower	Upper
228	100		
226	29.2	0.0	59.5
229	19.5	0.0	49.6
0	0.0	0.0	0.0

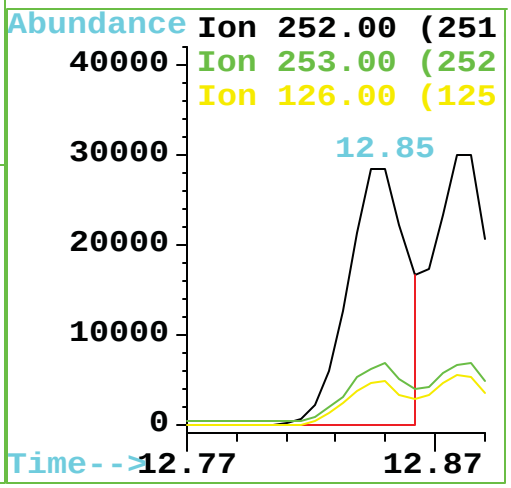


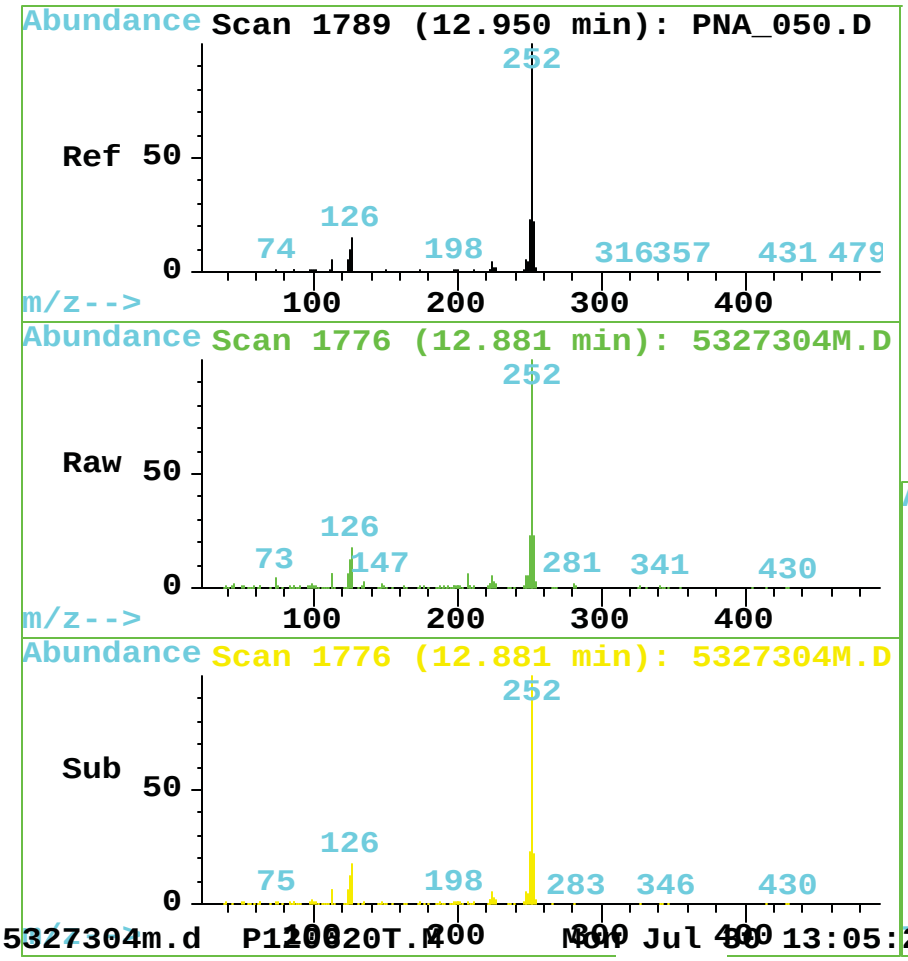


#22
Benzo(b)fluoranthene
Concen: 5.77 ng/ul
RT: 12.85 min Scan# 1770
Delta R.T. -0.01 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:252 Resp: 44561

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	52.1
126	17.2	0.0	45.1
0	0.0	0.0	0.0

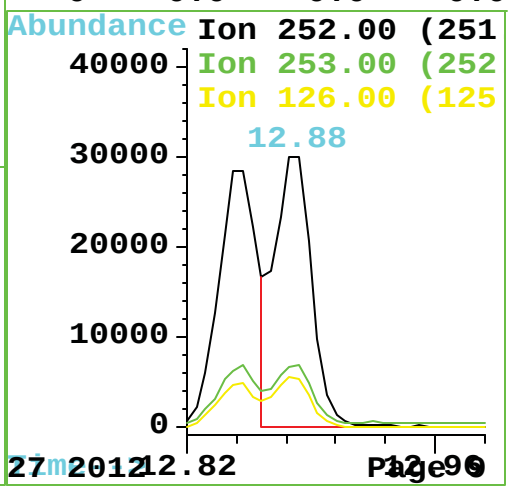


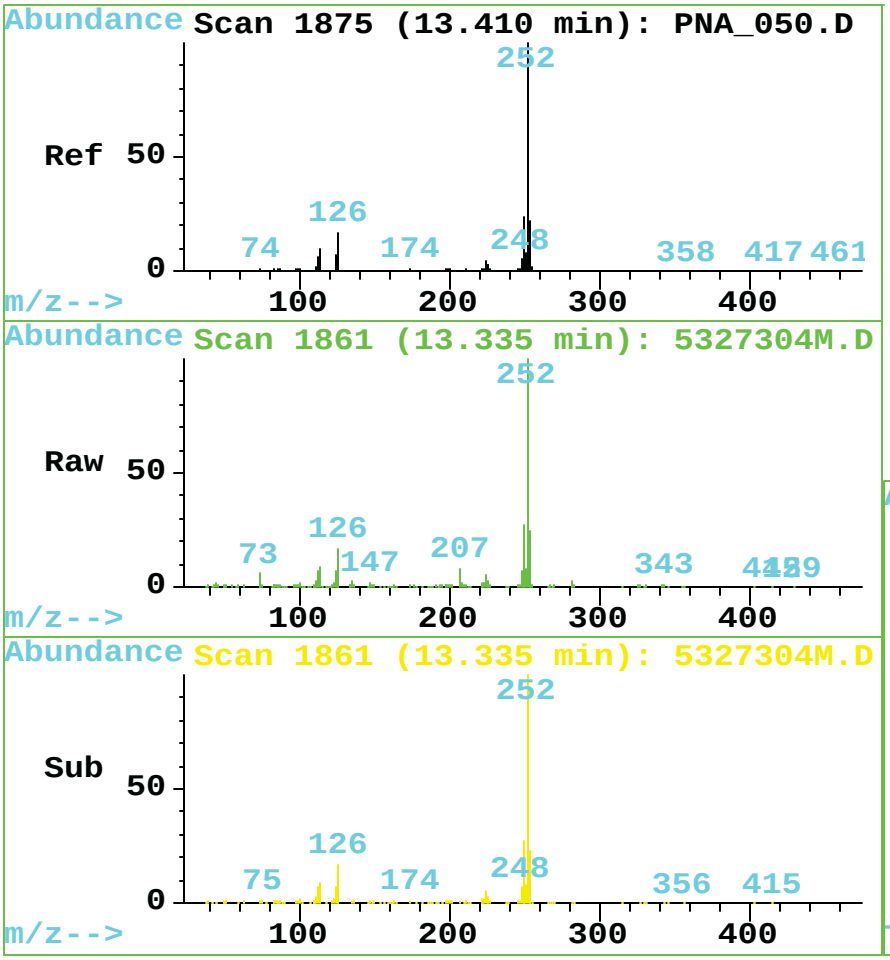


#23
Benzo(k)fluoranthene
Concen: 6.19 ng/ul
RT: 12.88 min Scan# 1776
Delta R.T. -0.02 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:252 Resp: 43962

Ion	Ratio	Lower	Upper
252	100		
253	22.3	0.0	51.9
126	18.2	0.0	46.4
0	0.0	0.0	0.0

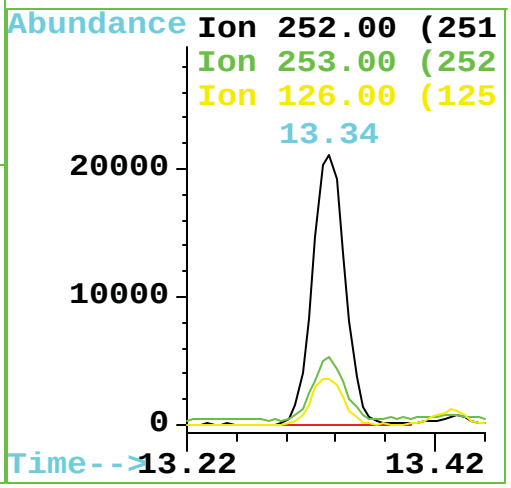


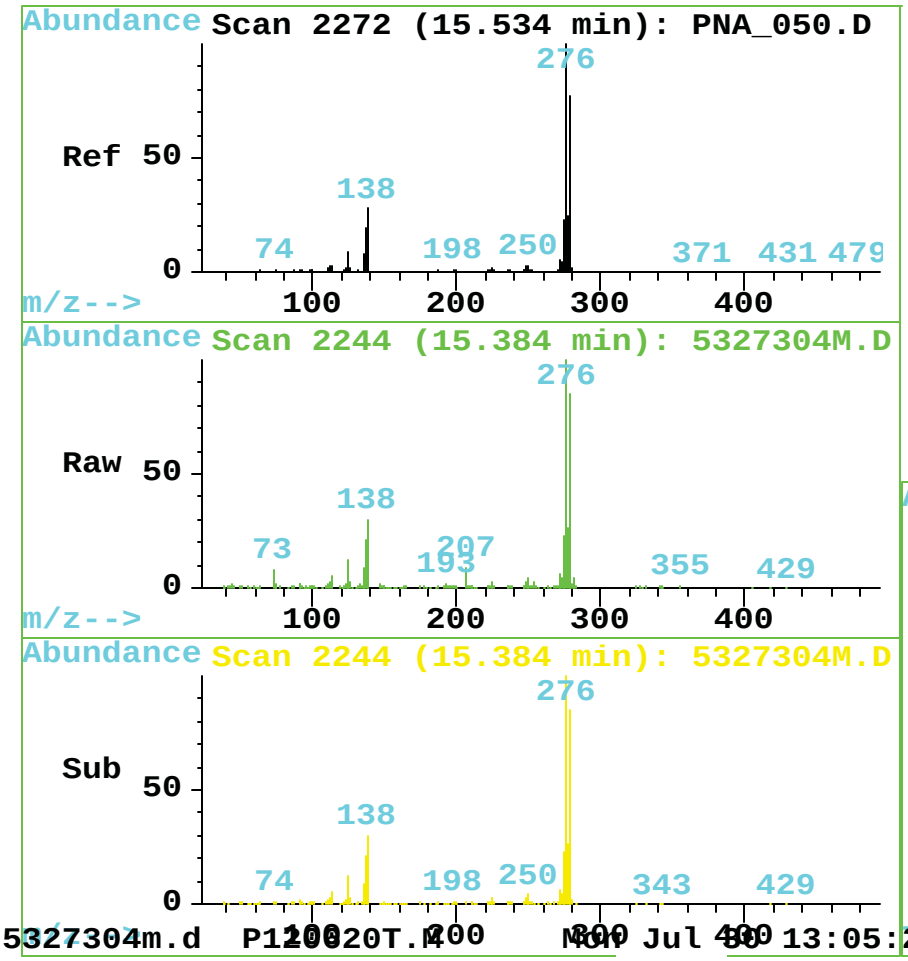


#24
Benzo(a)pyrene
Concen: 5.86 ng/ul
RT: 13.34 min Scan# 1861
Delta R.T. -0.03 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:252 Resp: 37861

Ion	Ratio	Lower	Upper
252	100		
253	23.1	0.0	52.0
126	17.2	0.0	47.3
0	0.0	0.0	0.0

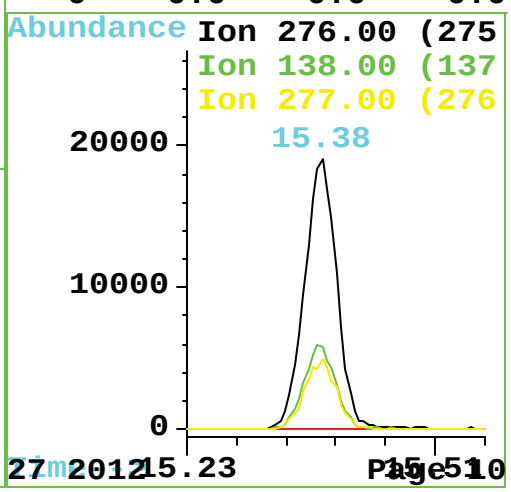


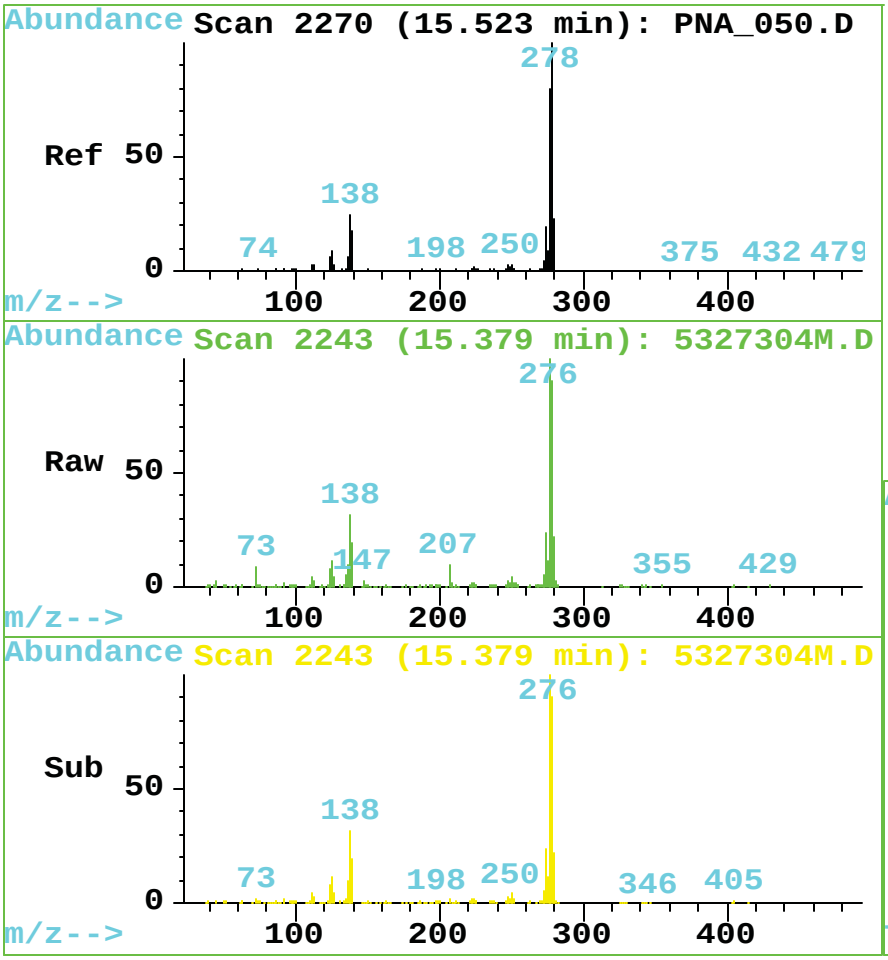


#25
Indeno(1,2,3-cd)pyrene
Concen: 5.65 ng/ul
RT: 15.38 min Scan# 2244
Delta R.T. -0.09 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:276 Resp: 48957

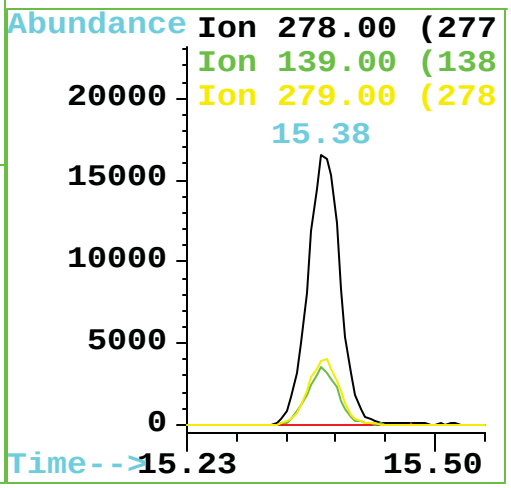
Ion	Ratio	Lower	Upper
276	100		
138	30.3	0.0	57.7
277	25.2	5.1	45.1
0	0.0	0.0	0.0

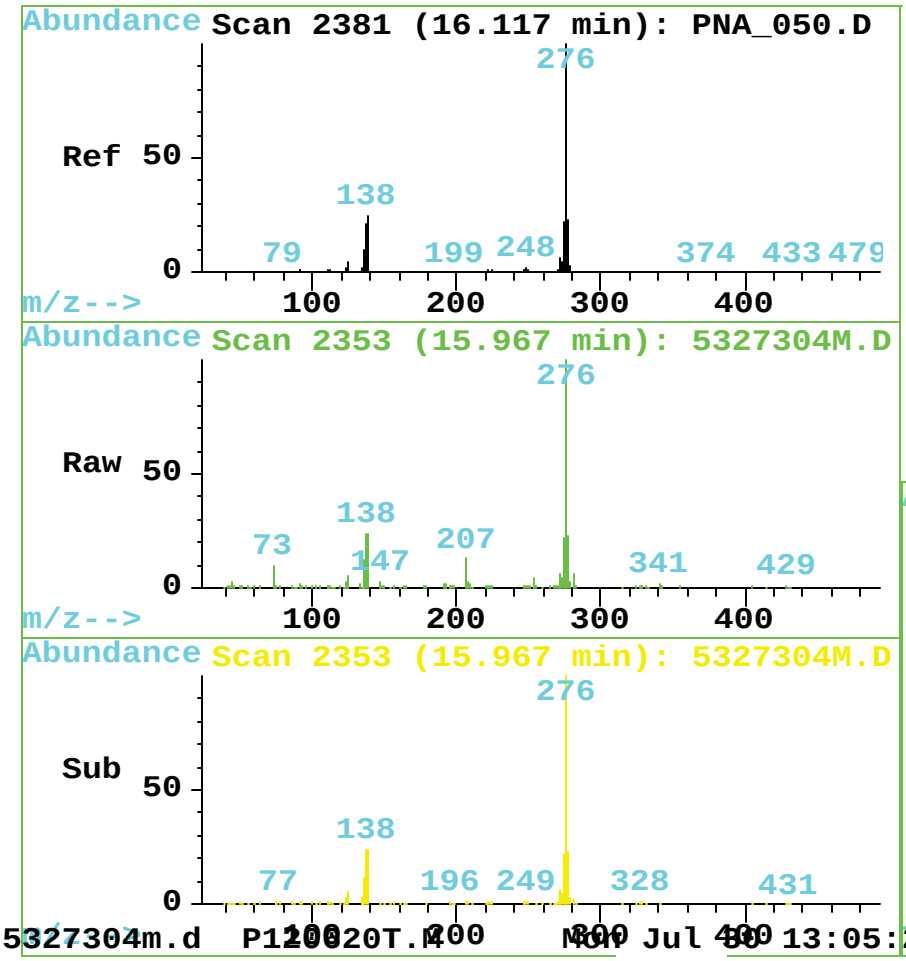




#26
Dibenzo(ah)anthracene
Concen: 5.59 ng/ul
RT: 15.38 min Scan# 2243
Delta R.T. -0.09 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

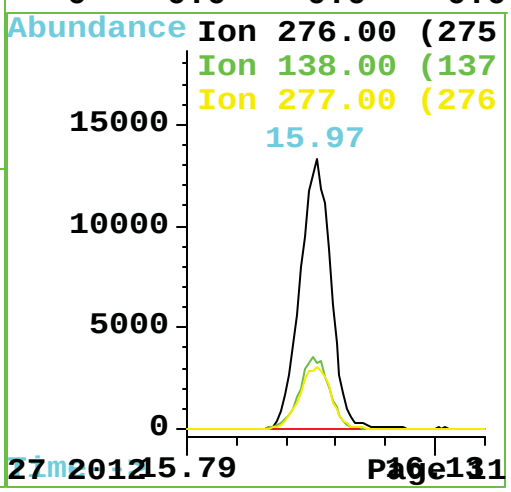
Tgt Ion:278	Resp:	41024	
Ion	Ratio	Lower	Upper
278	100		
139	19.9	0.0	48.9
279	23.6	8.4	38.4
0	0.0	0.0	0.0





#27
Benzo(ghi)perylene
Concen: 5.52 ng/ul
RT: 15.97 min Scan# 2353
Delta R.T. -0.09 min
Lab File: 5327304m.d
Acq: 27 Jul 12 1:48 pm

Tgt Ion:276	Resp:	38671	
Ion	Ratio	Lower	Upper
276	100		
138	26.1	0.0	55.4
277	23.7	3.5	43.5
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327305n.d Vial: 9
Acq On : 27 Jul 12 2:10 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

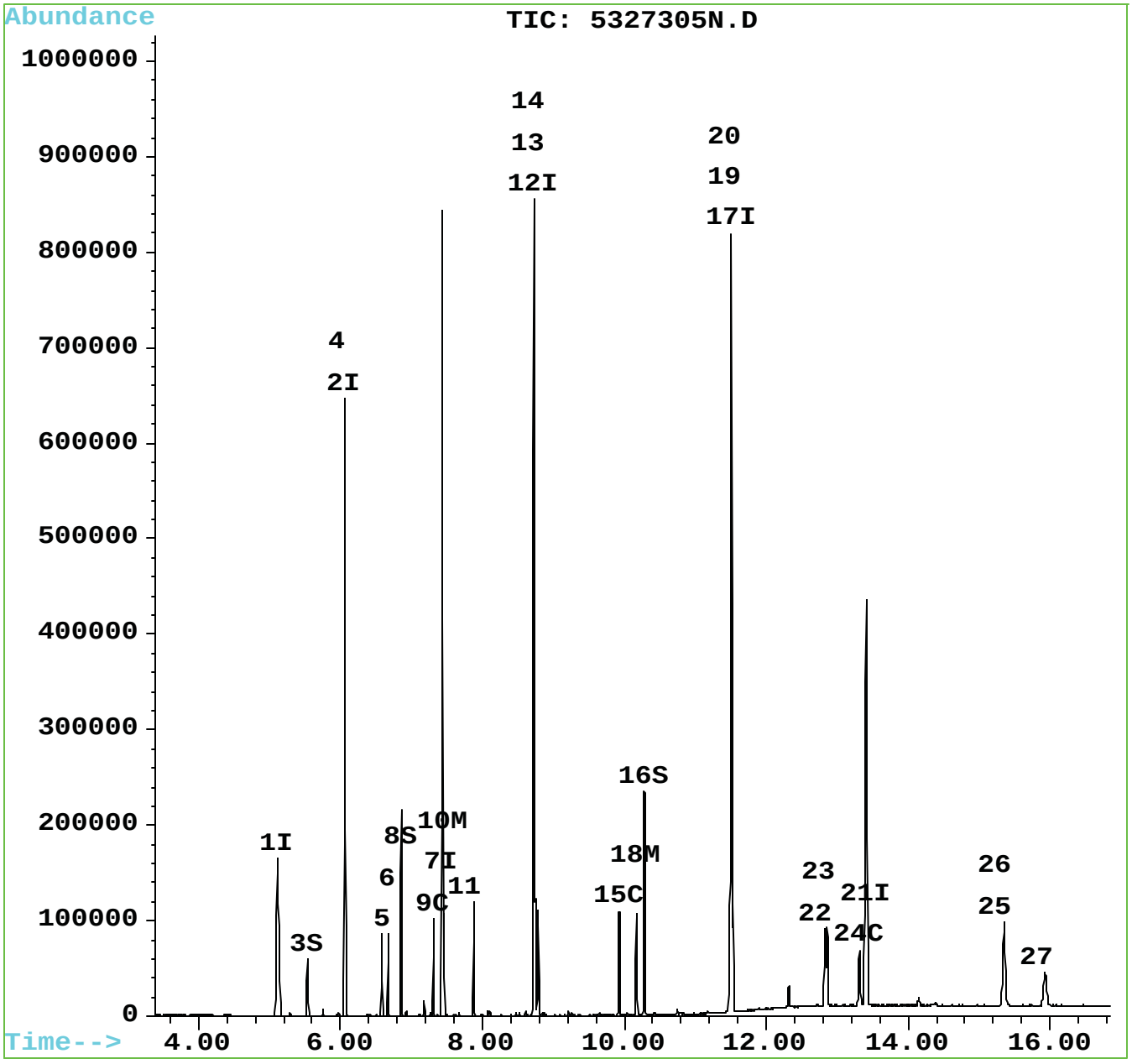
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	57971	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	274196	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	165269	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	298875	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	330162	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	270772	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	23543	114.77	ng/ul	114.7
8) 2-Fluorobiphenyl	6.86	172	54820	108.25	ng/ul	108.2
16) Terphenyl-D14	10.29	244	75974	119.69	ng/ul	119.6
Target Compounds						Qvalu
4) Naphthalene	6.08	128	35046	5.15	ng/ul	10
5) 2-Methylnaphthalene	6.59	141	19035	4.99	ng/ul	9
6) 1-Methylnaphthalene	6.67	142	20387	4.59	ng/ul	9
9) Acenaphthylene	7.31	152	36764	5.43	ng/ul	10
10) Acenaphthene **	7.46	154	23216	5.74	ng/ul	9
11) Fluorene	7.88	166	29761	5.70	ng/ul	9
13) Phenanthrene	8.78	178	42659	5.46	ng/ul	9
14) Anthracene	8.78	178	42659	5.40	ng/ul	9
15) Fluoranthene	9.93	202	48676	5.52	ng/ul	9
18) Pyrene **	10.17	202	49499	6.12	ng/ul	9
19) Benzo(a)anthracene	11.53	228	47119	5.78	ng/ul	9
20) Chrysene	11.53	228	47119	5.88	ng/ul	10
22) Benzo(b)fluoranthene	12.83	252	44778	6.32	ng/ulm	9
23) Benzo(k)fluoranthene	12.86	252	41778	6.41	ng/ul	9
24) Benzo(a)pyrene	13.32	252	36978	6.24	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.35	276	47259	5.94	ng/ul	9
26) Dibenzo(ah)anthracene	15.35	278	39756	5.90	ng/ul	9
27) Benzo(ghi)perylene	15.93	276	37726	5.87	ng/ul	9

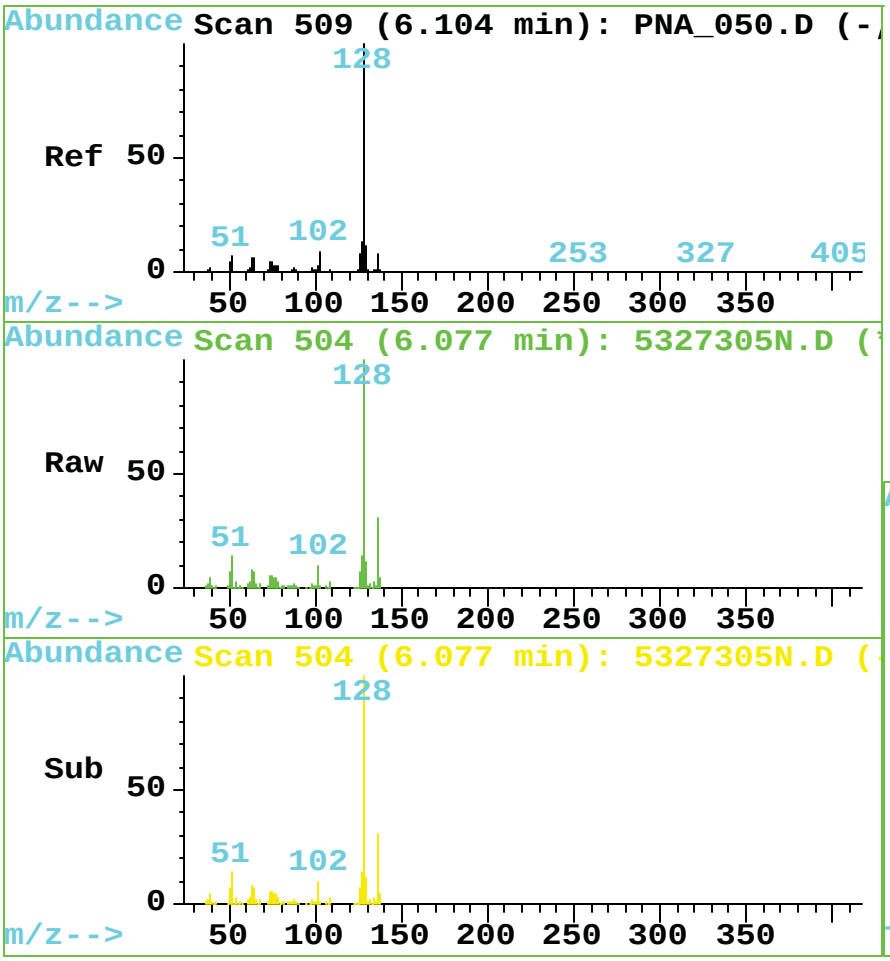
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327305n.d Vial: 9
Acq On : 27 Jul 12 2:10 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

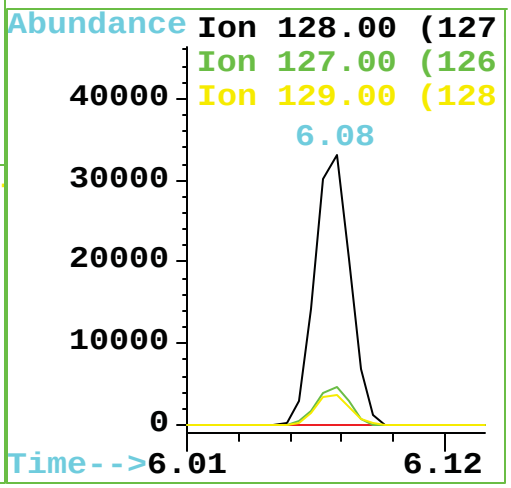


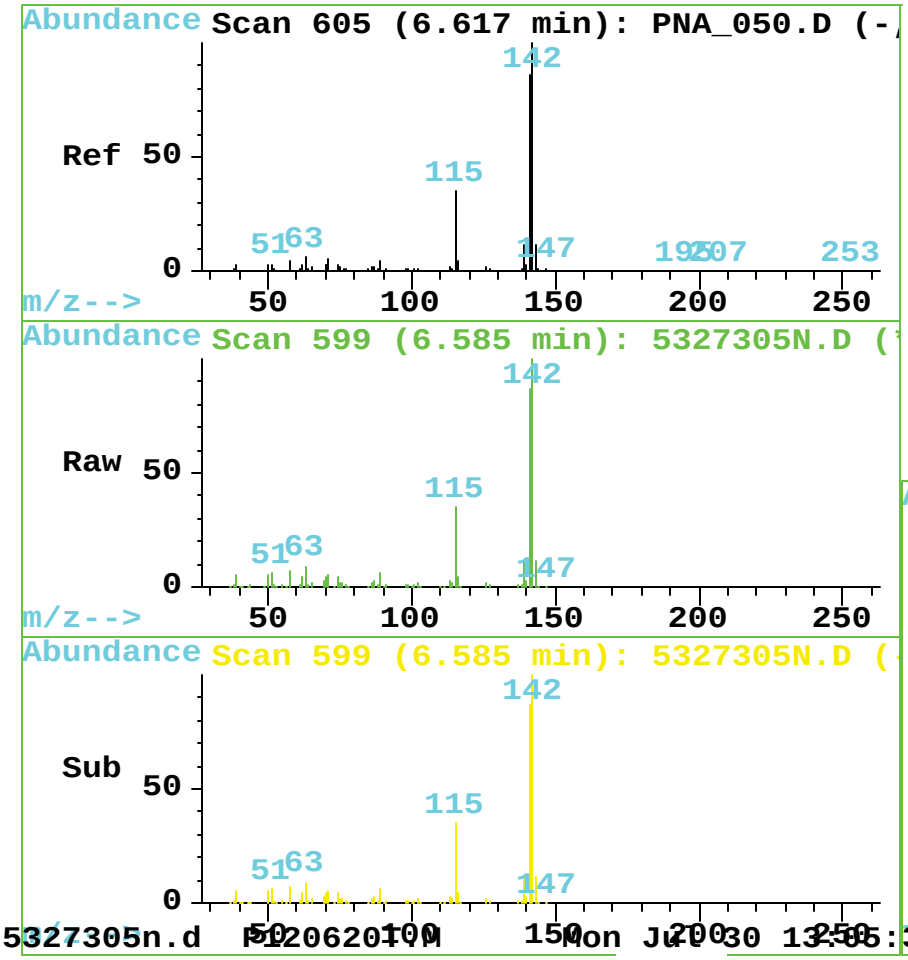


#4
Naphthalene
Concen: 5.15 ng/ul
RT: 6.08 min Scan# 504
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:128 Resp: 35046

Ion	Ratio	Lower	Upper
128	100		
127	13.3	0.0	43.0
129	11.1	0.0	41.1
0	0.0	0.0	0.0

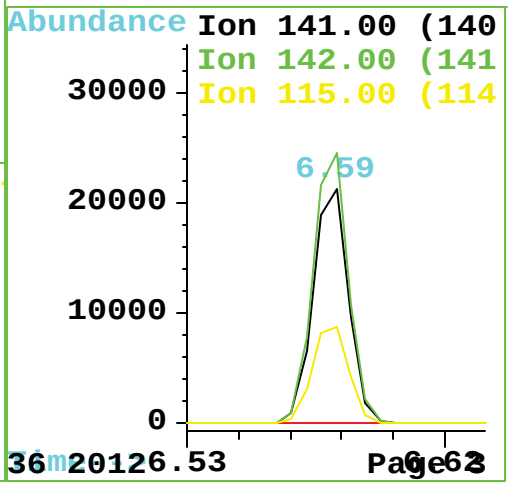


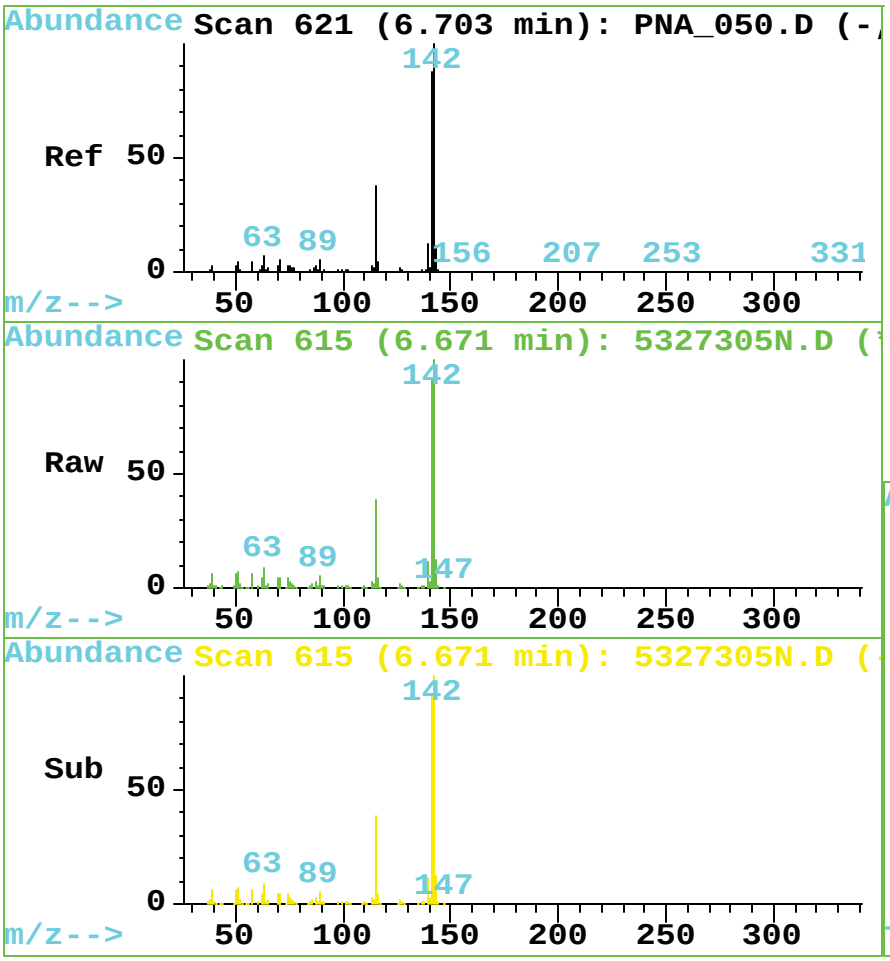


#5
2-Methylnaphthalene
Concen: 4.99 ng/ul
RT: 6.59 min Scan# 599
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:141 Resp: 19035

Ion	Ratio	Lower	Upper
141	100		
142	114.7	82.2	152.5
115	42.8	29.2	54.3
0	0.0	0.0	0.0

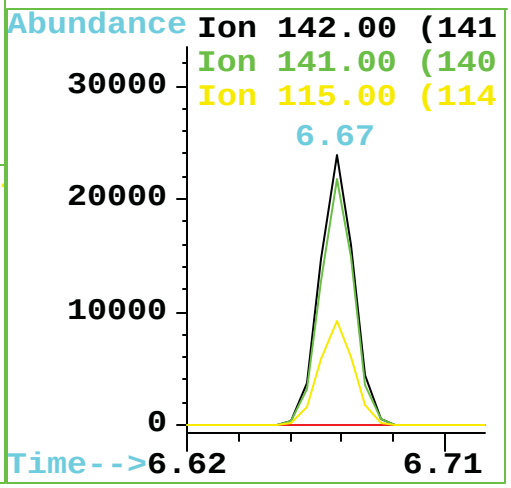


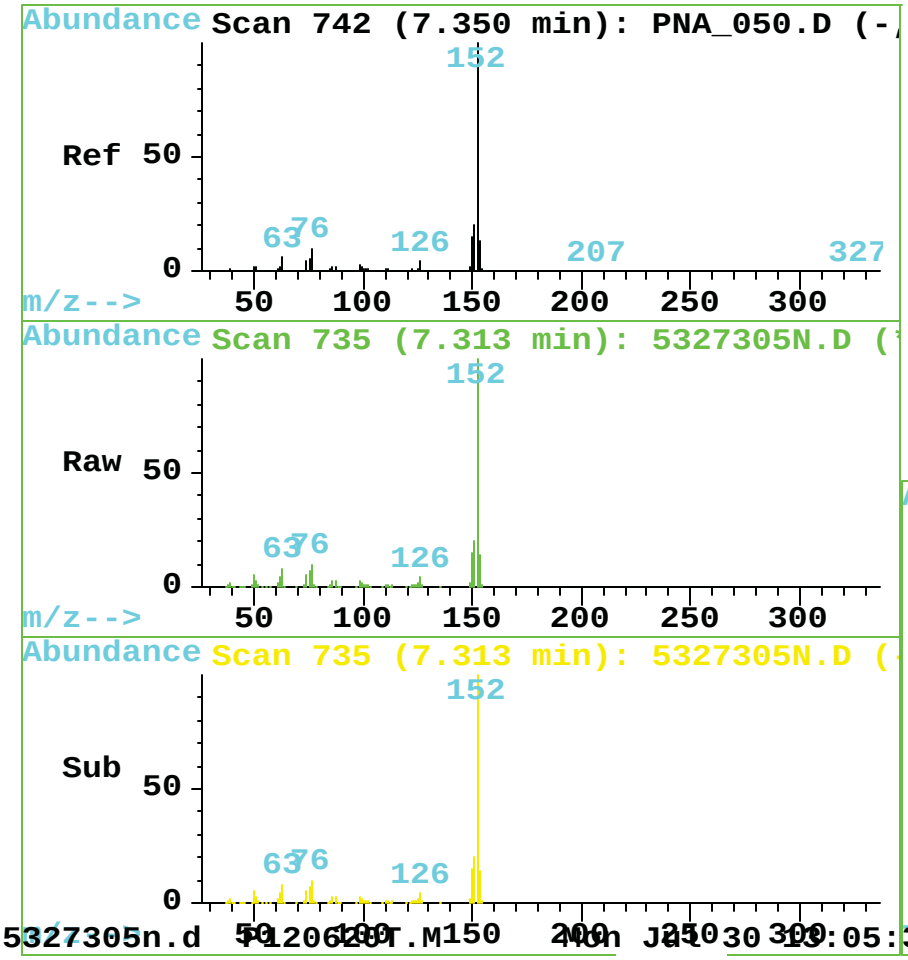


#6
1-Methylnaphthalene
Concen: 4.59 ng/ul
RT: 6.67 min Scan# 615
Delta R.T. -0.01 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:142 Resp: 20387

Ion	Ratio	Lower	Upper
142	100		
141	89.9	70.6	105.9
115	39.0	30.1	45.1
0	0.0	0.0	0.0

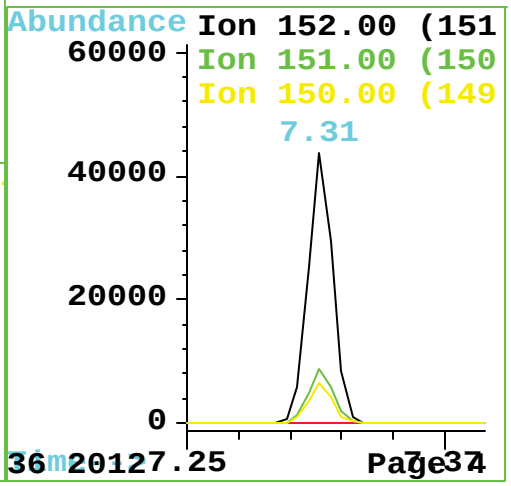


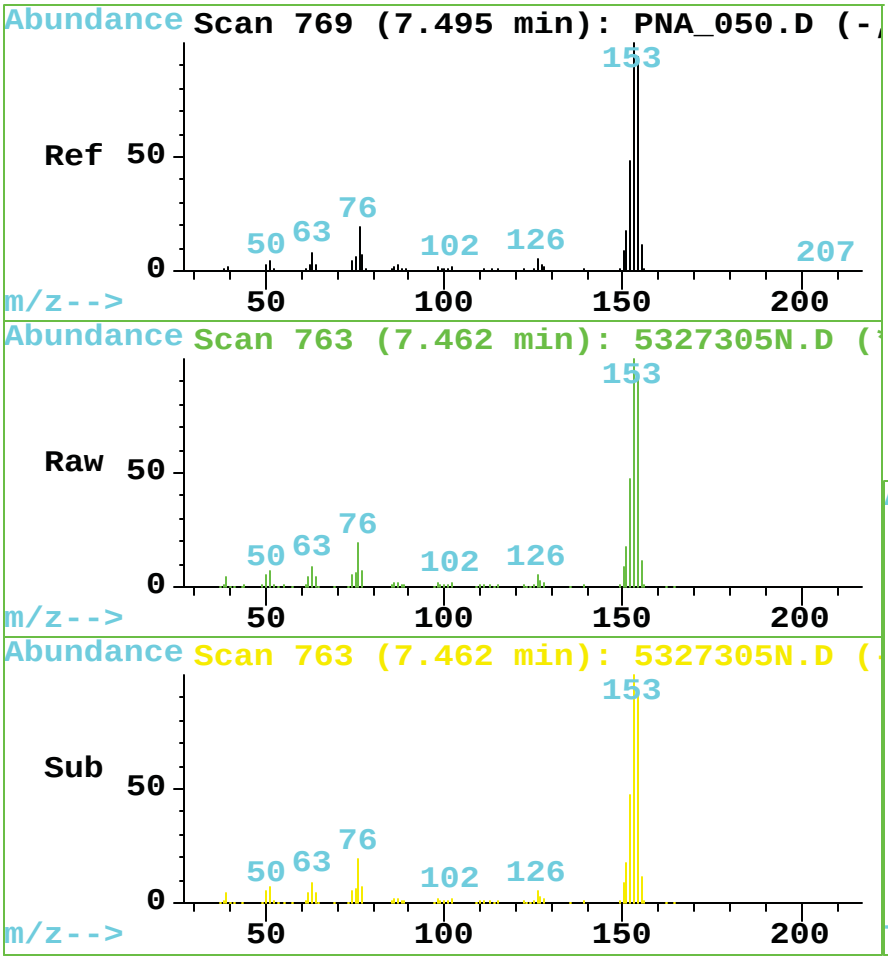


#9
Acenaphthylene
Concen: 5.43 ng/ul
RT: 7.31 min Scan# 735
Delta R.T. -0.02 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:152 Resp: 36764

Ion	Ratio	Lower	Upper
152	100		
151	19.9	0.0	50.1
150	14.2	0.0	44.4
0	0.0	0.0	0.0

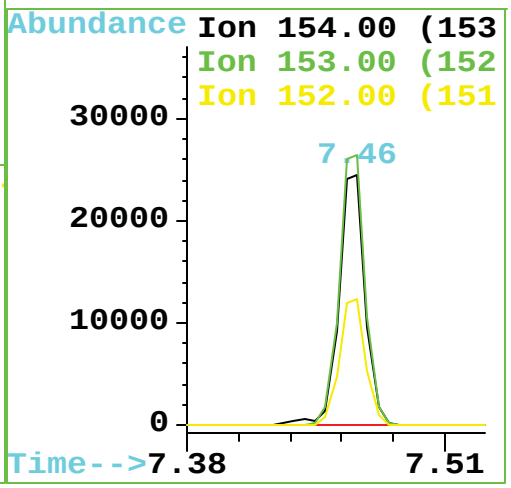


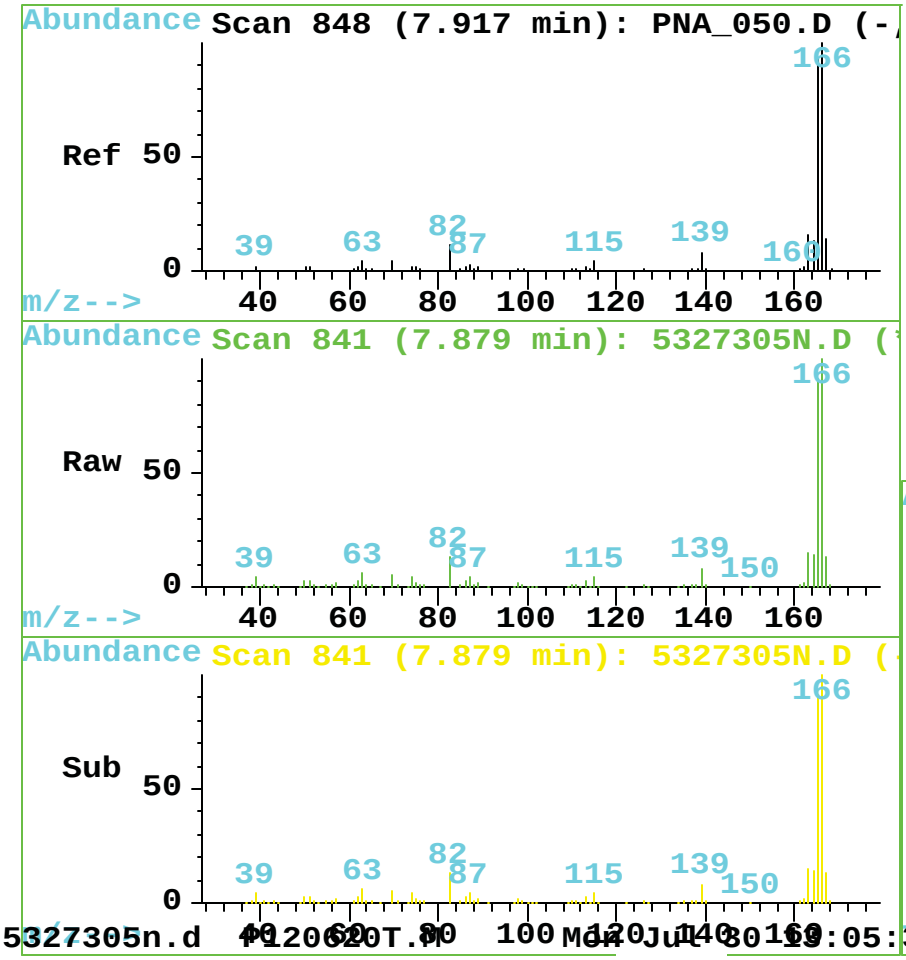


#10
Acenaphthene **
Concen: 5.74 ng/ul
RT: 7.46 min Scan# 763
Delta R.T. -0.02 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:154 Resp: 23216

Ion	Ratio	Lower	Upper
154	100		
153	106.2	76.9	136.9
152	50.0	26.1	76.1
0	0.0	0.0	0.0

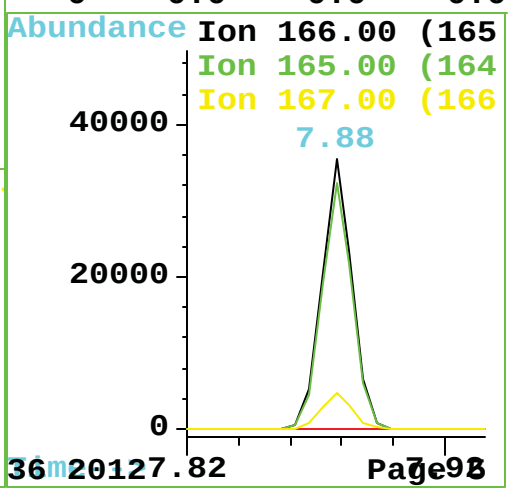


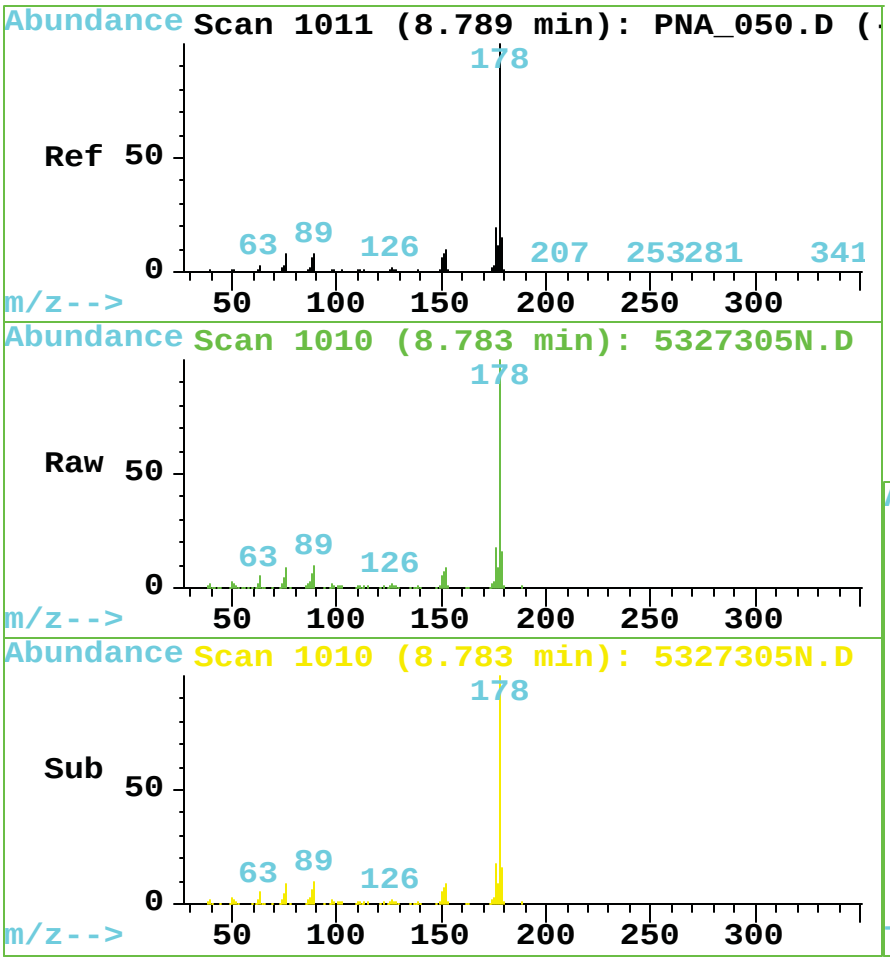


#11
Fluorene
Concen: 5.70 ng/ul
RT: 7.88 min Scan# 841
Delta R.T. -0.02 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:166 Resp: 29761

Ion	Ratio	Lower	Upper
166	100		
165	92.3	63.1	123.1
167	13.5	0.0	43.4
0	0.0	0.0	0.0

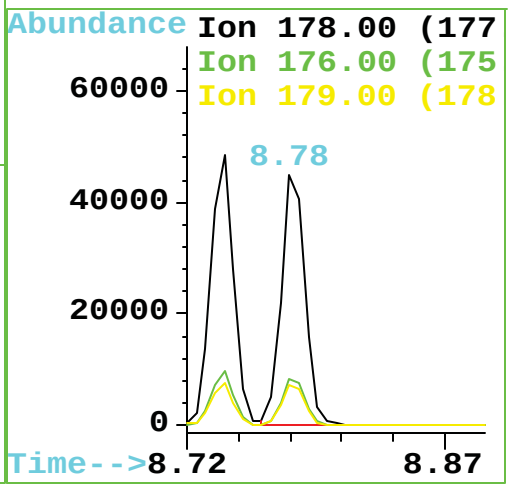


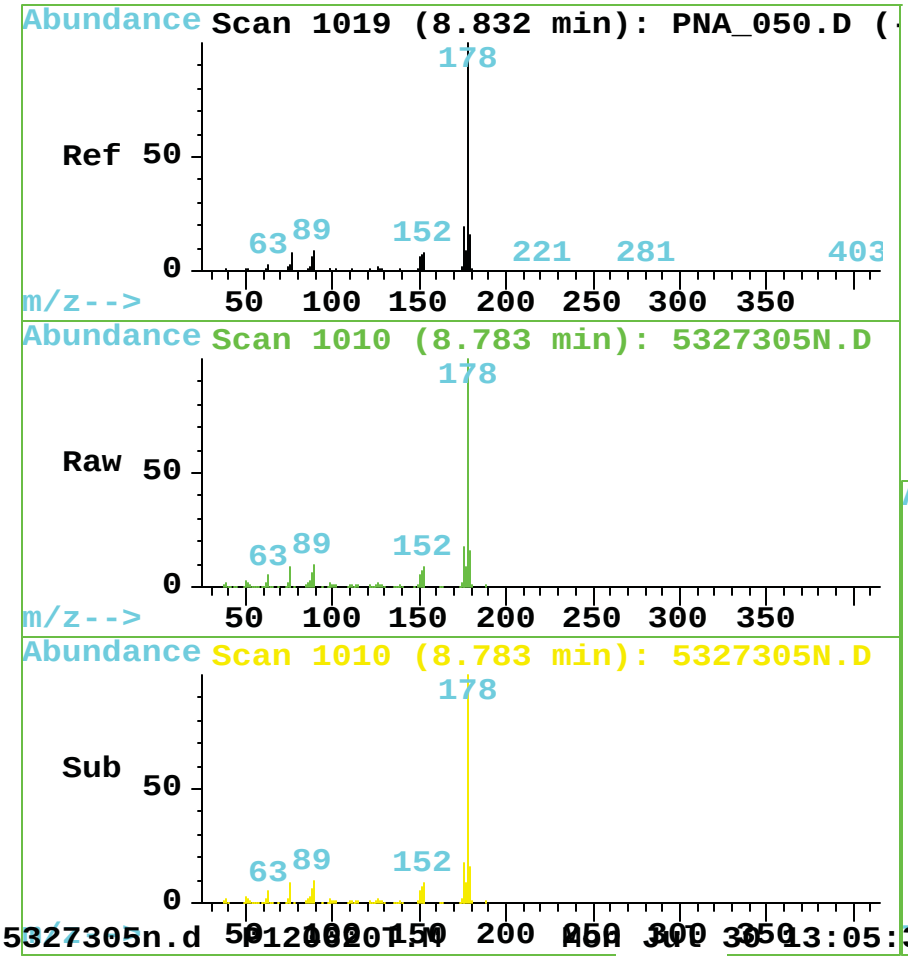


#13
Phenanthrene
Concen: 5.46 ng/ul
RT: 8.78 min Scan# 1010
Delta R.T. 0.02 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:178 Resp: 42659

Ion	Ratio	Lower	Upper
178	100		
176	18.3	0.0	49.3
179	15.7	0.0	45.3
0	0.0	0.0	0.0

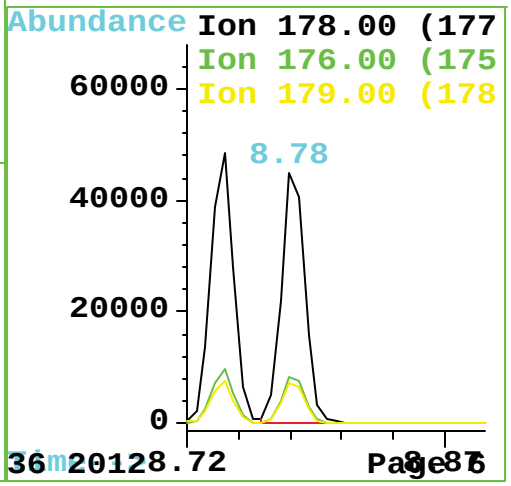


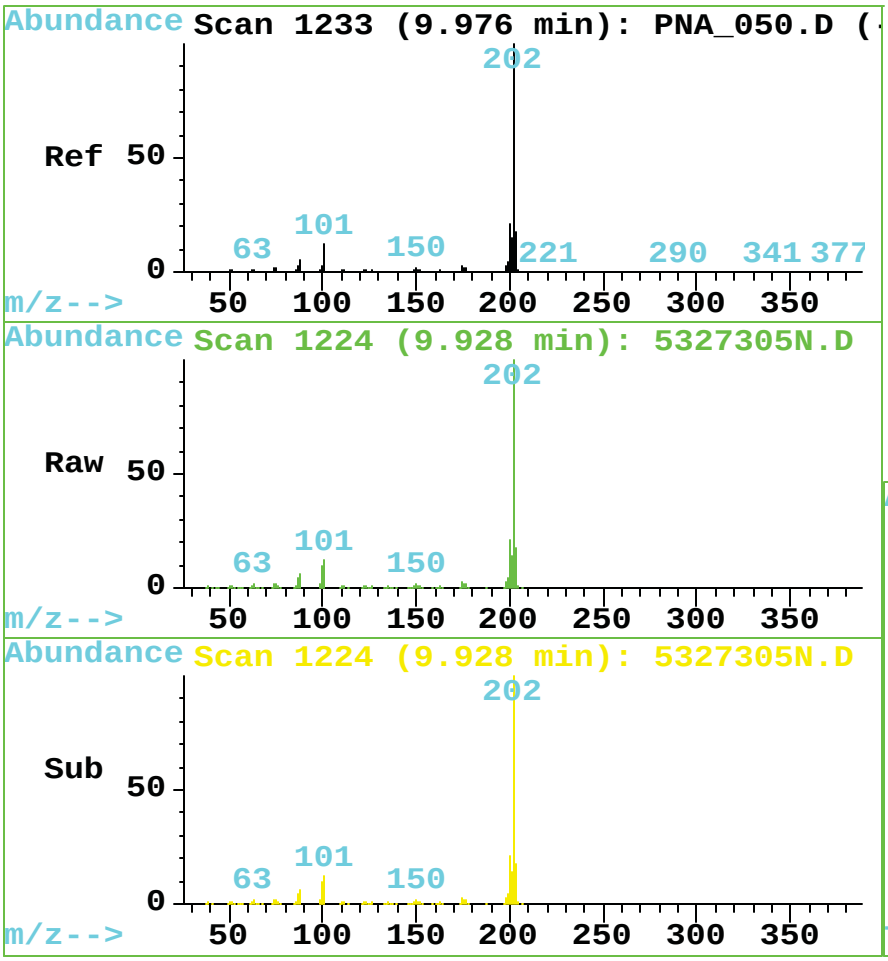


#14
Anthracene
Concen: 5.40 ng/ul
RT: 8.78 min Scan# 1010
Delta R.T. -0.03 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:178 Resp: 42659

Ion	Ratio	Lower	Upper
178	100		
176	18.3	0.0	49.0
179	15.7	0.0	45.6
0	0.0	0.0	0.0

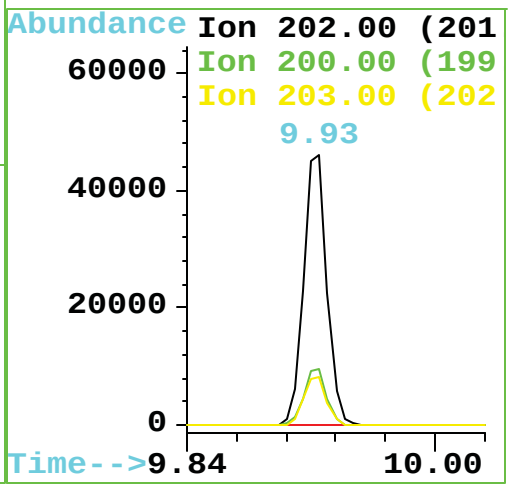


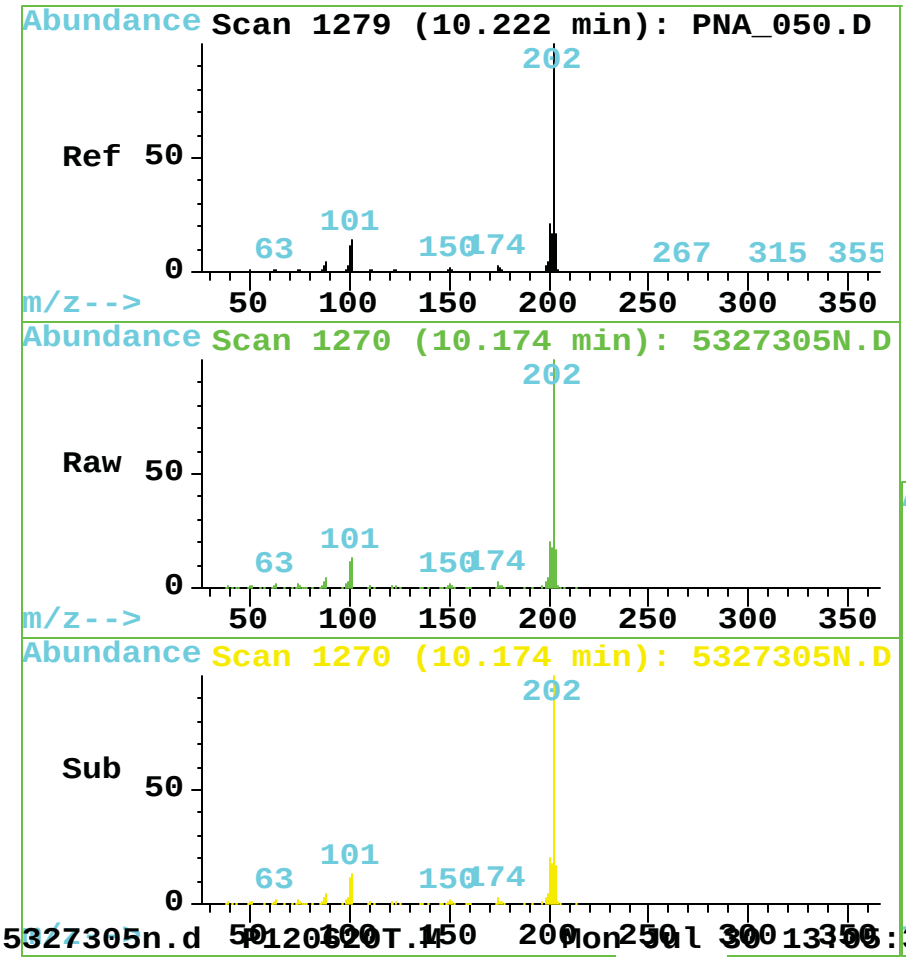


#15
Fluoranthene
Concen: 5.52 ng/ul
RT: 9.93 min Scan# 1224
Delta R.T. -0.02 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:202 Resp: 48676

Ion	Ratio	Lower	Upper
202	100		
200	20.1	0.0	50.9
203	17.7	0.0	47.6
0	0.0	0.0	0.0

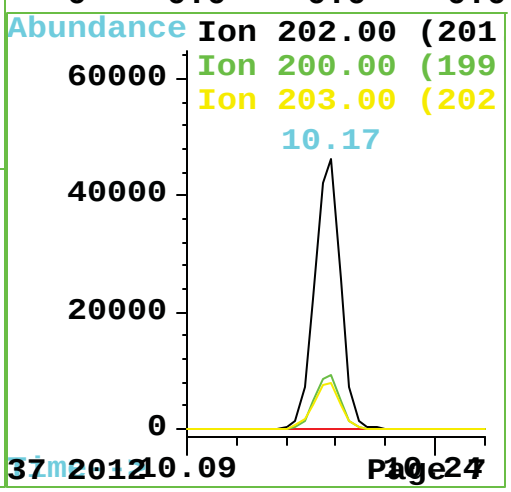


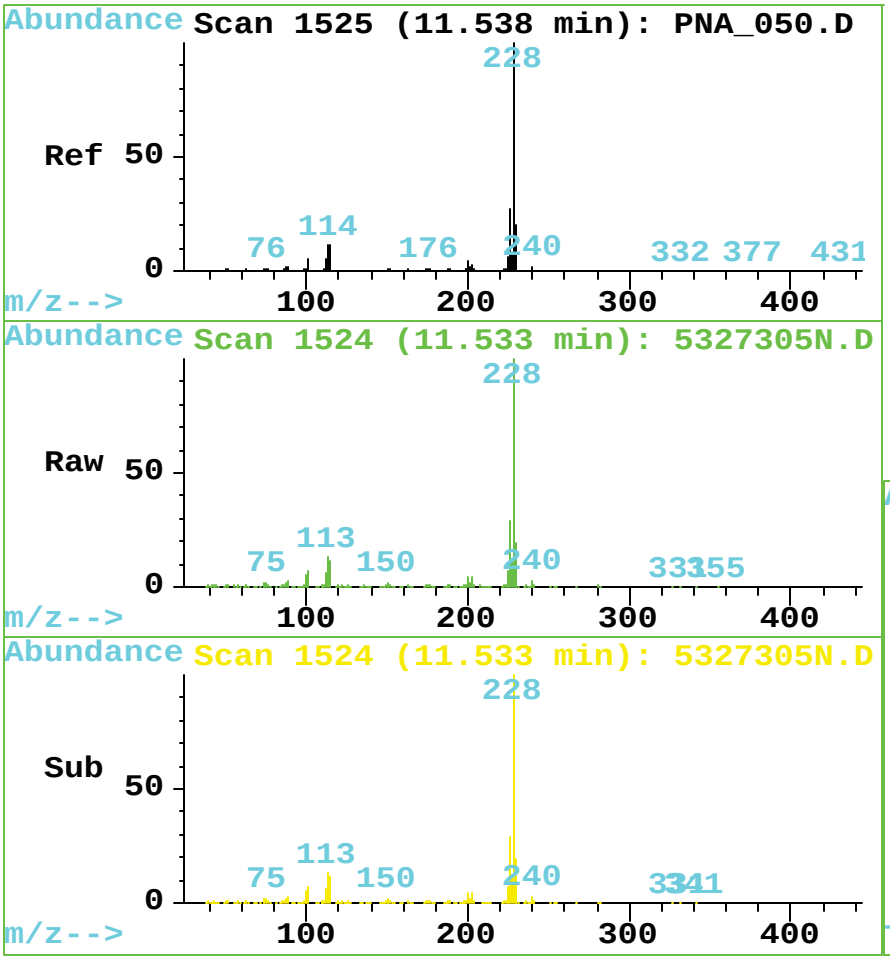


#18
Pyrene **
Concen: 6.12 ng/ul
RT: 10.17 min Scan# 1270
Delta R.T. -0.02 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:202 Resp: 49499

Ion	Ratio	Lower	Upper
202	100		
200	19.9	0.0	51.0
203	18.2	0.0	47.7
0	0.0	0.0	0.0

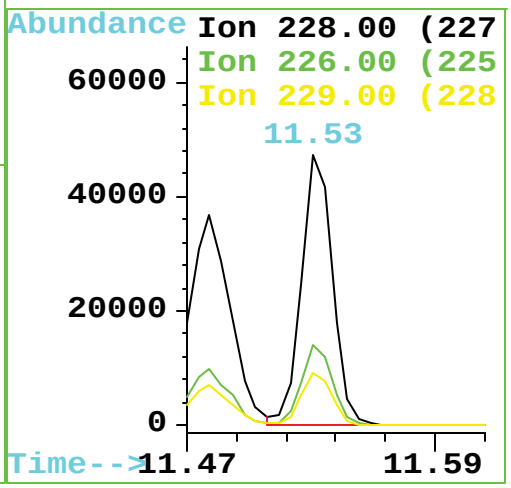


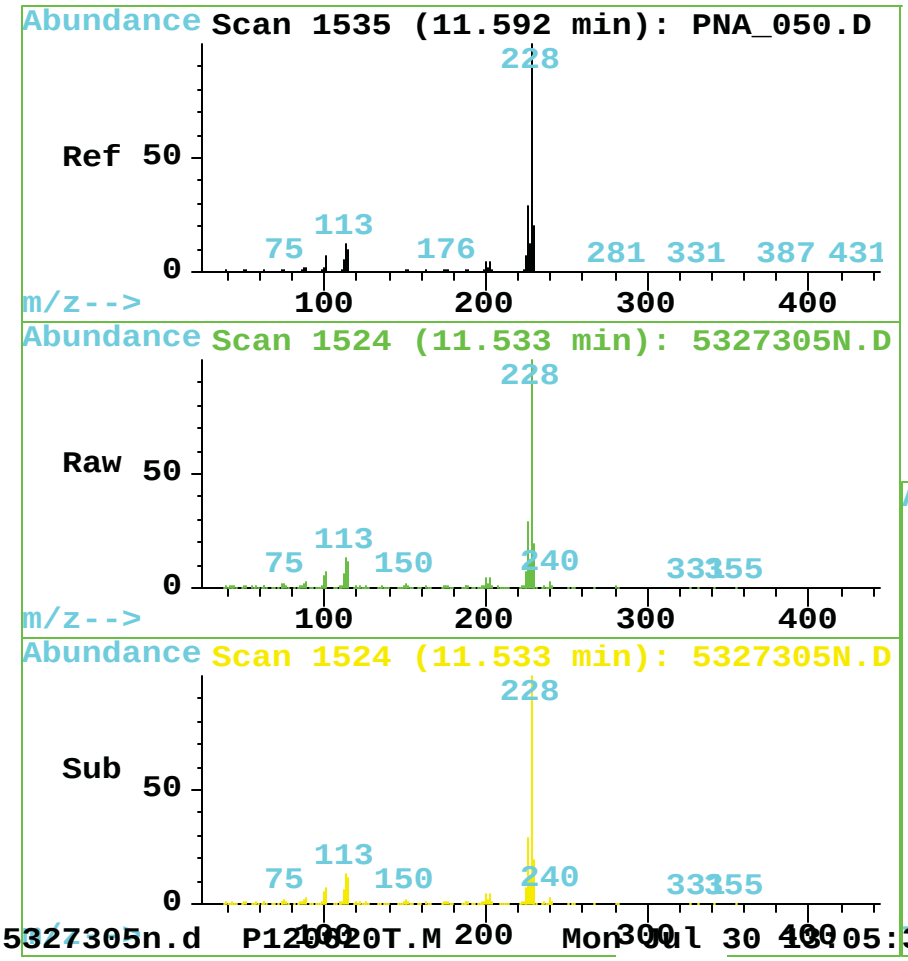


#19
Benzo(a)anthracene
Concen: 5.78 ng/ul
RT: 11.53 min Scan# 1524
Delta R.T. 0.02 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:228 Resp: 47119

Ion	Ratio	Lower	Upper
228	100		
226	29.4	0.0	57.0
229	19.2	0.0	49.7
0	0.0	0.0	0.0

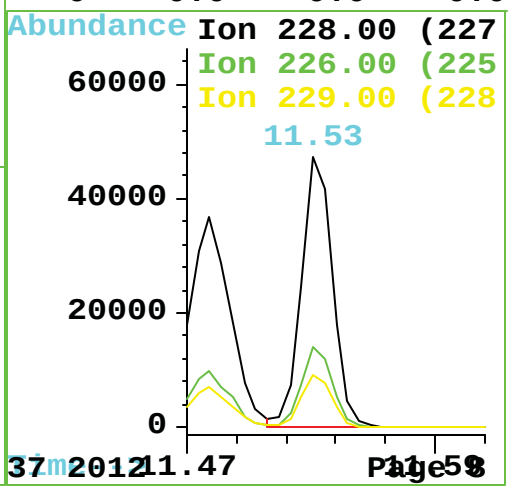


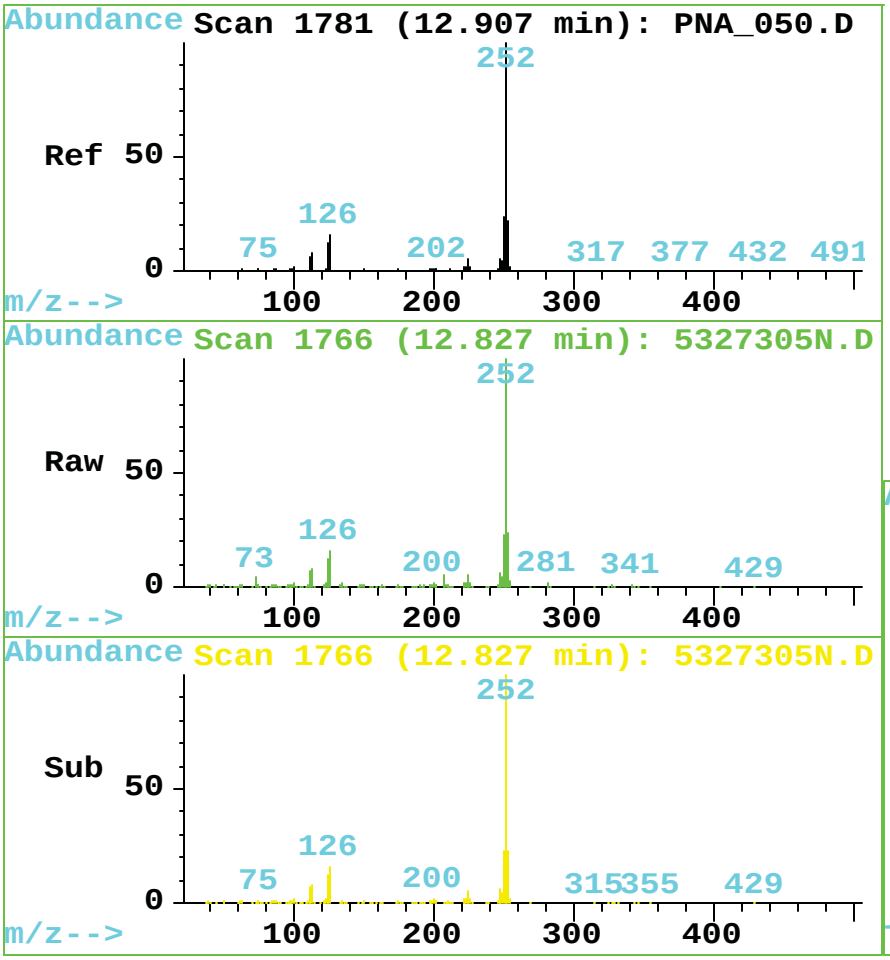


#20
Chrysene
Concen: 5.88 ng/ul
RT: 11.53 min Scan# 1524
Delta R.T. -0.03 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:228 Resp: 47119

Ion	Ratio	Lower	Upper
228	100		
226	29.4	0.0	59.5
229	19.2	0.0	49.6
0	0.0	0.0	0.0

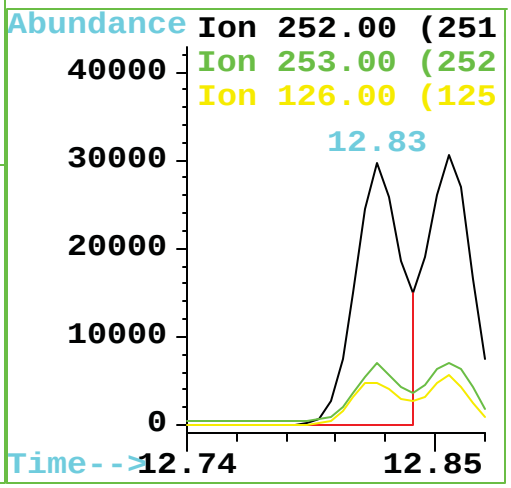


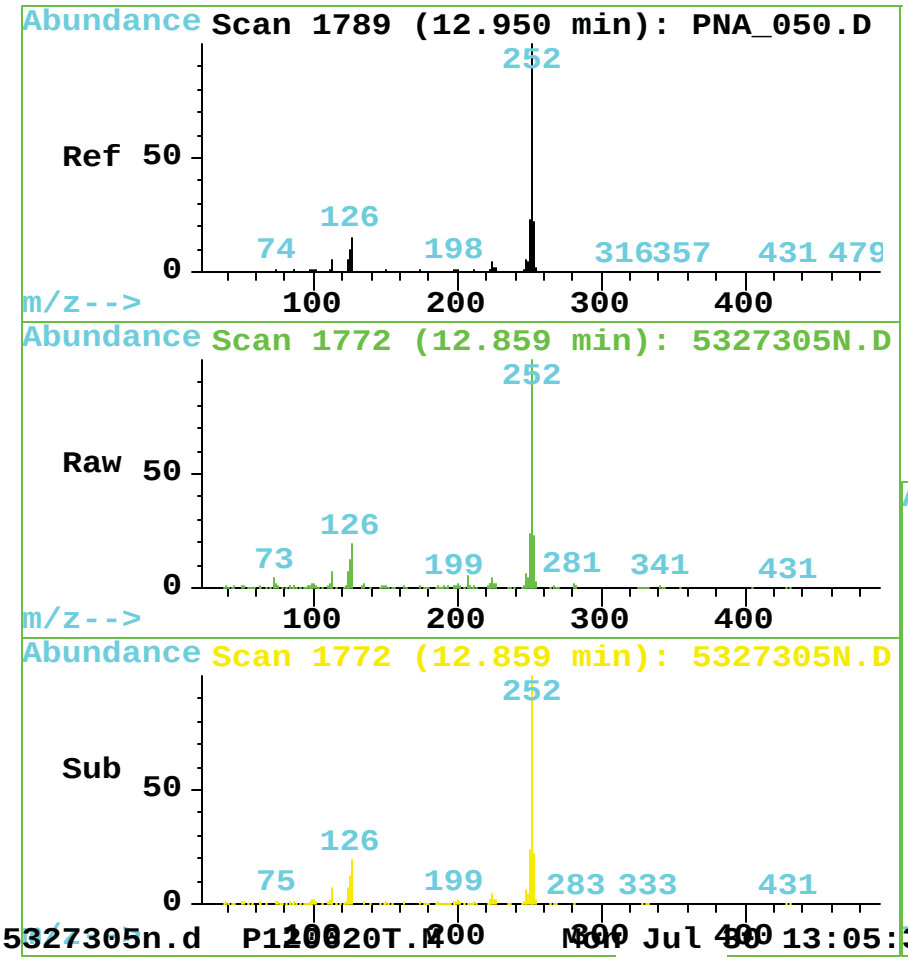


#22
Benzo(b)fluoranthene
Concen: 6.32 ng/ul m
RT: 12.83 min Scan# 1766
Delta R.T. -0.03 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:252 Resp: 44778

Ion	Ratio	Lower	Upper
252	100		
253	23.9	0.0	52.1
126	16.0	0.0	45.1
0	0.0	0.0	0.0

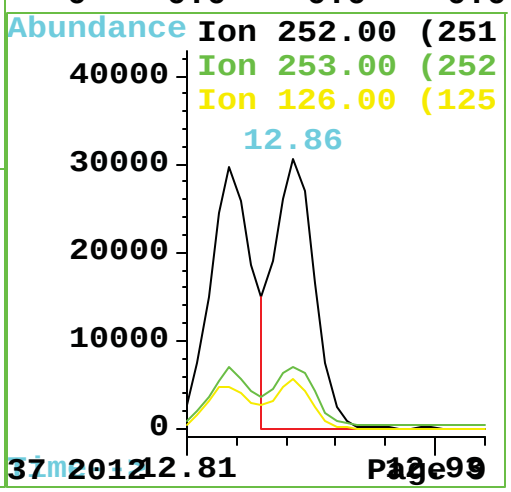


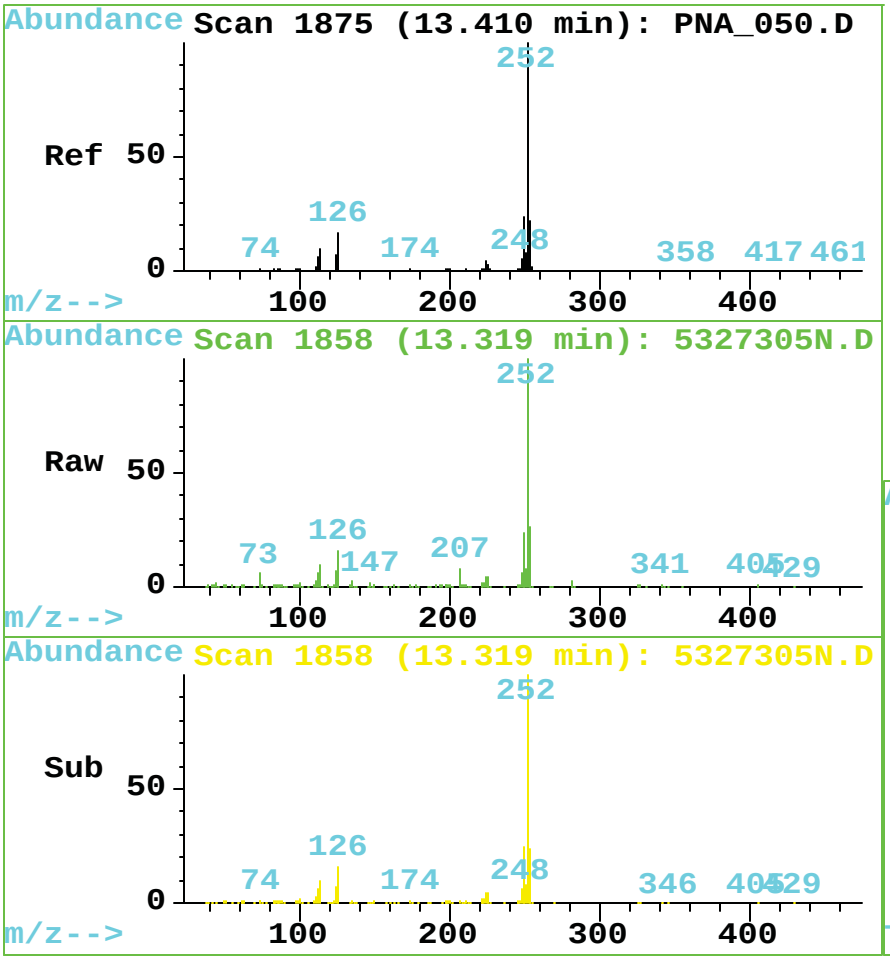


#23
Benzo(k)fluoranthene
Concen: 6.41 ng/ul
RT: 12.86 min Scan# 1772
Delta R.T. -0.04 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:252 Resp: 41778

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	51.9
126	17.0	0.0	46.4
0	0.0	0.0	0.0

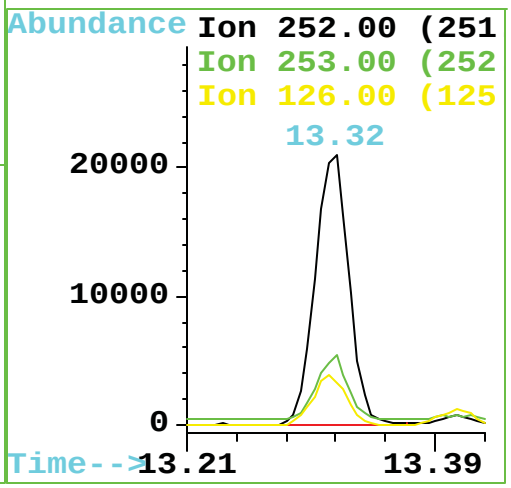


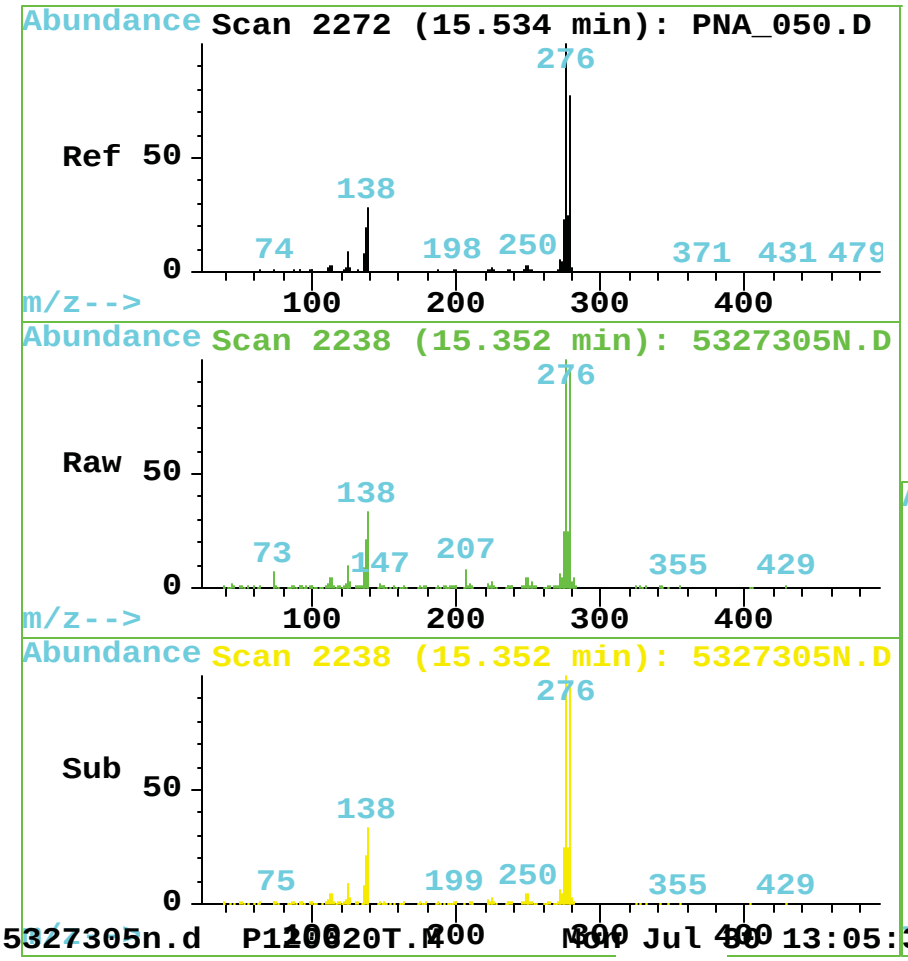


#24
Benzo(a)pyrene
Concen: 6.24 ng/ul
RT: 13.32 min Scan# 1858
Delta R.T. -0.04 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:252 Resp: 36978

Ion	Ratio	Lower	Upper
252	100		
253	22.5	0.0	52.0
126	18.1	0.0	47.3
0	0.0	0.0	0.0

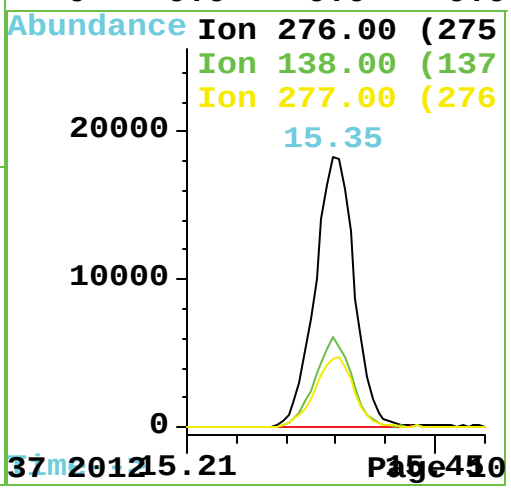


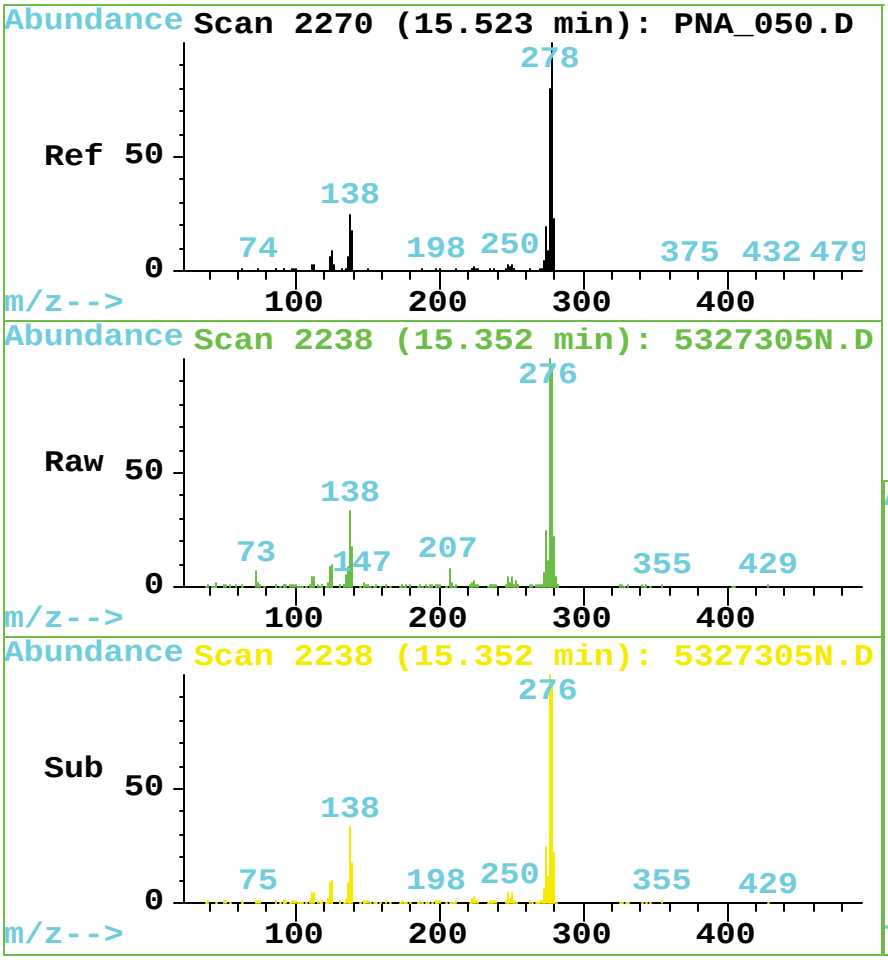


#25
Indeno(1,2,3-cd)pyrene
Concen: 5.94 ng/ul
RT: 15.35 min Scan# 2238
Delta R.T. -0.13 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:276 Resp: 47259

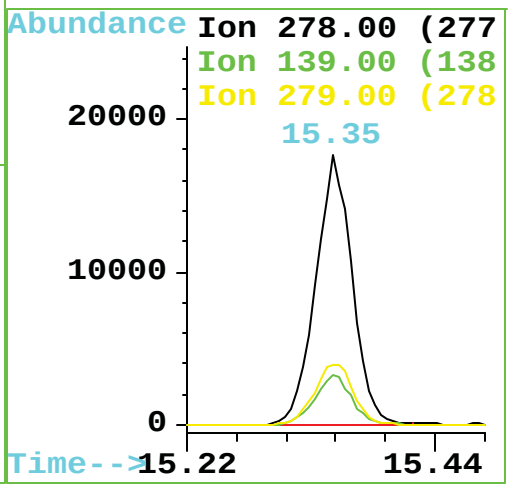
Ion	Ratio	Lower	Upper
276	100		
138	31.1	0.0	57.7
277	25.4	5.1	45.1
0	0.0	0.0	0.0

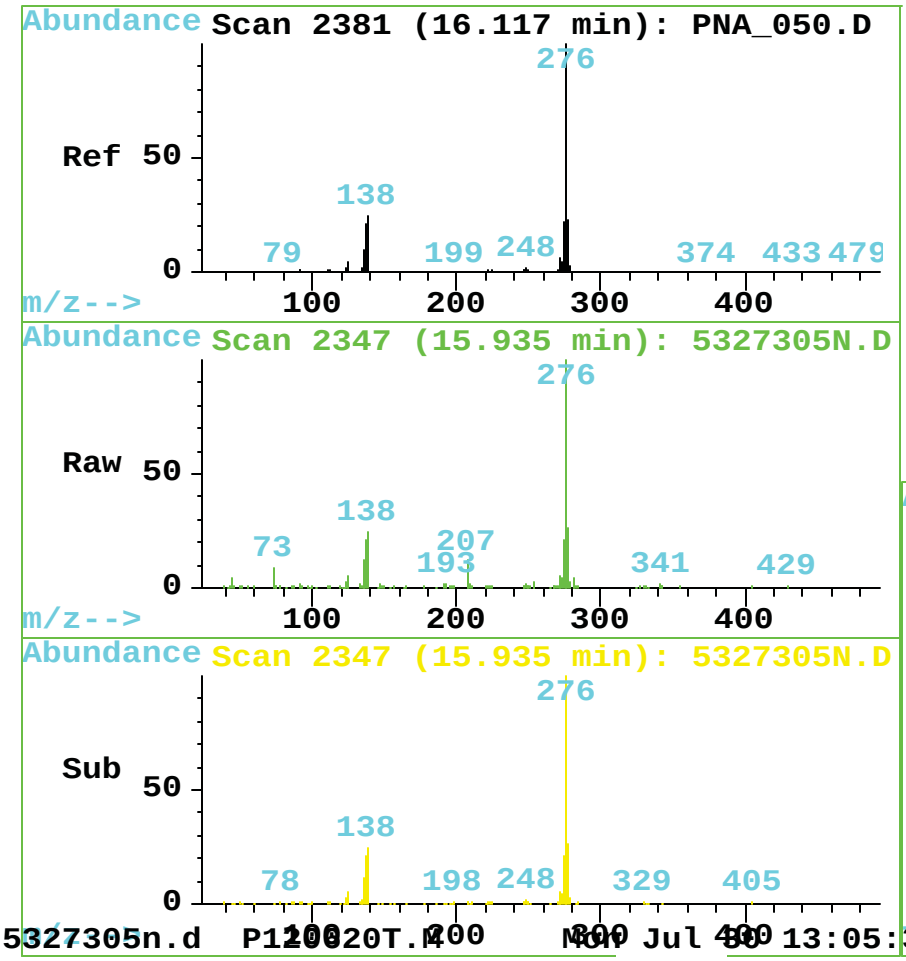




#26
Dibenzo(ah)anthracene
Concen: 5.90 ng/ul
RT: 15.35 min Scan# 2238
Delta R.T. -0.12 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

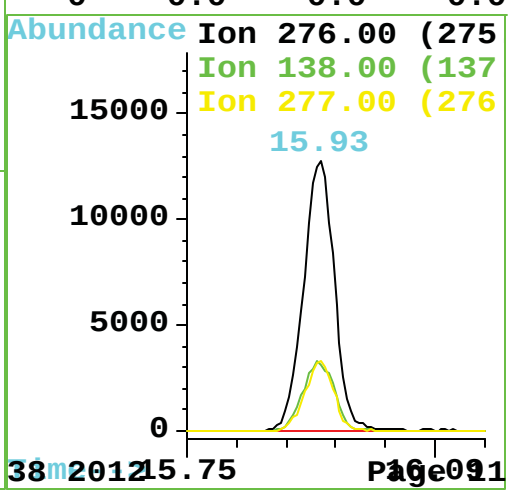
Tgt Ion:278	Resp:	39756	
Ion	Ratio	Lower	Upper
278	100		
139	19.1	0.0	48.9
279	24.6	8.4	38.4
0	0.0	0.0	0.0





#27
Benzo(ghi)perylene
Concen: 5.87 ng/ul
RT: 15.93 min Scan# 2347
Delta R.T. -0.12 min
Lab File: 5327305n.d
Acq: 27 Jul 12 2:10 pm

Tgt Ion:276	Resp:	37726	
Ion	Ratio	Lower	Upper
276	100		
138	26.3	0.0	55.4
277	24.1	3.5	43.5
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327306.d Vial: 10
Acq On : 27 Jul 12 2:33 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

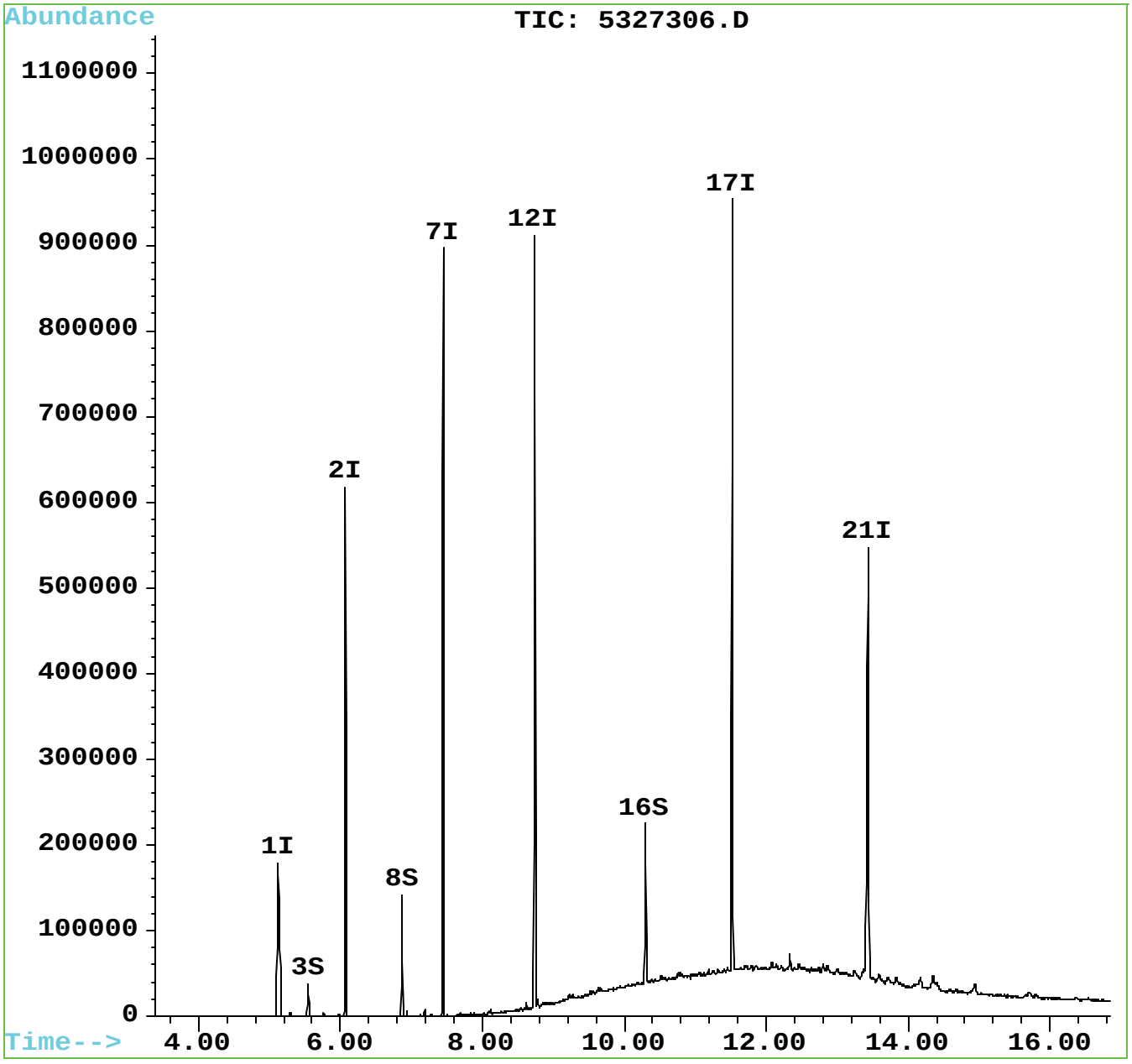
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	60912	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	287069	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	174885	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	319393	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	367428	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	308594	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	14921	69.48	ng/ul	69.4
8) 2-Fluorobiphenyl	6.87	172	38374	71.61	ng/ul	71.6
16) Terphenyl-D14	10.30	244	55465	81.77	ng/ul	81.7
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327306.d Vial: 10
Acq On : 27 Jul 12 2:33 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327307.d Vial: 11
Acq On : 27 Jul 12 2:55 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

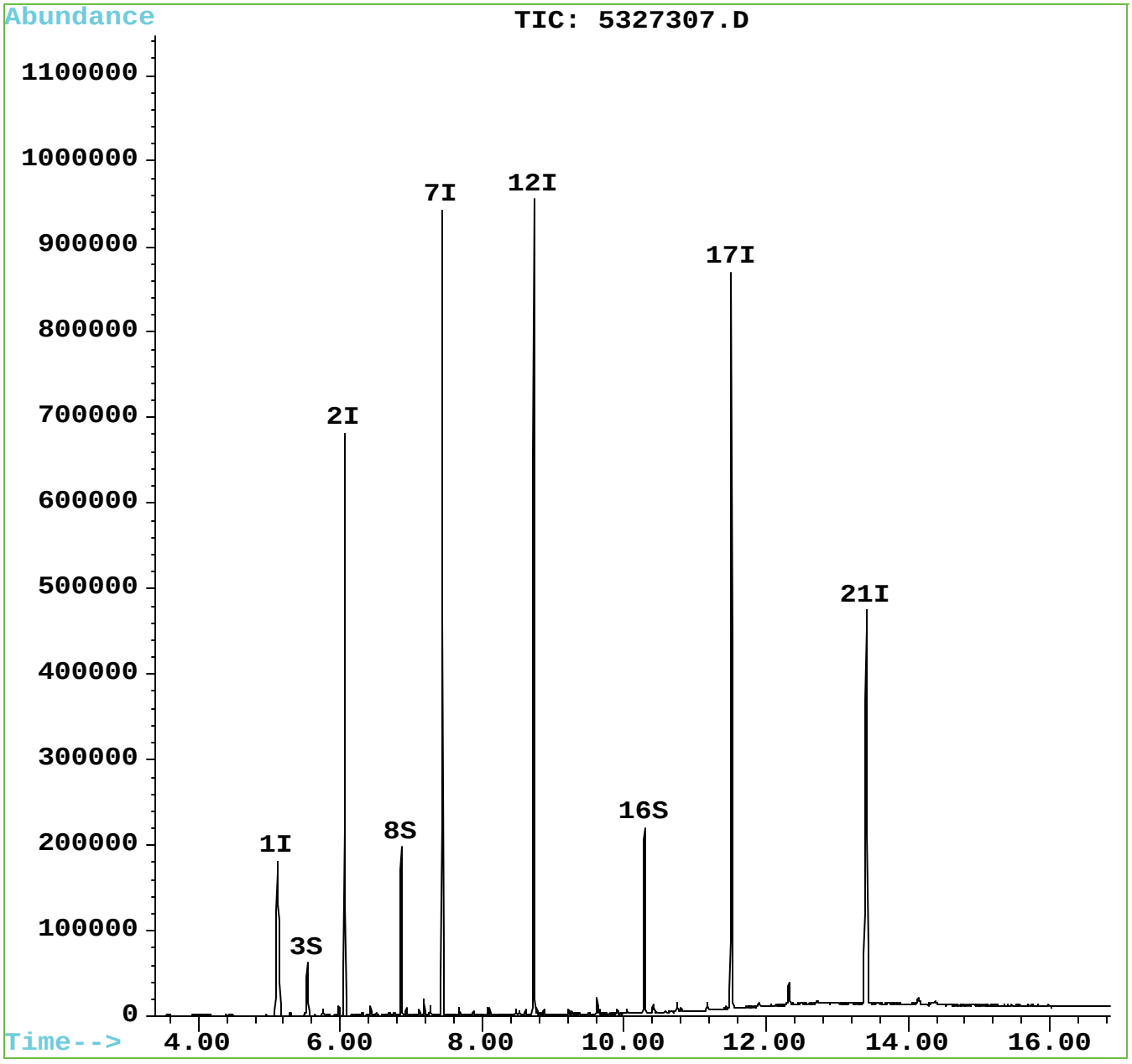
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	64819	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	303956	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	184769	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	327730	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	359629	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	293353	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	26304	115.68	ng/ul	115.6
8) 2-Fluorobiphenyl	6.86	172	52228	92.25	ng/ul	92.2
16) Terphenyl-D14	10.29	244	69318	99.59	ng/ul	99.5
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327307.d Vial: 11
Acq On : 27 Jul 12 2:55 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327308.d Vial: 12
Acq On : 27 Jul 12 3:18 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

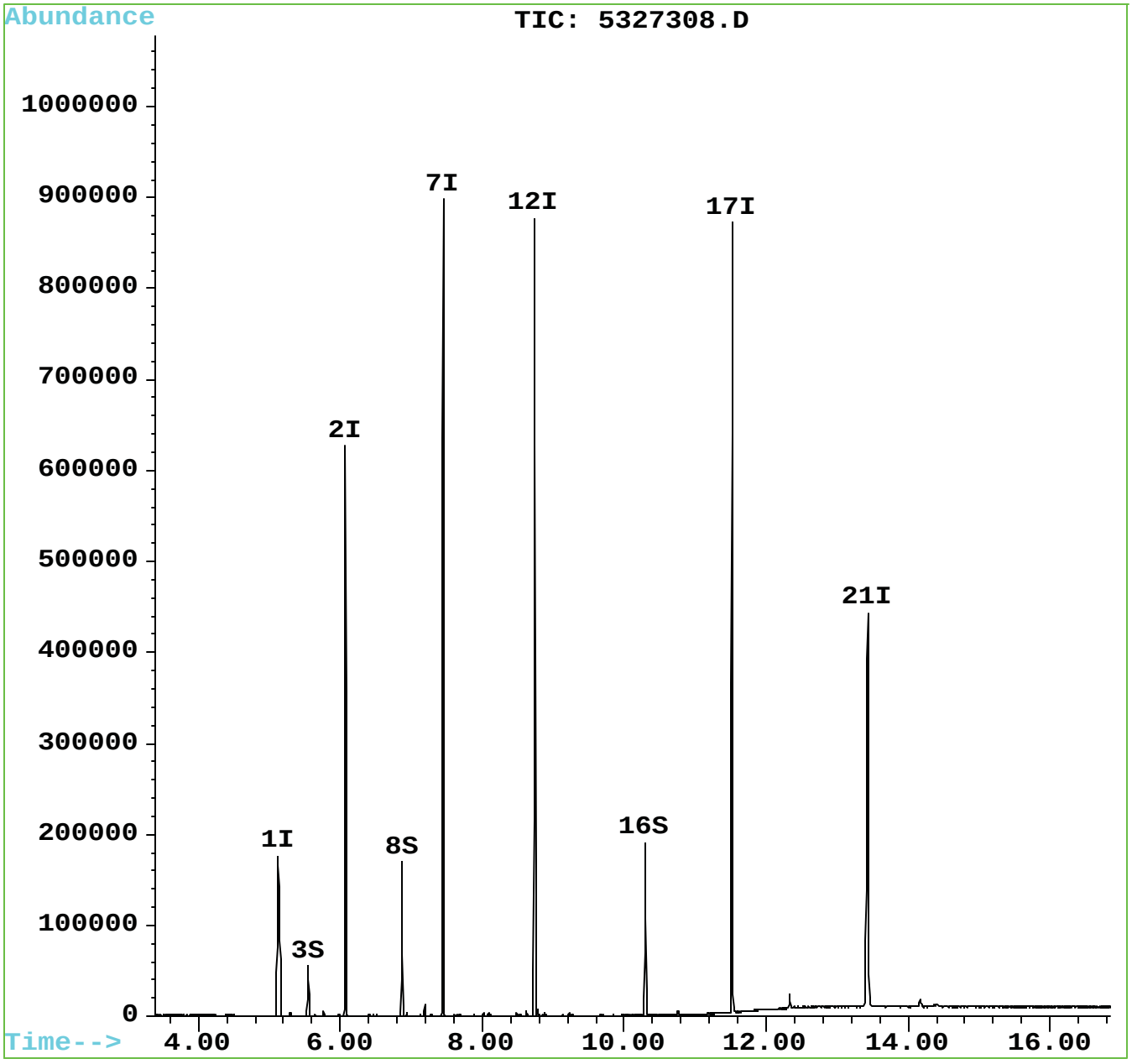
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	62204	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	288511	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	173600	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	309001	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	334213	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	278830	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	23046	106.78	ng/ul	106.7
8) 2-Fluorobiphenyl	6.87	172	44493	83.64	ng/ul	83.6
16) Terphenyl-D14	10.30	244	58940	89.81	ng/ul	89.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327308.d Vial: 12
Acq On : 27 Jul 12 3:18 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327309.d Vial: 13
Acq On : 27 Jul 12 3:41 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

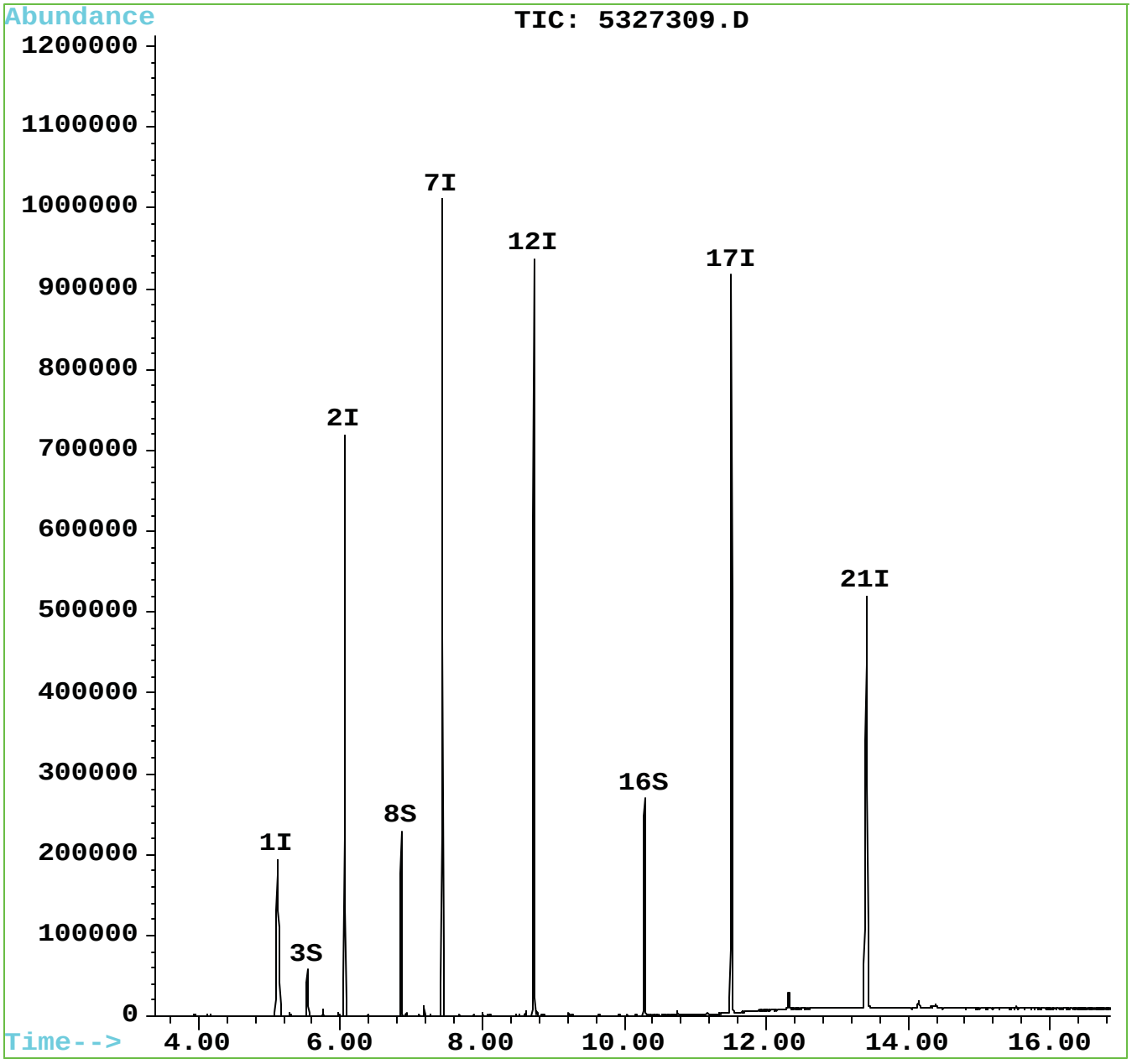
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	67191	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	318557	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	193574	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	341379	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	376525	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	316669	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	24313	102.02	ng/ul	102.0
8) 2-Fluorobiphenyl	6.86	172	61913	104.38	ng/ul	104.3
16) Terphenyl-D14	10.29	244	85755	118.28	ng/ul	118.2
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327309.d Vial: 13
Acq On : 27 Jul 12 3:41 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327310.d Vial: 14
Acq On : 27 Jul 12 4:03 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

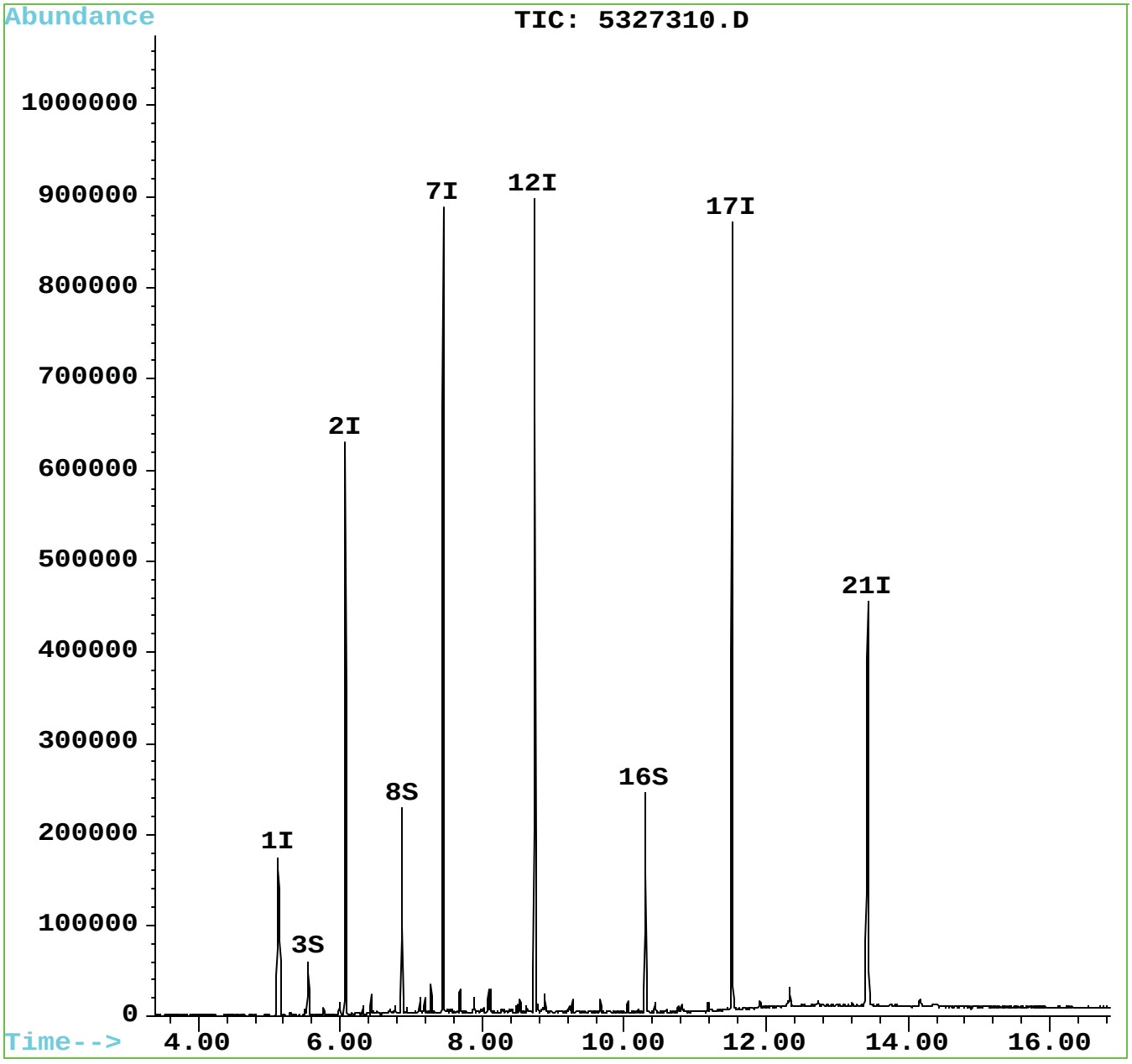
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	60144	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	281322	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	172102	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	312105	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	341855	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	286997	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	25215	119.81	ng/ul	119.8
8) 2-Fluorobiphenyl	6.87	172	58367	110.68	ng/ul	110.6
16) Terphenyl-D14	10.30	244	76525	115.45	ng/ul	115.4
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327310.d Vial: 14
Acq On : 27 Jul 12 4:03 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:28 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327311.d Vial: 15
Acq On : 27 Jul 12 4:26 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

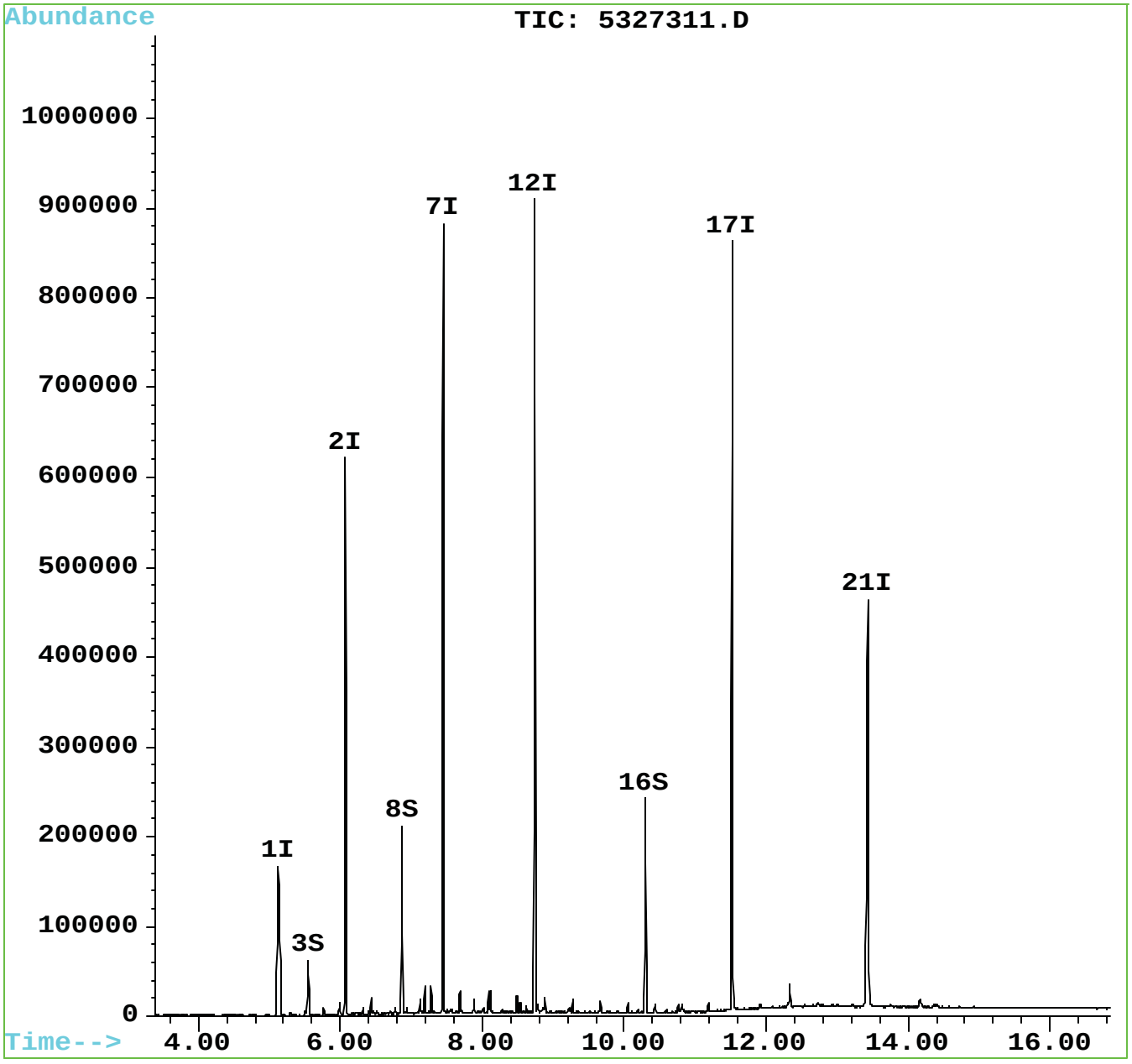
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	61070	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	286131	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	175682	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	319431	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	344513	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	286682	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	25302	118.20	ng/ul	118.2
8) 2-Fluorobiphenyl	6.87	172	55246	102.63	ng/ul	102.6
16) Terphenyl-D14	10.30	244	73072	107.71	ng/ul	107.7
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327311.d Vial: 15
Acq On : 27 Jul 12 4:26 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327312.d Vial: 16
Acq On : 27 Jul 12 4:49 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

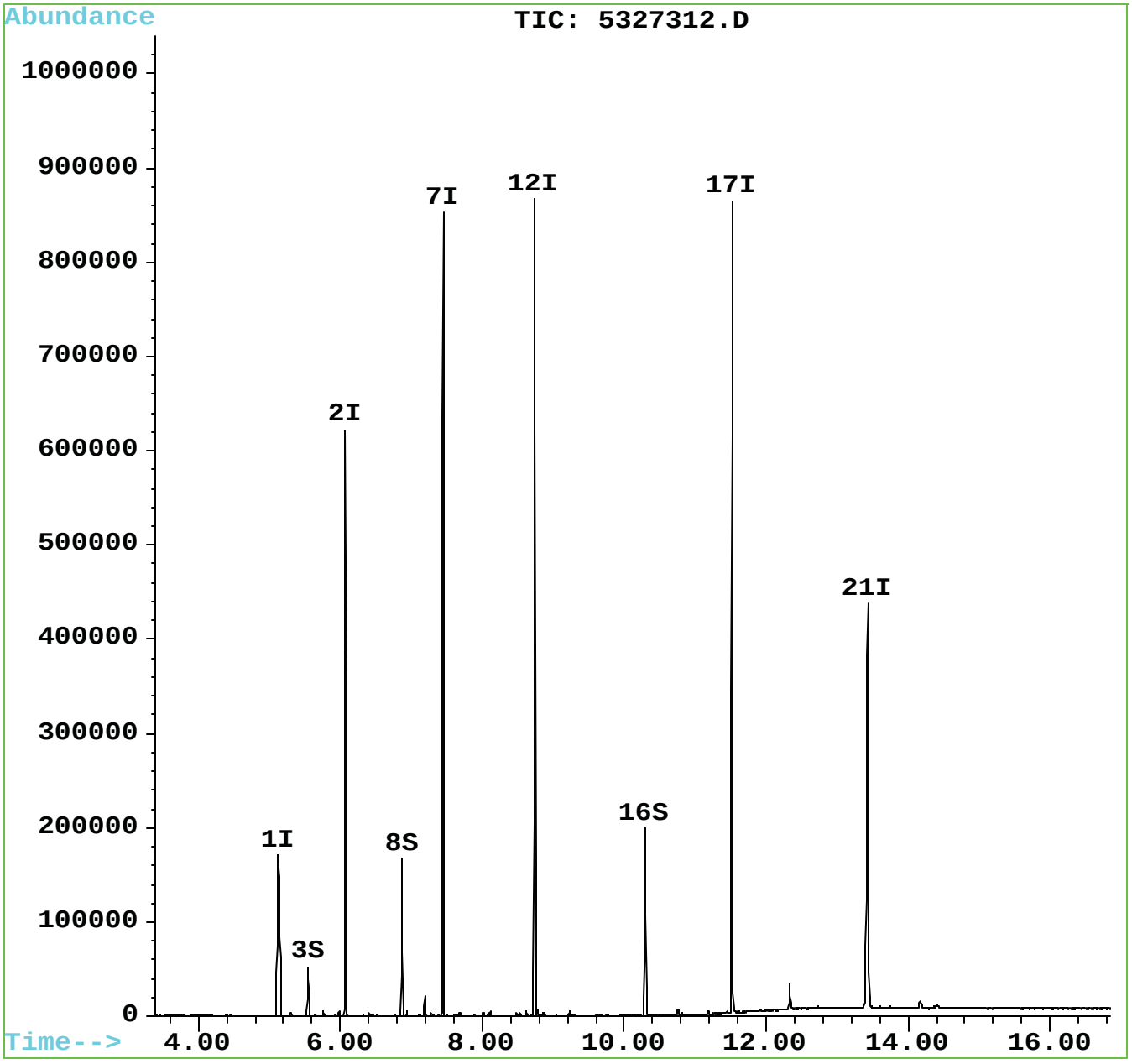
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	61064	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	281829	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	169704	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	304400	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	329711	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	278107	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	21300	101.03	ng/ul	101.0
8) 2-Fluorobiphenyl	6.87	172	44199	85.00	ng/ul	85.0
16) Terphenyl-D14	10.30	244	63401	98.07	ng/ul	98.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327312.d Vial: 16
Acq On : 27 Jul 12 4:49 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327313.d Vial: 17
Acq On : 27 Jul 12 5:11 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

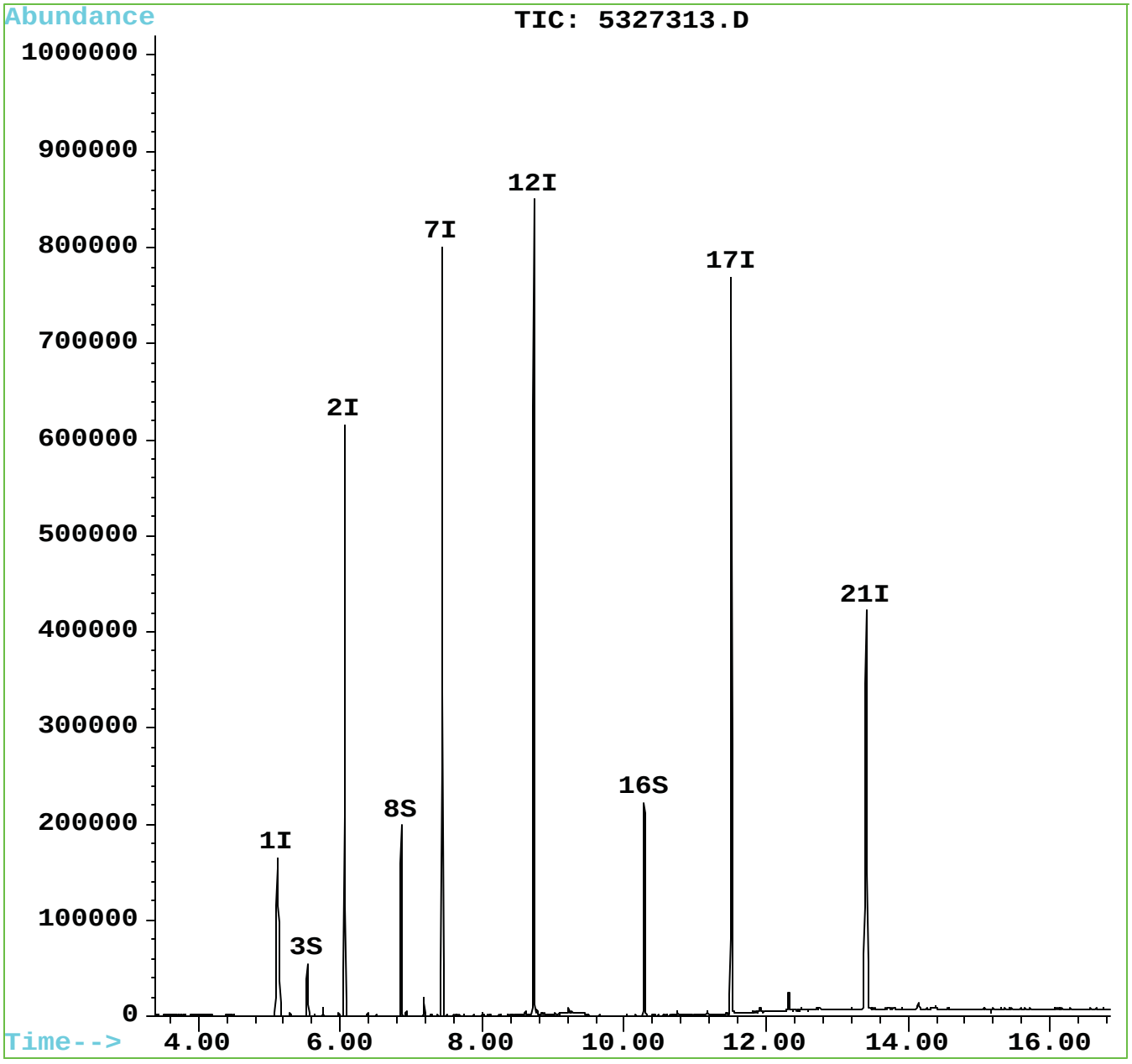
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	58871	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	275847	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	166532	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	291130	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	309346	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	265133	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	22451	108.80	ng/ul	108.8
8) 2-Fluorobiphenyl	6.86	172	52213	102.32	ng/ul	102.3
16) Terphenyl-D14	10.29	244	71790	116.11	ng/ul	116.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327313.d Vial: 17
Acq On : 27 Jul 12 5:11 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327314.d Vial: 18
Acq On : 27 Jul 12 5:57 pm Operator: PL
Sample : pna-s 30g/3ml df:40 Inst : Tempest
Misc : sd/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

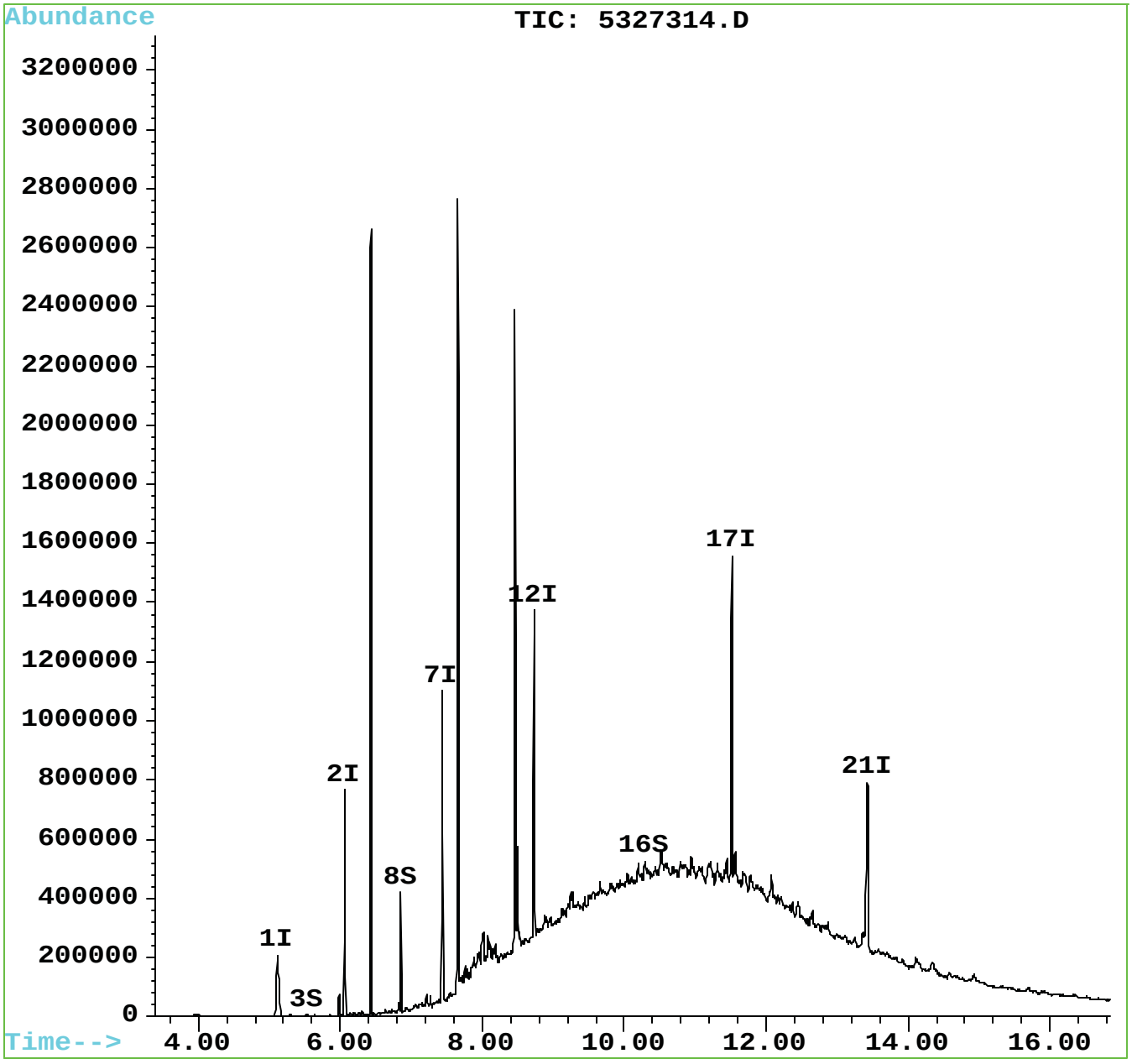
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	72234	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	341353	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	213445	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.73	188	400006	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	442334	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	335455	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	1703	6.67	ng/ul	6.6
8) 2-Fluorobiphenyl	6.86	172	4128	6.31	ng/ul	6.3
16) Terphenyl-D14	10.29	244	5646	6.65	ng/ul	6.6
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327314.d Vial: 18
Acq On : 27 Jul 12 5:57 pm Operator: PL
Sample : pna-s 30g/3ml df:40 Inst : Tempest
Misc : sd/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327315.d Vial: 19
Acq On : 27 Jul 12 5:34 pm Operator: PL
Sample : pna-s 30g/2ml df:60 Inst : Tempest
Misc : sd/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

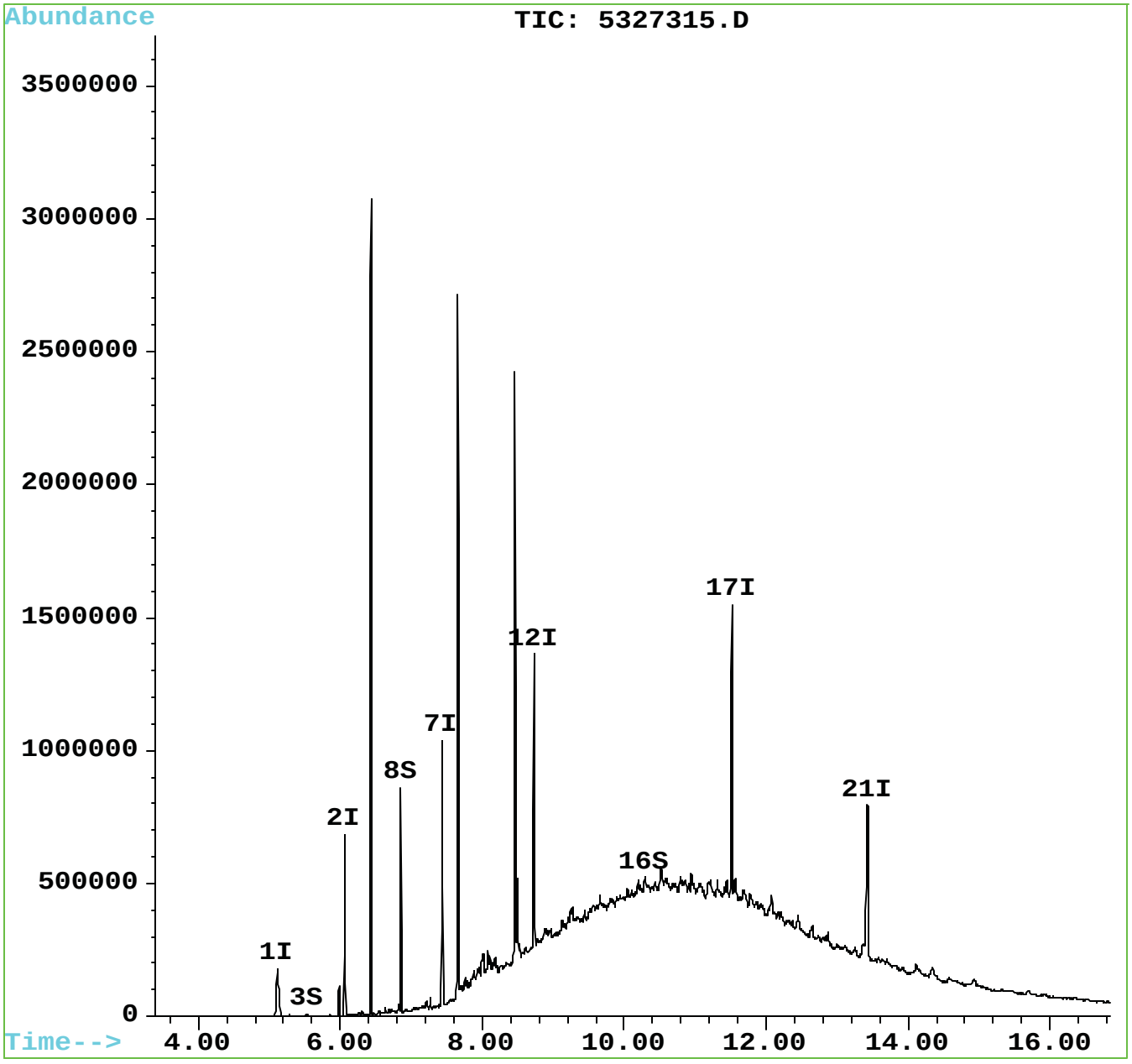
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	62526	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	303006	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	196137	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.73	188	391209	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	432903	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	343534	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	1508	6.65	ng/ul	6.6
8) 2-Fluorobiphenyl	6.86	172	4324	7.19	ng/ul	7.1
16) Terphenyl-D14	10.29	244	6032	7.26	ng/ul	7.2
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\5327315.d Vial: 19
Acq On : 27 Jul 12 5:34 pm Operator: PL
Sample : pna-s 30g/2ml df:60 Inst : Tempest
Misc : sd/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120727.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120620t.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	A	0.299	3.04	0.288	0.295	0.291	0.306	0.309	0.307				
	Naphthalene	A	0.994	2.36	1.014	0.969	0.959	1.007	1.009	1.004				
	2-Methylnaphthalene	A	0.556	3.05	0.542	0.540	0.541	0.568	0.575	0.572				
	1-Methylnaphthalene	A	0.648	3.33	0.626	0.628	0.632	0.659	0.673	0.669				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.226	4.08	1.179	1.179	1.184	1.265	1.286	1.261				
	Acenaphthylene	A	1.639	7.00	1.432	1.610	1.621	1.711	1.734	1.726				
	Acenaphthene **	A	0.978	3.73	0.937	0.953	0.948	1.007	1.024	1.000				
	Fluorene	A	1.263	4.43	1.187	1.220	1.237	1.304	1.324	1.307				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	A	1.047	3.62	1.100	1.002	1.006	1.047	1.072	1.053				
	Anthracene	A	1.057	3.26	1.024	1.025	1.035	1.065	1.108	1.083				
	Fluoranthene	A	1.179	5.74	1.081	1.132	1.151	1.228	1.243	1.241				
	Terphenyl-D14	A	0.850	7.10	0.811	0.775	0.803	0.887	0.916	0.906				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	0.980	8.44	0.819	0.981	0.985	1.026	1.045	1.024				
	Benzo(a)anthracene	A	0.988	3.92	0.975	0.939	0.956	1.000	1.041	1.019				
	Chrysene	A	0.971	5.16	0.901	0.939	0.945	0.999	1.027	1.016				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	1.046	9.60	0.869	0.990	1.076	1.110	1.140	1.092				
	Benzo(k)fluoranthene	A	0.963	10.65	0.835	0.872	0.916	1.030	1.030	1.092				
	Benzo(a)pyrene	A	0.876	7.14	0.792	0.811	0.867	0.919	0.937	0.927				
	Indeno(1,2,3-cd)pyrene	A	1.175	10.15	0.969	1.106	1.184	1.256	1.267	1.269				
	Dibenzo(ah)anthracene	A	0.996	11.49	0.797	0.924	1.018	1.076	1.082	1.076				
	Benzo(ghi)perylene	A	0.950	4.75	0.889	0.904	0.944	0.986	0.993	0.984				

Calibration Date: 62/0t/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120620t.M (Mean %RSD: 5.81)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\thanatos.4\methods\p120620t.m\

Injection Time	Calibration Data File
06/20/12 14:26	d20a.d
06/20/12 14:54	pna0005.d
06/20/12 16:01	pna_020.d
06/20/12 16:23	pna_040.d
06/20/12 16:46	pna_050.d
06/20/12 17:08	pna_060.d
06/20/12 17:31	pna_080.d
06/20/12 17:53	pna_100.d

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

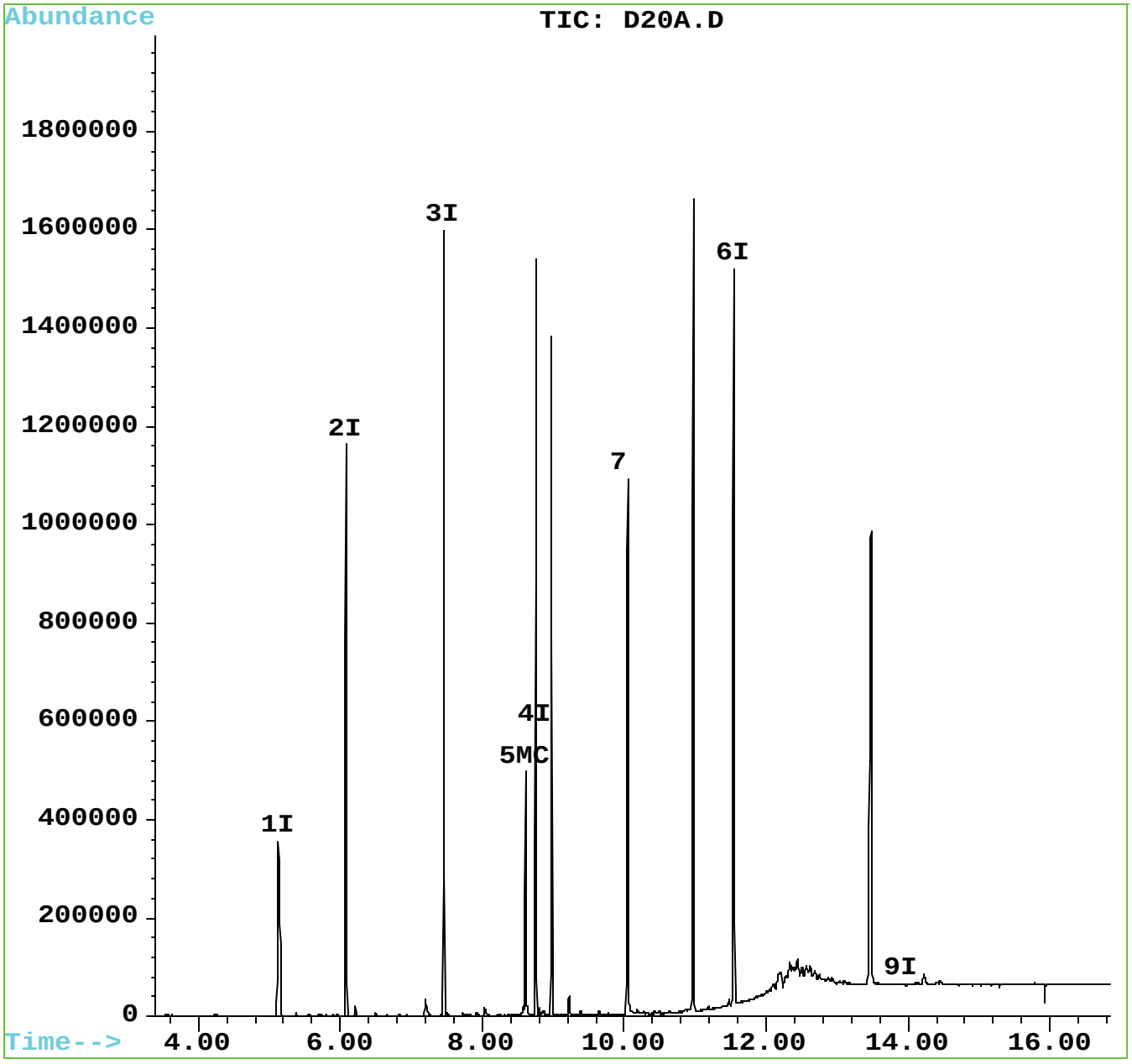
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	132678	40.00	ng/ul	-0.1
2) NAPHTHALENE-D8	6.08	136	569431	40.00	ng/ul	-0.1
3) ACENAPHTHALENE-D10	7.46	160	141248	40.00	ng/ul	-0.1
4) PHENANTHRENE-D10	8.75	188	623392	40.00	ng/ul	-0.1
6) CHRYSENE-D12	11.55	240	698034	40.00	ng/ul	-0.1
9) PERYLENE-D12	13.91	264	138	40.00	ng/ul	0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.61	266	58390	28.87	ng/ul	9
7) Benzidine	10.05	184	503493	85.56	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

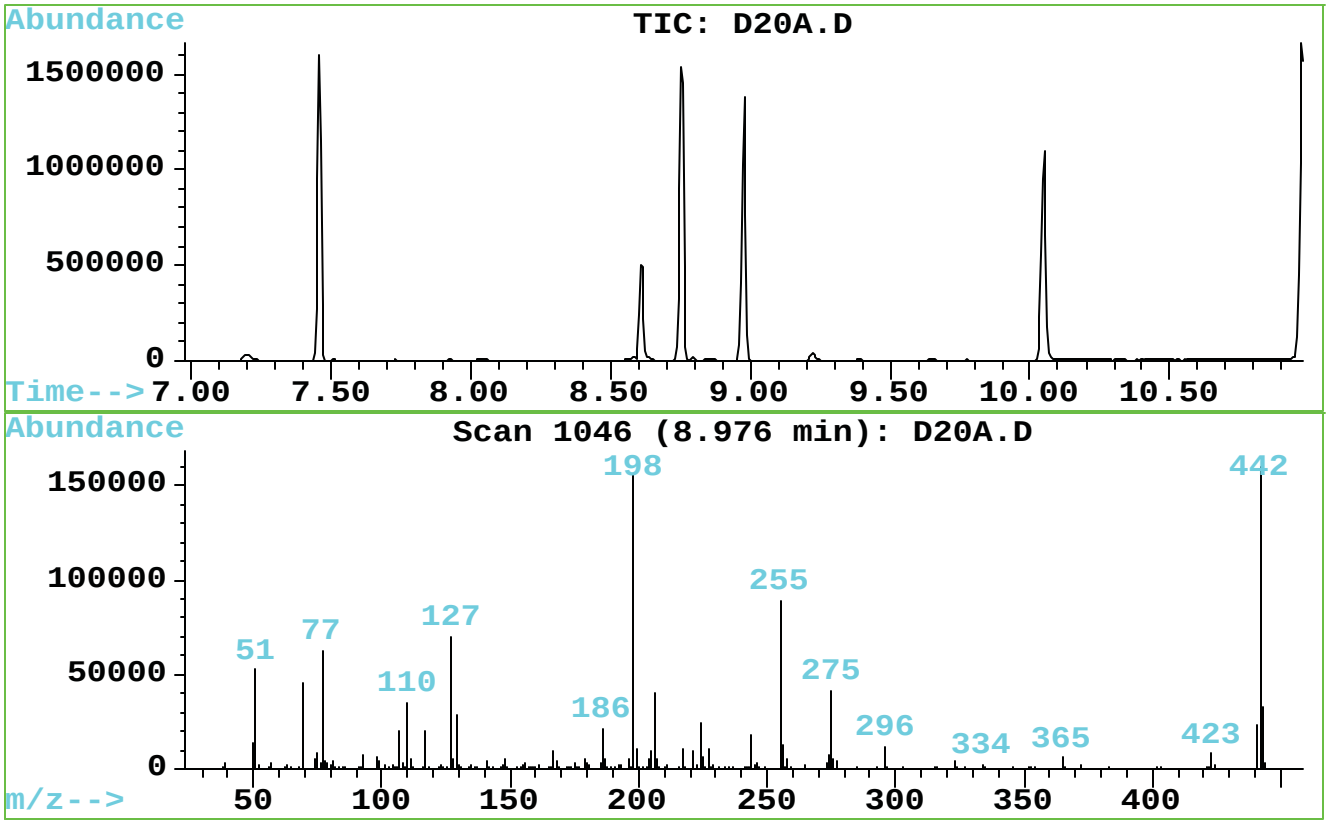
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120620.CAL\D20A.D Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270



Peak Apex is scan: 1046

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	33.7	52576	PASS
68	69	0	2	1.6	727	PASS
69	198	0	100	29.2	45504	PASS
70	69	0	2	0.6	257	PASS
127	198	25	75	45.1	70240	PASS
197	198	0	1	0.7	1032	PASS
198	198	100	100	100.0	155904	PASS
199	198	5	9	6.7	10402	PASS
275	198	10	30	26.5	41352	PASS
365	198	1	100	3.8	5941	PASS
441	443	0	100	71.5	23560	PASS
442	198	40	110	102.8	160256	PASS
443	442	15	24	20.6	32936	PASS

D20A.D P120620T.M Thu Jul 05 13:13:55 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

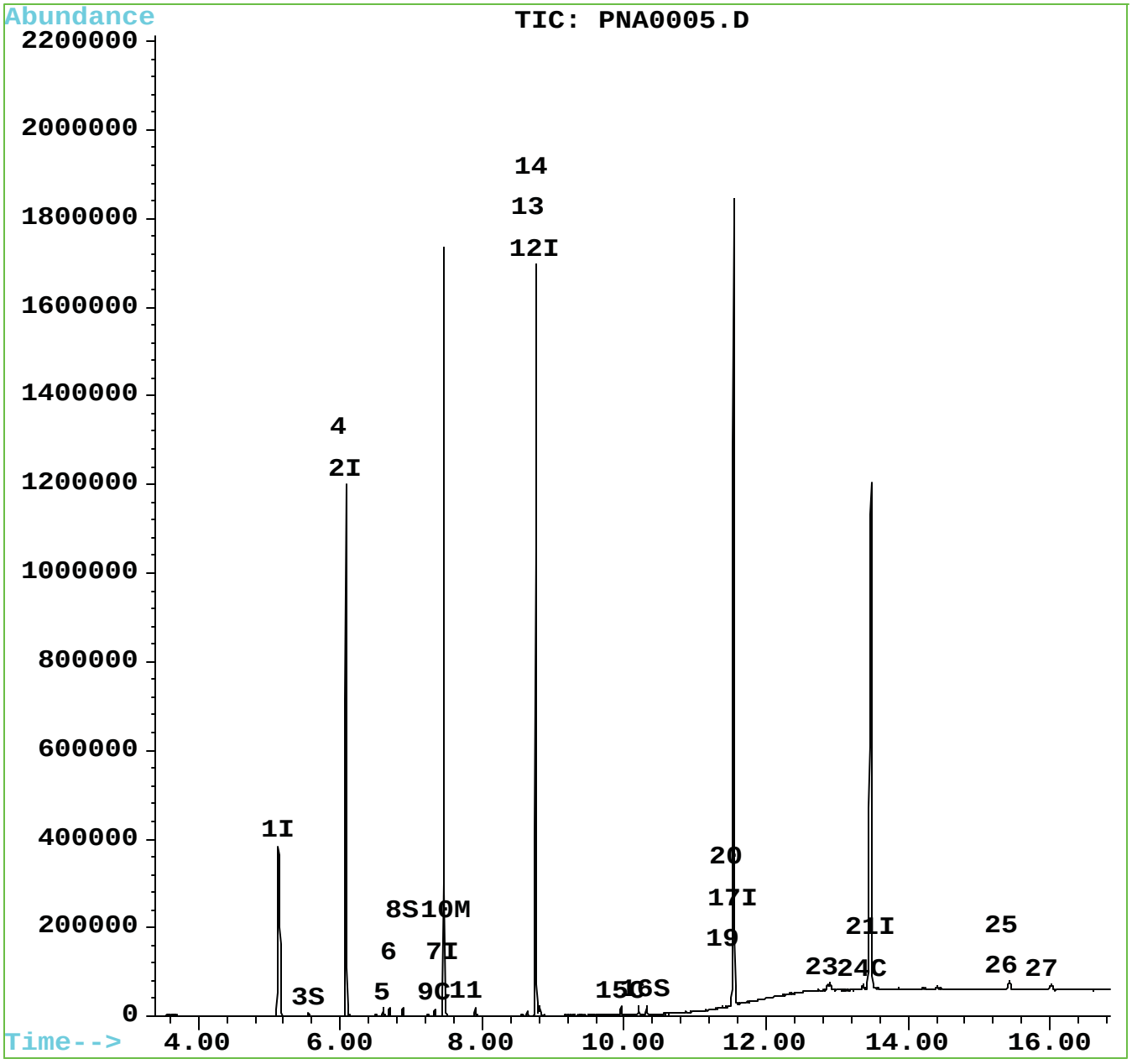
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	143390	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	584359	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	361670	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640265	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	851411	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	810081	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	2104	0.41	ng/ul	0.4
8) 2-Fluorobiphenyl	6.88	172	5332	0.49	ng/ul	0.4
16) Terphenyl-D14	10.31	244	6487	0.47	ng/ul	0.4
Target Compounds						Qvalu
4) Naphthalene	6.09	128	7409	0.50	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	3958	0.49	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	4576	0.49	ng/ul	9
9) Acenaphthylene	7.33	152	6474	0.43	ng/ul	9
10) Acenaphthene **	7.48	154	4235	0.49	ng/ul	10
11) Fluorene	7.90	166	5367	0.48	ng/ul	10
13) Phenanthrene	8.77	178	8800	0.53	ng/ul	9
14) Anthracene	8.81	178	8193	0.48	ng/ul	10
15) Fluoranthene	9.95	202	8650	0.46	ng/ul	9
19) Benzo(a)anthracene	11.52	228	10380	0.49	ng/ulm	9
20) Chrysene	11.57	228	9593	0.45	ng/ul	9
23) Benzo(k)fluoranthene	12.90	252	8460	0.41	ng/ul	9
24) Benzo(a)pyrene	13.37	252	8024	0.44	ng/ul	7
25) Indeno(1,2,3-cd)pyrene	15.43	276	9817	0.47	ng/ul	9
26) Dibenzo(ah)anthracene	15.43	278	8071	2.93	ng/ulm	
27) Benzo(ghi)perylene	16.02	276	9004	0.53	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

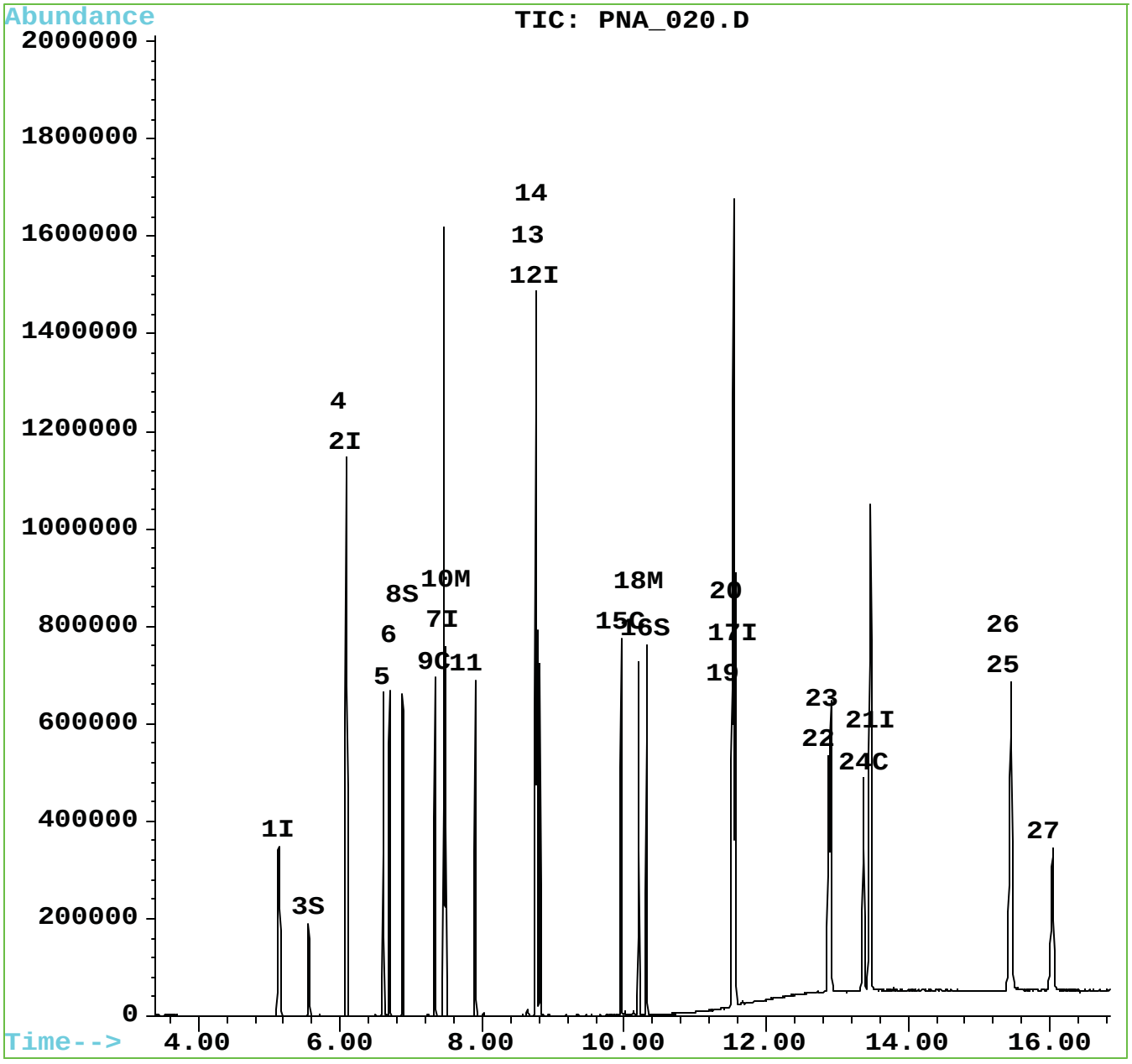
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	135615	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	556039	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	346157	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	598956	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.54	240	709363	40.00	ng/ul	0.0
21) PERYLENE-D12	13.47	264	692857	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	82003	17.37	ng/ul	17.3
8) 2-Fluorobiphenyl	6.88	172	204105	19.88	ng/ul	19.8
16) Terphenyl-D14	10.31	244	231969	19.02	ng/ul	19.0
Target Compounds						Qvalu
4) Naphthalene	6.09	128	269421	19.32	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	150167	19.85	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	174575	20.06	ng/ul	9
9) Acenaphthylene	7.33	152	278716	19.95	ng/ul	9
10) Acenaphthene **	7.48	154	164917	20.36	ng/ul	9
11) Fluorene	7.91	166	211147	19.78	ng/ul	9
13) Phenanthrene	8.77	178	300111	19.28	ng/ul	9
14) Anthracene	8.82	178	306951	19.46	ng/ul	9
15) Fluoranthene	9.95	202	339050	19.64	ng/ul	9
18) Pyrene **	10.21	202	347810	19.42	ng/ul	9
19) Benzo(a)anthracene	11.52	228	333084	19.02	ng/ul	9
20) Chrysene	11.57	228	333074	19.43	ng/ul	9
22) Benzo(b)fluoranthene	12.88	252	343106	19.00	ng/ul	9
23) Benzo(k)fluoranthene	12.91	252	301991	17.52	ng/ul	9
24) Benzo(a)pyrene	13.37	252	280817	18.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.45	276	383241	21.67	ng/ul	9
26) Dibenzo(ah)anthracene	15.45	278	320076	76.29	ng/ul#	
27) Benzo(ghi)perylene	16.04	276	313019	21.38	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

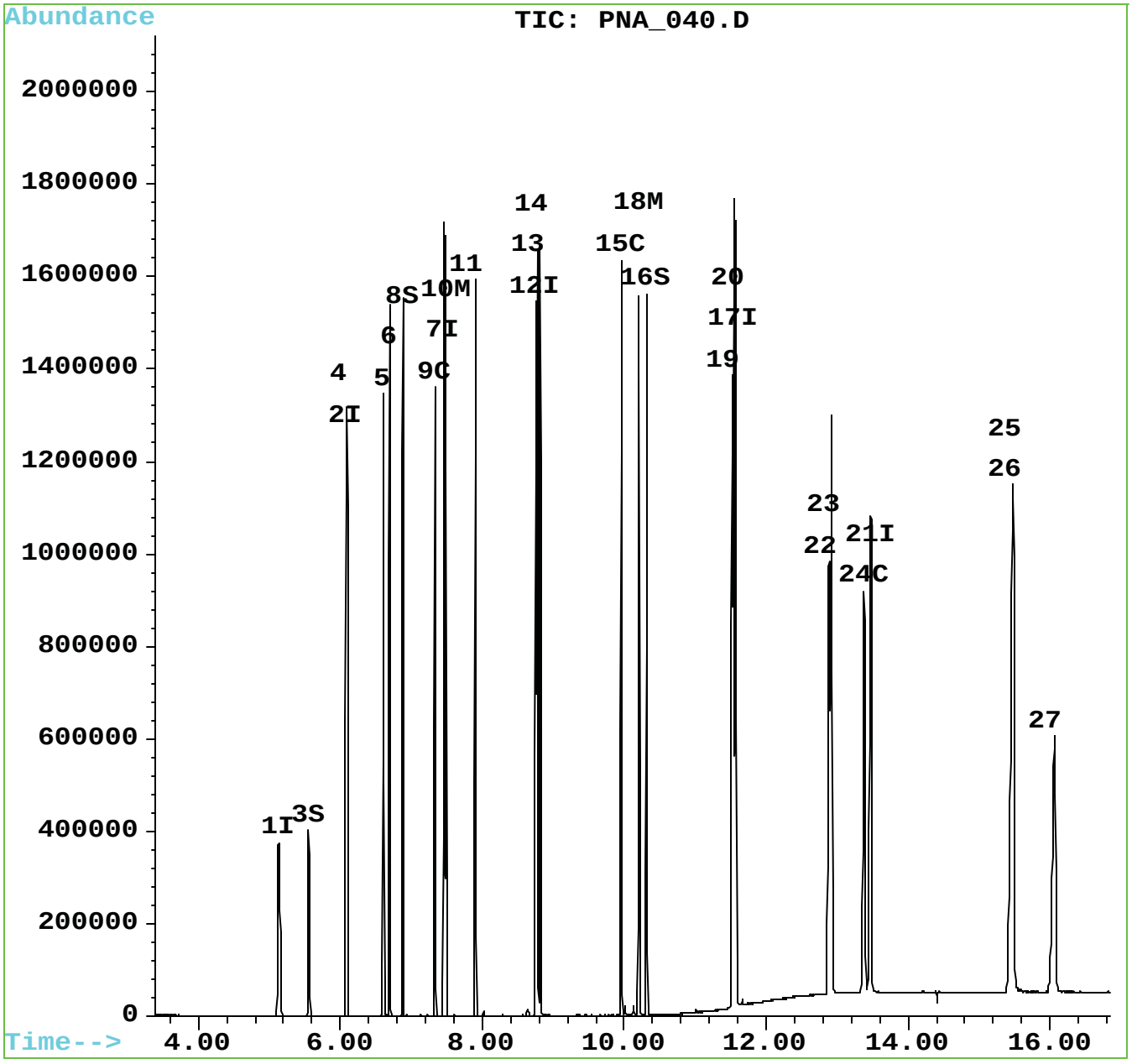
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	145174	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	600445	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	372384	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640122	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	768198	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	711428	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	174537	35.18	ng/ul	35.1
8) 2-Fluorobiphenyl	6.88	172	440917	40.11	ng/ul	40.1
16) Terphenyl-D14	10.32	244	513941	39.56	ng/ul	39.5
Target Compounds						Qvalu
4) Naphthalene	6.09	128	575604	38.59	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	325059	39.88	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	379358	40.37	ng/ul	9
9) Acenaphthylene	7.34	152	603631	40.34	ng/ul	9
10) Acenaphthene **	7.48	154	353127	40.59	ng/ul	9
11) Fluorene	7.91	166	460460	40.27	ng/ul	9
13) Phenanthrene	8.77	178	643835	38.97	ng/ul	10
14) Anthracene	8.82	178	662219	39.53	ng/ul	10
15) Fluoranthene	9.96	202	736945	40.05	ng/ul	10
18) Pyrene **	10.21	202	756635	39.53	ng/ul	10
19) Benzo(a)anthracene	11.52	228	734403	38.98	ng/ul	9
20) Chrysene	11.58	228	725802	39.40	ng/ul	9
22) Benzo(b)fluoranthene	12.89	252	765726	41.58	ng/ul	9
23) Benzo(k)fluoranthene	12.92	252	651601	37.90	ng/ulm	9
24) Benzo(a)pyrene	13.38	252	616751	39.86	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.49	276	842409	45.64	ng/ul	9
26) Dibenzo(ah)anthracene	15.48	278	724171	108.89	ng/ul#	
27) Benzo(ghi)perylene	16.07	276	671310	44.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

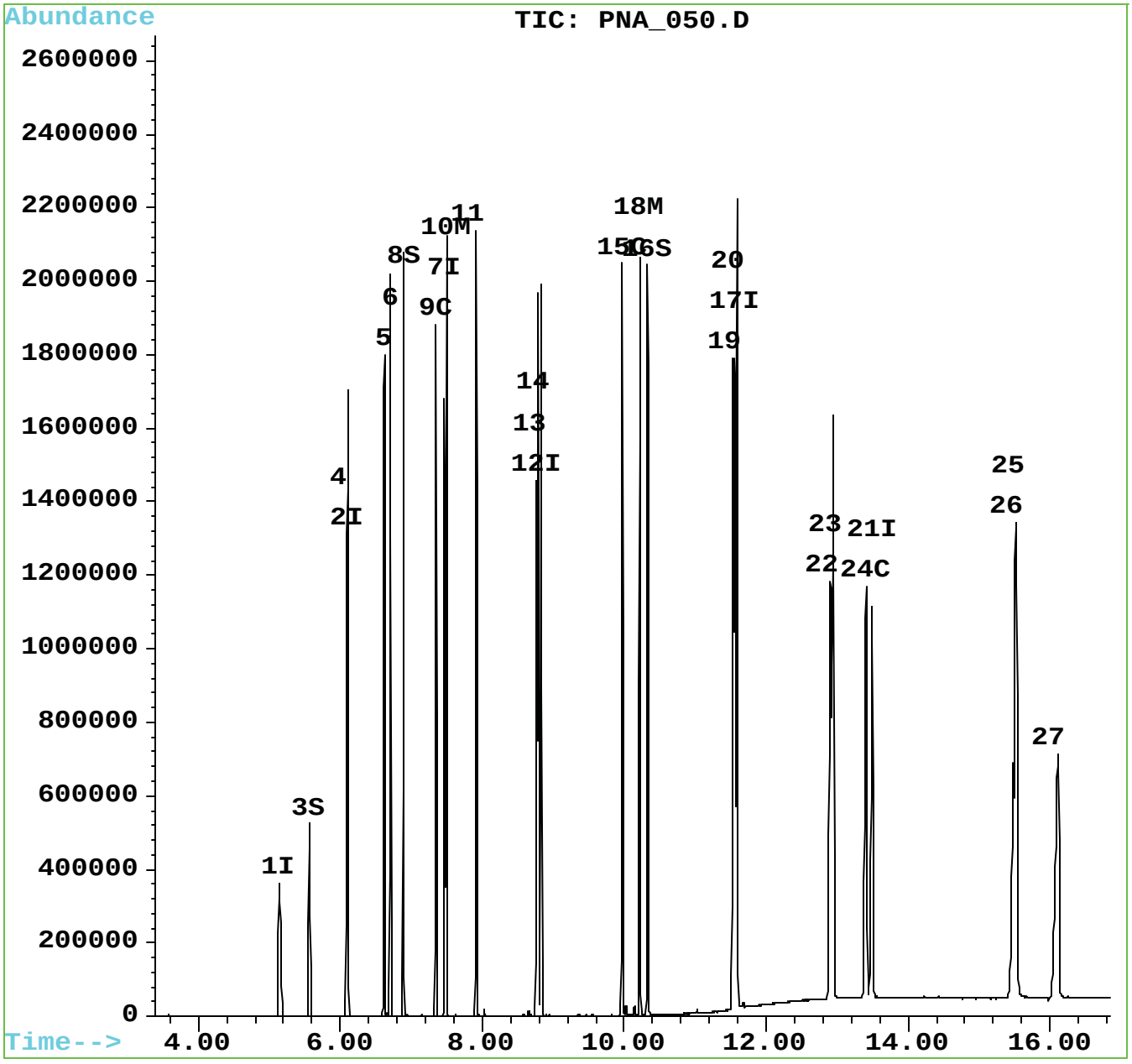
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.14	152	140598	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.09	136	584387	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.47	164	376489	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.76	188	622177	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.56	240	765174	40.00	ng/ul	0.0
21) PERYLENE-D12	13.50	264	703377	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	229947	52.60	ng/ul	52.6
8) 2-Fluorobiphenyl	6.89	172	607779	52.68	ng/ul	52.6
16) Terphenyl-D14	10.33	244	692330	52.39	ng/ul	52.3
Target Compounds						Qvalu
4) Naphthalene	6.10	128	751033	51.74	ng/ul	10
5) 2-Methylnaphthalene	6.62	141	434353	53.42	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	506957	53.57	ng/ul	9
9) Acenaphthylene	7.35	152	823667	53.39	ng/ul	9
10) Acenaphthene **	7.49	154	486187	52.81	ng/ul	9
11) Fluorene	7.92	166	607540	51.10	ng/ul	9
13) Phenanthrene	8.79	178	840726	51.65	ng/ul	10
14) Anthracene	8.83	178	824151	50.15	ng/ulm	10
15) Fluoranthene	9.98	202	961499	52.42	ng/ul	10
18) Pyrene **	10.22	202	986114	52.61	ng/ul	10
19) Benzo(a)anthracene	11.54	228	956291	50.58	ng/ul	9
20) Chrysene	11.59	228	954806	51.40	ng/ul	9
22) Benzo(b)fluoranthene	12.91	252	1007548	54.76	ng/ul	9
23) Benzo(k)fluoranthene	12.95	252	869858	51.39	ng/ulm	9
24) Benzo(a)pyrene	13.41	252	810603	52.65	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1043907	50.51	ng/ulm	8
26) Dibenzo(ah)anthracene	15.52	278	891914	50.95	ng/ul#	
27) Benzo(ghi)perylene	16.12	276	876303	52.46	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

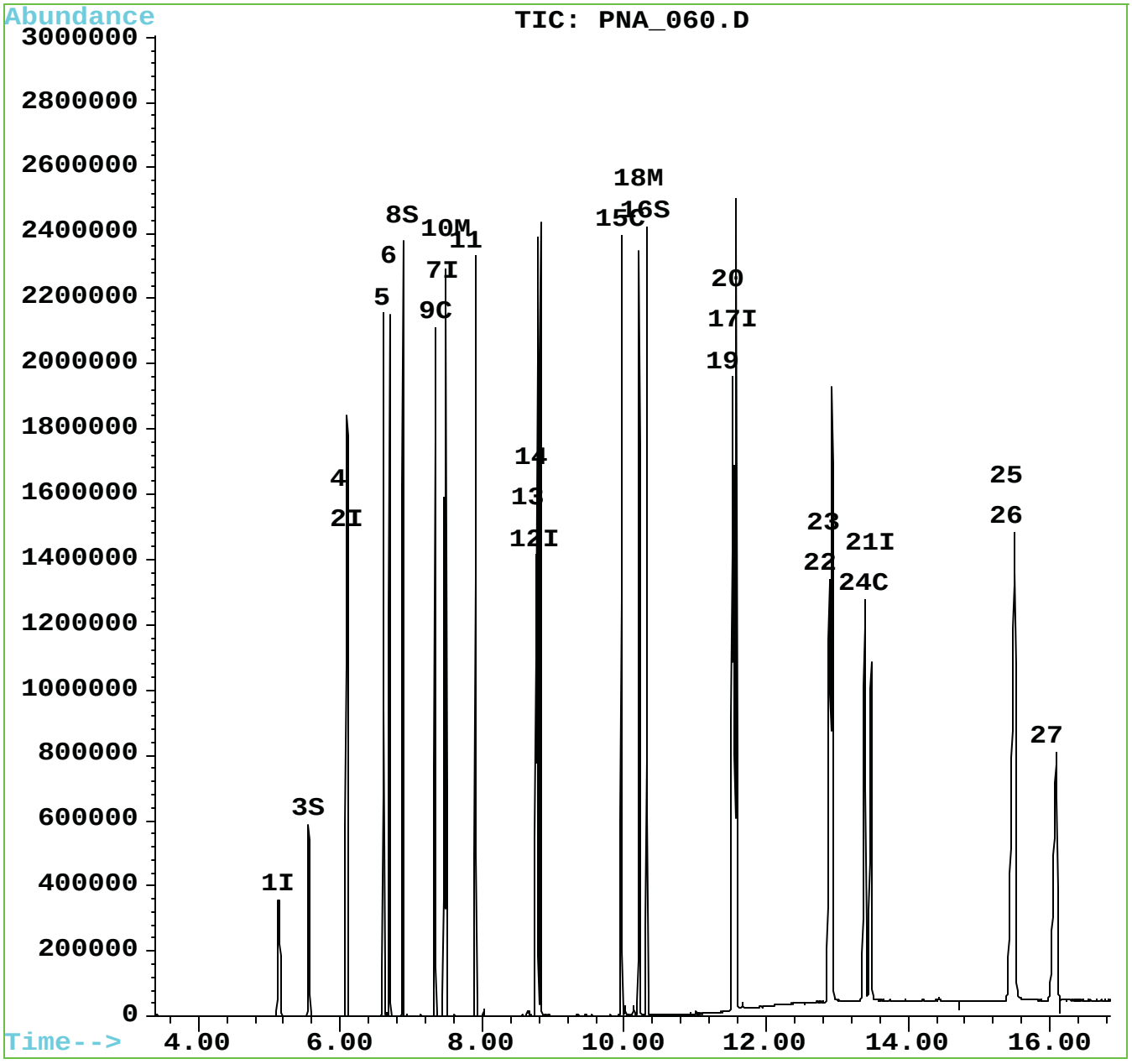
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	139447	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	575362	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	353288	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	616305	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	748003	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	682703	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	264229	57.14	ng/ul	57.1
8) 2-Fluorobiphenyl	6.88	172	670339	64.21	ng/ul	64.2
16) Terphenyl-D14	10.32	244	820095	65.45	ng/ul	65.4
Target Compounds						Qvalu
4) Naphthalene	6.10	128	868848	61.11	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	490465	62.75	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	569018	62.98	ng/ul	9
9) Acenaphthylene	7.34	152	906881	63.94	ng/ul	9
10) Acenaphthene **	7.48	154	533576	64.40	ng/ul	9
11) Fluorene	7.91	166	690907	63.53	ng/ul	9
13) Phenanthrene	8.78	178	967482	60.95	ng/ul	10
14) Anthracene	8.82	178	984460	61.22	ng/ul	10
15) Fluoranthene	9.97	202	1135196	64.07	ng/ul	10
18) Pyrene **	10.21	202	1150667	62.18	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1121641	61.16	ng/ul	9
20) Chrysene	11.59	228	1120370	62.57	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1137138	63.75	ng/ul	9
23) Benzo(k)fluoranthene	12.93	252	1055134	64.94	ng/ulm	9
24) Benzo(a)pyrene	13.39	252	941272	63.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.51	276	1286560	70.60	ng/ul	9
26) Dibenzo(ah)anthracene	15.50	278	1101876	123.88	ng/ul#	
27) Benzo(ghi)perylene	16.10	276	1009761	67.42	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

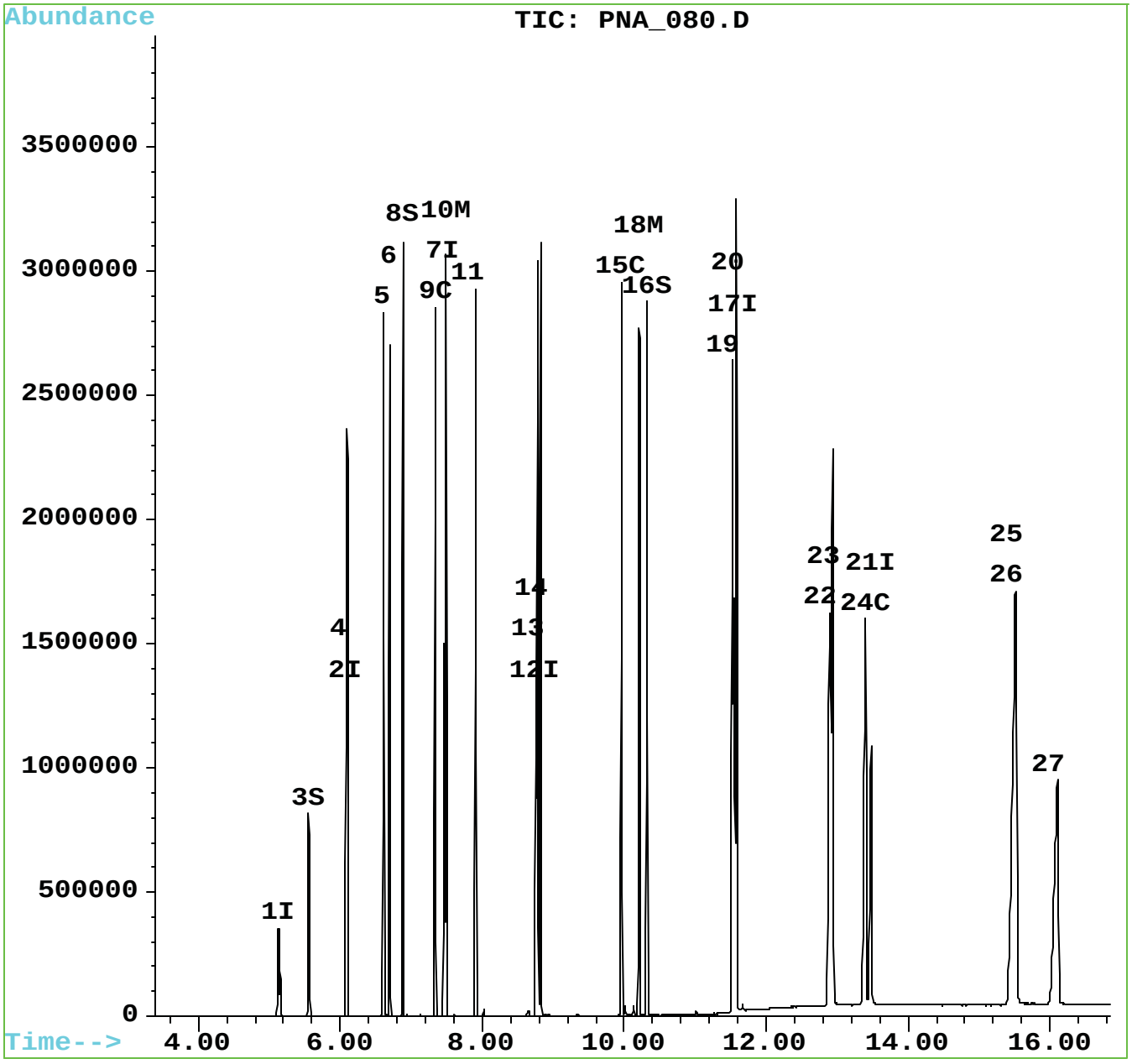
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	84162	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	560653	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	344328	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	593618	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	724268	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	668390	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	346243	78.73	ng/ul	78.7
8) 2-Fluorobiphenyl	6.88	172	885493	86.15	ng/ul	86.1
16) Terphenyl-D14	10.32	244	1087992	88.89	ng/ul	88.8
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1131267	81.69	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	644735	84.16	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	754321	85.15	ng/ul	9
9) Acenaphthylene	7.34	152	1193934	86.08	ng/ul	9
10) Acenaphthene **	7.49	154	705426	86.33	ng/ul	9
11) Fluorene	7.91	166	911878	85.55	ng/ul	10
13) Phenanthrene	8.78	178	1272975	83.14	ng/ul	9
14) Anthracene	8.82	178	1315513	84.88	ng/ul	10
15) Fluoranthene	9.97	202	1475282	85.92	ng/ul	10
18) Pyrene **	10.22	202	1513446	85.04	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1508631	85.06	ng/ul	9
20) Chrysene	11.59	228	1487020	85.85	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1523698	87.00	ng/ul	9
23) Benzo(k)fluoranthene	12.94	252	1376522	86.71	ng/ulm	9
24) Benzo(a)pyrene	13.40	252	1253005	86.05	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1693105	91.97	ng/ul	9
26) Dibenzo(ah)anthracene	15.51	278	1446162	127.51	ng/ul#	
27) Benzo(ghi)perylene	16.11	276	1327841	88.30	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration

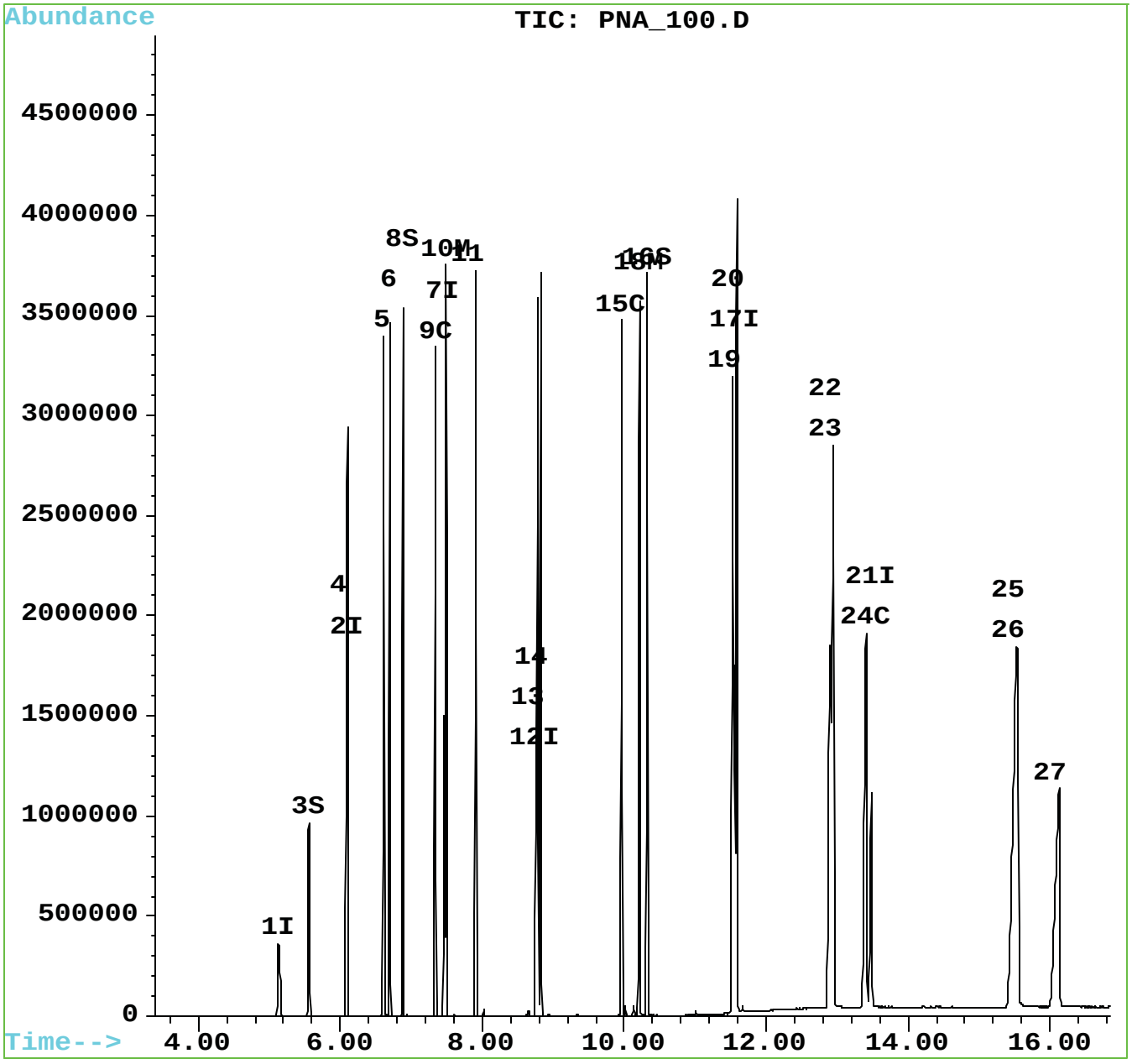
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	138171	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	568205	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	351986	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	611911	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	757963	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	692918	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	435831	100.13	ng/ul	100.1
8) 2-Fluorobiphenyl	6.88	172	1109224	104.17	ng/ul	104.1
16) Terphenyl-D14	10.32	244	1385539	108.11	ng/ul	108.1
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1425996	101.45	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	813163	103.78	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	949708	104.58	ng/ul	9
9) Acenaphthylene	7.34	152	1519026	106.44	ng/ul	9
10) Acenaphthene **	7.49	154	879645	103.79	ng/ul	9
11) Fluorene	7.91	166	1150248	104.66	ng/ul	9
13) Phenanthrene	8.78	178	1610327	101.32	ng/ul	9
14) Anthracene	8.83	178	1657005	103.19	ng/ul	10
15) Fluoranthene	9.97	202	1898025	106.43	ng/ul	9
18) Pyrene **	10.22	202	1939528	104.36	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1930239	103.53	ng/ul	9
20) Chrysene	11.59	228	1924431	105.47	ng/ul	9
22) Benzo(b)fluoranthene	12.95	252	3782432	207.76	ng/ulm	9
23) Benzo(k)fluoranthene	12.95	252	3782795	230.09	ng/ulm	10
24) Benzo(a)pyrene	13.41	252	1605543	106.12	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.55	276	2198376	111.69	ng/ul	10
26) Dibenzo(ah)anthracene	15.53	278	1864392	128.64	ng/ul#	
27) Benzo(ghi)perylene	16.13	276	1705175	106.54	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120620t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Thu Jun 21 10:34:08 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120727.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn27a.d	07/27/12 10:54	Acenaphthylene	1.795	0.30
		Benzo(b)fluoranthene	1.177	0.30
		Naphthalene	1.056	0.30
		Phenanthrene	1.138	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120727.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn27a.d	07/27/12 10:54	1-methylnaphthalene	52.5/ 50.0	5.1/ 20.0
		2-Methylnaphthalene	52.2/ 50.0	4.4/ 20.0
		Acenaphthene	54.2/ 50.0	8.4/ 20.0
		Acenaphthylene	54.8/ 50.0	9.5/ 20.0
		Anthracene	54.0/ 50.0	8.0/ 20.0
		Benzo(a)anthracene	52.9/ 50.0	5.7/ 20.0
		Benzo(a)pyrene	54.7/ 50.0	9.4/ 20.0
		Benzo(b)fluoranthene	56.3/ 50.0	12.5/ 20.0
		Benzo(ghi)perylene	50.9/ 50.0	1.8/ 20.0
		Benzo(k)fluoranthene	57.9/ 50.0	15.8/ 20.0
		Chrysene	54.2/ 50.0	8.4/ 20.0
		Dibenzo(ah)anthracene	55.0/ 50.0	10.0/ 20.0
		Fluorene	54.6/ 50.0	9.3/ 20.0
		Fluoranthene	55.4/ 50.0	10.9/ 20.0
		Indeno(1,2,3-cd)pyrene	54.1/ 50.0	8.1/ 20.0
		Naphthalene	53.1/ 50.0	6.2/ 20.0
		Phenanthrene	54.4/ 50.0	8.8/ 20.0
		Pyrene	56.6/ 50.0	13.1/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\spnn27a.d Vial: 2
Acq On : 27 Jul 12 10:54 am Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 10.00
Quant Time: Jul 27 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

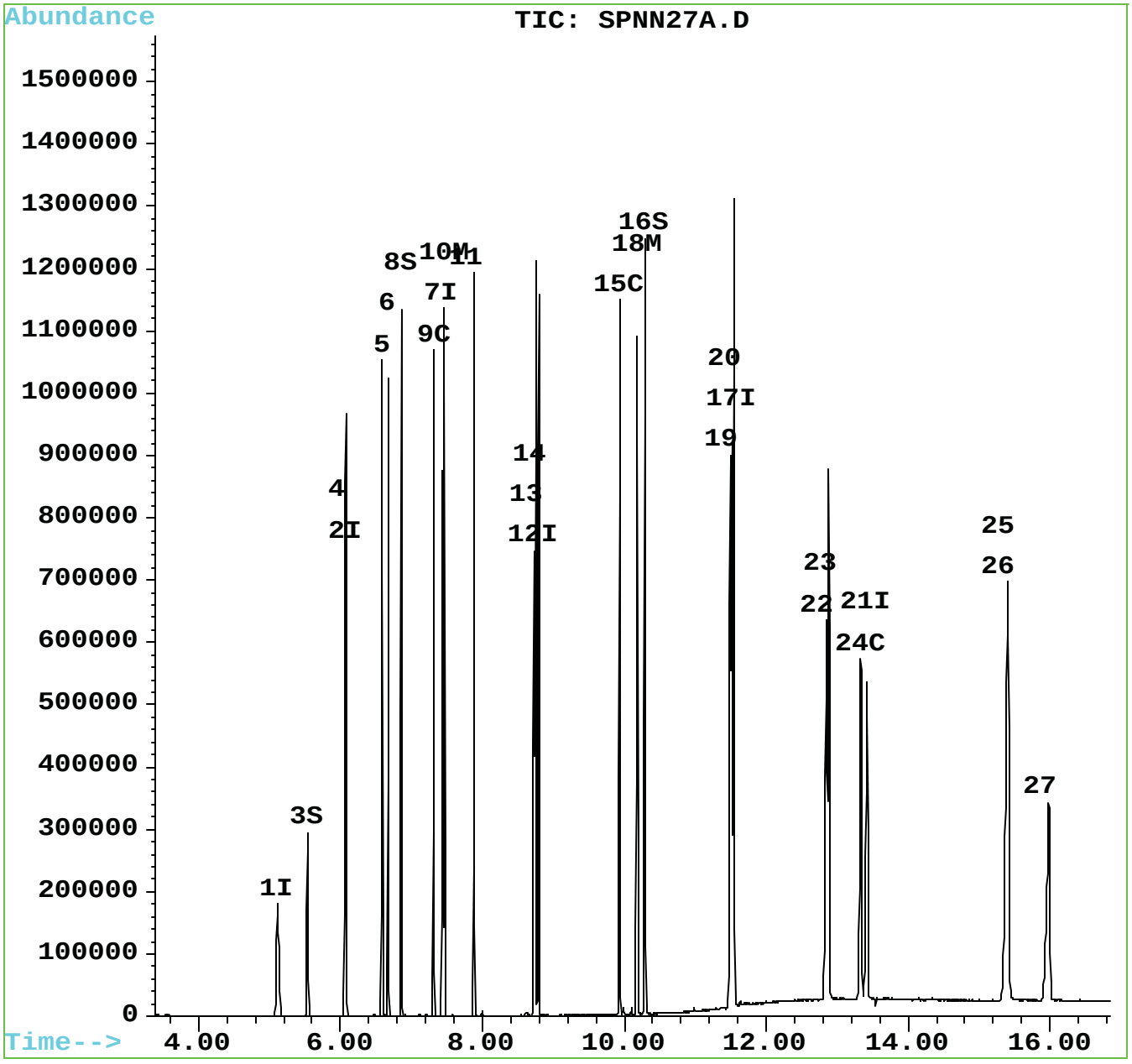
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	64928	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	296183	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	178142	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	303400	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	358931	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	302923	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	116522	525.88	ng/ul	525.8
8) 2-Fluorobiphenyl	6.86	172	295870	542.03	ng/ul	542.0
16) Terphenyl-D14	10.29	244	343163	532.55	ng/ul	532.5
Target Compounds						Qvalu
4) Naphthalene	6.08	128	390633	53.10	ng/ul	10
5) 2-Methylnaphthalene	6.59	141	215041	52.18	ng/ul	9
6) 1-Methylnaphthalene	6.68	142	251949	52.53	ng/ul	9
9) Acenaphthylene	7.32	152	399754	54.76	ng/ul	9
10) Acenaphthene **	7.46	154	236197	54.22	ng/ul	9
11) Fluorene	7.88	166	307324	54.63	ng/ul	10
13) Phenanthrene	8.75	178	431726	54.39	ng/ul	10
14) Anthracene	8.79	178	432850	54.01	ng/ul	9
15) Fluoranthene	9.93	202	495880	55.44	ng/ul	9
18) Pyrene **	10.18	202	497150	56.55	ng/ul	10
19) Benzo(a)anthracene	11.50	228	468779	52.86	ng/ul	9
20) Chrysene	11.55	228	472132	54.19	ng/ul	10
22) Benzo(b)fluoranthene	12.85	252	445846	56.27	ng/ul	9
23) Benzo(k)fluoranthene	12.89	252	422119	57.91	ng/ul	10
24) Benzo(a)pyrene	13.34	252	362644	54.69	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.41	276	481219	54.07	ng/ul	9
26) Dibenzo(ah)anthracene	15.41	278	414647	55.00	ng/ul	9
27) Benzo(ghi)perylene	15.98	276	366166	50.90	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\spnn27a.d Vial: 2
Acq On : 27 Jul 12 10:54 am Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 10.00
Quant Time: Jul 27 11:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\d27a.d Vial: 1
Acq On : 27 Jul 12 10:31 am Operator: PL
Sample : dftpp std (120621) Inst : Tempest
Misc : w/1 Multiplr: 10.00
Quant Time: Jul 27 12:24 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

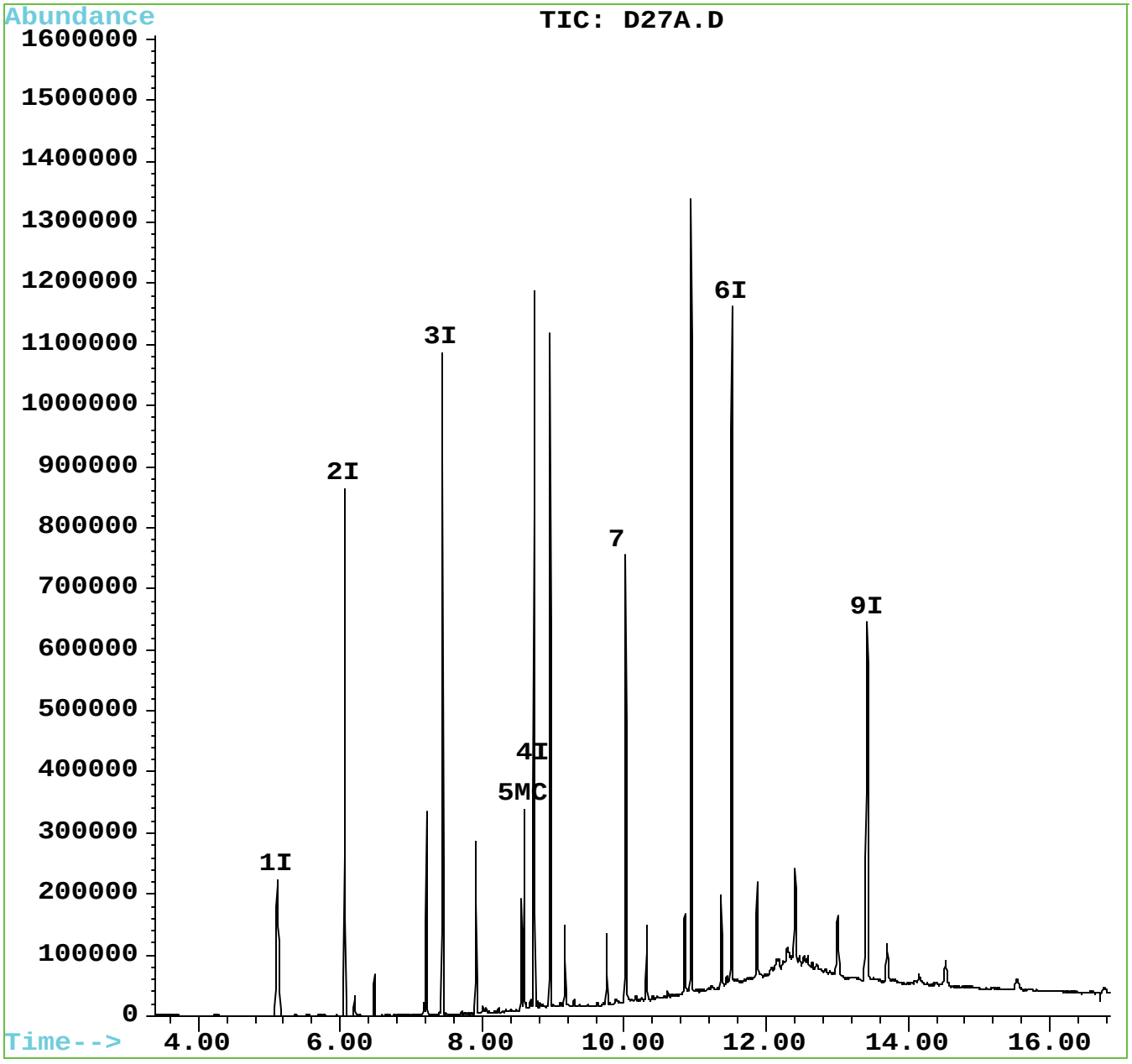
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	82475	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	380910	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	7.44	160	92892	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.73	188	404127	40.00	ng/ul	-0.0
6) CHRYSENE-D12	11.52	240	438890	40.00	ng/ul	-0.0
9) PERYLENE-D12	13.43	264	364918	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.59	266	30027	22.90	ng/ul	9
7) Benzidine	10.02	184	304942	82.42	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\d27a.d Vial: 1
Acq On : 27 Jul 12 10:31 am Operator: PL
Sample : dftpp std (120621) Inst : Tempest
Misc : w/1 Multiplr: 10.00
Quant Time: Jul 27 12:24 19112

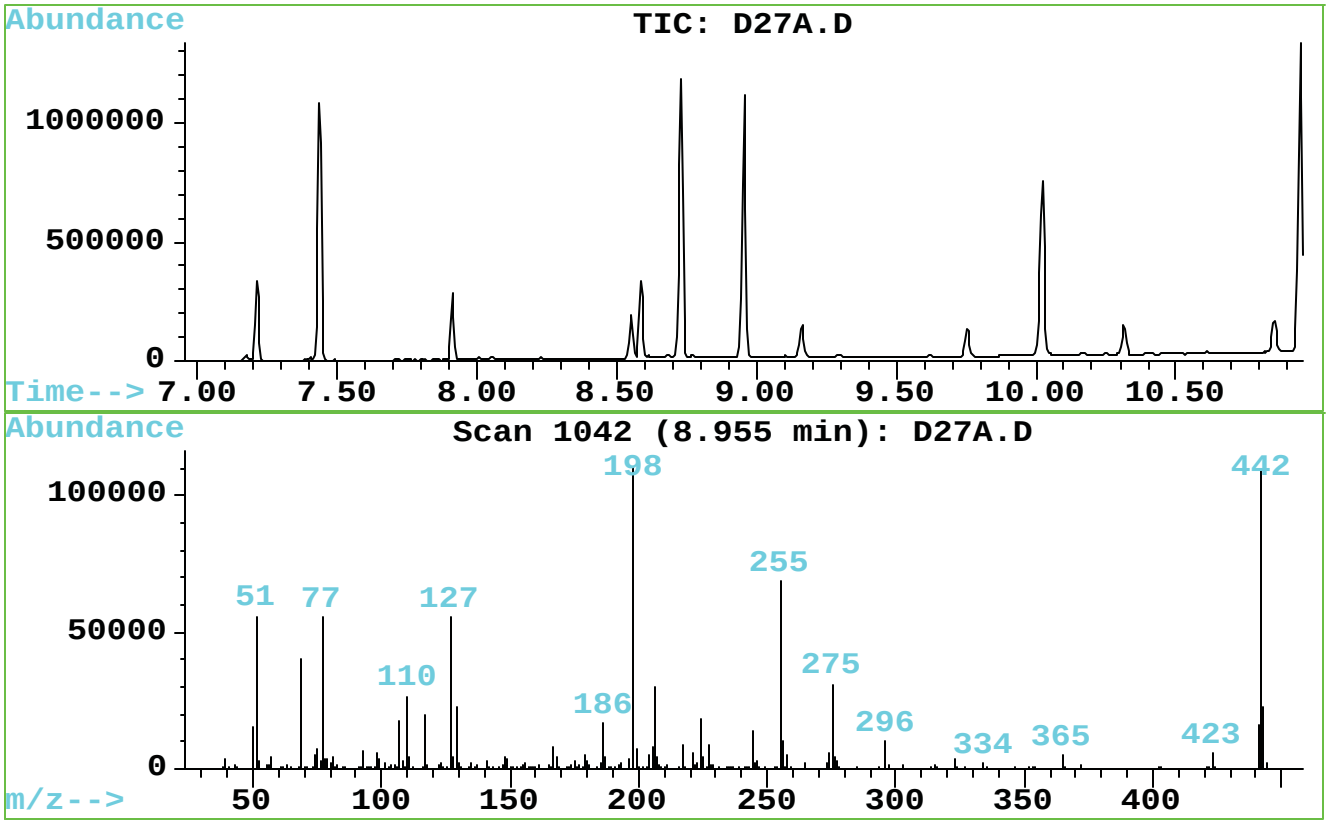
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120727\D27A.D Vial: 1
Acq On : 27 Jul 12 10:31 am Operator: PL
Sample : dftpp std (120621) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270



Peak Apex is scan: 1042

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	50.3	55688	PASS
68	69	0	2	1.7	691	PASS
69	198	0	100	36.4	40352	PASS
70	69	0	2	1.1	424	PASS
127	198	25	75	50.2	55544	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	110752	PASS
199	198	5	9	6.7	7410	PASS
275	198	10	30	27.7	30728	PASS
365	198	1	100	4.5	4988	PASS
441	443	0	100	70.4	16054	PASS
442	198	40	110	98.1	108680	PASS
443	442	15	24	21.0	22808	PASS

D27A.D P120620T.M Mon Jul 30 13:06:52 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\blks27a.d Vial: 3
Acq On : 27 Jul 12 11:55 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:26 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

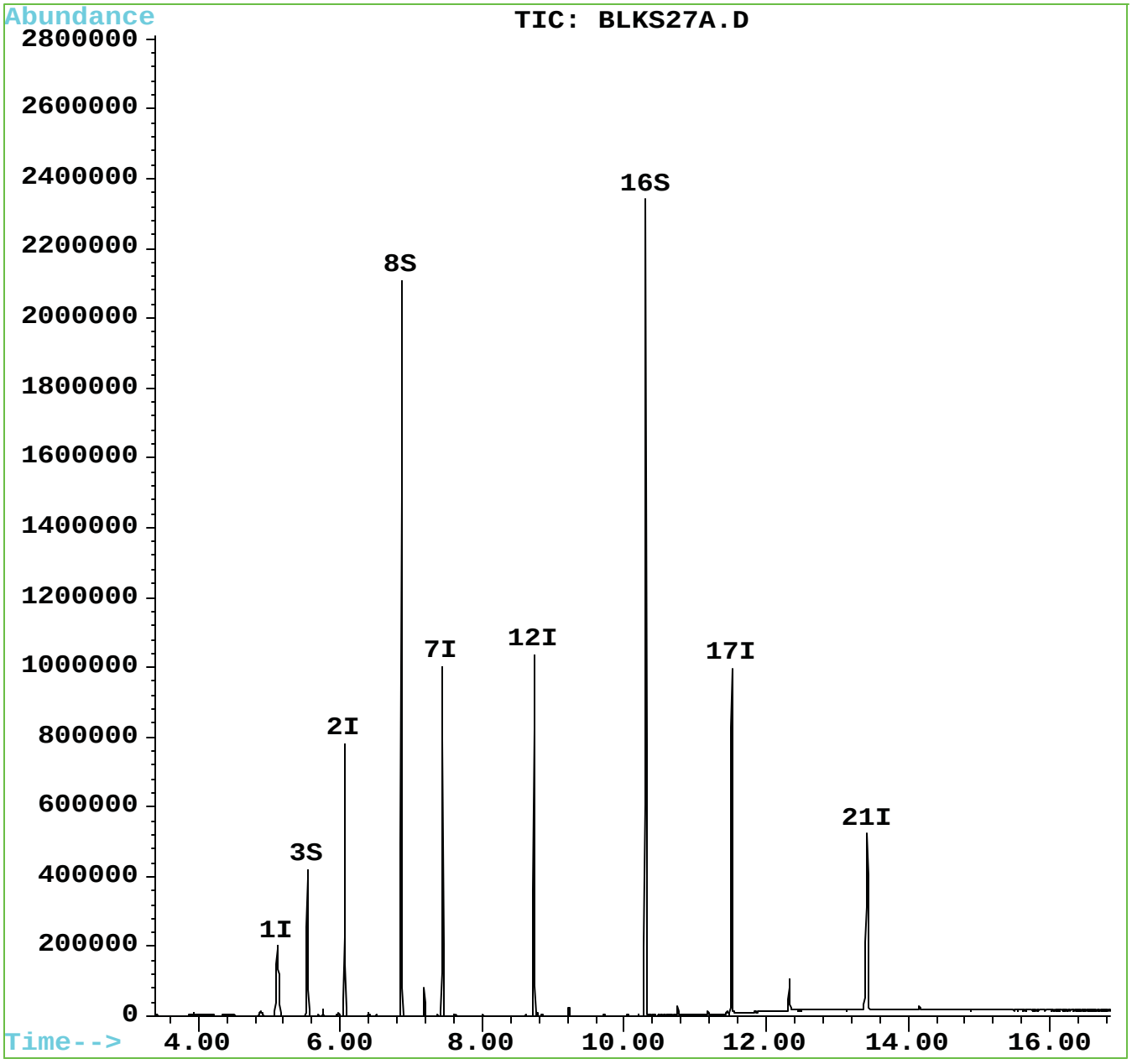
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	71946	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	340151	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	202003	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.73	188	358826	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	387012	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	317284	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	169898	667.66	ng/ul	667.6
8) 2-Fluorobiphenyl	6.86	172	536915	867.43	ng/ul	867.4
16) Terphenyl-D14	10.30	244	812031	1065.53	ng/ul	1065.
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\blks27a.d Vial: 3
Acq On : 27 Jul 12 11:55 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:26 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\lcss27a.d Vial: 4
Acq On : 27 Jul 12 12:17 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:26 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration

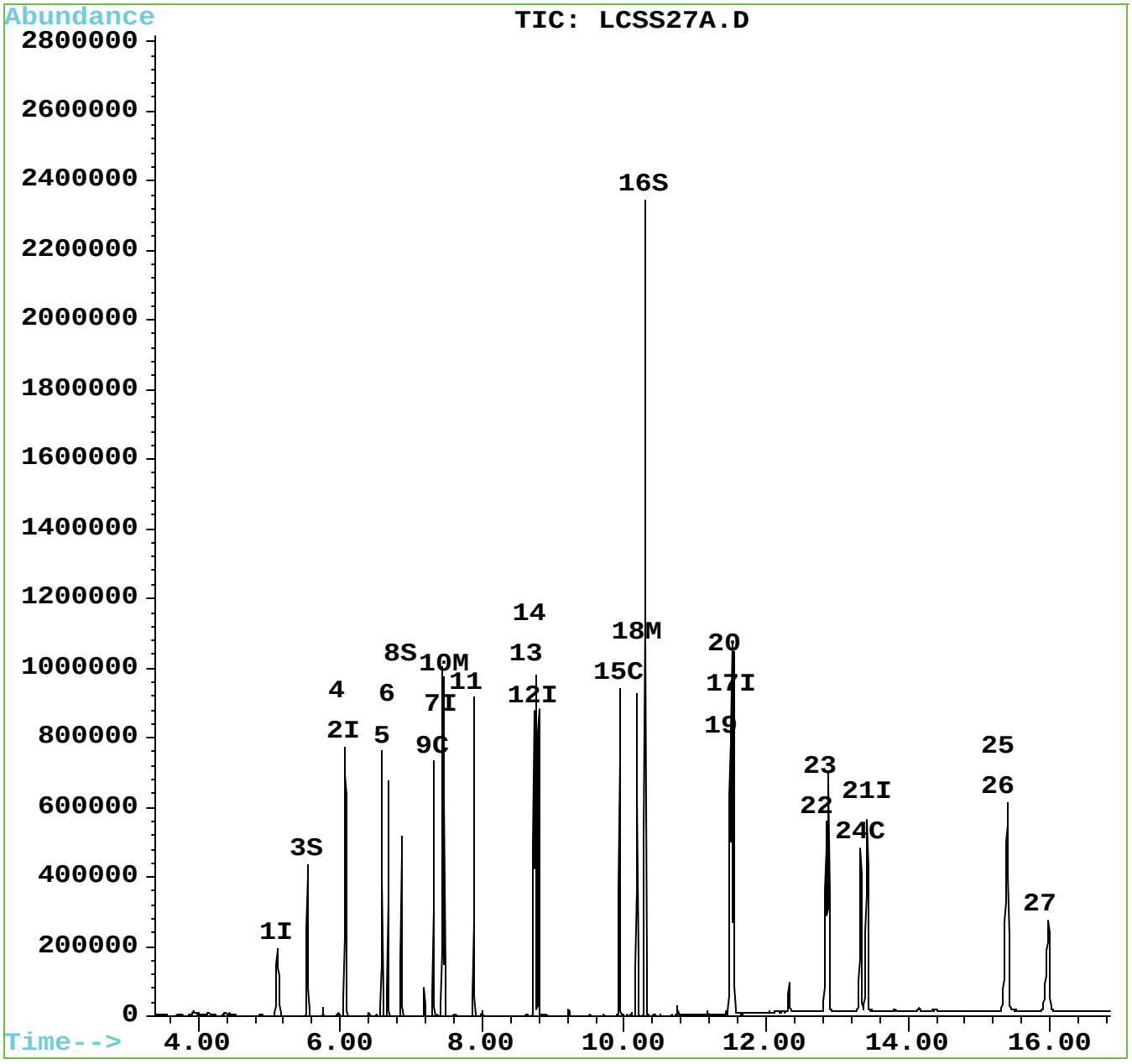
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	70753	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	334639	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	201303	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.73	188	362777	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	424493	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	349934	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	172578	689.37	ng/ul	689.3
8) 2-Fluorobiphenyl	6.86	172	130987	212.36	ng/ul	212.3
16) Terphenyl-D14	10.30	244	797772	1035.42	ng/ul	1035.
Target Compounds						Qvalu
4) Naphthalene	6.08	128	272344	32.76	ng/ul	9
5) 2-Methylnaphthalene	6.59	141	150685	32.37	ng/ul	9
6) 1-Methylnaphthalene	6.67	142	162669	30.02	ng/ul	9
9) Acenaphthylene	7.32	152	298868	36.23	ng/ul	9
10) Acenaphthene **	7.46	154	182505	37.08	ng/ul	9
11) Fluorene	7.88	166	238081	37.45	ng/ul	9
13) Phenanthrene	8.75	178	349075	36.78	ng/ul	10
14) Anthracene	8.79	178	343323	35.83	ng/ul	9
15) Fluoranthene	9.93	202	391853	36.64	ng/ul	9
18) Pyrene **	10.18	202	404067	38.86	ng/ul	10
19) Benzo(a)anthracene	11.49	228	390403	37.22	ng/ul	10
20) Chrysene	11.55	228	391518	37.99	ng/ul	9
22) Benzo(b)fluoranthene	12.84	252	351083	38.36	ng/ul	9
23) Benzo(k)fluoranthene	12.89	252	369885	43.93	ng/ul	9
24) Benzo(a)pyrene	13.34	252	295761	38.61	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.41	276	405018	39.39	ng/ul	9
26) Dibenzo(ah)anthracene	15.41	278	349205	40.10	ng/ul	9
27) Benzo(ghi)perylene	15.98	276	305076	36.71	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120727\lcss27a.d Vial: 4
Acq On : 27 Jul 12 12:17 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120726s01 Multiplr: 10.00
Quant Time: Jul 30 11:26 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270
Last Update : Mon Jul 16 10:37:05 2012
Response via : Multiple Level Calibration



Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

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Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120723.01r	sblk-r.01	07/23/12 10:32	SBLK-R.01	WW	Bl	**4**	
a120723.02r	sc1660.01	07/23/12 10:47	SC1660.01 0.5ppm 7/2/12	WW	CV	**4**	
a120723.03r	ss1660.01	07/23/12 10:58	ss1660.01 0.05ppm 7/23/12	WW		**4**	
a120723.04r	ss1660.02	07/23/12 11:08	ss1660.02 0.1ppm 7/23/12	WW		**4**	
a120723.05r	ss1660.03	07/23/12 11:19	ss1660.03 0.3ppm 7/23/12	WW		**4**	
a120723.06r	ss1660.04	07/23/12 11:29	ss1660.04 0.5ppm 7/23/12	WW		**4**	
a120723.07r	ss1660.05	07/23/12 11:40	ss1660.05 0.7ppm 7/23/12	WW		**4**	
a120723.08r	ss1660.06	07/23/12 11:50	ss1660.06 1.0ppm 7/23/12	WW		**4**	
a120723.09r	sc1660.02	07/23/12 12:00	SC1660.02 0.5ppm Ultra 7/23/12	WW	CV	**4**	
a120723.10r	sblk-s.01	07/23/12 13:57	sBLK-S.01 20g s/1 ID:PA120723s01	SO	Bl	**4**	
a120723.11r	slcs-s.01	07/23/12 14:20	sLCS-S.01 20g s/1 ID:PA120723s01	SO	MS	**4**	
a120723.12r	s53273.03	07/23/12 14:34	s53273.03 20.2g s/1 ID:PA120723s01	SO		**4**	
a120723.13r	s53273.04	07/23/12 14:44	s53273.04 ms 20.1g s/1 ID:PA120723s01	SO	MS	**4**	
a120723.14r	s53273.05	07/23/12 14:55	s53273.05 msd 20.0g s/1	SO	MS	**4**	
a120723.15r	s53273.01	07/23/12 15:08	s53273.01 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723.16r	s53273.02	07/23/12 15:18	s53273.02 20.3g s/1 ID:PA120723s01	SO		**4**	
a120723.17r	s53273.06	07/23/12 15:29	s53273.06 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723.18r	s53273.07	07/23/12 15:39	s53273.07 20.1g s/1 ID:PA120723s01	SO		**4**	
a120723.19r	s53273.08	07/23/12 15:50	s53273.08 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723.20r	s53273.09	07/23/12 16:00	s53273.09 20.2g s/1 ID:PA120723s01	SO		**4**	
a120723.21r	s53273.10	07/23/12 16:11	s53273.10 20.2g s/1 ID:PA120723s01	SO		**4**	
a120723.22r	s53273.11	07/23/12 16:21	s53273.11 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723.23r	s53273.12	07/23/12 16:32	s53273.12 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723.24r	s53273.13	07/23/12 16:42	s53273.13 20.2g s/1 ID:PA120723s01	SO		**4**	
a120723.25r	s53273.14	07/23/12 16:53	s53273.14 20.0g s/1 C ID:PA120723s01	SO		**4**	
a120723.26r	s53273.15	07/23/12 17:03	s53273.15 20.0g s/1 C ID:PA120723s01	SO		**4**	
a120723.28r	slcs-al.0	07/23/12 17:24	sLCS-Al.01 0.5ppm ID:Cleanup	WW	MS	**4**	
a120723.29r	ss1660.07	07/23/12 17:40	ss1660.07 0.1ppm 7/23/12	WW		**4**	
a120723.30r	sc1660.03	07/23/12 17:57	SC1660.03 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	15
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	1	Soil Spikes:	3
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

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Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120723b.01	sblk-r.01	07/23/12 10:32	SBLK-R.01	WW	Bl	**4**	
a120723b.02	sc1660.01	07/23/12 10:47	SC1660.01 0.5ppm 7/2/12	WW	CV	**4**	
a120723b.03	ss1660.01	07/23/12 10:58	ss1660.01 0.05ppm 7/23/12	WW		**4**	
a120723b.04	ss1660.02	07/23/12 11:08	ss1660.02 0.1ppm 7/23/12	WW		**4**	
a120723b.05	ss1660.03	07/23/12 11:19	ss1660.03 0.3ppm 7/23/12	WW		**4**	
a120723b.06	ss1660.04	07/23/12 11:29	ss1660.04 0.5ppm 7/23/12	WW		**4**	
a120723b.07	ss1660.05	07/23/12 11:40	ss1660.05 0.7ppm 7/23/12	WW		**4**	
a120723b.08	ss1660.06	07/23/12 11:50	ss1660.06 1.0ppm 7/23/12	WW		**4**	
a120723b.09	sc1660.02	07/23/12 12:00	SC1660.02 0.5ppm Ultra 7/23/12	WW	CV	**4**	
a120723b.10	sblk-s.01	07/23/12 13:57	sBLK-S.01 20g s/1 ID:PA120723s01	SO	Bl	**4**	
a120723b.11	slcs-s.01	07/23/12 14:20	sLCS-S.01 20g s/1 ID:PA120723s01	SO	MS	**4**	
a120723b.12	s53273.03	07/23/12 14:34	s53273.03 20.2g s/1 ID:PA120723s01	SO		**4**	
a120723b.13	s53273.04	07/23/12 14:44	s53273.04 ms 20.1g s/1 ID:PA120723s01	SO	MS	**4**	
a120723b.14	s53273.05	07/23/12 14:55	s53273.05 msd 20.0g s/1	SO	MS	**4**	
a120723b.15	s53273.01	07/23/12 15:08	s53273.01 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723b.16	s53273.02	07/23/12 15:18	s53273.02 20.3g s/1 ID:PA120723s01	SO		**4**	
a120723b.17	s53273.06	07/23/12 15:29	s53273.06 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723b.18	s53273.07	07/23/12 15:39	s53273.07 20.1g s/1 ID:PA120723s01	SO		**4**	
a120723b.19	s53273.08	07/23/12 15:50	s53273.08 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723b.20	s53273.09	07/23/12 16:00	s53273.09 20.2g s/1 ID:PA120723s01	SO		**4**	
a120723b.21	s53273.10	07/23/12 16:11	s53273.10 20.2g s/1 ID:PA120723s01	SO		**4**	
a120723b.22	s53273.11	07/23/12 16:21	s53273.11 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723b.23	s53273.12	07/23/12 16:32	s53273.12 20.0g s/1 ID:PA120723s01	SO		**4**	
a120723b.24	s53273.13	07/23/12 16:42	s53273.13 20.2g s/1 ID:PA120723s01	SO		**4**	
a120723b.25	s53273.14	07/23/12 16:53	s53273.14 20.0g s/1 C ID:PA120723s01	SO		**4**	
a120723b.26	s53273.15	07/23/12 17:03	s53273.15 20.0g s/1 C ID:PA120723s01	SO		**4**	
a120723b.28	slcs-al.0	07/23/12 17:24	sLCS-Al.01 0.5ppm ID:Cleanup	WW	MS	**4**	
a120723b.29	ss1660.07	07/23/12 17:40	ss1660.07 0.1ppm 7/23/12	WW		**4**	
a120723b.30	sc1660.03	07/23/12 17:57	SC1660.03 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	15
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	1	Soil Spikes:	3
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

Filename	LIMS ID	SSD Compound	Found/Spiked	%Rec.	LCL/UCL	Matrix
a120723.01r	sblk-r.01	TCX	22.41/30.00	74.7	34.1/137.1	WW
		DCBP	29.06/30.00	96.9	30.0/138.6	
a120723.02r	sc1660.01	TCX	15.61/30.00	n/a	34.1/137.1	WW
		DCBP	15.69/30.00	n/a	30.0/138.6	
a120723.03r	ss1660.01	TCX	1.96/30.00	n/a	34.1/137.1	WW
		DCBP	1.91/30.00	n/a	30.0/138.6	
a120723.04r	ss1660.02	TCX	3.89/30.00	n/a	34.1/137.1	WW
		DCBP	4.23/30.00	n/a	30.0/138.6	
a120723.05r	ss1660.03	TCX	12.12/30.00	n/a	34.1/137.1	WW
		DCBP	13.90/30.00	n/a	30.0/138.6	
a120723.06r	ss1660.04	TCX	20.42/30.00	n/a	34.1/137.1	WW
		DCBP	23.51/30.00	n/a	30.0/138.6	
a120723.07r	ss1660.05	TCX	27.70/30.00	n/a	34.1/137.1	WW
		DCBP	31.08/30.00	n/a	30.0/138.6	
a120723.08r	ss1660.06	TCX	39.72/30.00	n/a	34.1/137.1	WW
		DCBP	44.58/30.00	n/a	30.0/138.6	
a120723.09r	sc1660.02	TCX	14.62/30.00	n/a	34.1/137.1	WW
		DCBP	14.41/30.00	n/a	30.0/138.6	
a120723.10r	sblk-s.01	TCX	24.14/30.00	80.5	33.0/135.3	SO
		DCBP	27.98/30.00	93.3	30.0/137.0	
a120723.11r	slcs-s.01	TCX	19.79/30.00	66.0	33.0/135.3	SO
		DCBP	26.66/30.00	88.9	30.0/137.0	
a120723.12r	s53273.03	TCX	15.71/30.00	52.4	33.0/135.3	SO
		DCBP	25.14/30.00	83.8	30.0/137.0	
a120723.13r	s53273.04	TCX	16.45/30.00	54.8	33.0/135.3	SO
		DCBP	25.63/30.00	85.4	30.0/137.0	
a120723.14r	s53273.05	TCX	15.50/30.00	51.7	33.0/135.3	SO
		DCBP	23.37/30.00	77.9	30.0/137.0	
a120723.15r	s53273.01	TCX	16.12/30.00	53.7	33.0/135.3	SO
		DCBP	24.92/30.00	83.1	30.0/137.0	
a120723.16r	s53273.02	TCX	17.85/30.00	59.5	33.0/135.3	SO
		DCBP	27.58/30.00	91.9	30.0/137.0	
a120723.17r	s53273.06	TCX	15.87/30.00	52.9	33.0/135.3	SO
		DCBP	18.94/30.00	63.1	30.0/137.0	
a120723.18r	s53273.07	TCX	18.44/30.00	61.5	33.0/135.3	SO
		DCBP	25.46/30.00	84.9	30.0/137.0	
a120723.19r	s53273.08	TCX	18.34/30.00	61.1	33.0/135.3	SO
		DCBP	26.53/30.00	88.4	30.0/137.0	
a120723.20r	s53273.09	TCX	16.83/30.00	56.1	33.0/135.3	SO
		DCBP	23.98/30.00	79.9	30.0/137.0	
a120723.21r	s53273.10	TCX	16.21/30.00	54.0	33.0/135.3	SO
		DCBP	23.48/30.00	78.3	30.0/137.0	
a120723.22r	s53273.11	TCX	17.39/30.00	58.0	33.0/135.3	SO
		DCBP	26.18/30.00	87.3	30.0/137.0	
a120723.23r	s53273.12	TCX	18.04/30.00	60.1	33.0/135.3	SO
		DCBP	27.05/30.00	90.2	30.0/137.0	
a120723.24r	s53273.13	TCX	17.87/30.00	59.6	33.0/135.3	SO
		DCBP	28.50/30.00	95.0	30.0/137.0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120723.25r	s53273.14	TCX	14.09/30.00	47.0	33.0/135.3	SO
		DCBP	19.48/30.00	64.9	30.0/137.0	
a120723.26r	s53273.15	TCX	12.97/30.00	43.2	33.0/135.3	SO
		DCBP	17.18/30.00	57.3	30.0/137.0	
a120723.28r	slcs-al.0	TCX	16.37/30.00	54.6	34.1/137.1	WW
		DCBP	18.83/30.00	62.8	30.0/138.6	
a120723.29r	ss1660.07	TCX	3.35/30.00	n/a	34.1/137.1	WW
		DCBP	2.72/30.00	n/a	30.0/138.6	
a120723.30r	sc1660.03	TCX	15.32/30.00	n/a	34.1/137.1	WW
		DCBP	13.56/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120723b.01	sblk-r.01	TCX	23.38/30.00	77.9	34.1/137.1	WW
		DCBP	30.79/30.00	102.6	30.0/138.6	
a120723b.02	sc1660.01	TCX	15.58/30.00	n/a	34.1/137.1	WW
		DCBP	15.89/30.00	n/a	30.0/138.6	
a120723b.03	ss1660.01	TCX	1.46/30.00	n/a	34.1/137.1	WW
		DCBP	1.46/30.00	n/a	30.0/138.6	
a120723b.04	ss1660.02	TCX	2.93/30.00	n/a	34.1/137.1	WW
		DCBP	3.39/30.00	n/a	30.0/138.6	
a120723b.05	ss1660.03	TCX	9.08/30.00	n/a	34.1/137.1	WW
		DCBP	11.15/30.00	n/a	30.0/138.6	
a120723b.06	ss1660.04	TCX	15.52/30.00	n/a	34.1/137.1	WW
		DCBP	18.79/30.00	n/a	30.0/138.6	
a120723b.07	ss1660.05	TCX	20.83/30.00	n/a	34.1/137.1	WW
		DCBP	25.00/30.00	n/a	30.0/138.6	
a120723b.08	ss1660.06	TCX	30.70/30.00	n/a	34.1/137.1	WW
		DCBP	35.94/30.00	n/a	30.0/138.6	
a120723b.09	sc1660.02	TCX	14.40/30.00	n/a	34.1/137.1	WW
		DCBP	14.40/30.00	n/a	30.0/138.6	
a120723b.10	sblk-s.01	TCX	24.75/30.00	82.5	33.0/135.3	SO
		DCBP	27.90/30.00	93.0	30.0/137.0	
a120723b.11	slcs-s.01	TCX	19.56/30.00	65.2	33.0/135.3	SO
		DCBP	26.69/30.00	89.0	30.0/137.0	
a120723b.12	s53273.03	TCX	15.61/30.00	52.0	33.0/135.3	SO
		DCBP	25.04/30.00	83.5	30.0/137.0	
a120723b.13	s53273.04	TCX	16.15/30.00	53.8	33.0/135.3	SO
		DCBP	25.56/30.00	85.2	30.0/137.0	
a120723b.14	s53273.05	TCX	15.13/30.00	50.4	33.0/135.3	SO
		DCBP	23.75/30.00	79.2	30.0/137.0	
a120723b.15	s53273.01	TCX	16.10/30.00	53.7	33.0/135.3	SO
		DCBP	25.17/30.00	83.9	30.0/137.0	
a120723b.16	s53273.02	TCX	17.98/30.00	59.9	33.0/135.3	SO
		DCBP	27.42/30.00	91.4	30.0/137.0	
a120723b.17	s53273.06	TCX	15.12/30.00	50.4	33.0/135.3	SO
		DCBP	19.99/30.00	66.6	30.0/137.0	
a120723b.18	s53273.07	TCX	17.85/30.00	59.5	33.0/135.3	SO
		DCBP	26.36/30.00	87.9	30.0/137.0	
a120723b.19	s53273.08	TCX	17.76/30.00	59.2	33.0/135.3	SO
		DCBP	26.92/30.00	89.7	30.0/137.0	
a120723b.20	s53273.09	TCX	16.94/30.00	56.5	33.0/135.3	SO
		DCBP	24.88/30.00	82.9	30.0/137.0	
a120723b.21	s53273.10	TCX	15.91/30.00	53.0	33.0/135.3	SO
		DCBP	23.79/30.00	79.3	30.0/137.0	
a120723b.22	s53273.11	TCX	17.11/30.00	57.0	33.0/135.3	SO
		DCBP	26.64/30.00	88.8	30.0/137.0	
a120723b.23	s53273.12	TCX	18.01/30.00	60.0	33.0/135.3	SO
		DCBP	27.22/30.00	90.7	30.0/137.0	
a120723b.24	s53273.13	TCX	17.50/30.00	58.3	33.0/135.3	SO
		DCBP	28.63/30.00	95.4	30.0/137.0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120723b.25	s53273.14	TCX	14.03/30.00	46.8	33.0/135.3	SO
		DCBP	21.65/30.00	72.2	30.0/137.0	
a120723b.26	s53273.15	TCX	12.94/30.00	43.1	33.0/135.3	SO
		DCBP	18.68/30.00	62.3	30.0/137.0	
a120723b.28	slcs-al.0	TCX	16.10/30.00	53.7	34.1/137.1	WW
		DCBP	20.68/30.00	68.9	30.0/138.6	
a120723b.29	ss1660.07	TCX	3.48/30.00	n/a	34.1/137.1	WW
		DCBP	3.15/30.00	n/a	30.0/138.6	
a120723b.30	sc1660.03	TCX	14.95/30.00	n/a	34.1/137.1	WW
		DCBP	14.66/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
a120723.14r	s53273.05	**a120723.13r**	1016-1	0.371/ 0.388	4.5	SO
			1016-2	0.335/ 0.362	7.7	
			1016-3	0.401/ 0.417	3.9	
			1016-4	0.392/ 0.415	5.7	
			1016-5	0.372/ 0.396	6.3	
			1260-1	0.380/ 0.404	6.1	
			1260-2	0.376/ 0.400	6.2	
			1260-3	0.375/ 0.397	5.7	
			1260-4	0.372/ 0.397	6.5	
			1260-5	0.375/ 0.400	6.5	
			[end of list]			

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
a120723b.14	s53273.05	**a120723b.13**	1016-1	0.368/ 0.380	3.2	SO
			1016-2	0.338/ 0.359	6.0	
			1016-3	0.350/ 0.370	5.6	
			1016-4	0.362/ 0.387	6.7	
			1016-5	0.356/ 0.377	5.7	
			1260-1	0.365/ 0.392	7.1	
			1260-2	0.362/ 0.385	6.2	
			1260-3	0.363/ 0.382	5.1	
			1260-4	0.355/ 0.374	5.2	
			1260-5	0.368/ 0.397	7.6	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120723.11r	slcs-s.01	**a120723.10r**	1016-1	0.416/-0.052	93.6		SO
			1016-2	0.418/-0.049	93.4		
			1016-3	0.437/-0.046	96.6		
			1016-4	0.441/-0.036	95.4		
			1016-5	0.440/-0.046	97.2		
			1260-1	0.452/-0.046	99.6		
			1260-2	0.449/-0.049	99.6		
			1260-3	0.452/-0.048	100.0		
			1260-4	0.450/-0.042	98.4		
			1260-5	0.456/-0.047	100.6		
				Average Recovery	**97.4**	50.0/125.0	
a120723.13r	s53273.04	**a120723.12r**	1016-1	0.388/-0.034	84.4		SO
			1016-2	0.362/-0.050	82.4		
			1016-3	0.417/ 0.000	83.4		
			1016-4	0.415/ 0.008	81.4		
			1016-5	0.396/-0.035	86.2		
			1260-1	0.404/-0.040	88.8		
			1260-2	0.400/ 0.000	80.0		
			1260-3	0.397/ 0.000	79.4		
			1260-4	0.397/-0.044	88.2		
			1260-5	0.400/-0.043	88.6		
				Average Recovery	**84.3**	50.0/125.0	
a120723.14r	s53273.05	**a120723.12r**	1016-1	0.371/-0.034	81.0		SO
			1016-2	0.335/-0.050	77.0		
			1016-3	0.401/ 0.000	80.2		
			1016-4	0.392/ 0.008	76.8		
			1016-5	0.372/-0.035	81.4		
			1260-1	0.380/-0.040	84.0		
			1260-2	0.376/ 0.000	75.2		
			1260-3	0.375/ 0.000	75.0		
			1260-4	0.372/-0.044	83.2		
			1260-5	0.375/-0.043	83.6		
				Average Recovery	**79.7**	50.0/125.0	
a120723.28r	slcs-al.0		1016-1	0.400/ 0.000	80.0		WW
			1016-2	0.403/ 0.000	80.6		
			1016-3	0.415/ 0.000	83.0		
			1016-4	0.418/ 0.000	83.6		
			1016-5	0.415/ 0.000	83.0		
			1260-1	0.391/ 0.000	78.2		
			1260-2	0.388/ 0.000	77.6		
			1260-3	0.379/ 0.000	75.8		
			1260-4	0.383/ 0.000	76.6		
			1260-5	0.369/ 0.000	73.8		
				Average Recovery	**79.2**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120723b.11	slcs-s.01	**a120723b.10**	1016-1	0.394/ 0.000	78.8		SO
			1016-2	0.409/ 0.000	81.8		
			1016-3	0.406/-0.033	87.8		
			1016-4	0.427/ 0.000	85.4		
			1016-5	0.428/-0.047	95.0		
			1260-1	0.449/ 0.000	89.8		
			1260-2	0.444/-0.043	97.4		
			1260-3	0.444/-0.041	97.0		
			1260-4	0.428/ 0.000	85.6		
			1260-5	0.451/-0.039	98.0		
				Average Recovery	**89.7**	50.0/125.0	
a120723b.13	s53273.04	**a120723b.12**	1016-1	0.380/-0.004	76.8		SO
			1016-2	0.359/-0.044	80.6		
			1016-3	0.370/-0.024	78.8		
			1016-4	0.387/ 0.000	77.4		
			1016-5	0.377/-0.044	84.2		
			1260-1	0.392/-0.036	85.6		
			1260-2	0.385/-0.041	85.2		
			1260-3	0.382/ 0.000	76.4		
			1260-4	0.374/ 0.000	74.8		
			1260-5	0.397/-0.037	86.8		
				Average Recovery	**80.7**	50.0/125.0	
a120723b.14	s53273.05	**a120723b.12**	1016-1	0.368/-0.004	74.4		SO
			1016-2	0.338/-0.044	76.4		
			1016-3	0.350/-0.024	74.8		
			1016-4	0.362/ 0.000	72.4		
			1016-5	0.356/-0.044	80.0		
			1260-1	0.365/-0.036	80.2		
			1260-2	0.362/-0.041	80.6		
			1260-3	0.363/ 0.000	72.6		
			1260-4	0.355/ 0.000	71.0		
			1260-5	0.368/-0.037	81.0		
				Average Recovery	**76.3**	50.0/125.0	
a120723b.28	slcs-al.0		1016-1	0.399/ 0.000	79.8		WW
			1016-2	0.405/ 0.000	81.0		
			1016-3	0.410/ 0.000	82.0		
			1016-4	0.414/ 0.000	82.8		
			1016-5	0.406/ 0.000	81.2		
			1260-1	0.384/ 0.000	76.8		
			1260-2	0.383/ 0.000	76.6		
			1260-3	0.378/ 0.000	75.6		
			1260-4	0.364/ 0.000	72.8		
			1260-5	0.379/ 0.000	75.8		
				Average Recovery	**78.4**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-5
Level: LOW

Analytical Batch: a120723.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: a120723.10r.bnd
LCS Data File: a120723.11r.bnd

Blank/LCS Preparation Batch: pa120723s01

Sample ID	Anal. Batch	Prep. Batch	Date	Analysis	Analysis Code
S53273.01	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.02	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.03	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.04	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.05	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.06	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.07	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.08	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.09	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.10	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.11	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.12	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.13	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.14	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.15	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53274.01	PA120723S01		07/23/12	Extraction, PCB - Wipes	1120WIPE
	F120723	PA120723S01	07/23/12	PCB Swab List	$PCBSWBL
S53274.02	PA120723S01		07/23/12	Extraction, PCB - Wipes	1120WIPE
	F120723	PA120723S01	07/23/12	PCB Swab List	$PCBSWBL

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-5
Level: LOW

Analytical Batch: a120723.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	LIMS ID	Run Time	Target Analyte	Conc.	Sample	Matrix
a120723.01r	sblk-r.01	07/23/12 10:32	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
a120723.10r	sblk-s.01	07/23/12 13:57	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-608
Level: LOW

Analytical Batch: a120723.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: a120723b.10r.bnd
LCS Data File: a120723b.11r.bnd

Blank/LCS Preparation Batch: pa120723s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53273.01	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.02	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.03	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.04	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.05	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.06	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.07	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.08	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.09	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.10	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.11	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.12	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.13	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.14	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53273.15	PA120723S01		07/23/12	Extraction, PCB	1120S
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 1)	$TCL8082C1
	A120723	PA120723S01	07/23/12	TCL PCB List (Column 2)	$TCL8082C2
S53274.01	PA120723S01		07/23/12	Extraction, PCB - Wipes	1120WIPE
	F120723	PA120723S01	07/23/12	PCB Swab List	$PCBSWBL
S53274.02	PA120723S01		07/23/12	Extraction, PCB - Wipes	1120WIPE
	F120723	PA120723S01	07/23/12	PCB Swab List	$PCBSWBL

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-608
Level: LOW

Analytical Batch: a120723.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	LIMS ID	Run Time	Target Analyte	Conc.	Sample	Matrix
a120723b.01	sblk-r.01	07/23/12 10:32	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
a120723b.10	sblk-s.01	07/23/12 13:57	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
Analytical Batch: a120723.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Note/Qualifier Key

A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.01
Data File: a120723.15r.bnd
Date Received: 07/20/12

Tag: SB-132 (07-18-12)(20-22)
Notes: s53273.01 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		86	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.01
Data File: a120723b.15r.bnd
Date Received: 07/20/12

Tag: SB-132 (07-18-12)(20-22)
Notes: s53273.01 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		86	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.02
Data File: a120723.16r.bnd
Date Received: 07/20/12

Tag: SB-130 (07-18-12)(16-18)
Notes: s53273.02 20.3g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		80	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.02
Data File: a120723b.16r.bnd
Date Received: 07/20/12

Tag: SB-130 (07-18-12)(16-18)
Notes: s53273.02 20.3g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		80	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.03
Data File: a120723.12r.bnd
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9)
Notes: s53273.03 20.2g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.03
Data File: a120723b.12r.bnd
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9)
Notes: s53273.03 20.2g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.04
Data File: a120723.13r.bnd
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MS
Notes: s53273.04 ms 20.1g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		84	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.04
Data File: a120723b.13r.bnd
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MS
Notes: s53273.04 ms 20.1g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		84	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.05
Data File: a120723.14r.bnd
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MSD
Notes: s53273.05 msd 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		84	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.05
Data File: a120723b.14r.bnd
Date Received: 07/20/12

Tag: SB-159 (07-19-12)(7-9) MSD
Notes: s53273.05 msd 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		84	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.06
Data File: a120723.17r.bnd
Date Received: 07/20/12

Tag: SB-158 (07-19-12)(3-5)
Notes: s53273.06 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120723.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53273.06 **Tag: SB-158 (07-19-12)(3-5)** Matrix: SO
Data File: a120723b.17r.bnd Notes: s53273.06 20.0g s/1 ID:PA120723s01 Extraction: SONC
Date Received: 07/20/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.07
Data File: a120723.18r.bnd
Date Received: 07/20/12

Tag: SB-138 (07-19-12)(22.5-24.5)
Notes: s53273.07 20.1g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		86	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120723.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53273.07 **Tag: SB-138 (07-19-12)(22.5-24.5)** Matrix: SO
Data File: a120723b.18r.bnd Notes: s53273.07 20.1g s/1 ID:PA120723s01 Extraction: SONC
Date Received: 07/20/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		86	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.08
Data File: a120723.19r.bnd
Date Received: 07/20/12

Tag: SB-140 (07-19-12)(10-12)
Notes: s53273.08 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		79	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.08
Data File: a120723b.19r.bnd
Date Received: 07/20/12

Tag: SB-140 (07-19-12)(10-12)
Notes: s53273.08 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		79	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.09
Data File: a120723.20r.bnd
Date Received: 07/20/12

Tag: SB-118 (07-19-12)(2-4)
Notes: s53273.09 20.2g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.09
Data File: a120723b.20r.bnd
Date Received: 07/20/12

Tag: SB-118 (07-19-12)(2-4)
Notes: s53273.09 20.2g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.10
Data File: a120723.21r.bnd
Date Received: 07/20/12

Tag: SB-171 (07-20-12)(10-12)
Notes: s53273.10 20.2g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		90	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.10
Data File: a120723b.21r.bnd
Date Received: 07/20/12

Tag: SB-171 (07-20-12)(10-12)
Notes: s53273.10 20.2g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		90	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.11
Data File: a120723.22r.bnd
Date Received: 07/20/12

Tag: DUP 1 (07-20-12)
Notes: s53273.11 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.11
Data File: a120723b.22r.bnd
Date Received: 07/20/12

Tag: DUP 1 (07-20-12)
Notes: s53273.11 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.12
Data File: a120723.23r.bnd
Date Received: 07/20/12

Tag: SB-147 (07-20-12) (8-10)
Notes: s53273.12 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.12
Data File: a120723b.23r.bnd
Date Received: 07/20/12

Tag: SB-147 (07-20-12) (8-10)
Notes: s53273.12 20.0g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.13
Data File: a120723.24r.bnd
Date Received: 07/20/12

Tag: SB-148 (07-20-12) (2.5-4.5)
Notes: s53273.13 20.2g s/1 ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		86	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120723.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53273.13 **Tag: SB-148 (07-20-12) (2.5-4.5)** Matrix: SO
Data File: a120723b.24r.bnd Notes: s53273.13 20.2g s/1 ID:PA120723s01 Extraction: SONC
Date Received: 07/20/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		86	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.14
Data File: a120723.25r.bnd
Date Received: 07/20/12

Tag: SB-150 (07-20-12) (2-4)
Notes: s53273.14 20.0g s/1 C ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		97	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.14
Data File: a120723b.25r.bnd
Date Received: 07/20/12

Tag: SB-150 (07-20-12) (2-4)
Notes: s53273.14 20.0g s/1 C ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		97	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

LIMS ID: S53273.15
Data File: a120723.26r.bnd
Date Received: 07/20/12

Tag: DUP2 (07-20-12)
Notes: s53273.15 20.0g s/1 C ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		97	1	1	%	07/24/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

LIMS ID: S53273.15
Data File: a120723b.26r.bnd
Date Received: 07/20/12

Tag: DUP2 (07-20-12)
Notes: s53273.15 20.0g s/1 C ID:PA120723s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/23/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/23/12	
Total Solids								
TSOLIDS	Total Solids		97	1	1	%	07/24/12	

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
a66120723.cal	**TCX**	L	2.24	2.29	2.34	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.061
				21.6	1.00	0.11	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.15	3.20	3.25	0.05	0.10	0.30	0.50	0.70	1.00	0.049	0.927
				24.1	1.00	1.72	1.36	1.12	1.06	1.00	0.97		
	1016-2	L	3.41	3.46	3.51	0.05	0.10	0.30	0.50	0.70	1.00	0.156	2.954
				25.0	1.00	5.59	4.34	3.55	3.39	3.15	3.09		
	1016-3	L	3.50	3.55	3.60	0.05	0.10	0.30	0.50	0.70	1.00	0.060	1.236
				23.2	1.00	2.24	1.76	1.47	1.41	1.32	1.29		
	1016-4	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.038	0.909
				20.9	1.00	1.56	1.24	1.05	1.02	0.96	0.94		
	1016-5	L	4.04	4.09	4.14	0.05	0.10	0.30	0.50	0.70	1.00	0.057	1.163
				23.1	1.00	2.11	1.65	1.38	1.32	1.24	1.21		
	1260-1	L	5.09	5.14	5.19	0.05	0.10	0.30	0.50	0.70	1.00	0.096	1.843
				25.0	1.00	3.48	2.70	2.21	2.10	1.96	1.93		
	1260-2	L	5.31	5.36	5.41	0.05	0.10	0.30	0.50	0.70	1.00	0.143	2.727
				25.1	1.00	5.16	4.02	3.27	3.12	2.90	2.86		
	1260-3	L	5.55	5.60	5.65	0.05	0.10	0.30	0.50	0.70	1.00	0.140	2.736
				24.6	1.00	5.12	3.98	3.26	3.13	2.91	2.86		
	1260-4	L	6.15	6.20	6.25	0.05	0.10	0.30	0.50	0.70	1.00	0.092	1.991
				23.6	1.00	3.61	2.84	2.33	2.24	2.09	2.08		
	1260-5	L	6.41	6.46	6.51	0.05	0.10	0.30	0.50	0.70	1.00	0.105	2.032
				24.9	1.00	3.83	2.97	2.43	2.32	2.15	2.13		
	DCBP	L	7.53	7.58	7.63	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.044
				25.4	1.00	0.08	0.07	0.05	0.05	0.05	0.05		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): a66120723.cal / mean %rsd: 23.9

File Name: F:\gceed.dat\Methods\A66120723.cal
Version: 1

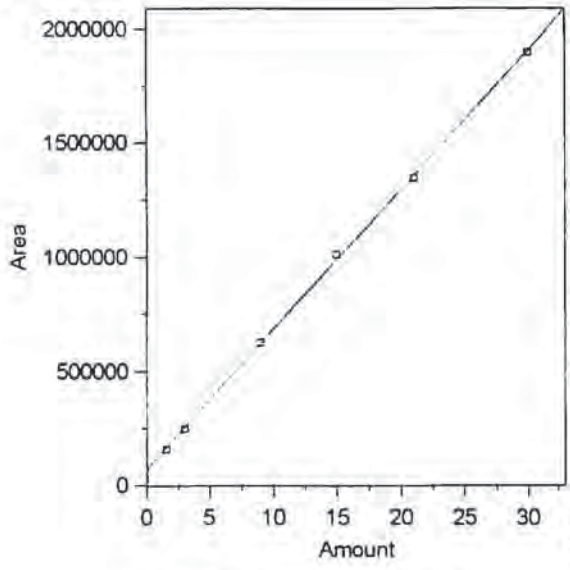
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.288 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

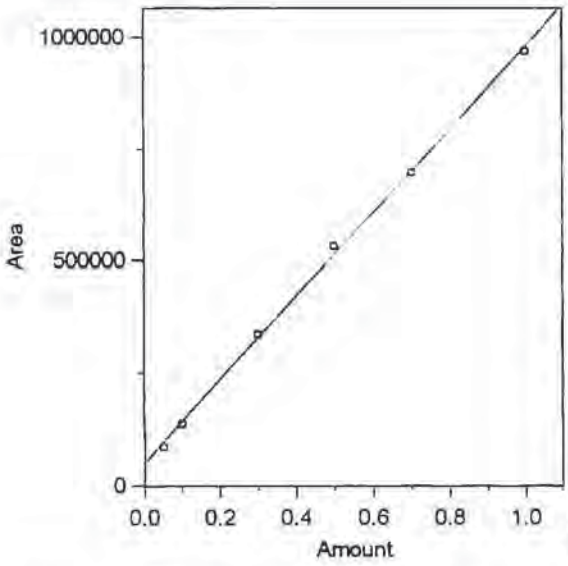
Single peak quantification by area

Y = 61135.64 X + 71564.21

Linear fit with equal weighting
Coefficient of determination: 0.9997023
Average error: 1.671%
Average CF: 75401.86
RSD: 21.587%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	158211.1	105474.1	-3.097	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	3	247381.2	82460.4	-2.977	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	9	627188.6	69687.63	0.869	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	15	1009865	67324.34	2.151	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	21	1346143	64102.05	-0.684	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	30	1900880	63362.67	-0.249	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

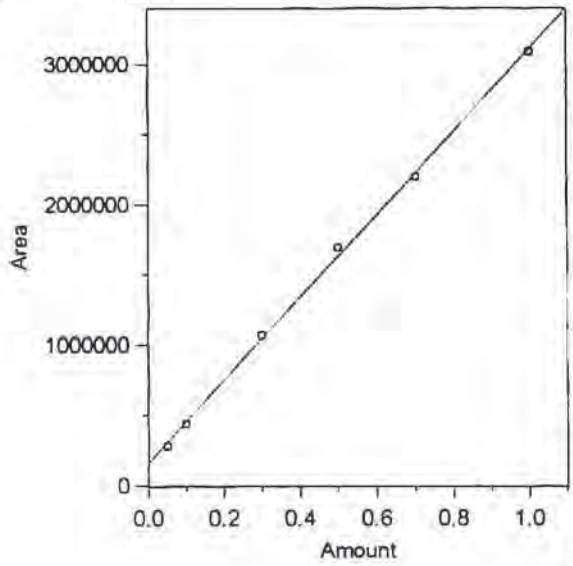
2 1016-1



Expected retention time:	3.204 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 927477.9 X + 49200.14	
Linear fit with equal weighting	
Coefficient of determination:	0.9989657
Average error:	3.530%
Average CF:	1204538
RSD:	24.069%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	86105.43	1722109	-9.907	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	136167.7	1361677	-4.072	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	335690.6	1118969	2.519	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	530850.7	1061701	3.492	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	696663.8	995234.1	-0.254	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	967539.4	967539.4	-0.936	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

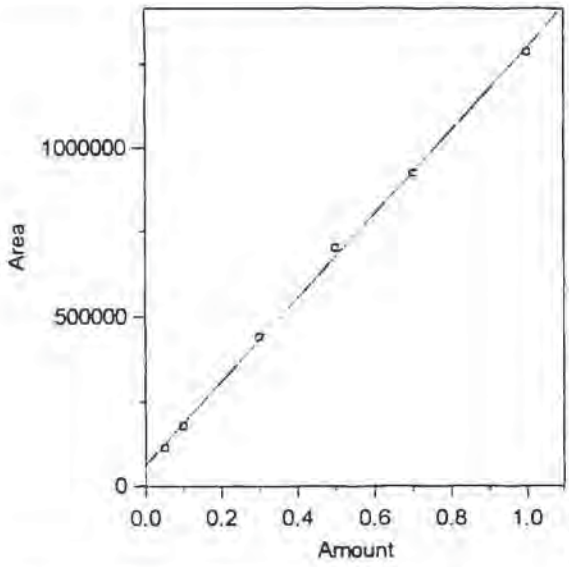
3 1016-2



Expected retention time:	3.458 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2953772 X + 156388.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9989858
Average error:	3.258%
Average CF:	3850246
RSD:	24.990%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	279309.2	5586184	-8.145	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	433994.1	4339941	-3.934	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	1065060	3550200	2.162	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1693959	3387918	3.716	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2202040	3145772	-0.989	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	3091464	3091464	-0.601	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

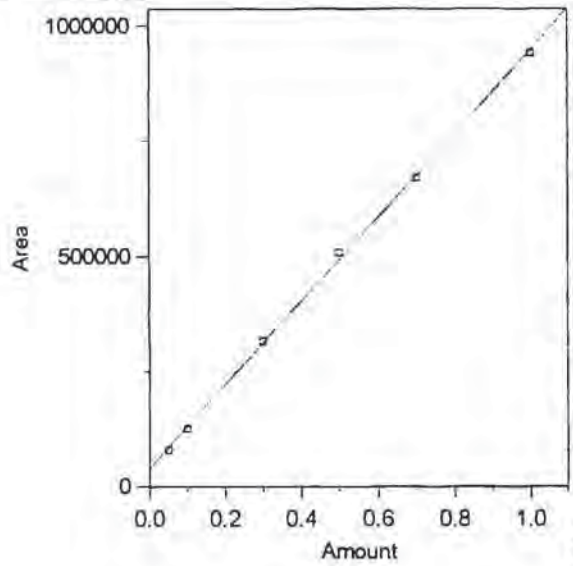
4 1016-3



Expected retention time:	3.55 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1236227 X + 60238.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9991041
Average error:	3.182%
Average CF:	1578939
RSD:	23.167%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	112013.3	2240266	-8.223	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	176181.8	1761818	-4.177	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	439383.1	1464610	1.920	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	702255	1404510	3.524	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	921267.6	1316097	-0.468	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1286331	1286331	-0.782	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

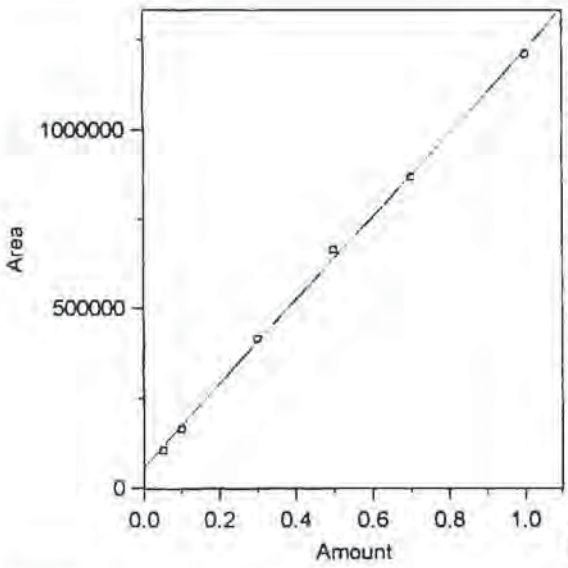
5 1016-4



Expected retention time:	3.62 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 909122.1 X + 38161.76	
Linear fit with equal weighting	
Coefficient of determination:	0.9993291
Average error:	2.779%
Average CF:	1127956
RSD:	20.930%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	77820.7	1556414	-6.933	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	124287.9	1242879	-3.708	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	315925.3	1053084	1.617	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	508258.3	1016517	3.153	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	669641.2	956630.3	-0.727	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	942210.8	942210.8	-0.536	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

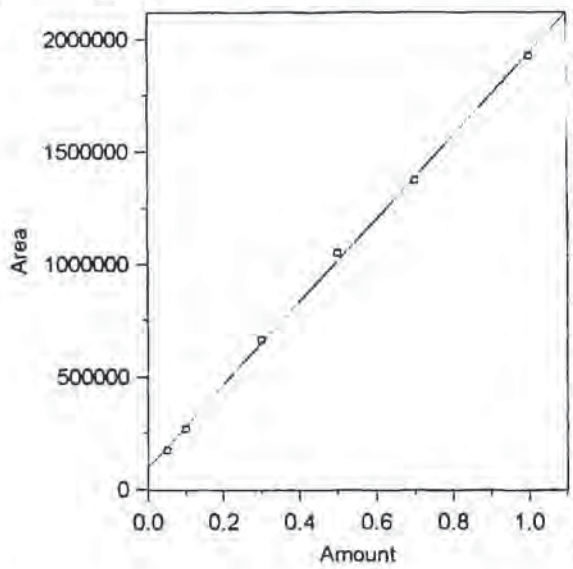
6 1016-5



Expected retention time:	4.087 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1163463 X + 56659.07	
Linear fit with equal weighting	
Coefficient of determination:	0.999
Average error:	3.367%
Average CF:	1484848
RSD:	23.098%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	105395.8	2107916	-8.218	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	164816.7	1648167	-4.733	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	414433.1	1381444	2.153	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	662075.4	1324151	3.710	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	865673.7	1236677	-0.621	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1210736	1210736	-0.769	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

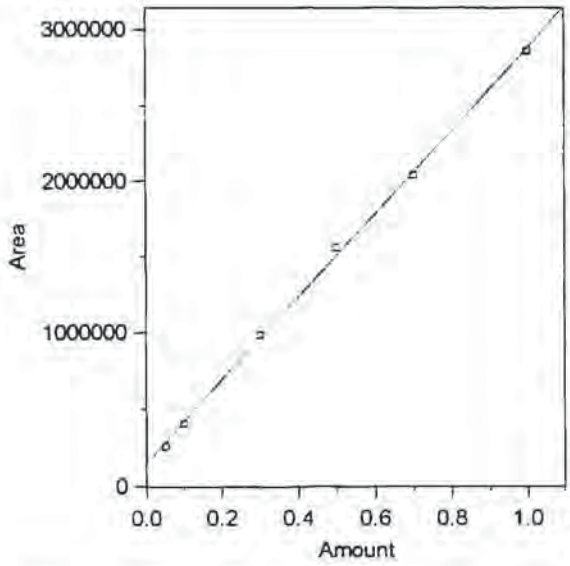
7 1260-1



Expected retention time:	5.141 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1842616 X + 96174.94	
Linear fit with equal weighting	
Coefficient of determination:	0.9991545
Average error:	3.001%
Average CF:	2397846
RSD:	25.044%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	174105.7	3482114	-7.541	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	270409	2704090	-3.576	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	662251.2	2207504	2.048	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1051767	2103534	3.370	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1372902	1961289	-0.945	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1928547	1928547	-0.528	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

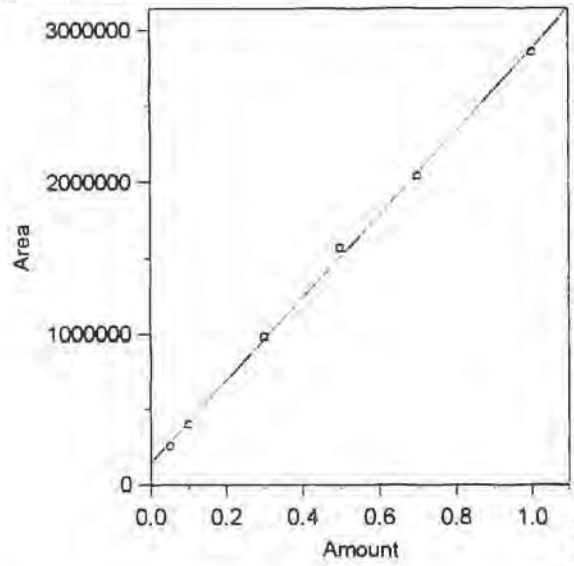
8 1260-2



Expected retention time:	5.36 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2727048 X + 143494.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9991046
Average error:	3.039%
Average CF:	3553938
RSD:	25.062%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	257787.1	5155742	-7.883	F:\gcecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	402170.8	4021708	-3.371	F:\gcecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	980370	3267900	1.951	F:\gcecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1559937	3119874	3.511	F:\gcecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2032394	2903420	-0.976	F:\gcecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2854984	2854984	-0.542	F:\gcecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

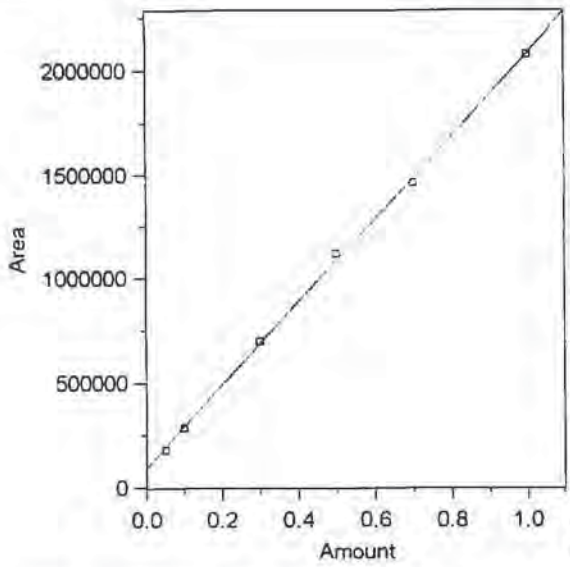
9 1260-3



Expected retention time:	5.603 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2736328 X + 140375.4	
Linear fit with equal weighting	
Coefficient of determination:	0.9990367
Average error:	3.090%
Average CF:	3543684
RSD:	24.588%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	255937.1	5118742	-7.668	F:\gcecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	398342.5	3983425	-3.784	F:\gcecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	978546.4	3261821	1.797	F:\gcecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1564908	3129816	3.737	F:\gcecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2035858	2908369	-0.970	F:\gcecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2859929	2859929	-0.583	F:\gcecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

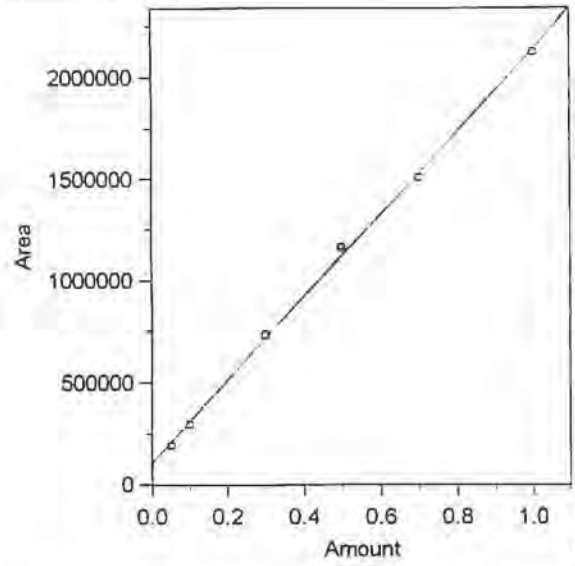
10 1260-4



Expected retention time:	6.203 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1990900 X + 91862.5	
Linear fit with equal weighting	
Coefficient of determination:	0.9993398
Average error:	2.325%
Average CF:	2532612
RSD:	23.638%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	180701	3614020	-5.594	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	284122.4	2841224	-2.347	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	699625.9	2332086	1.523	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1118682	2237364	2.885	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1463119	2090170	-1.506	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2080809	2080809	-0.094	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

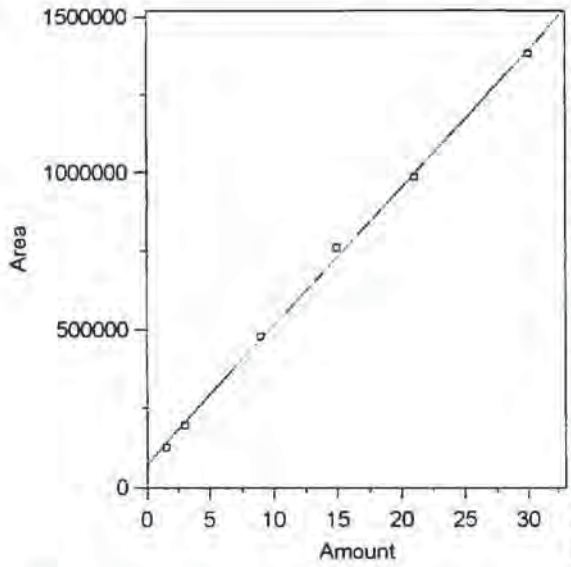
11 1260-5



Expected retention time:	6.46 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2031766 X + 105185.8	
Linear fit with equal weighting	
Coefficient of determination:	0.999006
Average error:	3.100%
Average CF:	2639279
RSD:	24.931%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	191461	3829220	-7.406	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	296913	2969130	-3.713	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	729582.5	2431942	2.080	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1162112	2324224	3.661	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1507168	2153097	-1.326	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2128059	2128059	-0.416	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

12 DCBP



Expected retention time:	7.576 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 43996.59 X + 72227.88	
Linear fit with equal weighting	
Coefficient of determination:	0.9987453
Average error:	3.568%
Average CF:	57719.43
RSD:	25.426%

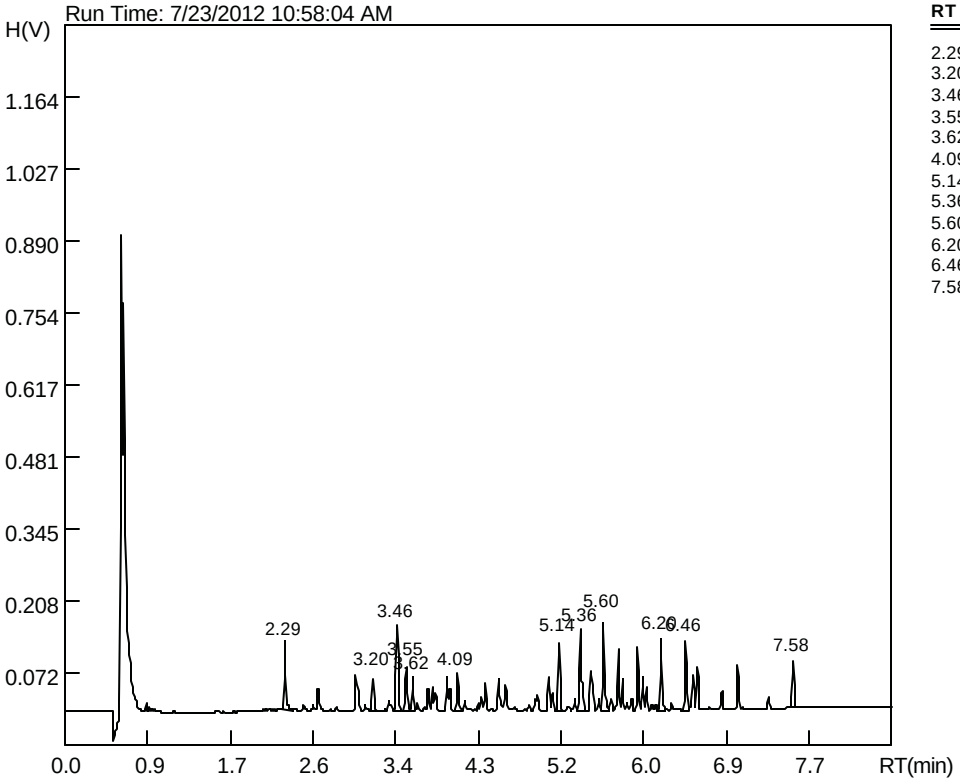
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	126427.5	84285	-8.534	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	3	194791.2	64930.4	-4.616	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	9	479314.4	53257.16	2.374	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	15	762433.2	50828.88	4.132	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	21	985420.3	46924.78	-1.078	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	30	1382710	46090.33	-0.676	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

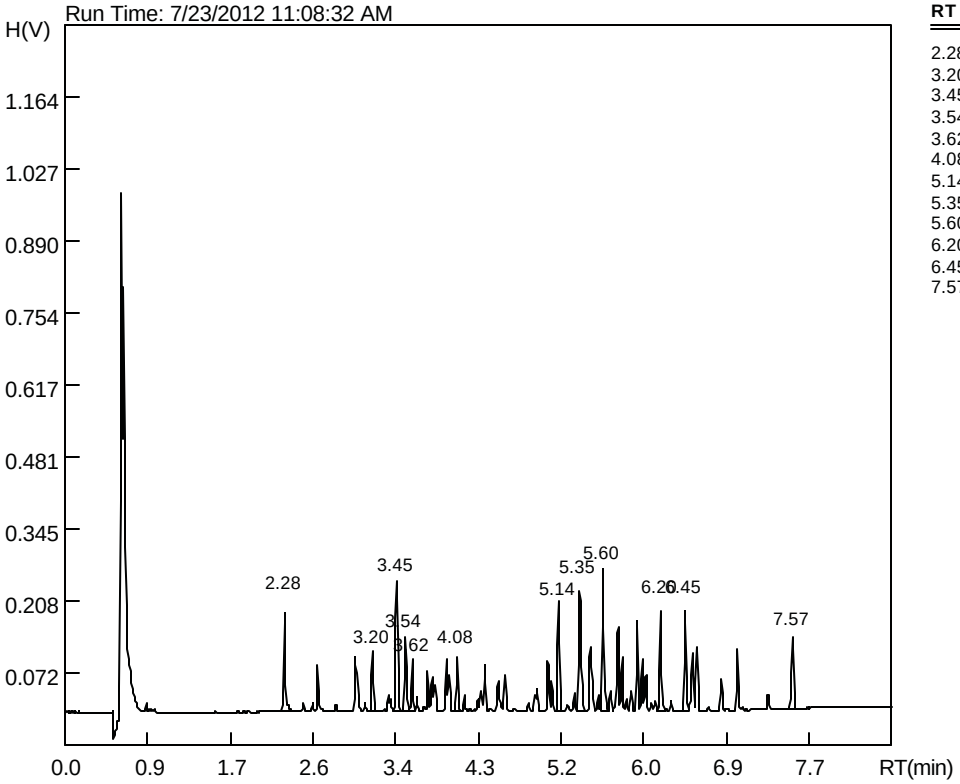
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:04 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	1.962	158211
3.20	0.00	1016-1	0.050	86105
3.46	0.01	1016-2	0.058	279309
3.55	0.00	1016-3	0.053	112013
3.62	0.00	1016-4	0.038	77821
4.09	0.01	1016-5	0.054	105396
5.14	0.00	1260-1	0.055	174106
5.36	0.01	1260-2	0.056	257787
5.60	0.00	1260-3	0.059	255937
6.20	0.00	1260-4	0.066	180701
6.46	0.01	1260-5	0.060	191461
7.58	0.01	DCBP	1.909	126428

File Name: F:\GCECD.DAT\A120723\A120723.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:32 AM



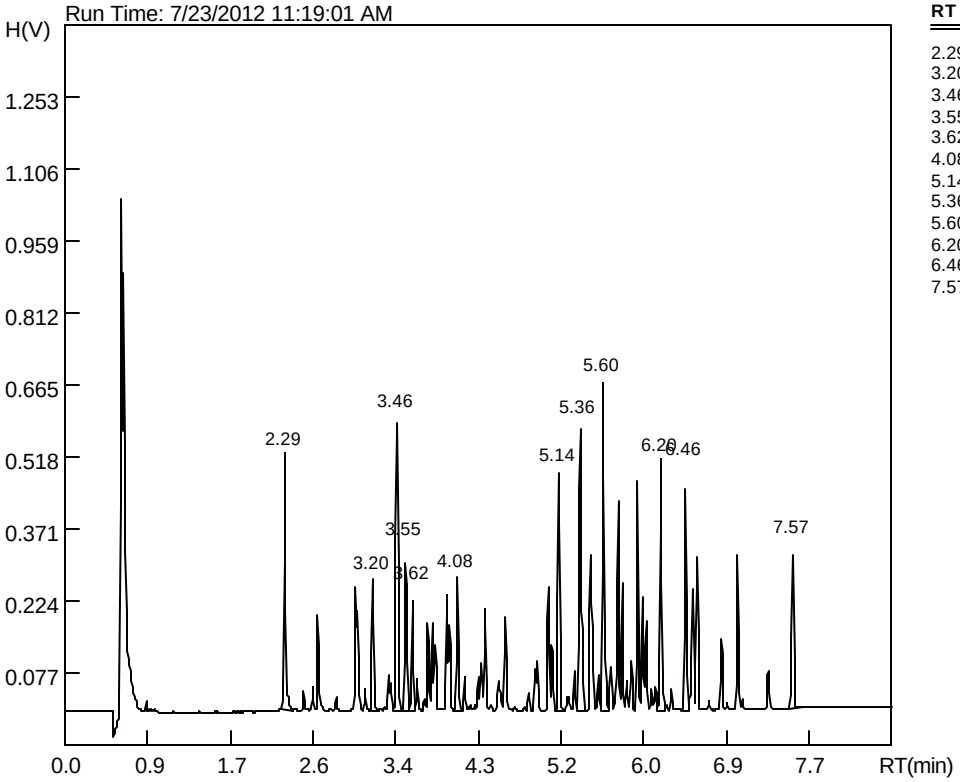
RT	dT	Name	Amt.	Area
2.28	-0.01	TCX	3.894	247381
3.20	0.00	1016-1	0.117	136168
3.45	0.00	1016-2	0.121	433994
3.54	-0.01	1016-3	0.117	176182
3.62	0.00	1016-4	0.102	124288
4.08	0.00	1016-5	0.116	164817
5.14	0.00	1260-1	0.119	270409
5.35	0.00	1260-2	0.122	402171
5.60	0.00	1260-3	0.123	398343
6.20	0.00	1260-4	0.133	284122
6.45	0.00	1260-5	0.126	296913
7.57	0.00	DCBP	4.231	194791

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

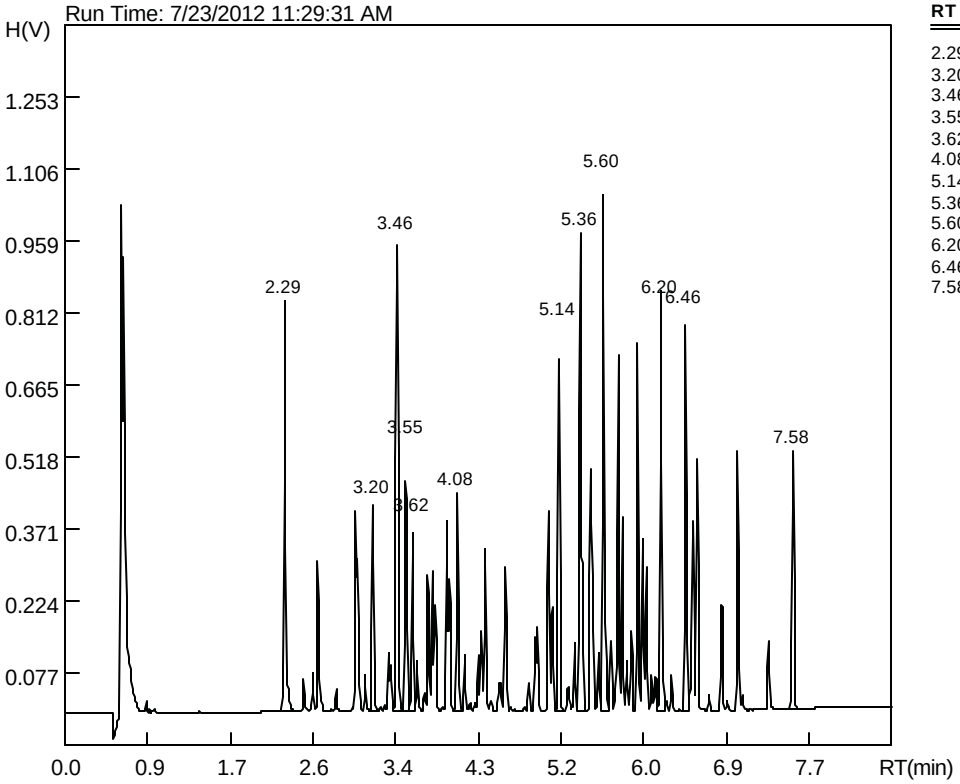
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:01 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	12.123	627189
3.20	0.00	1016-1	0.380	335691
3.46	0.01	1016-2	0.378	1065060
3.55	0.00	1016-3	0.376	439383
3.62	0.00	1016-4	0.368	315925
4.08	0.00	1016-5	0.376	414433
5.14	0.00	1260-1	0.381	662251
5.36	0.01	1260-2	0.385	980370
5.60	0.00	1260-3	0.387	978546
6.20	0.00	1260-4	0.404	699626
6.46	0.01	1260-5	0.397	729583
7.57	0.00	DCBP	13.895	479314

File Name: F:\GCECD.DAT\A120723\A120723.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:31 AM



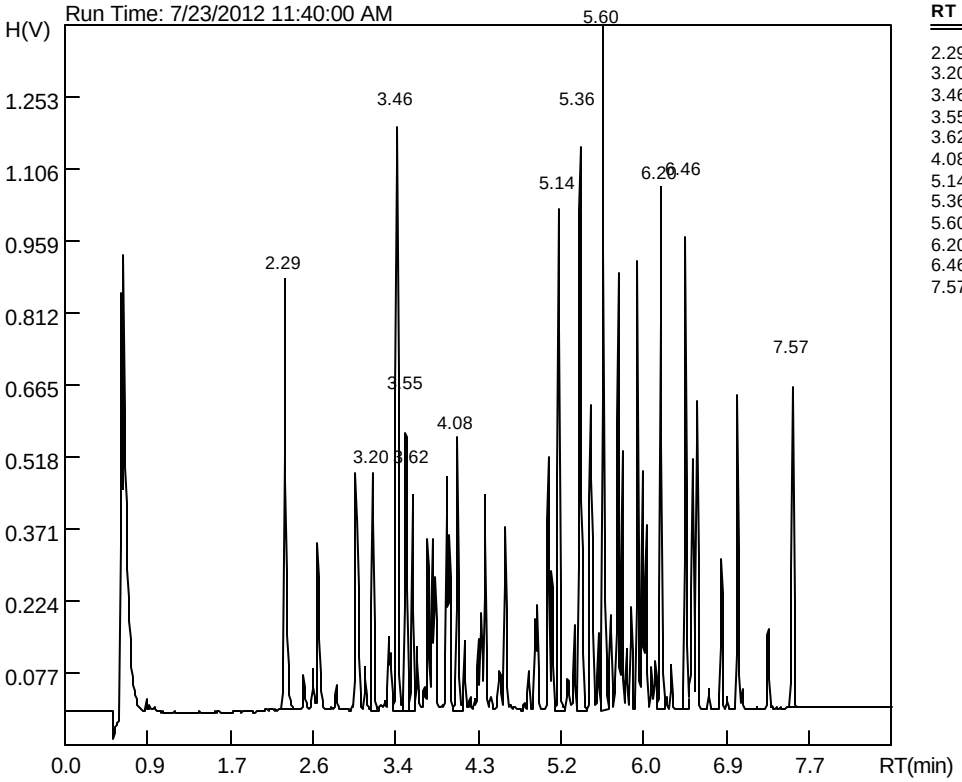
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.415	1009865
3.20	0.00	1016-1	0.638	530851
3.46	0.01	1016-2	0.635	1693959
3.55	0.00	1016-3	0.636	702255
3.62	0.00	1016-4	0.634	508258
4.08	0.00	1016-5	0.634	662075
5.14	0.00	1260-1	0.642	1051767
5.36	0.01	1260-2	0.649	1559937
5.60	0.00	1260-3	0.654	1564908
6.20	0.00	1260-4	0.677	1118682
6.46	0.01	1260-5	0.668	1162112
7.58	0.01	DCBP	23.510	762433

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

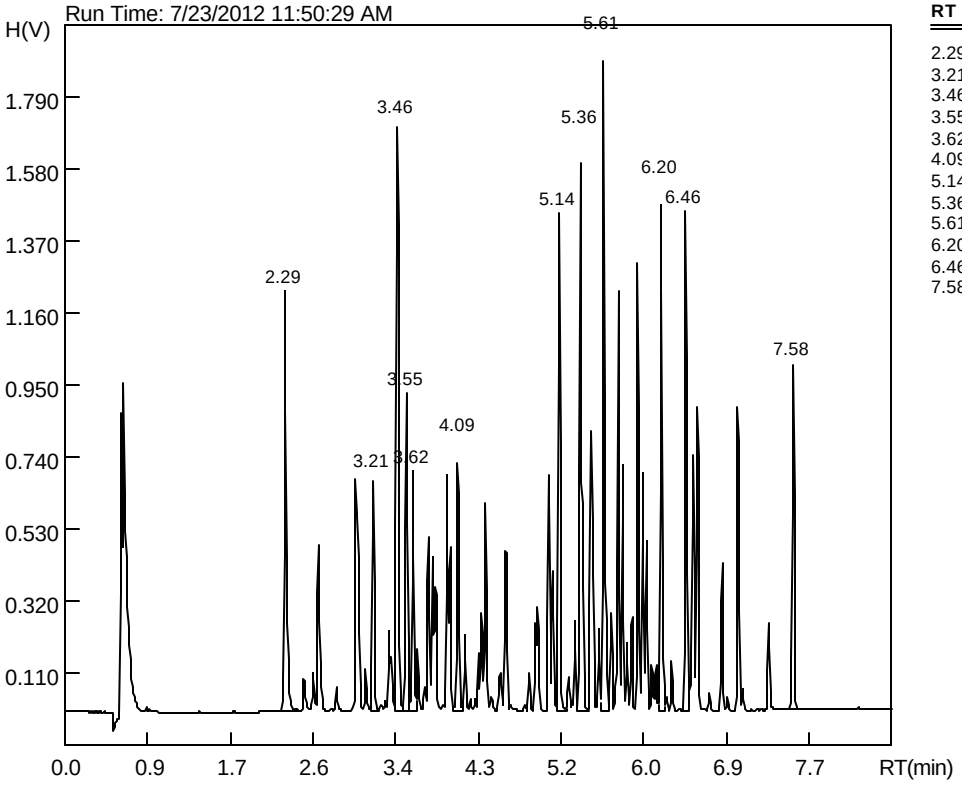
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:00 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	27.701	1346143
3.20	0.00	1016-1	0.858	696664
3.46	0.01	1016-2	0.842	2202040
3.55	0.00	1016-3	0.852	921268
3.62	0.00	1016-4	0.858	669641
4.08	0.00	1016-5	0.846	865674
5.14	0.00	1260-1	0.857	1372902
5.36	0.01	1260-2	0.865	2032394
5.60	0.00	1260-3	0.868	2035858
6.20	0.00	1260-4	0.901	1463119
6.46	0.01	1260-5	0.885	1507168
7.57	0.00	DCBP	31.083	985420

File Name: F:\GCECD.DAT\A120723\A120723.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:29 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	39.721	1900880
3.21	0.01	1016-1	1.216	967539
3.46	0.01	1016-2	1.204	3091464
3.55	0.00	1016-3	1.213	1286331
3.62	0.00	1016-4	1.235	942211
4.09	0.01	1016-5	1.205	1210736
5.14	0.00	1260-1	1.229	1928547
5.36	0.01	1260-2	1.240	2854984
5.61	0.01	1260-3	1.242	2859929
6.20	0.00	1260-4	1.304	2080809
6.46	0.01	1260-5	1.274	2128059
7.58	0.01	DCBP	44.577	1382710

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
ab66120723.ca	**TCX**	L	2.42	2.47	2.52	1.50	3.00	9.00	15.00	21.00	30.00	0.062	0.061
				21.6	1.00	0.10	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.13	3.18	3.23	0.05	0.10	0.30	0.50	0.70	1.00	0.034	0.692
				22.7	1.00	1.25	0.97	0.83	0.79	0.74	0.72		
	1016-2	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.429
				26.2	1.00	2.78	2.13	1.73	1.65	1.53	1.50		
	1016-3	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.118	3.157
				23.5	1.00	5.63	4.28	3.55	3.46	3.24	3.30		
	1016-4	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.052	1.162
				23.2	1.00	2.10	1.57	1.36	1.31	1.22	1.21		
	1016-5	L	4.58	4.63	4.68	0.05	0.10	0.30	0.50	0.70	1.00	0.068	1.154
				27.3	1.00	2.31	1.75	1.42	1.34	1.24	1.21		
	1260-1	L	5.69	5.74	5.79	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.005
				26.0	1.00	3.83	2.92	2.35	2.26	2.11	2.10		
	1260-2	L	5.77	5.82	5.87	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.082
				25.9	1.00	3.95	3.00	2.43	2.33	2.18	2.18		
	1260-3	L	6.18	6.23	6.28	0.05	0.10	0.30	0.50	0.70	1.00	0.100	2.074
				24.7	1.00	3.84	3.03	2.43	2.36	2.17	2.18		
	1260-4	L	6.67	6.72	6.77	0.05	0.10	0.30	0.50	0.70	1.00	0.057	2.106
				21.6	1.00	3.53	2.72	2.24	2.22	2.17	2.18		
	1260-5	L	7.10	7.15	7.20	0.05	0.10	0.30	0.50	0.70	1.00	0.090	1.961
				24.7	1.00	3.63	2.83	2.29	2.20	2.04	2.06		
	DCBP	L	8.28	8.33	8.38	1.50	3.00	9.00	15.00	21.00	30.00	0.064	0.039
				25.5	1.00	0.08	0.06	0.05	0.05	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): ab66120723.cal / mean %rsd: 24.4

File Name: F:\gceed.dat\Methods\Ab66120723.cal
Version: 2

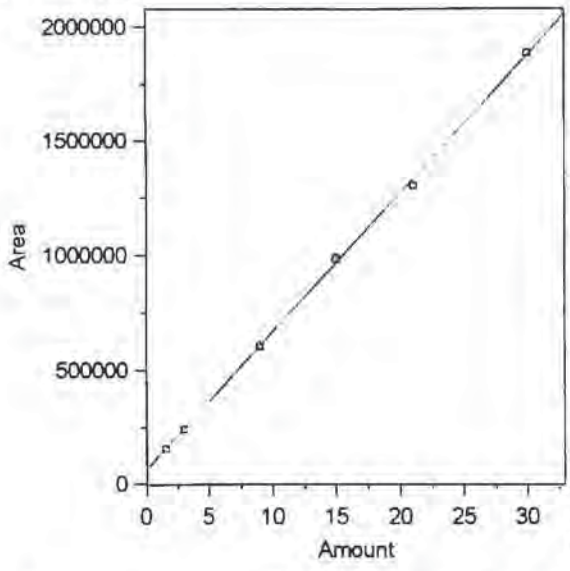
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.473 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

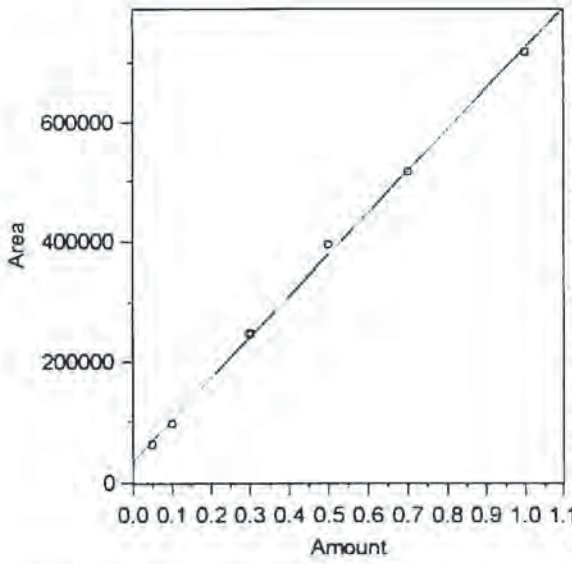
Single peak quantification by area

Y = 60506.64 X + 62130.27

Linear fit with equal weighting
Coefficient of determination: 0.9993865
Average error: 1.127%
Average CF: 73646.06
RSD: 21.557%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	154585.1	103056.7	1.109	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	3	241599.4	80533.13	-0.842	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	9	606330.7	67370.08	-0.059	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	15	988404.6	65893.64	1.926	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	21	1303269	62060.43	-2.213	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	30	1888871	62962.37	0.615	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

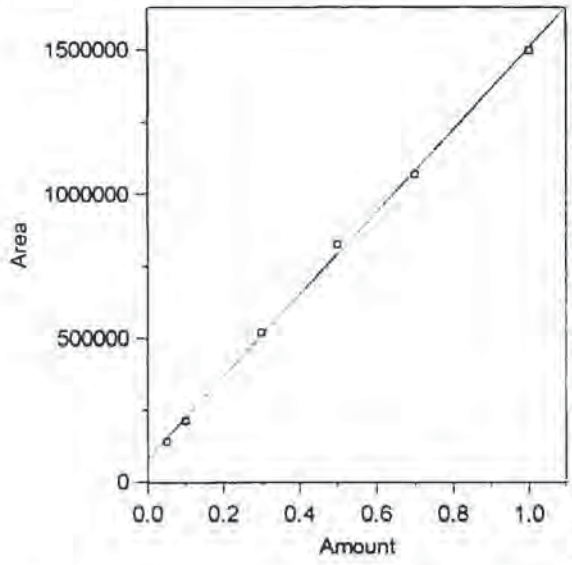
2 1016-1



Expected retention time:	3.181 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 692366 X + 33994.13	
Linear fit with equal weighting	
Coefficient of determination:	0.9987106
Average error:	3.850%
Average CF:	882283.4
RSD:	22.698%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	62399.82	1247996	-9.055	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	97106.09	971060.9	-5.933	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	247847.9	826159.6	2.542	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	395872.5	791745	4.128	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	516202.8	737432.6	-0.472	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	719305.7	719305.7	-0.971	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

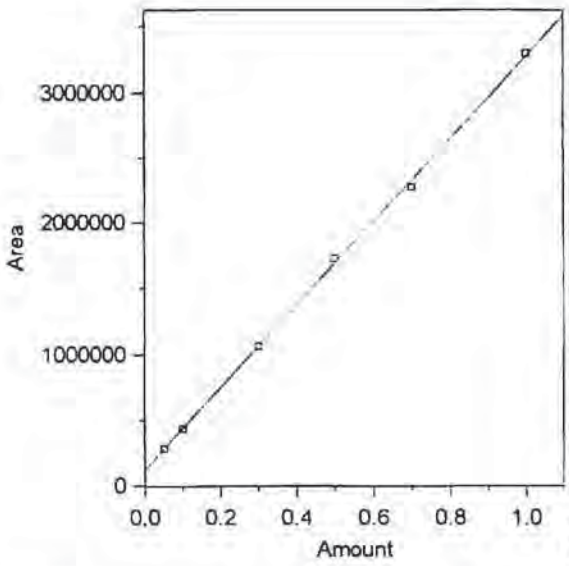
3 1016-2



Expected retention time:	3.617 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1428928 X + 79457.95	
Linear fit with equal weighting	
Coefficient of determination:	0.998931
Average error:	3.280%
Average CF:	1885609
RSD:	26.147%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	138943.8	2778876	-7.926	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	212955.3	2129553	-4.225	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	518948.3	1729828	2.128	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	824309.8	1648620	3.828	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1069894	1528420	-0.909	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1498355	1498355	-0.665	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

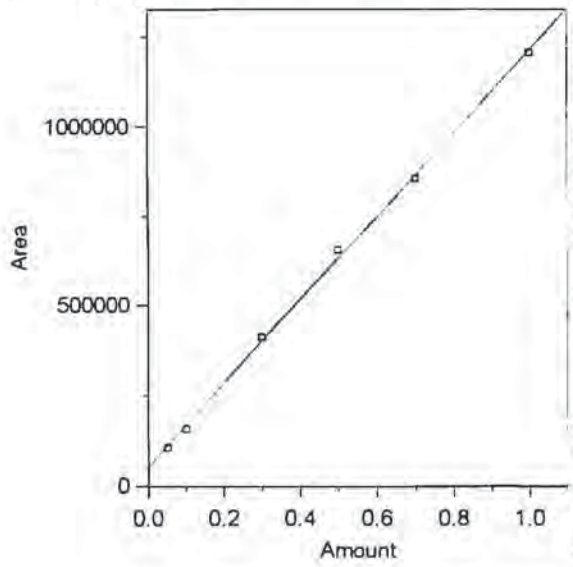
4 1016-3



Expected retention time:	3.988 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 3156785 X + 118310.8	
Linear fit with equal weighting	
Coefficient of determination:	0.9992492
Average error:	1.412%
Average CF:	3911380
RSD:	23.540%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	281423.1	5628462	1.909	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	428290.6	4282906	-1.313	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	1066353	3554510	0.094	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1730023	3460046	1.964	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	2270575	3243679	-2.469	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	3298679	3298679	0.720	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

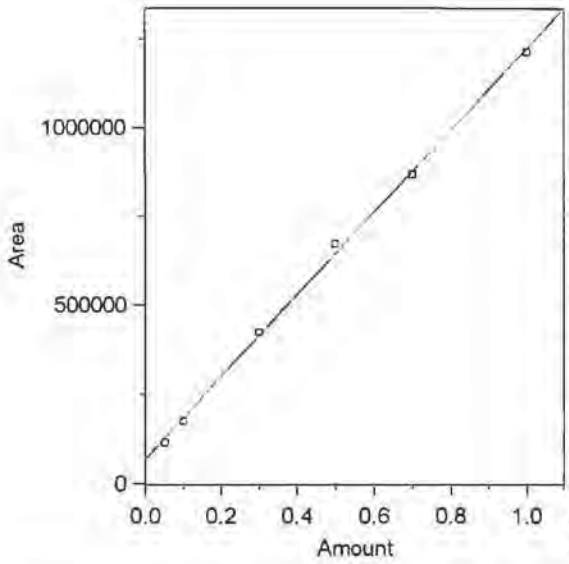
5 1016-4



Expected retention time:	4.149 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1161559 X + 51833.45	
Linear fit with equal weighting	
Coefficient of determination:	0.9989865
Average error:	3.106%
Average CF:	1461707
RSD:	23.149%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	104985.3	2099706	-4.482	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	156684.8	1566848	-6.729	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	408429	1361430	2.030	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	656541.9	1313084	3.783	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	855590.8	1222273	-1.079	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1206900	1206900	-0.535	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

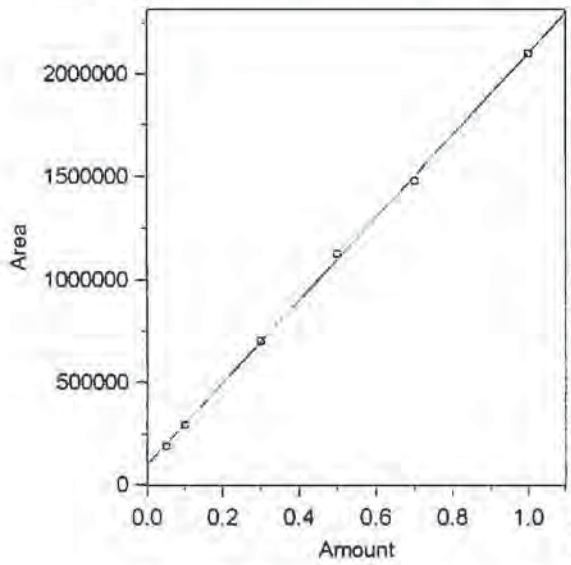
6 1016-5



Expected retention time:	4.629 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1154245 X + 67757.28	
Linear fit with equal weighting	
Coefficient of determination:	0.9987983
Average error:	3.468%
Average CF:	1543858
RSD:	27.259%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	115365.6	2307312	-8.053	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	174881.3	1748813	-4.531	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	424610.2	1415367	2.555	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	670161.4	1340323	3.920	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	865803.4	1236862	-1.133	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1214470	1214470	-0.616	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

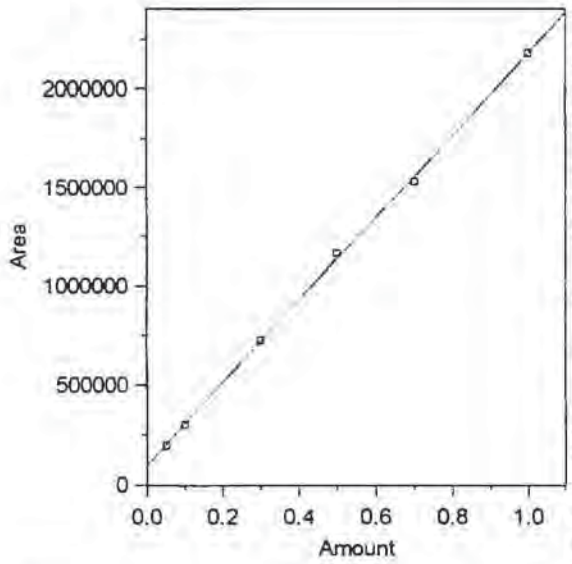
7 1260-1



Expected retention time:	5.743 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2005174 X + 97193.69	
Linear fit with equal weighting	
Coefficient of determination:	0.9994695
Average error:	1.695%
Average CF:	2593997
RSD:	26.000%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	191382.1	3827642	-3.074	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	291676.3	2916763	-2.027	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	705101.4	2350338	0.910	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1127409	2254818	2.512	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1477266	2110380	-1.569	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2104039	2104039	0.079	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

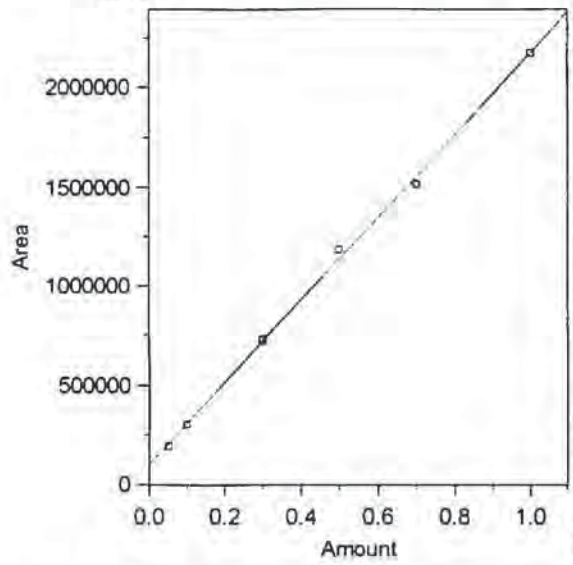
8 1260-2



Expected retention time:	5.822 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2081540 X + 97401.23	
Linear fit with equal weighting	
Coefficient of determination:	0.9995247
Average error:	1.410%
Average CF:	2678917
RSD:	25.897%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	197603.3	3952066	-1.923	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	300385.3	3003853	-1.692	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	727442.8	2424809	0.773	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1162717	2325434	2.157	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1528331	2183330	-1.682	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2184009	2184009	0.233	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

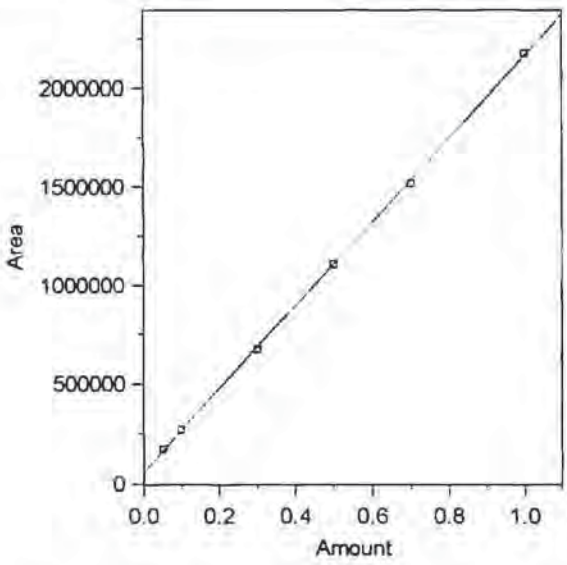
9 1260-3



Expected retention time:	6.23 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2073863 X + 100220.7	
Linear fit with equal weighting	
Coefficient of determination:	0.998819
Average error:	2.366%
Average CF:	2667973
RSD:	24.651%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	192217.1	3844342	-5.736	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	303286.6	3032866	-1.405	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	727830.3	2426101	0.755	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1181106	2362212	3.865	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1515952	2165646	-2.318	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2176670	2176670	0.119	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

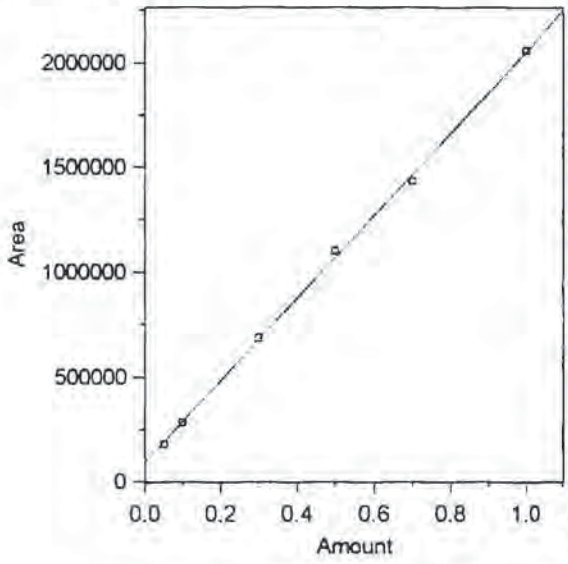
10 1260-4



Expected retention time:	6.722 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2106471 X + 57440.12	
Linear fit with equal weighting	
Coefficient of determination:	0.9997017
Average error:	2.317%
Average CF:	2509388
RSD:	21.566%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	176450.7	3529014	8.409	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	271829.1	2718291	1.396	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	673277.1	2244257	-2.336	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1109205	2218410	-0.132	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1517431	2167759	-0.949	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2178597	2178597	0.679	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

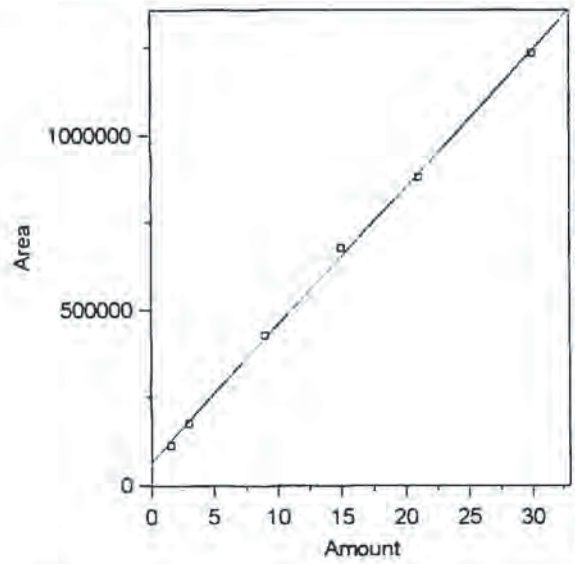
11 1260-5



Expected retention time:	7.147 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1960779 X + 90247.53	
Linear fit with equal weighting	
Coefficient of determination:	0.9992098
Average error:	1.887%
Average CF:	2506504
RSD:	24.679%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	181261.2	3625224	-3.731	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	282723	2827230	-1.258	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	685929.3	2286431	1.098	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1099473	2198946	2.693	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1430408	2043440	-2.214	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2057755	2057755	0.328	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

12 DCBP



Expected retention time:	8.327 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

Y = 39254.41 X + 64315.68

Linear fit with equal weighting	
Coefficient of determination:	0.9989673
Average error:	3.334%
Average CF:	51535.38
RSD:	25.446%

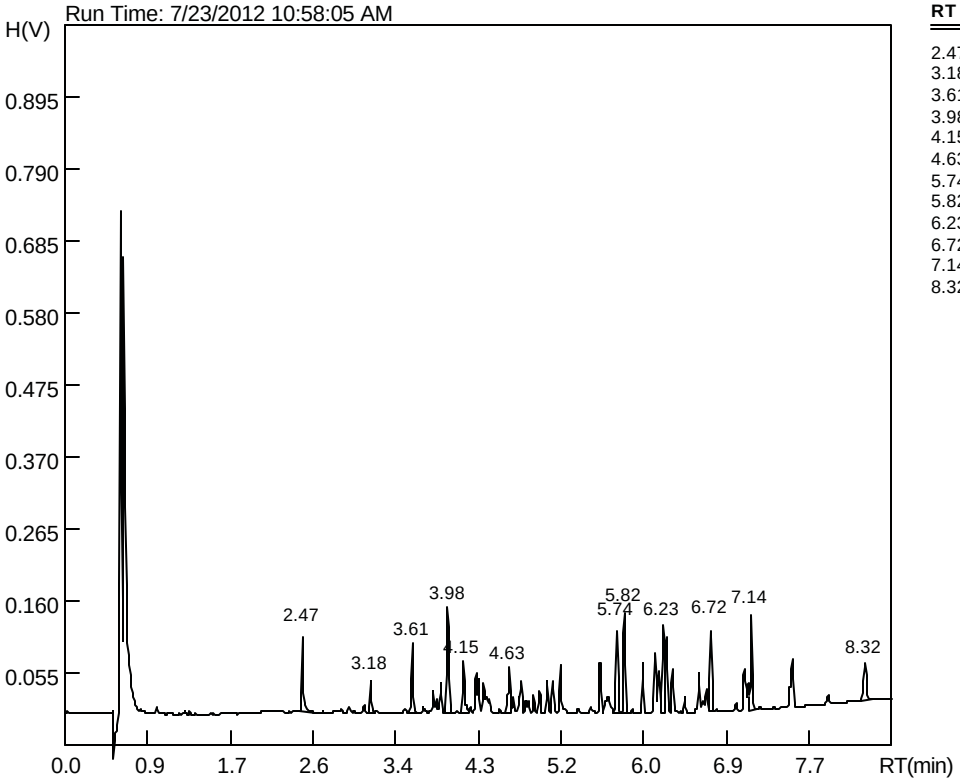
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	112589.1	75059.4	-8.611	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	3	175413.3	58471.1	-3.661	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	9	427896.9	47544.1	2.464	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	15	676751.8	45116.79	3.616	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	21	878867.2	41850.82	-1.102	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	30	1235101	41170.04	-0.551	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

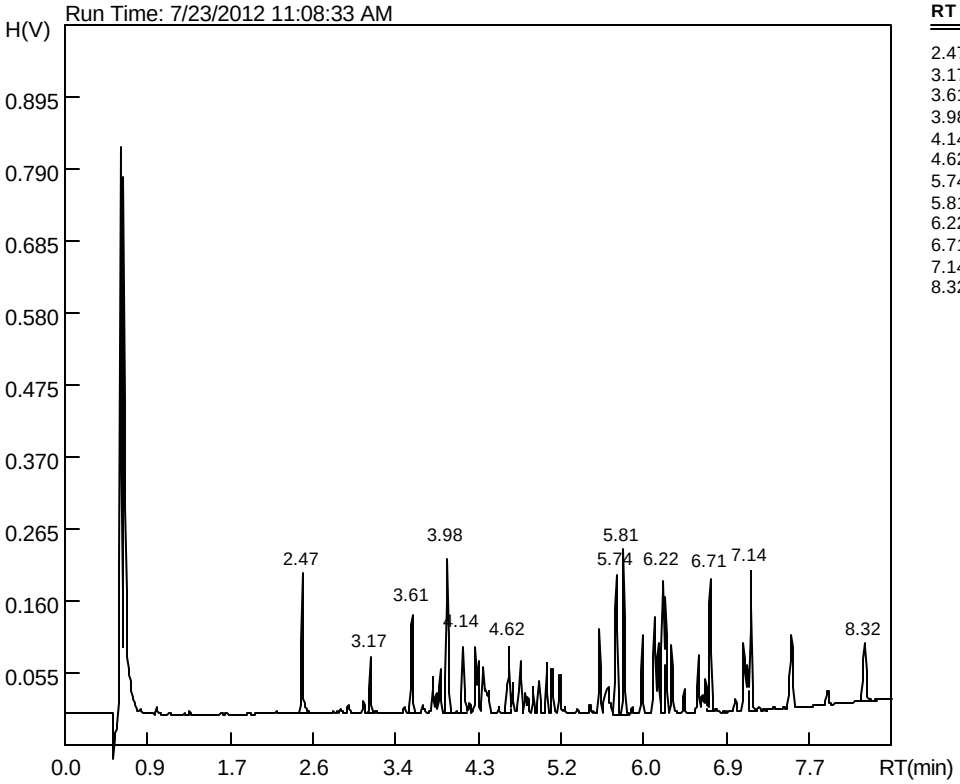
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:05 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	1.459	154585
3.18	0.00	1016-1	0.043	62400
3.61	0.00	1016-2	0.041	138944
3.98	0.00	1016-3	0.060	281423
4.15	0.00	1016-4	0.037	104985
4.63	0.01	1016-5	0.042	115366
5.74	0.00	1260-1	0.044	191382
5.82	0.00	1260-2	0.048	197603
6.23	0.00	1260-3	0.051	192217
6.72	0.01	1260-4	0.064	176451
7.14	0.00	1260-5	0.047	181261
8.32	0.00	DCBP	1.459	112589

File Name: F:\GCECD.DAT\A120723\A120723B.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:33 AM



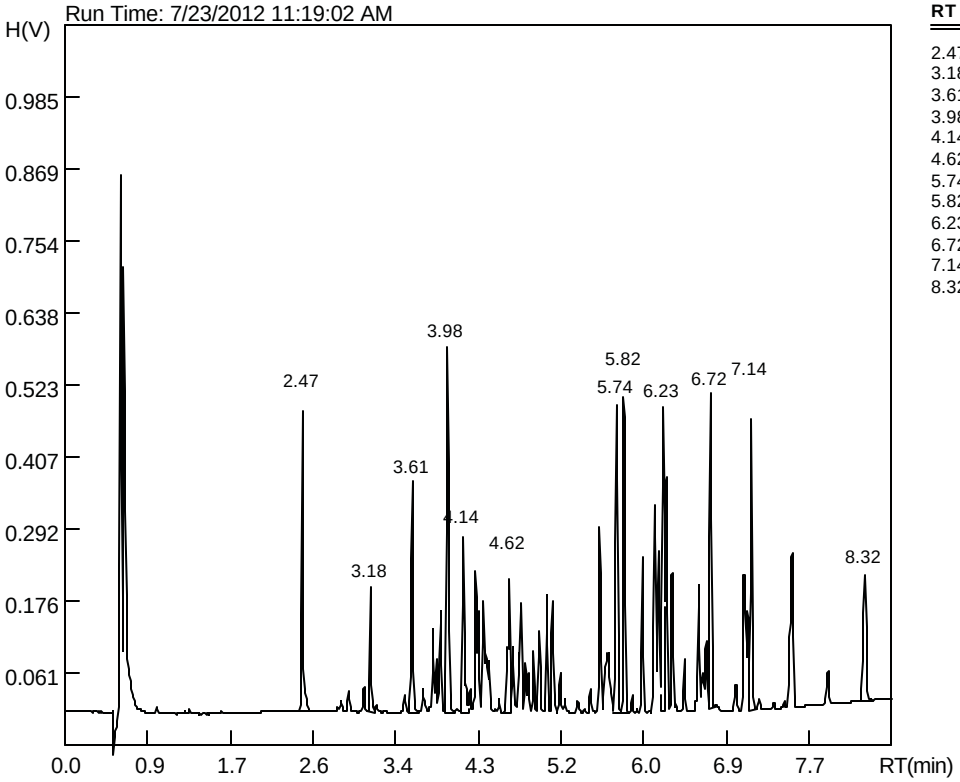
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	2.926	241599
3.17	0.00	1016-1	0.092	97106
3.61	0.00	1016-2	0.091	212955
3.98	0.00	1016-3	0.108	428291
4.14	0.00	1016-4	0.082	156685
4.62	0.00	1016-5	0.094	174881
5.74	0.00	1260-1	0.093	291676
5.81	0.00	1260-2	0.098	300385
6.22	0.00	1260-3	0.106	303287
6.71	0.00	1260-4	0.108	271829
7.14	0.00	1260-5	0.100	282723
8.32	0.00	DCBP	3.389	175413

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

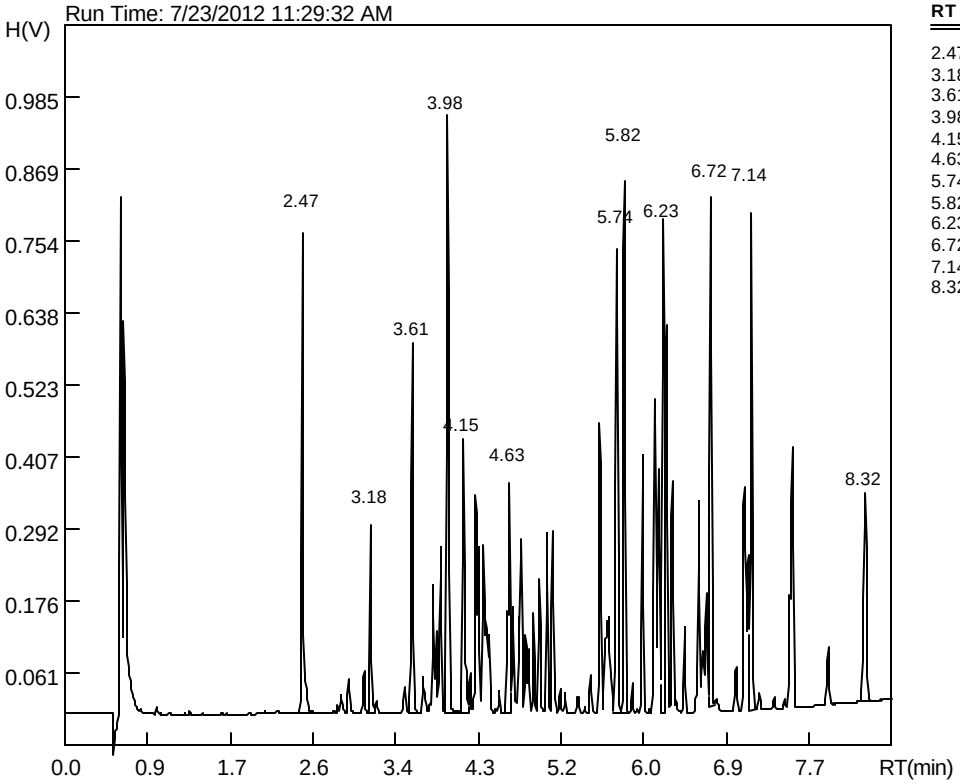
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:02 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	9.075	606331
3.18	0.00	1016-1	0.304	247848
3.61	0.00	1016-2	0.301	518948
3.98	0.00	1016-3	0.315	1066353
4.14	0.00	1016-4	0.301	408429
4.62	0.00	1016-5	0.310	424610
5.74	0.00	1260-1	0.294	705101
5.82	0.00	1260-2	0.306	727443
6.23	0.00	1260-3	0.318	727830
6.72	0.00	1260-4	0.293	673277
7.14	0.00	1260-5	0.313	685929
8.32	0.00	DCBP	11.145	427897

File Name: F:\GCECD.DAT\A120723\A120723B.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:32 AM



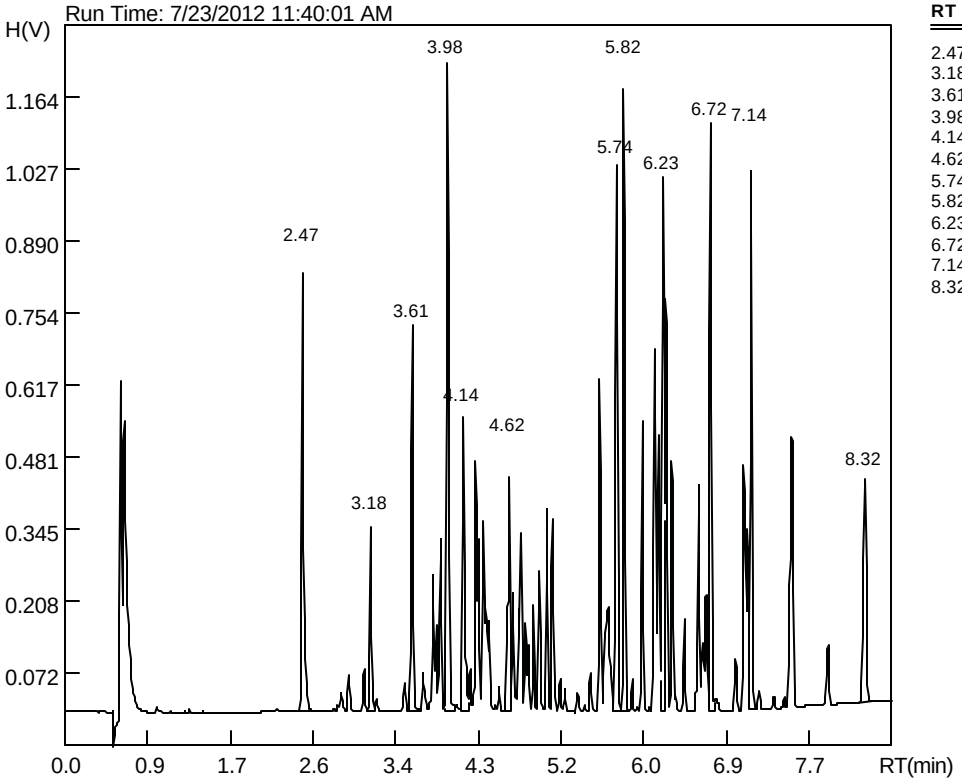
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	15.517	988405
3.18	0.00	1016-1	0.512	395873
3.61	0.00	1016-2	0.509	824310
3.98	0.00	1016-3	0.531	1730023
4.15	0.00	1016-4	0.517	656542
4.63	0.00	1016-5	0.522	670161
5.74	0.00	1260-1	0.500	1127409
5.82	0.00	1260-2	0.517	1162717
6.23	0.00	1260-3	0.543	1181106
6.72	0.00	1260-4	0.494	1109205
7.14	0.00	1260-5	0.532	1099473
8.32	0.00	DCBP	18.789	676752

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

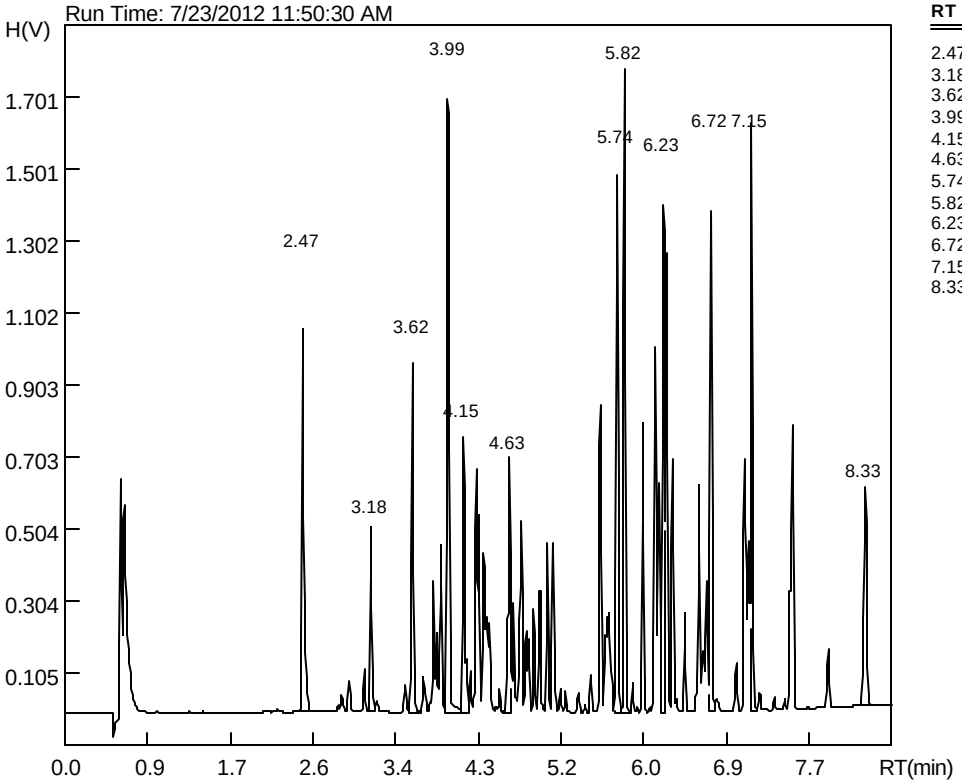
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:01 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.826	1303269
3.18	0.00	1016-1	0.682	516203
3.61	0.00	1016-2	0.677	1069894
3.98	0.00	1016-3	0.707	2270575
4.14	0.00	1016-4	0.691	855591
4.62	0.00	1016-5	0.691	865803
5.74	0.00	1260-1	0.670	1477266
5.82	0.00	1260-2	0.695	1528331
6.23	0.00	1260-3	0.710	1515952
6.72	0.00	1260-4	0.682	1517431
7.14	0.00	1260-5	0.707	1430408
8.32	0.00	DCBP	24.998	878867

File Name: F:\GCECD.DAT\A120723\A120723B.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:30 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	30.699	1888871
3.18	0.01	1016-1	0.968	719306
3.62	0.01	1016-2	0.970	1498355
3.99	0.01	1016-3	1.041	3298679
4.15	0.01	1016-4	0.996	1206900
4.63	0.01	1016-5	0.992	1214470
5.74	0.01	1260-1	0.975	2104039
5.82	0.01	1260-2	1.013	2184009
6.23	0.01	1260-3	1.039	2176670
6.72	0.01	1260-4	0.986	2178597
7.15	0.01	1260-5	1.038	2057755
8.33	0.01	DCBP	35.941	1235101

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120723.3

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
a120723.02r	sc1660.01	07/23/12 10:47	1016-1	0.00/0.05	0.523/0.500	4.6
			1016-2	-.01/0.05	0.529/0.500	5.8
			1016-3	0.00/0.05	0.526/0.500	5.2
			1016-4	0.00/0.05	0.522/0.500	4.4
			1016-5	-.01/0.05	0.532/0.500	6.4
			1260-1	0.00/0.05	0.531/0.500	6.2
			1260-2	0.00/0.05	0.532/0.500	6.4
			1260-3	0.00/0.05	0.532/0.500	6.4
			1260-4	0.00/0.05	0.528/0.500	5.6
			1260-5	-.01/0.05	0.532/0.500	6.4
					Average	**5.7/ 20.0**
a120723.09r	sc1660.02	07/23/12 12:00	1016-1	0.00/0.05	0.507/0.500	1.4
			1016-2	-.01/0.05	0.498/0.500	0.4
			1016-3	0.00/0.05	0.508/0.500	1.6
			1016-4	0.00/0.05	0.506/0.500	1.2
			1016-5	-.01/0.05	0.486/0.500	2.8
			1260-1	0.00/0.05	0.486/0.500	2.8
			1260-2	-.01/0.05	0.488/0.500	2.4
			1260-3	0.00/0.05	0.480/0.500	4.0
			1260-4	0.00/0.05	0.505/0.500	1.0
			1260-5	-.01/0.05	0.512/0.500	2.4
					Average	**0.5/ 20.0**
a120723.30r	sc1660.03	07/23/12 17:57	1016-1	0.01/0.05	0.519/0.500	3.8
			1016-2	0.00/0.05	0.506/0.500	1.2
			1016-3	0.01/0.05	0.518/0.500	3.6
			1016-4	0.01/0.05	0.522/0.500	4.4
			1016-5	0.00/0.05	0.507/0.500	1.4
			1260-1	0.00/0.05	0.498/0.500	0.4
			1260-2	0.00/0.05	0.490/0.500	2.0
			1260-3	0.01/0.05	0.474/0.500	5.2
			1260-4	0.01/0.05	0.469/0.500	6.2
			1260-5	0.00/0.05	0.448/0.500	10.4
					Average	**1.0/ 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120723.4

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
a120723b.02	sc1660.01	07/23/12 10:47	1016-1	0.00/0.05	0.535/0.500	7.0
			1016-2	-.01/0.05	0.537/0.500	7.4
			1016-3	-.01/0.05	0.520/0.500	4.0
			1016-4	-.01/0.05	0.536/0.500	7.2
			1016-5	-.01/0.05	0.537/0.500	7.4
			1260-1	0.00/0.05	0.527/0.500	5.4
			1260-2	0.00/0.05	0.526/0.500	5.2
			1260-3	-.01/0.05	0.531/0.500	6.2
			1260-4	0.00/0.05	0.511/0.500	2.2
			1260-5	-.01/0.05	0.533/0.500	6.6
					Average	**5.9/ 20.0**
a120723b.09	sc1660.02	07/23/12 12:00	1016-1	0.00/0.05	0.513/0.500	2.6
			1016-2	-.01/0.05	0.506/0.500	1.2
			1016-3	-.01/0.05	0.499/0.500	0.2
			1016-4	-.01/0.05	0.500/0.500	0.0
			1016-5	-.01/0.05	0.478/0.500	4.4
			1260-1	0.00/0.05	0.484/0.500	3.2
			1260-2	0.00/0.05	0.484/0.500	3.2
			1260-3	-.01/0.05	0.468/0.500	6.4
			1260-4	-.01/0.05	0.486/0.500	2.8
			1260-5	-.01/0.05	0.502/0.500	0.4
					Average	**1.6/ 20.0**
a120723b.30	sc1660.03	07/23/12 17:57	1016-1	0.00/0.05	0.508/0.500	1.6
			1016-2	0.00/0.05	0.509/0.500	1.8
			1016-3	0.00/0.05	0.509/0.500	1.8
			1016-4	0.00/0.05	0.506/0.500	1.2
			1016-5	0.00/0.05	0.502/0.500	0.4
			1260-1	0.00/0.05	0.480/0.500	4.0
			1260-2	0.00/0.05	0.480/0.500	4.0
			1260-3	0.00/0.05	0.861/0.500	72.2
			1260-4	0.00/0.05	0.450/0.500	10.0
			1260-5	0.00/0.05	0.459/0.500	8.2
					Average	**5.3/ 20.0**

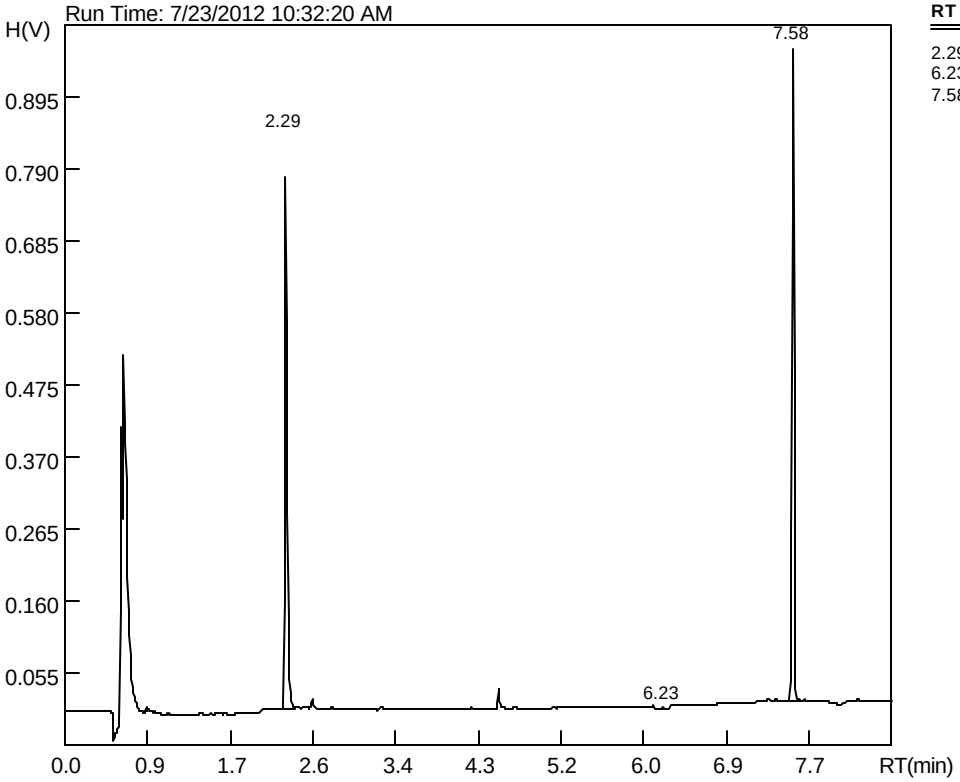
NOTES
*: Calibration check drift outside of method-established control limits

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

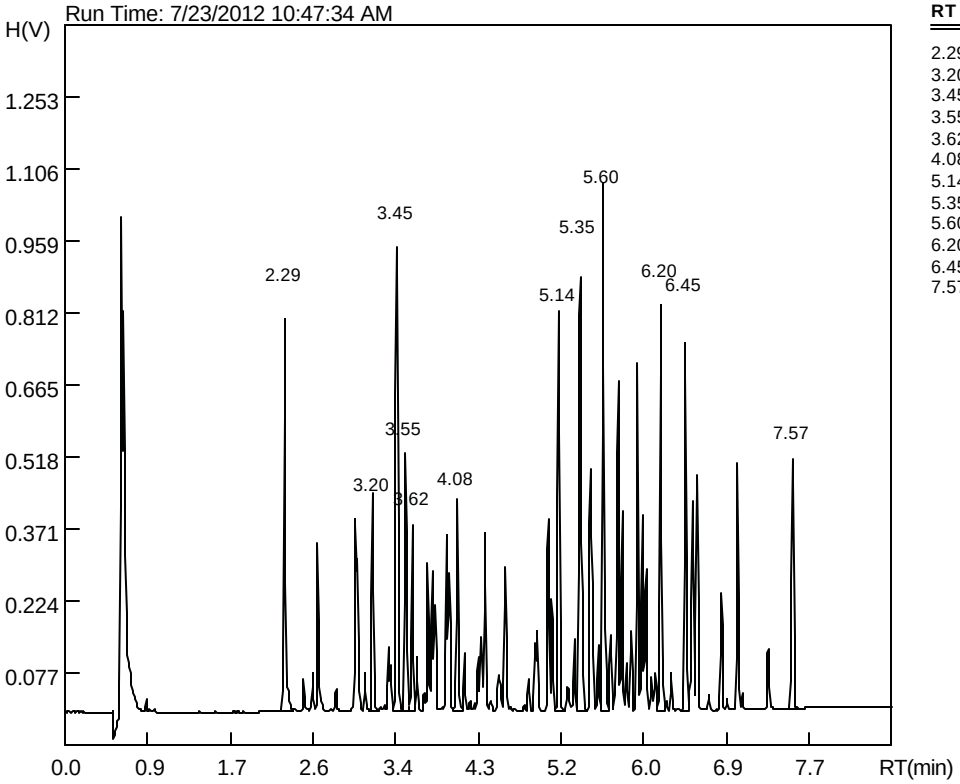
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.01R.BND
Comments: SBLK-R.01
Run Time: 7/23/2012 10:32:20 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	22.407	1441436
6.23	0.02	1260-4	-0.045	2282
7.58	0.00	DCBP	29.059	1350742

File Name: F:\GCECD.DAT\A120723\A120723.02R.BND
Comments: SC1660.01 0.5ppm 7/2/12
Run Time: 7/23/2012 10:47:34 AM



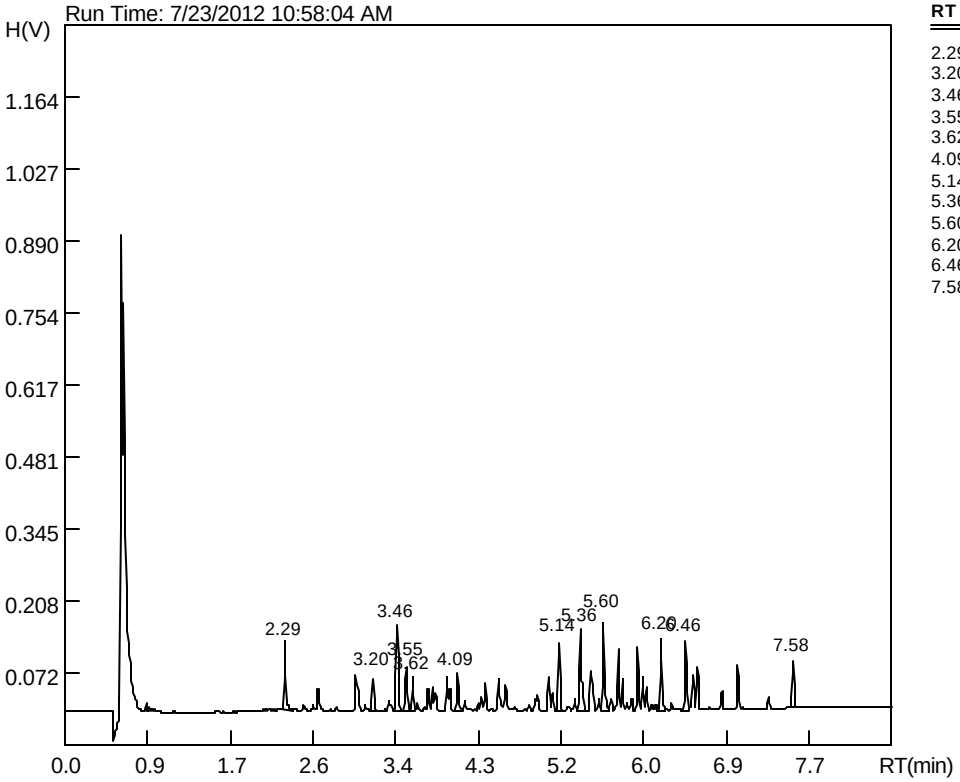
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	15.614	1026153
3.20	0.00	1016-1	0.523	534361
3.45	0.00	1016-2	0.529	1717519
3.55	0.00	1016-3	0.526	710638
3.62	0.00	1016-4	0.522	512486
4.08	0.00	1016-5	0.532	675551
5.14	0.00	1260-1	0.531	1074091
5.35	-0.01	1260-2	0.532	1593663
5.60	0.00	1260-3	0.532	1595423
6.20	0.00	1260-4	0.528	1143854
6.45	-0.01	1260-5	0.532	1186655
7.57	0.00	DCBP	15.686	762357

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

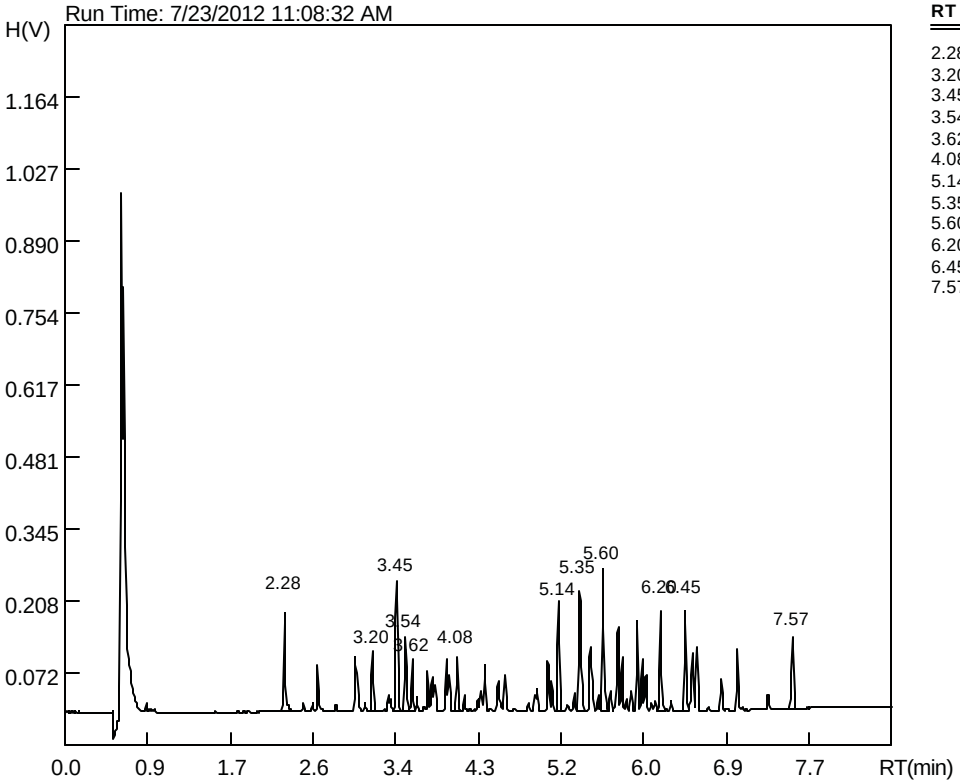
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:04 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	1.962	158211
3.20	0.00	1016-1	0.050	86105
3.46	0.01	1016-2	0.058	279309
3.55	0.00	1016-3	0.053	112013
3.62	0.00	1016-4	0.038	77821
4.09	0.01	1016-5	0.054	105396
5.14	0.00	1260-1	0.055	174106
5.36	0.01	1260-2	0.056	257787
5.60	0.00	1260-3	0.059	255937
6.20	0.00	1260-4	0.066	180701
6.46	0.01	1260-5	0.060	191461
7.58	0.01	DCBP	1.909	126428

File Name: F:\GCECD.DAT\A120723\A120723.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:32 AM



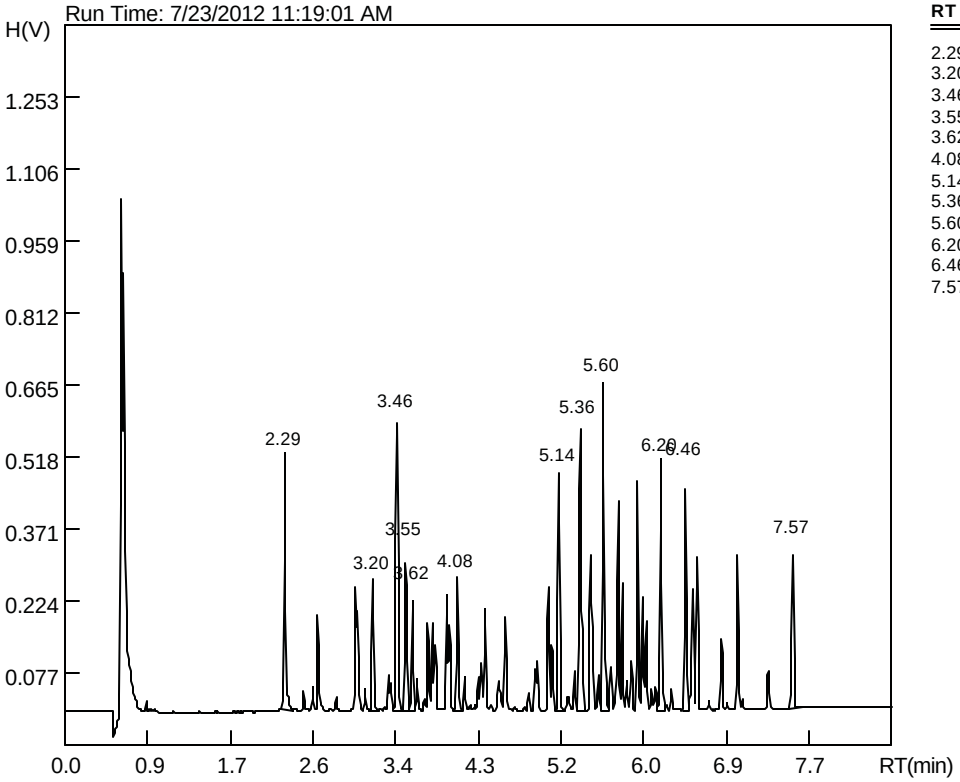
RT	dT	Name	Amt.	Area
2.28	-0.01	TCX	3.894	247381
3.20	0.00	1016-1	0.117	136168
3.45	0.00	1016-2	0.121	433994
3.54	-0.01	1016-3	0.117	176182
3.62	0.00	1016-4	0.102	124288
4.08	0.00	1016-5	0.116	164817
5.14	0.00	1260-1	0.119	270409
5.35	0.00	1260-2	0.122	402171
5.60	0.00	1260-3	0.123	398343
6.20	0.00	1260-4	0.133	284122
6.45	0.00	1260-5	0.126	296913
7.57	0.00	DCBP	4.231	194791

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

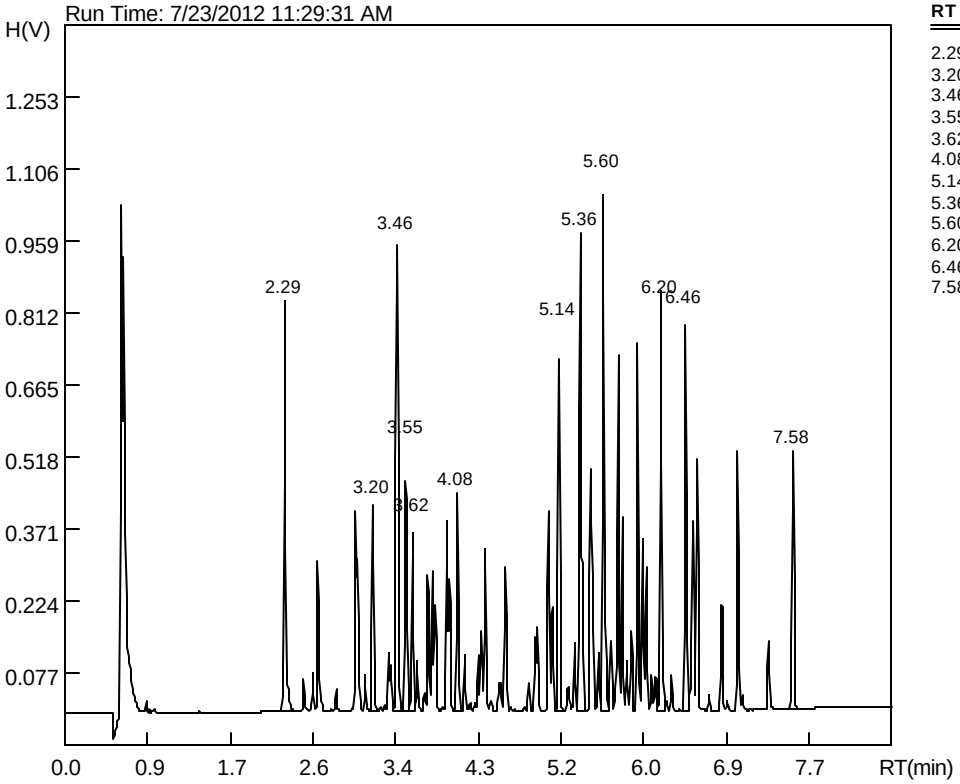
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:01 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	12.123	627189
3.20	0.00	1016-1	0.380	335691
3.46	0.01	1016-2	0.378	1065060
3.55	0.00	1016-3	0.376	439383
3.62	0.00	1016-4	0.368	315925
4.08	0.00	1016-5	0.376	414433
5.14	0.00	1260-1	0.381	662251
5.36	0.01	1260-2	0.385	980370
5.60	0.00	1260-3	0.387	978546
6.20	0.00	1260-4	0.404	699626
6.46	0.01	1260-5	0.397	729583
7.57	0.00	DCBP	13.895	479314

File Name: F:\GCECD.DAT\A120723\A120723.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:31 AM



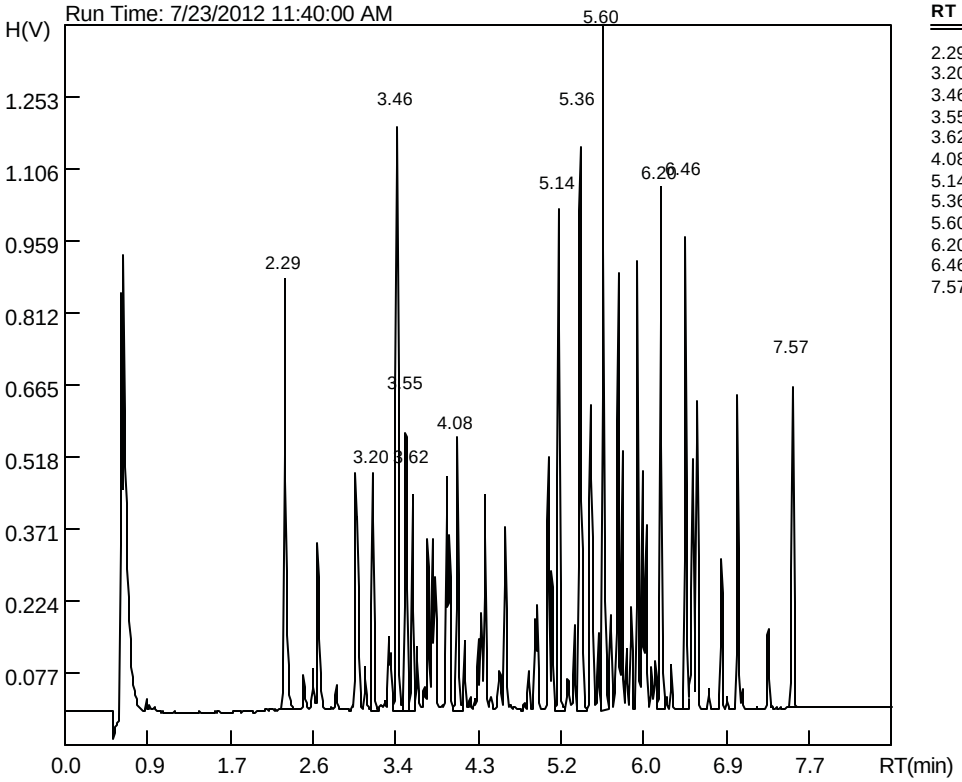
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.415	1009865
3.20	0.00	1016-1	0.638	530851
3.46	0.01	1016-2	0.635	1693959
3.55	0.00	1016-3	0.636	702255
3.62	0.00	1016-4	0.634	508258
4.08	0.00	1016-5	0.634	662075
5.14	0.00	1260-1	0.642	1051767
5.36	0.01	1260-2	0.649	1559937
5.60	0.00	1260-3	0.654	1564908
6.20	0.00	1260-4	0.677	1118682
6.46	0.01	1260-5	0.668	1162112
7.58	0.01	DCBP	23.510	762433

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

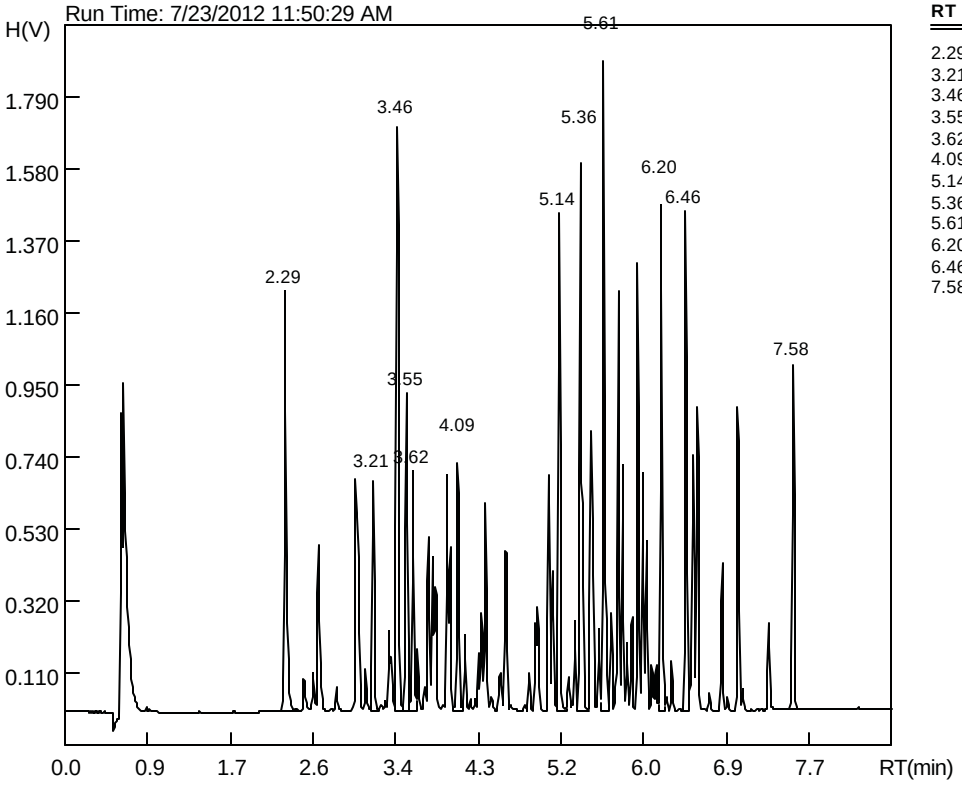
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:00 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	27.701	1346143
3.20	0.00	1016-1	0.858	696664
3.46	0.01	1016-2	0.842	2202040
3.55	0.00	1016-3	0.852	921268
3.62	0.00	1016-4	0.858	669641
4.08	0.00	1016-5	0.846	865674
5.14	0.00	1260-1	0.857	1372902
5.36	0.01	1260-2	0.865	2032394
5.60	0.00	1260-3	0.868	2035858
6.20	0.00	1260-4	0.901	1463119
6.46	0.01	1260-5	0.885	1507168
7.57	0.00	DCBP	31.083	985420

File Name: F:\GCECD.DAT\A120723\A120723.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:29 AM

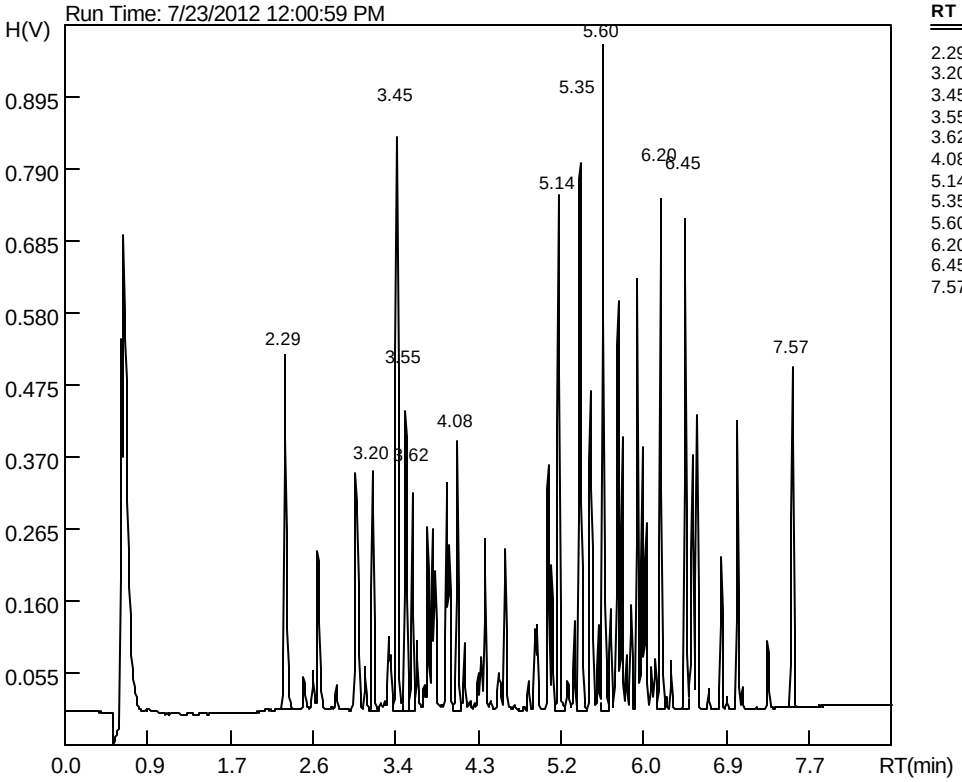


RT	dT	Name	Amt.	Area
2.29	0.00	TCX	39.721	1900880
3.21	0.01	1016-1	1.216	967539
3.46	0.01	1016-2	1.204	3091464
3.55	0.00	1016-3	1.213	1286331
3.62	0.00	1016-4	1.235	942211
4.09	0.01	1016-5	1.205	1210736
5.14	0.00	1260-1	1.229	1928547
5.36	0.01	1260-2	1.240	2854984
5.61	0.01	1260-3	1.242	2859929
6.20	0.00	1260-4	1.304	2080809
6.46	0.01	1260-5	1.274	2128059
7.58	0.01	DCBP	44.577	1382710

GC/ECD Analysis: Raw Chromatographic Data

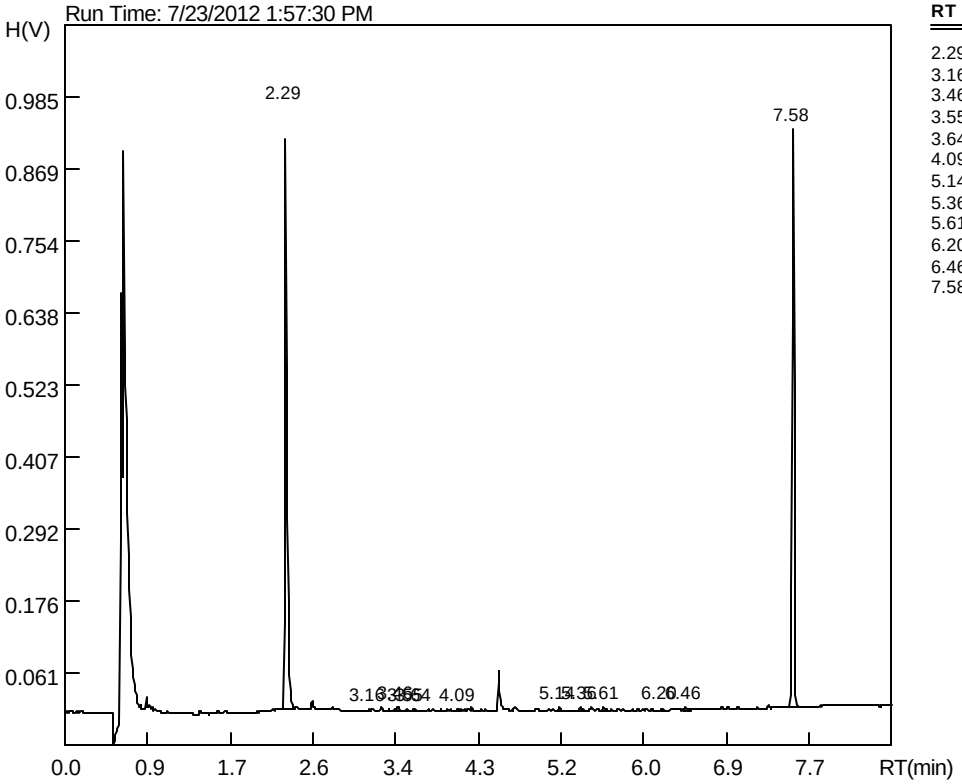
Instrument ID: Varian/3500(A)/DB-5 Analytical Batch: a120723.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120723\A120723.09R.BND
Comments: SC1660.02 0.5ppm Ultra 7/23/12
Run Time: 7/23/2012 12:00:59 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	14.624	965634
3.20	0.00	1016-1	0.507	519815
3.45	0.00	1016-2	0.498	1625972
3.55	0.00	1016-3	0.508	688029
3.62	0.00	1016-4	0.506	498192
4.08	0.00	1016-5	0.486	621987
5.14	-0.01	1260-1	0.486	992217
5.35	-0.01	1260-2	0.488	1472948
5.60	0.00	1260-3	0.480	1453497
6.20	0.00	1260-4	0.505	1097656
6.45	-0.01	1260-5	0.512	1144912
7.57	-0.01	DCBP	14.410	706217

File Name: F:\GCECD.DAT\A120723\A120723.10R.BND
Comments: sBLK-S.01 20g s/1 ID:PA120723s01
Run Time: 7/23/2012 1:57:30 PM



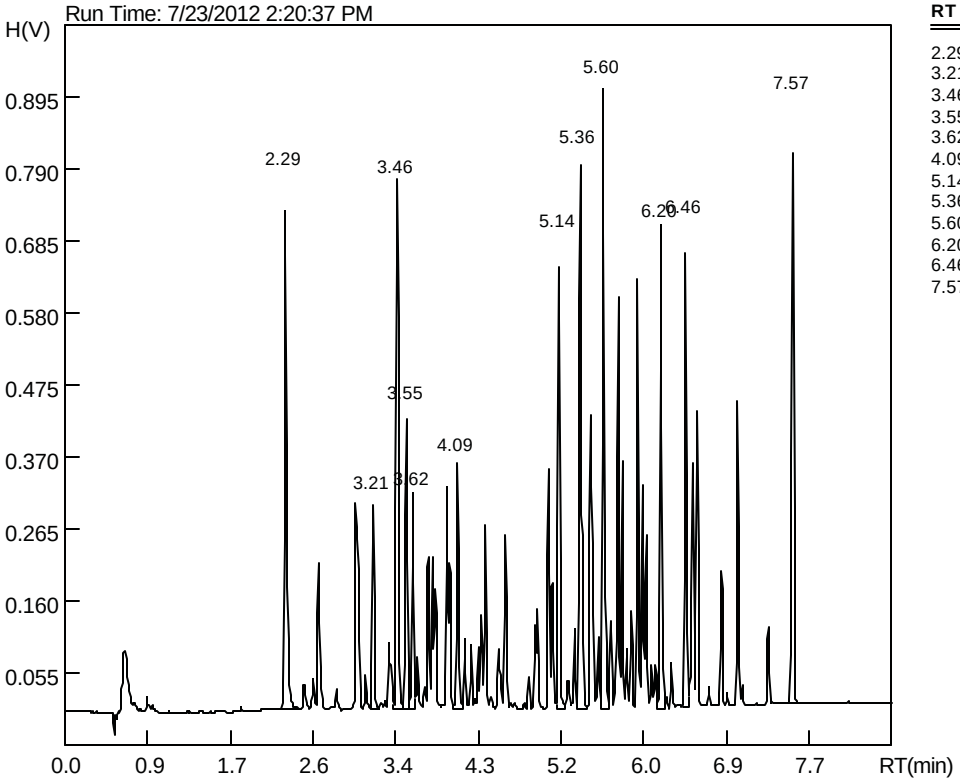
RT	dT	Name	Amt.	Area
2.29	0.01	TCX	24.142	1547480
3.16	-0.04	1016-1	-0.052	1193
3.46	0.01	1016-2	-0.049	12465
3.55	0.00	1016-3	-0.046	2964
3.64	0.02	1016-4	-0.036	5100
4.09	0.00	1016-5	-0.046	2757
5.14	0.00	1260-1	-0.046	12214
5.36	0.00	1260-2	-0.049	8509
5.61	0.00	1260-3	-0.048	8479
6.20	0.00	1260-4	-0.042	8774
6.46	0.00	1260-5	-0.047	9590
7.58	0.00	DCBP	27.982	1303324

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

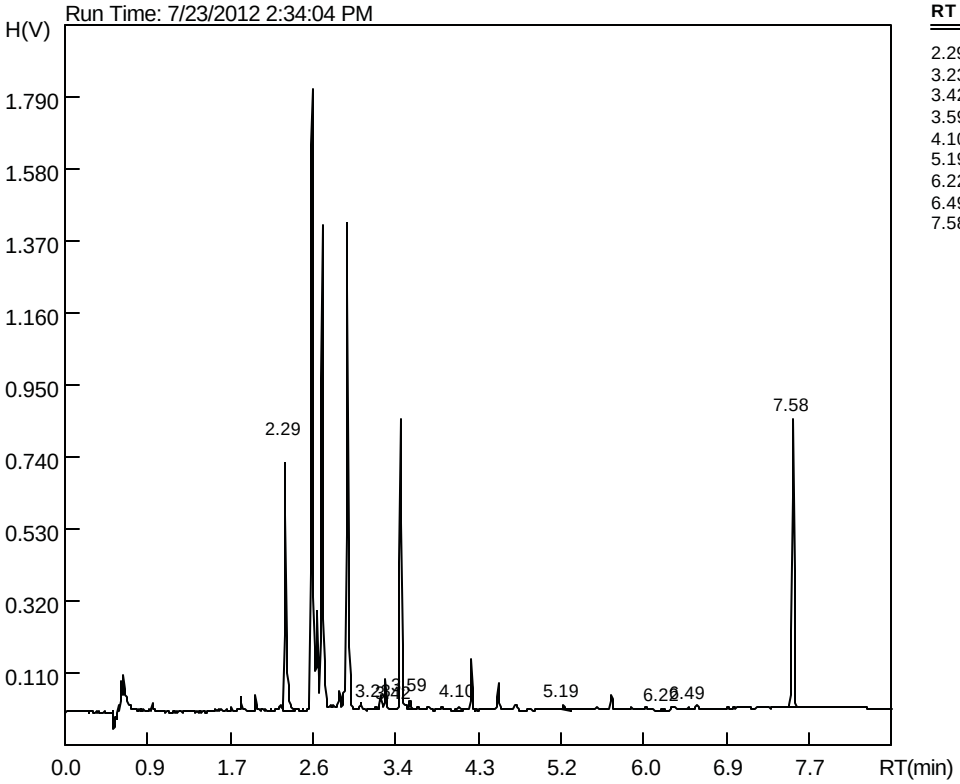
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.11R.BND
Comments: sLCS-S.01 20g s/1 ID:PA120723s01
Run Time: 7/23/2012 2:20:37 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	19.791	1281493
3.21	0.00	1016-1	0.416	435284
3.46	0.00	1016-2	0.418	1391955
3.55	0.00	1016-3	0.437	599987
3.62	0.00	1016-4	0.441	438987
4.09	0.00	1016-5	0.440	568449
5.14	0.00	1260-1	0.452	928513
5.36	0.00	1260-2	0.449	1367554
5.60	0.00	1260-3	0.452	1376640
6.20	0.00	1260-4	0.450	988377
6.46	0.00	1260-5	0.456	1031051
7.57	0.00	DCBP	26.655	1244949

File Name: F:\GCECD.DAT\A120723\A120723.12R.BND
Comments: s53273.03 20.2g s/1 ID:PA120723s01
Run Time: 7/23/2012 2:34:04 PM



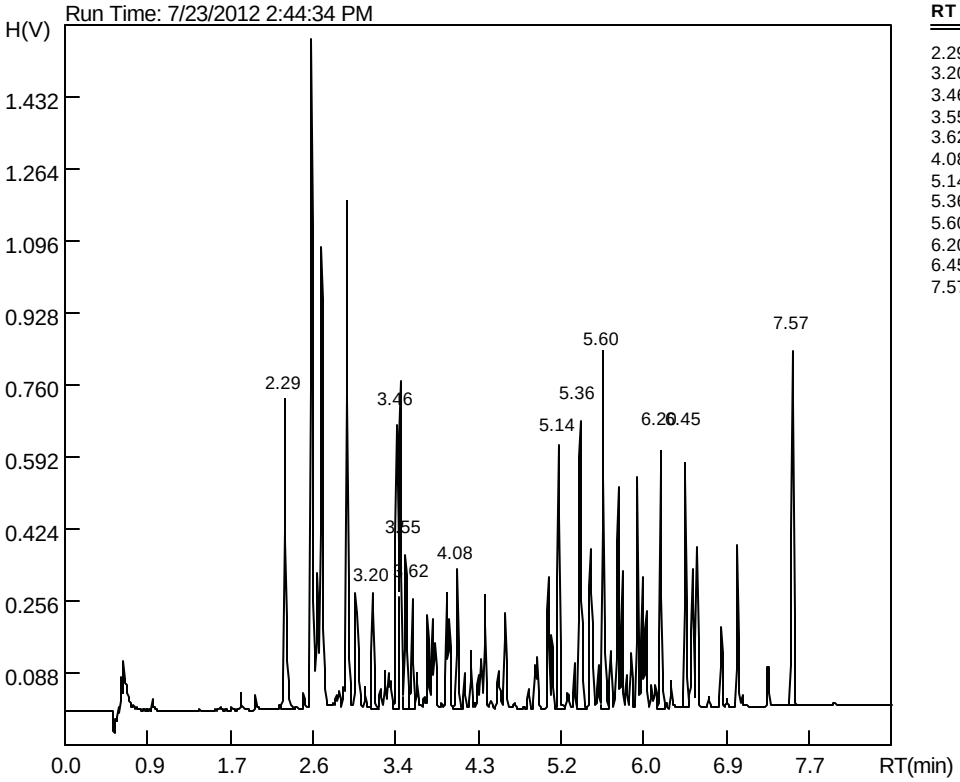
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	15.711	1032054
3.23	0.02	1016-1	-0.034	18030
3.42	-0.03	1016-2	-0.050	7366
3.59	-0.03	1016-4	0.008	45433
4.10	0.01	1016-5	-0.035	16309
5.19	0.05	1260-1	-0.040	23064
6.22	0.02	1260-4	-0.044	4474
6.49	0.03	1260-5	-0.043	18811
7.58	0.00	DCBP	25.144	1178469

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

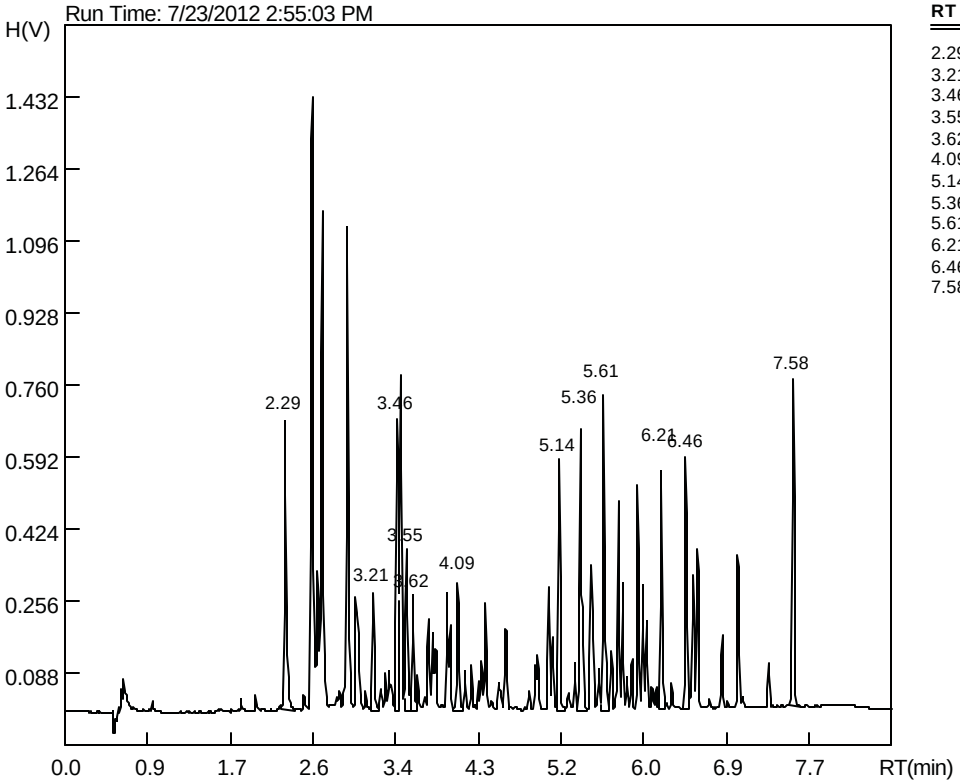
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.13R.BND
Comments: s53273.04 ms 20.1g s/1 ID:PA120723s01
Run Time: 7/23/2012 2:44:34 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	16.451	1077310
3.20	0.00	1016-1	0.388	408608
3.46	0.00	1016-2	0.362	1225208
3.55	0.00	1016-3	0.417	575780
3.62	0.00	1016-4	0.415	415045
4.08	0.00	1016-5	0.396	517926
5.14	0.00	1260-1	0.404	839845
5.36	0.00	1260-2	0.400	1235457
5.60	0.00	1260-3	0.397	1227205
6.20	0.00	1260-4	0.397	881475
6.45	-0.01	1260-5	0.400	917095
7.57	0.00	DCBP	25.633	1199973

File Name: F:\GCECD.DAT\A120723\A120723.14R.BND
Comments: s53273.05 msd 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 2:55:03 PM



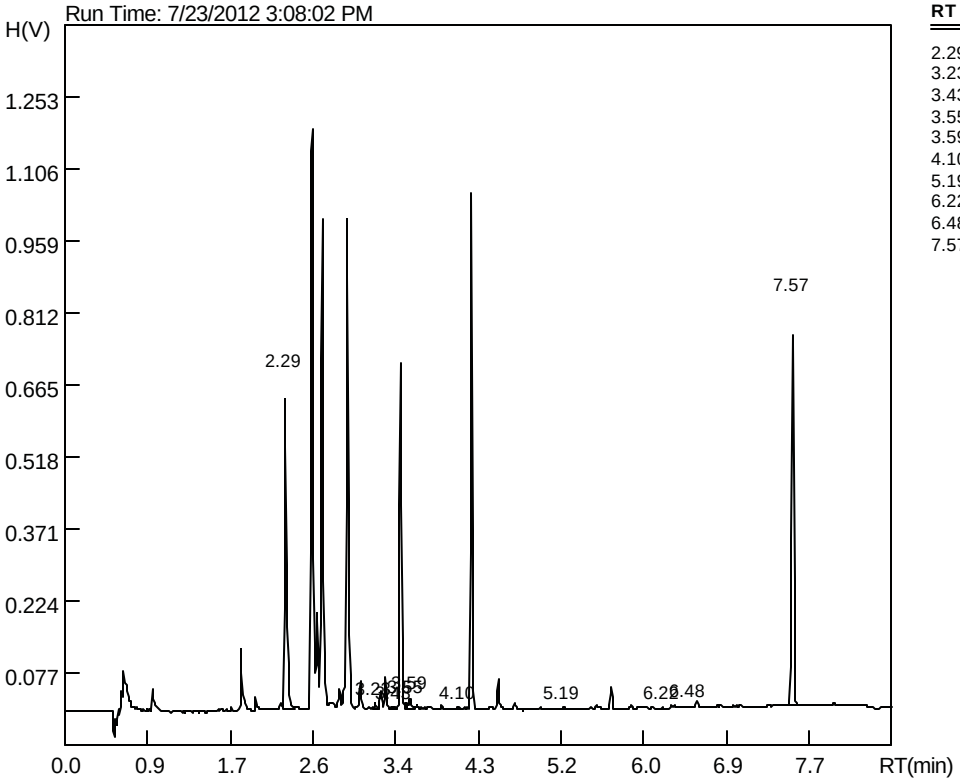
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	15.504	1019402
3.21	0.00	1016-1	0.371	393424
3.46	0.00	1016-2	0.335	1146876
3.55	0.00	1016-3	0.401	555723
3.62	0.00	1016-4	0.392	394252
4.09	0.00	1016-5	0.372	489863
5.14	0.00	1260-1	0.380	796274
5.36	0.00	1260-2	0.376	1169345
5.61	0.00	1260-3	0.375	1166699
6.21	0.00	1260-4	0.372	832548
6.46	0.00	1260-5	0.375	866301
7.58	0.00	DCBP	23.368	1100346

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

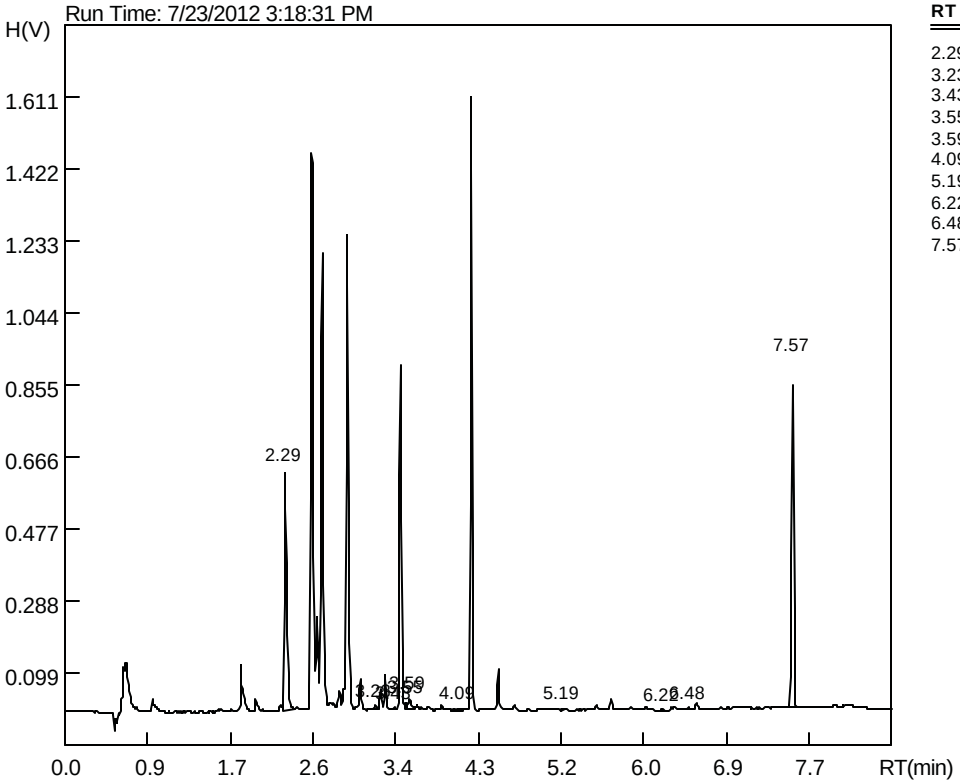
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.15R.BND
Comments: s53273.01 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:08:02 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	16.122	1057191
3.23	0.02	1016-1	-0.034	17792
3.43	-0.03	1016-2	-0.050	7760
3.55	0.00	1016-3	-0.033	19119
3.59	-0.03	1016-4	0.003	40521
4.10	0.01	1016-5	-0.041	8683
5.19	0.05	1260-1	-0.049	6784
6.22	0.02	1260-4	-0.043	6396
6.48	0.02	1260-5	-0.049	6104
7.57	0.00	DCBP	24.915	1168392

File Name: F:\GCECD.DAT\A120723\A120723.16R.BND
Comments: s53273.02 20.3g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:18:31 PM



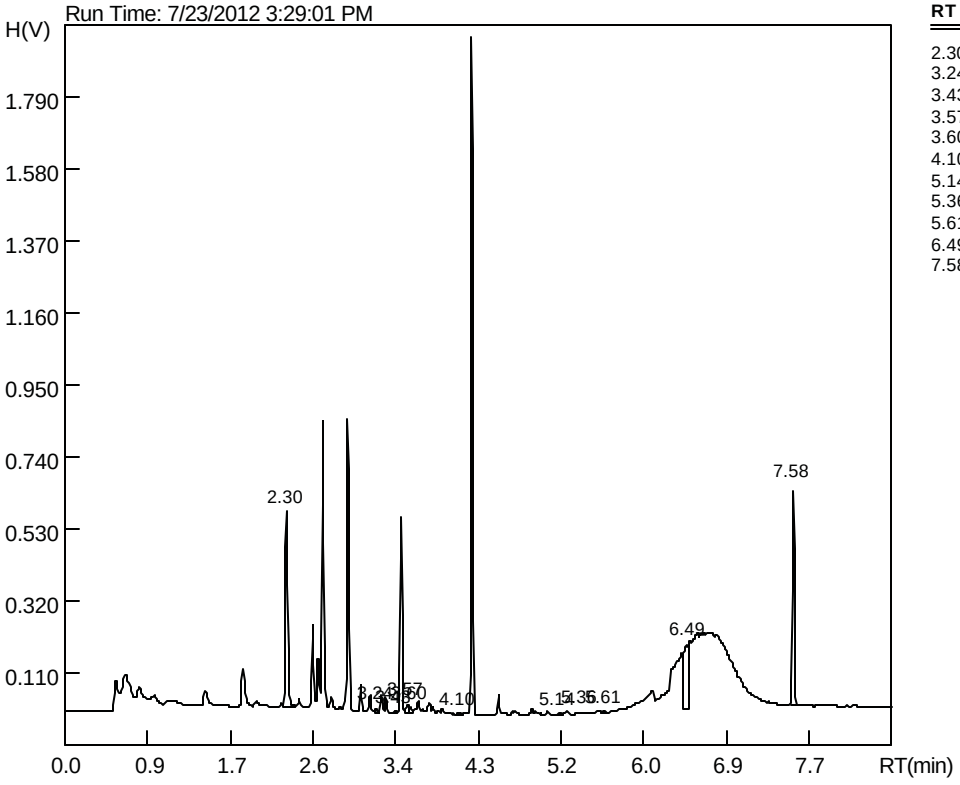
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	17.845	1162555
3.23	0.03	1016-1	-0.031	20485
3.43	-0.03	1016-2	-0.050	8314
3.55	0.00	1016-3	-0.022	32923
3.59	-0.03	1016-4	0.021	57568
4.09	0.00	1016-5	-0.031	20679
5.19	0.04	1260-1	-0.050	3664
6.22	0.02	1260-4	-0.045	2884
6.48	0.02	1260-5	-0.046	11657
7.57	0.00	DCBP	27.575	1285414

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

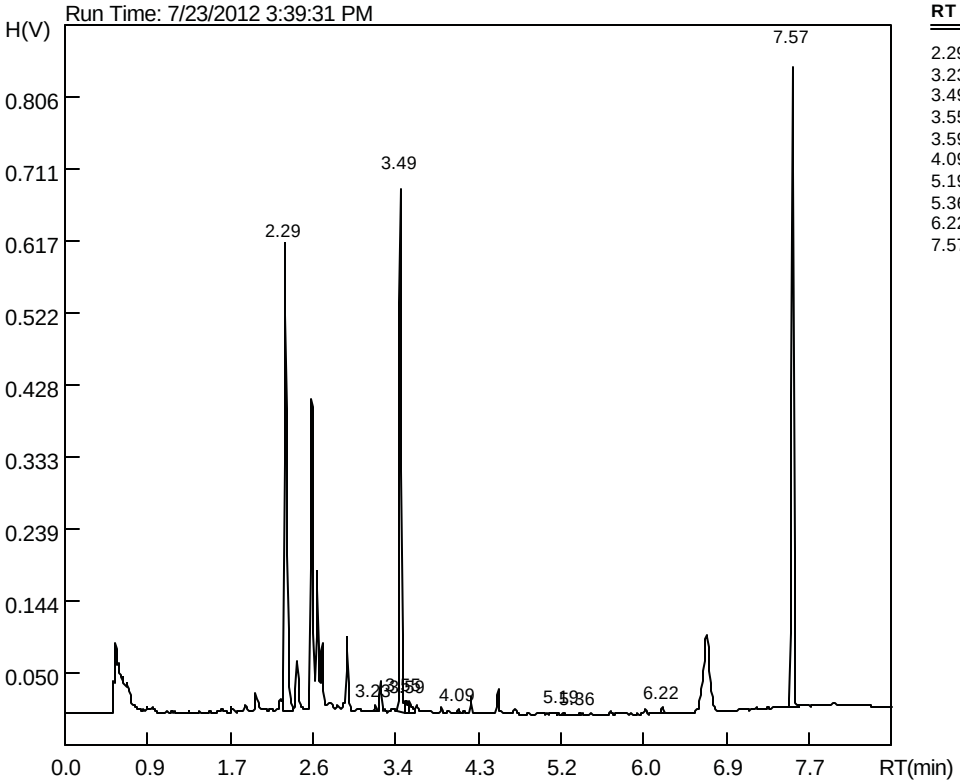
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.17R.BND
Comments: s53273.06 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:29:01 PM



RT	dT	Name	Amt.	Area
2.30	0.02	TCX	15.868	1041671
3.24	0.03	1016-1	-0.033	18409
3.43	-0.02	1016-2	-0.050	9137
3.57	0.02	1016-3	-0.008	50123
3.60	-0.02	1016-4	-0.011	27995
4.10	0.02	1016-5	-0.042	7997
5.14	0.00	1260-1	-0.049	6194
5.36	0.00	1260-2	-0.051	4489
5.61	0.01	1260-3	-0.047	11873
6.49	0.03	1260-5	0.292	697783
7.58	0.00	DCBP	18.937	905387

File Name: F:\GCECD.DAT\A120723\A120723.18R.BND
Comments: s53273.07 20.1g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:39:31 PM



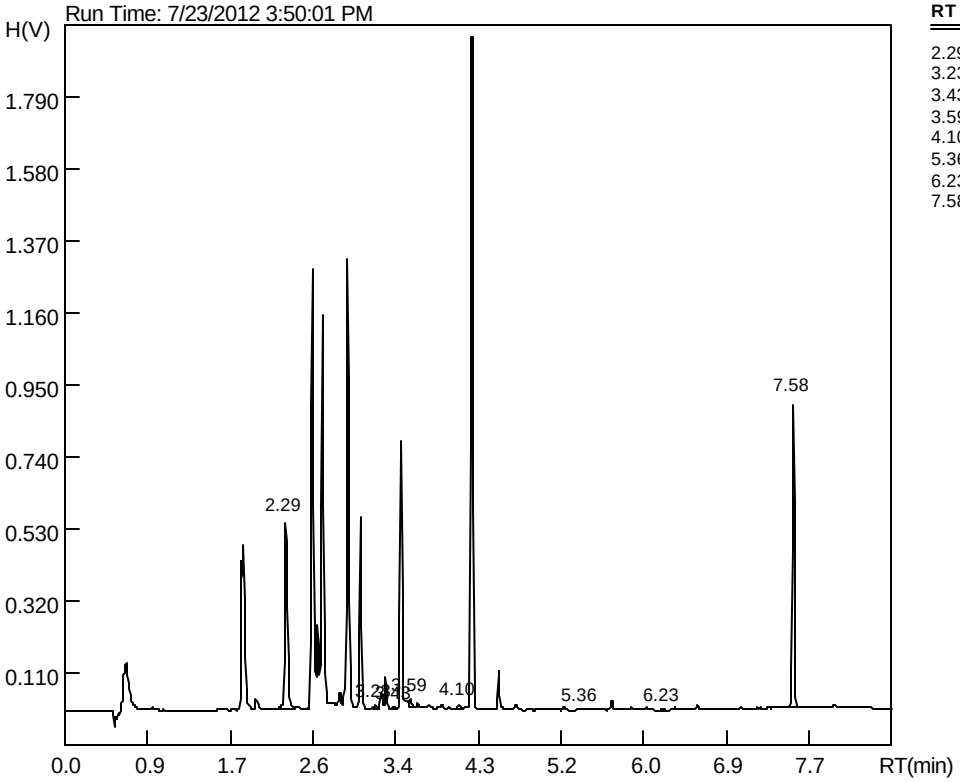
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	18.435	1198574
3.23	0.03	1016-1	-0.038	13884
3.49	0.03	1016-2	0.279	979197
3.55	0.00	1016-3	-0.026	28561
3.59	-0.03	1016-4	-0.003	35125
4.09	0.01	1016-5	-0.040	10321
5.19	0.05	1260-1	-0.050	4529
5.36	0.00	1260-2	-0.052	1496
6.22	0.02	1260-4	-0.041	10648
7.57	-0.01	DCBP	25.462	1192473

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

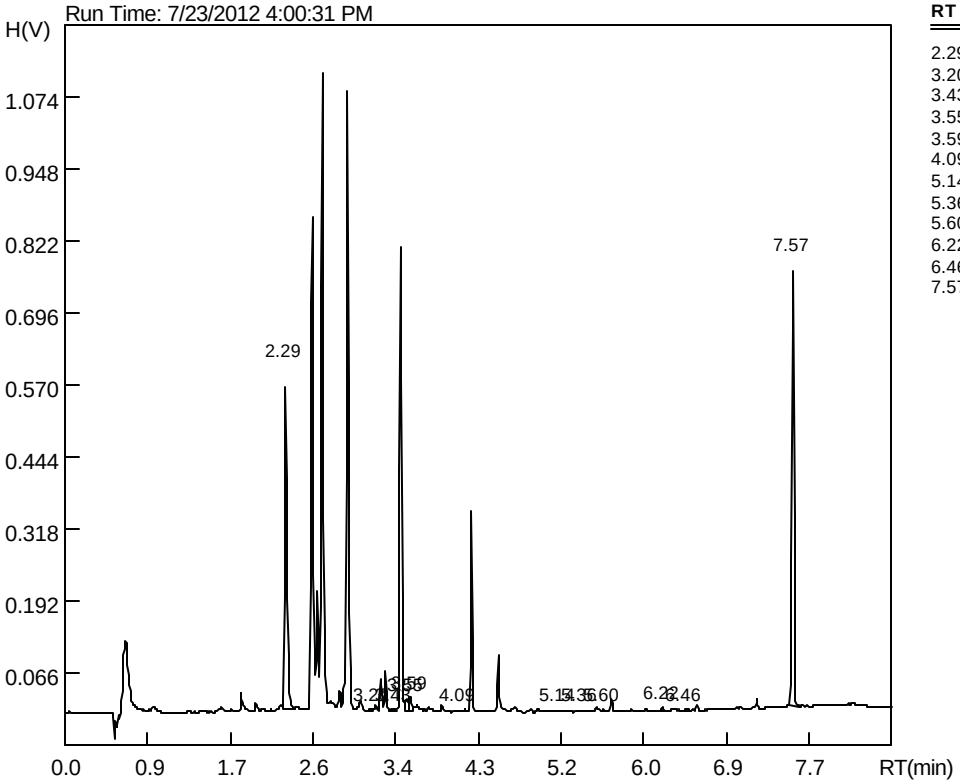
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.19R.BND
Comments: s53273.08 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:50:01 PM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	18.338	1192676
3.23	0.03	1016-1	-0.034	17410
3.43	-0.03	1016-2	-0.050	9793
3.59	-0.03	1016-4	0.015	51967
4.10	0.01	1016-5	-0.021	32502
5.36	0.00	1260-2	-0.052	1531
6.23	0.02	1260-4	-0.043	6269
7.58	0.00	DCBP	26.526	1239270

File Name: F:\GCECD.DAT\A120723\A120723.20R.BND
Comments: s53273.09 20.2g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:00:31 PM



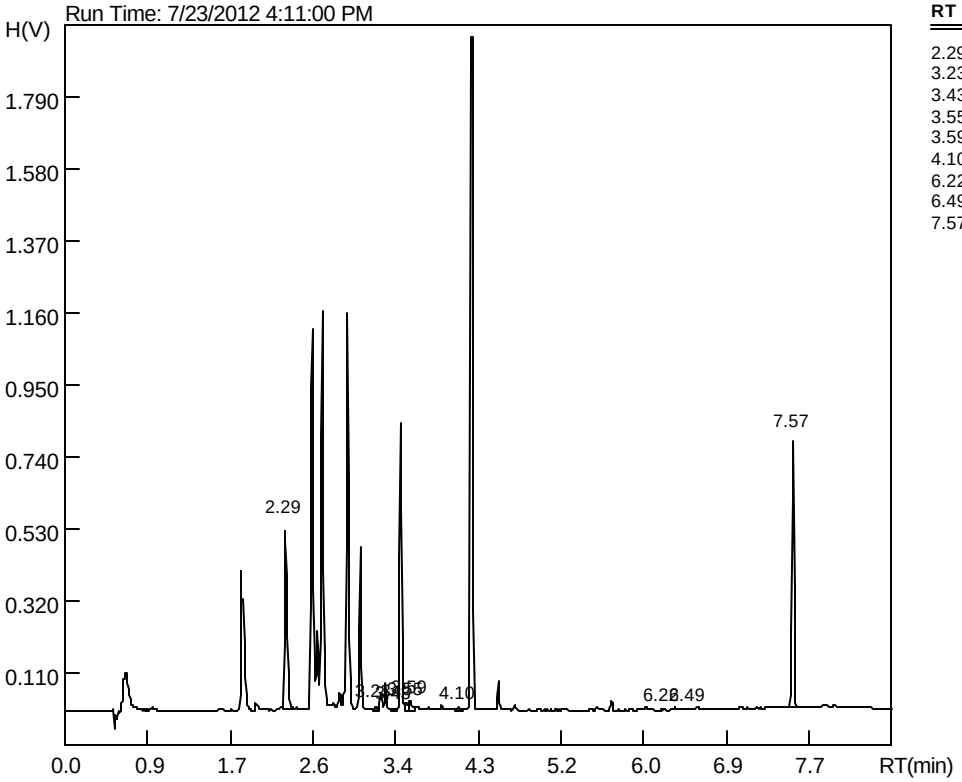
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	16.825	1100181
3.20	-0.01	1016-1	-0.042	9825
3.43	-0.03	1016-2	-0.049	12207
3.55	0.00	1016-3	-0.018	38186
3.59	-0.03	1016-4	0.018	54665
4.09	0.01	1016-5	-0.044	5774
5.14	0.00	1260-1	-0.050	3721
5.36	0.00	1260-2	-0.052	2135
5.60	0.00	1260-3	-0.049	7162
6.22	0.02	1260-4	-0.040	11652
6.46	0.00	1260-5	-0.048	7938
7.57	0.00	DCBP	23.979	1127241

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

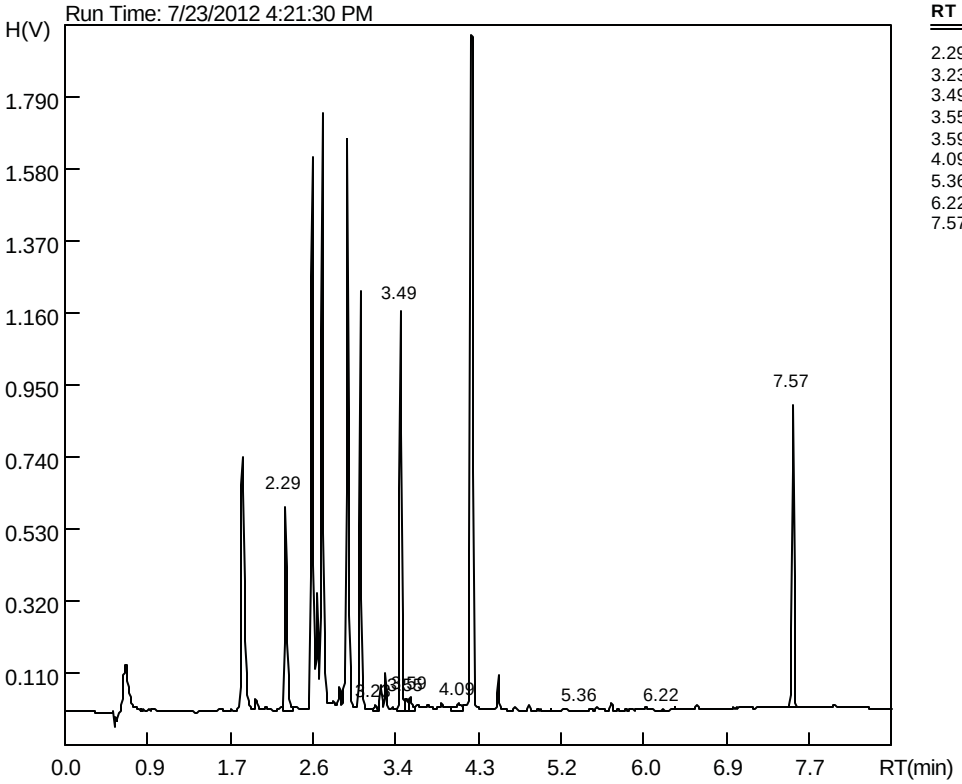
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.21R.BND
Comments: s53273.10 20.2g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:11:00 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	16.205	1062278
3.23	0.03	1016-1	-0.030	21125
3.43	-0.03	1016-2	-0.048	15351
3.55	0.00	1016-3	-0.016	41063
3.59	-0.03	1016-4	0.030	65133
4.10	0.01	1016-5	-0.024	29180
6.22	0.02	1260-4	-0.045	2850
6.49	0.03	1260-5	-0.047	9152
7.57	0.00	DCBP	23.481	1105330

File Name: F:\GCECD.DAT\A120723\A120723.22R.BND
Comments: s53273.11 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:21:30 PM



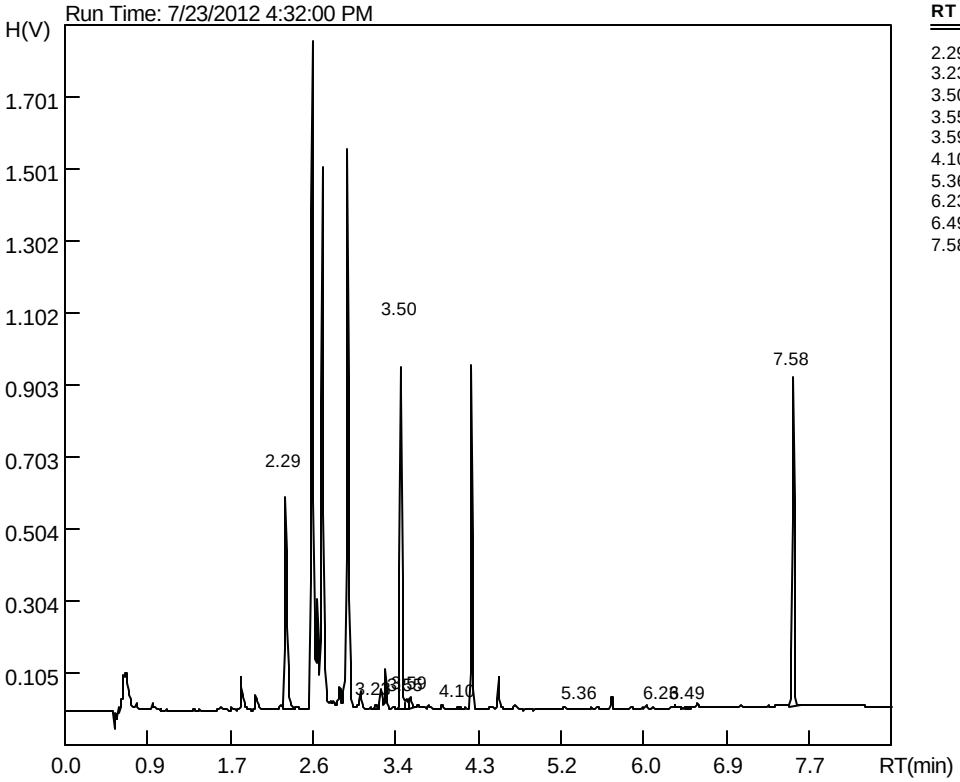
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	17.391	1134748
3.23	0.03	1016-1	-0.018	32257
3.49	0.04	1016-2	0.526	1709749
3.55	0.00	1016-3	0.005	66779
3.59	-0.03	1016-4	0.068	100372
4.09	0.01	1016-5	0.037	99650
5.36	0.00	1260-2	-0.051	3444
6.22	0.02	1260-4	-0.045	2332
7.57	0.00	DCBP	26.175	1223849

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

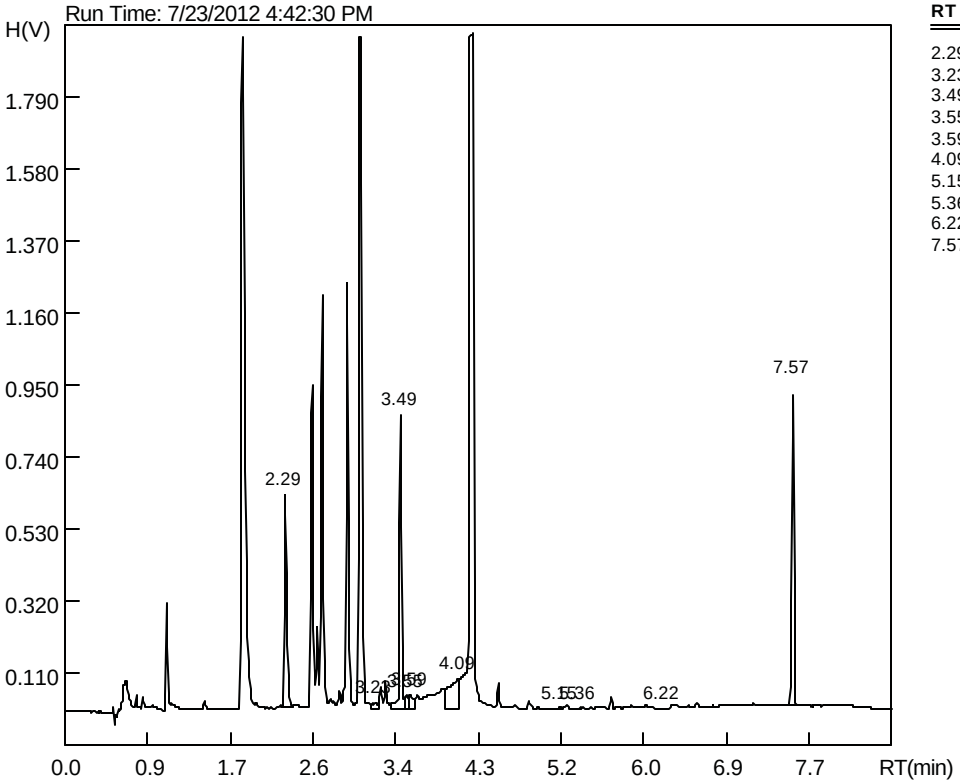
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.23R.BND
Comments: s53273.12 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:32:00 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	18.040	1174452
3.23	0.03	1016-1	-0.027	24385
3.50	0.04	1016-2	0.450	1486112
3.55	0.00	1016-3	-0.017	39032
3.59	-0.03	1016-4	0.028	63781
4.10	0.01	1016-5	-0.028	23961
5.36	0.00	1260-2	-0.051	5582
6.23	0.02	1260-4	-0.045	2318
6.49	0.03	1260-5	-0.047	9607
7.58	0.00	DCBP	27.046	1262153

File Name: F:\GCECD.DAT\A120723\A120723.24R.BND
Comments: s53273.13 20.2g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:42:30 PM



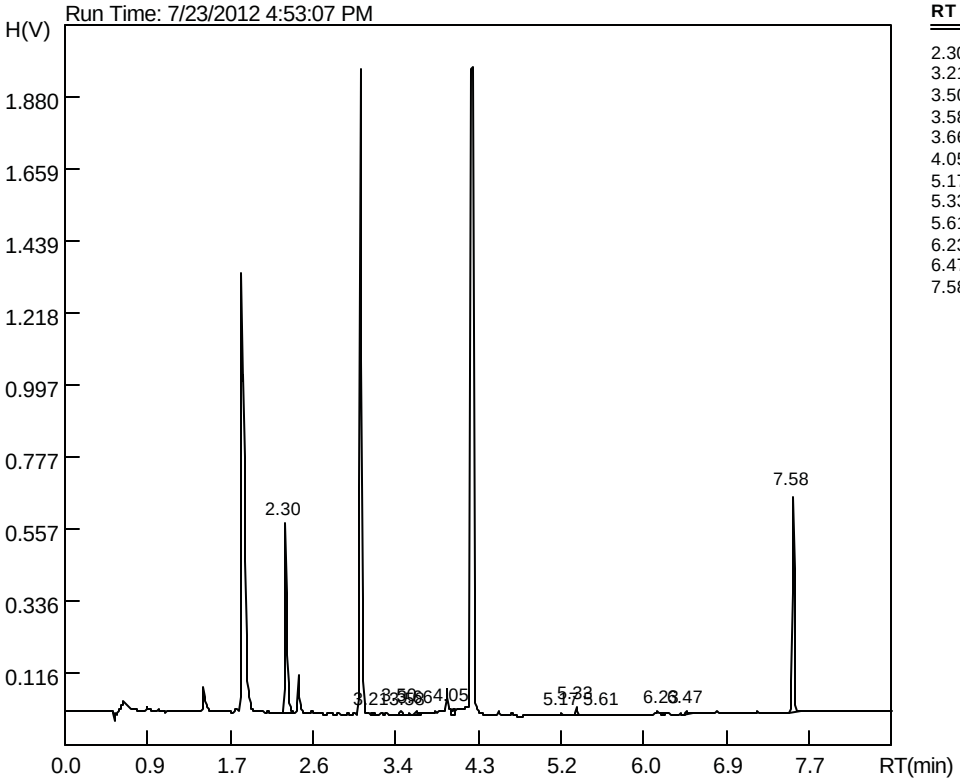
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	17.865	1163739
3.23	0.02	1016-1	0.020	67622
3.49	0.03	1016-2	0.403	1346110
3.55	0.00	1016-3	0.015	79314
3.59	-0.03	1016-4	0.114	141526
4.09	0.01	1016-5	0.538	682290
5.15	0.01	1260-1	-0.050	3896
5.36	0.00	1260-2	-0.051	3058
6.22	0.02	1260-4	-0.043	7234
7.57	0.00	DCBP	28.495	1325909

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

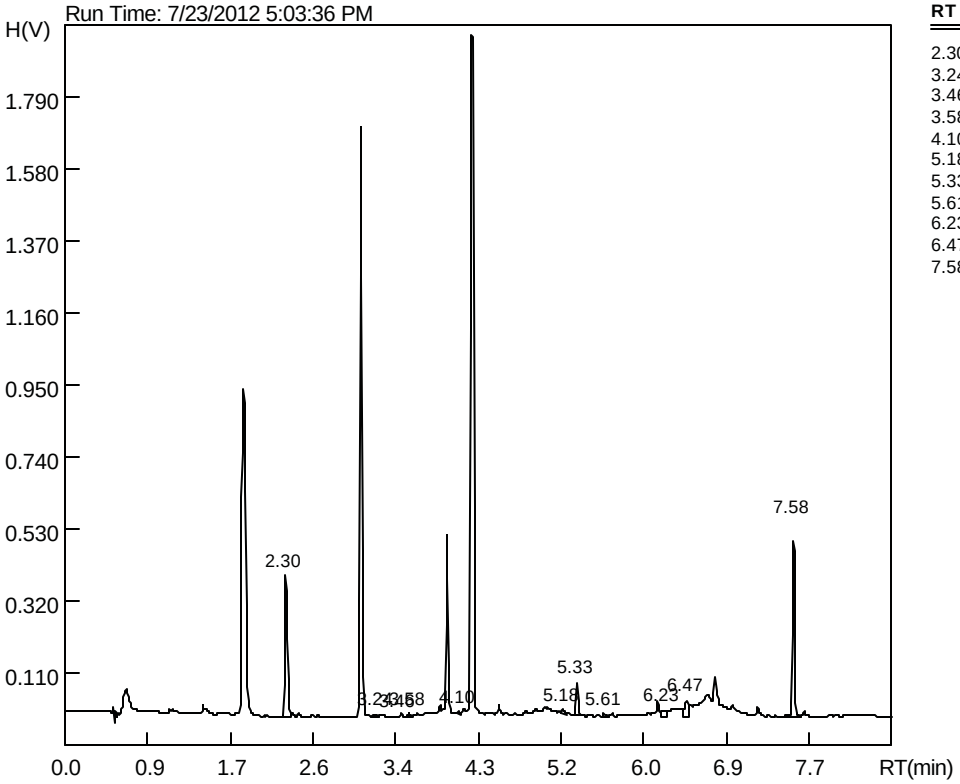
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.25R.BND
Comments: s53273.14 20.0g s/1 C ID:PA120723s01
Run Time: 7/23/2012 4:53:07 PM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	14.087	932782
3.21	0.00	1016-1	-0.039	12925
3.50	0.04	1016-2	-0.036	49895
3.58	0.03	1016-3	-0.042	8363
3.66	0.04	1016-4	0.001	39500
4.05	-0.04	1016-5	-0.012	42790
5.17	0.03	1260-1	-0.048	7971
5.33	-0.03	1260-2	-0.040	34898
5.61	0.00	1260-3	-0.049	6192
6.23	0.02	1260-4	-0.034	24028
6.47	0.01	1260-5	-0.046	12369
7.58	0.00	DCBP	19.480	929281

File Name: F:\GCECD.DAT\A120723\A120723.26R.BND
Comments: s53273.15 20.0g s/1 C ID:PA120723s01
Run Time: 7/23/2012 5:03:36 PM



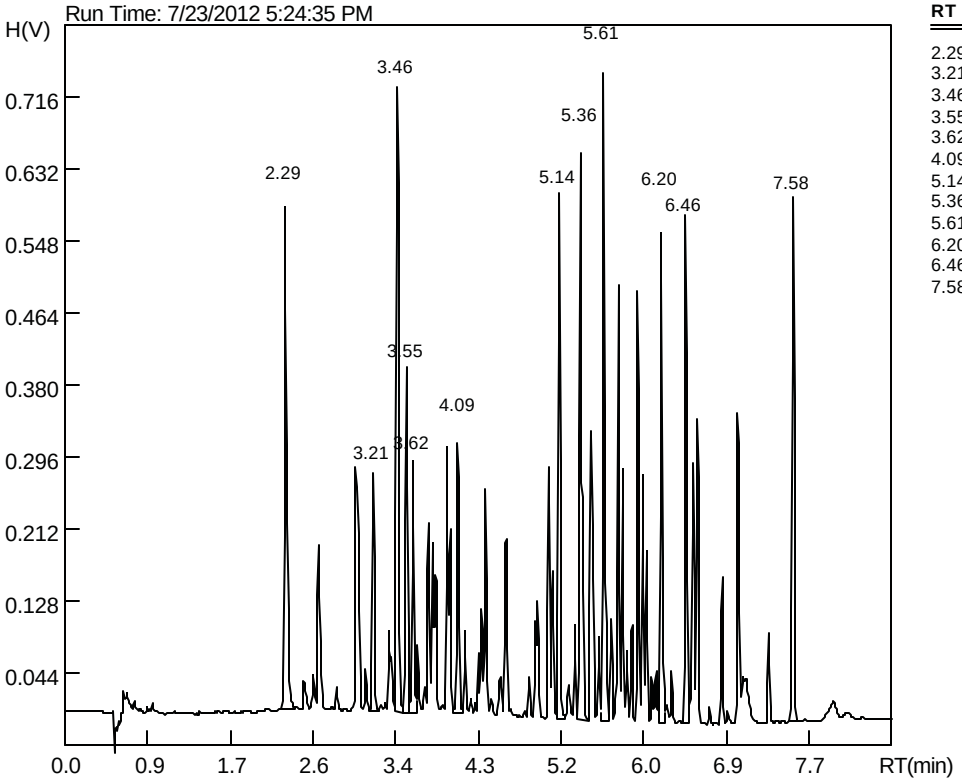
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	12.971	864539
3.24	0.03	1016-1	-0.025	25644
3.46	0.01	1016-2	-0.051	4717
3.58	0.03	1016-3	-0.039	12610
4.10	0.01	1016-5	-0.039	11722
5.18	0.04	1260-1	-0.044	14938
5.33	-0.03	1260-2	-0.002	138231
5.61	0.01	1260-3	-0.046	15293
6.23	0.03	1260-4	-0.018	55328
6.47	0.01	1260-5	0.008	121184
7.58	0.01	DCBP	17.184	828256

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

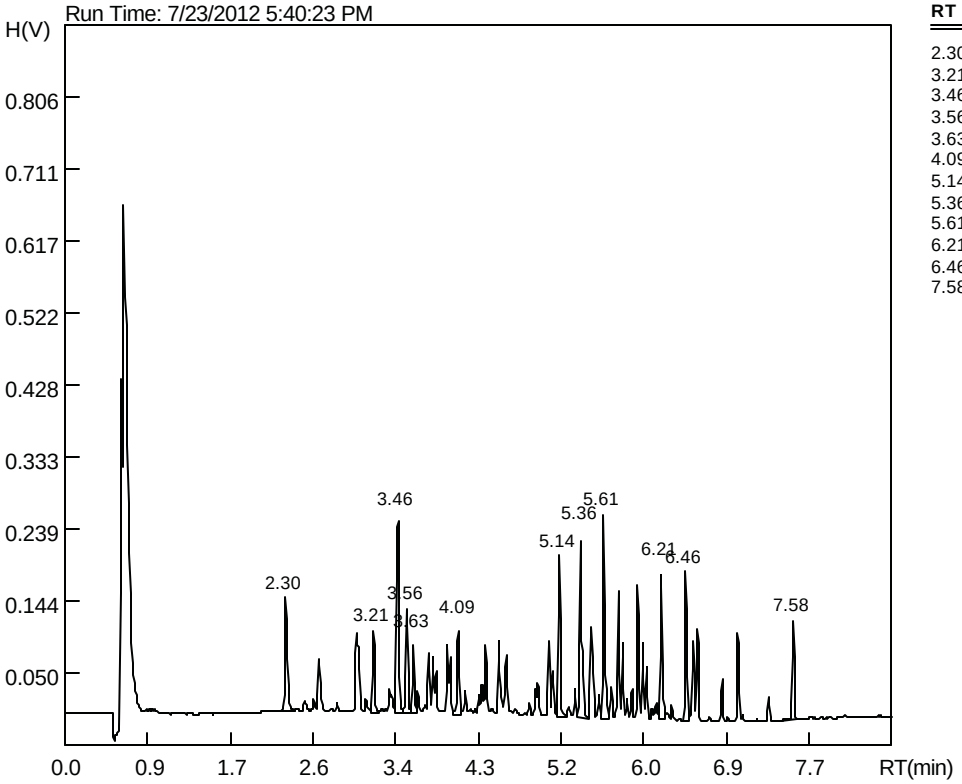
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.28R.BND
Comments: sLCS-Al.01 0.5ppm ID:Cleanup
Run Time: 7/23/2012 5:24:35 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	16.367	1072179
3.21	0.00	1016-1	0.400	420202
3.46	0.00	1016-2	0.403	1346341
3.55	0.00	1016-3	0.415	573187
3.62	0.00	1016-4	0.418	418417
4.09	0.00	1016-5	0.415	539507
5.14	0.00	1260-1	0.391	817471
5.36	0.00	1260-2	0.388	1202185
5.61	0.00	1260-3	0.379	1178414
6.20	0.00	1260-4	0.383	854646
6.46	0.00	1260-5	0.369	854678
7.58	0.00	DCBP	18.829	900648

File Name: F:\GCECD.DAT\A120723\A120723.29R.BND
Comments: ss1660.07 0.1ppm 7/23/12
Run Time: 7/23/2012 5:40:23 PM



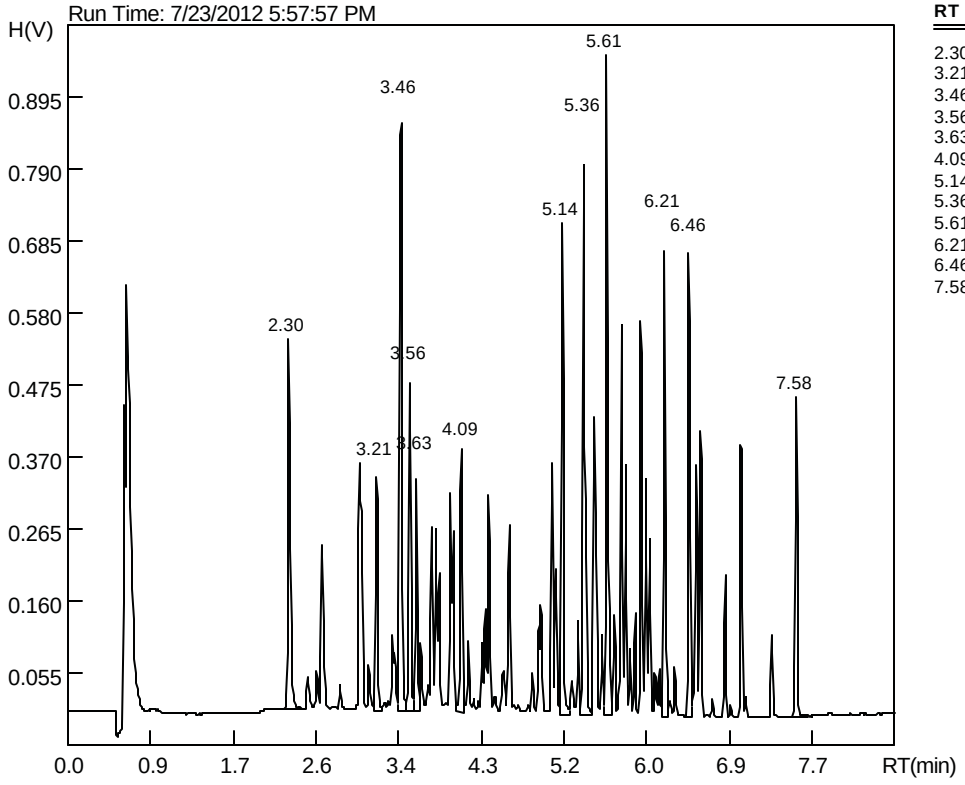
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	3.354	276588
3.21	0.01	1016-1	0.120	160723
3.46	0.01	1016-2	0.112	486724
3.56	0.01	1016-3	0.117	205228
3.63	0.01	1016-4	0.120	147355
4.09	0.00	1016-5	0.111	185637
5.14	0.00	1260-1	0.108	296075
5.36	0.00	1260-2	0.103	424722
5.61	0.00	1260-3	0.096	402977
6.21	0.00	1260-4	0.104	299390
6.46	0.00	1260-5	0.089	286284
7.58	0.00	DCBP	2.717	191766

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5 Analytical Batch: a120723.3

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120723\A120723.30R.BND
Comments: SC1660.03 0.5ppm 7/23/12
Run Time: 7/23/2012 5:57:57 PM

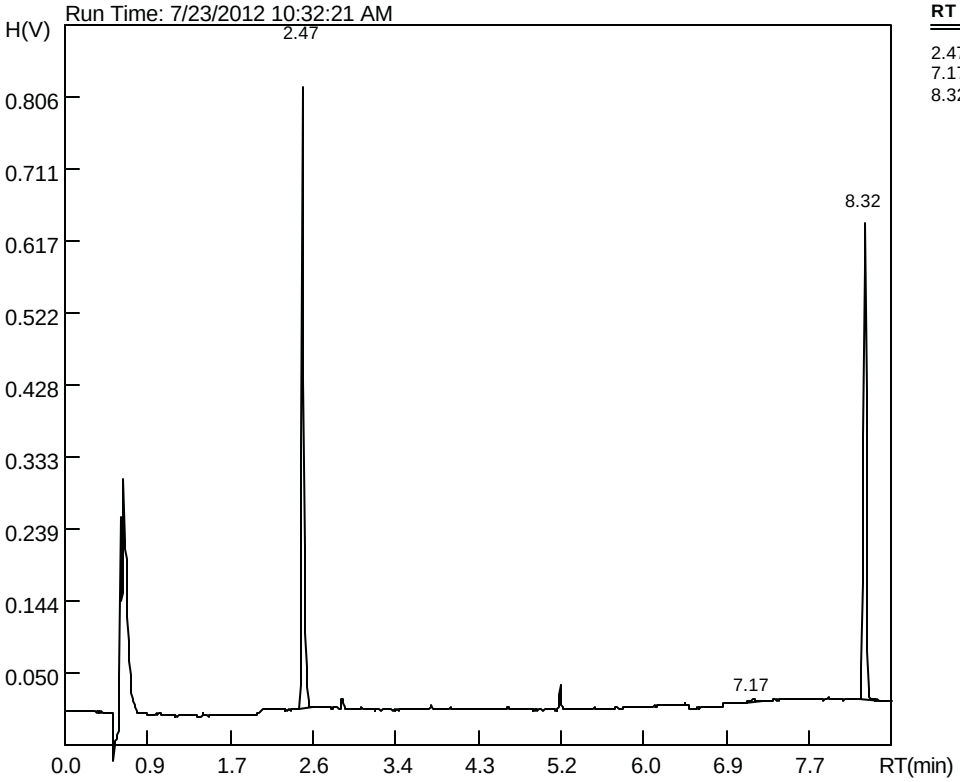


RT	dT	Name	Amt.	Area
2.30	0.01	TCX	15.321	1008244
3.21	0.01	1016-1	0.519	530493
3.46	0.01	1016-2	0.506	1650911
3.56	0.01	1016-3	0.518	700143
3.63	0.01	1016-4	0.522	512952
4.09	0.01	1016-5	0.507	646569
5.14	0.00	1260-1	0.498	1014207
5.36	0.00	1260-2	0.490	1479468
5.61	0.00	1260-3	0.474	1437935
6.21	0.00	1260-4	0.469	1024758
6.46	0.00	1260-5	0.448	1015362
7.58	0.00	DCBP	13.563	668961

GC/ECD Analysis: Raw Chromatographic Data

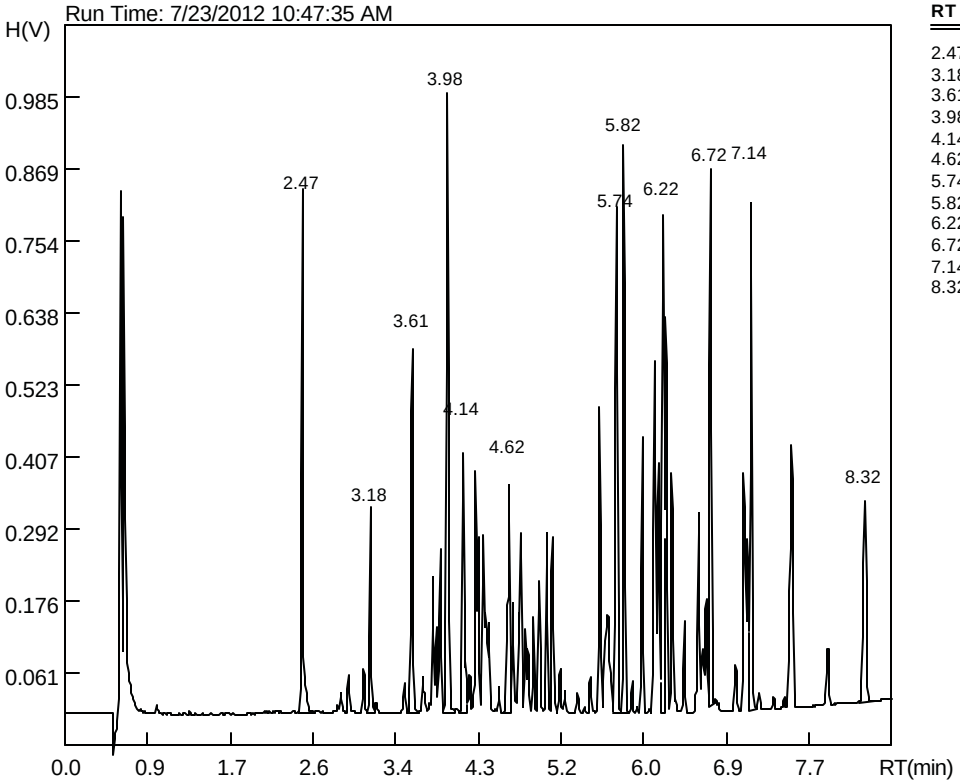
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120723.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120723\A120723B.01R.BND
Comments: SBLK-R.01
Run Time: 7/23/2012 10:32:21 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	23.379	1476707
7.17	0.02	1260-5	-0.041	10810
8.32	0.00	DCBP	30.789	1272918

File Name: F:\GCECD.DAT\A120723\A120723B.02R.BND
Comments: SC1660.01 0.5ppm 7/2/12
Run Time: 7/23/2012 10:47:35 AM



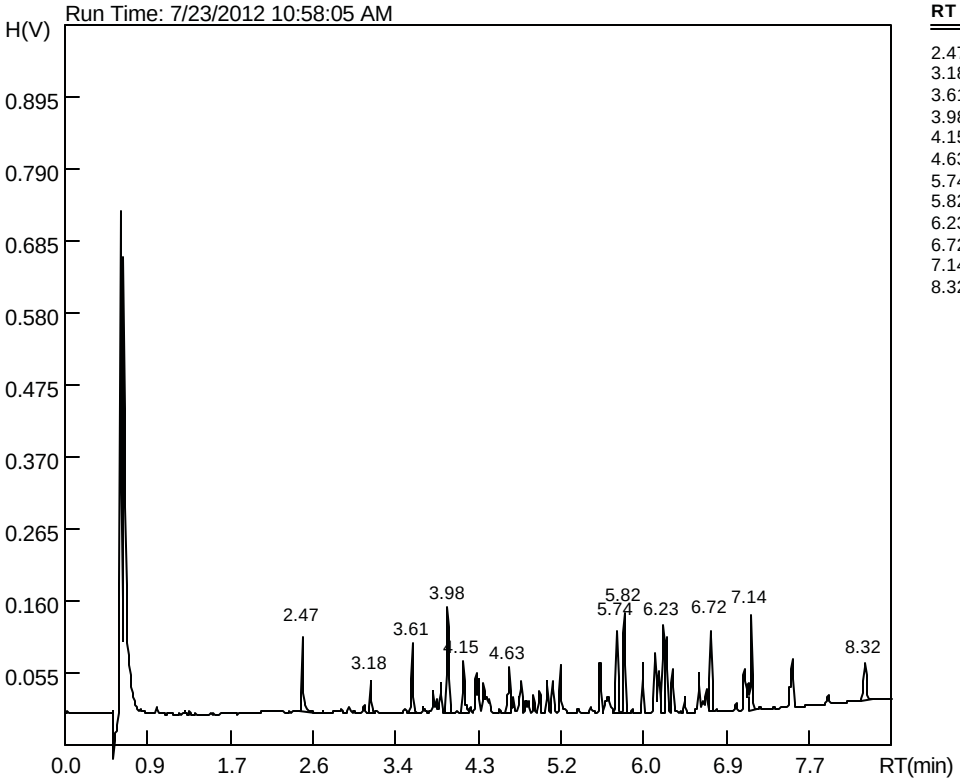
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	15.581	1004883
3.18	-0.01	1016-1	0.535	404693
3.61	-0.01	1016-2	0.537	846186
3.98	-0.01	1016-3	0.520	1759257
4.14	-0.01	1016-4	0.536	673867
4.62	-0.01	1016-5	0.537	687452
5.74	-0.01	1260-1	0.527	1153993
5.82	-0.01	1260-2	0.526	1191989
6.22	-0.01	1260-3	0.531	1200776
6.72	-0.01	1260-4	0.511	1134391
7.14	-0.01	1260-5	0.533	1135968
8.32	-0.01	DCBP	15.888	687996

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

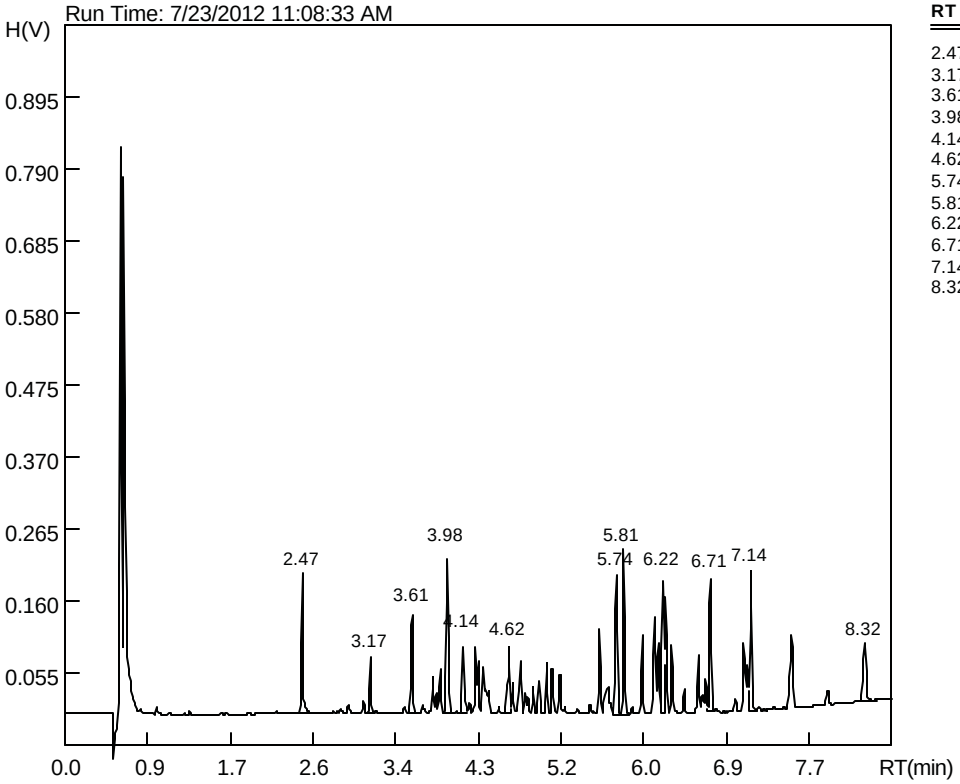
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:05 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	1.459	154585
3.18	0.00	1016-1	0.043	62400
3.61	0.00	1016-2	0.041	138944
3.98	0.00	1016-3	0.060	281423
4.15	0.00	1016-4	0.037	104985
4.63	0.01	1016-5	0.042	115366
5.74	0.00	1260-1	0.044	191382
5.82	0.00	1260-2	0.048	197603
6.23	0.00	1260-3	0.051	192217
6.72	0.01	1260-4	0.064	176451
7.14	0.00	1260-5	0.047	181261
8.32	0.00	DCBP	1.459	112589

File Name: F:\GCECD.DAT\A120723\A120723B.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:33 AM



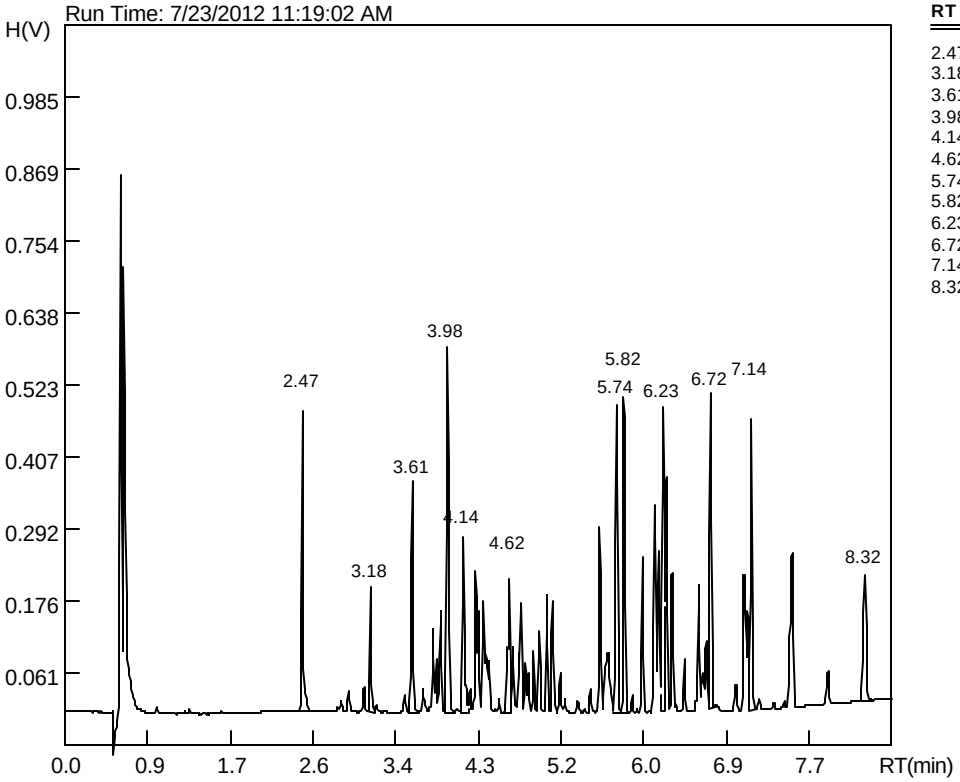
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	2.926	241599
3.17	0.00	1016-1	0.092	97106
3.61	0.00	1016-2	0.091	212955
3.98	0.00	1016-3	0.108	428291
4.14	0.00	1016-4	0.082	156685
4.62	0.00	1016-5	0.094	174881
5.74	0.00	1260-1	0.093	291676
5.81	0.00	1260-2	0.098	300385
6.22	0.00	1260-3	0.106	303287
6.71	0.00	1260-4	0.108	271829
7.14	0.00	1260-5	0.100	282723
8.32	0.00	DCBP	3.389	175413

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

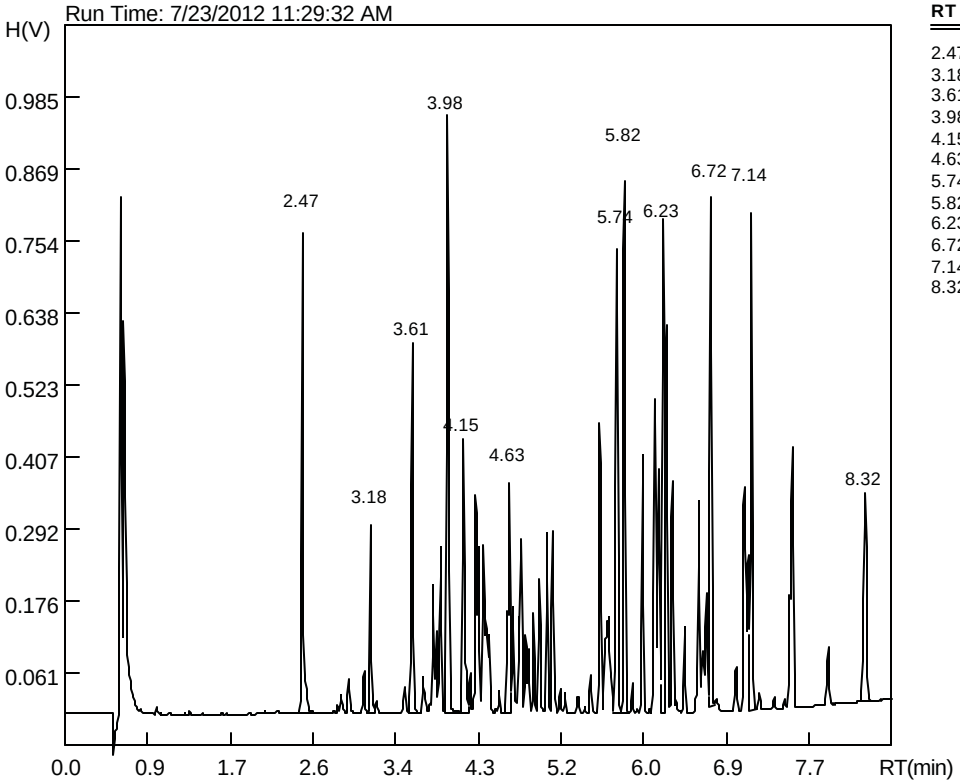
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:02 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	9.075	606331
3.18	0.00	1016-1	0.304	247848
3.61	0.00	1016-2	0.301	518948
3.98	0.00	1016-3	0.315	1066353
4.14	0.00	1016-4	0.301	408429
4.62	0.00	1016-5	0.310	424610
5.74	0.00	1260-1	0.294	705101
5.82	0.00	1260-2	0.306	727443
6.23	0.00	1260-3	0.318	727830
6.72	0.00	1260-4	0.293	673277
7.14	0.00	1260-5	0.313	685929
8.32	0.00	DCBP	11.145	427897

File Name: F:\GCECD.DAT\A120723\A120723B.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:32 AM



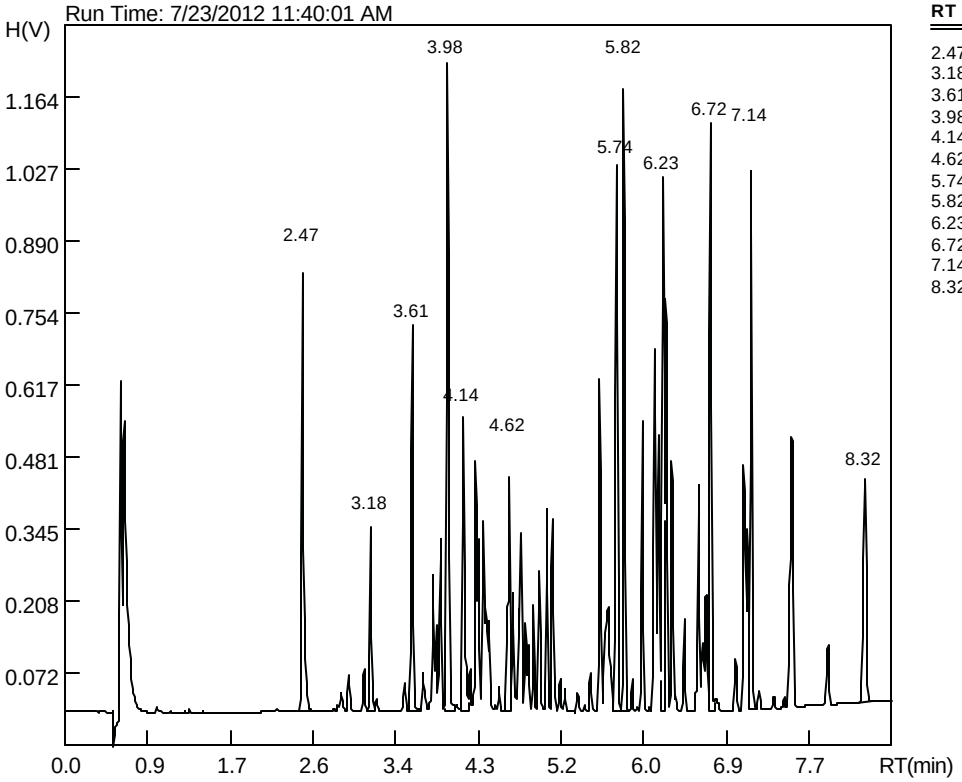
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	15.517	988405
3.18	0.00	1016-1	0.512	395873
3.61	0.00	1016-2	0.509	824310
3.98	0.00	1016-3	0.531	1730023
4.15	0.00	1016-4	0.517	656542
4.63	0.00	1016-5	0.522	670161
5.74	0.00	1260-1	0.500	1127409
5.82	0.00	1260-2	0.517	1162717
6.23	0.00	1260-3	0.543	1181106
6.72	0.00	1260-4	0.494	1109205
7.14	0.00	1260-5	0.532	1099473
8.32	0.00	DCBP	18.789	676752

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

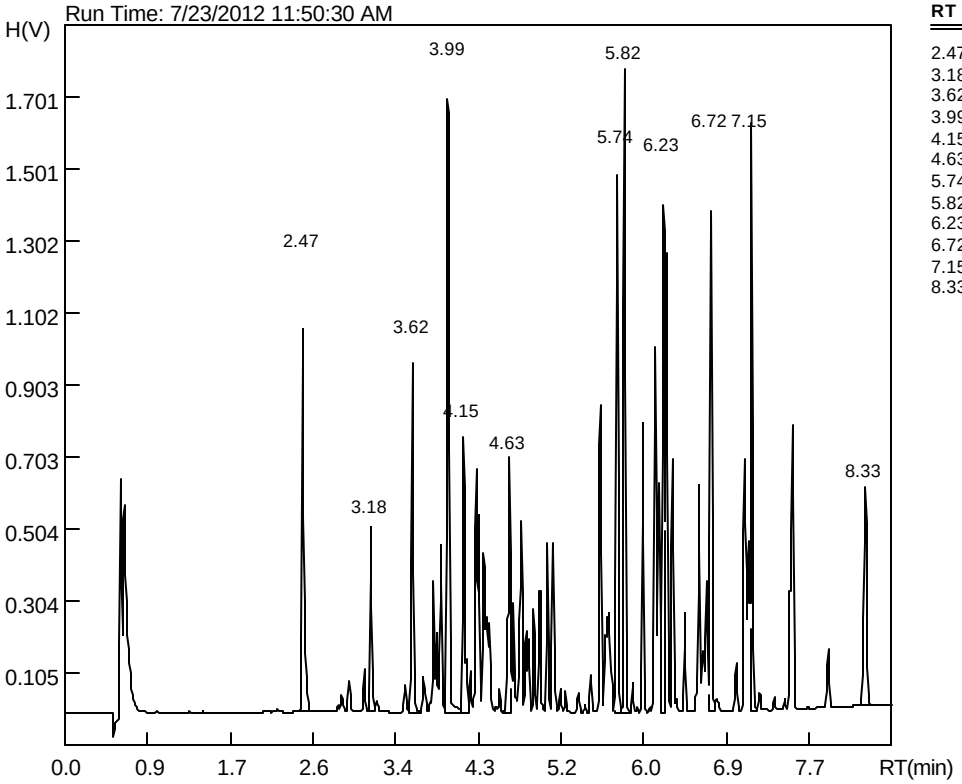
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:01 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.826	1303269
3.18	0.00	1016-1	0.682	516203
3.61	0.00	1016-2	0.677	1069894
3.98	0.00	1016-3	0.707	2270575
4.14	0.00	1016-4	0.691	855591
4.62	0.00	1016-5	0.691	865803
5.74	0.00	1260-1	0.670	1477266
5.82	0.00	1260-2	0.695	1528331
6.23	0.00	1260-3	0.710	1515952
6.72	0.00	1260-4	0.682	1517431
7.14	0.00	1260-5	0.707	1430408
8.32	0.00	DCBP	24.998	878867

File Name: F:\GCECD.DAT\A120723\A120723B.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:30 AM

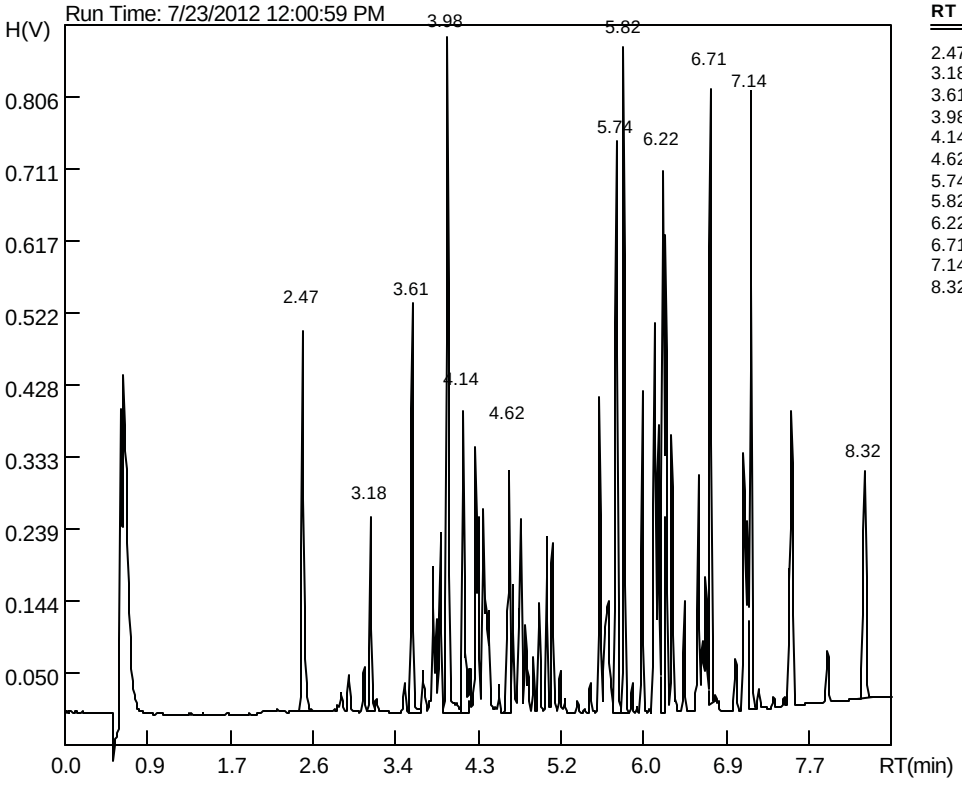


RT	dT	Name	Amt.	Area
2.47	0.00	TCX	30.699	1888871
3.18	0.01	1016-1	0.968	719306
3.62	0.01	1016-2	0.970	1498355
3.99	0.01	1016-3	1.041	3298679
4.15	0.01	1016-4	0.996	1206900
4.63	0.01	1016-5	0.992	1214470
5.74	0.01	1260-1	0.975	2104039
5.82	0.01	1260-2	1.013	2184009
6.23	0.01	1260-3	1.039	2176670
6.72	0.01	1260-4	0.986	2178597
7.15	0.01	1260-5	1.038	2057755
8.33	0.01	DCBP	35.941	1235101

GC/ECD Analysis: Raw Chromatographic Data

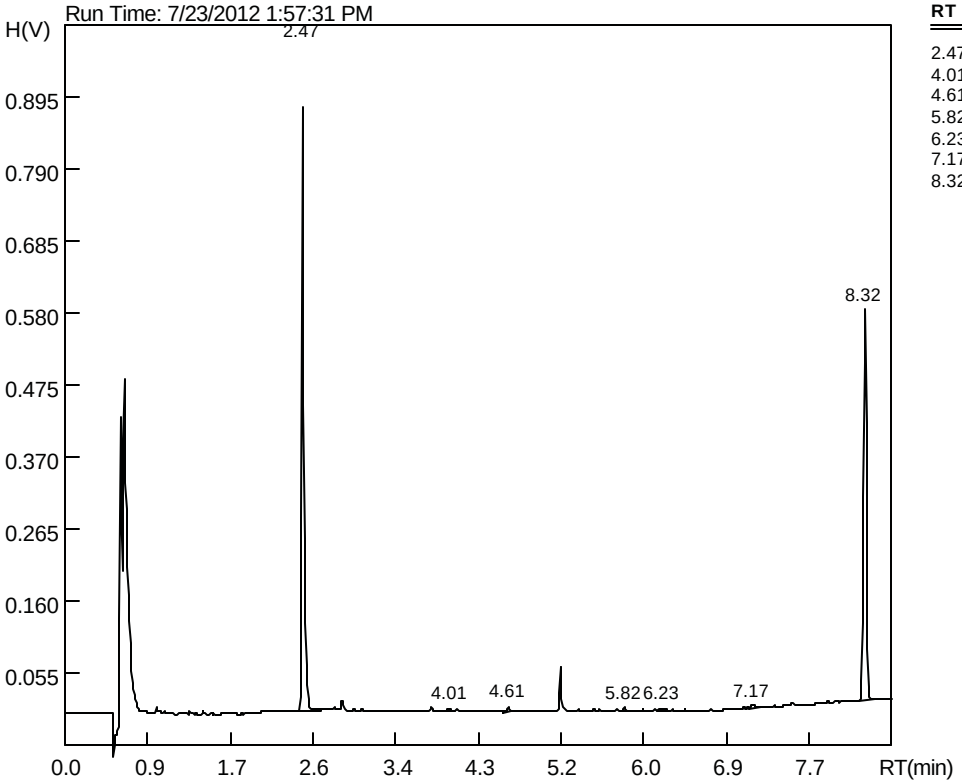
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120723.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120723\A120723B.09R.BND
Comments: SC1660.02 0.5ppm Ultra 7/23/12
Run Time: 7/23/2012 12:00:59 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	14.398	933293
3.18	0.00	1016-1	0.513	389308
3.61	-0.01	1016-2	0.506	801859
3.98	-0.01	1016-3	0.499	1694554
4.14	-0.01	1016-4	0.500	632955
4.62	-0.01	1016-5	0.478	620062
5.74	-0.01	1260-1	0.484	1068501
5.82	-0.01	1260-2	0.484	1105445
6.22	-0.01	1260-3	0.468	1071390
6.71	-0.01	1260-4	0.486	1080530
7.14	-0.01	1260-5	0.502	1075184
8.32	-0.01	DCBP	14.401	629603

File Name: F:\GCECD.DAT\A120723\A120723B.10R.BND
Comments: sBLK-S.01 20g s/1 ID:PA120723s01
Run Time: 7/23/2012 1:57:31 PM

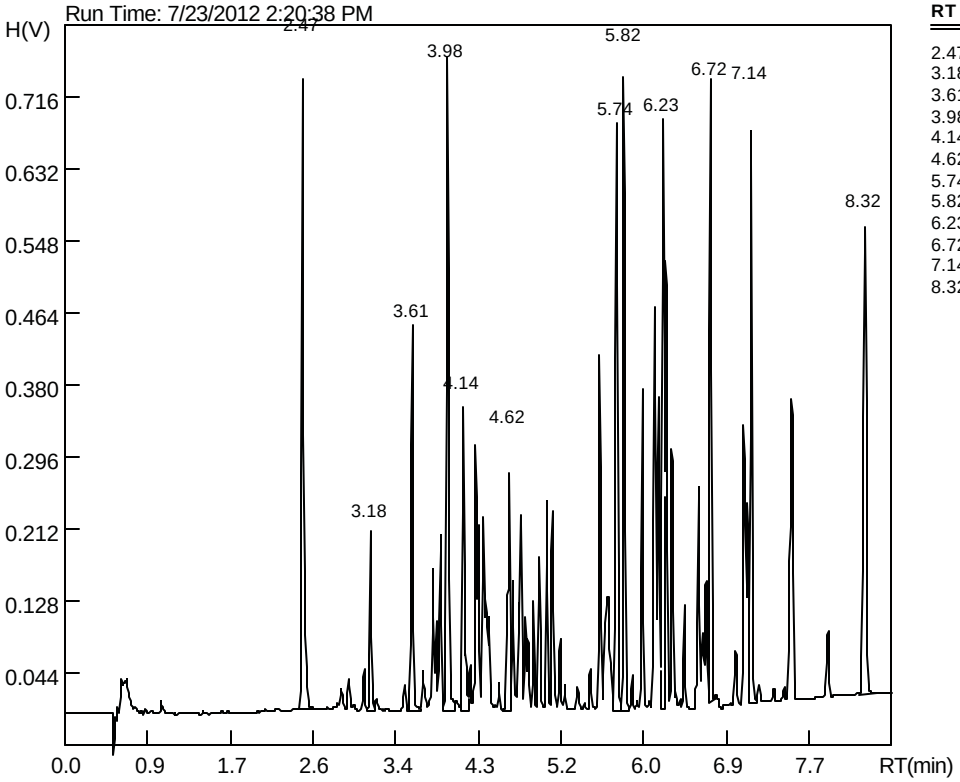


RT	dT	Name	Amt.	Area
2.47	0.00	TCX	24.754	1559915
4.01	0.02	1016-3	-0.033	13489
4.61	-0.02	1016-5	-0.047	13270
5.82	0.00	1260-2	-0.043	7064
6.23	0.00	1260-3	-0.041	16066
7.17	0.02	1260-5	-0.039	13026
8.32	0.00	DCBP	27.895	1159310

GC/ECD Analysis: Raw Chromatographic Data

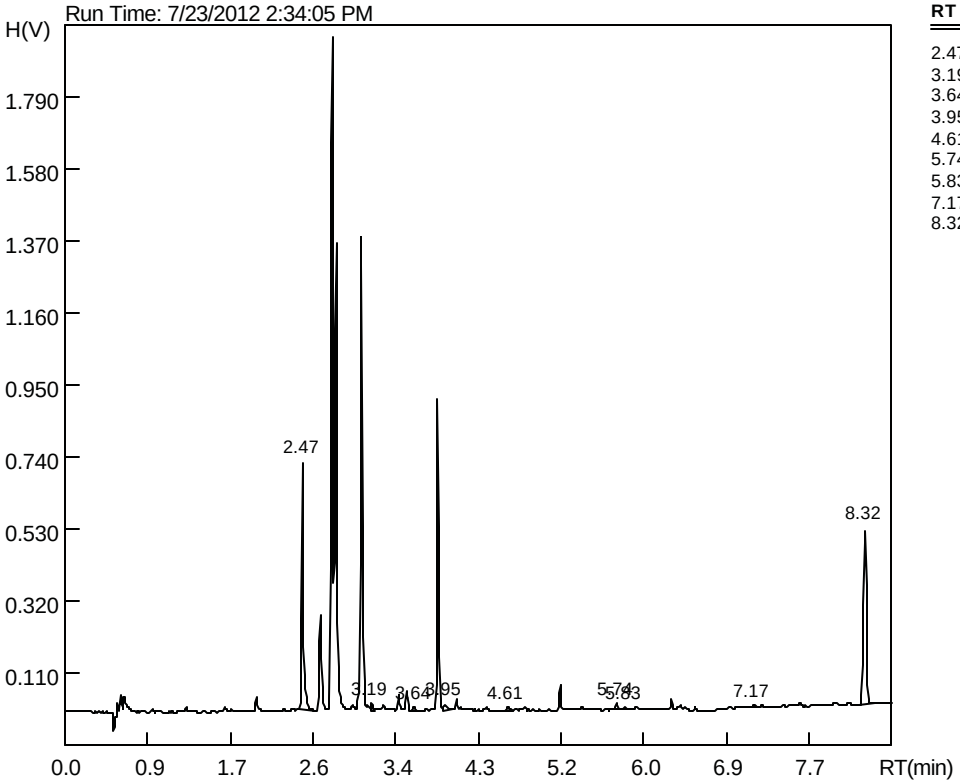
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120723.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120723\A120723B.11R.BND
Comments: sLCS-S.01 20g s/1 ID:PA120723s01
Run Time: 7/23/2012 2:20:38 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	19.563	1245800
3.18	0.00	1016-1	0.394	307039
3.61	0.00	1016-2	0.409	663622
3.98	0.00	1016-3	0.406	1400956
4.14	0.00	1016-4	0.427	547328
4.62	-0.01	1016-5	0.428	561747
5.74	-0.01	1260-1	0.449	997295
5.82	0.00	1260-2	0.444	1022377
6.23	0.00	1260-3	0.444	1021780
6.72	0.00	1260-4	0.428	959473
7.14	0.00	1260-5	0.451	974243
8.32	-0.01	DCBP	26.694	1112157

File Name: F:\GCECD.DAT\A120723\A120723B.12R.BND
Comments: s53273.03 20.2g s/1 ID:PA120723s01
Run Time: 7/23/2012 2:34:05 PM



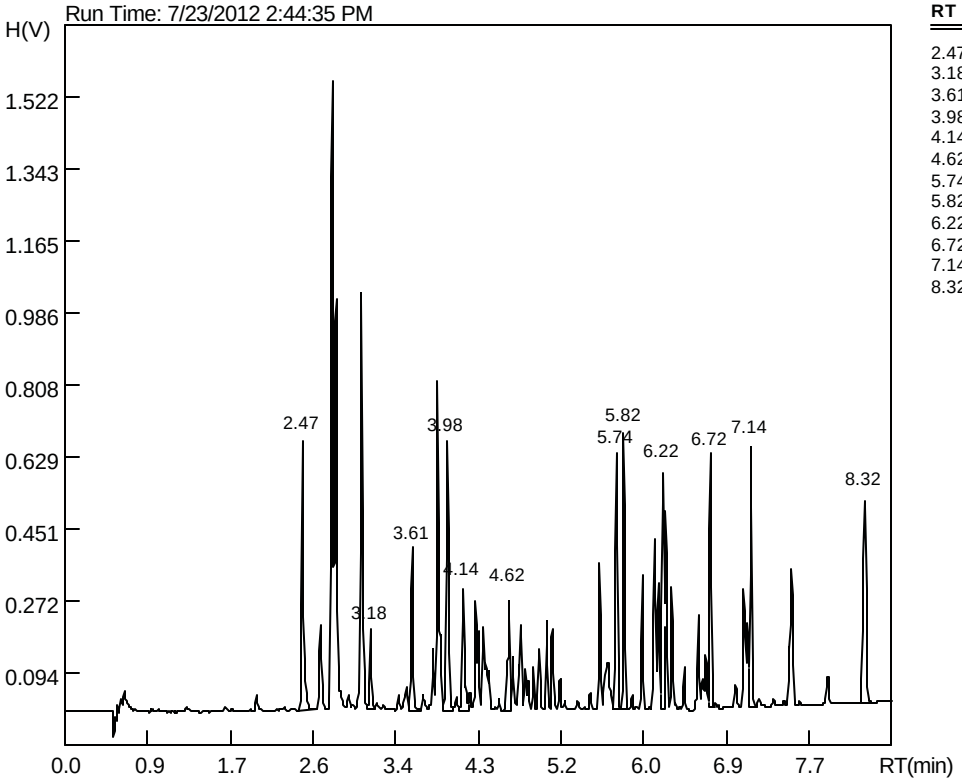
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	15.607	1006437
3.19	0.01	1016-1	-0.004	31215
3.64	0.02	1016-2	-0.044	16122
3.95	-0.04	1016-3	-0.024	42675
4.61	-0.02	1016-5	-0.044	16971
5.74	0.00	1260-1	-0.036	25697
5.83	0.01	1260-2	-0.041	11658
7.17	0.02	1260-5	-0.037	16803
8.32	0.00	DCBP	25.035	1047043

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

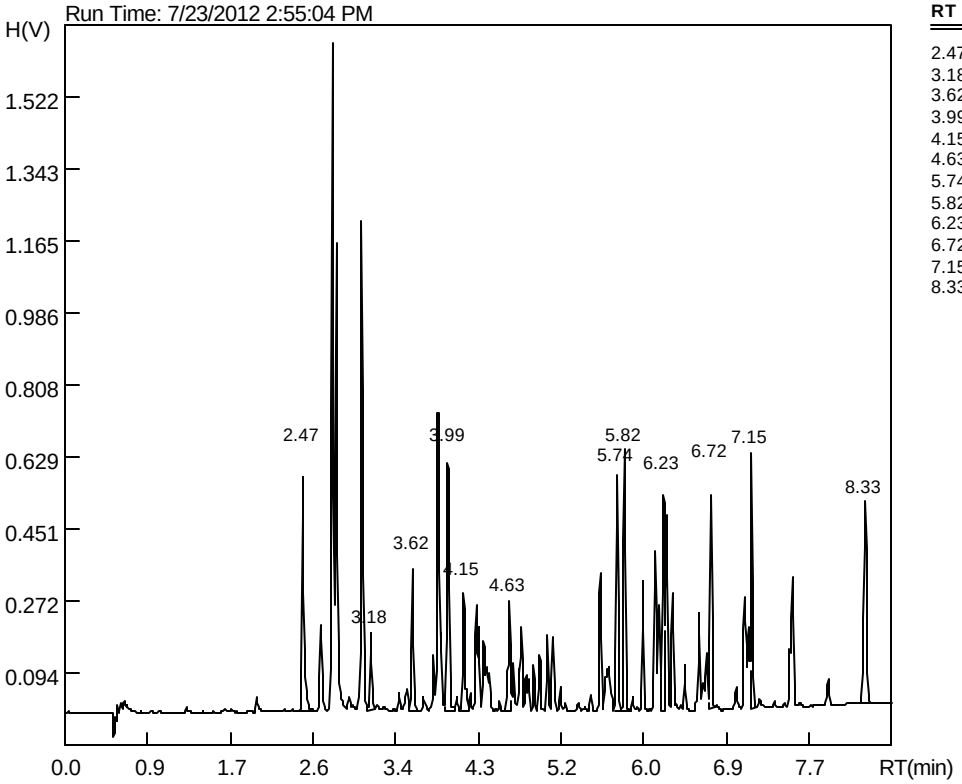
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.13R.BND
Comments: s53273.04 ms 20.1g s/1 ID:PA120723s01
Run Time: 7/23/2012 2:44:35 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	16.148	1039177
3.18	0.00	1016-1	0.380	296847
3.61	-0.01	1016-2	0.359	591857
3.98	-0.01	1016-3	0.370	1287655
4.14	-0.01	1016-4	0.387	500781
4.62	-0.01	1016-5	0.377	503477
5.74	-0.01	1260-1	0.392	882784
5.82	-0.01	1260-2	0.385	897903
6.22	-0.01	1260-3	0.382	892047
6.72	-0.01	1260-4	0.374	845320
7.14	-0.01	1260-5	0.397	868293
8.32	-0.01	DCBP	25.564	1067820

File Name: F:\GCECD.DAT\A120723\A120723B.14R.BND
Comments: s53273.05 msd 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 2:55:04 PM



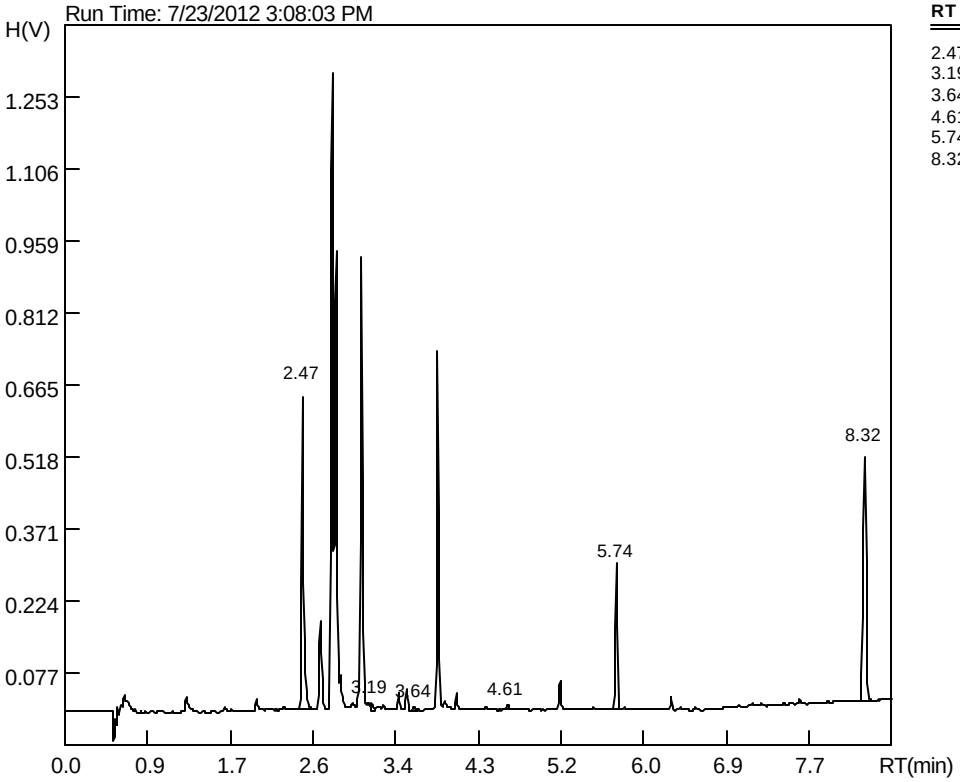
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	15.128	977500
3.18	0.00	1016-1	0.368	288636
3.62	0.00	1016-2	0.338	562200
3.99	0.00	1016-3	0.350	1223171
4.15	0.00	1016-4	0.362	472428
4.63	0.00	1016-5	0.356	478792
5.74	0.00	1260-1	0.365	829391
5.82	0.00	1260-2	0.362	851567
6.23	0.00	1260-3	0.363	852427
6.72	0.00	1260-4	0.355	805684
7.15	0.00	1260-5	0.368	812649
8.33	0.00	DCBP	23.747	996473

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

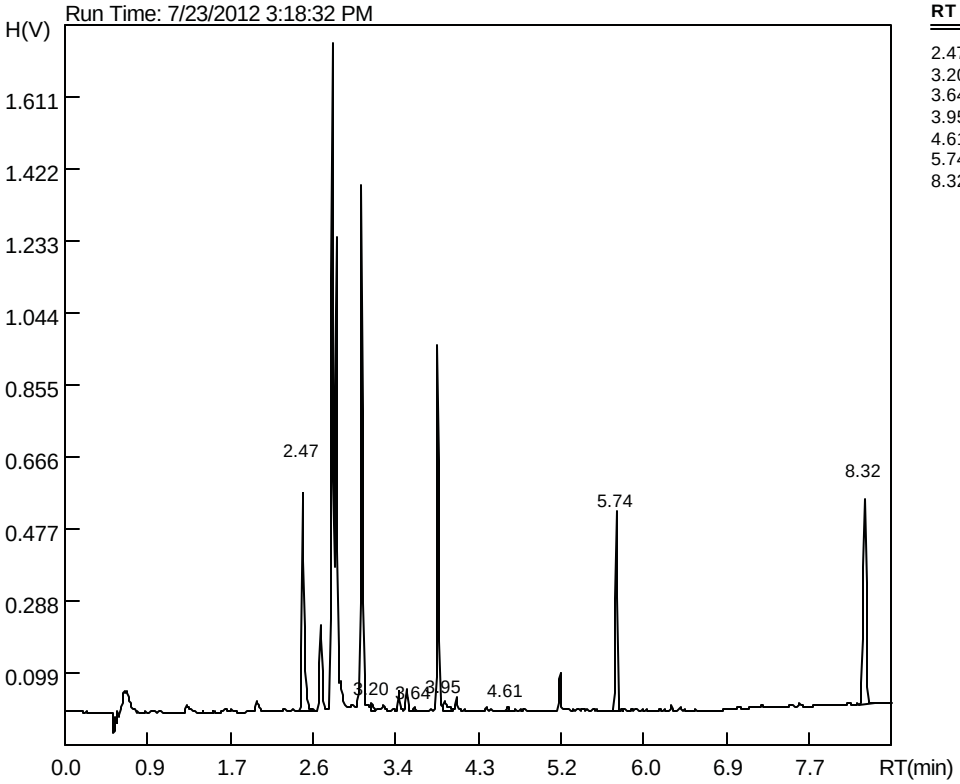
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.15R.BND
Comments: s53273.01 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:08:03 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	16.104	1036524
3.19	0.01	1016-1	-0.014	24177
3.64	0.02	1016-2	-0.045	14549
4.61	-0.02	1016-5	-0.045	16351
5.74	-0.01	1260-1	0.124	346597
8.32	-0.01	DCBP	25.166	1052178

File Name: F:\GCECD.DAT\A120723\A120723B.16R.BND
Comments: s53273.02 20.3g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:18:32 PM



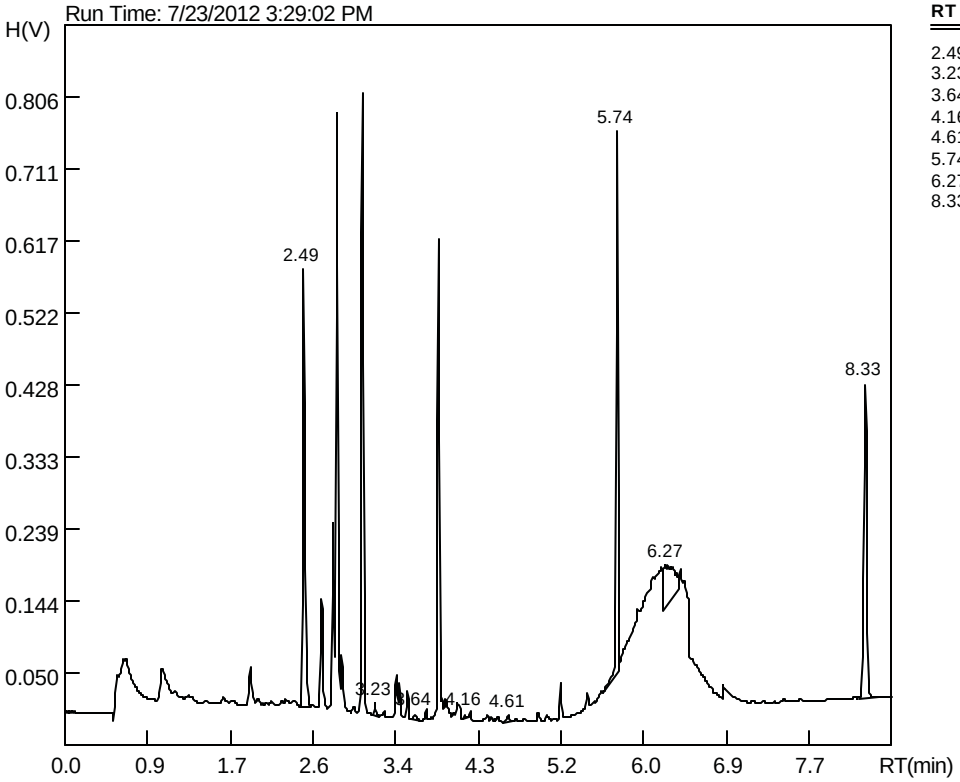
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.978	1149890
3.20	0.01	1016-1	-0.012	25959
3.64	0.02	1016-2	-0.044	15974
3.95	-0.04	1016-3	-0.014	73520
4.61	-0.02	1016-5	-0.043	18648
5.74	-0.01	1260-1	0.255	608701
8.32	-0.01	DCBP	27.420	1140653

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

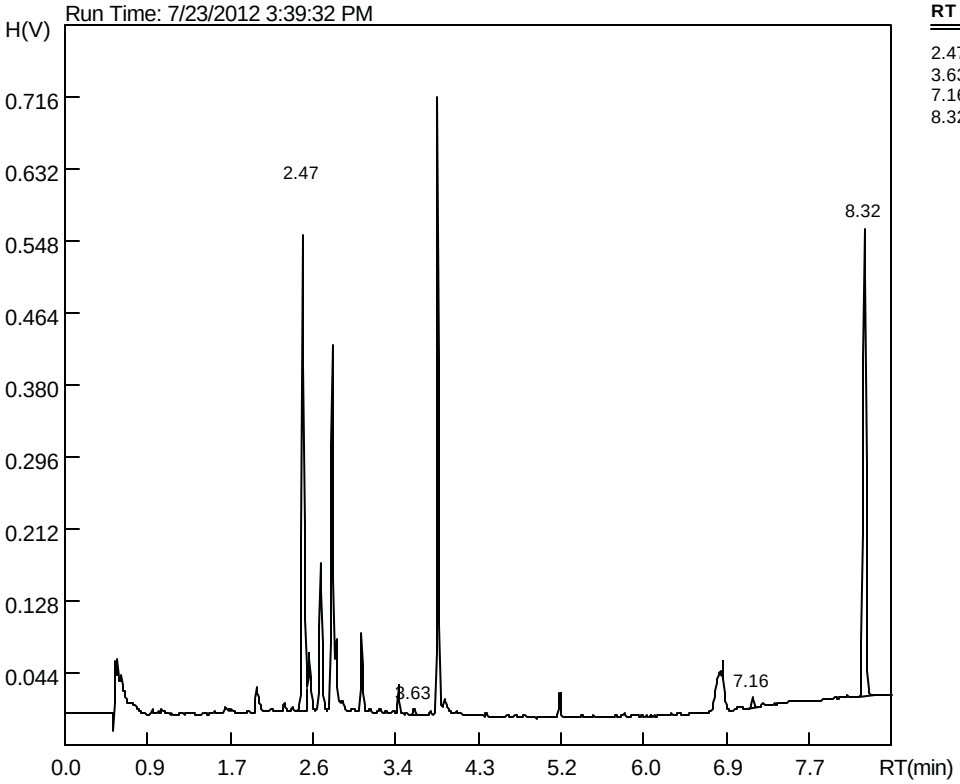
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.17R.BND
Comments: s53273.06 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:29:02 PM



RT	dT	Name	Amt.	Area
2.49	0.01	TCX	15.118	976863
3.23	0.05	1016-1	-0.017	22452
3.64	0.03	1016-2	-0.045	15596
4.16	0.01	1016-4	-0.037	9146
4.61	-0.02	1016-5	-0.043	17721
5.74	0.00	1260-1	0.371	840558
6.27	0.04	1260-3	0.136	382500
8.33	0.00	DCBP	19.987	848912

File Name: F:\GCECD.DAT\A120723\A120723B.18R.BND
Comments: s53273.07 20.1g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:39:32 PM



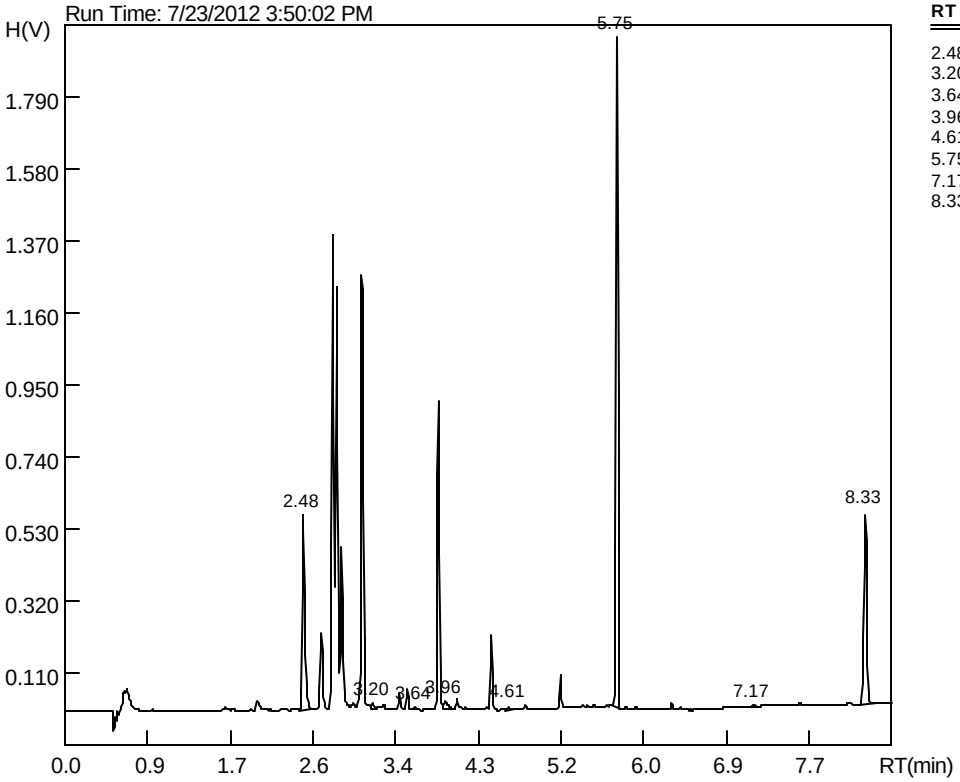
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.847	1141983
3.63	0.02	1016-2	-0.046	13994
7.16	0.01	1260-5	-0.036	19780
8.32	-0.01	DCBP	26.359	1099040

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

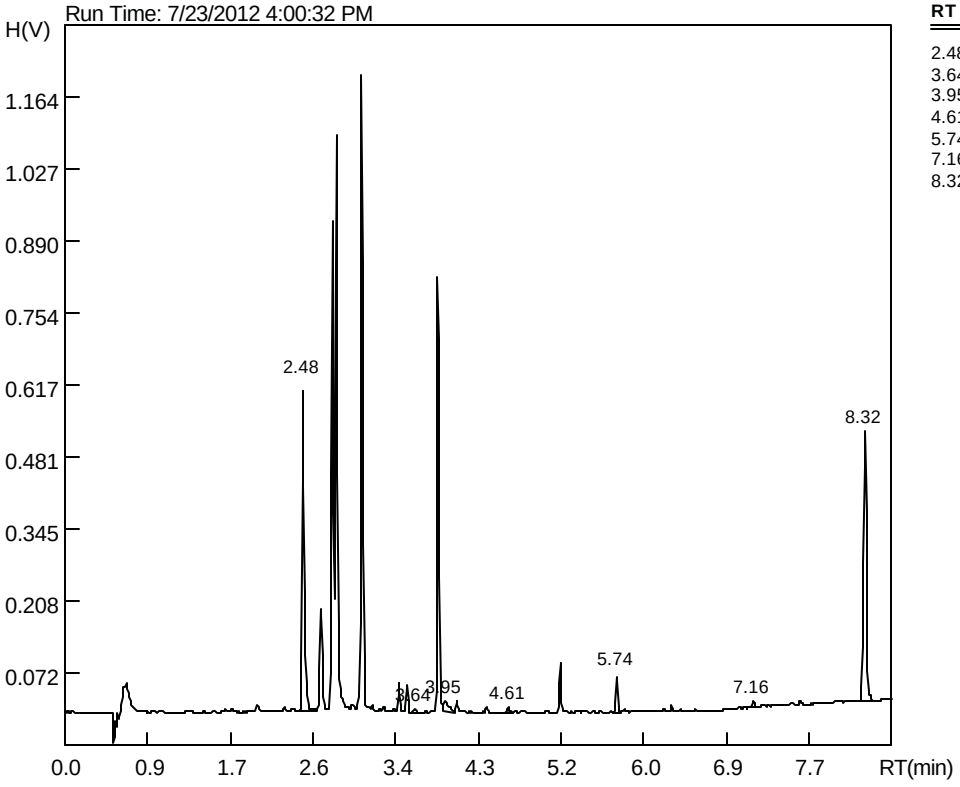
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.19R.BND
Comments: s53273.08 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 3:50:02 PM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	17.763	1136897
3.20	0.02	1016-1	-0.015	23927
3.64	0.03	1016-2	-0.044	16067
3.96	-0.03	1016-3	-0.018	61540
4.61	-0.02	1016-5	-0.044	16998
5.75	0.00	1260-1	1.405	2913749
7.17	0.02	1260-5	-0.040	10843
8.33	0.00	DCBP	26.919	1121023

File Name: F:\GCECD.DAT\A120723\A120723B.20R.BND
Comments: s53273.09 20.2g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:00:32 PM

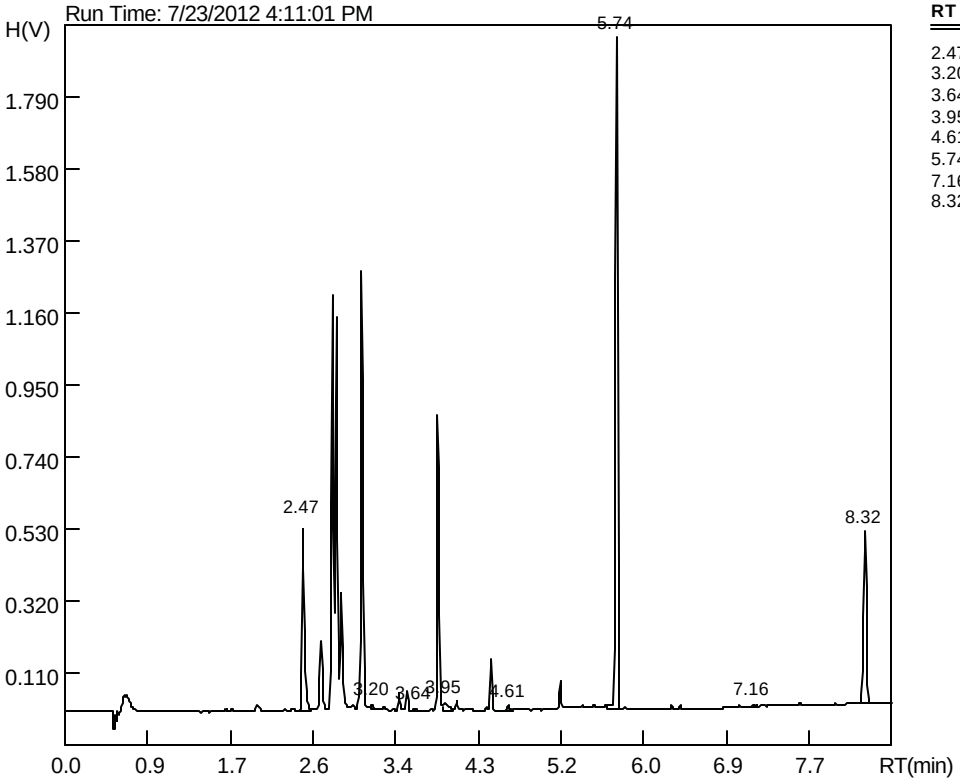


RT	dT	Name	Amt.	Area
2.48	0.00	TCX	16.942	1087262
3.64	0.02	1016-2	-0.044	15991
3.95	-0.03	1016-3	-0.015	71573
4.61	-0.02	1016-5	-0.046	15134
5.74	0.00	1260-1	-0.008	81578
7.16	0.02	1260-5	-0.037	17601
8.32	0.00	DCBP	24.884	1041108

GC/ECD Analysis: Raw Chromatographic Data

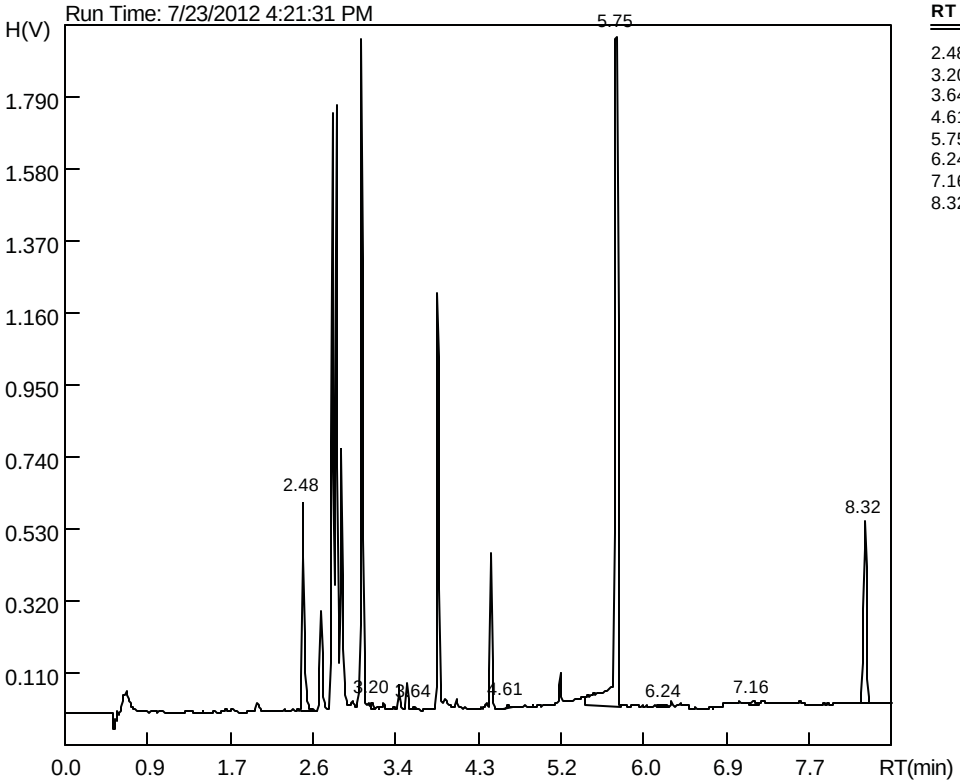
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120723.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120723\A120723B.21R.BND
Comments: s53273.10 20.2g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:11:01 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	15.911	1024870
3.20	0.01	1016-1	-0.013	25013
3.64	0.02	1016-2	-0.048	11409
3.95	-0.03	1016-3	-0.014	73658
4.61	-0.02	1016-5	-0.042	19302
5.74	0.00	1260-1	1.502	3109595
7.16	0.02	1260-5	-0.042	7119
8.32	0.00	DCBP	23.787	998056

File Name: F:\GCECD.DAT\A120723\A120723B.22R.BND
Comments: s53273.11 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:21:31 PM

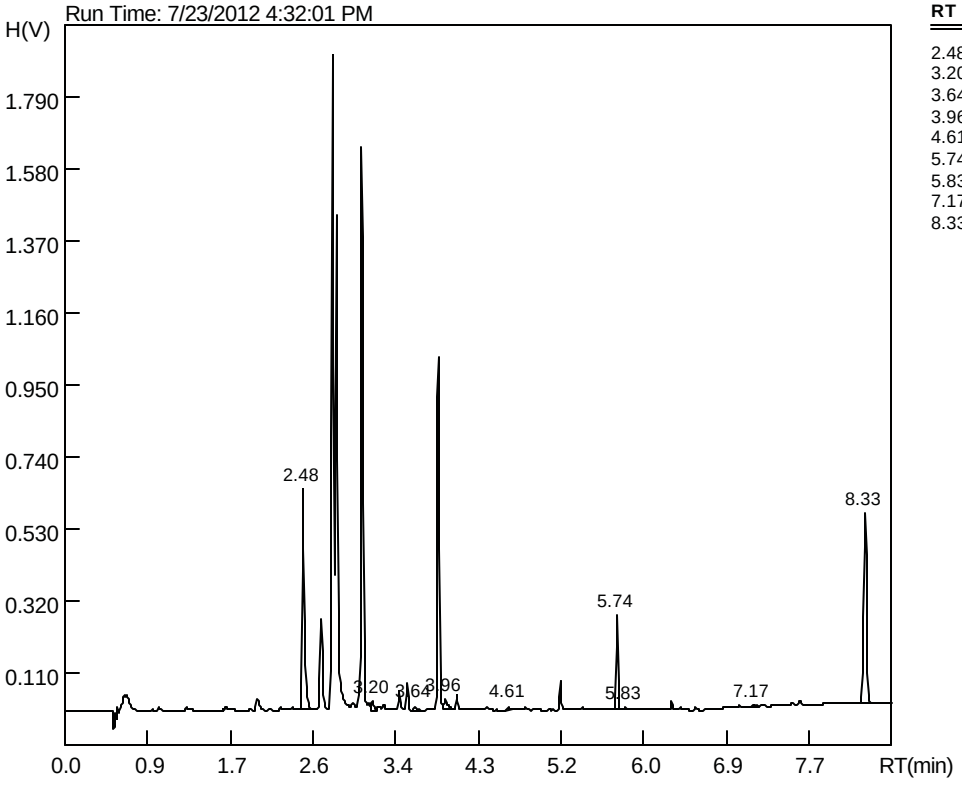


RT	dT	Name	Amt.	Area
2.48	0.00	TCX	17.106	1097178
3.20	0.02	1016-1	-0.004	31319
3.64	0.02	1016-2	-0.044	16744
4.61	-0.02	1016-5	-0.043	17972
5.75	0.00	1260-1	2.355	4818902
6.24	0.01	1260-3	-0.041	16160
7.16	0.02	1260-5	-0.024	43597
8.32	0.00	DCBP	26.640	1110037

GC/ECD Analysis: Raw Chromatographic Data

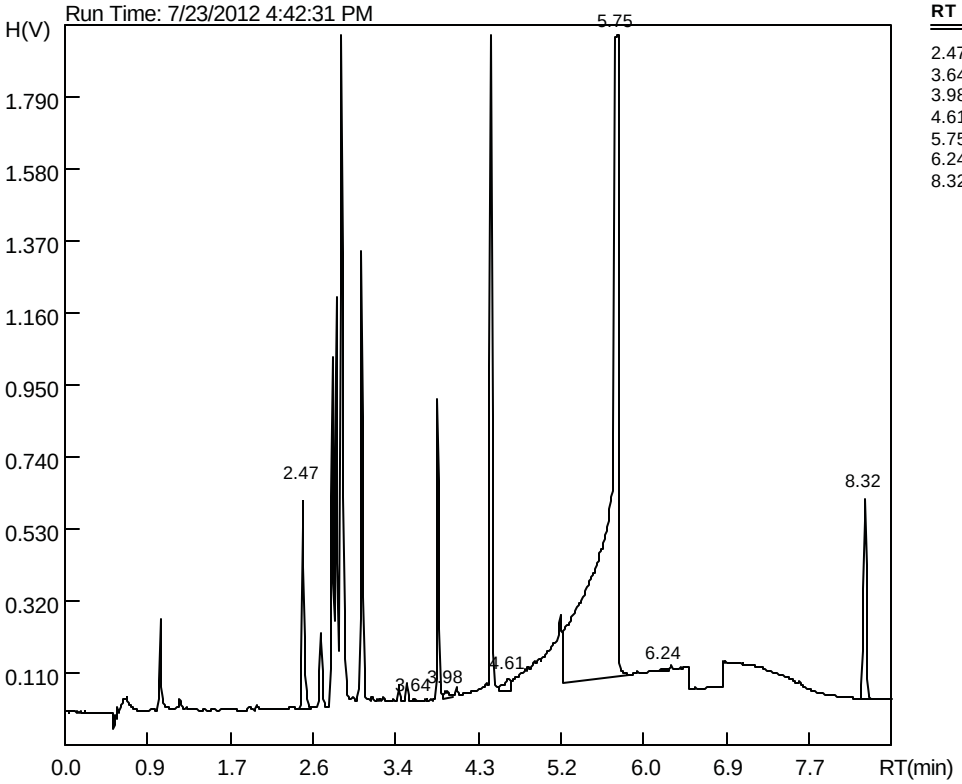
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120723.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120723\A120723B.23R.BND
Comments: s53273.12 20.0g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:32:01 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	18.008	1151751
3.20	0.02	1016-1	0.010	41131
3.64	0.02	1016-2	-0.040	21725
3.96	-0.03	1016-3	-0.014	75316
4.61	-0.02	1016-5	-0.045	16283
5.74	0.00	1260-1	0.109	315556
5.83	0.01	1260-2	-0.043	6987
7.17	0.02	1260-5	-0.040	11262
8.33	0.00	DCBP	27.222	1132898

File Name: F:\GCECD.DAT\A120723\A120723B.24R.BND
Comments: s53273.13 20.2g s/1 ID:PA120723s01
Run Time: 7/23/2012 4:42:31 PM



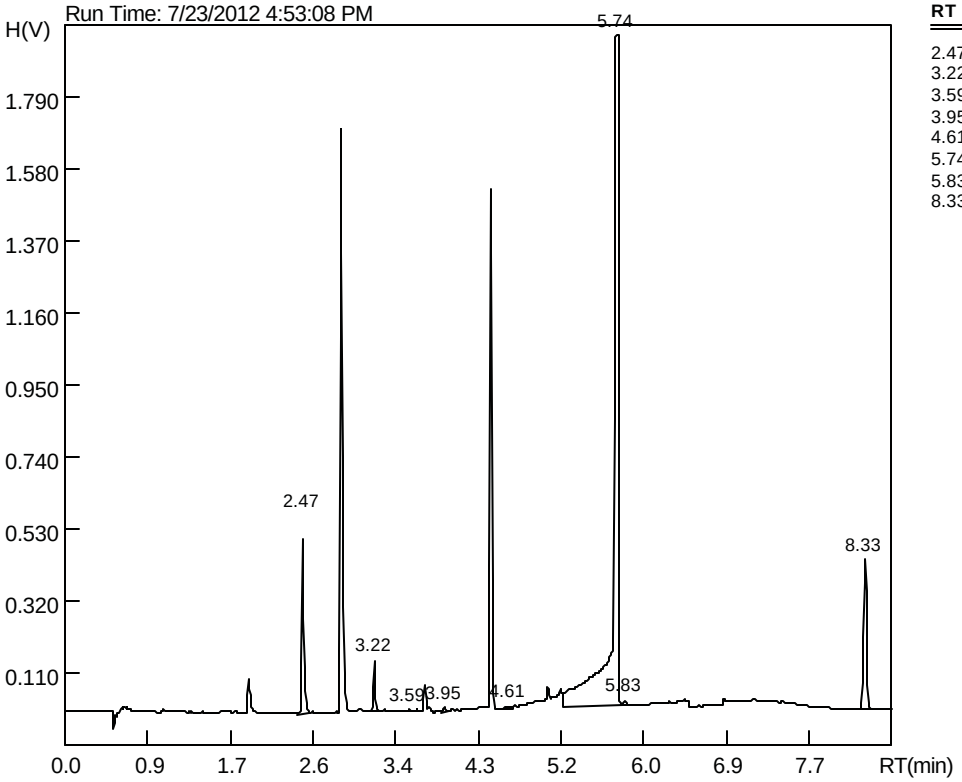
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.495	1120674
3.64	0.02	1016-2	-0.045	14695
3.98	-0.01	1016-3	-0.013	77711
4.61	-0.02	1016-5	0.104	187975
5.75	0.01	1260-1	7.384	14903260
6.24	0.01	1260-3	-0.041	15587
8.32	0.00	DCBP	28.629	1188120

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

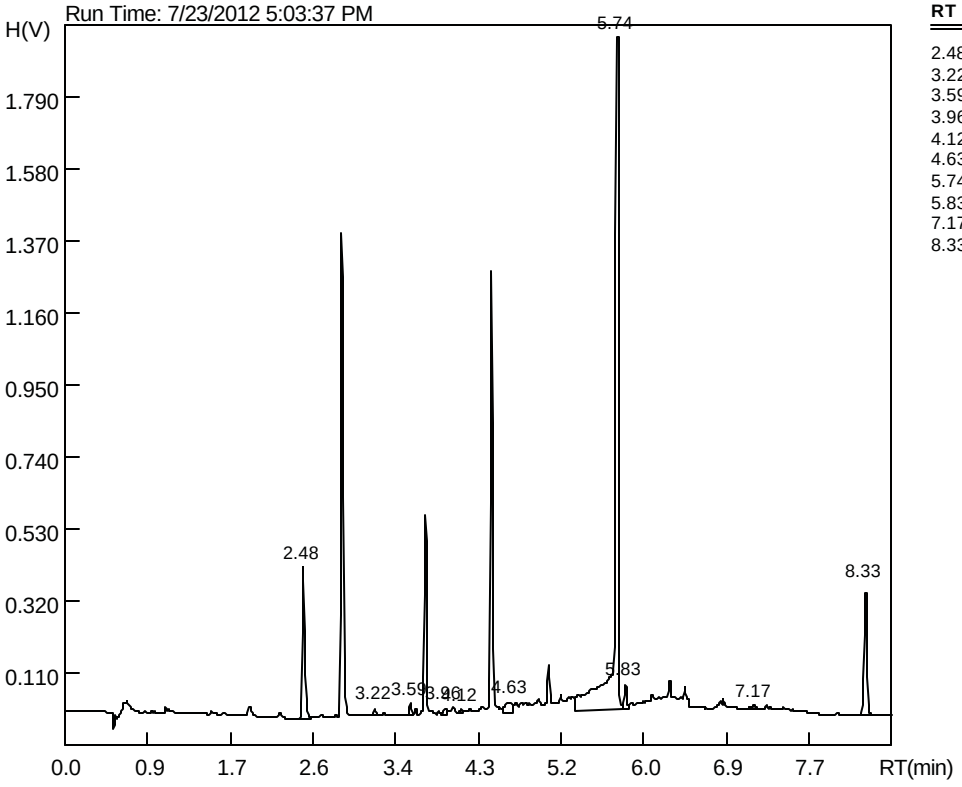
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.25R.BND
Comments: s53273.14 20.0g s/1 C ID:PA120723s01
Run Time: 7/23/2012 4:53:08 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	14.031	911112
3.22	0.04	1016-1	0.251	207885
3.59	-0.03	1016-2	-0.049	9806
3.95	-0.04	1016-3	-0.032	18853
4.61	-0.02	1016-5	-0.038	23865
5.74	0.00	1260-1	3.642	7400255
5.83	0.01	1260-2	-0.036	22610
8.33	0.00	DCBP	21.645	913995

File Name: F:\GCECD.DAT\A120723\A120723B.26R.BND
Comments: s53273.15 20.0g s/1 C ID:PA120723s01
Run Time: 7/23/2012 5:03:37 PM



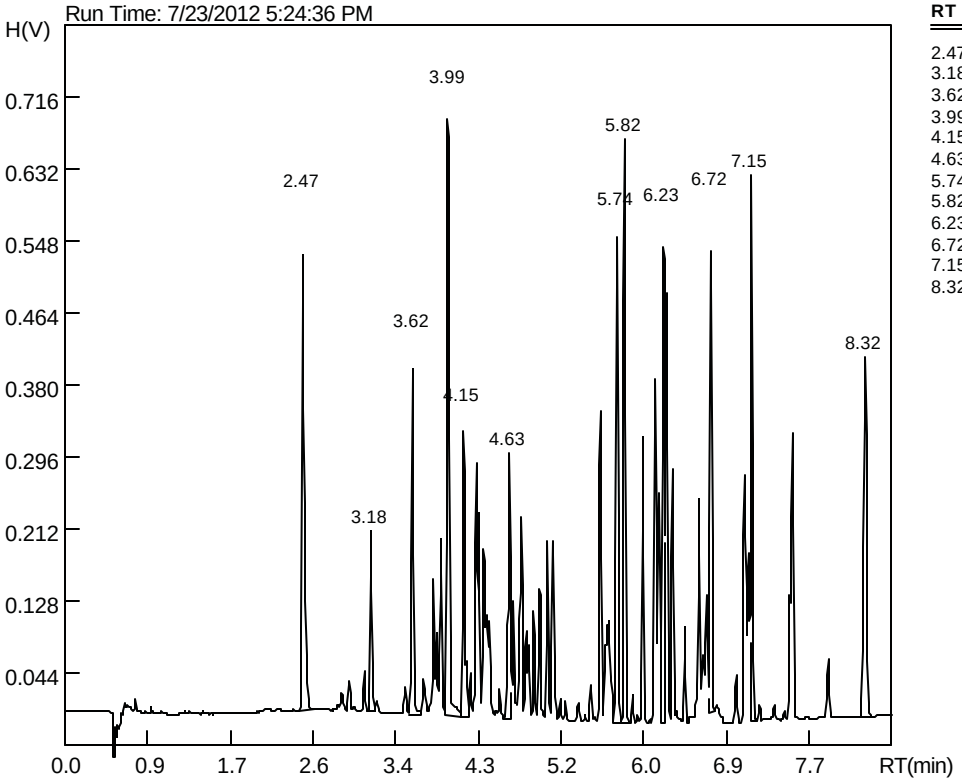
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	12.937	844894
3.22	0.04	1016-1	0.001	34836
3.59	-0.02	1016-2	-0.020	50304
3.96	-0.03	1016-3	-0.027	33856
4.12	-0.03	1016-4	-0.019	29668
4.63	0.01	1016-5	0.082	162305
5.74	0.00	1260-1	2.928	5969060
5.83	0.01	1260-2	0.016	131035
7.17	0.02	1260-5	-0.035	21713
8.33	0.00	DCBP	18.681	797619

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

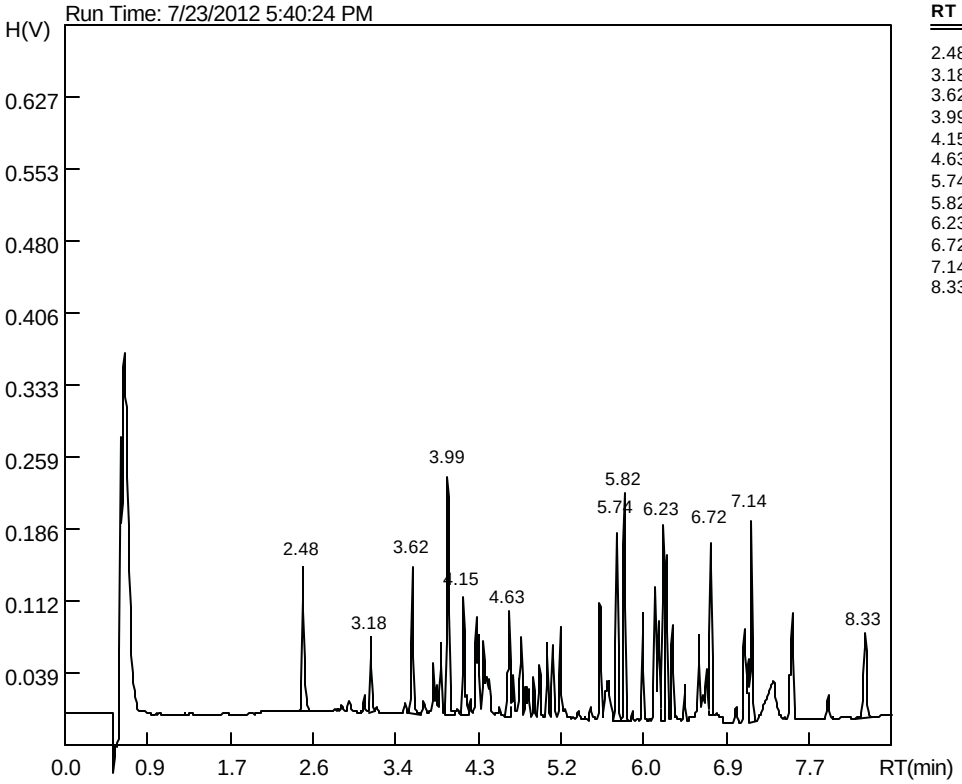
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.28R.BND
Comments: sLCS-Al.01 0.5ppm ID:Cleanup
Run Time: 7/23/2012 5:24:36 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	16.098	1036191
3.18	0.00	1016-1	0.399	310332
3.62	0.00	1016-2	0.405	658024
3.99	0.00	1016-3	0.410	1411050
4.15	0.00	1016-4	0.414	532471
4.63	0.00	1016-5	0.406	536650
5.74	0.00	1260-1	0.384	866393
5.82	0.00	1260-2	0.383	893778
6.23	0.00	1260-3	0.378	884186
6.72	0.00	1260-4	0.364	823428
7.15	0.00	1260-5	0.379	834023
8.32	0.00	DCBP	20.677	875972

File Name: F:\GCECD.DAT\A120723\A120723B.29R.BND
Comments: ss1660.07 0.1ppm 7/23/12
Run Time: 7/23/2012 5:40:24 PM



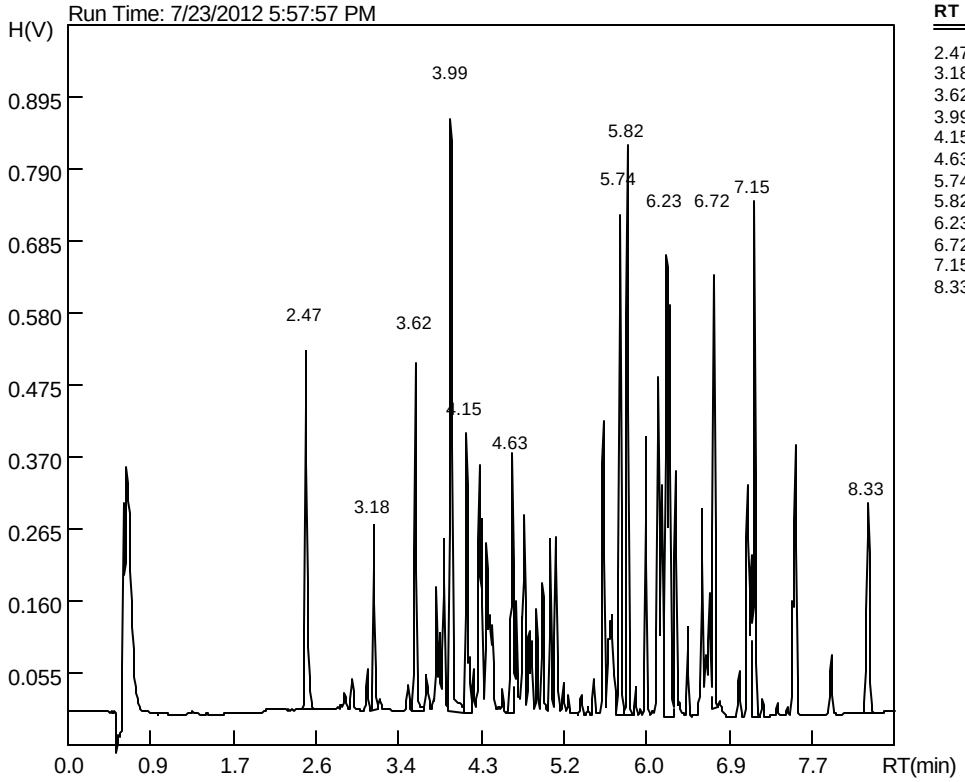
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	3.482	272844
3.18	0.00	1016-1	0.106	107477
3.62	0.00	1016-2	0.108	233480
3.99	0.00	1016-3	0.111	467742
4.15	0.00	1016-4	0.108	176818
4.63	0.00	1016-5	0.105	188506
5.74	0.00	1260-1	0.101	298758
5.82	0.00	1260-2	0.102	309422
6.23	0.00	1260-3	0.094	294156
6.72	0.00	1260-4	0.100	268088
7.14	0.00	1260-5	0.097	280737
8.33	0.00	DCBP	3.153	188085

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120723.4

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120723\A120723B.30R.BND
Comments: SC1660.03 0.5ppm 7/23/12
Run Time: 7/23/2012 5:57:57 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	14.950	966679
3.18	0.00	1016-1	0.508	385846
3.62	0.00	1016-2	0.509	806830
3.99	0.00	1016-3	0.509	1724557
4.15	0.00	1016-4	0.506	639806
4.63	0.00	1016-5	0.502	647710
5.74	0.00	1260-1	0.480	1060293
5.82	0.00	1260-2	0.480	1095995
6.23	0.00	1260-3	0.861	1885683
6.72	0.00	1260-4	0.450	1005649
7.15	0.00	1260-5	0.459	989730
8.33	0.00	DCBP	14.657	639672

Form 0: Sequence Log

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	11:14:17 Tue 24-Jul-12	Blank	Liquid	
002	11:16:08 Tue 24-Jul-12	std-0.00	Liquid	
003	11:29:56 Tue 24-Jul-12	std-0.0005	Liquid	
004	11:31:52 Tue 24-Jul-12	std-0.001	Liquid	
005	11:33:59 Tue 24-Jul-12	std-0.005	Liquid	
006	11:36:04 Tue 24-Jul-12	std-0.02	Liquid	
007	11:38:18 Tue 24-Jul-12	std-0.05	Liquid	
008	11:40:31 Tue 24-Jul-12	std-0.20	Liquid	
009	11:44:16 Tue 24-Jul-12	ICV-0.10	Liquid	ICV
010	11:49:52 Tue 24-Jul-12	ICB	Liquid	ICB
011	11:51:55 Tue 24-Jul-12	Solu-AB	Liquid	AB
012	11:57:41 Tue 24-Jul-12	Solu-AA	Liquid	AA
013	12:11:24 Tue 24-Jul-12	BS-0.0005	Liquid	BS
014	12:13:26 Tue 24-Jul-12	BS-0.001	Liquid	BS
015	12:15:26 Tue 24-Jul-12	BS-0.002	Liquid	BS
016	12:22:26 Tue 24-Jul-12	ERA-P194	Liquid	ERA
017	12:26:03 Tue 24-Jul-12	CCV1-0.10	Liquid	CCV
018	12:31:48 Tue 24-Jul-12	CCB1	Liquid	CCB
019	12:33:55 Tue 24-Jul-12	0724_2 LCS-0.05	Liquid	LCS
020	12:44:56 Tue 24-Jul-12	LRB_2	Liquid	LRB
021	12:46:47 Tue 24-Jul-12	53243.01s	Soil	S
022	12:49:00 Tue 24-Jul-12	53243.01 dil	Soil	DIL
023	12:52:08 Tue 24-Jul-12	53243.02s	Soil	S
024	12:54:38 Tue 24-Jul-12	53243.03s	Soil	S
025	12:57:33 Tue 24-Jul-12	53243.04s	Soil	S
026	13:00:04 Tue 24-Jul-12	53243.05s	Soil	S
027	13:08:48 Tue 24-Jul-12	53273.01s	Soil	S
028	13:11:26 Tue 24-Jul-12	53273.02s	Soil	S
029	13:16:07 Tue 24-Jul-12	53273.03s	Soil	S
030	13:28:33 Tue 24-Jul-12	53273.04s MS-0.10	Soil	MS
031	13:30:53 Tue 24-Jul-12	53273.05s MSD	Soil	MSD
032	13:33:16 Tue 24-Jul-12	CCV2-0.10	Liquid	CCV
033	13:38:41 Tue 24-Jul-12	CCB2	Liquid	CCB
034	13:40:43 Tue 24-Jul-12	53273.06s	Soil	S
035	13:43:05 Tue 24-Jul-12	53273.07s	Soil	S
036	13:45:27 Tue 24-Jul-12	53273.08s	Soil	S
037	13:47:48 Tue 24-Jul-12	53273.09s	Soil	S
038	13:50:07 Tue 24-Jul-12	53273.10s	Soil	S
039	13:52:28 Tue 24-Jul-12	53273.11s	Soil	S
040	13:54:49 Tue 24-Jul-12	53273.12s	Soil	S
041	13:57:11 Tue 24-Jul-12	53273.13s	Soil	S
042	13:59:33 Tue 24-Jul-12	53273.14s	Soil	S
043	14:01:56 Tue 24-Jul-12	53273.15s	Soil	S
044	14:07:18 Tue 24-Jul-12	CCV3-0.10	Liquid	CCV
045	14:10:50 Tue 24-Jul-12	Rinse	Liquid	
046	14:12:54 Tue 24-Jul-12	CCB3	Liquid	CCB
047	14:14:58 Tue 24-Jul-12	0724_2 LCS-0.05	Liquid	LCS
048	14:18:33 Tue 24-Jul-12	Rinse	Liquid	
049	14:20:39 Tue 24-Jul-12	LRB_2	Liquid	LRB
050	14:27:07 Tue 24-Jul-12	53262.01s	Soil	S
051	14:29:27 Tue 24-Jul-12	53262.01 dil	Soil	DIL
052	14:31:55 Tue 24-Jul-12	53264.02s	Soil	S
053	14:33:57 Tue 24-Jul-12	53264.02 MS-0.10	Soil	MS

Form 0: Sequence Log

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	14:35:59 Tue 24-Jul-12	53264.02 MSD	Soil	MSD
055	14:38:21 Tue 24-Jul-12	CCV4-0.10	Liquid	CCV
056	14:41:52 Tue 24-Jul-12	CCB4	Liquid	CCB
057	14:46:36 Tue 24-Jul-12	test- blk+pot-permag.	Liquid	
058	14:49:22 Tue 24-Jul-12	test- blk+pot-permag.	Liquid	
059	14:52:07 Tue 24-Jul-12	test- blk+pot-permag.	Liquid	
060	14:54:40 Tue 24-Jul-12	test- blk+pot-permag.	Liquid	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.01
Sample Tag: SB-132 (07-18-12)(20-22)
Date Collected: 07/18/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	4.73	0.20	mg/kg	203	07/24/2012	
7440-39-3	Barium	32.1	1.0	mg/kg	203	07/24/2012	
7440-43-9	Cadmium	0.22	0.20	mg/kg	203	07/24/2012	
7440-47-3	Chromium	5.76	0.50	mg/kg	203	07/24/2012	
7440-50-8	Copper	17.9	0.50	mg/kg	203	07/24/2012	
7439-92-1	Lead	7.96	0.30	mg/kg	203	07/24/2012	
7782-49-2	Selenium	0.66	0.50	mg/kg	203	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	203	07/24/2012	
7440-66-6	Zinc	31.4	1.0	mg/kg	203	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.02
Sample Tag: SB-130 (07-18-12)(16-18)
Date Collected: 07/18/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	3.78	0.20	mg/kg	228	07/24/2012	
7440-39-3	Barium	70.0	1.0	mg/kg	228	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	228	07/24/2012	
7440-47-3	Chromium	6.85	0.50	mg/kg	228	07/24/2012	
7440-50-8	Copper	19.0	0.50	mg/kg	228	07/24/2012	
7439-92-1	Lead	8.76	0.30	mg/kg	228	07/24/2012	
7782-49-2	Selenium	0.67	0.50	mg/kg	228	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	228	07/24/2012	
7440-66-6	Zinc	28.6	1.0	mg/kg	228	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.03
Sample Tag: SB-159 (07-19-12)(7-9)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.83	0.20	mg/kg	228	07/24/2012	
7440-39-3	Barium	40.6	1.0	mg/kg	228	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	228	07/24/2012	
7440-47-3	Chromium	5.47	0.50	mg/kg	228	07/24/2012	
7440-50-8	Copper	5.98	0.50	mg/kg	228	07/24/2012	
7439-92-1	Lead	5.84	0.30	mg/kg	228	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	228	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	228	07/24/2012	
7440-66-6	Zinc	19.6	1.0	mg/kg	228	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.04
Sample Tag: SB-159 (07-19-12)(7-9) MS
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	26.6	0.20	mg/kg	228	07/24/2012	
7440-39-3	Barium	65.4	1.0	mg/kg	228	07/24/2012	
7440-43-9	Cadmium	23.9	0.20	mg/kg	228	07/24/2012	
7440-47-3	Chromium	30.5	0.50	mg/kg	228	07/24/2012	
7440-50-8	Copper	27.8	0.50	mg/kg	228	07/24/2012	
7439-92-1	Lead	28.0	0.30	mg/kg	228	07/24/2012	
7782-49-2	Selenium	24.9	0.50	mg/kg	228	07/24/2012	
7440-22-4	Silver	22.9	0.10	mg/kg	228	07/24/2012	
7440-66-6	Zinc	42.4	1.0	mg/kg	228	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.05
Sample Tag: SB-159 (07-19-12)(7-9) MSD
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	26.5	0.20	mg/kg	228	07/24/2012	
7440-39-3	Barium	65.0	1.0	mg/kg	228	07/24/2012	
7440-43-9	Cadmium	23.9	0.20	mg/kg	228	07/24/2012	
7440-47-3	Chromium	30.6	0.50	mg/kg	228	07/24/2012	
7440-50-8	Copper	28.0	0.50	mg/kg	228	07/24/2012	
7439-92-1	Lead	27.9	0.30	mg/kg	228	07/24/2012	
7782-49-2	Selenium	25.2	0.50	mg/kg	228	07/24/2012	
7440-22-4	Silver	22.8	0.10	mg/kg	228	07/24/2012	
7440-66-6	Zinc	42.3	1.0	mg/kg	228	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.06
Sample Tag: SB-158 (07-19-12)(3-5)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.40	0.20	mg/kg	205	07/24/2012	
7440-39-3	Barium	12.8	1.0	mg/kg	205	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	205	07/24/2012	
7440-47-3	Chromium	2.09	0.50	mg/kg	205	07/24/2012	
7440-50-8	Copper	3.95	0.50	mg/kg	205	07/24/2012	
7439-92-1	Lead	3.32	0.30	mg/kg	205	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	205	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	205	07/24/2012	
7440-66-6	Zinc	8.31	1.0	mg/kg	205	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.07
Sample Tag: SB-138 (07-19-12)(22.5-24.5)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	4.34	0.20	mg/kg	216	07/24/2012	
7440-39-3	Barium	53.0	1.0	mg/kg	216	07/24/2012	
7440-43-9	Cadmium	0.22	0.20	mg/kg	216	07/24/2012	
7440-47-3	Chromium	5.93	0.50	mg/kg	216	07/24/2012	
7440-50-8	Copper	15.9	0.50	mg/kg	216	07/24/2012	
7439-92-1	Lead	7.34	0.30	mg/kg	216	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	216	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	216	07/24/2012	
7440-66-6	Zinc	30.5	1.0	mg/kg	216	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.08
Sample Tag: SB-140 (07-19-12)(10-12)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.27	0.20	mg/kg	237	07/24/2012	
7440-39-3	Barium	54.1	1.0	mg/kg	237	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	237	07/24/2012	
7440-47-3	Chromium	4.94	0.50	mg/kg	237	07/24/2012	
7440-50-8	Copper	11.2	0.50	mg/kg	237	07/24/2012	
7439-92-1	Lead	7.38	0.30	mg/kg	237	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	237	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	237	07/24/2012	
7440-66-6	Zinc	22.5	1.0	mg/kg	237	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.09
Sample Tag: SB-118 (07-19-12)(2-4)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.79	0.20	mg/kg	193	07/24/2012	
7440-39-3	Barium	5.78	1.0	mg/kg	193	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	193	07/24/2012	
7440-47-3	Chromium	0.98	0.50	mg/kg	193	07/24/2012	
7440-50-8	Copper	1.73	0.50	mg/kg	193	07/24/2012	
7439-92-1	Lead	1.60	0.30	mg/kg	193	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	193	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	193	07/24/2012	
7440-66-6	Zinc	5.94	1.0	mg/kg	193	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.10
Sample Tag: SB-171 (07-20-12)(10-12)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	4.48	0.20	mg/kg	203	07/24/2012	
7440-39-3	Barium	19.8	1.0	mg/kg	203	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	203	07/24/2012	
7440-47-3	Chromium	2.83	0.50	mg/kg	203	07/24/2012	
7440-50-8	Copper	13.3	0.50	mg/kg	203	07/24/2012	
7439-92-1	Lead	5.87	0.30	mg/kg	203	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	203	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	203	07/24/2012	
7440-66-6	Zinc	29.5	1.0	mg/kg	203	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.11
Sample Tag: DUP 1 (07-20-12)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	4.05	0.20	mg/kg	197	07/24/2012	
7440-39-3	Barium	19.8	1.0	mg/kg	197	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	197	07/24/2012	
7440-47-3	Chromium	3.67	0.50	mg/kg	197	07/24/2012	
7440-50-8	Copper	15.1	0.50	mg/kg	197	07/24/2012	
7439-92-1	Lead	5.59	0.30	mg/kg	197	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	197	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	197	07/24/2012	
7440-66-6	Zinc	24.7	1.0	mg/kg	197	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.12
Sample Tag: SB-147 (07-20-12) (8-10)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	3.12	0.20	mg/kg	218	07/24/2012	
7440-39-3	Barium	27.7	1.0	mg/kg	218	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	218	07/24/2012	
7440-47-3	Chromium	5.99	0.50	mg/kg	218	07/24/2012	
7440-50-8	Copper	15.0	0.50	mg/kg	218	07/24/2012	
7439-92-1	Lead	7.30	0.30	mg/kg	218	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	218	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	218	07/24/2012	
7440-66-6	Zinc	24.8	1.0	mg/kg	218	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.13
Sample Tag: SB-148 (07-20-12) (2.5-4.5)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.97	0.20	mg/kg	214	07/24/2012	
7440-39-3	Barium	27.0	1.0	mg/kg	214	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	214	07/24/2012	
7440-47-3	Chromium	2.26	0.50	mg/kg	214	07/24/2012	
7440-50-8	Copper	5.15	0.50	mg/kg	214	07/24/2012	
7439-92-1	Lead	4.87	0.30	mg/kg	214	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	214	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	214	07/24/2012	
7440-66-6	Zinc	8.05	1.0	mg/kg	214	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.14
Sample Tag: SB-150 (07-20-12) (2-4)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.57	0.20	mg/kg	182	07/24/2012	
7440-39-3	Barium	7.58	1.0	mg/kg	182	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	182	07/24/2012	
7440-47-3	Chromium	1.50	0.50	mg/kg	182	07/24/2012	
7440-50-8	Copper	4.72	0.50	mg/kg	182	07/24/2012	
7439-92-1	Lead	1.84	0.30	mg/kg	182	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	182	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	182	07/24/2012	
7440-66-6	Zinc	6.60	1.0	mg/kg	182	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Lab Sample ID: S53273.15
Sample Tag: DUP2 (07-20-12)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.26	0.20	mg/kg	192	07/24/2012	
7440-39-3	Barium	5.94	1.0	mg/kg	192	07/24/2012	
7440-43-9	Cadmium	Not detected	0.20	mg/kg	192	07/24/2012	
7440-47-3	Chromium	1.03	0.50	mg/kg	192	07/24/2012	
7440-50-8	Copper	2.80	0.50	mg/kg	192	07/24/2012	
7439-92-1	Lead	1.55	0.30	mg/kg	192	07/24/2012	
7782-49-2	Selenium	Not detected	0.50	mg/kg	192	07/24/2012	
7440-22-4	Silver	Not detected	0.10	mg/kg	192	07/24/2012	
7440-66-6	Zinc	5.65	1.0	mg/kg	192	07/24/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 ICV-0.10	ICV	1	Cr	0.0967	0.10	97	90/110	mg/L	Liquid
			Cu	0.101	0.10	101	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.0997	0.10	100	90/110		
			Se	0.101	0.10	101	90/110		
			Ag	0.0988	0.10	99	90/110		
			Cd	0.100	0.10	100	90/110		
			Ba	0.0985	0.10	99	90/110		
			Pb	0.100	0.10	100	90/110		
017 CCV1-0.10	CCV	1	Cr	0.0940	0.10	94	90/110	mg/L	Liquid
			Cu	0.0995	0.10	100	90/110		
			Zn	0.102	0.10	102	90/110		
			As	0.0970	0.10	97	90/110		
			Se	0.0986	0.10	99	90/110		
			Ag	0.0985	0.10	99	90/110		
			Cd	0.0979	0.10	98	90/110		
			Ba	0.0964	0.10	96	90/110		
			Pb	0.0992	0.10	99	90/110		
032 CCV2-0.10	CCV	1	Cr	0.102	0.10	102	90/110	mg/L	Liquid
			Cu	0.0985	0.10	99	90/110		
			Zn	0.101	0.10	101	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.0991	0.10	99	90/110		
			Cd	0.100	0.10	100	90/110		
			Ba	0.0981	0.10	98	90/110		
			Pb	0.100	0.10	100	90/110		
044 CCV3-0.10	CCV	1	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Cu	0.0963	0.10	96	90/110		
			Zn	0.0989	0.10	99	90/110		
			As	0.0978	0.10	98	90/110		
			Se	0.0990	0.10	99	90/110		
			Ag	0.0981	0.10	98	90/110		
			Cd	0.0993	0.10	99	90/110		
			Ba	0.0977	0.10	98	90/110		
			Pb	0.0996	0.10	100	90/110		
055 CCV4-0.10	CCV	1	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Cu	0.0960	0.10	96	90/110		
			Zn	0.0989	0.10	99	90/110		
			As	0.100	0.10	100	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.0968	0.10	97	90/110		
			Cd	0.0974	0.10	97	90/110		
			Ba	0.0970	0.10	97	90/110		
			Pb	0.0997	0.10	100	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: W-8121-0

Data Set ID: MT2-12-0724A

Instrument ID: PE ELAN

Analysis Date: 07/24/12

Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
016 ERA-P194	5	Cr	0.595	0.623	96	0.542	0.704	mg/L	Liquid
		Cu	0.838	0.835	100	0.751	0.918		
		Zn	0.413	0.412	100	0.352	0.476		
		As	0.863	0.877	98	0.738	1.030		
		Se	1.01	1.030	98	0.815	1.190		
		Ag	0.179	0.186	96	0.159	0.213		
		Cd	0.115	0.118	98	0.0998	0.135		
		Ba	0.680	0.716	95	0.621	0.807		
		Pb	1.76	1.760	100	1.550	1.970		

Form 3: Blanks

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 ICB	ICB	1	Cr	<0.001	-0.000062	mg/L	Liquid
			Cu	<0.001	-0.000048		
			Zn	<0.001	-0.000405		
			As	<0.0004	0.000053		
			Se	<0.001	0.000082		
			Ag	<0.0005	0.000015		
			Cd	<0.0001	-0.000007		
			Ba	<0.001	-0.000045		
			Pb	<0.0006	-0.000114		
018 CCB1	CCB	1	Cr	<0.001	-0.000061	mg/L	Liquid
			Cu	<0.001	-0.000032		
			Zn	<0.001	-0.000430		
			As	<0.0004	0.000004		
			Se	<0.001	-0.000098		
			Ag	<0.0005	0.000003		
			Cd	<0.0001	-0.000020		
			Ba	<0.001	-0.000041		
			Pb	<0.0006	-0.000107		
020 LRB_2	LRB	1	Cr	<0.001	-0.000060	mg/L	Liquid
			Cu	<0.001	-0.000038		
			Zn	<0.001	-0.000695		
			As	<0.0004	-0.000077		
			Se	<0.001	-0.000051		
			Ag	<0.0005	-0.000008		
			Cd	<0.0001	-0.000013		
			Ba	<0.001	-0.000078		
			Pb	<0.0006	-0.000133		
033 CCB2	CCB	1	Cr	<0.001	-0.000012	mg/L	Liquid
			Cu	<0.001	-0.000048		
			Zn	<0.001	-0.000462		
			As	<0.0004	-0.000182		
			Se	<0.001	-0.000018		
			Ag	<0.0005	0.000007		
			Cd	<0.0001	-0.000015		
			Ba	<0.001	-0.000035		
			Pb	<0.0006	-0.000113		
046 CCB3	CCB	1	Cr	<0.001	-0.000022	mg/L	Liquid
			Cu	<0.001	-0.000053		
			Zn	<0.001	-0.000518		
			As	<0.0004	-0.000258		
			Se	<0.001	-0.000070		
			Ag	<0.0005	0.000006		
			Cd	<0.0001	-0.000020		
			Ba	<0.001	-0.000036		
			Pb	<0.0006	-0.000102		
049 LRB_2	LRB	1	Cr	<0.001	-0.000008	mg/L	Liquid
			Cu	<0.001	-0.000057		
			Zn	<0.001	-0.000686		
			As	<0.0004	-0.000022		
			Se	<0.001	0.000108		
			Ag	<0.0005	-0.000008		
			Cd	<0.0001	-0.000028		
			Ba	<0.001	-0.000062		

Form 3: Blanks

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
049 LRB_2	LRB	1	Pb	<0.0006	-0.000127	mg/L	Liquid
056 CCB4	CCB	1	Cr	<0.001	0.000065	mg/L	Liquid
			Cu	<0.001	-0.000012		
			Zn	<0.001	-0.000460		
			As	<0.0004	-0.000131		
			Se	<0.001	0.000162		
			Ag	<0.0005	0.000026		
			Cd	<0.0001	-0.000016		
			Ba	<0.001	-0.000030		
			Pb	<0.0006	-0.000109		

Form 4B: ICP Interference Check Sample

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
011 Solu-AB	AB	1	Cr	0.0239	0.020	120	70/135	mg/L	Liquid
			Cu	0.0234	0.020	117	70/135		
			Zn	0.0237	0.020	119	70/135		
			As	0.0238	0.020	119	70/135		
			Ag	0.0194	0.020	97	70/135		
			Cd	0.0203	0.020	102	70/135		
012 Solu-AA	AA	1	Cr	<0.005	0.0	N/A	N/A	mg/L	Liquid
			Cu	<0.004	0.0	N/A	N/A		
			Zn	<0.005	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.0005	0.0	N/A	N/A		
			Cd	<0.0005	0.0	N/A	N/A		
			Ba	<0.005	0.0	N/A	N/A		
			Pb	<0.003	0.0	N/A	N/A		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
013 BS-0.0005		1	Cr	0.00047	ND	0.0005	94	70/130	mg/L	Liquid
			Cu	0.00052	ND	0.0005	104	70/130		
			Zn	0.00037	ND	0.0005	74	70/130		
			As	0.00049	ND	0.0005	98	70/130		
			Se	0.00047	ND	0.0005	94	70/130		
			Ag	0.00046	ND	0.0005	92	70/130		
			Cd	0.00044	ND	0.0005	88	70/130		
			Ba	0.00048	ND	0.0005	96	70/130		
			Pb	0.00044	ND	0.0005	88	70/130		
014 BS-0.001		1	Cr	0.00100	ND	0.001	100	70/130	mg/L	Liquid
			Cu	0.00105	ND	0.001	105	70/130		
			Zn	0.00097	ND	0.001	97	70/130		
			As	0.00111	ND	0.001	111	70/130		
			Se	0.00080	ND	0.001	80	70/130		
			Ag	0.00093	ND	0.001	93	70/130		
			Cd	0.00104	ND	0.001	104	70/130		
			Ba	0.00098	ND	0.001	98	70/130		
			Pb	0.00089	ND	0.001	89	70/130		
015 BS-0.002		1	Cr	0.00187	ND	0.002	94	70/130	mg/L	Liquid
			Cu	0.00226	ND	0.002	113	70/130		
			Zn	0.00182	ND	0.002	91	70/130		
			As	0.00171	ND	0.002	86	70/130		
			Se	0.00203	ND	0.002	102	70/130		
			Ag	0.00195	ND	0.002	98	70/130		
			Cd	0.00189	ND	0.002	95	70/130		
			Ba	0.00190	ND	0.002	95	70/130		
			Pb	0.00190	ND	0.002	95	70/130		
030 53273.04s	**029 53273.03s**	228	Cr	30.5	5.47	22.80	110	75/125	mg/kg	Soil
			Cu	27.8	5.98	22.80	96	75/125		
			Zn	42.4	19.6	22.80	100	75/125		
			As	26.6	1.83	22.80	109	75/125		
			Se	24.9	<0.50	22.80	109	75/125		
			Ag	22.9	<0.10	22.80	100	75/125		
			Cd	23.9	<0.20	22.80	105	75/125		
			Ba	65.4	40.6	22.80	109	75/125		
			Pb	28.0	5.84	22.80	97	75/125		
053 53264.02	**052 53264.02s**	189	Cr	20.7	<0.50	18.90	110	75/125	mg/kg	Soil
			Cd	19.5	<0.20	18.90	103	75/125		
			Pb	18.8	0.68	18.90	96	75/125		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
031 53273.05s MSD	**030 53273.04s MS-0.10**	228	Cr	30.6	30.5	0	0/20	mg/kg	Soil
			Cu	28.0	27.8	1	0/20		
			Zn	42.3	42.4	0	0/20		
			As	26.5	26.6	0	0/20		
			Se	25.2	24.9	1	0/20		
			Ag	22.8	22.9	0	0/20		
			Cd	23.9	23.9	0	0/20		
			Ba	65.0	65.4	1	0/20		
			Pb	27.9	28.0	0	0/20		
054 53264.02 MSD	**053 53264.02 MS-0.10**	188	Cr	20.2	20.7	2	0/20	mg/kg	Soil
			Cd	19.1	19.5	2	0/20		
			Pb	18.6	18.8	1	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
019 0724_2 LCS-0.05	1	Cr	0.0474	0.05	95	85/115	mg/L	Liquid
		Cu	0.0497	0.05	99	85/115		
		Zn	0.0504	0.05	101	85/115		
		As	0.0482	0.05	96	85/115		
		Se	0.0497	0.05	99	85/115		
		Ag	0.0486	0.05	97	85/115		
		Cd	0.0485	0.05	97	85/115		
		Ba	0.0486	0.05	97	85/115		
		Pb	0.0505	0.05	101	85/115		
047 0724_2 LCS-0.05	1	Cr	0.0501	0.05	100	85/115	mg/L	Liquid
		Cu	0.0485	0.05	97	85/115		
		Zn	0.0486	0.05	97	85/115		
		As	0.0501	0.05	100	85/115		
		Se	0.0484	0.05	97	85/115		
		Ag	0.0493	0.05	99	85/115		
		Cd	0.0507	0.05	101	85/115		
		Ba	0.0499	0.05	100	85/115		
		Pb	0.0503	0.05	101	85/115		

Form 8: Serial Dilutions

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
022 53243.01 dil	**021 53243.01s**	1190	Cr	5.20	5.38	3	0/10	mg/kg	Soil
			Cu	19.4	19.7	2	0/10		
			Zn	29.3	30.0	2	0/10		
			As	2.31	2.21	4	0/10		
			Se	<0.50	0.64	200*	0/10		
			Ag	<0.10	<0.10	NC	0/10		
			Cd	0.28	0.31	10	0/10		
			Ba	60.0	58.9	2	0/10		
			Pb	10.8	10.5	3	0/10		
051 53262.01 dil	**050 53262.01s**	1095	Cr	1.01	1.17	15*	0/10	mg/kg	Soil
			Cd	<0.20	<0.20	NC	0/10		
			Pb	2.78	2.80	1	0/10		

Form 13: Analysis Run Log

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
001 Blank	11:14:17 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
002 std-0.00	11:16:08 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
003 std-0.0005	11:29:56 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
004 std-0.001	11:31:52 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
005 std-0.005	11:33:59 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
006 std-0.02	11:36:04 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
007 std-0.05	11:38:18 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
008 std-0.20	11:40:31 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
009 ICV-0.10	11:44:16 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
010 ICB	11:49:52 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
011 Solu-AB	11:51:55 Tue	Liquid	Ag,As,Cd,Cr,Cu,Zn
012 Solu-AA	11:57:41 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
013 BS-0.0005	12:11:24 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
014 BS-0.001	12:13:26 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
015 BS-0.002	12:15:26 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
016 ERA-P194	12:22:26 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
017 CCV1-0.10	12:26:03 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
018 CCB1	12:31:48 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
019 0724_2 LCS-0.05	12:33:55 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
020 LRB_2	12:44:56 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
021 53243.01s	12:46:47 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
022 53243.01 dil	12:49:00 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
023 53243.02s	12:52:08 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
024 53243.03s	12:54:38 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
025 53243.04s	12:57:33 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
026 53243.05s	13:00:04 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
027 53273.01s	13:08:48 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
028 53273.02s	13:11:26 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
029 53273.03s	13:16:07 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
030 53273.04s MS-0.10	13:28:33 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
031 53273.05s MSD	13:30:53 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
032 CCV2-0.10	13:33:16 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
033 CCB2	13:38:41 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
034 53273.06s	13:40:43 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
035 53273.07s	13:43:05 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
036 53273.08s	13:45:27 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
037 53273.09s	13:47:48 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
038 53273.10s	13:50:07 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
039 53273.11s	13:52:28 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
040 53273.12s	13:54:49 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
041 53273.13s	13:57:11 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
042 53273.14s	13:59:33 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
043 53273.15s	14:01:56 Tue	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
044 CCV3-0.10	14:07:18 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
045 Rinse	14:10:50 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
046 CCB3	14:12:54 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
047 0724_2 LCS-0.05	14:14:58 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
048 Rinse	14:18:33 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
049 LRB_2	14:20:39 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
050 53262.01s	14:27:07 Tue	Soil	Cd,Cr,Pb
051 53262.01 dil	14:29:27 Tue	Soil	Cd,Cr,Pb
052 53264.02s	14:31:55 Tue	Soil	Cd,Cr,Pb
053 53264.02 MS-0.10	14:33:57 Tue	Soil	Cd,Cr,Pb

Form 13: Analysis Run Log

Data Set ID: MT2-12-0724A
Instrument ID: PE ELAN
Analysis Date: 07/24/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
054 53264.02 MSD	14:35:59 Tue	Soil	Cd,Cr,Pb
055 CCV4-0.10	14:38:21 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
056 CCB4	14:41:52 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
057 test- blk+pot-permag.	14:46:36 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
058 test- blk+pot-permag.	14:49:22 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
059 test- blk+pot-permag.	14:52:07 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
060 test- blk+pot-permag.	14:54:40 Tue	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Tuesday, July 24, 2012 10:52:40
Sample Description:
Method File: C:\Elandata\Method\Daily-All.mth
Dataset File: C:\Elandata\DataSet\6020-200.8.tun\Daily Performance Check.2563
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Optimization File: C:\Elandata\Optimize\6020-200.8.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Li	7.0	16088.0	16087.983	490.664	3.0
	Be	9.0	5102.7	5102.683	191.254	3.7
	Mg	24.0	50915.2	50915.241	1198.807	2.4
	Co	58.9	103506.8	103506.806	3565.766	3.4
	In	114.9	232721.2	232721.153	3255.337	1.4
	Tl	205.0	140265.3	140265.277	1549.951	1.1
	Pb	208.0	91606.3	91606.283	1138.064	1.2
⌈>	Ce	139.9	238751.3	238751.319	3611.339	1.5
⌊	Ce++	70.0	1864.6	0.008	0.000	5.1
⌈>	Ce-1	139.9	238751.3	238751.319	3611.339	1.5
⌊	CeO	155.9	7653.0	0.032	0.001	1.8
	Bkgd	220.0	12.8	12.750	2.630	20.6

Current Optimization File Data

Current Value	Description
0.76	Nebulizer Gas Flow
10.00	Lens Voltage
1100.00	ICP RF Power
-1985.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	14.5	6350.2
Co	59	33	15.0	133264.7
In	115	33	15.0	202118.5

SmartTune Wizard - Summary

Optimization Summary

Wizard file: C:\Elandata\Wizard\SmartTune\12-0724A.swz

Start Time: 7/24/2012 10:48:33 AM
End Time: 7/24/2012 10:54:19 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
- Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.704)
- Target/Obtained mass (9.0122/9.079), Target/Obtained resolution (0.7/0.700)
- Target/Obtained mass (23.985/23.928), Target/Obtained resolution (0.7/0.720)
- Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.730)
- Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.720)
- Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.712)
- Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.714)

Daily Performance Check - [Passed] Optimum value(s): N/A
- Obtained Intensity (Be 9.0122): 5103
- Obtained Intensity (Bkgd 220): 13
- Obtained Intensity (Co 58.9332): 103507
- Obtained Intensity (In 114.904): 232721
- Obtained Intensity (Li 7.016): 16088
- Obtained Intensity (Mg 23.985): 50915
- Obtained Intensity (Pb 207.977): 91606
- Obtained Intensity (Tl 204.975): 140265
- Obtained Formula (CeO 155.9 / Ce 139.905): 0.032 (=7653 / 238751)
- Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.008 (=1865 / 238751)

SmartTune Wizard - Details

Optimization Details

Wizard file: C:\Elandata\Wizard\SmartTune\12-0724A.swz

Optimization Status

Start Time: 7/24/2012 10:48:33 AM

Mass Calibration and Resolution
Optimization Settings:
Method: C:\Elandata\Method\Tuning-All.mth.
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Iterations: 4
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 5
Optimization Results:
First Pass
Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.704)
Target/Obtained mass (9.0122/9.079), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/23.928), Target/Obtained resolution (0.7/0.720)
Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.730)
Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.720)
Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.712)
Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.714)
[Passed] Optimum value(s): N/A

Daily Performance Check
Optimization Settings:
Method: C:\Elandata\Method\Daily-All.mth.
Intensity Criterion: Be 9.0122 > 1000
Intensity Criterion: Bkgd 220 <= 50
Intensity Criterion: Co 58.9332 > 10000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: Li 7.016 > 2500
Intensity Criterion: Mg 23.985 > 7000
Intensity Criterion: Pb 207.977 > 20000
Intensity Criterion: Tl 204.975 > 40000
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.05
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03
Optimization Results:
First Pass
Obtained Intensity (Be 9.0122): 5103
Obtained Intensity (Bkgd 220): 13
Obtained Intensity (Co 58.9332): 103507
Obtained Intensity (In 114.904): 232721
Obtained Intensity (Li 7.016): 16088
Obtained Intensity (Mg 23.985): 50915
Obtained Intensity (Pb 207.977): 91606
Obtained Intensity (Tl 204.975): 140265
Obtained Formula (CeO 155.9 / Ce 139.905): 0.032 (=7653 / 238751)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.008 (=1865 / 238751)
[Passed] Optimum value(s): N/A

End Time: 7/24/2012 10:54:19 AM

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0724A

Instrument ID: PE ELAN

Analysis Date: 07/24/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	294980	70-125	206486-368725	80-120	235984-353976	0
Re	235858	70-125	165101-294823	80-120	188686-283030	0

Seq ID	QC Type	Rh	Re
001		100	100
002		99	101
003		102	103
004		102	102
005		103	104
006		101	102
007		102	104
008		102	106
009	ICV	103	104
010	ICB	97	100
011	AB	96	95
012	AA	101	102
013	BS	102	103
014	BS	101	102
015	BS	107	107
016	ERA	101	102
017	CCV	102	102
018	CCB	100	101
019	LCS	104	104
020	LRB	101	101
021	S	88	94
022	DIL	91	96
023	S	92	96
024	S	96	98
025	S	90	97
026	S	88	94
027	S	85	90
028	S	86	89
029	S	84	89
030	MS	81	87
031	MSD	82	87
032	CCV	93	95
033	CCB	92	93
034	S	85	92
035	S	82	87
036	S	83	88
037	S	84	90

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0724A

Instrument ID: PE ELAN

Analysis Date: 07/24/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	294980	70-125	206486-368725	80-120	235984-353976	0
Re	235858	70-125	165101-294823	80-120	188686-283030	0

Seq ID	QC Type	Rh	Re
038	S	80	84
039	S	79	83
040	S	82	85
041	S	84	88
042	S	86	91
043	S	90	94
044	CCV	92	93
045		89	90
046	CCB	90	90
047	LCS	90	91
048		88	89
049	LRB	90	92
050	S	86	91
051	DIL	89	91
052	S	85	91
053	MS	83	90
054	MSD	84	90
055	CCV	91	93
056	CCB	89	89

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	Spike (ug/l)	MDL (ug/l)	Prep Batch
Al-27	4/9/2012	0.50	0.189	MTD-040212-1
Sb-121	3/20/2012	1.00	0.105	MTD-032012-3
As-75	3/20/2012	0.05	0.032	MTD-032012-2
Ba-137	3/20/2012	0.50	0.202	MTD-032012-2
Be-9	4/10/2012	0.10	0.079	MTD-041012-1
B-10	3/20/2012	1.00	0.589	MTD-032012-3
B-11	3/20/2012	1.00	0.277	MTD-032012-3
Cd-111	3/20/2012	0.05	0.038	MTD-032012-2
Cd-114	3/20/2012	0.10	0.030	MTD-032012-2
Cr-52	3/20/2012	0.10	0.023	MTD-032012-2
Cr-53	3/20/2012	0.10	0.054	MTD-032012-2
Co-59	3/20/2012	0.10	0.035	MTD-032012-2
Cu-65	3/20/2012	0.50	0.068	MTD-032012-2
Fe-56	4/9/2012	2.00	0.470	MTD-040912-1
Fe-57	4/9/2012	2.00	0.824	MTD-040912-1
Pb-208	3/20/2012	0.10	0.052	MTD-032012-2
Li-7	3/20/2012	1.00	0.166	MTD-032012-3
Mn-55	3/20/2012	0.10	0.187	MTD-032012-2
Mo-95	4/9/2012	0.50	0.442	MTD-040212-1
Ni-60	4/13/2012	0.10	0.035	MTD-041012-1
Se-78	3/20/2012	0.10	0.058	MTD-032012-2
Se-82	3/20/2012	0.50	0.475	MTD-032012-2
Ag-107	3/20/2012	0.10	0.025	MTD-032012-2
Sr-88	3/20/2012	0.10	0.016	MTD-032012-2
Tl-205	4/9/2012	0.50	0.089	MTD-040212-1
Sn-118	3/20/2012	0.10	0.079	MTD-032012-2
Ti-47	3/20/2012	0.50	0.124	MTD-032012-2
V-51	3/20/2012	0.05	0.018	MTD-032012-2
Zn-66	4/9/2012	2.00	0.366	MTD-040912-1

Element/Mass	Date	Spike (mg/l)	MDL (mg/l)	Prep Batch
Ca-43	4/16/2012	0.01	0.0101	MTD-041012-4
Ca-44	4/16/2012	0.01	0.0041	MTD-041012-4
Mg-24	4/16/2012	0.01	0.0006	MTD-041012-4
K-39	4/16/2012	0.01	0.0030	MTD-041012-4
Na-23	4/16/2012	0.10	0.0101	MTD-041012-4

Linear Range June 2012

		Prep Batch	Run Batch
Aluminum	5.0ppm	MTD-061912-5	MT3-12-0619C
Antimony	5.0ppm	MTD-061912-5	MT3-12-0619C
Arsenic	1.0ppm	MTD-061912-5	MT3-12-0619C
Barium	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-10	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-11	5.0ppm	MTD-061912-5	MT3-12-0619C
Beryllium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-111	5.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-114	5.0ppm	MTD-061912-5	MT3-12-0619C
Chromium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cobalt	2.0ppm	MTD-061912-5	MT3-12-0619C
Copper	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-56	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-57	2.0ppm	MTD-061912-5	MT3-12-0619C
Lead	5.0ppm	MTD-061912-5	MT3-12-0619C
Lithium	2.0ppm	MTD-061912-5	MT3-12-0619C
Manganese	1.0ppm	MTD-061912-5	MT3-12-0619C
Molybdenum	1.0ppm	MTD-061912-5	MT3-12-0619C
Nickel	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-78	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-82	5.0ppm	MTD-061912-5	MT3-12-0619C
Silver	1.0ppm	MTD-061912-5	MT3-12-0619C
Strontium-86	5.0ppm	MTD-061912-5	MT3-12-0619C
Thallium	5.0ppm	MTD-061912-5	MT3-12-0619C
Tin	1.0ppm	MTD-061912-5	MT3-12-0619C
Titanium	1.0ppm	MTD-061912-5	MT3-12-0619C
Vanadium	1.0ppm	MTD-061912-5	MT3-12-0619C
Zinc	2.0ppm	MTD-061912-5	MT3-12-0619C

Sodium-23	50ppm	MTD-061912-5	MT3-12-0619B
Magnesium-24	50ppm	MTD-061912-5	MT3-12-0619B
Potassium-39	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-43	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-44	50ppm	MTD-061912-5	MT3-12-0619B

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 001
Method: 10-mich+mo.mth
Acq Time: 11:14:17 Tue 24-Jul-12
Sample Name: Blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1427.612	0	mg/L		3
Cu	65	86.667	0	mg/L		3
Zn	66	440.011	0	mg/L		3
As	75	1913.556	0	mg/L		3
Se	77	33.333	0	mg/L		3
Ag	107	82.500	0	mg/L		3
Cd	111	27.500	0	mg/L		3
Ba	138	740.576	0	mg/L		3
Pb	208	569.185	0	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 002
Method: 10-mich+mo.mth
Acq Time: 11:16:08 Tue 24-Jul-12
Sample Name: std-0.00
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1478.454	0.000020	mg/L		3
Cu	65	101.667	0.000018	mg/L		3
Zn	66	455.011	0.000040	mg/L		3
As	75	1999.082	0.000174	mg/L		3
Se	77	19.167	-0.000336	mg/L		3
Ag	107	80.000	-0.000001	mg/L		3
Cd	111	25.000	-0.000003	mg/L		3
Ba	138	678.840	-0.000008	mg/L		3
Pb	208	610.021	0.000009	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 003
Method: 10-mich+mo.mth
Acq Time: 11:29:56 Tue 24-Jul-12
Sample Name: std-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2931.306	0.000486	mg/L		3
Cu	65	561.684	0.000546	mg/L		3
Zn	66	605.020	0.000342	mg/L		3
As	75	2051.592	0.000186	mg/L		3
Se	77	45.000	0.000263	mg/L		3
Ag	107	1278.423	0.000451	mg/L		3
Cd	111	362.507	0.000488	mg/L		3
Ba	138	4057.357	0.000479	mg/L		3
Pb	208	2244.444	0.000437	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 004
Method: 10-mich+mo.mth
Acq Time: 11:31:52 Tue 24-Jul-12
Sample Name: std-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4377.722	0.000952	mg/L		3
Cu	65	1006.723	0.001053	mg/L		3
Zn	66	863.374	0.000892	mg/L		3
As	75	2365.491	0.000702	mg/L		3
Se	77	80.000	0.001075	mg/L		3
Ag	107	2532.853	0.000919	mg/L		3
Cd	111	719.195	0.001003	mg/L		3
Ba	138	7631.315	0.000991	mg/L		3
Pb	208	3980.872	0.000897	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 005
Method: 10-mich+mo.mth
Acq Time: 11:33:59 Tue 24-Jul-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	16574.263	0.004905	mg/L		3
Cu	65	4613.671	0.005169	mg/L		3
Zn	66	2744.581	0.004922	mg/L		3
As	75	4809.122	0.004851	mg/L		3
Se	77	228.336	0.004526	mg/L		3
Ag	107	13232.124	0.004912	mg/L		3
Cd	111	3476.498	0.004983	mg/L		3
Ba	138	35699.650	0.005014	mg/L		3
Pb	208	19595.263	0.004936	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 006
Method: 10-mich+mo.mth
Acq Time: 11:36:04 Tue 24-Jul-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	59889.165	0.019315	mg/L		3
Cu	65	16903.202	0.019554	mg/L		3
Zn	66	9206.326	0.019140	mg/L		3
As	75	12782.748	0.018837	mg/L		3
Se	77	818.370	0.018637	mg/L		3
Ag	107	50540.104	0.019188	mg/L		3
Cd	111	13015.980	0.019103	mg/L		3
Ba	138	131777.209	0.019141	mg/L		3
Pb	208	75690.483	0.019818	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 007
Method: 10-mich+mo.mth
Acq Time: 11:38:18 Tue 24-Jul-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	151598.695	0.048844	mg/L		3
Cu	65	44527.140	0.050888	mg/L		3
Zn	66	24044.256	0.050744	mg/L		3
As	75	30517.213	0.048803	mg/L		3
Se	77	2149.421	0.049434	mg/L		3
Ag	107	133201.256	0.049848	mg/L		3
Cd	111	34152.366	0.049424	mg/L		3
Ba	138	344885.512	0.049501	mg/L		3
Pb	208	195497.202	0.050368	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 008
Method: 10-mich+mo.mth
Acq Time: 11:40:31 Tue 24-Jul-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	617126.668	0.200360	mg/L		3
Cu	65	174591.540	0.199818	mg/L		3
Zn	66	93394.865	0.199903	mg/L		3
As	75	119214.379	0.200421	mg/L		3
Se	77	8604.908	0.200289	mg/L		3
Ag	107	534468.661	0.200122	mg/L		3
Cd	111	138256.068	0.200234	mg/L		3
Ba	138	1392290.456	0.200210	mg/L		3
Pb	208	787980.352	0.199929	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 009
Method: 10-mich+mo.mth
Acq Time: 11:44:16 Tue 24-Jul-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 07/11/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	299353.973	0.096765	mg/L		3
Cu	65	88490.359	0.101049	mg/L		3
Zn	66	47211.446	0.100399	mg/L		3
As	75	60404.282	0.099702	mg/L		3
Se	77	4405.234	0.101967	mg/L		3
Ag	107	264451.616	0.098829	mg/L		3
Cd	111	69282.209	0.100146	mg/L		3
Ba	138	686959.386	0.098542	mg/L		3
Pb	208	390021.604	0.100639	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 010
Method: 10-mich+mo.mth
Acq Time: 11:49:52 Tue 24-Jul-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1207.580	-0.000062	mg/L		3
Cu	65	44.167	-0.000048	mg/L		3
Zn	66	249.170	-0.000405	mg/L		3
As	75	1891.930	0.000053	mg/L		3
Se	77	35.833	0.000082	mg/L		3
Ag	107	119.167	0.000015	mg/L		3
Cd	111	22.500	-0.000007	mg/L		3
Ba	138	426.477	-0.000045	mg/L		3
Pb	208	146.668	-0.000114	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 011
Method: 10-mich+mo.mth
Acq Time: 11:51:55 Tue 24-Jul-12
Sample Name: Solu-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	70302.514	0.023934	mg/L		3
Cu	63	40041.330	0.023424	mg/L		3
Zn	68	7895.929	0.023765	mg/L		3
As	75	14889.722	0.023804	mg/L		3
Ag	107	48742.830	0.019445	mg/L		3
Cd	114	31652.163	0.020358	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 012
Method: 10-mich+mo.mth
Acq Time: 11:57:41 Tue 24-Jul-12
Sample Name: Solu-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1382.606	-0.000022	mg/L		3
Cu	65	180.835	0.000107	mg/L		3
Zn	66	470.846	0.000053	mg/L		3
As	75	1873.455	-0.000117	mg/L		3
Se	77	44.167	0.000244	mg/L		3
Ag	107	54.167	-0.000011	mg/L		3
Cd	111	24.167	-0.000005	mg/L		3
Ba	138	511.562	-0.000035	mg/L		3
Pb	208	309.172	-0.000071	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 013
Method: 10-mich+mo.mth
Acq Time: 12:11:24 Tue 24-Jul-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2890.460	0.000470	mg/L		3
Cu	65	541.683	0.000521	mg/L		3
Zn	66	618.354	0.000367	mg/L		3
As	75	2233.559	0.000486	mg/L		3
Se	77	54.167	0.000473	mg/L		3
Ag	107	1308.428	0.000461	mg/L		3
Cd	111	332.506	0.000443	mg/L		3
Ba	138	4044.819	0.000475	mg/L		3
Pb	208	2273.618	0.000440	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 014
Method: 10-mich+mo.mth
Acq Time: 12:13:26 Tue 24-Jul-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4477.769	0.001004	mg/L		3
Cu	65	992.554	0.001053	mg/L		3
Zn	66	886.710	0.000967	mg/L		3
As	75	2572.837	0.001116	mg/L		3
Se	77	67.500	0.000803	mg/L		3
Ag	107	2534.520	0.000932	mg/L		3
Cd	111	735.030	0.001040	mg/L		3
Ba	138	7464.495	0.000981	mg/L		3
Pb	208	3960.030	0.000892	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 015
Method: 10-mich+mo.mth
Acq Time: 12:15:26 Tue 24-Jul-12
Sample Name: BS-0.002
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	7544.796	0.001874	mg/L		3
Cu	65	2157.756	0.002263	mg/L		3
Zn	66	1355.935	0.001823	mg/L		3
As	75	3093.779	0.001713	mg/L		3
Se	77	126.668	0.002036	mg/L		3
Ag	107	5540.856	0.001955	mg/L		3
Cd	111	1399.275	0.001899	mg/L		3
Ba	138	14615.549	0.001903	mg/L		3
Pb	208	8137.807	0.001900	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 016
Method: 10-mich+mo.mth
Acq Time: 12:22:26 Tue 24-Jul-12
Sample Name: ERA-P194
Sample Type: Sample
Matrix: Liquid
Comments: dil 5/1
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	363845.018	0.595527	mg/L		3
Cu	65	145030.293	0.838166	mg/L		3
Zn	66	38507.224	0.413443	mg/L		3
As	75	102013.349	0.863831	mg/L		3
Se	77	8630.762	1.014432	mg/L		3
Ag	107	95216.061	0.179933	mg/L		3
Cd	111	15797.049	0.115361	mg/L		3
Ba	138	937597.896	0.680600	mg/L		3
Pb	208	1340292.194	1.766568	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 017
Method: 10-mich+mo.mth
Acq Time: 12:26:03 Tue 24-Jul-12
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	289308.282	0.094063	mg/L		3
Cu	65	86628.389	0.099514	mg/L		3
Zn	66	47779.397	0.102235	mg/L		3
As	75	58474.877	0.097011	mg/L		3
Se	77	4237.656	0.098664	mg/L		3
Ag	107	262060.671	0.098526	mg/L		3
Cd	111	67342.677	0.097927	mg/L		3
Ba	138	668476.318	0.096456	mg/L		3
Pb	208	377151.350	0.099218	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 018
Method: 10-mich+mo.mth
Acq Time: 12:31:48 Tue 24-Jul-12
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1242.585	-0.000061	mg/L		3
Cu	65	59.167	-0.000032	mg/L		3
Zn	66	244.170	-0.000430	mg/L		3
As	75	1910.637	0.000004	mg/L		3
Se	77	29.167	-0.000098	mg/L		3
Ag	107	89.167	0.000003	mg/L		3
Cd	111	14.167	-0.000020	mg/L		3
Ba	138	461.488	-0.000041	mg/L		3
Pb	208	175.835	-0.000107	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 019
Method: 10-mich+mo.mth
Acq Time: 12:33:55 Tue 24-Jul-12
Sample Name: 0724_2 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	149464.523	0.047441	mg/L		3
Cu	65	44186.295	0.049746	mg/L		3
Zn	66	24279.882	0.050482	mg/L		3
As	75	30621.276	0.048211	mg/L		3
Se	77	2196.933	0.049783	mg/L		3
Ag	107	131879.974	0.048628	mg/L		3
Cd	111	34020.203	0.048512	mg/L		3
Ba	138	344060.382	0.048654	mg/L		3
Pb	208	195313.313	0.050530	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 020
Method: 10-mich+mo.mth
Acq Time: 12:44:56 Tue 24-Jul-12
Sample Name: LRB_2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1262.588	-0.000060	mg/L		3
Cu	65	55.000	-0.000038	mg/L		3
Zn	66	125.834	-0.000695	mg/L		3
As	75	1893.223	-0.000077	mg/L		3
Se	77	31.667	-0.000051	mg/L		3
Ag	107	63.334	-0.000008	mg/L		3
Cd	111	19.167	-0.000013	mg/L		3
Ba	138	215.777	-0.000078	mg/L		3
Pb	208	78.334	-0.000133	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 027
Method: 10-mich+mo.mth
Acq Time: 13:08:48 Tue 24-Jul-12
Sample Name: 53273.01s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 203

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	73977.302	5.765377	mg/kg		3
Cu	65	64515.658	17.968708	mg/kg		3
Zn	66	60333.724	31.403979	mg/kg		3
As	75	13011.208	4.735292	mg/kg		3
Se	77	144.168	0.658448	mg/kg		3
Ag	107	672.525	0.054917	mg/kg		3
Cd	111	659.191	0.224260	mg/kg		3
Ba	138	917206.111	32.107787	mg/kg		3
Pb	208	131129.829	7.968020	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 028
Method: 10-mich+mo.mth
Acq Time: 13:11:26 Tue 24-Jul-12
Sample Name: 53273.02s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 228

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	78661.375	6.851818	mg/kg		3
Cu	65	61222.125	19.038954	mg/kg		3
Zn	66	49433.229	28.686780	mg/kg		3
As	75	9790.232	3.785200	mg/kg		3
Se	77	133.334	0.666165	mg/kg		3
Ag	107	677.525	0.061785	mg/kg		3
Cd	111	412.509	0.153190	mg/kg		3
Ba	138	1790651.836	70.022695	mg/kg		3
Pb	208	127917.897	8.768819	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 029
Method: 10-mich+mo.mth
Acq Time: 13:16:07 Tue 24-Jul-12
Sample Name: 53273.03s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 228

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	61711.256	5.479533	mg/kg		3
Cu	65	18854.532	5.984705	mg/kg		3
Zn	66	33201.356	19.651147	mg/kg		3
As	75	5469.202	1.837812	mg/kg		3
Se	77	75.834	0.311438	mg/kg		3
Ag	107	423.343	0.036910	mg/kg		3
Cd	111	382.508	0.144855	mg/kg		3
Ba	138	1017026.636	40.688635	mg/kg		3
Pb	208	85315.981	5.840638	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 030
Method: 10-mich+mo.mth
Acq Time: 13:28:33 Tue 24-Jul-12
Sample Name: 53273.04s MS-0.10
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 228

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	328283.935	30.513663	mg/kg		3
Cu	65	84780.173	27.807874	mg/kg		3
Zn	66	69241.865	42.473750	mg/kg		3
As	75	56046.160	26.695140	mg/kg		3
Se	77	3751.608	24.952483	mg/kg		3
Ag	107	213965.427	22.965209	mg/kg		3
Cd	111	57767.967	23.980360	mg/kg		3
Ba	138	1588769.504	65.495619	mg/kg		3
Pb	208	398906.051	28.028828	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 031
Method: 10-mich+mo.mth
Acq Time: 13:30:53 Tue 24-Jul-12
Sample Name: 53273.05s MSD
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 228

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	332947.860	30.610230	mg/kg		3
Cu	65	86354.084	28.012957	mg/kg		3
Zn	66	69844.035	42.374830	mg/kg		3
As	75	56457.801	26.595293	mg/kg		3
Se	77	3839.978	25.260686	mg/kg		3
Ag	107	215332.993	22.858615	mg/kg		3
Cd	111	58299.695	23.934247	mg/kg		3
Ba	138	1595734.268	65.060724	mg/kg		3
Pb	208	398031.620	27.998673	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 032
Method: 10-mich+mo.mth
Acq Time: 13:33:16 Tue 24-Jul-12
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	285351.444	0.102159	mg/L		3
Cu	65	77974.716	0.098588	mg/L		3
Zn	66	42894.309	0.101008	mg/L		3
As	75	55862.855	0.102174	mg/L		3
Se	77	3919.179	0.100417	mg/L		3
Ag	107	239520.852	0.099122	mg/L		3
Cd	111	62656.849	0.100280	mg/L		3
Ba	138	617776.976	0.098118	mg/L		3
Pb	208	356898.597	0.100780	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 033
Method: 10-mich+mo.mth
Acq Time: 13:38:41 Tue 24-Jul-12
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1284.257	-0.000012	mg/L		3
Cu	65	42.500	-0.000048	mg/L		3
Zn	66	212.503	-0.000462	mg/L		3
As	75	1668.790	-0.000182	mg/L		3
Se	77	30.000	-0.000018	mg/L		3
Ag	107	94.167	0.000007	mg/L		3
Cd	111	15.833	-0.000015	mg/L		3
Ba	138	463.946	-0.000035	mg/L		3
Pb	208	138.334	-0.000113	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 034
Method: 10-mich+mo.mth
Acq Time: 13:40:43 Tue 24-Jul-12
Sample Name: 53273.06s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 205

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	27358.610	2.098530	mg/kg		3
Cu	65	14081.731	3.956933	mg/kg		3
Zn	66	16040.807	8.312044	mg/kg		3
As	75	4969.562	1.409255	mg/kg		3
Se	77	54.167	0.148502	mg/kg		3
Ag	107	245.003	0.016146	mg/kg		3
Cd	111	275.004	0.089893	mg/kg		3
Ba	138	361949.660	12.820841	mg/kg		3
Pb	208	55777.272	3.323695	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 035
Method: 10-mich+mo.mth
Acq Time: 13:43:05 Tue 24-Jul-12
Sample Name: 53273.07s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 216

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	68623.906	5.933442	mg/kg		3
Cu	65	51687.355	15.976648	mg/kg		3
Zn	66	52828.896	30.508039	mg/kg		3
As	75	10977.323	4.347800	mg/kg		3
Se	77	90.834	0.401714	mg/kg		3
Ag	107	581.685	0.052049	mg/kg		3
Cd	111	580.019	0.218240	mg/kg		3
Ba	138	1364367.144	53.029669	mg/kg		3
Pb	208	110497.484	7.346638	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 036
Method: 10-mich+mo.mth
Acq Time: 13:45:27 Tue 24-Jul-12
Sample Name: 53273.08s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 237

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	53098.807	4.941896	mg/kg		3
Cu	65	33658.050	11.251113	mg/kg		3
Zn	66	36193.585	22.544933	mg/kg		3
As	75	4145.720	1.279137	mg/kg		3
Se	77	94.167	0.455013	mg/kg		3
Ag	107	479.179	0.044990	mg/kg		3
Cd	111	430.844	0.172894	mg/kg		3
Ba	138	1287092.772	54.138316	mg/kg		3
Pb	208	102319.257	7.387538	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 037
Method: 10-mich+mo.mth
Acq Time: 13:47:48 Tue 24-Jul-12
Sample Name: 53273.09s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 193

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	14096.754	0.984479	mg/kg		3
Cu	65	6528.178	1.734227	mg/kg		3
Zn	66	12153.952	5.946331	mg/kg		3
As	75	3573.457	0.786751	mg/kg		3
Se	77	46.667	0.101923	mg/kg		3
Ag	107	145.835	0.006714	mg/kg		3
Cd	111	217.503	0.066058	mg/kg		3
Ba	138	172020.418	5.785179	mg/kg		3
Pb	208	28333.254	1.607290	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 038
Method: 10-mich+mo.mth
Acq Time: 13:50:07 Tue 24-Jul-12
Sample Name: 53273.10s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 203

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	34696.941	2.834086	mg/kg		3
Cu	65	45099.115	13.383377	mg/kg		3
Zn	66	53211.107	29.513114	mg/kg		3
As	75	11641.094	4.484456	mg/kg		3
Se	77	105.834	0.480349	mg/kg		3
Ag	107	497.514	0.041937	mg/kg		3
Cd	111	401.676	0.142799	mg/kg		3
Ba	138	532358.645	19.857665	mg/kg		3
Pb	208	90876.969	5.879185	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 039
Method: 10-mich+mo.mth
Acq Time: 13:52:28 Tue 24-Jul-12
Sample Name: 53273.11s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 197

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	45491.898	3.670347	mg/kg		3
Cu	65	52026.784	15.129679	mg/kg		3
Zn	66	45630.072	24.768170	mg/kg		3
As	75	10843.856	4.054417	mg/kg		3
Se	77	109.167	0.491348	mg/kg		3
Ag	107	533.349	0.044606	mg/kg		3
Cd	111	497.514	0.175130	mg/kg		3
Ba	138	542477.836	19.823267	mg/kg		3
Pb	208	87599.235	5.593989	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 040
Method: 10-mich+mo.mth
Acq Time: 13:54:49 Tue 24-Jul-12
Sample Name: 53273.12s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 218

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	68642.378	5.999485	mg/kg		3
Cu	65	48272.842	15.081324	mg/kg		3
Zn	66	42714.286	24.893057	mg/kg		3
As	75	8249.759	3.122955	mg/kg		3
Se	77	86.667	0.379305	mg/kg		3
Ag	107	659.191	0.060576	mg/kg		3
Cd	111	410.843	0.153717	mg/kg		3
Ba	138	706463.587	27.746786	mg/kg		3
Pb	208	106096.435	7.306955	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 041
Method: 10-mich+mo.mth
Acq Time: 13:57:11 Tue 24-Jul-12
Sample Name: 53273.13s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 214

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	27861.799	2.267033	mg/kg		3
Cu	65	17288.089	5.150578	mg/kg		3
Zn	66	14696.042	8.051535	mg/kg		3
As	75	3786.343	0.974239	mg/kg		3
Se	77	69.167	0.251545	mg/kg		3
Ag	107	250.003	0.017702	mg/kg		3
Cd	111	355.007	0.125657	mg/kg		3
Ba	138	719024.533	27.002531	mg/kg		3
Pb	208	74409.994	4.874151	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 042
Method: 10-mich+mo.mth
Acq Time: 13:59:33 Tue 24-Jul-12
Sample Name: 53273.14s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 182

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	22580.512	1.502028	mg/kg		3
Cu	65	19161.843	4.725559	mg/kg		3
Zn	66	14578.353	6.602277	mg/kg		3
As	75	3188.492	0.569024	mg/kg		3
Se	77	57.500	0.145429	mg/kg		3
Ag	107	250.003	0.014490	mg/kg		3
Cd	111	259.170	0.073773	mg/kg		3
Ba	138	244477.362	7.584591	mg/kg		3
Pb	208	34568.113	1.840023	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 043
Method: 10-mich+mo.mth
Acq Time: 14:01:56 Tue 24-Jul-12
Sample Name: 53273.15s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 192

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	15724.434	1.031410	mg/kg		3
Cu	65	11246.120	2.805598	mg/kg		3
Zn	66	12387.602	5.659618	mg/kg		3
As	75	2394.071	0.255108	mg/kg		3
Se	77	39.167	0.047522	mg/kg		3
Ag	107	138.334	0.005293	mg/kg		3
Cd	111	175.835	0.048031	mg/kg		3
Ba	138	188884.970	5.940458	mg/kg		3
Pb	208	28657.598	1.555798	mg/kg		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 044
Method: 10-mich+mo.mth
Acq Time: 14:07:18 Tue 24-Jul-12
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	280417.706	0.101391	mg/L		3
Cu	65	75457.763	0.096355	mg/L		3
Zn	66	41594.943	0.098902	mg/L		3
As	75	53051.214	0.097868	mg/L		3
Se	77	3829.140	0.099096	mg/L		3
Ag	107	234762.885	0.098117	mg/L		3
Cd	111	61457.879	0.099348	mg/L		3
Ba	138	609450.860	0.097759	mg/L		3
Pb	208	342747.603	0.099648	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 045
Method: 10-mich+mo.mth
Acq Time: 14:10:50 Tue 24-Jul-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1180.910	-0.000034	mg/L		3
Cu	65	17.500	-0.000079	mg/L		3
Zn	66	116.667	-0.000681	mg/L		3
As	75	1715.641	0.000019	mg/L		3
Se	77	25.000	-0.000125	mg/L		3
Ag	107	93.334	0.000009	mg/L		3
Cd	111	15.833	-0.000014	mg/L		3
Ba	138	329.821	-0.000055	mg/L		3
Pb	208	122.501	-0.000117	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 046
Method: 10-mich+mo.mth
Acq Time: 14:12:54 Tue 24-Jul-12
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1230.083	-0.000022	mg/L		3
Cu	65	37.500	-0.000053	mg/L		3
Zn	66	185.002	-0.000518	mg/L		3
As	75	1595.834	-0.000258	mg/L		3
Se	77	27.500	-0.000070	mg/L		3
Ag	107	89.167	0.000006	mg/L		3
Cd	111	12.500	-0.000020	mg/L		3
Ba	138	448.942	-0.000036	mg/L		3
Pb	208	170.835	-0.000102	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 047
Method: 10-mich+mo.mth
Acq Time: 14:14:58 Tue 24-Jul-12
Sample Name: 0724_2 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	136693.645	0.050198	mg/L		3
Cu	65	37271.251	0.048527	mg/L		3
Zn	66	20235.001	0.048630	mg/L		3
As	75	27454.885	0.050118	mg/L		3
Se	77	1847.688	0.048424	mg/L		3
Ag	107	115762.850	0.049352	mg/L		3
Cd	111	30740.237	0.050709	mg/L		3
Ba	138	305165.436	0.049908	mg/L		3
Pb	208	171077.330	0.050338	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 048
Method: 10-mich+mo.mth
Acq Time: 14:18:33 Tue 24-Jul-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1188.411	-0.000026	mg/L		3
Cu	65	18.333	-0.000077	mg/L		3
Zn	66	104.167	-0.000708	mg/L		3
As	75	1590.041	-0.000185	mg/L		3
Se	77	35.833	0.000178	mg/L		3
Ag	107	80.834	0.000004	mg/L		3
Cd	111	7.500	-0.000028	mg/L		3
Ba	138	329.840	-0.000054	mg/L		3
Pb	208	139.168	-0.000112	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 049
Method: 10-mich+mo.mth
Acq Time: 14:20:39 Tue 24-Jul-12
Sample Name: LRB_2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1265.088	-0.000008	mg/L		3
Cu	65	34.167	-0.000057	mg/L		3
Zn	66	115.834	-0.000686	mg/L		3
As	75	1712.074	-0.000022	mg/L		3
Se	77	34.167	0.000108	mg/L		3
Ag	107	56.667	-0.000008	mg/L		3
Cd	111	7.500	-0.000028	mg/L		3
Ba	138	290.677	-0.000062	mg/L		3
Pb	208	89.167	-0.000127	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 055
Method: 10-mich+mo.mth
Acq Time: 14:38:21 Tue 24-Jul-12
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	276705.537	0.101134	mg/L		3
Cu	65	74397.350	0.096034	mg/L		3
Zn	66	41163.829	0.098941	mg/L		3
As	75	53702.960	0.100213	mg/L		3
Se	77	3836.643	0.100386	mg/L		3
Ag	107	229116.328	0.096801	mg/L		3
Cd	111	59653.440	0.097475	mg/L		3
Ba	138	598267.708	0.097016	mg/L		3
Pb	208	343308.712	0.099721	mg/L		3

Data Set: MT2-12-0724A
Run Date: 07/24/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 056
Method: 10-mich+mo.mth
Acq Time: 14:41:52 Tue 24-Jul-12
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0724A.cal
Cal Type: External Calibration
Last Calib: mtd-072412-3
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1442.614	0.000065	mg/L		3
Cu	65	68.334	-0.000012	mg/L		3
Zn	66	205.836	-0.000460	mg/L		3
As	75	1638.565	-0.000131	mg/L		3
Se	77	35.833	0.000162	mg/L		3
Ag	107	134.168	0.000026	mg/L		3
Cd	111	15.000	-0.000016	mg/L		3
Ba	138	479.736	-0.000030	mg/L		3
Pb	208	147.501	-0.000109	mg/L		3

Metals Digestion

3015A (3050B)

DATE 07/24/12

TIME START 10:00

ANALYST AR

TIME FINISH 10:15

PREP BATCH MTD- 072412-2

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS - 2	----	50	50		—	1
LRB- 2	----	50	50		—	1
53243.01		0.263		dil 5/1 = 1190	80	238
02		0.264			84	225
03		0.267			85	220
04		0.261			91	210
05		0.273			81	226
				net wt.		
53273.01		0.285		175	86	203
02		0.275		182	80	228
03		0.261		192	84	228
04 MS		0.260		TO #03 192	84	228
05 MSD		0.261		192	84	228
06		0.264		189	92	205
07		0.268		186	86	216
08		0.267		187	79	237
09		0.280		178	92	193
10		0.273		183	90	203
11		0.276		181	92	197
12		0.270		185	85	218
13		0.272		184	86	214
14		0.283		177	97	182
15		0.269		186	97	192

NOTES: *1) Spike values (unless otherwise stated):*

LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution

Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution

Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution

Spiking Solution - Lot # E2-MEB379078 + D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)

LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution

Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution

High Purity Stock Solution (HM)- Lot # 112563.3

3) HNO_3 Lot # 51332-Omni Trace

4) Centrifuge Tube Lot # 120201-960-1

5) Balance ID: M1

Reviewed by: SM On 07/24/12

Form 0: Sequence Log

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	7/24/2012 2:03:26 PM	Calibration Blank	Liquid	
002	7/24/2012 2:05:41 PM	Standard #1	Liquid	
003	7/24/2012 2:07:55 PM	Standard #2	Liquid	
004	7/24/2012 2:10:09 PM	Standard #3	Liquid	
005	7/24/2012 2:12:22 PM	Standard #4	Liquid	
006	7/24/2012 2:14:35 PM	Standard #5	Liquid	
007	7/24/2012 2:16:46 PM	Standard #6	Liquid	
008	7/24/2012 2:20:00 PM	Standard #7	Liquid	
009	7/24/2012 2:23:59 PM	CCV1-2.0 ppb	Liquid	
010	7/24/2012 2:26:18 PM	CCB1	Liquid	CCB
011	7/24/2012 2:30:48 PM	CCV1-2.0 ppb	Liquid	CCV
012	7/24/2012 2:33:06 PM	ICV-5.0	Liquid	ICV
013	7/24/2012 2:36:57 PM	ICB	Liquid	ICB
014	7/24/2012 2:39:14 PM	ERA 8121-05 TV=15.9	Liquid	ERA
015	7/24/2012 2:42:38 PM	BS-0.10	Liquid	BS
016	7/24/2012 2:44:58 PM	07/24 LCS1-2.0 ppb	Soil	LCS
017	7/24/2012 2:47:19 PM	07/24 LRB1	Soil	
018	7/24/2012 2:52:19 PM	07/24 LRB1	Soil	LRB
019	7/24/2012 2:54:34 PM	53243.01s	Soil	S
020	7/24/2012 2:56:46 PM	53243.02s	Soil	S
021	7/24/2012 2:58:58 PM	53243.03s	Soil	S
022	7/24/2012 3:01:11 PM	53243.04s	Soil	S
023	7/24/2012 3:03:24 PM	53243.05s	Soil	S
024	7/24/2012 3:05:38 PM	53259.01s	Soil	S
025	7/24/2012 3:07:53 PM	53273.01s	Soil	S
026	7/24/2012 3:10:08 PM	53273.02s	Soil	S
027	7/24/2012 3:12:21 PM	53273.03s	Soil	S
028	7/24/2012 3:14:34 PM	53273.04s MS-2.0 ppb	Soil	MS
029	7/24/2012 3:16:47 PM	53273.05s MSD	Soil	MSD
030	7/24/2012 3:19:06 PM	CCV2-2.0 ppb	Liquid	CCV
031	7/24/2012 3:21:25 PM	CCB2	Liquid	CCB
032	7/24/2012 3:23:39 PM	53273.06s	Soil	S
033	7/24/2012 3:25:54 PM	53273.07s	Soil	S
034	7/24/2012 3:28:09 PM	53273.08s	Soil	S
035	7/24/2012 3:30:25 PM	53273.09s	Soil	S
036	7/24/2012 3:34:34 PM	53273.10s	Soil	S
037	7/24/2012 3:36:47 PM	53273.11s	Soil	S
038	7/24/2012 3:39:02 PM	53273.12s	Soil	S
039	7/24/2012 3:41:17 PM	53273.13s	Soil	S
040	7/24/2012 3:43:32 PM	53273.14s	Soil	S
041	7/24/2012 3:45:48 PM	53273.15s	Soil	S
042	7/24/2012 3:48:07 PM	CCV3-2.0 ppb	Liquid	CCV
043	7/24/2012 3:50:26 PM	CCB3	Liquid	CCB
044	7/24/2012 3:52:46 PM	07/24 LCS2-2.0 ppb	Liquid	LCS
045	7/24/2012 3:55:06 PM	07/24 LRB2	Liquid	LRB
046	7/24/2012 3:57:23 PM	53176.05s tclp	Liquid	S
047	7/24/2012 3:59:37 PM	53177.01s tclp	Liquid	S
048	7/24/2012 4:01:51 PM	53189.01s tclp	Liquid	S
049	7/24/2012 4:04:06 PM	53278.01s tclp	Liquid	S
050	7/24/2012 4:06:21 PM	53165.01s tclp	Liquid	S
051	7/24/2012 4:08:37 PM	53165.03s tclp	Liquid	S
052	7/24/2012 4:10:54 PM	53165.04s tclp	Liquid	S
053	7/24/2012 4:13:11 PM	53165.02s tclp	Liquid	S

Form 0: Sequence Log

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	7/24/2012 4:15:25 PM	53165.02 MS-2.0 ppb	Liquid	MS
055	7/24/2012 4:17:40 PM	53165.02 MSD	Liquid	MSD
056	7/24/2012 4:19:59 PM	CCV4-2.0 ppb	Liquid	CCV
057	7/24/2012 4:22:18 PM	CCB4	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.01
Sample Tag: SB-132 (07-18-12)(20-22)
Date Collected: 07/18/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	58	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.02
Sample Tag: SB-130 (07-18-12)(16-18)
Date Collected: 07/18/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	61	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.03
Sample Tag: SB-159 (07-19-12)(7-9)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	59	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.04
Sample Tag: SB-159 (07-19-12)(7-9) MS
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.133	0.050	mg/kg	60	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.05
Sample Tag: SB-159 (07-19-12)(7-9) MSD
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.139	0.050	mg/kg	60	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.06
Sample Tag: SB-158 (07-19-12)(3-5)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	54	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.07
Sample Tag: SB-138 (07-19-12)(22.5-24.5)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	59	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.08
Sample Tag: SB-140 (07-19-12)(10-12)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	64	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.09
Sample Tag: SB-118 (07-19-12)(2-4)
Date Collected: 07/19/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	55	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.10
Sample Tag: SB-171 (07-20-12)(10-12)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	55	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.11
Sample Tag: DUP 1 (07-20-12)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	54	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.12
Sample Tag: SB-147 (07-20-12) (8-10)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	59	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.13
Sample Tag: SB-148 (07-20-12) (2.5-4.5)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	57	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.14
Sample Tag: SB-150 (07-20-12) (2-4)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	52	07/24/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Lab Sample ID: S53273.15
Sample Tag: DUP2 (07-20-12)
Date Collected: 07/20/2012
Matrix: Soil

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050	mg/kg	52	07/24/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
011 CCV1-2.0 ppb	CCV	1.0	Hg	1.976	2.0	99	90/110	ug/L	Liquid
012 ICV-5.0	ICV	1.0	Hg	5.267	5.0	105	90/110	ug/L	Liquid
030 CCV2-2.0 ppb	CCV	1.0	Hg	1.915	2.0	96	90/110	ug/L	Liquid
042 CCV3-2.0 ppb	CCV	1.0	Hg	1.963	2.0	98	90/110	ug/L	Liquid
056 CCV4-2.0 ppb	CCV	1.0	Hg	1.956	2.0	98	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: 8121-05

Data Set ID: HG2-12-0724A

Instrument ID: HG QuickTrace

Analysis Date: 07/24/12

Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
014 ERA 8121-05 TV=15.9	2.0	Hg	16.16	15.9	102	9.76	21.5	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0175	ug/L	Liquid
013 ICB	ICB	1.0	Hg	<0.03	-0.0198	ug/L	Liquid
018 07/24 LRB1	LRB	50.0	Hg	<1.0	0.7150	ug/kg	Soil
031 CCB2	CCB	1.0	Hg	<0.03	0.0063	ug/L	Liquid
043 CCB3	CCB	1.0	Hg	<0.03	-0.0301	ug/L	Liquid
045 07/24 LRB2	LRB	1.0	Hg	<0.03	-0.0221	ug/L	Liquid
057 CCB4	CCB	1.0	Hg	<0.03	-0.0363	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
015 BS-0.10		1.0	Hg	0.094	ND	0.10	94	70/130	ug/L	Liquid
028 53273.04s	**027 53273.03s**	59.7	Hg	133.0	<50	119.4	111	80/120	ug/kg	Soil
054 53165.02 MS-2.0	**053 53165.02s tclp**	2.0	Hg	4.010	<0.2	4.0	100	80/120	ug/L	Liquid

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
029 53273.05s MSD	**028 53273.04s MS-2.0**	59.7	Hg	138.9	133.0	4	0/20	ug/kg	Soil
055 53165.02 MSD	**054 53165.02 MS-2.0**	2.0	Hg	4.046	4.010	1	0/20	ug/L	Liquid

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
016 07/24 LCS1-2.0 ppb	50.0	Hg	105.0	100	105	85/115	ug/kg	Soil
044 07/24 LCS2-2.0 ppb	1.0	Hg	2.101	2.0	105	85/115	ug/L	Liquid

Form 13: Analysis Run Log

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	7/24/2012 2:03:26 PM	Liquid	Hg
002 Standard #1	7/24/2012 2:05:41 PM	Liquid	Hg
003 Standard #2	7/24/2012 2:07:55 PM	Liquid	Hg
004 Standard #3	7/24/2012 2:10:09 PM	Liquid	Hg
005 Standard #4	7/24/2012 2:12:22 PM	Liquid	Hg
006 Standard #5	7/24/2012 2:14:35 PM	Liquid	Hg
007 Standard #6	7/24/2012 2:16:46 PM	Liquid	Hg
008 Standard #7	7/24/2012 2:20:00 PM	Liquid	Hg
009 CCV1-2.0 ppb	7/24/2012 2:23:59 PM	Liquid	Hg
010 CCB1	7/24/2012 2:26:18 PM	Liquid	Hg
011 CCV1-2.0 ppb	7/24/2012 2:30:48 PM	Liquid	Hg
012 ICV-5.0	7/24/2012 2:33:06 PM	Liquid	Hg
013 ICB	7/24/2012 2:36:57 PM	Liquid	Hg
014 ERA 8121-05 TV=15.9	7/24/2012 2:39:14 PM	Liquid	Hg
015 BS-0.10	7/24/2012 2:42:38 PM	Liquid	Hg
016 07/24 LCS1-2.0 ppb	7/24/2012 2:44:58 PM	Soil	Hg
017 07/24 LRB1	7/24/2012 2:47:19 PM	Soil	Hg
018 07/24 LRB1	7/24/2012 2:52:19 PM	Soil	Hg
019 53243.01s	7/24/2012 2:54:34 PM	Soil	Hg
020 53243.02s	7/24/2012 2:56:46 PM	Soil	Hg
021 53243.03s	7/24/2012 2:58:58 PM	Soil	Hg
022 53243.04s	7/24/2012 3:01:11 PM	Soil	Hg
023 53243.05s	7/24/2012 3:03:24 PM	Soil	Hg
024 53259.01s	7/24/2012 3:05:38 PM	Soil	Hg
025 53273.01s	7/24/2012 3:07:53 PM	Soil	Hg
026 53273.02s	7/24/2012 3:10:08 PM	Soil	Hg
027 53273.03s	7/24/2012 3:12:21 PM	Soil	Hg
028 53273.04s MS-2.0 ppb	7/24/2012 3:14:34 PM	Soil	Hg
029 53273.05s MSD	7/24/2012 3:16:47 PM	Soil	Hg
030 CCV2-2.0 ppb	7/24/2012 3:19:06 PM	Liquid	Hg
031 CCB2	7/24/2012 3:21:25 PM	Liquid	Hg
032 53273.06s	7/24/2012 3:23:39 PM	Soil	Hg
033 53273.07s	7/24/2012 3:25:54 PM	Soil	Hg
034 53273.08s	7/24/2012 3:28:09 PM	Soil	Hg
035 53273.09s	7/24/2012 3:30:25 PM	Soil	Hg
036 53273.10s	7/24/2012 3:34:34 PM	Soil	Hg
037 53273.11s	7/24/2012 3:36:47 PM	Soil	Hg
038 53273.12s	7/24/2012 3:39:02 PM	Soil	Hg
039 53273.13s	7/24/2012 3:41:17 PM	Soil	Hg
040 53273.14s	7/24/2012 3:43:32 PM	Soil	Hg
041 53273.15s	7/24/2012 3:45:48 PM	Soil	Hg
042 CCV3-2.0 ppb	7/24/2012 3:48:07 PM	Liquid	Hg
043 CCB3	7/24/2012 3:50:26 PM	Liquid	Hg
044 07/24 LCS2-2.0 ppb	7/24/2012 3:52:46 PM	Liquid	Hg
045 07/24 LRB2	7/24/2012 3:55:06 PM	Liquid	Hg
046 53176.05s tclp	7/24/2012 3:57:23 PM	Liquid	Hg
047 53177.01s tclp	7/24/2012 3:59:37 PM	Liquid	Hg
048 53189.01s tclp	7/24/2012 4:01:51 PM	Liquid	Hg
049 53278.01s tclp	7/24/2012 4:04:06 PM	Liquid	Hg
050 53165.01s tclp	7/24/2012 4:06:21 PM	Liquid	Hg
051 53165.03s tclp	7/24/2012 4:08:37 PM	Liquid	Hg
052 53165.04s tclp	7/24/2012 4:10:54 PM	Liquid	Hg
053 53165.02s tclp	7/24/2012 4:13:11 PM	Liquid	Hg

Form 13: Analysis Run Log

Data Set ID: HG2-12-0724A
Instrument ID: HG QuickTrace
Analysis Date: 07/24/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
054 53165.02 MS-2.0 ppb	7/24/2012 4:15:25 PM	Liquid	Hg
055 53165.02 MSD	7/24/2012 4:17:40 PM	Liquid	Hg
056 CCV4-2.0 ppb	7/24/2012 4:19:59 PM	Liquid	Hg
057 CCB4	7/24/2012 4:22:18 PM	Liquid	Hg

Data Set: HG2-12-0724A
Run Date: 07/24/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	7/24/2012 2:03:26 PM	Calibration Blank	1072.0000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	7/24/2012 2:05:41 PM	Standard #1	2284.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	7/24/2012 2:07:55 PM	Standard #2	3410.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	7/24/2012 2:10:09 PM	Standard #3	6984.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	7/24/2012 2:12:22 PM	Standard #4	12460.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	7/24/2012 2:14:35 PM	Standard #5	23680.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	7/24/2012 2:16:46 PM	Standard #6	68970.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	7/24/2012 2:20:00 PM	Standard #7	113600.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	7/24/2012 2:23:59 PM	CCV1-2.0 ppb	-131.0000	-0.1186	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	7/24/2012 2:26:18 PM	CCB1	1007.0000	-0.0175	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	7/24/2012 2:30:48 PM	CCV1-2.0 ppb	23440.0000	1.9760	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	7/24/2012 2:33:06 PM	ICV-5.0	60470.0000	5.2670	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	7/24/2012 2:36:57 PM	ICB	981.0000	-0.0198	ug/L	Liquid	1.0	1.0000	1.0000
Hg	014	7/24/2012 2:39:14 PM	ERA 8121-05 TV=15.9	92130.0000	16.1620	ug/L	Liquid	2.0	1.0000	2.0000
Hg	015	7/24/2012 2:42:38 PM	BS-0.10	2260.0000	0.0939	ug/L	Liquid	1.0	1.0000	1.0000
Hg	016	7/24/2012 2:44:58 PM	07/24 LCS1-2.0 ppb	24840.0000	105.0000	ug/kg	Soil	50.0	0.5000	25.0000
Hg	017	7/24/2012 2:47:19 PM	07/24 LRB1	1435.0000	1.0300	ug/kg	Soil	50.0	0.5000	25.0000
Hg	018	7/24/2012 2:52:19 PM	07/24 LRB1	1365.0000	0.7150	ug/kg	Soil	50.0	0.5000	25.0000
Hg	025	7/24/2012 3:07:53 PM	53273.01s	4143.0000	15.1554	ug/kg	Soil	58.0	0.4310	25.0000
Hg	026	7/24/2012 3:10:08 PM	53273.02s	4386.0000	17.3639	ug/kg	Soil	61.4	0.4070	25.0000
Hg	027	7/24/2012 3:12:21 PM	53273.03s	4839.0000	19.0629	ug/kg	Soil	59.0	0.4240	25.0000
Hg	028	7/24/2012 3:14:34 PM	53273.04s MS-2.0 ppb	26280.0000	133.0713	ug/kg	Soil	59.7	0.4190	25.0000
Hg	029	7/24/2012 3:16:47 PM	53273.05s MSD	27390.0000	138.9219	ug/kg	Soil	59.7	0.4190	25.0000
Hg	030	7/24/2012 3:19:06 PM	CCV2-2.0 ppb	22750.0000	1.9150	ug/L	Liquid	1.0	1.0000	1.0000
Hg	031	7/24/2012 3:21:25 PM	CCB2	1275.0000	0.0063	ug/L	Liquid	1.0	1.0000	1.0000
Hg	032	7/24/2012 3:23:39 PM	53273.06s	4106.0000	13.9524	ug/kg	Soil	54.1	0.4620	25.0000
Hg	033	7/24/2012 3:25:54 PM	53273.07s	4262.0000	15.9547	ug/kg	Soil	58.7	0.4260	25.0000
Hg	034	7/24/2012 3:28:09 PM	53273.08s	4647.0000	19.4616	ug/kg	Soil	63.6	0.3930	25.0000
Hg	035	7/24/2012 3:30:25 PM	53273.09s	2439.0000	5.9951	ug/kg	Soil	54.6	0.4580	25.0000
Hg	036	7/24/2012 3:34:34 PM	53273.10s	4471.0000	15.8558	ug/kg	Soil	54.6	0.4580	25.0000
Hg	037	7/24/2012 3:36:47 PM	53273.11s	3935.0000	13.1840	ug/kg	Soil	54.3	0.4600	25.0000
Hg	038	7/24/2012 3:39:02 PM	53273.12s	4702.0000	18.1877	ug/kg	Soil	58.5	0.4270	25.0000
Hg	039	7/24/2012 3:41:17 PM	53273.13s	5564.0000	22.0488	ug/kg	Soil	56.9	0.4390	25.0000
Hg	040	7/24/2012 3:43:32 PM	53273.14s	2639.0000	6.6097	ug/kg	Soil	51.8	0.4830	25.0000
Hg	041	7/24/2012 3:45:48 PM	53273.15s	2451.0000	5.7114	ug/kg	Soil	51.5	0.4850	25.0000
Hg	042	7/24/2012 3:48:07 PM	CCV3-2.0 ppb	23300.0000	1.9630	ug/L	Liquid	1.0	1.0000	1.0000
Hg	043	7/24/2012 3:50:26 PM	CCB3	864.7000	-0.0301	ug/L	Liquid	1.0	1.0000	1.0000
Hg	044	7/24/2012 3:52:46 PM	07/24 LCS2-2.0 ppb	24850.0000	2.1010	ug/L	Liquid	1.0	1.0000	1.0000
Hg	045	7/24/2012 3:55:06 PM	07/24 LRB2	954.9000	-0.0221	ug/L	Liquid	1.0	1.0000	1.0000
Hg	056	7/24/2012 4:19:59 PM	CCV4-2.0 ppb	23210.0000	1.9560	ug/L	Liquid	1.0	1.0000	1.0000
Hg	057	7/24/2012 4:22:18 PM	CCB4	795.1000	-0.0363	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 10:30 | Beginning | End | DATE 07/24/12
TIME FINISH: 12:35 | TEMP: block #1 95 °C | block #1 95 °C | ANALYST DPM
PREP BATCH: HGD-072412-1 | block #2 95 °C | block #2 95 °C | REVIEWED BY SM
BALANCE ID: M1 | block #3 95 °C | block #3 95 °C | REVIEW DATE 07/24/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 1	------	0.5	--------	----------	50	25g	
LRB- 1	------	0.5	--------	----------	50	25g	
53234.01	1	0.588				1	
53243.01	1	0.509	80	0.407	61	1	
02	1	0.502	84	0.422	59	1	
03	1	0.512	85	0.435	57	1	
04	1	0.495	91	0.450	56	1	
05	1	0.507	81	0.411	61	1	
53259.01	1	0.499			50	1	
53273.01	1	0.501	86	0.431	58	1	
02	1	0.509	80	0.407	61	1	
03	1	0.499	85	0.424	59	1	
04 MS	1	0.499	84	0.419	60	1	
05 MSD	1	0.499	84	0.419	60	1	
06	1	0.502	92	0.462	54	1	
07	1	0.496	86	0.426	59	1	
08	1	0.498	79	0.393	64	1	
09	1	0.498	92	0.458	54	1	
10	1	0.509	90	0.458	54	1	
11	1	0.500	92	0.460	54	1	
12	1	0.502	85	0.427	58	1	
13	1	0.510	86	0.439	57	1	
14	1	0.498	97	0.483	52	1	
15	1	0.500	97	0.485	52	1	

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 113201 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)
Sand lot # TH121ZEMS

Effective Date 7/10/12

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 07/23/12 Date Finished: 7/24/12 Date Checked: 8/2/12

Time Started: 5: 17:00 Time Finished: 11:30 Checked By: BB

Analyst: Amr Temperature: 103°C Batch: TS120723A

Time in Oven: 18.5 Balance ID: S1 Oven ID: OV1

Merit #	Dish #	Dish Wt. (g)	Wet Smpl. + Dish Wt. (g)	Dry Smpl + Dish Wt. (g)	Ash Smpl + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	1	1.37	1.37	1.37		0	—	
LCS	2	1.32	9.46	9.46			109	
53273.01	3	1.40	15.99	14.02			86	
Dup 1 .01	4	1.35	15.61	13.68			86	
.02	5	1.36	9.46	7.83			80	
.03	6	1.37	11.88	10.29			85	
.05, .04	7	1.37	9.73	8.37			84	
~~.05~~	~~8~~	~~1.36~~	Dup of .04	~~12.66~~			—	
.06	9	1.31	13.53	~~9.73~~ 12.60			92	
.07	10	1.22	10.46	~~8.03~~ 9.13			86	
.08	11	1.23	10.58	~~8.77~~ 8.03			79	
.09	12	1.36	9.48	~~12.20~~ 8.79			92	
.10	13	1.27	13.45	~~14.75~~ 12.20			90	
.11	14	1.36	16.18	~~12.34~~ 14.98			92	
Dup 2 .11	15	1.27	14.28	~~13.31~~ 12.84			89	
.12	16	1.4	15.55	13.31			85	
.13	17	1.25	11.19	9.82			86	
.14	18	1.35	16.18	15.67			97	
.15	19	1.4	10.58	10.26			97	
53276.01	20	1.33	14.71	13.29			89	
.02	21	1.34	13.43	12.09			89	
.03	22	1.36	15.47	14.26			91	
.08	23	1.35	14.53	13.20			90	
.10	24	1.35	10.17	9.25			90	

% LCS Recovery: 100 Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 0 Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): 3

Method 5035A (High Level)
Extraction Sheet

Analyst: LBR
Date: 7-23-12
Batch QC ID#: _____

Merit Number	Tare wt (g)	Vial wt (g)	Sample wt.(g)	Methanol (mL)	Sonicate (min)	Time Start / End	Notes
53260.01	32.129	51.440	19.811	20	✓	15:02	
53264.02	31.455	52.368	20.413	20	✓		
53265.01	36.9	48.104	11.204	11	✓		
02	36.9	46.394	9.494	10	✓		
53273.01	30.796	52.812	22.016	22	✓		
02	~~30.774~~	52.464	21.715	22	✓		
03	30.495	53.063	22.068	22	✓		
04	30.787	53.337	22.550	23	✓		
05	30.432	54.304	23.372	23	✓		
06	30.848	48.581	17.783	18	✓		
07	30.834	55.550	24.716	~~23~~ 25	✓		+15 25ml total
08	30.423	52.163	21.140	21	✓		
09	31.117	52.192	21.075	21	✓		
10	30.991	49.069	18.078	18	✓		
11	30.483	52.185	21.202	21	✓		
12	31.035	54.532	23.497	23	✓		
13	30.933	52.781	21.848	22	✓		
14	30.413	47.157	16.744	16	✓		
15	30.886	49.433	18.547	19	✓		
53276.01	36.2	46.040	9.840	10	✓		
02	37.6	47.379	9.779	10	✓		
03	37.9	47.619	9.719	10	✓		
06	37.9	47.695	9.795	10	✓		
10	37.4	44.624	7.224	10	✓		
13	31.129	40.934	9.805	10	✓	15:48	

Balance ID: V1
Methanol Lot: DD471 / DE695 / 150349
5035A High Level

Reviewed By: WAT
Date: 7-23-12
Prepared by Merit Laboratories, Inc.

Effective Date 6/14/12

Solvent Lot #: 52062
Na2SO4 Lot #: ~~060T~~ 7.26 CM 2351C512
SSD #: PR120723
MS/LCS #: PP120723

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 7-26-12
Time Started: 9:30
Time Ended: 13:45
Batch ID#: SP120726501

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	CM	ev2	
	LCSD ~~CM~~ 4-26	Sand	30.0 g	↓	↓	↓	↓	1	↓	↓	[ ]
	53273.04 MS	~~soil~~ Sand	30.1	CH_2Cl_2	180	1	1	1	CM	ev2	[ ]
	53273.05 MSD	~~soil~~ Sand	30.0	↓	↓	↓	↓	1	↓	↓	
1	53273.01	soil	30.0	CH_2Cl_2	180	1	1		CM	ev1	
2	.02	↓	30.1	↓	↓	↓	↓	↓	↓	↓	
3	.03	↓	30.1	↓	↓	↓	↓	↓	↓	↓	
4	.04	↓	30.1	↓	↓	↓	↓	↓	↓	ev2	MS
5	.05	↓	30.0	↓	↓	↓	↓	↓	↓	↓	MSD
6	.06	↓	30.3	↓	↓	↓	↓	↓	↓	↓	
7	.07	↓	30.2	↓	↓	↓	↓	↓	↓	ev1	
8	.08	↓	30.1	↓	↓	↓	↓	↓	↓	↓	
9	.09	↓	30.0	↓	↓	↓	↓	↓	↓	↓	
10	.10	↓	30.1	↓	↓	↓	↓	↓	↓	ev2	
11	.11	↓	30.0	↓	↓	↓	↓	↓	↓	↓	
12	.12	↓	30.1	↓	↓	↓	↓	↓	↓	↓	
13	.13	↓	30.3	↓	↓	↓	↓	↓	↓	ev1	
14	.14	↓	30.0	↓	↓	3	↓	↓	↓	↓	
15	.15	↓	30.3	↓	↓	2	↓	↓	↓	↓	
16											
17											
18											
19											
20											

Reviewed by: _____ On: 7/26 Balance ID: _____

Prepared by: Merit Laboratories, Inc.

Hexane 51223
Ether/Hexane 51108/29/52088
Na_2SO_4 2351C512
H_2SO_4 50328
SSD# 17S10
PCB MS ID# 11MS04 Pest MS ID#

PCB/Pesticide Extraction
Method 3550B

Date 07/23/12
Time Started 09:00
Time Ended 15:00
Prep Batch ID# PA120723S01
Balance ID# E2

#	Merit #	Matrix	Sample Wt. (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Alumina Cleanup	Dioxin Cleanup	Turbo Vap	Notes
Initial Q.C.	BLANK	Soil	20.0	Hexane	180	1	1		ADB			EV2	
	LCS	↓	20.0					1					
	LCSD							1					
	MS 53273.04	Soil	20.1					1					MS
	MSD 53273.05	↓	20.0	↓	↓	↓	↓	1	↓			↓	MSD
1	53274.01	Wipe	—	Hexane	180	1	1		ADB			EV2	
2	↓ .02	↓	↓	↓	↓	↓	↓	↓	↓			↓	
3	53273.01	Soil	20.0										
4	.02	↓	20.3										
5	.03		20.2										
6	.04		20.1					1					MS of .03
7	.05		20.0					1					MSD of .03
8	.06		20.0										
9	.07		20.1										
10	.08		20.0										
11	.09		20.2										
12	.10		20.2										
13	.11		20.0										
14	.12		20.0										
15	.13		20.2										
16	.14		20.0							X			
17	.15	↓	20.0	↓	↓	↓	↓		↓	X		↓	
18													
19													
20													

Reviewed by: 7/23/12 On: AB

Effective Date 8/1/2011

Prepared by: Merit Laboratories, Inc.

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 12

69778

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: SUSAN HOERTT
COMPANY: HALEY & ALDRICH
ADDRESS: 8899 GANDER CREEK DR
CITY: MIAMISBURG STATE: OH ZIP CODE: 45342
PHONE NO.: 937.530.1408 FAX NO.: 937.530.1458 P.O. NO.: —
E-MAIL ADDRESS: SHoertt@haleyaldrich.com QUOTE NO.: —

INVOICE TO

CONTACT NAME: MELNIE SATANEK ☐ SAME
COMPANY: HALEY & ALDRICH
ADDRESS: 5755 GRANGER RD STE 320
CITY: CLEVELAND STATE: OH ZIP CODE: 44131
PHONE NO.: 216.706.1320 E-MAIL ADDRESS: MSatanek@haleyaldrich.com

PROJECT NO./NAME: RACER GMPT LIVONIA
SAMPLER(S) - PLEASE PRINT/SIGN NAME: CODY BALLEW/C. Ballew

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☒ LEVEL III ☒ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	HAL TCL VOC	PAH	PCB TCL PCB	MICHIGAN 10 METALS								
53273.01	07-18-12	0100	0908-071812-0001	TB	1						1		X											
.01		1430	SB132 (07-18-12)(20-22)	S	2	1					1		X	X	X	X								
.02		1600	SB130 (07-18-12)(16-18)		2	1					1		X	X	X	X								
.03	07-19-12	0840	SB159 (07-19-12)(7-9)		5	2					3		X	X	X	X								ADD'L VOL. FOR MS/MSD
.04		0915	SB158 (07-19-12)(3-5)		2	1					1		X	X	X	X								
.07		1340	SB138 (07-19-12)(22.5-24.5)		2	1					1		X	X	X	X								
.08		1500	SB140 (07-19-12)(10-12)		2	1					1		X	X	X	X								
.09		1640	SB118 (07-19-12)(2-4)		2	1					1		X	X	X	X								
.10	07-20-12	0815	SB171 (07-20-12)(10-12)		2	1					1		X	X	X	X								
.11			DUP1 (07-20-12)		2	1					1		X	X	X	X								
.12		1040	~~SB146~~ SB147 (07-20-12)(8-10)		2	1					1		X	X	X	X								
.13		1130	SB148 (07-20-12)(2.5-4.5)		2	1					1		X	X	X	X								

RELINQUISHED BY: SIGNATURE/ORGANIZATION		☒ Sampler	DATE	TIME
C. Ballew			07/20/12	1354
RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE	TIME
			7-20-12	1402
RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
		7-20-12	1520
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
Andrew Bell		7/20/12	1520
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

NOTES: TEMP. ON ARRIVAL 3.2

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev 1.15.12

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C.O.C. PAGE # 2 OF 2

69779

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: SUSAN HOERTT
COMPANY: HALEY : ALDRICH
ADDRESS: 8899 GNDER CREEK DR.
CITY: MIAMISBURG STATE: OH ZIP CODE: 45342
PHONE NO.: 937.530.1408 FAX NO.: 937.530.1458 P.O. NO.: —
E-MAIL ADDRESS: SHoertt@haleyaldrich.com QUOTE NO.: —

INVOICE TO

CONTACT NAME: MELANIE STAINER ☐ SAME
COMPANY: HALEY : ALDRICH
ADDRESS: 5755 GRANGER RD
CITY: CLEVELAND STATE: OH ZIP CODE: 44131
PHONE NO.: 216.706.1320 E-MAIL ADDRESS: Mstainer@haleyaldrich.com

PROJECT NO./NAME: RACER GMPT LIVONIA SAMPLER(S) - PLEASE PRINT/SIGN NAME

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☒ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TCL VOC	PAH	TCL PCB	Michigan 10 Metals	
	07/20/12	1340	SB150(07-20-12)(2-4)	S	2	1				1							
	↓	—	DUP2(07-20-12)	S	2	1				1							

07/20/12

RELINQUISHED BY: SIGNATURE/ORGANIZATION	☒ Sampler	DATE	TIME
C. Boyle		07/20/12	1354
		7-20-12	1900
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
	7-20-12	1520
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
	205412	1520

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS

NOTES: TEMP. ON ARRIVAL 5.2

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S53273
Client: HALEYALDRICH (Haley & Aldrich)
Project: RACER GMPT Livonia
Submitted: 07/20/2012 15:20 Login User: TSF

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.2
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☐ Yes	☒ No	☐ N/A	COC adequately filled out	Trip Blank not recieved (09 08-071812-001)
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☐ Yes	☒ No	☐ N/A	Sample tag on bottles match COC	2 MeOH bottles labeled SB157, belong to SB159. 2 MeOH bottles not labeled, belong to SB118 and SB148, determined by color and field notes (118-brown pale sand very loose,148-brown-gray clay).Trip blank not received. Okay per Corey ASB 7-20-12
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Accounts Payable

Address: Haley & Aldrich, Inc.
70 Blanchard Rd.
Ste. 430
Burlington, MA 01803-5100

Phone: 617-886-7400 FAX: 617-886-7900

Email: Haley Aldrich Invoice Group

Set ID: S53273 Location: HALEYALDRICH (Haley & Aldrich)

Project: RACER GMPT Livonia PO #: PO53273 Site: Site# 1195

Submitted: 07/20/2012 15:20 Due Date: 08/03/2012 Collected by: Corey Barnett Login by: TSF

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S53273.01	SB-132 (07-18-12)(20-22)	Soil	07/18/2012 14:30	69778
S53273.02	SB-130 (07-18-12)(16-18)	Soil	07/18/2012 16:00	69778
S53273.03	SB-159 (07-19-12)(7-9)	Soil	07/19/2012 08:40	69778
S53273.04	SB-159 (07-19-12)(7-9) MS	Soil	07/19/2012 08:40	69778
S53273.05	SB-159 (07-19-12)(7-9) MSD	Soil	07/19/2012 08:40	69778
S53273.06	SB-158 (07-19-12)(3-5)	Soil	07/19/2012 09:15	69778
S53273.07	SB-138 (07-19-12)(22.5-24.5)	Soil	07/19/2012 13:40	69778
S53273.08	SB-140 (07-19-12)(10-12)	Soil	07/19/2012 15:00	69778
S53273.09	SB-118 (07-19-12)(2-4)	Soil	07/19/2012 16:40	69778
S53273.10	SB-171 (07-20-12)(10-12)	Soil	07/20/2012 08:15	69778
S53273.11	DUP 1 (07-20-12)	Soil	07/20/2012 00:01	69778
S53273.12	SB-147 (07-20-12) (8-10)	Soil	07/20/2012 10:40	69778
S53273.13	SB-148 (07-20-12) (2.5-4.5)	Soil	07/20/2012 11:30	69778
S53273.14	SB-150 (07-20-12) (2-4)	Soil	07/20/2012 13:40	69779
S53273.15	DUP2 (07-20-12)	Soil	07/20/2012 00:01	69779

Samples: S53273.01-15

Analysis Code	Analysis Title	Method	Units	Holding Date
1605S	Metal Digestion	3050B		01/14/2013
PNAEXTS	Semi Volatile Extraction	3550B		08/01/2012
1120S	Extraction, PCB	3550B		08/01/2012
4605	Total Solids	Std M 2540 B	%	08/15/2012
$58260TCL	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	mg/kg	08/01/2012
$PNA8270	Polynuclear Aromatics	SW8270C	mg/kg	08/27/2012
2115SMS	Arsenic	SW6020	mg/kg	01/14/2013
2120SMS	Barium	SW6020	mg/kg	01/14/2013
2135SMS	Cadmium	SW6020	mg/kg	01/14/2013
2145SMS	Chromium	SW6020	mg/kg	01/14/2013
2155SMS	Copper	SW6020	mg/kg	01/14/2013
2165SMS	Lead	SW6020	mg/kg	01/14/2013
2185S	Mercury	SW7471A	mg/kg	08/15/2012
2205SMS	Selenium	SW6020	mg/kg	01/14/2013
2215SMS	Silver	SW6020	mg/kg	01/14/2013
2245SMS	Zinc	SW6020	mg/kg	01/14/2013
1605HGS	Mercury Digestion	SW7471A		08/15/2012
$TCL8082C1	TCL PCB List (Column 1)	SW8082A	mg/kg	08/27/2012
$TCL8082C2	TCL PCB List (Column 2)	SW8082A	mg/kg	08/27/2012
METHEXT	5035 Methanol Extraction	5035		04/13/2015

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HALEY & ALDRICH
RACER GMPT LIVONIA

SDG Batch:
53345

Pages 1 - 562

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FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

HALEY & ALDRICH

PROJECT:
RACER GMPT LIVONIA

SDG Batch:
53345.01

Prepared by:
Merit Laboratories, Inc.

August 21, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53345.01 - .16

	References		Pages		Checklist	
Deliverable	**Merit**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	75	☑	☐
4. **Volatiles Data**			76	229		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			230	327		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
6. **PCB Data**			328	418		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
c. Standards Data (All Instruments)						
Initial Calibration of Multicomponent Data	F. 6	F. VI			☑	☐
Chromatograms and Quantitation Reports for all IC Standards					☑	☐
Calibration Check Standard	F. 7b	F. VII			☑	☐
Chromatograms and Quantitation Reports for all CC Standards					☑	☐
d. Raw QC Data						
Chromatograms and Quantitation Reports - Column 1					☑	☐
Chromatograms and Quantitation Reports - Column 2					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
10. **Miscellaneous Data**			556	558		
Preparation / Extraction logbooks					☑	☐
11. **Shipping / Receiving Documents**			559	562		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53345.01 - .16

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	75	☑	☐
7. **ICP/MS Metals Data**			419	527		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
8. **Mercury Data**			528	553		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
9. **Total Solids Data**			554	555		
Bench Sheet - sample and QC sample evaluation					☑	☐
11. **Shipping / Receiving Documents**			559	562		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: RACER GMPT LIVONIA
Merit IDs: S53345.01-S53345.16

Field Sampling: Corey Barnett performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (07/26/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None.

Notes: Dilution test not applicable if measured concentration is less than 100 times MDL.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Prep Batch SP120731S01

- The LCS/LCSD had high RPDs for the compounds Naphthalene, 2-Methylnaphthalene, 1-Methylnaphthalene, Acenaphthene, Acenaphthylene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)anthracene, and Benzo(ghi)perylene.

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120802A5:

- The CCC had the compounds Acetone and 2-Butanone (MEK) outside of control limits.

PCBs: The organic method utilized for this SDG was 8082A (GC/ECD). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barbara Ball

Barb Ball
QA Officer

08/20/12
Date

Analytical Laboratory Report

Report ID: S53345.01(01)
Generated on 08/03/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53345.01-S53345.16
Project: RACER GMPT Livonia
Collected Date: 07/23/2012 - 07/26/2012
Submitted Date/Time: 07/26/2012 12:30
Sampled by: Corey Barnett
P.O. #: PO12727

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (16 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S53345.01	0908-072312-0001	Methanol	07/23/2012 01:00
S53345.02	SB168-(07-23-12) (6-8)	Soil	07/23/2012 11:20
S53345.03	SB137-(07-23-12) (22-24)	Soil	07/23/2012 13:15
S53345.04	SB136-(07-23-12) (22-24)	Soil	07/23/2012 15:20
S53345.05	SB139-(07-24-12) (22-24)	Soil	07/24/2012 08:30
S53345.06	SB135-(07-24-12) (2-4)	Soil	07/24/2012 10:35
S53345.07	SB166-(07-24-12) (4-6)	Soil	07/24/2012 12:40
S53345.08	DUP3-(07-24-12)	Soil	07/24/2012 00:01
S53345.09	SB152-(07-24-12) (4-6)	Soil	07/24/2012 14:00
S53345.10	SB167-(07-24-12) (2-4)	Soil	07/24/2012 16:30
S53345.11	SB126-(07-25-12) (24-26)	Soil	07/25/2012 08:50
S53345.12	SB153-(07-25-12) (3.5-5.5)	Soil	07/25/2012 10:40
S53345.13	SB107-(07-25-12) (3-5)	Soil	07/25/2012 13:30
S53345.14	SB111-(07-25-12) (0.5-2.5)	Soil	07/25/2012 14:30
S53345.15	SB110-(07-25-12) (0.5-2.5)	Soil	07/25/2012 15:30
S53345.16	SB119-(07-26-12) (3-5)	Soil	07/26/2012 09:15

Analytical Laboratory Report

Lab Sample ID: S53345.01
Sample Tag: 0908-072312-0001
Collected Date/Time: 07/23/2012 01:00
Matrix: Methanol
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 14:58	WAT	76-13-1	
Acetone	Not detected	ug/kg	750	5035/8260B	08/02/12 14:58	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 14:58	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 14:58	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 14:58	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	750	5035/8260B	08/02/12 14:58	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 14:58	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 14:58	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 14:58	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 14:58	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 14:58	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 14:58	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	156-59-2	
Chloroform	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 14:58	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 14:58	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	56-23-5	
Benzene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	10061-01-5	
Toluene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT		
o-Xylene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	95-47-6	
Styrene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	100-42-5	

Lab Sample ID: S53345.01 (continued)
Sample Tag: 0908-072312-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Isopropylbenzene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	98-82-8	
Bromoform	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	50	5035/8260B	08/02/12 14:58	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 14:58	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.02
Sample Tag: SB168-(07-23-12) (6-8)
Collected Date/Time: 07/23/2012 11:20
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	79	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	2.28	mg/kg	0.20	SW6020	08/01/12 13:10	PER	7440-38-2	
Barium	47.9	mg/kg	1.0	SW6020	08/01/12 13:10	PER	7440-39-3	
Cadmium	0.21	mg/kg	0.20	SW6020	08/01/12 13:10	PER	7440-43-9	
Chromium	6.47	mg/kg	0.50	SW6020	08/01/12 13:10	PER	7440-47-3	
Copper	11.6	mg/kg	0.50	SW6020	08/01/12 13:10	PER	7440-50-8	
Lead	7.24	mg/kg	0.30	SW6020	08/01/12 13:10	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 15:37	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 13:10	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 13:10	PER	7440-22-4	
Zinc	31.2	mg/kg	1.0	SW6020	08/01/12 13:10	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 11:42	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	83-32-9	

Lab Sample ID: S53345.02 (continued)
Sample Tag: SB168-(07-23-12) (6-8)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 17:40	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	200	5035/8260B	08/02/12 15:18	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,200	5035/8260B	08/02/12 15:18	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/02/12 15:18	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/02/12 15:18	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/02/12 15:18	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,200	5035/8260B	08/02/12 15:18	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/02/12 15:18	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	200	5035/8260B	08/02/12 15:18	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/02/12 15:18	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/02/12 15:18	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	5035/8260B	08/02/12 15:18	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/02/12 15:18	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	156-59-2	
Chloroform	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/02/12 15:18	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/02/12 15:18	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	56-23-5	
Benzene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	108-87-2	

Lab Sample ID: S53345.02 (continued)
Sample Tag: SB168-(07-23-12) (6-8)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	10061-01-5	
Toluene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT		
o-Xylene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	95-47-6	
Styrene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	98-82-8	
Bromoform	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	80	5035/8260B	08/02/12 15:18	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	200	5035/8260B	08/02/12 15:18	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.03
Sample Tag: SB137-(07-23-12) (22-24)
Collected Date/Time: 07/23/2012 13:15
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	86	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	7.03	mg/kg	0.20	SW6020	08/01/12 13:15	PER	7440-38-2	
Barium	47.6	mg/kg	1.0	SW6020	08/01/12 13:15	PER	7440-39-3	
Cadmium	0.20	mg/kg	0.20	SW6020	08/01/12 13:15	PER	7440-43-9	
Chromium	5.79	mg/kg	0.50	SW6020	08/01/12 13:15	PER	7440-47-3	
Copper	17.5	mg/kg	0.50	SW6020	08/01/12 13:15	PER	7440-50-8	
Lead	9.04	mg/kg	0.30	SW6020	08/01/12 13:15	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 15:39	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 13:15	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 13:15	PER	7440-22-4	
Zinc	31.6	mg/kg	1.0	SW6020	08/01/12 13:15	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 11:52	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	83-32-9	

Lab Sample ID: S53345.03 (continued)
Sample Tag: SB137-(07-23-12) (22-24)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 17:59	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 15:38	WAT	76-13-1	
Acetone	Not detected	ug/kg	980	5035/8260B	08/02/12 15:38	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 15:38	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 15:38	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 15:38	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	980	5035/8260B	08/02/12 15:38	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 15:38	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 15:38	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 15:38	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 15:38	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 15:38	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 15:38	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 15:38	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 15:38	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	75-27-4	
Methyl cyclohexane	150	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	108-87-2	

Lab Sample ID: S53345.03 (continued)
Sample Tag: SB137-(07-23-12) (22-24)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:38	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 15:38	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.04
Sample Tag: SB136-(07-23-12) (22-24)
Collected Date/Time: 07/23/2012 15:20
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	4.75	mg/kg	0.20	SW6020	08/01/12 13:17	PER	7440-38-2	
Barium	61.8	mg/kg	1.0	SW6020	08/01/12 13:17	PER	7440-39-3	
Cadmium	0.25	mg/kg	0.20	SW6020	08/01/12 13:17	PER	7440-43-9	
Chromium	6.83	mg/kg	0.50	SW6020	08/01/12 13:17	PER	7440-47-3	
Copper	16.3	mg/kg	0.50	SW6020	08/01/12 13:17	PER	7440-50-8	
Lead	9.09	mg/kg	0.30	SW6020	08/01/12 13:17	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 15:41	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 13:17	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 13:17	PER	7440-22-4	
Zinc	39.1	mg/kg	1.0	SW6020	08/01/12 13:17	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:03	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	83-32-9	

Lab Sample ID: S53345.04 (continued)
Sample Tag: SB136-(07-23-12) (22-24)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 18:18	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 15:59	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	08/02/12 15:59	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 15:59	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 15:59	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 15:59	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	08/02/12 15:59	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 15:59	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 15:59	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 15:59	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 15:59	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 15:59	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 15:59	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 15:59	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 15:59	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	75-27-4	
Methyl cyclohexane	220	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	108-87-2	

Lab Sample ID: S53345.04 (continued)
Sample Tag: SB136-(07-23-12) (22-24)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/02/12 15:59	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 15:59	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.05
Sample Tag: SB139-(07-24-12) (22-24)
Collected Date/Time: 07/24/2012 08:30
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	79	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	0.94	mg/kg	0.20	SW6020	08/01/12 13:19	PER	7440-38-2	
Barium	5.51	mg/kg	1.0	SW6020	08/01/12 13:19	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 13:19	PER	7440-43-9	
Chromium	1.32	mg/kg	0.50	SW6020	08/01/12 13:19	PER	7440-47-3	
Copper	3.36	mg/kg	0.50	SW6020	08/01/12 13:19	PER	7440-50-8	
Lead	2.35	mg/kg	0.30	SW6020	08/01/12 13:19	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 15:46	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 13:19	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 13:19	PER	7440-22-4	
Zinc	12.4	mg/kg	1.0	SW6020	08/01/12 13:19	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:13	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	83-32-9	

Lab Sample ID: S53345.05 (continued)
Sample Tag: SB139-(07-24-12) (22-24)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 18:38	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	200	5035/8260B	08/02/12 16:19	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,200	5035/8260B	08/02/12 16:19	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/02/12 16:19	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/02/12 16:19	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/02/12 16:19	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,200	5035/8260B	08/02/12 16:19	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/02/12 16:19	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	200	5035/8260B	08/02/12 16:19	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/02/12 16:19	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/02/12 16:19	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	5035/8260B	08/02/12 16:19	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/02/12 16:19	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	156-59-2	
Chloroform	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/02/12 16:19	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/02/12 16:19	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	56-23-5	
Benzene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	108-87-2	

Lab Sample ID: S53345.05 (continued)
Sample Tag: SB139-(07-24-12) (22-24)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	10061-01-5	
Toluene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT		
o-Xylene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	95-47-6	
Styrene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	98-82-8	
Bromoform	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	80	5035/8260B	08/02/12 16:19	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	200	5035/8260B	08/02/12 16:19	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.06
Sample Tag: SB135-(07-24-12) (2-4)
Collected Date/Time: 07/24/2012 10:35
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	2.01	mg/kg	0.20	SW6020	08/01/12 13:21	PER	7440-38-2	
Barium	16.2	mg/kg	1.0	SW6020	08/01/12 13:21	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 13:21	PER	7440-43-9	
Chromium	2.80	mg/kg	0.50	SW6020	08/01/12 13:21	PER	7440-47-3	
Copper	4.56	mg/kg	0.50	SW6020	08/01/12 13:21	PER	7440-50-8	
Lead	3.19	mg/kg	0.30	SW6020	08/01/12 13:21	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 15:43	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 13:21	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 13:21	PER	7440-22-4	
Zinc	14.1	mg/kg	1.0	SW6020	08/01/12 13:21	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:24	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	83-32-9	

Lab Sample ID: S53345.06 (continued)
Sample Tag: SB135-(07-24-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 22:08	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 16:39	WAT	76-13-1	
Acetone	Not detected	ug/kg	900	5035/8260B	08/02/12 16:39	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 16:39	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 16:39	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 16:39	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	900	5035/8260B	08/02/12 16:39	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 16:39	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 16:39	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 16:39	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 16:39	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 16:39	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 16:39	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 16:39	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 16:39	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	108-87-2	

Lab Sample ID: S53345.06 (continued)
Sample Tag: SB135-(07-24-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:39	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 16:39	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.07
Sample Tag: SB166-(07-24-12) (4-6)
Collected Date/Time: 07/24/2012 12:40
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	94	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	1.43	mg/kg	0.20	SW6020	08/01/12 13:24	PER	7440-38-2	
Barium	7.46	mg/kg	1.0	SW6020	08/01/12 13:24	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 13:24	PER	7440-43-9	
Chromium	2.47	mg/kg	0.50	SW6020	08/01/12 13:24	PER	7440-47-3	
Copper	16.2	mg/kg	0.50	SW6020	08/01/12 13:24	PER	7440-50-8	
Lead	3.75	mg/kg	0.30	SW6020	08/01/12 13:24	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 15:57	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 13:24	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 13:24	PER	7440-22-4	
Zinc	12.3	mg/kg	1.0	SW6020	08/01/12 13:24	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:34	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	83-32-9	

Lab Sample ID: S53345.07 (continued)
Sample Tag: SB166-(07-24-12) (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 18:57	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 16:59	WAT	76-13-1	
Acetone	Not detected	ug/kg	860	5035/8260B	08/02/12 16:59	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 16:59	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 16:59	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 16:59	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	860	5035/8260B	08/02/12 16:59	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 16:59	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 16:59	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 16:59	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 16:59	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 16:59	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 16:59	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 16:59	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 16:59	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	108-87-2	

Lab Sample ID: S53345.07 (continued)
Sample Tag: SB166-(07-24-12) (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 16:59	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 16:59	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.08
Sample Tag: DUP3-(07-24-12)
Collected Date/Time: 07/24/2012 00:01
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	88	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	1.52	mg/kg	0.20	SW6020	08/01/12 13:26	PER	7440-38-2	
Barium	9.32	mg/kg	1.0	SW6020	08/01/12 13:26	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 13:26	PER	7440-43-9	
Chromium	2.08	mg/kg	0.50	SW6020	08/01/12 13:26	PER	7440-47-3	
Copper	6.56	mg/kg	0.50	SW6020	08/01/12 13:26	PER	7440-50-8	
Lead	4.08	mg/kg	0.30	SW6020	08/01/12 13:26	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 15:59	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 13:26	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 13:26	PER	7440-22-4	
Zinc	11.8	mg/kg	1.0	SW6020	08/01/12 13:26	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:44	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:44	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:44	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:44	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:44	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:44	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:44	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:45	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:45	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:45	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:45	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:45	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:45	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:45	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	83-32-9	

Lab Sample ID: S53345.08 (continued)
Sample Tag: DUP3-(07-24-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 19:16	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 17:20	WAT	76-13-1	
Acetone	Not detected	ug/kg	940	5035/8260B	08/02/12 17:20	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 17:20	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 17:20	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 17:20	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	940	5035/8260B	08/02/12 17:20	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 17:20	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 17:20	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 17:20	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 17:20	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 17:20	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 17:20	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 17:20	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 17:20	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	108-87-2	

Lab Sample ID: S53345.08 (continued)
Sample Tag: DUP3-(07-24-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:20	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 17:20	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.09
Sample Tag: SB152-(07-24-12) (4-6)
Collected Date/Time: 07/24/2012 14:00
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	Not detected	mg/kg	0.20	SW6020	08/01/12 13:28	PER	7440-38-2	
Barium	9.21	mg/kg	1.0	SW6020	08/01/12 13:28	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 13:28	PER	7440-43-9	
Chromium	2.89	mg/kg	0.50	SW6020	08/01/12 13:28	PER	7440-47-3	
Copper	1.65	mg/kg	0.50	SW6020	08/01/12 13:28	PER	7440-50-8	
Lead	2.24	mg/kg	0.30	SW6020	08/01/12 13:28	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 16:01	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 13:28	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 13:28	PER	7440-22-4	
Zinc	11.3	mg/kg	1.0	SW6020	08/01/12 13:28	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:58	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	83-32-9	X

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53345.09 (continued)
Sample Tag: SB152-(07-24-12) (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	208-96-8	X
Anthracene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	120-12-7	X
Benzo(a)anthracene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	56-55-3	X
Benzo(a)pyrene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	50-32-8	X
Benzo(b)fluoranthene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	205-99-2	X
Benzo(k)fluoranthene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	207-08-9	X
Benzo(ghi)perylene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	191-24-2	X
Chrysene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	53-70-3	X
Fluoranthene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	206-44-0	X
Fluorene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	86-73-7	X
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	193-39-5	X
Naphthalene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	91-20-3	X
Phenanthrene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	85-01-8	X
Pyrene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	700	SW8270C	08/01/12 22:47	PL	90-12-0	X
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 17:40	WAT	76-13-1	
Acetone	Not detected	ug/kg	960	5035/8260B	08/02/12 17:40	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 17:40	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 17:40	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 17:40	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	960	5035/8260B	08/02/12 17:40	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 17:40	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 17:40	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 17:40	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 17:40	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 17:40	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 17:40	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 17:40	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 17:40	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	75-27-4	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53345.09 (continued)
Sample Tag: SB152-(07-24-12) (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	100-41-4	
p,m-Xylene	220	ug/kg	60	5035/8260B	08/02/12 17:40	WAT		
o-Xylene	80	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 17:40	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 17:40	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.10
Sample Tag: SB167-(07-24-12) (2-4)
Collected Date/Time: 07/24/2012 16:30
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	79	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	Not detected	mg/kg	0.20	SW6020	08/01/12 14:22	PER	7440-38-2	
Barium	24.0	mg/kg	1.0	SW6020	08/01/12 14:22	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 14:22	PER	7440-43-9	
Chromium	3.61	mg/kg	0.50	SW6020	08/01/12 14:22	PER	7440-47-3	
Copper	2.56	mg/kg	0.50	SW6020	08/01/12 14:22	PER	7440-50-8	
Lead	2.36	mg/kg	0.30	SW6020	08/01/12 14:22	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 16:04	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 14:22	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 14:22	PER	7440-22-4	
Zinc	8.42	mg/kg	1.0	SW6020	08/01/12 14:22	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 14:19	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	83-32-9	X

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53345.10 (continued)
Sample Tag: SB167-(07-24-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	208-96-8	X
Anthracene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	120-12-7	X
Benzo(a)anthracene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	56-55-3	X
Benzo(a)pyrene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	50-32-8	X
Benzo(b)fluoranthene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	205-99-2	X
Benzo(k)fluoranthene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	207-08-9	X
Benzo(ghi)perylene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	191-24-2	X
Chrysene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	53-70-3	X
Fluoranthene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	206-44-0	X
Fluorene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	86-73-7	X
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	193-39-5	X
Naphthalene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	91-20-3	X
Phenanthrene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	85-01-8	X
Pyrene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	400	SW8270C	08/01/12 22:27	PL	90-12-0	X
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	200	5035/8260B	08/02/12 18:00	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	08/02/12 18:00	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/02/12 18:00	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/02/12 18:00	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/02/12 18:00	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	08/02/12 18:00	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/02/12 18:00	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	200	5035/8260B	08/02/12 18:00	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/02/12 18:00	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/02/12 18:00	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	5035/8260B	08/02/12 18:00	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/02/12 18:00	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	156-59-2	
Chloroform	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/02/12 18:00	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/02/12 18:00	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	56-23-5	
Benzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	75-27-4	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53345.10 (continued)
Sample Tag: SB167-(07-24-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Methyl cyclohexane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	10061-01-5	
Toluene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT		
o-Xylene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	95-47-6	
Styrene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	98-82-8	
Bromoform	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:00	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	200	5035/8260B	08/02/12 18:00	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.11
Sample Tag: SB126-(07-25-12) (24-26)
Collected Date/Time: 07/25/2012 08:50
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	4.55	mg/kg	0.20	SW6020	08/01/12 14:24	PER	7440-38-2	
Barium	61.3	mg/kg	1.0	SW6020	08/01/12 14:24	PER	7440-39-3	
Cadmium	0.25	mg/kg	0.20	SW6020	08/01/12 14:24	PER	7440-43-9	
Chromium	9.39	mg/kg	0.50	SW6020	08/01/12 14:24	PER	7440-47-3	
Copper	19.8	mg/kg	0.50	SW6020	08/01/12 14:24	PER	7440-50-8	
Lead	8.34	mg/kg	0.30	SW6020	08/01/12 14:24	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 16:06	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 14:24	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 14:24	PER	7440-22-4	
Zinc	37.1	mg/kg	1.0	SW6020	08/01/12 14:24	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 12:55	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	83-32-9	

Lab Sample ID: S53345.11 (continued)
Sample Tag: SB126-(07-25-12) (24-26)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 19:35	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 18:21	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	08/02/12 18:21	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 18:21	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 18:21	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 18:21	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	08/02/12 18:21	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 18:21	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 18:21	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 18:21	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 18:21	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 18:21	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 18:21	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 18:21	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 18:21	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	75-27-4	
Methyl cyclohexane	190	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	108-87-2	

Lab Sample ID: S53345.11 (continued)
Sample Tag: SB126-(07-25-12) (24-26)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/02/12 18:21	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 18:21	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.12
Sample Tag: SB153-(07-25-12) (3.5-5.5)
Collected Date/Time: 07/25/2012 10:40
Matrix: Soil
COC Reference: 69771

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	80	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	2.07	mg/kg	0.20	SW6020	08/01/12 14:26	PER	7440-38-2	
Barium	51.7	mg/kg	1.0	SW6020	08/01/12 14:26	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 14:26	PER	7440-43-9	
Chromium	4.63	mg/kg	0.50	SW6020	08/01/12 14:26	PER	7440-47-3	
Copper	8.63	mg/kg	0.50	SW6020	08/01/12 14:26	PER	7440-50-8	
Lead	5.21	mg/kg	0.30	SW6020	08/01/12 14:26	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 16:08	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 14:26	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 14:26	PER	7440-22-4	
Zinc	21.0	mg/kg	1.0	SW6020	08/01/12 14:26	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:05	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:05	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:05	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:05	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:05	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:05	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:05	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:06	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:06	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:06	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:06	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:06	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:06	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:06	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	83-32-9	

Lab Sample ID: S53345.12 (continued)
Sample Tag: SB153-(07-25-12) (3.5-5.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 19:54	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	200	5035/8260B	08/02/12 18:42	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	08/02/12 18:42	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/02/12 18:42	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/02/12 18:42	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/02/12 18:42	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	08/02/12 18:42	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/02/12 18:42	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	200	5035/8260B	08/02/12 18:42	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/02/12 18:42	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/02/12 18:42	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	5035/8260B	08/02/12 18:42	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/02/12 18:42	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	156-59-2	
Chloroform	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/02/12 18:42	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/02/12 18:42	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	56-23-5	
Benzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	108-87-2	

Lab Sample ID: S53345.12 (continued)
Sample Tag: SB153-(07-25-12) (3.5-5.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	10061-01-5	
Toluene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT		
o-Xylene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	95-47-6	
Styrene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	98-82-8	
Bromoform	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	80	5035/8260B	08/02/12 18:42	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	200	5035/8260B	08/02/12 18:42	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.13
Sample Tag: SB107-(07-25-12) (3-5)
Collected Date/Time: 07/25/2012 13:30
Matrix: Soil
COC Reference: 69772

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	88	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	Not detected	mg/kg	0.20	SW6020	08/01/12 14:28	PER	7440-38-2	
Barium	14.2	mg/kg	1.0	SW6020	08/01/12 14:28	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 14:28	PER	7440-43-9	
Chromium	1.04	mg/kg	0.50	SW6020	08/01/12 14:28	PER	7440-47-3	
Copper	0.58	mg/kg	0.50	SW6020	08/01/12 14:28	PER	7440-50-8	
Lead	2.06	mg/kg	0.30	SW6020	08/01/12 14:28	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 16:10	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 14:28	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 14:28	PER	7440-22-4	
Zinc	1.89	mg/kg	1.0	SW6020	08/01/12 14:28	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:16	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	83-32-9	

Lab Sample ID: S53345.13 (continued)
Sample Tag: SB107-(07-25-12) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 20:13	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 19:02	WAT	76-13-1	
Acetone	Not detected	ug/kg	960	5035/8260B	08/02/12 19:02	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 19:02	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 19:02	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 19:02	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	960	5035/8260B	08/02/12 19:02	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 19:02	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 19:02	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 19:02	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 19:02	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 19:02	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 19:02	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 19:02	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 19:02	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	108-87-2	

Lab Sample ID: S53345.13 (continued)
Sample Tag: SB107-(07-25-12) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:02	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 19:02	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.14
Sample Tag: SB111-(07-25-12) (0.5-2.5)
Collected Date/Time: 07/25/2012 14:30
Matrix: Soil
COC Reference: 69772

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	94	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	1.31	mg/kg	0.20	SW6020	08/01/12 14:30	PER	7440-38-2	
Barium	11.1	mg/kg	1.0	SW6020	08/01/12 14:30	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 14:30	PER	7440-43-9	
Chromium	2.06	mg/kg	0.50	SW6020	08/01/12 14:30	PER	7440-47-3	
Copper	3.30	mg/kg	0.50	SW6020	08/01/12 14:30	PER	7440-50-8	
Lead	2.66	mg/kg	0.30	SW6020	08/01/12 14:30	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 16:12	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 14:30	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 14:30	PER	7440-22-4	
Zinc	9.71	mg/kg	1.0	SW6020	08/01/12 14:30	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:26	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	83-32-9	

Lab Sample ID: S53345.14 (continued)
Sample Tag: SB111-(07-25-12) (0.5-2.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 20:32	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 19:22	WAT	76-13-1	
Acetone	Not detected	ug/kg	840	5035/8260B	08/02/12 19:22	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 19:22	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 19:22	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 19:22	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	840	5035/8260B	08/02/12 19:22	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 19:22	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 19:22	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 19:22	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 19:22	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 19:22	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 19:22	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 19:22	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 19:22	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	108-87-2	

Lab Sample ID: S53345.14 (continued)
Sample Tag: SB111-(07-25-12) (0.5-2.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:22	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 19:22	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.15
Sample Tag: SB110-(07-25-12) (0.5-2.5)
Collected Date/Time: 07/25/2012 15:30
Matrix: Soil
COC Reference: 69772

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	92	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	1.32	mg/kg	0.20	SW6020	08/01/12 14:32	PER	7440-38-2	
Barium	13.0	mg/kg	1.0	SW6020	08/01/12 14:32	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 14:32	PER	7440-43-9	
Chromium	2.58	mg/kg	0.50	SW6020	08/01/12 14:32	PER	7440-47-3	
Copper	3.89	mg/kg	0.50	SW6020	08/01/12 14:32	PER	7440-50-8	
Lead	3.13	mg/kg	0.30	SW6020	08/01/12 14:32	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 16:15	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 14:32	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 14:32	PER	7440-22-4	
Zinc	9.71	mg/kg	1.0	SW6020	08/01/12 14:32	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:37	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	83-32-9	

Lab Sample ID: S53345.15 (continued)
Sample Tag: SB110-(07-25-12) (0.5-2.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 20:52	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 19:42	WAT	76-13-1	
Acetone	Not detected	ug/kg	890	5035/8260B	08/02/12 19:42	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 19:42	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 19:42	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 19:42	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	890	5035/8260B	08/02/12 19:42	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 19:42	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 19:42	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 19:42	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 19:42	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 19:42	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 19:42	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 19:42	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 19:42	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	108-87-2	

Lab Sample ID: S53345.15 (continued)
Sample Tag: SB110-(07-25-12) (0.5-2.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/02/12 19:42	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 19:42	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53345.16
Sample Tag: SB119-(07-26-12) (3-5)
Collected Date/Time: 07/26/2012 09:15
Matrix: Soil
COC Reference: 69772

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.4	IR
1	4oz Glass	None	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	07/30/12 12:20	CCM		
Mercury Digestion	Completed			SW7471A	07/30/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/01/12 09:00	PER		
PNA Extraction	Completed			3550B	07/31/12 22:17	EMR		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	07/27/12 14:38	MAR		
Metals								
Arsenic	1.64	mg/kg	0.20	SW6020	08/01/12 14:35	PER	7440-38-2	
Barium	26.1	mg/kg	1.0	SW6020	08/01/12 14:35	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 14:35	PER	7440-43-9	
Chromium	4.51	mg/kg	0.50	SW6020	08/01/12 14:35	PER	7440-47-3	
Copper	7.24	mg/kg	0.50	SW6020	08/01/12 14:35	PER	7440-50-8	
Lead	5.43	mg/kg	0.30	SW6020	08/01/12 14:35	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	07/30/12 16:17	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 14:35	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 14:35	PER	7440-22-4	
Zinc	16.1	mg/kg	1.0	SW6020	08/01/12 14:35	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	07/31/12 13:47	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	83-32-9	

Lab Sample ID: S53345.16 (continued)
Sample Tag: SB119-(07-26-12) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/01/12 21:11	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/02/12 20:03	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	08/02/12 20:03	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/02/12 20:03	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/02/12 20:03	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/02/12 20:03	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	08/02/12 20:03	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/02/12 20:03	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/02/12 20:03	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/02/12 20:03	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/02/12 20:03	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/02/12 20:03	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/02/12 20:03	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/02/12 20:03	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/02/12 20:03	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	108-87-2	

Lab Sample ID: S53345.16 (continued)
Sample Tag: SB119-(07-26-12) (3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/02/12 20:03	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/02/12 20:03	WAT	120-82-1	

Quality Control Cover Page

Report ID: S53345.01(01)
Report Date: 08/03/2012
Project: RACER GMPT Livonia
Lab Sample ID(s): S53345.01-S53345.16

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S53345.01	0908-072312-0001	07/23/2012 01:00	Methanol	Extraction / Prep., Organics
S53345.02	SB168-(07-23-12) (6-8)	07/23/2012 11:20	Soil	Extraction / Prep., Inorganics, Metals,
S53345.03	SB137-(07-23-12) (22-24)	07/23/2012 13:15	Soil	Extraction / Prep., Inorganics, Metals,
S53345.04	SB136-(07-23-12) (22-24)	07/23/2012 15:20	Soil	Extraction / Prep., Inorganics, Metals,
S53345.05	SB139-(07-24-12) (22-24)	07/24/2012 08:30	Soil	Extraction / Prep., Inorganics, Metals,
S53345.06	SB135-(07-24-12) (2-4)	07/24/2012 10:35	Soil	Extraction / Prep., Inorganics, Metals,
S53345.07	SB166-(07-24-12) (4-6)	07/24/2012 12:40	Soil	Extraction / Prep., Inorganics, Metals,
S53345.08	DUP3-(07-24-12)	07/24/2012 00:01	Soil	Extraction / Prep., Inorganics, Metals,
S53345.09	SB152-(07-24-12) (4-6)	07/24/2012 14:00	Soil	Extraction / Prep., Inorganics, Metals,
S53345.10	SB167-(07-24-12) (2-4)	07/24/2012 16:30	Soil	Extraction / Prep., Inorganics, Metals,
S53345.11	SB126-(07-25-12) (24-26)	07/25/2012 08:50	Soil	Extraction / Prep., Inorganics, Metals,
S53345.12	SB153-(07-25-12) (3.5-5.5)	07/25/2012 10:40	Soil	Extraction / Prep., Inorganics, Metals,
S53345.13	SB107-(07-25-12) (3-5)	07/25/2012 13:30	Soil	Extraction / Prep., Inorganics, Metals,
S53345.14	SB111-(07-25-12) (0.5-2.5)	07/25/2012 14:30	Soil	Extraction / Prep., Inorganics, Metals,
S53345.15	SB110-(07-25-12) (0.5-2.5)	07/25/2012 15:30	Soil	Extraction / Prep., Inorganics, Metals,
S53345.16	SB119-(07-26-12) (3-5)	07/26/2012 09:15	Soil	Extraction / Prep., Inorganics, Metals,

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S53345.01(01)
Generated on 08/07/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53345.01-S53345.16
Project: RACER GMPT Livonia
Submitted Date/Time: 07/26/2012 12:30
Sampled by: Corey Barnett
P.O. #: PO12727

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-17)
Prep Batch Summary (Pages 18-23)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S53345.01
Sample Tag: 0908-072312-0001
Collected Date/Time: 07/23/2012 01:00
Matrix: Methanol
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 14:58	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.02
Sample Tag: SB168-(07-23-12) (6-8)
Collected Date/Time: 07/23/2012 11:20
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 13:10	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 13:10	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 13:10	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 13:10	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 13:10	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 13:10	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 15:37	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 13:10	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 13:10	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 13:10	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 11:42	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 11:42	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 17:40	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 15:18	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.03
Sample Tag: SB137-(07-23-12) (22-24)
Collected Date/Time: 07/23/2012 13:15
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 13:15	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 13:15	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 13:15	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 13:15	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 13:15	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 13:15	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 15:39	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 13:15	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 13:15	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 13:15	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 11:52	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 11:52	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 17:59	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 15:38	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.04
Sample Tag: SB136-(07-23-12) (22-24)
Collected Date/Time: 07/23/2012 15:20
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 13:17	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 13:17	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 13:17	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 13:17	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 13:17	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 13:17	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 15:41	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 13:17	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 13:17	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 13:17	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 12:03	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 12:03	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 18:18	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 15:59	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.05
Sample Tag: SB139-(07-24-12) (22-24)
Collected Date/Time: 07/24/2012 08:30
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 13:19	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 13:19	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 13:19	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 13:19	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 13:19	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 13:19	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 15:46	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 13:19	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 13:19	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 13:19	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 12:13	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 12:13	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 18:38	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 16:19	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.06
Sample Tag: SB135-(07-24-12) (2-4)
Collected Date/Time: 07/24/2012 10:35
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 13:21	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 13:21	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 13:21	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 13:21	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 13:21	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 13:21	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 15:43	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 13:21	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 13:21	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 13:21	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 12:24	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 12:24	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 22:08	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 16:39	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.07
Sample Tag: SB166-(07-24-12) (4-6)
Collected Date/Time: 07/24/2012 12:40
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 13:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 13:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 13:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 13:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 13:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 13:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 15:57	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 13:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 13:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 13:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 12:34	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 12:34	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 18:57	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 16:59	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.08
Sample Tag: DUP3-(07-24-12)
Collected Date/Time: 07/24/2012 00:01
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 13:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 13:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 13:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 13:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 13:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 13:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 15:59	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 13:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 13:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 13:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 12:44	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 12:45	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 19:16	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 17:20	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.09
Sample Tag: SB152-(07-24-12) (4-6)
Collected Date/Time: 07/24/2012 14:00
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 13:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 13:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 13:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 13:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 13:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 13:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 16:01	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 13:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 13:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 13:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 13:58	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 13:58	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 22:47	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 17:40	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.10
Sample Tag: SB167-(07-24-12) (2-4)
Collected Date/Time: 07/24/2012 16:30
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 14:22	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 14:22	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 14:22	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 14:22	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 14:22	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 14:22	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 16:04	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 14:22	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 14:22	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 14:22	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 14:19	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 14:19	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 22:27	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 18:00	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.11
Sample Tag: SB126-(07-25-12) (24-26)
Collected Date/Time: 07/25/2012 08:50
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 14:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 14:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 14:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 14:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 14:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 14:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 16:06	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 14:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 14:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 14:24	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 12:55	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 12:55	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 19:35	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 18:21	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.12
Sample Tag: SB153-(07-25-12) (3.5-5.5)
Collected Date/Time: 07/25/2012 10:40
Matrix: Soil
COC Reference: 69771

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 14:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 14:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 14:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 14:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 14:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 14:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 16:08	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 14:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 14:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 14:26	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 13:05	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 13:06	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 19:54	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 18:42	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.13
Sample Tag: SB107-(07-25-12) (3-5)
Collected Date/Time: 07/25/2012 13:30
Matrix: Soil
COC Reference: 69772

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C	TS120727C	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 14:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 14:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 14:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 14:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 14:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 14:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 16:10	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 14:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 14:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 14:28	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 13:16	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 13:16	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 20:13	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 19:02	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.14
Sample Tag: SB111-(07-25-12) (0.5-2.5)
Collected Date/Time: 07/25/2012 14:30
Matrix: Soil
COC Reference: 69772

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727D	TS120727D	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 14:30	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 14:30	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 14:30	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 14:30	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 14:30	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 14:30	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 16:12	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 14:30	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 14:30	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 14:30	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 13:26	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 13:26	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 20:32	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 19:22	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

Lab Sample ID: S53345.15
Sample Tag: SB110-(07-25-12) (0.5-2.5)
Collected Date/Time: 07/25/2012 15:30
Matrix: Soil
COC Reference: 69772

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727D	TS120727D	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 14:32	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 14:32	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 14:32	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 14:32	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 14:32	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 14:32	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 16:15	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 14:32	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 14:32	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 14:32	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 13:37	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 13:37	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 20:52	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 19:42	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53345.16
Sample Tag: SB119-(07-26-12) (3-5)
Collected Date/Time: 07/26/2012 09:15
Matrix: Soil
COC Reference: 69772

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/27/12 14:38	TS120727D	TS120727D	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 14:35	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 14:35	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 14:35	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 14:35	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 14:35	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 14:35	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Mercury	SW7471A	07/30/12 16:17	HG2-12-0730A	HGD-073012-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 14:35	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 14:35	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 14:35	MT2-12-0801A	MTD-080112-1	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	07/31/12 13:47	A120731	PA120730S02	Yes	LCS/BLK/LCSD
TCL PCB List (Column 2)	SW8082A	07/31/12 13:47	A120731	PA120730S02	Yes	LCS/BLK/LCSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/01/12 21:11	H120801	SP120731S01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 20:03	120802A5	VF120802S1	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TS120727C

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.02	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.03	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.04	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.05	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.06	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.07	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.08	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.09	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.10	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.11	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.12	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C
S53345.13	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727C

Inorganics, Prep Batch ID: TS120727D

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.14	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727D
S53345.15	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727D
S53345.16	Total Solids	Std M 2540 B	07/27/12 14:38	TS120727D

Metals, Prep Batch ID: HGD-073012-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.02	Mercury	SW7471A	07/30/12 15:37	HG2-12-0730A
S53345.03	Mercury	SW7471A	07/30/12 15:39	HG2-12-0730A
S53345.04	Mercury	SW7471A	07/30/12 15:41	HG2-12-0730A
S53345.05	Mercury	SW7471A	07/30/12 15:46	HG2-12-0730A
S53345.06	Mercury	SW7471A	07/30/12 15:43	HG2-12-0730A
S53345.07	Mercury	SW7471A	07/30/12 15:57	HG2-12-0730A
S53345.08	Mercury	SW7471A	07/30/12 15:59	HG2-12-0730A
S53345.09	Mercury	SW7471A	07/30/12 16:01	HG2-12-0730A
S53345.10	Mercury	SW7471A	07/30/12 16:04	HG2-12-0730A
S53345.11	Mercury	SW7471A	07/30/12 16:06	HG2-12-0730A
S53345.12	Mercury	SW7471A	07/30/12 16:08	HG2-12-0730A
S53345.13	Mercury	SW7471A	07/30/12 16:10	HG2-12-0730A
S53345.14	Mercury	SW7471A	07/30/12 16:12	HG2-12-0730A
S53345.15	Mercury	SW7471A	07/30/12 16:15	HG2-12-0730A
S53345.16	Mercury	SW7471A	07/30/12 16:17	HG2-12-0730A

Metals, Prep Batch ID: MTD-080112-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.02	Arsenic	SW6020	08/01/12 13:10	MT2-12-0801A
S53345.02	Barium	SW6020	08/01/12 13:10	MT2-12-0801A
S53345.02	Cadmium	SW6020	08/01/12 13:10	MT2-12-0801A
S53345.02	Chromium	SW6020	08/01/12 13:10	MT2-12-0801A
S53345.02	Copper	SW6020	08/01/12 13:10	MT2-12-0801A
S53345.02	Lead	SW6020	08/01/12 13:10	MT2-12-0801A
S53345.02	Selenium	SW6020	08/01/12 13:10	MT2-12-0801A
S53345.02	Silver	SW6020	08/01/12 13:10	MT2-12-0801A

Metals, Prep Batch ID: MTD-080112-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.02	Zinc	SW6020	08/01/12 13:10	MT2-12-0801A
S53345.03	Arsenic	SW6020	08/01/12 13:15	MT2-12-0801A
S53345.03	Barium	SW6020	08/01/12 13:15	MT2-12-0801A
S53345.03	Cadmium	SW6020	08/01/12 13:15	MT2-12-0801A
S53345.03	Chromium	SW6020	08/01/12 13:15	MT2-12-0801A
S53345.03	Copper	SW6020	08/01/12 13:15	MT2-12-0801A
S53345.03	Lead	SW6020	08/01/12 13:15	MT2-12-0801A
S53345.03	Selenium	SW6020	08/01/12 13:15	MT2-12-0801A
S53345.03	Silver	SW6020	08/01/12 13:15	MT2-12-0801A
S53345.03	Zinc	SW6020	08/01/12 13:15	MT2-12-0801A
S53345.04	Arsenic	SW6020	08/01/12 13:17	MT2-12-0801A
S53345.04	Barium	SW6020	08/01/12 13:17	MT2-12-0801A
S53345.04	Cadmium	SW6020	08/01/12 13:17	MT2-12-0801A
S53345.04	Chromium	SW6020	08/01/12 13:17	MT2-12-0801A
S53345.04	Copper	SW6020	08/01/12 13:17	MT2-12-0801A
S53345.04	Lead	SW6020	08/01/12 13:17	MT2-12-0801A
S53345.04	Selenium	SW6020	08/01/12 13:17	MT2-12-0801A
S53345.04	Silver	SW6020	08/01/12 13:17	MT2-12-0801A
S53345.04	Zinc	SW6020	08/01/12 13:17	MT2-12-0801A
S53345.05	Arsenic	SW6020	08/01/12 13:19	MT2-12-0801A
S53345.05	Barium	SW6020	08/01/12 13:19	MT2-12-0801A
S53345.05	Cadmium	SW6020	08/01/12 13:19	MT2-12-0801A
S53345.05	Chromium	SW6020	08/01/12 13:19	MT2-12-0801A
S53345.05	Copper	SW6020	08/01/12 13:19	MT2-12-0801A
S53345.05	Lead	SW6020	08/01/12 13:19	MT2-12-0801A
S53345.05	Selenium	SW6020	08/01/12 13:19	MT2-12-0801A
S53345.05	Silver	SW6020	08/01/12 13:19	MT2-12-0801A
S53345.05	Zinc	SW6020	08/01/12 13:19	MT2-12-0801A
S53345.06	Arsenic	SW6020	08/01/12 13:21	MT2-12-0801A
S53345.06	Barium	SW6020	08/01/12 13:21	MT2-12-0801A
S53345.06	Cadmium	SW6020	08/01/12 13:21	MT2-12-0801A
S53345.06	Chromium	SW6020	08/01/12 13:21	MT2-12-0801A
S53345.06	Copper	SW6020	08/01/12 13:21	MT2-12-0801A
S53345.06	Lead	SW6020	08/01/12 13:21	MT2-12-0801A
S53345.06	Selenium	SW6020	08/01/12 13:21	MT2-12-0801A
S53345.06	Silver	SW6020	08/01/12 13:21	MT2-12-0801A
S53345.06	Zinc	SW6020	08/01/12 13:21	MT2-12-0801A
S53345.07	Arsenic	SW6020	08/01/12 13:24	MT2-12-0801A
S53345.07	Barium	SW6020	08/01/12 13:24	MT2-12-0801A
S53345.07	Cadmium	SW6020	08/01/12 13:24	MT2-12-0801A
S53345.07	Chromium	SW6020	08/01/12 13:24	MT2-12-0801A
S53345.07	Copper	SW6020	08/01/12 13:24	MT2-12-0801A
S53345.07	Lead	SW6020	08/01/12 13:24	MT2-12-0801A
S53345.07	Selenium	SW6020	08/01/12 13:24	MT2-12-0801A
S53345.07	Silver	SW6020	08/01/12 13:24	MT2-12-0801A
S53345.07	Zinc	SW6020	08/01/12 13:24	MT2-12-0801A
S53345.08	Arsenic	SW6020	08/01/12 13:26	MT2-12-0801A
S53345.08	Barium	SW6020	08/01/12 13:26	MT2-12-0801A
S53345.08	Cadmium	SW6020	08/01/12 13:26	MT2-12-0801A

Metals, Prep Batch ID: MTD-080112-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.08	Chromium	SW6020	08/01/12 13:26	MT2-12-0801A
S53345.08	Copper	SW6020	08/01/12 13:26	MT2-12-0801A
S53345.08	Lead	SW6020	08/01/12 13:26	MT2-12-0801A
S53345.08	Selenium	SW6020	08/01/12 13:26	MT2-12-0801A
S53345.08	Silver	SW6020	08/01/12 13:26	MT2-12-0801A
S53345.08	Zinc	SW6020	08/01/12 13:26	MT2-12-0801A
S53345.09	Arsenic	SW6020	08/01/12 13:28	MT2-12-0801A
S53345.09	Barium	SW6020	08/01/12 13:28	MT2-12-0801A
S53345.09	Cadmium	SW6020	08/01/12 13:28	MT2-12-0801A
S53345.09	Chromium	SW6020	08/01/12 13:28	MT2-12-0801A
S53345.09	Copper	SW6020	08/01/12 13:28	MT2-12-0801A
S53345.09	Lead	SW6020	08/01/12 13:28	MT2-12-0801A
S53345.09	Selenium	SW6020	08/01/12 13:28	MT2-12-0801A
S53345.09	Silver	SW6020	08/01/12 13:28	MT2-12-0801A
S53345.09	Zinc	SW6020	08/01/12 13:28	MT2-12-0801A
S53345.10	Arsenic	SW6020	08/01/12 14:22	MT2-12-0801A
S53345.10	Barium	SW6020	08/01/12 14:22	MT2-12-0801A
S53345.10	Cadmium	SW6020	08/01/12 14:22	MT2-12-0801A
S53345.10	Chromium	SW6020	08/01/12 14:22	MT2-12-0801A
S53345.10	Copper	SW6020	08/01/12 14:22	MT2-12-0801A
S53345.10	Lead	SW6020	08/01/12 14:22	MT2-12-0801A
S53345.10	Selenium	SW6020	08/01/12 14:22	MT2-12-0801A
S53345.10	Silver	SW6020	08/01/12 14:22	MT2-12-0801A
S53345.10	Zinc	SW6020	08/01/12 14:22	MT2-12-0801A
S53345.11	Arsenic	SW6020	08/01/12 14:24	MT2-12-0801A
S53345.11	Barium	SW6020	08/01/12 14:24	MT2-12-0801A
S53345.11	Cadmium	SW6020	08/01/12 14:24	MT2-12-0801A
S53345.11	Chromium	SW6020	08/01/12 14:24	MT2-12-0801A
S53345.11	Copper	SW6020	08/01/12 14:24	MT2-12-0801A
S53345.11	Lead	SW6020	08/01/12 14:24	MT2-12-0801A
S53345.11	Selenium	SW6020	08/01/12 14:24	MT2-12-0801A
S53345.11	Silver	SW6020	08/01/12 14:24	MT2-12-0801A
S53345.11	Zinc	SW6020	08/01/12 14:24	MT2-12-0801A
S53345.12	Arsenic	SW6020	08/01/12 14:26	MT2-12-0801A
S53345.12	Barium	SW6020	08/01/12 14:26	MT2-12-0801A
S53345.12	Cadmium	SW6020	08/01/12 14:26	MT2-12-0801A
S53345.12	Chromium	SW6020	08/01/12 14:26	MT2-12-0801A
S53345.12	Copper	SW6020	08/01/12 14:26	MT2-12-0801A
S53345.12	Lead	SW6020	08/01/12 14:26	MT2-12-0801A
S53345.12	Selenium	SW6020	08/01/12 14:26	MT2-12-0801A
S53345.12	Silver	SW6020	08/01/12 14:26	MT2-12-0801A
S53345.12	Zinc	SW6020	08/01/12 14:26	MT2-12-0801A
S53345.13	Arsenic	SW6020	08/01/12 14:28	MT2-12-0801A
S53345.13	Barium	SW6020	08/01/12 14:28	MT2-12-0801A
S53345.13	Cadmium	SW6020	08/01/12 14:28	MT2-12-0801A
S53345.13	Chromium	SW6020	08/01/12 14:28	MT2-12-0801A
S53345.13	Copper	SW6020	08/01/12 14:28	MT2-12-0801A
S53345.13	Lead	SW6020	08/01/12 14:28	MT2-12-0801A
S53345.13	Selenium	SW6020	08/01/12 14:28	MT2-12-0801A

Metals, Prep Batch ID: MTD-080112-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.13	Silver	SW6020	08/01/12 14:28	MT2-12-0801A
S53345.13	Zinc	SW6020	08/01/12 14:28	MT2-12-0801A
S53345.14	Arsenic	SW6020	08/01/12 14:30	MT2-12-0801A
S53345.14	Barium	SW6020	08/01/12 14:30	MT2-12-0801A
S53345.14	Cadmium	SW6020	08/01/12 14:30	MT2-12-0801A
S53345.14	Chromium	SW6020	08/01/12 14:30	MT2-12-0801A
S53345.14	Copper	SW6020	08/01/12 14:30	MT2-12-0801A
S53345.14	Lead	SW6020	08/01/12 14:30	MT2-12-0801A
S53345.14	Selenium	SW6020	08/01/12 14:30	MT2-12-0801A
S53345.14	Silver	SW6020	08/01/12 14:30	MT2-12-0801A
S53345.14	Zinc	SW6020	08/01/12 14:30	MT2-12-0801A
S53345.15	Arsenic	SW6020	08/01/12 14:32	MT2-12-0801A
S53345.15	Barium	SW6020	08/01/12 14:32	MT2-12-0801A
S53345.15	Cadmium	SW6020	08/01/12 14:32	MT2-12-0801A
S53345.15	Chromium	SW6020	08/01/12 14:32	MT2-12-0801A
S53345.15	Copper	SW6020	08/01/12 14:32	MT2-12-0801A
S53345.15	Lead	SW6020	08/01/12 14:32	MT2-12-0801A
S53345.15	Selenium	SW6020	08/01/12 14:32	MT2-12-0801A
S53345.15	Silver	SW6020	08/01/12 14:32	MT2-12-0801A
S53345.15	Zinc	SW6020	08/01/12 14:32	MT2-12-0801A
S53345.16	Arsenic	SW6020	08/01/12 14:35	MT2-12-0801A
S53345.16	Barium	SW6020	08/01/12 14:35	MT2-12-0801A
S53345.16	Cadmium	SW6020	08/01/12 14:35	MT2-12-0801A
S53345.16	Chromium	SW6020	08/01/12 14:35	MT2-12-0801A
S53345.16	Copper	SW6020	08/01/12 14:35	MT2-12-0801A
S53345.16	Lead	SW6020	08/01/12 14:35	MT2-12-0801A
S53345.16	Selenium	SW6020	08/01/12 14:35	MT2-12-0801A
S53345.16	Silver	SW6020	08/01/12 14:35	MT2-12-0801A
S53345.16	Zinc	SW6020	08/01/12 14:35	MT2-12-0801A

Organics - PCBs/Pesticides, Prep Batch ID: PA120730S02

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.02	TCL PCB List (Column 1)	SW8082A	07/31/12 11:42	A120731
S53345.02	TCL PCB List (Column 2)	SW8082A	07/31/12 11:42	A120731
S53345.03	TCL PCB List (Column 1)	SW8082A	07/31/12 11:52	A120731
S53345.03	TCL PCB List (Column 2)	SW8082A	07/31/12 11:52	A120731
S53345.04	TCL PCB List (Column 1)	SW8082A	07/31/12 12:03	A120731
S53345.04	TCL PCB List (Column 2)	SW8082A	07/31/12 12:03	A120731
S53345.05	TCL PCB List (Column 1)	SW8082A	07/31/12 12:13	A120731
S53345.05	TCL PCB List (Column 2)	SW8082A	07/31/12 12:13	A120731
S53345.06	TCL PCB List (Column 1)	SW8082A	07/31/12 12:24	A120731
S53345.06	TCL PCB List (Column 2)	SW8082A	07/31/12 12:24	A120731
S53345.07	TCL PCB List (Column 1)	SW8082A	07/31/12 12:34	A120731
S53345.07	TCL PCB List (Column 2)	SW8082A	07/31/12 12:34	A120731
S53345.08	TCL PCB List (Column 1)	SW8082A	07/31/12 12:44	A120731
S53345.08	TCL PCB List (Column 2)	SW8082A	07/31/12 12:45	A120731
S53345.09	TCL PCB List (Column 1)	SW8082A	07/31/12 13:58	A120731
S53345.09	TCL PCB List (Column 2)	SW8082A	07/31/12 13:58	A120731

Organics - PCBs/Pesticides, Prep Batch ID: PA120730S02 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.10	TCL PCB List (Column 1)	SW8082A	07/31/12 14:19	A120731
S53345.10	TCL PCB List (Column 2)	SW8082A	07/31/12 14:19	A120731
S53345.11	TCL PCB List (Column 1)	SW8082A	07/31/12 12:55	A120731
S53345.11	TCL PCB List (Column 2)	SW8082A	07/31/12 12:55	A120731
S53345.12	TCL PCB List (Column 1)	SW8082A	07/31/12 13:05	A120731
S53345.12	TCL PCB List (Column 2)	SW8082A	07/31/12 13:06	A120731
S53345.13	TCL PCB List (Column 1)	SW8082A	07/31/12 13:16	A120731
S53345.13	TCL PCB List (Column 2)	SW8082A	07/31/12 13:16	A120731
S53345.14	TCL PCB List (Column 1)	SW8082A	07/31/12 13:26	A120731
S53345.14	TCL PCB List (Column 2)	SW8082A	07/31/12 13:26	A120731
S53345.15	TCL PCB List (Column 1)	SW8082A	07/31/12 13:37	A120731
S53345.15	TCL PCB List (Column 2)	SW8082A	07/31/12 13:37	A120731
S53345.16	TCL PCB List (Column 1)	SW8082A	07/31/12 13:47	A120731
S53345.16	TCL PCB List (Column 2)	SW8082A	07/31/12 13:47	A120731

Organics - Semi-Volatiles, Prep Batch ID: SP120731S01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.02	Polynuclear Aromatics	SW8270C	08/01/12 17:40	H120801
S53345.03	Polynuclear Aromatics	SW8270C	08/01/12 17:59	H120801
S53345.04	Polynuclear Aromatics	SW8270C	08/01/12 18:18	H120801
S53345.05	Polynuclear Aromatics	SW8270C	08/01/12 18:38	H120801
S53345.06	Polynuclear Aromatics	SW8270C	08/01/12 22:08	H120801
S53345.07	Polynuclear Aromatics	SW8270C	08/01/12 18:57	H120801
S53345.08	Polynuclear Aromatics	SW8270C	08/01/12 19:16	H120801
S53345.09	Polynuclear Aromatics	SW8270C	08/01/12 22:47	H120801
S53345.10	Polynuclear Aromatics	SW8270C	08/01/12 22:27	H120801
S53345.11	Polynuclear Aromatics	SW8270C	08/01/12 19:35	H120801
S53345.12	Polynuclear Aromatics	SW8270C	08/01/12 19:54	H120801
S53345.13	Polynuclear Aromatics	SW8270C	08/01/12 20:13	H120801
S53345.14	Polynuclear Aromatics	SW8270C	08/01/12 20:32	H120801
S53345.15	Polynuclear Aromatics	SW8270C	08/01/12 20:52	H120801
S53345.16	Polynuclear Aromatics	SW8270C	08/01/12 21:11	H120801

Organics - Volatiles, Prep Batch ID: VF120802S1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.01	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 14:58	120802A5
S53345.02	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 15:18	120802A5
S53345.03	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 15:38	120802A5
S53345.04	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 15:59	120802A5
S53345.05	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 16:19	120802A5
S53345.06	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 16:39	120802A5
S53345.07	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 16:59	120802A5
S53345.08	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 17:20	120802A5
S53345.09	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 17:40	120802A5
S53345.10	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 18:00	120802A5
S53345.11	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 18:21	120802A5
S53345.12	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 18:42	120802A5

Organics - Volatiles, Prep Batch ID: VF120802S1 (continued)

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53345.13	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 19:02	120802A5
S53345.14	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 19:22	120802A5
S53345.15	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 19:42	120802A5
S53345.16	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/02/12 20:03	120802A5

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb02a.d	08/02/12 10:54	50ng/bfb 1s0801 [none]	WW	IP	**1**	
spcc02a.d	08/02/12 11:20	spcc/ccc 1s0802 1v0802 [none]	WW	CV	**1** **4**	
lcss02a.d	08/02/12 12:04	blank ms 1s0802 1m0802 vf120802s1	SO	MS	**1**	
lcss02b.d	08/02/12 12:24	blank msd 1s0802 1m0802 vf120802s1	SO	MS	**1**	
blks02a.d	08/02/12 14:38	100ul blank 1s0802 vf120802s1	SO	Bl	**1**	
5334501.d	08/02/12 14:58	100ul 1s0802 vf120802s1	SO		**1**	
5334502.d	08/02/12 15:18	100ul 1s0802 vf120802s1	SO		**1**	
5334503.d	08/02/12 15:38	100ul 1s0802 vf120802s1	SO		**1**	
5334504.d	08/02/12 15:59	100ul 1s0802 vf120802s1	SO		**1**	
5334505.d	08/02/12 16:19	100ul 1s0802 vf120802s1	SO		**1**	
5334506.d	08/02/12 16:39	100ul 1s0802 vf120802s1	SO		**1**	
5334507.d	08/02/12 16:59	100ul 1s0802 vf120802s1	SO		**1**	
5334508.d	08/02/12 17:20	100ul 1s0802 vf120802s1	SO		**1**	
5334509.d	08/02/12 17:40	100ul 1s0802 vf120802s1	SO		**1**	
5334510.d	08/02/12 18:00	100ul 1s0802 vf120802s1	SO		**1**	
5334511.d	08/02/12 18:21	100ul 1s0802 vf120802s1	SO		**1**	
5334512.d	08/02/12 18:42	100ul 1s0802 vf120802s1	SO		**1**	
5334513.d	08/02/12 19:02	100ul 1s0802 vf120802s1	SO		**1**	
5334514.d	08/02/12 19:22	100ul 1s0802 vf120802s1	SO		**1**	
5334515.d	08/02/12 19:42	100ul 1s0802 vf120802s1	SO		**1**	
5334516.d	08/02/12 20:03	100ul 1s0802 vf120802s1	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	16
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc02a.d	4-Bromofluorobenzene	50.2/ 50.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	46.0/ 50.0	n/a	77.0/121.0	
	Toluene-D8	50.0/ 50.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcss02a.d	4-Bromofluorobenzene	49.5/ 50.0	99.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.2/ 50.0	90.5	71.0/124.0	
	Toluene-D8	49.5/ 50.0	99.0	83.0/120.0	
				Total Outliers: 0	
lcss02b.d	4-Bromofluorobenzene	50.3/ 50.0	100.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.3/ 50.0	92.6	71.0/124.0	
	Toluene-D8	50.3/ 50.0	100.6	83.0/120.0	
				Total Outliers: 0	
blks02a.d	4-Bromofluorobenzene	50.2/ 50.0	100.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.3/ 50.0	86.6	71.0/124.0	
	Toluene-D8	49.5/ 50.0	98.9	83.0/120.0	
				Total Outliers: 0	
5334501.d	4-Bromofluorobenzene	50.3/ 50.0	100.5	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.0/ 50.0	90.0	71.0/124.0	
	Toluene-D8	49.4/ 50.0	98.7	83.0/120.0	
				Total Outliers: 0	
5334502.d	4-Bromofluorobenzene	49.6/ 50.0	99.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.5/ 50.0	89.0	71.0/124.0	
	Toluene-D8	49.2/ 50.0	98.4	83.0/120.0	
				Total Outliers: 0	
5334503.d	4-Bromofluorobenzene	50.7/ 50.0	101.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.0/ 50.0	90.1	71.0/124.0	
	Toluene-D8	49.7/ 50.0	99.4	83.0/120.0	
				Total Outliers: 0	
5334504.d	4-Bromofluorobenzene	49.7/ 50.0	99.5	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.4/ 50.0	90.8	71.0/124.0	
	Toluene-D8	49.2/ 50.0	98.3	83.0/120.0	
				Total Outliers: 0	
5334505.d	4-Bromofluorobenzene	50.9/ 50.0	101.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.7/ 50.0	91.3	71.0/124.0	
	Toluene-D8	49.2/ 50.0	98.5	83.0/120.0	
				Total Outliers: 0	
5334506.d	4-Bromofluorobenzene	49.2/ 50.0	98.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.5/ 50.0	93.0	71.0/124.0	
	Toluene-D8	49.2/ 50.0	98.4	83.0/120.0	
				Total Outliers: 0	
5334507.d	4-Bromofluorobenzene	50.6/ 50.0	101.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.1/ 50.0	92.2	71.0/124.0	
	Toluene-D8	50.1/ 50.0	100.3	83.0/120.0	
				Total Outliers: 0	
5334508.d	4-Bromofluorobenzene	50.4/ 50.0	100.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.2/ 50.0	92.4	71.0/124.0	
	Toluene-D8	49.1/ 50.0	98.2	83.0/120.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
5334509.d	4-Bromofluorobenzene	49.4/ 50.0	98.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.7/ 50.0	91.5	71.0/124.0	
	Toluene-D8	48.6/ 50.0	97.1	83.0/120.0	
				Total Outliers:	**0**
5334510.d	4-Bromofluorobenzene	50.2/ 50.0	100.3	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.4/ 50.0	92.7	71.0/124.0	
	Toluene-D8	49.0/ 50.0	98.0	83.0/120.0	
				Total Outliers:	**0**
5334511.d	4-Bromofluorobenzene	50.0/ 50.0	100.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.9/ 50.0	93.9	71.0/124.0	
	Toluene-D8	49.4/ 50.0	98.7	83.0/120.0	
				Total Outliers:	**0**
5334512.d	4-Bromofluorobenzene	50.3/ 50.0	100.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.6/ 50.0	93.3	71.0/124.0	
	Toluene-D8	49.2/ 50.0	98.3	83.0/120.0	
				Total Outliers:	**0**
5334513.d	4-Bromofluorobenzene	51.0/ 50.0	102.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.0/ 50.0	94.1	71.0/124.0	
	Toluene-D8	49.3/ 50.0	98.7	83.0/120.0	
				Total Outliers:	**0**
5334514.d	4-Bromofluorobenzene	50.4/ 50.0	100.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.7/ 50.0	91.5	71.0/124.0	
	Toluene-D8	49.6/ 50.0	99.2	83.0/120.0	
				Total Outliers:	**0**
5334515.d	4-Bromofluorobenzene	50.0/ 50.0	100.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.4/ 50.0	92.8	71.0/124.0	
	Toluene-D8	49.7/ 50.0	99.4	83.0/120.0	
				Total Outliers:	**0**
5334516.d	4-Bromofluorobenzene	49.6/ 50.0	99.2	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.7/ 50.0	95.3	71.0/124.0	
	Toluene-D8	49.7/ 50.0	99.3	83.0/120.0	
				Total Outliers:	**0**

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Dup File : lcss02b.d
Dup ID : LCS1
Prep Batch: vf120802s1
Prep Date : 08/02/12
Parent File: lcss02a.d

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
1,1,2-trichloro-1,2,2-trifluoroethane	54.06/ 48.94	9.9/25.0	SO
diethyl ether (*)	45.94/ 40.92	11.6/25.0	
acetone (*)	33.24/ 31.39	5.7/25.0	
methyl iodide (iodomethane) (*)	48.05/ 43.78	9.3/25.0	
carbon disulfide (*)	45.82/ 41.60	9.7/25.0	
methyl acetate	41.35/ 36.71	11.9/25.0	
tert-methyl butyl ether (mtbe) (*)	47.50/ 42.33	11.5/25.0	
acrylonitrile (*)	45.45/ 40.42	11.7/25.0	
2-butanone (mek) (*)	31.07/ 30.13	3.1/25.0	
dichlorodifluoromethane	59.32/ 54.74	8.0/25.0	
chloromethane (spcc)	50.76/ 46.58	8.6/25.0	
vinyl chloride (ccc)	51.37/ 47.21	8.4/25.0	
bromomethane	49.74/ 45.51	8.9/25.0	
chloroethane	53.49/ 48.72	9.3/25.0	
trichlorofluoromethane	57.96/ 54.03	7.0/25.0	
1,1-dichloroethene (ccc/ms)	49.64/ 45.15	9.5/25.0	
methylene chloride	43.09/ 39.01	9.9/25.0	
trans-1,2-dichloroethene	47.29/ 43.01	9.5/25.0	
1,1-dichloroethane (spcc)	46.40/ 41.99	10.0/25.0	
cis-1,2-dichloroethene	46.46/ 42.43	9.1/25.0	
tetrahydrofuran	38.16/ 35.30	7.8/25.0	
chloroform (ccc)	46.79/ 43.05	8.3/25.0	
bromochloromethane	46.17/ 41.73	10.1/25.0	
1,1,1-trichloroethane	51.80/ 47.43	8.8/25.0	
1,1-dichloropropene	2.38/ 2.26	5.2/25.0	
cyclohexane	46.21/ 41.51	10.7/25.0	
4-methyl-2-pentanone (mibk) (*)	45.78/ 41.07	10.8/25.0	
2-hexanone (*)	40.59/ 37.74	7.3/25.0	
carbon tetrachloride	56.58/ 51.77	8.9/25.0	
benzene (ms)	49.13/ 46.14	6.3/25.0	
1,2-dichloroethane	50.19/ 46.43	7.8/25.0	
trichloroethene (ms)	51.70/ 48.93	5.5/25.0	
1,2-dichloropropane (ccc)	48.08/ 44.67	7.4/25.0	
bromodichloromethane	52.03/ 48.59	6.8/25.0	
methyl cyclohexane	54.86/ 49.54	10.2/25.0	
dibromomethane	51.52/ 47.89	7.3/25.0	
cis-1,3-dichloropropene	52.10/ 48.52	7.1/25.0	
toluene (ccc/ms)	51.19/ 47.77	6.9/25.0	
trans-1,3-dichloropropene	53.46/ 49.57	7.6/25.0	
1,1,2-trichloroethane	48.52/ 44.40	8.9/25.0	
tetrachloroethene	51.93/ 48.55	6.7/25.0	
trans-1,4-dichloro-2-butene	51.42/ 45.97	11.2/25.0	
dibromochloromethane	54.32/ 50.62	7.1/25.0	
1,2-dibromoethane	51.27/ 47.24	8.2/25.0	
chlorobenzene (spcc/ms)	50.52/ 46.99	7.2/25.0	
1,1,1,2-tetrachloroethane	53.13/ 49.62	6.8/25.0	
ethylbenzene (ccc)	52.68/ 50.00	5.2/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
p,m-xylene	106.10/ 98.85	7.1/25.0	
o-xylene	52.93/ 49.62	6.5/25.0	
styrene	51.94/ 48.45	7.0/25.0	
isopropylbenzene	54.51/ 50.63	7.4/25.0	
bromoform (spcc)	51.73/ 47.13	9.3/25.0	
1,1,2,2-tetrachloroethane (spcc)	49.33/ 45.16	8.8/25.0	
1,2,3-trichloropropane	49.94/ 46.33	7.5/25.0	
n-propylbenzene	54.68/ 50.95	7.1/25.0	
bromobenzene	51.10/ 47.52	7.3/25.0	
1,3,5-trimethylbenzene	53.24/ 50.13	6.0/25.0	
tert-butylbenzene	54.73/ 51.46	6.2/25.0	
1,2,4-trimethylbenzene	54.45/ 51.24	6.1/25.0	
sec-butylbenzene	54.57/ 51.06	6.6/25.0	
p-isopropyltoluene	56.64/ 53.17	6.3/25.0	
1,3-dichlorobenzene	51.68/ 49.16	5.0/25.0	
1,4-dichlorobenzene	50.59/ 47.83	5.6/25.0	
1,2-dichlorobenzene	50.99/ 48.10	5.8/25.0	
1,2,3-trimethylbenzene	51.44/ 48.02	6.9/25.0	
n-butylbenzene	54.18/ 52.11	3.9/25.0	
hexachloroethane	50.30/ 48.15	4.4/25.0	
1,2-dibromo-3-chloropropane	52.67/ 49.70	5.8/25.0	
1,2,4-trichlorobenzene	55.26/ 54.03	2.3/25.0	
1,2,3-trichlorobenzene	55.59/ 53.30	4.2/25.0	
naphthalene	56.78/ 54.30	4.5/25.0	
2-methylnaphthalene	56.71/ 54.02	4.9/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss02a.d
Spike ID : LCS1
Prep Batch: vf120802s1
Prep Date : 08/02/12
Parent File: blks02a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	48.94/	0.00	50.00	97.9	56.9/138.1	SO
Diethyl ether	40.92/	0.00	50.00	81.8	51.7/123.0	
Acetone	31.39/	1.85	50.00	62.8	25.3/155.1	
Methyl iodide	43.78/	0.00	50.00	87.6	56.9/110.8	
Carbon disulfide	41.60/	0.00	50.00	83.2	57.0/123.0	
Methyl acetate	36.71/	0.00	50.00	73.4	54.4/133.5	
tert-Methyl butyl ether	42.33/	0.00	50.00	84.7	67.5/123.7	
Acrylonitrile	40.42/	0.00	50.00	80.8	58.7/133.0	
2-Butanone	30.13/	0.00	50.00	60.3	38.7/136.9	
Dichlorodifluoromethane	54.74/	0.00	50.00	109.5	10.0/171.8	
Chloromethane	46.58/	0.00	50.00	93.2	30.2/152.7	
Vinyl Chloride	47.21/	0.00	50.00	94.4	45.3/138.7	
Bromomethane	45.51/	0.00	50.00	91.0	10.0/157.4	
Chloroethane	48.72/	0.00	50.00	97.4	10.0/169.1	
Trichlorofluoromethane	54.03/	0.00	50.00	108.1	25.7/157.8	
1,1-Dichloroethene	45.15/	0.00	50.00	90.3	59.2/137.5	
Methylene Chloride	39.01/	0.00	50.00	78.0	70.5/121.5	
trans-1,2-Dichloroethene	43.01/	0.00	50.00	86.0	72.5/128.8	
1,1-Dichloroethane	41.99/	0.00	50.00	84.0	72.5/123.4	
cis-1,2-Dichloroethene	42.43/	0.00	50.00	84.9	75.0/120.5	
Tetrahydrofuran	35.30/	3.03	50.00	70.6	48.2/125.7	
Chloroform	43.05/	0.00	50.00	86.1	74.6/123.2	
Bromochloromethane	41.73/	0.00	50.00	83.5	72.3/122.8	
1,1,1-Trichloroethane	47.43/	0.00	50.00	94.9	73.8/128.9	
Cyclohexane	41.51/	0.00	50.00	83.0	42.4/147.1	
4-Methyl-2-pentanone	41.07/	0.00	50.00	82.1	60.4/133.8	
2-Hexanone	37.74/	0.00	50.00	75.5	45.7/141.9	
Carbon Tetrachloride	51.77/	0.00	50.00	103.5	70.1/132.7	
Benzene	46.14/	0.00	50.00	92.3	74.6/128.9	
1,2-Dichloroethane	46.43/	0.00	50.00	92.9	73.2/125.4	
Trichloroethene	48.93/	0.00	50.00	97.9	74.1/127.6	
1,2-Dichloropropane	44.67/	0.00	50.00	89.3	77.6/124.4	
Bromodichloromethane	48.59/	0.00	50.00	97.2	76.7/128.4	
Methyl cyclohexane	49.54/	0.00	50.00	99.1	53.7/148.2	
Dibromomethane	47.89/	0.00	50.00	95.8	72.5/127.3	
cis-1,3-Dichloropropene	48.52/	0.00	50.00	97.0	79.3/128.3	
Toluene	47.77/	0.00	50.00	95.5	74.8/129.2	
trans-1,3-Dichloropropene	49.57/	0.00	50.00	99.1	74.5/129.7	
1,1,2-Trichloroethane	44.40/	0.00	50.00	88.8	71.3/125.7	
Tetrachloroethene	48.55/	0.00	50.00	97.1	73.0/124.7	
trans-1,4-Dichloro-2-butene	45.97/	0.00	50.00	91.9	58.3/143.3	
Dibromochloromethane	50.62/	0.00	50.00	101.2	68.9/132.7	
1,2-Dibromoethane	47.24/	0.00	50.00	94.5	71.4/129.3	
Chlorobenzene	46.99/	0.00	50.00	94.0	74.2/128.1	
1,1,1,2-Tetrachloroethane	49.62/	0.00	50.00	99.2	76.6/133.0	
Ethylbenzene	50.00/	0.00	50.00	100.0	77.7/130.4	
p,m-Xylene	98.85/	0.00	100.00	98.9	79.8/132.0	
o-Xylene	49.62/	0.00	50.00	99.2	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	48.45/	0.00	50.00	96.9	71.3/119.3	
Isopropylbenzene	50.63/	0.00	50.00	101.3	70.3/128.2	
Bromoform	47.13/	0.00	50.00	94.3	54.7/137.4	
1,1,2,2-Tetrachloroethane	45.16/	0.00	50.00	90.3	65.4/134.9	
1,2,3-Trichloropropane	46.33/	0.00	50.00	92.7	67.2/154.5	
n-Propylbenzene	50.95/	0.00	50.00	101.9	77.3/135.2	
Bromobenzene	47.52/	0.00	50.00	95.0	74.0/132.4	
1,3,5-Trimethylbenzene	50.13/	0.00	50.00	100.3	75.6/137.0	
tert-Butylbenzene	51.46/	0.00	50.00	102.9	75.6/134.6	
1,2,4-Trimethylbenzene	51.24/	0.00	50.00	102.5	76.9/139.1	
sec-Butylbenzene	51.06/	0.00	50.00	102.1	72.7/135.6	
p-Isopropyltoluene	53.17/	0.00	50.00	106.3	77.1/140.9	
1,3-Dichlorobenzene	49.16/	0.00	50.00	98.3	77.3/131.0	
1,4-Dichlorobenzene	47.83/	0.00	50.00	95.7	33.1/125.8	
1,2-Dichlorobenzene	48.10/	0.00	50.00	96.2	73.5/132.7	
1,2,3-Trimethylbenzene	48.02/	0.00	50.00	96.0	70.9/130.2	
n-Butylbenzene	52.11/	0.00	50.00	104.2	75.0/138.6	
Hexachloroethane	48.15/	0.00	50.00	96.3	55.5/129.0	
1,2-Dibromo-3-Chloropropane	49.70/	0.00	50.00	99.4	54.1/156.4	
1,2,4-Trichlorobenzene	54.03/	0.00	50.00	108.1	37.1/131.3	
1,2,3-Trichlorobenzene	53.30/	0.00	50.00	106.6	59.4/157.9	
Naphthalene	54.30/	0.00	50.00	108.6	39.3/129.2	
2-Methylnaphthalene	54.02/	0.00	50.00	108.0	10.0/175.9	
					Total Outliers:	**0**

Spike File : lcss02b.d
Spike ID : LCS1
Prep Batch: vf120802s1
Prep Date : 08/02/12
Parent File: blks02a.d

1,1,2-Trichloro-1,2,2-trifluor	54.06/	0.00	50.00	108.1	56.9/138.1	SO
Diethyl ether	45.94/	0.00	50.00	91.9	51.7/123.0	
Acetone	33.24/	1.85	50.00	66.5	25.3/155.1	
Methyl iodide	48.05/	0.00	50.00	96.1	56.9/110.8	
Carbon disulfide	45.82/	0.00	50.00	91.6	57.0/123.0	
Methyl acetate	41.35/	0.00	50.00	82.7	54.4/133.5	
tert-Methyl butyl ether	47.50/	0.00	50.00	95.0	67.5/123.7	
Acrylonitrile	45.45/	0.00	50.00	90.9	58.7/133.0	
2-Butanone	31.07/	0.00	50.00	62.1	38.7/136.9	
Dichlorodifluoromethane	59.32/	0.00	50.00	118.6	10.0/171.8	
Chloromethane	50.76/	0.00	50.00	101.5	30.2/152.7	
Vinyl Chloride	51.37/	0.00	50.00	102.7	45.3/138.7	
Bromomethane	49.74/	0.00	50.00	99.5	10.0/157.4	
Chloroethane	53.49/	0.00	50.00	107.0	10.0/169.1	
Trichlorofluoromethane	57.96/	0.00	50.00	115.9	25.7/157.8	
1,1-Dichloroethene	49.64/	0.00	50.00	99.3	59.2/137.5	
Methylene Chloride	43.09/	0.00	50.00	86.2	70.5/121.5	
trans-1,2-Dichloroethene	47.29/	0.00	50.00	94.6	72.5/128.8	
1,1-Dichloroethane	46.40/	0.00	50.00	92.8	72.5/123.4	
cis-1,2-Dichloroethene	46.46/	0.00	50.00	92.9	75.0/120.5	
Tetrahydrofuran	38.16/	3.03	50.00	76.3	48.2/125.7	
Chloroform	46.79/	0.00	50.00	93.6	74.6/123.2	
Bromochloromethane	46.17/	0.00	50.00	92.3	72.3/122.8	
1,1,1-Trichloroethane	51.80/	0.00	50.00	103.6	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	46.21/	0.00	50.00	92.4	42.4/147.1	
4-Methyl-2-pentanone	45.78/	0.00	50.00	91.6	60.4/133.8	
2-Hexanone	40.59/	0.00	50.00	81.2	45.7/141.9	
Carbon Tetrachloride	56.58/	0.00	50.00	113.2	70.1/132.7	
Benzene	49.13/	0.00	50.00	98.3	74.6/128.9	
1,2-Dichloroethane	50.19/	0.00	50.00	100.4	73.2/125.4	
Trichloroethene	51.70/	0.00	50.00	103.4	74.1/127.6	
1,2-Dichloropropane	48.08/	0.00	50.00	96.2	77.6/124.4	
Bromodichloromethane	52.03/	0.00	50.00	104.1	76.7/128.4	
Methyl cyclohexane	54.86/	0.00	50.00	109.7	53.7/148.2	
Dibromomethane	51.52/	0.00	50.00	103.0	72.5/127.3	
cis-1,3-Dichloropropene	52.10/	0.00	50.00	104.2	79.3/128.3	
Toluene	51.19/	0.00	50.00	102.4	74.8/129.2	
trans-1,3-Dichloropropene	53.46/	0.00	50.00	106.9	74.5/129.7	
1,1,2-Trichloroethane	48.52/	0.00	50.00	97.0	71.3/125.7	
Tetrachloroethene	51.93/	0.00	50.00	103.9	73.0/124.7	
trans-1,4-Dichloro-2-butene	51.42/	0.00	50.00	102.8	58.3/143.3	
Dibromochloromethane	54.32/	0.00	50.00	108.6	68.9/132.7	
1,2-Dibromoethane	51.27/	0.00	50.00	102.5	71.4/129.3	
Chlorobenzene	50.52/	0.00	50.00	101.0	74.2/128.1	
1,1,1,2-Tetrachloroethane	53.13/	0.00	50.00	106.3	76.6/133.0	
Ethylbenzene	52.68/	0.00	50.00	105.4	77.7/130.4	
p,m-Xylene	106.10/	0.00	100.00	106.1	79.8/132.0	
o-Xylene	52.93/	0.00	50.00	105.9	79.4/132.3	
Styrene	51.94/	0.00	50.00	103.9	71.3/119.3	
Isopropylbenzene	54.51/	0.00	50.00	109.0	70.3/128.2	
Bromoform	51.73/	0.00	50.00	103.5	54.7/137.4	
1,1,2,2-Tetrachloroethane	49.33/	0.00	50.00	98.7	65.4/134.9	
1,2,3-Trichloropropane	49.94/	0.00	50.00	99.9	67.2/154.5	
n-Propylbenzene	54.68/	0.00	50.00	109.4	77.3/135.2	
Bromobenzene	51.10/	0.00	50.00	102.2	74.0/132.4	
1,3,5-Trimethylbenzene	53.24/	0.00	50.00	106.5	75.6/137.0	
tert-Butylbenzene	54.73/	0.00	50.00	109.5	75.6/134.6	
1,2,4-Trimethylbenzene	54.45/	0.00	50.00	108.9	76.9/139.1	
sec-Butylbenzene	54.57/	0.00	50.00	109.1	72.7/135.6	
p-Isopropyltoluene	56.64/	0.00	50.00	113.3	77.1/140.9	
1,3-Dichlorobenzene	51.68/	0.00	50.00	103.4	77.3/131.0	
1,4-Dichlorobenzene	50.59/	0.00	50.00	101.2	33.1/125.8	
1,2-Dichlorobenzene	50.99/	0.00	50.00	102.0	73.5/132.7	
1,2,3-Trimethylbenzene	51.44/	0.00	50.00	102.9	70.9/130.2	
n-Butylbenzene	54.18/	0.00	50.00	108.4	75.0/138.6	
Hexachloroethane	50.30/	0.00	50.00	100.6	55.5/129.0	
1,2-Dibromo-3-Chloropropane	52.67/	0.00	50.00	105.3	54.1/156.4	
1,2,4-Trichlorobenzene	55.26/	0.00	50.00	110.5	37.1/131.3	
1,2,3-Trichlorobenzene	55.59/	0.00	50.00	111.2	59.4/157.9	
Naphthalene	56.78/	0.00	50.00	113.6	39.3/129.2	
2-Methylnaphthalene	56.71/	0.00	50.00	113.4	10.0/175.9	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks02a.d (100ul blank 1s0802)
Blank ID : BLANK1
Prep Batch: vf120802s1
Prep Date : 08/02/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		11	50
Diethyl ether (*)	Not detected		16	50
Acetone (*)	Not detected		340	500
Methyl iodide (iodomethane) (*	Not detected		5.4	50
Carbon disulfide (*)	Not detected		6.9	50
Methyl Acetate	Not detected		20	50
tert-Methyl butyl ether (MTBE)	Not detected		9.2	50
Acrylonitrile (*)	Not detected		37	50
2-Butanone (MEK) (*)	Not detected		25	500
Dichlorodifluoromethane	Not detected		11	50
Chloromethane (SPCC)	Not detected		9.9	50
Vinyl Chloride (CCC)	Not detected		10.0	50
Bromomethane	Not detected		11	50
Chloroethane	Not detected		11	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		7.8	50
1,1-Dichloroethene (CCC/MS)	Not detected		11	50
Methylene Chloride	Not detected		11	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		8.5	50
cis-1,2-Dichloroethene	Not detected		7.9	50
Tetrahydrofuran	3.03	151.5	83	500
Chloroform (CCC)	Not detected		7.8	50
Bromochloromethane	Not detected		11	50
1,1,1-Trichloroethane	Not detected		6.4	50
1,1-Dichloropropene	Not detected		8.2	50
Cyclohexane	Not detected		18	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		22	50
2-Hexanone (*)	Not detected		13	50
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		7.3	50
Benzene (MS)	Not detected		9.2	50
1,2-Dichloroethane	Not detected		11	50
Trichloroethene (MS)	Not detected		9.4	50
1,2-Dichloropropane (CCC)	Not detected		6.5	50
Bromodichloromethane	Not detected		7.4	50
Methyl Cyclohexane	Not detected		9.6	50
Dibromomethane	Not detected		7.7	50
cis-1,3-Dichloropropene	Not detected		7.3	50
Toluene (CCC/MS)	Not detected		8.4	50
trans-1,3-Dichloropropene	Not detected		6.4	50
1,1,2-Trichloroethane	Not detected		9.2	50
Tetrachloroethene	Not detected		9.0	50
trans-1,4-Dichloro-2-butene	Not detected		18	50
Dibromochloromethane	Not detected		6.1	50
1,2-Dibromoethane	Not detected		6.2	50
Chlorobenzene (SPCC/MS)	Not detected		8.1	50
1,1,1,2-Tetrachloroethane	Not detected		6.1	50
Ethylbenzene (CCC)	Not detected		9.6	50
p,m-Xylene	Not detected		18	50
o-Xylene	Not detected		9.1	50
Styrene	Not detected		9.6	50
Isopropylbenzene	Not detected		8.6	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks02a.d (100ul blank 1s0802)
Blank ID : BLANK1
Prep Batch: vf120802s1
Prep Date : 08/02/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		9.9	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.2	50
1,2,3-Trichloropropane	Not detected		18	50
n-Propylbenzene	Not detected		8.8	50
Bromobenzene	Not detected		9.5	50
1,3,5-Trimethylbenzene	Not detected		8.8	50
tert-Butylbenzene	Not detected		10	50
1,2,4-Trimethylbenzene	Not detected		9.9	50
sec-Butylbenzene	Not detected		10	50
p-Isopropyltoluene	Not detected		10	50
1,3-Dichlorobenzene	Not detected		10	50
1,4-Dichlorobenzene	Not detected		8.5	50
1,2-Dichlorobenzene	Not detected		11	50
1,2,3-Trimethylbenzene	Not detected		6.7	50
n-Butylbenzene	Not detected		4.1	50
Hexachloroethane	Not detected		6.5	50
1,2-Dibromo-3-Chloropropane	Not detected		11	50
1,2,4-Trichlorobenzene	Not detected		6.6	50
Hexachlorobutadiene	Not detected		11	50
1,2,3-Trichlorobenzene	Not detected		7.6	50
Naphthalene	Not detected		6.7	50
2-Methylnaphthalene	Not detected		7.8	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks02a.d
Method Blank Prep Date: 08/02/12
Blank/LCS Preparation Batch: vf120802s1

LCS Data File: lcss02a.d
LCS Prep Date: 08/02/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53345.01	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.02	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.03	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.04	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.05	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.06	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.07	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.08	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.09	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.10	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.11	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.12	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.13	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.14	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.15	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53345.16	120802A5	VF120802S1	08/02/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53348.01	120802A5	VF120802S1	08/02/12	TCLP Volatiles	$TCLPVOL

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb02a.d	08/02/12 10:54	50	95	8.0	40.0	9.9	4424	PASS
		75	95	30.0	66.0	37.7	16848	PASS
		95	95	100.0	100.0	100.0	44704	PASS
		96	95	5.0	9.0	6.8	3034	PASS
		173	174	0.0	2.0	0.6	329	PASS
		174	95	50.0	120.0	116.9	52248	PASS
		175	174	4.0	9.0	7.2	3740	PASS
		176	174	93.0	101.0	95.4	49848	PASS
		177	176	5.0	9.0	6.6	3292	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc02a.d	08/02/12 11:20	Pentafluorobenzene	493746/ 3.96	246873- 987492	3.46- 4.46
		1,4-Difluorobenzene	550969/ 4.32	275485- 1101938	3.82- 4.82
		Chlorobenzene-D5	195015/ 5.68	97508- 390030	5.18- 6.18
		1,4-Dichlorobenzene-D4	262711/ 6.78	131356- 525422	6.28- 7.28
					Total Outliers: N/A
lcss02a.d	08/02/12 12:04	Pentafluorobenzene	559921/ 3.96	Ratio: 1.134	Diff.: 0.00
		1,4-Difluorobenzene	621787/ 4.32	Ratio: 1.129	Diff.: 0.00
		Chlorobenzene-D5	220539/ 5.68	Ratio: 1.131	Diff.: 0.00
		1,4-Dichlorobenzene-D4	297224/ 6.78	Ratio: 1.131	Diff.: 0.00
					Total Outliers: 0
lcss02b.d	08/02/12 12:24	Pentafluorobenzene	513859/ 3.96	Ratio: 1.041	Diff.: 0.00
		1,4-Difluorobenzene	570414/ 4.32	Ratio: 1.035	Diff.: 0.00
		Chlorobenzene-D5	205362/ 5.68	Ratio: 1.053	Diff.: 0.00
		1,4-Dichlorobenzene-D4	277398/ 6.78	Ratio: 1.056	Diff.: 0.00
					Total Outliers: 0
blks02a.d	08/02/12 14:38	Pentafluorobenzene	500642/ 3.96	Ratio: 1.014	Diff.: 0.00
		1,4-Difluorobenzene	548203/ 4.32	Ratio: 0.995	Diff.: 0.00
		Chlorobenzene-D5	195169/ 5.68	Ratio: 1.001	Diff.: 0.00
		1,4-Dichlorobenzene-D4	276577/ 6.77	Ratio: 1.053	Diff.: -0.01
					Total Outliers: 0
5334501.d	08/02/12 14:58	Pentafluorobenzene	465932/ 3.96	Ratio: 0.944	Diff.: 0.00
		1,4-Difluorobenzene	516415/ 4.32	Ratio: 0.937	Diff.: 0.00
		Chlorobenzene-D5	184089/ 5.68	Ratio: 0.944	Diff.: 0.00
		1,4-Dichlorobenzene-D4	262066/ 6.77	Ratio: 0.998	Diff.: -0.01
					Total Outliers: 0
5334502.d	08/02/12 15:18	Pentafluorobenzene	555161/ 3.96	Ratio: 1.124	Diff.: 0.00
		1,4-Difluorobenzene	616898/ 4.32	Ratio: 1.120	Diff.: 0.00
		Chlorobenzene-D5	216925/ 5.68	Ratio: 1.112	Diff.: 0.00
		1,4-Dichlorobenzene-D4	304405/ 6.77	Ratio: 1.159	Diff.: -0.01
					Total Outliers: 0
5334503.d	08/02/12 15:38	Pentafluorobenzene	542144/ 3.96	Ratio: 1.098	Diff.: 0.00
		1,4-Difluorobenzene	601242/ 4.32	Ratio: 1.091	Diff.: 0.00
		Chlorobenzene-D5	216700/ 5.68	Ratio: 1.111	Diff.: 0.00
		1,4-Dichlorobenzene-D4	308942/ 6.77	Ratio: 1.176	Diff.: -0.01
					Total Outliers: 0
5334504.d	08/02/12 15:59	Pentafluorobenzene	548997/ 3.96	Ratio: 1.112	Diff.: 0.00
		1,4-Difluorobenzene	611273/ 4.32	Ratio: 1.109	Diff.: 0.00
		Chlorobenzene-D5	218918/ 5.68	Ratio: 1.123	Diff.: 0.00
		1,4-Dichlorobenzene-D4	302720/ 6.77	Ratio: 1.152	Diff.: -0.01
					Total Outliers: 0
5334505.d	08/02/12 16:19	Pentafluorobenzene	524075/ 3.96	Ratio: 1.061	Diff.: 0.00
		1,4-Difluorobenzene	584706/ 4.32	Ratio: 1.061	Diff.: 0.00
		Chlorobenzene-D5	206271/ 5.68	Ratio: 1.058	Diff.: 0.00
		1,4-Dichlorobenzene-D4	292343/ 6.77	Ratio: 1.113	Diff.: -0.01
					Total Outliers: 0
5334506.d	08/02/12 16:39	Pentafluorobenzene	561097/ 3.96	Ratio: 1.136	Diff.: 0.00
		1,4-Difluorobenzene	636604/ 4.32	Ratio: 1.155	Diff.: 0.00
		Chlorobenzene-D5	227793/ 5.68	Ratio: 1.168	Diff.: 0.00
		1,4-Dichlorobenzene-D4	317088/ 6.77	Ratio: 1.207	Diff.: -0.01
					Total Outliers: 0
5334507.d	08/02/12 16:59	Pentafluorobenzene	510628/ 3.96	Ratio: 1.034	Diff.: 0.00
		1,4-Difluorobenzene	568575/ 4.32	Ratio: 1.032	Diff.: 0.00
		Chlorobenzene-D5	207739/ 5.68	Ratio: 1.065	Diff.: 0.00
		1,4-Dichlorobenzene-D4	294874/ 6.77	Ratio: 1.122	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5334508.d	08/02/12 17:20	Pentafluorobenzene	552008/ 3.96	Ratio: 1.118	Diff.: 0.00
		1,4-Difluorobenzene	613903/ 4.32	Ratio: 1.114	Diff.: 0.00
		Chlorobenzene-D5	222422/ 5.68	Ratio: 1.141	Diff.: 0.00
		1,4-Dichlorobenzene-D4	310219/ 6.77	Ratio: 1.181	Diff.: -0.01
					Total Outliers: 0
5334509.d	08/02/12 17:40	Pentafluorobenzene	504612/ 3.96	Ratio: 1.022	Diff.: 0.00
		1,4-Difluorobenzene	566721/ 4.32	Ratio: 1.029	Diff.: 0.00
		Chlorobenzene-D5	194990/ 5.68	Ratio: 1.000	Diff.: 0.00
		1,4-Dichlorobenzene-D4	259005/ 6.77	Ratio: 0.986	Diff.: -0.01
					Total Outliers: 0
5334510.d	08/02/12 18:00	Pentafluorobenzene	528934/ 3.96	Ratio: 1.071	Diff.: 0.00
		1,4-Difluorobenzene	593928/ 4.32	Ratio: 1.078	Diff.: 0.00
		Chlorobenzene-D5	207075/ 5.68	Ratio: 1.062	Diff.: 0.00
		1,4-Dichlorobenzene-D4	285667/ 6.77	Ratio: 1.087	Diff.: -0.01
					Total Outliers: 0
5334511.d	08/02/12 18:21	Pentafluorobenzene	544612/ 3.96	Ratio: 1.103	Diff.: 0.00
		1,4-Difluorobenzene	619524/ 4.32	Ratio: 1.124	Diff.: 0.00
		Chlorobenzene-D5	219868/ 5.68	Ratio: 1.127	Diff.: 0.00
		1,4-Dichlorobenzene-D4	305666/ 6.77	Ratio: 1.164	Diff.: -0.01
					Total Outliers: 0
5334512.d	08/02/12 18:42	Pentafluorobenzene	539278/ 3.96	Ratio: 1.092	Diff.: 0.00
		1,4-Difluorobenzene	618093/ 4.32	Ratio: 1.122	Diff.: 0.00
		Chlorobenzene-D5	216578/ 5.68	Ratio: 1.111	Diff.: 0.00
		1,4-Dichlorobenzene-D4	298617/ 6.77	Ratio: 1.137	Diff.: -0.01
					Total Outliers: 0
5334513.d	08/02/12 19:02	Pentafluorobenzene	519066/ 3.96	Ratio: 1.051	Diff.: 0.00
		1,4-Difluorobenzene	590751/ 4.32	Ratio: 1.072	Diff.: 0.00
		Chlorobenzene-D5	211983/ 5.68	Ratio: 1.087	Diff.: 0.00
		1,4-Dichlorobenzene-D4	303232/ 6.77	Ratio: 1.154	Diff.: -0.01
					Total Outliers: 0
5334514.d	08/02/12 19:22	Pentafluorobenzene	516937/ 3.96	Ratio: 1.047	Diff.: 0.00
		1,4-Difluorobenzene	578483/ 4.32	Ratio: 1.050	Diff.: 0.00
		Chlorobenzene-D5	208473/ 5.68	Ratio: 1.069	Diff.: 0.00
		1,4-Dichlorobenzene-D4	293964/ 6.77	Ratio: 1.119	Diff.: -0.01
					Total Outliers: 0
5334515.d	08/02/12 19:42	Pentafluorobenzene	503677/ 3.96	Ratio: 1.020	Diff.: 0.00
		1,4-Difluorobenzene	566806/ 4.32	Ratio: 1.029	Diff.: 0.00
		Chlorobenzene-D5	205792/ 5.68	Ratio: 1.055	Diff.: 0.00
		1,4-Dichlorobenzene-D4	284177/ 6.77	Ratio: 1.082	Diff.: -0.01
					Total Outliers: 0
5334516.d	08/02/12 20:03	Pentafluorobenzene	536956/ 3.96	Ratio: 1.088	Diff.: 0.00
		1,4-Difluorobenzene	606825/ 4.32	Ratio: 1.101	Diff.: 0.00
		Chlorobenzene-D5	220833/ 5.68	Ratio: 1.132	Diff.: 0.00
		1,4-Dichlorobenzene-D4	304768/ 6.77	Ratio: 1.160	Diff.: -0.01
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.01
Data File: 5334501.d
Date Received: 07/26/12

Tag: 0908-072312-0001
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	11	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	750	340	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	6.9	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	20	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	9.2	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	750	25	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	50	11	ug/kg		
74-87-3	Chloromethane	Not detected	300	9.9	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	10.0	ug/kg		
74-83-9	Bromomethane	Not detected	300	11	ug/kg		
75-00-3	Chloroethane	Not detected	300	11	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	7.8	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	50	11	ug/kg		
75-09-2	Methylene chloride	Not detected	300	11	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	50	8.5	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	50	8.5	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	50	7.9	ug/kg		
67-66-3	Chloroform	Not detected	50	7.8	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	50	6.4	ug/kg		
110-82-7	Cyclohexane	Not detected	50	18	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	22	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	13	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	50	7.3	ug/kg		
71-43-2	Benzene	Not detected	50	9.2	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	50	11	ug/kg		
79-01-6	Trichloroethene	Not detected	50	9.4	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	50	6.5	ug/kg		
75-27-4	Bromodichloromethane	Not detected	50	7.4	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	50	9.6	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	7.3	ug/kg		
108-88-3	Toluene	Not detected	50	8.4	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	6.4	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	50	9.2	ug/kg		
127-18-4	Tetrachloroethene	Not detected	50	9.0	ug/kg		
124-48-1	Dibromochloromethane	Not detected	50	6.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	50	6.2	ug/kg		
108-90-7	Chlorobenzene	Not detected	50	8.1	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	7.2	ug/kg		
100-41-4	Ethylbenzene	Not detected	50	9.6	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	50	18	ug/kg		
95-47-6	o-Xylene	Not detected	50	9.1	ug/kg		
100-42-5	Styrene	Not detected	50	9.6	ug/kg		
98-82-8	Isopropylbenzene	Not detected	50	8.6	ug/kg		
75-25-2	Bromoform	Not detected	50	9.9	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	50	10	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	50	8.5	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	50	11	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	50	11	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	6.6	ug/kg		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (90%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (99%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.02
Data File: 5334502.d
Date Received: 07/26/12

Tag: SB168-(07-23-12) (6-8)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 77.5

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	200	16	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	1200	520	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	11	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	32	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1200	38	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	80	17	ug/kg		
74-87-3	Chloromethane	Not detected	400	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	200	15	ug/kg		
74-83-9	Bromomethane	Not detected	400	16	ug/kg		
75-00-3	Chloroethane	Not detected	400	17	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	200	12	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	80	17	ug/kg		
75-09-2	Methylene chloride	Not detected	400	17	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	80	13	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	80	13	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	80	12	ug/kg		
67-66-3	Chloroform	Not detected	80	12	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	80	9.9	ug/kg		
110-82-7	Cyclohexane	Not detected	80	28	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	33	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	19	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	80	11	ug/kg		
71-43-2	Benzene	Not detected	80	14	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	80	17	ug/kg		
79-01-6	Trichloroethene	Not detected	80	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	80	10.0	ug/kg		
75-27-4	Bromodichloromethane	Not detected	80	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	80	15	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	80	11	ug/kg		
108-88-3	Toluene	Not detected	80	13	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	80	9.8	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	80	14	ug/kg		
127-18-4	Tetrachloroethene	Not detected	80	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	80	9.4	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	80	9.6	ug/kg		
108-90-7	Chlorobenzene	Not detected	80	13	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	80	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	80	15	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	80	28	ug/kg		
95-47-6	o-Xylene	Not detected	80	14	ug/kg		
100-42-5	Styrene	Not detected	80	15	ug/kg		
98-82-8	Isopropylbenzene	Not detected	80	13	ug/kg		
75-25-2	Bromoform	Not detected	80	15	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	80	16	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	80	13	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	80	17	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	80	17	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	200	10	ug/kg		
Total Solids							
TSOLIDS	Total Solids	79	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (89%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.02
Data File: 5334502.d
Date Received: 07/26/12

Tag: SB168-(07-23-12) (6-8)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.03
Data File: 5334503.d
Date Received: 07/26/12

Tag: SB137-(07-23-12) (22-24)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 65.3

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	980	440	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.0	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	27	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	980	32	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	10	ug/kg		
67-66-3	Chloroform	Not detected	70	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.4	ug/kg		
110-82-7	Cyclohexane	Not detected	70	24	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	28	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.5	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.4	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	9.7	ug/kg		
108-87-2	Methyl cyclohexane	150	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.5	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.3	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	7.9	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.1	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.4	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	24	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	11	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.6	ug/kg		
Total Solids							
TSOLIDS	Total Solids	86	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (90%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.03
Data File: 5334503.d
Date Received: 07/26/12

Tag: SB137-(07-23-12) (22-24)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.04
Data File: 5334504.d
Date Received: 07/26/12

Tag: SB136-(07-23-12) (22-24)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 68.7

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	1000	460	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.5	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	34	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	300	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.8	ug/kg		
110-82-7	Cyclohexane	Not detected	70	25	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	30	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	10.0	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.9	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10	ug/kg		
108-87-2	Methyl cyclohexane	220	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	10.0	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.7	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.5	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.9	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	25	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.1	ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (91%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.04
Data File: 5334504.d
Date Received: 07/26/12

Tag: SB136-(07-23-12) (22-24)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.05
Data File: 5334505.d
Date Received: 07/26/12

Tag: SB139-(07-24-12) (22-24)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 77.4

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	200	16	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	1200	520	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	11	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	32	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1200	38	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	80	17	ug/kg		
74-87-3	Chloromethane	Not detected	400	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	200	15	ug/kg		
74-83-9	Bromomethane	Not detected	400	16	ug/kg		
75-00-3	Chloroethane	Not detected	400	17	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	200	12	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	80	17	ug/kg		
75-09-2	Methylene chloride	Not detected	400	16	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	80	13	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	80	13	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	80	12	ug/kg		
67-66-3	Chloroform	Not detected	80	12	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	80	9.9	ug/kg		
110-82-7	Cyclohexane	Not detected	80	28	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	33	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	19	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	80	11	ug/kg		
71-43-2	Benzene	Not detected	80	14	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	80	17	ug/kg		
79-01-6	Trichloroethene	Not detected	80	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	80	10.0	ug/kg		
75-27-4	Bromodichloromethane	Not detected	80	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	80	15	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	80	11	ug/kg		
108-88-3	Toluene	Not detected	80	13	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	80	9.8	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	80	14	ug/kg		
127-18-4	Tetrachloroethene	Not detected	80	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	80	9.4	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	80	9.6	ug/kg		
108-90-7	Chlorobenzene	Not detected	80	13	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	80	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	80	15	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	80	28	ug/kg		
95-47-6	o-Xylene	Not detected	80	14	ug/kg		
100-42-5	Styrene	Not detected	80	15	ug/kg		
98-82-8	Isopropylbenzene	Not detected	80	13	ug/kg		
75-25-2	Bromoform	Not detected	80	15	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	80	16	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	80	13	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	80	17	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	80	17	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	200	10	ug/kg		
Total Solids							
TSOLIDS	Total Solids	79	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (91%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (102%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.05
Data File: 5334505.d
Date Received: 07/26/12

Tag: SB139-(07-24-12) (22-24)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.06
Data File: 5334506.d
Date Received: 07/26/12

Tag: SB135-(07-24-12) (2-4)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 59.9

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	900	400	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.3	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	24	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	900	30	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.3	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.5	ug/kg		
67-66-3	Chloroform	Not detected	60	9.3	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.7	ug/kg		
110-82-7	Cyclohexane	Not detected	60	22	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	26	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.7	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	13	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.9	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.7	ug/kg		
108-88-3	Toluene	Not detected	60	10	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.2	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.4	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.7	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.6	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	22	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	10	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	91	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (98%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.06
Data File: 5334506.d
Date Received: 07/26/12

Tag: SB135-(07-24-12) (2-4)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.07
Data File: 5334507.d
Date Received: 07/26/12

Tag: SB166-(07-24-12) (4-6)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 57.3

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	12	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	860	390	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	7.9	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	23	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	10	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	860	28	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	11	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	11	ug/kg		
74-83-9	Bromomethane	Not detected	300	12	ug/kg		
75-00-3	Chloroethane	Not detected	300	12	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	8.9	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	12	ug/kg		
75-09-2	Methylene chloride	Not detected	300	12	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	9.7	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	9.7	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.1	ug/kg		
67-66-3	Chloroform	Not detected	60	8.9	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.3	ug/kg		
110-82-7	Cyclohexane	Not detected	60	21	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	25	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	14	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.3	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	13	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.4	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.5	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	11	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.3	ug/kg		
108-88-3	Toluene	Not detected	60	9.6	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.3	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	10	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	10	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	6.9	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.1	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.3	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.3	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	21	ug/kg		
95-47-6	o-Xylene	Not detected	60	10	ug/kg		
100-42-5	Styrene	Not detected	60	11	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	9.8	ug/kg		
75-25-2	Bromoform	Not detected	60	11	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	9.7	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	12	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	12	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.6	ug/kg		
Total Solids							
TSOLIDS	Total Solids	94	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (100%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.07
Data File: 5334507.d
Date Received: 07/26/12

Tag: SB166-(07-24-12) (4-6)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.08
Data File: 5334508.d
Date Received: 07/26/12

Tag: DUP3-(07-24-12)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 62.8

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	940	420	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.7	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	26	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	940	31	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.8	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.9	ug/kg		
67-66-3	Chloroform	Not detected	60	9.7	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	8.0	ug/kg		
110-82-7	Cyclohexane	Not detected	60	23	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	27	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	9.1	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	8.1	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.3	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.1	ug/kg		
108-88-3	Toluene	Not detected	60	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	8.0	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.6	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.8	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	10	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	9.0	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	23	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	11	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.3	ug/kg		
Total Solids							
TSOLIDS	Total Solids	88	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.08
Data File: 5334508.d
Date Received: 07/26/12

Tag: DUP3-(07-24-12)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.09
Data File: 5334509.d
Date Received: 07/26/12

Tag: SB152-(07-24-12) (4-6)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 64.1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	960	430	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.8	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	26	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	960	32	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10.0	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	10	ug/kg		
67-66-3	Chloroform	Not detected	60	9.9	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	8.2	ug/kg		
110-82-7	Cyclohexane	Not detected	60	24	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	28	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	9.3	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	8.3	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.5	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.3	ug/kg		
108-88-3	Toluene	Not detected	60	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	8.1	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.8	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.9	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	10	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	9.2	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	220	60	23	ug/kg		
95-47-6	o-Xylene	80	60	12	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	11	ug/kg		
75-25-2	Bromoform	Not detected	60	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.5	ug/kg		
Total Solids							
TSOLIDS	Total Solids	89	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (97%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.09
Data File: 5334509.d
Date Received: 07/26/12

Tag: SB152-(07-24-12) (4-6)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.10
Data File: 5334510.d
Date Received: 07/26/12

Tag: SB167-(07-24-12) (2-4)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 75.3

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	200	16	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	1100	510	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	10	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	31	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	37	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	80	17	ug/kg		
74-87-3	Chloromethane	Not detected	400	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	200	15	ug/kg		
74-83-9	Bromomethane	Not detected	400	16	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	200	12	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	80	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	16	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	80	13	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	80	13	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	80	12	ug/kg		
67-66-3	Chloroform	Not detected	80	12	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	80	9.6	ug/kg		
110-82-7	Cyclohexane	Not detected	80	28	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	33	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	19	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	80	11	ug/kg		
71-43-2	Benzene	Not detected	80	14	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	80	17	ug/kg		
79-01-6	Trichloroethene	Not detected	80	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	80	9.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	80	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	80	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	80	11	ug/kg		
108-88-3	Toluene	Not detected	80	13	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	80	9.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	80	14	ug/kg		
127-18-4	Tetrachloroethene	Not detected	80	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	80	9.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	80	9.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	80	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	80	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	80	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	80	27	ug/kg		
95-47-6	o-Xylene	Not detected	80	14	ug/kg		
100-42-5	Styrene	Not detected	80	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	80	13	ug/kg		
75-25-2	Bromoform	Not detected	80	15	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	80	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	80	13	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	80	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	80	16	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	200	9.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	79	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.10
Data File: 5334510.d
Date Received: 07/26/12

Tag: SB167-(07-24-12) (2-4)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.11
Data File: 5334511.d
Date Received: 07/26/12

Tag: SB126-(07-25-12) (24-26)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 68.1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	1000	460	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.4	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	34	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	300	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.7	ug/kg		
110-82-7	Cyclohexane	Not detected	70	25	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	29	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.9	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.8	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10	ug/kg		
108-87-2	Methyl cyclohexane	190	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.9	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.2	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.4	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.8	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	25	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.0	ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (94%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.11
Data File: 5334511.d
Date Received: 07/26/12

Tag: SB126-(07-25-12) (24-26)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.12
Data File: 5334512.d
Date Received: 07/26/12

Tag: SB153-(07-25-12) (3.5-5.5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 75.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	200	16	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	1100	510	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	10	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	31	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	14	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	37	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	80	17	ug/kg		
74-87-3	Chloromethane	Not detected	400	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	200	15	ug/kg		
74-83-9	Bromomethane	Not detected	400	16	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	200	12	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	80	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	16	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	80	13	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	80	13	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	80	12	ug/kg		
67-66-3	Chloroform	Not detected	80	12	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	80	9.6	ug/kg		
110-82-7	Cyclohexane	Not detected	80	28	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	32	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	19	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	80	11	ug/kg		
71-43-2	Benzene	Not detected	80	14	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	80	17	ug/kg		
79-01-6	Trichloroethene	Not detected	80	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	80	9.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	80	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	80	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	80	11	ug/kg		
108-88-3	Toluene	Not detected	80	13	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	80	9.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	80	14	ug/kg		
127-18-4	Tetrachloroethene	Not detected	80	14	ug/kg		
124-48-1	Dibromochloromethane	Not detected	80	9.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	80	9.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	80	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	80	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	80	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	80	27	ug/kg		
95-47-6	o-Xylene	Not detected	80	14	ug/kg		
100-42-5	Styrene	Not detected	80	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	80	13	ug/kg		
75-25-2	Bromoform	Not detected	80	15	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	80	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	80	13	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	80	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	80	16	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	200	9.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	80	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.12
Data File: 5334512.d
Date Received: 07/26/12

Tag: SB153-(07-25-12) (3.5-5.5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.13
Data File: 5334513.d
Date Received: 07/26/12

Tag: SB107-(07-25-12) (3-5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 63.8

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	960	430	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.8	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	26	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	960	32	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10.0	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	10	ug/kg		
67-66-3	Chloroform	Not detected	60	9.9	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	8.2	ug/kg		
110-82-7	Cyclohexane	Not detected	60	23	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	28	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	9.3	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	8.2	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.4	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.3	ug/kg		
108-88-3	Toluene	Not detected	60	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	8.1	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.7	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.9	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	10	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	9.2	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	23	ug/kg		
95-47-6	o-Xylene	Not detected	60	12	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	11	ug/kg		
75-25-2	Bromoform	Not detected	60	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.4	ug/kg		
Total Solids							
TSOLIDS	Total Solids	88	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (94%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (102%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.13
Data File: 5334513.d
Date Received: 07/26/12

Tag: SB107-(07-25-12) (3-5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.14
Data File: 5334514.d
Date Received: 07/26/12

Tag: SB111-(07-25-12) (0.5-2.5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 56.3

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	12	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	840	380	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	7.8	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	23	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	10	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	840	28	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	11	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	11	ug/kg		
74-83-9	Bromomethane	Not detected	300	12	ug/kg		
75-00-3	Chloroethane	Not detected	300	12	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	8.8	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	12	ug/kg		
75-09-2	Methylene chloride	Not detected	300	12	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	9.5	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	9.6	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	8.9	ug/kg		
67-66-3	Chloroform	Not detected	60	8.7	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.2	ug/kg		
110-82-7	Cyclohexane	Not detected	60	21	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	24	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	14	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.2	ug/kg		
71-43-2	Benzene	Not detected	60	10	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	13	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.3	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.3	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	11	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.2	ug/kg		
108-88-3	Toluene	Not detected	60	9.5	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.2	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	10	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	10	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	6.8	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.0	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.1	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.1	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	20	ug/kg		
95-47-6	o-Xylene	Not detected	60	10	ug/kg		
100-42-5	Styrene	Not detected	60	11	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	9.6	ug/kg		
75-25-2	Bromoform	Not detected	60	11	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	11	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	9.6	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	12	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	12	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.4	ug/kg		
Total Solids							
TSOLIDS	Total Solids	94	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.14
Data File: 5334514.d
Date Received: 07/26/12

Tag: SB111-(07-25-12) (0.5-2.5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.15
Data File: 5334515.d
Date Received: 07/26/12

Tag: SB110-(07-25-12) (0.5-2.5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 59.1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	890	400	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.2	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	24	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	890	29	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	12	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.2	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10.0	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.3	ug/kg		
67-66-3	Chloroform	Not detected	60	9.2	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.6	ug/kg		
110-82-7	Cyclohexane	Not detected	60	22	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	26	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.6	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	13	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.6	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.7	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	11	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.6	ug/kg		
108-88-3	Toluene	Not detected	60	9.9	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.5	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.2	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.6	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.5	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	21	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	11	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	10	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.8	ug/kg		
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.15
Data File: 5334515.d
Date Received: 07/26/12

Tag: SB110-(07-25-12) (0.5-2.5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.16
Data File: 5334516.d
Date Received: 07/26/12

Tag: SB119-(07-26-12) (3-5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 67.9

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	08/02/12	
67-64-1	Acetone	Not detected	1000	460	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.4	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	34	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.7	ug/kg		
110-82-7	Cyclohexane	Not detected	70	25	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	29	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.8	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.8	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.8	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.2	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.4	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.8	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	25	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.0	ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/27/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (95%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a5.3

LIMS ID: S53345.16
Data File: 5334516.d
Date Received: 07/26/12

Tag: SB119-(07-26-12) (3-5)
Notes: 100ul 1s0802
s/50 id:vf120802s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
Analytical Batch: 120802a5.3
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334501.d Vial: 10
Acq On : 2 Aug 12 2:58 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:31 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

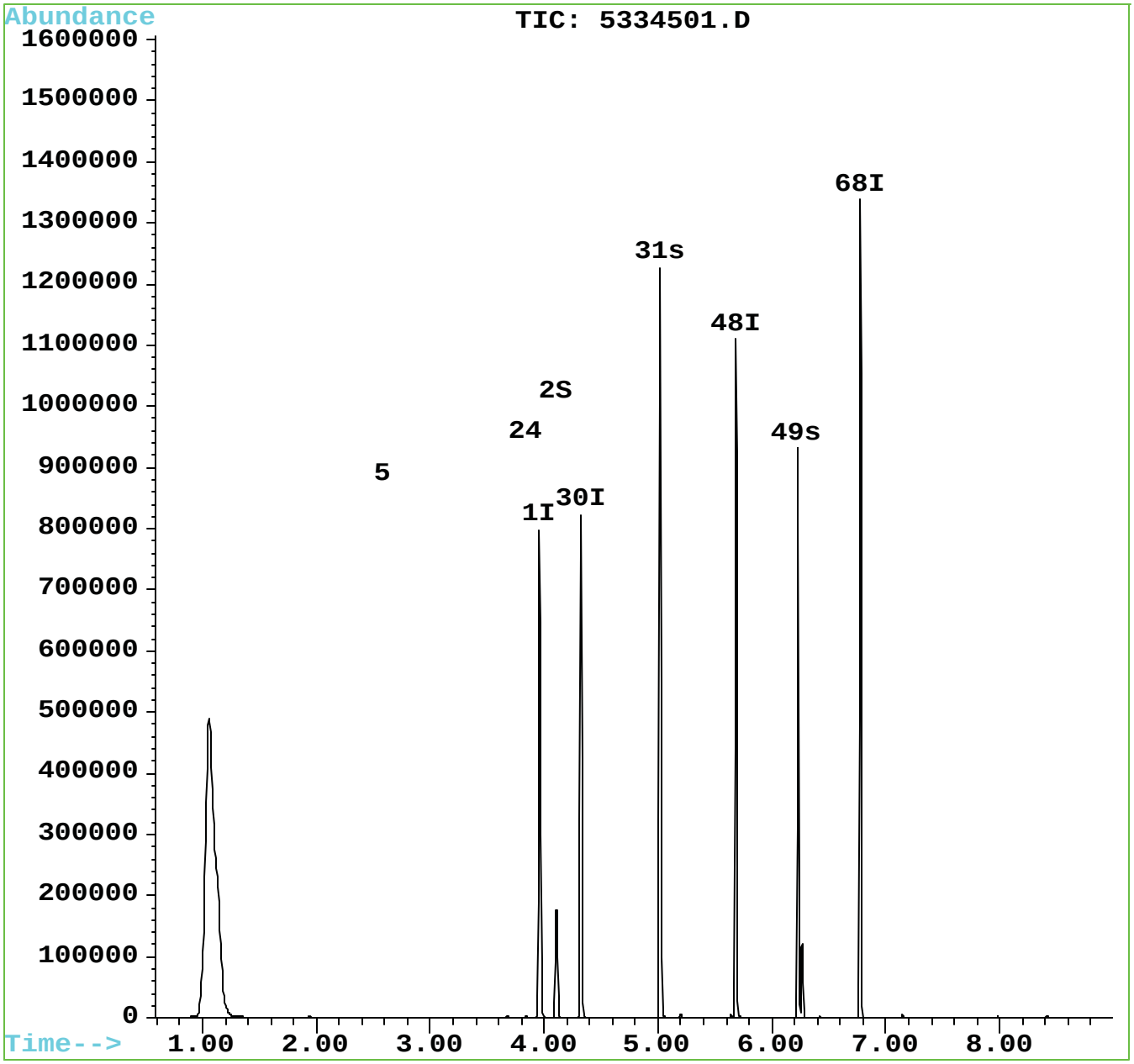
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	465932	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	516415	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	184089	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	262066	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	79264	44.99	ug/l	89.9
31) TOLUENE-D8 (S)	5.02	98	515119	49.37	ug/l	98.7
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	220058	50.26	ug/l	100.5
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	345	1.99	ug/l #	4
24) Tetrahydrofuran	3.84	42	887	3.45	ug/l #	

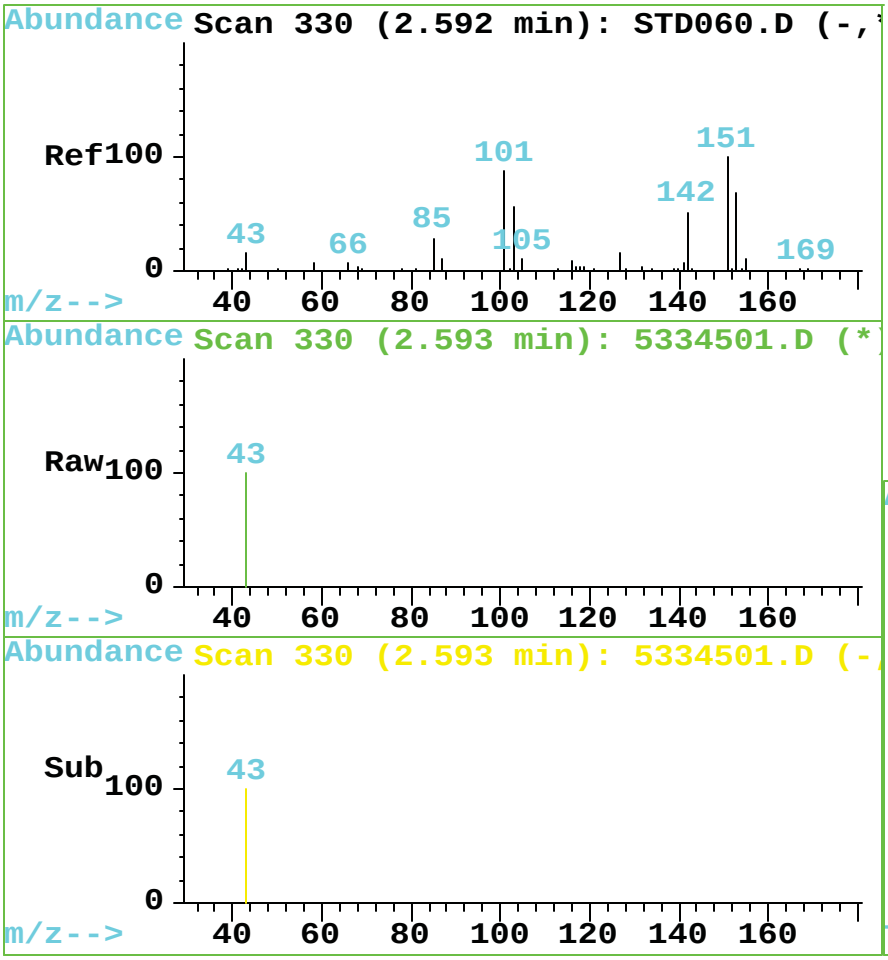
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334501.d Vial: 10
Acq On : 2 Aug 12 2:58 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:31 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

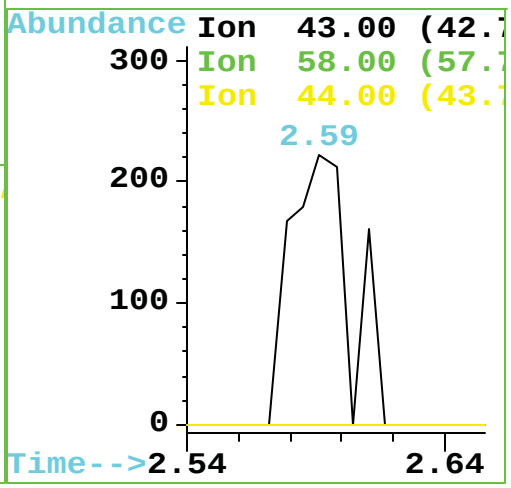


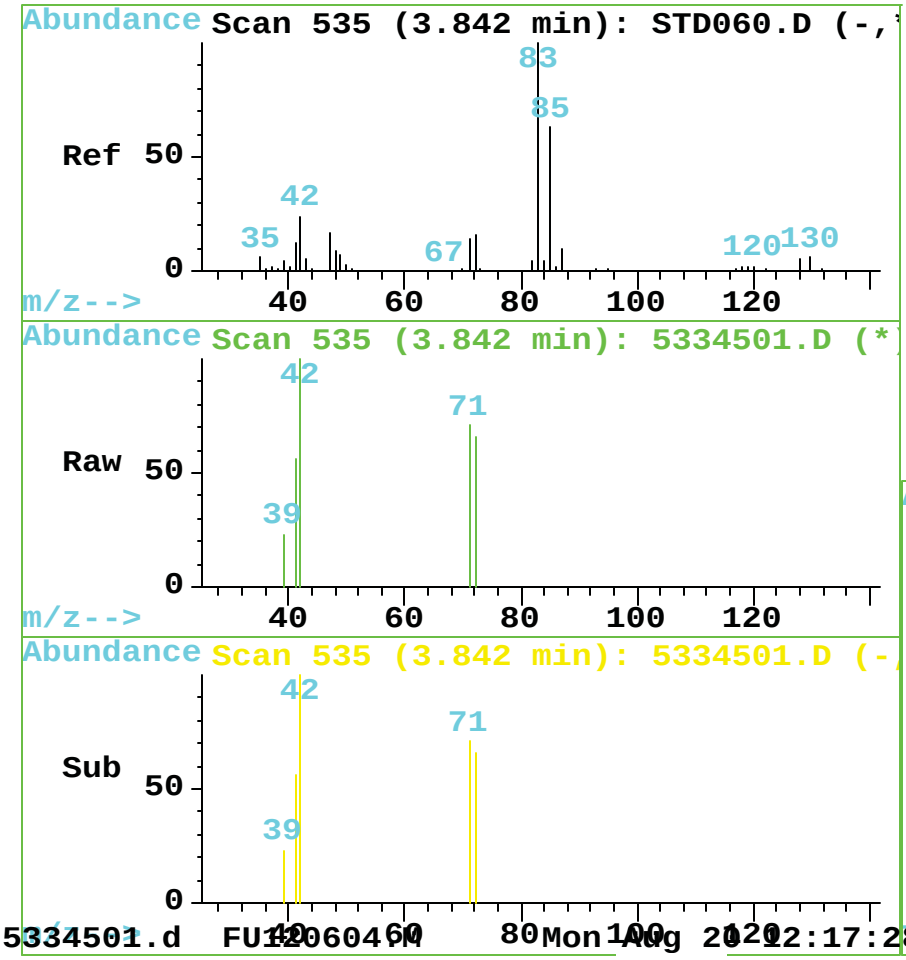


#5
Acetone (*)
Concen: 1.99 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5334501.d
Acq: 2 Aug 12 2:58 pm

Tgt Ion:43 Resp: 345

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

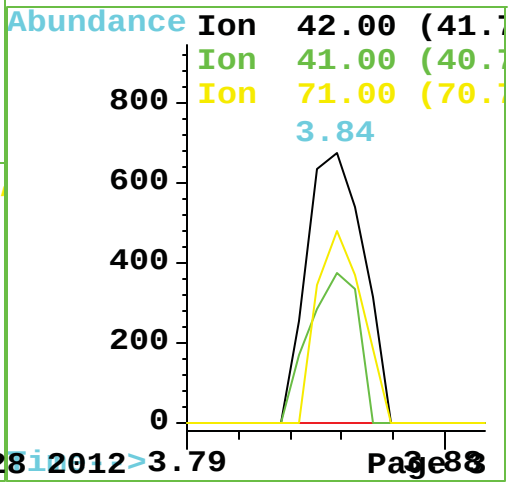




#24
Tetrahydrofuran
Concen: 3.45 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334501.d
Acq: 2 Aug 12 2:58 pm

Tgt Ion:42 Resp: 887

Ion	Ratio	Lower	Upper
42	100		
41	48.5	222.5	282.5#
71	56.9	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334502.d Vial: 11
Acq On : 2 Aug 12 3:18 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:31 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

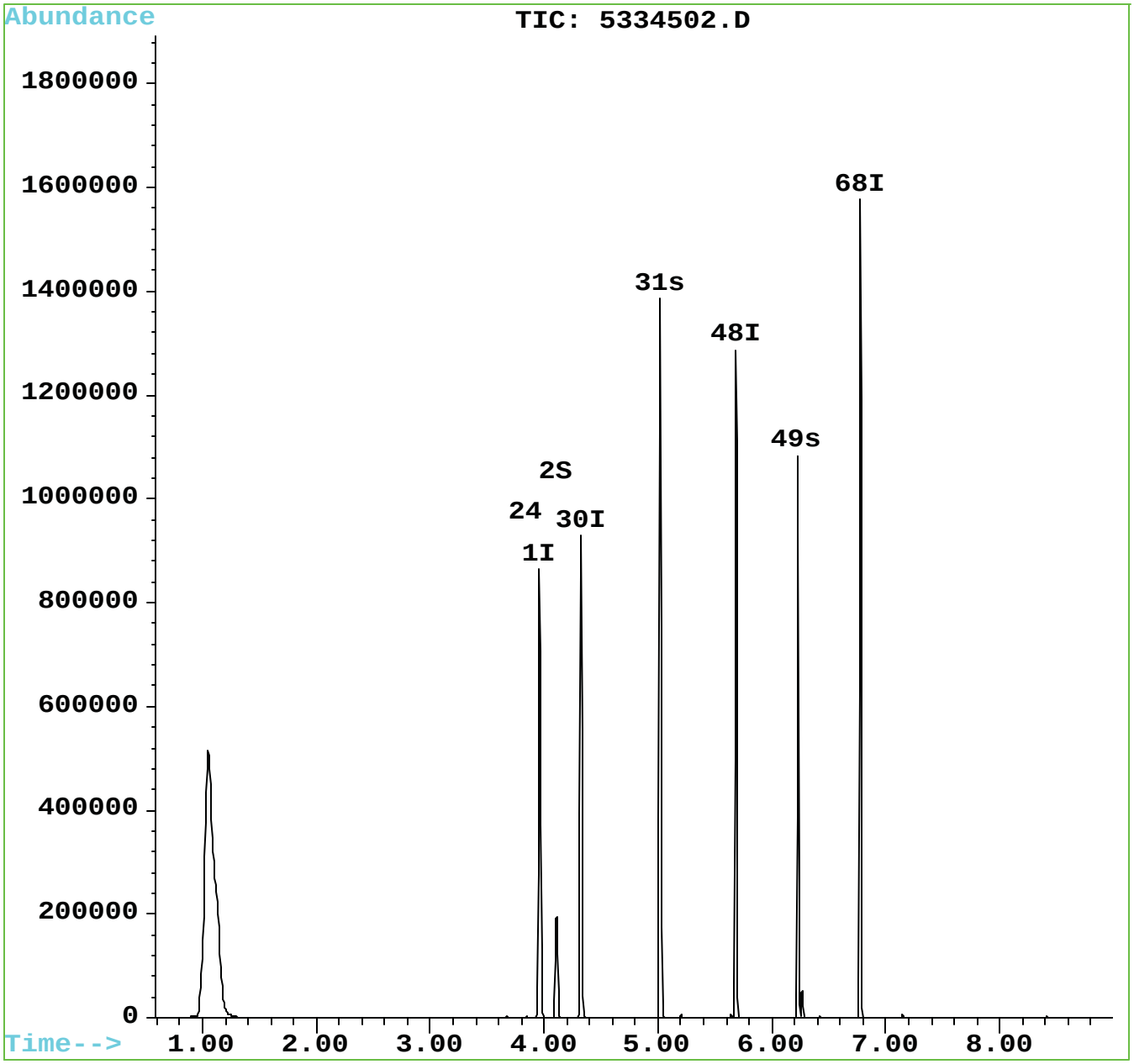
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	555161	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	616898	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	216925	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	304405	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	93458	44.52	ug/l	89.0
31) TOLUENE-D8 (S)	5.02	98	613264	49.20	ug/l	98.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	255722	49.57	ug/l	99.1
Target Compounds						Qvalu
24) Tetrahydrofuran	3.84	42	903	2.95	ug/l #	

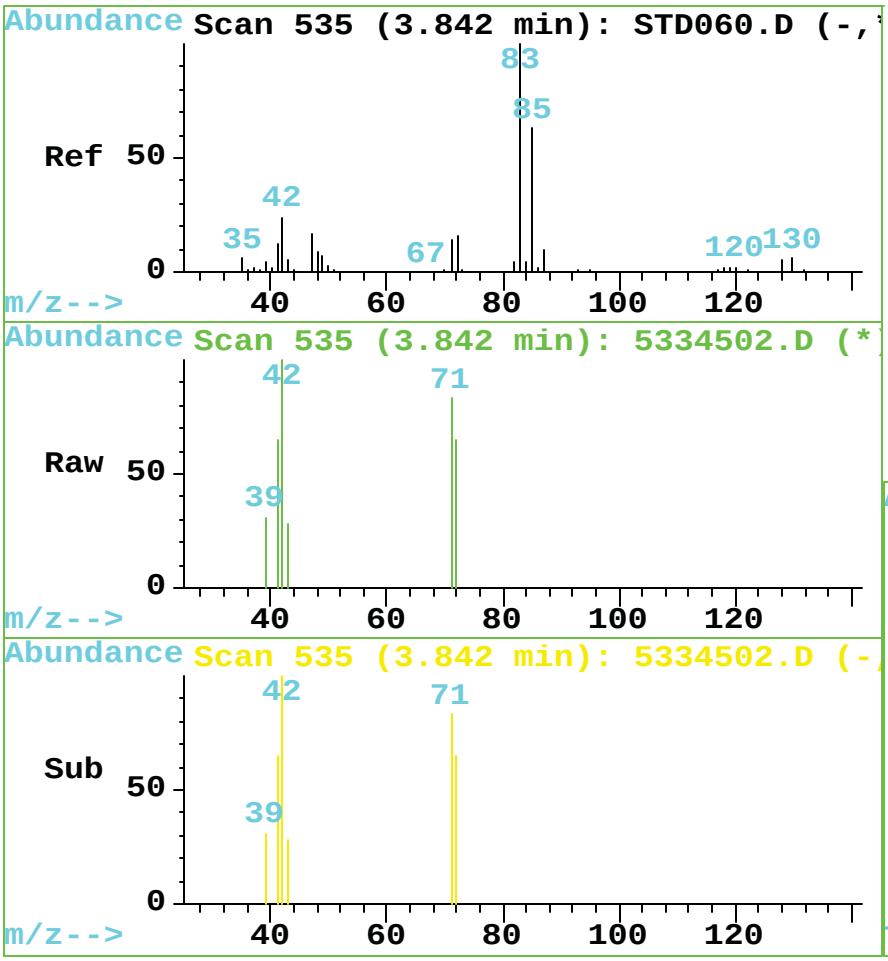
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334502.d Vial: 11
Acq On : 2 Aug 12 3:18 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:31 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

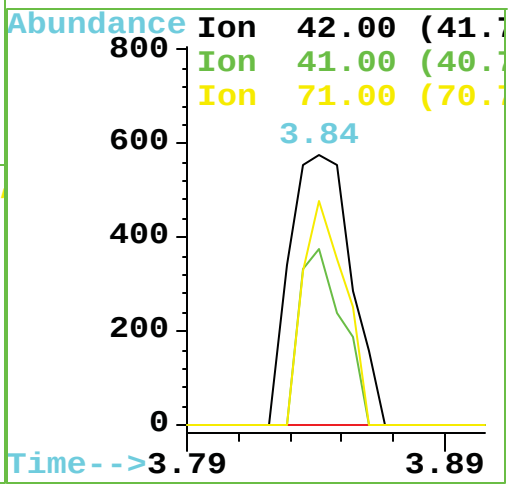




#24
Tetrahydrofuran
Concen: 2.95 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334502.d
Acq: 2 Aug 12 3:18 pm

Tgt Ion:42 Resp: 903

Ion	Ratio	Lower	Upper
42	100		
41	45.8	222.5	282.5#
71	57.1	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334503.d Vial: 12
Acq On : 2 Aug 12 3:38 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

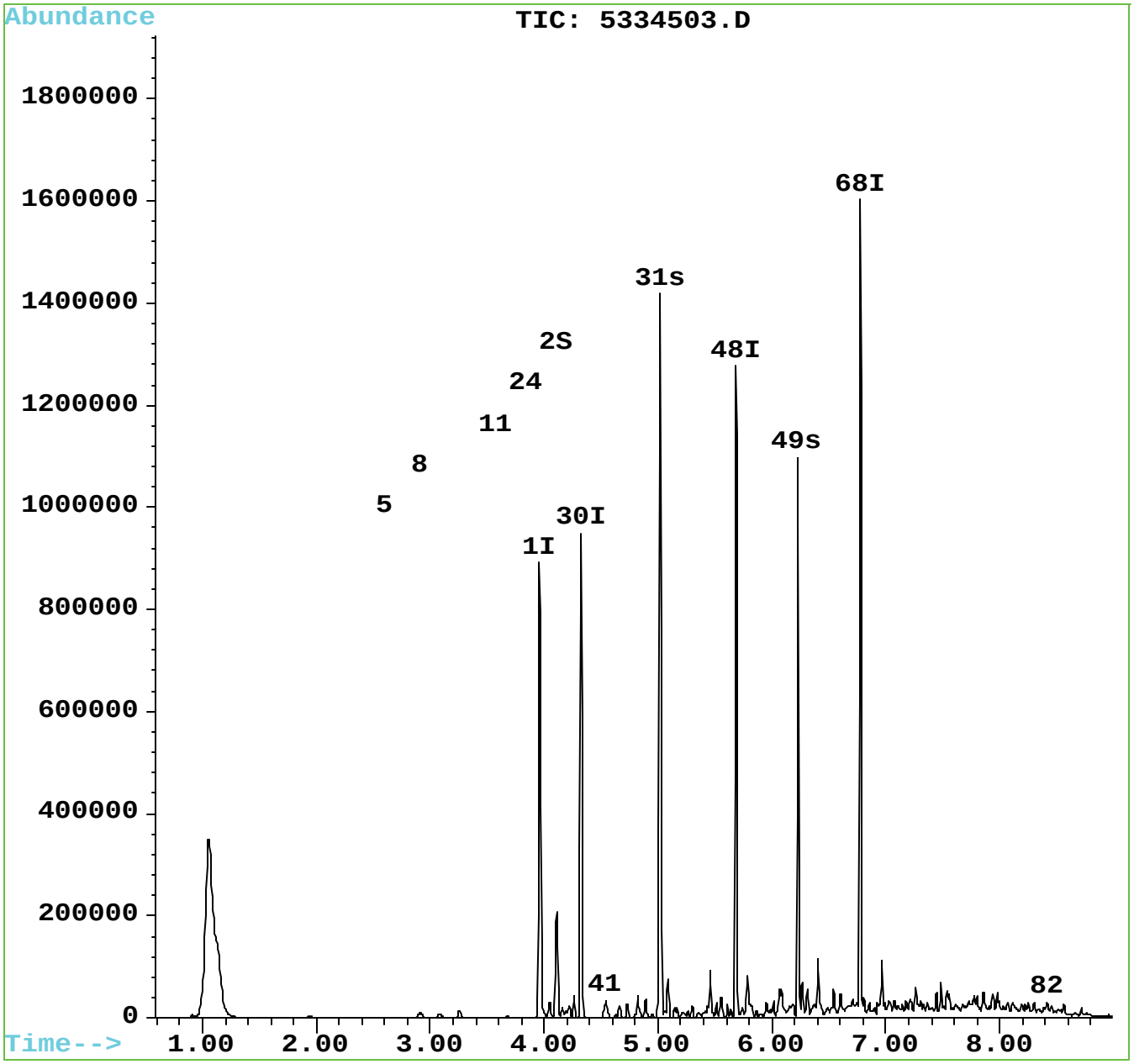
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	542144	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	601242	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	216700	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	308942	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	92334	45.04	ug/l		90.0
31) TOLUENE-D8 (S)	5.02	98	603498	49.68	ug/l		99.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	261249	50.69	ug/l		101.3
Target Compounds							Qvalu
5) Acetone (*)	2.60	43	440	2.18	ug/l	#	6
8) Methyl Acetate	2.91	43	9511	12.99	ug/l	#	4
11) 2-Butanone (MEK) (*)	3.58	43	796	2.54	ug/l	#	
24) Tetrahydrofuran	3.84	42	721	2.41	ug/l	#	
41) Methyl Cyclohexane	4.54	55	7906	2.33	ug/l		8
82) 2-Methylnaphthalene	8.41	142	3897	1.10	ug/l		9

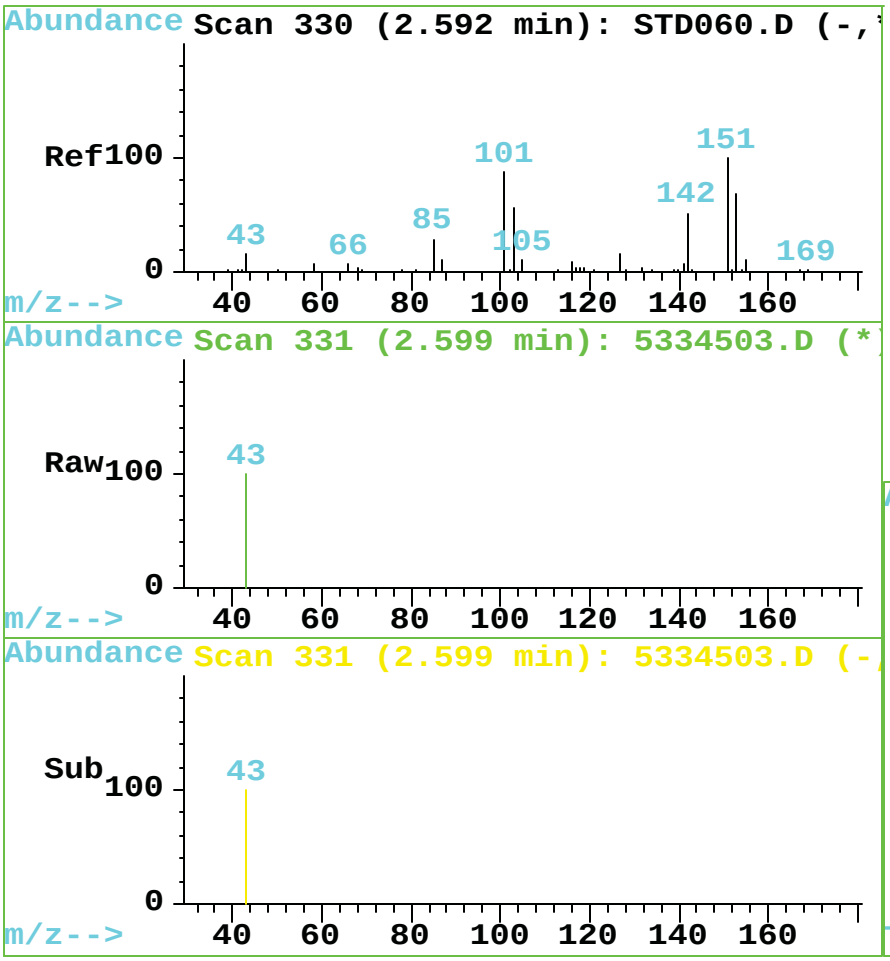
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334503.d Vial: 12
Acq On : 2 Aug 12 3:38 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

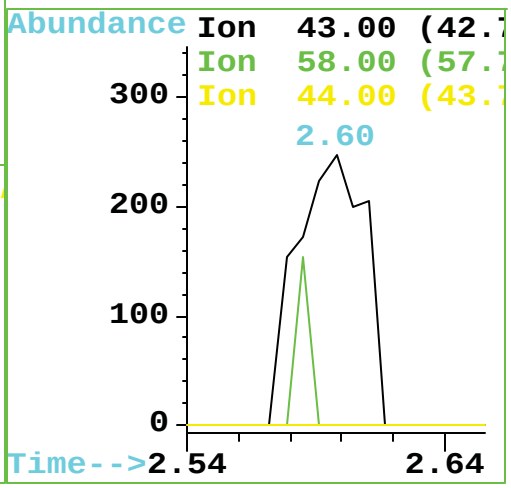


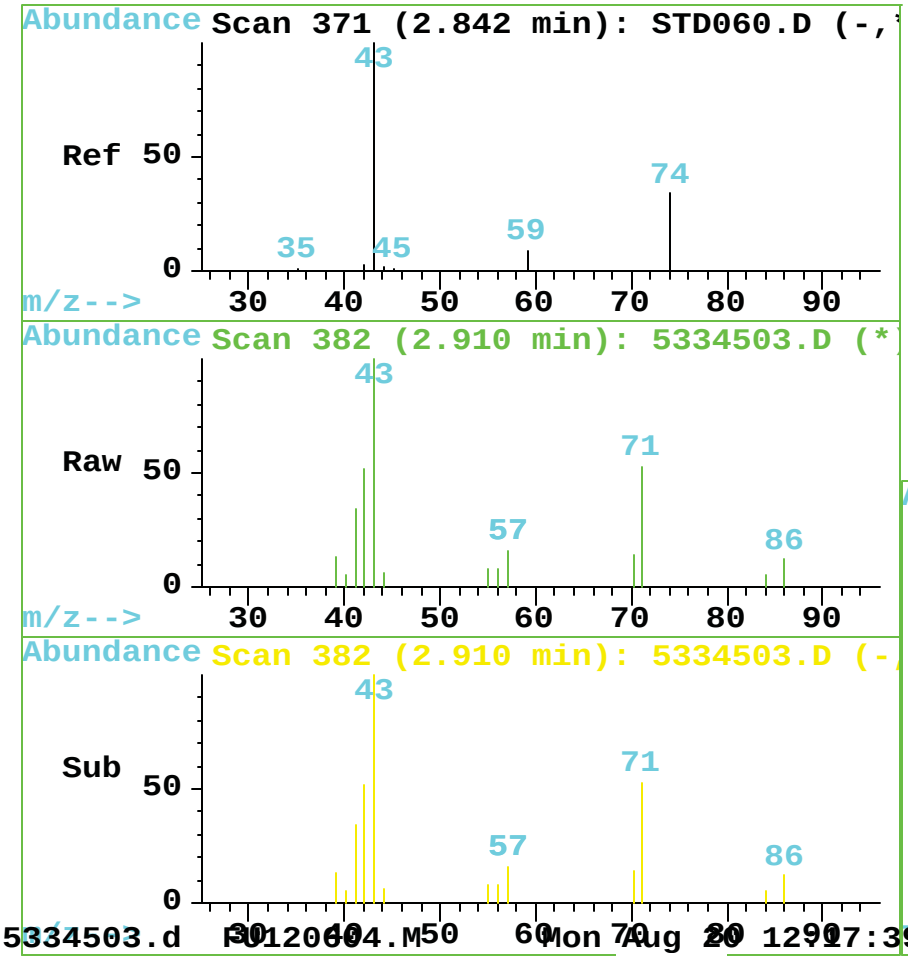


#5
Acetone (*)
Concen: 2.18 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5334503.d
Acq: 2 Aug 12 3:38 pm

Tgt Ion:43 Resp: 440

Ion	Ratio	Lower	Upper
43	100		
58	12.7	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

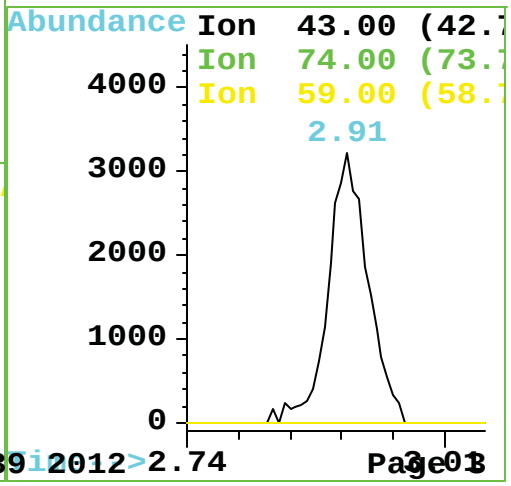


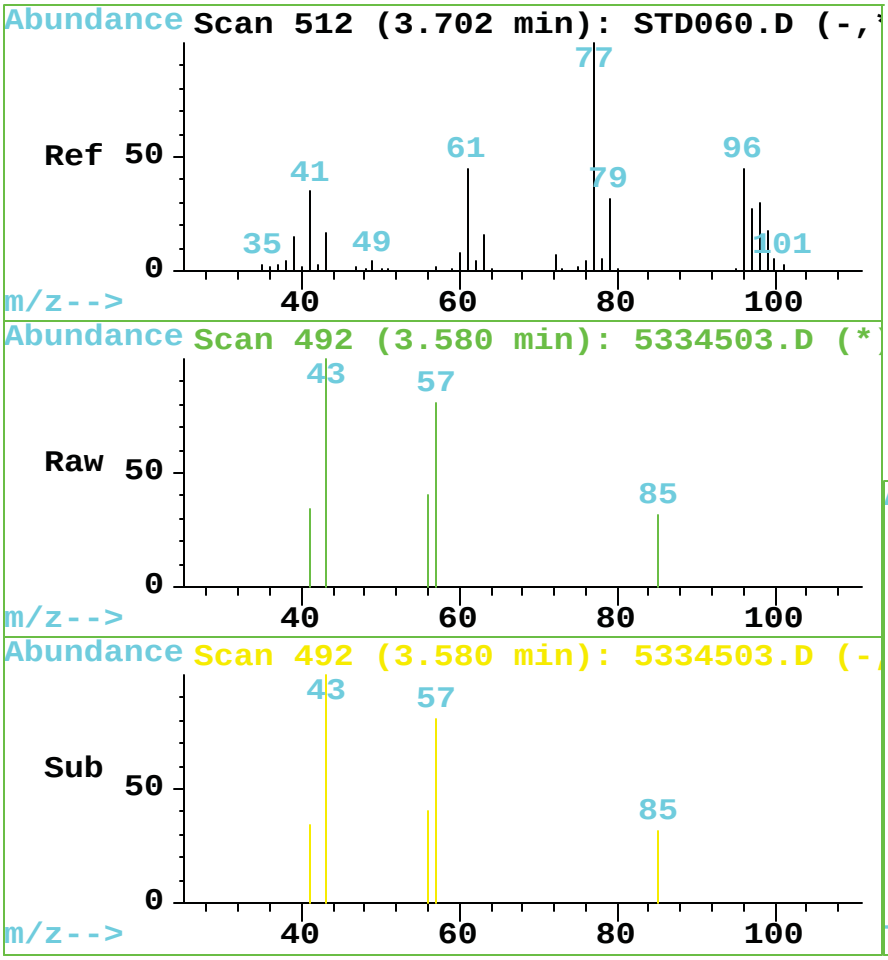


#8
Methyl Acetate
Concen: 12.99 ug/l
RT: 2.91 min Scan# 382
Delta R.T. 0.08 min
Lab File: 5334503.d
Acq: 2 Aug 12 3:38 pm

Tgt Ion:43 Resp: 9511

Ion	Ratio	Lower	Upper
43	100		
74	0.0	4.8	64.8#
59	0.0	0.0	40.3
0	0.0	0.0	0.0

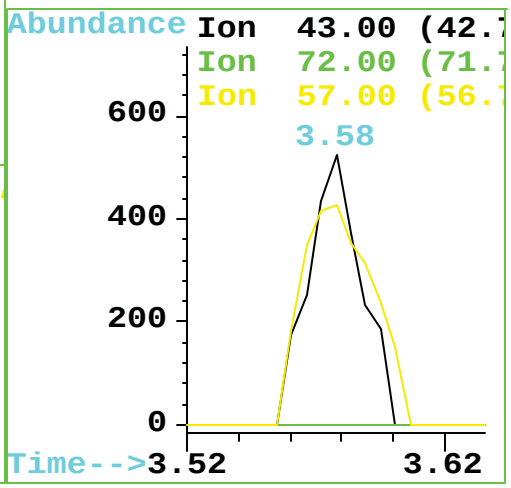


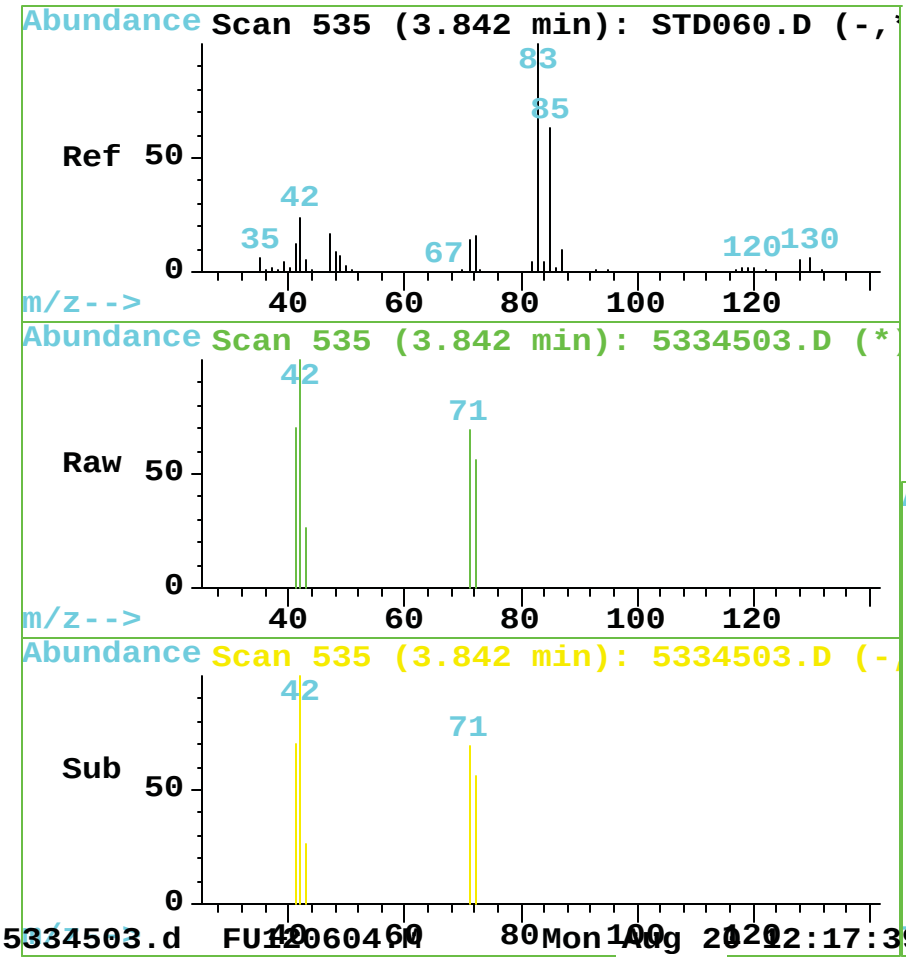


#11
2-Butanone (MEK) (*)
Concen: 2.54 ug/l
RT: 3.58 min Scan# 492
Delta R.T. -0.11 min
Lab File: 5334503.d
Acq: 2 Aug 12 3:38 pm

Tgt Ion:43 Resp: 796

Ion	Ratio	Lower	Upper
43	100		
72	0.0	9.3	69.3#
57	111.8	0.0	38.8#
0	0.0	0.0	0.0

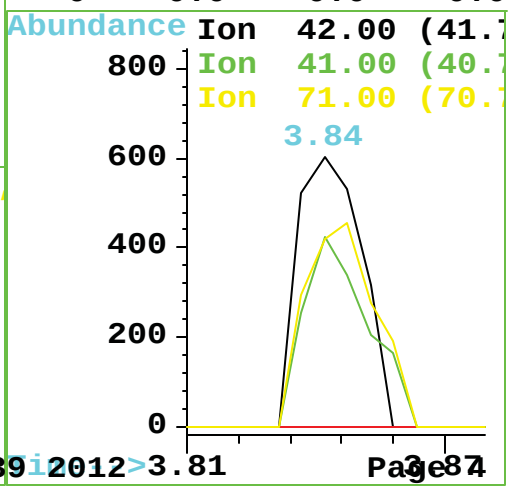


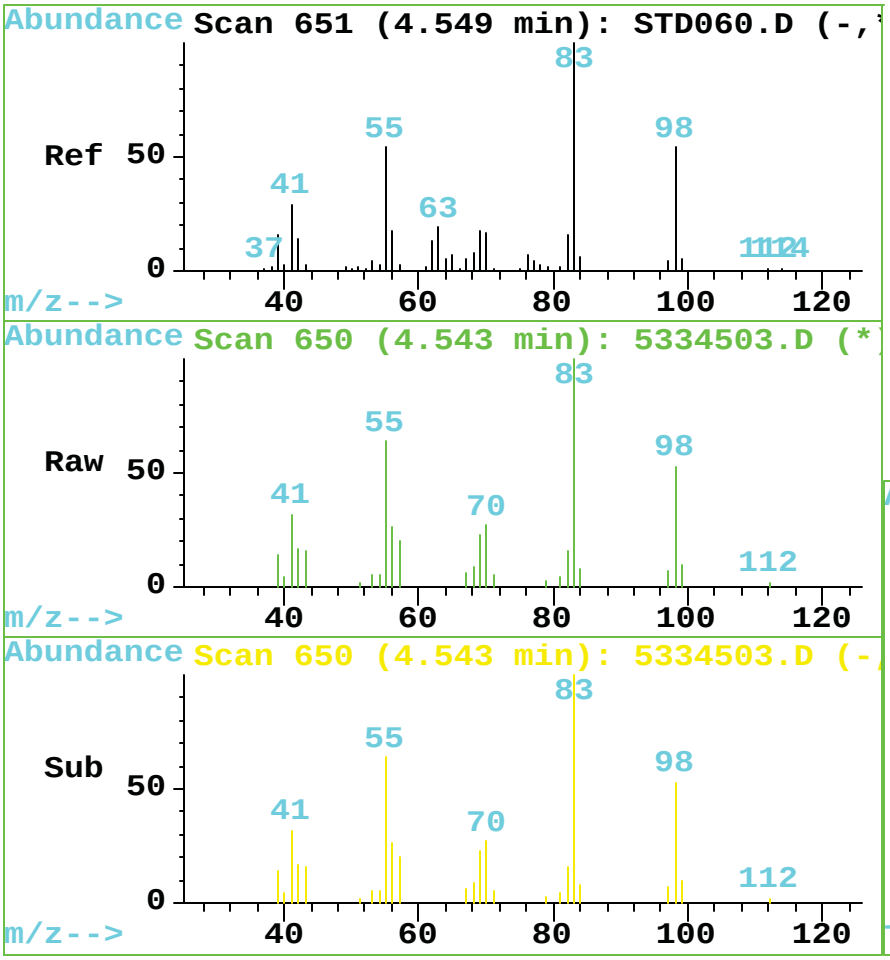


#24
Tetrahydrofuran
Concen: 2.41 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334503.d
Acq: 2 Aug 12 3:38 pm

Tgt Ion:42 Resp: 721

Ion	Ratio	Lower	Upper
42	100		
41	70.3	222.5	282.5#
71	83.2	24.9	84.9
0	0.0	0.0	0.0

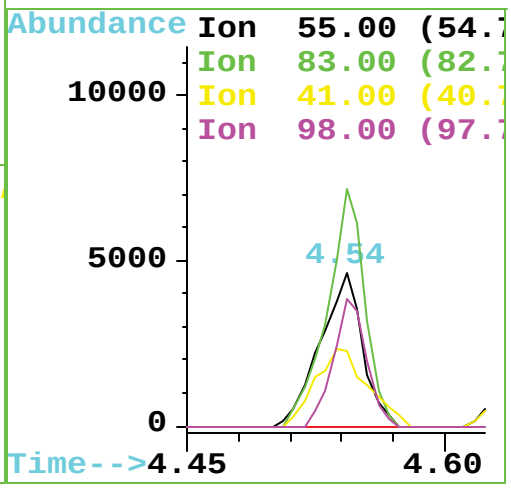


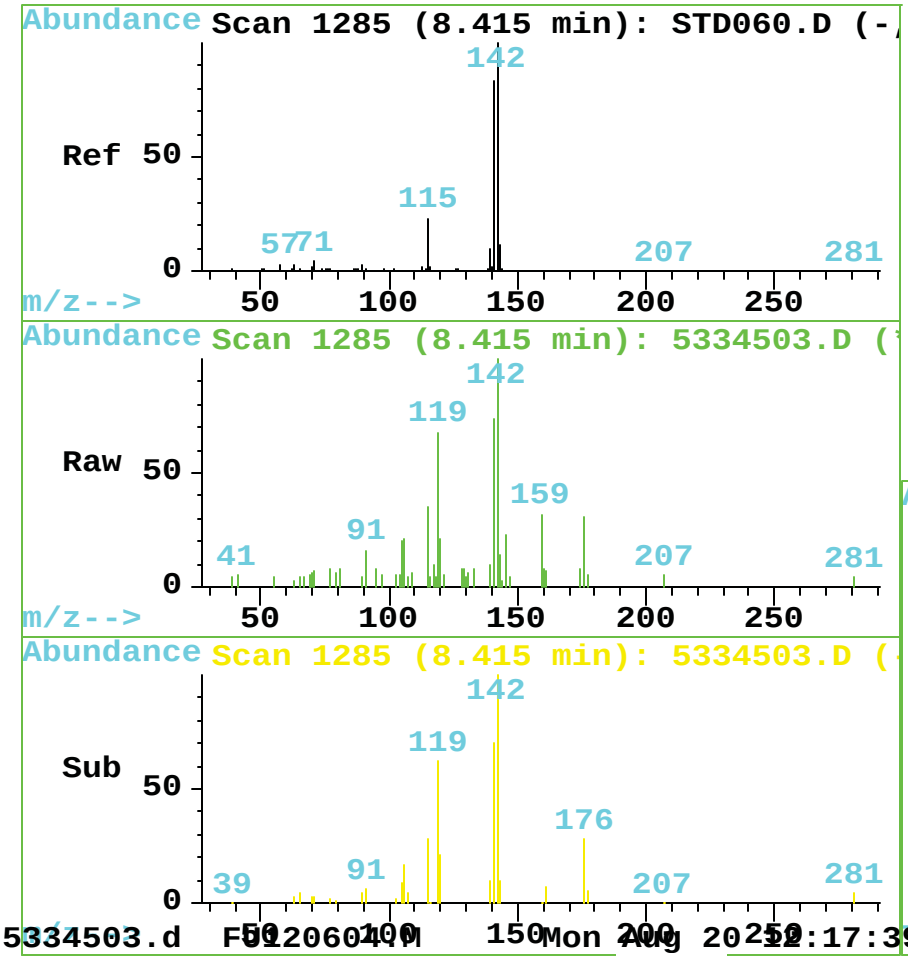


#41
Methyl Cyclohexane
Concen: 2.33 ug/l
RT: 4.54 min Scan# 650
Delta R.T. 0.00 min
Lab File: 5334503.d
Acq: 2 Aug 12 3:38 pm

Tgt Ion:55 Resp: 7906

Ion	Ratio	Lower	Upper
55	100		
83	137.3	131.0	191.0
41	61.9	42.0	102.0
98	65.4	55.3	115.3

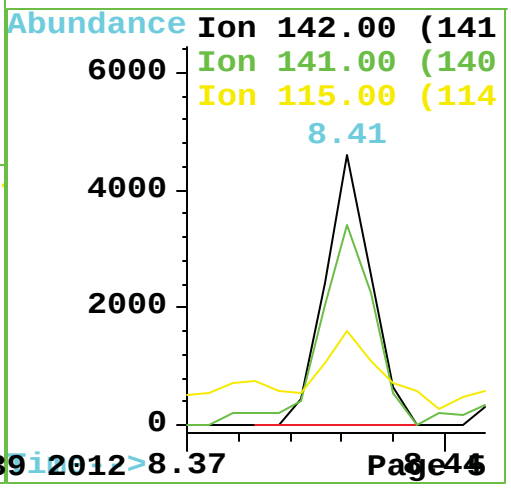




#82
2-Methylnaphthalene
Concen: 1.10 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5334503.d
Acq: 2 Aug 12 3:38 pm

Tgt Ion:142 Resp: 3897

Ion	Ratio	Lower	Upper
142	100		
141	87.2	55.8	115.8
115	34.8	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334504.d Vial: 13
Acq On : 2 Aug 12 3:59 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

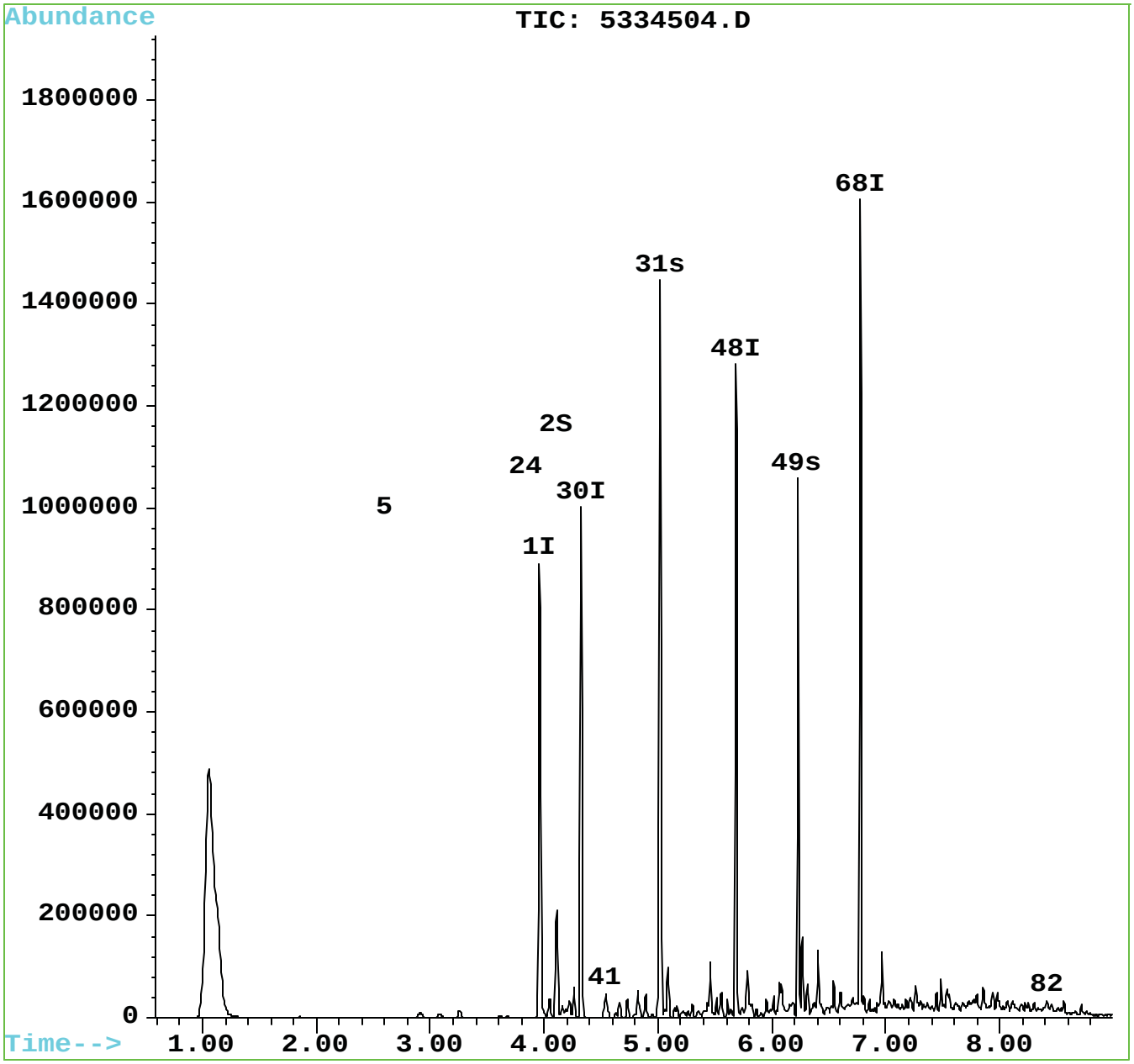
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	548997	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	611273	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	218918	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	302720	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	94290	45.42	ug/l	90.8
31) TOLUENE-D8 (S)	5.02	98	607349	49.17	ug/l	98.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	258905	49.73	ug/l	99.4
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	360	1.76	ug/l #	4
24) Tetrahydrofuran	3.84	42	956	3.16	ug/l #	
41) Methyl Cyclohexane	4.54	55	10793	3.13	ug/l	8
82) 2-Methylnaphthalene	8.41	142	4228	1.21	ug/l	9

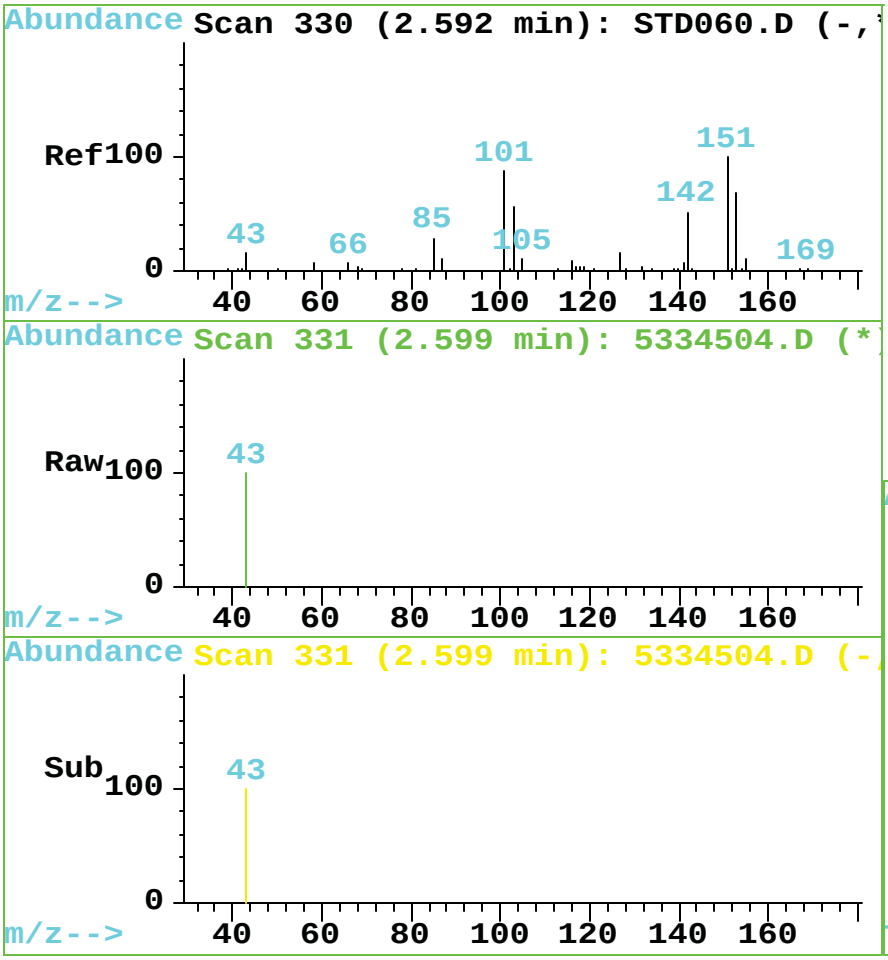
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334504.d Vial: 13
Acq On : 2 Aug 12 3:59 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

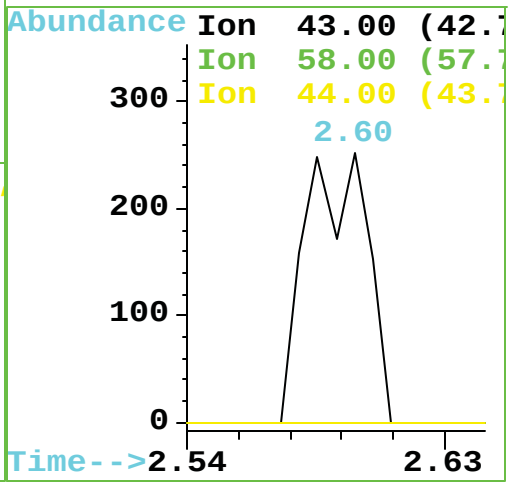


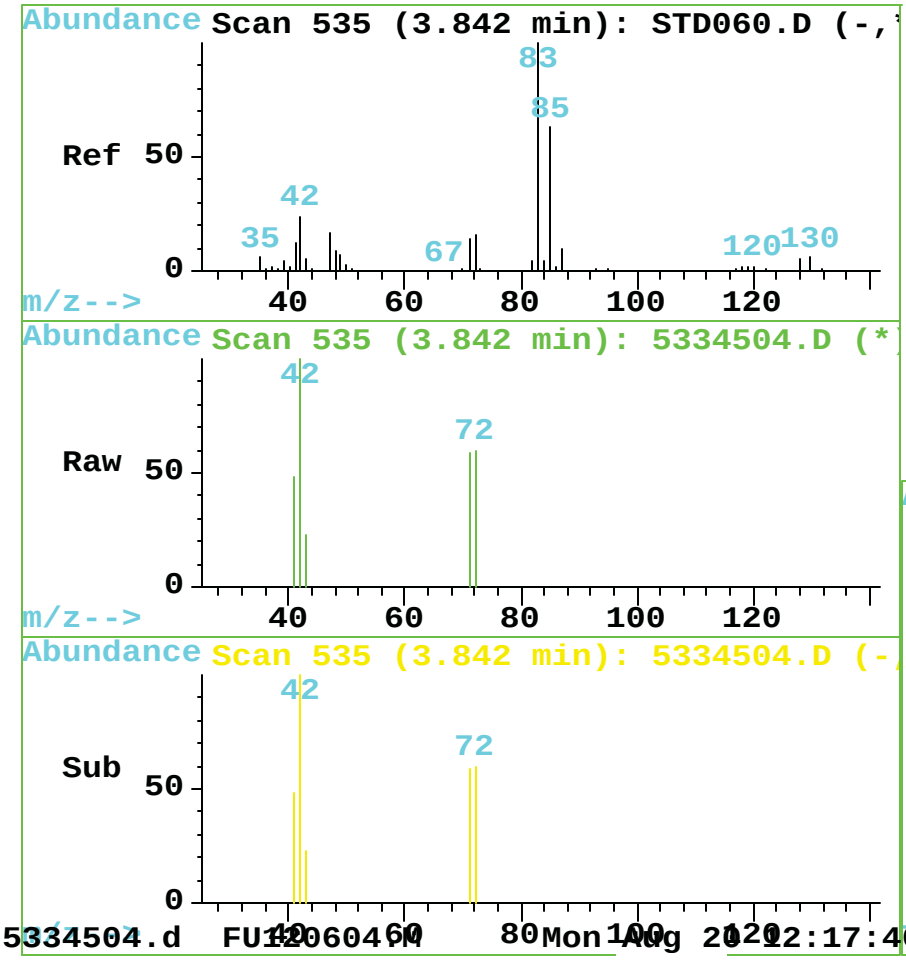


#5
Acetone (*)
Concen: 1.76 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5334504.d
Acq: 2 Aug 12 3:59 pm

Tgt Ion:43 Resp: 360

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

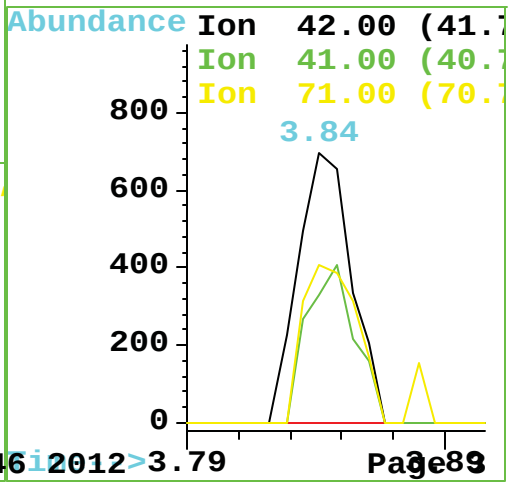


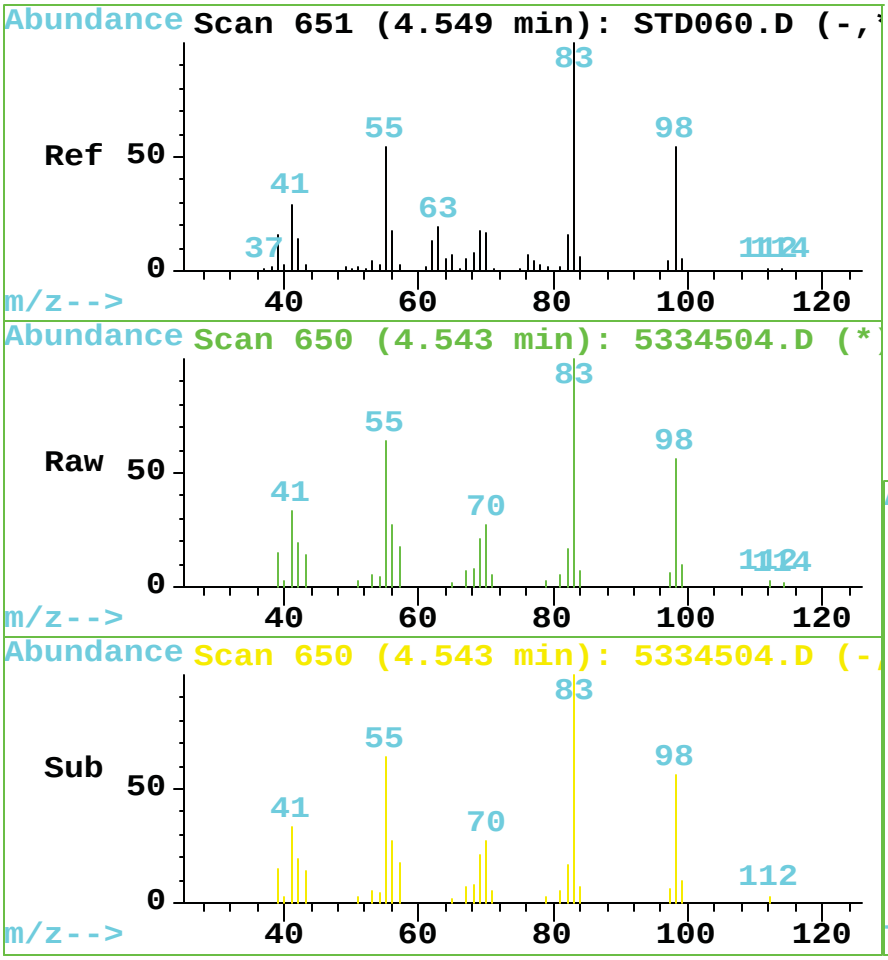


#24
Tetrahydrofuran
Concen: 3.16 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334504.d
Acq: 2 Aug 12 3:59 pm

Tgt Ion:42 Resp: 956

Ion	Ratio	Lower	Upper
42	100		
41	52.7	222.5	282.5#
71	61.0	24.9	84.9
0	0.0	0.0	0.0

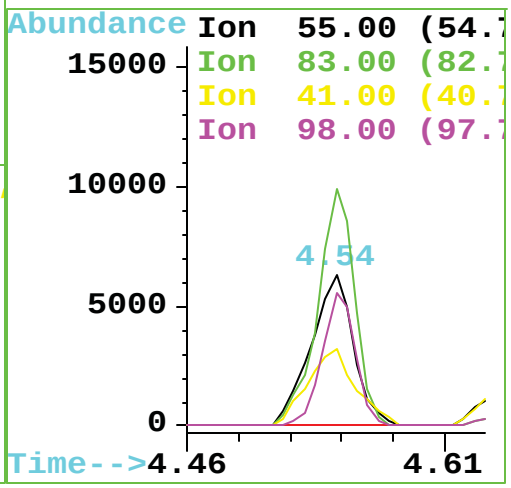


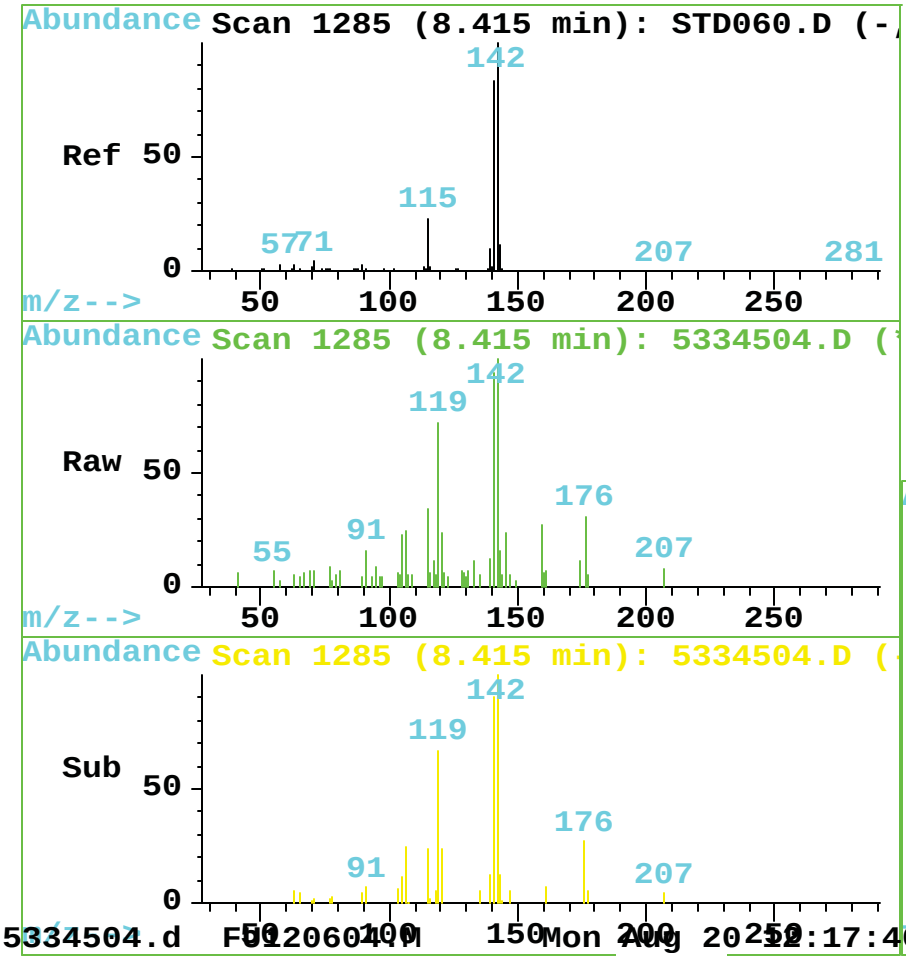


#41
Methyl Cyclohexane
Concen: 3.13 ug/l
RT: 4.54 min Scan# 650
Delta R.T. 0.00 min
Lab File: 5334504.d
Acq: 2 Aug 12 3:59 pm

Tgt Ion:55 Resp: 10793

Ion	Ratio	Lower	Upper
55	100		
83	136.9	131.0	191.0
41	57.8	42.0	102.0
98	69.5	55.3	115.3

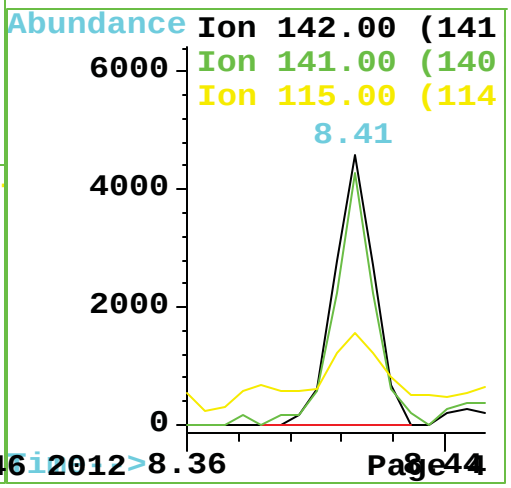




#82
2-Methylnaphthalene
Concen: 1.21 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5334504.d
Acq: 2 Aug 12 3:59 pm

Tgt Ion:142 Resp: 4228

Ion	Ratio	Lower	Upper
142	100		
141	92.4	55.8	115.8
115	29.5	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334505.d Vial: 14
Acq On : 2 Aug 12 4:19 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:31 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

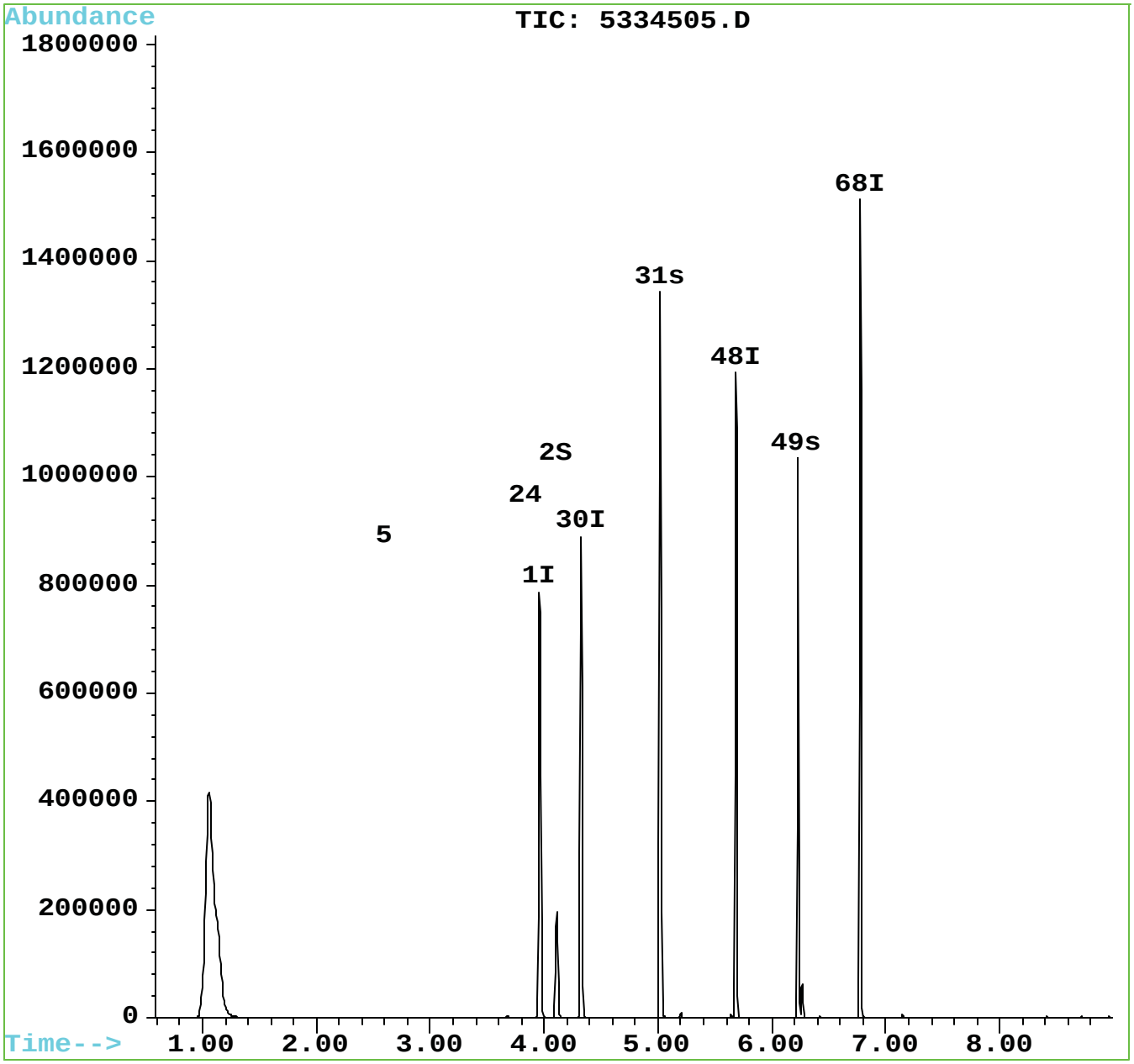
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	524075	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	584706	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	206271	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	292343	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	90448	45.65	ug/l	91.2
31) TOLUENE-D8 (S)	5.02	98	581590	49.23	ug/l	98.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	249672	50.89	ug/l	101.7
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	201	1.03	ug/l #	4
24) Tetrahydrofuran	3.85	42	891	3.08	ug/l #	

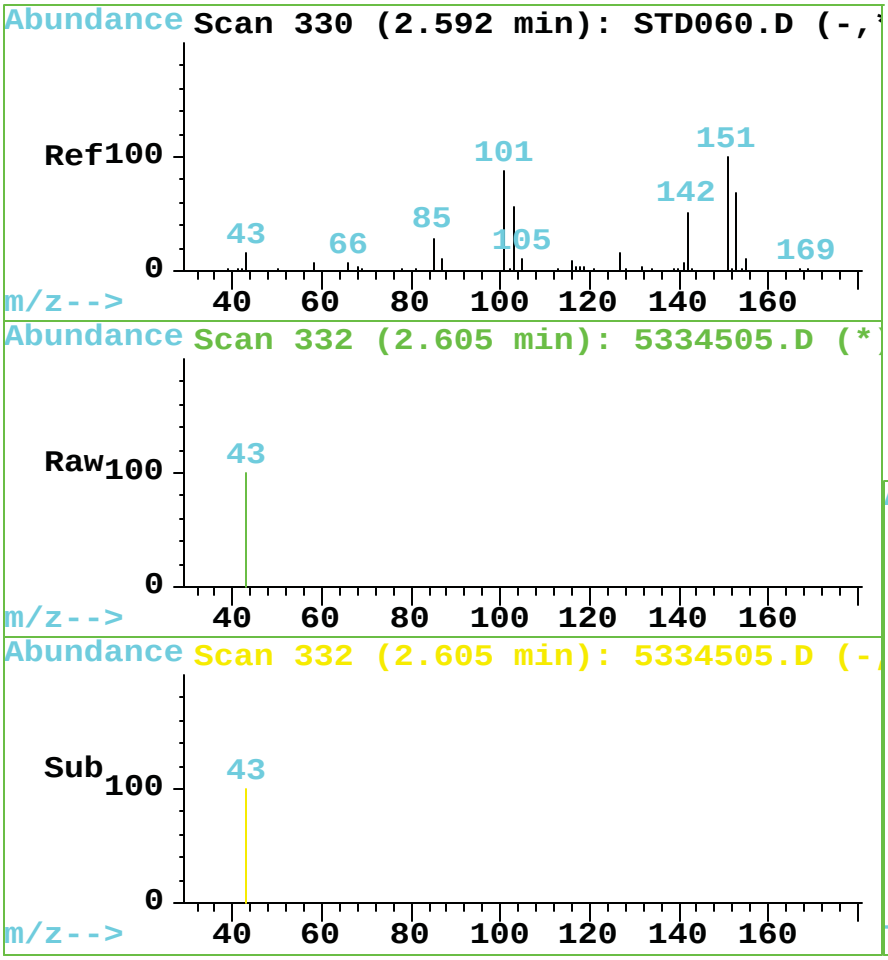
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334505.d Vial: 14
Acq On : 2 Aug 12 4:19 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:31 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

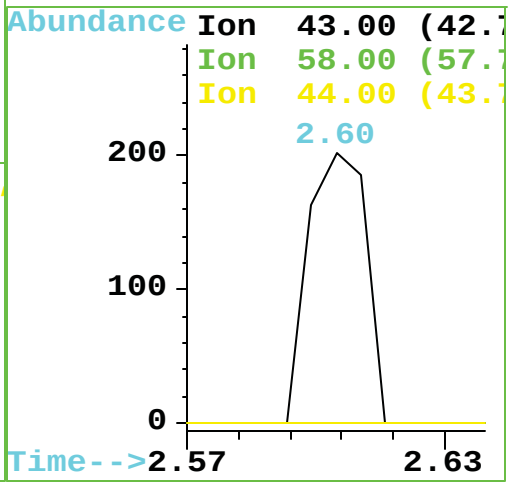


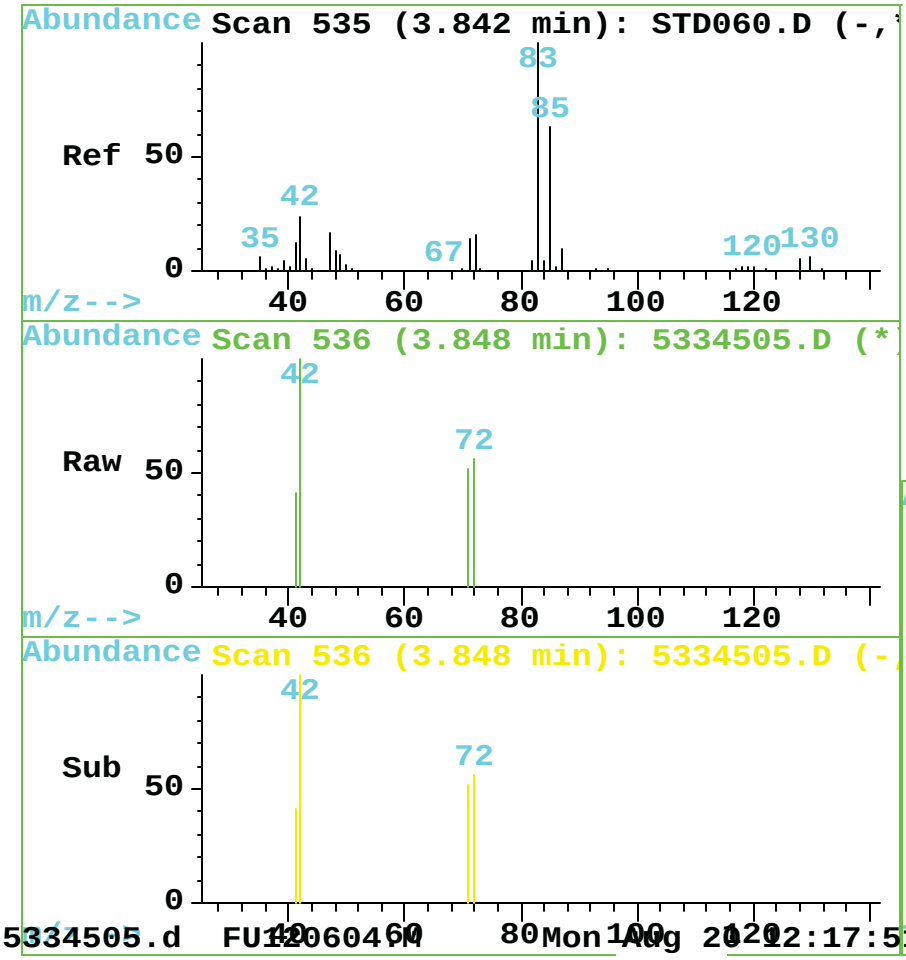


#5
Acetone (*)
Concen: 1.03 ug/l
RT: 2.60 min Scan# 332
Delta R.T. 0.03 min
Lab File: 5334505.d
Acq: 2 Aug 12 4:19 pm

Tgt Ion:43 Resp: 201

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

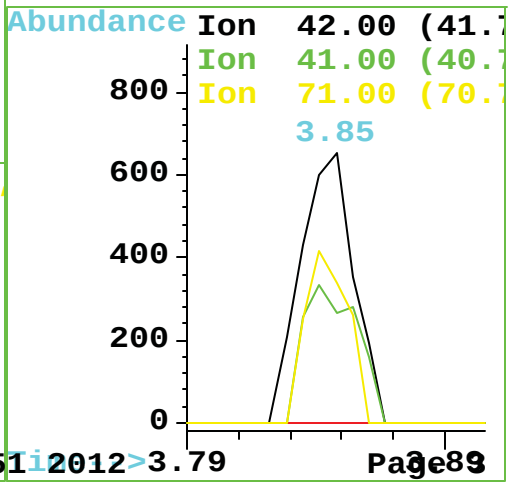




#24
Tetrahydrofuran
Concen: 3.08 ug/l
RT: 3.85 min Scan# 536
Delta R.T. 0.01 min
Lab File: 5334505.d
Acq: 2 Aug 12 4:19 pm

Tgt Ion:42 Resp: 891

Ion	Ratio	Lower	Upper
42	100		
41	53.3	222.5	282.5#
71	52.0	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334506.d Vial: 15
Acq On : 2 Aug 12 4:39 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:31 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

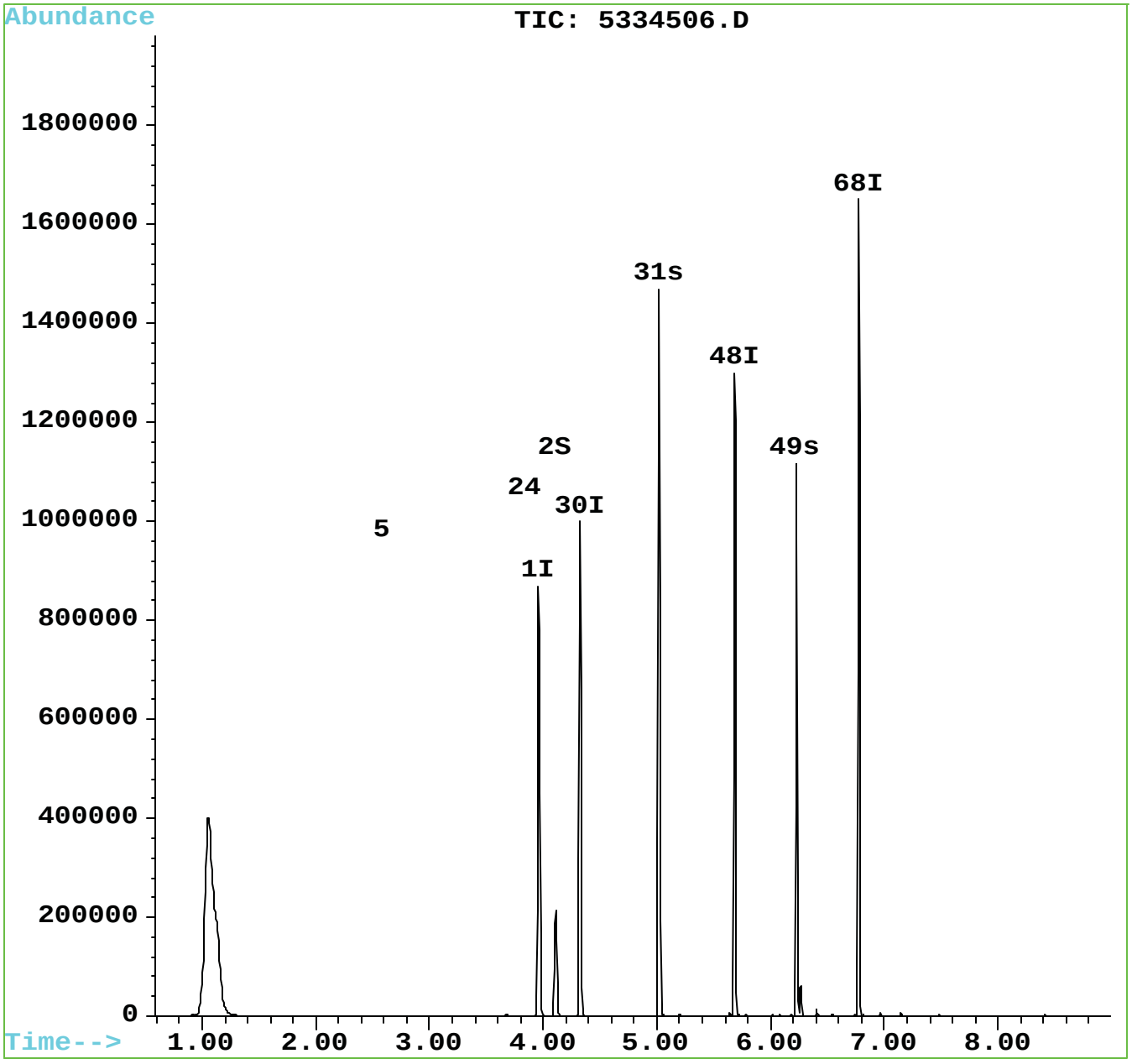
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	561097	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	636604	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	227793	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	317088	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	98646	46.50	ug/l	93.0
31) TOLUENE-D8 (S)	5.02	98	633058	49.22	ug/l	98.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	266473	49.19	ug/l	98.3
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	328	1.57	ug/l #	4
24) Tetrahydrofuran	3.85	42	937	3.03	ug/l #	

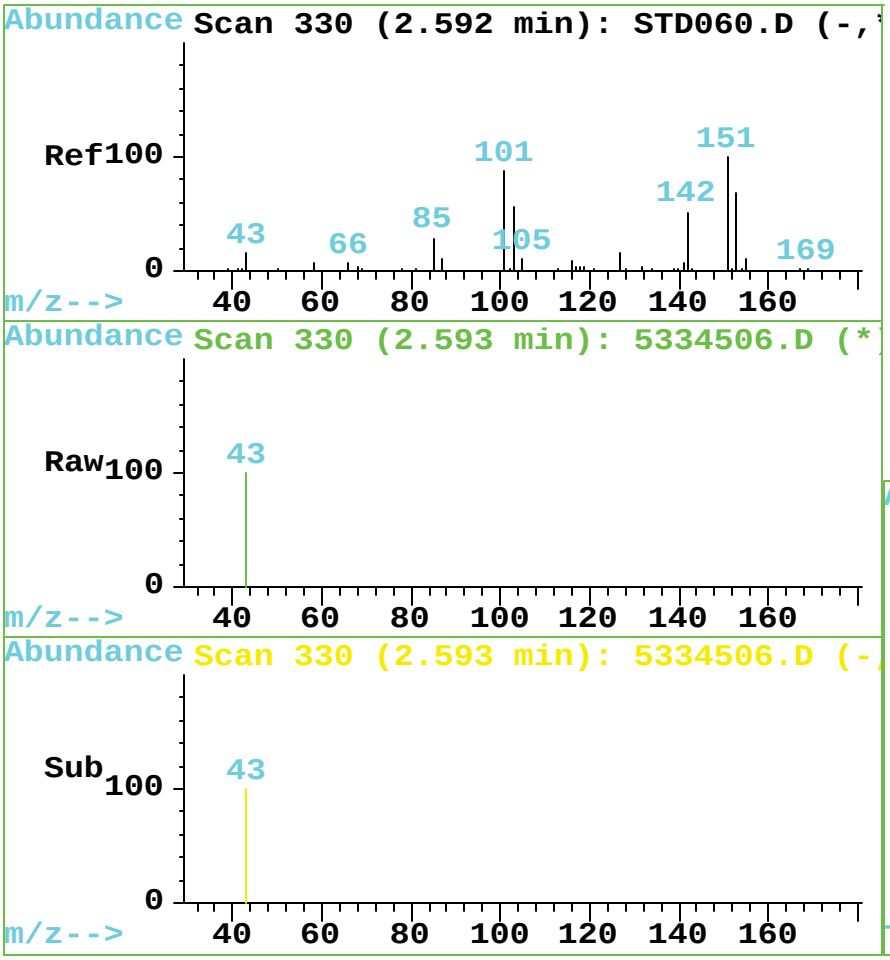
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334506.d Vial: 15
Acq On : 2 Aug 12 4:39 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:31 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

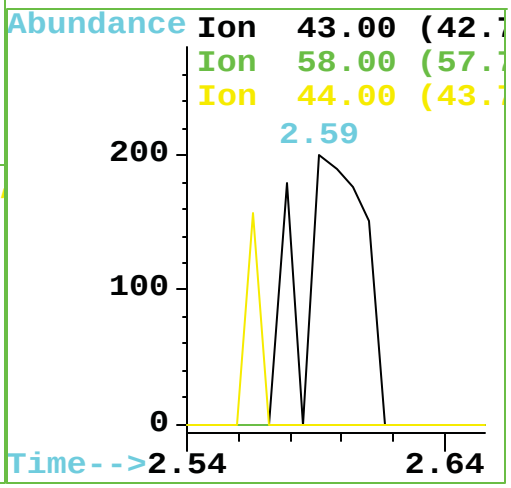


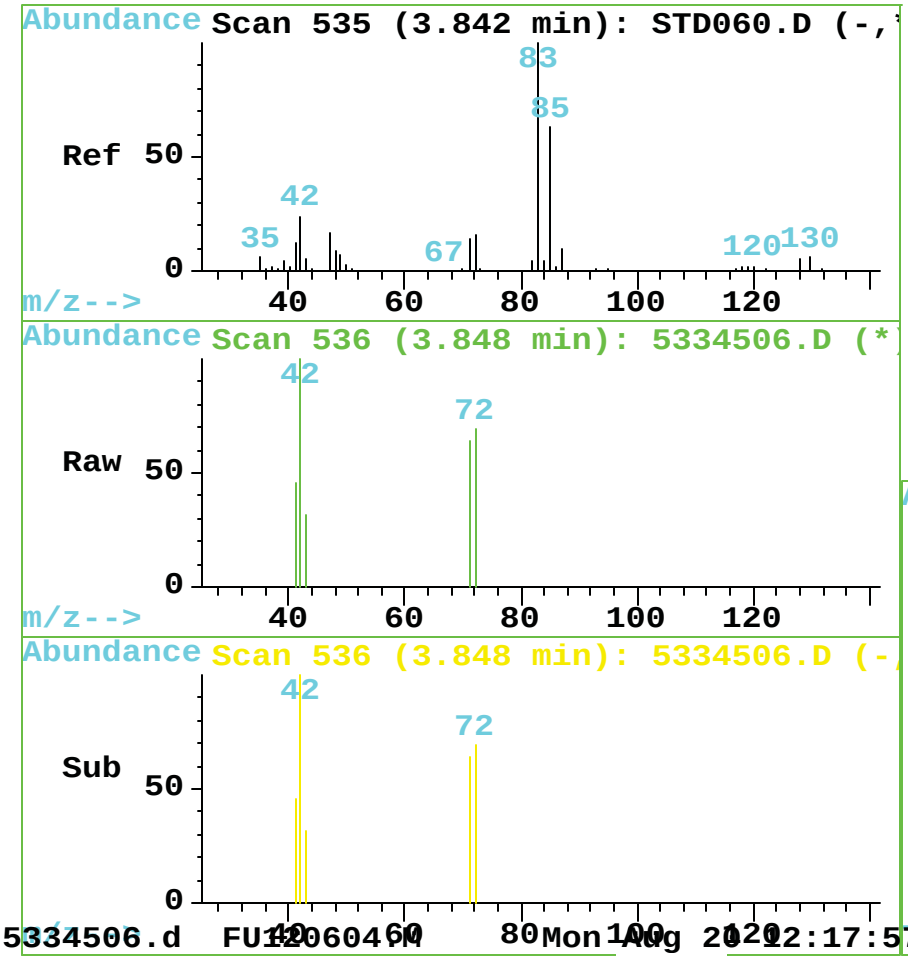


#5
Acetone (*)
Concen: 1.57 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5334506.d
Acq: 2 Aug 12 4:39 pm

Tgt Ion:43 Resp: 328

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	17.4	0.0	32.2
0	0.0	0.0	0.0

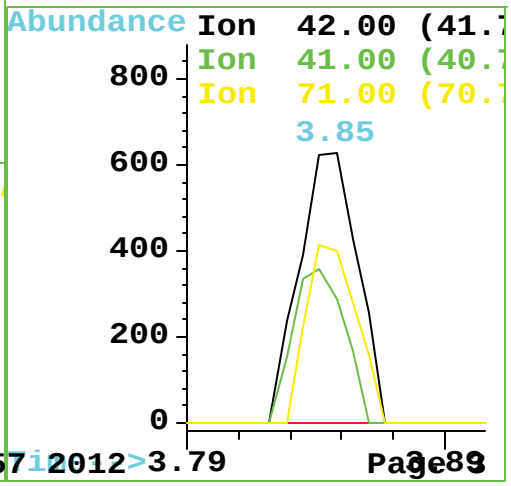




#24
Tetrahydrofuran
Concen: 3.03 ug/l
RT: 3.85 min Scan# 536
Delta R.T. 0.01 min
Lab File: 5334506.d
Acq: 2 Aug 12 4:39 pm

Tgt Ion:42 Resp: 937

Ion	Ratio	Lower	Upper
42	100		
41	50.7	222.5	282.5#
71	57.6	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334507.d Vial: 16
Acq On : 2 Aug 12 4:59 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:50 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

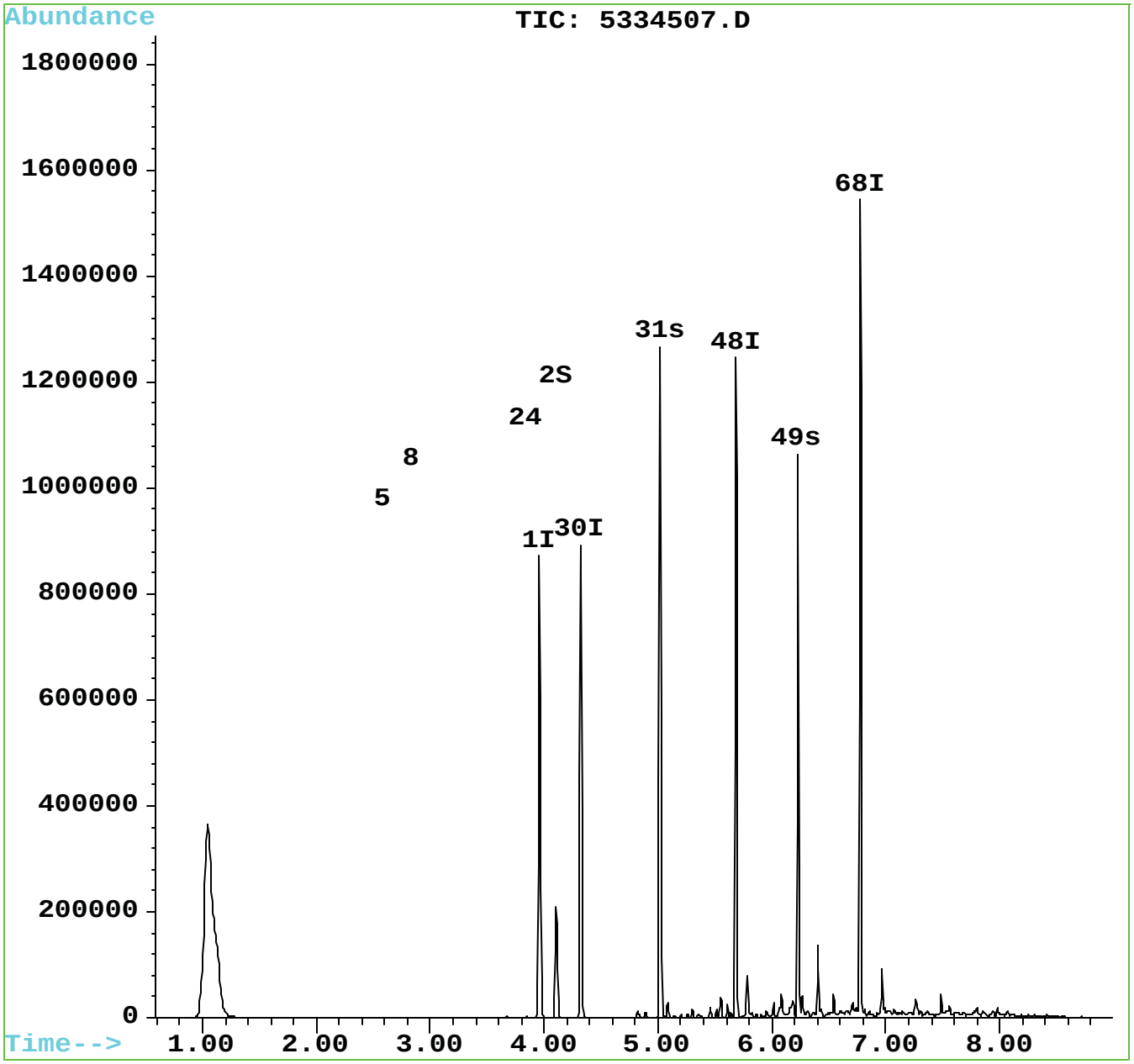
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	510628	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	568575	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	207739	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	294874	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	88958	46.08	ug/l	92.1
31) TOLUENE-D8 (S)	5.02	98	575998	50.14	ug/l	100.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	249794	50.56	ug/l	101.1
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	478	2.51	ug/l #	4
8) Methyl Acetate	2.84	43	897	1.30	ug/l #	6
24) Tetrahydrofuran	3.84	42	915	3.25	ug/l #	

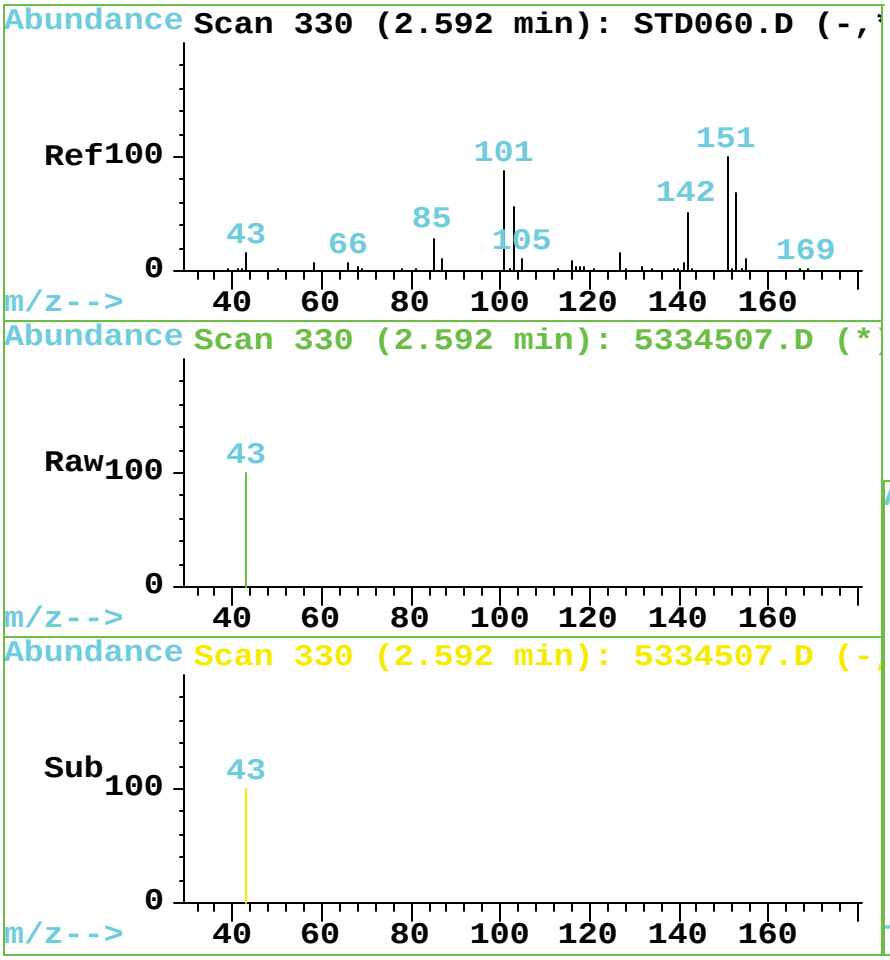
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334507.d Vial: 16
Acq On : 2 Aug 12 4:59 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:50 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

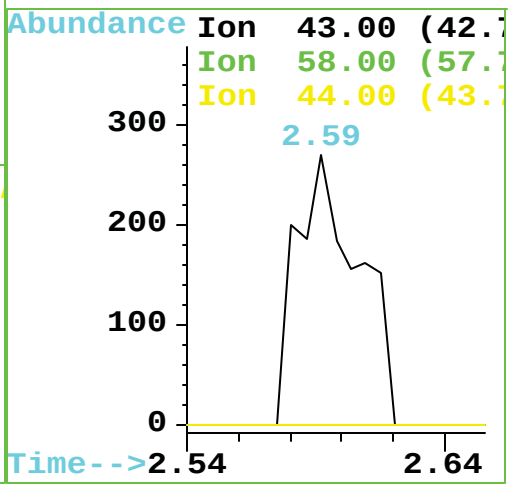


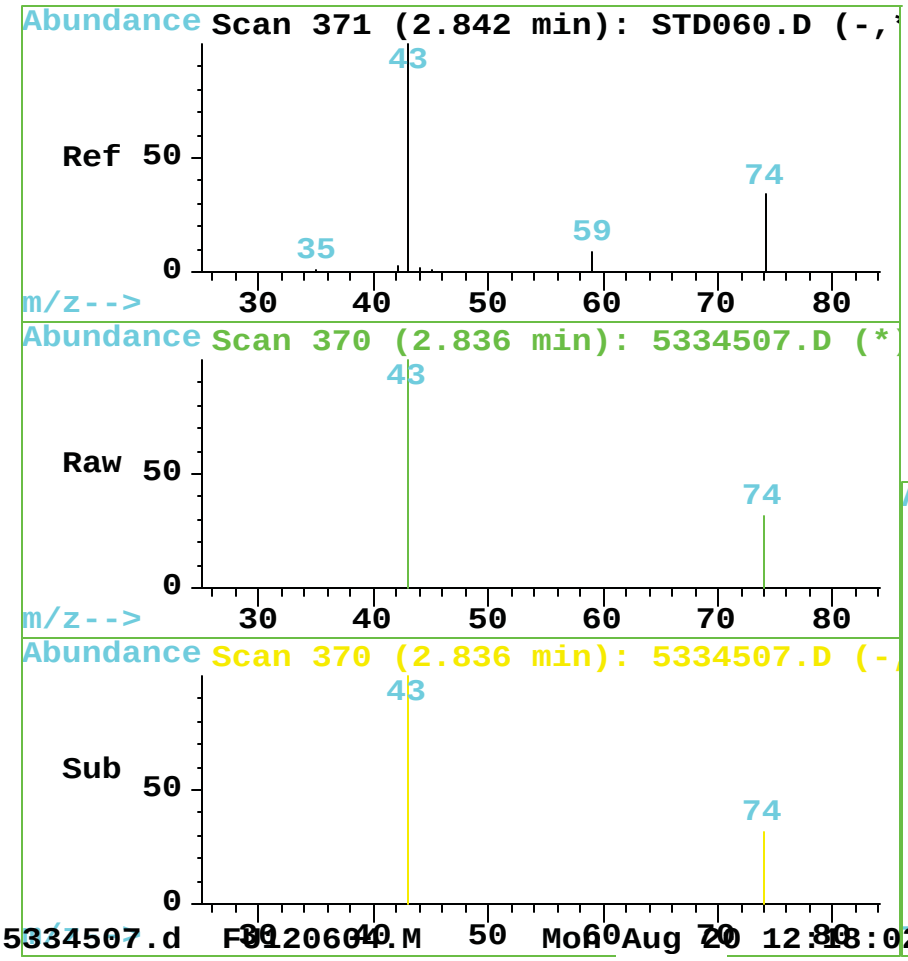


#5
Acetone (*)
Concen: 2.51 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5334507.d
Acq: 2 Aug 12 4:59 pm

Tgt Ion:43 Resp: 478

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

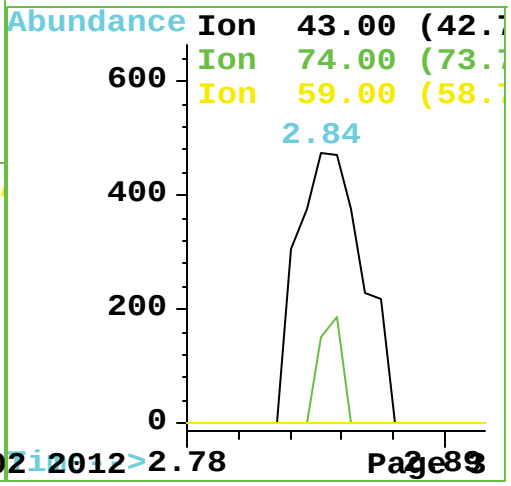


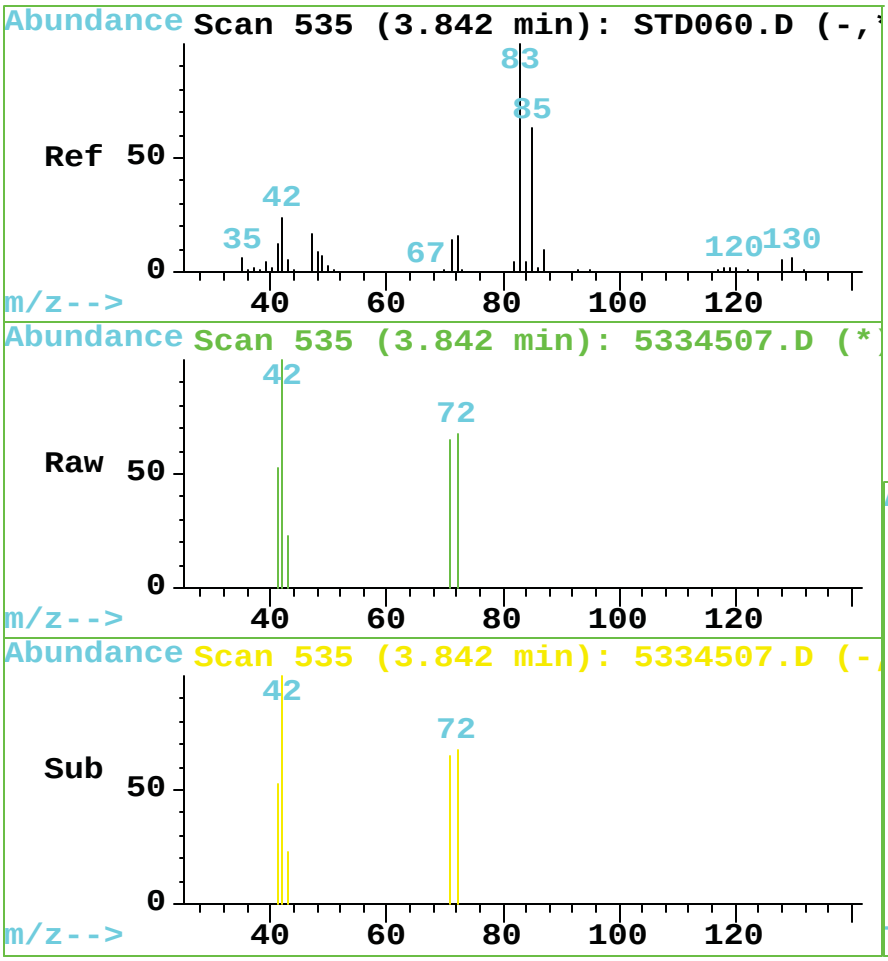


#8
Methyl Acetate
Concen: 1.30 ug/l
RT: 2.84 min Scan# 370
Delta R.T. 0.01 min
Lab File: 5334507.d
Acq: 2 Aug 12 4:59 pm

Tgt Ion:43 Resp: 897

Ion	Ratio	Lower	Upper
43	100		
74	13.8	4.8	64.8
59	0.0	0.0	40.3
0	0.0	0.0	0.0

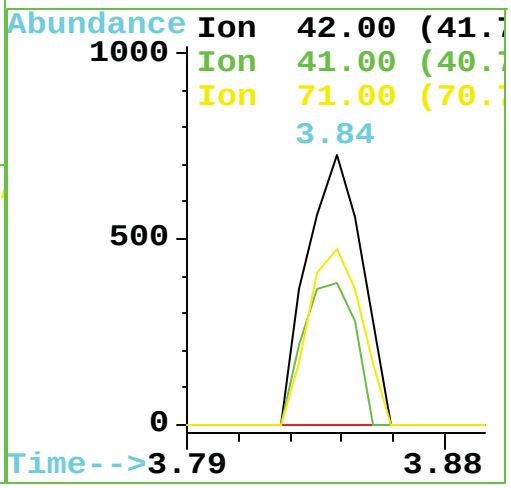




#24
Tetrahydrofuran
Concen: 3.25 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334507.d
Acq: 2 Aug 12 4:59 pm

Tgt Ion:42 Resp: 915

Ion	Ratio	Lower	Upper
42	100		
41	49.4	222.5	282.5#
71	63.0	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334508.d Vial: 17
Acq On : 2 Aug 12 5:20 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

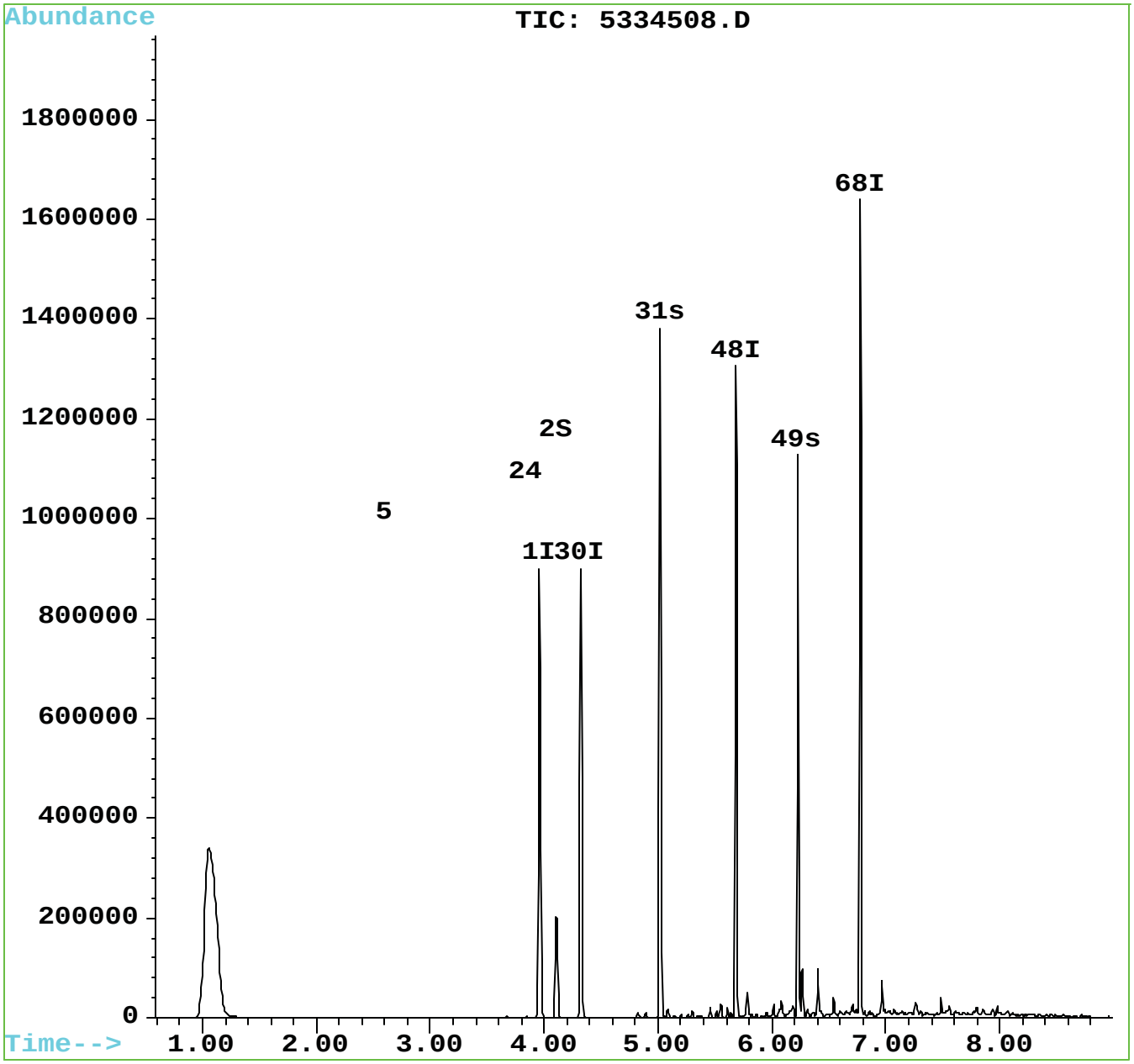
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	552008	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	613903	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	222422	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	310219	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	96478	46.22	ug/l	92.4
31) TOLUENE-D8 (S)	5.02	98	608739	49.08	ug/l	98.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	266698	50.42	ug/l	100.8
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	376	1.83	ug/l #	4
24) Tetrahydrofuran	3.84	42	1042	3.42	ug/l #	

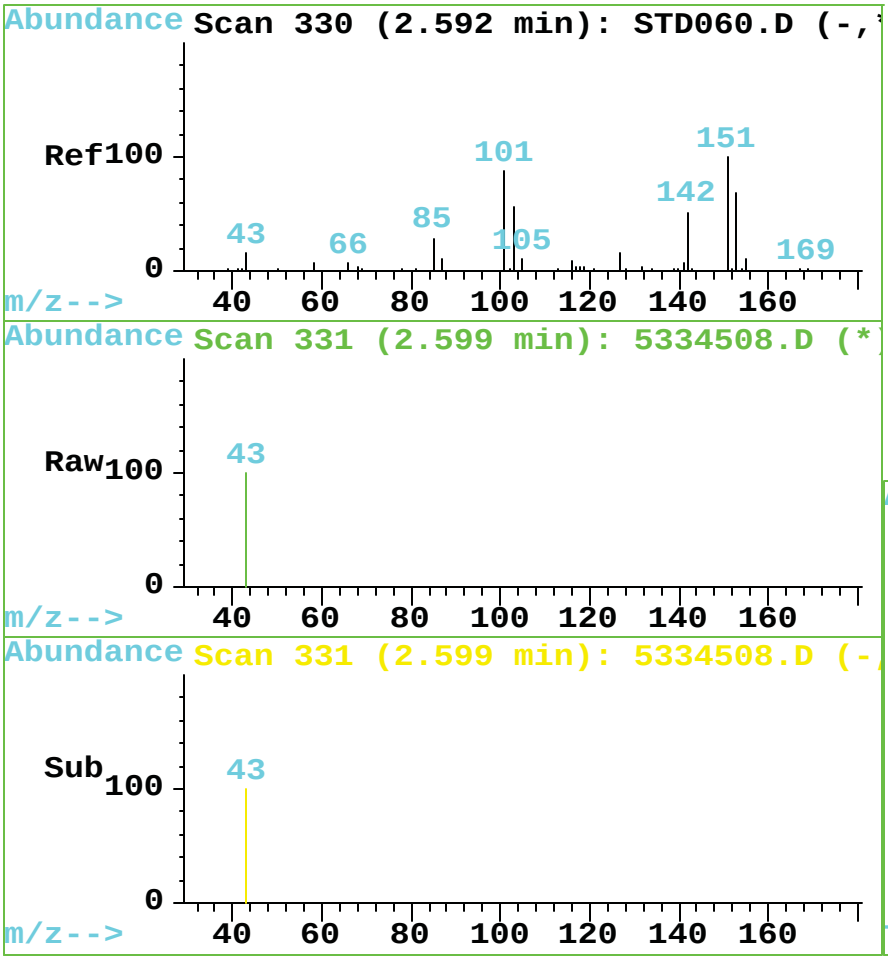
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334508.d Vial: 17
Acq On : 2 Aug 12 5:20 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

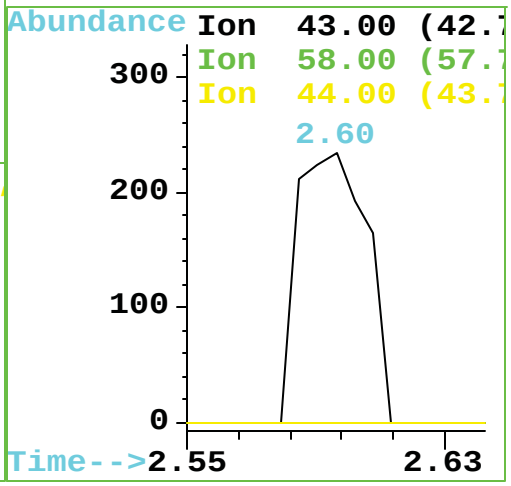


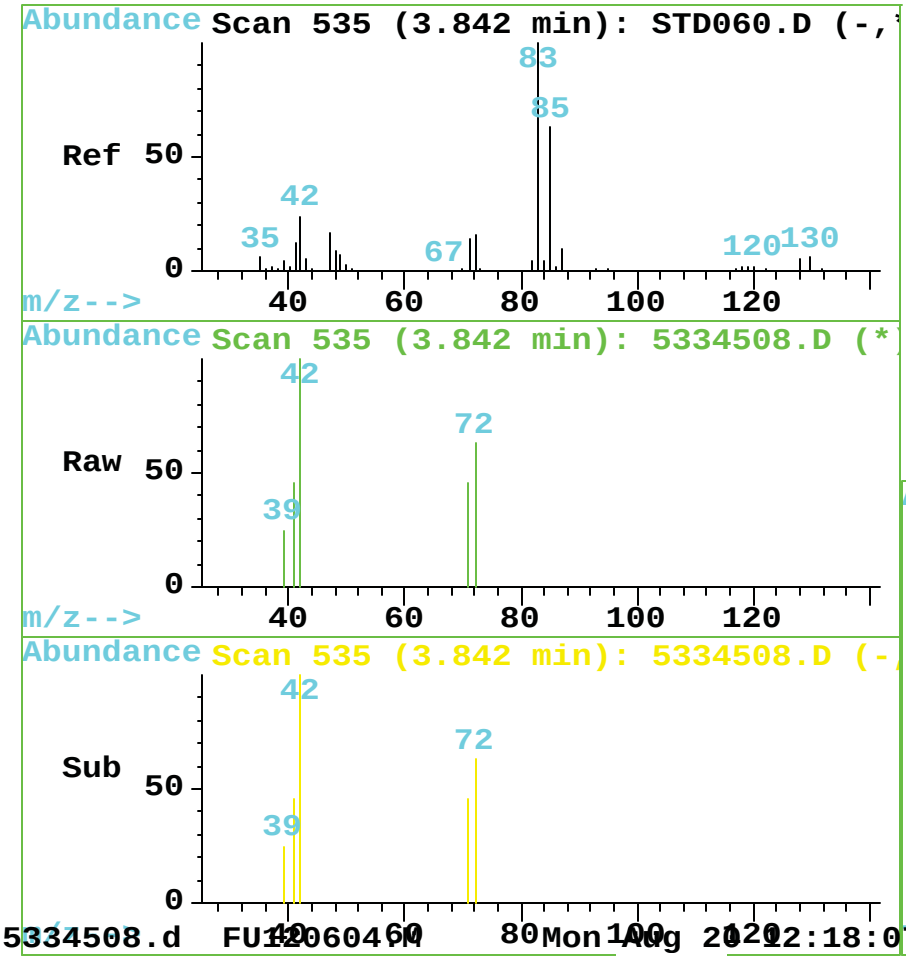


#5
Acetone (*)
Concen: 1.83 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5334508.d
Acq: 2 Aug 12 5:20 pm

Tgt Ion:43 Resp: 376

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

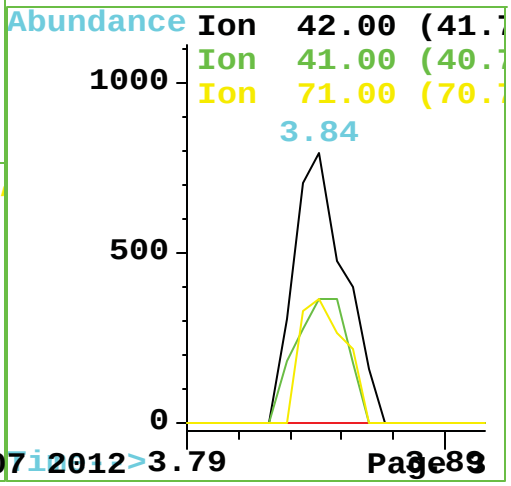




#24
Tetrahydrofuran
Concen: 3.42 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334508.d
Acq: 2 Aug 12 5:20 pm

Tgt Ion:42 Resp: 1042

Ion	Ratio	Lower	Upper
42	100		
41	48.0	222.5	282.5#
71	41.4	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334509.d Vial: 18
Acq On : 2 Aug 12 5:40 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

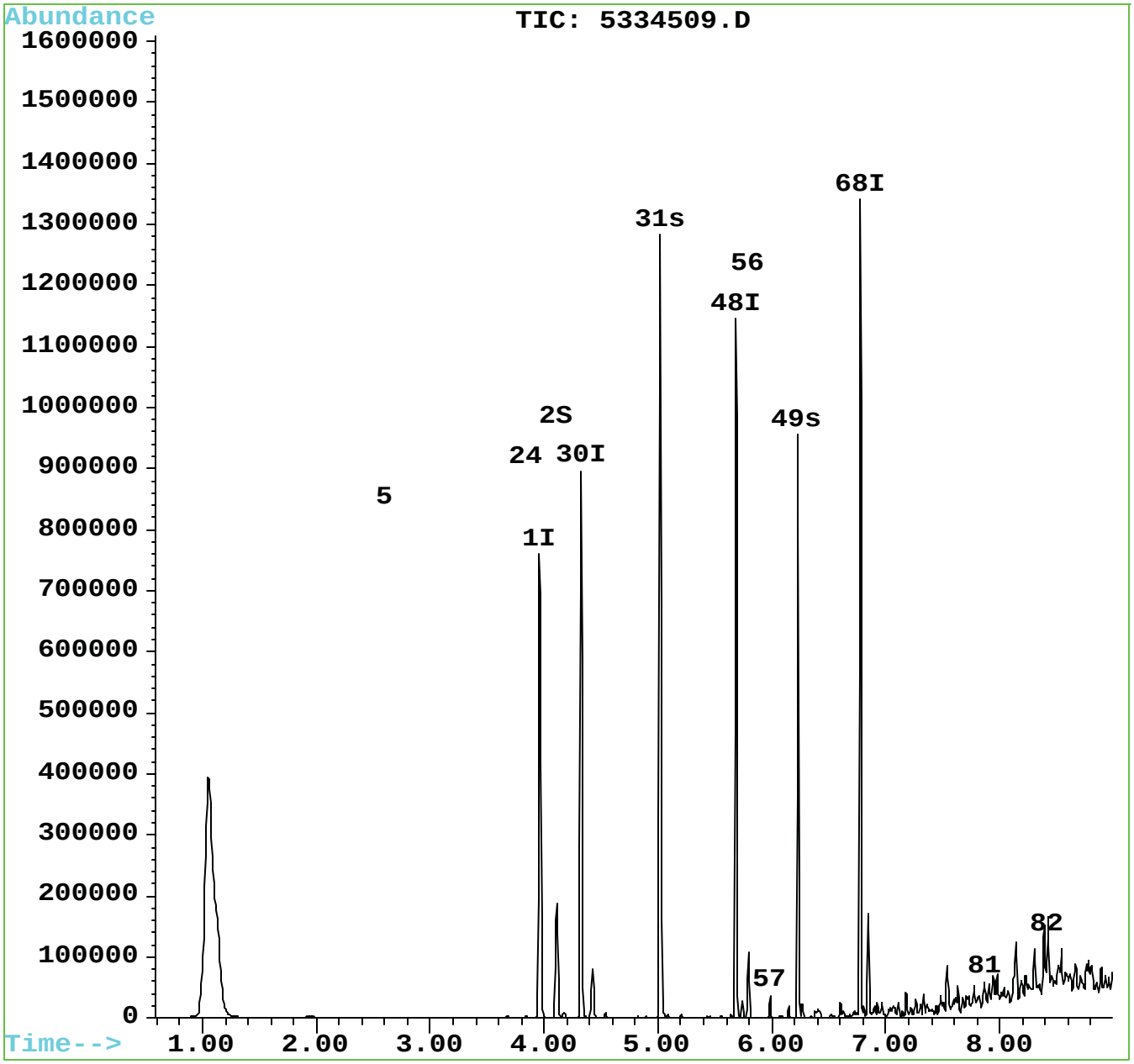
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	504612	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	566721	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	194990	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	259005	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	87243	45.73	ug/l	91.4
31) TOLUENE-D8 (S)	5.02	98	556188	48.57	ug/l	97.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	228985	49.38	ug/l	98.7
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	991	5.28	ug/l	9
24) Tetrahydrofuran	3.84	42	1077	3.87	ug/l #	
56) p,m-Xylene	5.79	106	19514	3.37	ug/l	9
57) o-Xylene	5.98	91	12631	1.22	ug/l	8
81) Naphthalene	7.87	128	8511	1.45	ug/l	9
82) 2-Methylnaphthalene	8.41	142	9905	3.33	ug/l	8

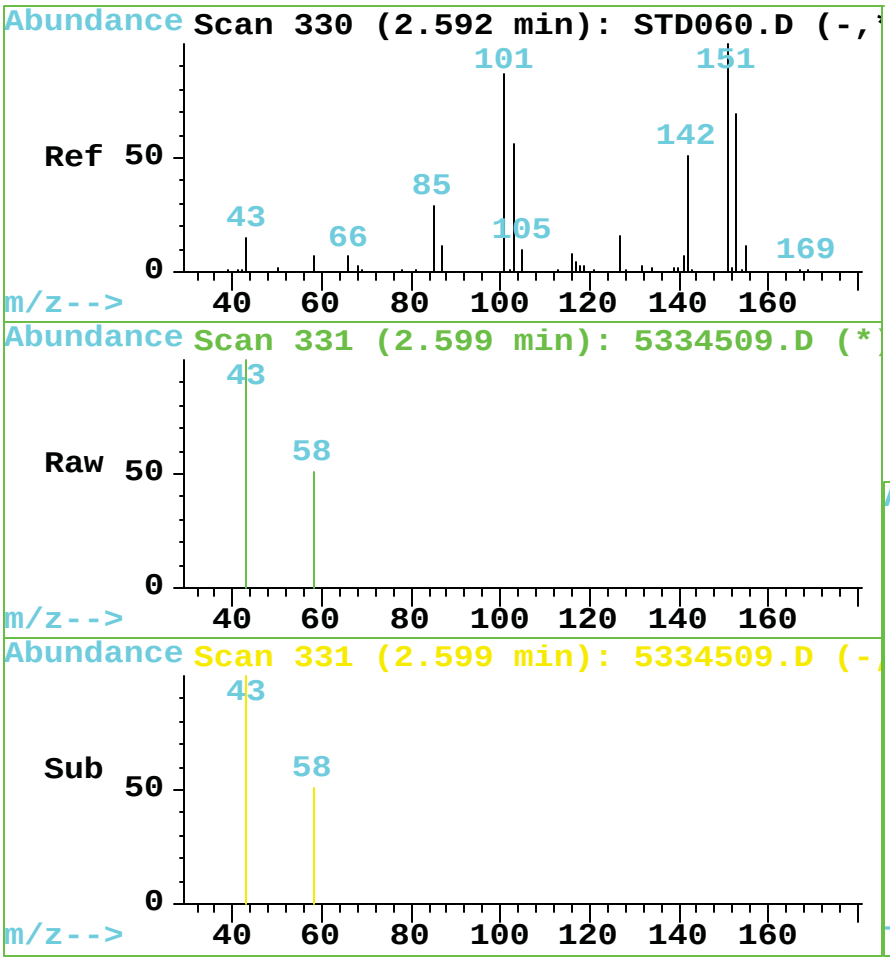
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334509.d Vial: 18
Acq On : 2 Aug 12 5:40 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

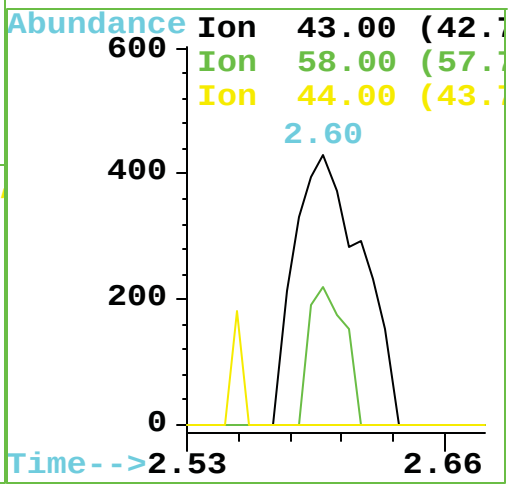


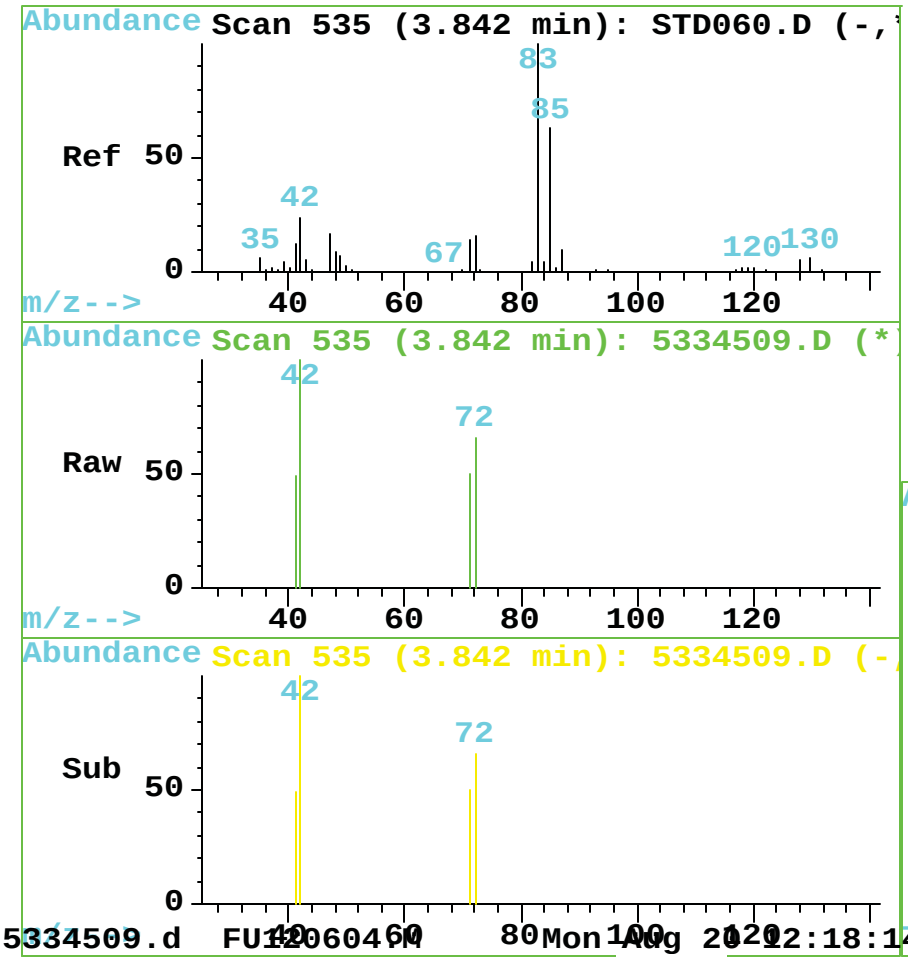


#5
Acetone (*)
Concen: 5.28 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5334509.d
Acq: 2 Aug 12 5:40 pm

Tgt Ion:43 Resp: 991

Ion	Ratio	Lower	Upper
43	100		
58	27.2	2.5	62.5
44	6.7	0.0	32.2
0	0.0	0.0	0.0

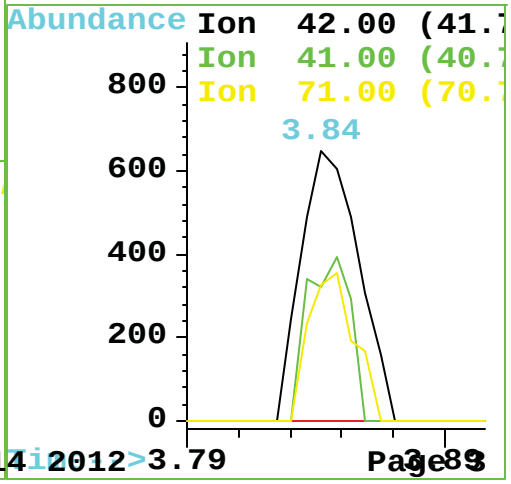


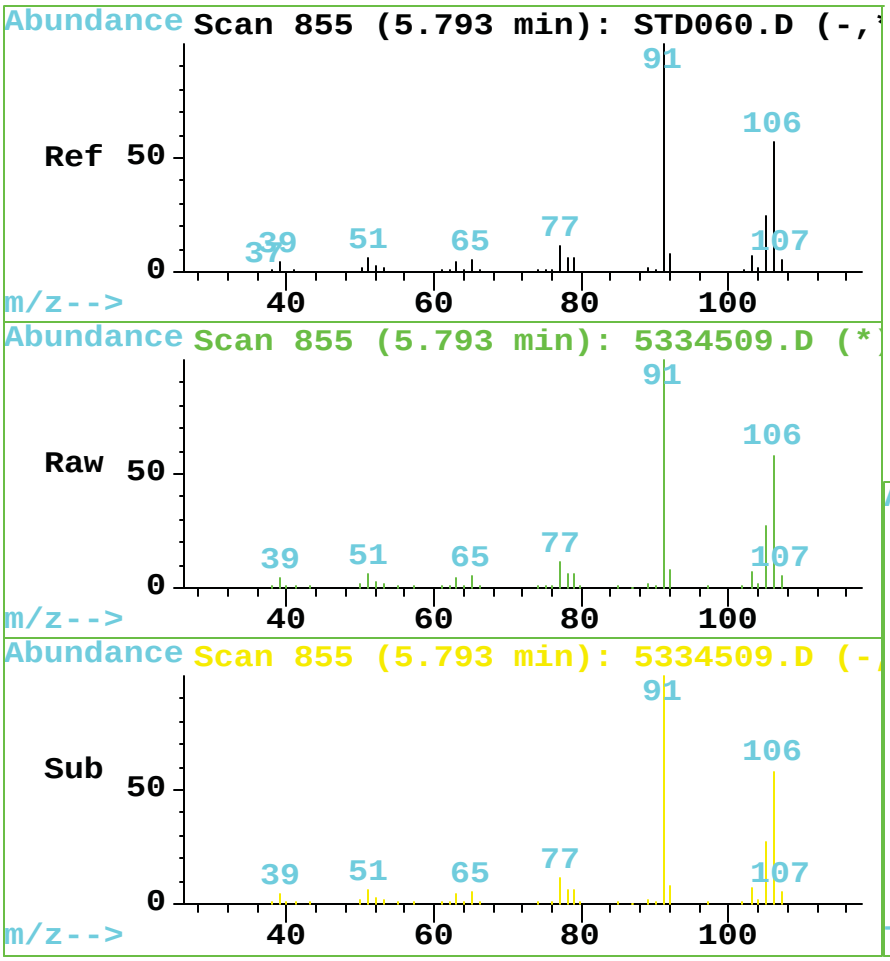


#24
Tetrahydrofuran
Concen: 3.87 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334509.d
Acq: 2 Aug 12 5:40 pm

Tgt Ion:42 Resp: 1077

Ion	Ratio	Lower	Upper
42	100		
41	46.0	222.5	282.5#
71	43.4	24.9	84.9
0	0.0	0.0	0.0

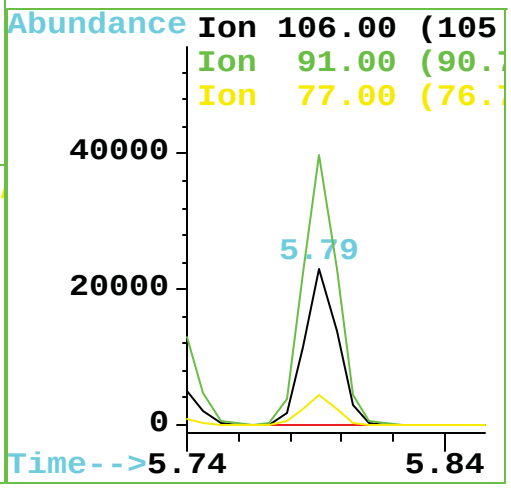


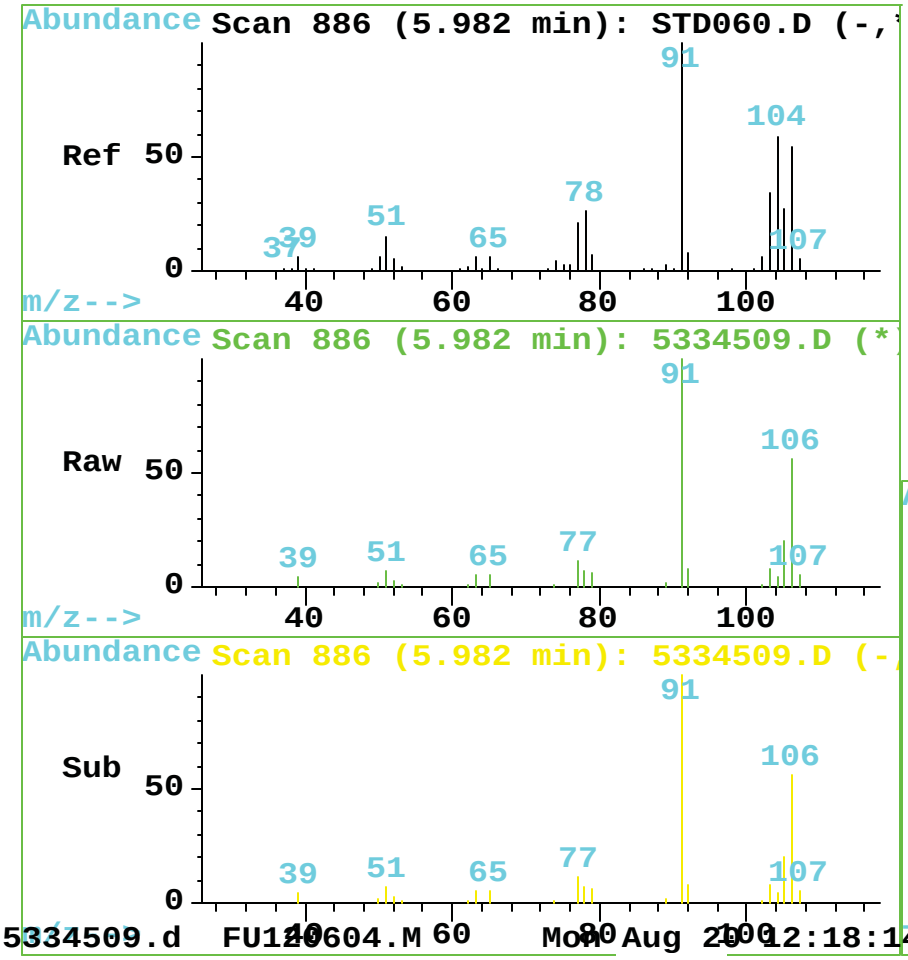


#56
p,m-Xylene
Concen: 3.37 ug/l
RT: 5.79 min Scan# 855
Delta R.T. 0.00 min
Lab File: 5334509.d
Acq: 2 Aug 12 5:40 pm

Tgt Ion:106 Resp: 19514

Ion	Ratio	Lower	Upper
106	100		
91	176.9	160.1	220.1
77	18.9	0.0	52.4
0	0.0	0.0	0.0

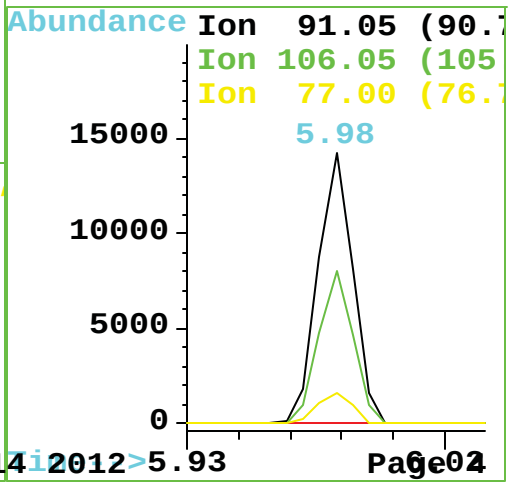


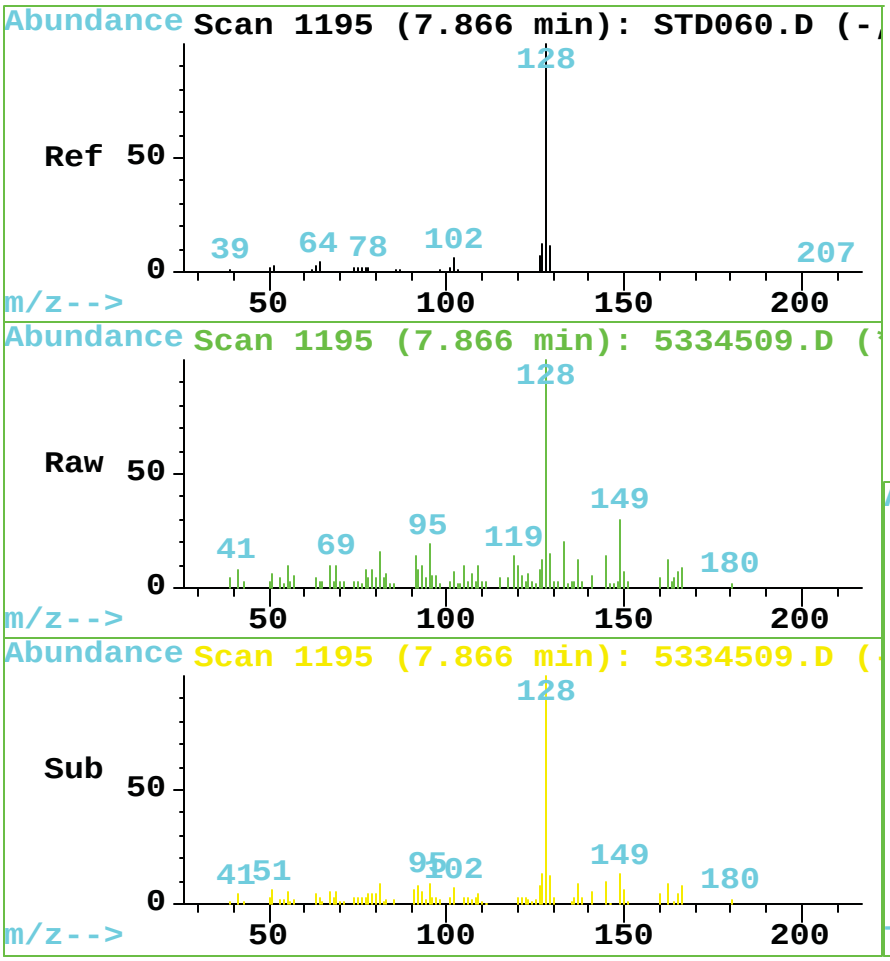


#57
o-Xylene
Concen: 1.22 ug/l
RT: 5.98 min Scan# 886
Delta R.T. 0.00 min
Lab File: 5334509.d
Acq: 2 Aug 12 5:40 pm

Tgt Ion:91.05 Resp: 1263

Ion	Ratio	Lower	Upper
91	100		
106	55.7	20.0	80.0
77	11.1	0.0	54.7
0	0.0	0.0	0.0

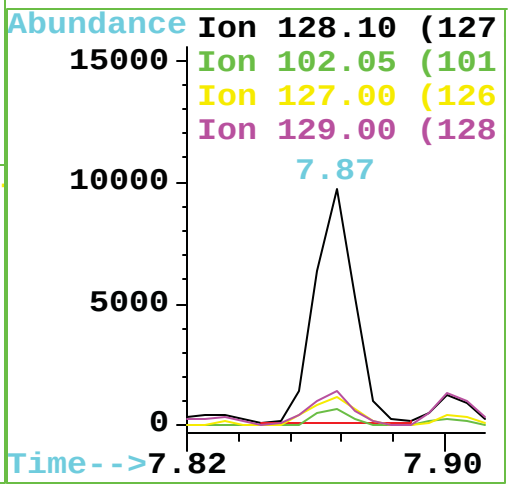


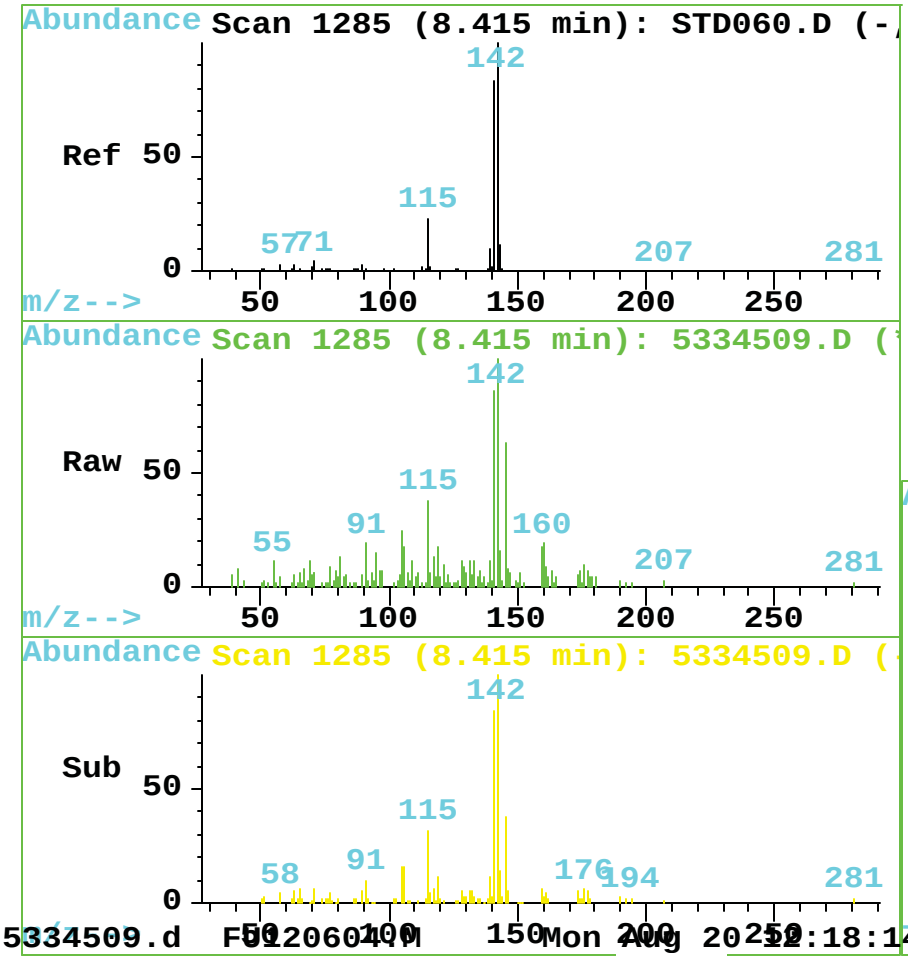


#81
Naphthalene
Concen: 1.45 ug/l
RT: 7.87 min Scan# 1195
Delta R.T. 0.00 min
Lab File: 5334509.d
Acq: 2 Aug 12 5:40 pm

Tgt Ion:128.1 Resp: 851

Ion	Ratio	Lower	Upper
128	100		
102	6.4	0.0	37.4
127	14.7	0.0	42.3
129	16.8	0.0	40.6

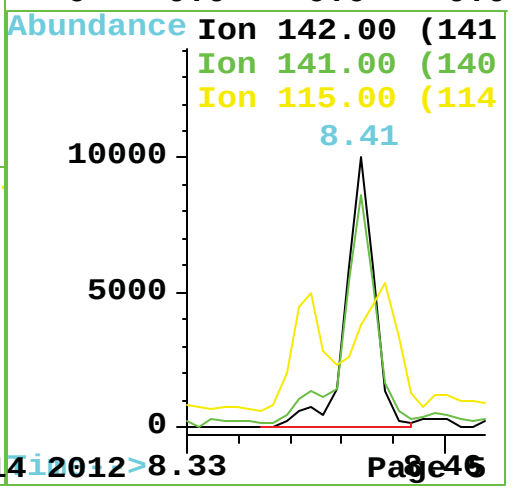




#82
2-Methylnaphthalene
Concen: 3.33 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5334509.d
Acq: 2 Aug 12 5:40 pm

Tgt Ion:142 Resp: 9905

Ion	Ratio	Lower	Upper
142	100		
141	94.3	55.8	115.8
115	51.2	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334510.d Vial: 19
Acq On : 2 Aug 12 6:00 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

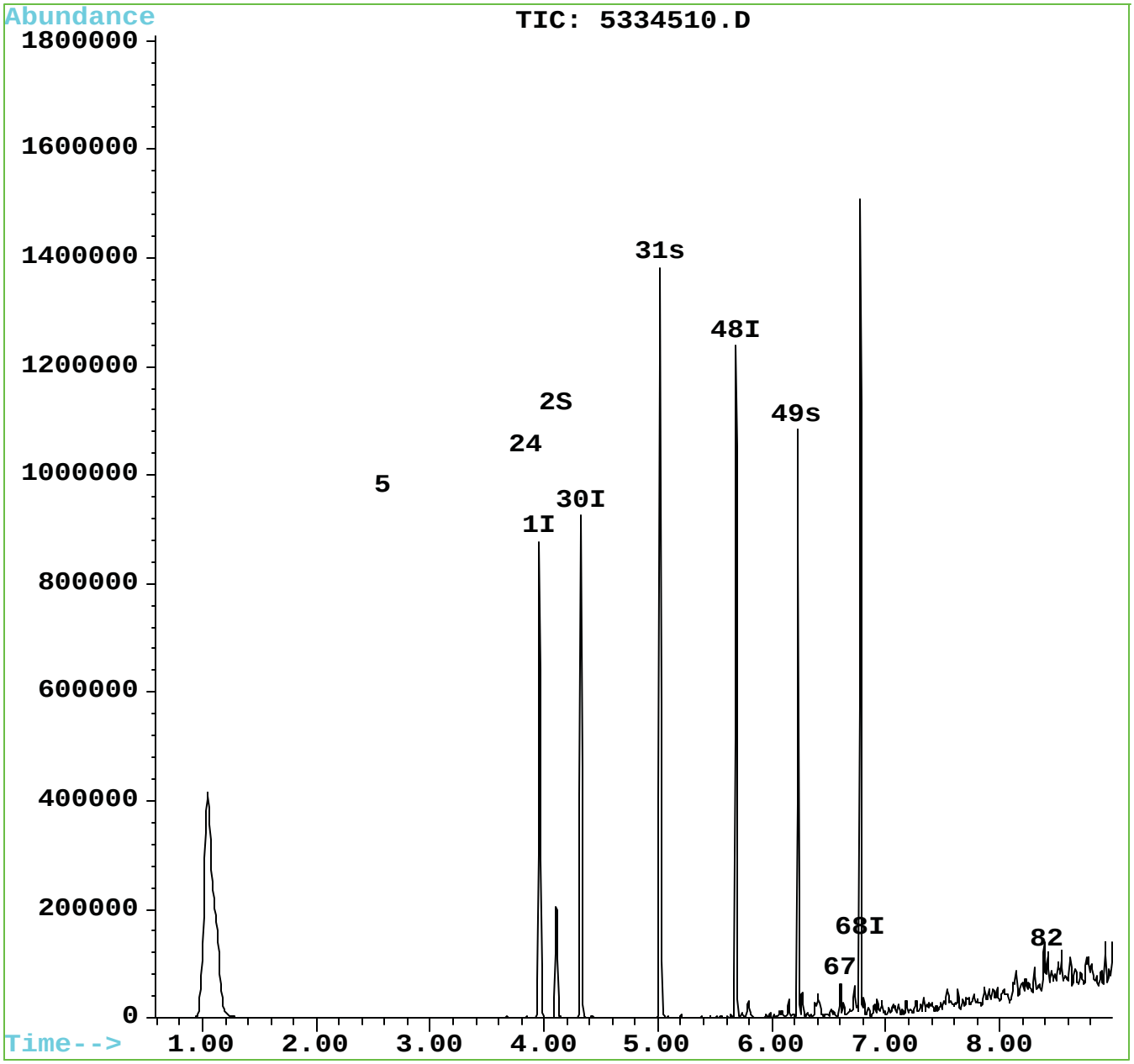
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	528934	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	593928	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	207075	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	285667	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	92728	46.37	ug/l	92.7
31) TOLUENE-D8 (S)	5.02	98	588264	49.02	ug/l	98.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	246994	50.15	ug/l	100.3
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	967	4.91	ug/l #	5
24) Tetrahydrofuran	3.84	42	909	3.11	ug/l #	
67) 1,2,4-Trimethylbenzene	6.60	120	11424	1.45	ug/l	8
82) 2-Methylnaphthalene	8.41	142	10755	3.27	ug/l	8

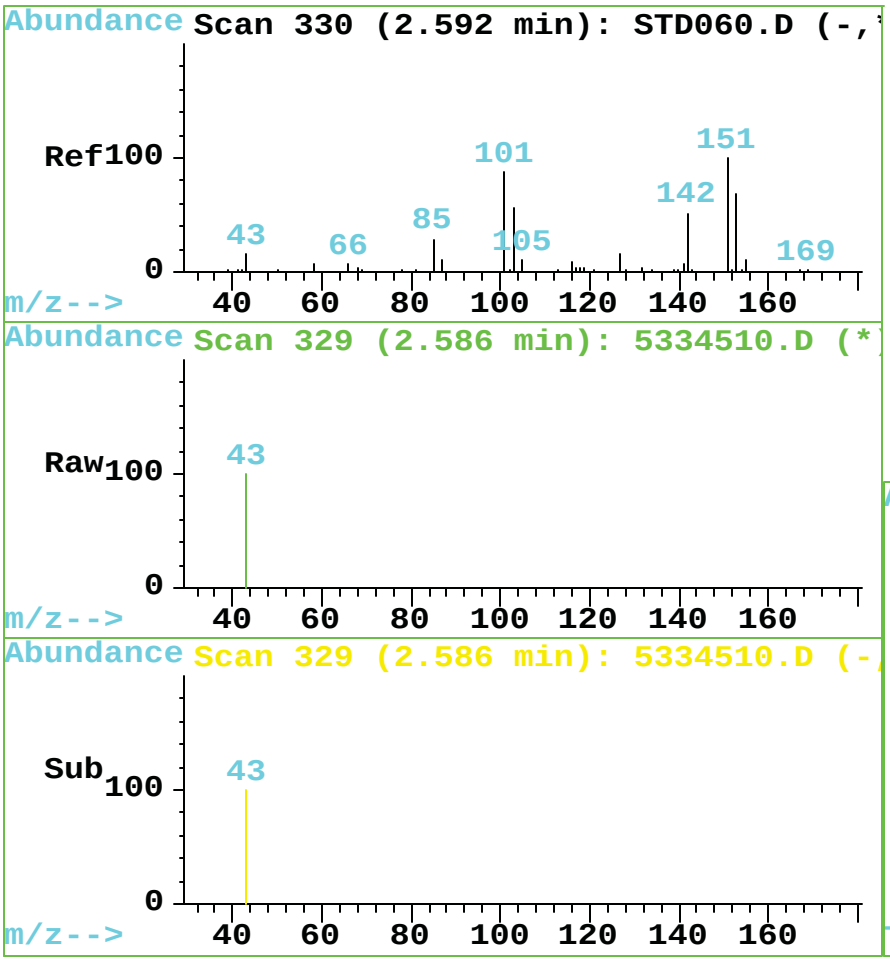
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334510.d Vial: 19
Acq On : 2 Aug 12 6:00 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

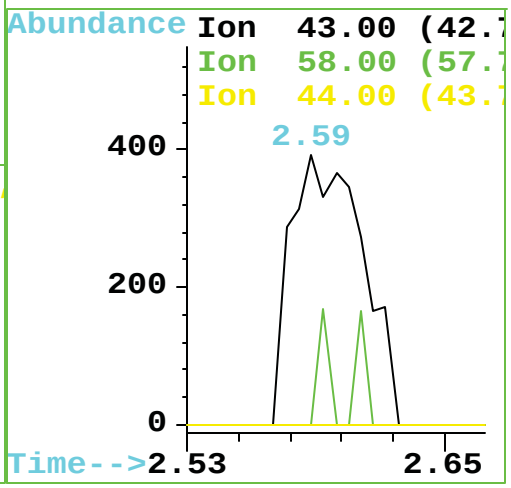


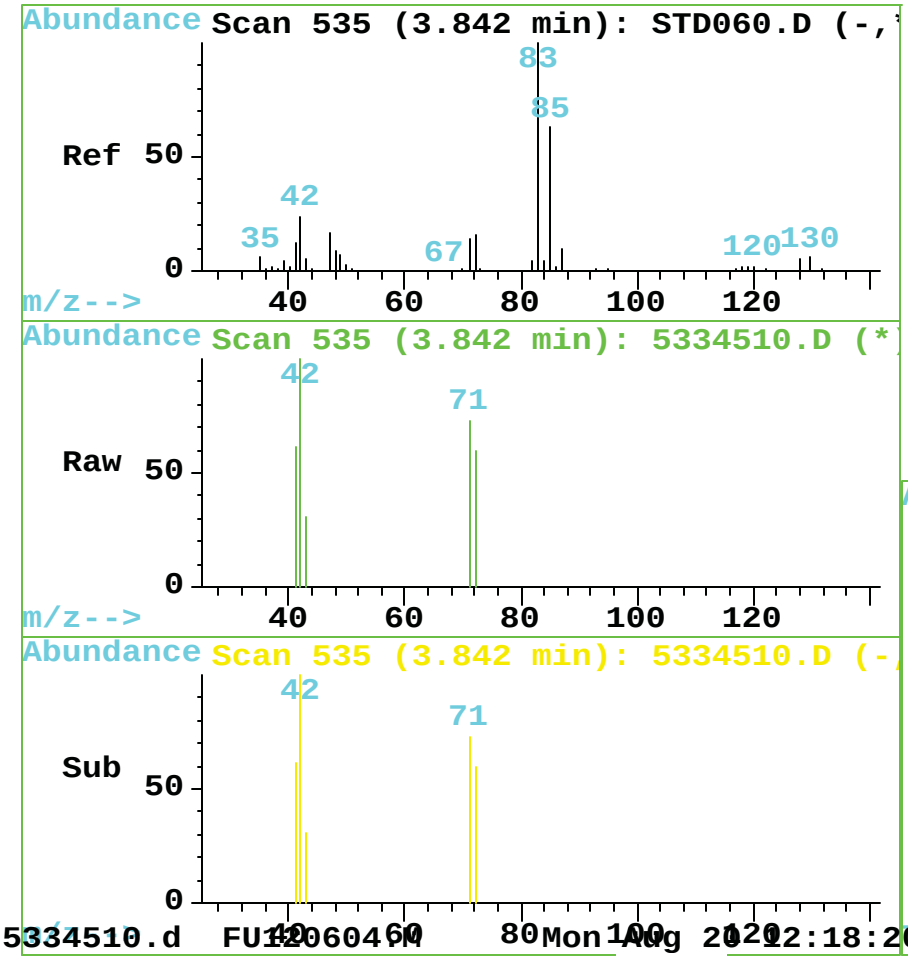


#5
Acetone (*)
Concen: 4.91 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5334510.d
Acq: 2 Aug 12 6:00 pm

Tgt Ion:43 Resp: 967

Ion	Ratio	Lower	Upper
43	100		
58	6.4	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

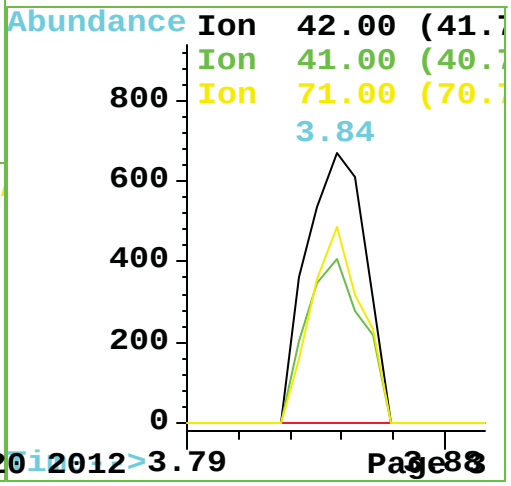


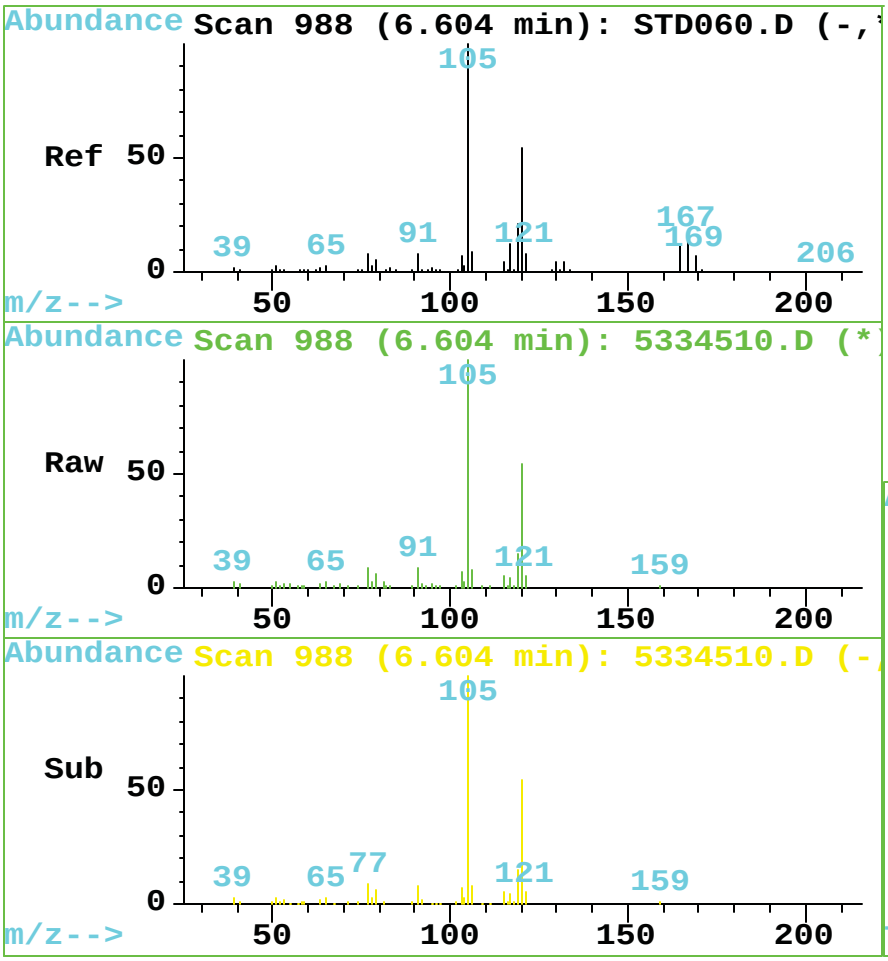


#24
Tetrahydrofuran
Concen: 3.11 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334510.d
Acq: 2 Aug 12 6:00 pm

Tgt Ion:42 Resp: 909

Ion	Ratio	Lower	Upper
42	100		
41	58.6	222.5	282.5#
71	62.8	24.9	84.9
0	0.0	0.0	0.0

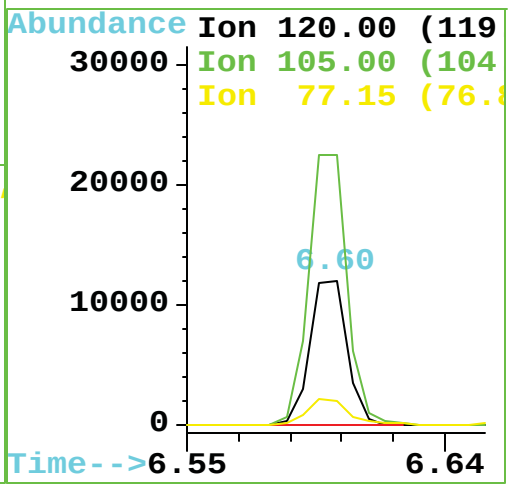


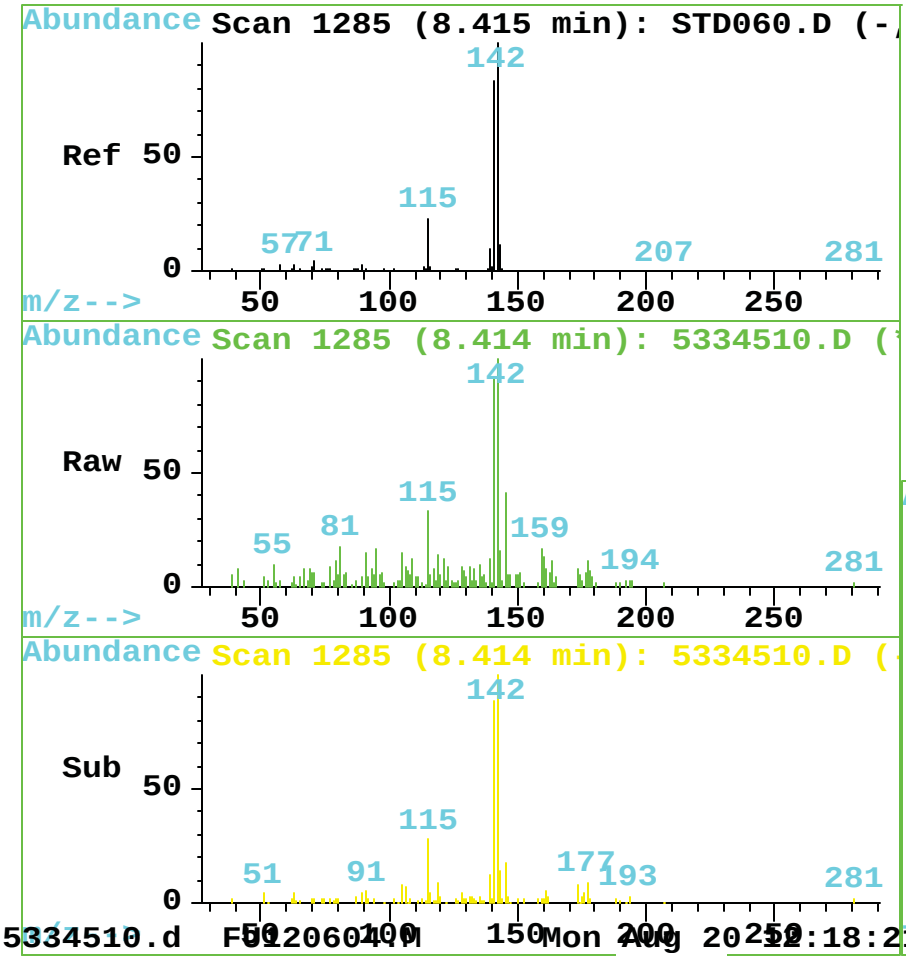


#67
1,2,4-Trimethylbenzene
Concen: 1.45 ug/l
RT: 6.60 min Scan# 988
Delta R.T. 0.00 min
Lab File: 5334510.d
Acq: 2 Aug 12 6:00 pm

Tgt Ion:120 Resp: 11424

Ion	Ratio	Lower	Upper
120	100		
105	192.7	144.1	204.1
77	20.9	0.0	45.7
0	0.0	0.0	0.0

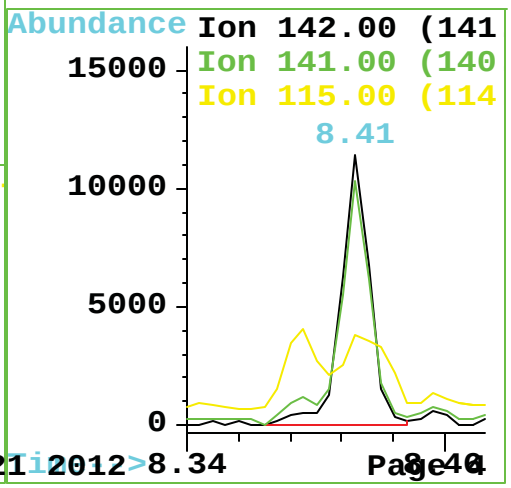




#82
2-Methylnaphthalene
Concen: 3.27 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5334510.d
Acq: 2 Aug 12 6:00 pm

Tgt Ion:142 Resp: 10755

Ion	Ratio	Lower	Upper
142	100		
141	100.4	55.8	115.8
115	37.2	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334511.d Vial: 20
Acq On : 2 Aug 12 6:21 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:51 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

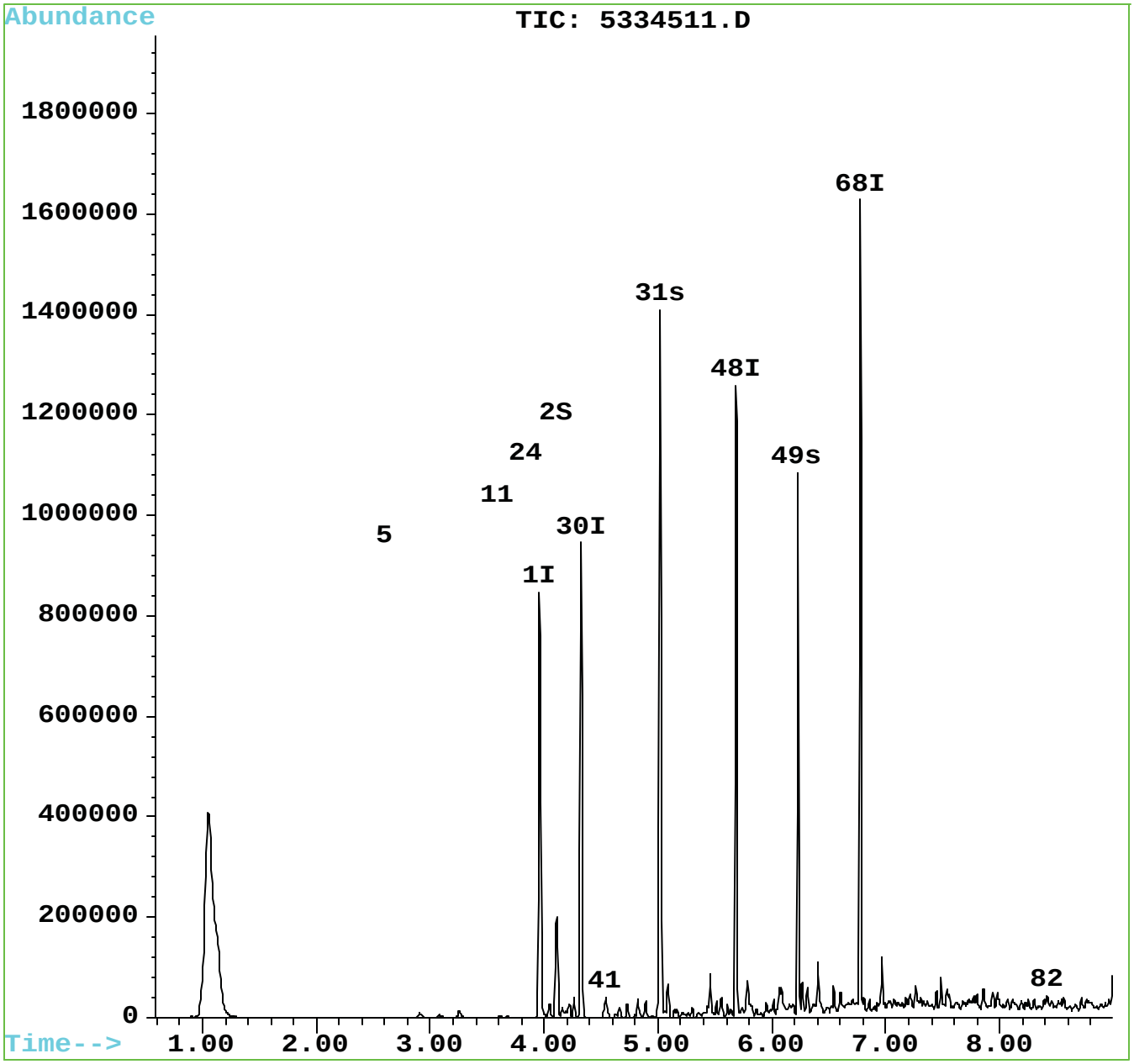
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	544612	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	619524	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	219868	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	305666	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	96647	46.93	ug/l	93.8
31) TOLUENE-D8 (S)	5.02	98	617845	49.36	ug/l	98.7
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	261580	50.02	ug/l	100.0
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	297	1.46	ug/l #	4
11) 2-Butanone (MEK) (*)	3.59	43	779	2.48	ug/l #	
24) Tetrahydrofuran	3.84	42	968	3.22	ug/l #	
41) Methyl Cyclohexane	4.54	55	9548	2.73	ug/l	8
82) 2-Methylnaphthalene	8.41	142	4956	1.41	ug/l	9

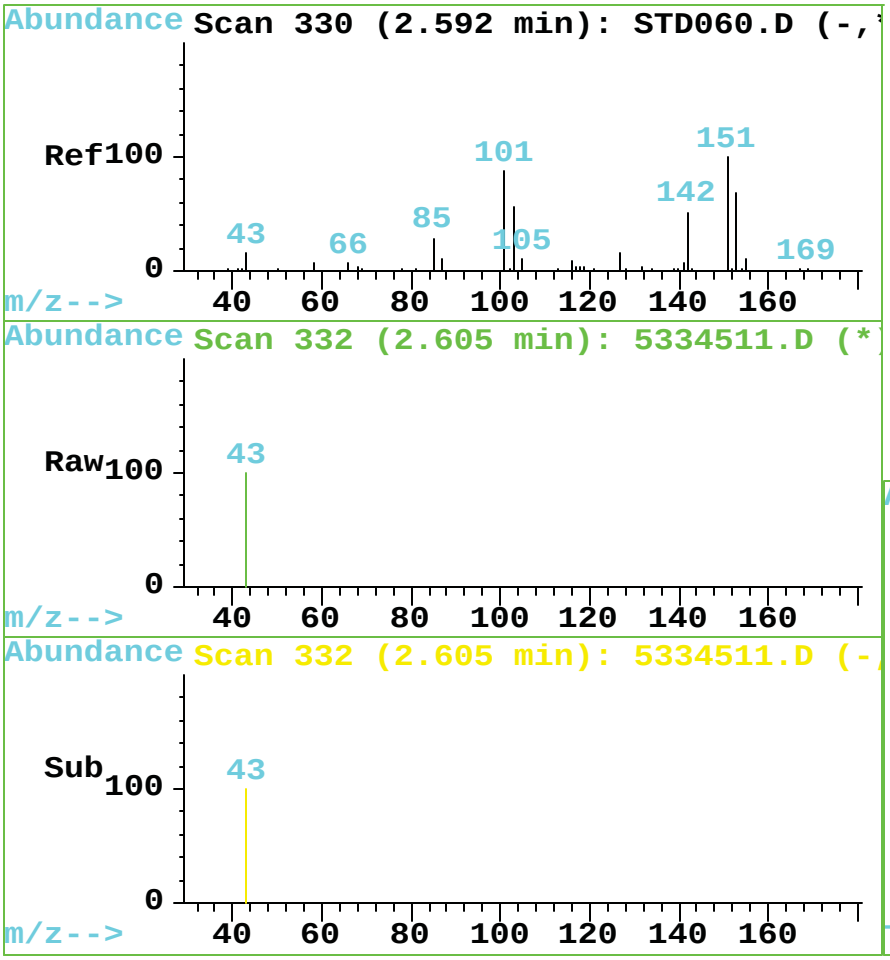
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334511.d Vial: 20
Acq On : 2 Aug 12 6:21 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:51 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

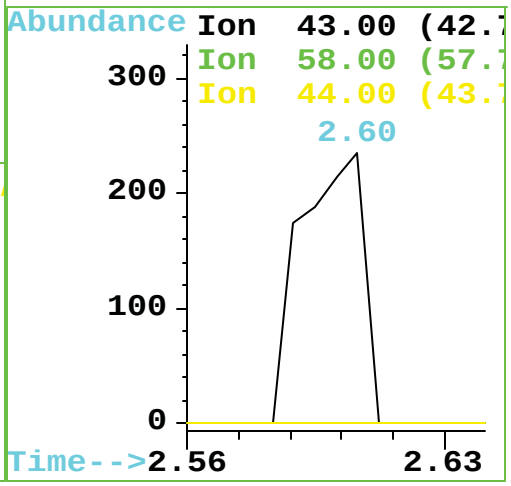


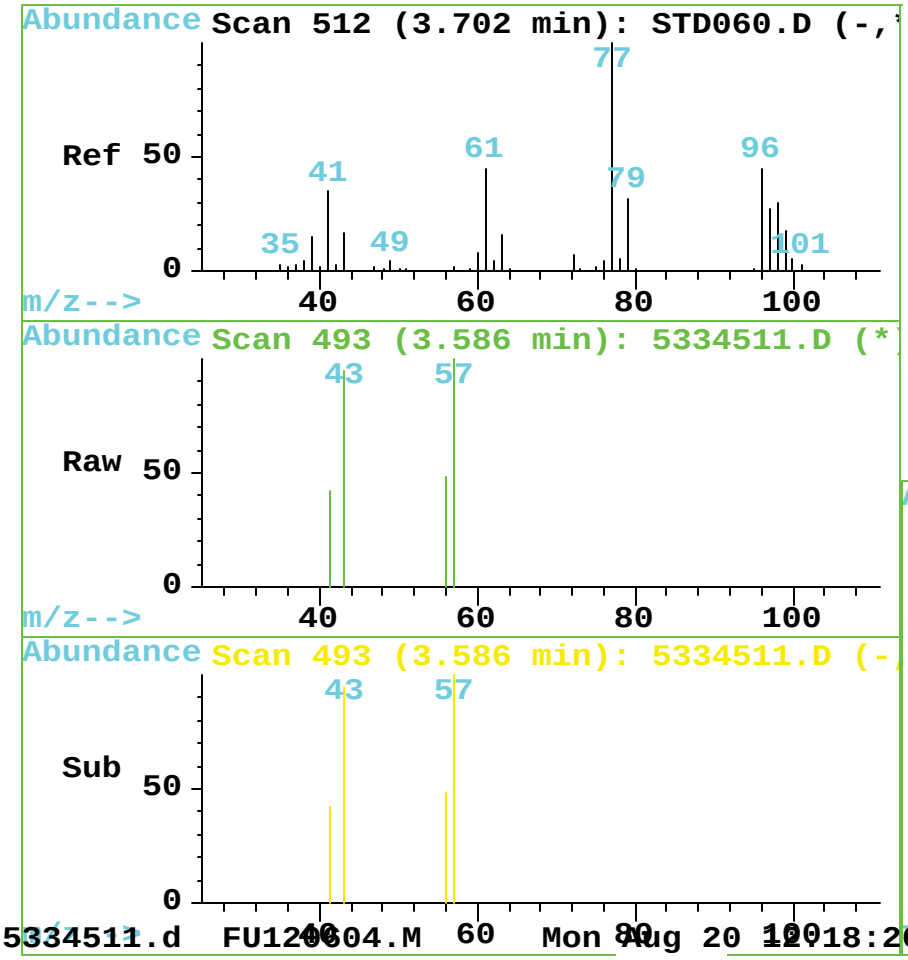


#5
Acetone (*)
Concen: 1.46 ug/l
RT: 2.60 min Scan# 332
Delta R.T. 0.03 min
Lab File: 5334511.d
Acq: 2 Aug 12 6:21 pm

Tgt Ion:43 Resp: 297

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

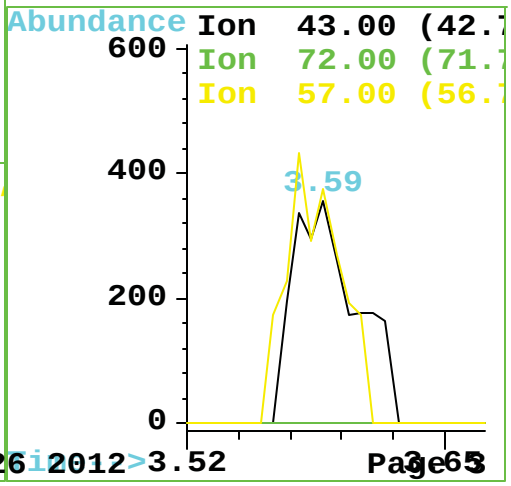


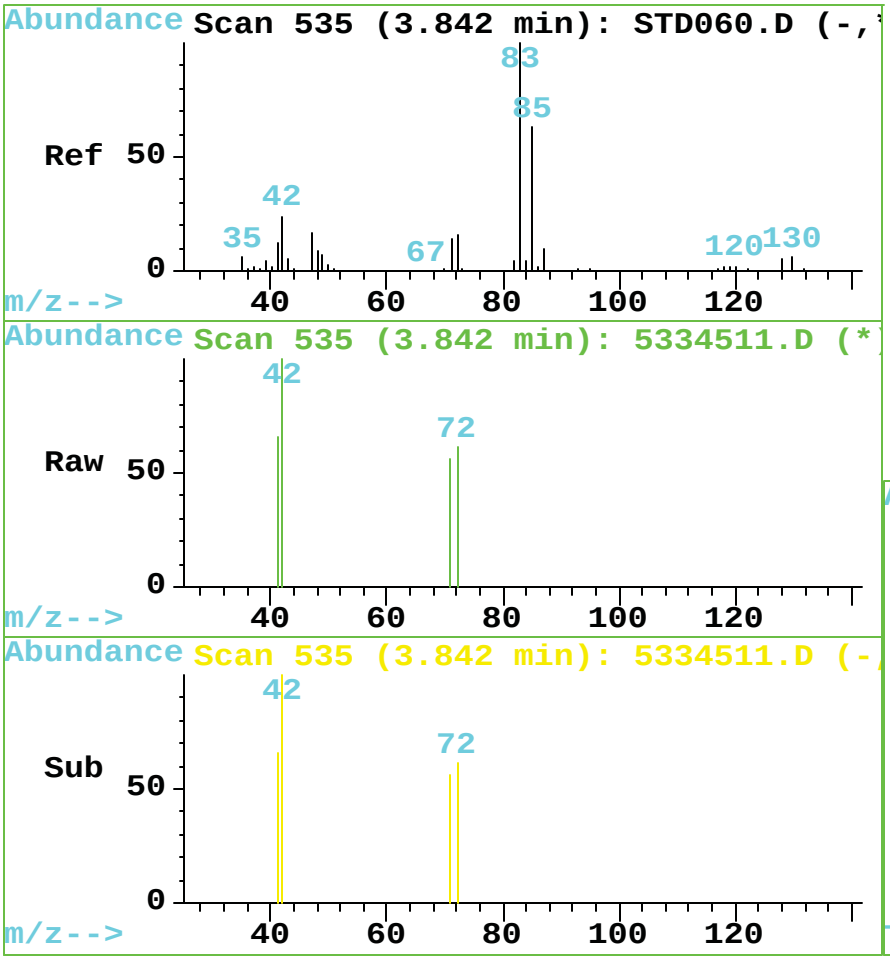


#11
2-Butanone (MEK) (*)
Concen: 2.48 ug/l
RT: 3.59 min Scan# 493
Delta R.T. -0.11 min
Lab File: 5334511.d
Acq: 2 Aug 12 6:21 pm

Tgt Ion:43 Resp: 779

Ion	Ratio	Lower	Upper
43	100		
72	0.0	9.3	69.3#
57	100.3	0.0	38.8#
0	0.0	0.0	0.0

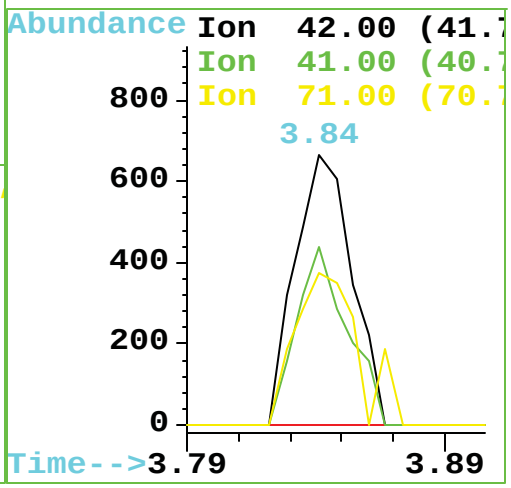


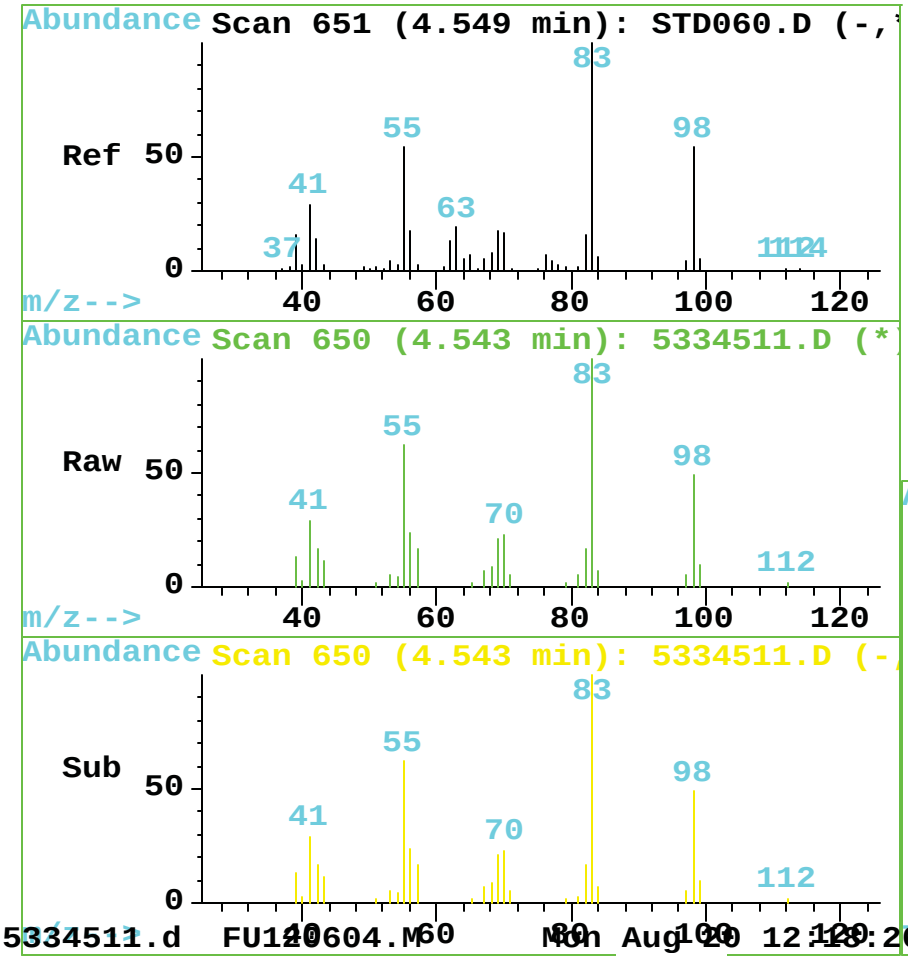


#24
Tetrahydrofuran
Concen: 3.22 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334511.d
Acq: 2 Aug 12 6:21 pm

Tgt Ion:42 Resp: 968

Ion	Ratio	Lower	Upper
42	100		
41	59.1	222.5	282.5#
71	62.2	24.9	84.9
0	0.0	0.0	0.0

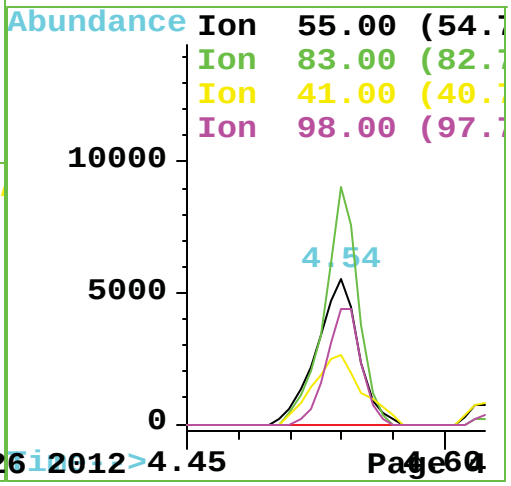


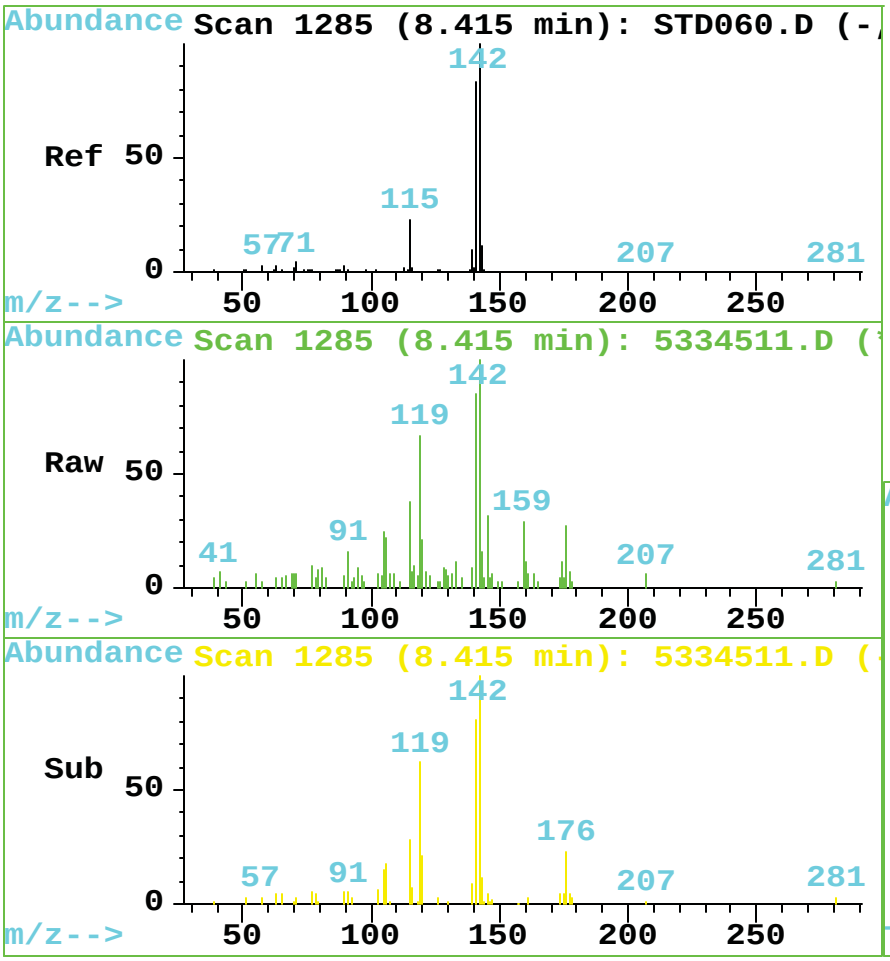


#41
Methyl Cyclohexane
Concen: 2.73 ug/l
RT: 4.54 min Scan# 650
Delta R.T. 0.00 min
Lab File: 5334511.d
Acq: 2 Aug 12 6:21 pm

Tgt Ion:55 Resp: 9548

Ion	Ratio	Lower	Upper
55	100		
83	134.6	131.0	191.0
41	55.6	42.0	102.0
98	66.8	55.3	115.3

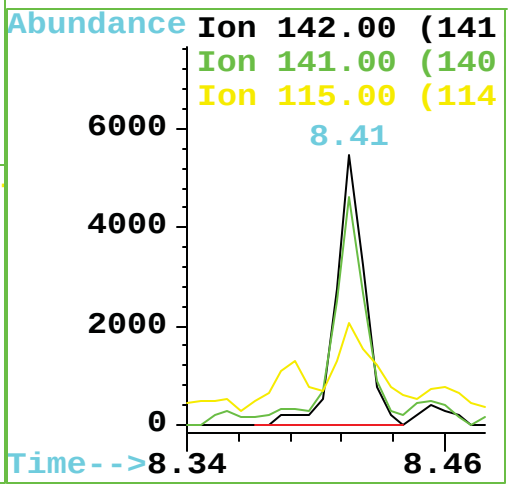




#82
2-Methylnaphthalene
Concen: 1.41 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5334511.d
Acq: 2 Aug 12 6:21 pm

Tgt Ion:142 Resp: 4956

Ion	Ratio	Lower	Upper
142	100		
141	84.7	55.8	115.8
115	30.4	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334512.d Vial: 21
Acq On : 2 Aug 12 6:42 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:52 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

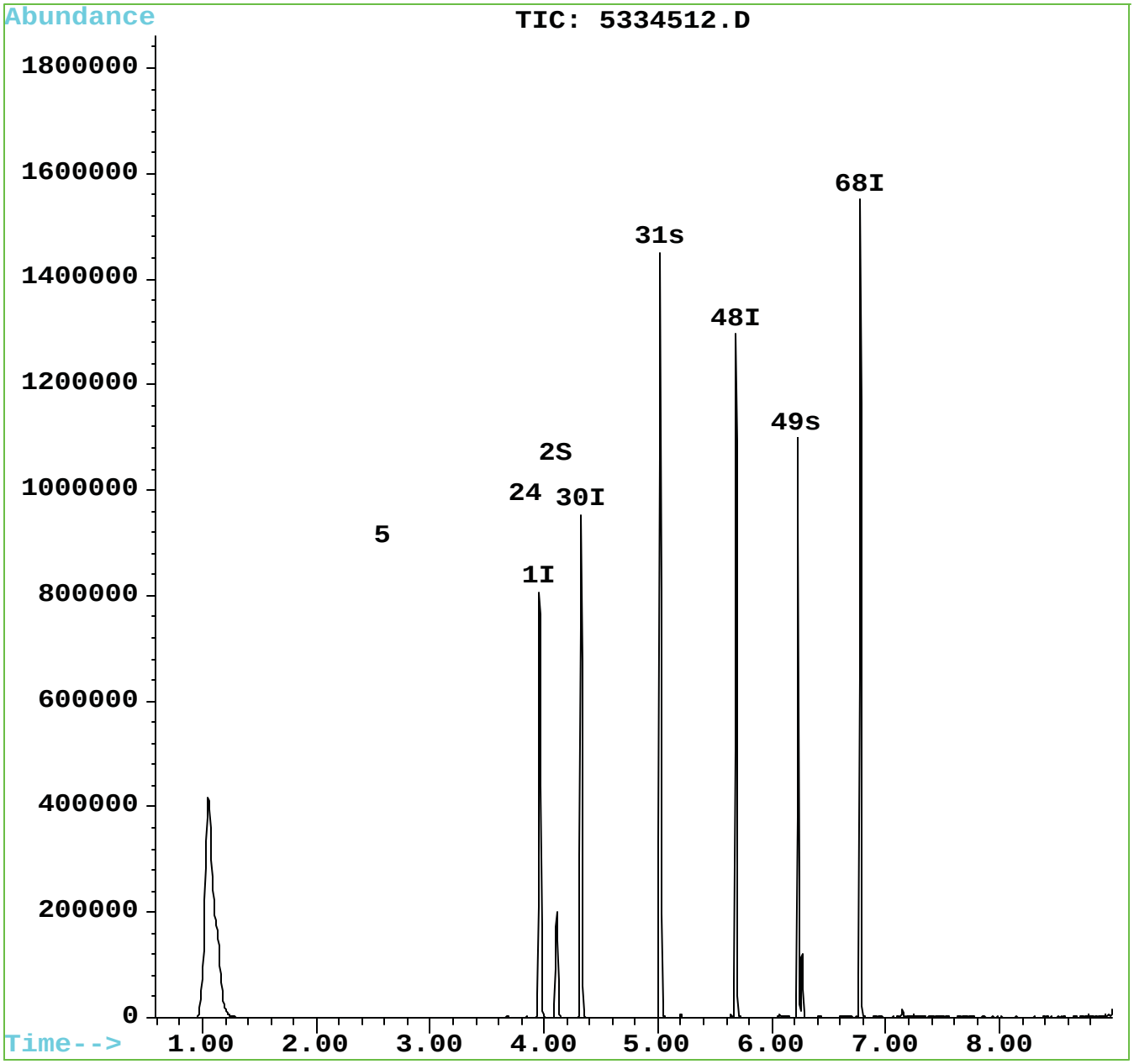
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	539278	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	618093	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	216578	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	298617	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	95095	46.64	ug/l	93.2
31) TOLUENE-D8 (S)	5.02	98	613871	49.15	ug/l	98.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	259298	50.34	ug/l	100.6
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	241	1.20	ug/l #	4
24) Tetrahydrofuran	3.85	42	934	3.14	ug/l #	

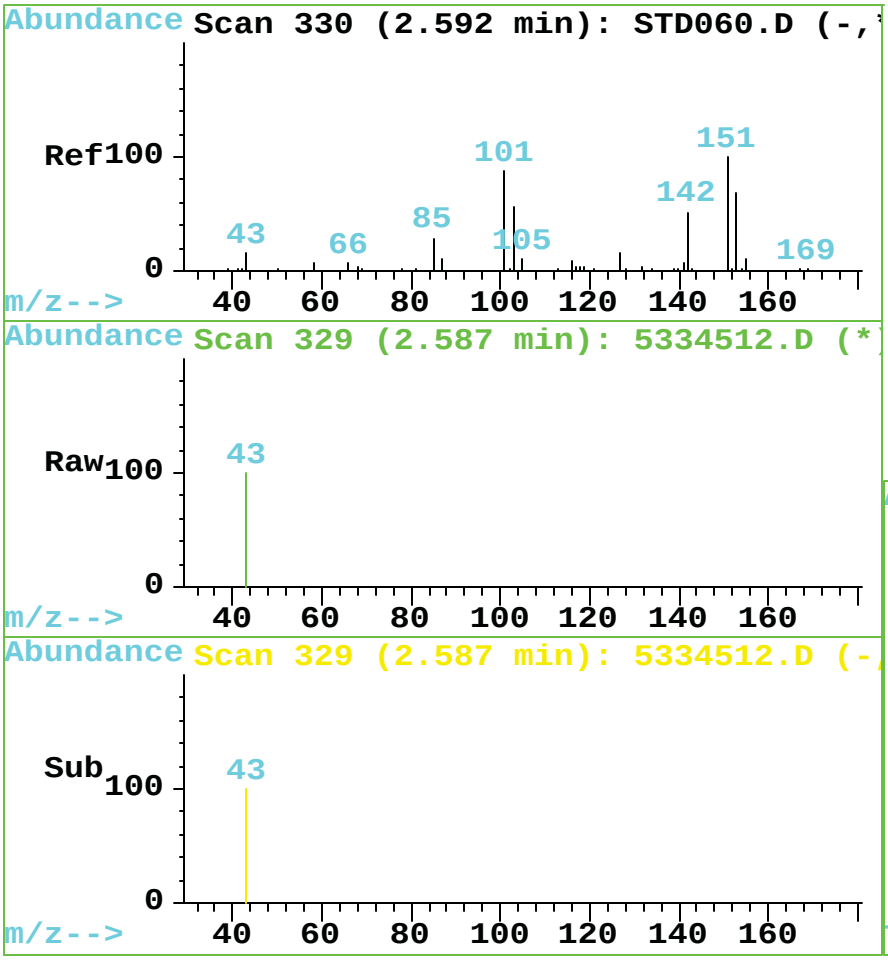
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334512.d Vial: 21
Acq On : 2 Aug 12 6:42 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:52 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

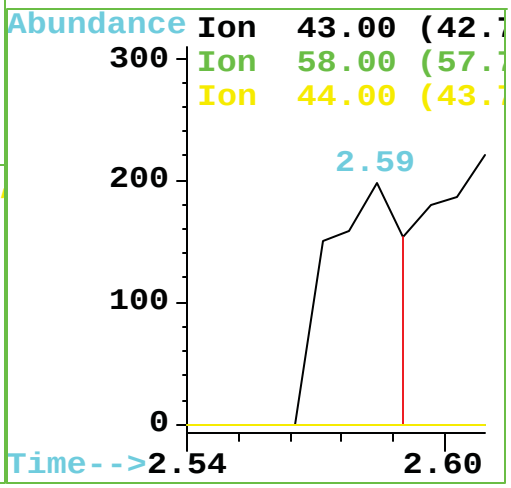


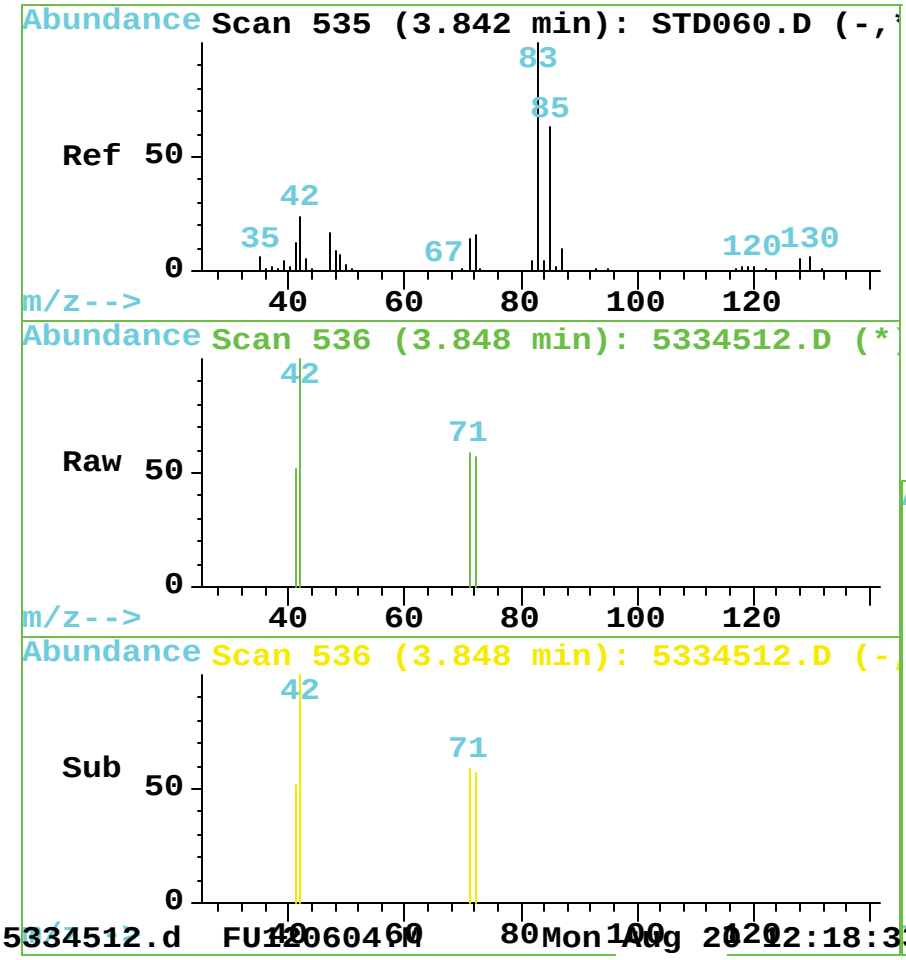


#5
Acetone (*)
Concen: 1.20 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5334512.d
Acq: 2 Aug 12 6:42 pm

Tgt Ion:43 Resp: 241

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

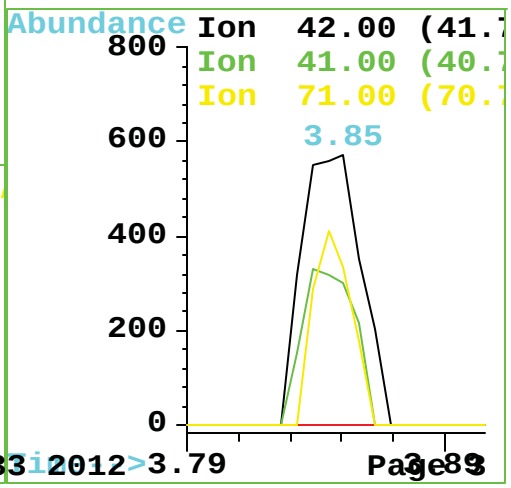




#24
Tetrahydrofuran
Concen: 3.14 ug/l
RT: 3.85 min Scan# 536
Delta R.T. 0.01 min
Lab File: 5334512.d
Acq: 2 Aug 12 6:42 pm

Tgt Ion:42 Resp: 934

Ion	Ratio	Lower	Upper
42	100		
41	51.6	222.5	282.5#
71	47.6	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334513.d Vial: 22
Acq On : 2 Aug 12 7:02 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

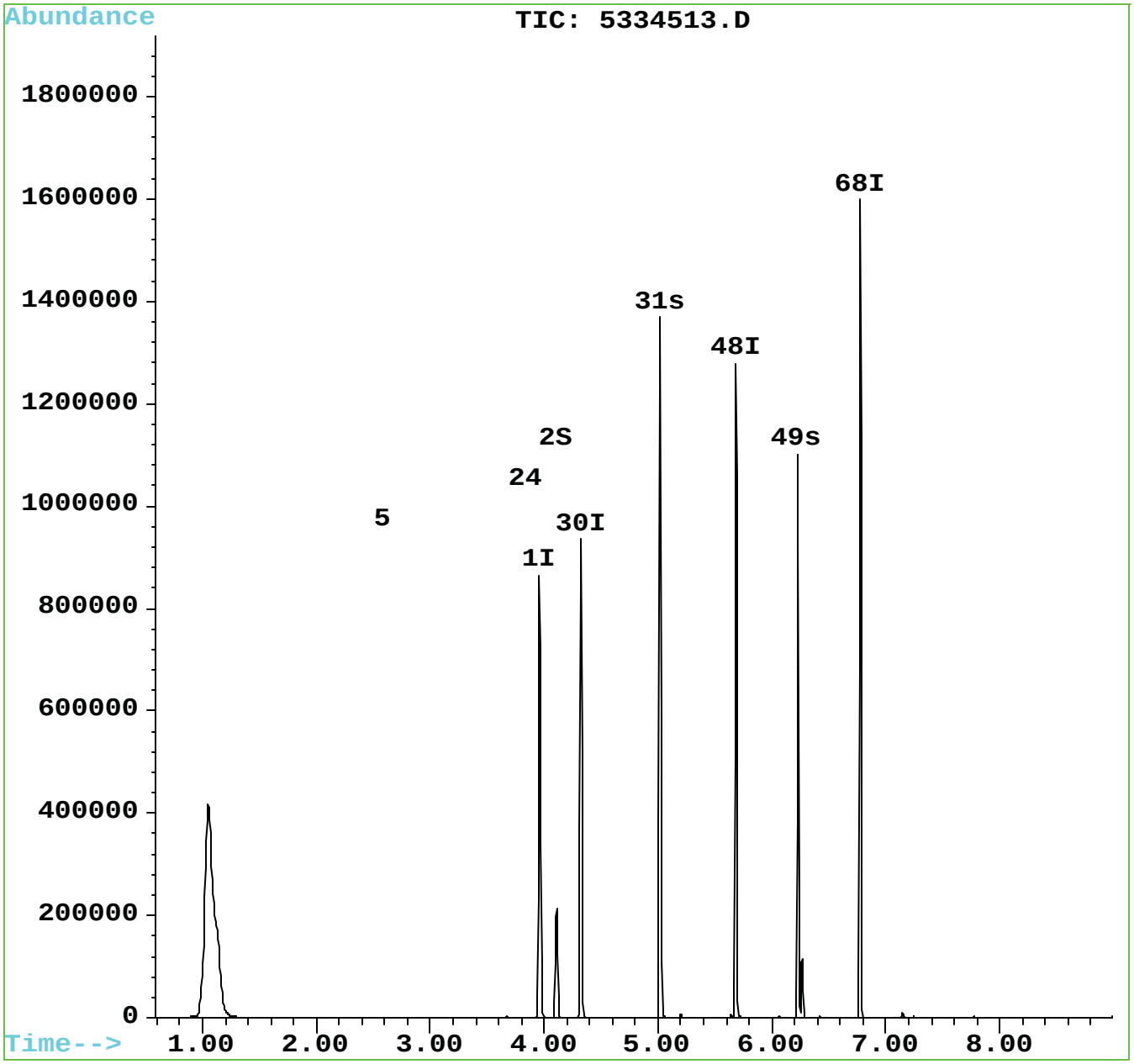
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	519066	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	590751	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	211983	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	303232	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	92316	47.04	ug/l	94.0
31) TOLUENE-D8 (S)	5.02	98	588988	49.34	ug/l	98.6
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	257100	51.00	ug/l	101.9
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	441	2.28	ug/l #	4
24) Tetrahydrofuran	3.84	42	965	3.37	ug/l #	

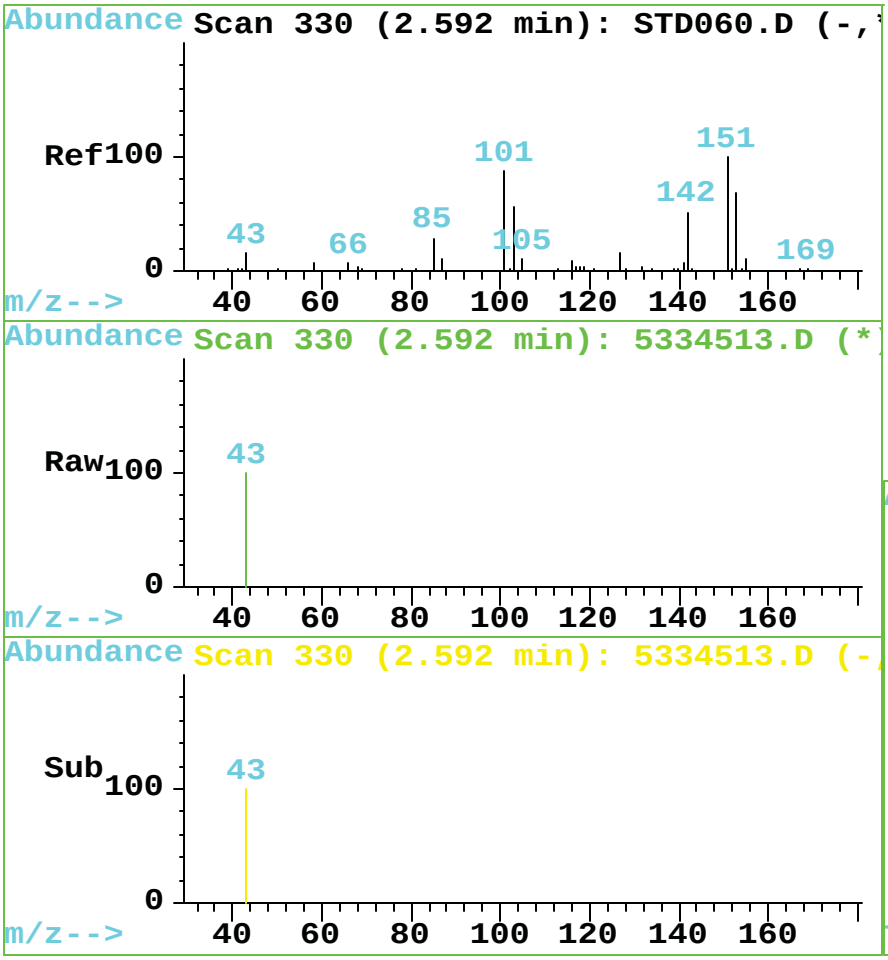
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334513.d Vial: 22
Acq On : 2 Aug 12 7:02 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

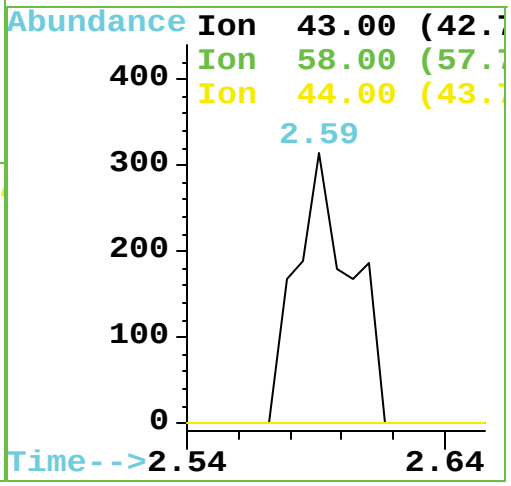


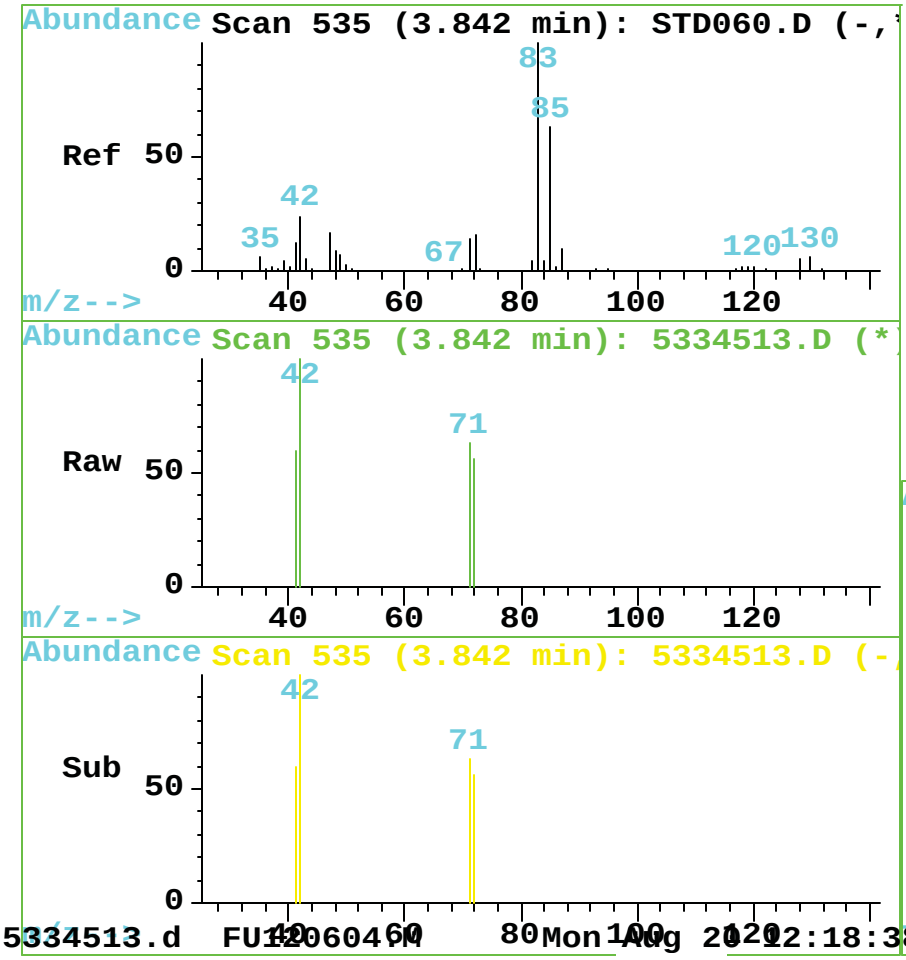


#5
Acetone (*)
Concen: 2.28 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5334513.d
Acq: 2 Aug 12 7:02 pm

Tgt Ion:43 Resp: 441

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

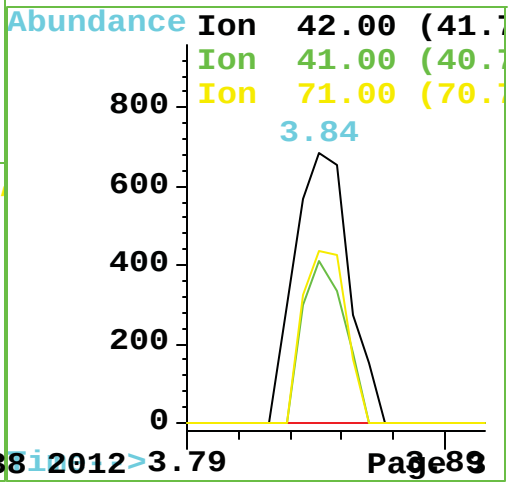




#24
Tetrahydrofuran
Concen: 3.37 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334513.d
Acq: 2 Aug 12 7:02 pm

Tgt Ion:42 Resp: 965

Ion	Ratio	Lower	Upper
42	100		
41	46.3	222.5	282.5#
71	51.1	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334514.d Vial: 23
Acq On : 2 Aug 12 7:22 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

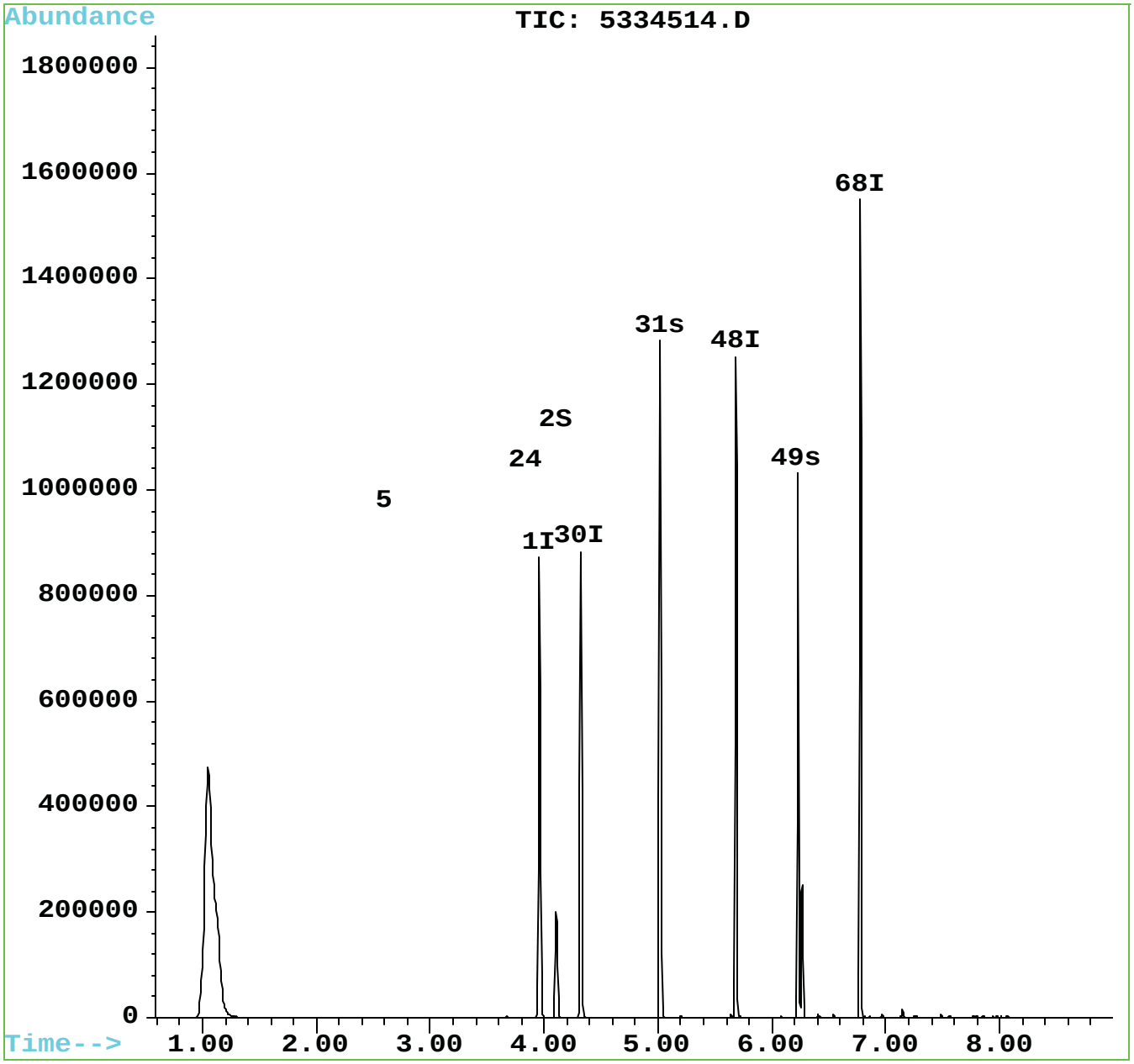
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	516937	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	578483	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	208473	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	293964	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	89410	45.74	ug/l	91.4
31) TOLUENE-D8 (S)	5.02	98	579454	49.58	ug/l	99.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	249682	50.36	ug/l	100.7
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	205	1.07	ug/l #	4
24) Tetrahydrofuran	3.84	42	936	3.28	ug/l #	

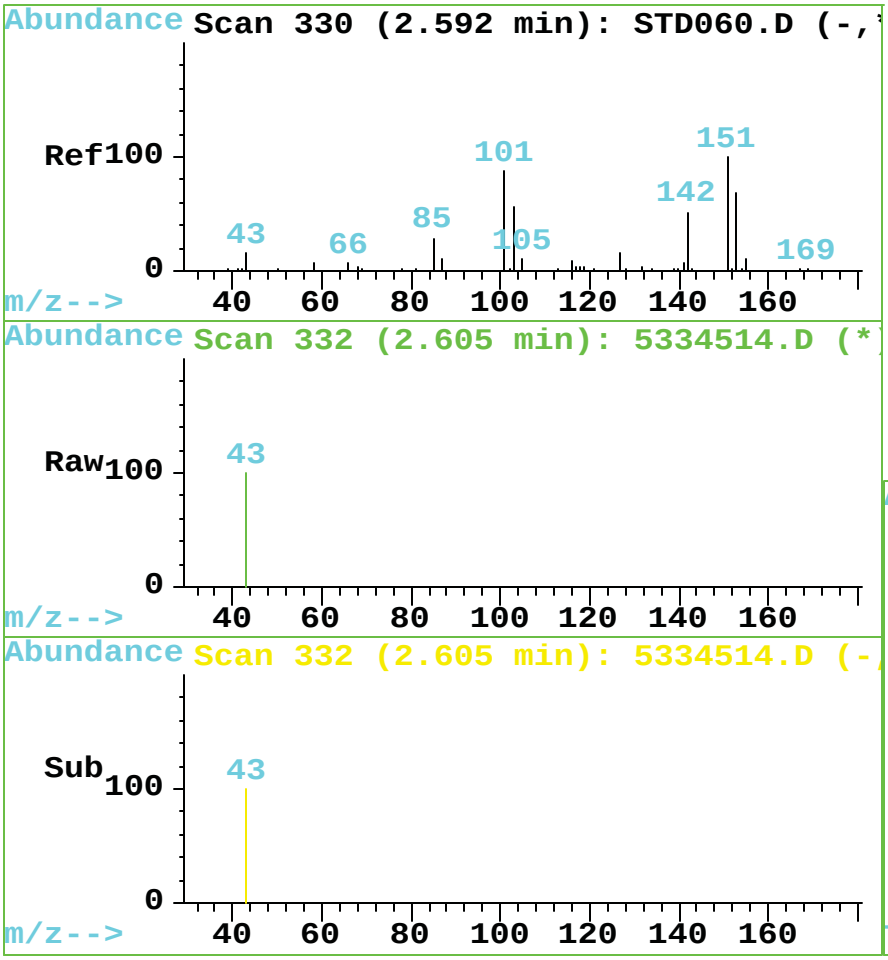
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334514.d Vial: 23
Acq On : 2 Aug 12 7:22 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:32 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

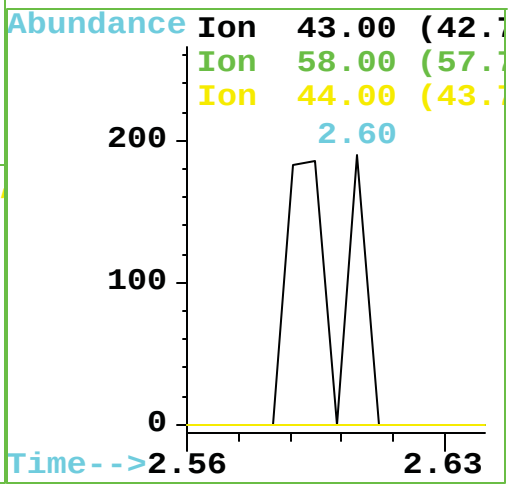


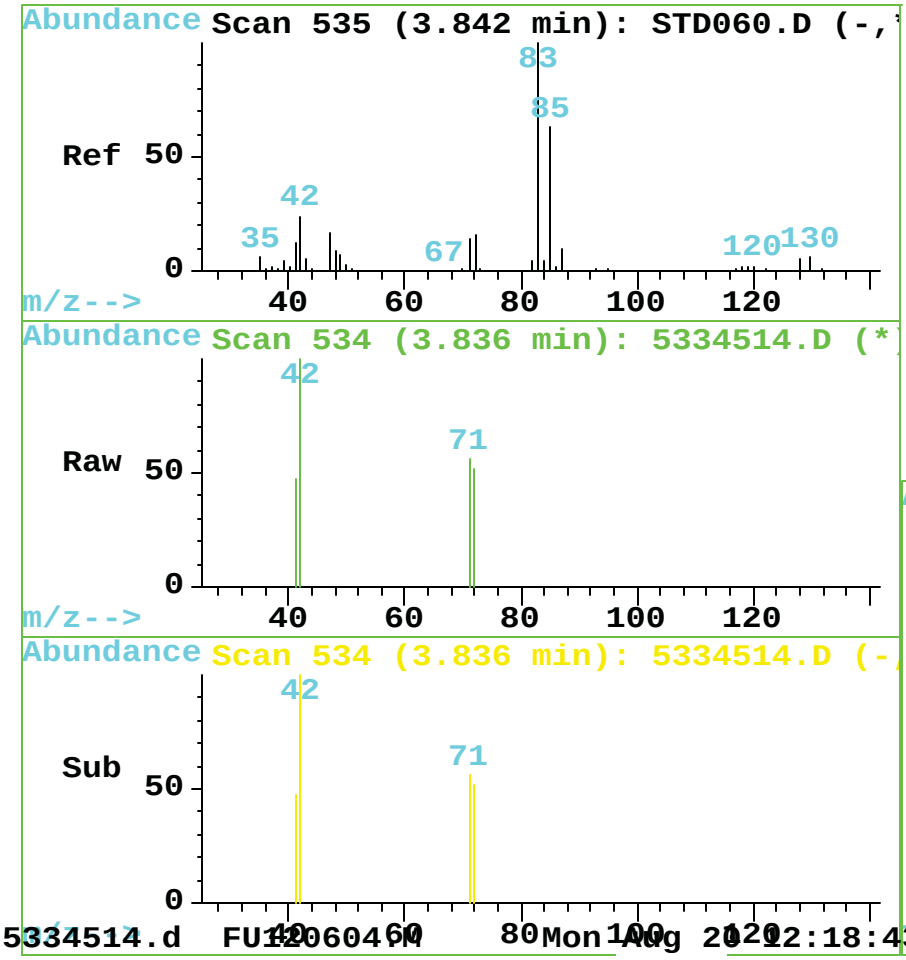


#5
Acetone (*)
Concen: 1.07 ug/l
RT: 2.60 min Scan# 332
Delta R.T. 0.03 min
Lab File: 5334514.d
Acq: 2 Aug 12 7:22 pm

Tgt Ion:43 Resp: 205

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

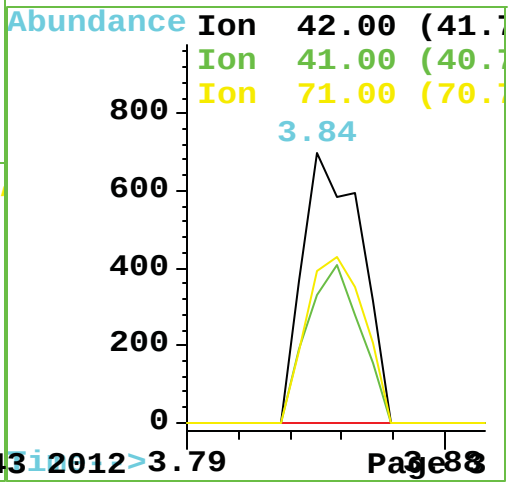




#24
Tetrahydrofuran
Concen: 3.28 ug/l
RT: 3.84 min Scan# 534
Delta R.T. 0.00 min
Lab File: 5334514.d
Acq: 2 Aug 12 7:22 pm

Tgt Ion:42 Resp: 936

Ion	Ratio	Lower	Upper
42	100		
41	53.3	222.5	282.5#
71	61.2	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334515.d Vial: 24
Acq On : 2 Aug 12 7:42 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

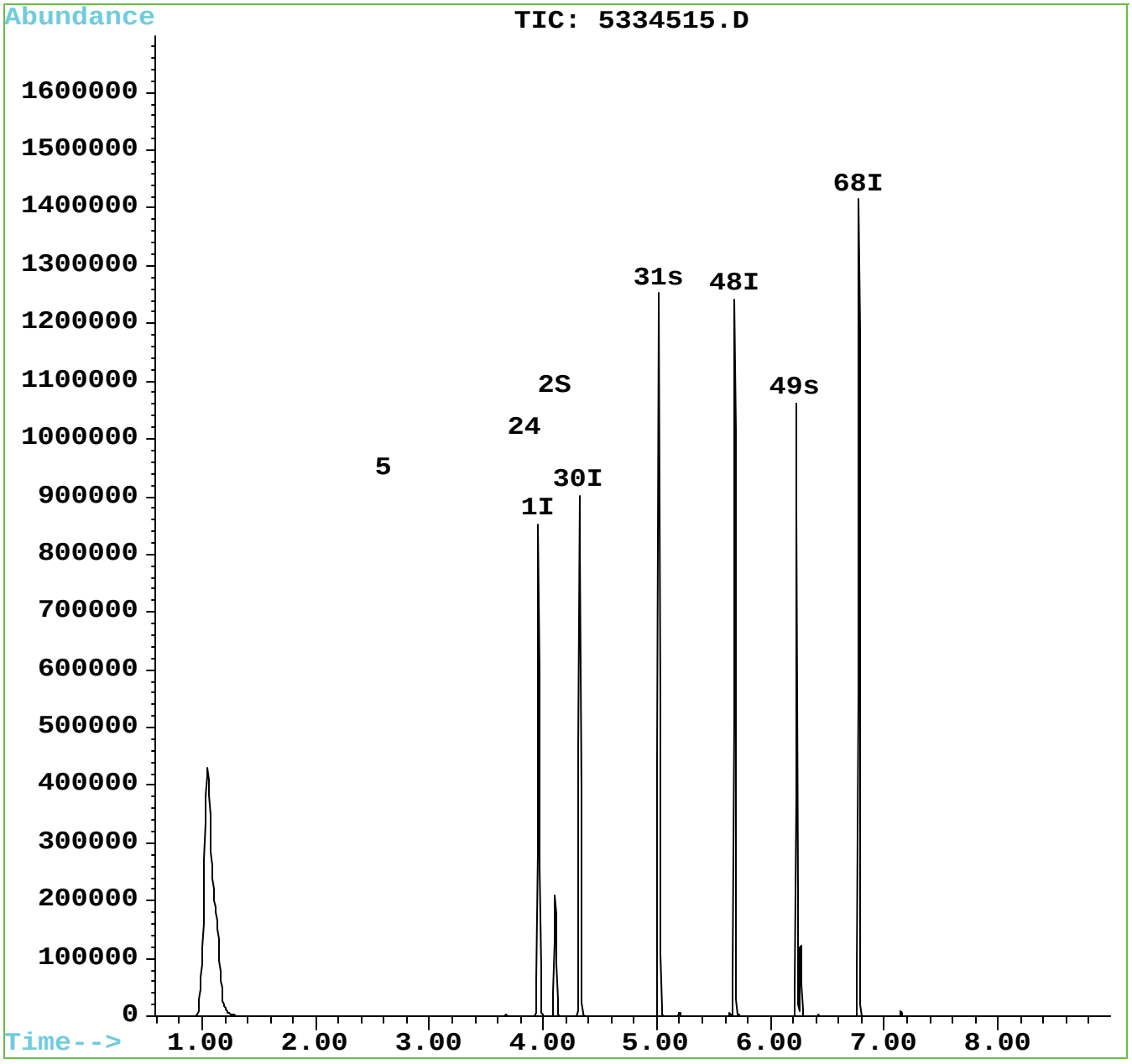
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	503677	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	566806	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	205792	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	284177	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	88382	46.41	ug/l	92.8
31) TOLUENE-D8 (S)	5.02	98	569034	49.69	ug/l	99.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	244933	50.04	ug/l	100.0
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	338	1.80	ug/l #	4
24) Tetrahydrofuran	3.84	42	929	3.34	ug/l #	

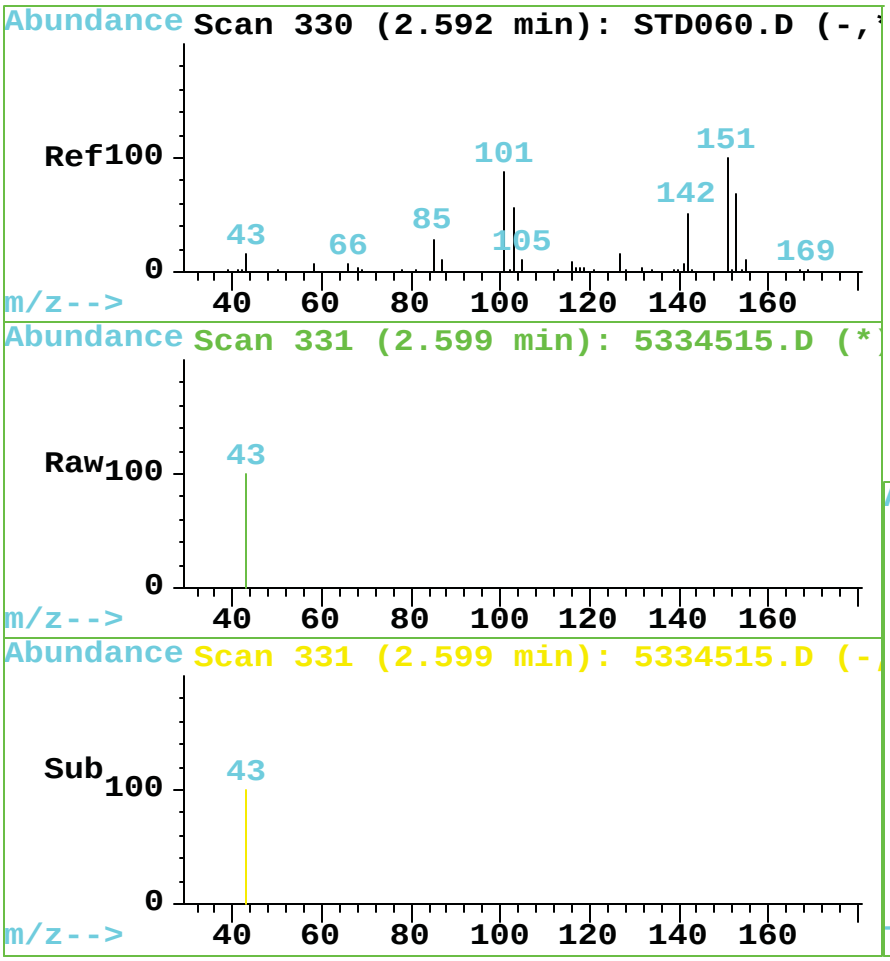
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334515.d Vial: 24
Acq On : 2 Aug 12 7:42 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

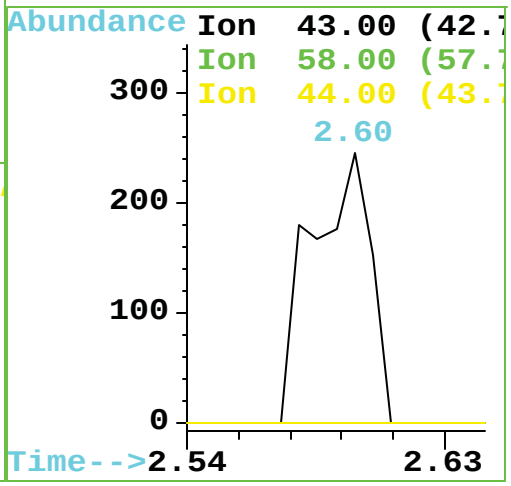


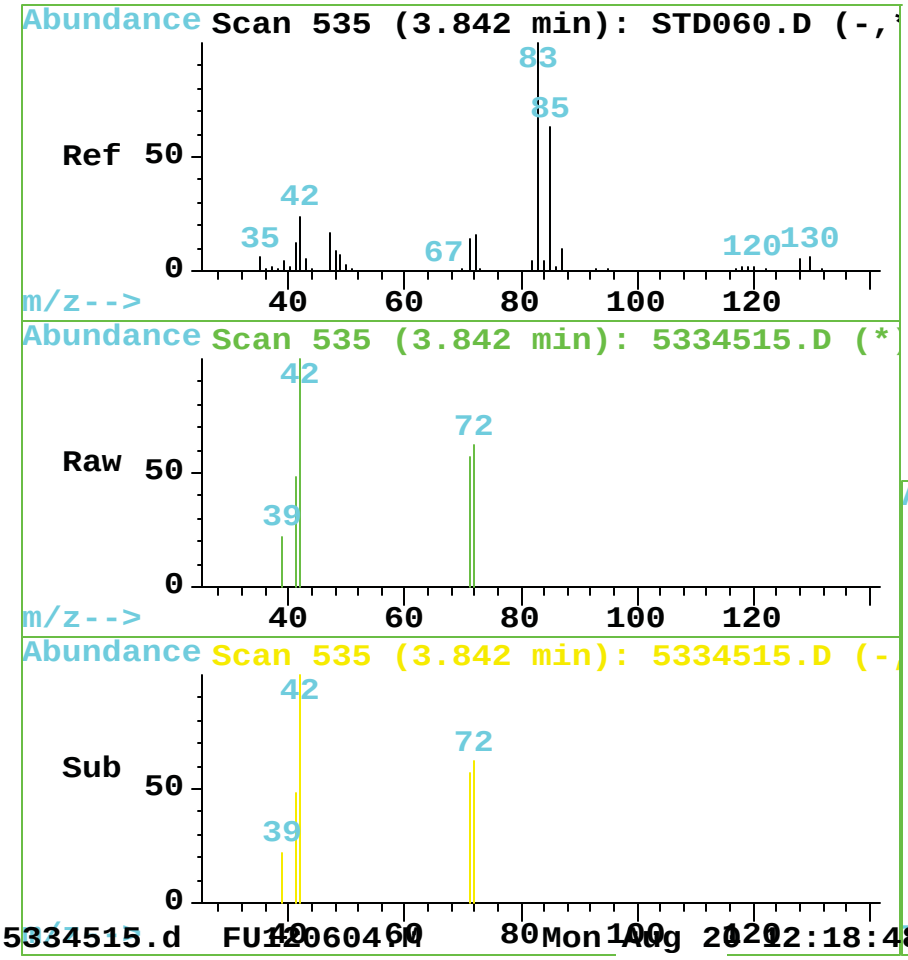


#5
Acetone (*)
Concen: 1.80 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5334515.d
Acq: 2 Aug 12 7:42 pm

Tgt Ion:43 Resp: 338

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

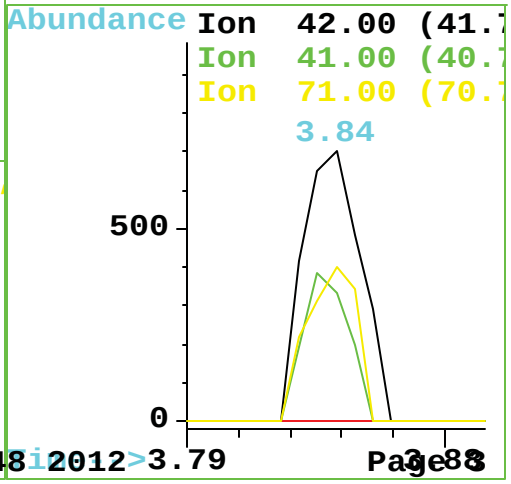




#24
Tetrahydrofuran
Concen: 3.34 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334515.d
Acq: 2 Aug 12 7:42 pm

Tgt Ion:42 Resp: 929

Ion	Ratio	Lower	Upper
42	100		
41	43.6	222.5	282.5#
71	50.2	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334516.d Vial: 25
Acq On : 2 Aug 12 8:03 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

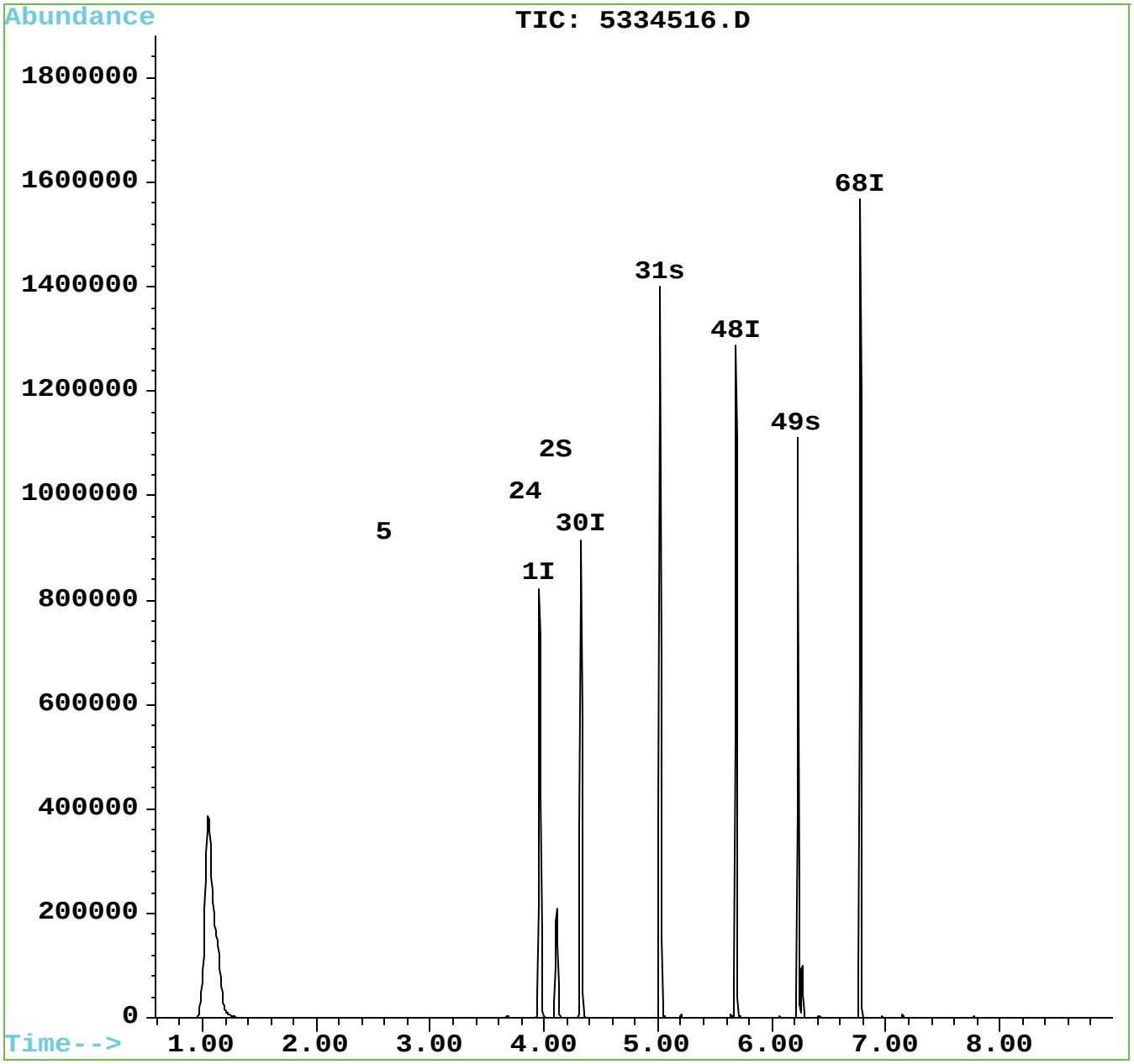
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	536956	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	606825	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	220833	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	304768	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	96750	47.65	ug/l	95.3
31) TOLUENE-D8 (S)	5.02	98	609036	49.67	ug/l	99.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	260471	49.59	ug/l	99.1
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	330	1.65	ug/l #	4
24) Tetrahydrofuran	3.84	42	994	3.36	ug/l #	

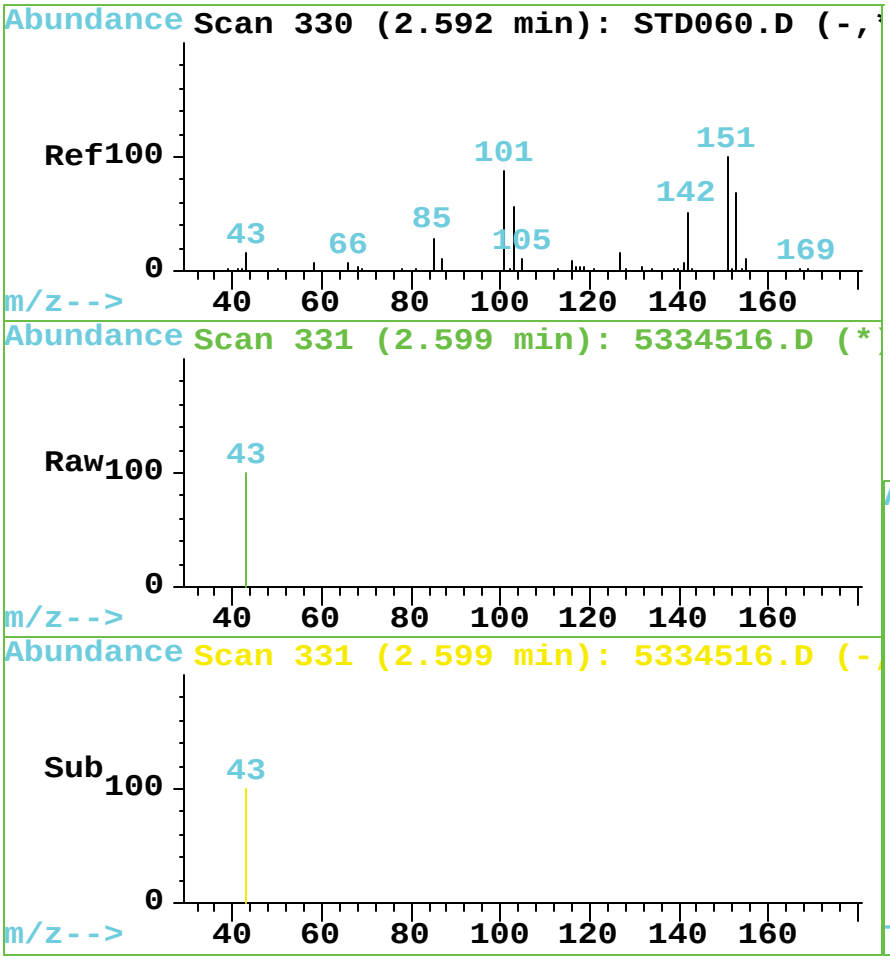
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\5334516.d Vial: 25
Acq On : 2 Aug 12 8:03 pm Operator: lbr
Sample : 100ul 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

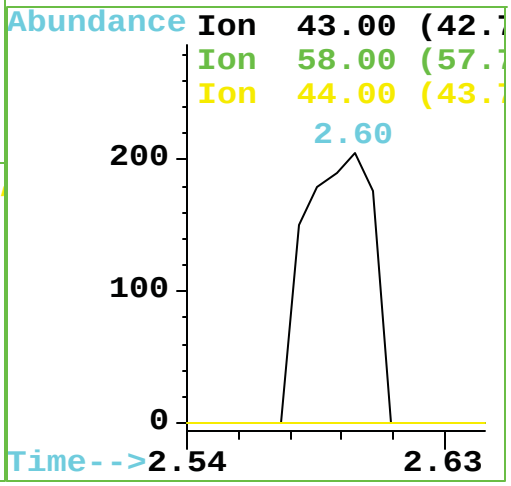


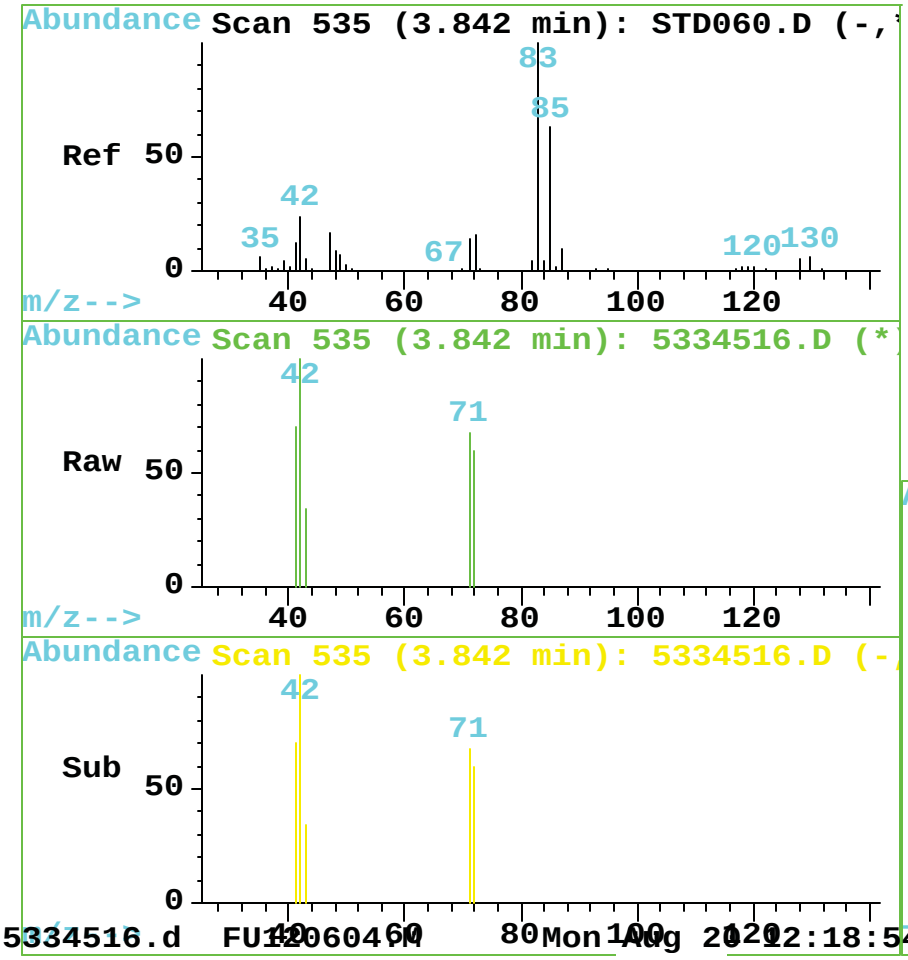


#5
Acetone (*)
Concen: 1.65 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5334516.d
Acq: 2 Aug 12 8:03 pm

Tgt Ion:43 Resp: 330

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

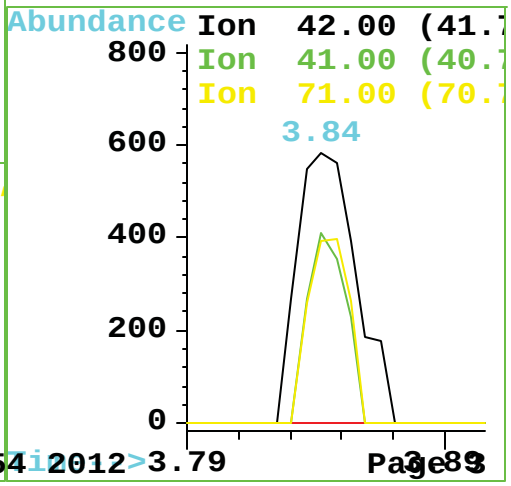




#24
Tetrahydrofuran
Concen: 3.36 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5334516.d
Acq: 2 Aug 12 8:03 pm

Tgt Ion:42 Resp: 994

Ion	Ratio	Lower	Upper
42	100		
41	46.5	222.5	282.5#
71	48.3	24.9	84.9
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.189	1.69	0.187	0.194	0.190	0.185	0.188	0.191				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.321	2.04	0.310	0.321	0.323	0.320	0.324	0.330				
	Diethyl ether (*)	A	0.093	2.34	0.090	0.096	0.091	0.092	0.092	0.094				
	Acetone (*)	LO	0.020	16.90		0.025	0.017	0.021	0.017	0.019	0.99	0.00	0.019	0.00
	Methyl iodide (iodomethane) (*	A	0.675	1.86	0.663	0.675	0.665	0.669	0.683	0.696				
	Carbon disulfide (*)	LO	0.837	15.25	0.624	0.764	0.829	0.900	0.937	0.966	1.00	0.00	0.955	0.00
	Methyl Acetate	A	0.068	5.50	0.074	0.069	0.067	0.064	0.064	0.068				
	tert-Methyl butyl ether (MTBE)	A	0.467	4.09	0.442	0.460	0.462	0.461	0.475	0.499				
	Acrylonitrile (*)	A	0.041	12.24	0.031	0.045	0.043	0.042	0.042	0.043				
	2-Butanone (MEK) (*)	LO	0.034	21.27		0.046	0.033	0.033	0.028	0.029	1.00	0.00	0.029	0.00
	Dichlorodifluoromethane	QO	0.183	19.21	0.118	0.179	0.178	0.203	0.208	0.213	1.00	0.00	0.199	0.00
	Chloromethane (SPCC)	A	0.230	3.47	0.214	0.234	0.229	0.231	0.236	0.233				
	Vinyl Chloride (CCC)	A	0.258	3.98	0.240	0.262	0.260	0.263	0.270	0.254				
	Bromomethane	A	0.115	5.21	0.104	0.121	0.114	0.114	0.117	0.119				
	Chloroethane	A	0.055	9.88	0.044	0.057	0.056	0.056	0.057	0.059				
	Acrolein	A												
	Trichlorofluoromethane	A	0.301	5.21	0.283	0.308	0.281	0.300	0.315	0.317				
	1,1-Dichloroethene (CCC/MS)	A	0.320	3.94	0.307	0.313	0.333	0.334	0.306	0.324				
	Methylene Chloride	A	0.309	6.48	0.349	0.306	0.299	0.296	0.299	0.304				
	trans-1,2-Dichloroethene	A	0.333	0.80	0.329	0.332	0.336	0.330	0.334	0.334				
	1,1-Dichloroethane (SPCC)	A	0.417	1.85	0.403	0.418	0.419	0.413	0.421	0.425				
	cis-1,2-Dichloroethene	A	0.348	0.98	0.345	0.346	0.354	0.346	0.350	0.347				
	Tetrahydrofuran	A	0.027	13.06		0.033	0.029	0.025	0.025	0.025				
	Chloroform (CCC)	A	0.448	1.09	0.445	0.454	0.451	0.440	0.448	0.449				
	Bromochloromethane	A	0.223	1.41	0.218	0.224	0.223	0.220	0.223	0.227				
	1,1,1-Trichloroethane	A	0.438	6.04	0.388	0.433	0.446	0.446	0.456	0.461				
	1,1-Dichloropropene	A	0.367	3.62	0.365	0.377	0.386	0.365	0.363	0.347				
	Cyclohexane	A	0.101	6.77	0.104	0.107	0.110	0.096	0.099	0.092				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.010	5.44	1.018	1.058	1.063	1.016	0.994	0.912				
	4-Methyl-2-pentanone (MIBK) (*	LO	0.029	17.01	0.019	0.028	0.030	0.031	0.031	0.032	1.00	0.00	0.032	0.00
	2-Hexanone (*)	A	0.025	11.08	0.021	0.023	0.023	0.027	0.026	0.028				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.355	5.17	0.320	0.350	0.364	0.367	0.369	0.358				
	Benzene (MS)	A	1.000	6.75	1.062	1.044	1.050	0.993	0.962	0.886				
	1,2-Dichloroethane	A	0.181	4.10	0.190	0.184	0.187	0.179	0.176	0.170				
	Trichloroethene (MS)	A	0.273	2.82	0.268	0.278	0.283	0.274	0.272	0.261				
	1,2-Dichloropropane (CCC)	A	0.195	6.61	0.204	0.204	0.203	0.195	0.190	0.171				
	Bromodichloromethane	A	0.243	10.47	0.195	0.234	0.251	0.257	0.262	0.258				
	Methyl Cyclohexane	A	0.283	6.15	0.281	0.296	0.300	0.287	0.280	0.251				
	Dibromomethane	A	0.189	3.98	0.174	0.189	0.194	0.193	0.193	0.189				
	cis-1,3-Dichloropropene	A	0.303	10.83	0.238	0.301	0.318	0.322	0.324	0.314				
	Toluene (CCC/MS)	A	1.173	6.12	1.178	1.235	1.244	1.184	1.149	1.046				
	trans-1,3-Dichloropropene	A	0.228	12.49	0.174	0.218	0.239	0.244	0.248	0.244				
	1,1,2-Trichloroethane	A	0.125	1.47	0.127	0.125	0.127	0.125	0.125	0.122				
	Tetrachloroethene	A	0.485	6.21	0.494	0.491	0.525	0.472	0.491	0.434				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	1.189	4.16	1.270	1.200	1.204	1.160	1.178	1.123				
	trans-1,4-Dichloro-2-butene	A	0.069	6.87	0.061	0.071	0.075	0.070	0.071	0.067				
	Dibromochloromethane	A	0.570	14.80	0.417	0.536	0.580	0.618	0.630	0.641				
	1,2-Dibromoethane	A	0.459	4.13	0.422	0.455	0.470	0.466	0.469	0.471				
	Chlorobenzene (SPCC/MS)	A	2.315	6.75	2.518	2.398	2.396	2.276	2.232	2.072				
	1,1,1,2-Tetrachloroethane	A	0.774	6.88	0.684	0.808	0.821	0.805	0.788	0.735				
	Ethylbenzene (CCC)	A	3.471	8.72	3.621	3.696	3.733	3.487	3.372	2.918				
	p,m-Xylene	A	1.483	14.01	1.631	1.642	1.639	1.488	1.381	1.117				
	o-Xylene	A	2.647	10.04	2.798	2.845	2.865	2.662	2.546	2.164				
	Styrene	A	2.154	10.38	2.010	2.320	2.398	2.251	2.155	1.790				
	Isopropylbenzene	A	3.905	7.55	3.731	4.156	4.257	3.971	3.870	3.445				
	Bromoform (SPCC)	QO	0.364	19.60	0.250	0.320	0.353	0.395	0.420	0.443	1.00	0.00	0.383	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.427	4.34	0.390	0.436	0.440	0.432	0.434	0.432				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	1,2,3-Trichloropropane	A	0.141	4.87	0.151	0.143	0.145	0.138	0.136	0.132				
	n-Propylbenzene	A	4.016	7.55	3.862	4.278	4.350	4.072	4.020	3.514				
	Bromobenzene	A	1.102	4.68	1.138	1.138	1.143	1.097	1.084	1.009				
	1,3,5-Trimethylbenzene	A	1.801	8.11	1.769	1.930	1.960	1.819	1.780	1.550				
	tert-Butylbenzene	A	1.843	6.47	1.765	1.943	1.980	1.861	1.852	1.654				
	1,2,4-Trimethylbenzene	A	1.903	10.03	1.881	2.038	2.118	1.941	1.874	1.564				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.169	8.51	2.891	3.389	3.456	3.301	3.179	2.798				
	p-Isopropyltoluene	A	2.676	10.95	2.508	2.945	2.977	2.785	2.639	2.202				
	1,3-Dichlorobenzene	A	1.462	12.17	1.620	1.583	1.585	1.457	1.370	1.154				
	1,4-Dichlorobenzene	A	1.500	5.88	1.605	1.548	1.558	1.471	1.461	1.359				
	1,2-Dichlorobenzene	A	1.359	4.10	1.399	1.411	1.407	1.334	1.329	1.273				
	1,2,3-Trimethylbenzene	A	2.213	5.18	2.172	2.302	2.344	2.247	2.190	2.020				
	n-Butylbenzene	A	2.120	6.98	1.974	2.225	2.296	2.167	2.146	1.912				
	Hexachloroethane	QO	0.565	17.65	0.389	0.514	0.574	0.621	0.650	0.640	1.00	0.00	0.632	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.070	20.12	0.045	0.066	0.068	0.073	0.080	0.085	1.00	0.00	0.071	0.00
	1,2,4-Trichlorobenzene	A	0.928	2.87	0.941	0.913	0.949	0.912	0.961	0.891				
	Hexachlorobutadiene	A	0.882	4.04	0.921	0.886	0.887	0.862	0.912	0.823				
	1,2,3-Trichlorobenzene	A	0.758	4.14	0.807	0.738	0.759	0.732	0.784	0.730				
	Naphthalene	A	1.135	6.37	1.023	1.081	1.148	1.149	1.222	1.187				
	2-Methylnaphthalene	LO	0.504	16.36	0.448	0.392	0.472	0.525	0.615	0.571	1.00	0.00	0.575	0.00

Calibration Date: 06/04/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): fu120604.M (Mean %RSD: 7.41)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\urborg.fft\methods\fu120604.m\

Injection Time	Calibration Data File
06/04/12 15:11	bfb04c.d
06/04/12 17:12	std001.d
06/04/12 17:33	std010.d
06/04/12 17:53	std020.d
06/04/12 18:13	std060.d
06/04/12 18:33	std100.d
06/04/12 18:53	std200.d

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

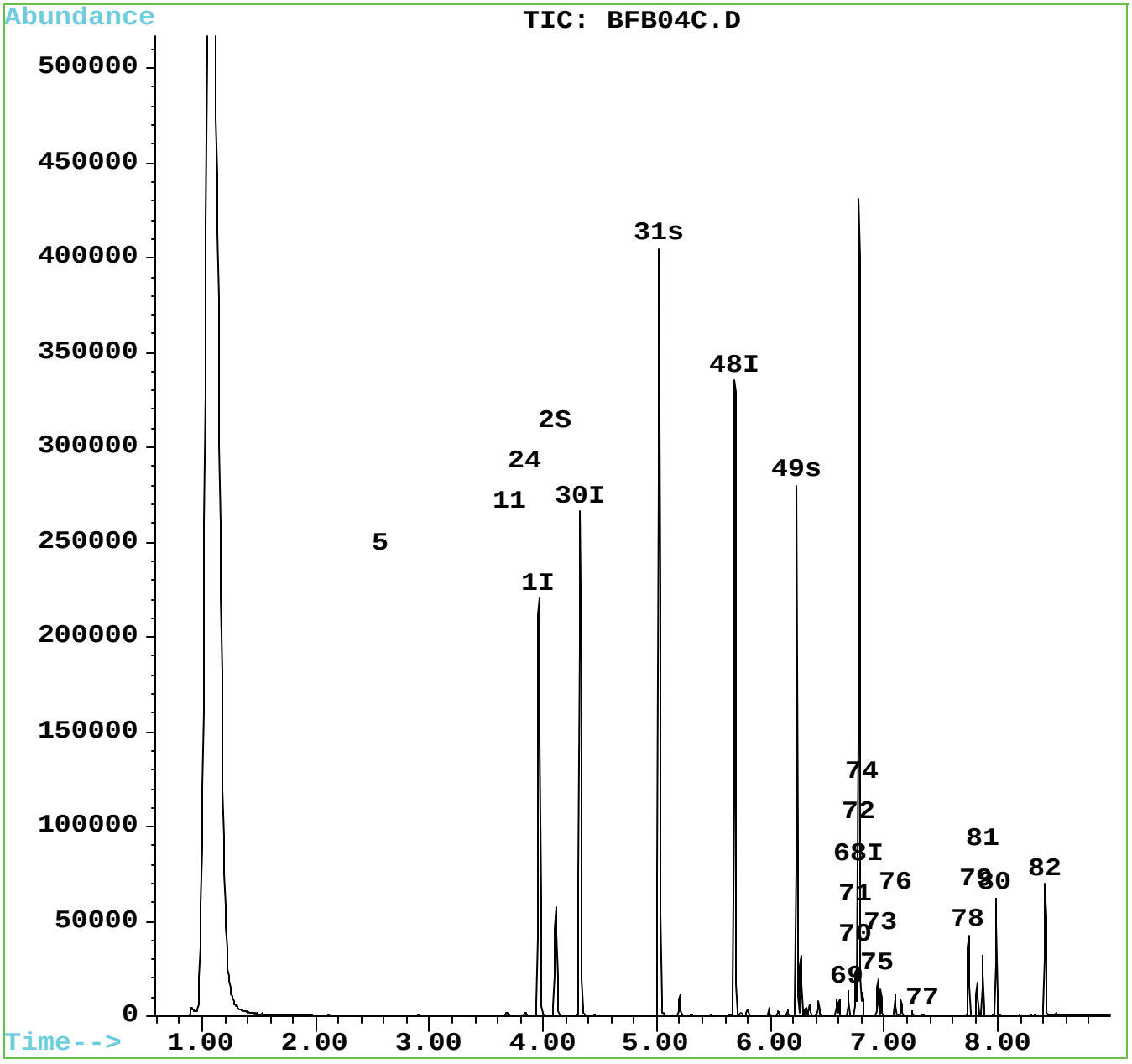
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	149094	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	170397	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	58855	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	89237	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	25625	45.46	ug/l		90.9
31) TOLUENE-D8 (S)	5.02	98	166719	48.42	ug/l		96.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	68907	49.23	ug/l		98.4
Target Compounds							Qvalu
5) Acetone (*)	2.57	43	63	1.14	ug/l	#	
11) 2-Butanone (MEK) (*)	3.70	43	336	3.90	ug/l	#	4
24) Tetrahydrofuran	3.84	42	879	10.69	ug/l	#	
69) sec-Butylbenzene	6.68	105	5698	1.01	ug/l		9
70) p-Isopropyltoluene	6.74	119	5654	1.18	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	4460	1.71	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	4908	1.83	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	4574	1.89	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	4618	1.17	ug/l		9
75) n-Butylbenzene	6.95	91	6419	1.70	ug/l		9
76) Hexachloroethane	7.10	201	1448	1.28	ug/l		7
77) 1,2-Dibromo-3-Chloropropan	7.34	157	330	2.57	ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.74	182	10848	6.55	ug/l		9
79) Hexachlorobutadiene	7.82	225	2912	1.85	ug/l		9
80) 1,2,3-Trichlorobenzene	7.98	180	15542	11.48	ug/l		9
81) Naphthalene	7.87	128	17573	8.67	ug/l		9
82) 2-Methylnaphthalene	8.41	142	23182	22.59	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

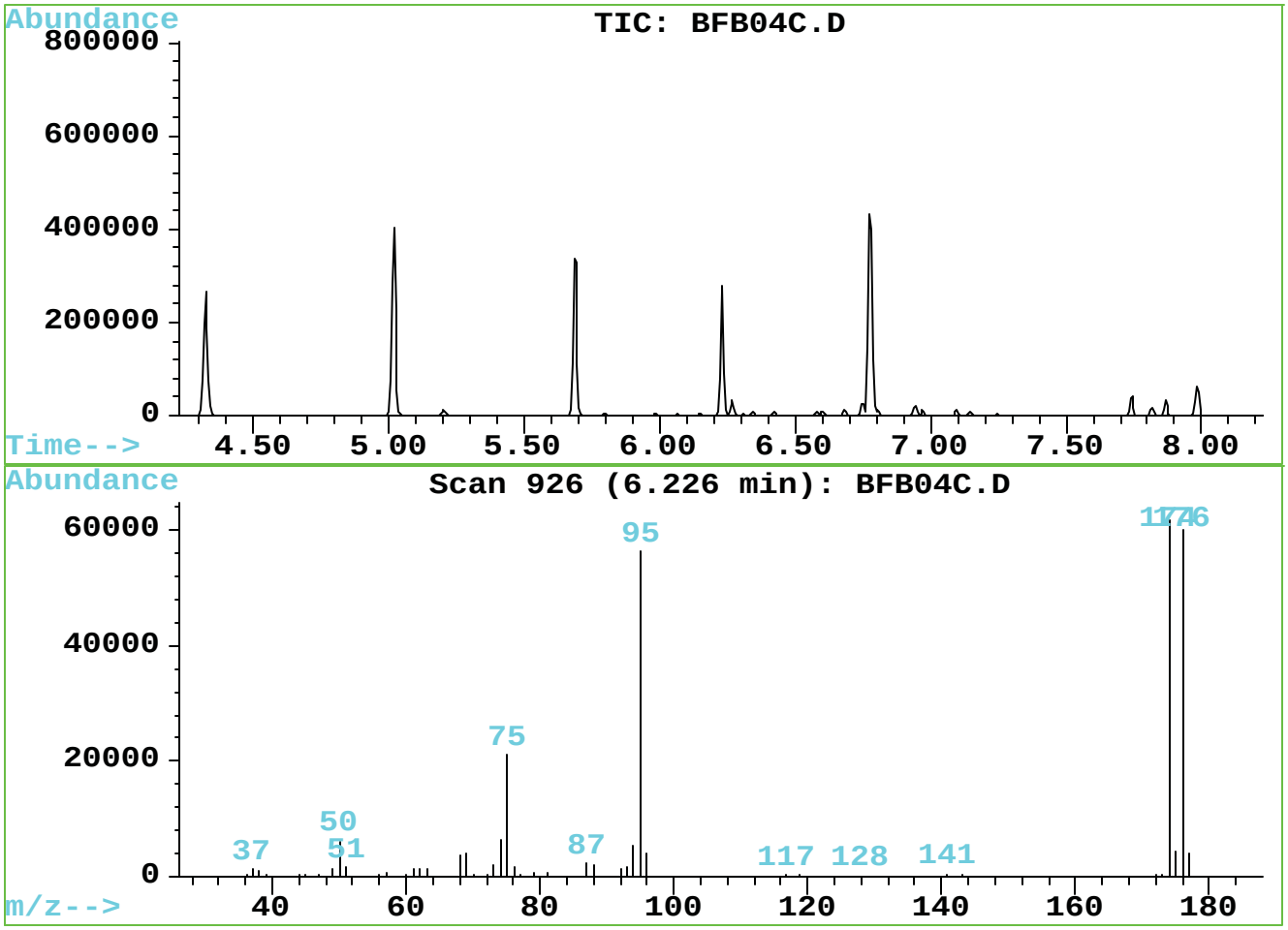
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.9	6123	PASS
75	95	30	66	37.5	21088	PASS
95	95	100	100	100.0	56240	PASS
96	95	5	9	7.1	4010	PASS
173	174	0	2	0.5	328	PASS
174	95	50	120	109.6	61664	PASS
175	174	4	9	6.9	4224	PASS
176	174	93	101	97.4	60088	PASS
177	176	5	9	6.5	3929	PASS

BFB04C.D FU120604.M Thu Jul 12 16:20:21 2012 TEST

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	700150	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	808489	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288497	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	414328	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	2614	1.37	ug/l		2.7
31) TOLUENE-D8 (S)	5.02	98	16460	1.01	ug/l		2.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	7329	1.11	ug/l		2.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	4345	0.88	ug/l		9
4) Diethyl ether (*)	2.35	74	1265	1.68	ug/l		8
5) Acetone (*)	2.59	43	1101	2.69	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	9290	1.12	ug/l		9
7) Carbon disulfide (*)	2.68	76	8736	0.59	ug/l		8
8) Methyl Acetate	2.84	43	1042	0.81	ug/l	#	5
9) tert-Methyl butyl ether (M	3.11	73	6186	1.24	ug/l		8
10) Acrylonitrile (*)	3.09	53	434	0.50	ug/l	#	9
11) 2-Butanone (MEK) (*)	3.70	43	2004	3.80	ug/l		9
12) Dichlorodifluoromethane	1.22	85	1656	0.44	ug/l	#	6
13) Chloromethane (SPCC)	1.34	50	2994	0.81	ug/l	#	8
14) Vinyl Chloride (CCC)	1.45	62	3355	0.75	ug/l	#	8
15) Bromomethane	1.73	94	1457	1.03	ug/l	#	9
16) Chloroethane	1.84	64	621	0.74	ug/l	#	2
18) Trichlorofluoromethane	2.12	101	3960	1.12	ug/l	m	6
19) 1,1-Dichloroethene (CCC/MS	2.52	61	4293	0.93	ug/l		8
20) Methylene Chloride	2.90	84	4885	1.44	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	4602	1.00	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	5643	1.09	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	4836	1.18	ug/l		8
24) Tetrahydrofuran	3.84	42	1414	2.47	ug/l	#	
25) Chloroform (CCC)	3.85	83	6228	1.22	ug/l		9
26) Bromochloromethane	3.81	130	3055	1.31	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	5438	0.89	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	5116	0.93	ug/l		9
29) Cyclohexane	3.98	42	1455	0.86	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	308	0.50	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	345	0.65	ug/l	#	7
35) Carbon Tetrachloride	4.04	117	5180	0.78	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.13	78	17168	1.05	ug/l		9
37) 1,2-Dichloroethane	4.15	62	3072	1.26	ug/l		9
38) Trichloroethene (MS)	4.45	95	4332	0.89	ug/l		8
39) 1,2-Dichloropropane (CCC)	4.56	63	3296	1.20	ug/l		9
40) Bromodichloromethane	4.68	83	3156	0.99	ug/l		9
41) Methyl Cyclohexane	4.54	55	4537	0.76	ug/l		9
42) Dibromomethane	4.62	174	2816	1.09	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	3853	0.95	ug/l		9
44) Toluene (CCC/MS)	5.05	91	19045	1.00	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	2821	0.93	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	2059	1.20	ug/l		9
47) Tetrachloroethene	5.31	166	7985	0.77	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	354	0.70	ug/l	#	6
51) Dibromochloromethane	5.42	129	2406	0.72	ug/l		9
52) 1,2-Dibromoethane	5.48	107	2435	0.94	ug/l	#	9
53) Chlorobenzene (SPCC/MS)	5.70	112	14530	1.08	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.73	131	3946	0.98	ug/l	#	7
55) Ethylbenzene (CCC)	5.74	91	20894	0.91	ug/l		9
56) p,m-Xylene	5.79	106	18819	1.92	ug/l		8
57) o-Xylene	5.98	91	16146	0.99	ug/l		9
58) Styrene	5.99	104	11598	0.91	ug/l		9
59) Isopropylbenzene	6.15	105	21529	0.80	ug/l		9
60) Bromoform (SPCC)	6.09	173	1444	0.64	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	2250	0.92	ug/l		8
62) 1,2,3-Trichloropropane	6.31	110	873	0.88	ug/l	#	7
63) n-Propylbenzene	6.34	91	22281	0.79	ug/l		9
64) Bromobenzene	6.31	156	6565	1.07	ug/l		9
65) 1,3,5-Trimethylbenzene	6.42	120	10207	0.87	ug/l		8
66) tert-Butylbenzene	6.58	91	10186	0.81	ug/l		8
67) 1,2,4-Trimethylbenzene	6.60	120	10851	0.88	ug/l		9
69) sec-Butylbenzene	6.68	105	23956	0.71	ug/l		9
70) p-Isopropyltoluene	6.75	119	20779	0.75	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	13421	1.06	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	13301	1.05	ug/l		8
73) 1,2-Dichlorobenzene	6.97	146	11592	1.05	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	17998	0.98	ug/l		9
75) n-Butylbenzene	6.95	91	16359	0.73	ug/l		9
76) Hexachloroethane	7.10	201	3221	0.57	ug/l	#	6
77) 1,2-Dibromo-3-Chloropropan	7.34	157	377	0.43	ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.74	182	7794	0.99	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

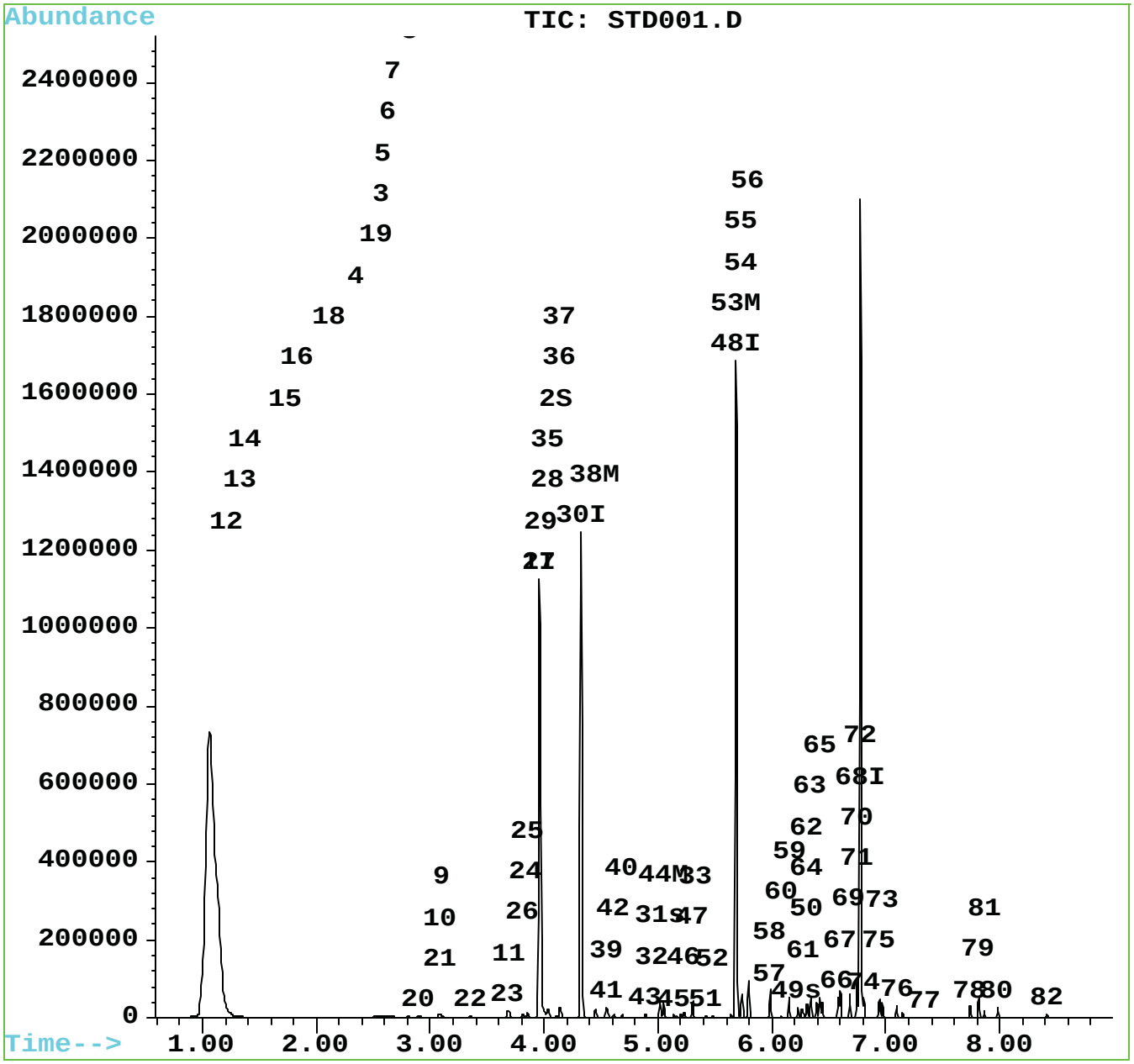
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	7628	0.81	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	6691	1.04	ug/l	9
81)	Naphthalene	7.87	128	8480	0.73	ug/l	9
82)	2-Methylnaphthalene	8.41	142	3709	0.79	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	682071	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	801325	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288586	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	394725	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	26439	14.21	ug/l		28.4
31) TOLUENE-D8 (S)	5.02	98	169634	10.50	ug/l		21.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	69262	10.51	ug/l		21.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	43785	9.08	ug/l		9
4) Diethyl ether (*)	2.35	74	13061	17.75	ug/l		9
5) Acetone (*)	2.59	43	3379	8.48	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	92043	11.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	104193	7.28	ug/l		9
8) Methyl Acetate	2.84	43	9355	7.51	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	62726	12.90	ug/l		9
10) Acrylonitrile (*)	3.08	53	6179	7.36	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	6284	12.23	ug/l		9
12) Dichlorodifluoromethane	1.23	85	24480	6.75	ug/l	#	5
13) Chloromethane (SPCC)	1.34	50	31951	8.92	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	35708	8.22	ug/l		9
15) Bromomethane	1.73	94	16455	11.98	ug/l		9
16) Chloroethane	1.83	64	7811	9.60	ug/l		8
18) Trichlorofluoromethane	2.12	101	42017	12.15	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	42759	9.53	ug/l		8
20) Methylene Chloride	2.90	84	41726	12.59	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	45284	10.11	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	57014	11.28	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	47225	11.79	ug/l		8
24) Tetrahydrofuran	3.84	42	4482	8.04	ug/l		8
25) Chloroform (CCC)	3.85	83	61944	12.44	ug/l		9
26) Bromochloromethane	3.81	130	30607	13.45	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	59062	9.90	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	51446	9.59	ug/l		9
29) Cyclohexane	3.98	42	14529	8.79	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	4526	7.43	ug/l		9
33) 2-Hexanone (*)	5.34	58	3739	7.03	ug/l		9
35) Carbon Tetrachloride	4.04	117	56039	8.46	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	167262	10.36 ug/l	9
37) 1,2-Dichloroethane	4.15	62	29557	12.25 ug/l	9
38) Trichloroethene (MS)	4.45	95	44502	9.19 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	32643	11.98 ug/l	9
40) Bromodichloromethane	4.68	83	37532	11.83 ug/l	9
41) Methyl Cyclohexane	4.54	55	47431	8.07 ug/l	9
42) Dibromomethane	4.62	174	30292	11.86 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	48244	12.06 ug/l	9
44) Toluene (CCC/MS)	5.05	91	197973	10.46 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	34925	11.65 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	20058	11.76 ug/l	9
47) Tetrachloroethene	5.31	166	78758	7.65 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	4076	8.03 ug/l #	8
51) Dibromochloromethane	5.42	129	30965	9.25 ug/l	9
52) 1,2-Dibromoethane	5.48	107	26247	10.12 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	138379	10.24 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	46654	11.55 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	213344	9.25 ug/l	9
56) p,m-Xylene	5.79	106	189596	19.33 ug/l	8
57) o-Xylene	5.98	91	164221	10.10 ug/l	9
58) Styrene	5.99	104	133879	10.53 ug/l	9
59) Isopropylbenzene	6.15	105	239852	8.91 ug/l	9
60) Bromoform (SPCC)	6.09	173	18451	8.11 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	25150	10.29 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	8275	8.34 ug/l	8
63) n-Propylbenzene	6.34	91	246890	8.70 ug/l	9
64) Bromobenzene	6.31	156	65654	10.74 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	111420	9.50 ug/l	8
66) tert-Butylbenzene	6.58	91	112146	8.93 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	117646	9.49 ug/l	9
69) sec-Butylbenzene	6.68	105	267519	8.38 ug/l	9
70) p-Isopropyltoluene	6.75	119	232466	8.82 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	124985	10.32 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	122183	10.08 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	111374	10.57 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	181720	10.42 ug/l	9
75) n-Butylbenzene	6.95	91	175684	8.18 ug/l	9
76) Hexachloroethane	7.10	201	40609	7.46 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	5208	6.12 ug/l	8
78) 1,2,4-Trichlorobenzene	7.74	182	72052	9.63 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

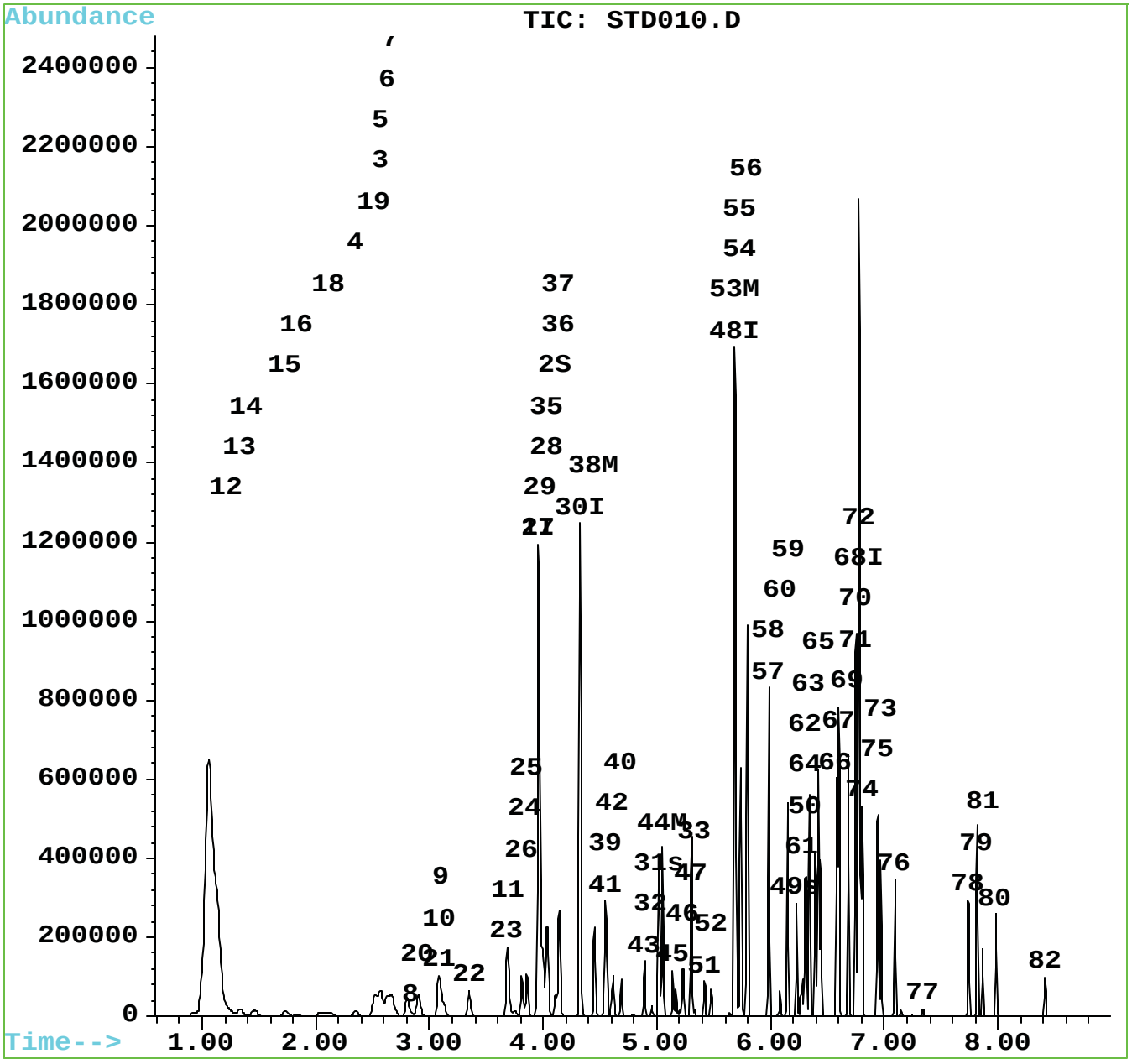
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79) Hexachlorobutadiene	7.82	225	69955	7.80 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	58236	9.54 ug/l	9
81) Naphthalene	7.87	128	85357	7.76 ug/l	9
82) 2-Methylnaphthalene	8.41	142	30930	6.85 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	709486	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	825373	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	299894	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	409867	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	53897	27.85	ug/l		55.7
31) TOLUENE-D8 (S)	5.02	98	351021	21.10	ug/l		42.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	144461	21.10	ug/l		42.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	91781	18.31	ug/l		9
4) Diethyl ether (*)	2.35	74	25711	33.60	ug/l		9
5) Acetone (*)	2.60	43	4942	11.93	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	188646	22.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	235375	15.82	ug/l		9
8) Methyl Acetate	2.85	43	18887	14.57	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	131145	25.92	ug/l		9
10) Acrylonitrile (*)	3.08	53	12124	13.89	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	9327	17.45	ug/l		9
12) Dichlorodifluoromethane	1.23	85	50440	13.36	ug/l		9
13) Chloromethane (SPCC)	1.34	50	64854	17.41	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	73753	16.33	ug/l		9
15) Bromomethane	1.73	94	32316	22.61	ug/l		9
16) Chloroethane	1.83	64	15915	18.80	ug/l		9
18) Trichlorofluoromethane	2.12	101	79626	22.13	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	94639	20.29	ug/l		8
20) Methylene Chloride	2.90	84	84820	24.61	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	95379	20.46	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	118876	22.61	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	100420	24.10	ug/l		8
24) Tetrahydrofuran	3.84	42	8270	14.27	ug/l		9
25) Chloroform (CCC)	3.86	83	127954	24.71	ug/l		9
26) Bromochloromethane	3.81	130	63310	26.75	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	126518	20.39	ug/l		9
28) 1,1-Dichloropropene	4.03	75	109525	19.62	ug/l		9
29) Cyclohexane	3.98	42	31157	18.13	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	9937	15.84	ug/l		9
33) 2-Hexanone (*)	5.34	58	7624	13.86	ug/l		9
35) Carbon Tetrachloride	4.04	117	120064	17.61	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	346640	20.85 ug/l	9
37) 1,2-Dichloroethane	4.15	62	61814	24.88 ug/l	9
38) Trichloroethene (MS)	4.45	95	93456	18.74 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	66909	23.84 ug/l	9
40) Bromodichloromethane	4.68	83	83011	25.40 ug/l	9
41) Methyl Cyclohexane	4.54	55	98953	16.34 ug/l	8
42) Dibromomethane	4.62	174	64214	24.41 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	105104	25.51 ug/l	9
44) Toluene (CCC/MS)	5.05	91	410707	21.07 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	79001	25.57 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	42064	23.95 ug/l	9
47) Tetrachloroethene	5.31	166	173216	16.33 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	8960	16.98 ug/l #	8
51) Dibromochloromethane	5.42	129	69610	20.02 ug/l	9
52) 1,2-Dibromoethane	5.48	107	56350	20.90 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	287425	20.47 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	98529	23.48 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	447837	18.69 ug/l	9
56) p,m-Xylene	5.79	106	393276	38.59 ug/l	8
57) o-Xylene	5.98	91	343694	20.34 ug/l	9
58) Styrene	5.99	104	287633	21.77 ug/l	9
59) Isopropylbenzene	6.15	105	510716	18.27 ug/l	9
60) Bromoform (SPCC)	6.09	173	42375	17.80 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	52746	20.76 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	17382	16.87 ug/l	9
63) n-Propylbenzene	6.34	91	521769	17.68 ug/l	9
64) Bromobenzene	6.31	156	137054	21.58 ug/l	9
65) 1,3,5-Trimethylbenzene	6.42	120	235119	19.28 ug/l	8
66) tert-Butylbenzene	6.58	91	237568	18.20 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	254120	19.73 ug/l	8
69) sec-Butylbenzene	6.68	105	566596	17.09 ug/l	9
70) p-Isopropyltoluene	6.74	119	488044	17.83 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	259870	20.67 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	255459	20.30 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	230653	21.09 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	384373	21.22 ug/l	9
75) n-Butylbenzene	6.95	91	376350	16.87 ug/l	9
76) Hexachloroethane	7.10	201	94123	16.60 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	11200	12.58 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	155584	20.02 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

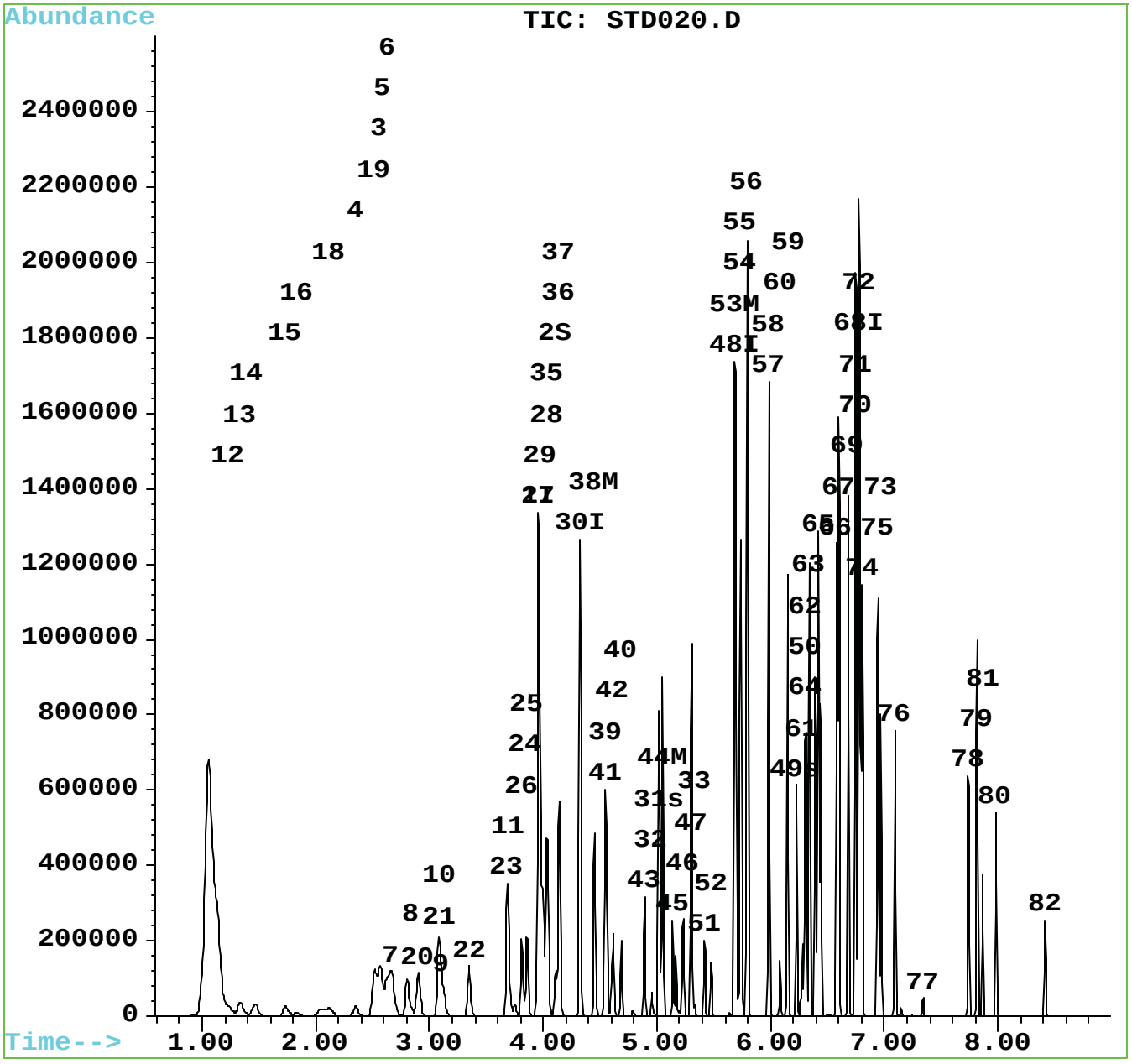
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	145427	15.61 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	124462	19.64 ug/l	9
81)	Naphthalene	7.87	128	188147	16.48 ug/l	9
82)	2-Methylnaphthalene	8.41	142	77365	16.33 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	718453	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	838217	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	305349	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	406145	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	159458	81.36	ug/l		162.7
31) TOLUENE-D8 (S)	5.02	98	1021635	60.46	ug/l		120.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	425016	60.98	ug/l		121.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	275989	54.36	ug/l		9
4) Diethyl ether (*)	2.35	74	79137	102.12	ug/l		9
5) Acetone (*)	2.59	43	17957	42.81	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	576645	67.45	ug/l		9
7) Carbon disulfide (*)	2.67	76	775809	51.48	ug/l		9
8) Methyl Acetate	2.84	43	54937	41.85	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	397720	77.63	ug/l		9
10) Acrylonitrile (*)	3.08	53	36473	41.27	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	28683	53.00	ug/l		9
12) Dichlorodifluoromethane	1.24	85	175155	45.82	ug/l		9
13) Chloromethane (SPCC)	1.35	50	199235	52.82	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	227100	49.64	ug/l		9
15) Bromomethane	1.74	94	97960	67.68	ug/l		9
16) Chloroethane	1.84	64	48474	56.54	ug/l		9
18) Trichlorofluoromethane	2.12	101	258964	71.07	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.52	61	287633	60.89	ug/l		8
20) Methylene Chloride	2.90	84	254920	73.03	ug/l		9
21) trans-1,2-Dichloroethene	3.09	61	284751	60.33	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	356405	66.94	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	298452	70.73	ug/l		8
24) Tetrahydrofuran	3.84	42	21830	37.19	ug/l		9
25) Chloroform (CCC)	3.86	83	379380	72.36	ug/l		9
26) Bromochloromethane	3.81	130	189594	79.11	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	384589	61.20	ug/l	#	3
28) 1,1-Dichloropropene	4.03	75	314724	55.68	ug/l		9
29) Cyclohexane	3.99	42	82335	47.31	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	31183	48.94	ug/l		9
33) 2-Hexanone (*)	5.34	58	27660	48.50	ug/l		9
35) Carbon Tetrachloride	4.04	117	369330	53.33	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	998814	59.16 ug/l	9
37) 1,2-Dichloroethane	4.15	62	179875	71.29 ug/l	9
38) Trichloroethene (MS)	4.45	95	275694	54.44 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	195965	68.74 ug/l	9
40) Bromodichloromethane	4.68	83	258599	77.91 ug/l	9
41) Methyl Cyclohexane	4.55	55	289075	47.00 ug/l	8
42) Dibromomethane	4.62	174	194155	72.68 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	324088	77.44 ug/l	9
44) Toluene (CCC/MS)	5.05	91	1190657	60.15 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	245175	78.15 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	126122	70.70 ug/l	9
47) Tetrachloroethene	5.31	166	475083	44.11 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	25702	47.84 ug/l #	7
51) Dibromochloromethane	5.42	129	226338	63.93 ug/l	9
52) 1,2-Dibromoethane	5.48	107	170570	62.14 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	834134	58.35 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	295143	69.09 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	1277879	52.37 ug/l	9
56) p,m-Xylene	5.79	106	1090584	105.11 ug/l	8
57) o-Xylene	5.98	91	975511	56.71 ug/l	9
58) Styrene	5.99	104	824730	61.29 ug/l	9
59) Isopropylbenzene	6.15	105	1455204	51.12 ug/l	9
60) Bromoform (SPCC)	6.09	173	144672	58.16 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	158438	61.24 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	50455	48.09 ug/l	9
63) n-Propylbenzene	6.34	91	1492185	49.67 ug/l	9
64) Bromobenzene	6.31	156	402124	62.17 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	666617	53.70 ug/l	9
66) tert-Butylbenzene	6.58	91	681991	51.32 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	711162	54.22 ug/l	9
69) sec-Butylbenzene	6.68	105	1608849	48.98 ug/l	9
70) p-Isopropyltoluene	6.75	119	1357400	50.03 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	709873	56.97 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	716942	57.49 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	650136	59.98 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	1095014	61.02 ug/l	9
75) n-Butylbenzene	6.95	91	1056273	47.79 ug/l	9
76) Hexachloroethane	7.10	201	302724	53.07 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	35812	39.31 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	444417	57.72 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

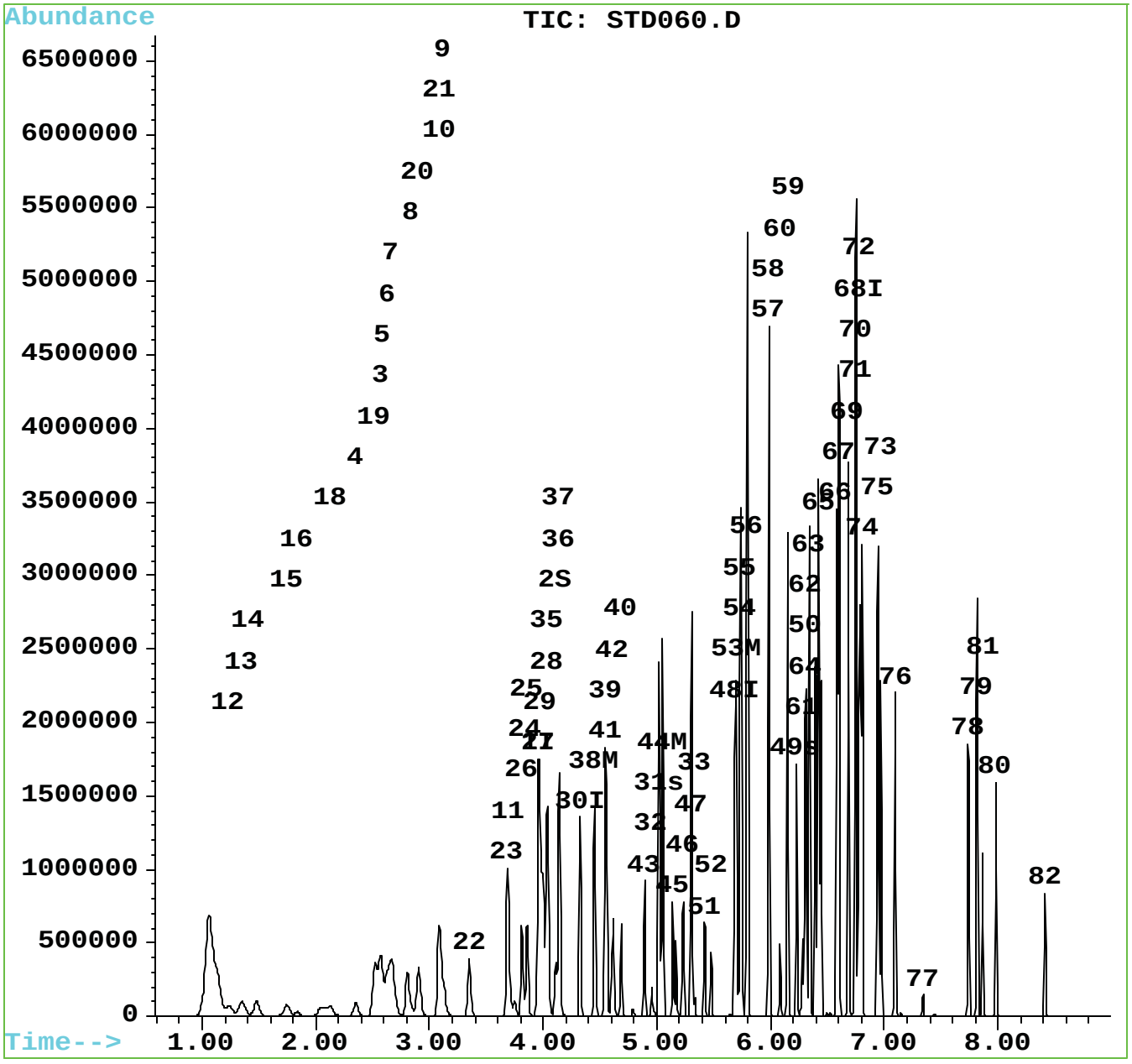
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	420276	45.53 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	356654	56.79 ug/l	9
81)	Naphthalene	7.87	128	559897	49.50 ug/l	9
82)	2-Methylnaphthalene	8.41	142	255721	52.36 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	708225	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	842056	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	310341	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	420177	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	266464	137.93	ug/l		275.8
31) TOLUENE-D8 (S)	5.02	98	1674468	98.65	ug/l		197.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	730962	103.18	ug/l		206.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	458452	91.60	ug/l		9
4) Diethyl ether (*)	2.35	74	130554	170.91	ug/l		9
5) Acetone (*)	2.60	43	24499	59.25	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	967325	114.78	ug/l		9
7) Carbon disulfide (*)	2.67	76	1327315	89.35	ug/l		9
8) Methyl Acetate	2.84	43	90663	70.06	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	672818	133.22	ug/l		9
10) Acrylonitrile (*)	3.08	53	59377	68.16	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	40056	75.08	ug/l		8
12) Dichlorodifluoromethane	1.23	85	294663	78.20	ug/l		9
13) Chloromethane (SPCC)	1.35	50	334048	89.83	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	381940	84.70	ug/l		9
15) Bromomethane	1.75	94	165451	115.97	ug/l		9
16) Chloroethane	1.83	64	81311	96.21	ug/l		9
18) Trichlorofluoromethane	2.13	101	446143	124.21	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	432880	92.96	ug/l		8
20) Methylene Chloride	2.90	84	424114	123.26	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	473743	101.83	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	595985	113.55	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	495434	119.10	ug/l		8
24) Tetrahydrofuran	3.84	42	35840	61.95	ug/l		9
25) Chloroform (CCC)	3.86	83	634132	122.70	ug/l		9
26) Bromochloromethane	3.81	130	316285	133.88	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	646098	104.29	ug/l	#	2
28) 1,1-Dichloropropene	4.03	75	514252	92.29	ug/l		9
29) Cyclohexane	3.99	42	140936	82.15	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	52354	81.80	ug/l		9
33) 2-Hexanone (*)	5.34	58	43937	75.48	ug/l		9
35) Carbon Tetrachloride	4.04	117	620967	89.26	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.14	78	1620241	95.53	ug/l		9
37) 1,2-Dichloroethane	4.15	62	295703	116.66	ug/l		9
38) Trichloroethene (MS)	4.45	95	458355	90.09	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	319257	111.48	ug/l		9
40) Bromodichloromethane	4.68	83	440414	132.08	ug/l		9
41) Methyl Cyclohexane	4.54	55	470767	76.20	ug/l		8
42) Dibromomethane	4.62	174	324265	120.84	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	545507	129.75	ug/l		9
44) Toluene (CCC/MS)	5.05	91	1935644	97.34	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	417540	132.49	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	210750	117.60	ug/l		9
47) Tetrachloroethene	5.31	166	827035	76.44	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	44222	80.98	ug/l	#	7
51) Dibromochloromethane	5.42	129	390996	108.67	ug/l		9
52) 1,2-Dibromoethane	5.48	107	291010	104.31	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	1385172	95.34	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	489204	112.67	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	2092868	84.40	ug/l		9
56) p,m-Xylene	5.79	106	1714294	162.56	ug/l		9
57) o-Xylene	5.98	91	1580494	90.41	ug/l		9
58) Styrene	5.99	104	1337756	97.82	ug/l		9
59) Isopropylbenzene	6.15	105	2402114	83.02	ug/l		9
60) Bromoform (SPCC)	6.09	173	260844	100.47	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	269439	102.47	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	84719	79.44	ug/l		9
63) n-Propylbenzene	6.34	91	2494881	81.71	ug/l		9
64) Bromobenzene	6.31	156	672863	102.36	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	1105110	87.59	ug/l		9
66) tert-Butylbenzene	6.58	91	1149321	85.10	ug/l		8
67) 1,2,4-Trimethylbenzene	6.60	120	1163043	87.25	ug/l		9
69) sec-Butylbenzene	6.68	105	2671833	78.62	ug/l		9
70) p-Isopropyltoluene	6.75	119	2217346	79.00	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	1151355	89.31	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	1227498	95.14	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	1117041	99.62	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	1840375	99.13	ug/l		9
75) n-Butylbenzene	6.95	91	1803285	78.87	ug/l		9
76) Hexachloroethane	7.10	201	546020	91.11	ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	67377	69.05	ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	807872	101.42	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

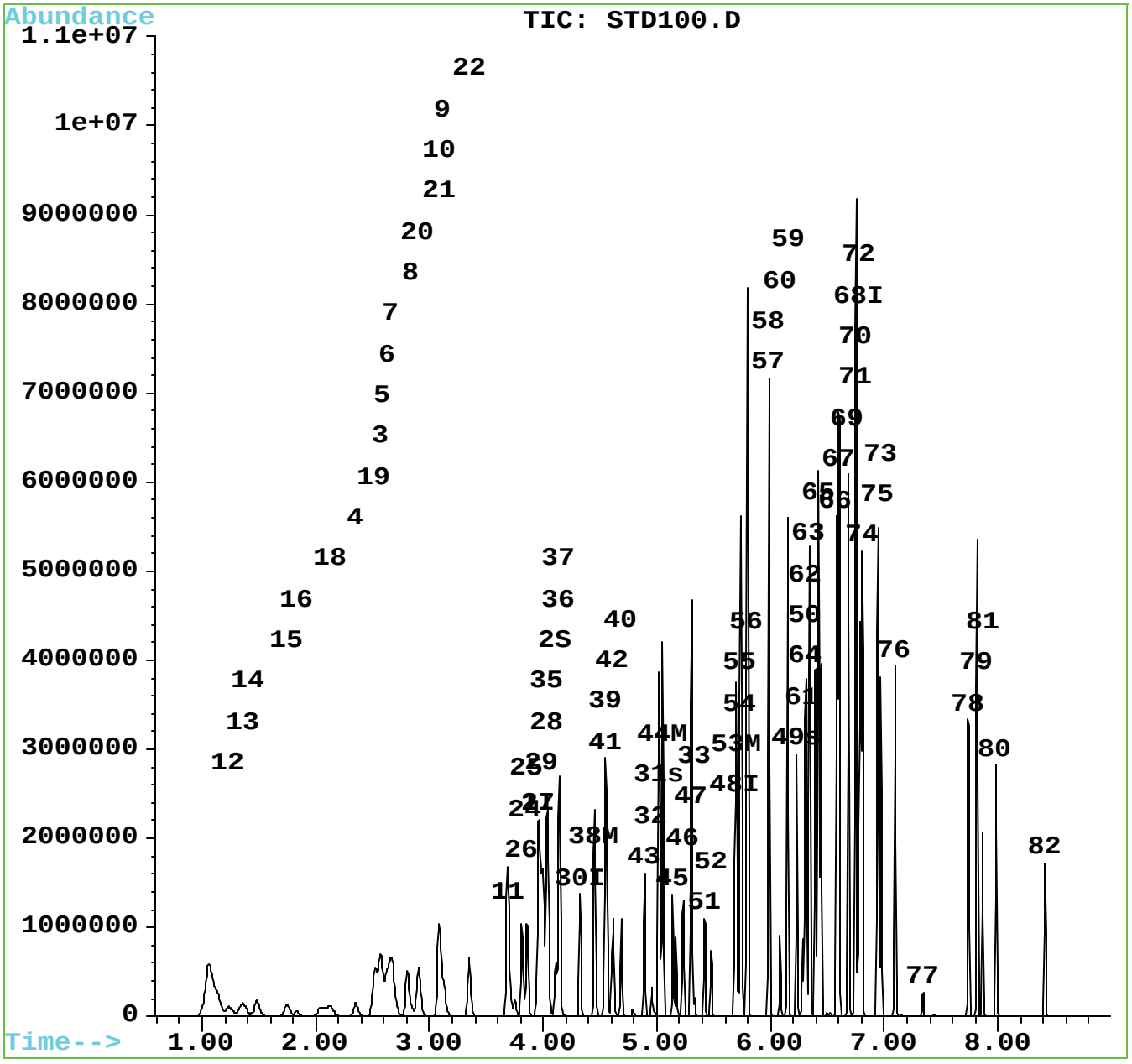
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	766294	80.25	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	658965	101.43	ug/l	9
81)	Naphthalene	7.87	128	1027251	87.78	ug/l	9
82)	2-Methylnaphthalene	8.41	142	517086	97.58	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	688743	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	845341	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	308126	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	406115	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	525719	279.82	ug/l		559.6
31) TOLUENE-D8 (S)	5.02	98	3083752	180.96	ug/l		361.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	1383700	196.72	ug/l		393.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	910425	187.06	ug/l		9
4) Diethyl ether (*)	2.35	74	257886	347.15	ug/l		9
5) Acetone (*)	2.60	43	51628	128.38	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	1916805	233.87	ug/l		9
7) Carbon disulfide (*)	2.67	76	2662579	184.32	ug/l		9
8) Methyl Acetate	2.84	43	186727	148.37	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	1373395	279.62	ug/l		9
10) Acrylonitrile (*)	3.08	53	117707	138.93	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	78647	151.59	ug/l		8
12) Dichlorodifluoromethane	1.23	85	585957	159.91	ug/l		9
13) Chloromethane (SPCC)	1.37	50	640687	177.17	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	699592	159.53	ug/l		9
15) Bromomethane	1.75	94	327119	235.77	ug/l		9
16) Chloroethane	1.83	64	161920	197.00	ug/l		9
18) Trichlorofluoromethane	2.12	101	874370	250.32	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	891921	196.95	ug/l		8
20) Methylene Chloride	2.90	84	837145	250.19	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	920836	203.52	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	1170821	229.39	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	955274	236.15	ug/l		8
24) Tetrahydrofuran	3.84	42	69742	123.96	ug/l		9
25) Chloroform (CCC)	3.85	83	1237261	246.16	ug/l		9
26) Bromochloromethane	3.81	130	626413	272.65	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	1270184	210.83	ug/l	#	1
28) 1,1-Dichloropropene	4.03	75	955460	176.31	ug/l		9
29) Cyclohexane	3.99	42	254634	152.62	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	108848	169.40	ug/l		9
33) 2-Hexanone (*)	5.34	58	93899	153.65	ug/l		9
35) Carbon Tetrachloride	4.04	117	1209587	173.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.14	78	2994921	175.89	ug/l		9
37)	1,2-Dichloroethane	4.15	62	574923	225.94	ug/l		9
38)	Trichloroethene (MS)	4.45	95	882992	172.88	ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	577886	201.01	ug/l		9
40)	Bromodichloromethane	4.68	83	872875	260.76	ug/l		9
41)	Methyl Cyclohexane	4.54	55	847603	136.66	ug/l		8
42)	Dibromomethane	4.62	174	640027	237.58	ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	1061342	251.47	ug/l		9
44)	Toluene (CCC/MS)	5.05	91	3536540	177.16	ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	824716	260.67	ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	413284	229.72	ug/l		9
47)	Tetrachloroethene	5.31	166	1468387	135.19	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	81968	151.19	ug/l	#	8
51)	Dibromochloromethane	5.42	129	790200	221.19	ug/l		9
52)	1,2-Dibromoethane	5.48	107	580990	209.74	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	2554280	177.08	ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	905805	210.11	ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	3596434	146.07	ug/l		9
56)	p,m-Xylene	5.80	106	2753302	262.96	ug/l		9
57)	o-Xylene	5.98	91	2667192	153.66	ug/l		9
58)	Styrene	5.99	104	2206761	162.53	ug/l		9
59)	Isopropylbenzene	6.15	105	4245829	147.80	ug/l		9
60)	Bromoform (SPCC)	6.09	173	546176	199.61	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.29	83	532985	204.16	ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	162450	153.42	ug/l		8
63)	n-Propylbenzene	6.34	91	4330762	142.86	ug/l		9
64)	Bromobenzene	6.31	156	1243615	190.55	ug/l		8
65)	1,3,5-Trimethylbenzene	6.42	120	1910200	152.49	ug/l		9
66)	tert-Butylbenzene	6.58	91	2038129	152.00	ug/l		8
67)	1,2,4-Trimethylbenzene	6.60	120	1928173	145.69	ug/l		9
69)	sec-Butylbenzene	6.68	105	4544434	138.36	ug/l		9
70)	p-Isopropyltoluene	6.75	119	3576681	131.84	ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	1874024	150.41	ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	2207783	177.05	ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	2067733	190.79	ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	3281860	182.89	ug/l		9
75)	n-Butylbenzene	6.95	91	3105508	140.52	ug/l		9
76)	Hexachloroethane	7.10	201	1039766	173.73	ug/l		8
77)	1,2-Dibromo-3-Chloropropan	7.34	157	138631	136.48	ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	1446629	187.89	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

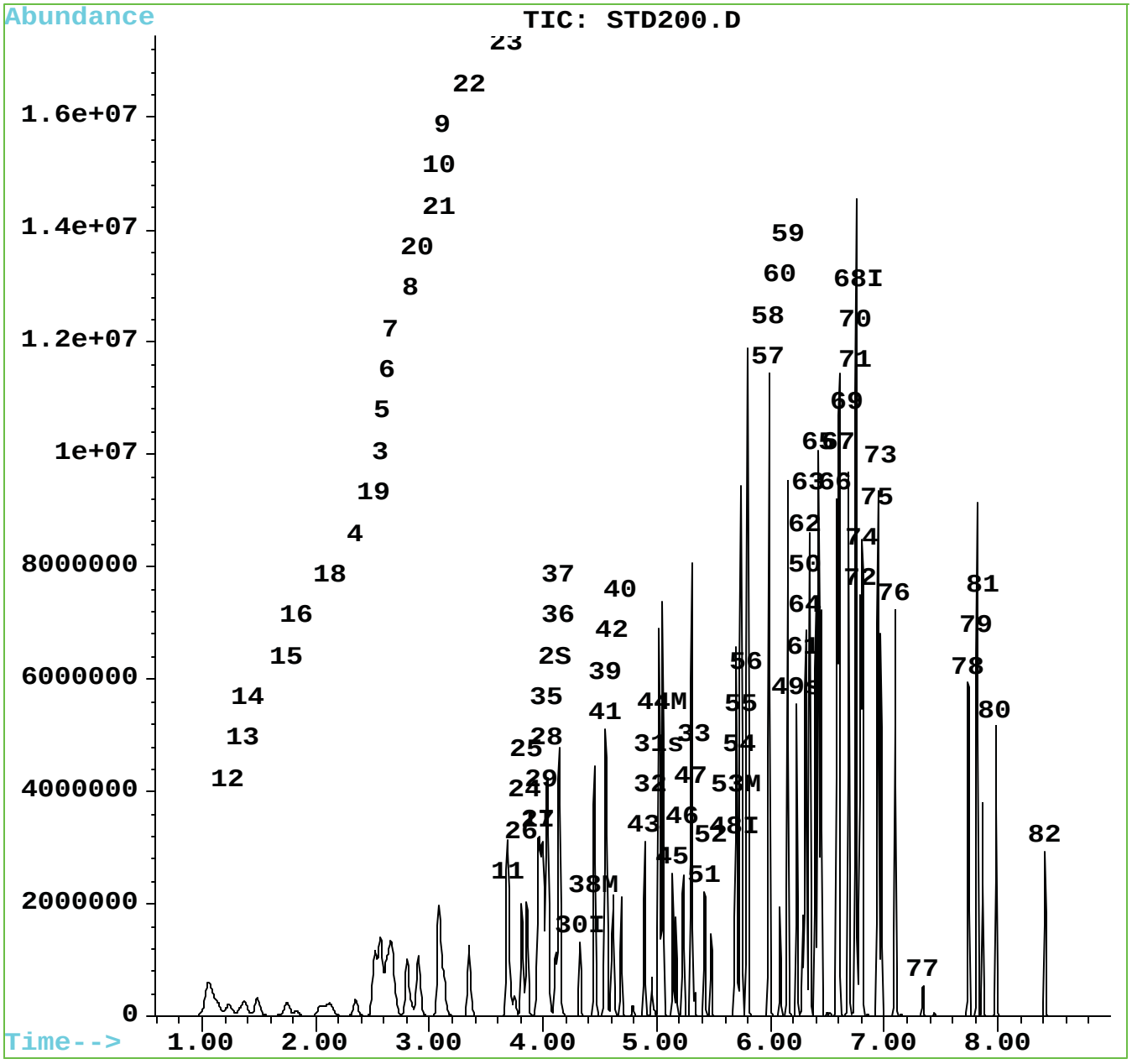
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	1337439	144.91	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	1185710	188.82	ug/l	9
81)	Naphthalene	7.87	128	1928293	170.48	ug/l	9
82)	2-Methylnaphthalene	8.41	142	927349	168.70	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120802a5.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc02a.d	08/02/12 11:20	1,1,2-Trichloro-1,2,2-trifluoroethane	0.321	0.05
		Diethyl ether	0.079	0.05
		Acetone	0.012	0.01
		Methyl iodide	0.631	0.05
		Carbon disulfide	0.819	0.05
		Methyl acetate	0.055	0.05
		tert-Methyl butyl ether	0.419	0.05
		Acrylonitrile	0.036	0.01
		2-Butanone	0.020	0.01
		Dichlorodifluoromethane	0.225	0.05
		Chloromethane	0.212	0.10
		Vinyl Chloride	0.266	0.05
		Bromomethane	0.110	0.05
		Chloroethane	0.054	0.05
		Trichlorofluoromethane	0.317	0.05
		1,1-Dichloroethene	0.299	0.05
		Methylene Chloride	0.257	0.05
		trans-1,2-Dichloroethene	0.305	0.05
		1,1-Dichloroethane	0.371	0.10
		cis-1,2-Dichloroethene	0.313	0.05
		Tetrahydrofuran	0.024	0.01
		Chloroform	0.406	0.05
		Bromochloromethane	0.197	0.05
		1,1,1-Trichloroethane	0.445	0.05
		Cyclohexane	0.102	0.05
		4-Methyl-2-pentanone	0.029	0.01
		2-Hexanone	0.020	0.01
		Carbon Tetrachloride	0.388	0.05
		Benzene	0.973	0.05
		1,2-Dichloroethane	0.178	0.05
		Trichloroethene	0.279	0.05
		1,2-Dichloropropane	0.182	0.05
		Bromodichloromethane	0.248	0.05
		Methyl cyclohexane	0.289	0.05
		Dibromomethane	0.194	0.05
		cis-1,3-Dichloropropene	0.312	0.05
		Toluene	1.190	0.05
		trans-1,3-Dichloropropene	0.241	0.05
		1,1,2-Trichloroethane	0.120	0.05
		Tetrachloroethene	0.510	0.05
		trans-1,4-Dichloro-2-butene	0.072	0.05
		Dibromochloromethane	0.612	0.05
		1,2-Dibromoethane	0.480	0.05
		Chlorobenzene	2.315	0.30
		1,1,1,2-Tetrachloroethane	0.812	0.05
		Ethylbenzene	3.691	0.05
		p,m-Xylene	1.598	0.05
		o-Xylene	2.801	0.05
		Styrene	2.307	0.05
		Isopropylbenzene	4.276	0.05
		Bromoform	0.405	0.10
		1,1,2,2-Tetrachloroethane	0.432	0.30
		1,2,3-Trichloropropane	0.143	0.05
		n-Propylbenzene	4.317	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120802a5.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	1.110	0.05
		1,3,5-Trimethylbenzene	1.923	0.05
		tert-Butylbenzene	2.015	0.05
		1,2,4-Trimethylbenzene	2.027	0.05
		sec-Butylbenzene	3.485	0.05
		p-Isopropyltoluene	2.999	0.05
		1,3-Dichlorobenzene	1.510	0.05
		1,4-Dichlorobenzene	1.506	0.05
		1,2-Dichlorobenzene	1.370	0.05
		1,2,3-Trimethylbenzene	2.238	0.05
		n-Butylbenzene	2.301	0.05
		Hexachloroethane	0.650	0.05
		1,2-Dibromo-3-Chloropropane	0.079	0.05
		1,2,4-Trichlorobenzene	1.012	0.05
		1,2,3-Trichlorobenzene	0.789	0.05
		Naphthalene	1.253	0.05
		2-Methylnaphthalene	0.547	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*		*CCC %D/UCL*
spcc02a.d	08/02/12 11:20	1,1,2-Trichloro-1,2,2-trifluoroet	49.9/ 50.0		0.2/ 20.0
		Diethyl ether	42.8/ 50.0		14.5/ 20.0
		Acetone	30.6/ 50.0	*	38.8/ 20.0
		Methyl iodide	46.7/ 50.0		6.5/ 20.0
		Carbon disulfide	42.9/ 50.0		14.3/ 20.0
		Methyl acetate	40.8/ 50.0		18.5/ 20.0
		tert-Methyl butyl ether	44.9/ 50.0		10.1/ 20.0
		Acrylonitrile	44.1/ 50.0		11.8/ 20.0
		2-Butanone	34.5/ 50.0	*	31.0/ 20.0
		Dichlorodifluoromethane	55.5/ 50.0		11.0/ 20.0
		Chloromethane	46.3/ 50.0		7.4/ 20.0
		Vinyl Chloride	51.6/ 50.0		3.3/ 20.0
		Bromomethane	47.6/ 50.0		4.8/ 20.0
		Chloroethane	49.3/ 50.0		1.4/ 20.0
		Trichlorofluoromethane	52.6/ 50.0		5.2/ 20.0
		1,1-Dichloroethene	46.9/ 50.0		6.2/ 20.0
		Methylene Chloride	41.5/ 50.0		17.0/ 20.0
		trans-1,2-Dichloroethene	45.9/ 50.0		8.3/ 20.0
		1,1-Dichloroethane	44.5/ 50.0		11.0/ 20.0
		cis-1,2-Dichloroethene	45.0/ 50.0		9.9/ 20.0
		Tetrahydrofuran	43.2/ 50.0		13.7/ 20.0
		Chloroform	45.3/ 50.0		9.5/ 20.0
		Bromochloromethane	44.3/ 50.0		11.4/ 20.0
		1,1,1-Trichloroethane	50.9/ 50.0		1.7/ 20.0
		Cyclohexane	50.7/ 50.0		1.3/ 20.0
		4-Methyl-2-pentanone	45.2/ 50.0		9.7/ 20.0
		2-Hexanone	40.7/ 50.0		18.5/ 20.0
		Carbon Tetrachloride	54.6/ 50.0		9.2/ 20.0
		Benzene	48.7/ 50.0		2.6/ 20.0
		1,2-Dichloroethane	49.1/ 50.0		1.9/ 20.0
		Trichloroethene	51.2/ 50.0		2.4/ 20.0
		1,2-Dichloropropane	46.9/ 50.0		6.1/ 20.0
		Bromodichloromethane	51.1/ 50.0		2.2/ 20.0
		Methyl cyclohexane	51.3/ 50.0		2.6/ 20.0
		Dibromomethane	51.4/ 50.0		2.8/ 20.0
		cis-1,3-Dichloropropene	51.4/ 50.0		2.9/ 20.0
		Toluene	50.7/ 50.0		1.4/ 20.0
		trans-1,3-Dichloropropene	52.8/ 50.0		5.7/ 20.0
		1,1,2-Trichloroethane	48.0/ 50.0		4.1/ 20.0
		Tetrachloroethene	52.5/ 50.0		5.1/ 20.0
		trans-1,4-Dichloro-2-butene	52.5/ 50.0		5.1/ 20.0
		Dibromochloromethane	53.7/ 50.0		7.4/ 20.0
		1,2-Dibromoethane	52.3/ 50.0		4.7/ 20.0
		Chlorobenzene	50.0/ 50.0		0.0/ 20.0
		1,1,1,2-Tetrachloroethane	52.5/ 50.0		4.9/ 20.0
		Ethylbenzene	53.2/ 50.0		6.3/ 20.0
		p,m-Xylene	107.8/100.0		7.8/ 20.0
		o-Xylene	52.9/ 50.0		5.8/ 20.0
		Styrene	53.6/ 50.0		7.1/ 20.0
		Isopropylbenzene	54.8/ 50.0		9.5/ 20.0
		Bromoform	50.9/ 50.0		1.8/ 20.0
		1,1,2,2-Tetrachloroethane	50.6/ 50.0		1.2/ 20.0
		1,2,3-Trichloropropane	50.6/ 50.0		1.2/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120802a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	53.8/ 50.0	7.5/ 20.0
		Bromobenzene	50.4/ 50.0	0.8/ 20.0
		1,3,5-Trimethylbenzene	53.4/ 50.0	6.8/ 20.0
		tert-Butylbenzene	54.7/ 50.0	9.3/ 20.0
		1,2,4-Trimethylbenzene	53.3/ 50.0	6.5/ 20.0
		sec-Butylbenzene	55.0/ 50.0	10.0/ 20.0
		p-Isopropyltoluene	56.0/ 50.0	12.1/ 20.0
		1,3-Dichlorobenzene	51.7/ 50.0	3.3/ 20.0
		1,4-Dichlorobenzene	50.2/ 50.0	0.4/ 20.0
		1,2-Dichlorobenzene	50.4/ 50.0	0.8/ 20.0
		1,2,3-Trimethylbenzene	50.6/ 50.0	1.2/ 20.0
		n-Butylbenzene	54.3/ 50.0	8.6/ 20.0
		Hexachloroethane	51.3/ 50.0	2.6/ 20.0
		1,2-Dibromo-3-Chloropropane	52.7/ 50.0	5.3/ 20.0
		1,2,4-Trichlorobenzene	54.6/ 50.0	9.1/ 20.0
		1,2,3-Trichlorobenzene	52.1/ 50.0	4.1/ 20.0
		Naphthalene	55.2/ 50.0	10.4/ 20.0
		2-Methylnaphthalene	47.6/ 50.0	4.8/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\spcc02a.d Vial: 2
Acq On : 2 Aug 12 11:20 am Operator: lbr
Sample : spcc/ccc 1s0802 1v0802 Inst : Urborg
Misc : w/1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	493746	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	550969	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	195015	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	262711	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	85791	45.95	ug/l		91.9
31) TOLUENE-D8 (S)	5.02	98	556926	50.03	ug/l		100.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	233015	50.24	ug/l		100.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	158427	49.90	ug/l		9
4) Diethyl ether (*)	2.35	74	39003	42.76	ug/l		9
5) Acetone (*)	2.60	43	5626	30.61	ug/l	#	9
6) Methyl iodide (iodomethane	2.63	142	311489	46.73	ug/l		9
7) Carbon disulfide (*)	2.67	76	404341	42.87	ug/l		9
8) Methyl Acetate	2.84	43	27173	40.76	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	206980	44.94	ug/l		9
10) Acrylonitrile (*)	3.08	53	17851	44.10	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	9837	34.50	ug/l		9
12) Dichlorodifluoromethane	1.23	85	111179	55.49	ug/l		9
13) Chloromethane (SPCC)	1.35	50	104849	46.30	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	131584	51.64	ug/l		9
15) Bromomethane	1.74	94	53885	47.61	ug/l		10
16) Chloroethane	1.83	64	26781	49.30	ug/l		9
18) Trichlorofluoromethane	2.04	101	156141	52.59	ug/l	#	3
19) 1,1-Dichloroethene (CCC/MS	2.51	61	147997	46.92	ug/l		8
20) Methylene Chloride	2.90	84	126603	41.52	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	150590	45.85	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	183033	44.50	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	154753	45.03	ug/l		8
24) Tetrahydrofuran	3.84	42	11761	43.17	ug/l		9
25) Chloroform (CCC)	3.86	83	200123	45.26	ug/l		9
26) Bromochloromethane	3.81	130	97382	44.28	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	220157	50.85	ug/l	#	4
28) 1,1-Dichloropropene	4.03	75	177136	48.85	ug/l		9
29) Cyclohexane	3.98	42	50673	50.67	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	15862	45.15	ug/l		9
33) 2-Hexanone (*)	5.34	58	11155	40.73	ug/l		9
35) Carbon Tetrachloride	4.04	117	213316	54.60	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\spcc02a.d Vial: 2
Acq On : 2 Aug 12 11:20 am Operator: lbr
Sample : spcc/ccc 1s0802 1v0802 Inst : Urborg
Misc : w/1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	536355	48.71 ug/l	9
37) 1,2-Dichloroethane	4.15	62	97831	49.05 ug/l	9
38) Trichloroethene (MS)	4.45	95	153807	51.19 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	100447	46.93 ug/l	9
40) Bromodichloromethane	4.69	83	136825	51.11 ug/l	9
41) Methyl Cyclohexane	4.54	55	159643	51.32 ug/l	8
42) Dibromomethane	4.62	174	106936	51.41 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	171723	51.44 ug/l	9
44) Toluene (CCC/MS)	5.05	91	655341	50.71 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	132669	52.83 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	66306	47.97 ug/l	9
47) Tetrachloroethene	5.31	166	280502	52.53 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	14157	52.53 ug/l #	8
51) Dibromochloromethane	5.42	129	119523	53.72 ug/l	9
52) 1,2-Dibromoethane	5.48	107	93638	52.34 ug/l	10
53) Chlorobenzene (SPCC/MS)	5.70	112	451462	49.99 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	158299	52.46 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	719835	53.17 ug/l	9
56) p,m-Xylene	5.79	106	623473	107.78 ug/l	9
57) o-Xylene	5.98	91	546190	52.91 ug/l	9
58) Styrene	5.99	104	449945	53.56 ug/l	9
59) Isopropylbenzene	6.15	105	833895	54.75 ug/l	9
60) Bromoform (SPCC)	6.09	173	79084	50.91 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	84386	50.62 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	27814	50.60 ug/l	9
63) n-Propylbenzene	6.34	91	841895	53.75 ug/l	9
64) Bromobenzene	6.31	156	216528	50.41 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	375040	53.38 ug/l	9
66) tert-Butylbenzene	6.58	91	392911	54.67 ug/l #	8
67) 1,2,4-Trimethylbenzene	6.60	120	395353	53.27 ug/l	9
69) sec-Butylbenzene	6.68	105	915554	54.99 ug/l	9
70) p-Isopropyltoluene	6.75	119	787728	56.03 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	396713	51.67 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	395673	50.19 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	359744	50.39 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	587976	50.58 ug/l	9
75) n-Butylbenzene	6.95	91	604578	54.28 ug/l	9
76) Hexachloroethane	7.10	201	170862	51.28 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	20829	52.66 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	265875	54.55 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\spcc02a.d Vial: 2
Acq On : 2 Aug 12 11:20 am Operator: lbr
Sample : spcc/ccc 1s0802 1v0802 Inst : Urborg
Misc : w/1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

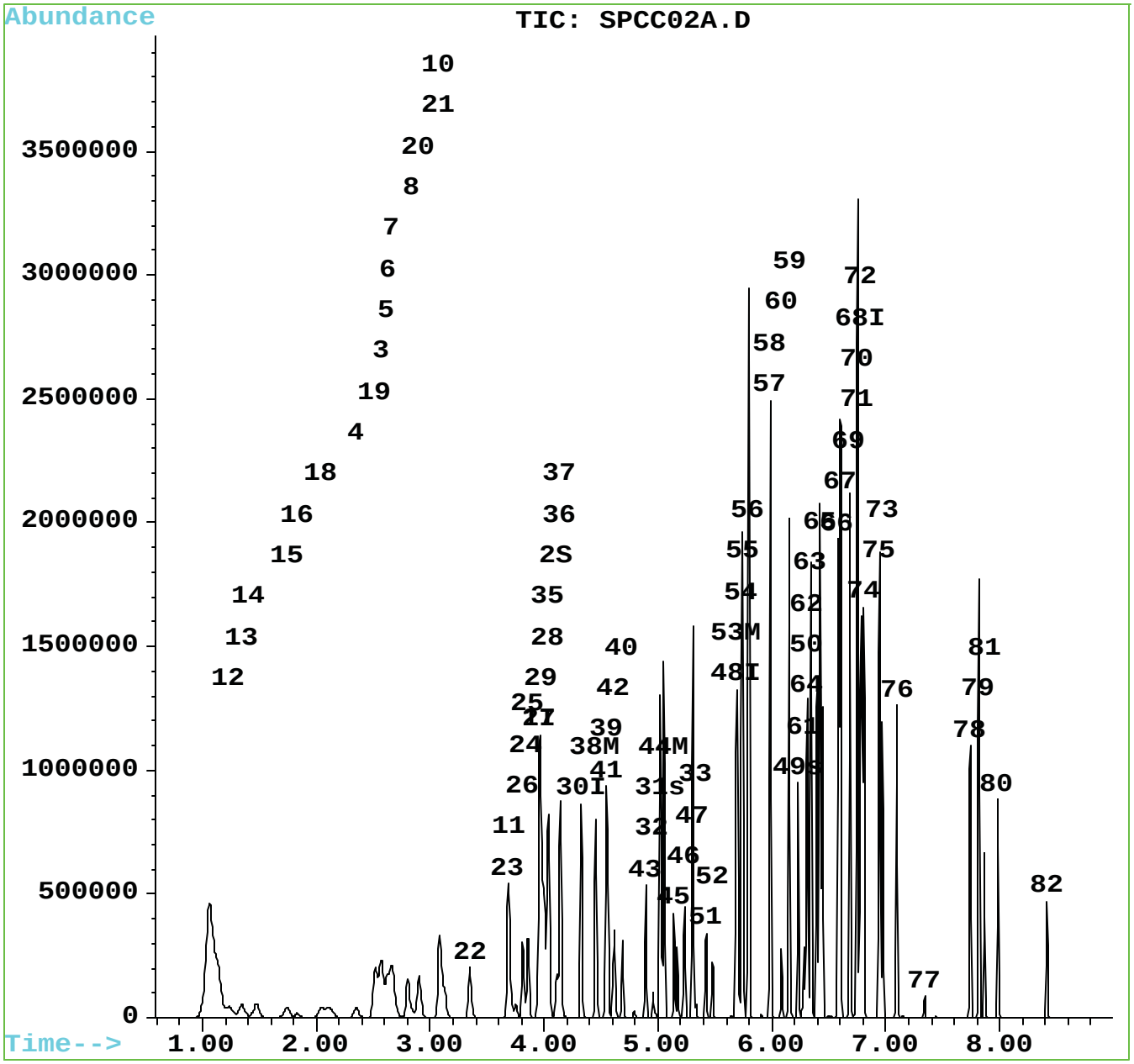
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79) Hexachlorobutadiene	7.82	225	255006	55.04 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	207458	52.07 ug/l	9
81) Naphthalene	7.87	128	329294	55.21 ug/l	9
82) 2-Methylnaphthalene	8.41	142	143785	47.60 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\spcc02a.d Vial: 2
Acq On : 2 Aug 12 11:20 am Operator: lbr
Sample : spcc/ccc 1s0802 1v0802 Inst : Urborg
Misc : w/1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\bfb02a.d Vial: 1
Acq On : 2 Aug 12 10:54 am Operator: lbr
Sample : 50ng/bfb 1s0801 Inst : Urborg
Misc : w/1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

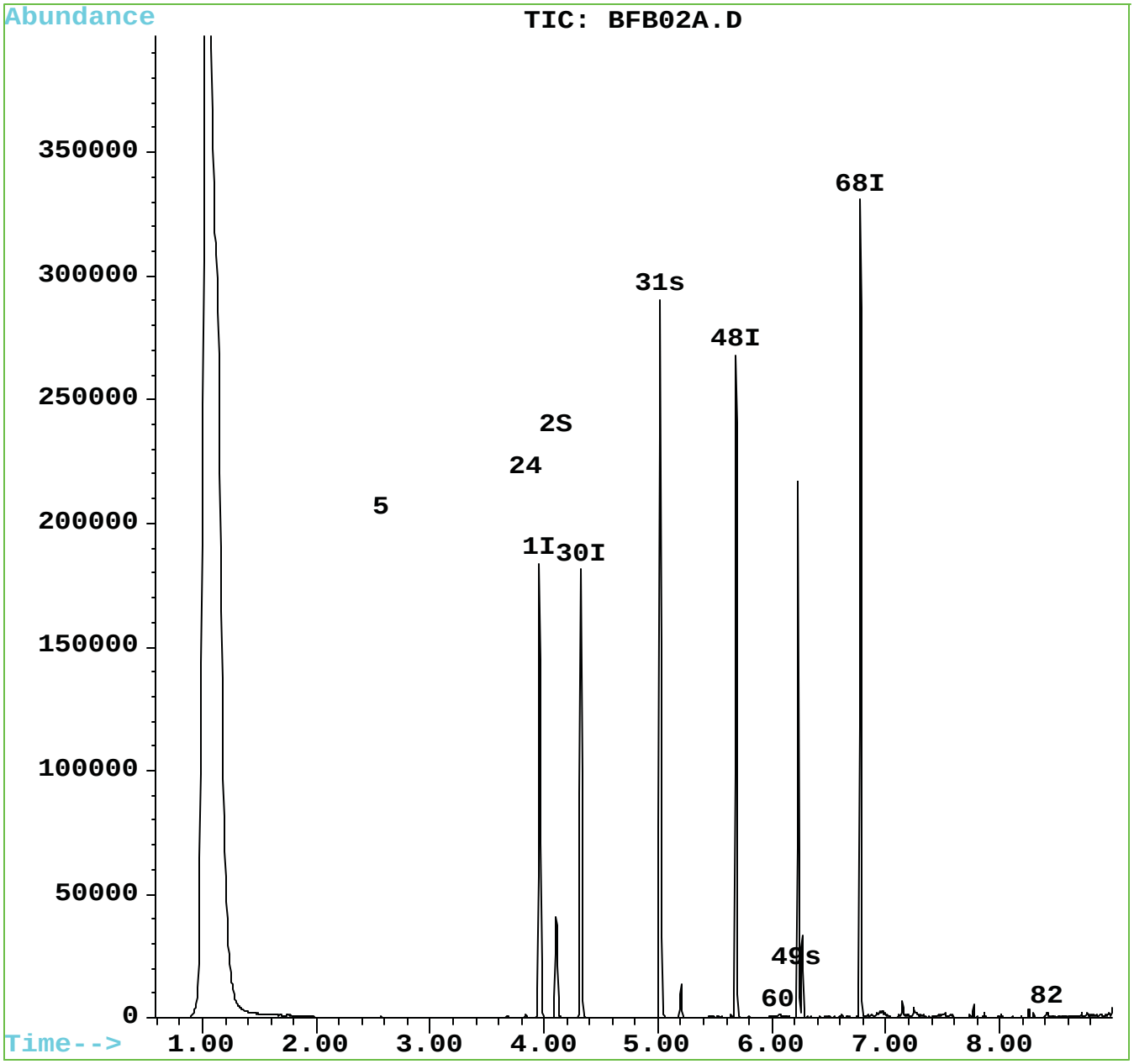
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	114558	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	126028	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	45839	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	66810	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	18938	43.72	ug/l		87.4
31) TOLUENE-D8 (S)	5.02	98	126422	49.65	ug/l		99.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	55316	50.74	ug/l		101.4
Target Compounds							Qvalu
5) Acetone (*)	2.58	43	809	18.97	ug/l	#	5
24) Tetrahydrofuran	3.84	42	714	11.30	ug/l	#	
60) Bromoform (SPCC)	6.06	173	3335	9.43	ug/l	#	2
82) 2-Methylnaphthalene	8.41	142	804	1.05	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\bfb02a.d Vial: 1
Acq On : 2 Aug 12 10:54 am Operator: lbr
Sample : 50ng/bfb 1s0801 Inst : Urborg
Misc : w/1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

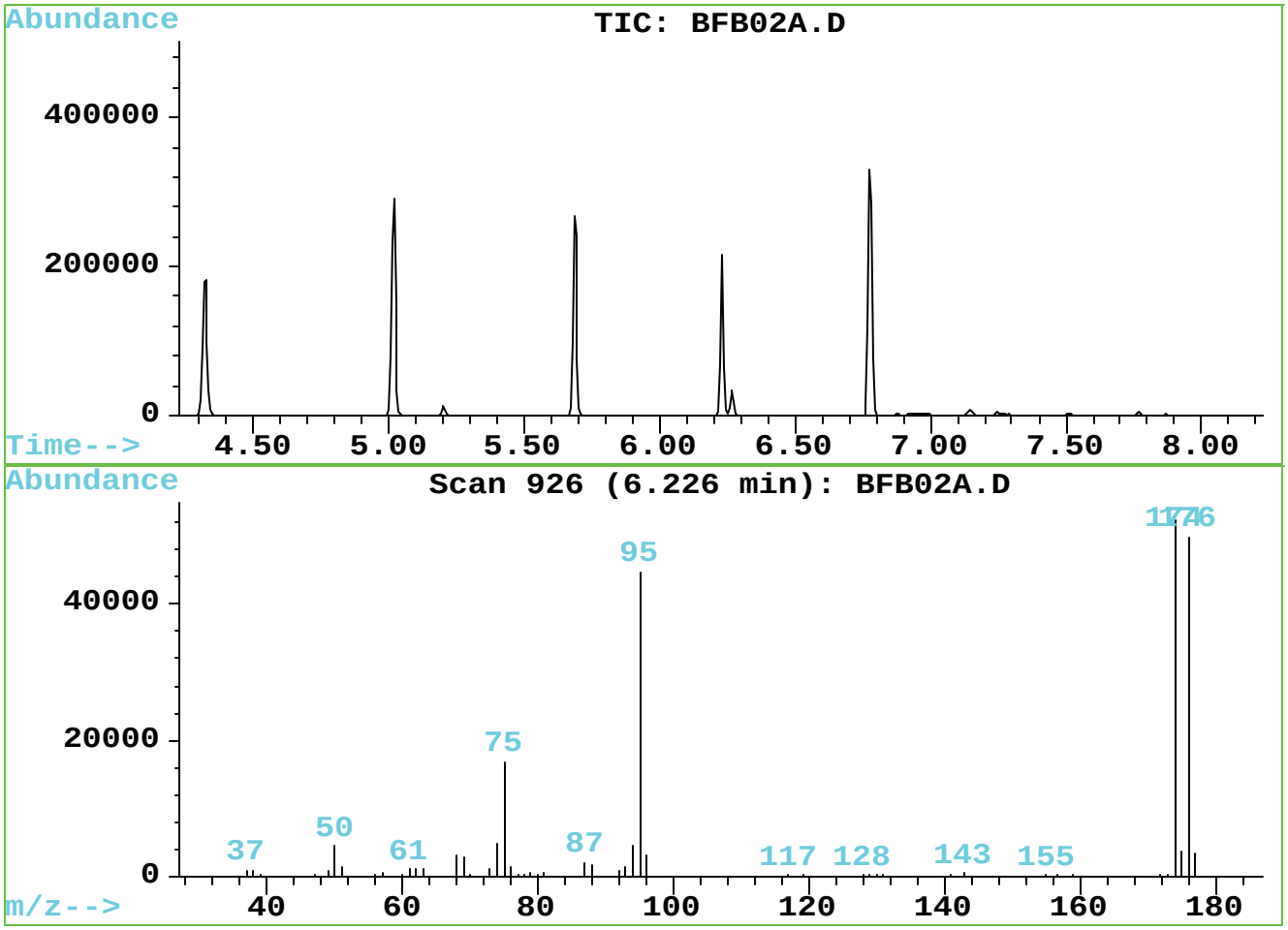
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\DATA\120802A5\BFB02A.D Vial: 1
Acq On : 2 Aug 12 10:54 am Operator: lbr
Sample : 50ng/bfb 1s0801 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	9.9	4424	PASS
75	95	30	66	37.7	16848	PASS
95	95	100	100	100.0	44704	PASS
96	95	5	9	6.8	3034	PASS
173	174	0	2	0.6	329	PASS
174	95	50	120	116.9	52248	PASS
175	174	4	9	7.2	3740	PASS
176	174	93	101	95.4	49848	PASS
177	176	5	9	6.6	3292	PASS

BFB02A.D FU120604.M Mon Aug 20 12:21:32 2012

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\blks02a.d Vial: 9
Acq On : 2 Aug 12 2:38 pm Operator: lbr
Sample : 100ul blank 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

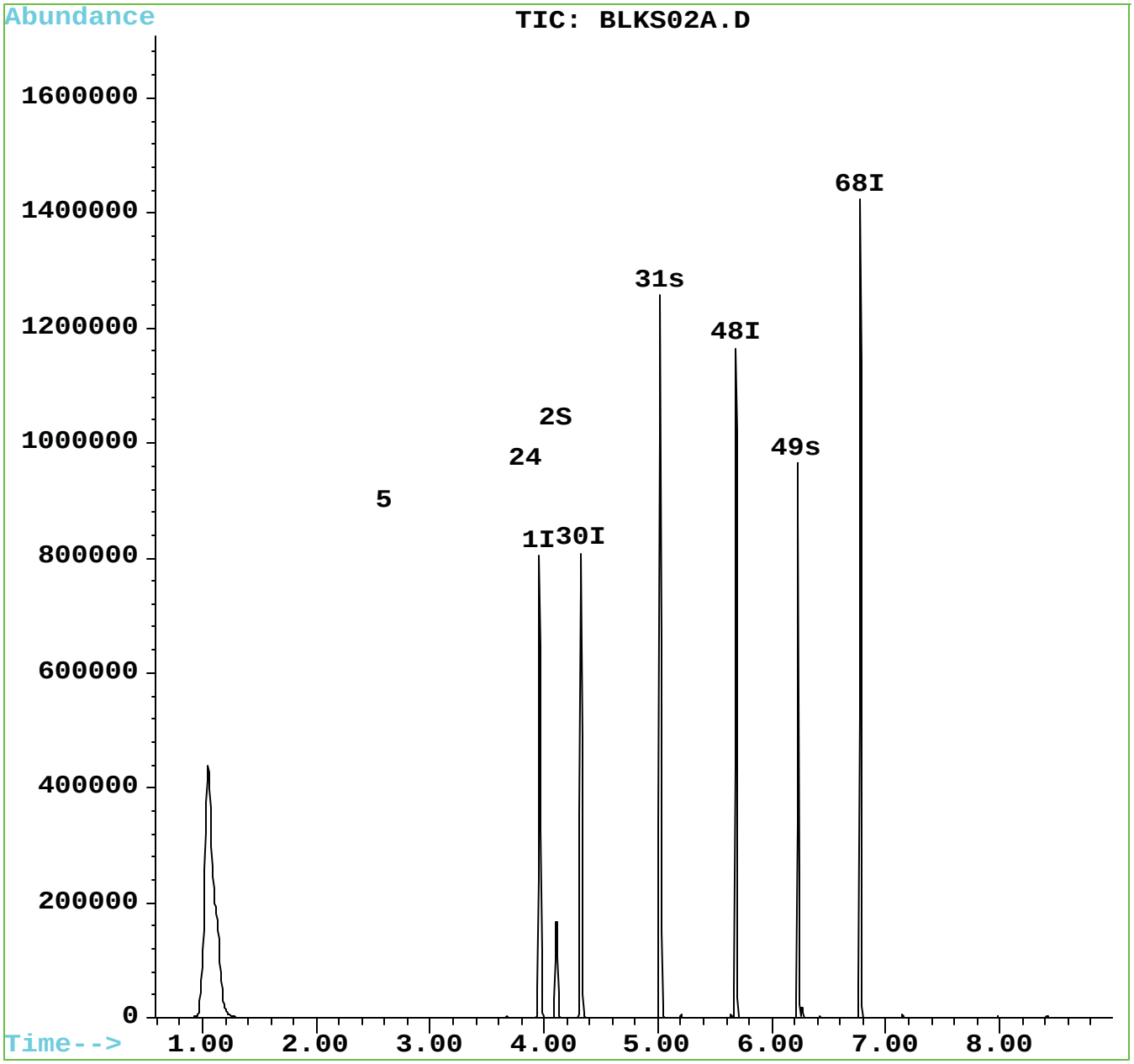
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	500642	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	548203	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	195169	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	276577	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	81932	43.28	ug/l	86.5
31) TOLUENE-D8 (S)	5.02	98	547932	49.47	ug/l	98.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	233096	50.22	ug/l	100.4
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	345	1.85	ug/l #	4
24) Tetrahydrofuran	3.84	42	838	3.03	ug/l #	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\blks02a.d Vial: 9
Acq On : 2 Aug 12 2:38 pm Operator: lbr
Sample : 100ul blank 1s0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\lcss02a.d Vial: 3
Acq On : 2 Aug 12 12:04 pm Operator: lbr
Sample : blank ms 1s0802 1m0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	559921	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	621787	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	220539	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	297224	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	95752	45.23	ug/l		90.4
31) TOLUENE-D8 (S)	5.02	98	621825	49.50	ug/l		98.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	259570	49.49	ug/l		98.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	176208	48.94	ug/l		9
4) Diethyl ether (*)	2.34	74	42330	40.92	ug/l		9
5) Acetone (*)	2.59	43	6543	31.39	ug/l	#	8
6) Methyl iodide (iodomethane	2.62	142	330943	43.78	ug/l		9
7) Carbon disulfide (*)	2.67	76	445003	41.60	ug/l		9
8) Methyl Acetate	2.84	43	27752	36.71	ug/l		9
9) tert-Methyl butyl ether (M	3.11	73	221075	42.33	ug/l		9
10) Acrylonitrile (*)	3.07	53	18554	40.42	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	9742	30.13	ug/l		9
12) Dichlorodifluoromethane	1.22	85	124348	54.74	ug/l		9
13) Chloromethane (SPCC)	1.34	50	119639	46.58	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	136429	47.21	ug/l		9
15) Bromomethane	1.73	94	58420	45.51	ug/l		9
16) Chloroethane	1.82	64	30018	48.72	ug/l		9
18) Trichlorofluoromethane	2.03	101	181941	54.03	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	161492	45.15	ug/l		8
20) Methylene Chloride	2.89	84	134873	39.01	ug/l		9
21) trans-1,2-Dichloroethene	3.07	61	160195	43.01	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.34	63	195840	41.99	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	165349	42.43	ug/l	#	8
24) Tetrahydrofuran	3.84	42	10906	35.30	ug/l	#	
25) Chloroform (CCC)	3.85	83	215880	43.05	ug/l		9
26) Bromochloromethane	3.81	130	104058	41.73	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	232873	47.43	ug/l	#	4
28) 1,1-Dichloropropene	4.14	75	9296	2.26	ug/l	#	
29) Cyclohexane	3.98	42	47070	41.51	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	16285	41.07	ug/l		8
33) 2-Hexanone (*)	5.34	58	11665	37.74	ug/l		9
35) Carbon Tetrachloride	4.04	117	228242	51.77	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\lcss02a.d Vial: 3
Acq On : 2 Aug 12 12:04 pm Operator: lbr
Sample : blank ms 1s0802 1m0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	573441	46.14 ug/l	9
37) 1,2-Dichloroethane	4.15	62	104506	46.43 ug/l	9
38) Trichloroethene (MS)	4.45	95	165904	48.93 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	107900	44.67 ug/l	9
40) Bromodichloromethane	4.68	83	146778	48.59 ug/l	9
41) Methyl Cyclohexane	4.54	55	173916	49.54 ug/l	8
42) Dibromomethane	4.62	174	112413	47.89 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	182809	48.52 ug/l	9
44) Toluene (CCC/MS)	5.05	91	696622	47.77 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	140479	49.57 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	69261	44.40 ug/l	9
47) Tetrachloroethene	5.31	166	292593	48.55 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	14009	45.97 ug/l #	7
51) Dibromochloromethane	5.42	129	127361	50.62 ug/l	9
52) 1,2-Dibromoethane	5.48	107	95574	47.24 ug/l	10
53) Chlorobenzene (SPCC/MS)	5.70	112	479879	46.99 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	169347	49.62 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	765545	50.00 ug/l	9
56) p,m-Xylene	5.79	106	646668	98.85 ug/l	9
57) o-Xylene	5.98	91	579271	49.62 ug/l	9
58) Styrene	5.99	104	460278	48.45 ug/l	9
59) Isopropylbenzene	6.15	105	872160	50.63 ug/l	9
60) Bromoform (SPCC)	6.09	173	82561	47.13 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	85135	45.16 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	28800	46.33 ug/l	9
63) n-Propylbenzene	6.34	91	902528	50.95 ug/l	9
64) Bromobenzene	6.31	156	230829	47.52 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	398302	50.13 ug/l	9
66) tert-Butylbenzene	6.58	91	418217	51.46 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	429996	51.24 ug/l	9
69) sec-Butylbenzene	6.68	105	961887	51.06 ug/l	9
70) p-Isopropyltoluene	6.75	119	845659	53.17 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	427016	49.16 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	426537	47.83 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	388499	48.10 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	631643	48.02 ug/l	9
75) n-Butylbenzene	6.95	91	656752	52.11 ug/l	9
76) Hexachloroethane	7.10	201	181473	48.15 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	22178	49.70 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	297974	54.03 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120802a5\lcss02a.d Vial: 3
Acq On : 2 Aug 12 12:04 pm Operator: lbr
Sample : blank ms 1s0802 1m0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

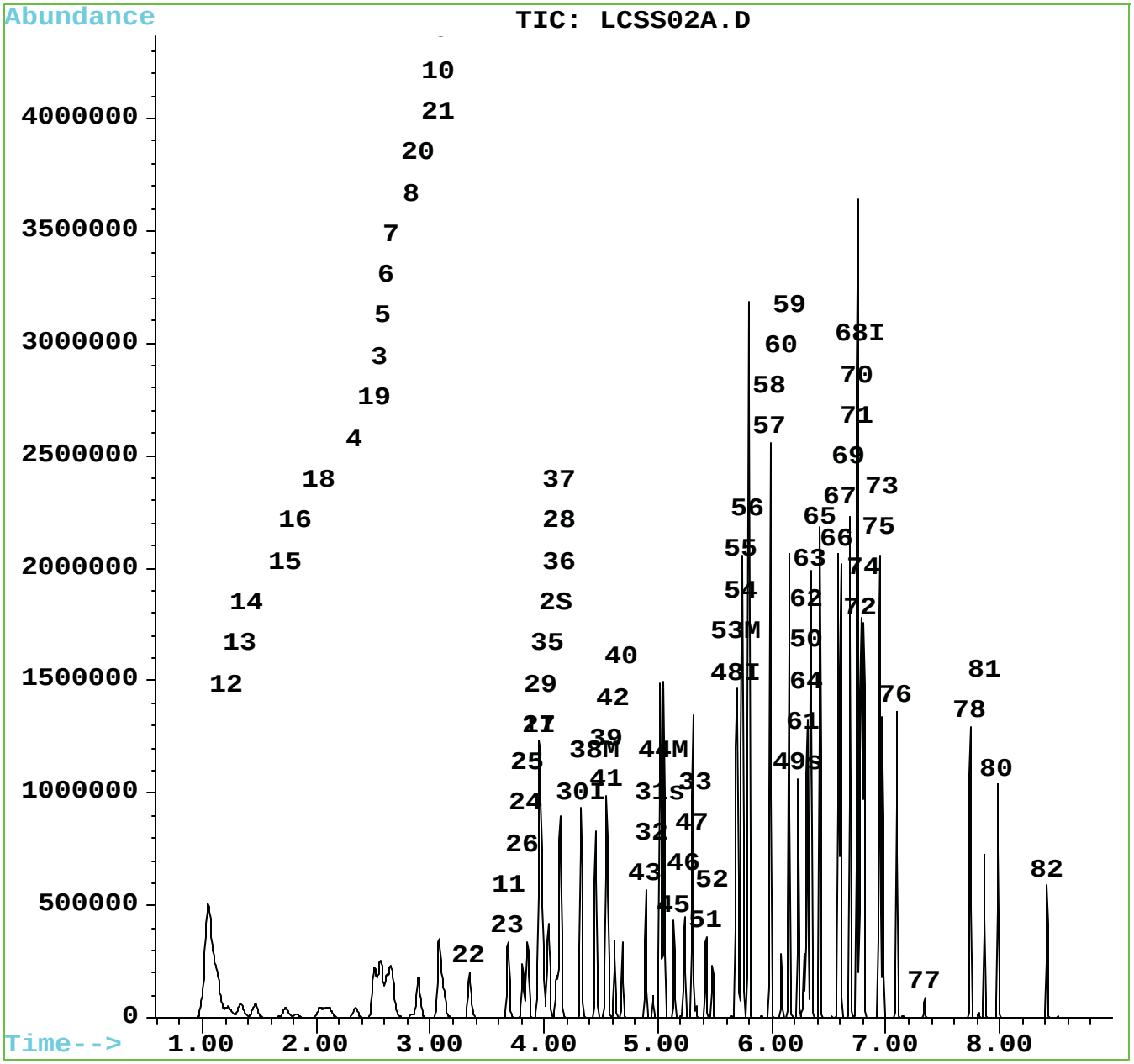
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	240260	53.30 ug/l	9
81)	Naphthalene	7.87	128	366412	54.30 ug/l	9
82)	2-Methylnaphthalene	8.41	142	184610	54.02 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\lcss02a.d Vial: 3
Acq On : 2 Aug 12 12:04 pm Operator: lbr
Sample : blank ms 1s0802 1m0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\lcss02b.d Vial: 4
Acq On : 2 Aug 12 12:24 pm Operator: lbr
Sample : blank msd 1s0802 1m0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	513859	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	570414	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	205362	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	277398	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	89956	46.30	ug/l		92.6
31) TOLUENE-D8 (S)	5.02	98	579581	50.29	ug/l		100.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	245790	50.33	ug/l		100.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	178609	54.06	ug/l		9
4) Diethyl ether (*)	2.35	74	43614	45.94	ug/l		9
5) Acetone (*)	2.60	43	6359	33.24	ug/l	#	9
6) Methyl iodide (iodomethane	2.62	142	333369	48.05	ug/l		9
7) Carbon disulfide (*)	2.67	76	449791	45.82	ug/l		9
8) Methyl Acetate	2.84	43	28689	41.35	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	227714	47.50	ug/l		9
10) Acrylonitrile (*)	3.08	53	19146	45.45	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	9221	31.07	ug/l		9
12) Dichlorodifluoromethane	1.23	85	123851	59.32	ug/l		9
13) Chloromethane (SPCC)	1.34	50	119642	50.76	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	136238	51.37	ug/l		9
15) Bromomethane	1.74	94	58587	49.74	ug/l		9
16) Chloroethane	1.83	64	30243	53.49	ug/l		9
18) Trichlorofluoromethane	2.12	101	179117	57.96	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	162954	49.64	ug/l		8
20) Methylene Chloride	2.90	84	136743	43.09	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	161661	47.29	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	198596	46.40	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	166163	46.46	ug/l	#	8
24) Tetrahydrofuran	3.84	42	10818	38.16	ug/l	#	
25) Chloroform (CCC)	3.85	83	215323	46.79	ug/l		9
26) Bromochloromethane	3.81	130	105673	46.17	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	233369	51.80	ug/l	#	4
28) 1,1-Dichloropropene	4.14	75	8984	2.38	ug/l	#	
29) Cyclohexane	3.98	42	48092	46.21	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	16651	45.78	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	11509	40.59	ug/l		9
35) Carbon Tetrachloride	4.04	117	228841	56.58	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\lcss02b.d Vial: 4
Acq On : 2 Aug 12 12:24 pm Operator: lbr
Sample : blank msd 1s0802 1m0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	560105	49.13 ug/l	9
37) 1,2-Dichloroethane	4.15	62	103652	50.19 ug/l	9
38) Trichloroethene (MS)	4.45	95	160812	51.70 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	106548	48.08 ug/l	9
40) Bromodichloromethane	4.68	83	144199	52.03 ug/l	9
41) Methyl Cyclohexane	4.54	55	176678	54.86 ug/l	8
42) Dibromomethane	4.62	174	110935	51.52 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	180077	52.10 ug/l	9
44) Toluene (CCC/MS)	5.05	91	684863	51.19 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	138990	53.46 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	69432	48.52 ug/l	9
47) Tetrachloroethene	5.31	166	287106	51.93 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	14591	51.42 ug/l #	7
51) Dibromochloromethane	5.42	129	127265	54.32 ug/l	9
52) 1,2-Dibromoethane	5.48	107	96598	51.27 ug/l	10
53) Chlorobenzene (SPCC/MS)	5.70	112	480476	50.52 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	168832	53.13 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	751160	52.68 ug/l	9
56) p,m-Xylene	5.79	106	646305	106.10 ug/l	9
57) o-Xylene	5.98	91	575399	52.93 ug/l	9
58) Styrene	5.99	104	459515	51.94 ug/l	9
59) Isopropylbenzene	6.15	105	874297	54.51 ug/l	9
60) Bromoform (SPCC)	6.09	173	84681	51.73 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	86595	49.33 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	28908	49.94 ug/l	9
63) n-Propylbenzene	6.34	91	901824	54.68 ug/l	9
64) Bromobenzene	6.31	156	231156	51.10 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	393967	53.24 ug/l	9
66) tert-Butylbenzene	6.58	91	414219	54.73 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	425523	54.45 ug/l	9
69) sec-Butylbenzene	6.68	105	959478	54.57 ug/l	9
70) p-Isopropyltoluene	6.75	119	840876	56.64 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	418968	51.68 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	421097	50.59 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	384367	50.99 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	631437	51.44 ug/l	9
75) n-Butylbenzene	6.95	91	637285	54.18 ug/l	9
76) Hexachloroethane	7.10	201	176935	50.30 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	21995	52.67 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	284380	55.26 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\lcss02b.d Vial: 4
Acq On : 2 Aug 12 12:24 pm Operator: lbr
Sample : blank msd 1s0802 1m0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

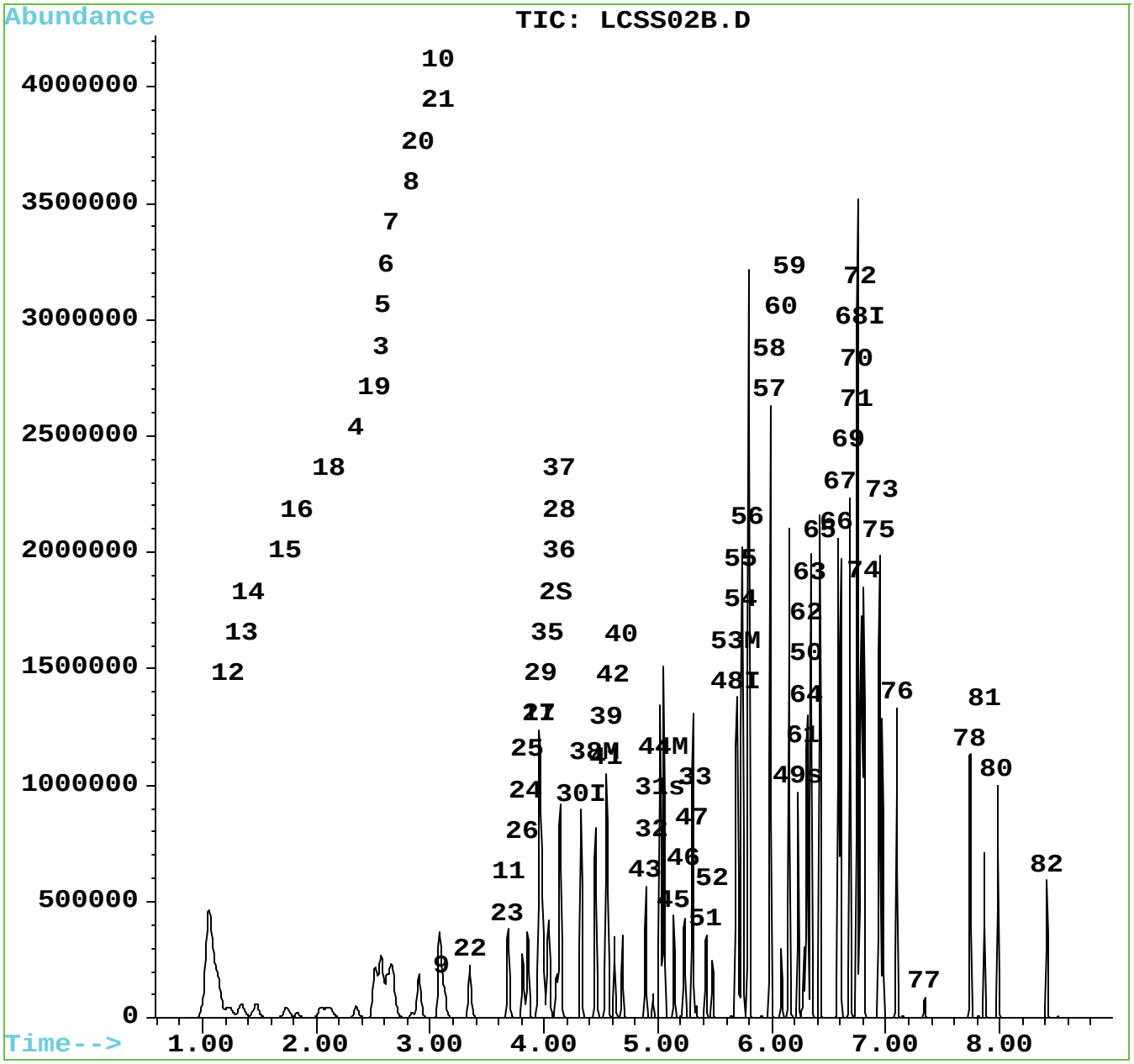
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	233874	55.59 ug/l	9
81)	Naphthalene	7.87	128	357547	56.78 ug/l	9
82)	2-Methylnaphthalene	8.41	142	180892	56.71 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120802a5\lcss02b.d Vial: 4
Acq On : 2 Aug 12 12:24 pm Operator: lbr
Sample : blank msd 1s0802 1m0802 Inst : Urborg
Misc : s/50 id:vf120802s1 Multiplr: 20.00
Quant Time: Aug 3 10:33 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d01a.d	08/01/12 14:32	dftpp std (120801) [none]	WW	IP	**1**	
spnn01a.d	08/01/12 14:51	pna std 50 (120314) [none]	WW	CV	**1**	
blkw01a.d	08/01/12 15:26	pna-w 1000ml/1ml df:1 sp120731w01	WW	Bl		
blks01a.d	08/01/12 15:45	pna-s 30g/1ml df:1 sp120731s01	SO	Bl	**1**	
lcsw01a.d	08/01/12 16:04	pna-w 1000ml/1ml df:1 sp120731w01	WW	MS		
lcsdw01a.d	08/01/12 16:24	pna-w 1000ml/1ml df:1 sp120731w01	WW	MS		
lcss01a.d	08/01/12 16:43	pna-s 30g/1ml df:1 sp120731s01	SO	MS	**1**	
lcsds01a.d	08/01/12 17:02	pna-s 30g/1ml df:1 sp120731s01	SO	MS	**1**	
5334715.d	08/01/12 17:21	pna-w 860ml/1ml df:2 sp120731w01	WW			
5334502.d	08/01/12 17:40	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334503.d	08/01/12 17:59	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334504.d	08/01/12 18:18	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334505.d	08/01/12 18:38	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334507.d	08/01/12 18:57	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334508.d	08/01/12 19:16	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334511.d	08/01/12 19:35	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334512.d	08/01/12 19:54	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334513.d	08/01/12 20:13	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334514.d	08/01/12 20:32	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334515.d	08/01/12 20:52	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334516.d	08/01/12 21:11	pna-s 30g/1ml df:6 sp120731s01	SO		**1**	
5334702.d	08/01/12 21:30	pna-s 30g/1ml df:6 sp120731s01	SO			
5334506.d	08/01/12 22:08	pna-s 30g/1ml df:15 sp120731s01	SO		**1**	
5334510.d	08/01/12 22:27	pna-s 30g/1ml df:20 sp120731s01	SO		**1**	
5334509.d	08/01/12 22:47	pna-s 30g/1ml df:40 sp120731s01	SO		**1**	
5326503.d	08/01/12 23:06	pna-s 30g/1ml df:200 sp120731s01	SO			
5334701.d	08/01/12 23:25	pna-s 30g/1ml df:10 sp120731s01	SO			
5334704.d	08/01/12 23:44	pna-s 30g/1ml df:10 sp120731s01	SO			
5328602r.d	08/02/12 00:03	pna-s 30g/2ml df:20 sp120727s01	SO			

Matrix (Mtx) Summary

Water Samples:	1	Soil Samples:	20
Water Duplicates:	1	Soil Duplicates:	1
Water Spikes:	2	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spnn01a.d	2-Fluorobiphenyl	53.7/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	53.7/100.0	n/a	10.0/114.0	
	Terphenyl-D14	54.4/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blkw01a.d	2-Fluorobiphenyl	68.0/100.0	68.0	10.0/116.0	WW
	Nitrobenzene-D5	75.0/100.0	75.0	10.0/114.0	
	Terphenyl-D14	85.6/100.0	85.6	10.0/141.0	
				Total Outliers: 0	
blks01a.d	2-Fluorobiphenyl	55.9/100.0	55.9	10.0/115.0	SO
	Nitrobenzene-D5	44.5/100.0	44.5	18.5/120.0	
	Terphenyl-D14	71.3/100.0	71.3	10.3/137.0	
				Total Outliers: 0	
lcsw01a.d	2-Fluorobiphenyl	65.2/100.0	65.2	10.0/116.0	WW
	Nitrobenzene-D5	71.6/100.0	71.6	10.0/114.0	
	Terphenyl-D14	78.2/100.0	78.2	10.0/141.0	
				Total Outliers: 0	
lcsdw01a.d	2-Fluorobiphenyl	63.1/100.0	63.1	10.0/116.0	WW
	Nitrobenzene-D5	72.4/100.0	72.4	10.0/114.0	
	Terphenyl-D14	75.7/100.0	75.7	10.0/141.0	
				Total Outliers: 0	
lcss01a.d	2-Fluorobiphenyl	52.8/100.0	52.8	10.0/115.0	SO
	Nitrobenzene-D5	43.7/100.0	43.7	18.5/120.0	
	Terphenyl-D14	63.6/100.0	63.6	10.3/137.0	
				Total Outliers: 0	
lcsds01a.d	2-Fluorobiphenyl	69.8/100.0	69.8	10.0/115.0	SO
	Nitrobenzene-D5	68.7/100.0	68.7	18.5/120.0	
	Terphenyl-D14	88.7/100.0	88.7	10.3/137.0	
				Total Outliers: 0	
5334715.d	2-Fluorobiphenyl	68.5/100.0	68.5	10.0/116.0	WW
	Nitrobenzene-D5	61.5/100.0	61.5	10.0/114.0	
	Terphenyl-D14	79.2/100.0	79.2	10.0/141.0	
				Total Outliers: 0	
5334502.d	2-Fluorobiphenyl	92.7/100.0	92.7	10.0/115.0	SO
	Nitrobenzene-D5	82.4/100.0	82.4	18.5/120.0	
	Terphenyl-D14	105.3/100.0	105.3	10.3/137.0	
				Total Outliers: 0	
5334503.d	2-Fluorobiphenyl	76.1/100.0	76.1	10.0/115.0	SO
	Nitrobenzene-D5	67.7/100.0	67.7	18.5/120.0	
	Terphenyl-D14	89.0/100.0	89.0	10.3/137.0	
				Total Outliers: 0	
5334504.d	2-Fluorobiphenyl	89.1/100.0	89.1	10.0/115.0	SO
	Nitrobenzene-D5	75.5/100.0	75.5	18.5/120.0	
	Terphenyl-D14	105.7/100.0	105.7	10.3/137.0	
				Total Outliers: 0	
5334505.d	2-Fluorobiphenyl	81.3/100.0	81.3	10.0/115.0	SO
	Nitrobenzene-D5	66.3/100.0	66.3	18.5/120.0	
	Terphenyl-D14	92.9/100.0	92.9	10.3/137.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
5334507.d	2-Fluorobiphenyl	69.4/100.0	69.4	10.0/115.0	SO
	Nitrobenzene-D5	54.6/100.0	54.6	18.5/120.0	
	Terphenyl-D14	81.8/100.0	81.8	10.3/137.0	
				Total Outliers: 0	
5334508.d	2-Fluorobiphenyl	75.9/100.0	75.9	10.0/115.0	SO
	Nitrobenzene-D5	60.6/100.0	60.6	18.5/120.0	
	Terphenyl-D14	86.0/100.0	86.0	10.3/137.0	
				Total Outliers: 0	
5334511.d	2-Fluorobiphenyl	64.0/100.0	64.0	10.0/115.0	SO
	Nitrobenzene-D5	51.9/100.0	51.9	18.5/120.0	
	Terphenyl-D14	69.9/100.0	69.9	10.3/137.0	
				Total Outliers: 0	
5334512.d	2-Fluorobiphenyl	65.5/100.0	65.5	10.0/115.0	SO
	Nitrobenzene-D5	55.0/100.0	55.0	18.5/120.0	
	Terphenyl-D14	77.2/100.0	77.2	10.3/137.0	
				Total Outliers: 0	
5334513.d	2-Fluorobiphenyl	69.6/100.0	69.6	10.0/115.0	SO
	Nitrobenzene-D5	53.2/100.0	53.2	18.5/120.0	
	Terphenyl-D14	81.0/100.0	81.0	10.3/137.0	
				Total Outliers: 0	
5334514.d	2-Fluorobiphenyl	94.5/100.0	94.5	10.0/115.0	SO
	Nitrobenzene-D5	78.9/100.0	78.9	18.5/120.0	
	Terphenyl-D14	103.9/100.0	103.9	10.3/137.0	
				Total Outliers: 0	
5334515.d	2-Fluorobiphenyl	71.4/100.0	71.4	10.0/115.0	SO
	Nitrobenzene-D5	55.8/100.0	55.8	18.5/120.0	
	Terphenyl-D14	86.3/100.0	86.3	10.3/137.0	
				Total Outliers: 0	
5334516.d	2-Fluorobiphenyl	77.8/100.0	77.8	10.0/115.0	SO
	Nitrobenzene-D5	65.7/100.0	65.7	18.5/120.0	
	Terphenyl-D14	92.8/100.0	92.8	10.3/137.0	
				Total Outliers: 0	
5334702.d	2-Fluorobiphenyl	83.3/100.0	83.3	10.0/115.0	SO
	Nitrobenzene-D5	64.5/100.0	64.5	18.5/120.0	
	Terphenyl-D14	90.1/100.0	90.1	10.3/137.0	
				Total Outliers: 0	
5334506.d	2-Fluorobiphenyl	96.3/100.0	96.3	10.0/115.0	SO
	Nitrobenzene-D5	68.8/100.0	68.8	18.5/120.0	
	Terphenyl-D14	119.9/100.0	119.9	10.3/137.0	
				Total Outliers: 0	
5334510.d	2-Fluorobiphenyl	33.5/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	26.7/100.0	n/a	18.5/120.0	
	Terphenyl-D14	39.7/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5334509.d	2-Fluorobiphenyl	56.5/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	47.3/100.0	n/a	18.5/120.0	
	Terphenyl-D14	65.2/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5326503.d	2-Fluorobiphenyl	202.9/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	332.3/100.0	n/a	18.5/120.0	
	Terphenyl-D14	196.4/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5334701.d	2-Fluorobiphenyl	97.6/100.0	97.6	10.0/115.0	SO
	Nitrobenzene-D5	78.8/100.0	78.8	18.5/120.0	
	Terphenyl-D14	113.3/100.0	113.3	10.3/137.0	
				Total Outliers: 0	
5334704.d	2-Fluorobiphenyl	97.3/100.0	97.3	10.0/115.0	SO
	Nitrobenzene-D5	83.4/100.0	83.4	18.5/120.0	
	Terphenyl-D14	109.7/100.0	109.7	10.3/137.0	
				Total Outliers: 0	
5328602r.d	2-Fluorobiphenyl	92.1/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	74.2/100.0	n/a	18.5/120.0	
	Terphenyl-D14	94.4/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsdw01a.d			
Dup ID : LCSD1			
Prep Batch: sp120731w01			
Prep Date : 07/31/12			
Parent File: lcsw01a.d			
naphthalene	34.21/ 34.99	2.3/25.0	WW
2-methylnaphthalene	35.51/ 34.62	2.5/25.0	
1-methylnaphthalene	33.59/ 32.78	2.4/25.0	
acenaphthylene	37.66/ 38.71	2.7/25.0	
acenaphthene **	34.62/ 36.04	4.0/25.0	
fluorene	37.87/ 39.03	3.0/25.0	
phenanthrene	33.61/ 34.94	3.9/25.0	
anthracene	36.95/ 37.81	2.3/25.0	
fluoranthene	37.32/ 38.41	2.9/25.0	
pyrene **	37.02/ 38.34	3.5/25.0	
benzo(a)anthracene	38.20/ 39.42	3.1/25.0	
chrysene	37.22/ 38.61	3.7/25.0	
benzo(b)fluoranthene	37.43/ 41.11	9.4/25.0	
benzo(k)fluoranthene	38.82/ 36.79	5.4/25.0	
benzo(a)pyrene	38.99/ 40.19	3.0/25.0	
indeno(1,2,3-cd)pyrene	38.82/ 40.36	3.9/25.0	
dibenzo(ah)anthracene	38.87/ 40.20	3.4/25.0	
benzo(ghi)perylene	38.44/ 39.64	3.1/25.0	
[end of compound list]			
		Total Outliers: 0	
Dup File : lcsds01a.d			
Dup ID : LCSD1			
Prep Batch: sp120731s01			
Prep Date : 07/31/12			
Parent File: lcss01a.d			
naphthalene	36.44/ 25.65	34.8/25.0*	SO
2-methylnaphthalene	37.90/ 26.93	33.8/25.0*	
1-methylnaphthalene	35.89/ 25.40	34.2/25.0*	
acenaphthylene	41.77/ 30.09	32.5/25.0*	
acenaphthene **	39.30/ 27.04	37.0/25.0*	
fluorene	42.56/ 30.89	31.8/25.0*	
phenanthrene	39.41/ 27.47	35.7/25.0*	
anthracene	41.01/ 29.36	33.1/25.0*	
fluoranthene	42.74/ 30.63	33.0/25.0*	
pyrene **	43.72/ 30.38	36.0/25.0*	
benzo(a)anthracene	45.09/ 31.05	36.9/25.0*	
chrysene	44.12/ 30.30	37.1/25.0*	
benzo(b)fluoranthene	46.86/ 30.88	41.1/25.0*	
benzo(k)fluoranthene	43.82/ 30.13	37.0/25.0*	
benzo(a)pyrene	44.55/ 29.94	39.2/25.0*	
indeno(1,2,3-cd)pyrene	44.42/ 30.28	37.9/25.0*	
dibenzo(ah)anthracene	44.11/ 30.18	37.5/25.0*	
benzo(ghi)perylene	43.89/ 29.88	38.0/25.0*	
[end of compound list]			
		Total Outliers: 18	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcsw01a.d						
Spike ID : LCS1						
Prep Batch: sp120731w01						
Prep Date : 07/31/12						
Parent File: blkw01a.d						
1-Methylnaphthalene	32.78/	0.00	50.00	65.6	10.0/120.0	WW
2-Methylnaphthalene	34.62/	0.00	50.00	69.2	35.6/120.0	
Acenaphthene	36.04/	0.00	50.00	72.1	23.4/114.1	
Acenaphthylene	38.71/	0.00	50.00	77.4	35.4/127.7	
Anthracene	37.81/	0.00	50.00	75.6	32.3/142.4	
Benzo(a)anthracene	39.42/	0.00	50.00	78.8	36.7/134.7	
Benzo(a)pyrene	40.19/	0.00	50.00	80.4	14.4/142.5	
Benzo(b)fluoranthene	41.11/	0.00	50.00	82.2	29.0/152.7	
Benzo(ghi)perylene	39.64/	0.00	50.00	79.3	45.2/130.7	
Benzo(k)fluoranthene	36.79/	0.00	50.00	73.6	29.8/136.0	
Chrysene	38.61/	0.00	50.00	77.2	38.7/137.1	
Dibenzo(ah)anthracene	40.20/	0.00	50.00	80.4	45.3/130.8	
Fluorene	39.03/	0.00	50.00	78.1	37.8/127.8	
Fluoranthene	38.41/	0.00	50.00	76.8	29.3/135.3	
Indeno(1,2,3-cd)pyrene	40.36/	0.00	50.00	80.7	39.2/137.4	
Naphthalene	34.99/	0.00	50.00	70.0	22.1/110.0	
Phenanthrene	34.94/	0.00	50.00	69.9	36.4/143.0	
Pyrene	38.34/	0.00	50.00	76.7	32.1/126.8	
					Total Outliers:	**0**
Spike File : lcsdw01a.d						
Spike ID : LCSD1						
Prep Batch: sp120731w01						
Prep Date : 07/31/12						
Parent File: blkw01a.d						
1-Methylnaphthalene	33.59/	0.00	50.00	67.2	10.0/120.0	WW
2-Methylnaphthalene	35.51/	0.00	50.00	71.0	35.6/120.0	
Acenaphthene	34.62/	0.00	50.00	69.2	23.4/114.1	
Acenaphthylene	37.66/	0.00	50.00	75.3	35.4/127.7	
Anthracene	36.95/	0.00	50.00	73.9	32.3/142.4	
Benzo(a)anthracene	38.20/	0.00	50.00	76.4	36.7/134.7	
Benzo(a)pyrene	38.99/	0.00	50.00	78.0	14.4/142.5	
Benzo(b)fluoranthene	37.43/	0.00	50.00	74.9	29.0/152.7	
Benzo(ghi)perylene	38.44/	0.00	50.00	76.9	45.2/130.7	
Benzo(k)fluoranthene	38.82/	0.00	50.00	77.6	29.8/136.0	
Chrysene	37.22/	0.00	50.00	74.4	38.7/137.1	
Dibenzo(ah)anthracene	38.87/	0.00	50.00	77.7	45.3/130.8	
Fluorene	37.87/	0.00	50.00	75.7	37.8/127.8	
Fluoranthene	37.32/	0.00	50.00	74.6	29.3/135.3	
Indeno(1,2,3-cd)pyrene	38.82/	0.00	50.00	77.6	39.2/137.4	
Naphthalene	34.21/	0.00	50.00	68.4	22.1/110.0	
Phenanthrene	33.61/	0.00	50.00	67.2	36.4/143.0	
Pyrene	37.02/	0.00	50.00	74.0	32.1/126.8	
					Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss01a.d						
Spike ID : LCS1						
Prep Batch: sp120731s01						
Prep Date : 07/31/12						
Parent File: blks01a.d						
1-Methylnaphthalene	25.40/	0.00	50.00	50.8	10.0/120.0	SO
2-Methylnaphthalene	26.93/	0.00	50.00	53.9	35.6/120.0	
Acenaphthene	27.04/	0.00	50.00	54.1	10.0/121.0	
Acenaphthylene	30.09/	0.00	50.00	60.2	35.4/127.7	
Anthracene	29.36/	0.00	50.00	58.7	32.3/142.4	
Benzo(a)anthracene	31.05/	0.00	50.00	62.1	36.7/134.7	
Benzo(a)pyrene	29.94/	0.00	50.00	59.9	10.0/140.8	
Benzo(b)fluoranthene	30.88/	0.00	50.00	61.8	29.0/152.7	
Benzo(ghi)perylene	29.88/	0.00	50.00	59.8	45.2/130.7	
Benzo(k)fluoranthene	30.13/	0.00	50.00	60.3	29.8/136.0	
Chrysene	30.30/	0.00	50.00	60.6	38.7/137.1	
Dibenzo(ah)anthracene	30.18/	0.00	50.00	60.4	45.3/130.8	
Fluorene	30.89/	0.00	50.00	61.8	37.8/127.8	
Fluoranthene	30.63/	0.00	50.00	61.3	10.0/145.8	
Indeno(1,2,3-cd)pyrene	30.28/	0.00	50.00	60.6	39.2/137.4	
Naphthalene	25.65/	0.00	50.00	51.3	10.0/110.0	
Phenanthrene	27.47/	0.00	50.00	54.9	36.4/143.0	
Pyrene	30.38/	0.00	50.00	60.8	10.0/135.8	
					Total Outliers:	**0**
Spike File : lcsds01a.d						
Spike ID : LCSD1						
Prep Batch: sp120731s01						
Prep Date : 07/31/12						
Parent File: blks01a.d						
1-Methylnaphthalene	35.89/	0.00	50.00	71.8	10.0/120.0	SO
2-Methylnaphthalene	37.90/	0.00	50.00	75.8	35.6/120.0	
Acenaphthene	39.30/	0.00	50.00	78.6	10.0/121.0	
Acenaphthylene	41.77/	0.00	50.00	83.5	35.4/127.7	
Anthracene	41.01/	0.00	50.00	82.0	32.3/142.4	
Benzo(a)anthracene	45.09/	0.00	50.00	90.2	36.7/134.7	
Benzo(a)pyrene	44.55/	0.00	50.00	89.1	10.0/140.8	
Benzo(b)fluoranthene	46.86/	0.00	50.00	93.7	29.0/152.7	
Benzo(ghi)perylene	43.89/	0.00	50.00	87.8	45.2/130.7	
Benzo(k)fluoranthene	43.82/	0.00	50.00	87.6	29.8/136.0	
Chrysene	44.12/	0.00	50.00	88.2	38.7/137.1	
Dibenzo(ah)anthracene	44.11/	0.00	50.00	88.2	45.3/130.8	
Fluorene	42.56/	0.00	50.00	85.1	37.8/127.8	
Fluoranthene	42.74/	0.00	50.00	85.5	10.0/145.8	
Indeno(1,2,3-cd)pyrene	44.42/	0.00	50.00	88.8	39.2/137.4	
Naphthalene	36.44/	0.00	50.00	72.9	10.0/110.0	
Phenanthrene	39.41/	0.00	50.00	78.8	36.4/143.0	
Pyrene	43.72/	0.00	50.00	87.4	10.0/135.8	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blkw01a.d (pna-w 1000ml/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120731w01
Prep Date : 07/31/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/l]	MDL [mg/l]	RL [mg/l]
Chrysene	Not detected		0.1	0.5
Benzo(k)fluoranthene	Not detected		0.1	0.5
Benzo(b)fluoranthene	Not detected		0.1	0.5
Indeno(1,2,3-cd)pyrene	Not detected		0.2	0.5
Benzo(a)anthracene	Not detected		0.1	0.5
Dibenzo(ah)anthracene	Not detected		0.5	0.5
Benzo(ghi)perylene	Not detected		0.4	0.5
Benzo(a)pyrene	Not detected		0.1	0.5
Acenaphthene **	Not detected		0.1	0.5
Pyrene **	Not detected		0.1	0.5
2-Methylnaphthalene	Not detected		0.2	0.5
Naphthalene	Not detected		0.2	0.5
1-Methylnaphthalene	Not detected		0.1	0.5
Fluorene	Not detected		0.1	0.5
Acenaphthylene	Not detected		0.1	0.5
Anthracene	Not detected		0.1	0.5
Phenanthrene	Not detected		0.1	0.5
Fluoranthene	Not detected		0.1	0.5

BLANK FILE : blks01a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120731s01
Prep Date : 07/31/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [mg/kg]	RL [mg/kg]
Benzo(b)fluoranthene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Benzo(a)pyrene	Not detected		0.3	20
Naphthalene	Not detected		0.2	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(a)anthracene	Not detected		0.4	20
Benzo(ghi)perylene	Not detected		0.5	20
Pyrene **	Not detected		0.4	20
1-Methylnaphthalene	Not detected		0.4	20
Fluoranthene	Not detected		0.4	20
Acenaphthylene	Not detected		0.3	20
2-Methylnaphthalene	Not detected		0.2	20
Acenaphthene **	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Fluorene	Not detected		0.3	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks01a.d
Method Blank Prep Date: 07/31/12
Blank/LCS Preparation Batch: sp120731s01

LCS Data File: lcss01a.d
LCS Prep Date: 07/31/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53265.03	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
S53345.02	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.03	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.04	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.05	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.06	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.07	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.08	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.09	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.10	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.11	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.12	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.13	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.14	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.15	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53345.16	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
S53347.01	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
S53347.02	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
S53347.03	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS
S53347.04	H120801	SP120731S01	08/01/12	Polynuclear Aromatics	$PNA8270
	SP120731S01		07/31/12	Semi Volatile Extraction	PNAEXTS

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blkw01a.d
Method Blank Prep Date: 07/31/12
Blank/LCS Preparation Batch: sp120731w01

LCS Data File: lcsw01a.d
LCS Prep Date: 07/31/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53347.15	H120801	SP120731W01	08/01/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120731W01		07/31/12	Semi Volatile Extraction	PNAEXTW

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d01a.d	08/01/12 14:32	51	198	30.0	80.0	32.8	47968	PASS
		68	69	0.0	2.0	1.7	838	PASS
		69	198	0.0	100.0	33.9	49568	PASS
		70	69	0.0	2.0	0.6	284	PASS
		127	198	25.0	75.0	43.1	63040	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	146176	PASS
		199	198	5.0	9.0	6.8	9975	PASS
		275	198	10.0	30.0	27.9	40840	PASS
		365	198	1.0	100.0	3.0	4405	PASS
		441	443	0.0	100.0	75.3	15404	PASS
		442	198	40.0	110.0	71.6	104608	PASS
		443	442	15.0	24.0	19.6	20464	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn01a.d	08/01/12 14:51	1,4-Dichlorobenzene-D4	176408/ 4.60	88204- 352816	4.10- 5.10
		Naphthalene-D8	621533/ 5.56	310767- 1243066	5.06- 6.06
		Acenaphthalene-D10	345720/ 6.89	172860- 691440	6.39- 7.39
		Phenanthrene-D10	639158/ 8.15	319579- 1278316	7.65- 8.65
		Chrysene-D12	748268/10.87	374134- 1496536	10.37-11.37
		Perylene-D12	750830/12.52	375415- 1501660	12.02-13.02
					Total Outliers: N/A
blkw01a.d	08/01/12 15:26	1,4-Dichlorobenzene-D4	204671/ 4.60	Ratio: 1.160	Diff.: 0.00
		Naphthalene-D8	741913/ 5.56	Ratio: 1.194	Diff.: 0.00
		Acenaphthalene-D10	399253/ 6.90	Ratio: 1.155	Diff.: 0.01
		Phenanthrene-D10	746259/ 8.16	Ratio: 1.168	Diff.: 0.01
		Chrysene-D12	848410/10.87	Ratio: 1.134	Diff.: 0.00
		Perylene-D12	845896/12.52	Ratio: 1.127	Diff.: 0.00
					Total Outliers: 0
blks01a.d	08/01/12 15:45	1,4-Dichlorobenzene-D4	200855/ 4.59	Ratio: 1.139	Diff.: -0.01
		Naphthalene-D8	732831/ 5.56	Ratio: 1.179	Diff.: 0.00
		Acenaphthalene-D10	384737/ 6.89	Ratio: 1.113	Diff.: 0.00
		Phenanthrene-D10	743534/ 8.15	Ratio: 1.163	Diff.: 0.00
		Chrysene-D12	858187/10.86	Ratio: 1.147	Diff.: -0.01
		Perylene-D12	853804/12.51	Ratio: 1.137	Diff.: -0.01
					Total Outliers: 0
lcsw01a.d	08/01/12 16:04	1,4-Dichlorobenzene-D4	205582/ 4.60	Ratio: 1.165	Diff.: 0.00
		Naphthalene-D8	743074/ 5.56	Ratio: 1.196	Diff.: 0.00
		Acenaphthalene-D10	395589/ 6.90	Ratio: 1.144	Diff.: 0.01
		Phenanthrene-D10	780790/ 8.15	Ratio: 1.222	Diff.: 0.00
		Chrysene-D12	902915/10.87	Ratio: 1.207	Diff.: 0.00
		Perylene-D12	926529/12.52	Ratio: 1.234	Diff.: 0.00
					Total Outliers: 0
lcsdw01a.d	08/01/12 16:24	1,4-Dichlorobenzene-D4	205067/ 4.60	Ratio: 1.162	Diff.: 0.00
		Naphthalene-D8	707415/ 5.56	Ratio: 1.138	Diff.: 0.00
		Acenaphthalene-D10	399799/ 6.90	Ratio: 1.156	Diff.: 0.01
		Phenanthrene-D10	786068/ 8.15	Ratio: 1.230	Diff.: 0.00
		Chrysene-D12	904134/10.87	Ratio: 1.208	Diff.: 0.00
		Perylene-D12	897870/12.52	Ratio: 1.196	Diff.: 0.00
					Total Outliers: 0
lcss01a.d	08/01/12 16:43	1,4-Dichlorobenzene-D4	204399/ 4.60	Ratio: 1.159	Diff.: 0.00
		Naphthalene-D8	705682/ 5.56	Ratio: 1.135	Diff.: 0.00
		Acenaphthalene-D10	398425/ 6.90	Ratio: 1.152	Diff.: 0.01
		Phenanthrene-D10	777234/ 8.15	Ratio: 1.216	Diff.: 0.00
		Chrysene-D12	906184/10.87	Ratio: 1.211	Diff.: 0.00
		Perylene-D12	899786/12.52	Ratio: 1.198	Diff.: 0.00
					Total Outliers: 0
lcsds01a.d	08/01/12 17:02	1,4-Dichlorobenzene-D4	184068/ 4.60	Ratio: 1.043	Diff.: 0.00
		Naphthalene-D8	671959/ 5.56	Ratio: 1.081	Diff.: 0.00
		Acenaphthalene-D10	371276/ 6.90	Ratio: 1.074	Diff.: 0.01
		Phenanthrene-D10	719458/ 8.15	Ratio: 1.126	Diff.: 0.00
		Chrysene-D12	812899/10.87	Ratio: 1.086	Diff.: 0.00
		Perylene-D12	817329/12.52	Ratio: 1.089	Diff.: 0.00
					Total Outliers: 0
5334715.d	08/01/12 17:21	1,4-Dichlorobenzene-D4	180661/ 4.60	Ratio: 1.024	Diff.: 0.00
		Naphthalene-D8	651394/ 5.56	Ratio: 1.048	Diff.: 0.00
		Acenaphthalene-D10	343959/ 6.89	Ratio: 0.995	Diff.: 0.00
		Phenanthrene-D10	662569/ 8.15	Ratio: 1.037	Diff.: 0.00
		Chrysene-D12	753932/10.86	Ratio: 1.008	Diff.: -0.01
		Perylene-D12	743343/12.51	Ratio: 0.990	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5334502.d	08/01/12 17:40	1,4-Dichlorobenzene-D4	181965/ 4.60	Ratio: 1.032	Diff.: 0.00
		Naphthalene-D8	659621/ 5.56	Ratio: 1.061	Diff.: 0.00
		Acenaphthalene-D10	356381/ 6.90	Ratio: 1.031	Diff.: 0.01
		Phenanthrene-D10	683824/ 8.15	Ratio: 1.070	Diff.: 0.00
		Chrysene-D12	777591/10.86	Ratio: 1.039	Diff.: -0.01
		Perylene-D12	753640/12.51	Ratio: 1.004	Diff.: -0.01
					Total Outliers: 0
5334503.d	08/01/12 17:59	1,4-Dichlorobenzene-D4	181379/ 4.60	Ratio: 1.028	Diff.: 0.00
		Naphthalene-D8	630387/ 5.56	Ratio: 1.014	Diff.: 0.00
		Acenaphthalene-D10	348260/ 6.90	Ratio: 1.007	Diff.: 0.01
		Phenanthrene-D10	682294/ 8.15	Ratio: 1.067	Diff.: 0.00
		Chrysene-D12	764947/10.86	Ratio: 1.022	Diff.: -0.01
		Perylene-D12	757309/12.51	Ratio: 1.009	Diff.: -0.01
					Total Outliers: 0
5334504.d	08/01/12 18:18	1,4-Dichlorobenzene-D4	179571/ 4.60	Ratio: 1.018	Diff.: 0.00
		Naphthalene-D8	634858/ 5.56	Ratio: 1.021	Diff.: 0.00
		Acenaphthalene-D10	343007/ 6.90	Ratio: 0.992	Diff.: 0.01
		Phenanthrene-D10	666652/ 8.15	Ratio: 1.043	Diff.: 0.00
		Chrysene-D12	754073/10.86	Ratio: 1.008	Diff.: -0.01
		Perylene-D12	743761/12.51	Ratio: 0.991	Diff.: -0.01
					Total Outliers: 0
5334505.d	08/01/12 18:38	1,4-Dichlorobenzene-D4	180087/ 4.60	Ratio: 1.021	Diff.: 0.00
		Naphthalene-D8	677720/ 5.56	Ratio: 1.090	Diff.: 0.00
		Acenaphthalene-D10	343480/ 6.90	Ratio: 0.994	Diff.: 0.01
		Phenanthrene-D10	667307/ 8.15	Ratio: 1.044	Diff.: 0.00
		Chrysene-D12	750062/10.86	Ratio: 1.002	Diff.: -0.01
		Perylene-D12	745054/12.51	Ratio: 0.992	Diff.: -0.01
					Total Outliers: 0
5334507.d	08/01/12 18:57	1,4-Dichlorobenzene-D4	183668/ 4.60	Ratio: 1.041	Diff.: 0.00
		Naphthalene-D8	683344/ 5.56	Ratio: 1.099	Diff.: 0.00
		Acenaphthalene-D10	346931/ 6.90	Ratio: 1.004	Diff.: 0.01
		Phenanthrene-D10	671620/ 8.15	Ratio: 1.051	Diff.: 0.00
		Chrysene-D12	760350/10.86	Ratio: 1.016	Diff.: -0.01
		Perylene-D12	755251/12.51	Ratio: 1.006	Diff.: -0.01
					Total Outliers: 0
5334508.d	08/01/12 19:16	1,4-Dichlorobenzene-D4	182929/ 4.60	Ratio: 1.037	Diff.: 0.00
		Naphthalene-D8	673386/ 5.56	Ratio: 1.083	Diff.: 0.00
		Acenaphthalene-D10	346440/ 6.90	Ratio: 1.002	Diff.: 0.01
		Phenanthrene-D10	666910/ 8.15	Ratio: 1.043	Diff.: 0.00
		Chrysene-D12	762766/10.86	Ratio: 1.019	Diff.: -0.01
		Perylene-D12	751010/12.51	Ratio: 1.000	Diff.: -0.01
					Total Outliers: 0
5334511.d	08/01/12 19:35	1,4-Dichlorobenzene-D4	187471/ 4.60	Ratio: 1.063	Diff.: 0.00
		Naphthalene-D8	693636/ 5.56	Ratio: 1.116	Diff.: 0.00
		Acenaphthalene-D10	358161/ 6.90	Ratio: 1.036	Diff.: 0.01
		Phenanthrene-D10	689548/ 8.15	Ratio: 1.079	Diff.: 0.00
		Chrysene-D12	784941/10.86	Ratio: 1.049	Diff.: -0.01
		Perylene-D12	767242/12.51	Ratio: 1.022	Diff.: -0.01
					Total Outliers: 0
5334512.d	08/01/12 19:54	1,4-Dichlorobenzene-D4	186169/ 4.60	Ratio: 1.055	Diff.: 0.00
		Naphthalene-D8	675188/ 5.56	Ratio: 1.086	Diff.: 0.00
		Acenaphthalene-D10	369549/ 6.90	Ratio: 1.069	Diff.: 0.01
		Phenanthrene-D10	697407/ 8.15	Ratio: 1.091	Diff.: 0.00
		Chrysene-D12	798917/10.86	Ratio: 1.068	Diff.: -0.01
		Perylene-D12	791872/12.51	Ratio: 1.055	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5334513.d	08/01/12 20:13	1,4-Dichlorobenzene-D4	179436/ 4.60	Ratio: 1.017	Diff.: 0.00
		Naphthalene-D8	668202/ 5.56	Ratio: 1.075	Diff.: 0.00
		Acenaphthalene-D10	345559/ 6.90	Ratio: 1.000	Diff.: 0.01
		Phenanthrene-D10	681857/ 8.15	Ratio: 1.067	Diff.: 0.00
		Chrysene-D12	773447/10.86	Ratio: 1.034	Diff.: -0.01
		Perylene-D12	748151/12.51	Ratio: 0.996	Diff.: -0.01
					Total Outliers: 0
5334514.d	08/01/12 20:32	1,4-Dichlorobenzene-D4	185694/ 4.60	Ratio: 1.053	Diff.: 0.00
		Naphthalene-D8	652836/ 5.56	Ratio: 1.050	Diff.: 0.00
		Acenaphthalene-D10	356937/ 6.89	Ratio: 1.032	Diff.: 0.00
		Phenanthrene-D10	696971/ 8.15	Ratio: 1.090	Diff.: 0.00
		Chrysene-D12	792214/10.86	Ratio: 1.059	Diff.: -0.01
		Perylene-D12	770113/12.51	Ratio: 1.026	Diff.: -0.01
					Total Outliers: 0
5334515.d	08/01/12 20:52	1,4-Dichlorobenzene-D4	186700/ 4.60	Ratio: 1.058	Diff.: 0.00
		Naphthalene-D8	702680/ 5.56	Ratio: 1.131	Diff.: 0.00
		Acenaphthalene-D10	363195/ 6.90	Ratio: 1.051	Diff.: 0.01
		Phenanthrene-D10	700318/ 8.15	Ratio: 1.096	Diff.: 0.00
		Chrysene-D12	789667/10.86	Ratio: 1.055	Diff.: -0.01
		Perylene-D12	782189/12.51	Ratio: 1.042	Diff.: -0.01
					Total Outliers: 0
5334516.d	08/01/12 21:11	1,4-Dichlorobenzene-D4	159862/ 4.60	Ratio: 0.906	Diff.: 0.00
		Naphthalene-D8	577786/ 5.56	Ratio: 0.930	Diff.: 0.00
		Acenaphthalene-D10	309461/ 6.90	Ratio: 0.895	Diff.: 0.01
		Phenanthrene-D10	593347/ 8.15	Ratio: 0.928	Diff.: 0.00
		Chrysene-D12	667351/10.86	Ratio: 0.892	Diff.: -0.01
		Perylene-D12	658052/12.51	Ratio: 0.876	Diff.: -0.01
					Total Outliers: 0
5334702.d	08/01/12 21:30	1,4-Dichlorobenzene-D4	156016/ 4.60	Ratio: 0.884	Diff.: 0.00
		Naphthalene-D8	587054/ 5.55	Ratio: 0.945	Diff.: -0.01
		Acenaphthalene-D10	300538/ 6.90	Ratio: 0.869	Diff.: 0.01
		Phenanthrene-D10	578442/ 8.15	Ratio: 0.905	Diff.: 0.00
		Chrysene-D12	652914/10.86	Ratio: 0.873	Diff.: -0.01
		Perylene-D12	635364/12.51	Ratio: 0.846	Diff.: -0.01
					Total Outliers: 0
5334506.d	08/01/12 22:08	1,4-Dichlorobenzene-D4	180001/ 4.60	Ratio: 1.020	Diff.: 0.00
		Naphthalene-D8	682138/ 5.56	Ratio: 1.098	Diff.: 0.00
		Acenaphthalene-D10	354617/ 6.90	Ratio: 1.026	Diff.: 0.01
		Phenanthrene-D10	664250/ 8.15	Ratio: 1.039	Diff.: 0.00
		Chrysene-D12	752386/10.86	Ratio: 1.006	Diff.: -0.01
		Perylene-D12	743895/12.52	Ratio: 0.991	Diff.: 0.00
					Total Outliers: 0
5334510.d	08/01/12 22:27	1,4-Dichlorobenzene-D4	192116/ 4.60	Ratio: 1.089	Diff.: 0.00
		Naphthalene-D8	675245/ 5.56	Ratio: 1.086	Diff.: 0.00
		Acenaphthalene-D10	365995/ 6.90	Ratio: 1.059	Diff.: 0.01
		Phenanthrene-D10	699434/ 8.15	Ratio: 1.094	Diff.: 0.00
		Chrysene-D12	784608/10.87	Ratio: 1.049	Diff.: 0.00
		Perylene-D12	769807/12.52	Ratio: 1.025	Diff.: 0.00
					Total Outliers: 0
5334509.d	08/01/12 22:47	1,4-Dichlorobenzene-D4	223128/ 4.60	Ratio: 1.265	Diff.: 0.00
		Naphthalene-D8	729263/ 5.56	Ratio: 1.173	Diff.: 0.00
		Acenaphthalene-D10	390435/ 6.90	Ratio: 1.129	Diff.: 0.01
		Phenanthrene-D10	768066/ 8.16	Ratio: 1.202	Diff.: 0.01
		Chrysene-D12	916401/10.87	Ratio: 1.225	Diff.: 0.00
		Perylene-D12	845617/12.52	Ratio: 1.126	Diff.: 0.00
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5326503.d	08/01/12 23:06	1,4-Dichlorobenzene-D4	217625/ 4.60	Ratio: 1.234	Diff.: 0.00
		Naphthalene-D8	699915/ 5.56	Ratio: 1.126	Diff.: 0.00
		Acenaphthalene-D10	366241/ 6.90	Ratio: 1.059	Diff.: 0.01
		Phenanthrene-D10	734177/ 8.16	Ratio: 1.149	Diff.: 0.01
		Chrysene-D12	914444/10.86	Ratio: 1.222	Diff.: -0.01
		Perylene-D12	862037/12.51	Ratio: 1.148	Diff.: -0.01
					Total Outliers: 0
5334701.d	08/01/12 23:25	1,4-Dichlorobenzene-D4	148838/ 4.60	Ratio: 0.844	Diff.: 0.00
		Naphthalene-D8	562692/ 5.56	Ratio: 0.905	Diff.: 0.00
		Acenaphthalene-D10	288370/ 6.90	Ratio: 0.834	Diff.: 0.01
		Phenanthrene-D10	539597/ 8.15	Ratio: 0.844	Diff.: 0.00
		Chrysene-D12	612511/10.86	Ratio: 0.819	Diff.: -0.01
		Perylene-D12	600152/12.51	Ratio: 0.799	Diff.: -0.01
					Total Outliers: 0
5334704.d	08/01/12 23:44	1,4-Dichlorobenzene-D4	150960/ 4.60	Ratio: 0.856	Diff.: 0.00
		Naphthalene-D8	555020/ 5.56	Ratio: 0.893	Diff.: 0.00
		Acenaphthalene-D10	308346/ 6.89	Ratio: 0.892	Diff.: 0.00
		Phenanthrene-D10	544868/ 8.15	Ratio: 0.852	Diff.: 0.00
		Chrysene-D12	615978/10.86	Ratio: 0.823	Diff.: -0.01
		Perylene-D12	569062/12.51	Ratio: 0.758	Diff.: -0.01
					Total Outliers: 0
5328602r.d	08/02/12 00:03	1,4-Dichlorobenzene-D4	195393/ 4.60	Ratio: 1.108	Diff.: 0.00
		Naphthalene-D8	705910/ 5.56	Ratio: 1.136	Diff.: 0.00
		Acenaphthalene-D10	356701/ 6.89	Ratio: 1.032	Diff.: 0.00
		Phenanthrene-D10	683387/ 8.15	Ratio: 1.069	Diff.: 0.00
		Chrysene-D12	717705/10.86	Ratio: 0.959	Diff.: -0.01
		Perylene-D12	475952/12.51	Ratio: 0.634	Diff.: -0.01
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.02
Data File: 5334502.d
Date Received: 07/26/12

Tag: SB168-(07-23-12) (6-8)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	79	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (93%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (82%)					
98904-43-9	Terphenyl-D14	Pass (105%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.03
Data File: 5334503.d
Date Received: 07/26/12

Tag: SB137-(07-23-12) (22-24)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	86	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (76%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (68%)					
98904-43-9	Terphenyl-D14	Pass (89%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.04
Data File: 5334504.d
Date Received: 07/26/12

Tag: SB136-(07-23-12) (22-24)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (89%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (76%)					
98904-43-9	Terphenyl-D14	Pass (106%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.05
Data File: 5334505.d
Date Received: 07/26/12

Tag: SB139-(07-24-12) (22-24)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	79	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (81%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (66%)					
98904-43-9	Terphenyl-D14	Pass (93%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.06
Data File: 5334506.d
Date Received: 07/26/12

Tag: SB135-(07-24-12) (2-4)
Notes: pna-s 30g/1ml df:15
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 15

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	91	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (96%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (69%)					
98904-43-9	Terphenyl-D14	Pass (120%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.07
Data File: 5334507.d
Date Received: 07/26/12

Tag: SB166-(07-24-12) (4-6)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	94	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (69%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (55%)					
98904-43-9	Terphenyl-D14	Pass (82%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.08
Data File: 5334508.d
Date Received: 07/26/12

Tag: DUP3-(07-24-12)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	88	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (76%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (61%)					
98904-43-9	Terphenyl-D14	Pass (86%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.09
Data File: 5334509.d
Date Received: 07/26/12

Tag: SB152-(07-24-12) (4-6)
Notes: pna-s 30g/1ml df:40
sd/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 40

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	700		ug/kg	08/01/12	X
208-96-8	Acenaphthylene	Not detected	700		ug/kg		X
120-12-7	Anthracene	Not detected	700		ug/kg		X
56-55-3	Benzo(a)anthracene	Not detected	700		ug/kg		X
50-32-8	Benzo(a)pyrene	Not detected	700		ug/kg		X
205-99-2	Benzo(b)fluoranthene	Not detected	700		ug/kg		X
207-08-9	Benzo(k)fluoranthene	Not detected	700		ug/kg		X
191-24-2	Benzo(ghi)perylene	Not detected	700		ug/kg		X
218-01-9	Chrysene	Not detected	700		ug/kg		X
53-70-3	Dibenzo(ah)anthracene	Not detected	700		ug/kg		X
206-44-0	Fluoranthene	Not detected	700		ug/kg		X
86-73-7	Fluorene	Not detected	700		ug/kg		X
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	700		ug/kg		X
91-20-3	Naphthalene	Not detected	700		ug/kg		X
85-01-8	Phenanthrene	Not detected	700		ug/kg		X
129-00-0	Pyrene	Not detected	700		ug/kg		X
91-57-6	2-Methylnaphthalene	Not detected	700		ug/kg		X
90-12-0	1-Methylnaphthalene	Not detected	700		ug/kg		X
Total Solids							
TSOLIDS	Total Solids	89	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (57%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (47%)					
98904-43-9	Terphenyl-D14	Pass (65%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.10
Data File: 5334510.d
Date Received: 07/26/12

Tag: SB167-(07-24-12) (2-4)
Notes: pna-s 30g/1ml df:20
sd/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 20

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	400		ug/kg	08/01/12	X
208-96-8	Acenaphthylene	Not detected	400		ug/kg		X
120-12-7	Anthracene	Not detected	400		ug/kg		X
56-55-3	Benzo(a)anthracene	Not detected	400		ug/kg		X
50-32-8	Benzo(a)pyrene	Not detected	400		ug/kg		X
205-99-2	Benzo(b)fluoranthene	Not detected	400		ug/kg		X
207-08-9	Benzo(k)fluoranthene	Not detected	400		ug/kg		X
191-24-2	Benzo(ghi)perylene	Not detected	400		ug/kg		X
218-01-9	Chrysene	Not detected	400		ug/kg		X
53-70-3	Dibenzo(ah)anthracene	Not detected	400		ug/kg		X
206-44-0	Fluoranthene	Not detected	400		ug/kg		X
86-73-7	Fluorene	Not detected	400		ug/kg		X
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	400		ug/kg		X
91-20-3	Naphthalene	Not detected	400		ug/kg		X
85-01-8	Phenanthrene	Not detected	400		ug/kg		X
129-00-0	Pyrene	Not detected	400		ug/kg		X
91-57-6	2-Methylnaphthalene	Not detected	400		ug/kg		X
90-12-0	1-Methylnaphthalene	Not detected	400		ug/kg		X
Total Solids							
TSOLIDS	Total Solids	79	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (34%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (27%)					
98904-43-9	Terphenyl-D14	Pass (40%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.11
Data File: 5334511.d
Date Received: 07/26/12

Tag: SB126-(07-25-12) (24-26)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (64%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (52%)					
98904-43-9	Terphenyl-D14	Pass (70%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.12
Data File: 5334512.d
Date Received: 07/26/12

Tag: SB153-(07-25-12) (3.5-5.5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	80	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (66%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (55%)					
98904-43-9	Terphenyl-D14	Pass (77%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.13
Data File: 5334513.d
Date Received: 07/26/12

Tag: SB107-(07-25-12) (3-5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	88	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (70%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (53%)					
98904-43-9	Terphenyl-D14	Pass (81%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.14
Data File: 5334514.d
Date Received: 07/26/12

Tag: SB111-(07-25-12) (0.5-2.5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	94	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (95%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (79%)					
98904-43-9	Terphenyl-D14	Pass (104%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.15
Data File: 5334515.d
Date Received: 07/26/12

Tag: SB110-(07-25-12) (0.5-2.5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (71%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (56%)					
98904-43-9	Terphenyl-D14	Pass (86%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

LIMS ID: S53345.16
Data File: 5334516.d
Date Received: 07/26/12

Tag: SB119-(07-26-12) (3-5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120731s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/01/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/27/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (78%)				08/01/12	
4165-60-0	Nitrobenzene-D5	Pass (66%)					
98904-43-9	Terphenyl-D14	Pass (93%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120801.1

Note/Qualifier Key

A:	TIC is a suspected aldol-condensation product
B:	Compound also found in associated method blank
C:	Analyte presence confirmed by GC/MS
D:	Identified in an analysis at a secondary dilution factor
E:	Concentration exceeds calibration range
J:	Estimated value less than reporting limit, but greater than MDL
N:	Presumptive evidence of TIC
P:	Pesticide/Aroclor 2-column RPD exceeds limit
U:	Analyte not detected above reporting limit
!:	Result is outside of stated limit criteria
F:	Analysis run outside of holding time
G:	Estimated result due to extraction run outside of holding time
H:	Sample submitted and run outside of holding time
I:	Matrix interference with internal standard
K:	Elevated reporting limit due to low total solids
L:	Elevated reporting limit due to low sample amount
M:	Result reported to MDL not RDL
O:	Analysis performed by outside laboratory. See attached report.
Q:	Reported result represents most abundant aroclor
R:	Preliminary result
S:	Surrogate recovery outside of control limits
T:	No correction for total solids
V:	Accurate value not available due to presence of multiple aroclors
W:	Surrogate result not applicable due to sample dilution
X:	Elevated reporting limit due to matrix interference
Y:	Elevated reporting limit due to high target concentration
Z:	Estimated result due to matrix interference
p:	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*:	Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334502.d Vial: 11
Acq On : 1 Aug 12 5:40 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:02 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

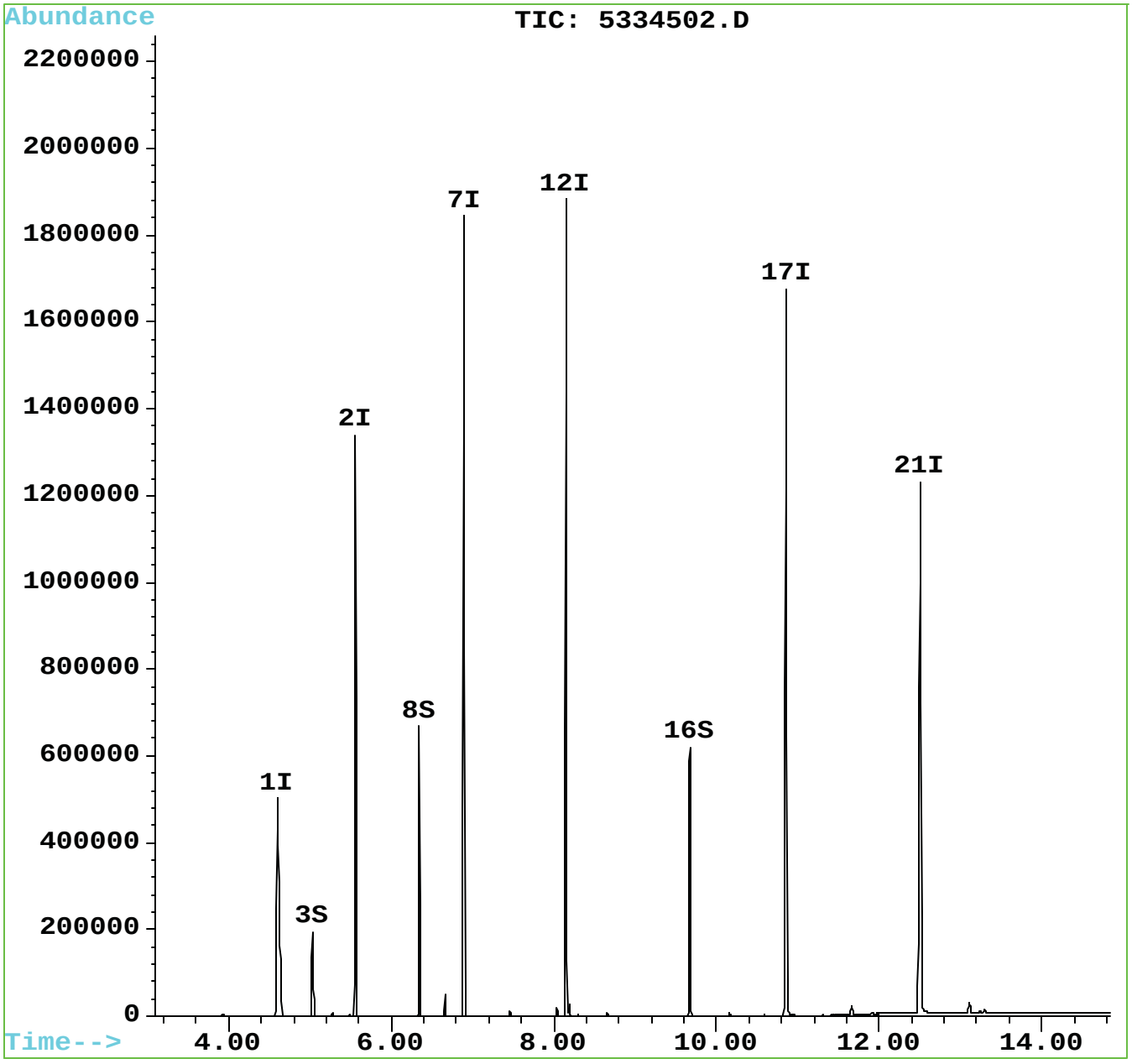
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	181965	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	659621	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	356381	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	683824	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	777591	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	753640	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	74975	82.37	ng/ul	82.3
8) 2-Fluorobiphenyl	6.34	172	166254	92.72	ng/ul	92.7
16) Terphenyl-D14	9.68	244	231832	105.28	ng/ul	105.2
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334502.d Vial: 11
Acq On : 1 Aug 12 5:40 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:02 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334503.d Vial: 12
Acq On : 1 Aug 12 5:59 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:02 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

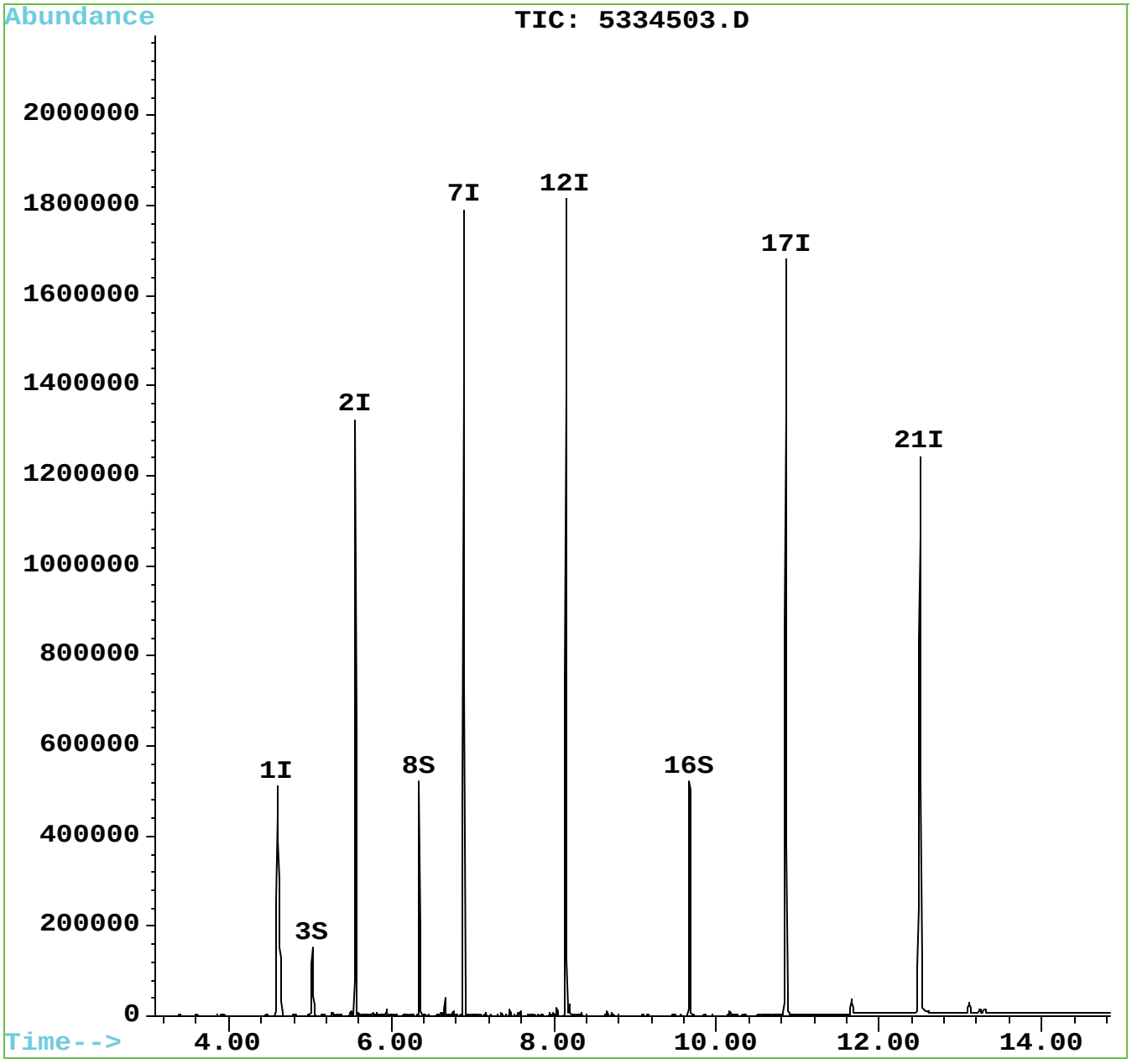
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	181379	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	630387	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	348260	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	682294	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	764947	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	757309	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	58846	67.65	ng/ul	67.6
8) 2-Fluorobiphenyl	6.34	172	133414	76.14	ng/ul	76.1
16) Terphenyl-D14	9.68	244	195476	88.97	ng/ul	88.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334503.d Vial: 12
Acq On : 1 Aug 12 5:59 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:02 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334504.d Vial: 13
Acq On : 1 Aug 12 6:18 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:02 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

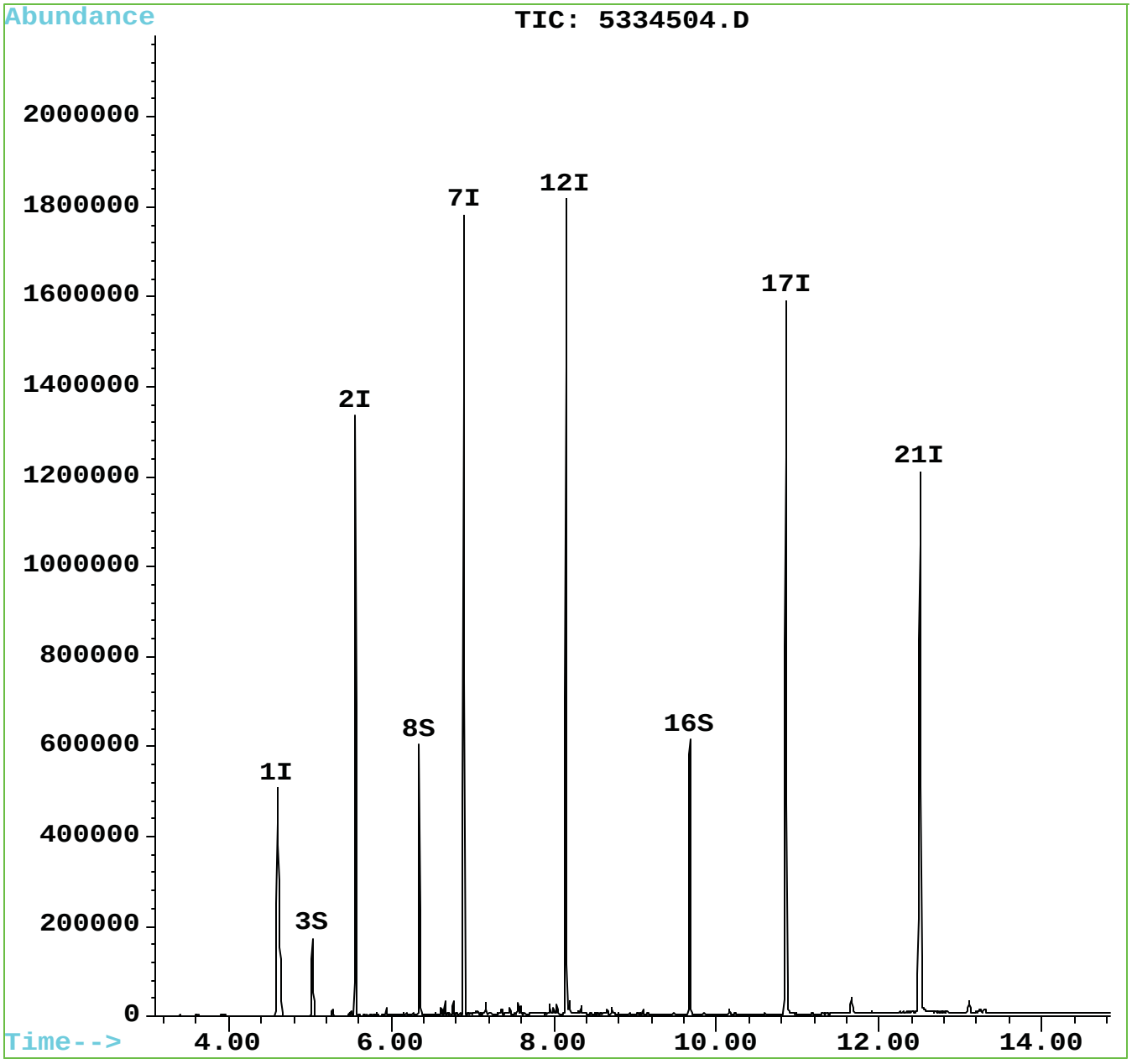
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	179571	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	634858	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	343007	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	666652	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	754073	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	743761	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	66129	75.49	ng/ul	75.4
8) 2-Fluorobiphenyl	6.34	172	153767	89.10	ng/ul	89.1
16) Terphenyl-D14	9.68	244	226906	105.70	ng/ul	105.7
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334504.d Vial: 13
Acq On : 1 Aug 12 6:18 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:02 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334505.d Vial: 14
Acq On : 1 Aug 12 6:38 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

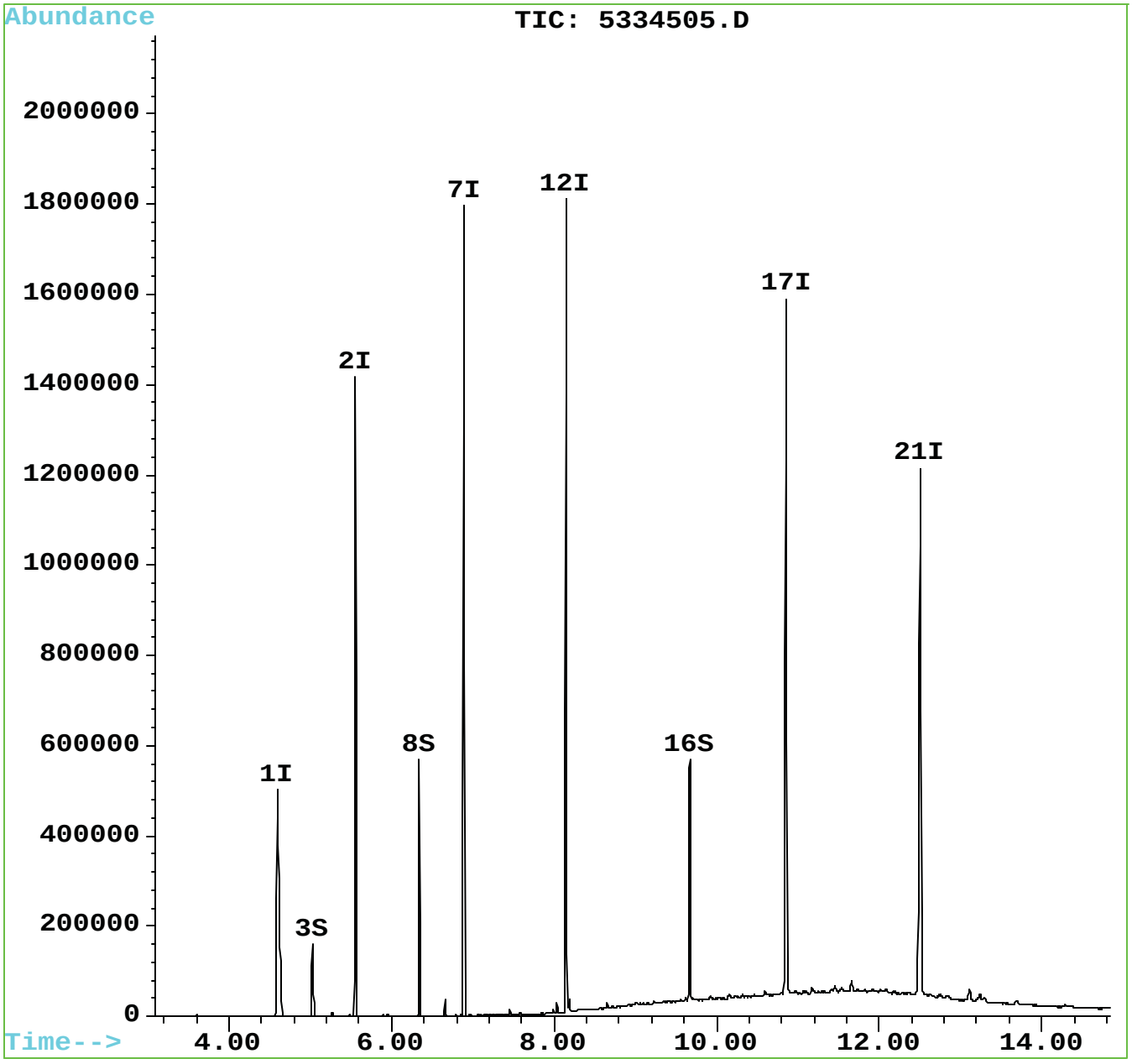
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	180087	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	677720	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	343480	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	667307	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	750062	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	745054	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	62038	66.34	ng/ul	66.3
8) 2-Fluorobiphenyl	6.34	172	140532	81.32	ng/ul	81.3
16) Terphenyl-D14	9.68	244	199644	92.91	ng/ul	92.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334505.d Vial: 14
Acq On : 1 Aug 12 6:38 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334506.d Vial: 15
Acq On : 1 Aug 12 10:08 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

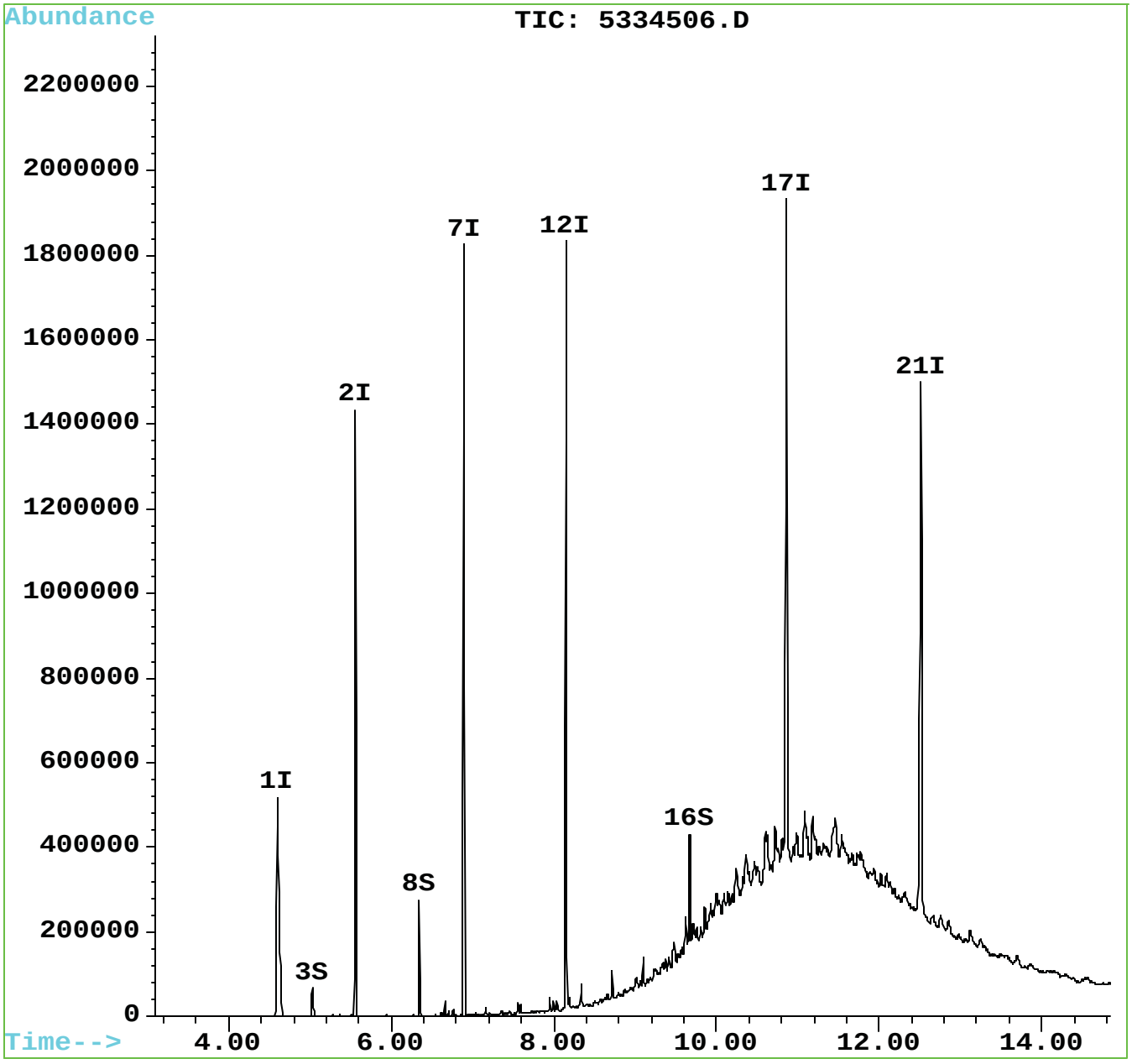
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	180001	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	682138	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	354617	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	664250	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	752386	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	743895	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	25888	27.50	ng/ul	27.5
8) 2-Fluorobiphenyl	6.34	172	68687	38.50	ng/ul	38.5
16) Terphenyl-D14	9.68	244	102546	47.94	ng/ul	47.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334506.d Vial: 15
Acq On : 1 Aug 12 10:08 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334507.d Vial: 16
Acq On : 1 Aug 12 6:57 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

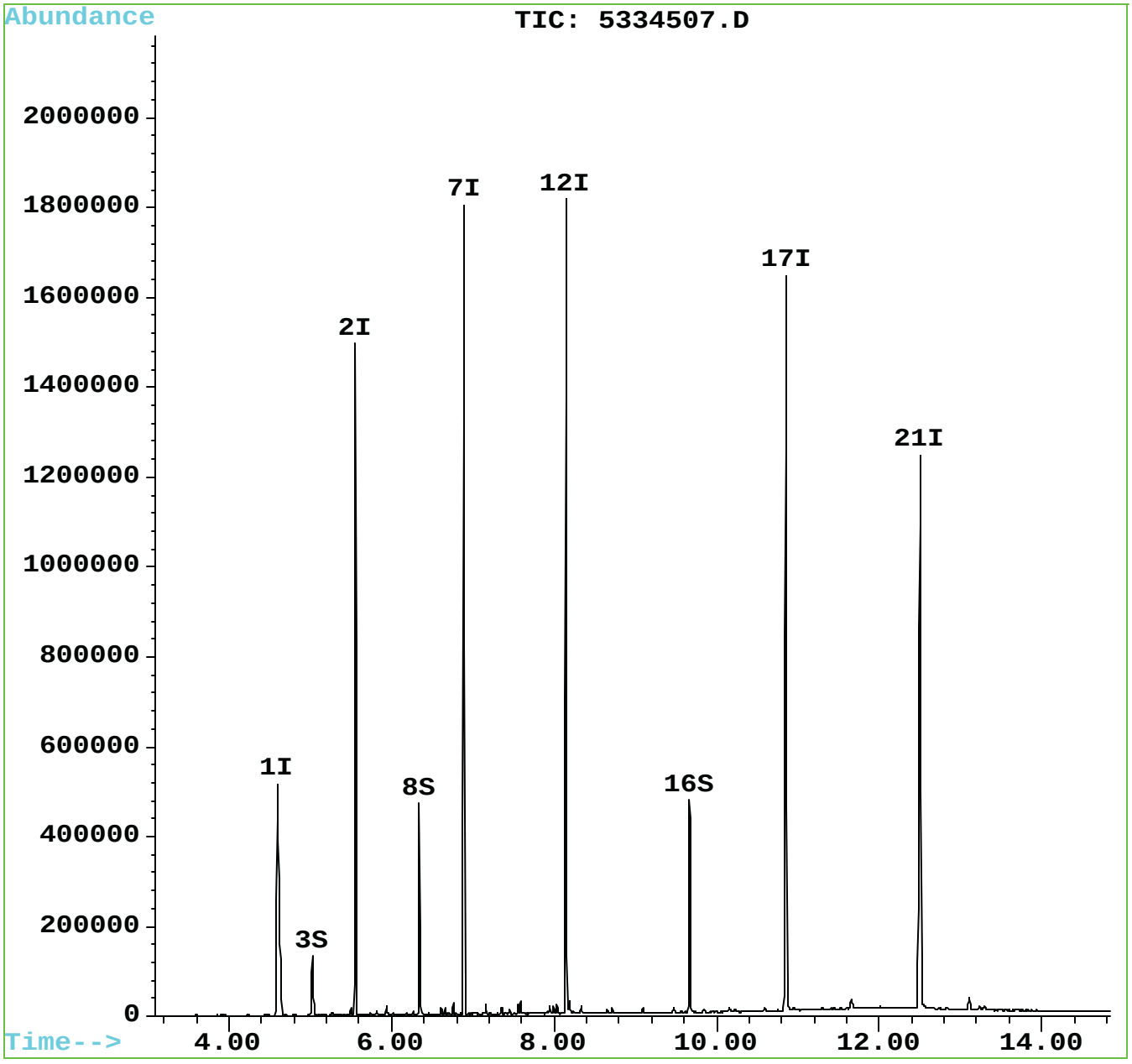
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	183668	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	683344	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	346931	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	671620	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	760350	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	755251	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	51513	54.63	ng/ul	54.6
8) 2-Fluorobiphenyl	6.34	172	121126	69.39	ng/ul	69.3
16) Terphenyl-D14	9.67	244	176944	81.81	ng/ul	81.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334507.d Vial: 16
Acq On : 1 Aug 12 6:57 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334508.d Vial: 17
Acq On : 1 Aug 12 7:16 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

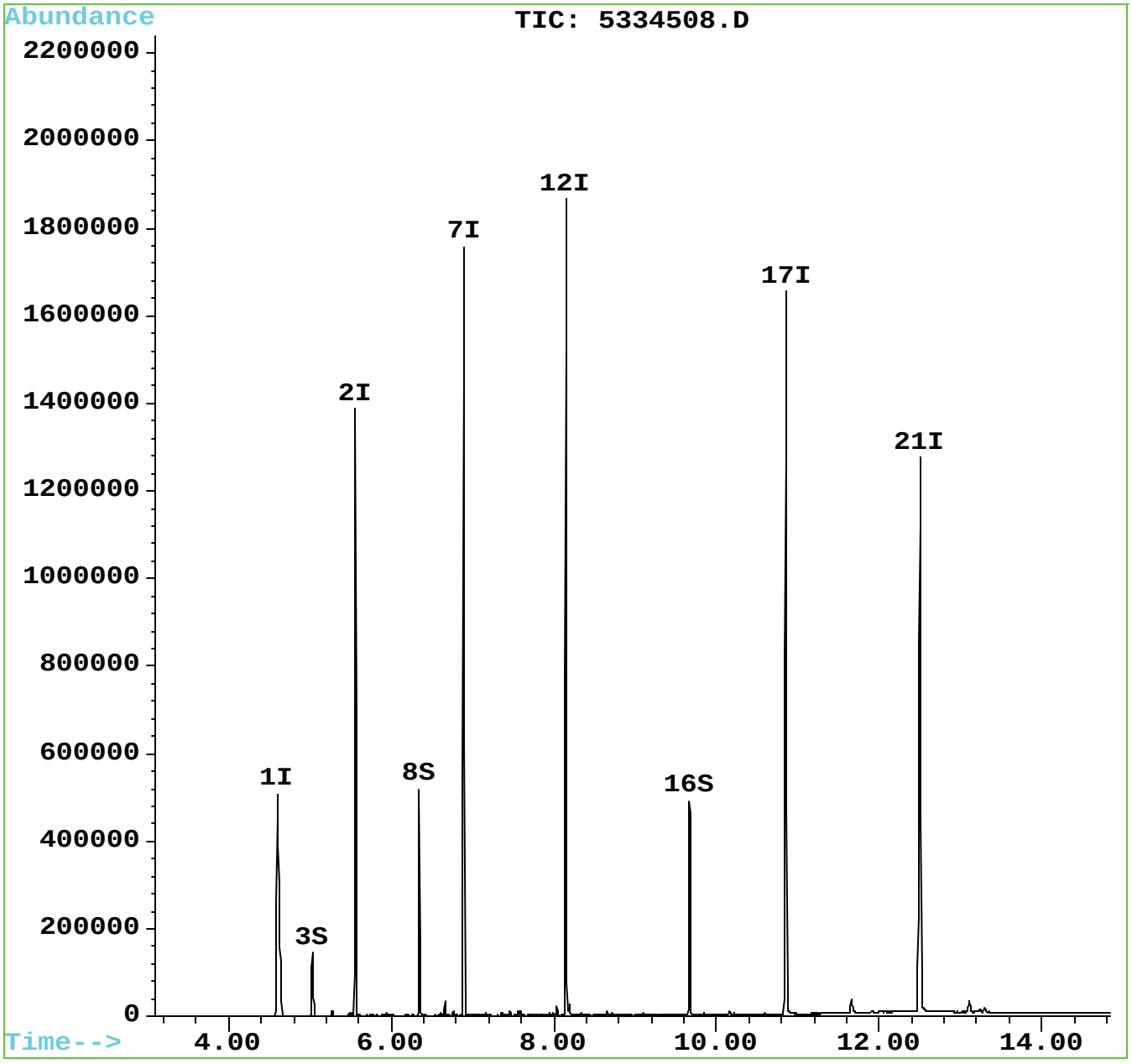
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	182929	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	673386	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	346440	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	666910	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	762766	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	751010	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	56258	60.55	ng/ul	60.5
8) 2-Fluorobiphenyl	6.34	172	132317	75.91	ng/ul	75.9
16) Terphenyl-D14	9.67	244	184590	85.95	ng/ul	85.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334508.d Vial: 17
Acq On : 1 Aug 12 7:16 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334509.d Vial: 18
Acq On : 1 Aug 12 10:47 pm Operator: PL
Sample : pna-s 30g/1ml df:40 Inst : Hades
Misc : sd/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

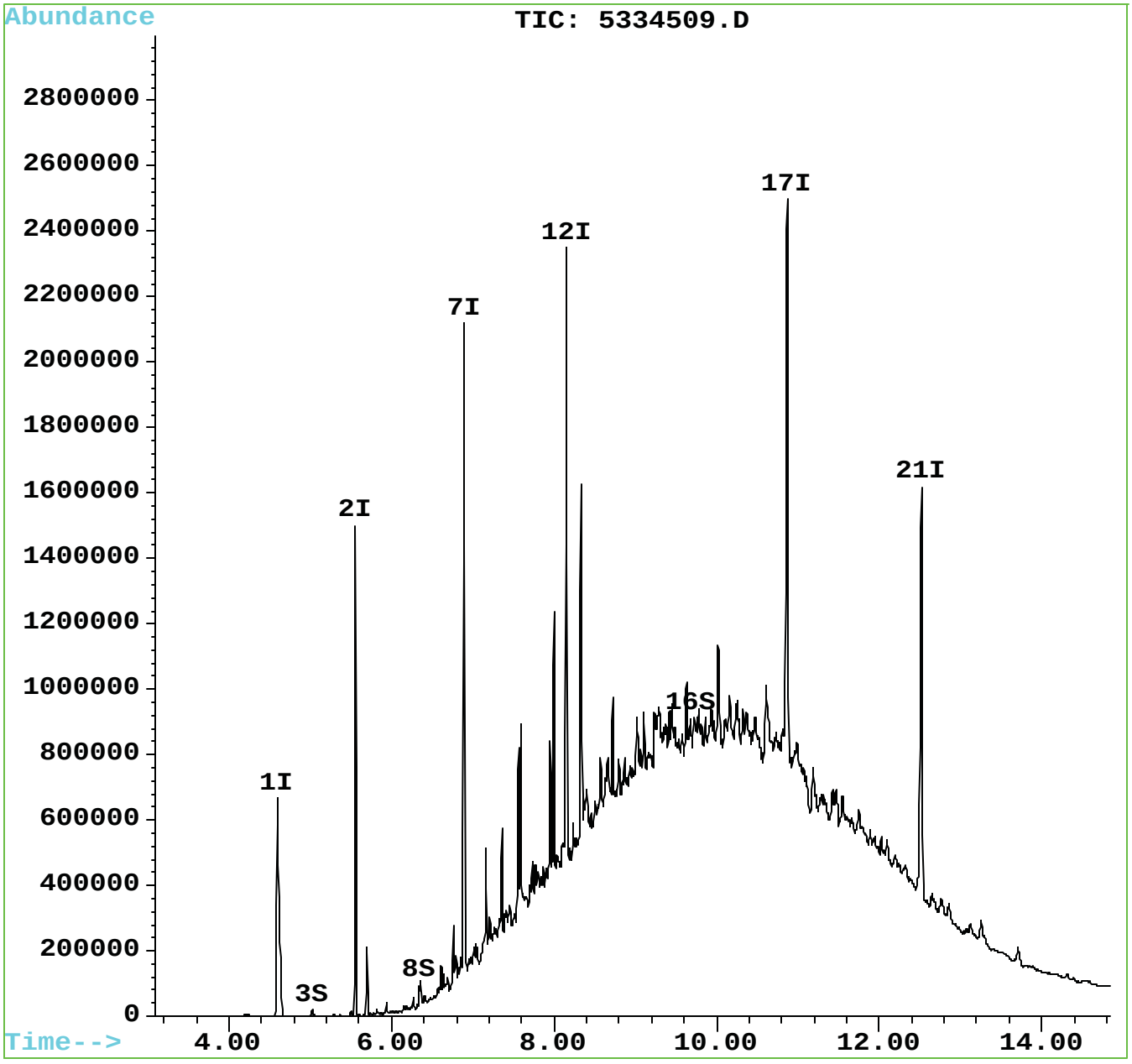
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	223128	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	729263	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	390435	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	768066	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	916401	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	845617	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	7143	7.10	ng/ul	7.1
8) 2-Fluorobiphenyl	6.34	172	16651	8.48	ng/ul	8.4
16) Terphenyl-D14	9.68	244	24190	9.78	ng/ul	9.7
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334509.d Vial: 18
Acq On : 1 Aug 12 10:47 pm Operator: PL
Sample : pna-s 30g/1ml df:40 Inst : Hades
Misc : sd/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334510.d Vial: 19
Acq On : 1 Aug 12 10:27 pm Operator: PL
Sample : pna-s 30g/1ml df:20 Inst : Hades
Misc : sd/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:04 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

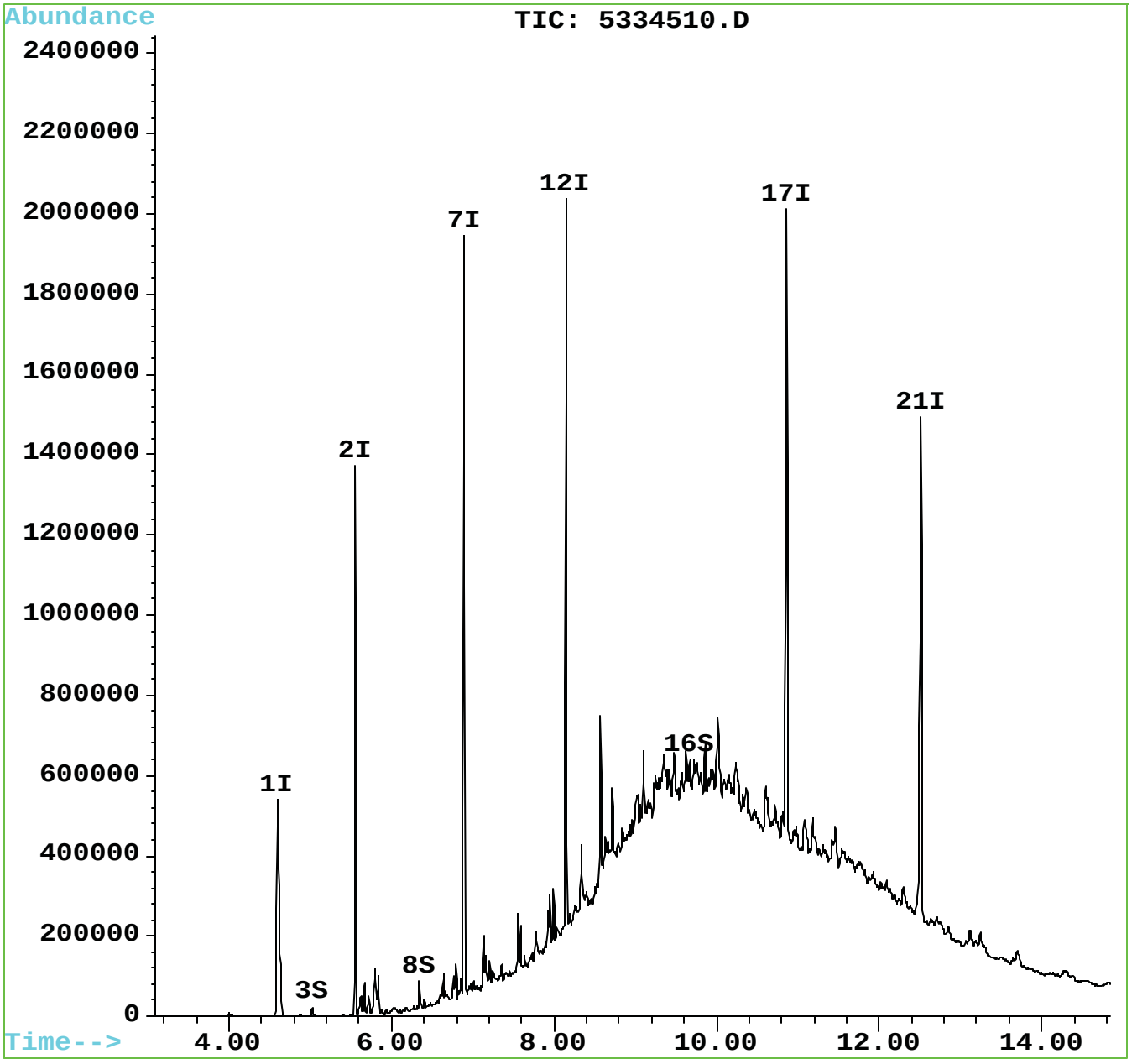
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	192116	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	675245	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	365995	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	699434	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	784608	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	769807	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	7463	8.01	ng/ul	8.0
8) 2-Fluorobiphenyl	6.34	172	18506	10.05	ng/ul	10.0
16) Terphenyl-D14	9.68	244	26841	11.92	ng/ul	11.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334510.d Vial: 19
Acq On : 1 Aug 12 10:27 pm Operator: PL
Sample : pna-s 30g/1ml df:20 Inst : Hades
Misc : sd/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:04 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334511.d Vial: 20
Acq On : 1 Aug 12 7:35 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:04 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

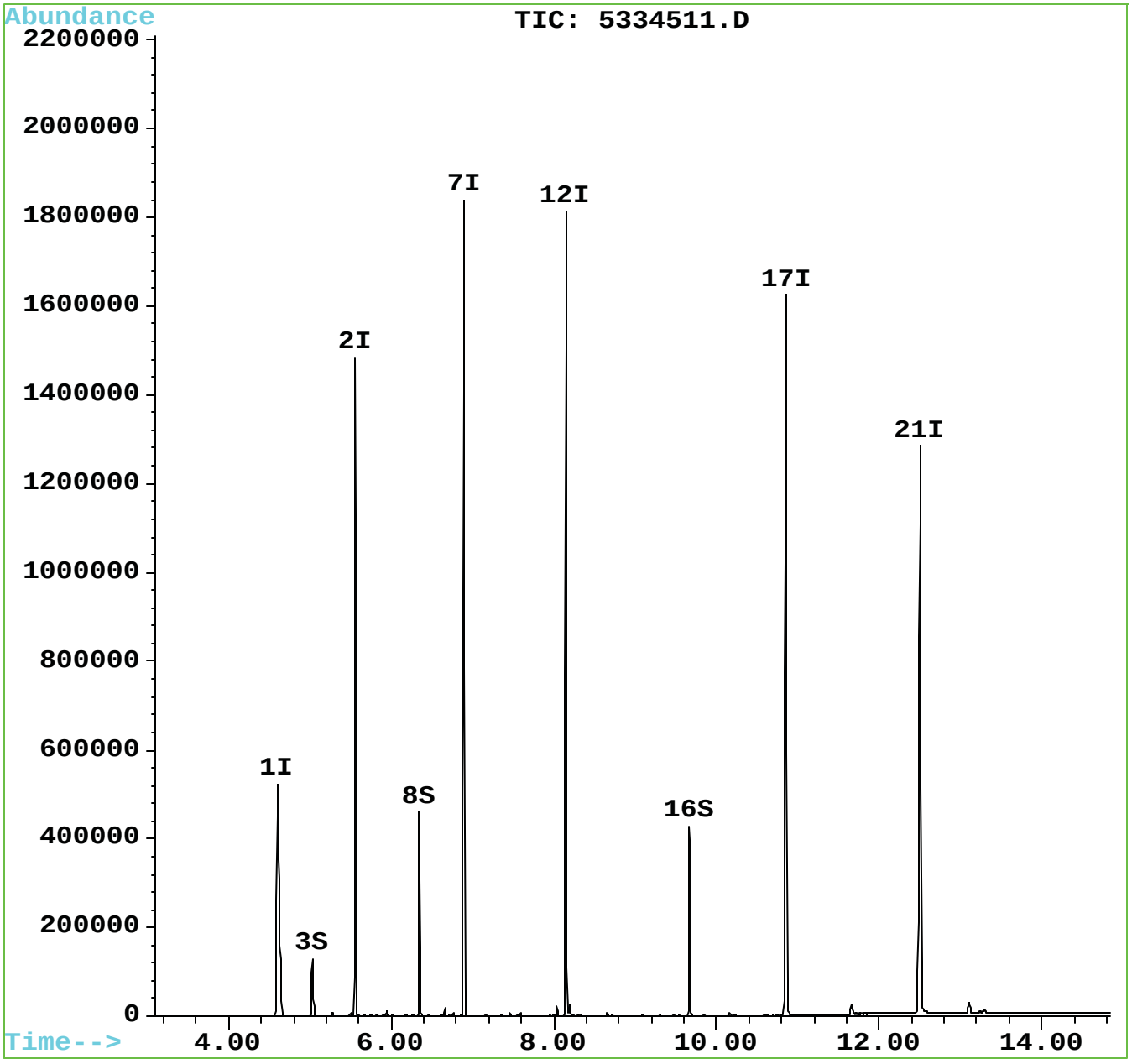
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	187471	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	693636	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	358161	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	689548	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	784941	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	767242	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	49678	51.90	ng/ul	51.9
8) 2-Fluorobiphenyl	6.34	172	115237	63.95	ng/ul	63.9
16) Terphenyl-D14	9.67	244	155120	69.86	ng/ul	69.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334511.d Vial: 20
Acq On : 1 Aug 12 7:35 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:04 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334512.d Vial: 21
Acq On : 1 Aug 12 7:54 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:04 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

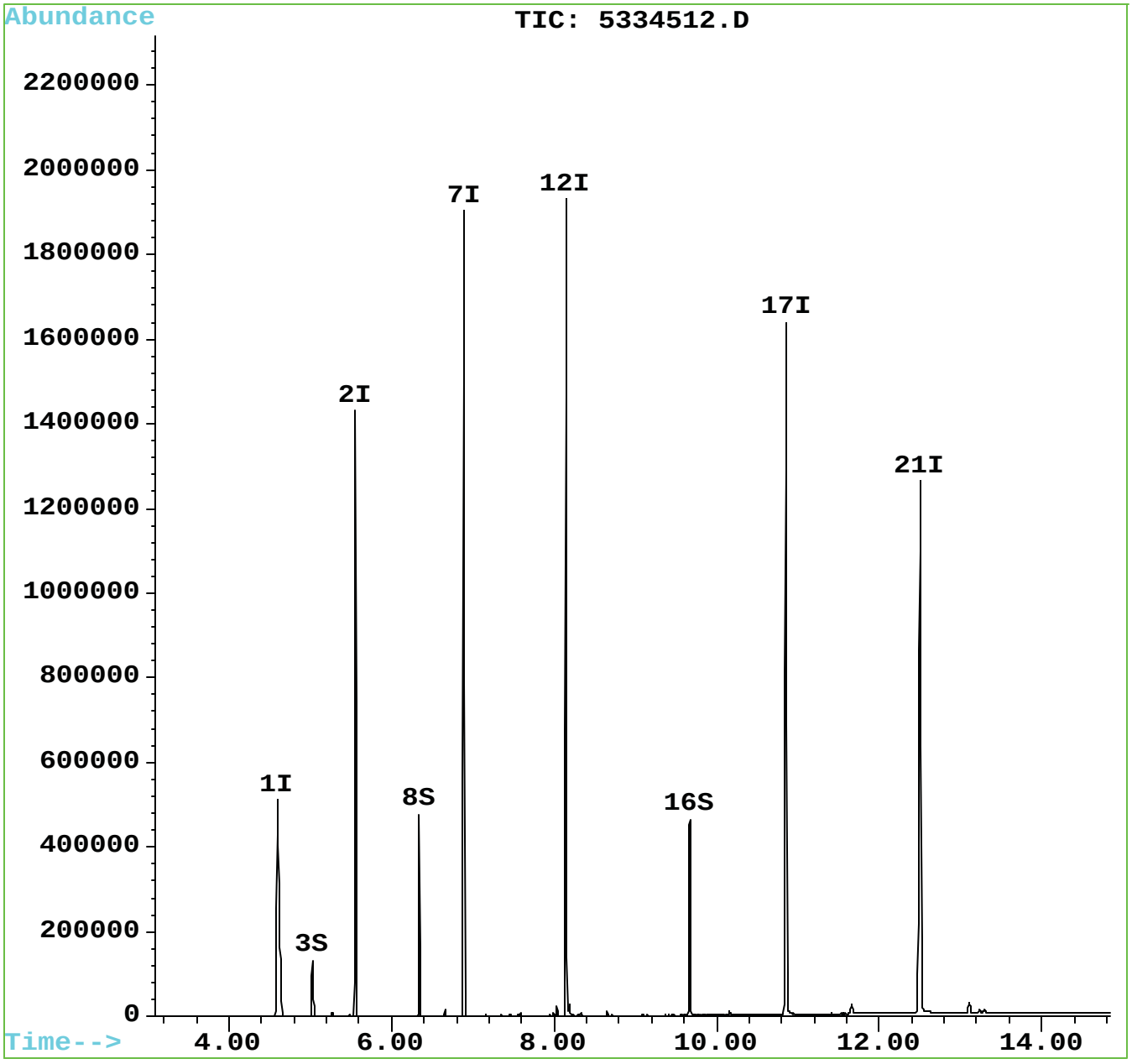
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	186169	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	675188	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	369549	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	697407	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	798917	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	791872	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	51260	55.02	ng/ul	55.0
8) 2-Fluorobiphenyl	6.34	172	121776	65.50	ng/ul	65.5
16) Terphenyl-D14	9.68	244	173449	77.23	ng/ul	77.2
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334512.d Vial: 21
Acq On : 1 Aug 12 7:54 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:04 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334513.d Vial: 22
Acq On : 1 Aug 12 8:13 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:04 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

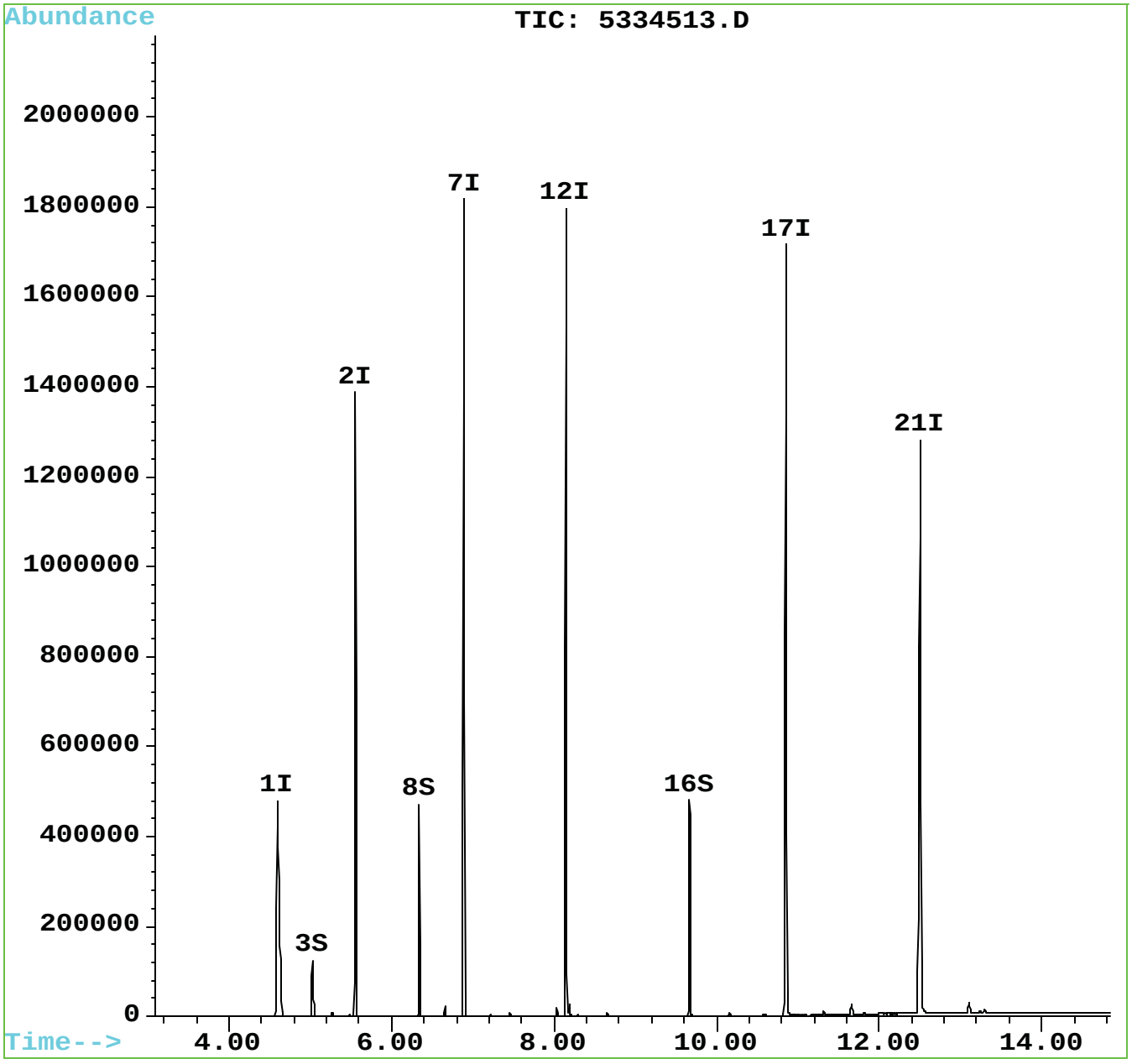
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	179436	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	668202	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	345559	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	681857	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	773447	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	748151	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	49036	53.18	ng/ul	53.1
8) 2-Fluorobiphenyl	6.34	172	120915	69.55	ng/ul	69.5
16) Terphenyl-D14	9.67	244	177824	80.99	ng/ul	80.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334513.d Vial: 22
Acq On : 1 Aug 12 8:13 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:04 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334514.d Vial: 23
Acq On : 1 Aug 12 8:32 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:05 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

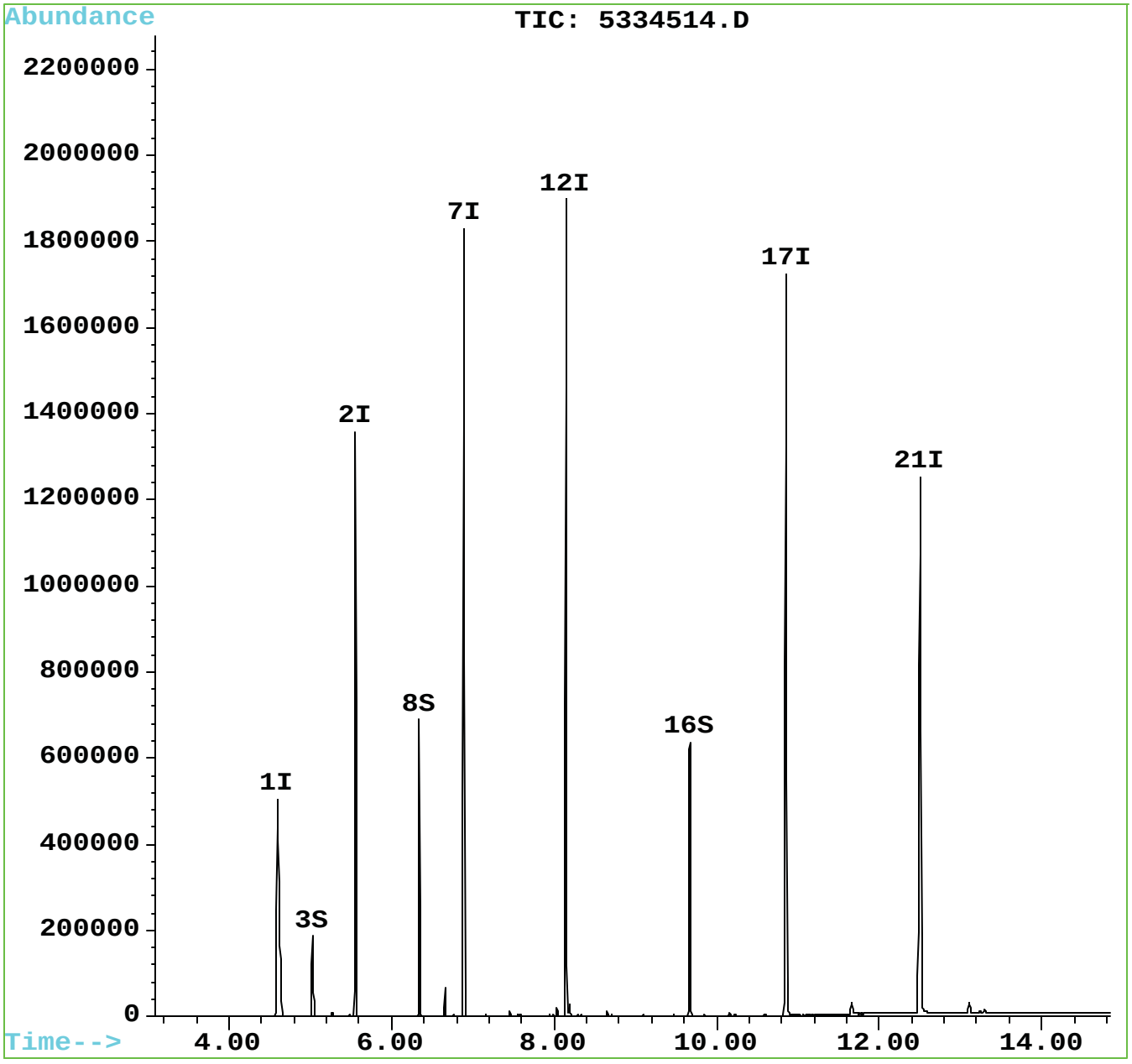
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	185694	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	652836	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.89	164	356937	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	696971	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	792214	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	770113	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	71107	78.94	ng/ul	78.9
8) 2-Fluorobiphenyl	6.34	172	169659	94.47	ng/ul	94.4
16) Terphenyl-D14	9.68	244	233176	103.89	ng/ul	103.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334514.d Vial: 23
Acq On : 1 Aug 12 8:32 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:05 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334515.d Vial: 24
Acq On : 1 Aug 12 8:52 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:05 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

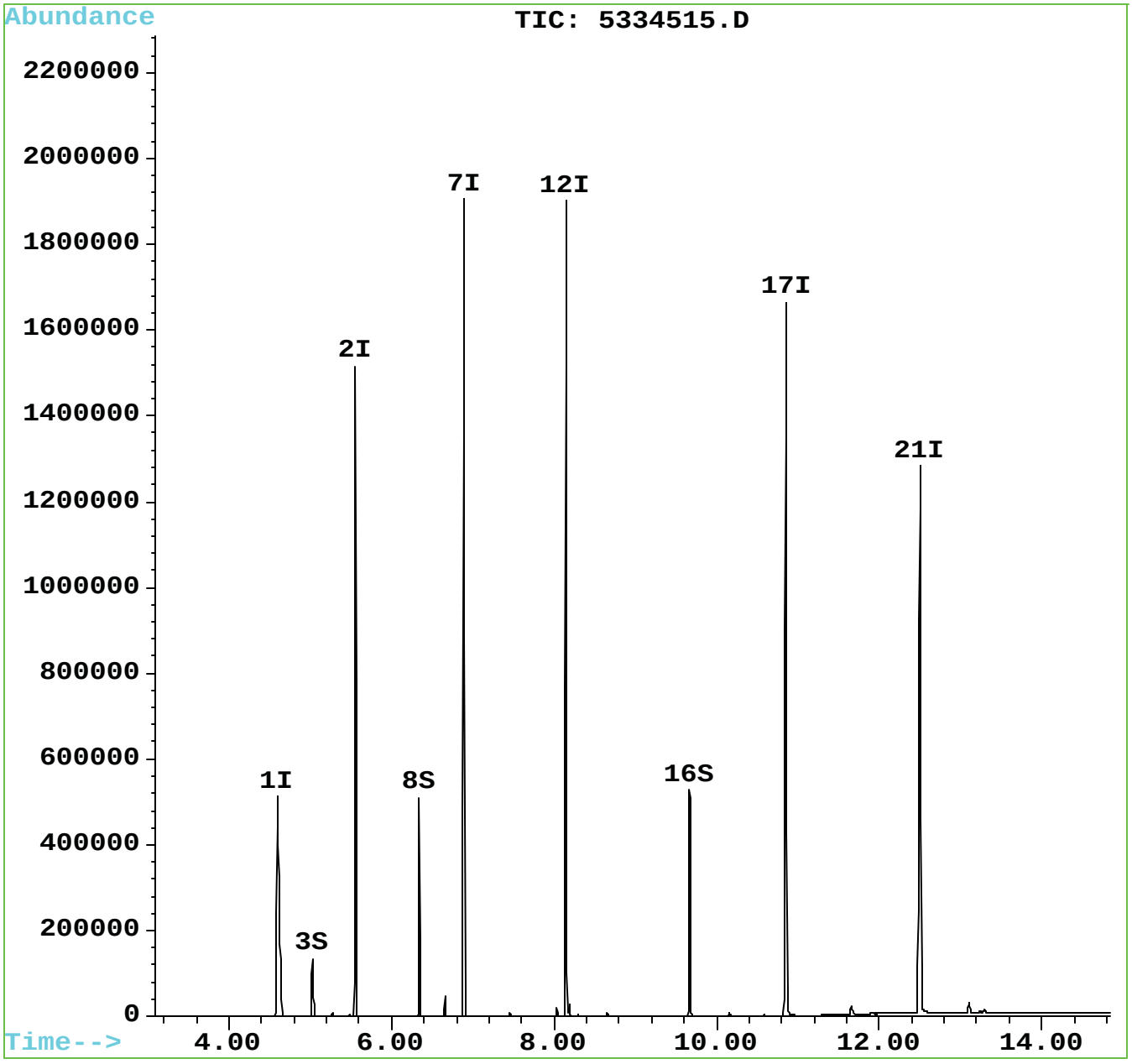
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	186700	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	702680	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	363195	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	700318	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	789667	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	782189	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	54143	55.84	ng/ul	55.8
8) 2-Fluorobiphenyl	6.34	172	130427	71.38	ng/ul	71.3
16) Terphenyl-D14	9.68	244	194682	86.33	ng/ul	86.3
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334515.d Vial: 24
Acq On : 1 Aug 12 8:52 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:05 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334516.d Vial: 25
Acq On : 1 Aug 12 9:11 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:05 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

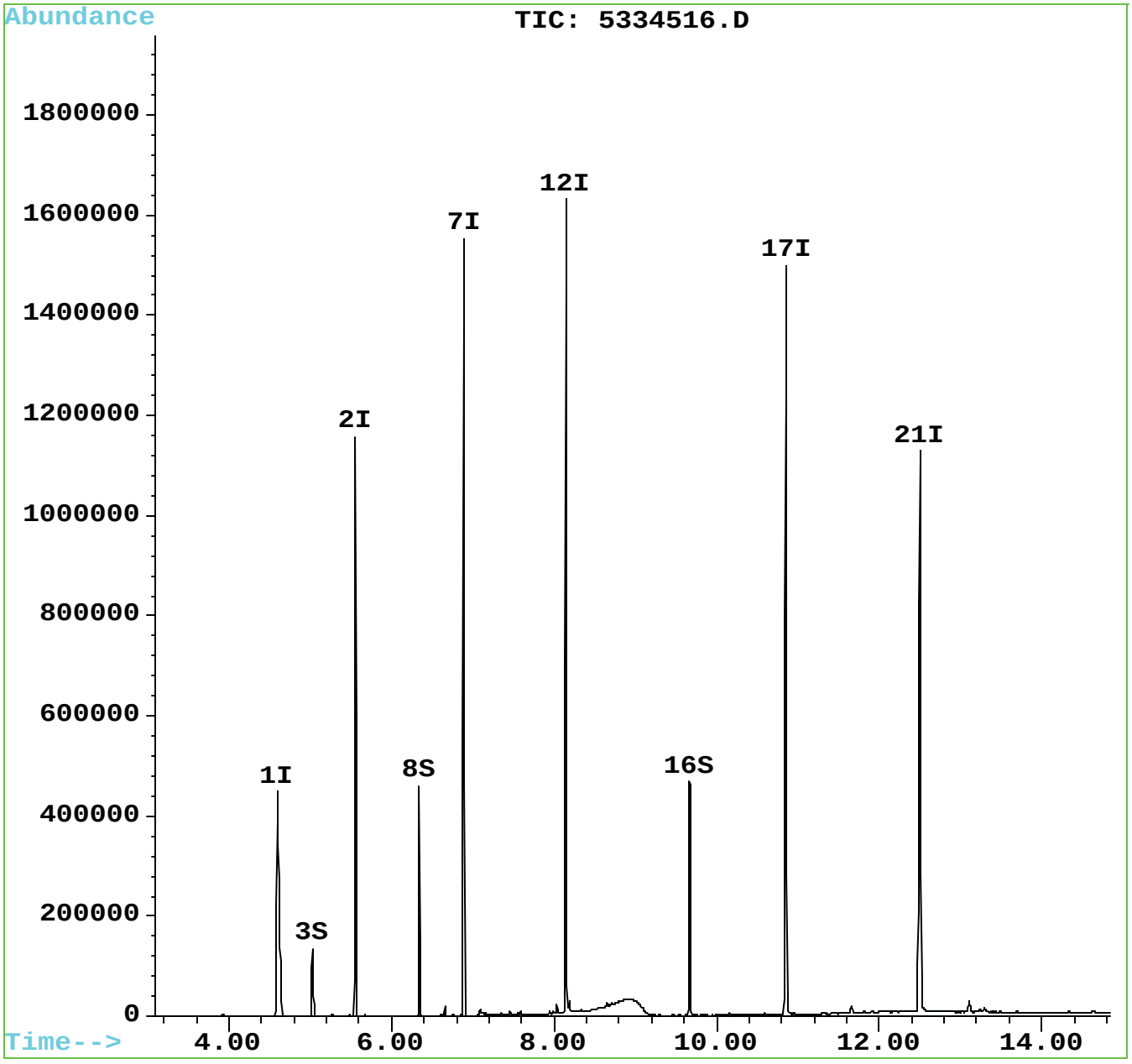
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	159862	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	577786	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	309461	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	593347	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	667351	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	658052	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	52340	65.65	ng/ul	65.6
8) 2-Fluorobiphenyl	6.34	172	121143	77.81	ng/ul	77.8
16) Terphenyl-D14	9.68	244	177311	92.80	ng/ul	92.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\5334516.d Vial: 25
Acq On : 1 Aug 12 9:11 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:05 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120711h.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	LO	0.308	15.60	0.212	0.312	0.325	0.339	0.335	0.327	1.00	0.00	0.331	0.00
	Naphthalene	A	0.916	14.44	1.118	1.006	0.929	0.876	0.818	0.751				
	2-Methylnaphthalene	A	0.510	12.37	0.575	0.576	0.532	0.495	0.462	0.419				
	1-Methylnaphthalene	A	0.586	14.31	0.687	0.668	0.605	0.563	0.517	0.474				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.208	14.12	1.404	1.375	1.247	1.176	1.080	0.963				
	Acenaphthylene	A	1.640	11.82	1.730	1.907	1.722	1.628	1.494	1.357				
	Acenaphthene **	QO	0.967	15.55	1.144	1.118	1.003	0.926	0.849	0.762	1.00	0.00	1.177	-0.17
	Fluorene	A	1.191	12.73	1.323	1.367	1.244	1.166	1.076	0.968				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	QO	0.961	15.48	1.175	1.086	0.969	0.911	0.854	0.773	1.00	0.00	1.124	-0.14
	Anthracene	A	0.954	12.20	1.043	1.110	0.989	0.918	0.874	0.791				
	Fluoranthene	A	1.063	9.22	1.059	1.215	1.113	1.061	1.003	0.926				
	Terphenyl-D14	A	0.773	7.88	0.762	0.862	0.806	0.780	0.750	0.679				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	0.945	9.38	0.982	1.072	0.981	0.937	0.876	0.820				
	Benzo(a)anthracene	A	0.928	6.44	0.918	1.017	0.963	0.933	0.896	0.841				
	Chrysene	A	0.895	10.11	0.998	0.989	0.914	0.875	0.822	0.771				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	0.965	6.13	0.907	1.039	0.978	0.997	0.985	0.881				
	Benzo(k)fluoranthene	A	0.904	9.08	0.766	0.985	0.978	0.939	0.875	0.881				
	Benzo(a)pyrene	A	0.834	10.68	0.658	0.887	0.873	0.892	0.864	0.827				
	Indeno(1,2,3-cd)pyrene	A	1.031	11.22	0.798	1.065	1.073	1.106	1.091	1.055				
	Dibenzo(ah)anthracene	A	0.845	11.68	0.646	0.889	0.882	0.903	0.893	0.857				
	Benzo(ghi)perylene	A	0.847	9.66	0.684	0.856	0.871	0.905	0.894	0.873				

Calibration Date: 71/1h/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120711h.M (Mean %RSD: 11.43)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\hades.6\methods\p120711h.m\

Injection Time	Calibration Data File
07/11/12 15:02	d11a.d
07/11/12 15:25	pna0005.d
07/11/12 16:23	pna_020.d
07/11/12 16:42	pna_040.d
07/11/12 17:01	pna_050.d
07/11/12 17:20	pna_060.d
07/11/12 17:39	pna_080.d
07/11/12 17:58	pna_100.d
07/17/12 10:59	d17a.d
07/17/12 11:50	icv17a.d

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d11a.d Vial: 1
Acq On : 11 Jul 12 3:02 pm Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

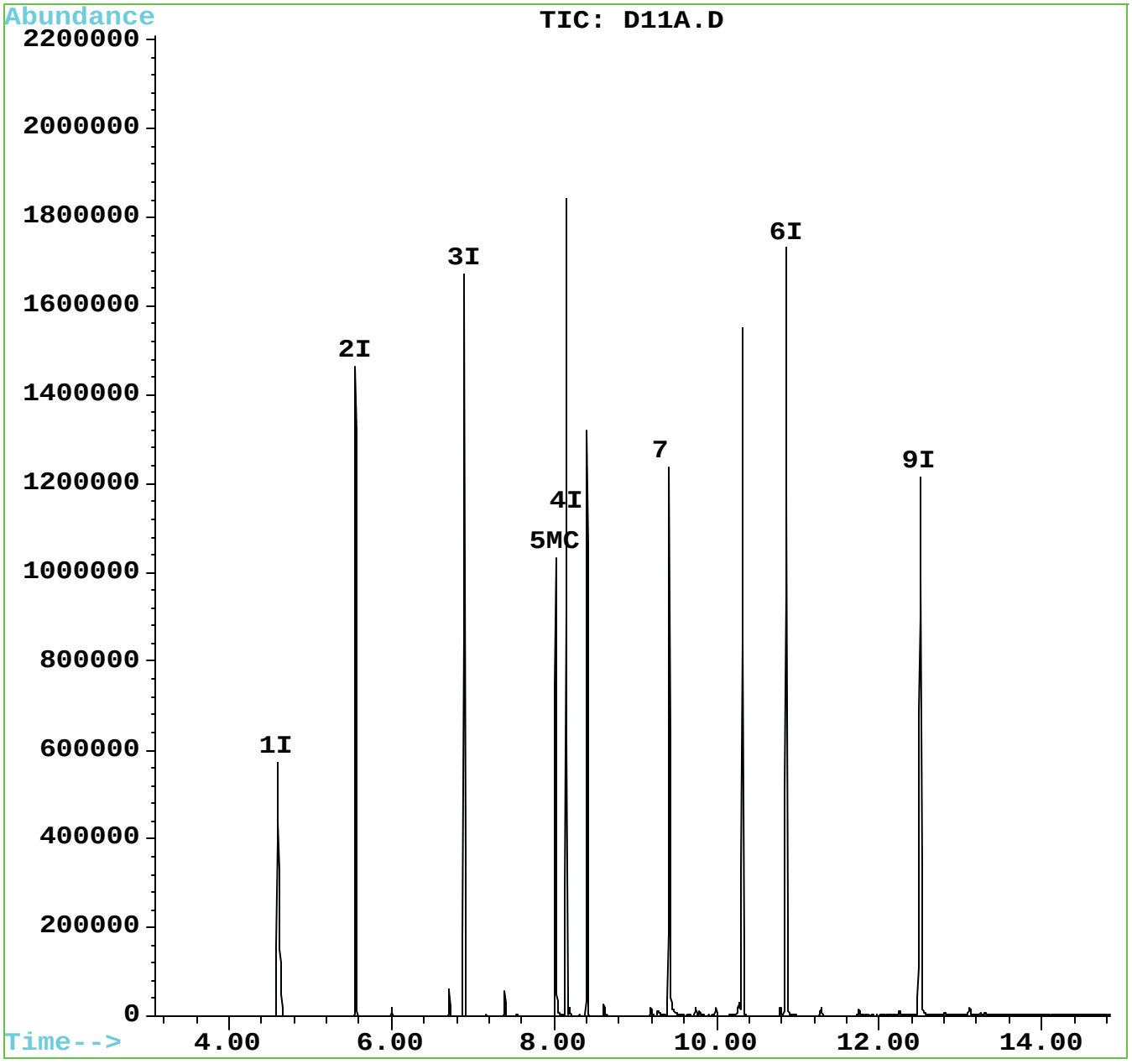
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	180364	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.56	136	646142	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	6.90	160	157761	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.16	188	665216	40.00	ng/ul	-0.0
6) CHRYSENE-D12	10.86	240	743367	40.00	ng/ul	-0.1
9) PERYLENE-D12	12.51	264	735374	40.00	ng/ul	-0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.02	266	108304	45.96	ng/ul	10
7) Benzidine	9.42	184	522196	66.26	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d11a.d Vial: 1
Acq On : 11 Jul 12 3:02 pm Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 11:03 19112

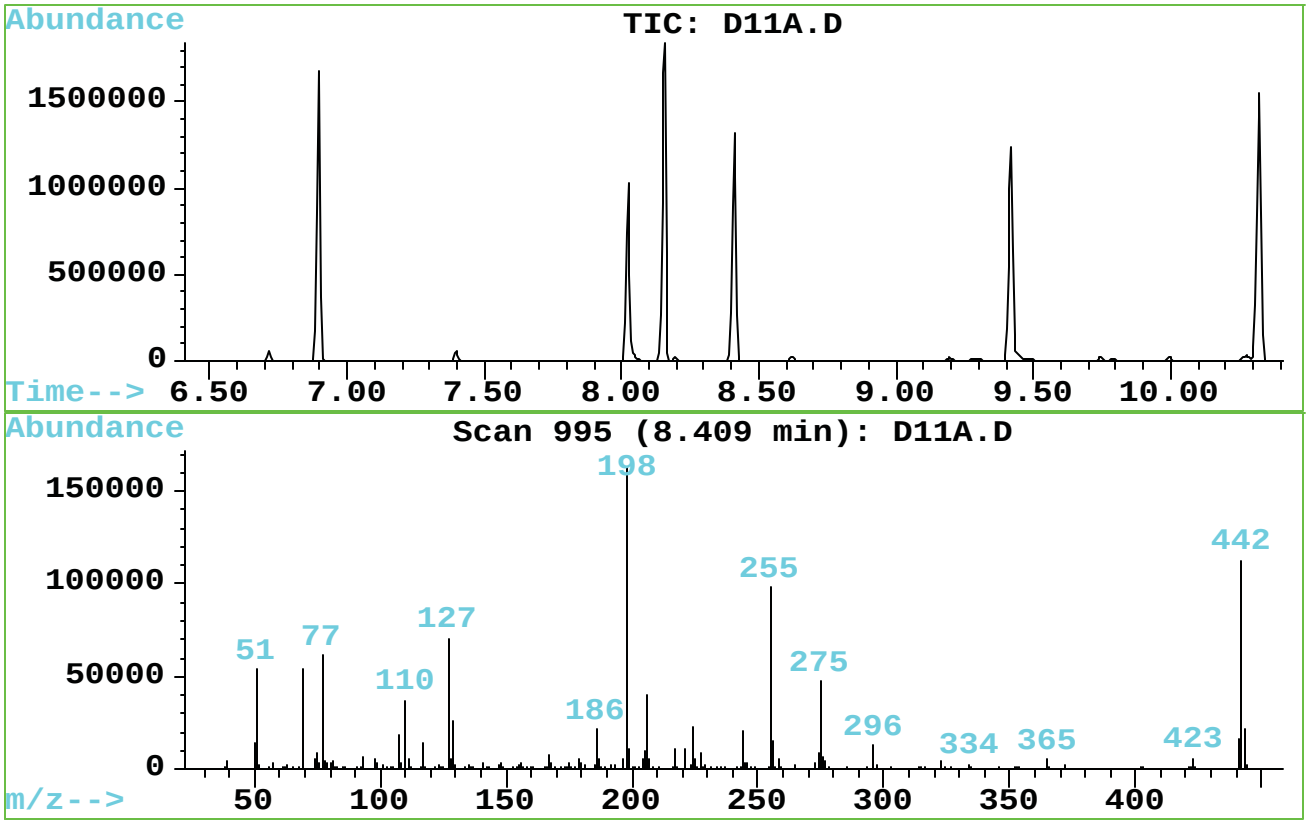
Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M\D11A.D Vial: 1
Acq On : 11 Jul 12 3:02 pm Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270



Peak Apex is scan: 995

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	32.8	53688	PASS
68	69	0	2	1.6	869	PASS
69	198	0	100	33.1	54144	PASS
70	69	0	2	0.5	284	PASS
127	198	25	75	43.0	70312	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	163584	PASS
199	198	5	9	6.9	11333	PASS
275	198	10	30	29.0	47488	PASS
365	198	1	100	3.2	5178	PASS
441	443	0	100	75.3	16632	PASS
442	198	40	110	68.8	112528	PASS
443	442	15	24	19.6	22096	PASS

D11A.D P120711H.M Fri Jul 20 12:21:55 2012

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna0005.d Vial: 2
Acq On : 11 Jul 12 3:25 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:29 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

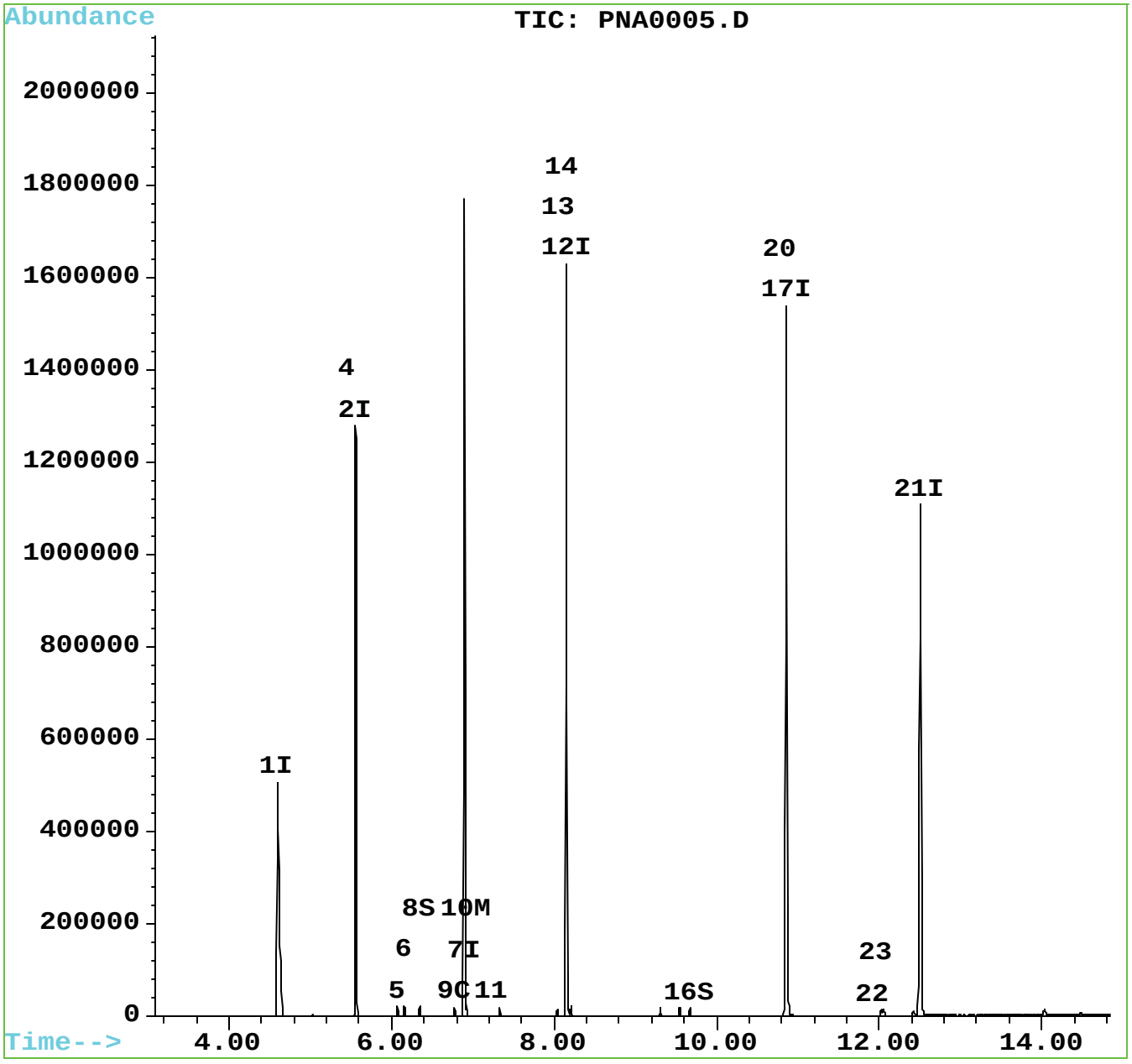
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	167893	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	585690	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	320029	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	584712	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	654856	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	640268	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	1551	1.38	ng/ul	1.3
8) 2-Fluorobiphenyl	6.35	172	5615	2.58	ng/ul	2.5
16) Terphenyl-D14	9.68	244	5566	2.85	ng/ul	2.8
Target Compounds						Qvalu
4) Naphthalene	5.57	128	8187	1.18	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	4211	0.56	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	5031	0.41	ng/ul	9
9) Acenaphthylene	6.78	152	6919	0.42	ng/ul	9
10) Acenaphthene **	6.92	154	4576	0.91	ng/ul	9
11) Fluorene	7.33	166	5292	0.53	ng/ul	9
13) Phenanthrene	8.17	178	8589	0.91	ng/ul	9
14) Anthracene	8.21	178	7623	0.83	ng/ul	9
20) Chrysene	10.89	228	8166	0.54	ng/ul	9
22) Benzo(b)fluoranthene	12.03	252	7262	0.64	ng/ul	9
23) Benzo(k)fluoranthene	12.06	252	6132	3.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna0005.d Vial: 2
Acq On : 11 Jul 12 3:25 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:29 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_020.d Vial: 5
Acq On : 11 Jul 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:30 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

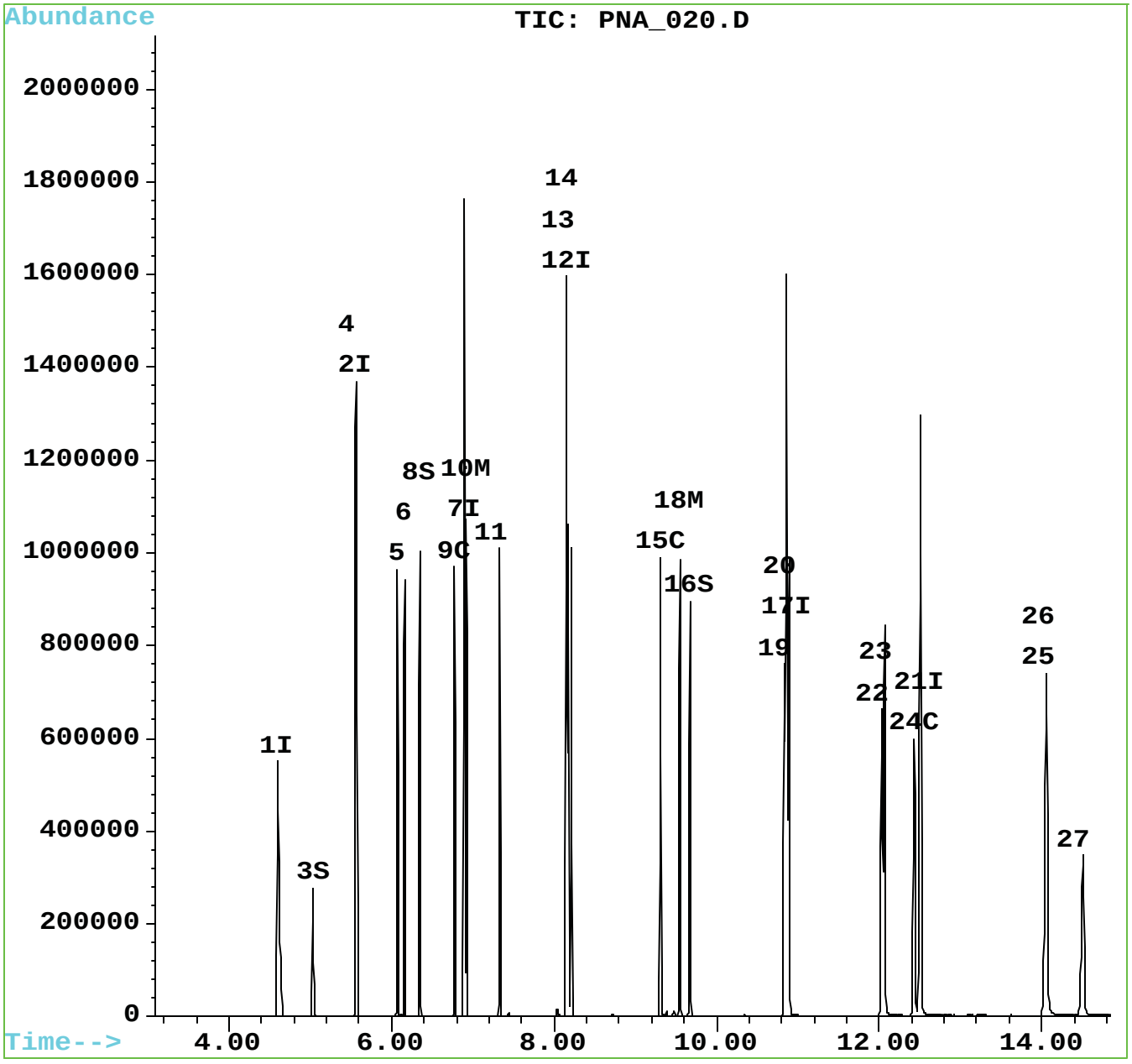
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	179514	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	625597	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	345525	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	637489	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	738717	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	737888	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	97591	87.45	ng/ul	87.4
8) 2-Fluorobiphenyl	6.35	172	237497	109.75	ng/ul	109.7
16) Terphenyl-D14	9.68	244	274634	143.06	ng/ul	143.0
Target Compounds						Qvalu
4) Naphthalene	5.57	128	314759	39.32	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	180085	24.29	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	209049	18.50	ng/ul	9
9) Acenaphthylene	6.78	152	329533	20.68	ng/ul	9
10) Acenaphthene **	6.92	154	193214	46.50	ng/ul	9
11) Fluorene	7.33	166	236167	24.11	ng/ul	9
13) Phenanthrene	8.17	178	346029	51.56	ng/ul	9
14) Anthracene	8.22	178	353676	41.12	ng/ul	9
15) Fluoranthene	9.31	202	387390	18.85	ng/ul	9
18) Pyrene **	9.55	202	396069	10.61	ng/ul	9
19) Benzo(a)anthracene	10.84	228	375636	9.76	ng/ul	10
20) Chrysene	10.89	228	365358	20.96	ng/ul	9
22) Benzo(b)fluoranthene	12.04	252	383440	27.37	ng/ul	9
23) Benzo(k)fluoranthene	12.07	252	363327	52.19	ng/ul	9
24) Benzo(a)pyrene	12.43	252	327129	16.10	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.06	276	392895	16.98	ng/ul	9
26) Dibenzo(ah)anthracene	14.06	278	327993	19.94	ng/ul	9
27) Benzo(ghi)perylene	14.51	276	315819	12.52	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_020.d Vial: 5
Acq On : 11 Jul 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:30 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_040.d Vial: 6
Acq On : 11 Jul 12 4:42 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:37 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

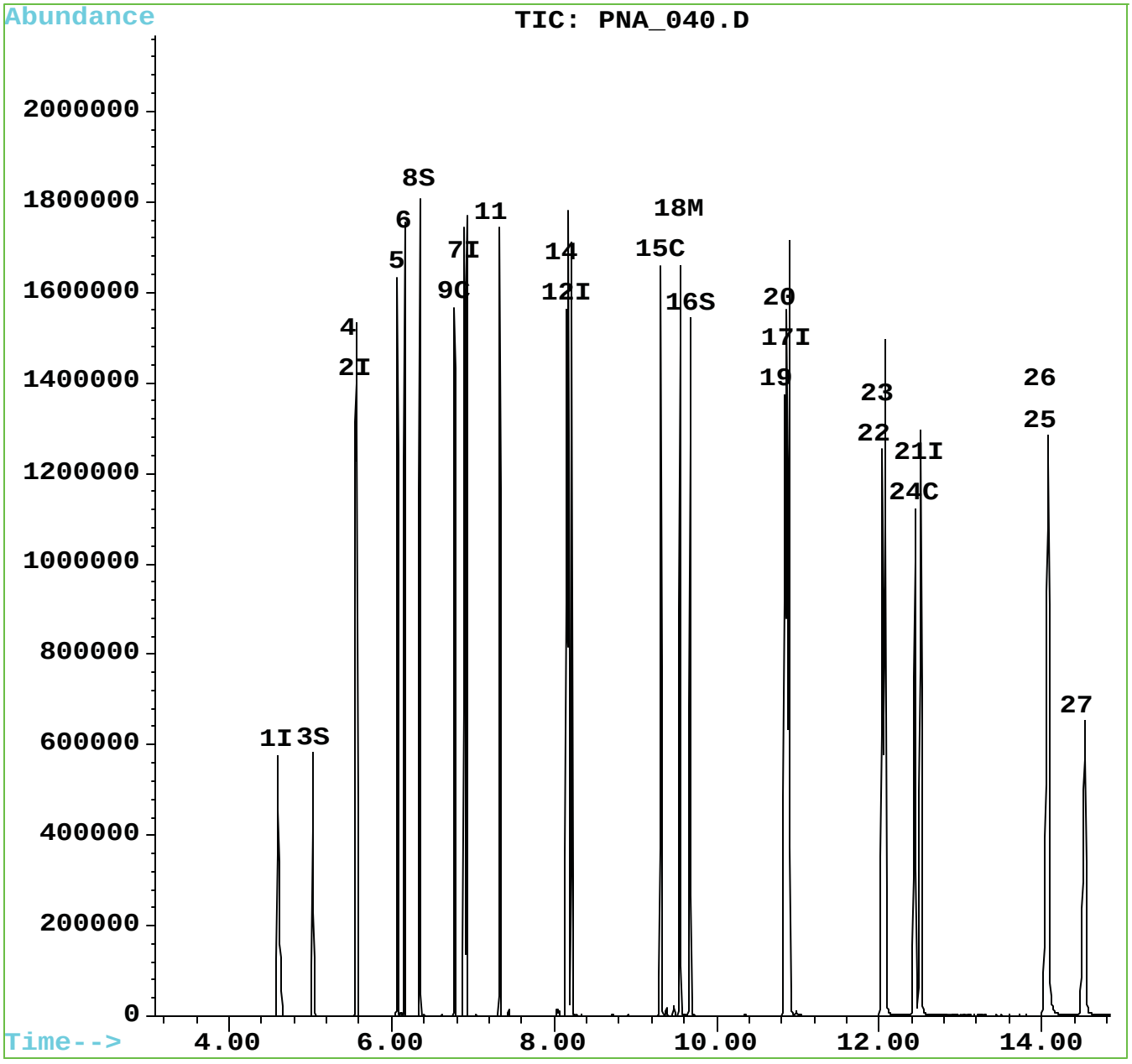
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	180899	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	625015	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	349682	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	653319	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	753262	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	753247	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	203308	200.34	ng/ul	200.3
8) 2-Fluorobiphenyl	6.35	172	435936	230.54	ng/ul	230.5
16) Terphenyl-D14	9.68	244	526429	281.30	ng/ul	281.3
Target Compounds						Qvalu
4) Naphthalene	5.57	128	580507	64.07	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	332731	47.27	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	378443	47.58	ng/ul	9
9) Acenaphthylene	6.78	152	602061	44.69	ng/ul	9
11) Fluorene	7.33	166	434962	45.64	ng/ul	9
14) Anthracene	8.22	178	646398	64.29	ng/ul	9
15) Fluoranthene	9.32	202	727431	42.37	ng/ul	9
18) Pyrene **	9.55	202	739135	20.09	ng/ul	9
19) Benzo(a)anthracene	10.84	228	725119	19.49	ng/ul	9
20) Chrysene	10.90	228	688281	37.16	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	736498	49.83	ng/ulm	9
23) Benzo(k)fluoranthene	12.08	252	736833	78.49	ng/ulm	9
24) Benzo(a)pyrene	12.44	252	657785	33.65	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.08	276	808345	35.60	ng/ul	9
26) Dibenzo(ah)anthracene	14.08	278	664101	40.75	ng/ul	9
27) Benzo(ghi)perylene	14.54	276	655777	26.67	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_040.d Vial: 6
Acq On : 11 Jul 12 4:42 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:37 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_050.d Vial: 7
Acq On : 11 Jul 12 5:01 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:42 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

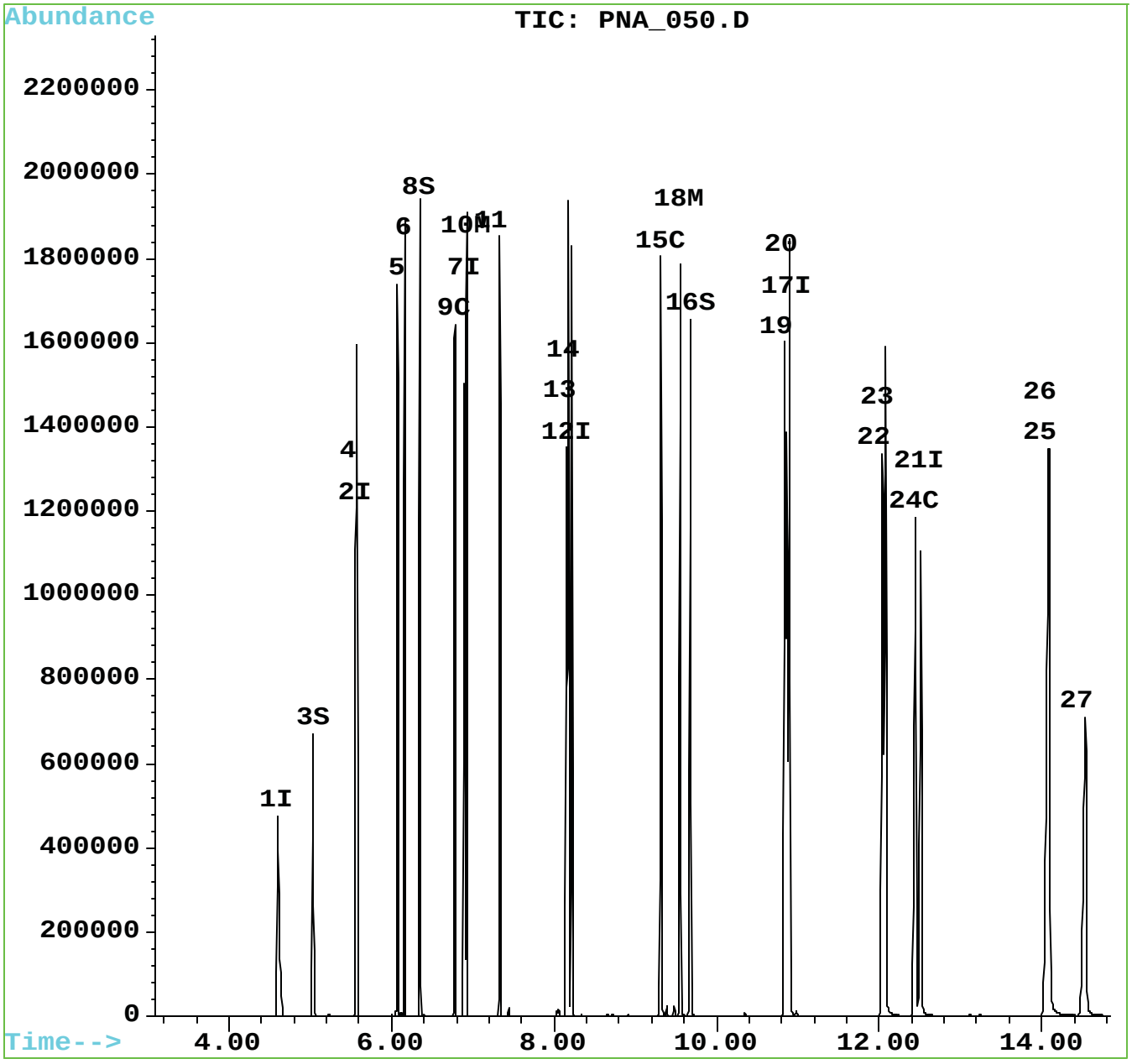
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	153619	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	539516	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	304280	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	557660	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	641613	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	638155	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	230895	310.15	ng/ul	310.1
8) 2-Fluorobiphenyl	6.35	172	476809	311.46	ng/ul	311.4
16) Terphenyl-D14	9.68	244	577490	321.58	ng/ul	321.5
Target Compounds						Qvalu
4) Naphthalene	5.58	128	641159	51.87	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	363951	52.93	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	415005	52.51	ng/ul	9
9) Acenaphthylene	6.78	152	665124	53.33	ng/ul	9
10) Acenaphthene **	6.93	154	380449	51.97	ng/ul	9
11) Fluorene	7.33	166	477240	52.69	ng/ul	9
13) Phenanthrene	8.18	178	697832	53.35	ng/ul	9
14) Anthracene	8.22	178	707428	53.18	ng/ul	9
15) Fluoranthene	9.32	202	797823	53.84	ng/ul	9
18) Pyrene **	9.55	202	812889	53.63	ng/ul	9
19) Benzo(a)anthracene	10.84	228	795381	53.43	ng/ul	9
20) Chrysene	10.90	228	757519	52.77	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	855353	55.59	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	781592	54.19	ng/ul	9
24) Benzo(a)pyrene	12.45	252	727335	54.68	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.09	276	908697	55.22	ng/ul	9
26) Dibenzo(ah)anthracene	14.09	278	742338	55.07	ng/ul	9
27) Benzo(ghi)perylene	14.54	276	739738	54.74	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_050.d Vial: 7
Acq On : 11 Jul 12 5:01 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:42 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_060.d Vial: 8
Acq On : 11 Jul 12 5:20 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:38 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

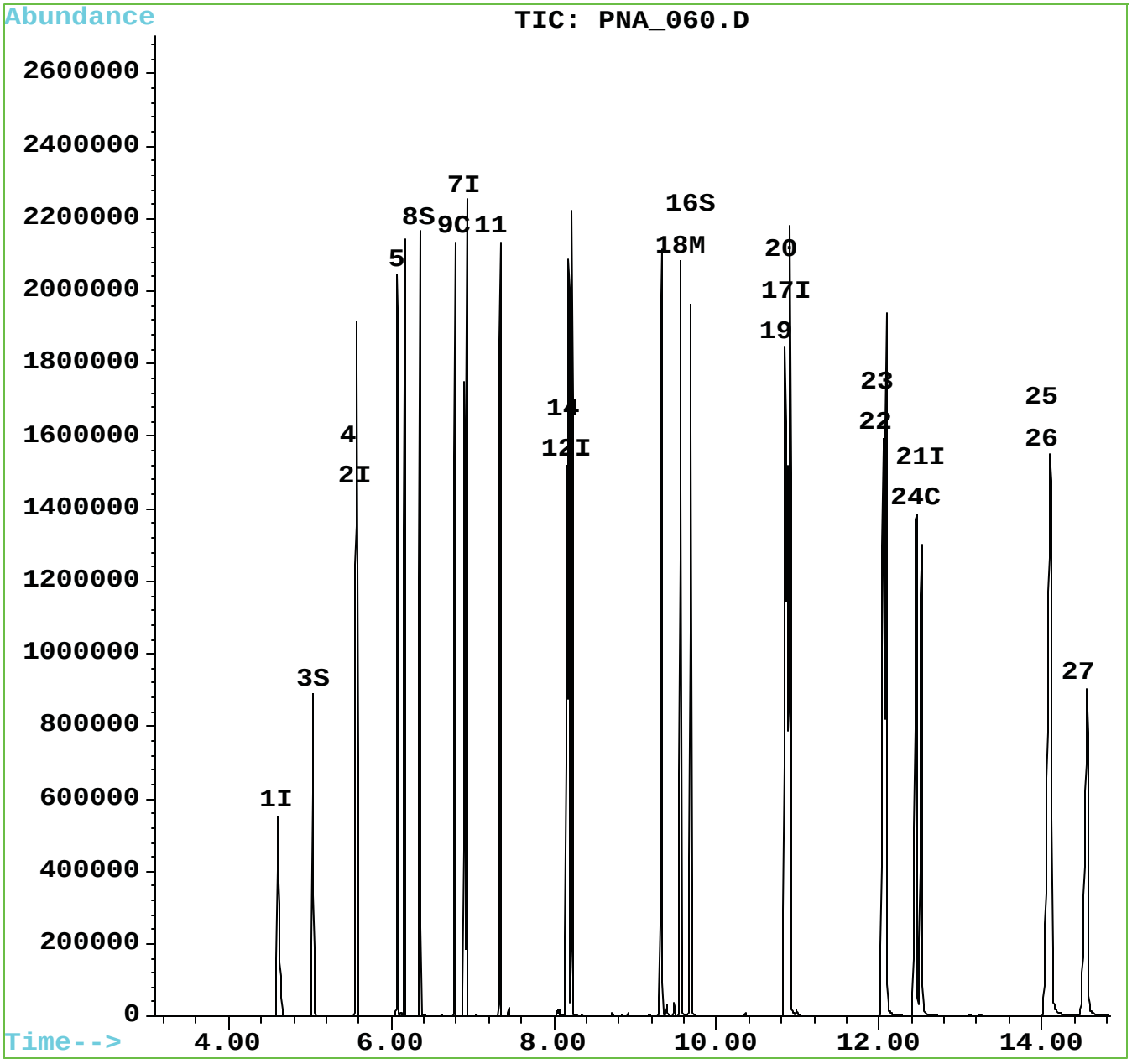
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	174561	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	606835	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	339373	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	628640	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	727886	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	721705	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	308560	341.22	ng/ul	341.2
8) 2-Fluorobiphenyl	6.35	172	598732	383.98	ng/ul	383.9
16) Terphenyl-D14	9.69	244	735082	407.94	ng/ul	407.9
Target Compounds						Qvalu
4) Naphthalene	5.58	128	797524	81.13	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	450356	66.16	ng/ul	9
9) Acenaphthylene	6.78	152	828622	80.10	ng/ul	9
11) Fluorene	7.34	166	593392	64.22	ng/ul	9
14) Anthracene	8.22	178	865350	81.60	ng/ul	9
18) Pyrene **	9.56	202	1023313	32.20	ng/ul	9
19) Benzo(a)anthracene	10.85	228	1018399	32.54	ng/ul	9
20) Chrysene	10.91	228	955801	53.46	ng/ul	9
22) Benzo(b)fluoranthene	12.06	252	1078836	73.32	ng/ulm	9
23) Benzo(k)fluoranthene	12.09	252	1016207	88.91	ng/ulm	9
24) Benzo(a)pyrene	12.46	252	966111	52.79	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.12	276	1197735	56.02	ng/ul	9
26) Dibenzo(ah)anthracene	14.11	278	977732	61.72	ng/ul	9
27) Benzo(ghi)perylene	14.57	276	979468	44.26	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_060.d Vial: 8
Acq On : 11 Jul 12 5:20 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:38 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_080.d Vial: 9
Acq On : 11 Jul 12 5:39 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:39 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

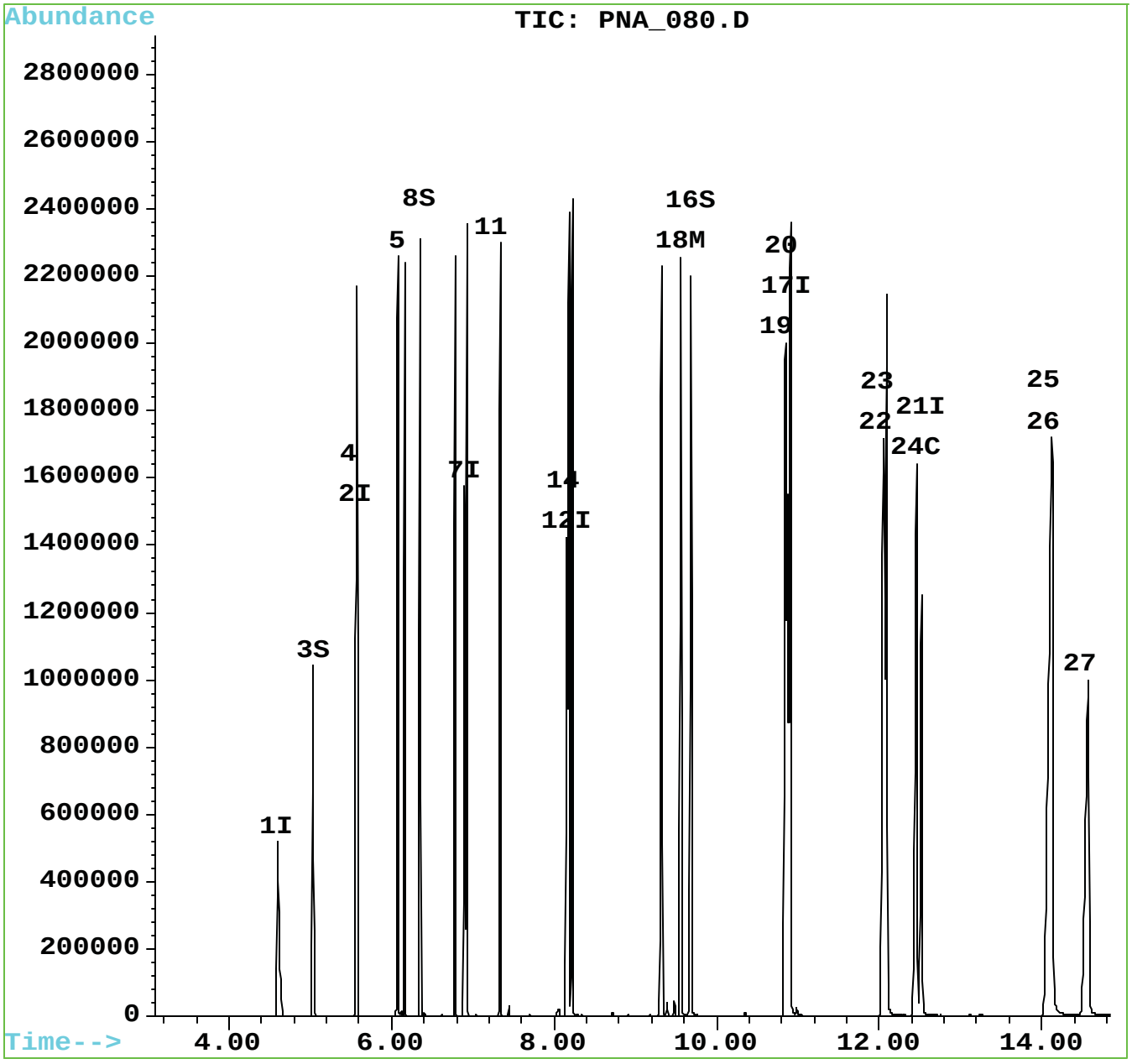
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	166585	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	574076	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	321323	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	586744	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	681358	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	676389	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	385154	499.78	ng/ul	499.7
8) 2-Fluorobiphenyl	6.35	172	694312	520.49	ng/ul	520.4
16) Terphenyl-D14	9.69	244	879821	513.59	ng/ul	513.5
Target Compounds						Qvalu
4) Naphthalene	5.58	128	939087	88.43	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	529937	79.64	ng/ul	9
11) Fluorene	7.34	166	691745	76.62	ng/ul	9
14) Anthracene	8.23	178	1025668	91.28	ng/ul	9
18) Pyrene **	9.56	202	1194405	49.96	ng/ul	9
19) Benzo(a)anthracene	10.85	228	1221410	53.48	ng/ul	9
20) Chrysene	10.91	228	1120434	68.08	ng/ul	9
22) Benzo(b)fluoranthene	12.06	252	1332116	91.08	ng/ul	9
23) Benzo(k)fluoranthene	12.09	252	1184191	84.63	ng/ulm	9
24) Benzo(a)pyrene	12.46	252	1168944	68.24	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.13	276	1475374	72.84	ng/ul	9
26) Dibenzo(ah)anthracene	14.12	278	1207681	77.27	ng/ul	9
27) Benzo(ghi)perylene	14.58	276	1209765	60.96	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_080.d Vial: 9
Acq On : 11 Jul 12 5:39 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:39 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_100.d Vial: 10
Acq On : 11 Jul 12 5:58 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:40 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

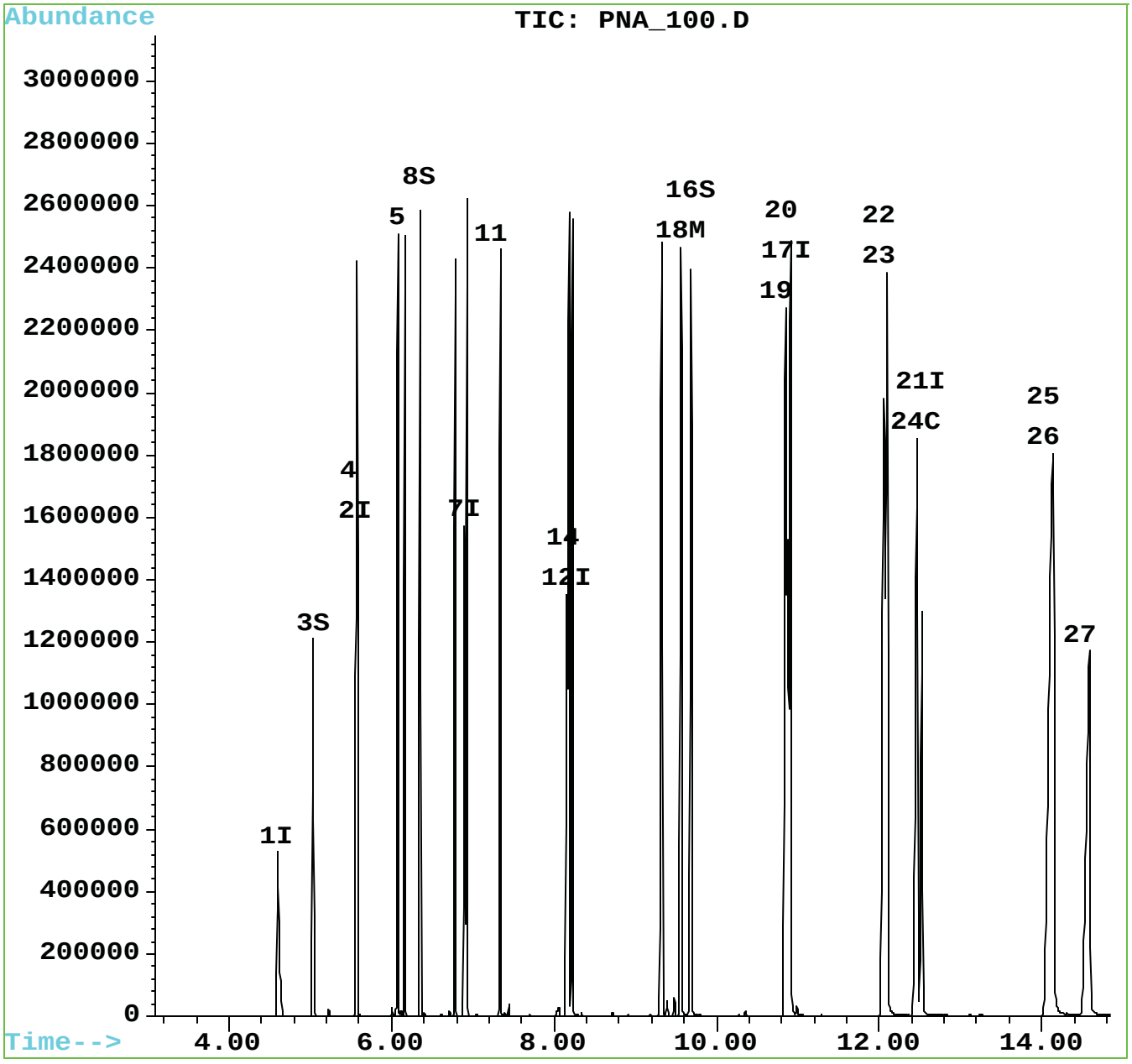
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	165660	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	571498	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	327462	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	607148	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	698098	40.00	ng/ul	0.0
21) PERYLENE-D12	12.53	264	695501	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.04	82	467663	631.36	ng/ul	631.3
8) 2-Fluorobiphenyl	6.35	172	788648	608.98	ng/ul	608.9
16) Terphenyl-D14	9.69	244	1030434	557.31	ng/ul	557.3
Target Compounds						Qvalu
4) Naphthalene	5.58	128	1073420	90.65	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	598746	86.30	ng/ul	9
11) Fluorene	7.34	166	792591	82.85	ng/ul	9
14) Anthracene	8.23	178	1201048	91.31	ng/ul	9
18) Pyrene **	9.56	202	1431447	69.73	ng/ul	9
19) Benzo(a)anthracene	10.85	228	1468215	70.12	ng/ul	9
20) Chrysene	10.91	228	1345876	82.13	ng/ul	9
22) Benzo(b)fluoranthene	12.10	252	3064676	157.24	ng/ulm	9
23) Benzo(k)fluoranthene	12.10	252	3064612	160.01	ng/ulm	9
24) Benzo(a)pyrene	12.47	252	1438597	85.95	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.15	276	1835170	91.46	ng/ul	9
26) Dibenzo(ah)anthracene	14.14	278	1489641	93.47	ng/ul	9
27) Benzo(ghi)perylene	14.59	276	1517491	82.16	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_100.d Vial: 10
Acq On : 11 Jul 12 5:58 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:40 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d17a.d Vial: 1
Acq On : 17 Jul 12 10:59 am Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 11:43 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

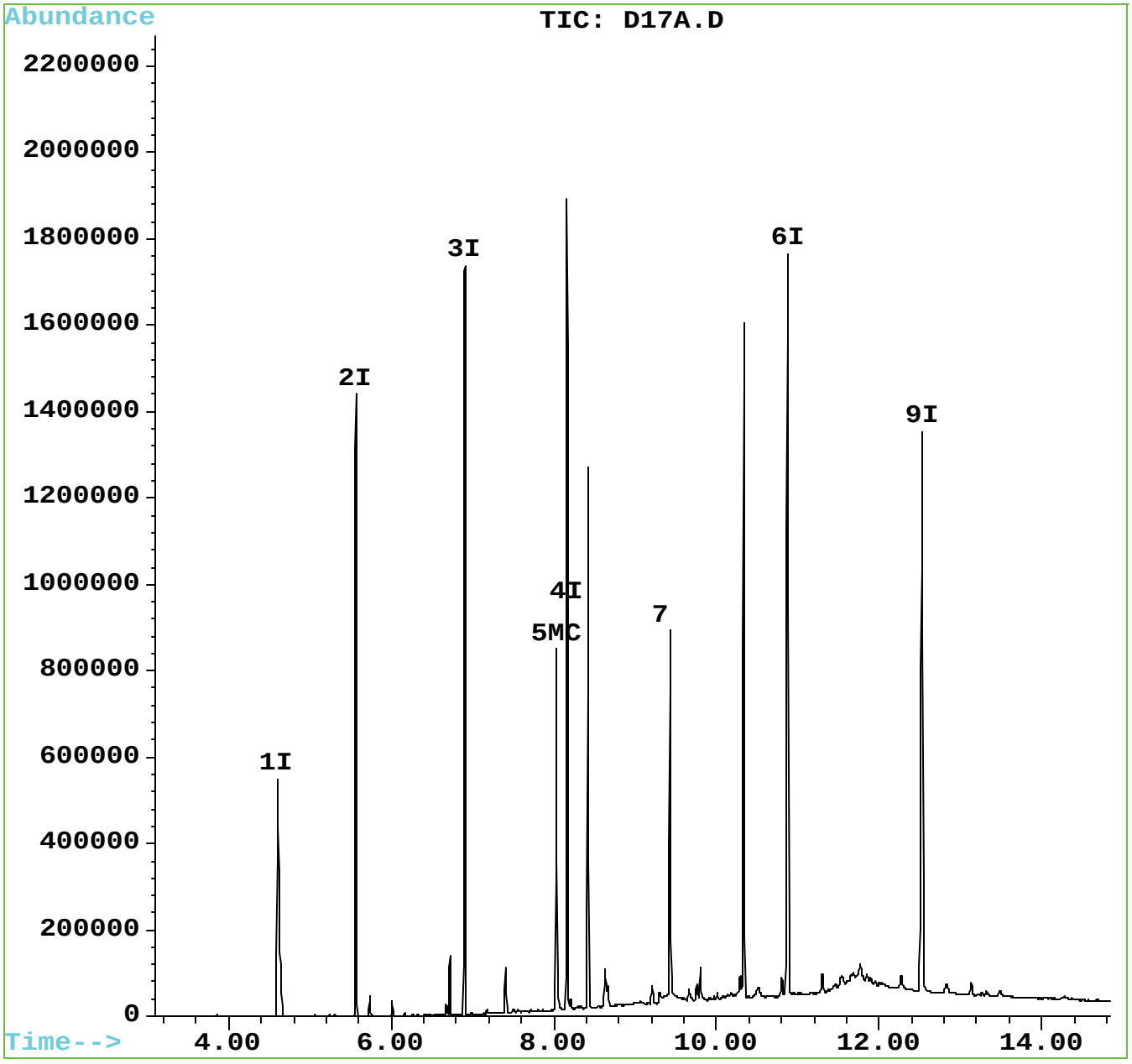
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	176282	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.56	136	651929	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	6.91	160	154362	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.16	188	655850	40.00	ng/ul	-0.0
6) CHRYSENE-D12	10.88	240	736544	40.00	ng/ul	-0.0
9) PERYLENE-D12	12.53	264	758943	40.00	ng/ul	-0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.03	266	92473	39.80	ng/ul	9
7) Benzidine	9.43	184	373860	47.88	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d17a.d Vial: 1
Acq On : 17 Jul 12 10:59 am Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 11:43 19112

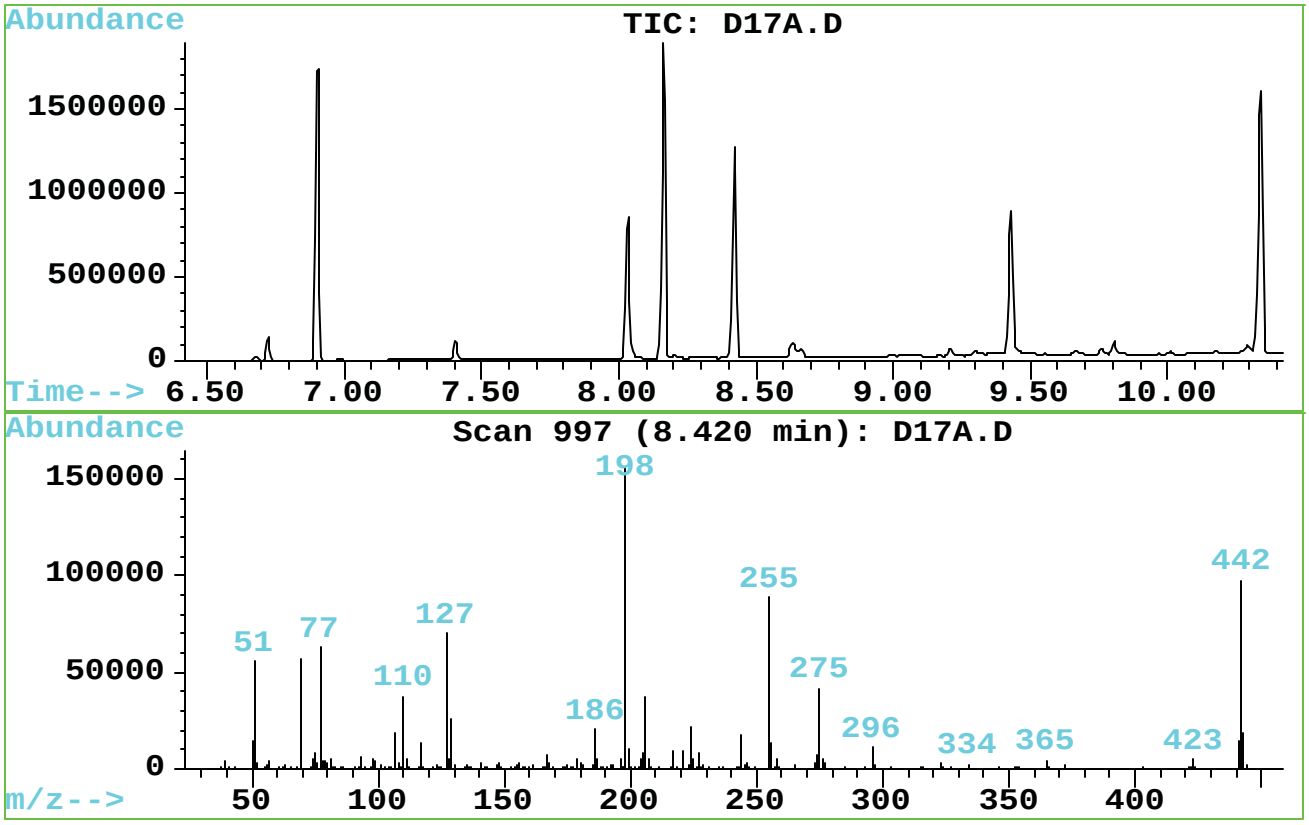
Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M\D17A.D Vial: 1
Acq On : 17 Jul 12 10:59 am Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270



Peak Apex is scan: 997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	35.6	55840	PASS
68	69	0	2	1.8	1014	PASS
69	198	0	100	36.4	57096	PASS
70	69	0	2	0.7	411	PASS
127	198	25	75	44.9	70336	PASS
197	198	0	1	0.9	1403	PASS
198	198	100	100	100.0	156736	PASS
199	198	5	9	6.9	10793	PASS
275	198	10	30	26.5	41584	PASS
365	198	1	100	2.9	4510	PASS
441	443	0	100	75.0	14360	PASS
442	198	40	110	62.2	97480	PASS
443	442	15	24	19.6	19136	PASS

D17A.D P120711H.M Fri Jul 20 12:22:32 2012

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\icv17a.d Vial: 3
Acq On : 17 Jul 12 11:50 am Operator: PL
Sample : pna std 50 (PP120706) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 12:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

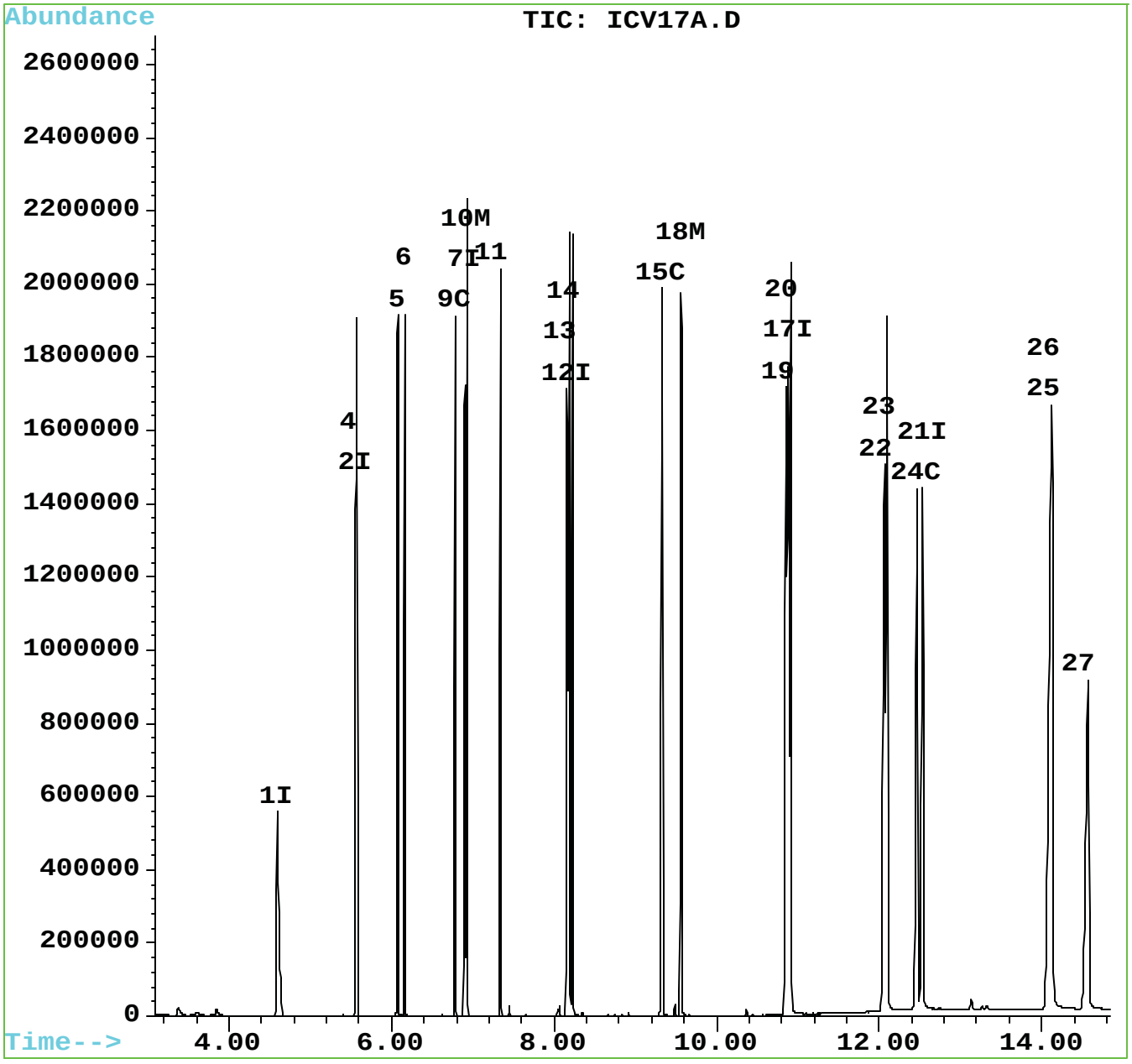
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	186116	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	681061	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.91	164	370436	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	713547	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.89	240	805661	40.00	ng/ul	0.0
21) PERYLENE-D12	12.54	264	820048	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	0.00	82	0	0.00	ng/ul	0.0
8) 2-Fluorobiphenyl	0.00	172	0	0.00	ng/ul	0.0
16) Terphenyl-D14	9.69	244	266	0.12	ng/ul	0.1
Target Compounds						Qvalu
4) Naphthalene	5.57	128	752155	48.20	ng/ul	10
5) 2-Methylnaphthalene	6.08	141	421150	48.52	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	455716	45.68	ng/ul	9
9) Acenaphthylene	6.79	152	765302	50.40	ng/ul	10
10) Acenaphthene **	6.93	154	444334	49.28	ng/ul	10
11) Fluorene	7.34	166	549789	49.86	ng/ul	9
13) Phenanthrene	8.19	178	804813	46.97	ng/ul	10
14) Anthracene	8.23	178	815637	47.92	ng/ul	10
15) Fluoranthene	9.33	202	917489	48.38	ng/ul	10
18) Pyrene **	9.56	202	937842	49.28	ng/ul	9
19) Benzo(a)anthracene	10.86	228	962683	51.51	ng/ul	10
20) Chrysene	10.92	228	896556	49.74	ng/ul	10
22) Benzo(b)fluoranthene	12.07	252	1082261	54.73	ng/ul	9
23) Benzo(k)fluoranthene	12.10	252	874452	47.18	ng/ul	9
24) Benzo(a)pyrene	12.47	252	907883	53.12	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.13	276	1184013	55.99	ng/ul	9
26) Dibenzo(ah)anthracene	14.13	278	966931	55.82	ng/ul	9
27) Benzo(ghi)perylene	14.58	276	972163	55.99	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\icv17a.d Vial: 3
Acq On : 17 Jul 12 11:50 am Operator: PL
Sample : pna std 50 (PP120706) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 12:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Initial Calibration Date: (see Form 6)

Analytical Batch: h120801.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn01a.d	08/01/12 14:51	Acenaphthylene	1.799	0.30
		Benzo(b)fluoranthene	1.122	0.30
		Naphthalene	0.943	0.30
		Phenanthrene	0.973	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Initial Calibration Date: (see Form 6)

Analytical Batch: h120801.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn01a.d	08/01/12 14:51	1-methylnaphthalene	52.3/ 50.0	4.5/ 20.0
		2-Methylnaphthalene	53.0/ 50.0	5.9/ 20.0
		Acenaphthene	53.4/ 50.0	6.7/ 20.0
		Acenaphthylene	54.9/ 50.0	9.7/ 20.0
		Anthracene	53.1/ 50.0	6.3/ 20.0
		Benzo(a)anthracene	54.1/ 50.0	8.1/ 20.0
		Benzo(a)pyrene	54.8/ 50.0	9.5/ 20.0
		Benzo(b)fluoranthene	58.1/ 50.0	16.2/ 20.0
		Benzo(ghi)perylene	55.7/ 50.0	11.4/ 20.0
		Benzo(k)fluoranthene	49.8/ 50.0	0.4/ 20.0
		Chrysene	52.6/ 50.0	5.1/ 20.0
		Dibenzo(ah)anthracene	55.4/ 50.0	10.7/ 20.0
		Fluorene	53.4/ 50.0	6.7/ 20.0
		Fluoranthene	54.1/ 50.0	8.3/ 20.0
		Indeno(1,2,3-cd)pyrene	55.5/ 50.0	11.1/ 20.0
		Naphthalene	51.4/ 50.0	2.9/ 20.0
		Phenanthrene	51.5/ 50.0	3.0/ 20.0
		Pyrene	53.3/ 50.0	6.6/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\spnn01a.d Vial: 2
Acq On : 1 Aug 12 2:51 pm Operator: PL
Sample : pna std 50 (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Aug 1 15:06 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

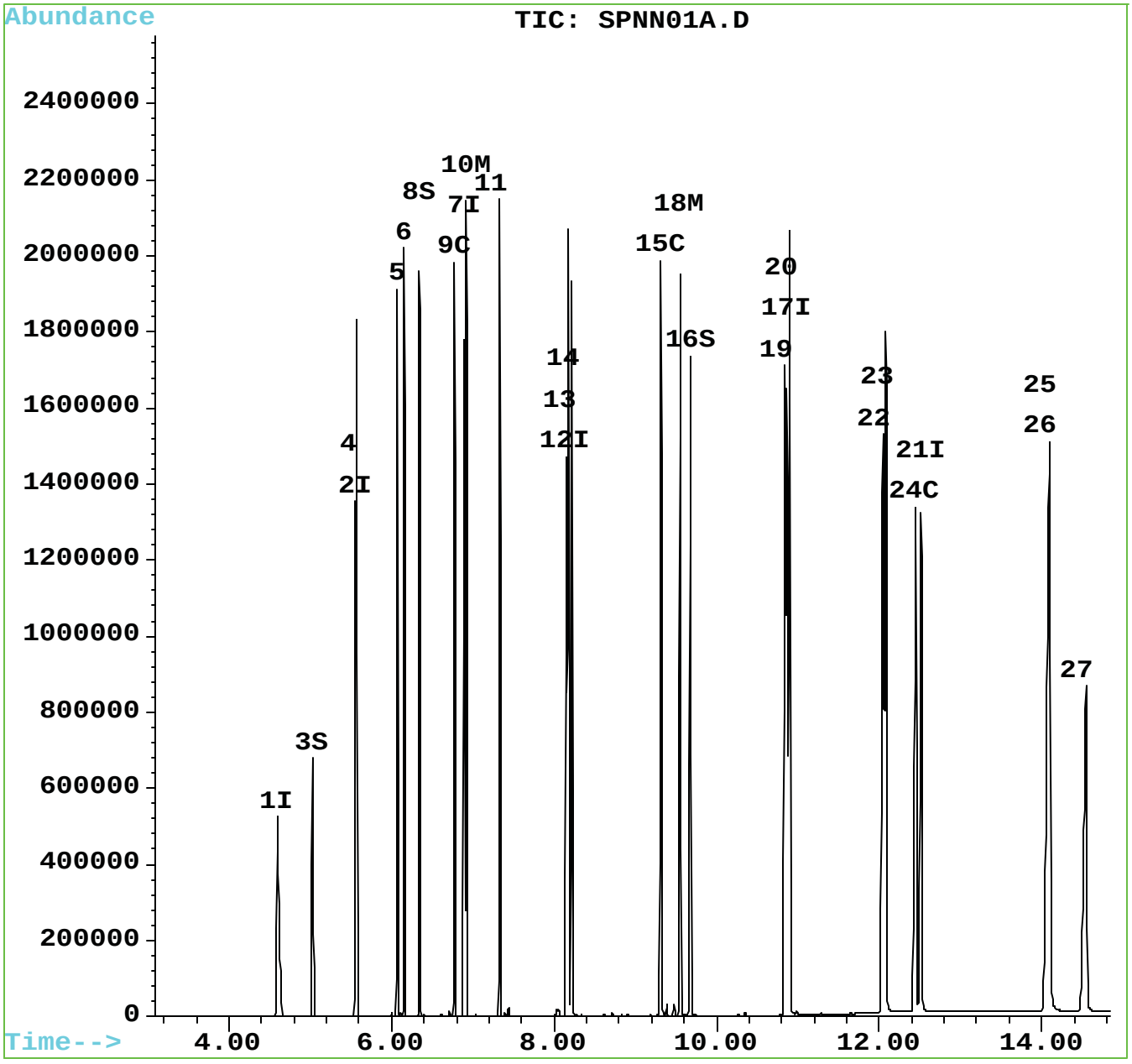
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	176408	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	621533	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.89	164	345720	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	639158	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	748268	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	750830	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	276327	322.20	ng/ul	322.2
8) 2-Fluorobiphenyl	6.35	172	560133	322.03	ng/ul	322.0
16) Terphenyl-D14	9.68	244	671686	326.34	ng/ul	326.3
Target Compounds						Qvalu
4) Naphthalene	5.57	128	732418	51.43	ng/ul	10
5) 2-Methylnaphthalene	6.08	141	419527	52.96	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	475852	52.27	ng/ul	9
9) Acenaphthylene	6.78	152	777364	54.85	ng/ul	9
10) Acenaphthene **	6.92	154	441174	53.36	ng/ul	9
11) Fluorene	7.33	166	549198	53.37	ng/ul	10
13) Phenanthrene	8.18	178	777114	51.48	ng/ul	10
14) Anthracene	8.22	178	810001	53.13	ng/ul	9
15) Fluoranthene	9.32	202	919587	54.14	ng/ul	10
18) Pyrene **	9.55	202	942227	53.31	ng/ul	9
19) Benzo(a)anthracene	10.85	228	938428	54.06	ng/ul	9
20) Chrysene	10.90	228	879642	52.55	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	1052101	58.11	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	845227	49.81	ng/ul	9
24) Benzo(a)pyrene	12.45	252	857026	54.77	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.10	276	1075114	55.53	ng/ul	9
26) Dibenzo(ah)anthracene	14.10	278	877909	55.35	ng/ul	9
27) Benzo(ghi)perylene	14.55	276	885774	55.71	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\spnn01a.d Vial: 2
Acq On : 1 Aug 12 2:51 pm Operator: PL
Sample : pna std 50 (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Aug 1 15:06 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\d01a.d Vial: 1
Acq On : 1 Aug 12 2:32 pm Operator: PL
Sample : dftpp std (120801) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Aug 1 14:51 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

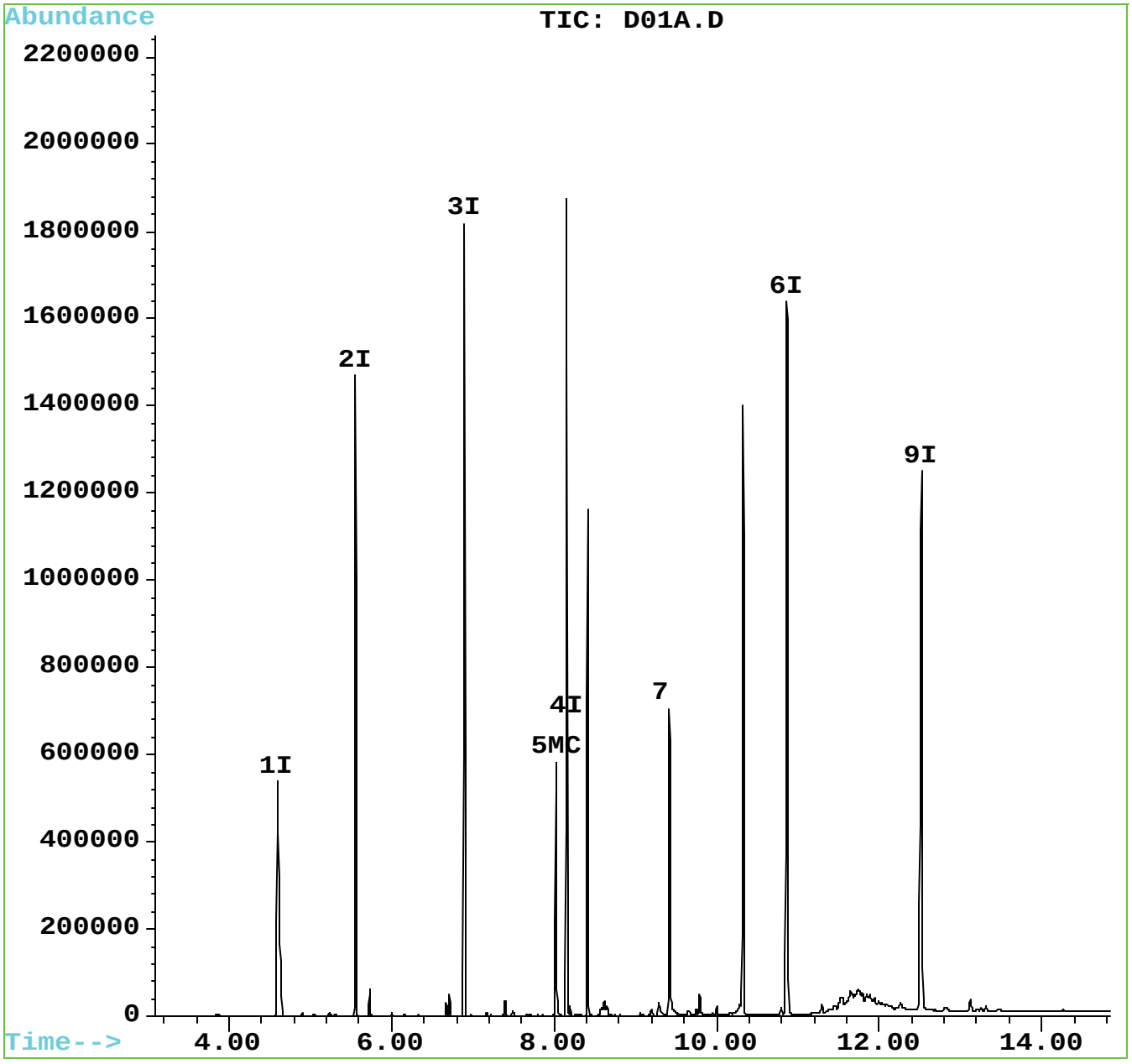
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	185158	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.56	136	656184	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	6.90	160	155627	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.16	188	679507	40.00	ng/ul	-0.0
6) CHRYSENE-D12	10.87	240	776899	40.00	ng/ul	-0.0
9) PERYLENE-D12	12.52	264	761605	40.00	ng/ul	-0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.03	266	69417	28.84	ng/ul	9
7) Benzidine	9.42	184	338130	41.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\d01a.d Vial: 1
Acq On : 1 Aug 12 2:32 pm Operator: PL
Sample : dftpp std (120801) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Aug 1 14:51 19112

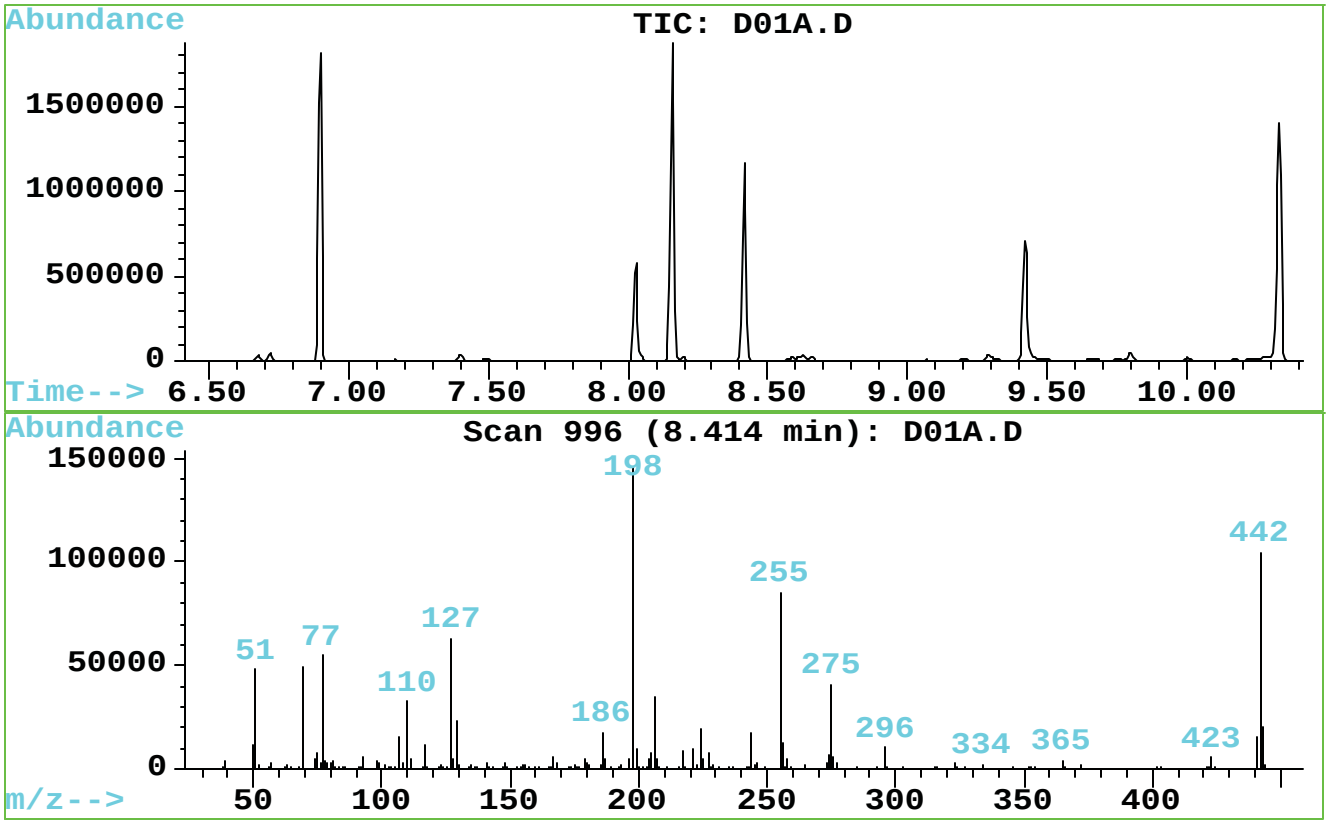
Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\HADES.6\DATA\H120801\D01A.D Vial: 1
Acq On : 1 Aug 12 2:32 pm Operator: PL
Sample : dftpp std (120801) Inst : Hades
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270



Peak Apex is scan: 996

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	32.8	47968	PASS
68	69	0	2	1.7	838	PASS
69	198	0	100	33.9	49568	PASS
70	69	0	2	0.6	284	PASS
127	198	25	75	43.1	63040	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	146176	PASS
199	198	5	9	6.8	9975	PASS
275	198	10	30	27.9	40840	PASS
365	198	1	100	3.0	4405	PASS
441	443	0	100	75.3	15404	PASS
442	198	40	110	71.6	104608	PASS
443	442	15	24	19.6	20464	PASS

D01A.D P120711H.M Thu Aug 02 12:44:27 2012

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\blks01a.d Vial: 7
Acq On : 1 Aug 12 3:45 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

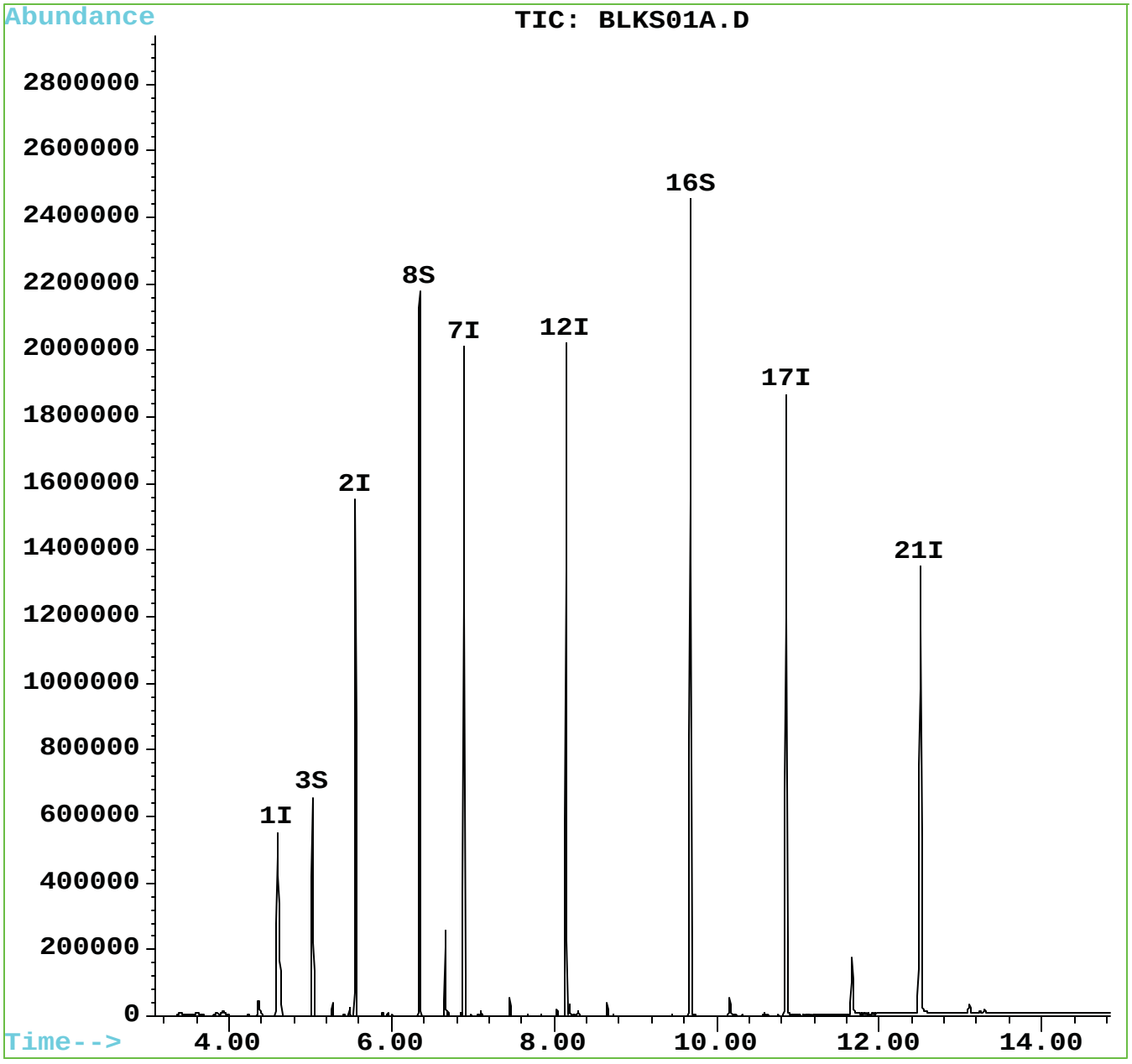
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	200855	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	732831	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.89	164	384737	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	743534	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	858187	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	853804	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	269738	266.75	ng/ul	266.7
8) 2-Fluorobiphenyl	6.35	172	648884	335.22	ng/ul	335.2
16) Terphenyl-D14	9.69	244	1024931	428.07	ng/ul	428.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\blks01a.d Vial: 7
Acq On : 1 Aug 12 3:45 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\lcss01a.d Vial: 8
Acq On : 1 Aug 12 4:43 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

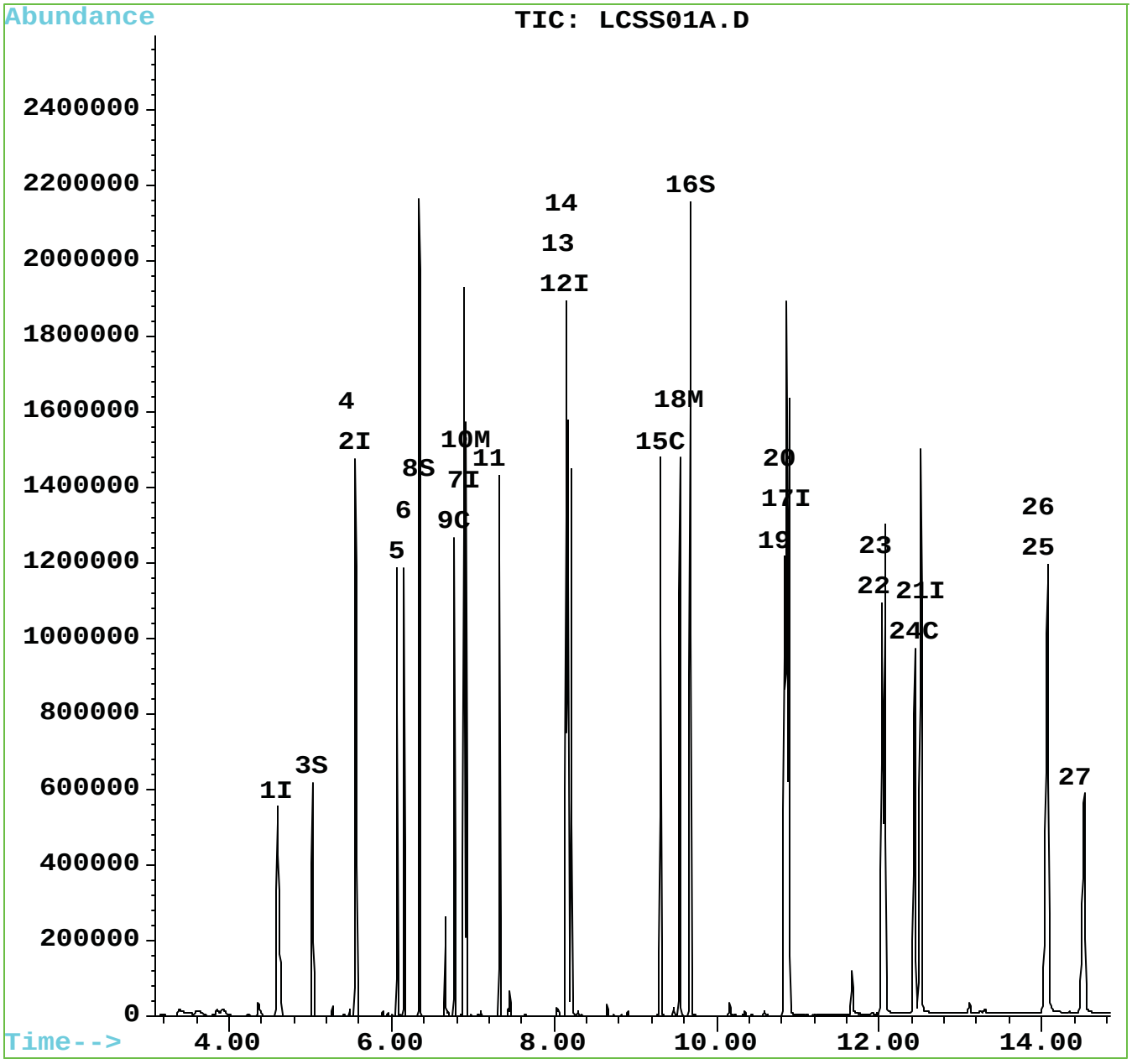
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	204399	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	705682	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	398425	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	777234	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	906184	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	899786	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	255561	262.45	ng/ul	262.4
8) 2-Fluorobiphenyl	6.34	172	634755	316.66	ng/ul	316.6
16) Terphenyl-D14	9.69	244	955671	381.83	ng/ul	381.8
Target Compounds						Qvalu
4) Naphthalene	5.57	128	414678	25.65	ng/ul	9
5) 2-Methylnaphthalene	6.07	141	242209	26.93	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	262522	25.40	ng/ul	9
9) Acenaphthylene	6.78	152	491443	30.09	ng/ul	9
10) Acenaphthene **	6.92	154	287086	27.04	ng/ul	9
11) Fluorene	7.33	166	366357	30.89	ng/ul	9
13) Phenanthrene	8.17	178	548875	27.47	ng/ul	9
14) Anthracene	8.22	178	544390	29.36	ng/ul	9
15) Fluoranthene	9.31	202	632702	30.63	ng/ul	9
18) Pyrene **	9.55	202	650396	30.38	ng/ul	9
19) Benzo(a)anthracene	10.84	228	652823	31.05	ng/ul	9
20) Chrysene	10.90	228	614352	30.30	ng/ul	9
22) Benzo(b)fluoranthene	12.04	252	669954	30.88	ng/ul	9
23) Benzo(k)fluoranthene	12.07	252	612689	30.13	ng/ul	10
24) Benzo(a)pyrene	12.44	252	561539	29.94	ng/ul	10
25) Indeno(1,2,3-cd)pyrene	14.08	276	702547	30.28	ng/ul	10
26) Dibenzo(ah)anthracene	14.08	278	573555	30.18	ng/ul	9
27) Benzo(ghi)perylene	14.53	276	569305	29.88	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\lcss01a.d Vial: 8
Acq On : 1 Aug 12 4:43 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\lcsds01a.d Vial: 9
Acq On : 1 Aug 12 5:02 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration

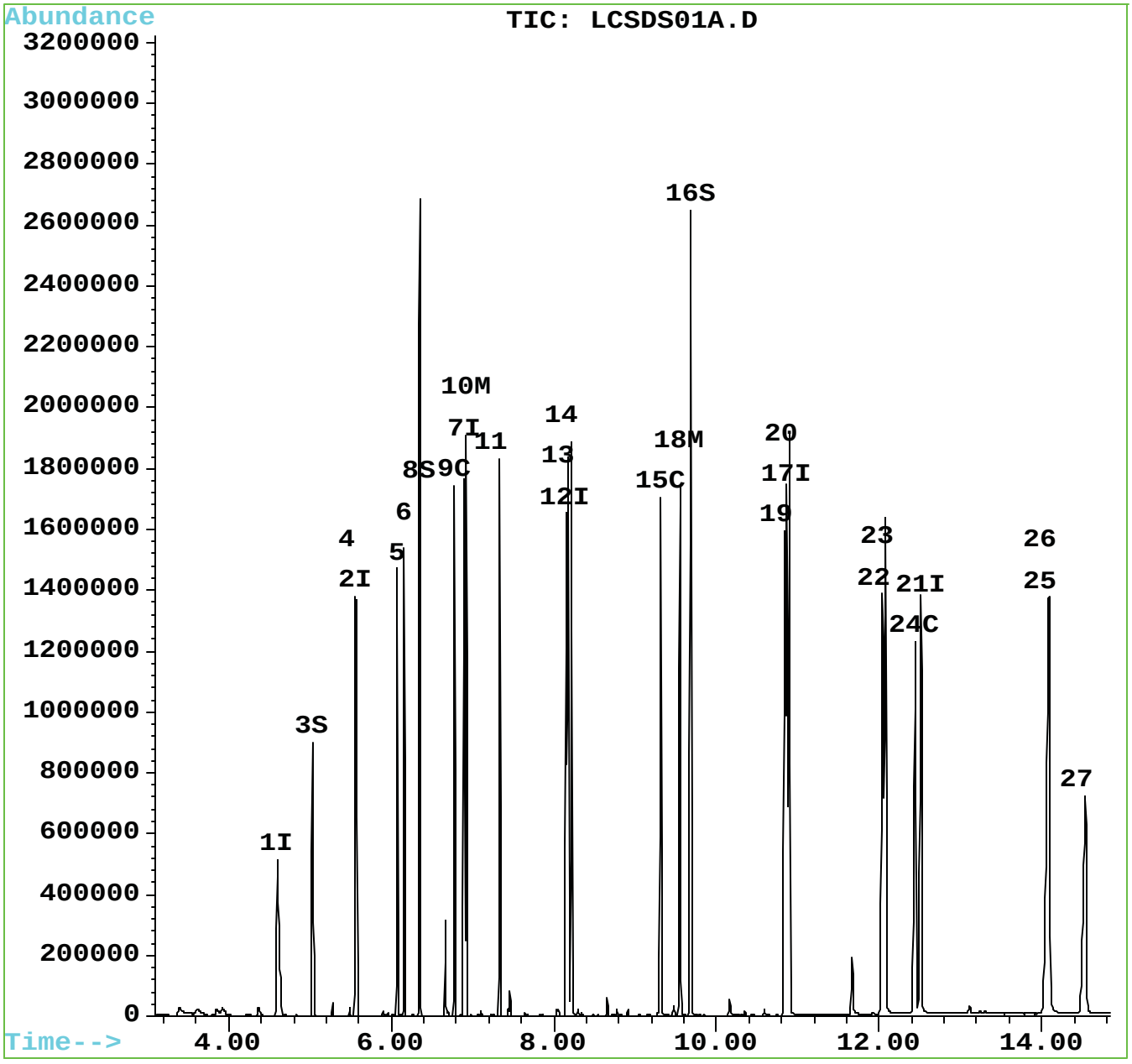
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	184068	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	671959	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	371276	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	719458	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	812899	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	817329	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	382063	412.05	ng/ul	412.0
8) 2-Fluorobiphenyl	6.35	172	782716	419.02	ng/ul	419.0
16) Terphenyl-D14	9.69	244	1232758	532.10	ng/ul	532.1
Target Compounds						Qvalu
4) Naphthalene	5.57	128	560941	36.44	ng/ul	9
5) 2-Methylnaphthalene	6.07	141	324530	37.90	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	353285	35.89	ng/ul	9
9) Acenaphthylene	6.78	152	635729	41.77	ng/ul	9
10) Acenaphthene **	6.92	154	370274	39.30	ng/ul	10
11) Fluorene	7.33	166	470351	42.56	ng/ul	10
13) Phenanthrene	8.17	178	699491	39.41	ng/ul	9
14) Anthracene	8.22	178	703838	41.01	ng/ul	9
15) Fluoranthene	9.32	202	817232	42.74	ng/ul	10
18) Pyrene **	9.55	202	839473	43.72	ng/ul	9
19) Benzo(a)anthracene	10.84	228	850274	45.09	ng/ul	9
20) Chrysene	10.90	228	802407	44.12	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	923518	46.86	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	809512	43.82	ng/ul	10
24) Benzo(a)pyrene	12.45	252	758853	44.55	ng/ul	10
25) Indeno(1,2,3-cd)pyrene	14.09	276	936100	44.42	ng/ul	10
26) Dibenzo(ah)anthracene	14.09	278	761630	44.11	ng/ul	9
27) Benzo(ghi)perylene	14.54	276	759676	43.89	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120801\lcsds01a.d Vial: 9
Acq On : 1 Aug 12 5:02 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Hades
Misc : s/1; id:sp120731s01 Multiplr: 6.00
Quant Time: Aug 2 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Wed Aug 01 12:45:52 2012
Response via : Multiple Level Calibration



Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120731.01r	sblk-r.01	07/31/12 09:19	SBLK-R.01	WW	Bl	**4**	
a120731.02r	sc1660.01	07/31/12 09:30	SC1660.01 0.5ppm 7/23/12	WW	CV	**4**	
a120731.03r	sblk-s.01	07/31/12 10:43	sBLK-S.01 20.0g s/1 ID:PA120730s02	SO	Bl	**4**	
a120731.04r	slcs-s.01	07/31/12 11:09	sLCS-S.01 20.0g s/1 ID:PA120730s02	SO	MS	**4**	
a120731.05r	slcs-s.01	07/31/12 11:24	sLCS-S.01D 20.0g s/1 ID:PA120730s02	SO	MS	**4**	
a120731.06r	s53345.02	07/31/12 11:42	s53345.02 20.1g s/1 ID:PA120730s02	SO		**4**	
a120731.07r	s53345.03	07/31/12 11:52	s53345.03 20.1g s/1 ID:PA120730s02	SO		**4**	
a120731.08r	s53345.04	07/31/12 12:03	s53345.04 20.0g s/1 ID:PA120730s02	SO		**4**	
a120731.09r	s53345.05	07/31/12 12:13	s53345.05 20.2g s/1 ID:PA120730s02	SO		**4**	
a120731.10r	s53345.06	07/31/12 12:24	s53345.06 20.0g s/1 ID:PA120730s02	SO		**4**	
a120731.11r	s53345.07	07/31/12 12:34	s53345.07 20.2g s/1 ID:PA120730s02	SO		**4**	
a120731.12r	s53345.08	07/31/12 12:44	s53345.08 20.3g s/1 ID:PA120730s02	SO		**4**	
a120731.13r	s53345.11	07/31/12 12:55	s53345.11 20.0g s/1 ID:PA120730s02	SO		**4**	
a120731.14r	s53345.12	07/31/12 13:05	s53345.12 20.1g s/1 ID:PA120730s02	SO		**4**	
a120731.15r	s53345.13	07/31/12 13:16	s53345.13 20.3g s/1 ID:PA120730s02	SO		**4**	
a120731.16r	s53345.14	07/31/12 13:26	s53345.14 20.1g s/1 ID:PA120730s02	SO		**4**	
a120731.17r	s53345.15	07/31/12 13:37	s53345.15 20.0g s/1 ID:PA120730s02	SO		**4**	
a120731.18r	s53345.16	07/31/12 13:47	s53345.16 20.2g s/1 ID:PA120730s02	SO		**4**	
a120731.19r	s53345.09	07/31/12 13:58	s53345.09 20.0g s/1 dx	SO		**4**	
a120731.21r	s53345.10	07/31/12 14:19	s53345.10 20.2g s/5 dx	SO		**4**	
a120731.23r	slcs-al.0	07/31/12 14:56	sLCS-Al.01 0.5ppm ID:Cleanup	WW	MS	**4**	
a120731.24r	ss1660.01	07/31/12 15:07	ss1660.01 0.1ppm 7/23/12	WW		**4**	
a120731.25r	sc1660.02	07/31/12 15:26	SC1660.02 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	15
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	1	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

Index of Applicable Reporting Forms

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120731b.01	sblk-r.01	07/31/12 09:19	SBLK-R.01	WW	Bl	**4**	
a120731b.02	sc1660.01	07/31/12 09:30	SC1660.01 0.5ppm 7/23/12	WW	CV	**4**	
a120731b.03	sblk-s.01	07/31/12 10:43	sBLK-S.01 20.0g s/1 ID:PA120730s02	SO	Bl	**4**	
a120731b.04	slcs-s.01	07/31/12 11:09	sLCS-S.01 20.0g s/1 ID:PA120730s02	SO	MS	**4**	
a120731b.05	slcs-s.01	07/31/12 11:24	sLCS-S.01D 20.0g s/1 ID:PA120730s02	SO	MS	**4**	
a120731b.06	s53345.02	07/31/12 11:42	s53345.02 20.1g s/1 ID:PA120730s02	SO		**4**	
a120731b.07	s53345.03	07/31/12 11:52	s53345.03 20.1g s/1 ID:PA120730s02	SO		**4**	
a120731b.08	s53345.04	07/31/12 12:03	s53345.04 20.0g s/1 ID:PA120730s02	SO		**4**	
a120731b.09	s53345.05	07/31/12 12:13	s53345.05 20.2g s/1 ID:PA120730s02	SO		**4**	
a120731b.10	s53345.06	07/31/12 12:24	s53345.06 20.0g s/1 ID:PA120730s02	SO		**4**	
a120731b.11	s53345.07	07/31/12 12:34	s53345.07 20.2g s/1 ID:PA120730s02	SO		**4**	
a120731b.12	s53345.08	07/31/12 12:45	s53345.08 20.3g s/1 ID:PA120730s02	SO		**4**	
a120731b.13	s53345.11	07/31/12 12:55	s53345.11 20.0g s/1 ID:PA120730s02	SO		**4**	
a120731b.14	s53345.12	07/31/12 13:06	s53345.12 20.1g s/1 ID:PA120730s02	SO		**4**	
a120731b.15	s53345.13	07/31/12 13:16	s53345.13 20.3g s/1 ID:PA120730s02	SO		**4**	
a120731b.16	s53345.14	07/31/12 13:26	s53345.14 20.1g s/1 ID:PA120730s02	SO		**4**	
a120731b.17	s53345.15	07/31/12 13:37	s53345.15 20.0g s/1 ID:PA120730s02	SO		**4**	
a120731b.18	s53345.16	07/31/12 13:47	s53345.16 20.2g s/1 ID:PA120730s02	SO		**4**	
a120731b.19	s53345.09	07/31/12 13:58	s53345.09 20.0g s/1 dx	SO		**4**	
a120731b.21	s53345.10	07/31/12 14:19	s53345.10 20.2g s/5 dx	SO		**4**	
a120731b.23	slcs-al.0	07/31/12 14:56	sLCS-Al.01 0.5ppm ID:Cleanup	WW	MS	**4**	
a120731b.24	ss1660.01	07/31/12 15:07	ss1660.01 0.1ppm 7/23/12	WW		**4**	
a120731b.25	sc1660.02	07/31/12 15:26	SC1660.02 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	15
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	1	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120731.01r	sblk-r.01	TCX	23.71/30.00	79.0	34.1/137.1	WW
		DCBP	28.95/30.00	96.5	30.0/138.6	
a120731.02r	sc1660.01	TCX	16.30/30.00	n/a	34.1/137.1	WW
		DCBP	15.05/30.00	n/a	30.0/138.6	
a120731.03r	sblk-s.01	TCX	20.31/30.00	67.7	33.0/135.3	SO
		DCBP	25.80/30.00	86.0	30.0/137.0	
a120731.04r	slcs-s.01	TCX	17.93/30.00	59.8	33.0/135.3	SO
		DCBP	19.02/30.00	63.4	30.0/137.0	
a120731.05r	slcs-s.01	TCX	17.29/30.00	57.6	33.0/135.3	SO
		DCBP	22.74/30.00	75.8	30.0/137.0	
a120731.06r	s53345.02	TCX	19.84/30.00	66.1	33.0/135.3	SO
		DCBP	28.87/30.00	96.2	30.0/137.0	
a120731.07r	s53345.03	TCX	18.76/30.00	62.5	33.0/135.3	SO
		DCBP	28.54/30.00	95.1	30.0/137.0	
a120731.08r	s53345.04	TCX	19.32/30.00	64.4	33.0/135.3	SO
		DCBP	27.80/30.00	92.7	30.0/137.0	
a120731.09r	s53345.05	TCX	19.48/30.00	64.9	33.0/135.3	SO
		DCBP	25.56/30.00	85.2	30.0/137.0	
a120731.10r	s53345.06	TCX	18.16/30.00	60.5	33.0/135.3	SO
		DCBP	21.32/30.00	71.1	30.0/137.0	
a120731.11r	s53345.07	TCX	18.23/30.00	60.8	33.0/135.3	SO
		DCBP	24.03/30.00	80.1	30.0/137.0	
a120731.12r	s53345.08	TCX	17.66/30.00	58.9	33.0/135.3	SO
		DCBP	23.94/30.00	79.8	30.0/137.0	
a120731.13r	s53345.11	TCX	19.90/30.00	66.3	33.0/135.3	SO
		DCBP	27.66/30.00	92.2	30.0/137.0	
a120731.14r	s53345.12	TCX	19.65/30.00	65.5	33.0/135.3	SO
		DCBP	28.16/30.00	93.9	30.0/137.0	
a120731.15r	s53345.13	TCX	19.04/30.00	63.5	33.0/135.3	SO
		DCBP	28.60/30.00	95.3	30.0/137.0	
a120731.16r	s53345.14	TCX	18.31/30.00	61.0	33.0/135.3	SO
		DCBP	25.68/30.00	85.6	30.0/137.0	
a120731.17r	s53345.15	TCX	18.53/30.00	61.8	33.0/135.3	SO
		DCBP	26.68/30.00	88.9	30.0/137.0	
a120731.18r	s53345.16	TCX	23.11/30.00	77.0	33.0/135.3	SO
		DCBP	29.66/30.00	98.9	30.0/137.0	
a120731.19r	s53345.09	TCX	19.43/30.00	64.8	33.0/135.3	SO
		DCBP	29.24/30.00	97.5	30.0/137.0	
a120731.21r	s53345.10	TCX	3.60/30.00	n/a	33.0/135.3	SO
		DCBP	7.05/30.00	n/a	30.0/137.0	
a120731.23r	slcs-al.0	TCX	18.45/30.00	61.5	34.1/137.1	WW
		DCBP	18.93/30.00	63.1	30.0/138.6	
a120731.24r	ss1660.01	TCX	3.07/30.00	n/a	34.1/137.1	WW
		DCBP	2.57/30.00	n/a	30.0/138.6	
a120731.25r	sc1660.02	TCX	17.20/30.00	n/a	34.1/137.1	WW
		DCBP	15.76/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120731b.01	sblk-r.01	TCX	26.46/30.00	88.2	34.1/137.1	WW
		DCBP	34.76/30.00	115.9	30.0/138.6	
a120731b.02	sc1660.01	TCX	17.62/30.00	n/a	34.1/137.1	WW
		DCBP	18.31/30.00	n/a	30.0/138.6	
a120731b.03	sblk-s.01	TCX	22.23/30.00	74.1	33.0/135.3	SO
		DCBP	29.97/30.00	99.9	30.0/137.0	
a120731b.04	slcs-s.01	TCX	18.89/30.00	63.0	33.0/135.3	SO
		DCBP	22.11/30.00	73.7	30.0/137.0	
a120731b.05	slcs-s.01	TCX	17.84/30.00	59.5	33.0/135.3	SO
		DCBP	26.05/30.00	86.8	30.0/137.0	
a120731b.06	s53345.02	TCX	21.01/30.00	70.0	33.0/135.3	SO
		DCBP	32.90/30.00	109.7	30.0/137.0	
a120731b.07	s53345.03	TCX	20.23/30.00	67.4	33.0/135.3	SO
		DCBP	32.62/30.00	108.7	30.0/137.0	
a120731b.08	s53345.04	TCX	20.40/30.00	68.0	33.0/135.3	SO
		DCBP	31.86/30.00	106.2	30.0/137.0	
a120731b.09	s53345.05	TCX	20.61/30.00	68.7	33.0/135.3	SO
		DCBP	29.50/30.00	98.3	30.0/137.0	
a120731b.10	s53345.06	TCX	19.02/30.00	63.4	33.0/135.3	SO
		DCBP	24.08/30.00	80.3	30.0/137.0	
a120731b.11	s53345.07	TCX	19.09/30.00	63.6	33.0/135.3	SO
		DCBP	27.11/30.00	90.4	30.0/137.0	
a120731b.12	s53345.08	TCX	18.67/30.00	62.2	33.0/135.3	SO
		DCBP	26.67/30.00	88.9	30.0/137.0	
a120731b.13	s53345.11	TCX	21.10/30.00	70.3	33.0/135.3	SO
		DCBP	31.08/30.00	103.6	30.0/137.0	
a120731b.14	s53345.12	TCX	20.82/30.00	69.4	33.0/135.3	SO
		DCBP	31.33/30.00	104.4	30.0/137.0	
a120731b.15	s53345.13	TCX	20.51/30.00	68.4	33.0/135.3	SO
		DCBP	34.20/30.00	114.0	30.0/137.0	
a120731b.16	s53345.14	TCX	19.37/30.00	64.6	33.0/135.3	SO
		DCBP	28.99/30.00	96.6	30.0/137.0	
a120731b.17	s53345.15	TCX	19.26/30.00	64.2	33.0/135.3	SO
		DCBP	29.85/30.00	99.5	30.0/137.0	
a120731b.18	s53345.16	TCX	24.75/30.00	82.5	33.0/135.3	SO
		DCBP	33.08/30.00	110.3	30.0/137.0	
a120731b.19	s53345.09	TCX	20.44/30.00	68.1	33.0/135.3	SO
		DCBP	34.86/30.00	116.2	30.0/137.0	
a120731b.21	s53345.10	TCX	4.21/30.00	n/a	33.0/135.3	SO
		DCBP	8.42/30.00	n/a	30.0/137.0	
a120731b.23	slcs-al.0	TCX	18.79/30.00	62.6	34.1/137.1	WW
		DCBP	21.39/30.00	71.3	30.0/138.6	
a120731b.24	ss1660.01	TCX	3.21/30.00	n/a	34.1/137.1	WW
		DCBP	3.15/30.00	n/a	30.0/138.6	
a120731b.25	sc1660.02	TCX	17.40/30.00	n/a	34.1/137.1	WW
		DCBP	17.94/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

File Name	*LIMS ID*	*Sample Name*	*Target Compound*	*Dup/Samp Conc.*	*%RPD*	*Matrix*
a120731.05r	slcs-s.01	**a120731.04r**	1016-1	0.433/ 0.446	3.0	SO
			1016-2	0.449/ 0.452	0.7	
			1016-3	0.450/ 0.444	1.3	
			1016-4	0.455/ 0.421	7.8	
			1016-5	0.451/ 0.438	2.9	
			1260-1	0.454/ 0.438	3.6	
			1260-2	0.450/ 0.399	12.0	
			1260-3	0.451/ 0.440	2.5	
			1260-4	0.445/ 0.422	5.3	
			1260-5	0.453/ 0.439	3.1	
			[end of list]			

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

File Name	*LIMS ID*	*Sample Name*	*Target Compound*	*Dup/Samp Conc.*	*%RPD*	*Matrix*
a120731b.05	slcs-s.01	**a120731b.04**	1016-1	0.470/ 0.476	1.3	SO
			1016-2	0.463/ 0.438	5.5	
			1016-3	0.449/ 0.462	2.9	
			1016-4	0.477/ 0.472	1.1	
			1016-5	0.480/ 0.391	20.4	
			1260-1	0.512/ 0.472	8.1	
			1260-2	0.485/ 0.464	4.4	
			1260-3	0.492/ 0.481	2.3	
			1260-4	0.495/ 0.471	5.0	
			1260-5	0.500/ 0.485	3.0	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120731.04r	slcs-s.01	**a120731.03r**	1016-1	0.446/ 0.000	89.2		SO
			1016-2	0.452/ 0.000	90.4		
			1016-3	0.444/ 0.000	88.8		
			1016-4	0.421/ 0.000	84.2		
			1016-5	0.438/ 0.000	87.6		
			1260-1	0.438/ 0.000	87.6		
			1260-2	0.399/ 0.000	79.8		
			1260-3	0.440/ 0.000	88.0		
			1260-4	0.422/ 0.000	84.4		
			1260-5	0.439/ 0.000	87.8		
				Average Recovery	**86.8**	50.0/125.0	
a120731.05r	slcs-s.01	**a120731.03r**	1016-1	0.433/ 0.000	86.6		SO
			1016-2	0.449/ 0.000	89.8		
			1016-3	0.450/ 0.000	90.0		
			1016-4	0.455/ 0.000	91.0		
			1016-5	0.451/ 0.000	90.2		
			1260-1	0.454/ 0.000	90.8		
			1260-2	0.450/ 0.000	90.0		
			1260-3	0.451/ 0.000	90.2		
			1260-4	0.445/ 0.000	89.0		
			1260-5	0.453/ 0.000	90.6		
				Average Recovery	**89.8**	50.0/125.0	
a120731.23r	slcs-al.0		1016-1	0.459/ 0.000	91.8		WW
			1016-2	0.467/ 0.000	93.4		
			1016-3	0.460/ 0.000	92.0		
			1016-4	0.439/ 0.000	87.8		
			1016-5	0.454/ 0.000	90.8		
			1260-1	0.451/ 0.000	90.2		
			1260-2	0.409/ 0.000	81.8		
			1260-3	0.450/ 0.000	90.0		
			1260-4	0.426/ 0.000	85.2		
			1260-5	0.440/ 0.000	88.0		
				Average Recovery	**89.1**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120731b.04	slcs-s.01	**a120731b.03**	1016-1	0.476/ 0.000	95.2		SO
			1016-2	0.438/ 0.000	87.6		
			1016-3	0.462/ 0.000	92.4		
			1016-4	0.472/ 0.000	94.4		
			1016-5	0.391/ 0.000	78.2		
			1260-1	0.472/ 0.000	94.4		
			1260-2	0.464/ 0.000	92.8		
			1260-3	0.481/ 0.000	96.2		
			1260-4	0.471/ 0.000	94.2		
			1260-5	0.485/ 0.000	97.0		
				Average Recovery	**92.2**	50.0/125.0	
a120731b.05	slcs-s.01	**a120731b.03**	1016-1	0.470/ 0.000	94.0		SO
			1016-2	0.463/ 0.000	92.6		
			1016-3	0.449/ 0.000	89.8		
			1016-4	0.477/ 0.000	95.4		
			1016-5	0.480/ 0.000	96.0		
			1260-1	0.512/ 0.000	102.4		
			1260-2	0.485/ 0.000	97.0		
			1260-3	0.492/ 0.000	98.4		
			1260-4	0.495/ 0.000	99.0		
			1260-5	0.500/ 0.000	100.0		
				Average Recovery	**96.5**	50.0/125.0	
a120731b.23	slcs-al.0		1016-1	0.473/ 0.000	94.6		WW
			1016-2	0.436/ 0.000	87.2		
			1016-3	0.464/ 0.000	92.8		
			1016-4	0.471/ 0.000	94.2		
			1016-5	0.388/ 0.000	77.6		
			1260-1	0.460/ 0.000	92.0		
			1260-2	0.451/ 0.000	90.2		
			1260-3	0.491/ 0.000	98.2		
			1260-4	0.441/ 0.000	88.2		
			1260-5	0.468/ 0.000	93.6		
				Average Recovery	**90.9**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-5
Level: LOW

Analytical Batch: a120731.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: a120731.03r.bnd
LCS Data File: a120731.04r.bnd

Blank/LCS Preparation Batch: pa120730s02

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53292.01	F120731	PA120730S02	07/31/12	PCB List	$8080A
	PA120730S02		07/30/12	Extraction, PCB	1120S
S53345.02	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.03	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.04	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.05	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.06	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.07	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.08	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.09	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.10	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.11	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.12	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.13	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.14	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.15	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.16	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53347.02	F120731	PA120730S02	07/31/12	PCB List	$8080A
	PA120730S02		07/30/12	Extraction, PCB	1120S
S53347.10	F120731	PA120730S02	07/31/12	PCB List	$8080A
	PA120730S02		07/30/12	Extraction, PCB	1120S

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-5
Level: LOW

Analytical Batch: a120731.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
a120731.01r	sblk-r.01	07/31/12 09:19	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
a120731.03r	sblk-s.01	07/31/12 10:43	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-608
Level: LOW

Analytical Batch: a120731.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: a120731b.03r.bnd
LCS Data File: a120731b.04r.bnd

Blank/LCS Preparation Batch: pa120730s02

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53292.01	F120731	PA120730S02	07/31/12	PCB List	$8080A
	PA120730S02		07/30/12	Extraction, PCB	1120S
S53345.02	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.03	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.04	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.05	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.06	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.07	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.08	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.09	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.10	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.11	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.12	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.13	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.14	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.15	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53345.16	PA120730S02		07/30/12	Extraction, PCB	1120S
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 1)	$TCL8082C1
	A120731	PA120730S02	07/31/12	TCL PCB List (Column 2)	$TCL8082C2
S53347.02	F120731	PA120730S02	07/31/12	PCB List	$8080A
	PA120730S02		07/30/12	Extraction, PCB	1120S
S53347.10	F120731	PA120730S02	07/31/12	PCB List	$8080A
	PA120730S02		07/30/12	Extraction, PCB	1120S

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-608
Level: LOW

Analytical Batch: a120731.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	LIMS ID	Run Time	Target Analyte	Conc.	Sample	Matrix
a120731b.01	sblk-r.01	07/31/12 09:19	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
a120731b.03	sblk-s.01	07/31/12 10:43	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
Analytical Batch: a120731.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Note/Qualifier Key

A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.02
Data File: a120731.06r.bnd
Date Received: 07/26/12

Tag: SB168-(07-23-12) (6-8)
Notes: s53345.02 20.1g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		79	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53345.02 **Tag: SB168-(07-23-12) (6-8)** Matrix: SO
Data File: a120731b.06r.bnd Notes: s53345.02 20.1g s/1 ID:PA120730s02 Extraction: SONC
Date Received: 07/26/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		79	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.03
Data File: a120731.07r.bnd
Date Received: 07/26/12

Tag: SB137-(07-23-12) (22-24)
Notes: s53345.03 20.1g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		86	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

LIMS ID: S53345.03
Data File: a120731b.07r.bnd
Date Received: 07/26/12

Tag: SB137-(07-23-12) (22-24)
Notes: s53345.03 20.1g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		86	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.04
Data File: a120731.08r.bnd
Date Received: 07/26/12

Tag: SB136-(07-23-12) (22-24)
Notes: s53345.04 20.0g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

LIMS ID: S53345.04
Data File: a120731b.08r.bnd
Date Received: 07/26/12

Tag: SB136-(07-23-12) (22-24)
Notes: s53345.04 20.0g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.05
Data File: a120731.09r.bnd
Date Received: 07/26/12

Tag: SB139-(07-24-12) (22-24)
Notes: s53345.05 20.2g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		79	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

LIMS ID: S53345.05
Data File: a120731b.09r.bnd
Date Received: 07/26/12

Tag: SB139-(07-24-12) (22-24)
Notes: s53345.05 20.2g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		79	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.06
Data File: a120731.10r.bnd
Date Received: 07/26/12

Tag: SB135-(07-24-12) (2-4)
Notes: s53345.06 20.0g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53345.06 **Tag: SB135-(07-24-12) (2-4)** Matrix: SO
Data File: a120731b.10r.bnd Notes: s53345.06 20.0g s/1 ID:PA120730s02 Extraction: SONC
Date Received: 07/26/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.07
Data File: a120731.11r.bnd
Date Received: 07/26/12

Tag: SB166-(07-24-12) (4-6)
Notes: s53345.07 20.2g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		94	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53345.07 **Tag: SB166-(07-24-12) (4-6)** Matrix: SO
Data File: a120731b.11r.bnd Notes: s53345.07 20.2g s/1 ID:PA120730s02 Extraction: SONC
Date Received: 07/26/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		94	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.08
Data File: a120731.12r.bnd
Date Received: 07/26/12

Tag: DUP3-(07-24-12)
Notes: s53345.08 20.3g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		88	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

LIMS ID: S53345.08
Data File: a120731b.12r.bnd
Date Received: 07/26/12

Tag: DUP3-(07-24-12)
Notes: s53345.08 20.3g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		88	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.09
Data File: a120731.19r.bnd
Date Received: 07/26/12

Tag: SB152-(07-24-12) (4-6)
Notes: s53345.09 20.0g s/1 dx ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		89	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53345.09 **Tag: SB152-(07-24-12) (4-6)** Matrix: SO
Data File: a120731b.19r.bnd Notes: s53345.09 20.0g s/1 dx ID:PA120730s02 Extraction: SONC
Date Received: 07/26/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		89	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.10
Data File: a120731.21r.bnd
Date Received: 07/26/12

Tag: SB167-(07-24-12) (2-4)
Notes: s53345.10 20.2g s/5 dx ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		79	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53345.10 **Tag: SB167-(07-24-12) (2-4)** Matrix: SO
Data File: a120731b.21r.bnd Notes: s53345.10 20.2g s/5 dx ID:PA120730s02 Extraction: SONC
Date Received: 07/26/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		79	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.11
Data File: a120731.13r.bnd
Date Received: 07/26/12

Tag: SB126-(07-25-12) (24-26)
Notes: s53345.11 20.0g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

LIMS ID: S53345.11
Data File: a120731b.13r.bnd
Date Received: 07/26/12

Tag: SB126-(07-25-12) (24-26)
Notes: s53345.11 20.0g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.12
Data File: a120731.14r.bnd
Date Received: 07/26/12

Tag: SB153-(07-25-12) (3.5-5.5)
Notes: s53345.12 20.1g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		80	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

LIMS ID: S53345.12
Data File: a120731b.14r.bnd
Date Received: 07/26/12

Tag: SB153-(07-25-12) (3.5-5.5)
Notes: s53345.12 20.1g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		80	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.13
Data File: a120731.15r.bnd
Date Received: 07/26/12

Tag: SB107-(07-25-12) (3-5)
Notes: s53345.13 20.3g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		88	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53345.13 **Tag: SB107-(07-25-12) (3-5)** Matrix: SO
Data File: a120731b.15r.bnd Notes: s53345.13 20.3g s/1 ID:PA120730s02 Extraction: SONC
Date Received: 07/26/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		88	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.14
Data File: a120731.16r.bnd
Date Received: 07/26/12

Tag: SB111-(07-25-12) (0.5-2.5)
Notes: s53345.14 20.1g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		94	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53345.14 **Tag: SB111-(07-25-12) (0.5-2.5)** Matrix: SO
Data File: a120731b.16r.bnd Notes: s53345.14 20.1g s/1 ID:PA120730s02 Extraction: SONC
Date Received: 07/26/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		94	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.15
Data File: a120731.17r.bnd
Date Received: 07/26/12

Tag: SB110-(07-25-12) (0.5-2.5)
Notes: s53345.15 20.0g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

LIMS ID: S53345.15
Data File: a120731b.17r.bnd
Date Received: 07/26/12

Tag: SB110-(07-25-12) (0.5-2.5)
Notes: s53345.15 20.0g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

LIMS ID: S53345.16
Data File: a120731.18r.bnd
Date Received: 07/26/12

Tag: SB119-(07-26-12) (3-5)
Notes: s53345.16 20.2g s/1 ID:PA120730s02

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/27/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53345.16 **Tag: SB119-(07-26-12) (3-5)** Matrix: SO
Data File: a120731b.18r.bnd Notes: s53345.16 20.2g s/1 ID:PA120730s02 Extraction: SONC
Date Received: 07/26/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	07/31/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				07/30/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/27/12	

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

Filename	*Compound*	*Fit*	*RT-<CF>*	*RT %RSD*	*RT+ COD*	*C(1) CF(1)*	*C(2) CF(2)*	*C(3) CF(3)*	*C(4) CF(4)*	*C(5) CF(5)*	*C(6) CF(6)*	*k(0) k(2)*	*k(1) k(3)*
a66120723.cal	**TCX**	L	2.24	2.29	2.34	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.061
				21.6	1.00	0.11	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.15	3.20	3.25	0.05	0.10	0.30	0.50	0.70	1.00	0.049	0.927
				24.1	1.00	1.72	1.36	1.12	1.06	1.00	0.97		
	1016-2	L	3.41	3.46	3.51	0.05	0.10	0.30	0.50	0.70	1.00	0.156	2.954
				25.0	1.00	5.59	4.34	3.55	3.39	3.15	3.09		
	1016-3	L	3.50	3.55	3.60	0.05	0.10	0.30	0.50	0.70	1.00	0.060	1.236
				23.2	1.00	2.24	1.76	1.47	1.41	1.32	1.29		
	1016-4	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.038	0.909
				20.9	1.00	1.56	1.24	1.05	1.02	0.96	0.94		
	1016-5	L	4.04	4.09	4.14	0.05	0.10	0.30	0.50	0.70	1.00	0.057	1.163
				23.1	1.00	2.11	1.65	1.38	1.32	1.24	1.21		
	1260-1	L	5.09	5.14	5.19	0.05	0.10	0.30	0.50	0.70	1.00	0.096	1.843
				25.0	1.00	3.48	2.70	2.21	2.10	1.96	1.93		
	1260-2	L	5.31	5.36	5.41	0.05	0.10	0.30	0.50	0.70	1.00	0.143	2.727
				25.1	1.00	5.16	4.02	3.27	3.12	2.90	2.86		
	1260-3	L	5.55	5.60	5.65	0.05	0.10	0.30	0.50	0.70	1.00	0.140	2.736
				24.6	1.00	5.12	3.98	3.26	3.13	2.91	2.86		
	1260-4	L	6.15	6.20	6.25	0.05	0.10	0.30	0.50	0.70	1.00	0.092	1.991
				23.6	1.00	3.61	2.84	2.33	2.24	2.09	2.08		
	1260-5	L	6.41	6.46	6.51	0.05	0.10	0.30	0.50	0.70	1.00	0.105	2.032
				24.9	1.00	3.83	2.97	2.43	2.32	2.15	2.13		
	DCBP	L	7.53	7.58	7.63	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.044
				25.4	1.00	0.08	0.07	0.05	0.05	0.05	0.05		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): a66120723.cal / mean %rsd: 23.9

File Name: F:\gceecd.dat\Methods\A66120723.cal
Version: 1

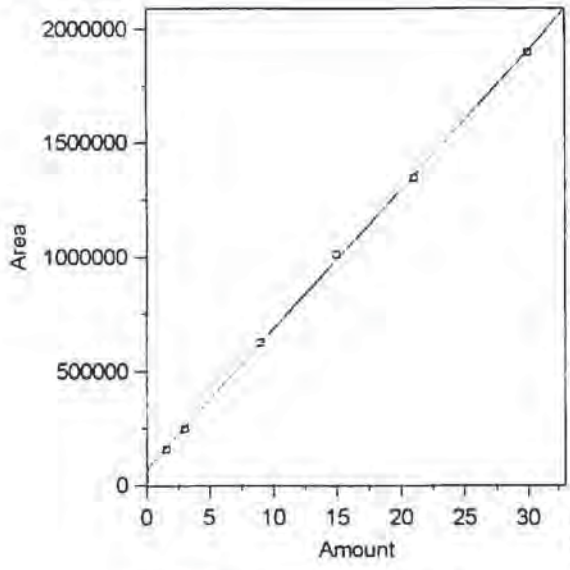
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.288 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

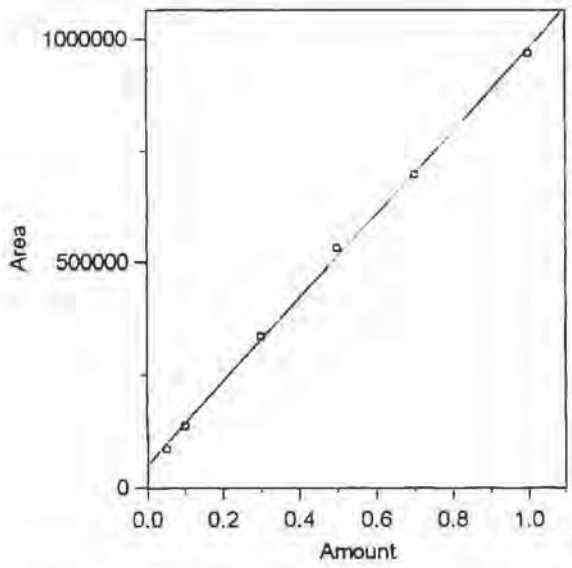
Single peak quantification by area

Y = 61135.64 X + 71564.21

Linear fit with equal weighting
Coefficient of determination: 0.9997023
Average error: 1.671%
Average CF: 75401.86
RSD: 21.587%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	158211.1	105474.1	-3.097	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	3	247381.2	82460.4	-2.977	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	9	627188.6	69687.63	0.869	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	15	1009865	67324.34	2.151	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	21	1346143	64102.05	-0.684	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	30	1900880	63362.67	-0.249	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

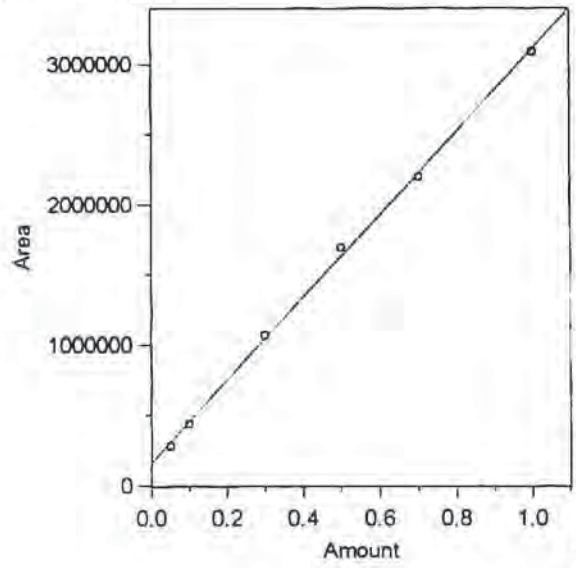
2 1016-1



Expected retention time:	3.204 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 927477.9 X + 49200.14	
Linear fit with equal weighting	
Coefficient of determination:	0.9989657
Average error:	3.530%
Average CF:	1204538
RSD:	24.069%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	86105.43	1722109	-9.907	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	136167.7	1361677	-4.072	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	335690.6	1118969	2.519	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	530850.7	1061701	3.492	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	696663.8	995234.1	-0.254	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	967539.4	967539.4	-0.936	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

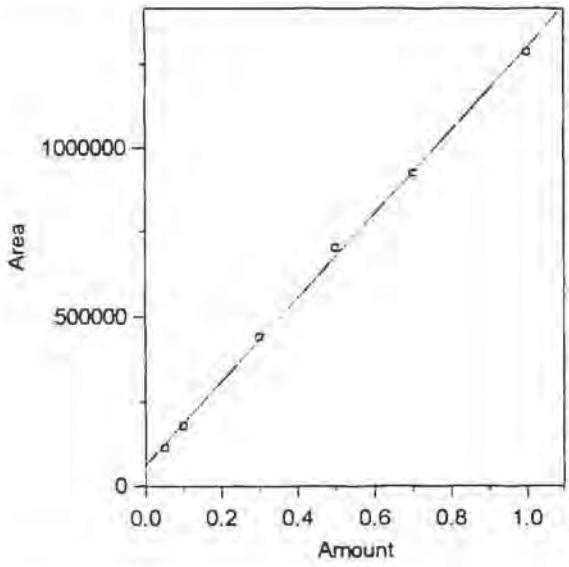
3 1016-2



Expected retention time:	3.458 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2953772 X + 156388.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9989858
Average error:	3.258%
Average CF:	3850246
RSD:	24.990%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	279309.2	5586184	-8.145	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	433994.1	4339941	-3.934	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	1065060	3550200	2.162	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1693959	3387918	3.716	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2202040	3145772	-0.989	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	3091464	3091464	-0.601	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

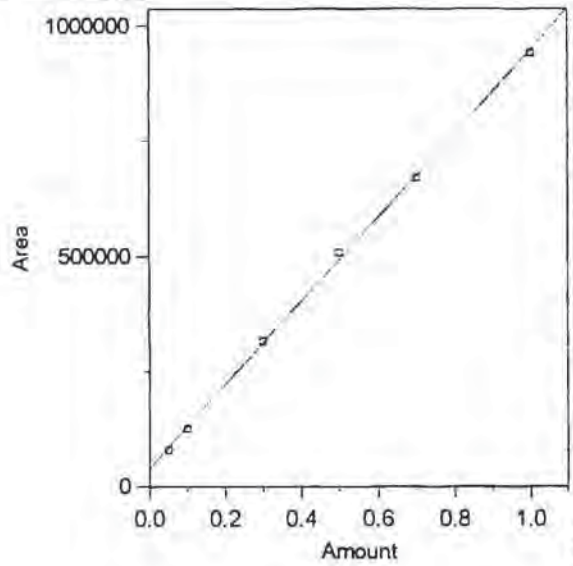
4 1016-3



Expected retention time:	3.55 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1236227 X + 60238.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9991041
Average error:	3.182%
Average CF:	1578939
RSD:	23.167%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	112013.3	2240266	-8.223	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	176181.8	1761818	-4.177	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	439383.1	1464610	1.920	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	702255	1404510	3.524	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	921267.6	1316097	-0.468	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1286331	1286331	-0.782	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

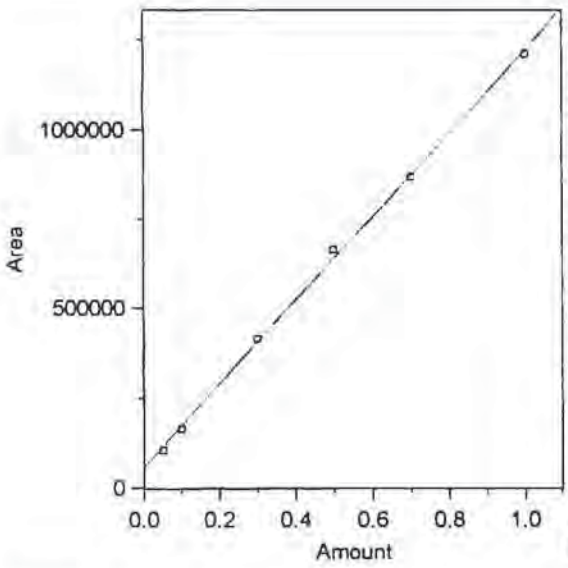
5 1016-4



Expected retention time:	3.62 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 909122.1 X + 38161.76	
Linear fit with equal weighting	
Coefficient of determination:	0.9993291
Average error:	2.779%
Average CF:	1127956
RSD:	20.930%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	77820.7	1556414	-6.933	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	124287.9	1242879	-3.708	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	315925.3	1053084	1.617	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	508258.3	1016517	3.153	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	669641.2	956630.3	-0.727	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	942210.8	942210.8	-0.536	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

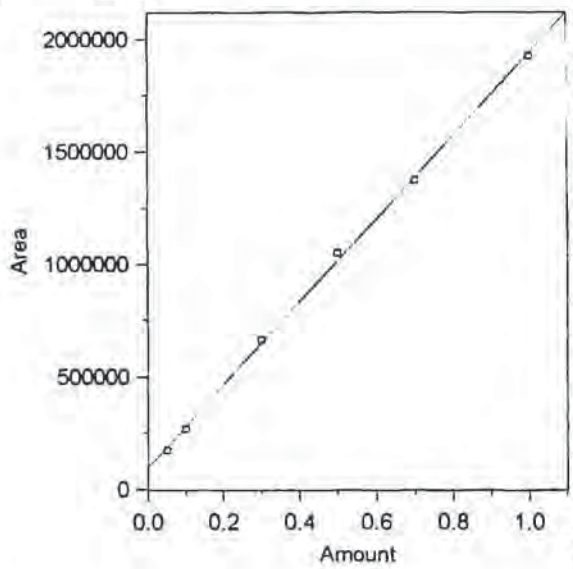
6 1016-5



Expected retention time:	4.087 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1163463 X + 56659.07	
Linear fit with equal weighting	
Coefficient of determination:	0.999
Average error:	3.367%
Average CF:	1484848
RSD:	23.098%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	105395.8	2107916	-8.218	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	164816.7	1648167	-4.733	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	414433.1	1381444	2.153	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	662075.4	1324151	3.710	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	865673.7	1236677	-0.621	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1210736	1210736	-0.769	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

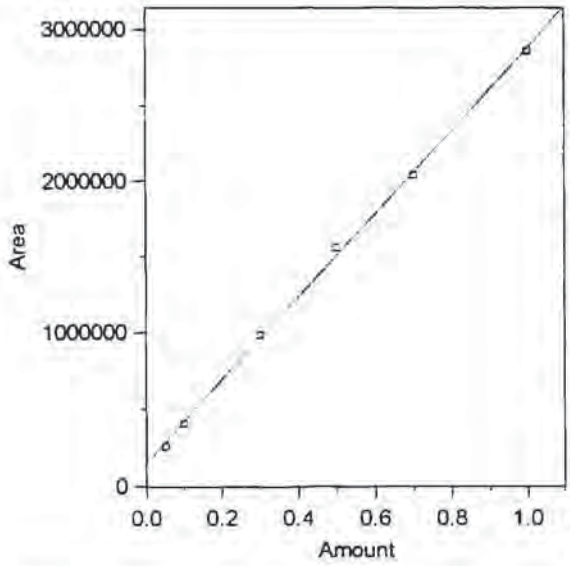
7 1260-1



Expected retention time:	5.141 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1842616 X + 96174.94	
Linear fit with equal weighting	
Coefficient of determination:	0.9991545
Average error:	3.001%
Average CF:	2397846
RSD:	25.044%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	174105.7	3482114	-7.541	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	270409	2704090	-3.576	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	662251.2	2207504	2.048	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1051767	2103534	3.370	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1372902	1961289	-0.945	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1928547	1928547	-0.528	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

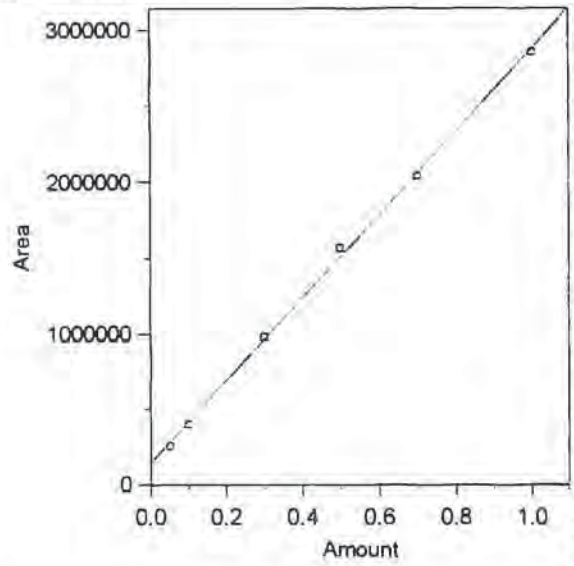
8 1260-2



Expected retention time:	5.36 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2727048 X + 143494.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9991046
Average error:	3.039%
Average CF:	3553938
RSD:	25.062%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	257787.1	5155742	-7.883	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	402170.8	4021708	-3.371	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	980370	3267900	1.951	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1559937	3119874	3.511	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2032394	2903420	-0.976	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2854984	2854984	-0.542	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

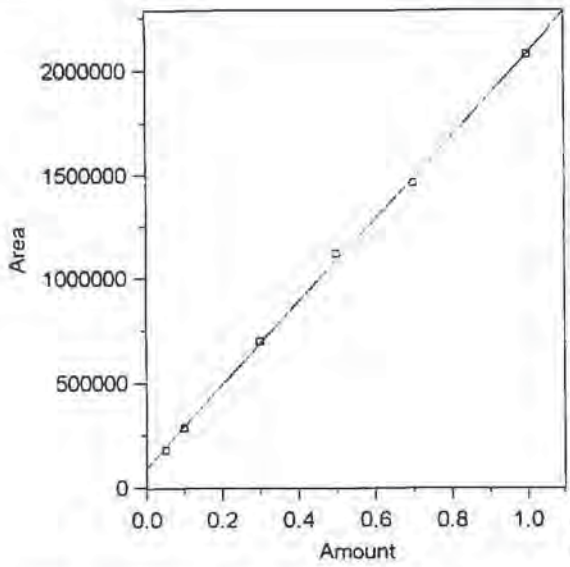
9 1260-3



Expected retention time:	5.603 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2736328 X + 140375.4	
Linear fit with equal weighting	
Coefficient of determination:	0.9990367
Average error:	3.090%
Average CF:	3543684
RSD:	24.588%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	255937.1	5118742	-7.668	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	398342.5	3983425	-3.784	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	978546.4	3261821	1.797	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1564908	3129816	3.737	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2035858	2908369	-0.970	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2859929	2859929	-0.583	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

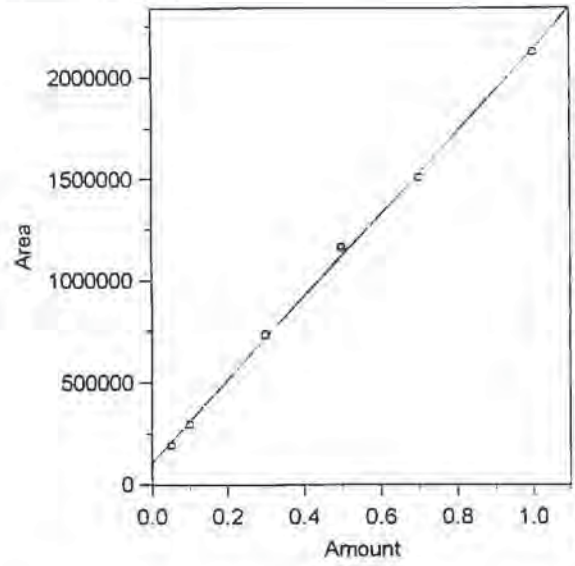
10 1260-4



Expected retention time:	6.203 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1990900 X + 91862.5	
Linear fit with equal weighting	
Coefficient of determination:	0.9993398
Average error:	2.325%
Average CF:	2532612
RSD:	23.638%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	180701	3614020	-5.594	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	284122.4	2841224	-2.347	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	699625.9	2332086	1.523	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1118682	2237364	2.885	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1463119	2090170	-1.506	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2080809	2080809	-0.094	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

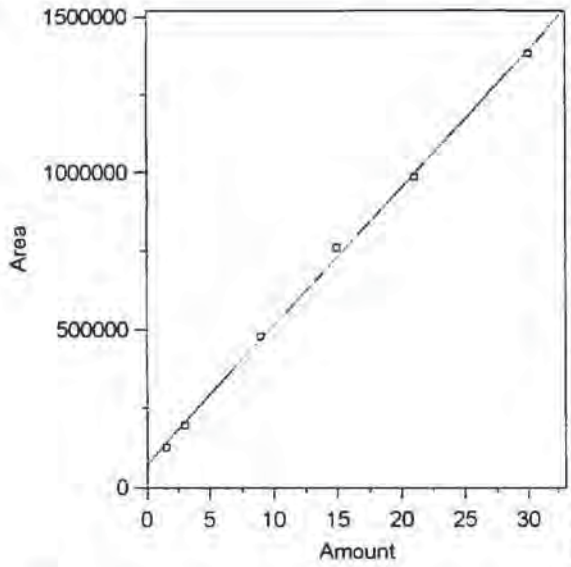
11 1260-5



Expected retention time:	6.46 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2031766 X + 105185.8	
Linear fit with equal weighting	
Coefficient of determination:	0.999006
Average error:	3.100%
Average CF:	2639279
RSD:	24.931%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	191461	3829220	-7.406	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	296913	2969130	-3.713	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	729582.5	2431942	2.080	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1162112	2324224	3.661	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1507168	2153097	-1.326	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2128059	2128059	-0.416	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

12 DCBP



Expected retention time:	7.576 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 43996.59 X + 72227.88	
Linear fit with equal weighting	
Coefficient of determination:	0.9987453
Average error:	3.568%
Average CF:	57719.43
RSD:	25.426%

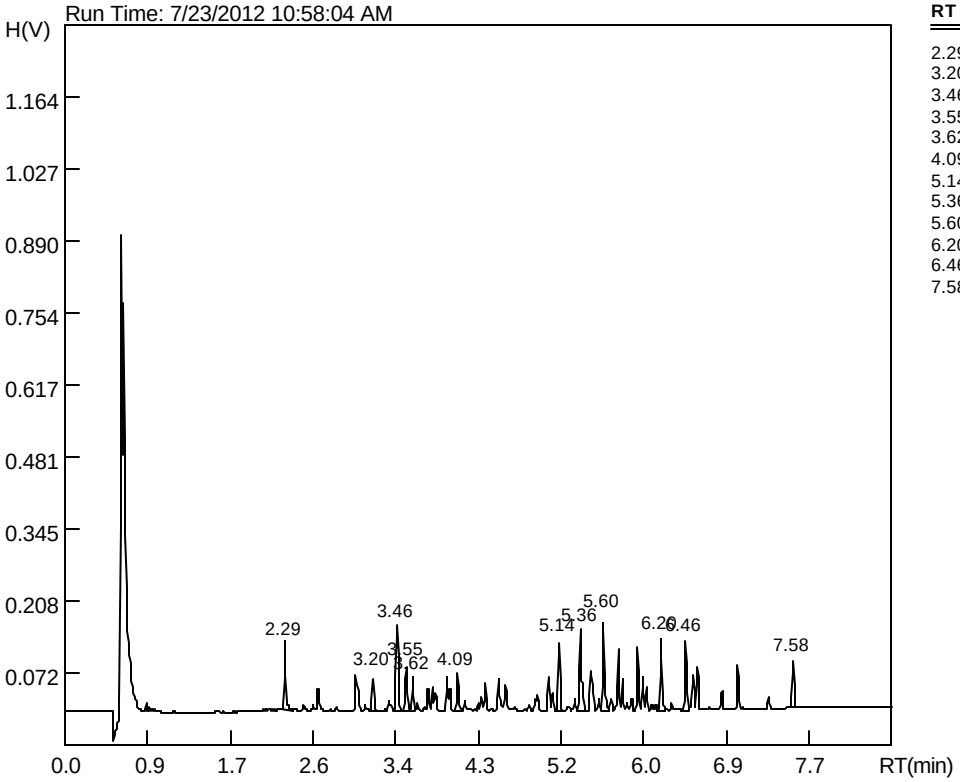
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	126427.5	84285	-8.534	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	3	194791.2	64930.4	-4.616	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	9	479314.4	53257.16	2.374	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	15	762433.2	50828.88	4.132	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	21	985420.3	46924.78	-1.078	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	30	1382710	46090.33	-0.676	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

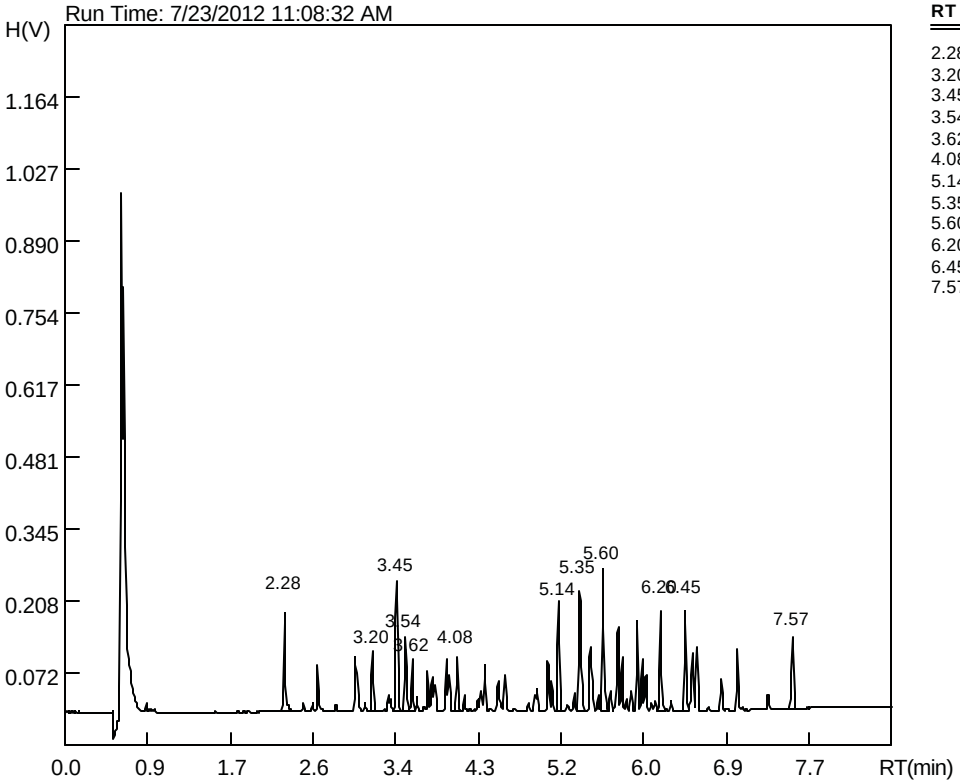
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:04 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	1.962	158211
3.20	0.00	1016-1	0.050	86105
3.46	0.01	1016-2	0.058	279309
3.55	0.00	1016-3	0.053	112013
3.62	0.00	1016-4	0.038	77821
4.09	0.01	1016-5	0.054	105396
5.14	0.00	1260-1	0.055	174106
5.36	0.01	1260-2	0.056	257787
5.60	0.00	1260-3	0.059	255937
6.20	0.00	1260-4	0.066	180701
6.46	0.01	1260-5	0.060	191461
7.58	0.01	DCBP	1.909	126428

File Name: F:\GCECD.DAT\A120723\A120723.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:32 AM



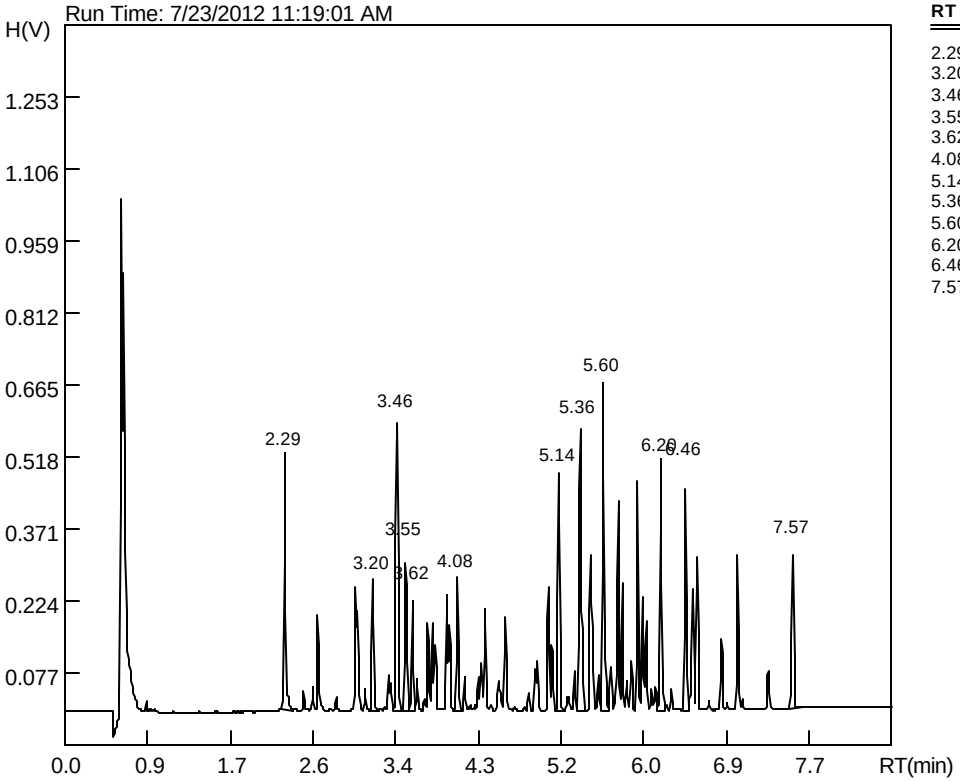
RT	dT	Name	Amt.	Area
2.28	-0.01	TCX	3.894	247381
3.20	0.00	1016-1	0.117	136168
3.45	0.00	1016-2	0.121	433994
3.54	-0.01	1016-3	0.117	176182
3.62	0.00	1016-4	0.102	124288
4.08	0.00	1016-5	0.116	164817
5.14	0.00	1260-1	0.119	270409
5.35	0.00	1260-2	0.122	402171
5.60	0.00	1260-3	0.123	398343
6.20	0.00	1260-4	0.133	284122
6.45	0.00	1260-5	0.126	296913
7.57	0.00	DCBP	4.231	194791

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

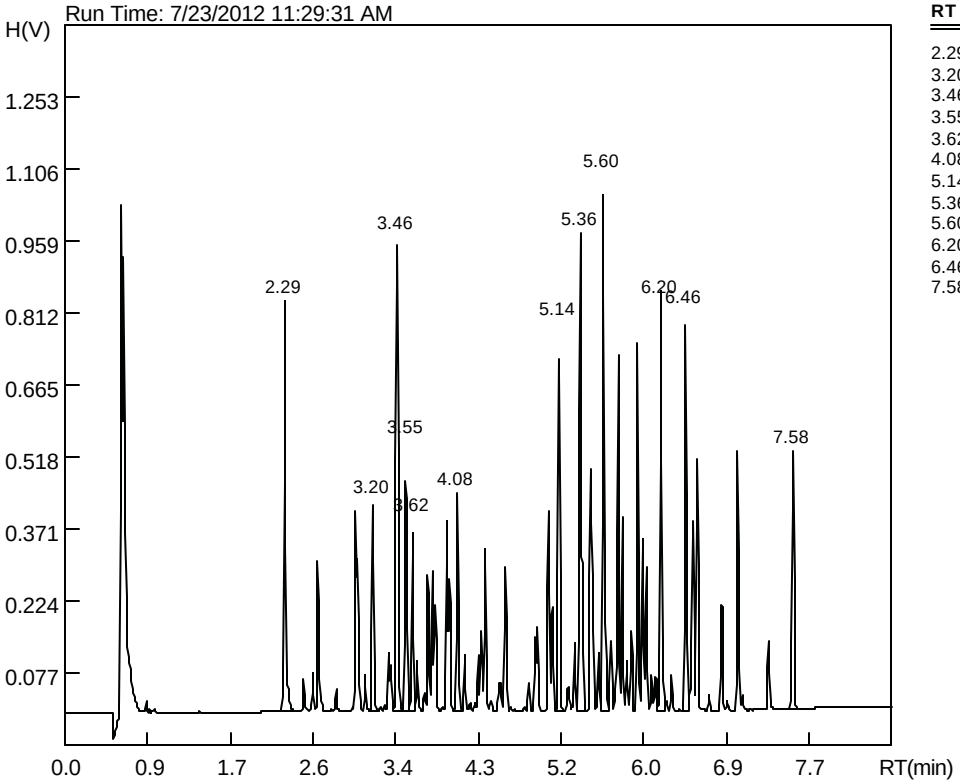
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:01 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	12.123	627189
3.20	0.00	1016-1	0.380	335691
3.46	0.01	1016-2	0.378	1065060
3.55	0.00	1016-3	0.376	439383
3.62	0.00	1016-4	0.368	315925
4.08	0.00	1016-5	0.376	414433
5.14	0.00	1260-1	0.381	662251
5.36	0.01	1260-2	0.385	980370
5.60	0.00	1260-3	0.387	978546
6.20	0.00	1260-4	0.404	699626
6.46	0.01	1260-5	0.397	729583
7.57	0.00	DCBP	13.895	479314

File Name: F:\GCECD.DAT\A120723\A120723.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:31 AM



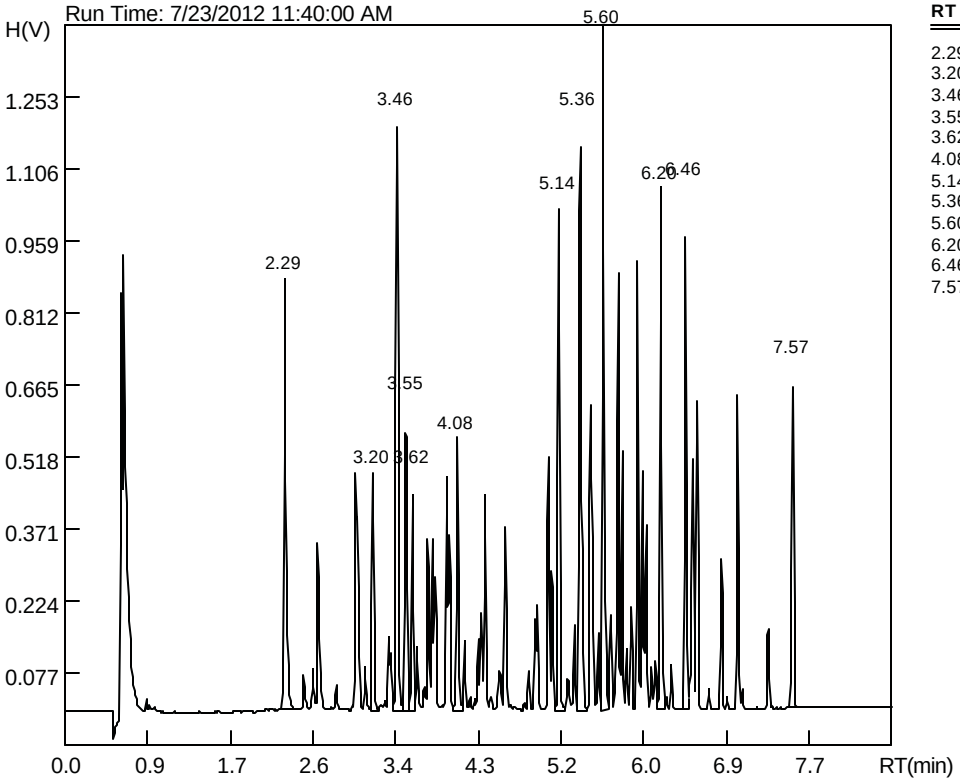
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.415	1009865
3.20	0.00	1016-1	0.638	530851
3.46	0.01	1016-2	0.635	1693959
3.55	0.00	1016-3	0.636	702255
3.62	0.00	1016-4	0.634	508258
4.08	0.00	1016-5	0.634	662075
5.14	0.00	1260-1	0.642	1051767
5.36	0.01	1260-2	0.649	1559937
5.60	0.00	1260-3	0.654	1564908
6.20	0.00	1260-4	0.677	1118682
6.46	0.01	1260-5	0.668	1162112
7.58	0.01	DCBP	23.510	762433

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

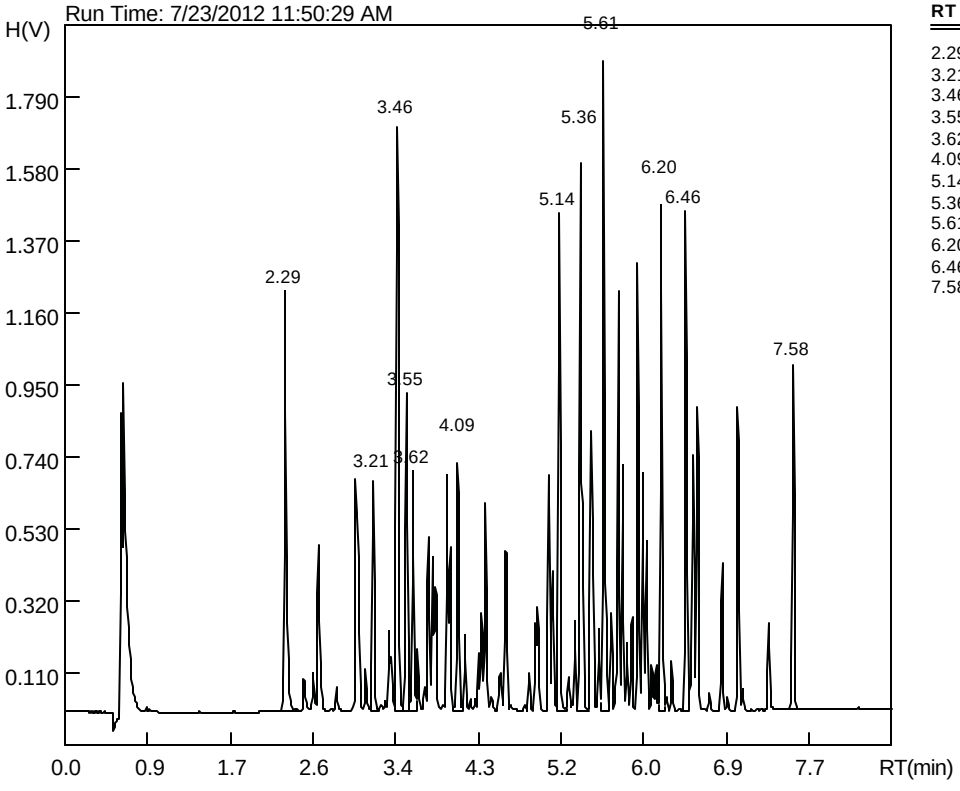
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:00 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	27.701	1346143
3.20	0.00	1016-1	0.858	696664
3.46	0.01	1016-2	0.842	2202040
3.55	0.00	1016-3	0.852	921268
3.62	0.00	1016-4	0.858	669641
4.08	0.00	1016-5	0.846	865674
5.14	0.00	1260-1	0.857	1372902
5.36	0.01	1260-2	0.865	2032394
5.60	0.00	1260-3	0.868	2035858
6.20	0.00	1260-4	0.901	1463119
6.46	0.01	1260-5	0.885	1507168
7.57	0.00	DCBP	31.083	985420

File Name: F:\GCECD.DAT\A120723\A120723.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:29 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	39.721	1900880
3.21	0.01	1016-1	1.216	967539
3.46	0.01	1016-2	1.204	3091464
3.55	0.00	1016-3	1.213	1286331
3.62	0.00	1016-4	1.235	942211
4.09	0.01	1016-5	1.205	1210736
5.14	0.00	1260-1	1.229	1928547
5.36	0.01	1260-2	1.240	2854984
5.61	0.01	1260-3	1.242	2859929
6.20	0.00	1260-4	1.304	2080809
6.46	0.01	1260-5	1.274	2128059
7.58	0.01	DCBP	44.577	1382710

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
ab66120723.ca	**TCX**	L	2.42	2.47	2.52	1.50	3.00	9.00	15.00	21.00	30.00	0.062	0.061
				21.6	1.00	0.10	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.13	3.18	3.23	0.05	0.10	0.30	0.50	0.70	1.00	0.034	0.692
				22.7	1.00	1.25	0.97	0.83	0.79	0.74	0.72		
	1016-2	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.429
				26.2	1.00	2.78	2.13	1.73	1.65	1.53	1.50		
	1016-3	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.118	3.157
				23.5	1.00	5.63	4.28	3.55	3.46	3.24	3.30		
	1016-4	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.052	1.162
				23.2	1.00	2.10	1.57	1.36	1.31	1.22	1.21		
	1016-5	L	4.58	4.63	4.68	0.05	0.10	0.30	0.50	0.70	1.00	0.068	1.154
				27.3	1.00	2.31	1.75	1.42	1.34	1.24	1.21		
	1260-1	L	5.69	5.74	5.79	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.005
				26.0	1.00	3.83	2.92	2.35	2.26	2.11	2.10		
	1260-2	L	5.77	5.82	5.87	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.082
				25.9	1.00	3.95	3.00	2.43	2.33	2.18	2.18		
	1260-3	L	6.18	6.23	6.28	0.05	0.10	0.30	0.50	0.70	1.00	0.100	2.074
				24.7	1.00	3.84	3.03	2.43	2.36	2.17	2.18		
	1260-4	L	6.67	6.72	6.77	0.05	0.10	0.30	0.50	0.70	1.00	0.057	2.106
				21.6	1.00	3.53	2.72	2.24	2.22	2.17	2.18		
	1260-5	L	7.10	7.15	7.20	0.05	0.10	0.30	0.50	0.70	1.00	0.090	1.961
				24.7	1.00	3.63	2.83	2.29	2.20	2.04	2.06		
	DCBP	L	8.28	8.33	8.38	1.50	3.00	9.00	15.00	21.00	30.00	0.064	0.039
				25.5	1.00	0.08	0.06	0.05	0.05	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): ab66120723.cal / mean %rsd: 24.4

File Name: F:\gceed.dat\Methods\Ab66120723.cal
Version: 2

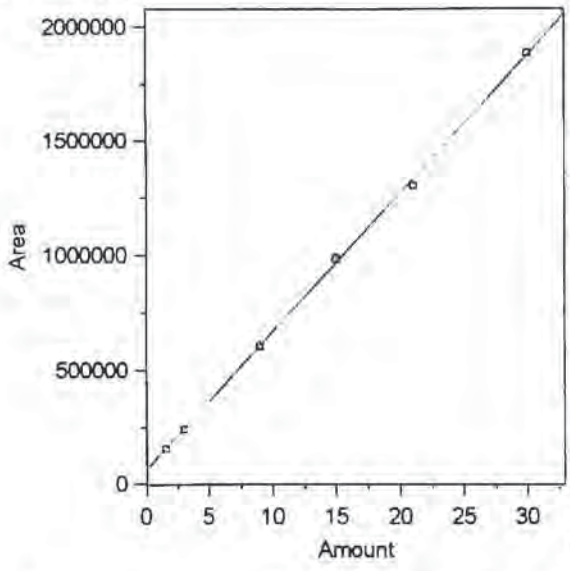
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time:	2.473 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	1
TCX (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

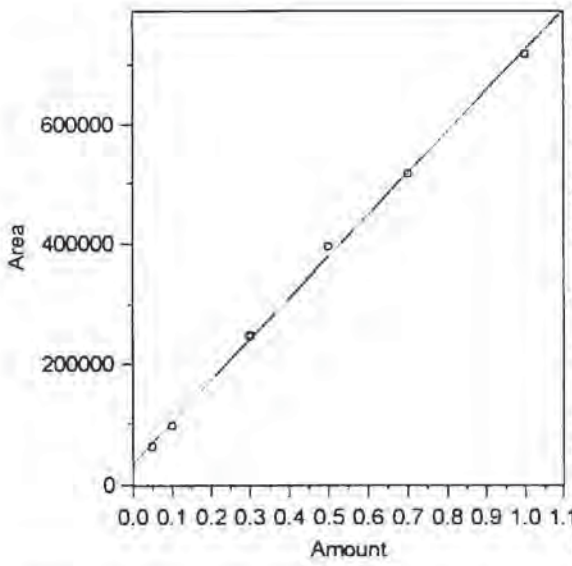
Y = 60506.64 X + 62130.27

Linear fit with equal weighting

Coefficient of determination:	0.9993865
Average error:	1.127%
Average CF:	73646.06
RSD:	21.557%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	154585.1	103056.7	1.109	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	3	241599.4	80533.13	-0.842	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	9	606330.7	67370.08	-0.059	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	15	988404.6	65893.64	1.926	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	21	1303269	62060.43	-2.213	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	30	1888871	62962.37	0.615	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

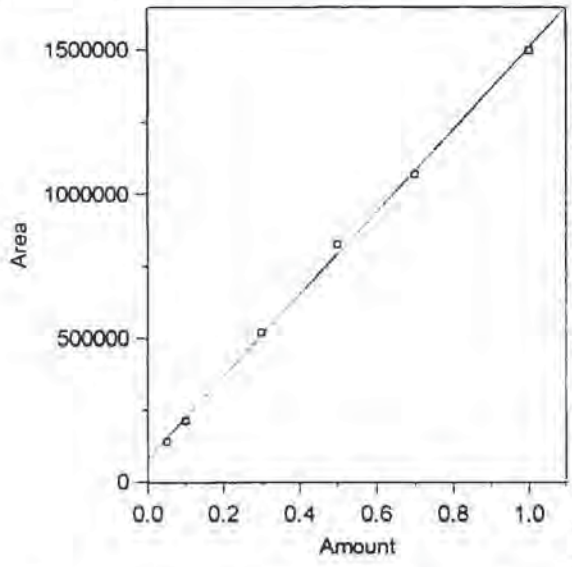
2 1016-1



Expected retention time:	3.181 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 692366 X + 33994.13	
Linear fit with equal weighting	
Coefficient of determination:	0.9987106
Average error:	3.850%
Average CF:	882283.4
RSD:	22.698%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	62399.82	1247996	-9.055	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	97106.09	971060.9	-5.933	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	247847.9	826159.6	2.542	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	395872.5	791745	4.128	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	516202.8	737432.6	-0.472	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	719305.7	719305.7	-0.971	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

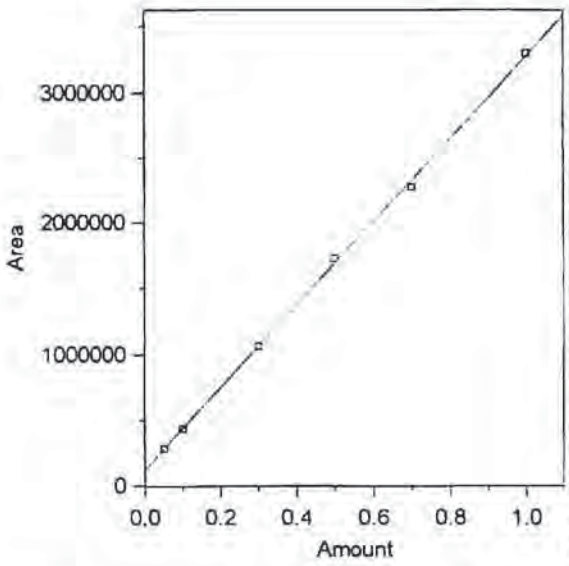
3 1016-2



Expected retention time:	3.617 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1428928 X + 79457.95	
Linear fit with equal weighting	
Coefficient of determination:	0.998931
Average error:	3.280%
Average CF:	1885609
RSD:	26.147%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	138943.8	2778876	-7.926	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	212955.3	2129553	-4.225	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	518948.3	1729828	2.128	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	824309.8	1648620	3.828	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1069894	1528420	-0.909	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1498355	1498355	-0.665	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

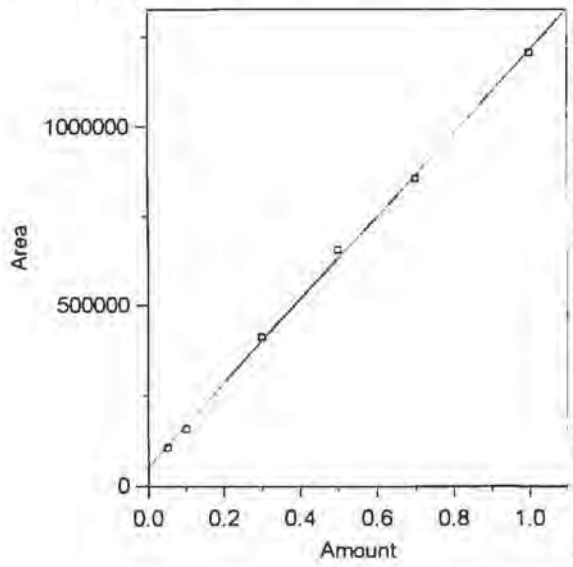
4 1016-3



Expected retention time:	3.988 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 3156785 X + 118310.8	
Linear fit with equal weighting	
Coefficient of determination:	0.9992492
Average error:	1.412%
Average CF:	3911380
RSD:	23.540%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	281423.1	5628462	1.909	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	428290.6	4282906	-1.313	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	1066353	3554510	0.094	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1730023	3460046	1.964	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	2270575	3243679	-2.469	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	3298679	3298679	0.720	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

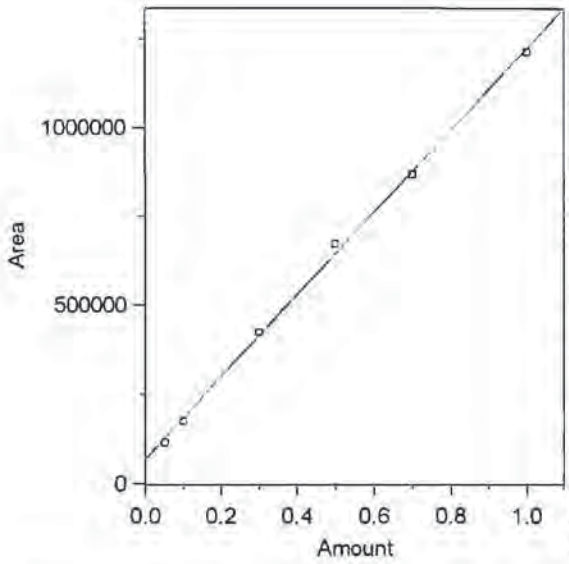
5 1016-4



Expected retention time:	4.149 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1161559 X + 51833.45	
Linear fit with equal weighting	
Coefficient of determination:	0.9989865
Average error:	3.106%
Average CF:	1461707
RSD:	23.149%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	104985.3	2099706	-4.482	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	156684.8	1566848	-6.729	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	408429	1361430	2.030	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	656541.9	1313084	3.783	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	855590.8	1222273	-1.079	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1206900	1206900	-0.535	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

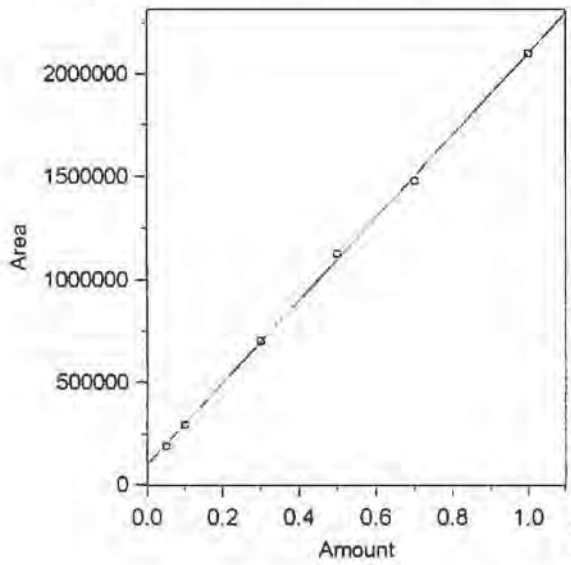
6 1016-5



Expected retention time:	4.629 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1154245 X + 67757.28	
Linear fit with equal weighting	
Coefficient of determination:	0.9987983
Average error:	3.468%
Average CF:	1543858
RSD:	27.259%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	115365.6	2307312	-8.053	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	174881.3	1748813	-4.531	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	424610.2	1415367	2.555	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	670161.4	1340323	3.920	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	865803.4	1236862	-1.133	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1214470	1214470	-0.616	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

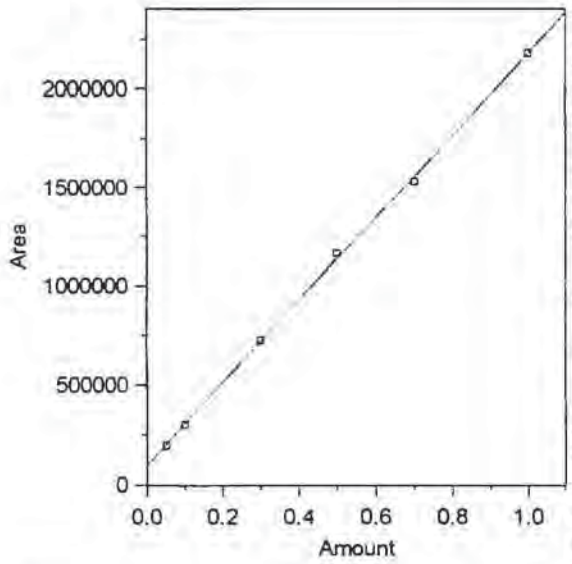
7 1260-1



Expected retention time:	5.743 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2005174 X + 97193.69	
Linear fit with equal weighting	
Coefficient of determination:	0.9994695
Average error:	1.695%
Average CF:	2593997
RSD:	26.000%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	191382.1	3827642	-3.074	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	291676.3	2916763	-2.027	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	705101.4	2350338	0.910	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1127409	2254818	2.512	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1477266	2110380	-1.569	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2104039	2104039	0.079	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

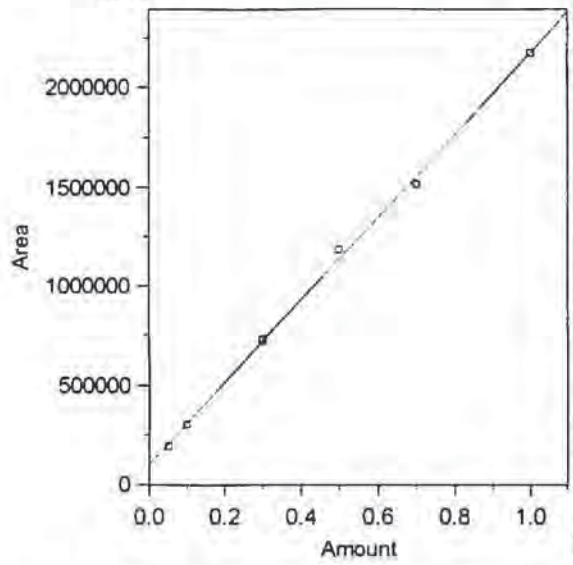
8 1260-2



Expected retention time:	5.822 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2081540 X + 97401.23	
Linear fit with equal weighting	
Coefficient of determination:	0.9995247
Average error:	1.410%
Average CF:	2678917
RSD:	25.897%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	197603.3	3952066	-1.923	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	300385.3	3003853	-1.692	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	727442.8	2424809	0.773	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1162717	2325434	2.157	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1528331	2183330	-1.682	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2184009	2184009	0.233	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

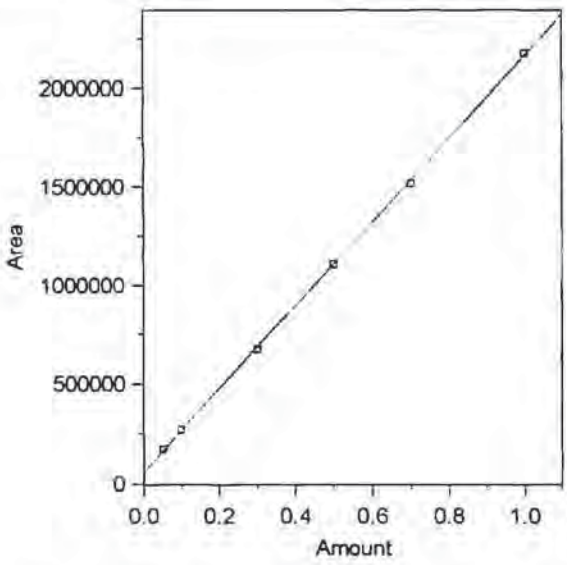
9 1260-3



Expected retention time:	6.23 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2073863 X + 100220.7	
Linear fit with equal weighting	
Coefficient of determination:	0.998819
Average error:	2.366%
Average CF:	2667973
RSD:	24.651%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	192217.1	3844342	-5.736	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	303286.6	3032866	-1.405	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	727830.3	2426101	0.755	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1181106	2362212	3.865	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1515952	2165646	-2.318	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2176670	2176670	0.119	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

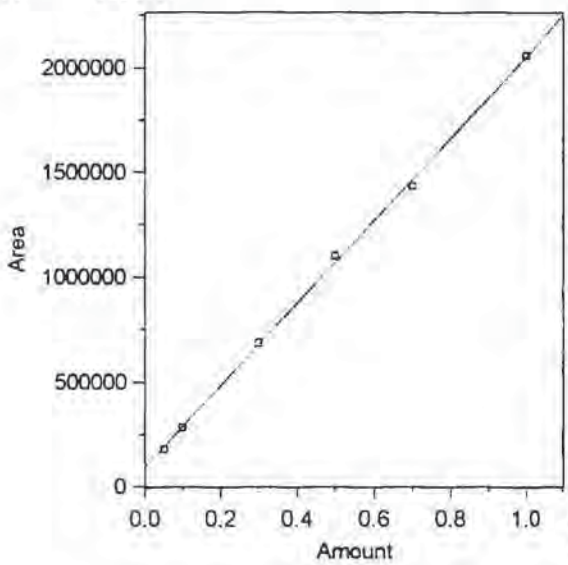
10 1260-4



Expected retention time:	6.722 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2106471 X + 57440.12	
Linear fit with equal weighting	
Coefficient of determination:	0.9997017
Average error:	2.317%
Average CF:	2509388
RSD:	21.566%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	176450.7	3529014	8.409	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	271829.1	2718291	1.396	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	673277.1	2244257	-2.336	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1109205	2218410	-0.132	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1517431	2167759	-0.949	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2178597	2178597	0.679	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

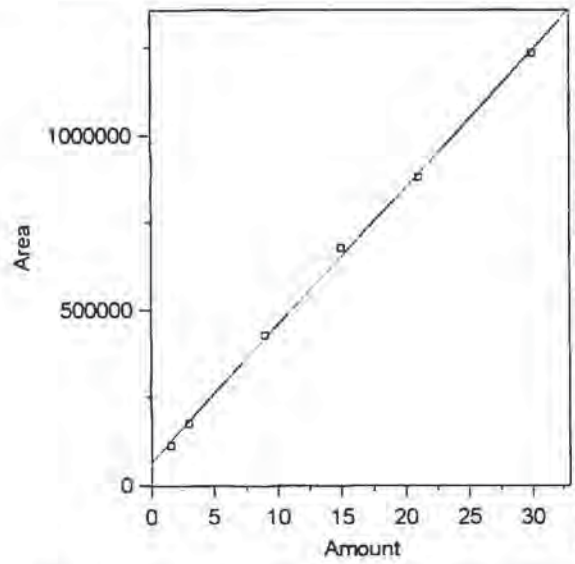
11 1260-5



Expected retention time:	7.147 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1960779 X + 90247.53	
Linear fit with equal weighting	
Coefficient of determination:	0.9992098
Average error:	1.887%
Average CF:	2506504
RSD:	24.679%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	181261.2	3625224	-3.731	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	282723	2827230	-1.258	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	685929.3	2286431	1.098	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1099473	2198946	2.693	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1430408	2043440	-2.214	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2057755	2057755	0.328	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

12 DCBP



Expected retention time:	8.327 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

Y = 39254.41 X + 64315.68

Linear fit with equal weighting

Coefficient of determination:	0.9989673
Average error:	3.334%
Average CF:	51535.38
RSD:	25.446%

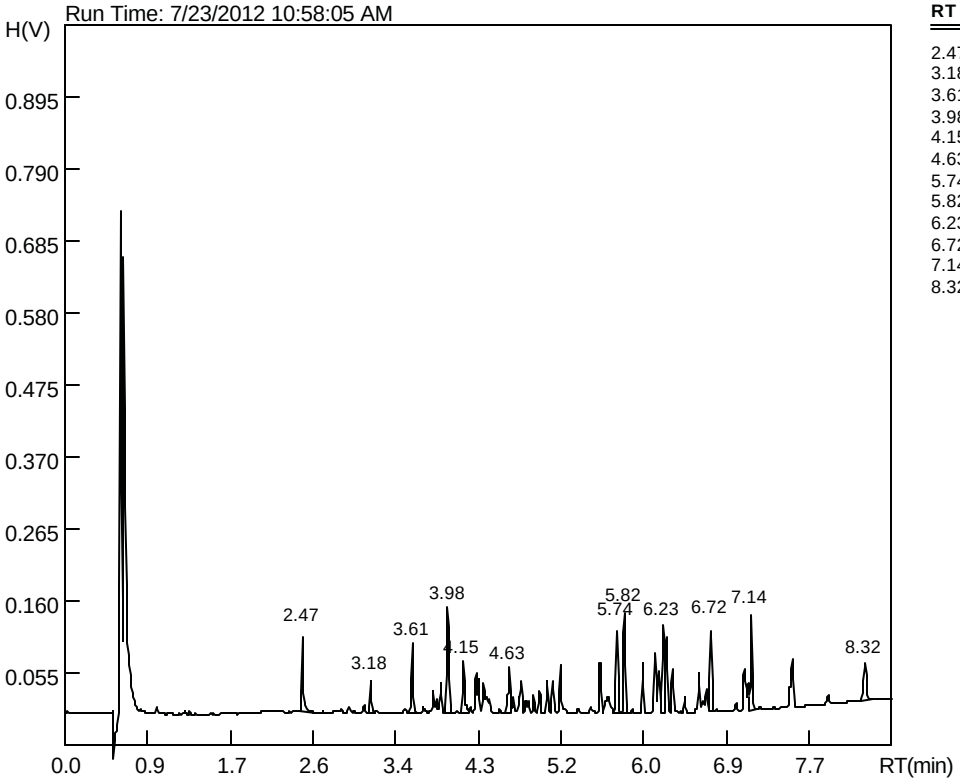
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	112589.1	75059.4	-8.611	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	3	175413.3	58471.1	-3.661	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	9	427896.9	47544.1	2.464	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	15	676751.8	45116.79	3.616	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	21	878867.2	41850.82	-1.102	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	30	1235101	41170.04	-0.551	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

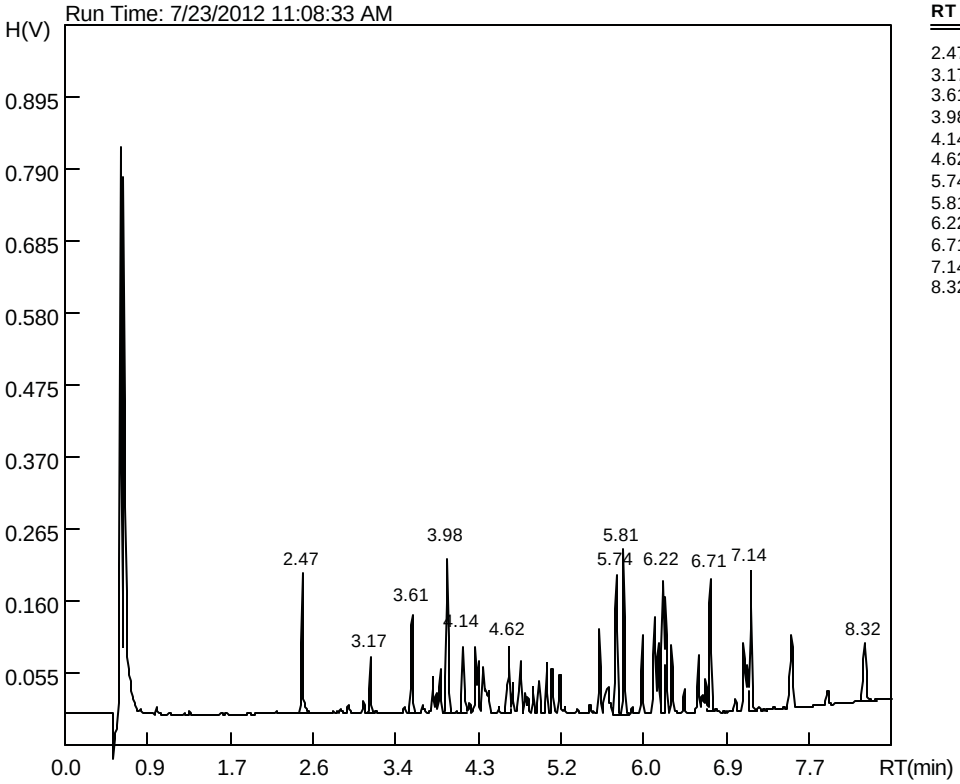
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:05 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	1.459	154585
3.18	0.00	1016-1	0.043	62400
3.61	0.00	1016-2	0.041	138944
3.98	0.00	1016-3	0.060	281423
4.15	0.00	1016-4	0.037	104985
4.63	0.01	1016-5	0.042	115366
5.74	0.00	1260-1	0.044	191382
5.82	0.00	1260-2	0.048	197603
6.23	0.00	1260-3	0.051	192217
6.72	0.01	1260-4	0.064	176451
7.14	0.00	1260-5	0.047	181261
8.32	0.00	DCBP	1.459	112589

File Name: F:\GCECD.DAT\A120723\A120723B.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:33 AM



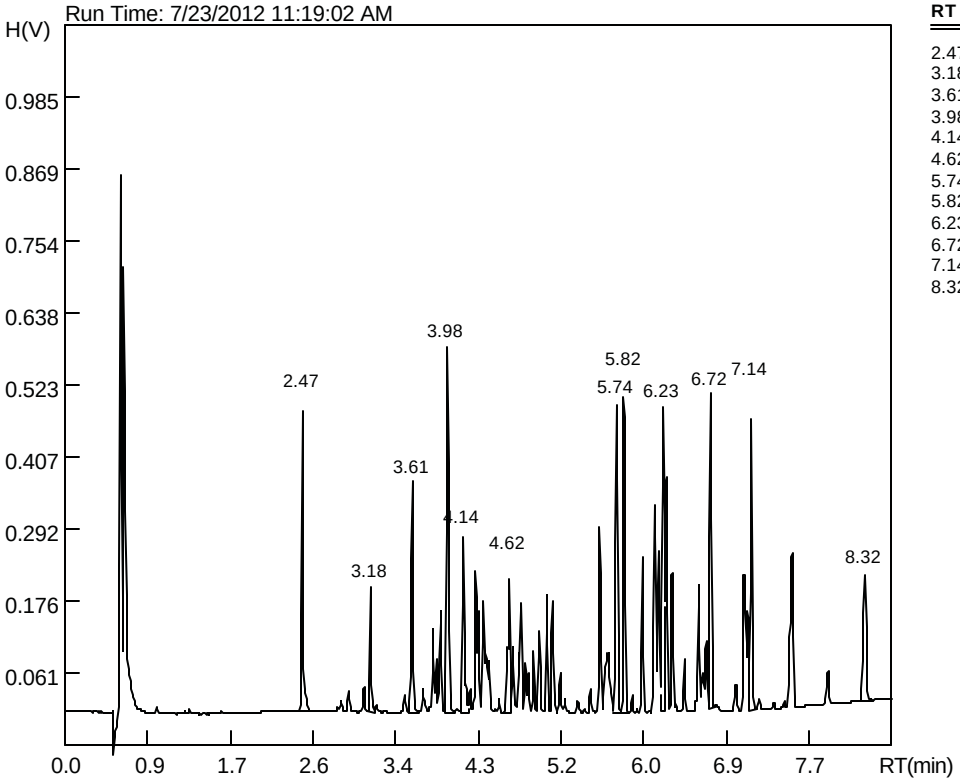
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	2.926	241599
3.17	0.00	1016-1	0.092	97106
3.61	0.00	1016-2	0.091	212955
3.98	0.00	1016-3	0.108	428291
4.14	0.00	1016-4	0.082	156685
4.62	0.00	1016-5	0.094	174881
5.74	0.00	1260-1	0.093	291676
5.81	0.00	1260-2	0.098	300385
6.22	0.00	1260-3	0.106	303287
6.71	0.00	1260-4	0.108	271829
7.14	0.00	1260-5	0.100	282723
8.32	0.00	DCBP	3.389	175413

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

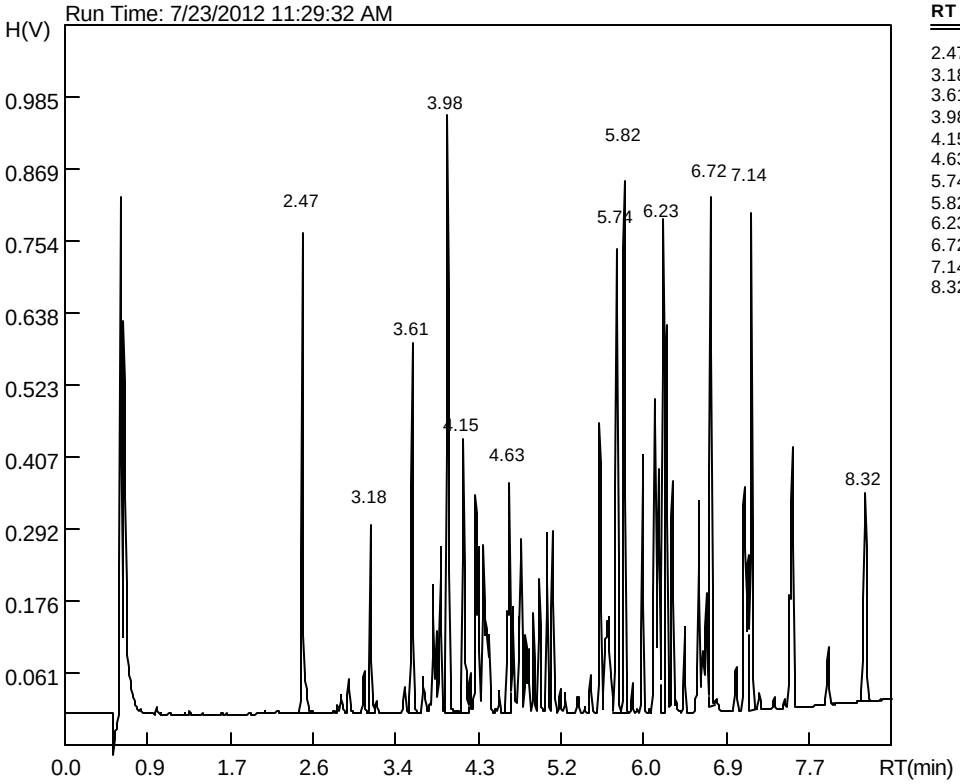
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:02 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	9.075	606331
3.18	0.00	1016-1	0.304	247848
3.61	0.00	1016-2	0.301	518948
3.98	0.00	1016-3	0.315	1066353
4.14	0.00	1016-4	0.301	408429
4.62	0.00	1016-5	0.310	424610
5.74	0.00	1260-1	0.294	705101
5.82	0.00	1260-2	0.306	727443
6.23	0.00	1260-3	0.318	727830
6.72	0.00	1260-4	0.293	673277
7.14	0.00	1260-5	0.313	685929
8.32	0.00	DCBP	11.145	427897

File Name: F:\GCECD.DAT\A120723\A120723B.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:32 AM



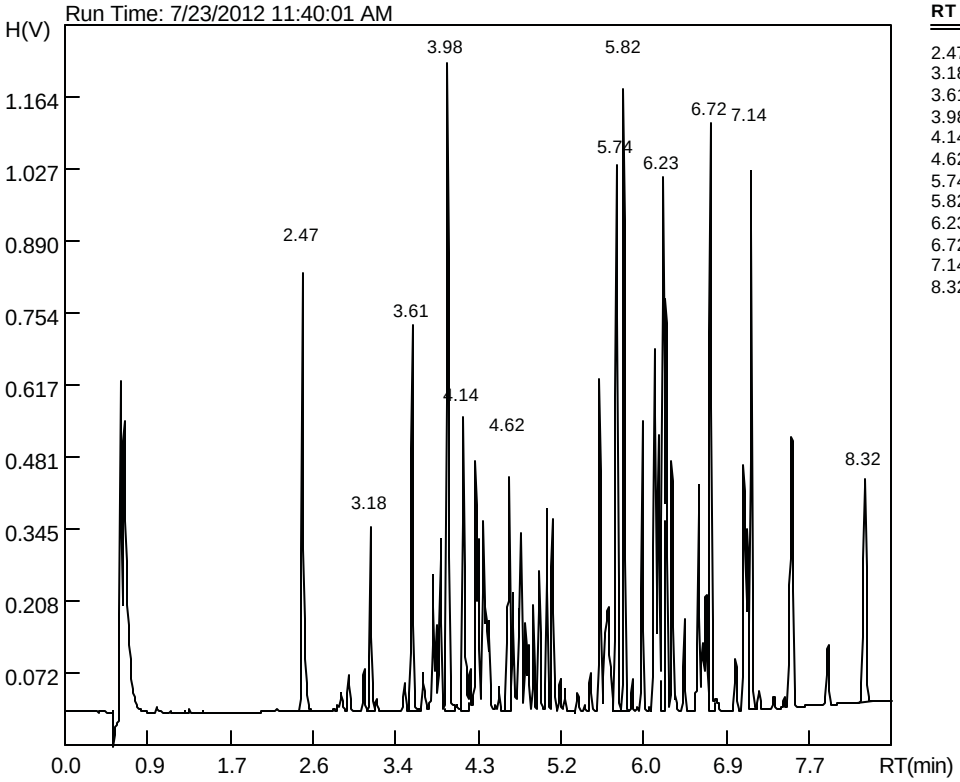
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	15.517	988405
3.18	0.00	1016-1	0.512	395873
3.61	0.00	1016-2	0.509	824310
3.98	0.00	1016-3	0.531	1730023
4.15	0.00	1016-4	0.517	656542
4.63	0.00	1016-5	0.522	670161
5.74	0.00	1260-1	0.500	1127409
5.82	0.00	1260-2	0.517	1162717
6.23	0.00	1260-3	0.543	1181106
6.72	0.00	1260-4	0.494	1109205
7.14	0.00	1260-5	0.532	1099473
8.32	0.00	DCBP	18.789	676752

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

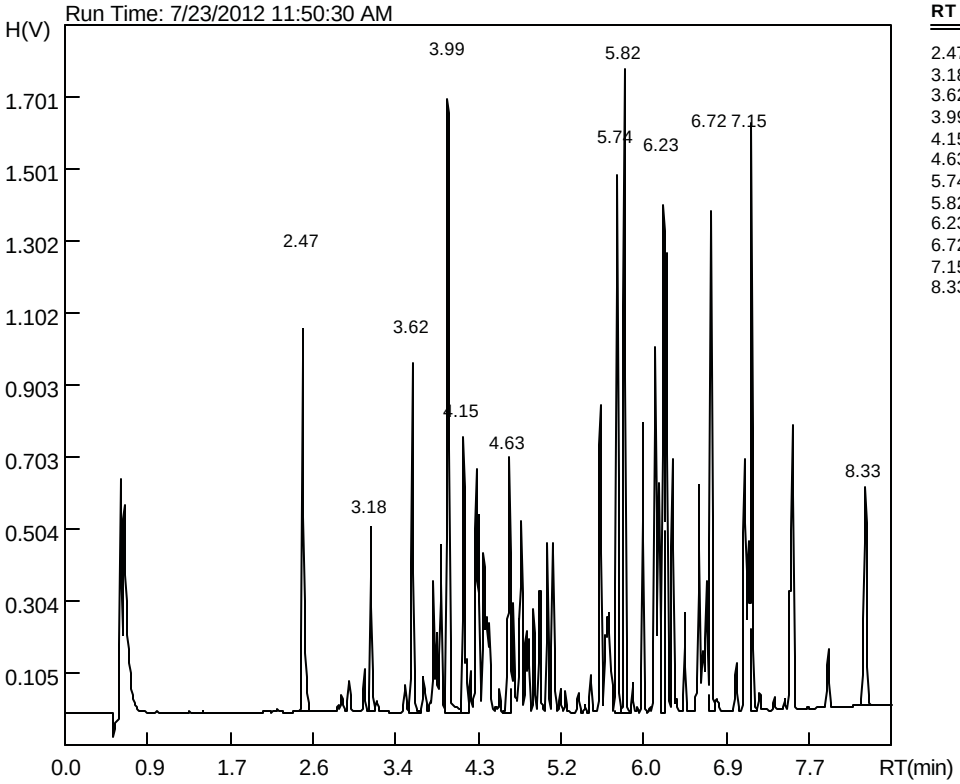
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:01 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.826	1303269
3.18	0.00	1016-1	0.682	516203
3.61	0.00	1016-2	0.677	1069894
3.98	0.00	1016-3	0.707	2270575
4.14	0.00	1016-4	0.691	855591
4.62	0.00	1016-5	0.691	865803
5.74	0.00	1260-1	0.670	1477266
5.82	0.00	1260-2	0.695	1528331
6.23	0.00	1260-3	0.710	1515952
6.72	0.00	1260-4	0.682	1517431
7.14	0.00	1260-5	0.707	1430408
8.32	0.00	DCBP	24.998	878867

File Name: F:\GCECD.DAT\A120723\A120723B.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:30 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	30.699	1888871
3.18	0.01	1016-1	0.968	719306
3.62	0.01	1016-2	0.970	1498355
3.99	0.01	1016-3	1.041	3298679
4.15	0.01	1016-4	0.996	1206900
4.63	0.01	1016-5	0.992	1214470
5.74	0.01	1260-1	0.975	2104039
5.82	0.01	1260-2	1.013	2184009
6.23	0.01	1260-3	1.039	2176670
6.72	0.01	1260-4	0.986	2178597
7.15	0.01	1260-5	1.038	2057755
8.33	0.01	DCBP	35.941	1235101

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

Filename	LIMS ID	Run Time	CVM Component	? RT/Win.	CVM Conc.	CVM %D/ UCL
a120731.02r	sc1660.01	07/31/12 09:30	1016-1	0.01/0.05	0.549/0.500	9.8
			1016-2	0.00/0.05	0.540/0.500	8.0
			1016-3	0.00/0.05	0.534/0.500	6.8
			1016-4	0.00/0.05	0.533/0.500	6.6
			1016-5	0.00/0.05	0.535/0.500	7.0
			1260-1	0.00/0.05	0.523/0.500	4.6
			1260-2	0.00/0.05	0.520/0.500	4.0
			1260-3	0.00/0.05	0.518/0.500	3.6
			1260-4	0.00/0.05	0.503/0.500	0.6
			1260-5	0.00/0.05	0.507/0.500	1.4
					Average	**5.2/ 20.0**
a120731.25r	sc1660.02	07/31/12 15:26	1016-1	0.01/0.05	0.562/0.500	12.4
			1016-2	0.00/0.05	0.566/0.500	13.2
			1016-3	0.00/0.05	0.563/0.500	12.6
			1016-4	0.00/0.05	0.563/0.500	12.6
			1016-5	0.00/0.05	0.556/0.500	11.2
			1260-1	0.00/0.05	0.549/0.500	9.8
			1260-2	0.00/0.05	0.547/0.500	9.4
			1260-3	0.01/0.05	0.545/0.500	9.0
			1260-4	0.00/0.05	0.529/0.500	5.8
			1260-5	0.00/0.05	0.532/0.500	6.4
					Average	**10.2/ 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120731.4

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
a120731b.02	sc1660.01	07/31/12 09:30	1016-1	0.00/0.05	0.595/0.500	19.0
			1016-2	0.00/0.05	0.587/0.500	17.4
			1016-3	0.00/0.05	0.567/0.500	13.4
			1016-4	0.00/0.05	0.588/0.500	17.6
			1016-5	0.00/0.05	0.598/0.500	19.6
			1260-1	0.00/0.05	0.582/0.500	16.4
			1260-2	0.00/0.05	0.580/0.500	16.0
			1260-3	0.00/0.05	0.591/0.500	18.2
			1260-4	0.00/0.05	0.565/0.500	13.0
			1260-5	-.01/0.05	0.587/0.500	17.4
					Average	**16.8 / 20.0**
a120731b.25	sc1660.02	07/31/12 15:26	1016-1	0.00/0.05	0.595/0.500	19.0
			1016-2	-.01/0.05	0.586/0.500	17.2
			1016-3	-.01/0.05	0.566/0.500	13.2
			1016-4	0.00/0.05	0.591/0.500	18.2
			1016-5	0.00/0.05	0.432/0.500	13.6
			1260-1	0.00/0.05	0.574/0.500	14.8
			1260-2	0.00/0.05	0.574/0.500	14.8
			1260-3	0.00/0.05	0.564/0.500	12.8
			1260-4	0.00/0.05	0.549/0.500	9.8
			1260-5	-.01/0.05	0.571/0.500	14.2
					Average	**12.0 / 20.0**

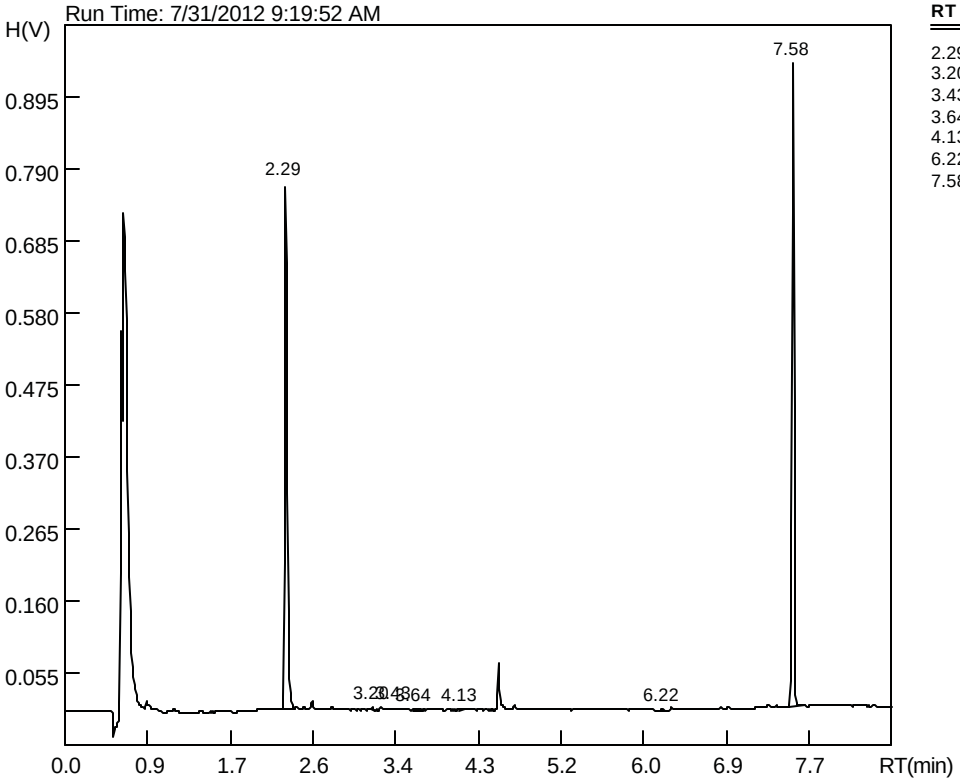
NOTES
*: Calibration check drift outside of method-established control limits

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

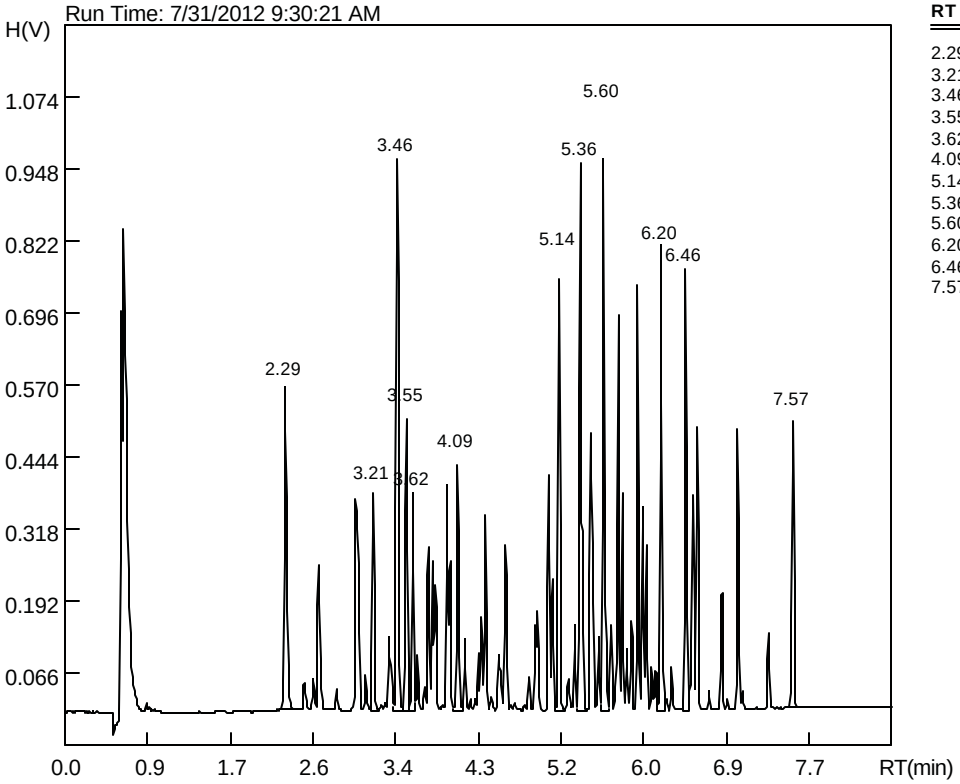
Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.01R.BND
Comments: SBLK-R.01
Run Time: 7/31/2012 9:19:52 AM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	23.713	1521261
3.20	-0.01	1016-1	-0.048	4228
3.43	-0.03	1016-2	-0.052	1573
3.64	0.02	1016-4	-0.039	2600
4.13	0.04	1016-5	-0.046	2938
6.22	0.02	1260-4	-0.045	3145
7.58	0.00	DCBP	28.948	1345844

File Name: F:\GCECD.DAT\A120731\A120731.02R.BND
Comments: SC1660.01 0.5ppm 7/23/12
Run Time: 7/31/2012 9:30:21 AM



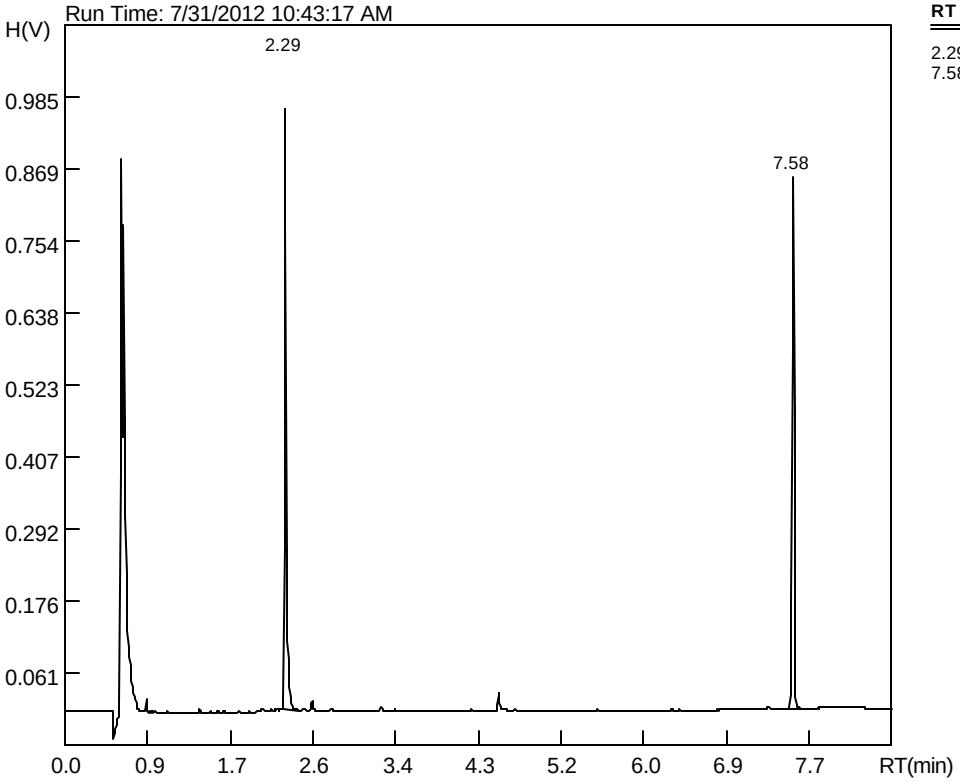
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	16.304	1068302
3.21	0.00	1016-1	0.549	558700
3.46	0.00	1016-2	0.540	1750121
3.55	0.00	1016-3	0.534	720270
3.62	0.00	1016-4	0.533	522345
4.09	0.00	1016-5	0.535	678713
5.14	0.00	1260-1	0.523	1059776
5.36	0.00	1260-2	0.520	1562638
5.60	0.00	1260-3	0.518	1557977
6.20	0.00	1260-4	0.503	1092446
6.46	0.00	1260-5	0.507	1135636
7.57	0.00	DCBP	15.053	734518

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

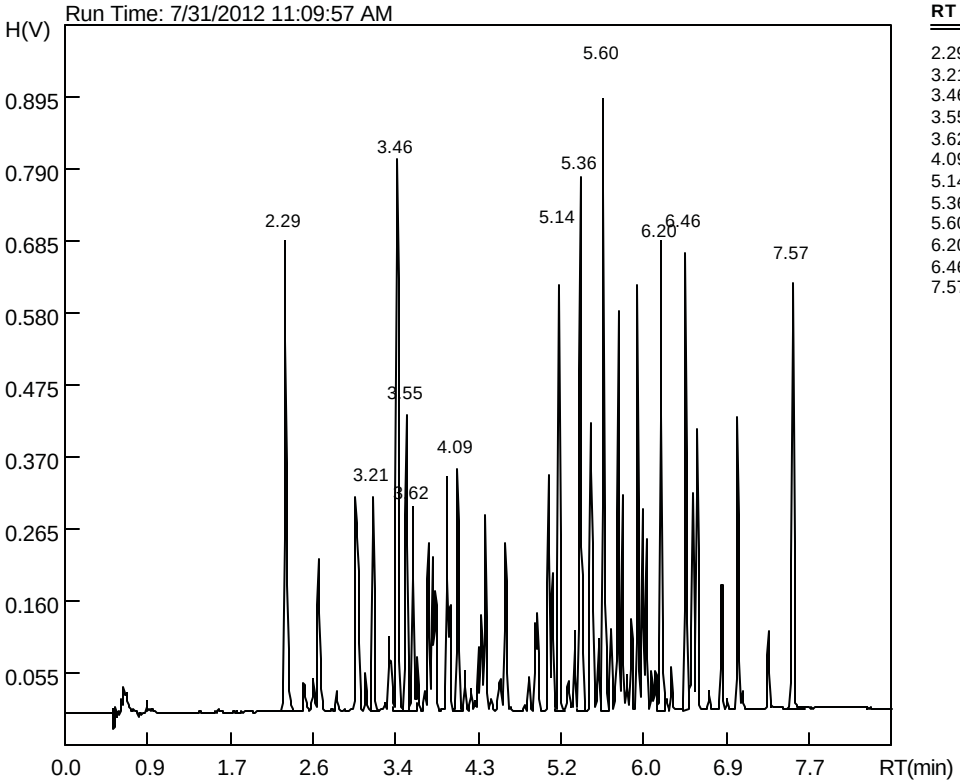
Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.03R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 10:43:17 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.308	1313109
7.58	0.00	DCBP	25.800	1207327

File Name: F:\GCECD.DAT\A120731\A120731.04R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 11:09:57 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	17.928	1167613
3.21	0.00	1016-1	0.446	462489
3.46	0.00	1016-2	0.452	1490887
3.55	0.00	1016-3	0.444	608795
3.62	0.00	1016-4	0.421	420761
4.09	0.00	1016-5	0.438	566045
5.14	0.00	1260-1	0.438	902357
5.36	0.00	1260-2	0.399	1231753
5.60	0.00	1260-3	0.440	1344427
6.20	0.00	1260-4	0.422	932051
6.46	0.00	1260-5	0.439	997867
7.57	0.00	DCBP	19.017	908890

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5 Analytical Batch: a120731.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120731\A120731.05R.BND
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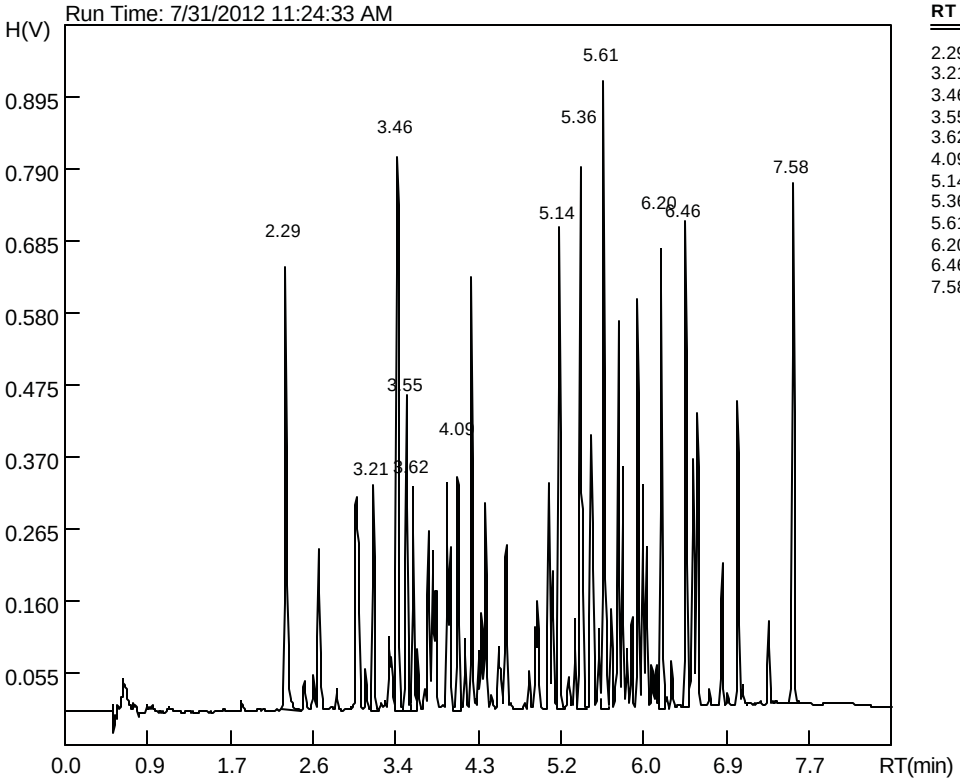
Run Time: 7/31/2012 11:24:33 AM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	17.285	1128296
3.21	0.01	1016-1	0.433	450496
3.46	0.00	1016-2	0.449	1483195
3.55	0.00	1016-3	0.450	616606
3.62	0.00	1016-4	0.455	451424
4.09	0.00	1016-5	0.451	581785
5.14	0.00	1260-1	0.454	933549
5.36	0.00	1260-2	0.450	1370081
5.61	0.00	1260-3	0.451	1375286
6.20	0.00	1260-4	0.445	978590
6.46	0.00	1260-5	0.453	1025158
7.58	0.00	DCBP	22.739	1072647

File Name: F:\GCECD.DAT\A120731\A120731.06R.BND
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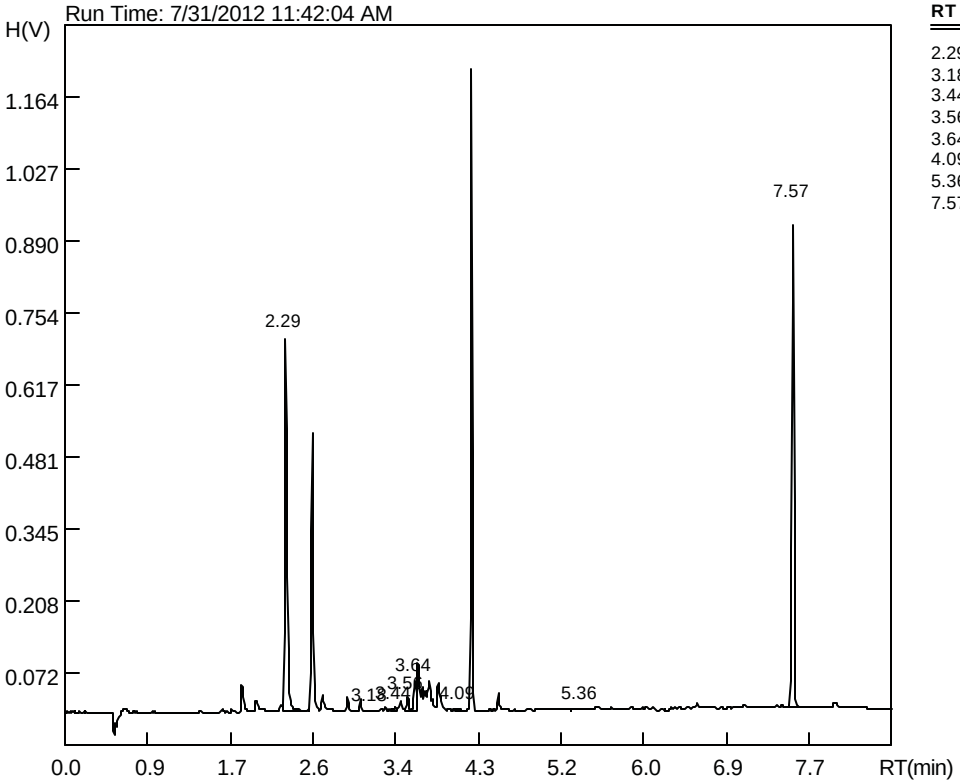
Run Time: 7/31/2012 11:42:04 AM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	19.836	1284235
3.18	-0.03	1016-1	-0.049	3909
3.44	-0.02	1016-2	-0.046	19644
3.56	0.01	1016-3	-0.016	40156
3.64	0.02	1016-4	0.057	90218
4.09	0.01	1016-5	-0.028	24103
5.36	0.00	1260-2	-0.052	1681
7.57	0.00	DCBP	28.865	1342197

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.07R.BND
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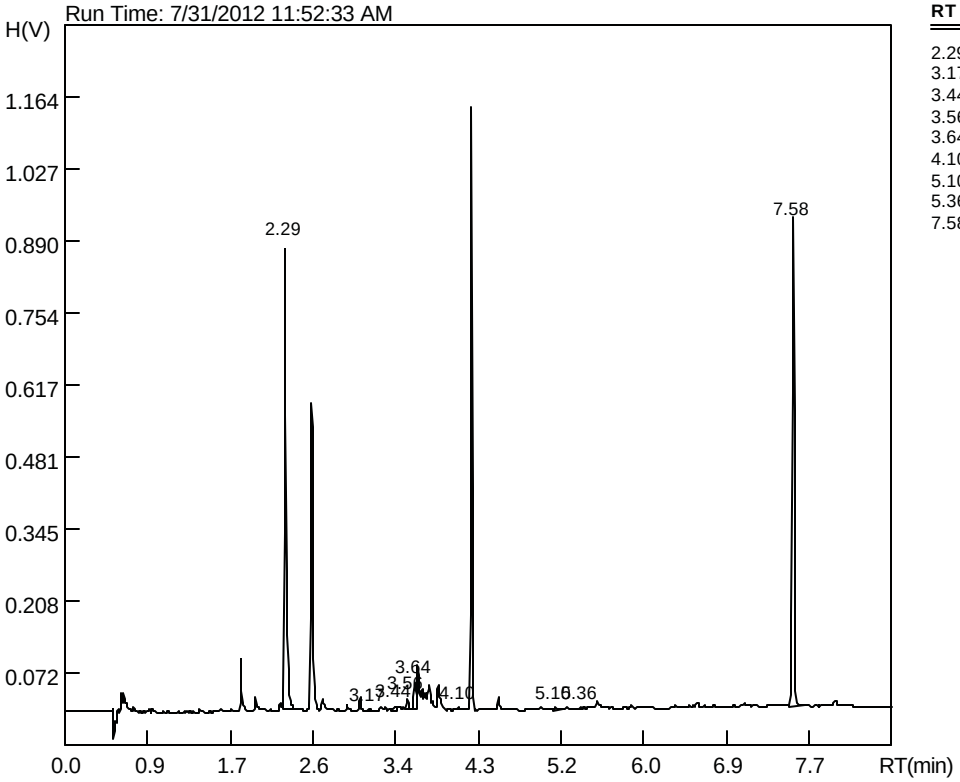
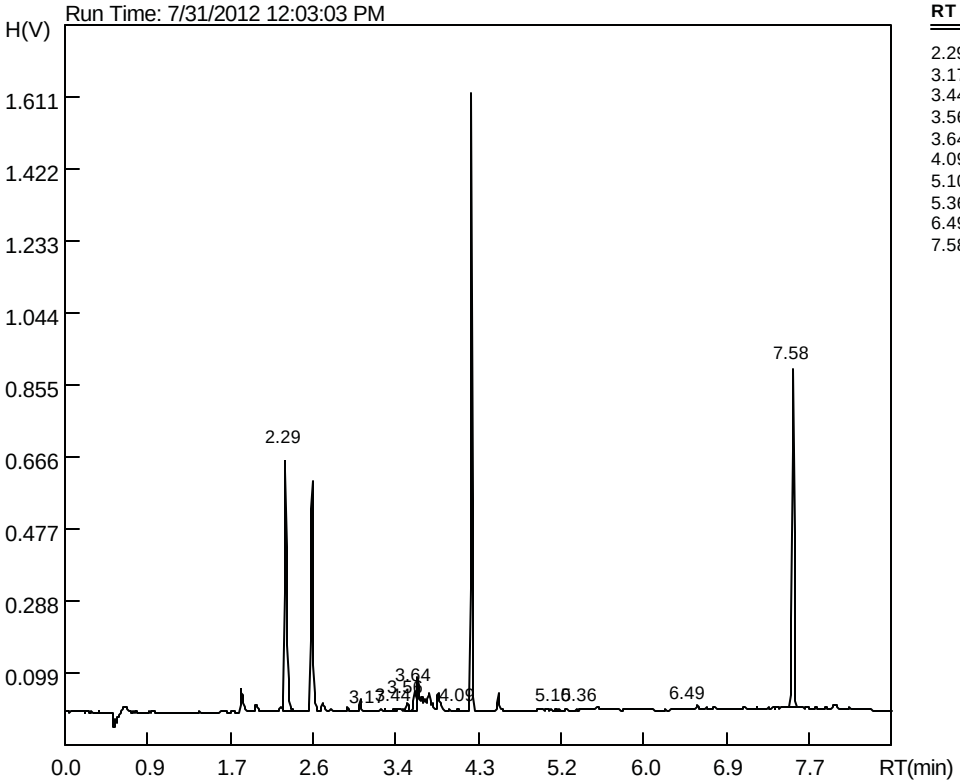
Run Time: 7/31/2012 11:52:33 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	18.756	1218197
3.17	-0.03	1016-1	-0.049	3844
3.44	-0.02	1016-2	-0.048	16025
3.56	0.01	1016-3	-0.025	28729
3.64	0.02	1016-4	0.037	71427
4.10	0.01	1016-5	-0.044	5935
5.10	-0.04	1260-1	-0.044	15795
5.36	0.00	1260-2	-0.050	6435
7.58	0.00	DCBP	28.544	1328070

File Name: F:\GCECD.DAT\A120731\A120731.08R.BND
Comments: s53345.04 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:03:03 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	19.322	1252833
3.17	-0.03	1016-1	-0.049	3682
3.44	-0.02	1016-2	-0.048	14829
3.56	0.01	1016-3	-0.024	30198
3.64	0.02	1016-4	0.040	74191
4.09	0.00	1016-5	-0.042	7261
5.10	-0.04	1260-1	-0.045	13459
5.36	0.00	1260-2	-0.052	2980
6.49	0.03	1260-5	-0.047	10333
7.58	0.00	DCBP	27.804	1295525

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.09R.BND
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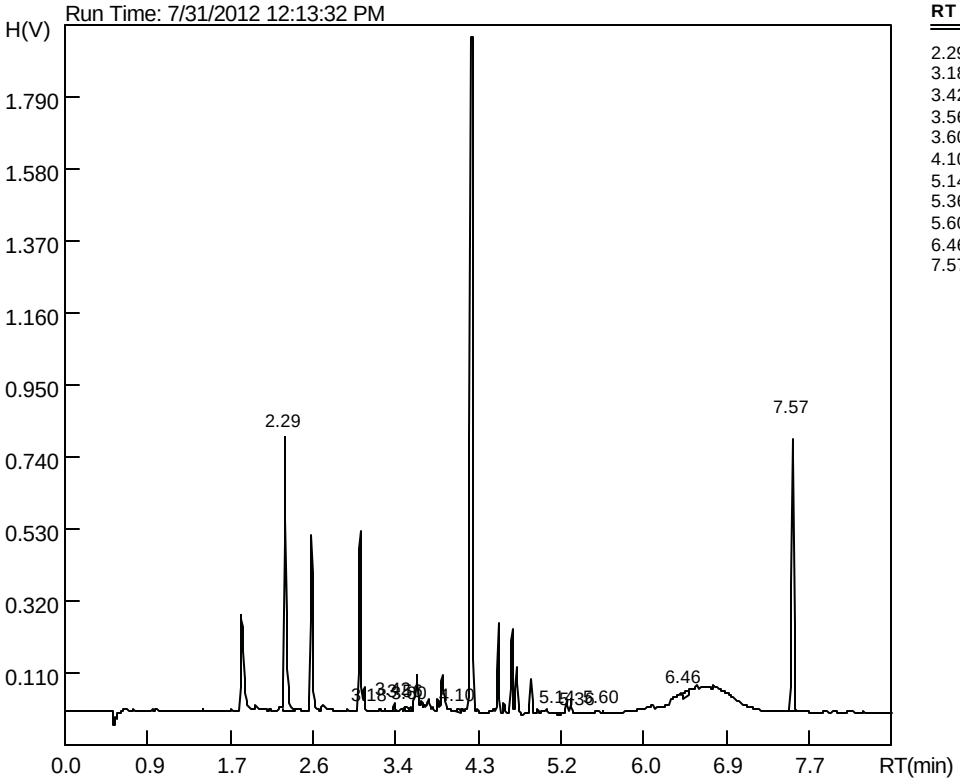
Run Time: 7/31/2012 12:13:32 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	19.477	1262287
3.18	-0.02	1016-1	-0.047	5287
3.42	-0.03	1016-2	-0.040	37642
3.56	0.01	1016-3	-0.035	16956
3.60	-0.02	1016-4	-0.031	9888
4.10	0.01	1016-5	-0.031	21037
5.14	0.00	1260-1	-0.047	8880
5.36	0.00	1260-2	-0.051	3495
5.60	0.00	1260-3	-0.048	7986
6.46	0.00	1260-5	-0.025	55242
7.57	0.00	DCBP	25.560	1196794

File Name: F:\GCECD.DAT\A120731\A120731.10R.BND
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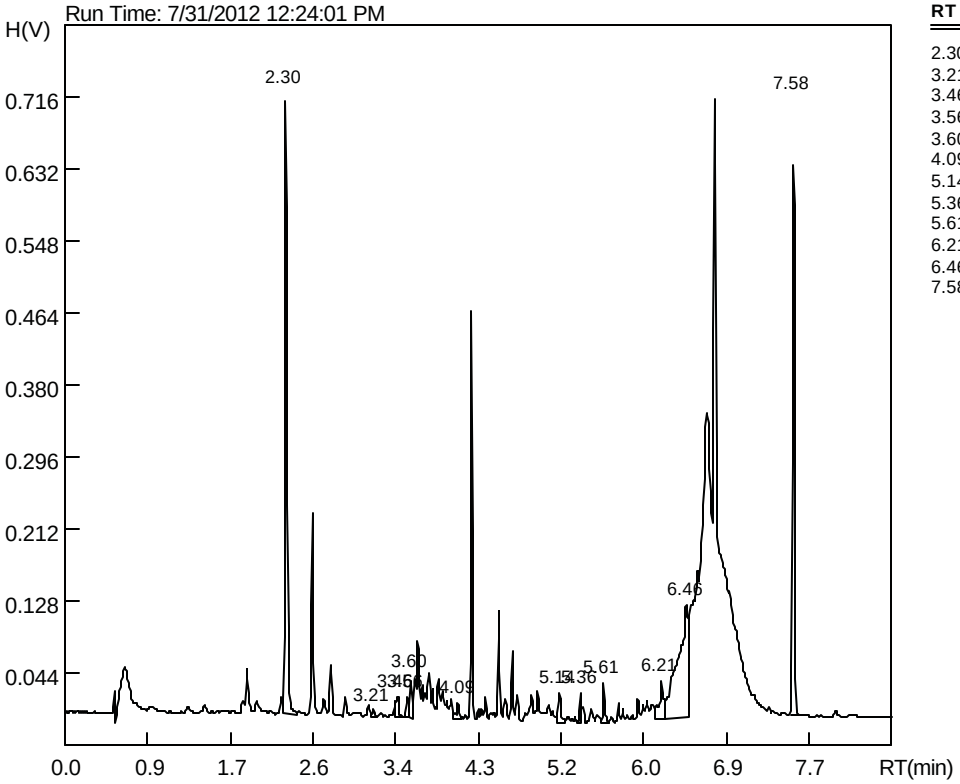
Run Time: 7/31/2012 12:24:01 PM



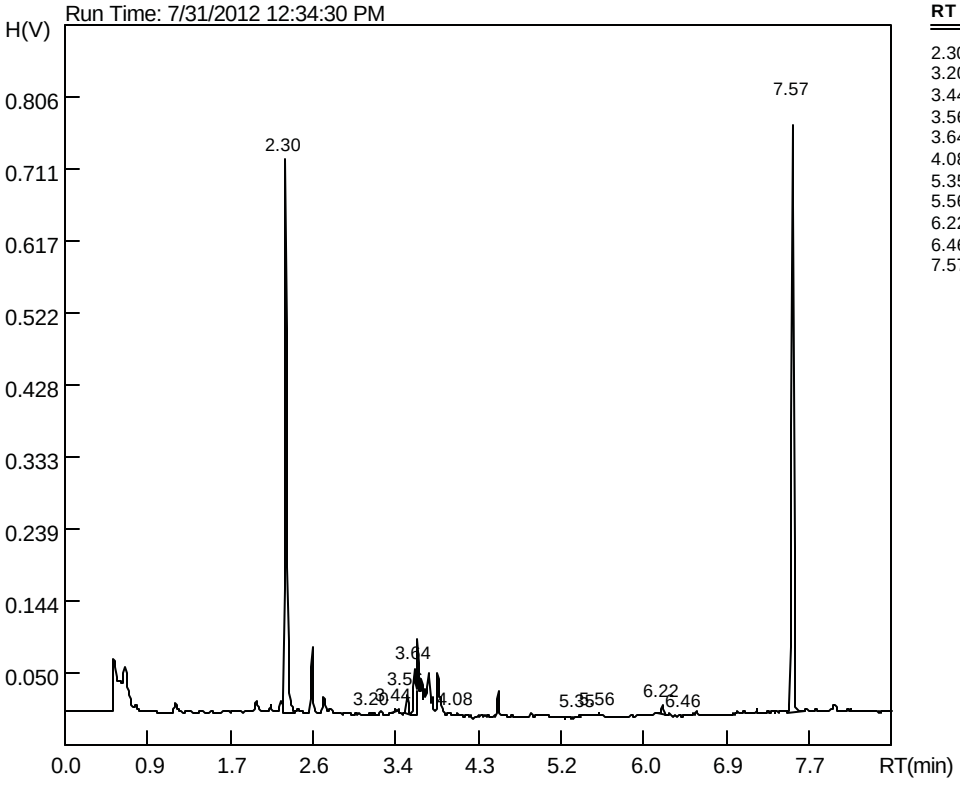
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	18.164	1182023
3.21	0.00	1016-1	-0.041	11321
3.46	0.00	1016-2	-0.036	50585
3.56	0.01	1016-3	-0.016	40177
3.60	-0.02	1016-4	0.031	66607
4.09	0.00	1016-5	-0.012	42270
5.14	0.00	1260-1	-0.014	70610
5.36	0.00	1260-2	-0.035	47316
5.61	0.00	1260-3	-0.026	68625
6.21	0.00	1260-4	0.034	159063
6.46	0.00	1260-5	0.449	1018212
7.58	0.01	DCBP	21.321	1010262

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

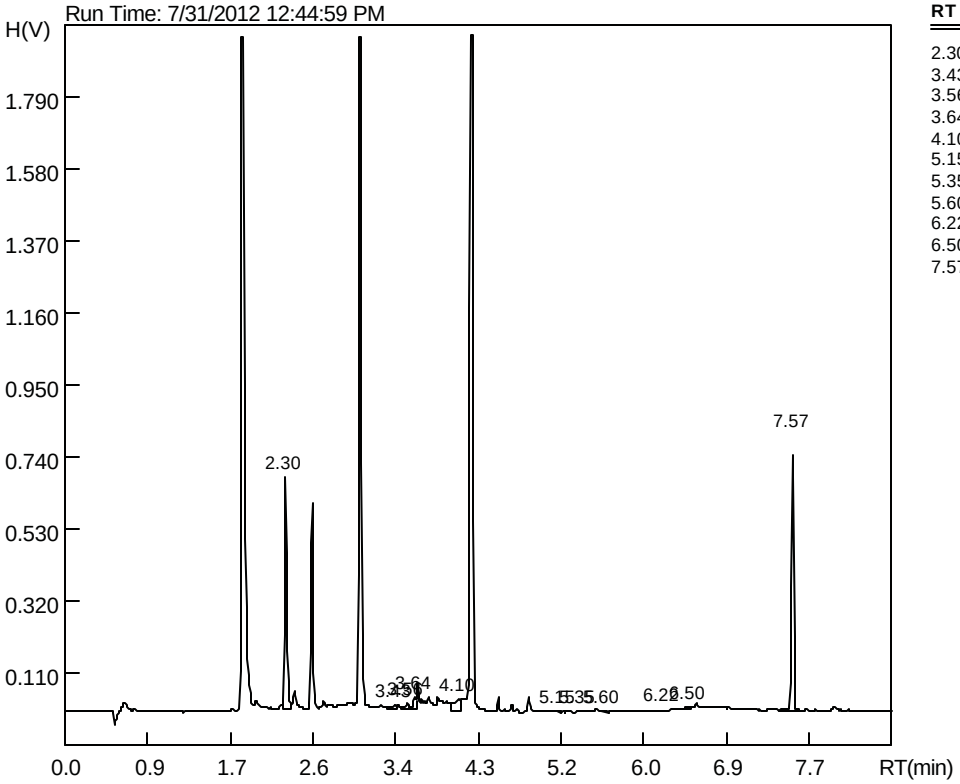
Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.11R.BND
Comments: s53345.07 20.2g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:34:30 PM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	18.225	1185782
3.20	-0.01	1016-1	-0.043	9160
3.44	-0.02	1016-2	-0.052	4055
3.56	0.01	1016-3	-0.021	34253
3.64	0.02	1016-4	0.050	83734
4.08	0.00	1016-5	-0.045	4853
5.35	-0.01	1260-2	-0.052	2414
5.56	-0.04	1260-3	-0.050	3133
6.22	0.02	1260-4	-0.036	20926
6.46	0.00	1260-5	-0.050	2672
7.57	-0.01	DCBP	24.029	1129438

File Name: F:\GCECD.DAT\A120731\A120731.12R.BND
Comments: s53345.08 20.3g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:44:59 PM



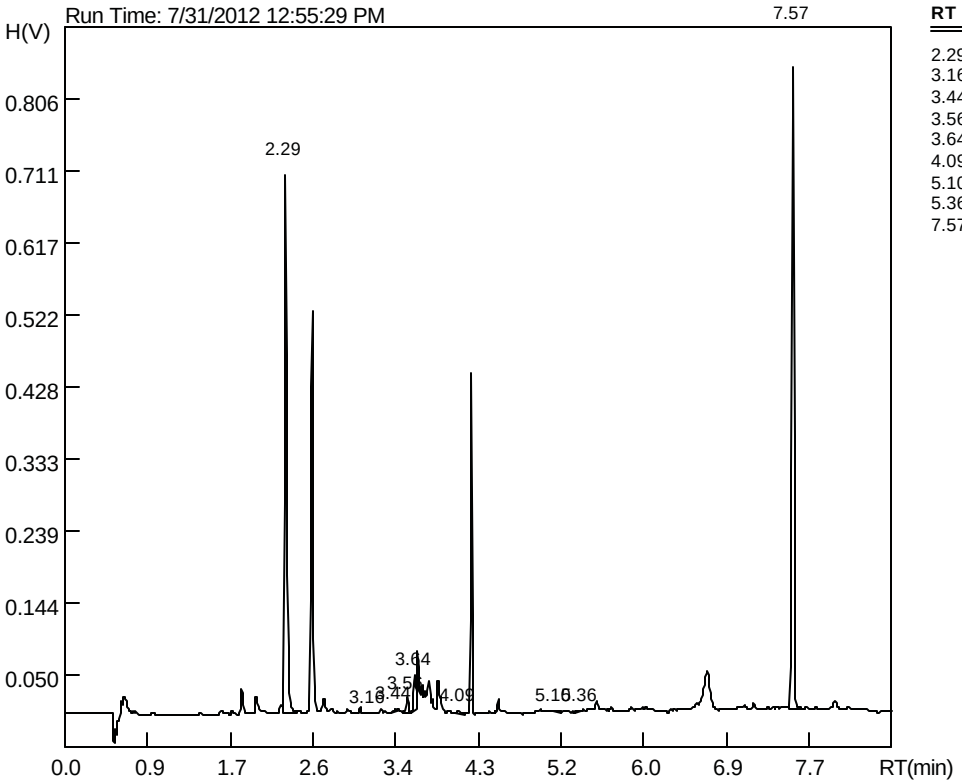
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	17.657	1151046
3.43	-0.03	1016-2	-0.041	35544
3.56	0.01	1016-3	-0.013	43690
3.64	0.02	1016-4	0.028	63189
4.10	0.01	1016-5	0.074	143051
5.15	0.01	1260-1	-0.050	3145
5.35	-0.01	1260-2	-0.052	2911
5.60	0.00	1260-3	-0.049	5656
6.22	0.02	1260-4	-0.044	3341
6.50	0.04	1260-5	-0.048	7629
7.57	0.00	DCBP	23.935	1125303

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

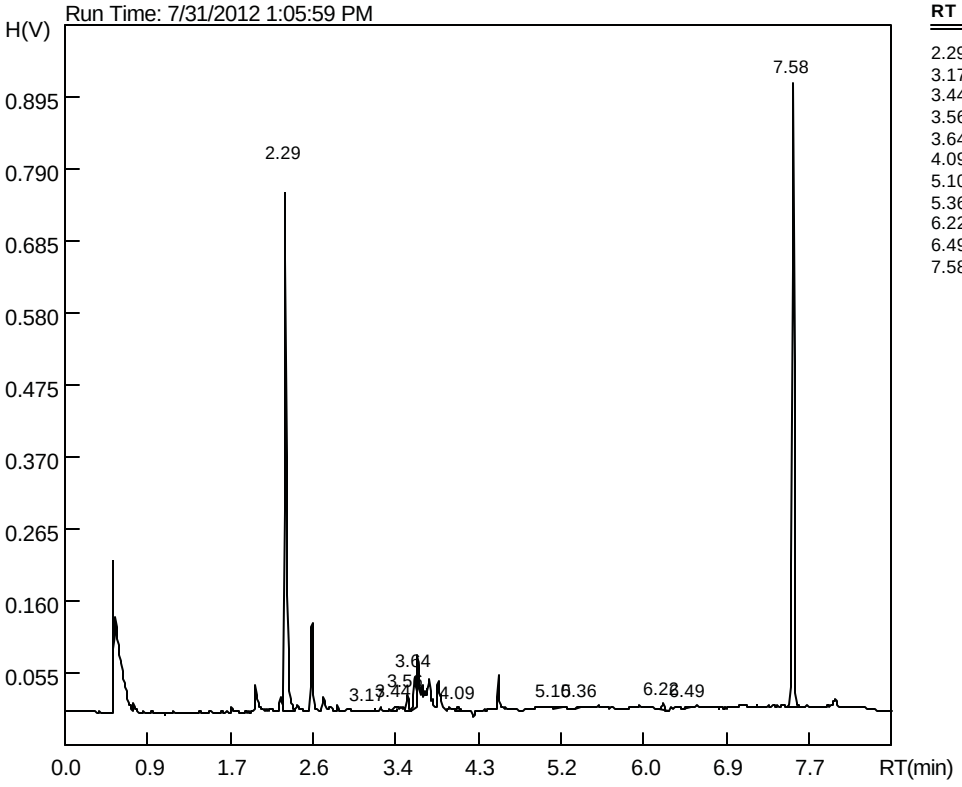
Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.13R.BND
Comments: s53345.11 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:55:29 PM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	19.897	1287985
3.16	-0.04	1016-1	-0.049	3611
3.44	-0.02	1016-2	-0.051	4867
3.56	0.01	1016-3	-0.025	29054
3.64	0.02	1016-4	0.028	63734
4.09	0.01	1016-5	-0.040	9940
5.10	-0.04	1260-1	-0.050	4432
5.36	0.00	1260-2	-0.052	2304
7.57	0.00	DCBP	27.660	1289188

File Name: F:\GCECD.DAT\A120731\A120731.14R.BND
Comments: s53345.12 20.1g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:05:59 PM



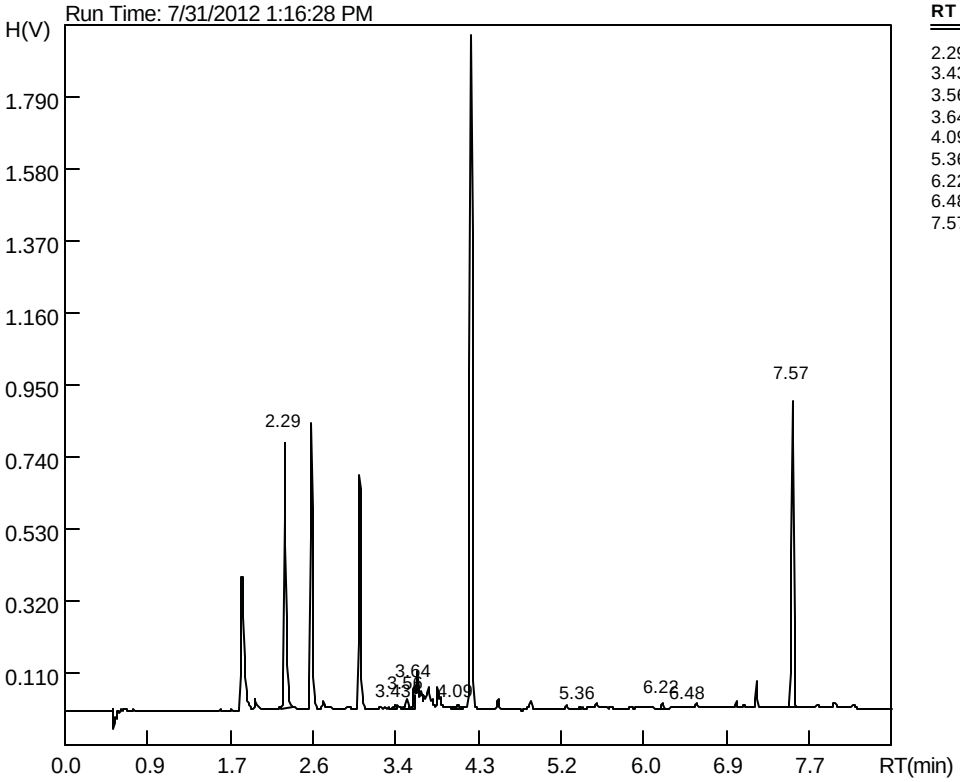
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	19.649	1272803
3.17	-0.03	1016-1	-0.049	3672
3.44	-0.02	1016-2	-0.048	15085
3.56	0.01	1016-3	-0.024	30125
3.64	0.02	1016-4	0.026	62177
4.09	0.01	1016-5	-0.040	10230
5.10	-0.04	1260-1	-0.047	9502
5.36	0.00	1260-2	-0.052	2751
6.22	0.02	1260-4	-0.040	12928
6.49	0.03	1260-5	-0.049	5428
7.58	0.00	DCBP	28.157	1311031

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

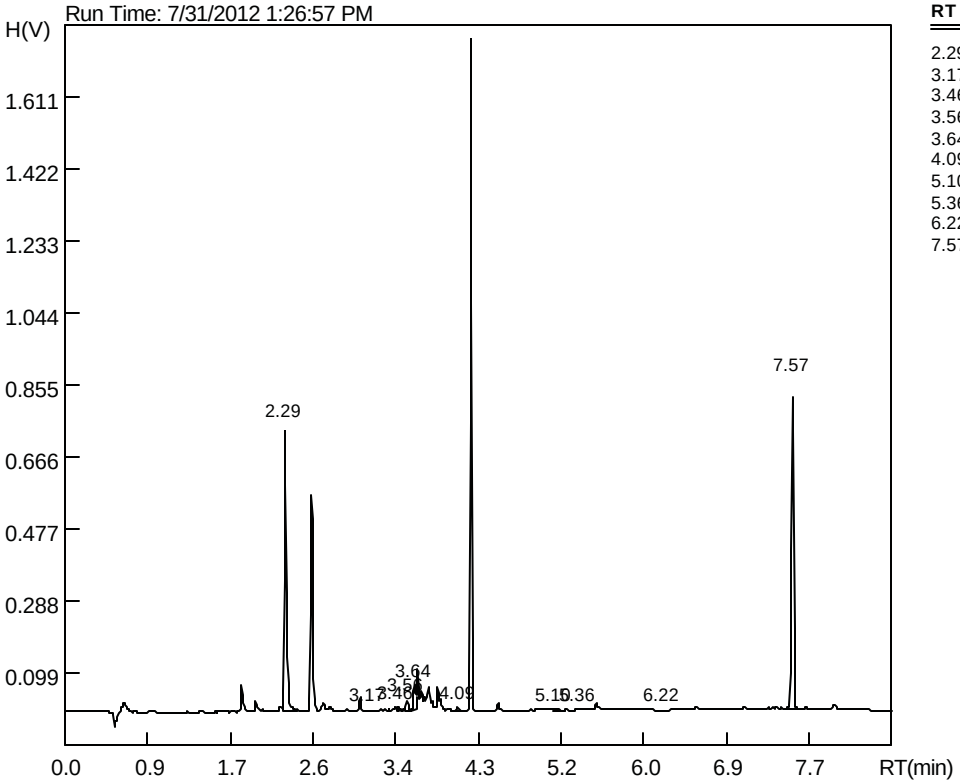
Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.15R.BND
Comments: s53345.13 20.3g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:16:28 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	19.037	1235430
3.43	-0.03	1016-2	-0.044	26366
3.56	0.01	1016-3	-0.002	57818
3.64	0.02	1016-4	0.077	108159
4.09	0.00	1016-5	0.006	64190
5.36	0.00	1260-2	-0.052	2571
6.22	0.02	1260-4	-0.032	28674
6.48	0.02	1260-5	-0.048	7129
7.57	0.00	DCBP	28.596	1330376

File Name: F:\GCECD.DAT\A120731\A120731.16R.BND
Comments: s53345.14 20.1g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:26:57 PM



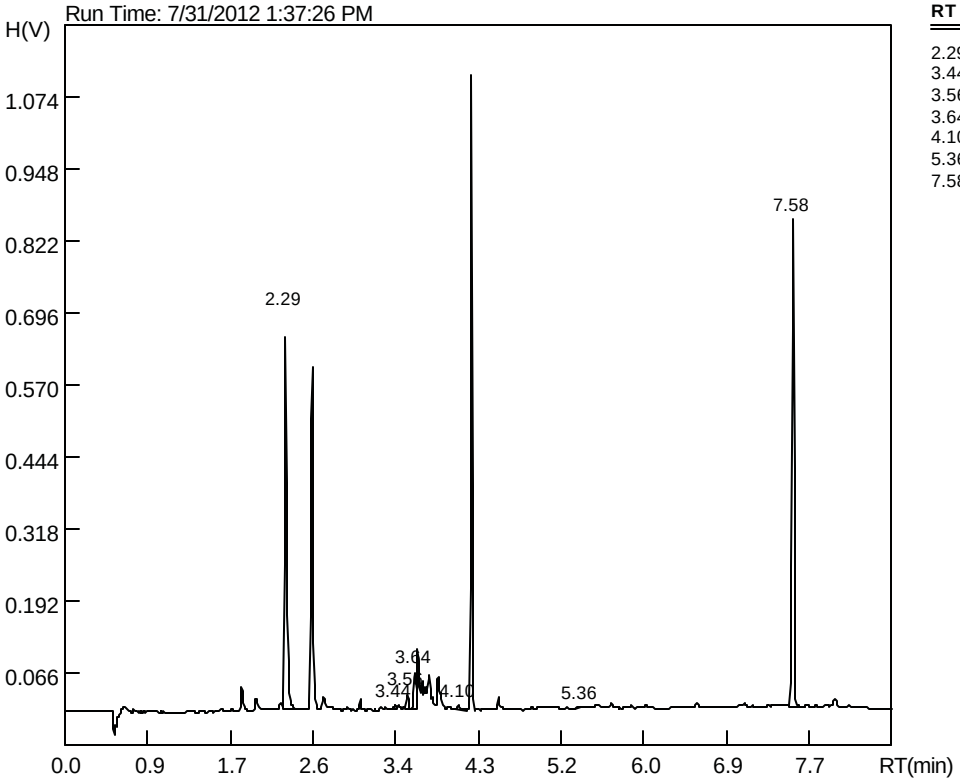
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	18.311	1191015
3.17	-0.04	1016-1	-0.049	3929
3.46	0.00	1016-2	-0.048	13634
3.56	0.01	1016-3	-0.018	38026
3.64	0.02	1016-4	0.059	91717
4.09	0.00	1016-5	-0.025	27744
5.10	-0.04	1260-1	-0.045	12433
5.36	0.00	1260-2	-0.052	3022
6.22	0.02	1260-4	-0.043	5406
7.57	0.00	DCBP	25.680	1202047

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

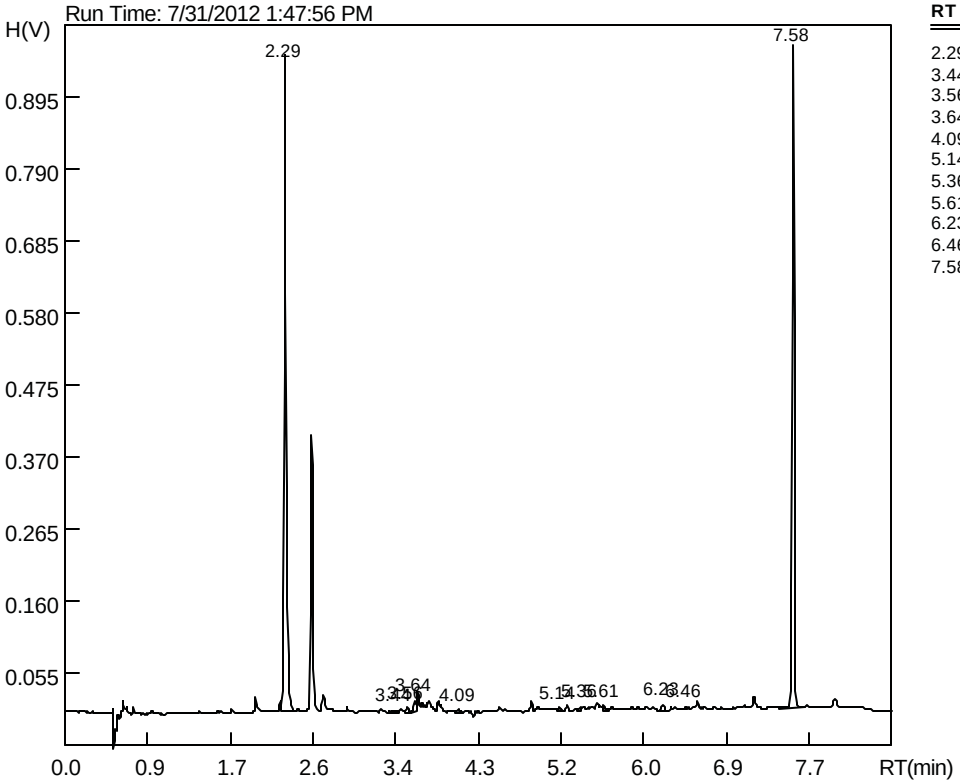
Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.17R.BND
Comments: s53345.15 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:37:26 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	18.527	1204199
3.44	-0.02	1016-2	-0.047	16127
3.56	0.01	1016-3	-0.020	36082
3.64	0.02	1016-4	0.056	88865
4.10	0.01	1016-5	-0.029	22382
5.36	0.00	1260-2	-0.052	2776
7.58	0.00	DCBP	26.678	1245967

File Name: F:\GCECD.DAT\A120731\A120731.18R.BND
Comments: s53345.16 20.2g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:47:56 PM



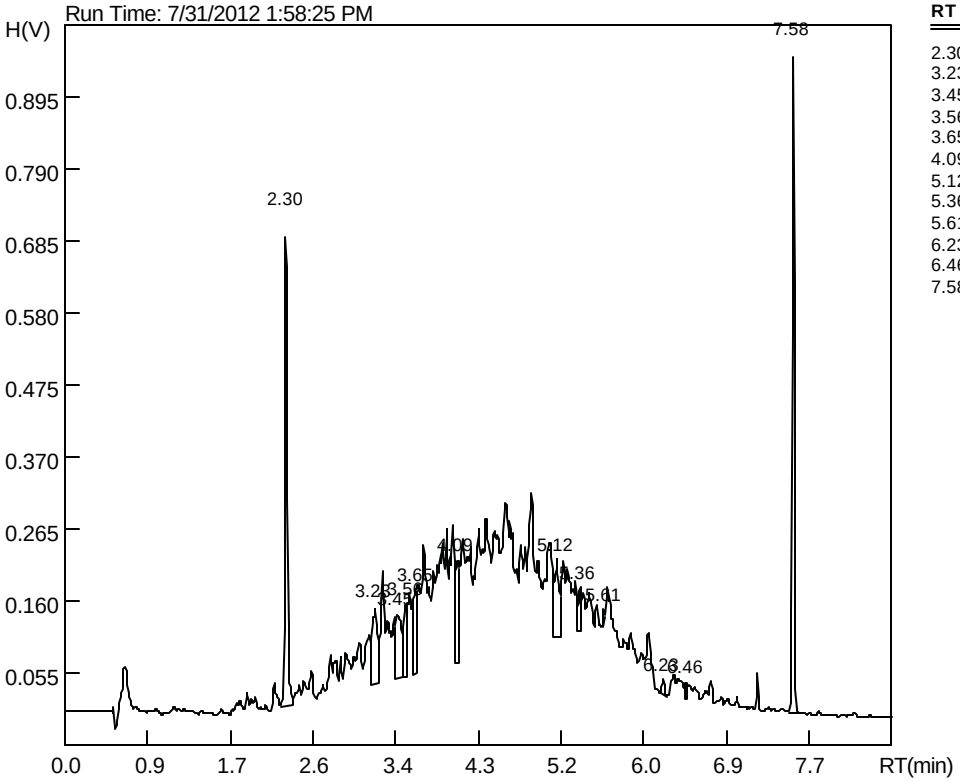
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	23.105	1484101
3.44	-0.02	1016-2	-0.050	9312
3.56	0.01	1016-3	-0.040	11346
3.64	0.02	1016-4	-0.018	21644
4.09	0.01	1016-5	-0.043	7035
5.14	0.00	1260-1	-0.043	16866
5.36	0.00	1260-2	-0.048	12049
5.61	0.00	1260-3	-0.044	19601
6.23	0.02	1260-4	-0.038	15778
6.46	0.00	1260-5	-0.050	4180
7.58	0.00	DCBP	29.661	1377217

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

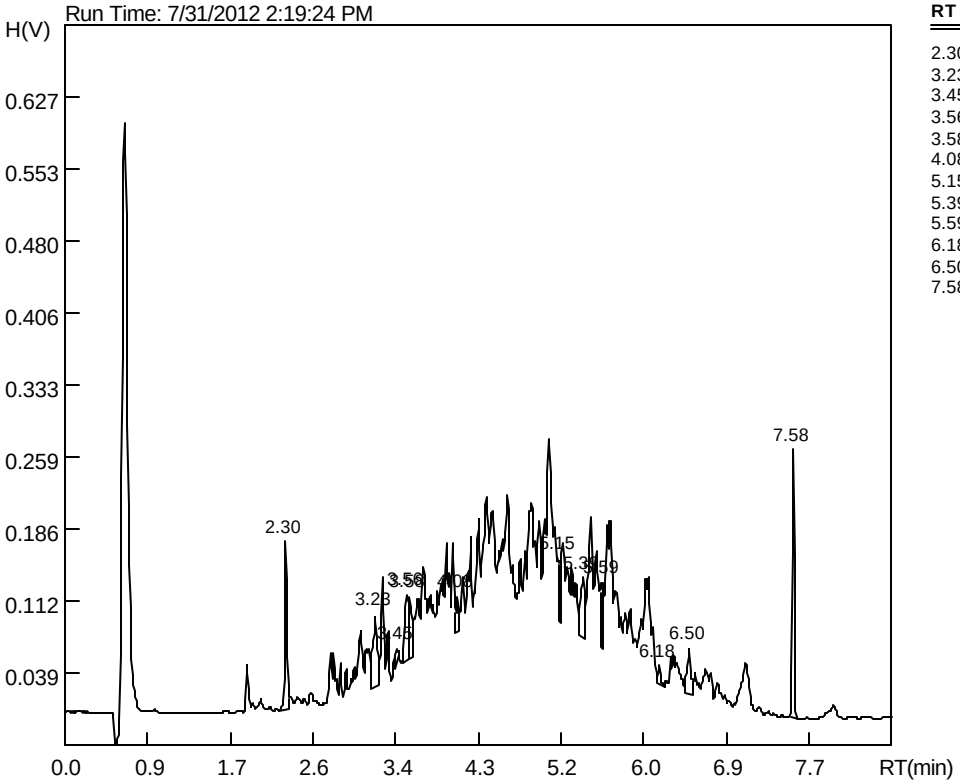
Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.19R.BND
Comments: s53345.09 20.0g s/1 dx ID:PA120730s02
Run Time: 7/31/2012 1:58:25 PM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	19.426	1259203
3.23	0.03	1016-1	0.426	444559
3.45	-0.01	1016-2	0.084	404100
3.56	0.01	1016-3	0.166	265803
3.65	0.03	1016-4	0.308	317986
4.09	0.00	1016-5	0.273	373826
5.12	-0.02	1260-1	0.133	340417
5.36	0.00	1260-2	-0.007	125686
5.61	0.01	1260-3	-0.044	21242
6.23	0.02	1260-4	-0.028	36774
6.46	0.00	1260-5	-0.029	46561
7.58	0.00	DCBP	29.236	1358532

File Name: F:\GCECD.DAT\A120731\A120731.21R.BND
Comments: s53345.10 20.2g s/5 dx ID:PA120730s02
Run Time: 7/31/2012 2:19:24 PM



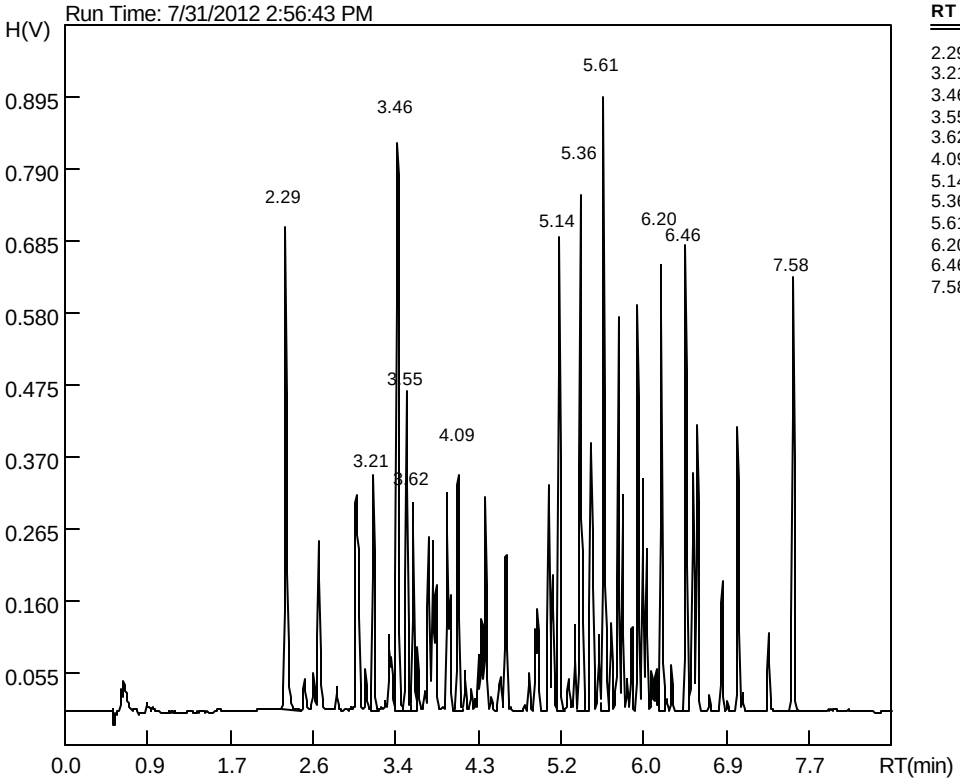
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	3.603	291825
3.23	0.02	1016-1	0.220	253648
3.45	-0.01	1016-2	-0.047	18273
3.56	0.01	1016-3	0.067	143236
3.58	-0.04	1016-4	0.138	163981
4.08	0.00	1016-5	0.001	57866
5.15	0.01	1260-1	-0.005	87165
5.39	0.03	1260-2	0.013	180248
5.59	-0.02	1260-3	0.002	144615
6.18	-0.02	1260-4	-0.030	32742
6.50	0.04	1260-5	0.008	122355
7.58	0.00	DCBP	7.051	382443

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

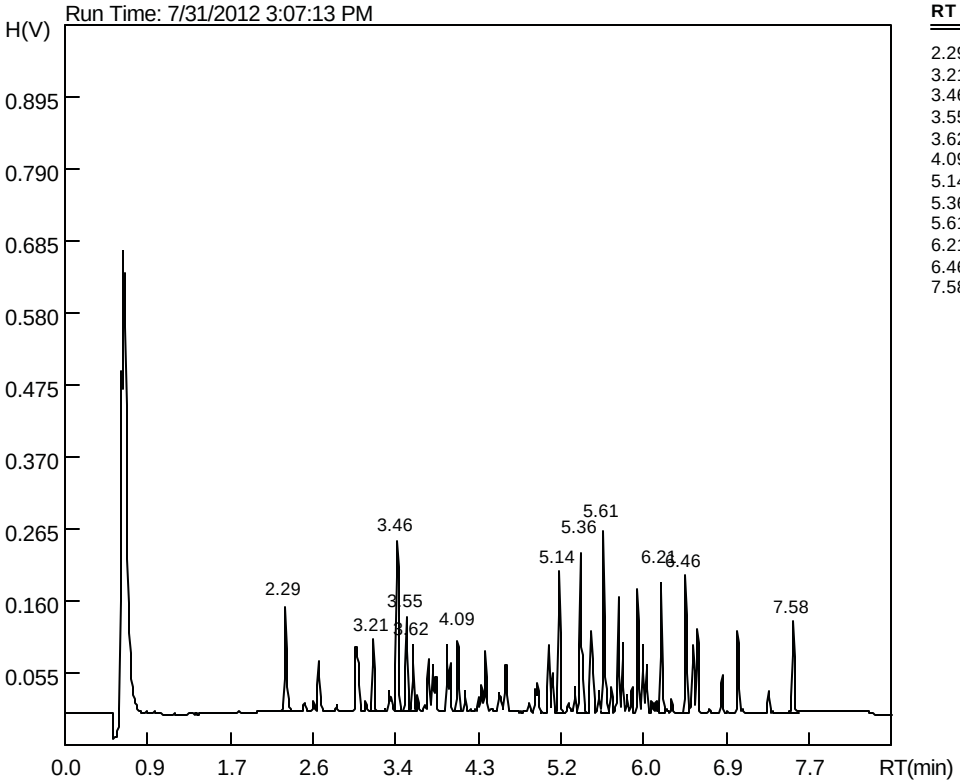
Analytical Batch: a120731.3

File Name: F:\GCECD.DAT\A120731\A120731.23R.BND
Comments: sLCS-Al.01 0.5ppm ID:Cleanup
Run Time: 7/31/2012 2:56:43 PM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	18.448	1199365
3.21	0.01	1016-1	0.459	475050
3.46	0.00	1016-2	0.467	1534912
3.55	0.00	1016-3	0.460	628925
3.62	0.00	1016-4	0.439	437700
4.09	0.00	1016-5	0.454	584353
5.14	0.00	1260-1	0.451	928076
5.36	0.00	1260-2	0.409	1258877
5.61	0.00	1260-3	0.450	1371672
6.20	0.00	1260-4	0.426	940247
6.46	0.00	1260-5	0.440	999790
7.58	0.00	DCBP	18.930	905103

File Name: F:\GCECD.DAT\A120731\A120731.24R.BND
Comments: ss1660.01 0.1ppm 7/23/12
Run Time: 7/31/2012 3:07:13 PM



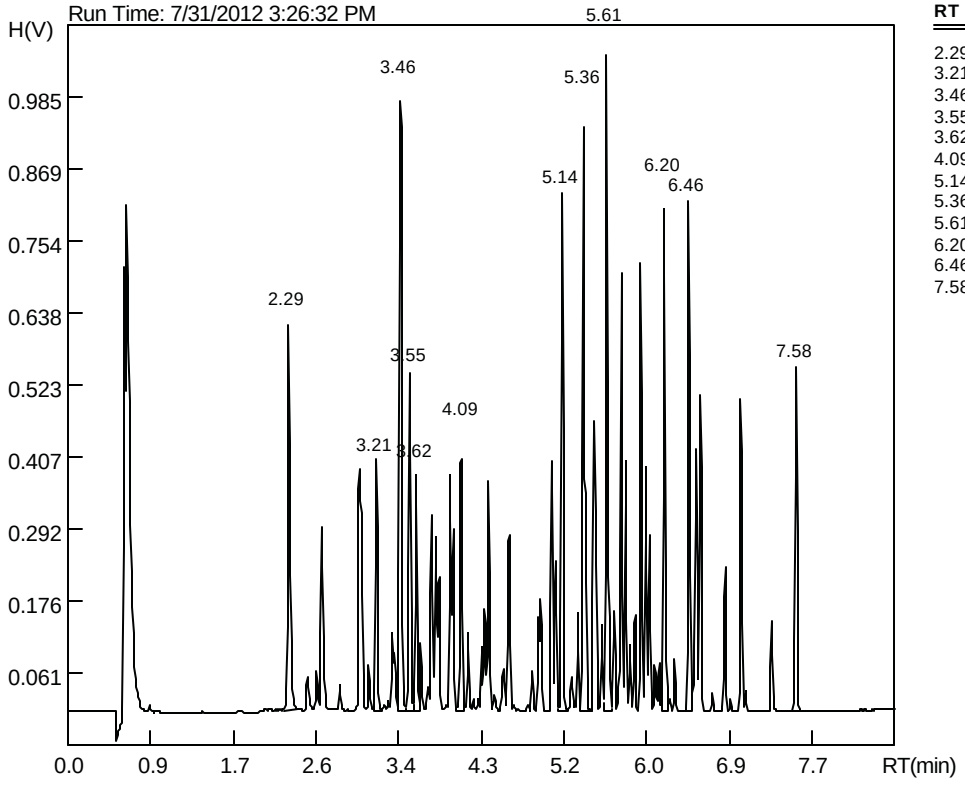
RT	dT	Name	Amt.	Area
2.29	0.01	TCX	3.067	259037
3.21	0.00	1016-1	0.096	138567
3.46	0.00	1016-2	0.098	444827
3.55	0.00	1016-3	0.099	182617
3.62	0.00	1016-4	0.100	129140
4.09	0.00	1016-5	0.097	169451
5.14	0.00	1260-1	0.096	273516
5.36	0.00	1260-2	0.097	408630
5.61	0.00	1260-3	0.094	397629
6.21	0.00	1260-4	0.101	293137
6.46	0.00	1260-5	0.091	290291
7.58	0.00	DCBP	2.574	185472

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5 Analytical Batch: a120731.3

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120731\A120731.25R.BND
Comments: SC1660.02 0.5ppm 7/23/12
Run Time: 7/31/2012 3:26:32 PM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	17.204	1123355
3.21	0.01	1016-1	0.562	570568
3.46	0.00	1016-2	0.566	1828913
3.55	0.00	1016-3	0.563	756756
3.62	0.00	1016-4	0.563	550056
4.09	0.00	1016-5	0.556	703189
5.14	0.00	1260-1	0.549	1107993
5.36	0.00	1260-2	0.547	1634057
5.61	0.00	1260-3	0.545	1632589
6.20	0.00	1260-4	0.529	1145485
6.46	0.00	1260-5	0.532	1185814
7.58	0.00	DCBP	15.761	765641

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

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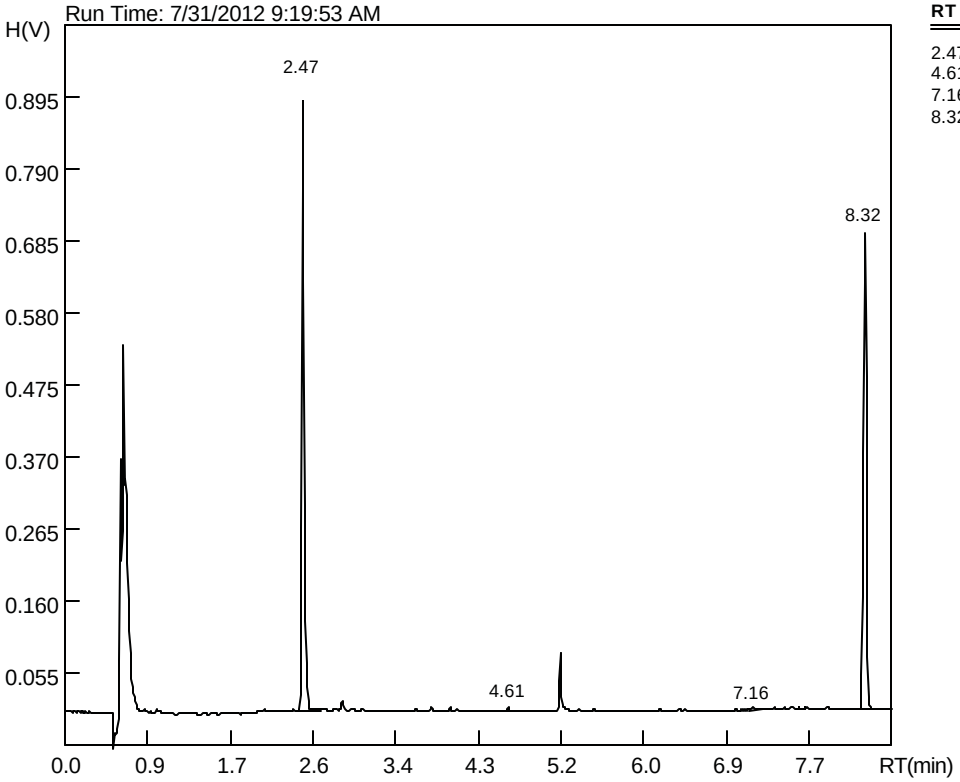
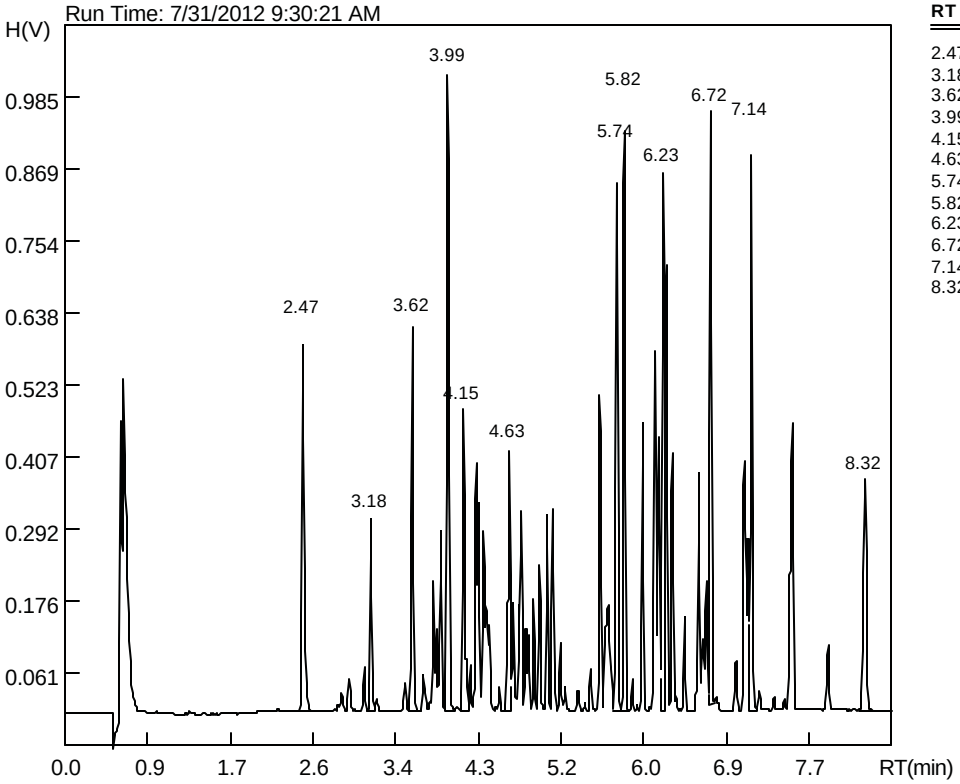
Comments: SBLK-R.01
Run Time: 7/31/2012 9:19:53 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	26.457	1662977
4.61	-0.02	1016-5	-0.049	11495
7.16	0.02	1260-5	-0.041	9347
8.32	0.00	DCBP	34.757	1428673

File Name: F:\GCECD.DAT\A120731\A120731B.02R.BND
Comments: SC1660.01 0.5ppm 7/23/12
Run Time: 7/31/2012 9:30:21 AM

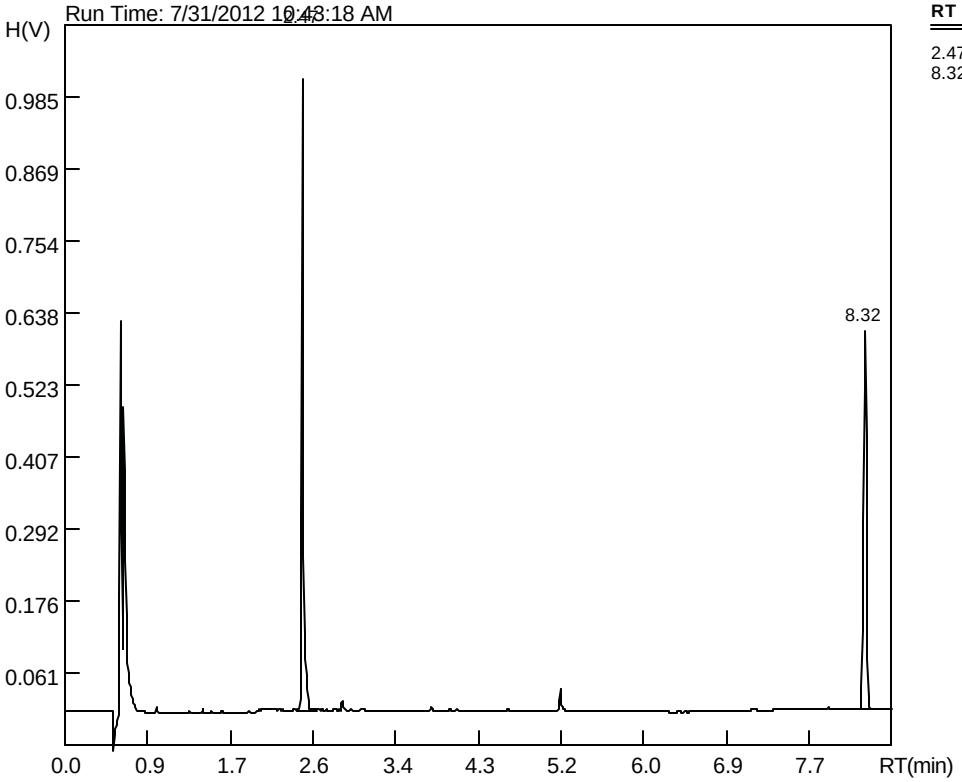


RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.617	1128104
3.18	0.00	1016-1	0.595	445880
3.62	0.00	1016-2	0.587	918204
3.99	0.00	1016-3	0.567	1907666
4.15	0.00	1016-4	0.588	734573
4.63	0.00	1016-5	0.598	758435
5.74	0.00	1260-1	0.582	1265170
5.82	0.00	1260-2	0.580	1305137
6.23	0.00	1260-3	0.591	1326467
6.72	0.00	1260-4	0.565	1248496
7.14	0.00	1260-5	0.587	1241365
8.32	0.00	DCBP	18.306	782900

GC/ECD Analysis: Raw Chromatographic Data

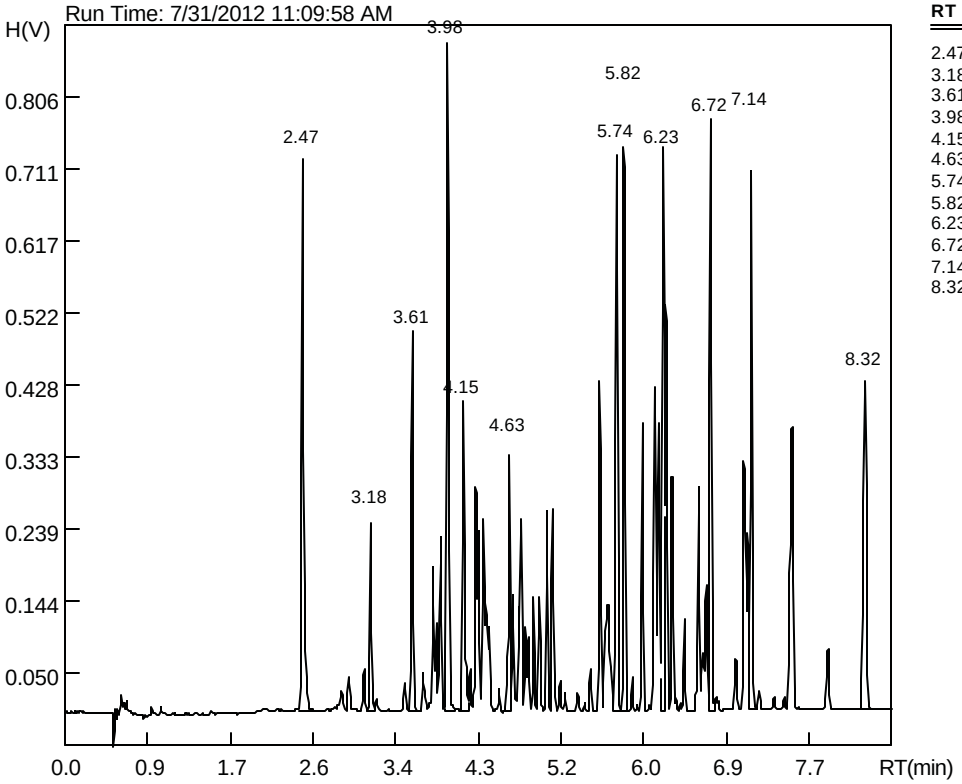
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120731\A120731B.03R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 10:43:18 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	22.232	1407325
8.32	0.00	DCBP	29.972	1240840

File Name: F:\GCECD.DAT\A120731\A120731B.04R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 11:09:58 AM

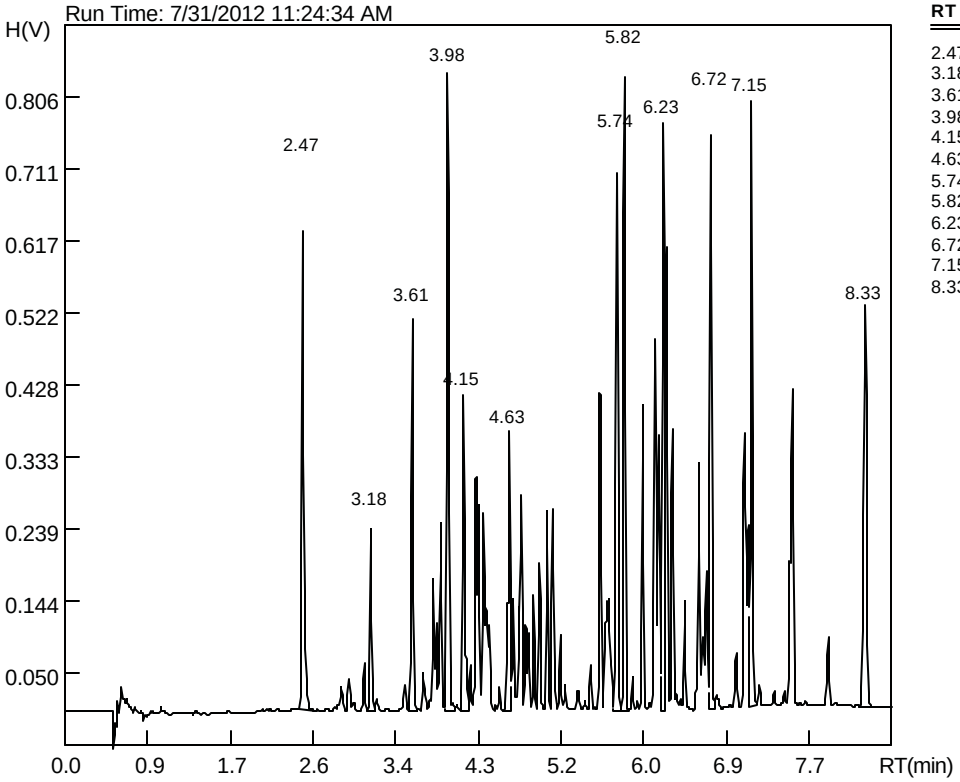


RT	dT	Name	Amt.	Area
2.47	0.00	TCX	18.887	1204903
3.18	0.00	1016-1	0.476	363477
3.61	0.00	1016-2	0.438	704757
3.98	0.00	1016-3	0.462	1577708
4.15	0.00	1016-4	0.472	599586
4.63	0.00	1016-5	0.391	518585
5.74	0.00	1260-1	0.472	1042921
5.82	0.00	1260-2	0.464	1063188
6.23	0.00	1260-3	0.481	1098441
6.72	0.00	1260-4	0.471	1049887
7.14	0.00	1260-5	0.485	1041556
8.32	-0.01	DCBP	22.108	932134

GC/ECD Analysis: Raw Chromatographic Data

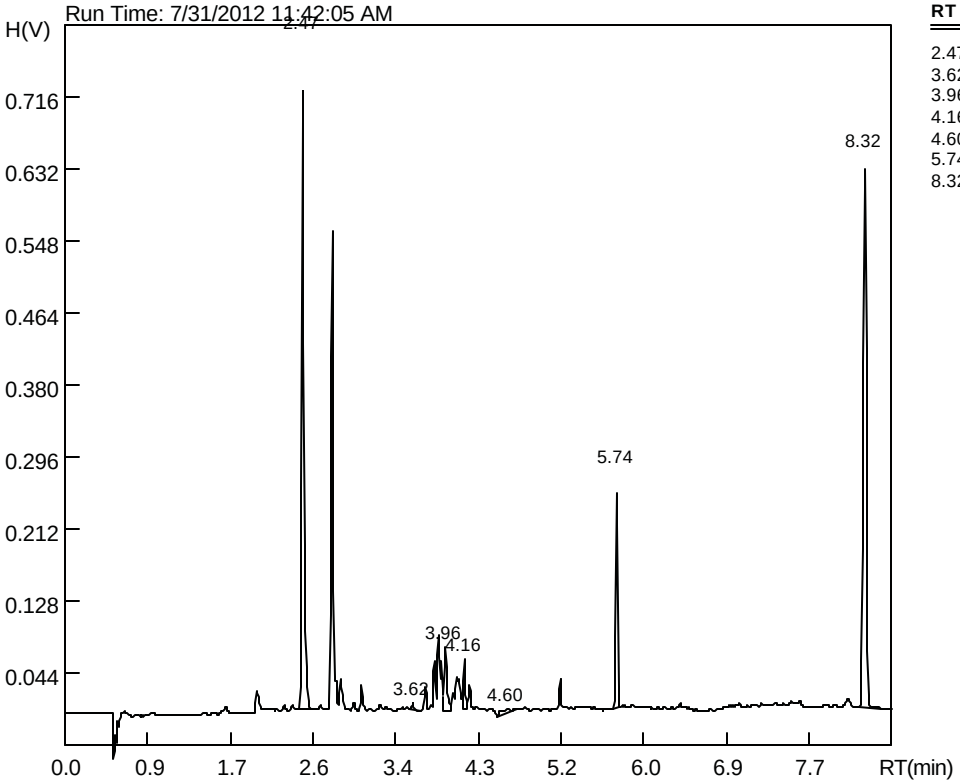
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120731\A120731B.05R.BND
Comments: sLCS-S.01D 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 11:24:34 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.839	1141493
3.18	0.00	1016-1	0.470	359400
3.61	0.00	1016-2	0.463	741666
3.98	0.00	1016-3	0.449	1534373
4.15	0.00	1016-4	0.477	606183
4.63	0.00	1016-5	0.480	622318
5.74	0.00	1260-1	0.512	1124715
5.82	0.00	1260-2	0.485	1107712
6.23	0.00	1260-3	0.492	1120108
6.72	0.00	1260-4	0.495	1100060
7.15	0.00	1260-5	0.500	1070614
8.33	0.00	DCBP	26.046	1086755

File Name: F:\GCECD.DAT\A120731\A120731B.06R.BND
Comments: s53345.02 20.1g s/1 ID:PA120730s02
Run Time: 7/31/2012 11:42:05 AM



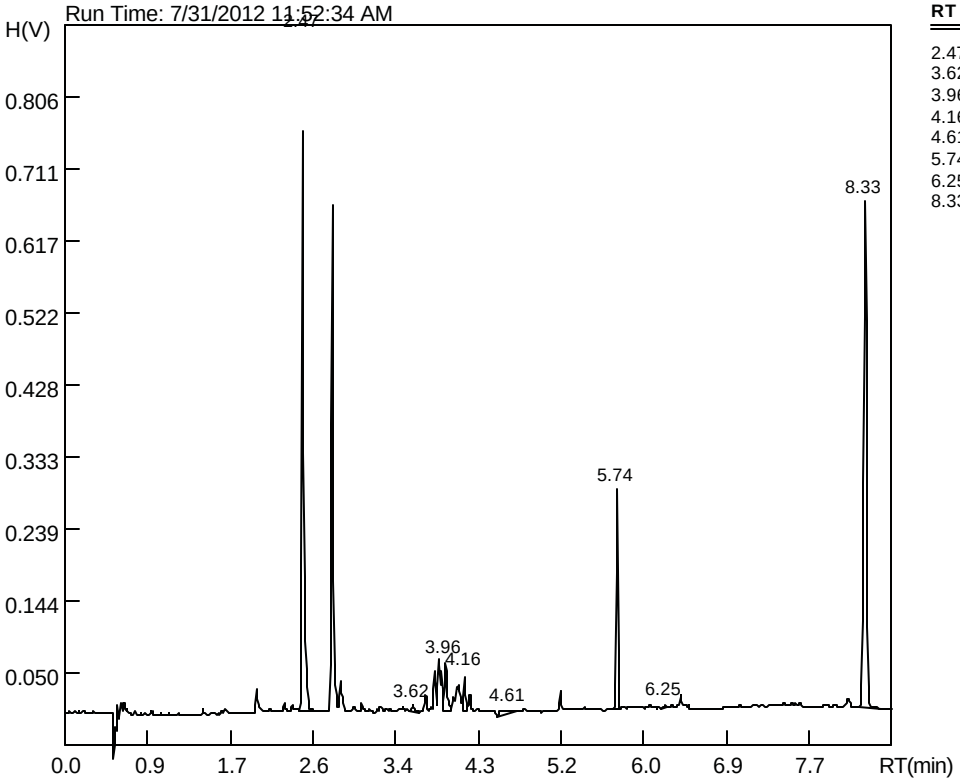
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	21.005	1333073
3.62	0.00	1016-2	-0.045	14523
3.96	-0.03	1016-3	0.005	133651
4.16	0.01	1016-4	0.032	88817
4.60	-0.03	1016-5	-0.023	41593
5.74	0.00	1260-1	0.102	301037
8.32	-0.01	DCBP	32.897	1355674

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4

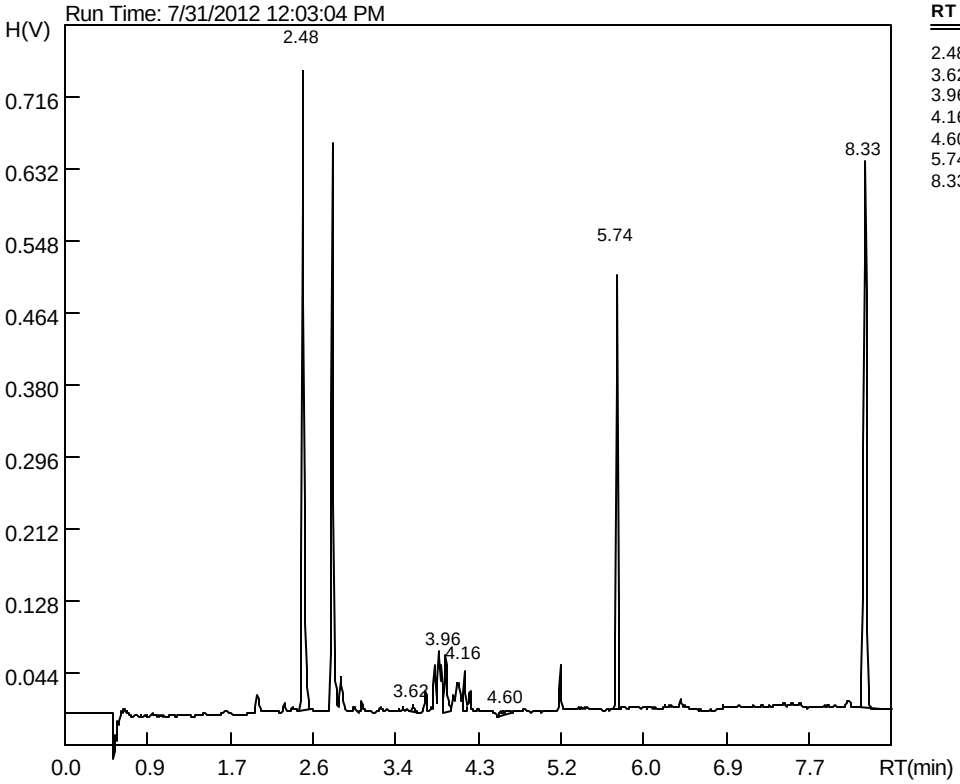
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120731\A120731B.07R.BND
Comments: s53345.03 20.1g s/1 ID:PA120730s02
Run Time: 7/31/2012 11:52:34 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.227	1285982
3.62	0.00	1016-2	-0.046	14192
3.96	-0.03	1016-3	0.000	117830
4.16	0.01	1016-4	0.021	76365
4.61	-0.02	1016-5	-0.030	33331
5.74	0.00	1260-1	0.107	312522
6.25	0.02	1260-3	-0.046	5795
8.33	0.00	DCBP	32.616	1344645

File Name: F:\GCECD.DAT\A120731\A120731B.08R.BND
Comments: s53345.04 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:03:04 PM



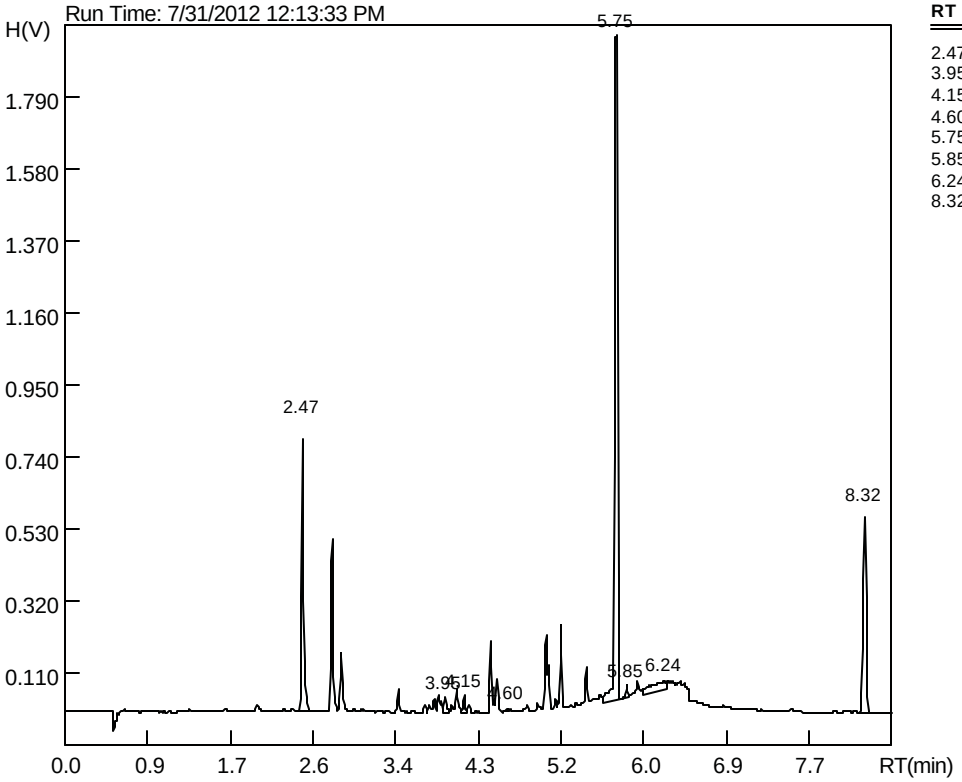
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	20.397	1296295
3.62	0.01	1016-2	-0.046	13230
3.96	-0.03	1016-3	0.001	122323
4.16	0.01	1016-4	0.025	80383
4.60	-0.03	1016-5	-0.036	26395
5.74	0.00	1260-1	0.243	584124
8.33	0.00	DCBP	31.863	1315083

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

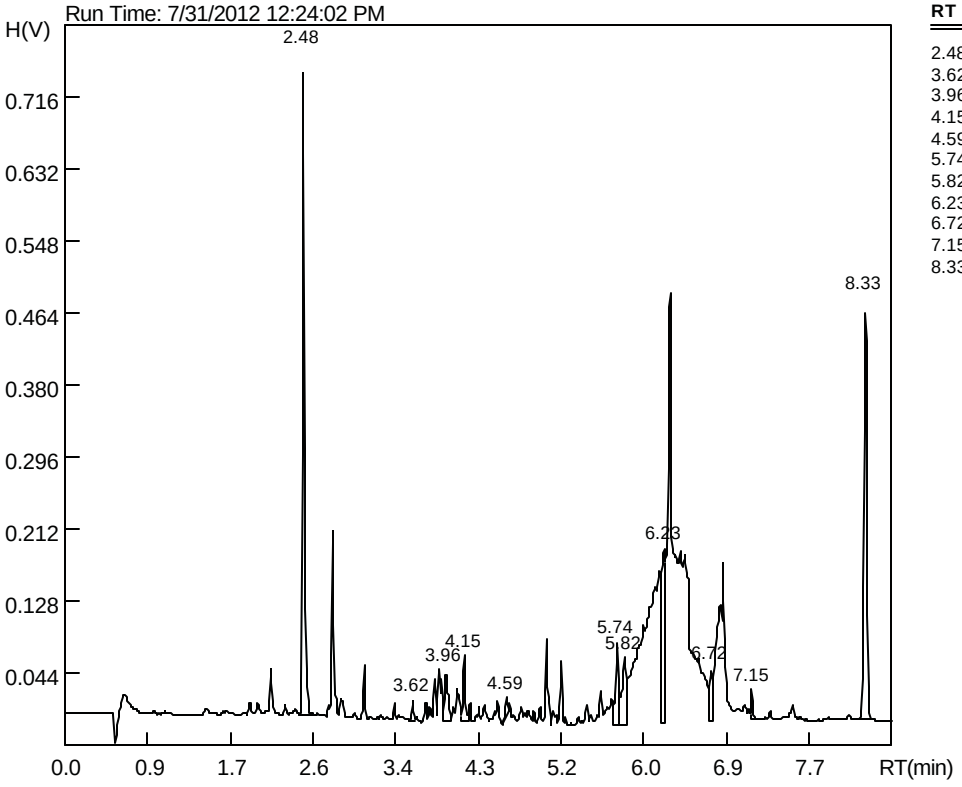
Analytical Batch: a120731.4

File Name: F:\GCECD.DAT\A120731\A120731B.09R.BND
Comments: s53345.05 20.2g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:13:33 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.610	1309192
3.95	-0.03	1016-3	-0.011	84132
4.15	0.01	1016-4	0.018	73313
4.60	-0.03	1016-5	-0.050	10196
5.75	0.00	1260-1	1.905	3917194
5.85	0.02	1260-2	-0.018	60582
6.24	0.01	1260-3	0.087	281402
8.32	-0.01	DCBP	29.500	1222302

File Name: F:\GCECD.DAT\A120731\A120731B.10R.BND
Comments: s53345.06 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:24:02 PM



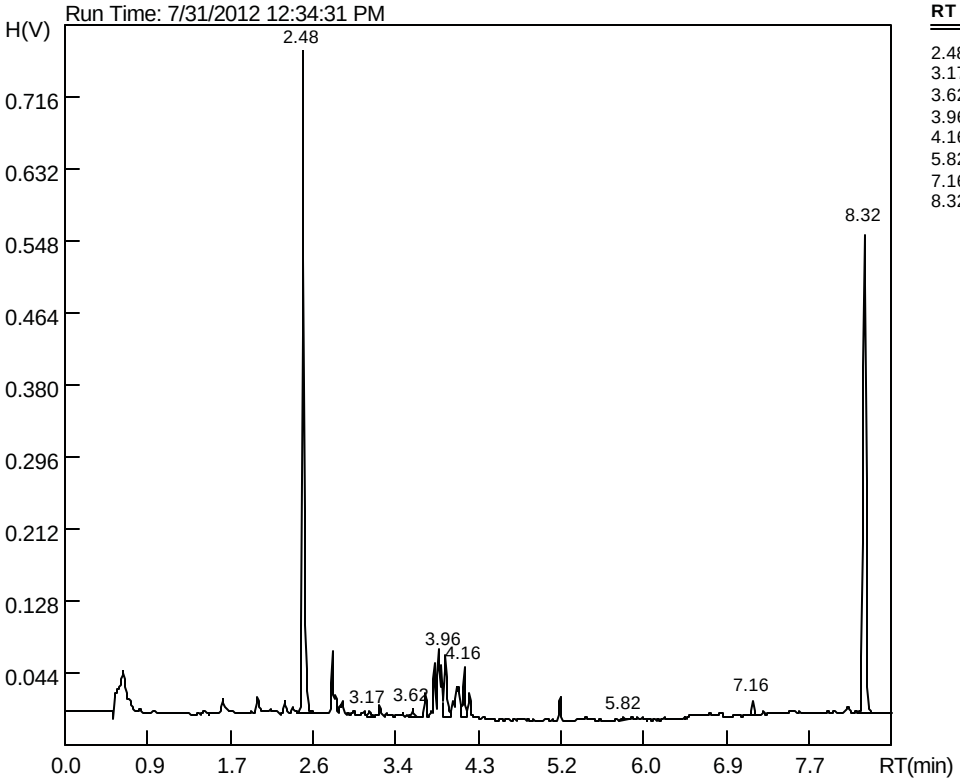
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	19.020	1212988
3.62	0.00	1016-2	-0.032	33210
3.96	-0.03	1016-3	0.006	137503
4.15	0.01	1016-4	0.070	133213
4.59	-0.03	1016-5	-0.035	27658
5.74	0.00	1260-1	0.045	188318
5.82	0.00	1260-2	0.063	227925
6.23	0.00	1260-3	0.206	527121
6.72	0.00	1260-4	0.033	126005
7.15	0.00	1260-5	-0.021	49547
8.33	0.00	DCBP	24.079	1009524

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

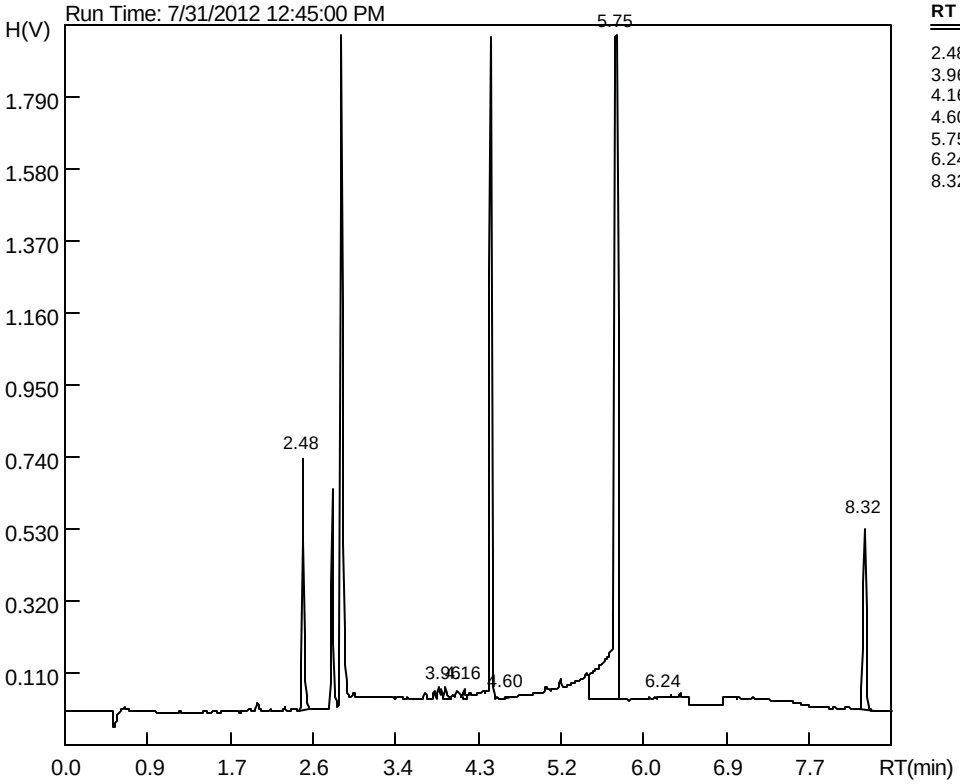
Analytical Batch: a120731.4

File Name: F:\GCECD.DAT\A120731\A120731B.11R.BND
Comments: s53345.07 20.2g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:34:31 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	19.093	1217410
3.17	-0.02	1016-1	-0.033	11297
3.62	0.00	1016-2	-0.045	15281
3.96	-0.03	1016-3	0.005	133980
4.16	0.01	1016-4	0.038	95911
5.82	-0.01	1260-2	-0.045	4618
7.16	0.01	1260-5	-0.032	27543
8.32	-0.01	DCBP	27.107	1128379

File Name: F:\GCECD.DAT\A120731\A120731B.12R.BND
Comments: s53345.08 20.3g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:45:00 PM



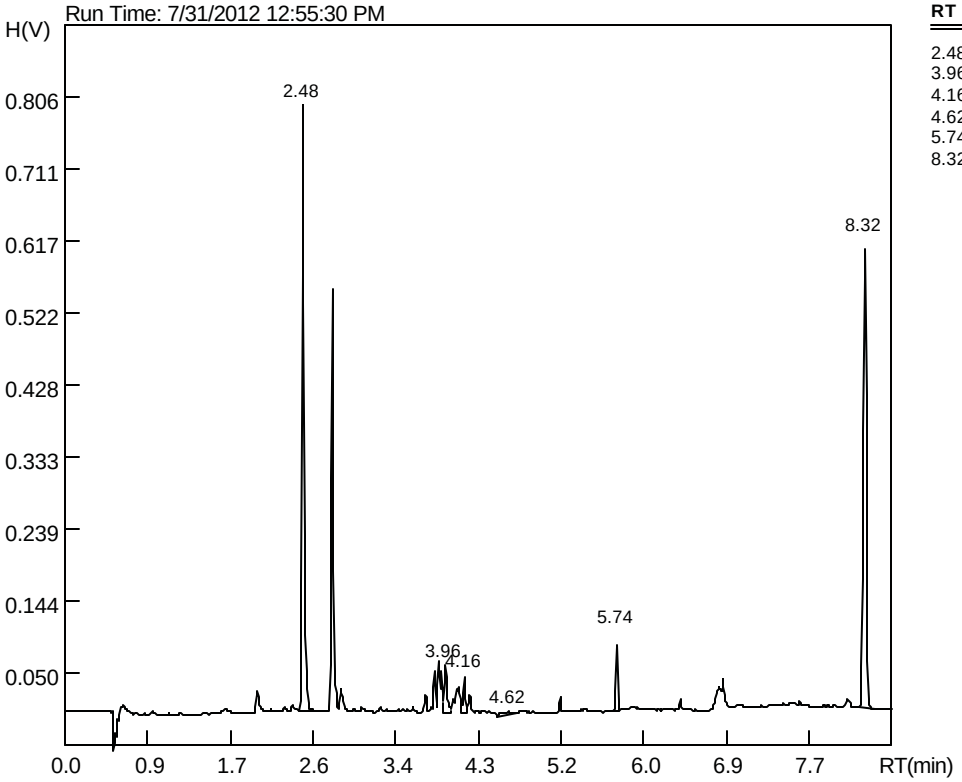
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	18.670	1191802
3.96	-0.03	1016-3	-0.016	68003
4.16	0.01	1016-4	0.005	57552
4.60	-0.03	1016-5	-0.048	12586
5.75	0.00	1260-1	3.040	6193818
6.24	0.01	1260-3	-0.045	7620
8.32	-0.01	DCBP	26.673	1111361

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

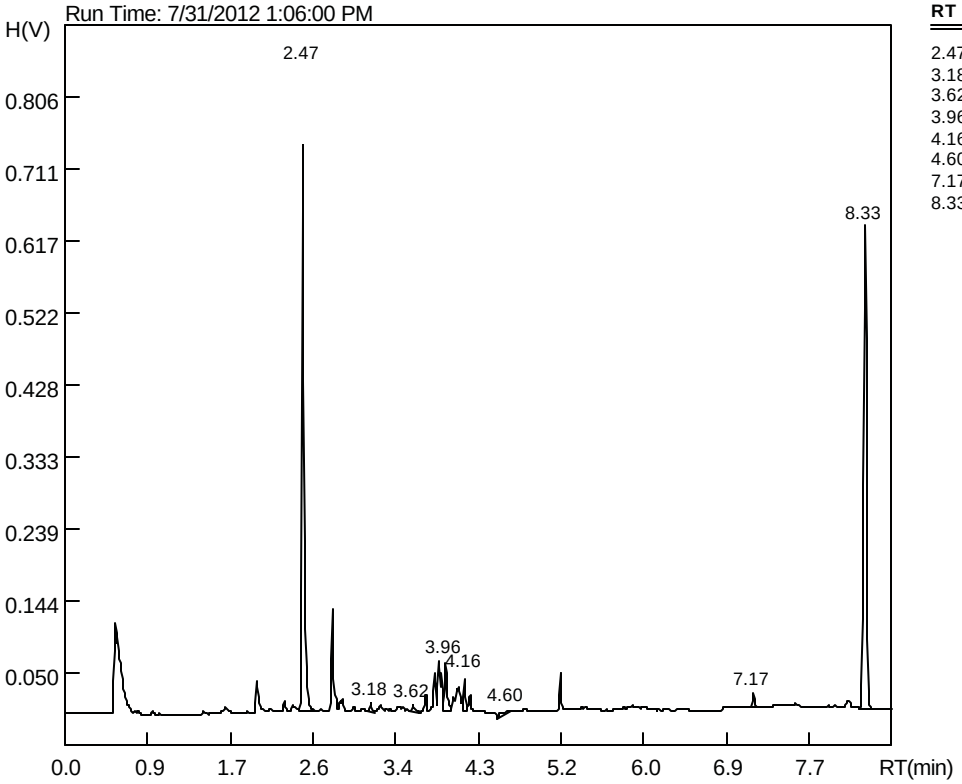
Analytical Batch: a120731.4

File Name: F:\GCECD.DAT\A120731\A120731B.13R.BND
Comments: s53345.11 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 12:55:30 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	21.095	1338508
3.96	-0.03	1016-3	-0.001	115601
4.16	0.01	1016-4	0.027	83736
4.62	-0.01	1016-5	-0.031	31796
5.74	0.00	1260-1	0.009	114636
8.32	0.00	DCBP	31.078	1284253

File Name: F:\GCECD.DAT\A120731\A120731B.14R.BND
Comments: s53345.12 20.1g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:06:00 PM



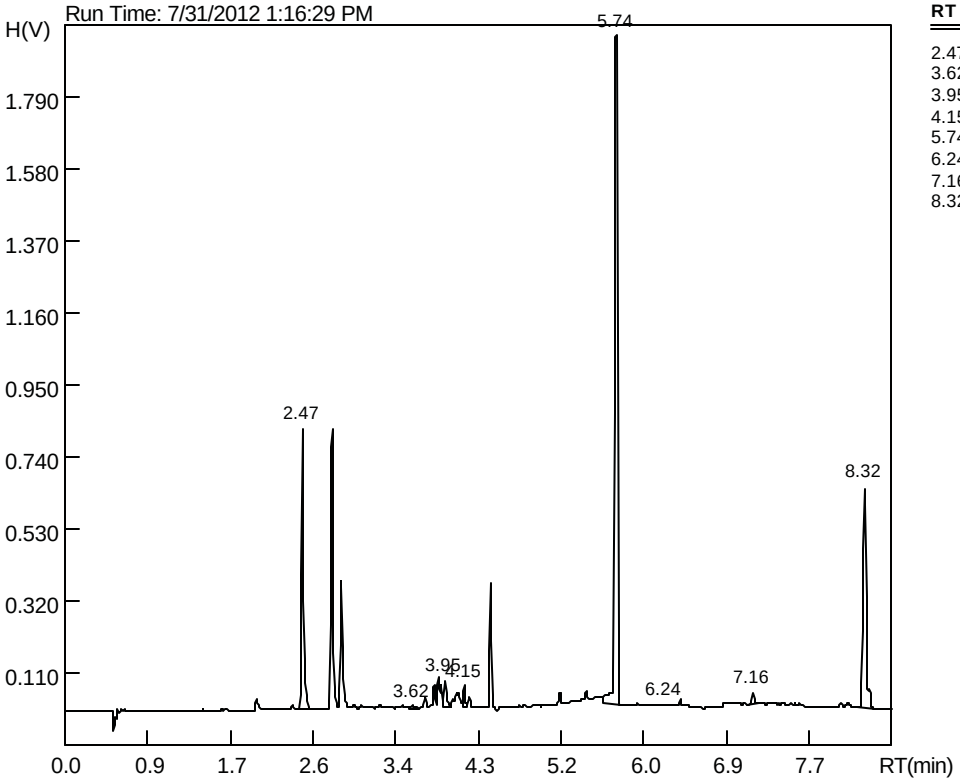
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.821	1321933
3.18	0.00	1016-1	-0.023	17782
3.62	0.01	1016-2	-0.042	18844
3.96	-0.03	1016-3	-0.002	112972
4.16	0.01	1016-4	0.016	70657
4.60	-0.03	1016-5	-0.029	34829
7.17	0.02	1260-5	-0.035	22137
8.33	0.00	DCBP	31.332	1294232

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4

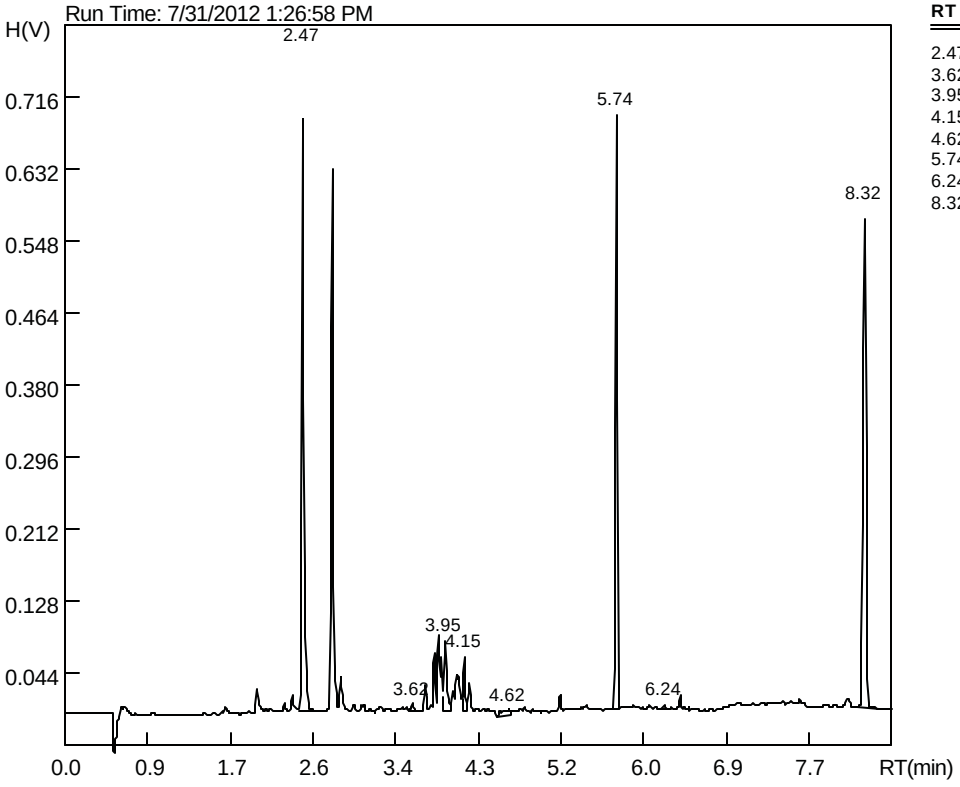
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120731\A120731B.15R.BND
Comments: s53345.13 20.3g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:16:29 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.506	1302849
3.62	0.00	1016-2	-0.041	21442
3.95	-0.03	1016-3	0.009	145183
4.15	0.00	1016-4	0.039	96762
5.74	0.00	1260-1	1.885	3876244
6.24	0.01	1260-3	-0.044	9279
7.16	0.01	1260-5	-0.018	54216
8.32	-0.01	DCBP	34.195	1406639

File Name: F:\GCECD.DAT\A120731\A120731B.16R.BND
Comments: s53345.14 20.1g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:26:58 PM



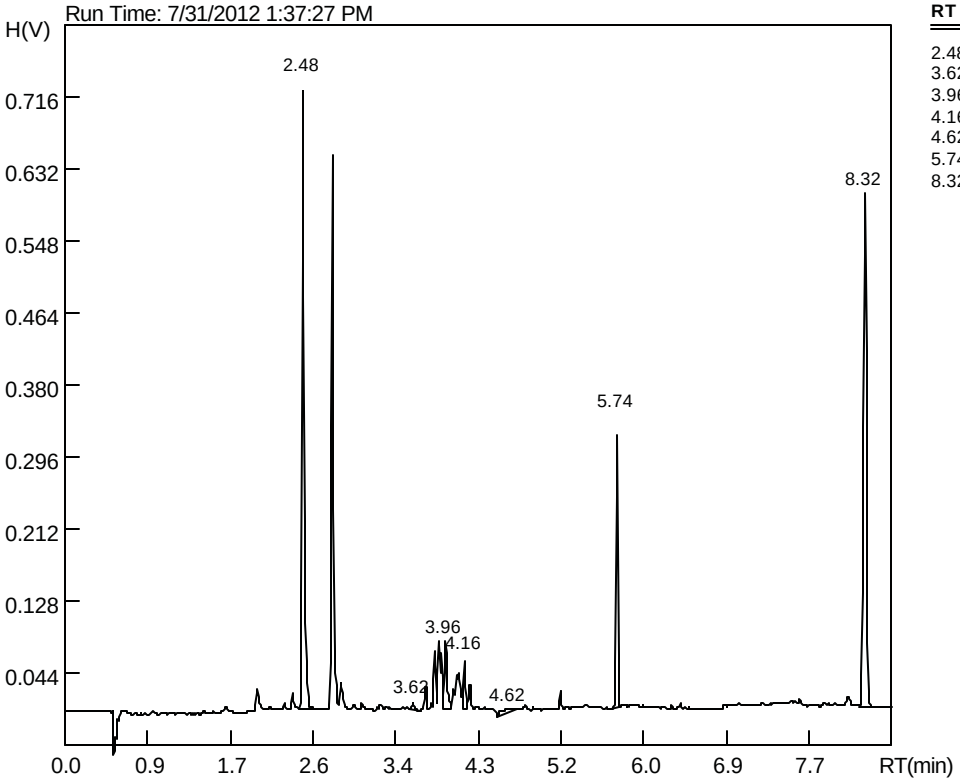
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	19.371	1234190
3.62	0.00	1016-2	-0.044	16867
3.95	-0.03	1016-3	0.011	152502
4.15	0.01	1016-4	0.040	97753
4.62	-0.01	1016-5	-0.019	45482
5.74	-0.01	1260-1	0.321	741797
6.24	0.01	1260-3	-0.043	11350
8.32	-0.01	DCBP	28.987	1202198

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

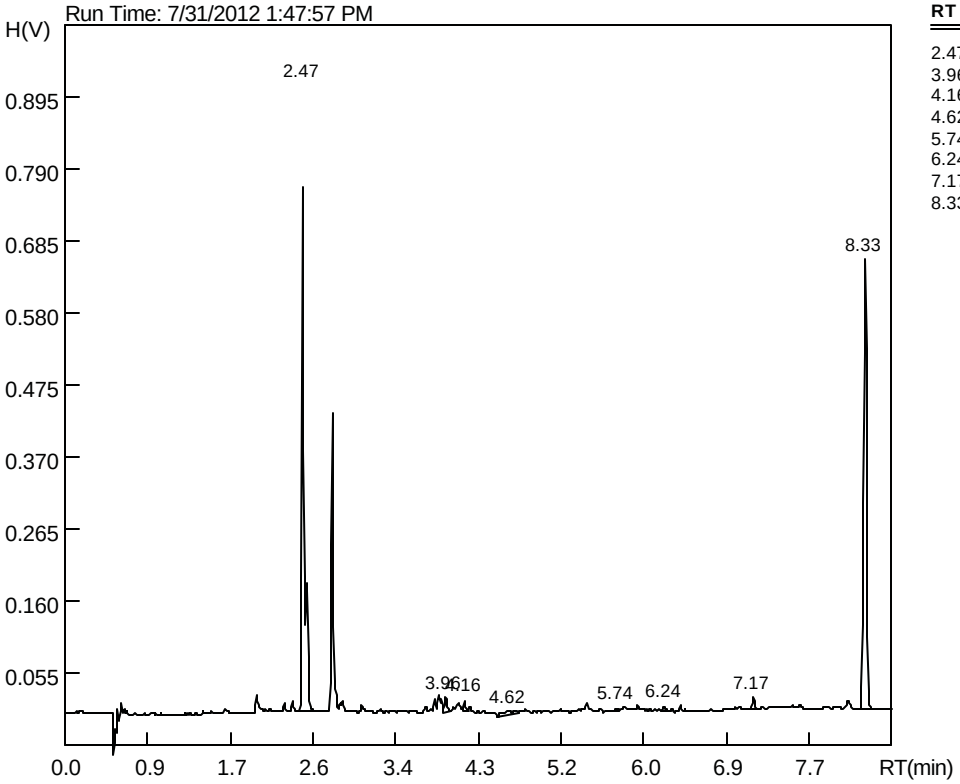
Analytical Batch: a120731.4

File Name: F:\GCECD.DAT\A120731\A120731B.17R.BND
Comments: s53345.15 20.0g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:37:27 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	19.262	1227634
3.62	0.00	1016-2	-0.044	16329
3.96	-0.03	1016-3	0.008	144031
4.16	0.01	1016-4	0.036	93668
4.62	-0.01	1016-5	-0.022	42356
5.74	0.00	1260-1	0.131	360055
8.32	0.00	DCBP	29.849	1236002

File Name: F:\GCECD.DAT\A120731\A120731B.18R.BND
Comments: s53345.16 20.2g s/1 ID:PA120730s02
Run Time: 7/31/2012 1:47:57 PM



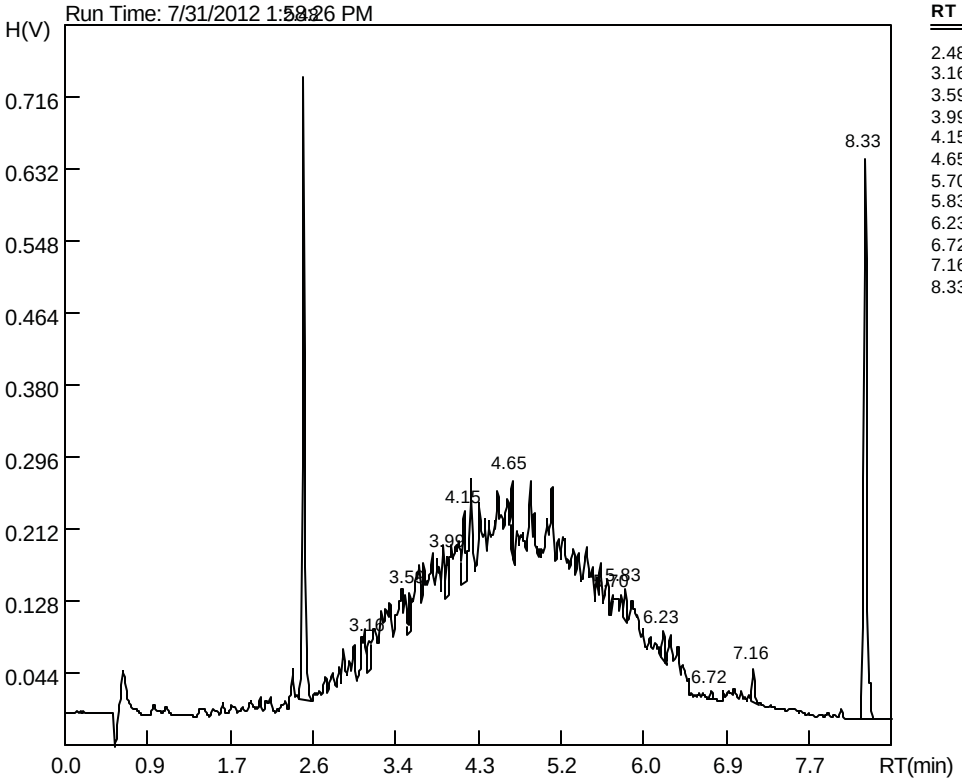
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	24.745	1559339
3.96	-0.03	1016-3	-0.025	38613
4.16	0.01	1016-4	-0.030	17358
4.62	-0.01	1016-5	-0.023	40779
5.74	0.00	1260-1	-0.045	6079
6.24	0.01	1260-3	-0.041	16157
7.17	0.02	1260-5	-0.033	25394
8.33	0.00	DCBP	33.077	1362740

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

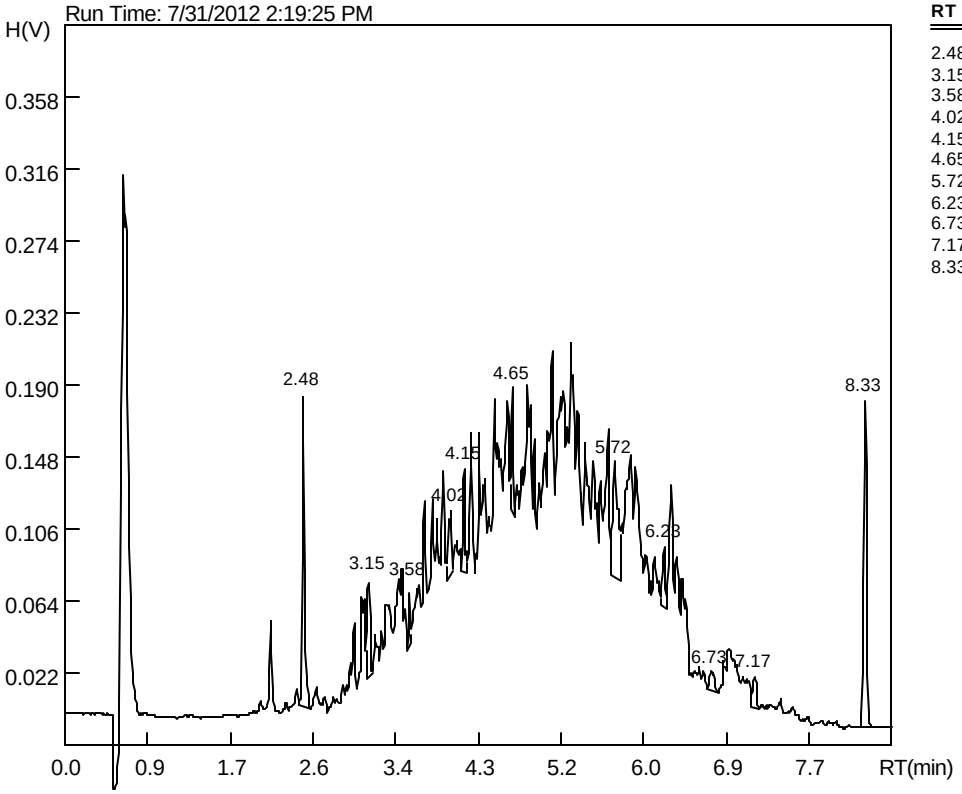
Analytical Batch: a120731.4

File Name: F:\GCECD.DAT\A120731\A120731B.19R.BND
Comments: s53345.09 20.0g s/1 dx ID:PA120730s02
Run Time: 7/31/2012 1:58:26 PM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	20.444	1299101
3.16	-0.02	1016-1	0.064	78320
3.59	-0.03	1016-2	-0.004	74377
3.99	0.00	1016-3	0.001	120787
4.15	0.01	1016-4	0.092	158653
4.65	0.02	1016-5	0.052	127791
5.70	-0.04	1260-1	-0.039	18508
5.83	0.01	1260-2	-0.021	53759
6.23	0.00	1260-3	-0.018	62705
6.72	0.00	1260-4	-0.019	16988
7.16	0.02	1260-5	-0.012	65814
8.33	0.00	DCBP	34.858	1432644

File Name: F:\GCECD.DAT\A120731\A120731B.21R.BND
Comments: s53345.10 20.2g s/5 dx ID:PA120730s02
Run Time: 7/31/2012 2:19:25 PM



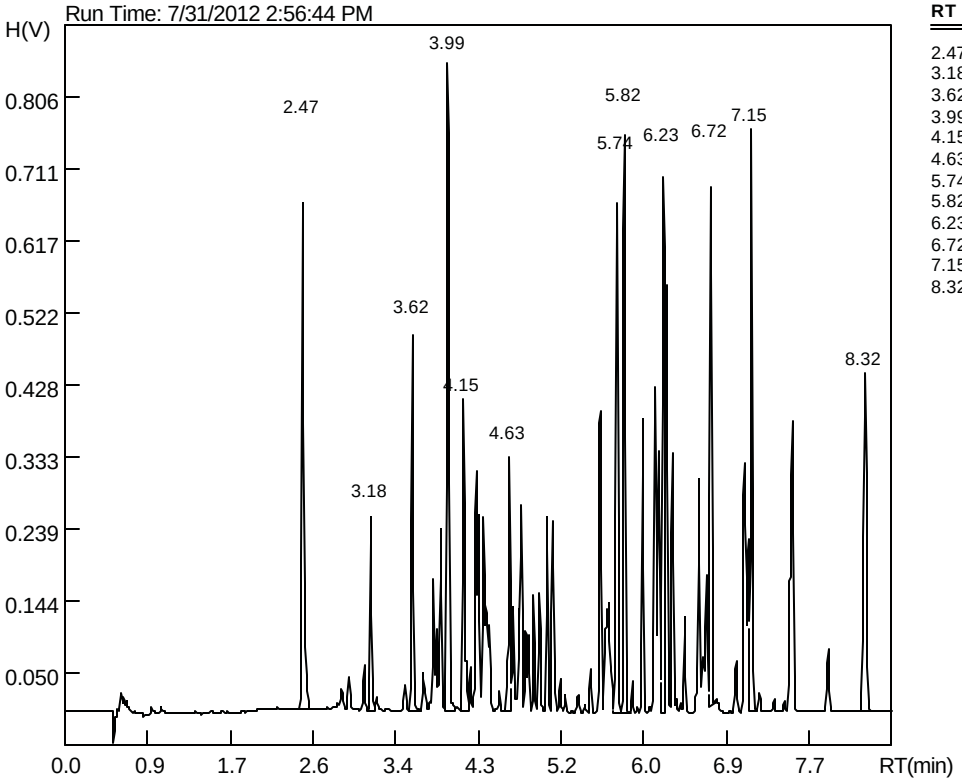
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	4.205	316541
3.15	-0.03	1016-1	0.127	122145
3.58	-0.03	1016-2	-0.027	41215
4.02	0.03	1016-3	-0.010	85677
4.15	0.00	1016-4	0.041	99942
4.65	0.02	1016-5	0.038	111579
5.72	-0.02	1260-1	0.075	248008
6.23	0.00	1260-3	-0.013	73903
6.73	0.01	1260-4	-0.007	42085
7.17	0.02	1260-5	-0.022	46232
8.33	0.00	DCBP	8.416	394664

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

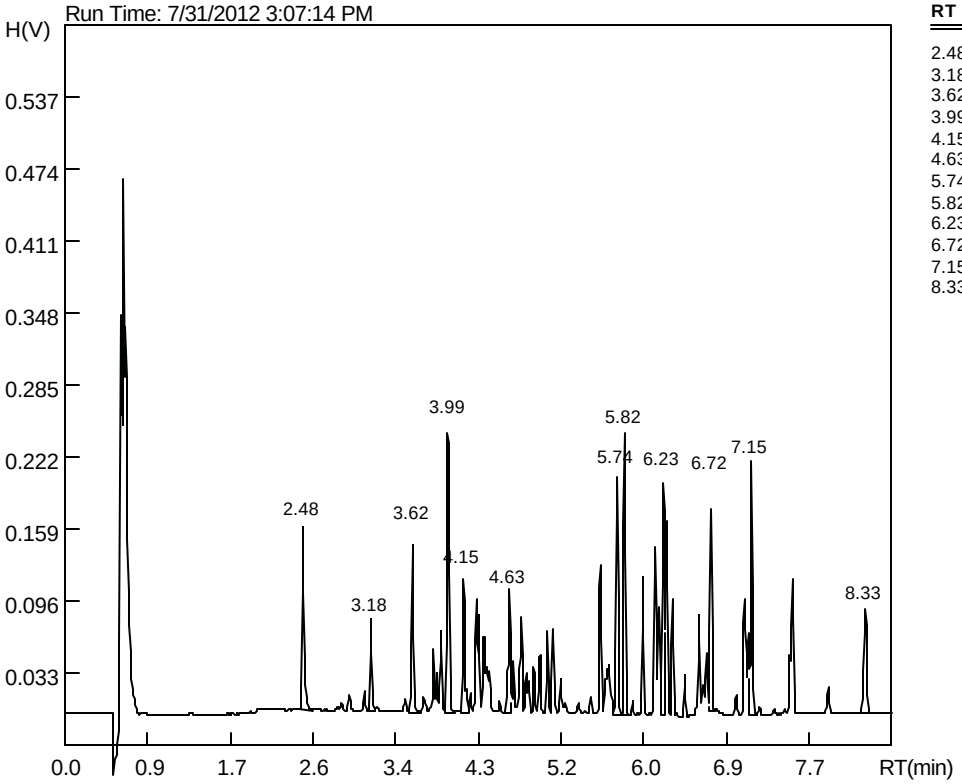
Analytical Batch: a120731.4

File Name: F:\GCECD.DAT\A120731\A120731B.23R.BND
Comments: sLCS-Al.01 0.5ppm ID:Cleanup
Run Time: 7/31/2012 2:56:44 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	18.792	1199180
3.18	0.00	1016-1	0.473	361508
3.62	0.00	1016-2	0.436	703013
3.99	0.00	1016-3	0.464	1582390
4.15	0.00	1016-4	0.471	598731
4.63	0.00	1016-5	0.388	515071
5.74	0.00	1260-1	0.460	1019664
5.82	0.00	1260-2	0.451	1035662
6.23	0.00	1260-3	0.491	1118901
6.72	0.00	1260-4	0.441	986541
7.15	0.00	1260-5	0.468	1007256
8.32	0.00	DCBP	21.391	904021

File Name: F:\GCECD.DAT\A120731\A120731B.24R.BND
Comments: ss1660.01 0.1ppm 7/23/12
Run Time: 7/31/2012 3:07:14 PM



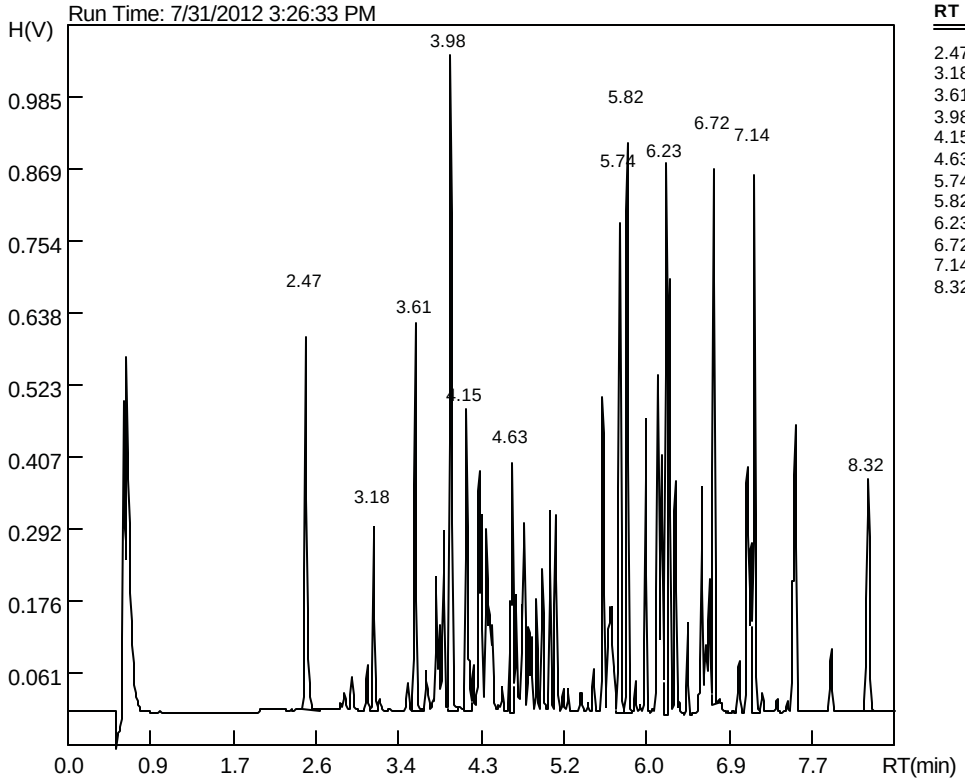
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	3.211	256444
3.18	0.00	1016-1	0.104	105762
3.62	0.00	1016-2	0.105	230130
3.99	0.00	1016-3	0.108	458772
4.15	0.00	1016-4	0.109	178034
4.63	0.00	1016-5	0.099	182030
5.74	0.00	1260-1	0.106	308803
5.82	0.00	1260-2	0.106	317621
6.23	0.00	1260-3	0.102	311675
6.72	0.00	1260-4	0.107	281946
7.15	0.00	1260-5	0.105	295235
8.33	0.00	DCBP	3.148	187896

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120731.4

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120731\A120731B.25R.BND
Comments: SC1660.02 0.5ppm 7/23/12
Run Time: 7/31/2012 3:26:33 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.404	1115197
3.18	0.00	1016-1	0.595	445720
3.61	0.00	1016-2	0.586	917132
3.98	0.00	1016-3	0.566	1906118
4.15	0.00	1016-4	0.591	738689
4.63	0.00	1016-5	0.432	565842
5.74	0.00	1260-1	0.574	1248144
5.82	0.00	1260-2	0.574	1291886
6.23	0.00	1260-3	0.564	1270008
6.72	0.00	1260-4	0.549	1213690
7.14	0.00	1260-5	0.571	1208993
8.32	0.00	DCBP	17.936	768366

Form 0: Sequence Log

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	12:11:26 Wed 01-Aug-12	Blank	Liquid	
002	12:13:22 Wed 01-Aug-12	std-0.000	Liquid	
003	12:15:18 Wed 01-Aug-12	std-0.0001	Liquid	
004	12:17:20 Wed 01-Aug-12	std-0.001	Liquid	
005	12:19:21 Wed 01-Aug-12	std-0.005	Liquid	
006	12:21:25 Wed 01-Aug-12	std-0.02	Liquid	
007	12:23:34 Wed 01-Aug-12	std-0.05	Liquid	
008	12:25:51 Wed 01-Aug-12	std-0.20	Liquid	
009	12:28:21 Wed 01-Aug-12	ICV-0.10	Liquid	ICV
010	12:31:53 Wed 01-Aug-12	Rinse	Liquid	
011	12:33:54 Wed 01-Aug-12	ICB	Liquid	ICB
012	12:36:28 Wed 01-Aug-12	BS-0.0005	Liquid	BS
013	12:38:29 Wed 01-Aug-12	BS-0.001	Liquid	BS
014	12:40:27 Wed 01-Aug-12	BS-0.002	Liquid	BS
015	12:42:26 Wed 01-Aug-12	ERA-P194	Liquid	ERA
016	12:45:04 Wed 01-Aug-12	Solu-AB	Liquid	AB
017	12:52:40 Wed 01-Aug-12	Solu-AA	Liquid	AA
018	12:54:44 Wed 01-Aug-12	CCV1-0.10	Liquid	CCV
019	12:58:17 Wed 01-Aug-12	Rinse	Liquid	
020	13:00:22 Wed 01-Aug-12	CCB1	Liquid	CCB
021	13:03:57 Wed 01-Aug-12	0801_1 LCS-0.05	Liquid	LCS
022	13:06:48 Wed 01-Aug-12	Rinse	Liquid	
023	13:08:55 Wed 01-Aug-12	LRB_1	Liquid	LRB
024	13:10:48 Wed 01-Aug-12	53345.02s	Soil	S
025	13:12:57 Wed 01-Aug-12	53345.02 dil	Soil	DIL
026	13:15:13 Wed 01-Aug-12	53345.03s	Soil	S
027	13:17:24 Wed 01-Aug-12	53345.04s	Soil	S
028	13:19:35 Wed 01-Aug-12	53345.05s	Soil	S
029	13:21:47 Wed 01-Aug-12	53345.06s	Soil	S
030	13:24:00 Wed 01-Aug-12	53345.07s	Soil	S
031	13:26:12 Wed 01-Aug-12	53345.08s	Soil	S
032	13:28:22 Wed 01-Aug-12	53345.09s	Soil	S
033	13:30:33 Wed 01-Aug-12	53345.09 MS-0.10	Soil	MS
034	13:33:01 Wed 01-Aug-12	53345.09 MSD	Soil	MSD
035	13:38:22 Wed 01-Aug-12	CCV2-0.10	Liquid	CCV
036	13:49:00 Wed 01-Aug-12	Rinse	Liquid	
037	13:51:05 Wed 01-Aug-12	CCB2	Liquid	CCB
038	13:53:55 Wed 01-Aug-12	Blank	Liquid	
039	13:55:52 Wed 01-Aug-12	std-0.000	Liquid	
040	13:57:49 Wed 01-Aug-12	std-0.0001	Liquid	
041	13:59:51 Wed 01-Aug-12	std-0.001	Liquid	
042	14:01:52 Wed 01-Aug-12	std-0.005	Liquid	
043	14:03:57 Wed 01-Aug-12	std-0.02	Liquid	
044	14:06:06 Wed 01-Aug-12	std-0.05	Liquid	
045	14:08:22 Wed 01-Aug-12	std-0.20	Liquid	
046	14:10:52 Wed 01-Aug-12	ICV-0.10	Liquid	ICV
047	14:13:40 Wed 01-Aug-12	Rinse	Liquid	
048	14:15:40 Wed 01-Aug-12	BS-0.0005	Liquid	BS
049	14:17:40 Wed 01-Aug-12	BS-0.001	Liquid	BS
050	14:19:41 Wed 01-Aug-12	ICB	Liquid	ICB
051	14:22:01 Wed 01-Aug-12	53345.10s	Soil	S
052	14:24:09 Wed 01-Aug-12	53345.11s	Soil	S
053	14:26:17 Wed 01-Aug-12	53345.12s	Soil	S

Form 0: Sequence Log

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	14:28:25 Wed 01-Aug-12	53345.13s	Soil	S
055	14:30:31 Wed 01-Aug-12	53345.14s	Soil	S
056	14:32:38 Wed 01-Aug-12	53345.15s	Soil	S
057	14:35:39 Wed 01-Aug-12	53345.16s	Soil	S
058	14:37:48 Wed 01-Aug-12	53347.01s	Soil	S
059	14:39:56 Wed 01-Aug-12	53347.02s	Soil	S
060	14:42:05 Wed 01-Aug-12	53347.03s	Soil	S
061	14:46:25 Wed 01-Aug-12	53347.12s MS-0.10	Soil	MS
062	14:48:43 Wed 01-Aug-12	53347.13s MSD	Soil	MSD
063	14:51:07 Wed 01-Aug-12	CCV3-0.10	Liquid	CCV
064	14:56:50 Wed 01-Aug-12	CCB3	Liquid	CCB
065	14:59:02 Wed 01-Aug-12	0801_2 LCS-0.05	Liquid	LCS
066	15:05:44 Wed 01-Aug-12	LRB_2	Liquid	LRB
067	15:07:41 Wed 01-Aug-12	53347.15s	Liquid	S
068	15:09:44 Wed 01-Aug-12	53347.04s	Soil	S
069	15:11:47 Wed 01-Aug-12	53347.04 dil	Soil	DIL
070	15:13:51 Wed 01-Aug-12	53347.05s	Soil	S
071	15:15:56 Wed 01-Aug-12	53347.06s	Soil	S
072	15:18:00 Wed 01-Aug-12	53347.07s	Soil	S
073	15:20:04 Wed 01-Aug-12	53347.08s	Soil	S
074	15:22:06 Wed 01-Aug-12	53347.09s	Soil	S
075	15:24:09 Wed 01-Aug-12	53347.10s	Soil	S
076	15:26:13 Wed 01-Aug-12	53347.11s	Soil	S
077	15:28:21 Wed 01-Aug-12	CCV4-0.10	Liquid	CCV
078	15:30:37 Wed 01-Aug-12	Rinse	Liquid	
079	15:32:48 Wed 01-Aug-12	CCB4	Liquid	CCB
080	15:34:52 Wed 01-Aug-12	53360.02s	Soil	S
081	15:36:58 Wed 01-Aug-12	53360.03s	Soil	S
082	15:39:03 Wed 01-Aug-12	53360.04s	Soil	S
083	15:41:06 Wed 01-Aug-12	53360.05s MS-0.10	Soil	MS
084	15:45:41 Wed 01-Aug-12	53360.06s MSD	Soil	MSD
085	15:49:07 Wed 01-Aug-12	53360.07s	Soil	S
086	15:51:12 Wed 01-Aug-12	53360.08s	Soil	S
087	15:53:17 Wed 01-Aug-12	53360.09s	Soil	S
088	15:55:24 Wed 01-Aug-12	53360.10s	Soil	S
089	15:57:29 Wed 01-Aug-12	53360.11s	Soil	S
090	15:59:33 Wed 01-Aug-12	53360.12s	Soil	S
091	16:01:37 Wed 01-Aug-12	53360.13s	Soil	S
092	16:03:46 Wed 01-Aug-12	CCV5-0.10	Liquid	CCV
093	16:08:44 Wed 01-Aug-12	CCB5	Liquid	CCB
094	16:17:33 Wed 01-Aug-12	0801_3 LCS-0.05	Liquid	LCS
095	16:22:30 Wed 01-Aug-12	LRB_3	Liquid	LRB
096	16:24:23 Wed 01-Aug-12	53283.01s	Liquid	S
097	16:26:28 Wed 01-Aug-12	53283.01 dil	Liquid	DIL
098	16:28:33 Wed 01-Aug-12	53281.01s tclp	Liquid	S
099	16:30:39 Wed 01-Aug-12	53281.01 MS-0.05	Liquid	MS
100	16:32:45 Wed 01-Aug-12	53281.01 MSD	Liquid	MSD
101	16:34:56 Wed 01-Aug-12	CCV6-0.10	Liquid	CCV
102	16:39:11 Wed 01-Aug-12	CCB6	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.02
Sample Tag: SB168-(07-23-12) (6-8)
Date Collected: 07/23/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	2.28	0.20		mg/kg	248	08/01/2012	
7440-39-3	Barium	47.9	1.0		mg/kg	248	08/01/2012	
7440-43-9	Cadmium	0.21	0.20		mg/kg	248	08/01/2012	
7440-47-3	Chromium	6.47	0.50		mg/kg	248	08/01/2012	
7440-50-8	Copper	11.6	0.50		mg/kg	248	08/01/2012	
7439-92-1	Lead	7.24	0.30		mg/kg	248	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	248	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	248	08/01/2012	
7440-66-6	Zinc	31.2	1.0		mg/kg	248	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.03
Sample Tag: SB137-(07-23-12) (22-24)
Date Collected: 07/23/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	7.03	0.20		mg/kg	232	08/01/2012	
7440-39-3	Barium	47.6	1.0		mg/kg	232	08/01/2012	
7440-43-9	Cadmium	0.20	0.20		mg/kg	232	08/01/2012	
7440-47-3	Chromium	5.79	0.50		mg/kg	232	08/01/2012	
7440-50-8	Copper	17.5	0.50		mg/kg	232	08/01/2012	
7439-92-1	Lead	9.04	0.30		mg/kg	232	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	232	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	232	08/01/2012	
7440-66-6	Zinc	31.6	1.0		mg/kg	232	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.04
Sample Tag: SB136-(07-23-12) (22-24)
Date Collected: 07/23/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	4.75	0.20		mg/kg	234	08/01/2012	
7440-39-3	Barium	61.8	1.0		mg/kg	234	08/01/2012	
7440-43-9	Cadmium	0.25	0.20		mg/kg	234	08/01/2012	
7440-47-3	Chromium	6.83	0.50		mg/kg	234	08/01/2012	
7440-50-8	Copper	16.3	0.50		mg/kg	234	08/01/2012	
7439-92-1	Lead	9.09	0.30		mg/kg	234	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	234	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	234	08/01/2012	
7440-66-6	Zinc	39.1	1.0		mg/kg	234	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.05
Sample Tag: SB139-(07-24-12) (22-24)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.94	0.20		mg/kg	251	08/01/2012	
7440-39-3	Barium	5.51	1.0		mg/kg	251	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	251	08/01/2012	
7440-47-3	Chromium	1.32	0.50		mg/kg	251	08/01/2012	
7440-50-8	Copper	3.36	0.50		mg/kg	251	08/01/2012	
7439-92-1	Lead	2.35	0.30		mg/kg	251	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	251	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	251	08/01/2012	
7440-66-6	Zinc	12.4	1.0		mg/kg	251	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.06
Sample Tag: SB135-(07-24-12) (2-4)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	2.01	0.20		mg/kg	222	08/01/2012	
7440-39-3	Barium	16.2	1.0		mg/kg	222	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	222	08/01/2012	
7440-47-3	Chromium	2.80	0.50		mg/kg	222	08/01/2012	
7440-50-8	Copper	4.56	0.50		mg/kg	222	08/01/2012	
7439-92-1	Lead	3.19	0.30		mg/kg	222	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	222	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	222	08/01/2012	
7440-66-6	Zinc	14.1	1.0		mg/kg	222	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.07
Sample Tag: SB166-(07-24-12) (4-6)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.43	0.20		mg/kg	213	08/01/2012	
7440-39-3	Barium	7.46	1.0		mg/kg	213	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	213	08/01/2012	
7440-47-3	Chromium	2.47	0.50		mg/kg	213	08/01/2012	
7440-50-8	Copper	16.2	0.50		mg/kg	213	08/01/2012	
7439-92-1	Lead	3.75	0.30		mg/kg	213	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	213	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	213	08/01/2012	
7440-66-6	Zinc	12.3	1.0		mg/kg	213	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.08
Sample Tag: DUP3-(07-24-12)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.52	0.20		mg/kg	219	08/01/2012	
7440-39-3	Barium	9.32	1.0		mg/kg	219	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	219	08/01/2012	
7440-47-3	Chromium	2.08	0.50		mg/kg	219	08/01/2012	
7440-50-8	Copper	6.56	0.50		mg/kg	219	08/01/2012	
7439-92-1	Lead	4.08	0.30		mg/kg	219	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	219	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	219	08/01/2012	
7440-66-6	Zinc	11.8	1.0		mg/kg	219	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.09
Sample Tag: SB152-(07-24-12) (4-6)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	Not detected	0.20		mg/kg	221	08/01/2012	
7440-39-3	Barium	9.21	1.0		mg/kg	221	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	221	08/01/2012	
7440-47-3	Chromium	2.89	0.50		mg/kg	221	08/01/2012	
7440-50-8	Copper	1.65	0.50		mg/kg	221	08/01/2012	
7439-92-1	Lead	2.24	0.30		mg/kg	221	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	221	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	221	08/01/2012	
7440-66-6	Zinc	11.3	1.0		mg/kg	221	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.10
Sample Tag: SB167-(07-24-12) (2-4)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	Not detected	0.20		mg/kg	252	08/01/2012	
7440-39-3	Barium	24.0	1.0		mg/kg	252	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	252	08/01/2012	
7440-47-3	Chromium	3.61	0.50		mg/kg	252	08/01/2012	
7440-50-8	Copper	2.56	0.50		mg/kg	252	08/01/2012	
7439-92-1	Lead	2.36	0.30		mg/kg	252	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	252	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	252	08/01/2012	
7440-66-6	Zinc	8.42	1.0		mg/kg	252	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.11
Sample Tag: SB126-(07-25-12) (24-26)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	4.55	0.20		mg/kg	231	08/01/2012	
7440-39-3	Barium	61.3	1.0		mg/kg	231	08/01/2012	
7440-43-9	Cadmium	0.25	0.20		mg/kg	231	08/01/2012	
7440-47-3	Chromium	9.39	0.50		mg/kg	231	08/01/2012	
7440-50-8	Copper	19.8	0.50		mg/kg	231	08/01/2012	
7439-92-1	Lead	8.34	0.30		mg/kg	231	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	231	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	231	08/01/2012	
7440-66-6	Zinc	37.1	1.0		mg/kg	231	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.12
Sample Tag: SB153-(07-25-12) (3.5-5.5)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	2.07	0.20		mg/kg	247	08/01/2012	
7440-39-3	Barium	51.7	1.0		mg/kg	247	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	247	08/01/2012	
7440-47-3	Chromium	4.63	0.50		mg/kg	247	08/01/2012	
7440-50-8	Copper	8.63	0.50		mg/kg	247	08/01/2012	
7439-92-1	Lead	5.21	0.30		mg/kg	247	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	247	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	247	08/01/2012	
7440-66-6	Zinc	21.0	1.0		mg/kg	247	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.13
Sample Tag: SB107-(07-25-12) (3-5)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	Not detected	0.20		mg/kg	225	08/01/2012	
7440-39-3	Barium	14.2	1.0		mg/kg	225	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	225	08/01/2012	
7440-47-3	Chromium	1.04	0.50		mg/kg	225	08/01/2012	
7440-50-8	Copper	0.58	0.50		mg/kg	225	08/01/2012	
7439-92-1	Lead	2.06	0.30		mg/kg	225	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	225	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	225	08/01/2012	
7440-66-6	Zinc	1.89	1.0		mg/kg	225	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.14
Sample Tag: SB111-(07-25-12) (0.5-2.5)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.31	0.20		mg/kg	219	08/01/2012	
7440-39-3	Barium	11.1	1.0		mg/kg	219	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	219	08/01/2012	
7440-47-3	Chromium	2.06	0.50		mg/kg	219	08/01/2012	
7440-50-8	Copper	3.30	0.50		mg/kg	219	08/01/2012	
7439-92-1	Lead	2.66	0.30		mg/kg	219	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	219	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	219	08/01/2012	
7440-66-6	Zinc	9.71	1.0		mg/kg	219	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.15
Sample Tag: SB110-(07-25-12) (0.5-2.5)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.32	0.20		mg/kg	213	08/01/2012	
7440-39-3	Barium	13.0	1.0		mg/kg	213	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	213	08/01/2012	
7440-47-3	Chromium	2.58	0.50		mg/kg	213	08/01/2012	
7440-50-8	Copper	3.89	0.50		mg/kg	213	08/01/2012	
7439-92-1	Lead	3.13	0.30		mg/kg	213	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	213	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	213	08/01/2012	
7440-66-6	Zinc	9.71	1.0		mg/kg	213	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53345.16
Sample Tag: SB119-(07-26-12) (3-5)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.64	0.20		mg/kg	229	08/01/2012	
7440-39-3	Barium	26.1	1.0		mg/kg	229	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	229	08/01/2012	
7440-47-3	Chromium	4.51	0.50		mg/kg	229	08/01/2012	
7440-50-8	Copper	7.24	0.50		mg/kg	229	08/01/2012	
7439-92-1	Lead	5.43	0.30		mg/kg	229	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	229	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	229	08/01/2012	
7440-66-6	Zinc	16.1	1.0		mg/kg	229	08/01/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
009 ICV-0.10	ICV	1	Cr	0.0999	0.10	100	90/110	mg/L	Liquid
			Cu	0.0998	0.10	100	90/110		
			Zn	0.0997	0.10	100	90/110		
			As	0.101	0.10	101	90/110		
			Se	0.0997	0.10	100	90/110		
			Ag	0.101	0.10	101	90/110		
			Cd	0.101	0.10	101	90/110		
			Ba	0.0986	0.10	99	90/110		
			Pb	0.102	0.10	102	90/110		
018 CCV1-0.10	CCV	1	Cr	0.0962	0.10	96	90/110	mg/L	Liquid
			Cu	0.0972	0.10	97	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.0983	0.10	98	90/110		
			Se	0.0984	0.10	98	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.103	0.10	103	90/110		
			Ba	0.0980	0.10	98	90/110		
			Pb	0.102	0.10	102	90/110		
035 CCV2-0.10	CCV	1	Cr	0.0955	0.10	96	90/110	mg/L	Liquid
			Cu	0.0948	0.10	95	90/110		
			Zn	0.0980	0.10	98	90/110		
			As	0.0923	0.10	92	90/110		
			Se	0.103	0.10	103	90/110		
			Ag	0.102	0.10	102	90/110		
			Cd	0.106	0.10	106	90/110		
			Ba	0.102	0.10	102	90/110		
			Pb	0.102	0.10	102	90/110		
046 ICV-0.10	ICV	1	Cr	0.0975	0.10	98	90/110	mg/L	Liquid
			Cu	0.100	0.10	100	90/110		
			Zn	0.0989	0.10	99	90/110		
			As	0.0997	0.10	100	90/110		
			Se	0.0998	0.10	100	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.101	0.10	101	90/110		
			Ba	0.0991	0.10	99	90/110		
			Pb	0.101	0.10	101	90/110		
063 CCV3-0.10	CCV	1	Cr	0.104	0.10	104	90/110	mg/L	Liquid
			Cu	0.0949	0.10	95	90/110		
			Zn	0.0937	0.10	94	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.103	0.10	103	90/110		
			Ag	0.0999	0.10	100	90/110		
			Cd	0.0985	0.10	99	90/110		
			Ba	0.0996	0.10	100	90/110		
			Pb	0.100	0.10	100	90/110		
077 CCV4-0.10	CCV	1	Cr	0.104	0.10	104	90/110	mg/L	Liquid
			Cu	0.0934	0.10	93	90/110		
			Zn	0.0935	0.10	94	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.104	0.10	104	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.0987	0.10	99	90/110		
			Ba	0.101	0.10	101	90/110		

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
077 CCV4-0.10	CCV	1	Pb	0.101	0.10	101	90/110	mg/L	Liquid
092 CCV5-0.10	CCV	1	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Cu	0.0950	0.10	95	90/110		
			Zn	0.0940	0.10	94	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.104	0.10	104	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.0987	0.10	99	90/110		
			Ba	0.0989	0.10	99	90/110		
			Pb	0.100	0.10	100	90/110		
101 CCV6-0.10	CCV	1	Cr	0.103	0.10	103	90/110	mg/L	Liquid
			Cu	0.0951	0.10	95	90/110		
			Zn	0.0935	0.10	94	90/110		
			As	0.0996	0.10	100	90/110		
			Se	0.0990	0.10	99	90/110		
			Ag	0.0994	0.10	99	90/110		
			Cd	0.0991	0.10	99	90/110		
			Ba	0.101	0.10	101	90/110		
			Pb	0.101	0.10	101	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: W-8121-0

Data Set ID: MT2-12-0801A

Instrument ID: PE ELAN

Analysis Date: 08/01/12

Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
015 ERA-P194	5	Cr	0.607	0.623	97	0.542	0.704	mg/L	Liquid
		Cu	0.832	0.835	100	0.751	0.918		
		Zn	0.407	0.412	99	0.352	0.476		
		As	0.859	0.877	98	0.738	1.030		
		Se	1.00	1.030	97	0.815	1.190		
		Ag	0.179	0.186	96	0.159	0.213		
		Cd	0.115	0.118	98	0.0998	0.135		
		Ba	0.689	0.716	96	0.621	0.807		
		Pb	1.76	1.760	100	1.550	1.970		

Form 3: Blanks

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
011 ICB	ICB	1	Cr	<0.001	0.000015	mg/L	Liquid
			Cu	<0.001	0.000011		
			Zn	<0.001	-0.000068		
			As	<0.0004	0.000010		
			Se	<0.001	-0.000005		
			Ag	<0.0005	0.000024		
			Cd	<0.0001	0.000009		
			Ba	<0.001	0.000033		
			Pb	<0.0006	0.000014		
020 CCB1	CCB	1	Cr	<0.001	-0.000044	mg/L	Liquid
			Cu	<0.001	0.000009		
			Zn	<0.001	-0.000023		
			As	<0.0004	0.000048		
			Se	<0.001	-0.000118		
			Ag	<0.0005	0.000018		
			Cd	<0.0001	0.000007		
			Ba	<0.001	0.000017		
			Pb	<0.0006	0.000019		
023 LRB_1	LRB	1	Cr	<0.001	-0.000045	mg/L	Liquid
			Cu	<0.001	-0.000117		
			Zn	<0.001	-0.000241		
			As	<0.0004	0.000013		
			Se	<0.001	-0.000373		
			Ag	<0.0005	0.000003		
			Cd	<0.0001	-0.000020		
			Ba	<0.001	0.000020		
			Pb	<0.0006	-0.000144		
037 CCB2	CCB	1	Cr	<0.001	-0.000040	mg/L	Liquid
			Cu	<0.001	0.000006		
			Zn	<0.001	-0.000157		
			As	<0.0004	-0.000006		
			Se	<0.001	-0.000284		
			Ag	<0.0005	0.000020		
			Cd	<0.0001	-0.000005		
			Ba	<0.001	0.000032		
			Pb	<0.0006	0.000008		
050 ICB	ICB	1	Cr	<0.001	0.000003	mg/L	Liquid
			Cu	<0.001	-0.000018		
			Zn	<0.001	0.000024		
			As	<0.0004	0.000007		
			Se	<0.001	-0.000395		
			Ag	<0.0005	0.000021		
			Cd	<0.0001	0.000003		
			Ba	<0.001	0.000037		
			Pb	<0.0006	0.000010		
064 CCB3	CCB	1	Cr	<0.001	0.000140	mg/L	Liquid
			Cu	<0.001	0.000072		
			Zn	<0.001	-0.000039		
			As	<0.0004	0.000008		
			Se	<0.001	-0.000296		
			Ag	<0.0005	-0.000002		
			Cd	<0.0001	0.000016		
			Ba	<0.001	0.000041		

Form 3: Blanks

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
064 CCB3	CCB	1	Pb	<0.0006	-0.000010	mg/L	Liquid
066 LRB_2	LRB	1	Cr	<0.001	0.000087	mg/L	Liquid
			Cu	<0.001	-0.000142		
			Zn	<0.001	-0.000412		
			As	<0.0004	-0.000022		
			Se	<0.001	-0.000024		
			Ag	<0.0005	-0.000014		
			Cd	<0.0001	-0.000018		
			Ba	<0.001	0.000017		
			Pb	<0.0006	-0.000194		
079 CCB4	CCB	1	Cr	<0.001	0.000021	mg/L	Liquid
			Cu	<0.001	0.000064		
			Zn	<0.001	-0.000090		
			As	<0.0004	0.000015		
			Se	<0.001	-0.000127		
			Ag	<0.0005	0.000011		
			Cd	<0.0001	0.000021		
			Ba	<0.001	0.000021		
			Pb	<0.0006	0.000010		
093 CCB5	CCB	1	Cr	<0.001	0.000084	mg/L	Liquid
			Cu	<0.001	0.000078		
			Zn	<0.001	-0.000087		
			As	<0.0004	0.000015		
			Se	<0.001	0.000149		
			Ag	<0.0005	0.000001		
			Cd	<0.0001	0.000007		
			Ba	<0.001	0.000022		
			Pb	<0.0006	0.000019		
095 LRB_3	LRB	1	Cr	<0.001	0.000047	mg/L	Liquid
			Cu	<0.001	-0.000126		
			Zn	<0.001	-0.000295		
			As	<0.0004	-0.000018		
			Se	<0.001	-0.000386		
			Ag	<0.0005	-0.000017		
			Cd	<0.0001	-0.000008		
			Ba	<0.001	-0.000006		
			Pb	<0.0006	-0.000164		
102 CCB6	CCB	1	Cr	<0.001	0.000056	mg/L	Liquid
			Cu	<0.001	0.000063		
			Zn	<0.001	-0.000143		
			As	<0.0004	0.000128		
			Se	<0.001	0.000744		
			Ag	<0.0005	0.000013		
			Cd	<0.0001	0.000024		
			Ba	<0.001	0.000030		
			Pb	<0.0006	0.000010		

Form 4B: ICP Interference Check Sample

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
016 Solu-AB	AB	1	Cr	0.0239	0.020	120	70/135	mg/L	Liquid
			Cu	0.0230	0.020	115	70/135		
			Zn	0.0222	0.020	111	70/135		
			As	0.0274	0.025	110	70/135		
			Ag	0.0189	0.020	95	70/135		
			Cd	0.0207	0.020	104	70/135		
017 Solu-AA	AA	1	Cr	<0.005	0.0	N/A	N/A	mg/L	Liquid
			Cu	<0.004	0.0	N/A	N/A		
			Zn	<0.005	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.0005	0.0	N/A	N/A		
			Cd	<0.0005	0.0	N/A	N/A		
			Ba	<0.005	0.0	N/A	N/A		
			Pb	<0.003	0.0	N/A	N/A		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
012 BS-0.0005		1	Cr	0.00048	ND	0.0005	96	70/130	mg/L	Liquid
			Cu	0.00051	ND	0.0005	102	70/130		
			As	0.00050	ND	0.0005	100	70/130		
			Se	0.00042	ND	0.0005	84	70/130		
			Ag	0.00055	ND	0.0005	110	70/130		
			Cd	0.00048	ND	0.0005	96	70/130		
			Ba	0.00049	ND	0.0005	98	70/130		
			Pb	0.00045	ND	0.0005	90	70/130		
013 BS-0.001		1	Cr	0.00099	ND	0.001	99	70/130	mg/L	Liquid
			Cu	0.00088	ND	0.001	88	70/130		
			Zn	0.00087	ND	0.001	87	70/130		
			As	0.00098	ND	0.001	98	70/130		
			Se	0.00095	ND	0.001	95	70/130		
			Ag	0.00096	ND	0.001	96	70/130		
			Cd	0.00093	ND	0.001	93	70/130		
			Ba	0.00097	ND	0.001	97	70/130		
			Pb	0.00098	ND	0.001	98	70/130		
014 BS-0.002		1	Cr	0.00190	ND	0.002	95	70/130	mg/L	Liquid
			Cu	0.00191	ND	0.002	96	70/130		
			Zn	0.00170	ND	0.002	85	70/130		
			As	0.00188	ND	0.002	94	70/130		
			Se	0.00148	ND	0.002	74	70/130		
			Ag	0.00195	ND	0.002	98	70/130		
			Cd	0.00183	ND	0.002	92	70/130		
			Ba	0.00188	ND	0.002	94	70/130		
			Pb	0.00193	ND	0.002	97	70/130		
033 53345.09	**032 53345.09s**	222	Cr	24.8	2.89	22.20	99	75/125	mg/kg	Soil
			Cu	22.7	1.65	22.20	95	75/125		
			Zn	30.6	11.3	22.20	87	75/125		
			As	21.9	<0.20	22.20	99	75/125		
			Se	22.6	<0.50	22.20	102	75/125		
			Ag	22.2	<0.10	22.20	100	75/125		
			Cd	24.4	<0.20	22.20	110	75/125		
			Ba	35.0	9.21	22.20	116	75/125		
			Pb	23.9	2.24	22.20	98	75/125		
048 BS-0.0005		1	Cr	0.00048	ND	0.0005	96	70/130	mg/L	Liquid
			Cu	0.00051	ND	0.0005	102	70/130		
			As	0.00054	ND	0.0005	108	70/130		
			Se	0.00048	ND	0.0005	96	70/130		
			Ag	0.00054	ND	0.0005	108	70/130		
			Cd	0.00054	ND	0.0005	108	70/130		
			Ba	0.00056	ND	0.0005	112	70/130		
			Pb	0.00045	ND	0.0005	90	70/130		
049 BS-0.001		1	Cr	0.00100	ND	0.001	100	70/130	mg/L	Liquid
			Cu	0.00089	ND	0.001	89	70/130		
			Zn	0.00079	ND	0.001	79	70/130		
			As	0.00104	ND	0.001	104	70/130		
			Se	0.00072	ND	0.001	72	70/130		
			Ag	0.00096	ND	0.001	96	70/130		
			Cd	0.00100	ND	0.001	100	70/130		
			Ba	0.00099	ND	0.001	99	70/130		
			Pb	0.00092	ND	0.001	92	70/130		
061 53347.12s	**060 53347.03s**	221	Cr	29.8	5.50	22.10	110	75/125	mg/kg	Soil

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
061 53347.12s	**060 53347.03s**	221	Cu	32.2	11.1	22.10	96	75/125	mg/kg	Soil
			Zn	34.8	13.3	22.10	97	75/125		
			As	26.8	2.76	22.10	109	75/125		
			Se	22.4	<0.50	22.10	101	75/125		
			Ag	20.8	<0.10	22.10	94	75/125		
			Cd	23.0	<0.20	22.10	104	75/125		
			Ba	68.3	44.3	22.10	109	75/125		
			Pb	26.1	5.50	22.10	93	75/125		
083 53360.05s	**082 53360.04s**	216	Cr	26.5	3.04	21.60	109	75/125	mg/kg	Soil
			Cu	26.6	4.95	21.60	100	75/125		
			Zn	32.6	10.7	21.60	101	75/125		
			As	23.1	0.44	21.60	105	75/125		
			Se	20.5	<0.50	21.60	95	75/125		
			Ag	20.6	<0.10	21.60	95	75/125		
			Cd	21.9	<0.20	21.60	101	75/125		
			Ba	45.7	27.5	21.60	84	75/125		
			Pb	23.9	3.57	21.60	94	75/125		
099 53281.01	**098 53281.01s tclp**	25	Cr	1.37	<0.05	1.25	110	75/125	mg/L	Liquid
			Cu	1.28	0.08	1.25	96	75/125		
			Zn	4.48	3.31	1.25	94	75/125		
			As	1.32	<0.02	1.25	106	75/125		
			Se	1.31	<0.05	1.25	105	75/125		
			Ag	1.22	<0.005	1.25	98	75/125		
			Cd	1.27	0.010	1.25	101	75/125		
			Ba	1.43	0.17	1.25	101	75/125		
			Pb	1.26	0.05	1.25	97	75/125		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
034 53345.09 MSD	**033 53345.09 MS-0.10**	222	Cr	23.4	24.8	6	0/20	mg/kg	Soil
			Cu	22.3	22.7	2	0/20		
			Zn	31.4	30.6	3	0/20		
			As	21.5	21.9	2	0/20		
			Se	22.5	22.6	0	0/20		
			Ag	22.0	22.2	1	0/20		
			Cd	23.5	24.4	4	0/20		
			Ba	33.5	35.0	4	0/20		
			Pb	23.8	23.9	0	0/20		
062 53347.13s MSD	**061 53347.12s MS-0.10**	220	Cr	30.1	29.8	1	0/20	mg/kg	Soil
			Cu	31.9	32.2	1	0/20		
			Zn	32.8	34.8	6	0/20		
			As	26.6	26.8	1	0/20		
			Se	22.5	22.4	0	0/20		
			Ag	20.4	20.8	2	0/20		
			Cd	22.4	23.0	3	0/20		
			Ba	67.4	68.3	1	0/20		
			Pb	25.8	26.1	1	0/20		
084 53360.06s MSD	**083 53360.05s MS-0.10**	216	Cr	26.8	26.5	1	0/20	mg/kg	Soil
			Cu	26.2	26.6	2	0/20		
			Zn	32.5	32.6	0	0/20		
			As	22.7	23.1	2	0/20		
			Se	20.5	20.5	0	0/20		
			Ag	21.0	20.6	2	0/20		
			Cd	22.4	21.9	2	0/20		
			Ba	44.9	45.7	2	0/20		
			Pb	23.9	23.9	0	0/20		
100 53281.01 MSD	**099 53281.01 MS-0.05**	25	Cr	1.35	1.37	1	0/20	mg/L	Liquid
			Cu	1.24	1.28	3	0/20		
			Zn	4.40	4.48	2	0/20		
			As	1.30	1.32	2	0/20		
			Se	1.33	1.31	2	0/20		
			Ag	1.20	1.22	2	0/20		
			Cd	1.24	1.27	2	0/20		
			Ba	1.42	1.43	1	0/20		
			Pb	1.27	1.26	1	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
021 0801_1 LCS-0.05	1	Cr	0.0487	0.05	97	85/115	mg/L	Liquid
		Cu	0.0493	0.05	99	85/115		
		Zn	0.0500	0.05	100	85/115		
		As	0.0484	0.05	97	85/115		
		Se	0.0482	0.05	96	85/115		
		Ag	0.0496	0.05	99	85/115		
		Cd	0.0504	0.05	101	85/115		
		Ba	0.0503	0.05	101	85/115		
		Pb	0.0507	0.05	101	85/115		
065 0801_2 LCS-0.05	1	Cr	0.0527	0.05	105	85/115	mg/L	Liquid
		Cu	0.0493	0.05	99	85/115		
		Zn	0.0492	0.05	98	85/115		
		As	0.0525	0.05	105	85/115		
		Se	0.0525	0.05	105	85/115		
		Ag	0.0501	0.05	100	85/115		
		Cd	0.0500	0.05	100	85/115		
		Ba	0.0505	0.05	101	85/115		
		Pb	0.0507	0.05	101	85/115		
094 0801_3 LCS-0.05	1	Cr	0.0526	0.05	105	85/115	mg/L	Liquid
		Cu	0.0479	0.05	96	85/115		
		Zn	0.0468	0.05	94	85/115		
		As	0.0517	0.05	103	85/115		
		Se	0.0525	0.05	105	85/115		
		Ag	0.0501	0.05	100	85/115		
		Cd	0.0500	0.05	100	85/115		
		Ba	0.0505	0.05	101	85/115		
		Pb	0.0506	0.05	101	85/115		

Form 8: Serial Dilutions

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
025 53345.02 dil	**024 53345.02s**	1240	Cr	6.49	6.47	0	0/10	mg/kg	Soil
			Cu	11.7	11.6	1	0/10		
			Zn	31.4	31.2	1	0/10		
			As	2.38	2.28	4	0/10		
			Se	<0.50	<0.50	NC	0/10		
			Ag	<0.10	<0.10	NC	0/10		
			Cd	<0.20	0.21	200*	0/10		
			Ba	50.8	47.9	6	0/10		
			Pb	7.23	7.24	0	0/10		
069 53347.04 dil	**068 53347.04s**	1010	Cr	11.3	11.5	2	0/10	mg/kg	Soil
			Cu	8.59	8.59	0	0/10		
			Zn	14.7	15.3	4	0/10		
			As	0.99	0.96	3	0/10		
			Se	<0.50	<0.50	NC	0/10		
			Ag	<0.10	<0.10	NC	0/10		
			Cd	<0.20	<0.20	NC	0/10		
			Ba	14.2	12.4	14*	0/10		
			Pb	7.73	7.61	2	0/10		
097 53283.01 dil	**096 53283.01s**	125	Cr	0.07	0.07	0	0/10	mg/L	Liquid
			Cu	<0.04	<0.04	NC	0/10		
			Zn	0.16	0.23	36*	0/10		
			As	<0.02	<0.02	NC	0/10		
			Se	<0.05	<0.05	NC	0/10		
			Ag	<0.005	<0.005	NC	0/10		
			Cd	<0.005	<0.005	NC	0/10		
			Ba	0.06	0.10	50*	0/10		
			Pb	<0.03	<0.03	NC	0/10		

Form 13: Analysis Run Log

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
001 Blank	12:11:26 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
002 std-0.000	12:13:22 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
003 std-0.0001	12:15:18 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
004 std-0.001	12:17:20 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
005 std-0.005	12:19:21 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
006 std-0.02	12:21:25 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
007 std-0.05	12:23:34 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
008 std-0.20	12:25:51 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
009 ICV-0.10	12:28:21 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
010 Rinse	12:31:53 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
011 ICB	12:33:54 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
012 BS-0.0005	12:36:28 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se
013 BS-0.001	12:38:29 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
014 BS-0.002	12:40:27 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
015 ERA-P194	12:42:26 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
016 Solu-AB	12:45:04 Wed	Liquid	Ag,As,Cd,Cr,Cu,Zn
017 Solu-AA	12:52:40 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
018 CCV1-0.10	12:54:44 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
019 Rinse	12:58:17 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
020 CCB1	13:00:22 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
021 0801_1 LCS-0.05	13:03:57 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
022 Rinse	13:06:48 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
023 LRB_1	13:08:55 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
024 53345.02s	13:10:48 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
025 53345.02 dil	13:12:57 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
026 53345.03s	13:15:13 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
027 53345.04s	13:17:24 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
028 53345.05s	13:19:35 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
029 53345.06s	13:21:47 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
030 53345.07s	13:24:00 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
031 53345.08s	13:26:12 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
032 53345.09s	13:28:22 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
033 53345.09 MS-0.10	13:30:33 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
034 53345.09 MSD	13:33:01 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
035 CCV2-0.10	13:38:22 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
036 Rinse	13:49:00 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
037 CCB2	13:51:05 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
038 Blank	13:53:55 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
039 std-0.000	13:55:52 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
040 std-0.0001	13:57:49 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
041 std-0.001	13:59:51 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
042 std-0.005	14:01:52 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
043 std-0.02	14:03:57 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
044 std-0.05	14:06:06 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
045 std-0.20	14:08:22 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
046 ICV-0.10	14:10:52 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
047 Rinse	14:13:40 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
048 BS-0.0005	14:15:40 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se
049 BS-0.001	14:17:40 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
050 ICB	14:19:41 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
051 53345.10s	14:22:01 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
052 53345.11s	14:24:09 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
053 53345.12s	14:26:17 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn

Form 13: Analysis Run Log

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
054 53345.13s	14:28:25 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
055 53345.14s	14:30:31 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
056 53345.15s	14:32:38 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
057 53345.16s	14:35:39 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
058 53347.01s	14:37:48 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
059 53347.02s	14:39:56 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
060 53347.03s	14:42:05 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
061 53347.12s MS-0.10	14:46:25 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
062 53347.13s MSD	14:48:43 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
063 CCV3-0.10	14:51:07 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
064 CCB3	14:56:50 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
065 0801_2 LCS-0.05	14:59:02 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
066 LRB_2	15:05:44 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
067 53347.15s	15:07:41 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
068 53347.04s	15:09:44 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
069 53347.04 dil	15:11:47 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
070 53347.05s	15:13:51 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
071 53347.06s	15:15:56 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
072 53347.07s	15:18:00 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
073 53347.08s	15:20:04 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
074 53347.09s	15:22:06 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
075 53347.10s	15:24:09 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
076 53347.11s	15:26:13 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
077 CCV4-0.10	15:28:21 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
078 Rinse	15:30:37 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
079 CCB4	15:32:48 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
080 53360.02s	15:34:52 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
081 53360.03s	15:36:58 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
082 53360.04s	15:39:03 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
083 53360.05s MS-0.10	15:41:06 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
084 53360.06s MSD	15:45:41 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
085 53360.07s	15:49:07 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
086 53360.08s	15:51:12 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
087 53360.09s	15:53:17 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
088 53360.10s	15:55:24 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
089 53360.11s	15:57:29 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
090 53360.12s	15:59:33 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
091 53360.13s	16:01:37 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
092 CCV5-0.10	16:03:46 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
093 CCB5	16:08:44 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
094 0801_3 LCS-0.05	16:17:33 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
095 LRB_3	16:22:30 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
096 53283.01s	16:24:23 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
097 53283.01 dil	16:26:28 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
098 53281.01s tclp	16:28:33 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
099 53281.01 MS-0.05	16:30:39 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
100 53281.01 MSD	16:32:45 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
101 CCV6-0.10	16:34:56 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
102 CCB6	16:39:11 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, August 01, 2012 12:05:12
Sample Description:
Method File: C:\Elandata\Method\Daily-All.mth
Dataset File: C:\Elandata\DataSet\6020-200.8.tun\Daily Performance Check.2569
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Optimization File: C:\Elandata\Optimize\6020-200.8.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Li	7.0	18419.0	18419.027	528.860	2.9
	Be	9.0	5405.9	5405.857	92.208	1.7
	Mg	24.0	63170.6	63170.622	833.429	1.3
	Co	58.9	121238.2	121238.239	2678.914	2.2
	In	114.9	213013.8	213013.760	1027.366	0.5
	Tl	205.0	100956.6	100956.625	743.050	0.7
	Pb	208.0	66319.7	66319.660	444.502	0.7
>	Ce	139.9	207087.8	207087.815	2279.536	1.1
	Ce++	70.0	2049.2	0.010	0.001	5.8
>	Ce-1	139.9	207087.8	207087.815	2279.536	1.1
	CeO	155.9	6512.5	0.031	0.001	1.7
	Bkgd	220.0	24.9	24.875	3.425	13.8

Current Optimization File Data

Current Value	Description
0.75	Nebulizer Gas Flow
9.00	Lens Voltage
1100.00	ICP RF Power
-1985.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	14.5	6350.2
Co	59	33	15.0	133264.7
In	115	33	15.0	202118.5

SmartTune Wizard - Summary

Optimization Summary

Wizard file: C:\Elandata\Wizard\SmartTune\12-0801A.swz

Start Time: 8/1/2012 12:01:05 PM
End Time: 8/1/2012 12:06:52 PM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
- Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.691)
- Target/Obtained mass (9.0122/9.029), Target/Obtained resolution (0.7/0.700)
- Target/Obtained mass (23.985/23.978), Target/Obtained resolution (0.7/0.703)
- Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.693)
- Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.703)
- Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.691)
- Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.700)

Daily Performance Check - [Passed] Optimum value(s): N/A
- Obtained Intensity (Be 9.0122): 5406
- Obtained Intensity (Bkgd 220): 25
- Obtained Intensity (Co 58.9332): 121238
- Obtained Intensity (In 114.904): 213014
- Obtained Intensity (Li 7.016): 18419
- Obtained Intensity (Mg 23.985): 63171
- Obtained Intensity (Pb 207.977): 66320
- Obtained Intensity (Tl 204.975): 100957
- Obtained Formula (CeO 155.9 / Ce 139.905): 0.031 (=6512 / 207088)
- Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.010 (=2049 / 207088)

SmartTune Wizard - Details

Optimization Details

Wizard file: C:\Elandata\Wizard\SmartTune\12-0801A.swz

Optimization Status

Start Time: 8/1/2012 12:01:05 PM

Mass Calibration and Resolution
Optimization Settings:
Method: C:\Elandata\Method\Tuning-All.mth.
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Iterations: 4
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 5
Optimization Results:
First Pass
Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.691)
Target/Obtained mass (9.0122/9.029), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/23.978), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.693)
Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.691)
Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.700)
[Passed] Optimum value(s): N/A

Daily Performance Check
Optimization Settings:
Method: C:\Elandata\Method\Daily-All.mth.
Intensity Criterion: Be 9.0122 > 1000
Intensity Criterion: Bkgd 220 <= 50
Intensity Criterion: Co 58.9332 > 10000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: Li 7.016 > 2500
Intensity Criterion: Mg 23.985 > 7000
Intensity Criterion: Pb 207.977 > 20000
Intensity Criterion: Tl 204.975 > 40000
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.05
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03
Optimization Results:
First Pass
Obtained Intensity (Be 9.0122): 5406
Obtained Intensity (Bkgd 220): 25
Obtained Intensity (Co 58.9332): 121238
Obtained Intensity (In 114.904): 213014
Obtained Intensity (Li 7.016): 18419
Obtained Intensity (Mg 23.985): 63171
Obtained Intensity (Pb 207.977): 66320
Obtained Intensity (Tl 204.975): 100957
Obtained Formula (CeO 155.9 / Ce 139.905): 0.031 (=6512 / 207088)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.010 (=2049 / 207088)
[Passed] Optimum value(s): N/A

End Time: 8/1/2012 12:06:52 PM

Form 15: Internal Standards Summary

IS Check Reference Sample: 038 Blank

Data Set ID: MT2-12-0801A

Instrument ID: PE ELAN

Analysis Date: 08/01/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	281651	70-125	197156-352064	80-120	225321-337981	0
Re	237906	70-125	166534-297383	80-120	190325-285487	0

Seq ID	QC Type	Rh	Re
038		100	100
039		100	100
040		100	100
041		100	100
042		99	100
043		99	100
044		98	100
045		97	99
046	ICV	98	99
047		98	99
048	BS	98	100
049	BS	99	101
050	ICB	98	99
051	S	99	102
052	S	91	95
053	S	93	95
054	S	103	103
055	S	93	96
056	S	94	97
057	S	95	98
058	S	93	97
059	S	96	99
060	S	92	94
061	MS	93	94
062	MSD	93	96
063	CCV	102	101
064	CCB	98	99
065	LCS	97	98
066	LRB	98	98
067	S	97	96
068	S	94	97
069	DIL	96	97
070	S	91	97
071	S	95	98
072	S	99	99
073	S	91	96
074	S	93	98

Form 15: Internal Standards Summary

IS Check Reference Sample: 038 Blank

Data Set ID: MT2-12-0801A

Instrument ID: PE ELAN

Analysis Date: 08/01/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	281651	70-125	197156-352064	80-120	225321-337981	0
Re	237906	70-125	166534-297383	80-120	190325-285487	0

Seq ID	QC Type	Rh	Re
075	S	96	99
076	S	95	98
077	CCV	97	99
078		98	99
079	CCB	98	98
080	S	92	97
081	S	93	96
082	S	92	98
083	MS	92	97
084	MSD	91	96
085	S	90	95
086	S	96	98
087	S	90	95
088	S	97	98
089	S	87	93
090	S	97	99
091	S	92	96
092	CCV	98	97
093	CCB	96	96
094	LCS	97	98
095	LRB	97	97
096	S	94	98
097	DIL	98	101
098	S	94	99
099	MS	93	98
100	MSD	95	99
101	CCV	98	99
102	CCB	97	97

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	Spike (ug/l)	MDL (ug/l)	Prep Batch
Al-27	4/9/2012	0.50	0.189	MTD-040212-1
Sb-121	3/20/2012	1.00	0.105	MTD-032012-3
As-75	3/20/2012	0.05	0.032	MTD-032012-2
Ba-137	3/20/2012	0.50	0.202	MTD-032012-2
Be-9	4/10/2012	0.10	0.079	MTD-041012-1
B-10	3/20/2012	1.00	0.589	MTD-032012-3
B-11	3/20/2012	1.00	0.277	MTD-032012-3
Cd-111	3/20/2012	0.05	0.038	MTD-032012-2
Cd-114	3/20/2012	0.10	0.030	MTD-032012-2
Cr-52	3/20/2012	0.10	0.023	MTD-032012-2
Cr-53	3/20/2012	0.10	0.054	MTD-032012-2
Co-59	3/20/2012	0.10	0.035	MTD-032012-2
Cu-65	3/20/2012	0.50	0.068	MTD-032012-2
Fe-56	4/9/2012	2.00	0.470	MTD-040912-1
Fe-57	4/9/2012	2.00	0.824	MTD-040912-1
Pb-208	3/20/2012	0.10	0.052	MTD-032012-2
Li-7	3/20/2012	1.00	0.166	MTD-032012-3
Mn-55	3/20/2012	0.10	0.187	MTD-032012-2
Mo-95	4/9/2012	0.50	0.442	MTD-040212-1
Ni-60	4/13/2012	0.10	0.035	MTD-041012-1
Se-78	3/20/2012	0.10	0.058	MTD-032012-2
Se-82	3/20/2012	0.50	0.475	MTD-032012-2
Ag-107	3/20/2012	0.10	0.025	MTD-032012-2
Sr-88	3/20/2012	0.10	0.016	MTD-032012-2
Tl-205	4/9/2012	0.50	0.089	MTD-040212-1
Sn-118	3/20/2012	0.10	0.079	MTD-032012-2
Ti-47	3/20/2012	0.50	0.124	MTD-032012-2
V-51	3/20/2012	0.05	0.018	MTD-032012-2
Zn-66	4/9/2012	2.00	0.366	MTD-040912-1

Element/Mass	Date	Spike (mg/l)	MDL (mg/l)	Prep Batch
Ca-43	4/16/2012	0.01	0.0101	MTD-041012-4
Ca-44	4/16/2012	0.01	0.0041	MTD-041012-4
Mg-24	4/16/2012	0.01	0.0006	MTD-041012-4
K-39	4/16/2012	0.01	0.0030	MTD-041012-4
Na-23	4/16/2012	0.10	0.0101	MTD-041012-4

Linear Range June 2012

		Prep Batch	Run Batch
Aluminum	5.0ppm	MTD-061912-5	MT3-12-0619C
Antimony	5.0ppm	MTD-061912-5	MT3-12-0619C
Arsenic	1.0ppm	MTD-061912-5	MT3-12-0619C
Barium	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-10	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-11	5.0ppm	MTD-061912-5	MT3-12-0619C
Beryllium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-111	5.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-114	5.0ppm	MTD-061912-5	MT3-12-0619C
Chromium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cobalt	2.0ppm	MTD-061912-5	MT3-12-0619C
Copper	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-56	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-57	2.0ppm	MTD-061912-5	MT3-12-0619C
Lead	5.0ppm	MTD-061912-5	MT3-12-0619C
Lithium	2.0ppm	MTD-061912-5	MT3-12-0619C
Manganese	1.0ppm	MTD-061912-5	MT3-12-0619C
Molybdenum	1.0ppm	MTD-061912-5	MT3-12-0619C
Nickel	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-78	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-82	5.0ppm	MTD-061912-5	MT3-12-0619C
Silver	1.0ppm	MTD-061912-5	MT3-12-0619C
Strontium-86	5.0ppm	MTD-061912-5	MT3-12-0619C
Thallium	5.0ppm	MTD-061912-5	MT3-12-0619C
Tin	1.0ppm	MTD-061912-5	MT3-12-0619C
Titanium	1.0ppm	MTD-061912-5	MT3-12-0619C
Vanadium	1.0ppm	MTD-061912-5	MT3-12-0619C
Zinc	2.0ppm	MTD-061912-5	MT3-12-0619C

Sodium-23	50ppm	MTD-061912-5	MT3-12-0619B
Magnesium-24	50ppm	MTD-061912-5	MT3-12-0619B
Potassium-39	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-43	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-44	50ppm	MTD-061912-5	MT3-12-0619B

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 001
Method: 10-mich-2is.mth
Acq Time: 12:11:26 Wed 01-Aug-12
Sample Name: Blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1672.654	0	mg/L		3
Cu	65	164.168	0	mg/L		3
Zn	66	504.181	0	mg/L		3
As	75	42.500	0	mg/L		3
Se	82	11.000	0	mg/L		3
Ag	107	66.667	0	mg/L		3
Cd	111	31.667	0	mg/L		3
Ba	137	53.333	0	mg/L		3
Pb	208	781.700	0	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 002
Method: 10-mich-2is.mth
Acq Time: 12:13:22 Wed 01-Aug-12
Sample Name: std-0.000
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1654.317	0.000010	mg/L		3
Cu	65	171.668	0.000013	mg/L		3
Zn	66	450.845	-0.000077	mg/L		3
As	75	46.667	0.000009	mg/L		3
Se	82	-5.667	-0.000292	mg/L		3
Ag	107	79.167	0.000005	mg/L		3
Cd	111	26.667	-0.000006	mg/L		3
Ba	137	59.167	0.000007	mg/L		3
Pb	208	793.368	0.000006	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 003
Method: 10-mich-2is.mth
Acq Time: 12:15:18 Wed 01-Aug-12
Sample Name: std-0.0001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1920.203	0.000081	mg/L		3
Cu	65	166.668	0.000003	mg/L		3
Zn	66	479.179	-0.000043	mg/L		3
As	75	87.500	0.000076	mg/L		3
Se	82	4.333	-0.000112	mg/L		3
Ag	107	302.505	0.000082	mg/L		3
Cd	111	80.000	0.000065	mg/L		3
Ba	137	155.001	0.000088	mg/L		3
Pb	208	918.380	0.000032	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 004
Method: 10-mich-2is.mth
Acq Time: 12:17:20 Wed 01-Aug-12
Sample Name: std-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	5013.049	0.001065	mg/L		3
Cu	65	1085.898	0.000974	mg/L		3
Zn	66	880.876	0.000730	mg/L		3
As	75	646.690	0.001019	mg/L		3
Se	82	45.000	0.000596	mg/L		3
Ag	107	2669.559	0.000903	mg/L		3
Cd	111	713.361	0.000915	mg/L		3
Ba	137	1191.745	0.000993	mg/L		3
Pb	208	4434.415	0.000953	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 005
Method: 10-mich-2is.mth
Acq Time: 12:19:21 Wed 01-Aug-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	17480.959	0.005002	mg/L		3
Cu	65	5137.285	0.005220	mg/L		3
Zn	66	3262.252	0.005278	mg/L		3
As	75	3147.211	0.005206	mg/L		3
Se	82	272.006	0.004546	mg/L		3
Ag	107	13833.017	0.004753	mg/L		3
Cd	111	3466.494	0.004587	mg/L		3
Ba	137	5535.019	0.004753	mg/L		3
Pb	208	19356.433	0.004905	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 006
Method: 10-mich-2is.mth
Acq Time: 12:21:25 Wed 01-Aug-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	66234.732	0.020706	mg/L		3
Cu	65	20181.561	0.021275	mg/L		3
Zn	66	10748.857	0.019882	mg/L		3
As	75	12294.975	0.020804	mg/L		3
Se	82	1130.746	0.019771	mg/L		3
Ag	107	56009.556	0.019572	mg/L		3
Cd	111	13877.253	0.018745	mg/L		3
Ba	137	21472.002	0.018832	mg/L		3
Pb	208	72286.258	0.019671	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 007
Method: 10-mich-2is.mth
Acq Time: 12:23:34 Wed 01-Aug-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	159064.647	0.051260	mg/L		3
Cu	65	49942.706	0.053562	mg/L		3
Zn	66	27290.957	0.052742	mg/L		3
As	75	29942.570	0.051527	mg/L		3
Se	82	2701.753	0.048450	mg/L		3
Ag	107	137607.878	0.049067	mg/L		3
Cd	111	34914.460	0.048215	mg/L		3
Ba	137	53542.276	0.047979	mg/L		3
Pb	208	179386.648	0.048628	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 008
Method: 10-mich-2is.mth
Acq Time: 12:25:51 Wed 01-Aug-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	626033.235	0.200203	mg/L		3
Cu	65	191007.882	0.199777	mg/L		3
Zn	66	100527.094	0.199505	mg/L		3
As	75	118627.304	0.200198	mg/L		3
Se	82	10768.799	0.200278	mg/L		3
Ag	107	544092.407	0.200177	mg/L		3
Cd	111	135318.921	0.199955	mg/L		3
Ba	137	212051.610	0.200238	mg/L		3
Pb	208	706886.528	0.200038	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 009
Method: 10-mich-2is.mth
Acq Time: 12:28:21 Wed 01-Aug-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 07/24/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	309179.926	0.099981	mg/L		3
Cu	65	94216.640	0.099812	mg/L		3
Zn	66	49808.582	0.099710	mg/L		3
As	75	59504.963	0.101749	mg/L		3
Se	82	5295.257	0.099713	mg/L		3
Ag	107	273288.691	0.101903	mg/L		3
Cd	111	68010.132	0.101841	mg/L		3
Ba	137	103111.775	0.098683	mg/L		3
Pb	208	360152.440	0.102519	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 010
Method: 10-mich-2is.mth
Acq Time: 12:31:53 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1581.805	0.000009	mg/L		3
Cu	65	175.002	0.000024	mg/L		3
Zn	66	451.678	-0.000034	mg/L		3
As	75	56.667	0.000030	mg/L		3
Se	82	4.000	-0.000121	mg/L		3
Ag	107	156.668	0.000035	mg/L		3
Cd	111	28.333	-0.000002	mg/L		3
Ba	137	60.834	0.000011	mg/L		3
Pb	208	838.372	0.000021	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 011
Method: 10-mich-2is.mth
Acq Time: 12:33:54 Wed 01-Aug-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1652.651	0.000015	mg/L		3
Cu	65	168.335	0.000011	mg/L		3
Zn	66	450.011	-0.000068	mg/L		3
As	75	46.667	0.000010	mg/L		3
Se	82	10.333	-0.000005	mg/L		3
Ag	107	130.834	0.000024	mg/L		3
Cd	111	36.667	0.000009	mg/L		3
Ba	137	86.667	0.000033	mg/L		3
Pb	208	824.204	0.000014	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 012
Method: 10-mich-2is.mth
Acq Time: 12:36:28 Wed 01-Aug-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3093.027	0.000476	mg/L		3
Cu	65	645.857	0.000507	mg/L		3
As	75	340.840	0.000503	mg/L		3
Se	77	55.667	0.000419	mg/L		3
Ag	107	1567.636	0.000549	mg/L		3
Cd	111	359.174	0.000482	mg/L		3
Ba	137	569.185	0.000485	mg/L		3
Pb	208	2403.651	0.000453	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 013
Method: 10-mich-2is.mth
Acq Time: 12:38:29 Wed 01-Aug-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4679.539	0.000988	mg/L		3
Cu	65	1002.555	0.000884	mg/L		3
Zn	66	915.880	0.000870	mg/L		3
As	75	621.688	0.000979	mg/L		3
Se	82	61.668	0.000951	mg/L		3
Ag	107	2682.896	0.000961	mg/L		3
Cd	111	657.524	0.000925	mg/L		3
Ba	137	1079.231	0.000969	mg/L		3
Pb	208	4247.659	0.000975	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 014
Method: 10-mich-2is.mth
Acq Time: 12:40:27 Wed 01-Aug-12
Sample Name: BS-0.002
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	7687.416	0.001905	mg/L		3
Cu	65	2025.226	0.001914	mg/L		3
Zn	66	1361.769	0.001709	mg/L		3
As	75	1180.910	0.001883	mg/L		3
Se	82	91.668	0.001480	mg/L		3
Ag	107	5484.155	0.001954	mg/L		3
Cd	111	1300.093	0.001838	mg/L		3
Ba	137	2092.741	0.001886	mg/L		3
Pb	208	7591.505	0.001934	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 015
Method: 10-mich-2is.mth
Acq Time: 12:42:26 Wed 01-Aug-12
Sample Name: ERA-P194
Sample Type: Sample
Matrix: Liquid
Comments: dil 5/1
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	387679.760	0.607957	mg/L		3
Cu	65	162082.299	0.832951	mg/L		3
Zn	66	42094.756	0.407562	mg/L		3
As	75	103710.482	0.859759	mg/L		3
Se	82	10990.450	1.004005	mg/L		3
Ag	107	99130.934	0.179100	mg/L		3
Cd	111	15914.752	0.115338	mg/L		3
Ba	137	148697.616	0.689675	mg/L		3
Pb	208	1279527.235	1.767942	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 016
Method: 10-mich-2is.mth
Acq Time: 12:45:04 Wed 01-Aug-12
Sample Name: Solu-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	71181.956	0.023922	mg/L		3
Cu	65	20710.234	0.023051	mg/L		3
Zn	68	7734.956	0.022293	mg/L		3
As	75	15235.257	0.027469	mg/L		3
Ag	107	48127.934	0.018938	mg/L		3
Cd	114	30868.730	0.020769	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 017
Method: 10-mich-2is.mth
Acq Time: 12:52:40 Wed 01-Aug-12
Sample Name: Solu-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1540.964	-0.000023	mg/L		3
Cu	65	189.169	0.000032	mg/L		3
Zn	66	591.686	0.000205	mg/L		3
As	75	95.834	0.000091	mg/L		3
Se	82	0.333	-0.000187	mg/L		3
Ag	107	78.334	0.000005	mg/L		3
Cd	111	35.000	0.000006	mg/L		3
Ba	137	77.500	0.000024	mg/L		3
Pb	208	325.006	-0.000133	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 018
Method: 10-mich-2is.mth
Acq Time: 12:54:44 Wed 01-Aug-12
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	296660.802	0.096231	mg/L		3
Cu	65	91433.357	0.097213	mg/L		3
Zn	66	49833.717	0.100112	mg/L		3
As	75	57301.726	0.098327	mg/L		3
Se	82	5208.225	0.098416	mg/L		3
Ag	107	269338.073	0.100794	mg/L		3
Cd	111	68563.417	0.103032	mg/L		3
Ba	137	102164.259	0.098087	mg/L		3
Pb	208	371192.637	0.102522	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 019
Method: 10-mich-2is.mth
Acq Time: 12:58:17 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1578.470	0.000002	mg/L		3
Cu	65	234.170	0.000084	mg/L		3
Zn	66	380.008	-0.000188	mg/L		3
As	75	81.667	0.000071	mg/L		3
Se	82	16.667	0.000120	mg/L		3
Ag	107	150.835	0.000033	mg/L		3
Cd	111	44.167	0.000022	mg/L		3
Ba	137	80.834	0.000029	mg/L		3
Pb	208	773.366	-0.000005	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 020
Method: 10-mich-2is.mth
Acq Time: 13:00:22 Wed 01-Aug-12
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1425.112	-0.000044	mg/L		3
Cu	65	161.668	0.000009	mg/L		3
Zn	66	459.178	-0.000023	mg/L		3
As	75	67.500	0.000048	mg/L		3
Se	82	4.000	-0.000118	mg/L		3
Ag	107	109.167	0.000018	mg/L		3
Cd	111	34.167	0.000007	mg/L		3
Ba	137	67.500	0.000017	mg/L		3
Pb	208	852.540	0.000019	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 021
Method: 10-mich-2is.mth
Acq Time: 13:03:57 Wed 01-Aug-12
Sample Name: 0801_1 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	151126.711	0.048756	mg/L		3
Cu	65	46559.833	0.049396	mg/L		3
Zn	66	25172.307	0.050081	mg/L		3
As	75	28246.363	0.048423	mg/L		3
Se	82	2560.058	0.048273	mg/L		3
Ag	107	132720.270	0.049647	mg/L		3
Cd	111	33570.210	0.050424	mg/L		3
Ba	137	52459.265	0.050343	mg/L		3
Pb	208	185787.634	0.050797	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 022
Method: 10-mich-2is.mth
Acq Time: 13:06:48 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1419.277	-0.000043	mg/L		3
Cu	65	202.502	0.000054	mg/L		3
Zn	66	378.341	-0.000181	mg/L		3
As	75	60.834	0.000037	mg/L		3
Se	82	-12.000	-0.000422	mg/L		3
Ag	107	116.667	0.000021	mg/L		3
Cd	111	29.167	-0.000000	mg/L		3
Ba	137	46.667	-0.000003	mg/L		3
Pb	208	686.693	-0.000025	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 023
Method: 10-mich-2is.mth
Acq Time: 13:08:55 Wed 01-Aug-12
Sample Name: LRB_1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1435.947	-0.000045	mg/L		3
Cu	65	43.333	-0.000117	mg/L		3
Zn	66	355.007	-0.000241	mg/L		3
As	75	47.500	0.000013	mg/L		3
Se	82	-9.667	-0.000373	mg/L		3
Ag	107	71.667	0.000003	mg/L		3
Cd	111	16.667	-0.000020	mg/L		3
Ba	137	71.667	0.000020	mg/L		3
Pb	208	275.004	-0.000144	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 024
Method: 10-mich-2is.mth
Acq Time: 13:10:48 Wed 01-Aug-12
Sample Name: 53345.02s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 248

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	75436.713	6.479010	mg/kg		3
Cu	65	40764.537	11.614636	mg/kg		3
Zn	66	57890.411	31.283596	mg/kg		3
As	75	4992.204	2.284403	mg/kg		3
Se	82	37.334	0.142133	mg/kg		3
Ag	107	756.698	0.070291	mg/kg		3
Cd	111	542.516	0.208025	mg/kg		3
Ba	137	186064.938	47.966286	mg/kg		3
Pb	208	101639.261	7.248913	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 025
Method: 10-mich-2is.mth
Acq Time: 13:12:57 Wed 01-Aug-12
Sample Name: 53345.02 dil
Sample Type: Sample
Matrix: Soil
Comments: dil test 5/1
Dilution: 1240

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	16817.216	6.496587	mg/kg		3
Cu	65	8601.568	11.702254	mg/kg		3
Zn	66	12391.776	31.468091	mg/kg		3
As	75	1106.734	2.385000	mg/kg		3
Se	82	12.334	0.066951	mg/kg		3
Ag	107	200.836	0.068853	mg/kg		3
Cd	111	109.167	0.158346	mg/kg		3
Ba	137	40762.938	50.807614	mg/kg		3
Pb	208	22262.267	7.232665	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 026
Method: 10-mich-2is.mth
Acq Time: 13:15:13 Wed 01-Aug-12
Sample Name: 53345.03s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 232

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	65959.280	5.792032	mg/kg		3
Cu	65	59947.849	17.504669	mg/kg		3
Zn	66	57257.250	31.686738	mg/kg		3
As	75	14939.770	7.033417	mg/kg		3
Se	82	26.000	0.090671	mg/kg		3
Ag	107	635.856	0.060027	mg/kg		3
Cd	111	504.181	0.198150	mg/kg		3
Ba	137	180560.615	47.650607	mg/kg		3
Pb	208	128944.771	9.042512	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 027
Method: 10-mich-2is.mth
Acq Time: 13:17:24 Wed 01-Aug-12
Sample Name: 53345.04s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 234

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	77276.228	6.833986	mg/kg		3
Cu	65	55893.841	16.385684	mg/kg		3
Zn	66	70309.198	39.122935	mg/kg		3
As	75	10068.906	4.755426	mg/kg		3
Se	82	59.335	0.263921	mg/kg		3
Ag	107	622.521	0.058874	mg/kg		3
Cd	111	638.356	0.254388	mg/kg		3
Ba	137	233466.118	61.879855	mg/kg		3
Pb	208	133236.428	9.095575	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 028
Method: 10-mich-2is.mth
Acq Time: 13:19:35 Wed 01-Aug-12
Sample Name: 53345.05s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 251

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	14804.546	1.323075	mg/kg		3
Cu	65	10629.544	3.360526	mg/kg		3
Zn	66	20817.145	12.444545	mg/kg		3
As	75	1860.190	0.942877	mg/kg		3
Se	82	-3.000	-0.065794	mg/kg		3
Ag	107	171.668	0.013487	mg/kg		3
Cd	111	216.669	0.086773	mg/kg		3
Ba	137	19152.655	5.516078	mg/kg		3
Pb	208	31342.276	2.358792	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 029
Method: 10-mich-2is.mth
Acq Time: 13:21:47 Wed 01-Aug-12
Sample Name: 53345.06s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 222

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	35321.837	2.809298	mg/kg		3
Cu	65	17042.632	4.568709	mg/kg		3
Zn	66	28004.752	14.198116	mg/kg		3
As	75	4650.356	2.010793	mg/kg		3
Se	82	15.334	0.030649	mg/kg		3
Ag	107	305.005	0.023822	mg/kg		3
Cd	111	242.503	0.082645	mg/kg		3
Ba	137	66825.587	16.274403	mg/kg		3
Pb	208	51728.426	3.194379	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 030
Method: 10-mich-2is.mth
Acq Time: 13:24:00 Wed 01-Aug-12
Sample Name: 53345.07s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 213

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	32556.549	2.474109	mg/kg		3
Cu	65	62713.980	16.215869	mg/kg		3
Zn	66	25373.733	12.317333	mg/kg		3
As	75	3463.160	1.432637	mg/kg		3
Se	82	18.000	0.041676	mg/kg		3
Ag	107	252.504	0.018047	mg/kg		3
Cd	111	255.004	0.083872	mg/kg		3
Ba	137	31993.761	7.468189	mg/kg		3
Pb	208	61352.190	3.753735	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 031
Method: 10-mich-2is.mth
Acq Time: 13:26:12 Wed 01-Aug-12
Sample Name: 53345.08s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 219

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	26507.760	2.088151	mg/kg		3
Cu	65	24365.113	6.566667	mg/kg		3
Zn	66	23425.980	11.880425	mg/kg		3
As	75	3531.519	1.528759	mg/kg		3
Se	82	48.001	0.188971	mg/kg		3
Ag	107	237.503	0.017534	mg/kg		3
Cd	111	301.672	0.105677	mg/kg		3
Ba	137	38201.771	9.327263	mg/kg		3
Pb	208	64963.086	4.089697	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 032
Method: 10-mich-2is.mth
Acq Time: 13:28:22 Wed 01-Aug-12
Sample Name: 53345.09s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 221

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	38635.265	2.898403	mg/kg		3
Cu	65	6632.419	1.651820	mg/kg		3
Zn	66	23750.152	11.302075	mg/kg		3
As	75	421.676	0.158048	mg/kg		3
Se	82	13.667	0.019140	mg/kg		3
Ag	107	88.334	0.002775	mg/kg		3
Cd	111	215.003	0.067508	mg/kg		3
Ba	137	40182.781	9.214672	mg/kg		3
Pb	208	39254.579	2.241835	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 033
Method: 10-mich-2is.mth
Acq Time: 13:30:33 Wed 01-Aug-12
Sample Name: 53345.09 MS-0.10
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 222

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	288903.976	24.836108	mg/kg		3
Cu	65	80694.982	22.726510	mg/kg		3
Zn	66	57560.038	30.699742	mg/kg		3
As	75	48299.656	21.948022	mg/kg		3
Se	82	4526.847	22.651297	mg/kg		3
Ag	107	224690.487	22.263816	mg/kg		3
Cd	111	61489.851	24.467100	mg/kg		3
Ba	137	137903.937	35.074756	mg/kg		3
Pb	208	381925.167	23.968875	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 034
Method: 10-mich-2is.mth
Acq Time: 13:33:01 Wed 01-Aug-12
Sample Name: 53345.09 MSD
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 222

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	276260.341	23.487265	mg/kg		3
Cu	65	80083.731	22.313098	mg/kg		3
Zn	66	59587.158	31.453622	mg/kg		3
As	75	47980.466	21.574810	mg/kg		3
Se	82	4552.859	22.542935	mg/kg		3
Ag	107	225238.669	22.087488	mg/kg		3
Cd	111	59780.100	23.538011	mg/kg		3
Ba	137	133488.770	33.588218	mg/kg		3
Pb	208	380519.246	23.898464	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 035
Method: 10-mich-2is.mth
Acq Time: 13:38:22 Wed 01-Aug-12
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	263588.897	0.095507	mg/L		3
Cu	65	79883.699	0.094874	mg/L		3
Zn	66	43678.017	0.098029	mg/L		3
As	75	48203.373	0.092391	mg/L		3
Se	82	4909.374	0.103664	mg/L		3
Ag	107	245904.085	0.102821	mg/L		3
Cd	111	63320.615	0.106305	mg/L		3
Ba	137	95430.038	0.102378	mg/L		3
Pb	208	371015.271	0.102440	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 036
Method: 10-mich-2is.mth
Acq Time: 13:49:00 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1330.931	-0.000040	mg/L		3
Cu	65	189.169	0.000054	mg/L		3
Zn	66	266.671	-0.000369	mg/L		3
As	75	55.834	0.000035	mg/L		3
Se	82	-13.333	-0.000467	mg/L		3
Ag	107	102.501	0.000018	mg/L		3
Cd	111	30.000	0.000004	mg/L		3
Ba	137	55.834	0.000010	mg/L		3
Pb	208	664.191	-0.000040	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 037
Method: 10-mich-2is.mth
Acq Time: 13:51:05 Wed 01-Aug-12
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1318.429	-0.000040	mg/L		3
Cu	65	145.835	0.000006	mg/L		3
Zn	66	360.007	-0.000157	mg/L		3
As	75	33.333	-0.000006	mg/L		3
Se	82	-4.333	-0.000284	mg/L		3
Ag	107	105.834	0.000020	mg/L		3
Cd	111	24.167	-0.000005	mg/L		3
Ba	137	76.667	0.000032	mg/L		3
Pb	208	829.205	0.000008	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 038
Method: 10-mich-2is.mth
Acq Time: 13:53:55 Wed 01-Aug-12
Sample Name: Blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1292.592	0	mg/L		3
Cu	65	150.835	0	mg/L		3
Zn	66	375.841	0	mg/L		3
As	75	38.333	0	mg/L		3
Se	82	6.667	0	mg/L		3
Ag	107	100.834	0	mg/L		3
Cd	111	20.833	0	mg/L		3
Ba	137	56.667	0	mg/L		3
Pb	208	853.373	0	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 039
Method: 10-mich-2is.mth
Acq Time: 13:55:52 Wed 01-Aug-12
Sample Name: std-0.000
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1313.428	0.000009	mg/L		3
Cu	65	125.001	-0.000030	mg/L		3
Zn	66	353.340	-0.000048	mg/L		3
As	75	34.167	-0.000008	mg/L		3
Se	82	-0.667	-0.000151	mg/L		3
Ag	107	95.834	-0.000002	mg/L		3
Cd	111	25.000	0.000007	mg/L		3
Ba	137	68.334	0.000013	mg/L		3
Pb	208	872.542	0.000006	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 040
Method: 10-mich-2is.mth
Acq Time: 13:57:49 Wed 01-Aug-12
Sample Name: std-0.0001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1498.457	0.000072	mg/L		3
Cu	65	124.168	-0.000031	mg/L		3
Zn	66	384.175	0.000017	mg/L		3
As	75	73.334	0.000065	mg/L		3
Se	82	9.333	0.000055	mg/L		3
Ag	107	278.338	0.000072	mg/L		3
Cd	111	79.167	0.000095	mg/L		3
Ba	137	129.168	0.000075	mg/L		3
Pb	208	1022.558	0.000045	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 041
Method: 10-mich-2is.mth
Acq Time: 13:59:51 Wed 01-Aug-12
Sample Name: std-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3933.351	0.000942	mg/L		3
Cu	65	870.875	0.000838	mg/L		3
Zn	66	722.529	0.000771	mg/L		3
As	75	566.684	0.000991	mg/L		3
Se	82	37.667	0.000643	mg/L		3
Ag	107	2378.645	0.000931	mg/L		3
Cd	111	638.356	0.001014	mg/L		3
Ba	137	1004.222	0.000994	mg/L		3
Pb	208	4390.228	0.000957	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 042
Method: 10-mich-2is.mth
Acq Time: 14:01:52 Wed 01-Aug-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	14876.330	0.004854	mg/L		3
Cu	65	4135.941	0.004650	mg/L		3
Zn	66	2459.500	0.004633	mg/L		3
As	75	2527.019	0.004679	mg/L		3
Se	82	249.339	0.005035	mg/L		3
Ag	107	12161.473	0.004943	mg/L		3
Cd	111	3169.719	0.005185	mg/L		3
Ba	137	4852.962	0.005047	mg/L		3
Pb	208	19800.709	0.005156	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 043
Method: 10-mich-2is.mth
Acq Time: 14:03:57 Wed 01-Aug-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	55790.712	0.019514	mg/L		3
Cu	65	16357.206	0.018951	mg/L		3
Zn	66	9261.383	0.019777	mg/L		3
As	75	9919.577	0.018628	mg/L		3
Se	82	997.064	0.020586	mg/L		3
Ag	107	49150.861	0.020141	mg/L		3
Cd	111	12834.889	0.021119	mg/L		3
Ba	137	19621.991	0.020615	mg/L		3
Pb	208	77461.125	0.020819	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 044
Method: 10-mich-2is.mth
Acq Time: 14:06:06 Wed 01-Aug-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	133454.120	0.048043	mg/L		3
Cu	65	40030.450	0.047495	mg/L		3
Zn	66	22754.280	0.050621	mg/L		3
As	75	24854.766	0.047558	mg/L		3
Se	82	2413.012	0.050593	mg/L		3
Ag	107	123502.602	0.051272	mg/L		3
Cd	111	31900.887	0.053110	mg/L		3
Ba	137	48807.336	0.051916	mg/L		3
Pb	208	190166.095	0.051309	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 045
Method: 10-mich-2is.mth
Acq Time: 14:08:22 Wed 01-Aug-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	525793.259	0.199966	mg/L		3
Cu	65	158314.128	0.199989	mg/L		3
Zn	66	86963.991	0.199697	mg/L		3
As	75	99112.350	0.200115	mg/L		3
Se	82	9538.104	0.199944	mg/L		3
Ag	107	480491.251	0.199779	mg/L		3
Cd	111	124234.794	0.199768	mg/L		3
Ba	137	191331.672	0.199869	mg/L		3
Pb	208	749992.982	0.199937	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 046
Method: 10-mich-2is.mth
Acq Time: 14:10:52 Wed 01-Aug-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 07/24/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	258669.420	0.097522	mg/L		3
Cu	65	80127.433	0.100507	mg/L		3
Zn	66	43529.827	0.098940	mg/L		3
As	75	49721.437	0.099754	mg/L		3
Se	82	4793.648	0.099814	mg/L		3
Ag	107	242228.466	0.100111	mg/L		3
Cd	111	63587.511	0.101648	mg/L		3
Ba	137	95579.158	0.099174	mg/L		3
Pb	208	379371.916	0.101511	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 047
Method: 10-mich-2is.mth
Acq Time: 14:13:40 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1277.590	0.000004	mg/L		3
Cu	65	144.168	-0.000005	mg/L		3
Zn	66	334.173	-0.000078	mg/L		3
As	75	40.833	0.000007	mg/L		3
Se	82	18.334	0.000245	mg/L		3
Ag	107	150.835	0.000021	mg/L		3
Cd	111	29.167	0.000014	mg/L		3
Ba	137	62.500	0.000007	mg/L		3
Pb	208	877.542	0.000008	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 048
Method: 10-mich-2is.mth
Acq Time: 14:15:40 Wed 01-Aug-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2531.186	0.000477	mg/L		3
Cu	65	552.517	0.000507	mg/L		3
As	75	308.339	0.000542	mg/L		3
Se	77	42.667	0.000482	mg/L		3
Ag	107	1410.109	0.000540	mg/L		3
Cd	111	360.007	0.000541	mg/L		3
Ba	137	595.020	0.000558	mg/L		3
Pb	208	2542.022	0.000449	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 049
Method: 10-mich-2is.mth
Acq Time: 14:17:40 Wed 01-Aug-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3935.852	0.000995	mg/L		3
Cu	65	866.708	0.000891	mg/L		3
Zn	66	719.195	0.000787	mg/L		3
As	75	563.351	0.001041	mg/L		3
Se	82	41.334	0.000715	mg/L		3
Ag	107	2441.995	0.000957	mg/L		3
Cd	111	651.690	0.000996	mg/L		3
Ba	137	1016.724	0.000985	mg/L		3
Pb	208	4360.212	0.000923	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 050
Method: 10-mich-2is.mth
Acq Time: 14:19:41 Wed 01-Aug-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1269.255	0.000003	mg/L		3
Cu	65	132.501	-0.000018	mg/L		3
Zn	66	377.508	0.000024	mg/L		3
As	75	40.833	0.000007	mg/L		3
Se	82	-12.667	-0.000395	mg/L		3
Ag	107	150.001	0.000021	mg/L		3
Cd	111	22.500	0.000003	mg/L		3
Ba	137	90.834	0.000037	mg/L		3
Pb	208	885.043	0.000010	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 051
Method: 10-mich-2is.mth
Acq Time: 14:22:01 Wed 01-Aug-12
Sample Name: 53345.10s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 252

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	39842.985	3.618010	mg/kg		3
Cu	65	8392.206	2.564578	mg/kg		3
Zn	66	15226.909	8.429254	mg/kg		3
As	75	230.836	0.095731	mg/kg		3
Se	82	1.000	-0.029352	mg/kg		3
Ag	107	139.168	0.003986	mg/kg		3
Cd	111	92.500	0.028448	mg/kg		3
Ba	137	93425.143	24.008886	mg/kg		3
Pb	208	37070.436	2.360385	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 052
Method: 10-mich-2is.mth
Acq Time: 14:24:09 Wed 01-Aug-12
Sample Name: 53345.11s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 231

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	101667.027	9.393588	mg/kg		3
Cu	65	64298.352	19.887755	mg/kg		3
Zn	66	66122.937	37.197432	mg/kg		3
As	75	9229.683	4.554667	mg/kg		3
Se	82	58.668	0.270378	mg/kg		3
Ag	107	746.697	0.066746	mg/kg		3
Cd	111	656.690	0.251376	mg/kg		3
Ba	137	239620.667	61.366787	mg/kg		3
Pb	208	130047.014	8.346983	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 053
Method: 10-mich-2is.mth
Acq Time: 14:26:17 Wed 01-Aug-12
Sample Name: 53345.12s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 247

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	48442.919	4.630710	mg/kg		3
Cu	65	26705.004	8.636080	mg/kg		3
Zn	66	35769.403	21.003056	mg/kg		3
As	75	4030.894	2.075271	mg/kg		3
Se	82	10.333	0.022701	mg/kg		3
Ag	107	480.013	0.041264	mg/kg		3
Cd	111	287.505	0.110876	mg/kg		3
Ba	137	192754.089	51.772180	mg/kg		3
Pb	208	76467.780	5.218545	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 054
Method: 10-mich-2is.mth
Acq Time: 14:28:25 Wed 01-Aug-12
Sample Name: 53345.13s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 225

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	14231.136	1.047411	mg/kg		3
Cu	65	2317.795	0.582381	mg/kg		3
Zn	66	4252.663	1.897384	mg/kg		3
As	75	391.675	0.151503	mg/kg		3
Se	82	20.667	0.061138	mg/kg		3
Ag	107	109.167	0.000524	mg/kg		3
Cd	111	116.667	0.032576	mg/kg		3
Ba	137	64020.506	14.229801	mg/kg		3
Pb	208	36580.115	2.068756	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 055
Method: 10-mich-2is.mth
Acq Time: 14:30:31 Wed 01-Aug-12
Sample Name: 53345.14s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 219

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	24954.205	2.066431	mg/kg		3
Cu	65	11599.897	3.306775	mg/kg		3
Zn	66	18812.779	9.717782	mg/kg		3
As	75	2897.962	1.319719	mg/kg		3
Se	82	8.000	0.009319	mg/kg		3
Ag	107	233.336	0.013251	mg/kg		3
Cd	111	270.004	0.092002	mg/kg		3
Ba	137	46878.055	11.166659	mg/kg		3
Pb	208	45181.162	2.668185	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 056
Method: 10-mich-2is.mth
Acq Time: 14:32:38 Wed 01-Aug-12
Sample Name: 53345.15s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 213

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	32119.977	2.583627	mg/kg		3
Cu	65	14198.584	3.897705	mg/kg		3
Zn	66	19566.881	9.715957	mg/kg		3
As	75	3033.840	1.328036	mg/kg		3
Se	82	-3.000	-0.043002	mg/kg		3
Ag	107	642.523	0.049950	mg/kg		3
Cd	111	372.508	0.124452	mg/kg		3
Ba	137	56922.711	13.031405	mg/kg		3
Pb	208	54906.987	3.134380	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 057
Method: 10-mich-2is.mth
Acq Time: 14:35:39 Wed 01-Aug-12
Sample Name: 53345.16s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 229

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	51930.418	4.513162	mg/kg		3
Cu	65	24687.660	7.244493	mg/kg		3
Zn	66	30420.000	16.183738	mg/kg		3
As	75	3533.187	1.649040	mg/kg		3
Se	82	-9.667	-0.078839	mg/kg		3
Ag	107	359.174	0.025562	mg/kg		3
Cd	111	330.006	0.116527	mg/kg		3
Ba	137	107273.437	26.154331	mg/kg		3
Pb	208	88523.141	5.432887	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 063
Method: 10-mich-2is.mth
Acq Time: 14:51:07 Wed 01-Aug-12
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	289295.129	0.104252	mg/L		3
Cu	65	79239.730	0.094951	mg/L		3
Zn	66	43182.323	0.093714	mg/L		3
As	75	53284.885	0.102142	mg/L		3
Se	82	5218.886	0.103836	mg/L		3
Ag	107	253242.830	0.099968	mg/L		3
Cd	111	64567.705	0.098567	mg/L		3
Ba	137	100501.696	0.099639	mg/L		3
Pb	208	381684.434	0.100278	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 064
Method: 10-mich-2is.mth
Acq Time: 14:56:50 Wed 01-Aug-12
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1641.815	0.000140	mg/L		3
Cu	65	205.836	0.000072	mg/L		3
Zn	66	352.507	-0.000039	mg/L		3
As	75	41.667	0.000008	mg/L		3
Se	82	-7.667	-0.000296	mg/L		3
Ag	107	93.334	-0.000002	mg/L		3
Cd	111	30.833	0.000016	mg/L		3
Ba	137	95.834	0.000041	mg/L		3
Pb	208	805.036	-0.000010	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 065
Method: 10-mich-2is.mth
Acq Time: 14:59:02 Wed 01-Aug-12
Sample Name: 0801_2 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	140047.405	0.052702	mg/L		3
Cu	65	39340.782	0.049364	mg/L		3
Zn	66	21789.415	0.049214	mg/L		3
As	75	26170.959	0.052584	mg/L		3
Se	82	2522.379	0.052593	mg/L		3
Ag	107	121223.927	0.050184	mg/L		3
Cd	111	31235.241	0.050011	mg/L		3
Ba	137	48667.424	0.050597	mg/L		3
Pb	208	188386.277	0.050735	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 066
Method: 10-mich-2is.mth
Acq Time: 15:05:44 Wed 01-Aug-12
Sample Name: LRB_2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1500.124	0.000087	mg/L		3
Cu	65	34.167	-0.000142	mg/L		3
Zn	66	188.335	-0.000412	mg/L		3
As	75	26.667	-0.000022	mg/L		3
Se	82	5.333	-0.000024	mg/L		3
Ag	107	64.167	-0.000014	mg/L		3
Cd	111	9.167	-0.000018	mg/L		3
Ba	137	72.500	0.000017	mg/L		3
Pb	208	117.501	-0.000194	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 077
Method: 10-mich-2is.mth
Acq Time: 15:28:21 Wed 01-Aug-12
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	274314.098	0.104083	mg/L		3
Cu	65	74053.767	0.093427	mg/L		3
Zn	66	40947.022	0.093577	mg/L		3
As	75	50863.573	0.102643	mg/L		3
Se	82	4983.749	0.104393	mg/L		3
Ag	107	241921.969	0.100572	mg/L		3
Cd	111	61405.893	0.098735	mg/L		3
Ba	137	97491.694	0.101761	mg/L		3
Pb	208	377648.628	0.101073	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 078
Method: 10-mich-2is.mth
Acq Time: 15:30:37 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1248.419	-0.000006	mg/L		3
Cu	65	44.167	-0.000130	mg/L		3
Zn	66	165.835	-0.000462	mg/L		3
As	75	25.833	-0.000023	mg/L		3
Se	82	20.334	0.000287	mg/L		3
Ag	107	157.501	0.000024	mg/L		3
Cd	111	17.500	-0.000004	mg/L		3
Ba	137	77.500	0.000023	mg/L		3
Pb	208	320.006	-0.000140	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 079
Method: 10-mich-2is.mth
Acq Time: 15:32:48 Wed 01-Aug-12
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1317.596	0.000021	mg/L		3
Cu	65	198.336	0.000064	mg/L		3
Zn	66	327.506	-0.000090	mg/L		3
As	75	45.000	0.000015	mg/L		3
Se	82	0.333	-0.000127	mg/L		3
Ag	107	125.001	0.000011	mg/L		3
Cd	111	33.333	0.000021	mg/L		3
Ba	137	75.000	0.000021	mg/L		3
Pb	208	878.376	0.000010	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 092
Method: 10-mich-2is.mth
Acq Time: 16:03:46 Wed 01-Aug-12
Sample Name: CCV5-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	270693.787	0.101994	mg/L		3
Cu	65	75846.955	0.095021	mg/L		3
Zn	66	41446.784	0.094051	mg/L		3
As	75	51051.279	0.102325	mg/L		3
Se	82	5037.115	0.104803	mg/L		3
Ag	107	243230.401	0.100402	mg/L		3
Cd	111	61878.241	0.098796	mg/L		3
Ba	137	95376.952	0.098901	mg/L		3
Pb	208	370620.787	0.100871	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 093
Method: 10-mich-2is.mth
Acq Time: 16:08:44 Wed 01-Aug-12
Sample Name: CCB5
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1462.618	0.000084	mg/L		3
Cu	65	206.669	0.000078	mg/L		3
Zn	66	324.172	-0.000087	mg/L		3
As	75	44.167	0.000015	mg/L		3
Se	82	13.333	0.000149	mg/L		3
Ag	107	100.001	0.000001	mg/L		3
Cd	111	24.167	0.000007	mg/L		3
Ba	137	75.834	0.000022	mg/L		3
Pb	208	893.377	0.000019	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 094
Method: 10-mich-2is.mth
Acq Time: 16:17:33 Wed 01-Aug-12
Sample Name: 0801_3 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-3
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	139705.360	0.052603	mg/L		3
Cu	65	38192.586	0.047938	mg/L		3
Zn	66	20732.785	0.046812	mg/L		3
As	75	25757.275	0.051775	mg/L		3
Se	82	2517.378	0.052513	mg/L		3
Ag	107	121093.115	0.050144	mg/L		3
Cd	111	31241.100	0.050039	mg/L		3
Ba	137	48565.215	0.050509	mg/L		3
Pb	208	187481.931	0.050663	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 095
Method: 10-mich-2is.mth
Acq Time: 16:22:30 Wed 01-Aug-12
Sample Name: LRB_3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-3
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1376.771	0.000047	mg/L		3
Cu	65	46.667	-0.000126	mg/L		3
Zn	66	236.670	-0.000295	mg/L		3
As	75	28.333	-0.000018	mg/L		3
Se	82	-12.000	-0.000386	mg/L		3
Ag	107	57.500	-0.000017	mg/L		3
Cd	111	15.000	-0.000008	mg/L		3
Ba	137	49.167	-0.000006	mg/L		3
Pb	208	226.670	-0.000164	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 101
Method: 10-mich-2is.mth
Acq Time: 16:34:56 Wed 01-Aug-12
Sample Name: CCV6-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-3
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	274380.692	0.103478	mg/L		3
Cu	65	75878.720	0.095163	mg/L		3
Zn	66	41188.122	0.093548	mg/L		3
As	75	49696.329	0.099656	mg/L		3
Se	82	4760.299	0.099071	mg/L		3
Ag	107	240852.433	0.099469	mg/L		3
Cd	111	62072.067	0.099153	mg/L		3
Ba	137	98292.692	0.101982	mg/L		3
Pb	208	382349.853	0.101998	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 102
Method: 10-mich-2is.mth
Acq Time: 16:39:11 Wed 01-Aug-12
Sample Name: CCB6
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-3
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1396.774	0.000056	mg/L		3
Cu	65	195.835	0.000063	mg/L		3
Zn	66	301.672	-0.000143	mg/L		3
As	75	100.001	0.000128	mg/L		3
Se	82	41.667	0.000744	mg/L		3
Ag	107	127.501	0.000013	mg/L		3
Cd	111	35.000	0.000024	mg/L		3
Ba	137	83.334	0.000030	mg/L		3
Pb	208	867.541	0.000010	mg/L		3

Metals Digestion

3015A \ 3050B

DATE 08/01/12

TIME START 09:00

ANALYST RR

TIME FINISH 09:15

PREP BATCH MTD- 080112-1

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS - 1	----	50	50		—	1
LRB- 1	----	50	50		—	1
53345.02		0.255		dil 5/1 = 1240	79	248
03		0.250			86	232
04		0.251			85	234
05		0.252			79	251
06		0.248			91	222
07		0.250			94	213
08		0.259			88	219
09		0.254			89	221
09 MS		0.253			1	222
09 MSD		0.253			1	222
10		0.251			79	252
11		0.255			85	231
12		0.253			80	247
13		0.252			88	225
14		0.243			94	219
15		0.255			92	213
16		0.257			85	229
53347.01		0.254			88	224
02		0.251			91	219
03		0.254			89	221
12 MS		0.254		TG #03	89	221
13 MSD		0.255			89	220

NOTES: *1) Spike values (unless otherwise stated):*
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078 + D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 112563.3

3) HNO3 Lot # 51332-Omni Trace *4) Centrifuge Tube Lot # 120201-960-1*

5) Balance ID: M1 *Reviewed by SM On 08/01/12*

Form 0: Sequence Log

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	7/30/2012 2:55:04 PM	Calibration Blank	Liquid	
002	7/30/2012 2:57:20 PM	Standard #1	Liquid	
003	7/30/2012 2:59:34 PM	Standard #2	Liquid	
004	7/30/2012 3:01:48 PM	Standard #3	Liquid	
005	7/30/2012 3:04:01 PM	Standard #4	Liquid	
006	7/30/2012 3:06:13 PM	Standard #5	Liquid	
007	7/30/2012 3:08:25 PM	Standard #6	Liquid	
008	7/30/2012 3:12:04 PM	Standard #7	Liquid	
009	7/30/2012 3:15:46 PM	CCV1-2.0 ppb	Liquid	CCV
010	7/30/2012 3:18:05 PM	CCB1	Liquid	CCB
011	7/30/2012 3:20:23 PM	ICV-5.0	Liquid	ICV
012	7/30/2012 3:23:39 PM	ICB	Liquid	ICB
013	7/30/2012 3:25:56 PM	ERA 8121-05 TV=15.9	Liquid	ERA
014	7/30/2012 3:30:24 PM	BS-0.10	Liquid	BS
015	7/30/2012 3:32:44 PM	07/30 LCS1-2.0 ppb	Soil	LCS
016	7/30/2012 3:35:05 PM	07/30 LRB1	Soil	LRB
017	7/30/2012 3:37:16 PM	53345.02s	Soil	S
018	7/30/2012 3:39:27 PM	53345.03s	Soil	S
019	7/30/2012 3:41:40 PM	53345.04s	Soil	S
020	7/30/2012 3:43:52 PM	53345.06s	Soil	S
021	7/30/2012 3:46:06 PM	53345.05s	Soil	S
022	7/30/2012 3:48:20 PM	53345.05 MS-2.0 ppb	Soil	MS
023	7/30/2012 3:50:34 PM	53345.05 MSD	Soil	MSD
024	7/30/2012 3:52:53 PM	CCV2-2.0 ppb	Liquid	CCV
025	7/30/2012 3:55:12 PM	CCB2	Liquid	CCB
026	7/30/2012 3:57:24 PM	53345.07s	Soil	S
027	7/30/2012 3:59:36 PM	53345.08s	Soil	S
028	7/30/2012 4:01:49 PM	53345.09s	Soil	S
029	7/30/2012 4:04:03 PM	53345.10s	Soil	S
030	7/30/2012 4:06:17 PM	53345.11s	Soil	S
031	7/30/2012 4:08:31 PM	53345.12s	Soil	S
032	7/30/2012 4:10:47 PM	53345.13s	Soil	S
033	7/30/2012 4:12:59 PM	53345.14s	Soil	S
034	7/30/2012 4:15:12 PM	53345.15s	Soil	S
035	7/30/2012 4:17:25 PM	53345.16s	Soil	S
036	7/30/2012 4:19:44 PM	CCV3-2.0 ppb	Liquid	CCV
037	7/30/2012 4:22:03 PM	CCB3	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.02
Sample Tag: SB168-(07-23-12) (6-8)
Date Collected: 07/23/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	64	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.03
Sample Tag: SB137-(07-23-12) (22-24)
Date Collected: 07/23/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	63	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.04
Sample Tag: SB136-(07-23-12) (22-24)
Date Collected: 07/23/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	59	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.05
Sample Tag: SB139-(07-24-12) (22-24)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	62	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.06
Sample Tag: SB135-(07-24-12) (2-4)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	55	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.07
Sample Tag: SB166-(07-24-12) (4-6)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	53	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.08
Sample Tag: DUP3-(07-24-12)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	56	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.09
Sample Tag: SB152-(07-24-12) (4-6)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	55	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.10
Sample Tag: SB167-(07-24-12) (2-4)
Date Collected: 07/24/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	64	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.11
Sample Tag: SB126-(07-25-12) (24-26)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	59	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.12
Sample Tag: SB153-(07-25-12) (3.5-5.5)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	62	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.13
Sample Tag: SB107-(07-25-12) (3-5)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	55	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.14
Sample Tag: SB111-(07-25-12) (0.5-2.5)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	53	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.15
Sample Tag: SB110-(07-25-12) (0.5-2.5)
Date Collected: 07/25/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	54	07/30/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Lab Sample ID: S53345.16
Sample Tag: SB119-(07-26-12) (3-5)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	58	07/30/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 CCV1-2.0 ppb	CCV	1.0	Hg	2.017	2.0	101	90/110	ug/L	Liquid
011 ICV-5.0	ICV	1.0	Hg	5.038	5.0	101	90/110	ug/L	Liquid
024 CCV2-2.0 ppb	CCV	1.0	Hg	2.006	2.0	100	90/110	ug/L	Liquid
036 CCV3-2.0 ppb	CCV	1.0	Hg	1.999	2.0	100	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: 8121-05

Data Set ID: HG2-12-0730A

Instrument ID: HG QuickTrace

Analysis Date: 07/30/12

Analyst: JRT

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
013 ERA 8121-05 TV=15.9	2.0	Hg	16.49	15.9	104	9.76	21.5	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0297	ug/L	Liquid
012 ICB	ICB	1.0	Hg	<0.03	-0.0274	ug/L	Liquid
016 07/30 LRB1	LRB	50.0	Hg	<0.03	-2.8100	ug/kg	Soil
025 CCB2	CCB	1.0	Hg	<0.03	-0.0310	ug/L	Liquid
037 CCB3	CCB	1.0	Hg	<0.03	-0.0280	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
014 BS-0.10		1.0	Hg	0.089	ND	0.10	89	70/130	ug/L	Liquid
022 53345.05 MS-2.0	**021 53345.05s**	61.9	Hg	125.4	<50	123.8	101	80/120	ug/kg	Soil

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
023 53345.05 MSD	**022 53345.05 MS-2.0**	61.9	Hg	128.5	125.4	2	0/20	ug/kg	Soil

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 07/30 LCS1-2.0 ppb	50.0	Hg	102.2	100	102	85/115	ug/kg	Soil

Form 13: Analysis Run Log

Data Set ID: HG2-12-0730A
Instrument ID: HG QuickTrace
Analysis Date: 07/30/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	7/30/2012 2:55:04 PM	Liquid	Hg
002 Standard #1	7/30/2012 2:57:20 PM	Liquid	Hg
003 Standard #2	7/30/2012 2:59:34 PM	Liquid	Hg
004 Standard #3	7/30/2012 3:01:48 PM	Liquid	Hg
005 Standard #4	7/30/2012 3:04:01 PM	Liquid	Hg
006 Standard #5	7/30/2012 3:06:13 PM	Liquid	Hg
007 Standard #6	7/30/2012 3:08:25 PM	Liquid	Hg
008 Standard #7	7/30/2012 3:12:04 PM	Liquid	Hg
009 CCV1-2.0 ppb	7/30/2012 3:15:46 PM	Liquid	Hg
010 CCB1	7/30/2012 3:18:05 PM	Liquid	Hg
011 ICV-5.0	7/30/2012 3:20:23 PM	Liquid	Hg
012 ICB	7/30/2012 3:23:39 PM	Liquid	Hg
013 ERA 8121-05 TV=15.9	7/30/2012 3:25:56 PM	Liquid	Hg
014 BS-0.10	7/30/2012 3:30:24 PM	Liquid	Hg
015 07/30 LCS1-2.0 ppb	7/30/2012 3:32:44 PM	Soil	Hg
016 07/30 LRB1	7/30/2012 3:35:05 PM	Soil	Hg
017 53345.02s	7/30/2012 3:37:16 PM	Soil	Hg
018 53345.03s	7/30/2012 3:39:27 PM	Soil	Hg
019 53345.04s	7/30/2012 3:41:40 PM	Soil	Hg
020 53345.06s	7/30/2012 3:43:52 PM	Soil	Hg
021 53345.05s	7/30/2012 3:46:06 PM	Soil	Hg
022 53345.05 MS-2.0 ppb	7/30/2012 3:48:20 PM	Soil	Hg
023 53345.05 MSD	7/30/2012 3:50:34 PM	Soil	Hg
024 CCV2-2.0 ppb	7/30/2012 3:52:53 PM	Liquid	Hg
025 CCB2	7/30/2012 3:55:12 PM	Liquid	Hg
026 53345.07s	7/30/2012 3:57:24 PM	Soil	Hg
027 53345.08s	7/30/2012 3:59:36 PM	Soil	Hg
028 53345.09s	7/30/2012 4:01:49 PM	Soil	Hg
029 53345.10s	7/30/2012 4:04:03 PM	Soil	Hg
030 53345.11s	7/30/2012 4:06:17 PM	Soil	Hg
031 53345.12s	7/30/2012 4:08:31 PM	Soil	Hg
032 53345.13s	7/30/2012 4:10:47 PM	Soil	Hg
033 53345.14s	7/30/2012 4:12:59 PM	Soil	Hg
034 53345.15s	7/30/2012 4:15:12 PM	Soil	Hg
035 53345.16s	7/30/2012 4:17:25 PM	Soil	Hg
036 CCV3-2.0 ppb	7/30/2012 4:19:44 PM	Liquid	Hg
037 CCB3	7/30/2012 4:22:03 PM	Liquid	Hg

Data Set: HG2-12-0730A
Run Date: 07/30/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	7/30/2012 2:55:04 PM	Calibration Blank	977.1000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	7/30/2012 2:57:20 PM	Standard #1	2251.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	7/30/2012 2:59:34 PM	Standard #2	3414.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	7/30/2012 3:01:48 PM	Standard #3	6837.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	7/30/2012 3:04:01 PM	Standard #4	12810.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	7/30/2012 3:06:13 PM	Standard #5	24360.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	7/30/2012 3:08:25 PM	Standard #6	70540.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	7/30/2012 3:12:04 PM	Standard #7	114700.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	7/30/2012 3:15:46 PM	CCV1-2.0 ppb	24270.0000	2.0170	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	7/30/2012 3:18:05 PM	CCB1	927.0000	-0.0297	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	7/30/2012 3:20:23 PM	ICV-5.0	58720.0000	5.0380	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	7/30/2012 3:23:39 PM	ICB	953.8000	-0.0274	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	7/30/2012 3:25:56 PM	ERA 8121-05 TV=15.9	95330.0000	16.4980	ug/L	Liquid	2.0	1.0000	2.0000
Hg	014	7/30/2012 3:30:24 PM	BS-0.10	2279.0000	0.0888	ug/L	Liquid	1.0	1.0000	1.0000
Hg	015	7/30/2012 3:32:44 PM	07/30 LCS1-2.0 ppb	24570.0000	102.2000	ug/kg	Soil	50.0	0.5000	25.0000
Hg	016	7/30/2012 3:35:05 PM	07/30 LRB1	625.5000	-2.8100	ug/kg	Soil	50.0	0.5000	25.0000
Hg	017	7/30/2012 3:37:16 PM	53345.02s	3701.0000	13.6213	ug/kg	Soil	63.8	0.3920	25.0000
Hg	018	7/30/2012 3:39:27 PM	53345.03s	3313.0000	11.3265	ug/kg	Soil	63.1	0.3960	25.0000
Hg	019	7/30/2012 3:41:40 PM	53345.04s	3675.0000	12.5512	ug/kg	Soil	59.4	0.4210	25.0000
Hg	020	7/30/2012 3:43:52 PM	53345.06s	2231.0000	4.6361	ug/kg	Soil	54.8	0.4560	25.0000
Hg	021	7/30/2012 3:46:06 PM	53345.05s	1383.0000	0.6324	ug/kg	Soil	62.0	0.4030	25.0000
Hg	022	7/30/2012 3:48:20 PM	53345.05 MS-2.0 ppb	24390.0000	125.4713	ug/kg	Soil	61.9	0.4040	25.0000
Hg	023	7/30/2012 3:50:34 PM	53345.05 MSD	24950.0000	128.5663	ug/kg	Soil	61.9	0.4040	25.0000
Hg	024	7/30/2012 3:52:53 PM	CCV2-2.0 ppb	24140.0000	2.0060	ug/L	Liquid	1.0	1.0000	1.0000
Hg	025	7/30/2012 3:55:12 PM	CCB2	912.6000	-0.0310	ug/L	Liquid	1.0	1.0000	1.0000
Hg	026	7/30/2012 3:57:24 PM	53345.07s	2870.0000	7.4852	ug/kg	Soil	53.2	0.4700	25.0000
Hg	027	7/30/2012 3:59:36 PM	53345.08s	2797.0000	7.5611	ug/kg	Soil	56.3	0.4440	25.0000
Hg	028	7/30/2012 4:01:49 PM	53345.09s	1332.0000	0.3178	ug/kg	Soil	54.8	0.4560	25.0000
Hg	029	7/30/2012 4:04:03 PM	53345.10s	1744.0000	2.6732	ug/kg	Soil	63.8	0.3920	25.0000
Hg	030	7/30/2012 4:06:17 PM	53345.11s	3256.0000	10.3014	ug/kg	Soil	59.0	0.4240	25.0000
Hg	031	7/30/2012 4:08:31 PM	53345.12s	3831.0000	14.0175	ug/kg	Soil	62.3	0.4010	25.0000
Hg	032	7/30/2012 4:10:47 PM	53345.13s	2009.0000	3.6065	ug/kg	Soil	55.4	0.4510	25.0000
Hg	033	7/30/2012 4:12:59 PM	53345.14s	1976.0000	3.3206	ug/kg	Soil	53.3	0.4690	25.0000
Hg	034	7/30/2012 4:15:12 PM	53345.15s	3807.0000	11.9866	ug/kg	Soil	53.8	0.4650	25.0000
Hg	035	7/30/2012 4:17:25 PM	53345.16s	4460.0000	16.2178	ug/kg	Soil	57.9	0.4320	25.0000
Hg	036	7/30/2012 4:19:44 PM	CCV3-2.0 ppb	24070.0000	1.9990	ug/L	Liquid	1.0	1.0000	1.0000
Hg	037	7/30/2012 4:22:03 PM	CCB3	946.3000	-0.0280	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 12:30 | Beginning | End | DATE 07/30/12
TIME FINISH: 14:30 | TEMP: block #1 95 °C | block #1 95 °C | ANALYST CPM
PREP BATCH: HGD-073012-1 | block #2 95 °C | block #2 95 °C | REVIEWED BY SLL
BALANCE ID: M1 | block #3 95 °C | block #3 95 °C | REVIEW DATE 07/30/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 1	------	0.5	--------	----------	50	25g	
LRB- 1	------	0.5	--------	----------	50	25g	
53345.02	1	0.496	79	0.392	64		
03	1	0.502	79	0.396	63		
04	1	0.495	85	0.421	59		
05	1	0.510	79	0.403	62		
05 MS	1	0.512	79	0.404	62		
05 MSD	1	0.511	79	0.404	62		
06	2	0.501	91	0.456	55		
07	2	0.500	94	0.470	53		
08	1	0.504	88	0.444	56		
09	2	0.512	89	0.456	55		
10	2	0.496	79	0.392	64		
11	2	0.499	85	0.424	59		
12	1	0.501	80	0.401	62		
13	1	0.513	88	0.451	55		
14	2	0.499	94	0.469	53		
15	2	0.505	92	0.465	54		
16	1	0.508	85	0.432	58		

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 113201 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)
Sand lot# TH1212EMS

Effective Date 7/10/12

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 07/27/12 Date Finished: 07/30/12 Date Checked: 07/30/12

Time Started: 13:58 Time Finished: 10:20 Checked By: JRM

Analyst: MAR Temperature: 103° Batch: TS120727C

Time in Oven: 14:38 Balance ID: S1 Oven ID: Q1

Merit #	Dish #	Dish Wt. (g)	Wet Smpl. + Dish Wt. (g)	Dry Smpl + Dish Wt. (g)	Ash Smpl + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	1	1.40	1.40	1.40		—		
LCS	2	1.36	9.50	9.50		100		
53325.44	3	1.34	10.35	8.62		81		
Dup 1 .44	4	1.42	10.22	8.56		81		
.45	5	1.35	11.80	9.71		80		
.21	6	1.41	10.18	9.12		88		
.22	7	1.29	10.83	9.13		82		
53326.01	8	1.36	10.30	8.69		82		
53328.01	9	1.36	10.77	10.16		94		
02	10	1.37	10.75	10.40		96		
03	11	1.38	10.63	10.28		96		
5334502	12	1.38	10.60	8.68		79		
03	13	1.37	12.45	10.88		86		
04	14	1.35	10.64	9.24		85		
Dup 2 04	15	1.36	11.19	9.74		85		
05	16	1.37	13.17	10.74		79		
06	17	1.36	10.90	10.07		91		
07	18	1.34	9.07	8.63		94		
08	19	1.36	12.21	10.95		88		
09	20	1.37	11.68	10.58		89		
10	21	1.30	12.15	9.83		79		
11	22	1.33	10.06	8.75		85		
12	23	1.28	10.93	9.04		80		
13	24	1.37	11.90	10.61		85		

% LCS Recovery: 100% Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 0% Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): 0%

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 07/27/12 Date Finished: 07/30/12 Date Checked: 07/30/12

Time Started: 14:20 Time Finished: 10:35 Checked By: DRH

Analyst: MAR Temperature: 103 Batch: TS120727D

Time in Oven: 14:38 Balance ID: S1 Oven ID: Q1

Merit #	Dish #	Dish Wt. (g)	Wet Smpl. + Dish Wt. (g)	Dry Smpl + Dish Wt. (g)	Ash Smpl + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	25	1.33	1.33	1.33		—		
LCS	26	1.34	9.95	9.95		100		
53345.14	27	1.37	10.60	10.01		94		
Dup 1 14	28	1.35	10.24	9.53		92		
15	29	1.28	10.86	10.11		93		
16	30	1.37	10.56	9.18		85		
	31							
	32							
Dup 2								

% LCS Recovery: 100% Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 2.2% Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): _____

Method 5035A (High Level)
Extraction Sheet

Analyst: LBR
Date: 7-30-12
Batch QC ID#: _____

Merit Number	Tare wt (g)	Vial wt (g)	Sample wt.(g)	Methanol (mL)	Sonicate (min)	Time Start / End	Notes
53265.03	36.9	48.136	11.236	11	✓	14:00	
53345.01	30.664	30.737	–	10	✓		
02	30.584	55.214	24.630	25	✓		
03	30.786	53156	22.370	22	✓		
04	30.475	54.500	23.575	24	✓		
05	31.090	50.526	19.736	20	✓		
06	31.054	50.056	19.002	19	✓		
07	30.983	50.629	19.646	20	✓		
08	31.021	45.241	14.220	14	✓		
09	30.661	47.164	16.503	17	✓		
10	30.649	45.968	15.319	15	✓		
11	30.402	53.740	22.838	23	✓		
12	31.114	48.071	16.957	17	✓		
13	30.863	48.796	17.933	18	✓		
14	31.076	49.092	18.074	18	✓		
15	30.990	50.853	19.863	20	✓		
16	30.950	47.877	16.927	17	✓		
53347.01	31.453	48.705	17.252	17	✓		
02	30.648	46.969	14.921	15	✓		
03	31.384	47.220	15.836	16	✓		
04	31.414	45.478	14.064	14	✓		
05	31.231	41.569	10.338	10	✓		
06	31.430	49.513	18.083	18	✓		
07	31.268	46440	15.172	15	✓		
08	31.277	49.914	18.637	19	✓		
09	31.324	49.339	18.015	18	✓		
10	31.418	40.114	8.6946	10	✓		
11	31.309	49.175	17.866	18	✓		
12	31.277	45.365	14.088	14	✓		
13	31.283	48528	17.245	17	✓		
14	27.479	28.011	–	10	✓	14:23	

Balance ID: V1
Methanol Lot: DE655 / 150349

Reviewed By: WAT
Date: 7-31-12

5035A High Level

Prepared by Merit Laboratories, Inc.

Effective Date 6/14/12

Solvent Lot #: 52069
Na2SO4 Lot #: 23510512
SSD #: PR120723
MS/LCS #: PP120723

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 7-31-2012
Time Started: 9:00
Time Ended: 11:00
Batch ID#: SP120731S01

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	ewr		
	LCS	Sand	30.0 g	↓	↓	↓	↓	1	↓	ev3	
	LCSD	Sand	30.0 g	↓	↓	↓	↓	1	↓	↓	[ ]
	MS							1			[ ]
	MSD							1			
1	53265.03	Soil	30.0	CH_2Cl_2	180	1ml	1ml		ewr	ev3	
2	53345.02	↓	30.0	↓	↓	↓	↓		↓	↓	
3	.03		30.0								
4	.04		30.0								
5	.05		30.0								
6	.06		30.0								
7	.07		30.0								
8	.08		30.0								
9	.09		30.0								
10	.10		30.0								
11	.11		30.0								
12	.12		30.0								
13	.13		30.0								
14	.14		30.0								
15	.15		30.0								
16	.16		30.0								
17	53347.01		30.0								
18	.02		30.0								
19	.03		30.0								
20	.04	↓	30.0	↓	↓	↓	↓		↓	↓	

Reviewed by: [illegible] On: 8/1 Balance ID: e2

Prepared by: Merit Laboratories, Inc.

Hexane 51223
Ether/Hexane 51108129/52088
Na_2SO_4 2351C512
H_2SO_4 50328
SSD# 175510
PCB MS ID# 11MS04 Pest MS ID#_____

PCB/Pesticide Extraction
Method 3550B

Date 7-30-12
Time Started 12:30
Time Ended 17:60
Prep Batch ID# PA120730S02
Balance ID# E2

#	Merit #	Matrix	Sample Wt. (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Alumina Cleanup	Dioxin Cleanup	Turbo Vap	Notes
Initial Q.C.	BLANK	soil	20.0	Hexane	180	1	1		CM			ev2	
	LCS	↓	↓	↓	↓	↓	↓	1	↓			↓	
	LCSD	↓	↓	↓	↓	↓	↓	1	↓			↓	
	MS												
	MSD												
1	53292.01	sludge	10.2	Hexane	180	1	1		CM	X		ev1	
2	53347.02	soil	20.0	↓	↓	↓	↓		↓			↓	
3	↓ .10	↓	20.3										
4	53345.02		20.1										
5	.03		20.1										
6	.04		20.0										
7	.05		20.2										
8	.06		20.0										
9	.07		20.2										
10	.08		20.3										
11	.09		20.0							X	X		
12	.10		20.2							X	X		
13	.11		20.0										
14	.12		20.1										
15	.13		20.3										
16	.14		20.1										
17	.15		20.0										
18	↓ .16	↓	20.2	↓	↓	↓	↓		↓			↓	
19													
20													

Reviewed by: JB On: 7-30

Prepared by: Merit Laboratories, Inc.

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF _____

69771

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: SUSAN HOERTT
COMPANY: HALEY: ALDRICH
ADDRESS: 8899 GANDER CREEK DR
CITY: MIAMISBURG STATE: OH ZIP CODE: 45342
PHONE NO.: 937.530.1408 FAX NO.: 937.530.1458 P.O. NO.: —
E-MAIL ADDRESS: SHoertt@haleyaldrich.com QUOTE NO.: —

INVOICE TO

CONTACT NAME: MELNIE SHANER ☐ SAME
COMPANY: HALEY: ALDRICH
ADDRESS: 5755 GRANGER RD
CITY: CLEVELAND STATE: OH ZIP CODE: 44131
PHONE NO.: 216.706.1320 E-MAIL ADDRESS: MShaner@haleyaldrich.com

PROJECT NO./NAME: RACER GMPT LIVONIA
SAMPLER(S) - PLEASE PRINT/SIGN NAME: COLE BARNETT / C. Barnett

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☒ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TCL VOC	TCL PCB	PAH	MI 10 METALS
53345.01	07/23/12	0100	0908-072312-0001	TB	1						1		X			
.02		1120	SB168-(0723-12)(6-8)	S	2	1					1		X	X	X	X
.03		1314	SB137 (07.23.12) (22-24)		2	1					1		X	X	X	X
.04	↓	1520	SB136 (07-23-12) (22-24)		2	1					1		X	X	X	X
.05	07/24/12	0830	SB139 (07.24.12) (22-24)		2	1					1		X	X	X	X
.06		1035	SB135 (07.24.12) (2-4)		2	1					1		X	X	X	X
.07		1240	SB166 (07.24.12) (4-6)		2	1					1		X	X	X	X
.08			DUP 3 (07-24-12)		2	1					1		X	X	X	X
.09		1400	SB152 (07.24.12) (4-6)		2	1					1		X	X	X	X
.10	07/25/12	1630	SB167 (07.24.12) (2-4)		2	1					1		X	X	X	X
.11	07/25/12	0850	SB126 (07-25-12) (24-26)		2	1					1		X	X	X	X
.12	↓	1040	SB153 (07-25-12) (3.5-5.5)	↓	2	1					1		X	X	X	X

RELINQUISHED BY: SIGNATURE/ORGANIZATION: C. Barnett ☒ Sampler	DATE: 07/26/12	TIME: 1076	
RELINQUISHED BY: SIGNATURE/ORGANIZATION:	DATE	TIME	
RELINQUISHED BY: SIGNATURE/ORGANIZATION:	DATE	TIME	
RELINQUISHED BY: SIGNATURE/ORGANIZATION:	DATE	TIME	

RELINQUISHED BY: SIGNATURE/ORGANIZATION:	DATE	TIME	
RELINQUISHED BY: SIGNATURE/ORGANIZATION: Anthony Buff	DATE: 26/4/12	TIME: 1230	
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL: 5.4
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories, Inc.

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Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 2 OF 2

69772

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME
COMPANY
ADDRESS
CITY STATE ZIP CODE
PHONE NO. FAX NO. P.O. NO.
E-MAIL ADDRESS QUOTE NO.

SEE PG. 1, COC # 69771

INVOICE TO

CONTACT NAME ☐ SAME
COMPANY
ADDRESS
CITY STATE ZIP CODE
PHONE NO. E-MAIL ADDRESS

PROJECT NO./NAME: RIVER GMPT LIVONIA
SAMPLER(S) - PLEASE PRINT/SIGN NAME: COREY BAEVER / C. Baever

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☒ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TCL VOC	TCL PCB	PAH	MI 10 METALS
53345.13	07/25/12	1330	SB107 (07-25-12) (3-5)	S	2	1					1		X	X	X	X
.14		1430	SB111 (07-25-12) (0.5-2.5)		2	1					1		X	X	X	X
.15		1530	SB110 (07-25-12) (0.5-2.5)		2	1					1		X	X	X	X
.16	07/26/12	0915	SB119 (07-26-12) (3-5)	S	2	1					1		X	X	X	X

RELINQUISHED BY: SIGNATURE/ORGANIZATION C. Baever ☒ Sampler DATE 07/26/12 TIME 1046
RELINQUISHED BY: SIGNATURE/ORGANIZATION [illegible] DATE 7/26/12 TIME 1246
RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION Andrew Ball DATE 26 JUL 12 TIME 1230

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 5.4

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S53345
Client: HALEYALDRICH (Haley & Aldrich)
Project: RACER GMPT Livonia
Submitted: 07/26/2012 12:30 Login User: TSF

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.4
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☐ Yes	☒ No	☐ N/A	COC adequately filled out	Racer PO Info needed
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Accounts Payable

Address: Haley & Aldrich, Inc.
70 Blanchard Rd.
Ste. 430
Burlington, MA 01803-5100

Phone: 617-886-7400 FAX: 617-886-7900

Email: Haley Aldrich Invoice Group

Set ID: S53345 Location: HALEYALDRICH (Haley & Aldrich)

Project: RACER GMPT Livonia PO #: PO12727 Site: Site# 1195

Submitted: 07/26/2012 12:30 Due Date: 08/09/2012 Collected by: Corey Barnett Login by: TSF

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S53345.01	0908-072312-0001	Methanol	07/23/2012 01:00	69771
S53345.02	SB168-(07-23-12) (6-8)	Soil	07/23/2012 11:20	69771
S53345.03	SB137-(07-23-12) (22-24)	Soil	07/23/2012 13:15	69771
S53345.04	SB136-(07-23-12) (22-24)	Soil	07/23/2012 15:20	69771
S53345.05	SB139-(07-24-12) (22-24)	Soil	07/24/2012 08:30	69771
S53345.06	SB135-(07-24-12) (2-4)	Soil	07/24/2012 10:35	69771
S53345.07	SB166-(07-24-12) (4-6)	Soil	07/24/2012 12:40	69771
S53345.08	DUP3-(07-24-12)	Soil	07/24/2012 00:01	69771
S53345.09	SB152-(07-24-12) (4-6)	Soil	07/24/2012 14:00	69771
S53345.10	SB167-(07-24-12) (2-4)	Soil	07/24/2012 16:30	69771
S53345.11	SB126-(07-25-12) (24-26)	Soil	07/25/2012 08:50	69771
S53345.12	SB153-(07-25-12) (3.5-5.5)	Soil	07/25/2012 10:40	69771
S53345.13	SB107-(07-25-12) (3-5)	Soil	07/25/2012 13:30	69772
S53345.14	SB111-(07-25-12) (0.5-2.5)	Soil	07/25/2012 14:30	69772
S53345.15	SB110-(07-25-12) (0.5-2.5)	Soil	07/25/2012 15:30	69772
S53345.16	SB119-(07-26-12) (3-5)	Soil	07/26/2012 09:15	69772

Samples: S53345.01

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260TCL	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	mg/kg	08/06/2012
METHEXT	5035 Methanol Extraction	5035		04/18/2015

Samples: S53345.02-16

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260TCL	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	mg/kg	08/06/2012
METHEXT	5035 Methanol Extraction	5035		04/18/2015
1605S	Metal Digestion	3050B		01/19/2013
PNAEXTS	Semi Volatile Extraction	3550B		08/06/2012
1120S	Extraction, PCB	3550B		08/06/2012
4605	Total Solids	Std M 2540 B	%	08/20/2012
$PNA8270	Polynuclear Aromatics	SW8270C	mg/kg	09/01/2012
2115SMS	Arsenic	SW6020	mg/kg	01/19/2013
2120SMS	Barium	SW6020	mg/kg	01/19/2013
2135SMS	Cadmium	SW6020	mg/kg	01/19/2013
2145SMS	Chromium	SW6020	mg/kg	01/19/2013
2155SMS	Copper	SW6020	mg/kg	01/19/2013
2165SMS	Lead	SW6020	mg/kg	01/19/2013
2185S	Mercury	SW7471A	mg/kg	08/20/2012
2205SMS	Selenium	SW6020	mg/kg	01/19/2013
2215SMS	Silver	SW6020	mg/kg	01/19/2013
2245SMS	Zinc	SW6020	mg/kg	01/19/2013
1605HGS	Mercury Digestion	SW7471A		08/20/2012
$TCL8082C1	TCL PCB List (Column 1)	SW8082A	mg/kg	09/01/2012
$TCL8082C2	TCL PCB List (Column 2)	SW8082A	mg/kg	09/01/2012

MERIT LABORATORIES, INC.
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PHONE: 517-332-0167 FAX: 517-332-6333
FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

HALEY & ALDRICH
RACER GMPT LIVONIA

SDG Batch:
53360

Pages 1 - 694

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FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

HALEY & ALDRICH

PROJECT:
RACER GMPT LIVONIA

SDG Batch:
53360.01

Prepared by:
Merit Laboratories, Inc.

August 21, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53360.01 - .13

Deliverable	References		Pages		Checklist	
	Merit	CLP	From	To	Lab	Audit
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	62	☑	☐
4. **Volatiles Data**			63	339		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			340	443		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
6. **PCB Data**			444	564		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
c. Standards Data (All Instruments)						
Initial Calibration of Multicomponent Data	F. 6	F. VI			☑	☐
Chromatograms and Quantitation Reports for all IC Standards					☑	☐
Calibration Check Standard	F. 7b	F. VII			☑	☐
Chromatograms and Quantitation Reports for all CC Standards					☑	☐
d. Raw QC Data						
Chromatograms and Quantitation Reports - Column 1					☑	☐
Chromatograms and Quantitation Reports - Column 2					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
10. **Miscellaneous Data**			689	691		
Preparation / Extraction logbooks					☑	☐
11. **Shipping / Receiving Documents**			692	694		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53360.01 - .13

Deliverable	References Form	References CLP	Pages From	Pages To	Checklist Lab	Checklist Audit
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	62	☑	☐
7. **ICP/MS Metals Data**			565	664		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
8. **Mercury Data**			665	687		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
9. **Total Solids Data**			668	668		
Bench Sheet - sample and QC sample evaluation					☑	☐
11. **Shipping / Receiving Documents**			692	694		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

MERIT LABORATORIES, INC.
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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: RACER GMPT LIVONIA
Merit IDs: S53360.01-S53360.13

Field Sampling: Corey Barnett performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (07/27/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Prep Batch SP120801S02

- The MS/MSD had high RPDs for the compounds 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Fluoranthene, Benzo(a)anthracene, and Chrysene.

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120731B5:

- The CCC had the compounds Acetone, Methyl Acetate, 2-Butanone (MEK), and Methylene chloride outside of control limits.

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PCBs: The organic method utilized for this SDG was 8082A (GC/ECD). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barbara Ball

Barb Ball
QA Officer

08/21/12
Date

Analytical Laboratory Report

Report ID: S53360.01(01)
Generated on 08/07/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53360.01-S53360.13
Project: RACER GMPT Livonia
Collected Date: 07/26/2012 - 07/27/2012
Submitted Date/Time: 07/27/2012 15:00
Sampled by: Corey Barnett
P.O. #: PO12727

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (13 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S53360.01	0908-072612-0001	Water	07/26/2012 01:00
S53360.02	SB120 (07-26-12) (4-6)	Soil	07/26/2012 11:10
S53360.03	SB169 (07-26-12) (1.5-3.5)	Soil	07/26/2012 13:30
S53360.04	SB144 (07-26-12) (1.5-3.5)	Soil	07/26/2012 14:20
S53360.05	SB144 (07-26-12) (1.5-3.5) MS	Soil	07/26/2012 14:20
S53360.06	SB144 (07-26-12) (1.5-3.5) MSD	Soil	07/26/2012 14:20
S53360.07	SB144 (07-26-12) (7.5-9.5)	Soil	07/26/2012 14:30
S53360.08	SB145 (07-27-12) (2-4)	Soil	07/27/2012 08:30
S53360.09	SB145 (07-27-12) (6-8)	Soil	07/27/2012 08:40
S53360.10	SB106 (07-27-12) (8-10)	Soil	07/27/2012 10:30
S53360.11	SB106 (07-27-12) (32-34)	Soil	07/27/2012 11:30
S53360.12	SB100 (07-27-12) (2-4)	Soil	07/27/2012 11:40
S53360.13	SB101 (07-27-12) (2.5-4.5)	Soil	07/27/2012 13:10

Analytical Laboratory Report

Lab Sample ID: S53360.01
Sample Tag: 0908-072612-0001
Collected Date/Time: 07/26/2012 01:00
Matrix: Water
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/02/12 17:26	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/02/12 17:26	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/02/12 17:26	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/02/12 17:26	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/02/12 17:26	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/02/12 17:26	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/02/12 17:26	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/02/12 17:26	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/02/12 17:26	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/02/12 17:26	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/02/12 17:26	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/02/12 17:26	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	100-42-5	

Lab Sample ID: S53360.01 (continued)
Sample Tag: 0908-072612-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/02/12 17:26	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/02/12 17:26	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.02
Sample Tag: SB120 (07-26-12) (4-6)
Collected Date/Time: 07/26/2012 11:10
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	81	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	3.49	mg/kg	0.20	SW6020	08/01/12 15:34	PER	7440-38-2	
Barium	54.7	mg/kg	1.0	SW6020	08/01/12 15:34	PER	7440-39-3	
Cadmium	0.21	mg/kg	0.20	SW6020	08/01/12 15:34	PER	7440-43-9	
Chromium	7.59	mg/kg	0.50	SW6020	08/01/12 15:34	PER	7440-47-3	
Copper	17.2	mg/kg	0.50	SW6020	08/01/12 15:34	PER	7440-50-8	
Lead	8.97	mg/kg	0.30	SW6020	08/01/12 15:34	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:23	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 15:34	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 15:34	PER	7440-22-4	
Zinc	34.8	mg/kg	1.0	SW6020	08/01/12 15:34	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/02/12 14:21	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	83-32-9	

Lab Sample ID: S53360.02 (continued)
Sample Tag: SB120 (07-26-12) (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 17:24	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/01/12 05:34	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	08/01/12 05:34	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/01/12 05:34	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/01/12 05:34	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/01/12 05:34	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	08/01/12 05:34	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/01/12 05:34	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/01/12 05:34	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/01/12 05:34	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/01/12 05:34	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/01/12 05:34	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/01/12 05:34	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/01/12 05:34	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/01/12 05:34	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	108-87-2	

Lab Sample ID: S53360.02 (continued)
Sample Tag: SB120 (07-26-12) (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/01/12 05:34	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/01/12 05:34	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.03
Sample Tag: SB169 (07-26-12) (1.5-3.5)
Collected Date/Time: 07/26/2012 13:30
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	0.44	mg/kg	0.20	SW6020	08/01/12 15:36	PER	7440-38-2	
Barium	31.5	mg/kg	1.0	SW6020	08/01/12 15:36	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 15:36	PER	7440-43-9	
Chromium	3.52	mg/kg	0.50	SW6020	08/01/12 15:36	PER	7440-47-3	
Copper	4.80	mg/kg	0.50	SW6020	08/01/12 15:36	PER	7440-50-8	
Lead	4.00	mg/kg	0.30	SW6020	08/01/12 15:36	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:25	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 15:36	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 15:36	PER	7440-22-4	
Zinc	11.8	mg/kg	1.0	SW6020	08/01/12 15:36	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 15:17	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	83-32-9	X

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53360.03 (continued)
Sample Tag: SB169 (07-26-12) (1.5-3.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	208-96-8	X
Anthracene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	120-12-7	X
Benzo(a)anthracene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	56-55-3	X
Benzo(a)pyrene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	50-32-8	X
Benzo(b)fluoranthene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	205-99-2	X
Benzo(k)fluoranthene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	207-08-9	X
Benzo(ghi)perylene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	191-24-2	X
Chrysene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	53-70-3	X
Fluoranthene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	206-44-0	X
Fluorene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	86-73-7	X
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	193-39-5	X
Naphthalene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	91-20-3	X
Phenanthrene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	85-01-8	X
Pyrene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	400	SW8270C	08/03/12 18:32	PL	90-12-0	X
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/01/12 05:54	WAT	76-13-1	
Acetone	Not detected	ug/kg	930	5035/8260B	08/01/12 05:54	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/01/12 05:54	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/01/12 05:54	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/01/12 05:54	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	930	5035/8260B	08/01/12 05:54	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/01/12 05:54	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/01/12 05:54	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/01/12 05:54	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/01/12 05:54	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/01/12 05:54	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/01/12 05:54	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/01/12 05:54	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/01/12 05:54	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	75-27-4	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53360.03 (continued)
Sample Tag: SB169 (07-26-12) (1.5-3.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 05:54	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/01/12 05:54	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.04
Sample Tag: SB144 (07-26-12) (1.5-3.5)
Collected Date/Time: 07/26/2012 14:20
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	92	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	0.44	mg/kg	0.20	SW6020	08/01/12 15:39	PER	7440-38-2	
Barium	27.5	mg/kg	1.0	SW6020	08/01/12 15:39	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 15:39	PER	7440-43-9	
Chromium	3.04	mg/kg	0.50	SW6020	08/01/12 15:39	PER	7440-47-3	
Copper	4.95	mg/kg	0.50	SW6020	08/01/12 15:39	PER	7440-50-8	
Lead	3.57	mg/kg	0.30	SW6020	08/01/12 15:39	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:43	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 15:39	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 15:39	PER	7440-22-4	
Zinc	10.7	mg/kg	1.0	SW6020	08/01/12 15:39	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/02/12 13:18	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	83-32-9	X

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53360.04 (continued)
Sample Tag: SB144 (07-26-12) (1.5-3.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	208-96-8	X
Anthracene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	120-12-7	X
Benzo(a)anthracene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	56-55-3	X
Benzo(a)pyrene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	50-32-8	X
Benzo(b)fluoranthene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	205-99-2	X
Benzo(k)fluoranthene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	207-08-9	X
Benzo(ghi)perylene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	191-24-2	X
Chrysene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	53-70-3	X
Fluoranthene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	206-44-0	X
Fluorene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	86-73-7	X
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	193-39-5	X
Naphthalene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	91-20-3	X
Phenanthrene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	85-01-8	X
Pyrene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	1,400	SW8270C	08/03/12 18:54	PL	90-12-0	X
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/01/12 06:14	WAT	76-13-1	
Acetone	Not detected	ug/kg	900	5035/8260B	08/01/12 06:14	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/01/12 06:14	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/01/12 06:14	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/01/12 06:14	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	900	5035/8260B	08/01/12 06:14	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/01/12 06:14	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/01/12 06:14	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/01/12 06:14	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/01/12 06:14	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/01/12 06:14	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/01/12 06:14	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/01/12 06:14	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/01/12 06:14	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	75-27-4	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53360.04 (continued)
Sample Tag: SB144 (07-26-12) (1.5-3.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:14	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/01/12 06:14	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.05
Sample Tag: SB144 (07-26-12) (1.5-3.5) MS
Collected Date/Time: 07/26/2012 14:20
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	23.1	mg/kg	0.20	SW6020	08/01/12 15:41	PER	7440-38-2	
Barium	45.7	mg/kg	1.0	SW6020	08/01/12 15:41	PER	7440-39-3	
Cadmium	21.9	mg/kg	0.20	SW6020	08/01/12 15:41	PER	7440-43-9	
Chromium	26.5	mg/kg	0.50	SW6020	08/01/12 15:41	PER	7440-47-3	
Copper	26.6	mg/kg	0.50	SW6020	08/01/12 15:41	PER	7440-50-8	
Lead	23.9	mg/kg	0.30	SW6020	08/01/12 15:41	PER	7439-92-1	
Mercury	0.118	mg/kg	0.050	SW7471A	08/02/12 15:46	JRT	7439-97-6	
Selenium	20.5	mg/kg	0.50	SW6020	08/01/12 15:41	PER	7782-49-2	
Silver	20.6	mg/kg	0.10	SW6020	08/01/12 15:41	PER	7440-22-4	
Zinc	32.6	mg/kg	1.0	SW6020	08/01/12 15:41	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	20	ug/kg	330	SW8082A	08/02/12 13:55	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	08/02/12 13:55	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	20	ug/kg	330	SW8082A	08/02/12 13:55	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 13:55	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	08/02/12 13:55	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	83-32-9	X1

X-Elevated reporting limit due to matrix interference 1-Sample spiked at 1.8 mg/kg

Lab Sample ID: S53360.05 (continued)
Sample Tag: SB144 (07-26-12) (1.5-3.5) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	208-96-8	X1
Anthracene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	120-12-7	X1
Benzo(a)anthracene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	56-55-3	X1
Benzo(a)pyrene	2,000	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	50-32-8	X1
Benzo(b)fluoranthene	2,100	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	205-99-2	X1
Benzo(k)fluoranthene	1,900	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	207-08-9	X1
Benzo(ghi)perylene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	191-24-2	X1
Chrysene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	218-01-9	X1
Dibenzo(ah)anthracene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	53-70-3	X1
Fluoranthene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	206-44-0	X1
Fluorene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	86-73-7	X1
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	193-39-5	X1
Naphthalene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	91-20-3	X1
Phenanthrene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	85-01-8	X1
Pyrene	1,600	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	129-00-0	X1
2-Methylnaphthalene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	91-57-6	X1
1-Methylnaphthalene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:17	PL	90-12-0	X1
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	3,100	ug/kg	100	5035/8260B	08/01/12 08:56	WAT	76-13-1	2
Acetone	3,550	ug/kg	900	5035/8260B	08/01/12 08:56	WAT	67-64-1	2
Carbon disulfide	2,500	ug/kg	300	5035/8260B	08/01/12 08:56	WAT	75-15-0	2
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/01/12 08:56	WAT	79-20-9	2
tert-Methyl butyl ether (MTBE)	2,900	ug/kg	300	5035/8260B	08/01/12 08:56	WAT	1634-04-4	2
2-Butanone (MEK)	3,240	ug/kg	900	5035/8260B	08/01/12 08:56	WAT	78-93-3	2
Dichlorodifluoromethane	2,510	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	75-71-8	2
Chloromethane	2,600	ug/kg	300	5035/8260B	08/01/12 08:56	WAT	74-87-3	2
Vinyl chloride	2,800	ug/kg	100	5035/8260B	08/01/12 08:56	WAT	75-01-4	2
Bromomethane	2,900	ug/kg	300	5035/8260B	08/01/12 08:56	WAT	74-83-9	2
Chloroethane	3,100	ug/kg	300	5035/8260B	08/01/12 08:56	WAT	75-00-3	2
Trichlorofluoromethane	3,400	ug/kg	100	5035/8260B	08/01/12 08:56	WAT	75-69-4	2
1,1-Dichloroethene	2,850	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	75-35-4	2
Methylene chloride	2,600	ug/kg	300	5035/8260B	08/01/12 08:56	WAT	75-09-2	2
trans-1,2-Dichloroethene	2,770	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	156-60-5	2
1,1-Dichloroethane	2,790	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	75-34-3	2
cis-1,2-Dichloroethene	2,830	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	156-59-2	2
Chloroform	2,870	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	67-66-3	2
1,1,1-Trichloroethane	3,100	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	71-55-6	2
Cyclohexane	2,280	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	110-82-7	2
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/01/12 08:56	WAT	108-10-1	2
2-Hexanone	3,000	ug/kg	3,000	5035/8260B	08/01/12 08:56	WAT	591-78-6	2
Carbon tetrachloride	3,170	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	56-23-5	2
Benzene	2,860	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	71-43-2	2
1,2-Dichloroethane	2,970	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	107-06-2	2
Trichloroethene	2,970	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	79-01-6	2
1,2-Dichloropropane	2,840	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	78-87-5	2

X-Elevated reporting limit due to matrix interference 1-Sample spiked at 1.8 mg/kg
2-Spiked at 2.5mg/kg

Lab Sample ID: S53360.05 (continued)
Sample Tag: SB144 (07-26-12) (1.5-3.5) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Bromodichloromethane	3,020	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	75-27-4	1
Methyl cyclohexane	3,040	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	108-87-2	1
cis-1,3-Dichloropropene	2,950	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	10061-01-5	1
Toluene	2,960	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	108-88-3	1
trans-1,3-Dichloropropene	3,010	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	10061-02-6	1
1,1,2-Trichloroethane	2,870	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	79-00-5	1
Tetrachloroethene	2,850	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	127-18-4	1
Dibromochloromethane	3,220	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	124-48-1	1
1,2-Dibromoethane	3,090	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	106-93-4	1
Chlorobenzene	2,950	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	108-90-7	1
1,1,2,2-Tetrachloroethane	3,030	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	79-34-5	1
Ethylbenzene	3,110	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	100-41-4	1
p,m-Xylene	6,160	ug/kg	60	5035/8260B	08/01/12 08:56	WAT		1
o-Xylene	3,130	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	95-47-6	1
Styrene	3,040	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	100-42-5	1
Isopropylbenzene	3,220	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	98-82-8	1
Bromoform	3,030	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	75-25-2	1
1,3-Dichlorobenzene	3,110	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	541-73-1	1
1,4-Dichlorobenzene	3,020	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	106-46-7	1
1,2-Dichlorobenzene	3,150	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	95-50-1	1
1,2-Dibromo-3-chloropropane	3,390	ug/kg	60	5035/8260B	08/01/12 08:56	WAT	96-12-8	1
1,2,4-Trichlorobenzene	3,000	ug/kg	100	5035/8260B	08/01/12 08:56	WAT	120-82-1	1

1-Spiked at 2.5mg/kg

Analytical Laboratory Report

Lab Sample ID: S53360.06
Sample Tag: SB144 (07-26-12) (1.5-3.5) MSD
Collected Date/Time: 07/26/2012 14:20
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	22.7	mg/kg	0.20	SW6020	08/01/12 15:45	PER	7440-38-2	
Barium	44.9	mg/kg	1.0	SW6020	08/01/12 15:45	PER	7440-39-3	
Cadmium	22.4	mg/kg	0.20	SW6020	08/01/12 15:45	PER	7440-43-9	
Chromium	26.8	mg/kg	0.50	SW6020	08/01/12 15:45	PER	7440-47-3	
Copper	26.2	mg/kg	0.50	SW6020	08/01/12 15:45	PER	7440-50-8	
Lead	23.9	mg/kg	0.30	SW6020	08/01/12 15:45	PER	7439-92-1	
Mercury	0.118	mg/kg	0.050	SW7471A	08/02/12 15:48	JRT	7439-97-6	
Selenium	20.5	mg/kg	0.50	SW6020	08/01/12 15:45	PER	7782-49-2	
Silver	21.0	mg/kg	0.10	SW6020	08/01/12 15:45	PER	7440-22-4	
Zinc	32.5	mg/kg	1.0	SW6020	08/01/12 15:45	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	20	ug/kg	330	SW8082A	08/02/12 14:08	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	08/02/12 14:08	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	20	ug/kg	330	SW8082A	08/02/12 14:08	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 14:08	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	08/02/12 14:08	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	1,600	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	83-32-9	X1

X-Elevated reporting limit due to matrix interference 1-Sample spiked at 1.8 mg/kg

Lab Sample ID: S53360.06 (continued)
Sample Tag: SB144 (07-26-12) (1.5-3.5) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	1,500	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	208-96-8	X1
Anthracene	1,600	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	120-12-7	X1
Benzo(a)anthracene	2,100	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	56-55-3	X1
Benzo(a)pyrene	2,200	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	50-32-8	X1
Benzo(b)fluoranthene	2,300	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	205-99-2	X1
Benzo(k)fluoranthene	2,200	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	207-08-9	X1
Benzo(ghi)perylene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	191-24-2	X1
Chrysene	1,800	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	218-01-9	X1
Dibenzo(ah)anthracene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	53-70-3	X1
Fluoranthene	1,800	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	206-44-0	X1
Fluorene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	86-73-7	X1
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	193-39-5	X1
Naphthalene	1,500	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	91-20-3	X1
Phenanthrene	1,600	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	85-01-8	X1
Pyrene	2,000	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	129-00-0	X1
2-Methylnaphthalene	1,600	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	91-57-6	X1
1-Methylnaphthalene	Not detected	ug/kg	1,500	SW8270C	08/03/12 19:40	PL	90-12-0	X1
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	3,200	ug/kg	100	5035/8260B	08/01/12 09:16	WAT	76-13-1	2
Acetone	3,260	ug/kg	900	5035/8260B	08/01/12 09:16	WAT	67-64-1	2
Carbon disulfide	2,600	ug/kg	300	5035/8260B	08/01/12 09:16	WAT	75-15-0	2
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/01/12 09:16	WAT	79-20-9	2
tert-Methyl butyl ether (MTBE)	3,000	ug/kg	300	5035/8260B	08/01/12 09:16	WAT	1634-04-4	2
2-Butanone (MEK)	3,220	ug/kg	900	5035/8260B	08/01/12 09:16	WAT	78-93-3	2
Dichlorodifluoromethane	2,550	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	75-71-8	2
Chloromethane	2,700	ug/kg	300	5035/8260B	08/01/12 09:16	WAT	74-87-3	2
Vinyl chloride	2,800	ug/kg	100	5035/8260B	08/01/12 09:16	WAT	75-01-4	2
Bromomethane	3,000	ug/kg	300	5035/8260B	08/01/12 09:16	WAT	74-83-9	2
Chloroethane	3,200	ug/kg	300	5035/8260B	08/01/12 09:16	WAT	75-00-3	2
Trichlorofluoromethane	3,600	ug/kg	100	5035/8260B	08/01/12 09:16	WAT	75-69-4	2
1,1-Dichloroethene	2,830	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	75-35-4	2
Methylene chloride	2,700	ug/kg	300	5035/8260B	08/01/12 09:16	WAT	75-09-2	2
trans-1,2-Dichloroethene	2,880	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	156-60-5	2
1,1-Dichloroethane	2,910	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	75-34-3	2
cis-1,2-Dichloroethene	2,940	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	156-59-2	2
Chloroform	2,990	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	67-66-3	2
1,1,1-Trichloroethane	3,250	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	71-55-6	2
Cyclohexane	2,460	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	110-82-7	2
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/01/12 09:16	WAT	108-10-1	2
2-Hexanone	3,000	ug/kg	3,000	5035/8260B	08/01/12 09:16	WAT	591-78-6	2
Carbon tetrachloride	3,260	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	56-23-5	2
Benzene	2,890	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	71-43-2	2
1,2-Dichloroethane	2,990	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	107-06-2	2
Trichloroethene	2,970	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	79-01-6	2
1,2-Dichloropropane	2,860	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	78-87-5	2

X-Elevated reporting limit due to matrix interference 1-Sample spiked at 1.8 mg/kg
2-Spiked at 2.5mg/kg

Lab Sample ID: S53360.06 (continued)
Sample Tag: SB144 (07-26-12) (1.5-3.5) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Bromodichloromethane	3,060	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	75-27-4	1
Methyl cyclohexane	3,130	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	108-87-2	1
cis-1,3-Dichloropropene	3,010	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	10061-01-5	1
Toluene	2,990	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	108-88-3	1
trans-1,3-Dichloropropene	3,080	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	10061-02-6	1
1,1,2-Trichloroethane	2,890	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	79-00-5	1
Tetrachloroethene	2,910	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	127-18-4	1
Dibromochloromethane	3,280	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	124-48-1	1
1,2-Dibromoethane	3,070	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	106-93-4	1
Chlorobenzene	2,970	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	108-90-7	1
1,1,2,2-Tetrachloroethane	3,060	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	79-34-5	1
Ethylbenzene	3,110	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	100-41-4	1
p,m-Xylene	6,180	ug/kg	60	5035/8260B	08/01/12 09:16	WAT		1
o-Xylene	3,150	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	95-47-6	1
Styrene	3,040	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	100-42-5	1
Isopropylbenzene	3,260	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	98-82-8	1
Bromoform	3,100	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	75-25-2	1
1,3-Dichlorobenzene	3,130	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	541-73-1	1
1,4-Dichlorobenzene	3,020	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	106-46-7	1
1,2-Dichlorobenzene	3,180	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	95-50-1	1
1,2-Dibromo-3-chloropropane	3,450	ug/kg	60	5035/8260B	08/01/12 09:16	WAT	96-12-8	1
1,2,4-Trichlorobenzene	3,100	ug/kg	100	5035/8260B	08/01/12 09:16	WAT	120-82-1	1

1-Spiked at 2.5mg/kg

Analytical Laboratory Report

Lab Sample ID: S53360.07
Sample Tag: SB144 (07-26-12) (7.5-9.5)
Collected Date/Time: 07/26/2012 14:30
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	87	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	1.59	mg/kg	0.20	SW6020	08/01/12 15:49	PER	7440-38-2	
Barium	58.0	mg/kg	1.0	SW6020	08/01/12 15:49	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 15:49	PER	7440-43-9	
Chromium	6.78	mg/kg	0.50	SW6020	08/01/12 15:49	PER	7440-47-3	
Copper	5.91	mg/kg	0.50	SW6020	08/01/12 15:49	PER	7440-50-8	
Lead	4.92	mg/kg	0.30	SW6020	08/01/12 15:49	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:28	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 15:49	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 15:49	PER	7440-22-4	
Zinc	19.6	mg/kg	1.0	SW6020	08/01/12 15:49	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 13:50	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	83-32-9	

Lab Sample ID: S53360.07 (continued)
Sample Tag: SB144 (07-26-12) (7.5-9.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 12:30	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/01/12 06:34	WAT	76-13-1	
Acetone	Not detected	ug/kg	960	5035/8260B	08/01/12 06:34	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/01/12 06:34	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/01/12 06:34	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/01/12 06:34	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	960	5035/8260B	08/01/12 06:34	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/01/12 06:34	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/01/12 06:34	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/01/12 06:34	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/01/12 06:34	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/01/12 06:34	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/01/12 06:34	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/01/12 06:34	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/01/12 06:34	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	108-87-2	

Lab Sample ID: S53360.07 (continued)
Sample Tag: SB144 (07-26-12) (7.5-9.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:34	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/01/12 06:34	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.08
Sample Tag: SB145 (07-27-12) (2-4)
Collected Date/Time: 07/27/2012 08:30
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	0.48	mg/kg	0.20	SW6020	08/01/12 15:51	PER	7440-38-2	
Barium	17.7	mg/kg	1.0	SW6020	08/01/12 15:51	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 15:51	PER	7440-43-9	
Chromium	3.65	mg/kg	0.50	SW6020	08/01/12 15:51	PER	7440-47-3	
Copper	4.51	mg/kg	0.50	SW6020	08/01/12 15:51	PER	7440-50-8	
Lead	2.50	mg/kg	0.30	SW6020	08/01/12 15:51	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:30	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 15:51	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 15:51	PER	7440-22-4	
Zinc	8.27	mg/kg	1.0	SW6020	08/01/12 15:51	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 14:03	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	83-32-9	

Lab Sample ID: S53360.08 (continued)
Sample Tag: SB145 (07-27-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 12:52	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/01/12 06:54	WAT	76-13-1	
Acetone	Not detected	ug/kg	940	5035/8260B	08/01/12 06:54	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/01/12 06:54	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/01/12 06:54	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/01/12 06:54	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	940	5035/8260B	08/01/12 06:54	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/01/12 06:54	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/01/12 06:54	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/01/12 06:54	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/01/12 06:54	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/01/12 06:54	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/01/12 06:54	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/01/12 06:54	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/01/12 06:54	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	108-87-2	

Lab Sample ID: S53360.08 (continued)
Sample Tag: SB145 (07-27-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 06:54	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/01/12 06:54	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.09
Sample Tag: SB145 (07-27-12) (6-8)
Collected Date/Time: 07/27/2012 08:40
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	82	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	1.31	mg/kg	0.20	SW6020	08/01/12 15:53	PER	7440-38-2	
Barium	72.2	mg/kg	1.0	SW6020	08/01/12 15:53	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 15:53	PER	7440-43-9	
Chromium	8.93	mg/kg	0.50	SW6020	08/01/12 15:53	PER	7440-47-3	
Copper	6.23	mg/kg	0.50	SW6020	08/01/12 15:53	PER	7440-50-8	
Lead	5.60	mg/kg	0.30	SW6020	08/01/12 15:53	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:32	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 15:53	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 15:53	PER	7440-22-4	
Zinc	23.8	mg/kg	1.0	SW6020	08/01/12 15:53	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 14:14	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	83-32-9	

Lab Sample ID: S53360.09 (continued)
Sample Tag: SB145 (07-27-12) (6-8)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 13:15	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	90	5035/8260B	08/01/12 07:14	WAT	76-13-1	
Acetone	Not detected	ug/kg	670	5035/8260B	08/01/12 07:14	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	200	5035/8260B	08/01/12 07:14	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	2,000	5035/8260B	08/01/12 07:14	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	5035/8260B	08/01/12 07:14	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	670	5035/8260B	08/01/12 07:14	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	200	5035/8260B	08/01/12 07:14	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	90	5035/8260B	08/01/12 07:14	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	200	5035/8260B	08/01/12 07:14	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	200	5035/8260B	08/01/12 07:14	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	90	5035/8260B	08/01/12 07:14	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	200	5035/8260B	08/01/12 07:14	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	156-59-2	
Chloroform	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	2,000	5035/8260B	08/01/12 07:14	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	2,000	5035/8260B	08/01/12 07:14	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	56-23-5	
Benzene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	108-87-2	

Lab Sample ID: S53360.09 (continued)
Sample Tag: SB145 (07-27-12) (6-8)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	10061-01-5	
Toluene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT		
o-Xylene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	95-47-6	
Styrene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	98-82-8	
Bromoform	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	40	5035/8260B	08/01/12 07:14	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	90	5035/8260B	08/01/12 07:14	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.10
Sample Tag: SB106 (07-27-12) (8-10)
Collected Date/Time: 07/27/2012 10:30
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	0.44	mg/kg	0.20	SW6020	08/01/12 15:55	PER	7440-38-2	
Barium	25.7	mg/kg	1.0	SW6020	08/01/12 15:55	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 15:55	PER	7440-43-9	
Chromium	2.83	mg/kg	0.50	SW6020	08/01/12 15:55	PER	7440-47-3	
Copper	2.88	mg/kg	0.50	SW6020	08/01/12 15:55	PER	7440-50-8	
Lead	3.18	mg/kg	0.30	SW6020	08/01/12 15:55	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:34	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 15:55	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 15:55	PER	7440-22-4	
Zinc	7.45	mg/kg	1.0	SW6020	08/01/12 15:55	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 14:24	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	83-32-9	

Lab Sample ID: S53360.10 (continued)
Sample Tag: SB106 (07-27-12) (8-10)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 13:38	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/01/12 07:34	WAT	76-13-1	
Acetone	Not detected	ug/kg	940	5035/8260B	08/01/12 07:34	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/01/12 07:34	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/01/12 07:34	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/01/12 07:34	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	940	5035/8260B	08/01/12 07:34	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/01/12 07:34	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/01/12 07:34	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/01/12 07:34	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/01/12 07:34	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/01/12 07:34	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/01/12 07:34	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/01/12 07:34	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/01/12 07:34	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	108-87-2	

Lab Sample ID: S53360.10 (continued)
Sample Tag: SB106 (07-27-12) (8-10)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 07:34	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/01/12 07:34	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.11
Sample Tag: SB106 (07-27-12) (32-34)
Collected Date/Time: 07/27/2012 11:30
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	83	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	5.41	mg/kg	0.20	SW6020	08/01/12 15:57	PER	7440-38-2	
Barium	66.6	mg/kg	1.0	SW6020	08/01/12 15:57	PER	7440-39-3	
Cadmium	0.25	mg/kg	0.20	SW6020	08/01/12 15:57	PER	7440-43-9	
Chromium	9.27	mg/kg	0.50	SW6020	08/01/12 15:57	PER	7440-47-3	
Copper	16.4	mg/kg	0.50	SW6020	08/01/12 15:57	PER	7440-50-8	
Lead	8.40	mg/kg	0.30	SW6020	08/01/12 15:57	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:37	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 15:57	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 15:57	PER	7440-22-4	
Zinc	34.8	mg/kg	1.0	SW6020	08/01/12 15:57	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/01/12 14:35	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	83-32-9	

Lab Sample ID: S53360.11 (continued)
Sample Tag: SB106 (07-27-12) (32-34)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 14:00	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/01/12 07:55	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	08/01/12 07:55	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/01/12 07:55	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/01/12 07:55	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/01/12 07:55	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	08/01/12 07:55	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/01/12 07:55	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/01/12 07:55	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/01/12 07:55	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/01/12 07:55	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/01/12 07:55	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/01/12 07:55	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/01/12 07:55	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/01/12 07:55	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	108-87-2	

Lab Sample ID: S53360.11 (continued)
Sample Tag: SB106 (07-27-12) (32-34)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/01/12 07:55	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/01/12 07:55	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.12
Sample Tag: SB100 (07-27-12) (2-4)
Collected Date/Time: 07/27/2012 11:40
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	1.09	mg/kg	0.20	SW6020	08/01/12 15:59	PER	7440-38-2	
Barium	27.8	mg/kg	1.0	SW6020	08/01/12 15:59	PER	7440-39-3	
Cadmium	0.27	mg/kg	0.20	SW6020	08/01/12 15:59	PER	7440-43-9	
Chromium	3.14	mg/kg	0.50	SW6020	08/01/12 15:59	PER	7440-47-3	
Copper	17.4	mg/kg	0.50	SW6020	08/01/12 15:59	PER	7440-50-8	
Lead	38.4	mg/kg	0.30	SW6020	08/01/12 15:59	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:39	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 15:59	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 15:59	PER	7440-22-4	
Zinc	31.1	mg/kg	1.0	SW6020	08/01/12 15:59	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/02/12 12:57	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 20:25	PL	83-32-9	

Lab Sample ID: S53360.12 (continued)
Sample Tag: SB100 (07-27-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 20:25	PL	208-96-8	
Anthracene	600	ug/kg	300	SW8270C	08/03/12 20:25	PL	120-12-7	
Benzo(a)anthracene	2,500	ug/kg	300	SW8270C	08/03/12 20:25	PL	56-55-3	
Benzo(a)pyrene	3,400	ug/kg	300	SW8270C	08/03/12 20:25	PL	50-32-8	
Benzo(b)fluoranthene	5,300	ug/kg	300	SW8270C	08/03/12 20:25	PL	205-99-2	p
Benzo(k)fluoranthene	5,800	ug/kg	300	SW8270C	08/03/12 20:25	PL	207-08-9	p
Benzo(ghi)perylene	1,900	ug/kg	300	SW8270C	08/03/12 20:25	PL	191-24-2	
Chrysene	2,600	ug/kg	300	SW8270C	08/03/12 20:25	PL	218-01-9	
Dibenzo(ah)anthracene	500	ug/kg	300	SW8270C	08/03/12 20:25	PL	53-70-3	
Fluoranthene	5,000	ug/kg	300	SW8270C	08/03/12 20:25	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 20:25	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	1,600	ug/kg	300	SW8270C	08/03/12 20:25	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 20:25	PL	91-20-3	
Phenanthrene	2,600	ug/kg	300	SW8270C	08/03/12 20:25	PL	85-01-8	
Pyrene	4,700	ug/kg	300	SW8270C	08/03/12 20:25	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 20:25	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 20:25	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/01/12 08:15	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	08/01/12 08:15	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/01/12 08:15	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/01/12 08:15	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/01/12 08:15	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	08/01/12 08:15	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/01/12 08:15	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/01/12 08:15	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/01/12 08:15	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/01/12 08:15	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/01/12 08:15	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/01/12 08:15	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/01/12 08:15	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/01/12 08:15	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	75-27-4	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S53360.12 (continued)
Sample Tag: SB100 (07-27-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/01/12 08:15	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/01/12 08:15	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53360.13
Sample Tag: SB101 (07-27-12) (2.5-4.5)
Collected Date/Time: 07/27/2012 13:10
Matrix: Soil
COC Reference: 69773

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/01/12 10:59	CCM		
Mercury Digestion	Completed			SW7471A	08/02/12 12:10	JRH		
Metal Digestion	Completed			3050B	08/01/12 10:00	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	90	%	1	Std M 2540 B	07/31/12 15:00	RGS		
Metals								
Arsenic	0.75	mg/kg	0.20	SW6020	08/01/12 16:01	PER	7440-38-2	
Barium	31.5	mg/kg	1.0	SW6020	08/01/12 16:01	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/01/12 16:01	PER	7440-43-9	
Chromium	4.37	mg/kg	0.50	SW6020	08/01/12 16:01	PER	7440-47-3	
Copper	9.39	mg/kg	0.50	SW6020	08/01/12 16:01	PER	7440-50-8	
Lead	9.83	mg/kg	0.30	SW6020	08/01/12 16:01	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/02/12 15:41	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/01/12 16:01	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/01/12 16:01	PER	7440-22-4	
Zinc	15.7	mg/kg	1.0	SW6020	08/01/12 16:01	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/02/12 13:08	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	83-32-9	

Lab Sample ID: S53360.13 (continued)
Sample Tag: SB101 (07-27-12) (2.5-4.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 14:23	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/01/12 08:35	WAT	76-13-1	
Acetone	Not detected	ug/kg	920	5035/8260B	08/01/12 08:35	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/01/12 08:35	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/01/12 08:35	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/01/12 08:35	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	920	5035/8260B	08/01/12 08:35	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/01/12 08:35	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/01/12 08:35	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/01/12 08:35	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/01/12 08:35	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/01/12 08:35	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/01/12 08:35	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/01/12 08:35	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/01/12 08:35	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	108-87-2	

Lab Sample ID: S53360.13 (continued)
Sample Tag: SB101 (07-27-12) (2.5-4.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/01/12 08:35	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/01/12 08:35	WAT	120-82-1	

Quality Control Cover Page

Report ID: S53360.01(01)
Report Date: 08/07/2012
Project: RACER GMPT Livonia
Lab Sample ID(s): S53360.01-S53360.13

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S53360.01	0908-072612-0001	07/26/2012 01:00	Water	Organics
S53360.02	SB120 (07-26-12) (4-6)	07/26/2012 11:10	Soil	Extraction / Prep., Inorganics, Metals,
S53360.03	SB169 (07-26-12) (1.5-3.5)	07/26/2012 13:30	Soil	Extraction / Prep., Inorganics, Metals,
S53360.04	SB144 (07-26-12) (1.5-3.5)	07/26/2012 14:20	Soil	Extraction / Prep., Inorganics, Metals,
S53360.05	SB144 (07-26-12) (1.5-3.5) MS	07/26/2012 14:20	Soil	Extraction / Prep., Inorganics, Metals,
S53360.06	SB144 (07-26-12) (1.5-3.5) MSD	07/26/2012 14:20	Soil	Extraction / Prep., Inorganics, Metals,
S53360.07	SB144 (07-26-12) (7.5-9.5)	07/26/2012 14:30	Soil	Extraction / Prep., Inorganics, Metals,
S53360.08	SB145 (07-27-12) (2-4)	07/27/2012 08:30	Soil	Extraction / Prep., Inorganics, Metals,
S53360.09	SB145 (07-27-12) (6-8)	07/27/2012 08:40	Soil	Extraction / Prep., Inorganics, Metals,
S53360.10	SB106 (07-27-12) (8-10)	07/27/2012 10:30	Soil	Extraction / Prep., Inorganics, Metals,
S53360.11	SB106 (07-27-12) (32-34)	07/27/2012 11:30	Soil	Extraction / Prep., Inorganics, Metals,
S53360.12	SB100 (07-27-12) (2-4)	07/27/2012 11:40	Soil	Extraction / Prep., Inorganics, Metals,
S53360.13	SB101 (07-27-12) (2.5-4.5)	07/27/2012 13:10	Soil	Extraction / Prep., Inorganics, Metals,

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S53360.01(01)
Generated on 08/14/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53360.01-S53360.13
Project: RACER GMPT Livonia
Submitted Date/Time: 07/27/2012 15:00
Sampled by: Corey Barnett
P.O. #: PO12727

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-14)
Prep Batch Summary (Pages 15-19)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S53360.01
Sample Tag: 0908-072612-0001
Collected Date/Time: 07/26/2012 01:00
Matrix: Water
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/02/12 17:26	120802A3	VF120802W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53360.02
Sample Tag: SB120 (07-26-12) (4-6)
Collected Date/Time: 07/26/2012 11:10
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:34	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:34	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:34	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:34	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:34	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:34	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:23	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:34	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:34	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:34	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/02/12 14:21	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/02/12 14:21	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 17:24	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 05:34	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.03
Sample Tag: SB169 (07-26-12) (1.5-3.5)
Collected Date/Time: 07/26/2012 13:30
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:36	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:36	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:36	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:36	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:36	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:36	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:25	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:36	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:36	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:36	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/01/12 15:17	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/01/12 15:17	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 18:32	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 05:54	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.04
Sample Tag: SB144 (07-26-12) (1.5-3.5)
Collected Date/Time: 07/26/2012 14:20
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:39	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:39	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:39	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:39	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:39	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:39	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:43	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:39	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:39	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:39	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/02/12 13:18	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/02/12 13:18	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 18:54	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 06:14	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.05
Sample Tag: SB144 (07-26-12) (1.5-3.5) MS
Collected Date/Time: 07/26/2012 14:20
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:41	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:41	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:41	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:41	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:41	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:41	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:46	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:41	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:41	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:41	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/02/12 13:55	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/02/12 13:55	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 19:17	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 08:56	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.06
Sample Tag: SB144 (07-26-12) (1.5-3.5) MSD
Collected Date/Time: 07/26/2012 14:20
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:45	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:45	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:45	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:45	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:45	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:45	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:48	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:45	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:45	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:45	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/02/12 14:08	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/02/12 14:08	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 19:40	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 09:16	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.07
Sample Tag: SB144 (07-26-12) (7.5-9.5)
Collected Date/Time: 07/26/2012 14:30
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:49	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:49	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:49	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:49	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:49	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:49	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:28	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:49	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:49	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:49	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/01/12 13:50	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/01/12 13:50	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 12:30	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 06:34	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.08
Sample Tag: SB145 (07-27-12) (2-4)
Collected Date/Time: 07/27/2012 08:30
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:51	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:51	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:51	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:51	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:51	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:51	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:30	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:51	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:51	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:51	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/01/12 14:03	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/01/12 14:03	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 12:52	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 06:54	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

Lab Sample ID: S53360.09
Sample Tag: SB145 (07-27-12) (6-8)
Collected Date/Time: 07/27/2012 08:40
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:53	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:53	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:53	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:53	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:53	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:53	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:32	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:53	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:53	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:53	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/01/12 14:14	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/01/12 14:14	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 13:15	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 07:14	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.10
Sample Tag: SB106 (07-27-12) (8-10)
Collected Date/Time: 07/27/2012 10:30
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:55	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:55	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:55	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:55	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:55	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:55	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:34	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:55	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:55	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:55	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/01/12 14:24	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/01/12 14:24	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 13:38	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 07:34	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.11
Sample Tag: SB106 (07-27-12) (32-34)
Collected Date/Time: 07/27/2012 11:30
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:57	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:57	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:57	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:57	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:57	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:57	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:37	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:57	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:57	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:57	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/01/12 14:35	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/01/12 14:35	A120801	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 14:00	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 07:55	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.12
Sample Tag: SB100 (07-27-12) (2-4)
Collected Date/Time: 07/27/2012 11:40
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 15:59	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 15:59	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 15:59	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 15:59	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 15:59	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 15:59	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:39	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 15:59	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 15:59	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 15:59	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/02/12 12:57	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/02/12 12:57	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 20:25	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 08:15	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53360.13
Sample Tag: SB101 (07-27-12) (2.5-4.5)
Collected Date/Time: 07/27/2012 13:10
Matrix: Soil
COC Reference: 69773

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A	TS120731A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/01/12 16:01	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/01/12 16:01	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/01/12 16:01	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/01/12 16:01	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/01/12 16:01	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/01/12 16:01	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/02/12 15:41	HG2-12-0802A	HGD-080212-2	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/01/12 16:01	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/01/12 16:01	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/01/12 16:01	MT2-12-0801A	MTD-080112-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/02/12 13:08	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/02/12 13:08	A120802	PA120801S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 14:23	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 08:35	120731B5	VF120731S4	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TS120731A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.02	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.03	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.04	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.05	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.06	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.07	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.08	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.09	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.10	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.11	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.12	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A
S53360.13	Total Solids	Std M 2540 B	07/31/12 15:00	TS120731A

Metals, Prep Batch ID: HGD-080212-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.02	Mercury	SW7471A	08/02/12 15:23	HG2-12-0802A
S53360.03	Mercury	SW7471A	08/02/12 15:25	HG2-12-0802A
S53360.04	Mercury	SW7471A	08/02/12 15:43	HG2-12-0802A
S53360.05	Mercury	SW7471A	08/02/12 15:46	HG2-12-0802A
S53360.06	Mercury	SW7471A	08/02/12 15:48	HG2-12-0802A
S53360.07	Mercury	SW7471A	08/02/12 15:28	HG2-12-0802A
S53360.08	Mercury	SW7471A	08/02/12 15:30	HG2-12-0802A
S53360.09	Mercury	SW7471A	08/02/12 15:32	HG2-12-0802A
S53360.10	Mercury	SW7471A	08/02/12 15:34	HG2-12-0802A
S53360.11	Mercury	SW7471A	08/02/12 15:37	HG2-12-0802A
S53360.12	Mercury	SW7471A	08/02/12 15:39	HG2-12-0802A
S53360.13	Mercury	SW7471A	08/02/12 15:41	HG2-12-0802A

Metals, Prep Batch ID: MTD-080112-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.02	Arsenic	SW6020	08/01/12 15:34	MT2-12-0801A
S53360.02	Barium	SW6020	08/01/12 15:34	MT2-12-0801A
S53360.02	Cadmium	SW6020	08/01/12 15:34	MT2-12-0801A
S53360.02	Chromium	SW6020	08/01/12 15:34	MT2-12-0801A
S53360.02	Copper	SW6020	08/01/12 15:34	MT2-12-0801A
S53360.02	Lead	SW6020	08/01/12 15:34	MT2-12-0801A
S53360.02	Selenium	SW6020	08/01/12 15:34	MT2-12-0801A
S53360.02	Silver	SW6020	08/01/12 15:34	MT2-12-0801A
S53360.02	Zinc	SW6020	08/01/12 15:34	MT2-12-0801A
S53360.03	Arsenic	SW6020	08/01/12 15:36	MT2-12-0801A
S53360.03	Barium	SW6020	08/01/12 15:36	MT2-12-0801A
S53360.03	Cadmium	SW6020	08/01/12 15:36	MT2-12-0801A
S53360.03	Chromium	SW6020	08/01/12 15:36	MT2-12-0801A
S53360.03	Copper	SW6020	08/01/12 15:36	MT2-12-0801A
S53360.03	Lead	SW6020	08/01/12 15:36	MT2-12-0801A
S53360.03	Selenium	SW6020	08/01/12 15:36	MT2-12-0801A
S53360.03	Silver	SW6020	08/01/12 15:36	MT2-12-0801A
S53360.03	Zinc	SW6020	08/01/12 15:36	MT2-12-0801A

Metals, Prep Batch ID: MTD-080112-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.04	Arsenic	SW6020	08/01/12 15:39	MT2-12-0801A
S53360.04	Barium	SW6020	08/01/12 15:39	MT2-12-0801A
S53360.04	Cadmium	SW6020	08/01/12 15:39	MT2-12-0801A
S53360.04	Chromium	SW6020	08/01/12 15:39	MT2-12-0801A
S53360.04	Copper	SW6020	08/01/12 15:39	MT2-12-0801A
S53360.04	Lead	SW6020	08/01/12 15:39	MT2-12-0801A
S53360.04	Selenium	SW6020	08/01/12 15:39	MT2-12-0801A
S53360.04	Silver	SW6020	08/01/12 15:39	MT2-12-0801A
S53360.04	Zinc	SW6020	08/01/12 15:39	MT2-12-0801A
S53360.05	Arsenic	SW6020	08/01/12 15:41	MT2-12-0801A
S53360.05	Barium	SW6020	08/01/12 15:41	MT2-12-0801A
S53360.05	Cadmium	SW6020	08/01/12 15:41	MT2-12-0801A
S53360.05	Chromium	SW6020	08/01/12 15:41	MT2-12-0801A
S53360.05	Copper	SW6020	08/01/12 15:41	MT2-12-0801A
S53360.05	Lead	SW6020	08/01/12 15:41	MT2-12-0801A
S53360.05	Selenium	SW6020	08/01/12 15:41	MT2-12-0801A
S53360.05	Silver	SW6020	08/01/12 15:41	MT2-12-0801A
S53360.05	Zinc	SW6020	08/01/12 15:41	MT2-12-0801A
S53360.06	Arsenic	SW6020	08/01/12 15:45	MT2-12-0801A
S53360.06	Barium	SW6020	08/01/12 15:45	MT2-12-0801A
S53360.06	Cadmium	SW6020	08/01/12 15:45	MT2-12-0801A
S53360.06	Chromium	SW6020	08/01/12 15:45	MT2-12-0801A
S53360.06	Copper	SW6020	08/01/12 15:45	MT2-12-0801A
S53360.06	Lead	SW6020	08/01/12 15:45	MT2-12-0801A
S53360.06	Selenium	SW6020	08/01/12 15:45	MT2-12-0801A
S53360.06	Silver	SW6020	08/01/12 15:45	MT2-12-0801A
S53360.06	Zinc	SW6020	08/01/12 15:45	MT2-12-0801A
S53360.07	Arsenic	SW6020	08/01/12 15:49	MT2-12-0801A
S53360.07	Barium	SW6020	08/01/12 15:49	MT2-12-0801A
S53360.07	Cadmium	SW6020	08/01/12 15:49	MT2-12-0801A
S53360.07	Chromium	SW6020	08/01/12 15:49	MT2-12-0801A
S53360.07	Copper	SW6020	08/01/12 15:49	MT2-12-0801A
S53360.07	Lead	SW6020	08/01/12 15:49	MT2-12-0801A
S53360.07	Selenium	SW6020	08/01/12 15:49	MT2-12-0801A
S53360.07	Silver	SW6020	08/01/12 15:49	MT2-12-0801A
S53360.07	Zinc	SW6020	08/01/12 15:49	MT2-12-0801A
S53360.08	Arsenic	SW6020	08/01/12 15:51	MT2-12-0801A
S53360.08	Barium	SW6020	08/01/12 15:51	MT2-12-0801A
S53360.08	Cadmium	SW6020	08/01/12 15:51	MT2-12-0801A
S53360.08	Chromium	SW6020	08/01/12 15:51	MT2-12-0801A
S53360.08	Copper	SW6020	08/01/12 15:51	MT2-12-0801A
S53360.08	Lead	SW6020	08/01/12 15:51	MT2-12-0801A
S53360.08	Selenium	SW6020	08/01/12 15:51	MT2-12-0801A
S53360.08	Silver	SW6020	08/01/12 15:51	MT2-12-0801A
S53360.08	Zinc	SW6020	08/01/12 15:51	MT2-12-0801A
S53360.09	Arsenic	SW6020	08/01/12 15:53	MT2-12-0801A
S53360.09	Barium	SW6020	08/01/12 15:53	MT2-12-0801A
S53360.09	Cadmium	SW6020	08/01/12 15:53	MT2-12-0801A
S53360.09	Chromium	SW6020	08/01/12 15:53	MT2-12-0801A

Metals, Prep Batch ID: MTD-080112-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.09	Copper	SW6020	08/01/12 15:53	MT2-12-0801A
S53360.09	Lead	SW6020	08/01/12 15:53	MT2-12-0801A
S53360.09	Selenium	SW6020	08/01/12 15:53	MT2-12-0801A
S53360.09	Silver	SW6020	08/01/12 15:53	MT2-12-0801A
S53360.09	Zinc	SW6020	08/01/12 15:53	MT2-12-0801A
S53360.10	Arsenic	SW6020	08/01/12 15:55	MT2-12-0801A
S53360.10	Barium	SW6020	08/01/12 15:55	MT2-12-0801A
S53360.10	Cadmium	SW6020	08/01/12 15:55	MT2-12-0801A
S53360.10	Chromium	SW6020	08/01/12 15:55	MT2-12-0801A
S53360.10	Copper	SW6020	08/01/12 15:55	MT2-12-0801A
S53360.10	Lead	SW6020	08/01/12 15:55	MT2-12-0801A
S53360.10	Selenium	SW6020	08/01/12 15:55	MT2-12-0801A
S53360.10	Silver	SW6020	08/01/12 15:55	MT2-12-0801A
S53360.10	Zinc	SW6020	08/01/12 15:55	MT2-12-0801A
S53360.11	Arsenic	SW6020	08/01/12 15:57	MT2-12-0801A
S53360.11	Barium	SW6020	08/01/12 15:57	MT2-12-0801A
S53360.11	Cadmium	SW6020	08/01/12 15:57	MT2-12-0801A
S53360.11	Chromium	SW6020	08/01/12 15:57	MT2-12-0801A
S53360.11	Copper	SW6020	08/01/12 15:57	MT2-12-0801A
S53360.11	Lead	SW6020	08/01/12 15:57	MT2-12-0801A
S53360.11	Selenium	SW6020	08/01/12 15:57	MT2-12-0801A
S53360.11	Silver	SW6020	08/01/12 15:57	MT2-12-0801A
S53360.11	Zinc	SW6020	08/01/12 15:57	MT2-12-0801A
S53360.12	Arsenic	SW6020	08/01/12 15:59	MT2-12-0801A
S53360.12	Barium	SW6020	08/01/12 15:59	MT2-12-0801A
S53360.12	Cadmium	SW6020	08/01/12 15:59	MT2-12-0801A
S53360.12	Chromium	SW6020	08/01/12 15:59	MT2-12-0801A
S53360.12	Copper	SW6020	08/01/12 15:59	MT2-12-0801A
S53360.12	Lead	SW6020	08/01/12 15:59	MT2-12-0801A
S53360.12	Selenium	SW6020	08/01/12 15:59	MT2-12-0801A
S53360.12	Silver	SW6020	08/01/12 15:59	MT2-12-0801A
S53360.12	Zinc	SW6020	08/01/12 15:59	MT2-12-0801A
S53360.13	Arsenic	SW6020	08/01/12 16:01	MT2-12-0801A
S53360.13	Barium	SW6020	08/01/12 16:01	MT2-12-0801A
S53360.13	Cadmium	SW6020	08/01/12 16:01	MT2-12-0801A
S53360.13	Chromium	SW6020	08/01/12 16:01	MT2-12-0801A
S53360.13	Copper	SW6020	08/01/12 16:01	MT2-12-0801A
S53360.13	Lead	SW6020	08/01/12 16:01	MT2-12-0801A
S53360.13	Selenium	SW6020	08/01/12 16:01	MT2-12-0801A
S53360.13	Silver	SW6020	08/01/12 16:01	MT2-12-0801A
S53360.13	Zinc	SW6020	08/01/12 16:01	MT2-12-0801A

Organics - PCBs/Pesticides, Prep Batch ID: PA120801S01

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.02	TCL PCB List (Column 1)	SW8082A	08/02/12 14:21	A120802
S53360.02	TCL PCB List (Column 2)	SW8082A	08/02/12 14:21	A120802
S53360.03	TCL PCB List (Column 1)	SW8082A	08/01/12 15:17	A120801
S53360.03	TCL PCB List (Column 2)	SW8082A	08/01/12 15:17	A120801

Organics - PCBs/Pesticides, Prep Batch ID: PA120801S01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.04	TCL PCB List (Column 1)	SW8082A	08/02/12 13:18	A120802
S53360.04	TCL PCB List (Column 2)	SW8082A	08/02/12 13:18	A120802
S53360.05	TCL PCB List (Column 1)	SW8082A	08/02/12 13:55	A120802
S53360.05	TCL PCB List (Column 2)	SW8082A	08/02/12 13:55	A120802
S53360.06	TCL PCB List (Column 1)	SW8082A	08/02/12 14:08	A120802
S53360.06	TCL PCB List (Column 2)	SW8082A	08/02/12 14:08	A120802
S53360.07	TCL PCB List (Column 1)	SW8082A	08/01/12 13:50	A120801
S53360.07	TCL PCB List (Column 2)	SW8082A	08/01/12 13:50	A120801
S53360.08	TCL PCB List (Column 1)	SW8082A	08/01/12 14:03	A120801
S53360.08	TCL PCB List (Column 2)	SW8082A	08/01/12 14:03	A120801
S53360.09	TCL PCB List (Column 1)	SW8082A	08/01/12 14:14	A120801
S53360.09	TCL PCB List (Column 2)	SW8082A	08/01/12 14:14	A120801
S53360.10	TCL PCB List (Column 1)	SW8082A	08/01/12 14:24	A120801
S53360.10	TCL PCB List (Column 2)	SW8082A	08/01/12 14:24	A120801
S53360.11	TCL PCB List (Column 1)	SW8082A	08/01/12 14:35	A120801
S53360.11	TCL PCB List (Column 2)	SW8082A	08/01/12 14:35	A120801
S53360.12	TCL PCB List (Column 1)	SW8082A	08/02/12 12:57	A120802
S53360.12	TCL PCB List (Column 2)	SW8082A	08/02/12 12:57	A120802
S53360.13	TCL PCB List (Column 1)	SW8082A	08/02/12 13:08	A120802
S53360.13	TCL PCB List (Column 2)	SW8082A	08/02/12 13:08	A120802

Organics - Semi-Volatiles, Prep Batch ID: SP120801S02

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.02	Polynuclear Aromatics	SW8270C	08/03/12 17:24	T120803
S53360.03	Polynuclear Aromatics	SW8270C	08/03/12 18:32	T120803
S53360.04	Polynuclear Aromatics	SW8270C	08/03/12 18:54	T120803
S53360.05	Polynuclear Aromatics	SW8270C	08/03/12 19:17	T120803
S53360.06	Polynuclear Aromatics	SW8270C	08/03/12 19:40	T120803
S53360.07	Polynuclear Aromatics	SW8270C	08/03/12 12:30	T120803
S53360.08	Polynuclear Aromatics	SW8270C	08/03/12 12:52	T120803
S53360.09	Polynuclear Aromatics	SW8270C	08/03/12 13:15	T120803
S53360.10	Polynuclear Aromatics	SW8270C	08/03/12 13:38	T120803
S53360.11	Polynuclear Aromatics	SW8270C	08/03/12 14:00	T120803
S53360.12	Polynuclear Aromatics	SW8270C	08/03/12 20:25	T120803
S53360.13	Polynuclear Aromatics	SW8270C	08/03/12 14:23	T120803

Organics - Volatiles, Prep Batch ID: VF120731S4

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.02	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 05:34	120731B5
S53360.03	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 05:54	120731B5
S53360.04	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 06:14	120731B5
S53360.05	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 08:56	120731B5
S53360.06	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 09:16	120731B5
S53360.07	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 06:34	120731B5
S53360.08	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 06:54	120731B5
S53360.09	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 07:14	120731B5
S53360.10	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 07:34	120731B5

Organics - Volatiles, Prep Batch ID: VF120731S4 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.11	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 07:55	120731B5
S53360.12	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 08:15	120731B5
S53360.13	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/01/12 08:35	120731B5

Organics - Volatiles, Prep Batch ID: VF120802W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53360.01	TCL Volatile Organics 8260	SW8260B	08/02/12 17:26	120802A3

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb31b.d	07/31/12 22:37	50ng/bfb 3s0731 [none]	WW	IP	**1**	
spcc31c.d	07/31/12 23:41	spcc/ccc 4s0731 2v0731 [none]	WW	CV	**1** **4**	
lcss31b.d	08/01/12 00:11	100ul blankms 3s0731 1m0731 vf120731s4	SO	MS	**1**	
lcss31c.d	08/01/12 00:32	100ul blankmsd 3s0731 1m0731 vf120731s4	SO	MS	**1**	
blks31a.d	08/01/12 01:52	100ul blank 3s0731 vf120731s4	SO	Bl	**1**	
5336002.d	08/01/12 05:34	100ul 3s0731 vf120731s4	SO		**1**	
5336003.d	08/01/12 05:54	100ul 3s0731 vf120731s4	SO		**1**	
5336004.d	08/01/12 06:14	100ul 3s0731 vf120731s4	SO		**1**	
5336007.d	08/01/12 06:34	100ul 3s0731 vf120731s4	SO		**1**	
5336008.d	08/01/12 06:54	100ul 3s0731 vf120731s4	SO		**1**	
5336009.d	08/01/12 07:14	100ul 3s0731 vf120731s4	SO		**1**	
5336010.d	08/01/12 07:34	100ul 3s0731 vf120731s4	SO		**1**	
5336011.d	08/01/12 07:55	100ul 3s0731 vf120731s4	SO		**1**	
5336012.d	08/01/12 08:15	100ul 3s0731 vf120731s4	SO		**1**	
5336013.d	08/01/12 08:35	100ul 3s0731 vf120731s4	SO		**1**	
5336005m.d	08/01/12 08:56	100ul ms 3s0731 1m0731 vf120731s4	SO	MS	**1**	
5336006n.d	08/01/12 09:16	100ul msd 3s0731 1m0731 vf120731s4	SO	MS	**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	12
Water Duplicates:	0	Soil Duplicates:	2
Water Spikes:	0	Soil Spikes:	4
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Analytical Batch: 120802a3.3
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb02a.d	08/02/12 10:42	25ng/bfb 1dr0731 [none]	WW	IP		
spcc02a.d	08/02/12 11:17	spcc/ccc 1dr0731 1v0802 [none]	WW	CV		
lcsw02a.d	08/02/12 12:03	blank ms 1dr0731 1m0802 vf120802w1	WW	MS		
lcsw02b.d	08/02/12 12:23	blank msd 1dr0731 1m0802 vf120802w1	WW	MS		
blkw02a.d	08/02/12 13:24	5ml blank 1dr0731 vf120802w1	WW	Bl		
5336001.d	08/02/12 17:26	5ml 1dr0731 vf120802w1	WW			

Matrix (Mtx) Summary

Water Samples:	1	Soil Samples:	0
Water Duplicates:	1	Soil Duplicates:	0
Water Spikes:	2	Soil Spikes:	0
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc31c.d	4-Bromofluorobenzene	47.6/ 50.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	44.1/ 50.0	n/a	77.0/121.0	
	Toluene-D8	47.6/ 50.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcss31b.d	4-Bromofluorobenzene	50.3/ 50.0	100.6	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.7/ 50.0	95.5	71.0/124.0	
	Toluene-D8	50.5/ 50.0	101.0	83.0/120.0	
				Total Outliers: 0	
lcss31c.d	4-Bromofluorobenzene	49.9/ 50.0	99.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	49.7/ 50.0	99.4	71.0/124.0	
	Toluene-D8	50.5/ 50.0	100.9	83.0/120.0	
				Total Outliers: 0	
blks31a.d	4-Bromofluorobenzene	49.4/ 50.0	98.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.2/ 50.0	90.3	71.0/124.0	
	Toluene-D8	49.4/ 50.0	98.9	83.0/120.0	
				Total Outliers: 0	
5336002.d	4-Bromofluorobenzene	50.5/ 50.0	101.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.8/ 50.0	93.6	71.0/124.0	
	Toluene-D8	48.9/ 50.0	97.8	83.0/120.0	
				Total Outliers: 0	
5336003.d	4-Bromofluorobenzene	49.7/ 50.0	99.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.5/ 50.0	93.1	71.0/124.0	
	Toluene-D8	49.4/ 50.0	98.8	83.0/120.0	
				Total Outliers: 0	
5336004.d	4-Bromofluorobenzene	48.9/ 50.0	97.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	44.6/ 50.0	89.2	71.0/124.0	
	Toluene-D8	48.6/ 50.0	97.3	83.0/120.0	
				Total Outliers: 0	
5336007.d	4-Bromofluorobenzene	49.9/ 50.0	99.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.3/ 50.0	94.6	71.0/124.0	
	Toluene-D8	49.5/ 50.0	99.0	83.0/120.0	
				Total Outliers: 0	
5336008.d	4-Bromofluorobenzene	49.3/ 50.0	98.5	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.1/ 50.0	92.3	71.0/124.0	
	Toluene-D8	49.6/ 50.0	99.2	83.0/120.0	
				Total Outliers: 0	
5336009.d	4-Bromofluorobenzene	49.7/ 50.0	99.3	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.9/ 50.0	93.8	71.0/124.0	
	Toluene-D8	49.3/ 50.0	98.5	83.0/120.0	
				Total Outliers: 0	
5336010.d	4-Bromofluorobenzene	49.4/ 50.0	98.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.6/ 50.0	95.3	71.0/124.0	
	Toluene-D8	48.9/ 50.0	97.8	83.0/120.0	
				Total Outliers: 0	
5336011.d	4-Bromofluorobenzene	49.2/ 50.0	98.3	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.5/ 50.0	93.0	71.0/124.0	
	Toluene-D8	49.5/ 50.0	98.9	83.0/120.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5336012.d	4-Bromofluorobenzene	48.3/ 50.0	96.5	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.7/ 50.0	95.5	71.0/124.0	
	Toluene-D8	49.3/ 50.0	98.5	83.0/120.0	
				Total Outliers:	**0**
5336013.d	4-Bromofluorobenzene	49.4/ 50.0	98.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.4/ 50.0	92.8	71.0/124.0	
	Toluene-D8	49.1/ 50.0	98.1	83.0/120.0	
				Total Outliers:	**0**
5336005m.d	4-Bromofluorobenzene	49.0/ 50.0	97.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	49.9/ 50.0	99.9	71.0/124.0	
	Toluene-D8	49.8/ 50.0	99.5	83.0/120.0	
				Total Outliers:	**0**
5336006n.d	4-Bromofluorobenzene	48.9/ 50.0	97.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	50.9/ 50.0	101.9	71.0/124.0	
	Toluene-D8	50.2/ 50.0	100.4	83.0/120.0	
				Total Outliers:	**0**

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
spcc02a.d	4-Bromofluorobenzene	4.9/ 5.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.8/ 5.0	n/a	77.0/121.0	
	Toluene-D8	4.9/ 5.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcsw02a.d	4-Bromofluorobenzene	5.1/ 5.0	101.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.9/ 5.0	97.2	77.0/121.0	
	Toluene-D8	5.0/ 5.0	100.6	86.0/118.0	
				Total Outliers: 0	
lcsw02b.d	4-Bromofluorobenzene	5.1/ 5.0	101.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	5.0/ 5.0	100.8	77.0/121.0	
	Toluene-D8	5.0/ 5.0	99.0	86.0/118.0	
				Total Outliers: 0	
blkw02a.d	4-Bromofluorobenzene	5.0/ 5.0	100.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.8/ 5.0	95.2	77.0/121.0	
	Toluene-D8	5.0/ 5.0	99.4	86.0/118.0	
				Total Outliers: 0	
5336001.d	4-Bromofluorobenzene	4.7/ 5.0	94.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	5.1/ 5.0	101.6	77.0/121.0	
	Toluene-D8	5.1/ 5.0	101.4	86.0/118.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcss31c.d			
Dup ID : LCS1			
Prep Batch: vf120731s4			
Prep Date : 07/31/12			
Parent File: lcss31b.d			
1,1,2-trichloro-1,2,2-trifluoroethane	53.11/ 46.39	13.5/25.0	SO
diethyl ether (*)	47.82/ 42.36	12.1/25.0	
acetone (*)	47.89/ 47.24	1.4/25.0	
methyl iodide (iodomethane) (*)	49.49/ 43.55	12.8/25.0	
carbon disulfide (*)	44.87/ 38.73	14.7/25.0	
methyl acetate	43.01/ 39.14	9.4/25.0	
tert-methyl butyl ether (mtbe) (*)	50.13/ 44.56	11.8/25.0	
acrylonitrile (*)	47.88/ 44.09	8.2/25.0	
2-butanone (mek) (*)	51.26/ 47.32	8.0/25.0	
dichlorodifluoromethane	41.71/ 36.85	12.4/25.0	
chloromethane (spcc)	45.76/ 38.11	18.2/25.0	
vinyl chloride (ccc)	46.74/ 40.65	13.9/25.0	
bromomethane	49.53/ 42.83	14.5/25.0	
chloroethane	53.30/ 46.92	12.7/25.0	
trichlorofluoromethane	57.55/ 50.32	13.4/25.0	
1,1-dichloroethene (ccc/ms)	48.78/ 41.77	15.5/25.0	
methylene chloride	45.32/ 40.35	11.6/25.0	
trans-1,2-dichloroethene	48.07/ 42.68	11.9/25.0	
1,1-dichloroethane (spcc)	48.53/ 42.74	12.7/25.0	
cis-1,2-dichloroethene	48.83/ 43.44	11.7/25.0	
tetrahydrofuran	41.56/ 37.10	11.3/25.0	
chloroform (ccc)	49.84/ 43.53	13.5/25.0	
bromochloromethane	48.88/ 43.42	11.8/25.0	
1,1,1-trichloroethane	54.14/ 47.80	12.4/25.0	
cyclohexane	41.63/ 35.50	15.9/25.0	
4-methyl-2-pentanone (mibk) (*)	48.06/ 42.63	12.0/25.0	
2-hexanone (*)	51.71/ 48.73	5.9/25.0	
carbon tetrachloride	55.38/ 49.66	10.9/25.0	
benzene (ms)	49.03/ 44.50	9.7/25.0	
1,2-dichloroethane	50.42/ 45.50	10.3/25.0	
trichloroethene (ms)	51.05/ 46.27	9.8/25.0	
1,2-dichloropropane (ccc)	48.49/ 44.16	9.3/25.0	
bromodichloromethane	53.17/ 47.93	10.4/25.0	
methyl cyclohexane	51.84/ 46.90	10.0/25.0	
dibromomethane	52.33/ 47.77	9.1/25.0	
cis-1,3-dichloropropene	52.99/ 47.73	10.4/25.0	
toluene (ccc/ms)	51.11/ 46.52	9.4/25.0	
trans-1,3-dichloropropene	54.54/ 49.18	10.3/25.0	
1,1,2-trichloroethane	49.48/ 44.62	10.3/25.0	
tetrachloroethene	50.47/ 46.02	9.2/25.0	
trans-1,4-dichloro-2-butene	51.30/ 47.67	7.3/25.0	
dibromochloromethane	56.36/ 50.75	10.5/25.0	
1,2-dibromoethane	52.59/ 47.46	10.3/25.0	
chlorobenzene (spcc/ms)	50.93/ 46.26	9.6/25.0	
1,1,1,2-tetrachloroethane	55.22/ 49.52	10.9/25.0	
ethylbenzene (ccc)	53.16/ 48.27	9.6/25.0	
p,m-xylene	105.83/ 96.98	8.7/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
o-xylene	53.98/ 49.03	9.6/25.0	
styrene	52.69/ 48.08	9.1/25.0	
isopropylbenzene	54.81/ 49.72	9.7/25.0	
bromoform (spcc)	53.36/ 48.49	9.6/25.0	
1,1,2,2-tetrachloroethane (spcc)	51.88/ 47.09	9.7/25.0	
1,2,3-trichloropropane	52.41/ 47.26	10.3/25.0	
n-propylbenzene	54.59/ 49.81	9.2/25.0	
bromobenzene	52.19/ 47.98	8.4/25.0	
1,3,5-trimethylbenzene	53.93/ 49.71	8.1/25.0	
tert-butylbenzene	56.28/ 50.99	9.9/25.0	
1,2,4-trimethylbenzene	55.33/ 50.86	8.4/25.0	
sec-butylbenzene	57.37/ 50.24	13.3/25.0	
p-isopropyltoluene	58.67/ 51.89	12.3/25.0	
1,3-dichlorobenzene	53.55/ 48.23	10.5/25.0	
1,4-dichlorobenzene	52.15/ 47.08	10.2/25.0	
1,2-dichlorobenzene	54.07/ 47.94	12.0/25.0	
1,2,3-trimethylbenzene	54.03/ 47.90	12.0/25.0	
n-butylbenzene	55.14/ 49.59	10.6/25.0	
hexachloroethane	54.94/ 47.52	14.5/25.0	
1,2-dibromo-3-chloropropane	57.95/ 51.49	11.8/25.0	
1,2,4-trichlorobenzene	57.20/ 52.78	8.0/25.0	
1,2,3-trichlorobenzene	59.73/ 55.24	7.8/25.0	
naphthalene	62.71/ 56.96	9.6/25.0	
2-methylnaphthalene	62.92/ 58.90	6.6/25.0	
[end of compound list]			
		Total Outliers: 0	

Dup File : 5336006n.d
Dup ID : S53360.06
Prep Batch: vf120731s4
Prep Date : 07/31/12
Parent File: 5336005m.d

1,1,2-trichloro-1,2,2-trifluoroethane	53.99/ 52.67	2.5/25.0	SO
diethyl ether (*)	49.50/ 47.67	3.8/25.0	
acetone (*)	54.60/ 59.49	8.6/25.0	
methyl iodide (iodomethane) (*)	49.51/ 46.96	5.3/25.0	
carbon disulfide (*)	43.55/ 41.12	5.7/25.0	
methyl acetate	44.82/ 43.28	3.5/25.0	
tert-methyl butyl ether (mtbe) (*)	50.58/ 48.10	5.0/25.0	
acrylonitrile (*)	49.18/ 47.88	2.7/25.0	
2-butanone (mek) (*)	53.96/ 54.29	0.6/25.0	
dichlorodifluoromethane	42.66/ 42.07	1.4/25.0	
chloromethane (spcc)	45.54/ 44.11	3.2/25.0	
vinyl chloride (ccc)	46.83/ 46.14	1.5/25.0	
bromomethane	50.04/ 48.18	3.8/25.0	
chloroethane	53.00/ 51.72	2.4/25.0	
trichlorofluoromethane	59.52/ 57.32	3.8/25.0	
1,1-dichloroethene (ccc/ms)	47.46/ 47.80	0.7/25.0	
methylene chloride	45.46/ 43.42	4.6/25.0	
trans-1,2-dichloroethene	48.23/ 46.39	3.9/25.0	
1,1-dichloroethane (spcc)	48.73/ 46.76	4.1/25.0	
cis-1,2-dichloroethene	49.20/ 47.39	3.7/25.0	
tetrahydrofuran	42.45/ 40.26	5.3/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
chloroform (ccc)	50.14/ 48.03	4.3/25.0	
bromochloromethane	49.18/ 46.65	5.3/25.0	
1,1,1-trichloroethane	54.38/ 51.97	4.5/25.0	
cyclohexane	41.28/ 38.14	7.9/25.0	
4-methyl-2-pentanone (mibk) (*)	46.49/ 47.28	1.7/25.0	
2-hexanone (*)	52.72/ 51.87	1.6/25.0	
carbon tetrachloride	54.65/ 53.02	3.0/25.0	
benzene (ms)	48.38/ 47.95	0.9/25.0	
1,2-dichloroethane	50.07/ 49.69	0.8/25.0	
trichloroethene (ms)	49.80/ 49.78	0.0/25.0	
1,2-dichloropropane (ccc)	47.87/ 47.61	0.5/25.0	
bromodichloromethane	51.21/ 50.61	1.2/25.0	
methyl cyclohexane	52.39/ 50.89	2.9/25.0	
dibromomethane	51.48/ 50.57	1.8/25.0	
cis-1,3-dichloropropene	50.35/ 49.34	2.0/25.0	
toluene (ccc/ms)	50.08/ 49.54	1.1/25.0	
trans-1,3-dichloropropene	51.59/ 50.50	2.1/25.0	
1,1,2-trichloroethane	48.38/ 48.01	0.8/25.0	
tetrachloroethene	48.77/ 47.78	2.1/25.0	
trans-1,4-dichloro-2-butene	51.02/ 50.11	1.8/25.0	
dibromochloromethane	54.86/ 54.02	1.5/25.0	
1,2-dibromoethane	51.50/ 51.84	0.7/25.0	
chlorobenzene (spcc/ms)	49.74/ 49.34	0.8/25.0	
1,1,1,2-tetrachloroethane	54.53/ 53.61	1.7/25.0	
ethylbenzene (ccc)	52.14/ 52.15	0.0/25.0	
p,m-xylene	103.58/103.11	0.5/25.0	
o-xylene	52.82/ 52.42	0.8/25.0	
styrene	50.89/ 50.88	0.0/25.0	
isopropylbenzene	54.63/ 54.00	1.2/25.0	
bromoform (spcc)	51.93/ 50.79	2.2/25.0	
1,1,2,2-tetrachloroethane (spcc)	51.30/ 50.78	1.0/25.0	
1,2,3-trichloropropane	52.80/ 52.58	0.4/25.0	
n-propylbenzene	53.25/ 53.07	0.3/25.0	
bromobenzene	51.28/ 50.26	2.0/25.0	
1,3,5-trimethylbenzene	52.46/ 52.03	0.8/25.0	
tert-butylbenzene	55.48/ 54.96	0.9/25.0	
1,2,4-trimethylbenzene	54.13/ 53.09	1.9/25.0	
sec-butylbenzene	58.44/ 57.99	0.8/25.0	
p-isopropyltoluene	58.82/ 58.07	1.3/25.0	
1,3-dichlorobenzene	52.41/ 52.04	0.7/25.0	
1,4-dichlorobenzene	50.60/ 50.55	0.1/25.0	
1,2-dichlorobenzene	53.24/ 52.78	0.9/25.0	
1,2,3-trimethylbenzene	54.15/ 53.41	1.4/25.0	
n-butylbenzene	54.62/ 53.72	1.7/25.0	
hexachloroethane	54.75/ 53.29	2.7/25.0	
1,2-dibromo-3-chloropropane	57.81/ 56.80	1.8/25.0	
1,2,4-trichlorobenzene	51.88/ 50.62	2.5/25.0	
1,2,3-trichlorobenzene	55.59/ 52.11	6.5/25.0	
naphthalene	61.15/ 58.78	4.0/25.0	
2-methylnaphthalene	58.80/ 46.40	23.6/25.0	
[end of compound list]			

Total Outliers: 0

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsw02b.d			
Dup ID : LCS1			
Prep Batch: vf120802w1			
Prep Date : 08/02/12			
Parent File: lcsw02a.d			
1,1,2-trichloro-1,2,2-trifluoroethane	55.11/ 54.82	0.5/25.0	WW
diethyl ether (*)	52.02/ 51.50	1.0/25.0	
acetone (*)	74.00/ 72.59	1.9/25.0	
methyl iodide (iodomethane) (*)	51.13/ 52.01	1.7/25.0	
carbon disulfide (*)	53.73/ 54.44	1.3/25.0	
methyl acetate	52.63/ 48.86	7.4/25.0	
tert-methyl butyl ether (mtbe) (*)	54.51/ 52.77	3.2/25.0	
acrylonitrile (*)	54.24/ 53.04	2.2/25.0	
2-butanone (mek) (*)	58.63/ 57.95	1.2/25.0	
dichlorodifluoromethane	49.38/ 51.51	4.2/25.0	
chloromethane (spcc)	56.79/ 57.63	1.5/25.0	
vinyl chloride (ccc)	50.95/ 52.57	3.1/25.0	
bromomethane	57.12/ 59.05	3.3/25.0	
chloroethane	59.85/ 60.90	1.7/25.0	
trichlorofluoromethane	55.52/ 57.28	3.1/25.0	
1,1-dichloroethene (ccc/ms)	51.13/ 52.46	2.6/25.0	
methylene chloride	51.39/ 51.57	0.3/25.0	
trans-1,2-dichloroethene	51.77/ 52.59	1.6/25.0	
1,1-dichloroethane (spcc)	52.24/ 51.69	1.1/25.0	
cis-1,2-dichloroethene	51.35/ 52.29	1.8/25.0	
tetrahydrofuran	46.65/ 43.58	6.8/25.0	
chloroform (ccc)	52.02/ 51.93	0.2/25.0	
bromochloromethane	52.45/ 52.39	0.1/25.0	
1,1,1-trichloroethane	51.64/ 51.82	0.3/25.0	
1,1-dichloropropene	2.40/ 0.00	200.0/25.0*	
cyclohexane	43.78/ 44.68	2.0/25.0	
4-methyl-2-pentanone (mibk) (*)	55.81/ 52.64	5.8/25.0	
2-hexanone (*)	57.26/ 57.56	0.5/25.0	
carbon tetrachloride	52.25/ 53.20	1.8/25.0	
benzene (ms)	50.33/ 51.11	1.5/25.0	
1,2-dichloroethane	51.43/ 52.60	2.2/25.0	
trichloroethene (ms)	49.93/ 51.41	2.9/25.0	
1,2-dichloropropane (ccc)	51.78/ 53.33	2.9/25.0	
bromodichloromethane	53.88/ 53.92	0.1/25.0	
methyl cyclohexane	54.41/ 56.06	3.0/25.0	
dibromomethane	49.07/ 49.97	1.8/25.0	
cis-1,3-dichloropropene	47.46/ 48.24	1.6/25.0	
toluene (ccc/ms)	50.53/ 51.68	2.3/25.0	
trans-1,3-dichloropropene	49.53/ 49.85	0.6/25.0	
1,1,2-trichloroethane	50.93/ 50.87	0.1/25.0	
tetrachloroethene	50.69/ 51.69	2.0/25.0	
trans-1,4-dichloro-2-butene	51.85/ 47.20	9.4/25.0	
dibromochloromethane	55.15/ 56.12	1.7/25.0	
1,2-dibromoethane	52.93/ 52.21	1.4/25.0	
chlorobenzene (spcc/ms)	51.80/ 52.58	1.5/25.0	
1,1,1,2-tetrachloroethane	54.65/ 55.77	2.0/25.0	
ethylbenzene (ccc)	52.21/ 53.83	3.1/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
p,m-xylene	106.19/109.40	3.0/25.0	
o-xylene	54.15/ 54.78	1.2/25.0	
styrene	53.34/ 54.15	1.5/25.0	
isopropylbenzene	52.89/ 53.72	1.6/25.0	
bromoform (spcc)	52.75/ 52.02	1.4/25.0	
1,1,2,2-tetrachloroethane (spcc)	53.42/ 51.50	3.7/25.0	
1,2,3-trichloropropane	53.99/ 52.18	3.4/25.0	
n-propylbenzene	54.63/ 55.74	2.0/25.0	
bromobenzene	52.32/ 54.58	4.2/25.0	
1,3,5-trimethylbenzene	52.78/ 53.84	2.0/25.0	
tert-butylbenzene	52.77/ 53.43	1.2/25.0	
1,2,4-trimethylbenzene	55.08/ 55.93	1.5/25.0	
sec-butylbenzene	52.30/ 53.95	3.1/25.0	
p-isopropyltoluene	54.49/ 56.14	3.0/25.0	
1,3-dichlorobenzene	53.12/ 54.62	2.8/25.0	
1,4-dichlorobenzene	50.86/ 52.54	3.2/25.0	
1,2-dichlorobenzene	51.66/ 52.10	0.8/25.0	
1,2,3-trimethylbenzene	52.28/ 53.77	2.8/25.0	
n-butylbenzene	53.64/ 56.05	4.4/25.0	
hexachloroethane	48.17/ 49.75	3.2/25.0	
1,2-dibromo-3-chloropropane	54.07/ 50.19	7.4/25.0	
1,2,4-trichlorobenzene	53.60/ 54.77	2.2/25.0	
1,2,3-trichlorobenzene	55.59/ 55.17	0.8/25.0	
naphthalene	56.44/ 54.02	4.4/25.0	
2-methylnaphthalene	59.79/ 53.61	10.9/25.0	
[end of compound list]			
		Total Outliers: 1	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss31b.d
Spike ID : LCS1
Prep Batch: vf120731s4
Prep Date : 07/31/12
Parent File: blks31a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	46.39/	0.00	50.00	92.8	56.9/138.1	SO
Diethyl ether	42.36/	0.00	50.00	84.7	51.7/123.0	
Acetone	47.24/	1.18	50.00	94.5	25.3/155.1	
Methyl iodide	43.55/	0.00	50.00	87.1	56.9/110.8	
Carbon disulfide	38.73/	0.00	50.00	77.5	57.0/123.0	
Methyl acetate	39.14/	0.00	50.00	78.3	54.4/133.5	
tert-Methyl butyl ether	44.56/	0.00	50.00	89.1	67.5/123.7	
Acrylonitrile	44.09/	0.00	50.00	88.2	58.7/133.0	
2-Butanone	47.32/	0.00	50.00	94.6	38.7/136.9	
Dichlorodifluoromethane	36.85/	0.00	50.00	73.7	10.0/171.8	
Chloromethane	38.11/	0.00	50.00	76.2	30.2/152.7	
Vinyl Chloride	40.65/	0.00	50.00	81.3	45.3/138.7	
Bromomethane	42.83/	0.00	50.00	85.7	10.0/157.4	
Chloroethane	46.92/	0.00	50.00	93.8	10.0/169.1	
Trichlorofluoromethane	50.32/	0.00	50.00	100.6	25.7/157.8	
1,1-Dichloroethene	41.77/	0.00	50.00	83.5	59.2/137.5	
Methylene Chloride	40.35/	0.00	50.00	80.7	70.5/121.5	
trans-1,2-Dichloroethene	42.68/	0.00	50.00	85.4	72.5/128.8	
1,1-Dichloroethane	42.74/	0.00	50.00	85.5	72.5/123.4	
cis-1,2-Dichloroethene	43.44/	0.00	50.00	86.9	75.0/120.5	
Tetrahydrofuran	37.10/	2.54	50.00	74.2	48.2/125.7	
Chloroform	43.53/	0.00	50.00	87.1	74.6/123.2	
Bromochloromethane	43.42/	0.00	50.00	86.8	72.3/122.8	
1,1,1-Trichloroethane	47.80/	0.00	50.00	95.6	73.8/128.9	
Cyclohexane	35.50/	0.00	50.00	71.0	42.4/147.1	
4-Methyl-2-pentanone	42.63/	0.00	50.00	85.3	60.4/133.8	
2-Hexanone	48.73/	0.00	50.00	97.5	45.7/141.9	
Carbon Tetrachloride	49.66/	0.00	50.00	99.3	70.1/132.7	
Benzene	44.50/	0.00	50.00	89.0	74.6/128.9	
1,2-Dichloroethane	45.50/	0.00	50.00	91.0	73.2/125.4	
Trichloroethene	46.27/	0.00	50.00	92.5	74.1/127.6	
1,2-Dichloropropane	44.16/	0.00	50.00	88.3	77.6/124.4	
Bromodichloromethane	47.93/	0.00	50.00	95.9	76.7/128.4	
Methyl cyclohexane	46.90/	0.00	50.00	93.8	53.7/148.2	
Dibromomethane	47.77/	0.00	50.00	95.5	72.5/127.3	
cis-1,3-Dichloropropene	47.73/	0.00	50.00	95.5	79.3/128.3	
Toluene	46.52/	0.00	50.00	93.0	74.8/129.2	
trans-1,3-Dichloropropene	49.18/	0.00	50.00	98.4	74.5/129.7	
1,1,2-Trichloroethane	44.62/	0.00	50.00	89.2	71.3/125.7	
Tetrachloroethene	46.02/	0.00	50.00	92.0	73.0/124.7	
trans-1,4-Dichloro-2-butene	47.67/	0.00	50.00	95.3	58.3/143.3	
Dibromochloromethane	50.75/	0.00	50.00	101.5	68.9/132.7	
1,2-Dibromoethane	47.46/	0.00	50.00	94.9	71.4/129.3	
Chlorobenzene	46.26/	0.00	50.00	92.5	74.2/128.1	
1,1,1,2-Tetrachloroethane	49.52/	0.00	50.00	99.0	76.6/133.0	
Ethylbenzene	48.27/	0.00	50.00	96.5	77.7/130.4	
p,m-Xylene	96.98/	0.00	100.00	97.0	79.8/132.0	
o-Xylene	49.03/	0.00	50.00	98.1	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	48.08/	0.00	50.00	96.2	71.3/119.3	
Isopropylbenzene	49.72/	0.00	50.00	99.4	70.3/128.2	
Bromoform	48.49/	0.00	50.00	97.0	54.7/137.4	
1,1,2,2-Tetrachloroethane	47.09/	0.00	50.00	94.2	65.4/134.9	
1,2,3-Trichloropropane	47.26/	0.00	50.00	94.5	67.2/154.5	
n-Propylbenzene	49.81/	0.00	50.00	99.6	77.3/135.2	
Bromobenzene	47.98/	0.00	50.00	96.0	74.0/132.4	
1,3,5-Trimethylbenzene	49.71/	0.00	50.00	99.4	75.6/137.0	
tert-Butylbenzene	50.99/	0.00	50.00	102.0	75.6/134.6	
1,2,4-Trimethylbenzene	50.86/	0.00	50.00	101.7	76.9/139.1	
sec-Butylbenzene	50.24/	0.00	50.00	100.5	72.7/135.6	
p-Isopropyltoluene	51.89/	0.00	50.00	103.8	77.1/140.9	
1,3-Dichlorobenzene	48.23/	0.00	50.00	96.5	77.3/131.0	
1,4-Dichlorobenzene	47.08/	0.00	50.00	94.2	33.1/125.8	
1,2-Dichlorobenzene	47.94/	0.00	50.00	95.9	73.5/132.7	
1,2,3-Trimethylbenzene	47.90/	0.00	50.00	95.8	70.9/130.2	
n-Butylbenzene	49.59/	0.00	50.00	99.2	75.0/138.6	
Hexachloroethane	47.52/	0.00	50.00	95.0	55.5/129.0	
1,2-Dibromo-3-Chloropropane	51.49/	0.00	50.00	103.0	54.1/156.4	
1,2,4-Trichlorobenzene	52.78/	0.00	50.00	105.6	37.1/131.3	
1,2,3-Trichlorobenzene	55.24/	0.00	50.00	110.5	59.4/157.9	
Naphthalene	56.96/	0.00	50.00	113.9	39.3/129.2	
2-Methylnaphthalene	58.90/	0.00	50.00	117.8	10.0/175.9	
					Total Outliers:	**0**

Spike File : lcss31c.d
Spike ID : LCS1
Prep Batch: vf120731s4
Prep Date : 07/31/12
Parent File: blks31a.d

1,1,2-Trichloro-1,2,2-trifluor	53.11/	0.00	50.00	106.2	56.9/138.1	SO
Diethyl ether	47.82/	0.00	50.00	95.6	51.7/123.0	
Acetone	47.89/	1.18	50.00	95.8	25.3/155.1	
Methyl iodide	49.49/	0.00	50.00	99.0	56.9/110.8	
Carbon disulfide	44.87/	0.00	50.00	89.7	57.0/123.0	
Methyl acetate	43.01/	0.00	50.00	86.0	54.4/133.5	
tert-Methyl butyl ether	50.13/	0.00	50.00	100.3	67.5/123.7	
Acrylonitrile	47.88/	0.00	50.00	95.8	58.7/133.0	
2-Butanone	51.26/	0.00	50.00	102.5	38.7/136.9	
Dichlorodifluoromethane	41.71/	0.00	50.00	83.4	10.0/171.8	
Chloromethane	45.76/	0.00	50.00	91.5	30.2/152.7	
Vinyl Chloride	46.74/	0.00	50.00	93.5	45.3/138.7	
Bromomethane	49.53/	0.00	50.00	99.1	10.0/157.4	
Chloroethane	53.30/	0.00	50.00	106.6	10.0/169.1	
Trichlorofluoromethane	57.55/	0.00	50.00	115.1	25.7/157.8	
1,1-Dichloroethene	48.78/	0.00	50.00	97.6	59.2/137.5	
Methylene Chloride	45.32/	0.00	50.00	90.6	70.5/121.5	
trans-1,2-Dichloroethene	48.07/	0.00	50.00	96.1	72.5/128.8	
1,1-Dichloroethane	48.53/	0.00	50.00	97.1	72.5/123.4	
cis-1,2-Dichloroethene	48.83/	0.00	50.00	97.7	75.0/120.5	
Tetrahydrofuran	41.56/	2.54	50.00	83.1	48.2/125.7	
Chloroform	49.84/	0.00	50.00	99.7	74.6/123.2	
Bromochloromethane	48.88/	0.00	50.00	97.8	72.3/122.8	
1,1,1-Trichloroethane	54.14/	0.00	50.00	108.3	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	41.63/	0.00	50.00	83.3	42.4/147.1	
4-Methyl-2-pentanone	48.06/	0.00	50.00	96.1	60.4/133.8	
2-Hexanone	51.71/	0.00	50.00	103.4	45.7/141.9	
Carbon Tetrachloride	55.38/	0.00	50.00	110.8	70.1/132.7	
Benzene	49.03/	0.00	50.00	98.1	74.6/128.9	
1,2-Dichloroethane	50.42/	0.00	50.00	100.8	73.2/125.4	
Trichloroethene	51.05/	0.00	50.00	102.1	74.1/127.6	
1,2-Dichloropropane	48.49/	0.00	50.00	97.0	77.6/124.4	
Bromodichloromethane	53.17/	0.00	50.00	106.3	76.7/128.4	
Methyl cyclohexane	51.84/	0.00	50.00	103.7	53.7/148.2	
Dibromomethane	52.33/	0.00	50.00	104.7	72.5/127.3	
cis-1,3-Dichloropropene	52.99/	0.00	50.00	106.0	79.3/128.3	
Toluene	51.11/	0.00	50.00	102.2	74.8/129.2	
trans-1,3-Dichloropropene	54.54/	0.00	50.00	109.1	74.5/129.7	
1,1,2-Trichloroethane	49.48/	0.00	50.00	99.0	71.3/125.7	
Tetrachloroethene	50.47/	0.00	50.00	100.9	73.0/124.7	
trans-1,4-Dichloro-2-butene	51.30/	0.00	50.00	102.6	58.3/143.3	
Dibromochloromethane	56.36/	0.00	50.00	112.7	68.9/132.7	
1,2-Dibromoethane	52.59/	0.00	50.00	105.2	71.4/129.3	
Chlorobenzene	50.93/	0.00	50.00	101.9	74.2/128.1	
1,1,1,2-Tetrachloroethane	55.22/	0.00	50.00	110.4	76.6/133.0	
Ethylbenzene	53.16/	0.00	50.00	106.3	77.7/130.4	
p,m-Xylene	105.83/	0.00	100.00	105.8	79.8/132.0	
o-Xylene	53.98/	0.00	50.00	108.0	79.4/132.3	
Styrene	52.69/	0.00	50.00	105.4	71.3/119.3	
Isopropylbenzene	54.81/	0.00	50.00	109.6	70.3/128.2	
Bromoform	53.36/	0.00	50.00	106.7	54.7/137.4	
1,1,2,2-Tetrachloroethane	51.88/	0.00	50.00	103.8	65.4/134.9	
1,2,3-Trichloropropane	52.41/	0.00	50.00	104.8	67.2/154.5	
n-Propylbenzene	54.59/	0.00	50.00	109.2	77.3/135.2	
Bromobenzene	52.19/	0.00	50.00	104.4	74.0/132.4	
1,3,5-Trimethylbenzene	53.93/	0.00	50.00	107.9	75.6/137.0	
tert-Butylbenzene	56.28/	0.00	50.00	112.6	75.6/134.6	
1,2,4-Trimethylbenzene	55.33/	0.00	50.00	110.7	76.9/139.1	
sec-Butylbenzene	57.37/	0.00	50.00	114.7	72.7/135.6	
p-Isopropyltoluene	58.67/	0.00	50.00	117.3	77.1/140.9	
1,3-Dichlorobenzene	53.55/	0.00	50.00	107.1	77.3/131.0	
1,4-Dichlorobenzene	52.15/	0.00	50.00	104.3	33.1/125.8	
1,2-Dichlorobenzene	54.07/	0.00	50.00	108.1	73.5/132.7	
1,2,3-Trimethylbenzene	54.03/	0.00	50.00	108.1	70.9/130.2	
n-Butylbenzene	55.14/	0.00	50.00	110.3	75.0/138.6	
Hexachloroethane	54.94/	0.00	50.00	109.9	55.5/129.0	
1,2-Dibromo-3-Chloropropane	57.95/	0.00	50.00	115.9	54.1/156.4	
1,2,4-Trichlorobenzene	57.20/	0.00	50.00	114.4	37.1/131.3	
1,2,3-Trichlorobenzene	59.73/	0.00	50.00	119.5	59.4/157.9	
Naphthalene	62.71/	0.00	50.00	125.4	39.3/129.2	
2-Methylnaphthalene	62.92/	0.00	50.00	125.8	10.0/175.9	

Total Outliers: 0

Spike File : 5336005m.d
Spike ID : S53360.05
Prep Batch: vf120731s4
Prep Date : 07/31/12
Parent File: 5336004.d

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	52.67/	0.00	50.00	105.3	56.9/138.1	SO
Diethyl ether	47.67/	0.00	50.00	95.3	51.7/123.0	
Acetone	59.49/	1.67	50.00	115.6	25.3/155.1	
Methyl iodide	46.96/	0.00	50.00	93.9	56.9/110.8	
Carbon disulfide	41.12/	0.00	50.00	82.2	57.0/123.0	
Methyl acetate	43.28/	0.00	50.00	86.6	54.4/133.5	
tert-Methyl butyl ether	48.10/	0.00	50.00	96.2	67.5/123.7	
Acrylonitrile	47.88/	0.00	50.00	95.8	58.7/133.0	
2-Butanone	54.29/	0.00	50.00	108.6	38.7/136.9	
Dichlorodifluoromethane	42.07/	0.00	50.00	84.1	10.0/171.8	
Chloromethane	44.11/	0.00	50.00	88.2	30.2/152.7	
Vinyl Chloride	46.14/	0.00	50.00	92.3	45.3/138.7	
Bromomethane	48.18/	0.00	50.00	96.4	10.0/157.4	
Chloroethane	51.72/	0.00	50.00	103.4	10.0/169.1	
Trichlorofluoromethane	57.32/	0.00	50.00	114.6	25.7/157.8	
1,1-Dichloroethene	47.80/	0.00	50.00	95.6	59.2/137.5	
Methylene Chloride	43.42/	0.00	50.00	86.8	70.5/121.5	
trans-1,2-Dichloroethene	46.39/	0.00	50.00	92.8	72.5/128.8	
1,1-Dichloroethane	46.76/	0.00	50.00	93.5	72.5/123.4	
cis-1,2-Dichloroethene	47.39/	0.00	50.00	94.8	75.0/120.5	
Tetrahydrofuran	40.26/	3.08	50.00	74.4	48.2/125.7	
Chloroform	48.03/	0.00	50.00	96.1	74.6/123.2	
Bromochloromethane	46.65/	0.00	50.00	93.3	72.3/122.8	
1,1,1-Trichloroethane	51.97/	0.00	50.00	103.9	73.8/128.9	
Cyclohexane	38.14/	0.00	50.00	76.3	42.4/147.1	
4-Methyl-2-pentanone	47.28/	0.00	50.00	94.6	60.4/133.8	
2-Hexanone	51.87/	0.00	50.00	103.7	45.7/141.9	
Carbon Tetrachloride	53.02/	0.00	50.00	106.0	70.1/132.7	
Benzene	47.95/	0.00	50.00	95.9	74.6/128.9	
1,2-Dichloroethane	49.69/	0.00	50.00	99.4	73.2/125.4	
Trichloroethene	49.78/	0.00	50.00	99.6	74.1/127.6	
1,2-Dichloropropane	47.61/	0.00	50.00	95.2	77.6/124.4	
Bromodichloromethane	50.61/	0.00	50.00	101.2	76.7/128.4	
Methyl cyclohexane	50.89/	0.00	50.00	101.8	53.7/148.2	
Dibromomethane	50.57/	0.00	50.00	101.1	72.5/127.3	
cis-1,3-Dichloropropene	49.34/	0.00	50.00	98.7	79.3/128.3	
Toluene	49.54/	0.00	50.00	99.1	74.8/129.2	
trans-1,3-Dichloropropene	50.50/	0.00	50.00	101.0	74.5/129.7	
1,1,2-Trichloroethane	48.01/	0.00	50.00	96.0	71.3/125.7	
Tetrachloroethene	47.78/	0.00	50.00	95.6	73.0/124.7	
trans-1,4-Dichloro-2-butene	50.11/	0.00	50.00	100.2	58.3/143.3	
Dibromochloromethane	54.02/	0.00	50.00	108.0	68.9/132.7	
1,2-Dibromoethane	51.84/	0.00	50.00	103.7	71.4/129.3	
Chlorobenzene	49.34/	0.00	50.00	98.7	74.2/128.1	
1,1,1,2-Tetrachloroethane	53.61/	0.00	50.00	107.2	76.6/133.0	
Ethylbenzene	52.15/	0.00	50.00	104.3	77.7/130.4	
p,m-Xylene	103.11/	0.00	100.00	103.1	79.8/132.0	
o-Xylene	52.42/	0.00	50.00	104.8	79.4/132.3	
Styrene	50.88/	0.00	50.00	101.8	71.3/119.3	
Isopropylbenzene	54.00/	0.00	50.00	108.0	70.3/128.2	
Bromoform	50.79/	0.00	50.00	101.6	54.7/137.4	
1,1,2,2-Tetrachloroethane	50.78/	0.00	50.00	101.6	65.4/134.9	
1,2,3-Trichloropropane	52.58/	0.00	50.00	105.2	67.2/154.5	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
n-Propylbenzene	53.07/	0.00	50.00	106.1	77.3/135.2	
Bromobenzene	50.26/	0.00	50.00	100.5	74.0/132.4	
1,3,5-Trimethylbenzene	52.03/	0.00	50.00	104.1	75.6/137.0	
tert-Butylbenzene	54.96/	0.00	50.00	109.9	75.6/134.6	
1,2,4-Trimethylbenzene	53.09/	0.00	50.00	106.2	76.9/139.1	
sec-Butylbenzene	57.99/	0.00	50.00	116.0	72.7/135.6	
p-Isopropyltoluene	58.07/	0.00	50.00	116.1	77.1/140.9	
1,3-Dichlorobenzene	52.04/	0.00	50.00	104.1	77.3/131.0	
1,4-Dichlorobenzene	50.55/	0.00	50.00	101.1	33.1/125.8	
1,2-Dichlorobenzene	52.78/	0.00	50.00	105.6	73.5/132.7	
1,2,3-Trimethylbenzene	53.41/	0.00	50.00	106.8	70.9/130.2	
n-Butylbenzene	53.72/	0.00	50.00	107.4	75.0/138.6	
Hexachloroethane	53.29/	0.00	50.00	106.6	55.5/129.0	
1,2-Dibromo-3-Chloropropane	56.80/	0.00	50.00	113.6	54.1/156.4	
1,2,4-Trichlorobenzene	50.62/	0.00	50.00	101.2	37.1/131.3	
1,2,3-Trichlorobenzene	52.11/	0.00	50.00	104.2	59.4/157.9	
Naphthalene	58.78/	0.00	50.00	117.6	39.3/129.2	
2-Methylnaphthalene	46.40/	0.00	50.00	92.8	10.0/175.9	
					Total Outliers:	**0**

Spike File : 5336006n.d
Spike ID : S53360.06
Prep Batch: vf120731s4
Prep Date : 07/31/12
Parent File: 5336004.d

1,1,2-Trichloro-1,2,2-trifluor	53.99/	0.00	50.00	108.0	56.9/138.1	SO
Diethyl ether	49.50/	0.00	50.00	99.0	51.7/123.0	
Acetone	54.60/	1.67	50.00	105.9	25.3/155.1	
Methyl iodide	49.51/	0.00	50.00	99.0	56.9/110.8	
Carbon disulfide	43.55/	0.00	50.00	87.1	57.0/123.0	
Methyl acetate	44.82/	0.00	50.00	89.6	54.4/133.5	
tert-Methyl butyl ether	50.58/	0.00	50.00	101.2	67.5/123.7	
Acrylonitrile	49.18/	0.00	50.00	98.4	58.7/133.0	
2-Butanone	53.96/	0.00	50.00	107.9	38.7/136.9	
Dichlorodifluoromethane	42.66/	0.00	50.00	85.3	10.0/171.8	
Chloromethane	45.54/	0.00	50.00	91.1	30.2/152.7	
Vinyl Chloride	46.83/	0.00	50.00	93.7	45.3/138.7	
Bromomethane	50.04/	0.00	50.00	100.1	10.0/157.4	
Chloroethane	53.00/	0.00	50.00	106.0	10.0/169.1	
Trichlorofluoromethane	59.52/	0.00	50.00	119.0	25.7/157.8	
1,1-Dichloroethene	47.46/	0.00	50.00	94.9	59.2/137.5	
Methylene Chloride	45.46/	0.00	50.00	90.9	70.5/121.5	
trans-1,2-Dichloroethene	48.23/	0.00	50.00	96.5	72.5/128.8	
1,1-Dichloroethane	48.73/	0.00	50.00	97.5	72.5/123.4	
cis-1,2-Dichloroethene	49.20/	0.00	50.00	98.4	75.0/120.5	
Tetrahydrofuran	42.45/	3.08	50.00	78.7	48.2/125.7	
Chloroform	50.14/	0.00	50.00	100.3	74.6/123.2	
Bromochloromethane	49.18/	0.00	50.00	98.4	72.3/122.8	
1,1,1-Trichloroethane	54.38/	0.00	50.00	108.8	73.8/128.9	
Cyclohexane	41.28/	0.00	50.00	82.6	42.4/147.1	
4-Methyl-2-pentanone	46.49/	0.00	50.00	93.0	60.4/133.8	
2-Hexanone	52.72/	0.00	50.00	105.4	45.7/141.9	
Carbon Tetrachloride	54.65/	0.00	50.00	109.3	70.1/132.7	
Benzene	48.38/	0.00	50.00	96.8	74.6/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,2-Dichloroethane	50.07/	0.00	50.00	100.1	73.2/125.4	
Trichloroethene	49.80/	0.00	50.00	99.6	74.1/127.6	
1,2-Dichloropropane	47.87/	0.00	50.00	95.7	77.6/124.4	
Bromodichloromethane	51.21/	0.00	50.00	102.4	76.7/128.4	
Methyl cyclohexane	52.39/	0.00	50.00	104.8	53.7/148.2	
Dibromomethane	51.48/	0.00	50.00	103.0	72.5/127.3	
cis-1,3-Dichloropropene	50.35/	0.00	50.00	100.7	79.3/128.3	
Toluene	50.08/	0.00	50.00	100.2	74.8/129.2	
trans-1,3-Dichloropropene	51.59/	0.00	50.00	103.2	74.5/129.7	
1,1,2-Trichloroethane	48.38/	0.00	50.00	96.8	71.3/125.7	
Tetrachloroethene	48.77/	0.00	50.00	97.5	73.0/124.7	
trans-1,4-Dichloro-2-butene	51.02/	0.00	50.00	102.0	58.3/143.3	
Dibromochloromethane	54.86/	0.00	50.00	109.7	68.9/132.7	
1,2-Dibromoethane	51.50/	0.00	50.00	103.0	71.4/129.3	
Chlorobenzene	49.74/	0.00	50.00	99.5	74.2/128.1	
1,1,1,2-Tetrachloroethane	54.53/	0.00	50.00	109.1	76.6/133.0	
Ethylbenzene	52.14/	0.00	50.00	104.3	77.7/130.4	
p,m-Xylene	103.58/	0.00	100.00	103.6	79.8/132.0	
o-Xylene	52.82/	0.00	50.00	105.6	79.4/132.3	
Styrene	50.89/	0.00	50.00	101.8	71.3/119.3	
Isopropylbenzene	54.63/	0.00	50.00	109.3	70.3/128.2	
Bromoform	51.93/	0.00	50.00	103.9	54.7/137.4	
1,1,2,2-Tetrachloroethane	51.30/	0.00	50.00	102.6	65.4/134.9	
1,2,3-Trichloropropane	52.80/	0.00	50.00	105.6	67.2/154.5	
n-Propylbenzene	53.25/	0.00	50.00	106.5	77.3/135.2	
Bromobenzene	51.28/	0.00	50.00	102.6	74.0/132.4	
1,3,5-Trimethylbenzene	52.46/	0.00	50.00	104.9	75.6/137.0	
tert-Butylbenzene	55.48/	0.00	50.00	111.0	75.6/134.6	
1,2,4-Trimethylbenzene	54.13/	0.00	50.00	108.3	76.9/139.1	
sec-Butylbenzene	58.44/	0.00	50.00	116.9	72.7/135.6	
p-Isopropyltoluene	58.82/	0.00	50.00	117.6	77.1/140.9	
1,3-Dichlorobenzene	52.41/	0.00	50.00	104.8	77.3/131.0	
1,4-Dichlorobenzene	50.60/	0.00	50.00	101.2	33.1/125.8	
1,2-Dichlorobenzene	53.24/	0.00	50.00	106.5	73.5/132.7	
1,2,3-Trimethylbenzene	54.15/	0.00	50.00	108.3	70.9/130.2	
n-Butylbenzene	54.62/	0.00	50.00	109.2	75.0/138.6	
Hexachloroethane	54.75/	0.00	50.00	109.5	55.5/129.0	
1,2-Dibromo-3-Chloropropane	57.81/	0.00	50.00	115.6	54.1/156.4	
1,2,4-Trichlorobenzene	51.88/	0.00	50.00	103.8	37.1/131.3	
1,2,3-Trichlorobenzene	55.59/	0.00	50.00	111.2	59.4/157.9	
Naphthalene	61.15/	0.00	50.00	122.3	39.3/129.2	
2-Methylnaphthalene	58.80/	0.00	50.00	117.6	10.0/175.9	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcsw02a.d
Spike ID : LCS1
Prep Batch: vf120802w1
Prep Date : 08/02/12
Parent File: blkw02a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	54.82/	0.00	50.00	109.6	75.1/135.9	WW
Diethyl ether	51.50/	0.00	50.00	103.0	67.4/121.2	
Acetone	72.59/	0.00	50.00	145.2	29.9/161.5	
Methyl iodide	52.01/	0.00	50.00	104.0	68.8/116.4	
Carbon disulfide	54.44/	0.00	50.00	108.9	63.8/137.4	
Methyl acetate	48.86/	0.00	50.00	97.7	64.7/125.4	
tert-Methyl butyl ether	52.77/	0.00	50.00	105.5	73.2/122.4	
Acrylonitrile	53.04/	0.00	50.00	106.1	69.9/128.9	
2-Butanone	57.95/	0.00	50.00	115.9	44.0/134.4	
Dichlorodifluoromethane	51.51/	0.00	50.00	103.0	10.0/222.8	
Chloromethane	57.63/	0.00	50.00	115.3	23.8/166.5	
Vinyl Chloride	52.57/	0.00	50.00	105.1	43.5/149.1	
Bromomethane	59.05/	0.00	50.00	118.1	56.8/151.3	
Chloroethane	60.90/	0.00	50.00	121.8	53.4/149.4	
Trichlorofluoromethane	57.28/	0.00	50.00	114.6	59.7/151.8	
1,1-Dichloroethene	52.46/	0.00	50.00	104.9	69.6/139.4	
Methylene Chloride	51.57/	0.00	50.00	103.1	73.3/121.1	
trans-1,2-Dichloroethene	52.59/	0.00	50.00	105.2	73.6/129.3	
1,1-Dichloroethane	51.69/	0.00	50.00	103.4	71.5/126.2	
cis-1,2-Dichloroethene	52.29/	0.00	50.00	104.6	76.6/122.1	
Tetrahydrofuran	43.58/	2.31	50.00	87.2	59.0/117.9	
Chloroform	51.93/	0.00	50.00	103.9	78.4/124.0	
Bromochloromethane	52.39/	0.00	50.00	104.8	78.2/120.8	
1,1,1-Trichloroethane	51.82/	0.00	50.00	103.6	79.4/130.9	
Cyclohexane	44.68/	0.00	50.00	89.4	10.0/169.1	
4-Methyl-2-pentanone	52.64/	0.00	50.00	105.3	71.6/125.2	
2-Hexanone	57.56/	0.00	50.00	115.1	55.4/136.9	
Carbon Tetrachloride	53.20/	0.00	50.00	106.4	72.6/133.0	
Benzene	51.11/	0.00	50.00	102.2	79.9/124.9	
1,2-Dichloroethane	52.60/	0.00	50.00	105.2	76.0/126.3	
Trichloroethene	51.41/	0.00	50.00	102.8	79.7/124.2	
1,2-Dichloropropane	53.33/	0.00	50.00	106.7	78.6/126.4	
Bromodichloromethane	53.92/	0.00	50.00	107.8	80.4/128.2	
Methyl cyclohexane	56.06/	0.00	50.00	112.1	76.6/131.3	
Dibromomethane	49.97/	0.00	50.00	99.9	76.9/122.1	
cis-1,3-Dichloropropene	48.24/	0.00	50.00	96.5	79.8/129.9	
Toluene	51.68/	0.00	50.00	103.4	79.8/124.5	
trans-1,3-Dichloropropene	49.85/	0.00	50.00	99.7	74.0/131.3	
1,1,2-Trichloroethane	50.87/	0.00	50.00	101.7	78.7/123.1	
Tetrachloroethene	51.69/	0.00	50.00	103.4	74.5/124.5	
trans-1,4-Dichloro-2-butene	47.20/	0.00	50.00	94.4	68.6/135.4	
Dibromochloromethane	56.12/	0.00	50.00	112.2	74.6/127.2	
1,2-Dibromoethane	52.21/	0.00	50.00	104.4	70.3/133.7	
Chlorobenzene	52.58/	0.00	50.00	105.2	79.2/122.7	
1,1,1,2-Tetrachloroethane	55.77/	0.00	50.00	111.5	80.3/128.2	
Ethylbenzene	53.83/	0.00	50.00	107.7	79.5/129.1	
p,m-Xylene	109.40/	0.00	100.00	109.4	79.4/132.2	
o-Xylene	54.78/	0.00	50.00	109.6	80.2/131.0	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	54.15/	0.00	50.00	108.3	69.5/126.7	
Isopropylbenzene	53.72/	0.00	50.00	107.4	74.4/121.5	
Bromoform	52.02/	0.00	50.00	104.0	69.4/128.0	
1,1,2,2-Tetrachloroethane	51.50/	0.00	50.00	103.0	79.8/126.3	
1,2,3-Trichloropropane	52.18/	0.00	50.00	104.4	78.3/138.8	
n-Propylbenzene	55.74/	0.00	50.00	111.5	82.0/130.7	
Bromobenzene	54.58/	0.00	50.00	109.2	78.7/124.6	
1,3,5-Trimethylbenzene	53.84/	0.00	50.00	107.7	81.3/128.9	
tert-Butylbenzene	53.43/	0.00	50.00	106.9	80.7/128.9	
1,2,4-Trimethylbenzene	55.93/	0.00	50.00	111.9	81.4/130.8	
sec-Butylbenzene	53.95/	0.00	50.00	107.9	77.4/129.8	
p-Isopropyltoluene	56.14/	0.00	50.00	112.3	79.8/137.5	
1,3-Dichlorobenzene	54.62/	0.00	50.00	109.2	77.0/131.3	
1,4-Dichlorobenzene	52.54/	0.00	50.00	105.1	20.7/137.7	
1,2-Dichlorobenzene	52.10/	0.00	50.00	104.2	10.0/166.2	
1,2,3-Trimethylbenzene	53.77/	0.00	50.00	107.5	76.3/124.2	
n-Butylbenzene	56.05/	0.00	50.00	112.1	80.0/133.3	
Hexachloroethane	49.75/	0.00	50.00	99.5	23.8/138.1	
1,2-Dibromo-3-Chloropropane	50.19/	0.00	50.00	100.4	21.2/189.4	
1,2,4-Trichlorobenzene	54.77/	0.00	50.00	109.5	27.4/143.4	
1,2,3-Trichlorobenzene	55.17/	0.00	50.00	110.3	75.4/131.4	
Naphthalene	54.02/	0.00	50.00	108.0	32.9/135.8	
2-Methylnaphthalene	53.61/	0.00	50.00	107.2	25.5/165.5	
					Total Outliers:	**0**

Spike File : lcsw02b.d
Spike ID : LCS1
Prep Batch: vf120802w1
Prep Date : 08/02/12
Parent File: blkw02a.d

1,1,2-Trichloro-1,2,2-trifluor	55.11/	0.00	50.00	110.2	75.1/135.9	WW
Diethyl ether	52.02/	0.00	50.00	104.0	67.4/121.2	
Acetone	74.00/	0.00	50.00	148.0	29.9/161.5	
Methyl iodide	51.13/	0.00	50.00	102.3	68.8/116.4	
Carbon disulfide	53.73/	0.00	50.00	107.5	63.8/137.4	
Methyl acetate	52.63/	0.00	50.00	105.3	64.7/125.4	
tert-Methyl butyl ether	54.51/	0.00	50.00	109.0	73.2/122.4	
Acrylonitrile	54.24/	0.00	50.00	108.5	69.9/128.9	
2-Butanone	58.63/	0.00	50.00	117.3	44.0/134.4	
Dichlorodifluoromethane	49.38/	0.00	50.00	98.8	10.0/222.8	
Chloromethane	56.79/	0.00	50.00	113.6	23.8/166.5	
Vinyl Chloride	50.95/	0.00	50.00	101.9	43.5/149.1	
Bromomethane	57.12/	0.00	50.00	114.2	56.8/151.3	
Chloroethane	59.85/	0.00	50.00	119.7	53.4/149.4	
Trichlorofluoromethane	55.52/	0.00	50.00	111.0	59.7/151.8	
1,1-Dichloroethene	51.13/	0.00	50.00	102.3	69.6/139.4	
Methylene Chloride	51.39/	0.00	50.00	102.8	73.3/121.1	
trans-1,2-Dichloroethene	51.77/	0.00	50.00	103.5	73.6/129.3	
1,1-Dichloroethane	52.24/	0.00	50.00	104.5	71.5/126.2	
cis-1,2-Dichloroethene	51.35/	0.00	50.00	102.7	76.6/122.1	
Tetrahydrofuran	46.65/	2.31	50.00	93.3	59.0/117.9	
Chloroform	52.02/	0.00	50.00	104.0	78.4/124.0	
Bromochloromethane	52.45/	0.00	50.00	104.9	78.2/120.8	
1,1,1-Trichloroethane	51.64/	0.00	50.00	103.3	79.4/130.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	43.78/	0.00	50.00	87.6	10.0/169.1	
4-Methyl-2-pentanone	55.81/	0.00	50.00	111.6	71.6/125.2	
2-Hexanone	57.26/	0.00	50.00	114.5	55.4/136.9	
Carbon Tetrachloride	52.25/	0.00	50.00	104.5	72.6/133.0	
Benzene	50.33/	0.00	50.00	100.7	79.9/124.9	
1,2-Dichloroethane	51.43/	0.00	50.00	102.9	76.0/126.3	
Trichloroethene	49.93/	0.00	50.00	99.9	79.7/124.2	
1,2-Dichloropropane	51.78/	0.00	50.00	103.6	78.6/126.4	
Bromodichloromethane	53.88/	0.00	50.00	107.8	80.4/128.2	
Methyl cyclohexane	54.41/	0.00	50.00	108.8	76.6/131.3	
Dibromomethane	49.07/	0.00	50.00	98.1	76.9/122.1	
cis-1,3-Dichloropropene	47.46/	0.00	50.00	94.9	79.8/129.9	
Toluene	50.53/	0.00	50.00	101.1	79.8/124.5	
trans-1,3-Dichloropropene	49.53/	0.00	50.00	99.1	74.0/131.3	
1,1,2-Trichloroethane	50.93/	0.00	50.00	101.9	78.7/123.1	
Tetrachloroethene	50.69/	0.00	50.00	101.4	74.5/124.5	
trans-1,4-Dichloro-2-butene	51.85/	0.00	50.00	103.7	68.6/135.4	
Dibromochloromethane	55.15/	0.00	50.00	110.3	74.6/127.2	
1,2-Dibromoethane	52.93/	0.00	50.00	105.9	70.3/133.7	
Chlorobenzene	51.80/	0.00	50.00	103.6	79.2/122.7	
1,1,1,2-Tetrachloroethane	54.65/	0.00	50.00	109.3	80.3/128.2	
Ethylbenzene	52.21/	0.00	50.00	104.4	79.5/129.1	
p,m-Xylene	106.19/	0.00	100.00	106.2	79.4/132.2	
o-Xylene	54.15/	0.00	50.00	108.3	80.2/131.0	
Styrene	53.34/	0.00	50.00	106.7	69.5/126.7	
Isopropylbenzene	52.89/	0.00	50.00	105.8	74.4/121.5	
Bromoform	52.75/	0.00	50.00	105.5	69.4/128.0	
1,1,2,2-Tetrachloroethane	53.42/	0.00	50.00	106.8	79.8/126.3	
1,2,3-Trichloropropane	53.99/	0.00	50.00	108.0	78.3/138.8	
n-Propylbenzene	54.63/	0.00	50.00	109.3	82.0/130.7	
Bromobenzene	52.32/	0.00	50.00	104.6	78.7/124.6	
1,3,5-Trimethylbenzene	52.78/	0.00	50.00	105.6	81.3/128.9	
tert-Butylbenzene	52.77/	0.00	50.00	105.5	80.7/128.9	
1,2,4-Trimethylbenzene	55.08/	0.00	50.00	110.2	81.4/130.8	
sec-Butylbenzene	52.30/	0.00	50.00	104.6	77.4/129.8	
p-Isopropyltoluene	54.49/	0.00	50.00	109.0	79.8/137.5	
1,3-Dichlorobenzene	53.12/	0.00	50.00	106.2	77.0/131.3	
1,4-Dichlorobenzene	50.86/	0.00	50.00	101.7	20.7/137.7	
1,2-Dichlorobenzene	51.66/	0.00	50.00	103.3	10.0/166.2	
1,2,3-Trimethylbenzene	52.28/	0.00	50.00	104.6	76.3/124.2	
n-Butylbenzene	53.64/	0.00	50.00	107.3	80.0/133.3	
Hexachloroethane	48.17/	0.00	50.00	96.3	23.8/138.1	
1,2-Dibromo-3-Chloropropane	54.07/	0.00	50.00	108.1	21.2/189.4	
1,2,4-Trichlorobenzene	53.60/	0.00	50.00	107.2	27.4/143.4	
1,2,3-Trichlorobenzene	55.59/	0.00	50.00	111.2	75.4/131.4	
Naphthalene	56.44/	0.00	50.00	112.9	32.9/135.8	
2-Methylnaphthalene	59.79/	0.00	50.00	119.6	25.5/165.5	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks31a.d (100ul blank 3s0731)
Blank ID : BLANK1
Prep Batch: vf120731s4
Prep Date : 07/31/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		11	50
Diethyl ether (*)	Not detected		16	50
Acetone (*)	Not detected		340	500
Methyl iodide (iodomethane) (*	Not detected		5.4	50
Carbon disulfide (*)	Not detected		6.9	50
Methyl Acetate	Not detected		20	50
tert-Methyl butyl ether (MTBE)	Not detected		9.2	50
Acrylonitrile (*)	Not detected		37	50
2-Butanone (MEK) (*)	Not detected		25	500
Dichlorodifluoromethane	Not detected		11	50
Chloromethane (SPCC)	Not detected		9.9	50
Vinyl Chloride (CCC)	Not detected		10.0	50
Bromomethane	Not detected		11	50
Chloroethane	Not detected		11	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		7.8	50
1,1-Dichloroethene (CCC/MS)	Not detected		11	50
Methylene Chloride	Not detected		11	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		8.5	50
cis-1,2-Dichloroethene	Not detected		7.9	50
Tetrahydrofuran	2.54	127.0	83	500
Chloroform (CCC)	Not detected		7.8	50
Bromochloromethane	Not detected		11	50
1,1,1-Trichloroethane	Not detected		6.4	50
1,1-Dichloropropene	Not detected		8.2	50
Cyclohexane	Not detected		18	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		22	50
2-Hexanone (*)	Not detected		13	50
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		7.3	50
Benzene (MS)	Not detected		9.2	50
1,2-Dichloroethane	Not detected		11	50
Trichloroethene (MS)	Not detected		9.4	50
1,2-Dichloropropane (CCC)	Not detected		6.5	50
Bromodichloromethane	Not detected		7.4	50
Methyl Cyclohexane	Not detected		9.6	50
Dibromomethane	Not detected		7.7	50
cis-1,3-Dichloropropene	Not detected		7.3	50
Toluene (CCC/MS)	Not detected		8.4	50
trans-1,3-Dichloropropene	Not detected		6.4	50
1,1,2-Trichloroethane	Not detected		9.2	50
Tetrachloroethene	Not detected		9.0	50
trans-1,4-Dichloro-2-butene	Not detected		18	50
Dibromochloromethane	Not detected		6.1	50
1,2-Dibromoethane	Not detected		6.2	50
Chlorobenzene (SPCC/MS)	Not detected		8.1	50
1,1,1,2-Tetrachloroethane	Not detected		6.1	50
Ethylbenzene (CCC)	Not detected		9.6	50
p,m-Xylene	Not detected		18	50
o-Xylene	Not detected		9.1	50
Styrene	Not detected		9.6	50
Isopropylbenzene	Not detected		8.6	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks31a.d (100ul blank 3s0731)
Blank ID : BLANK1
Prep Batch: vf120731s4
Prep Date : 07/31/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		9.9	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.2	50
1,2,3-Trichloropropane	Not detected		18	50
n-Propylbenzene	Not detected		8.8	50
Bromobenzene	Not detected		9.5	50
1,3,5-Trimethylbenzene	Not detected		8.8	50
tert-Butylbenzene	Not detected		10	50
1,2,4-Trimethylbenzene	Not detected		9.9	50
sec-Butylbenzene	Not detected		10	50
p-Isopropyltoluene	Not detected		10	50
1,3-Dichlorobenzene	Not detected		10	50
1,4-Dichlorobenzene	Not detected		8.5	50
1,2-Dichlorobenzene	Not detected		11	50
1,2,3-Trimethylbenzene	Not detected		6.7	50
n-Butylbenzene	Not detected		4.1	50
Hexachloroethane	Not detected		6.5	50
1,2-Dibromo-3-Chloropropane	Not detected		11	50
1,2,4-Trichlorobenzene	Not detected		6.6	50
Hexachlorobutadiene	Not detected		11	50
1,2,3-Trichlorobenzene	Not detected		7.6	50
Naphthalene	Not detected		6.7	50
2-Methylnaphthalene	Not detected		7.8	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw02a.d (5ml blank 1dr0731)
Blank ID : BLANK1
Prep Batch: vf120802w1
Prep Date : 08/02/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		0.17	1
Diethyl ether (*)	Not detected		0.19	1
Acetone (*)	Not detected		4.0	10
Methyl iodide (iodomethane) (*	Not detected		0.14	1
Carbon disulfide (*)	Not detected		0.15	1
Methyl Acetate	Not detected		0.20	1
tert-Methyl butyl ether (MTBE)	Not detected		0.13	1
Acrylonitrile (*)	Not detected		0.35	1
2-Butanone (MEK) (*)	Not detected		3.3	10
Dichlorodifluoromethane	Not detected		0.093	1
Chloromethane (SPCC)	Not detected		0.14	1
Vinyl Chloride (CCC)	Not detected		0.10	1
Bromomethane	Not detected		0.16	1
Chloroethane	Not detected		0.23	1
Acrolein	Not detected		1.8	10
Trichlorofluoromethane	Not detected		0.16	1
1,1-Dichloroethene (CCC/MS)	Not detected		0.20	1
Methylene Chloride	Not detected		0.17	1
trans-1,2-Dichloroethene	Not detected		0.088	1
1,1-Dichloroethane (SPCC)	Not detected		0.14	1
cis-1,2-Dichloroethene	Not detected		0.18	1
Tetrahydrofuran	2.31	2.3	1.2	10
Chloroform (CCC)	Not detected		0.15	1
Bromochloromethane	Not detected		0.13	1
1,1,1-Trichloroethane	Not detected		0.13	1
1,1-Dichloropropene	Not detected		0.17	1
Cyclohexane	Not detected		0.20	1
4-Methyl-2-pentanone (MIBK) (*	Not detected		0.31	1
2-Hexanone (*)	Not detected		0.24	1
2-chloroethylvinyl ether	Not detected		0.29	1
Carbon Tetrachloride	Not detected		0.16	1
Benzene (MS)	Not detected		0.11	1
1,2-Dichloroethane	Not detected		0.13	1
Trichloroethene (MS)	Not detected		0.19	1
1,2-Dichloropropane (CCC)	Not detected		0.11	1
Bromodichloromethane	Not detected		0.054	1
Methyl Cyclohexane	Not detected		0.13	1
Dibromomethane	Not detected		0.14	1
cis-1,3-Dichloropropene	Not detected		0.20	1
Toluene (CCC/MS)	Not detected		0.16	1
trans-1,3-Dichloropropene	Not detected		0.12	1
1,1,2-Trichloroethane	Not detected		0.19	1
Tetrachloroethene	Not detected		0.27	1
trans-1,4-Dichloro-2-butene	Not detected		0.22	1
Dibromochloromethane	Not detected		0.18	1
1,2-Dibromoethane	Not detected		0.10	1
Chlorobenzene (SPCC/MS)	Not detected		0.14	1
1,1,1,2-Tetrachloroethane	Not detected		0.26	1
Ethylbenzene (CCC)	Not detected		0.12	1
p,m-Xylene	Not detected		0.14	1
o-Xylene	Not detected		0.14	1
Styrene	Not detected		0.12	1
Isopropylbenzene	Not detected		0.13	1

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw02a.d (5ml blank 1dr0731)
Blank ID : BLANK1
Prep Batch: vf120802w1
Prep Date : 08/02/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
Bromoform (SPCC)	Not detected		0.076	1
1,1,2,2-Tetrachloroethane (SPC	Not detected		0.18	1
1,2,3-Trichloropropane	Not detected		0.20	1
n-Propylbenzene	Not detected		0.11	1
Bromobenzene	Not detected		0.12	1
1,3,5-Trimethylbenzene	Not detected		0.15	1
tert-Butylbenzene	Not detected		0.088	1
1,2,4-Trimethylbenzene	Not detected		0.096	1
sec-Butylbenzene	Not detected		0.14	1
p-Isopropyltoluene	Not detected		0.12	1
1,3-Dichlorobenzene	Not detected		0.11	1
1,4-Dichlorobenzene	Not detected		0.073	1
1,2-Dichlorobenzene	Not detected		0.13	1
1,2,3-Trimethylbenzene	Not detected		0.14	1
n-Butylbenzene	Not detected		0.12	1
Hexachloroethane	Not detected		0.15	1
1,2-Dibromo-3-Chloropropane	Not detected		0.20	1
1,2,4-Trichlorobenzene	Not detected		0.15	1
Hexachlorobutadiene	Not detected		0.12	1
1,2,3-Trichlorobenzene	Not detected		0.092	1
Naphthalene	Not detected		0.16	1
2-Methylnaphthalene	Not detected		0.14	1

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks31a.d
Method Blank Prep Date: 07/31/12
Blank/LCS Preparation Batch: vf120731s4

LCS Data File: lcss31b.d
LCS Prep Date: 07/31/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53286.27	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260
S53286.28	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260
S53286.29	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260
S53360.02	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.03	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.04	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.05	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.06	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.07	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.08	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.09	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.10	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.11	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.12	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53360.13	120731B5	VF120731S4	08/01/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53370.01	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260
S53370.02	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260
S53370.03	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260
S53370.04	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260
S53370.05	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260
S53370.06	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260
S53370.07	120731B5	VF120731S4	08/01/12	Volatile Organics 5035	$58260

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blkw02a.d
Method Blank Prep Date: 08/02/12
Blank/LCS Preparation Batch: vf120802w1

LCS Data File: lcsw02a.d
LCS Prep Date: 08/02/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53302.01	120802A3	VF120802W1	08/02/12	BTEX, GC/MS	$BTX826W
S53304.01	120802A3	VF120802W1	08/02/12	BTEX, GC/MS	$BTX826W
S53319.08	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53319.09	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53319.10	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53319.11	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53320.03	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53320.04	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53320.05	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53320.12	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53329.02	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53329.03	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W
S53360.01	120802A3	VF120802W1	08/02/12	TCL Volatile Organics 8260	$8260TCL
S53367.01	120802A3	VF120802W1	08/02/12	Volatile Organics - DEQ List	$8260W

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb31b.d	07/31/12 22:37	50	95	8.0	40.0	10.3	3665	PASS
		75	95	30.0	66.0	38.0	13489	PASS
		95	95	100.0	100.0	100.0	35528	PASS
		96	95	5.0	9.0	6.8	2433	PASS
		173	174	0.0	2.0	0.6	244	PASS
		174	95	50.0	120.0	112.5	39984	PASS
		175	174	4.0	9.0	7.1	2854	PASS
		176	174	93.0	101.0	98.1	39216	PASS
		177	176	5.0	9.0	7.0	2727	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120802a3.3
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb02a.d	08/02/12 10:42	50	95	8.0	40.0	24.0	1970	PASS
		75	95	30.0	66.0	50.4	4131	PASS
		95	95	100.0	100.0	100.0	8192	PASS
		96	95	5.0	9.0	7.4	610	PASS
		173	174	0.0	2.0	0.0	0	PASS
		174	95	50.0	120.0	63.3	5185	PASS
		175	174	4.0	9.0	7.0	364	PASS
		176	174	93.0	101.0	94.2	4883	PASS
		177	176	5.0	9.0	6.4	313	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc31c.d	07/31/12 23:41	Pentafluorobenzene	568957/ 3.96	284479- 1137914	3.46- 4.46
		1,4-Difluorobenzene	639152/ 4.32	319576- 1278304	3.82- 4.82
		Chlorobenzene-D5	230083/ 5.69	115042- 460166	5.19- 6.19
		1,4-Dichlorobenzene-D4	321119/ 6.78	160560- 642238	6.28- 7.28
					Total Outliers: N/A
lcss31b.d	08/01/12 00:11	Pentafluorobenzene	501524/ 3.96	Ratio: 0.881	Diff.: 0.00
		1,4-Difluorobenzene	575295/ 4.32	Ratio: 0.900	Diff.: 0.00
		Chlorobenzene-D5	207030/ 5.69	Ratio: 0.900	Diff.: 0.00
		1,4-Dichlorobenzene-D4	282776/ 6.78	Ratio: 0.881	Diff.: 0.00
					Total Outliers: 0
lcss31c.d	08/01/12 00:32	Pentafluorobenzene	506762/ 3.96	Ratio: 0.891	Diff.: 0.00
		1,4-Difluorobenzene	594113/ 4.32	Ratio: 0.930	Diff.: 0.00
		Chlorobenzene-D5	213157/ 5.68	Ratio: 0.926	Diff.: -0.01
		1,4-Dichlorobenzene-D4	280358/ 6.77	Ratio: 0.873	Diff.: -0.01
					Total Outliers: 0
blks31a.d	08/01/12 01:52	Pentafluorobenzene	555359/ 3.96	Ratio: 0.976	Diff.: 0.00
		1,4-Difluorobenzene	633940/ 4.32	Ratio: 0.992	Diff.: 0.00
		Chlorobenzene-D5	221827/ 5.68	Ratio: 0.964	Diff.: -0.01
		1,4-Dichlorobenzene-D4	298955/ 6.77	Ratio: 0.931	Diff.: -0.01
					Total Outliers: 0
5336002.d	08/01/12 05:34	Pentafluorobenzene	551221/ 3.96	Ratio: 0.969	Diff.: 0.00
		1,4-Difluorobenzene	631150/ 4.32	Ratio: 0.987	Diff.: 0.00
		Chlorobenzene-D5	220312/ 5.68	Ratio: 0.958	Diff.: -0.01
		1,4-Dichlorobenzene-D4	301344/ 6.77	Ratio: 0.938	Diff.: -0.01
					Total Outliers: 0
5336003.d	08/01/12 05:54	Pentafluorobenzene	509530/ 3.96	Ratio: 0.896	Diff.: 0.00
		1,4-Difluorobenzene	580090/ 4.32	Ratio: 0.908	Diff.: 0.00
		Chlorobenzene-D5	204949/ 5.68	Ratio: 0.891	Diff.: -0.01
		1,4-Dichlorobenzene-D4	281820/ 6.77	Ratio: 0.878	Diff.: -0.01
					Total Outliers: 0
5336004.d	08/01/12 06:14	Pentafluorobenzene	527666/ 3.96	Ratio: 0.927	Diff.: 0.00
		1,4-Difluorobenzene	595088/ 4.32	Ratio: 0.931	Diff.: 0.00
		Chlorobenzene-D5	203549/ 5.68	Ratio: 0.885	Diff.: -0.01
		1,4-Dichlorobenzene-D4	271581/ 6.77	Ratio: 0.846	Diff.: -0.01
					Total Outliers: 0
5336007.d	08/01/12 06:34	Pentafluorobenzene	549463/ 3.96	Ratio: 0.966	Diff.: 0.00
		1,4-Difluorobenzene	634060/ 4.32	Ratio: 0.992	Diff.: 0.00
		Chlorobenzene-D5	225107/ 5.68	Ratio: 0.978	Diff.: -0.01
		1,4-Dichlorobenzene-D4	305744/ 6.77	Ratio: 0.952	Diff.: -0.01
					Total Outliers: 0
5336008.d	08/01/12 06:54	Pentafluorobenzene	559720/ 3.96	Ratio: 0.984	Diff.: 0.00
		1,4-Difluorobenzene	645381/ 4.32	Ratio: 1.010	Diff.: 0.00
		Chlorobenzene-D5	226931/ 5.68	Ratio: 0.986	Diff.: -0.01
		1,4-Dichlorobenzene-D4	305349/ 6.77	Ratio: 0.951	Diff.: -0.01
					Total Outliers: 0
5336009.d	08/01/12 07:14	Pentafluorobenzene	529136/ 3.96	Ratio: 0.930	Diff.: 0.00
		1,4-Difluorobenzene	612396/ 4.32	Ratio: 0.958	Diff.: 0.00
		Chlorobenzene-D5	213538/ 5.68	Ratio: 0.928	Diff.: -0.01
		1,4-Dichlorobenzene-D4	284568/ 6.77	Ratio: 0.886	Diff.: -0.01
					Total Outliers: 0
5336010.d	08/01/12 07:34	Pentafluorobenzene	506467/ 3.96	Ratio: 0.890	Diff.: 0.00
		1,4-Difluorobenzene	590311/ 4.32	Ratio: 0.924	Diff.: 0.00
		Chlorobenzene-D5	206942/ 5.68	Ratio: 0.899	Diff.: -0.01
		1,4-Dichlorobenzene-D4	277441/ 6.77	Ratio: 0.864	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5336011.d	08/01/12 07:55	Pentafluorobenzene	502070/ 3.96	Ratio: 0.882	Diff.: 0.00
		1,4-Difluorobenzene	584944/ 4.32	Ratio: 0.915	Diff.: 0.00
		Chlorobenzene-D5	204174/ 5.68	Ratio: 0.887	Diff.: -0.01
		1,4-Dichlorobenzene-D4	277503/ 6.77	Ratio: 0.864	Diff.: -0.01
					Total Outliers: 0
5336012.d	08/01/12 08:15	Pentafluorobenzene	531025/ 3.96	Ratio: 0.933	Diff.: 0.00
		1,4-Difluorobenzene	627766/ 4.32	Ratio: 0.982	Diff.: 0.00
		Chlorobenzene-D5	219326/ 5.68	Ratio: 0.953	Diff.: -0.01
		1,4-Dichlorobenzene-D4	281247/ 6.77	Ratio: 0.876	Diff.: -0.01
					Total Outliers: 0
5336013.d	08/01/12 08:35	Pentafluorobenzene	559886/ 3.96	Ratio: 0.984	Diff.: 0.00
		1,4-Difluorobenzene	645699/ 4.32	Ratio: 1.010	Diff.: 0.00
		Chlorobenzene-D5	225608/ 5.68	Ratio: 0.981	Diff.: -0.01
		1,4-Dichlorobenzene-D4	301182/ 6.77	Ratio: 0.938	Diff.: -0.01
					Total Outliers: 0
5336005m.d	08/01/12 08:56	Pentafluorobenzene	508734/ 3.96	Ratio: 0.894	Diff.: 0.00
		1,4-Difluorobenzene	593771/ 4.32	Ratio: 0.929	Diff.: 0.00
		Chlorobenzene-D5	206670/ 5.68	Ratio: 0.898	Diff.: -0.01
		1,4-Dichlorobenzene-D4	263532/ 6.78	Ratio: 0.821	Diff.: 0.00
					Total Outliers: 0
5336006n.d	08/01/12 09:16	Pentafluorobenzene	463973/ 3.96	Ratio: 0.815	Diff.: 0.00
		1,4-Difluorobenzene	551643/ 4.32	Ratio: 0.863	Diff.: 0.00
		Chlorobenzene-D5	194981/ 5.68	Ratio: 0.847	Diff.: -0.01
		1,4-Dichlorobenzene-D4	248868/ 6.77	Ratio: 0.775	Diff.: -0.01
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120802a3.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*		*RT Range*
spcc02a.d	08/02/12 11:17	Pentafluorobenzene	25056/ 3.99	12528-	50112	3.49- 4.49
		1,4-Difluorobenzene	47094/ 4.35	23547-	94188	3.85- 4.85
		Chlorobenzene-D5	25784/ 5.72	12892-	51568	5.22- 6.22
		1,4-Dichlorobenzene-D4	20520/ 6.81	10260-	41040	6.31- 7.31
					Total Outliers:	**N/A**
lcsw02a.d	08/02/12 12:03	Pentafluorobenzene	26116/ 3.99	Ratio: 1.042		Diff.: 0.00
		1,4-Difluorobenzene	48021/ 4.35	Ratio: 1.020		Diff.: 0.00
		Chlorobenzene-D5	26472/ 5.72	Ratio: 1.027		Diff.: 0.00
		1,4-Dichlorobenzene-D4	21070/ 6.81	Ratio: 1.027		Diff.: 0.00
					Total Outliers:	**0**
lcsw02b.d	08/02/12 12:23	Pentafluorobenzene	26390/ 3.99	Ratio: 1.053		Diff.: 0.00
		1,4-Difluorobenzene	48977/ 4.35	Ratio: 1.040		Diff.: 0.00
		Chlorobenzene-D5	26975/ 5.72	Ratio: 1.046		Diff.: 0.00
		1,4-Dichlorobenzene-D4	21533/ 6.81	Ratio: 1.049		Diff.: 0.00
					Total Outliers:	**0**
blkw02a.d	08/02/12 13:24	Pentafluorobenzene	26100/ 3.99	Ratio: 1.042		Diff.: 0.00
		1,4-Difluorobenzene	45469/ 4.35	Ratio: 0.965		Diff.: 0.00
		Chlorobenzene-D5	24679/ 5.72	Ratio: 0.957		Diff.: 0.00
		1,4-Dichlorobenzene-D4	18937/ 6.81	Ratio: 0.923		Diff.: 0.00
					Total Outliers:	**0**
5336001.d	08/02/12 17:26	Pentafluorobenzene	30112/ 3.99	Ratio: 1.202		Diff.: 0.00
		1,4-Difluorobenzene	53819/ 4.35	Ratio: 1.143		Diff.: 0.00
		Chlorobenzene-D5	29915/ 5.72	Ratio: 1.160		Diff.: 0.00
		1,4-Dichlorobenzene-D4	23669/ 6.81	Ratio: 1.153		Diff.: 0.00
					Total Outliers:	**0**

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120802a3.3

LIMS ID: S53360.01
Data File: 5336001.d
Date Received: 07/27/12

Tag: 0908-072612-0001
Notes: 5ml 1dr0731
w/1 id:vf120802w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/02/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/02/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (102%)				08/02/12	
460-00-4	4-Bromofluorobenzene	Pass (94%)					
2037-26-5	Toluene-D8	Pass (101%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.02
Data File: 5336002.d
Date Received: 07/27/12

Tag: SB120 (07-26-12) (4-6)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 72.3

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	1100	490	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	10.0	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	29	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	36	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	16	ug/kg		
74-87-3	Chloromethane	Not detected	400	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	400	15	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	9.3	ug/kg		
110-82-7	Cyclohexane	Not detected	70	27	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	31	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	18	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	10	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.3	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	10	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	9.2	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.7	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	9.0	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	10	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	26	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.5	ug/kg		
Total Solids							
TSOLIDS	Total Solids	81	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (94%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.02
Data File: 5336002.d
Date Received: 07/27/12

Tag: SB120 (07-26-12) (4-6)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.03
Data File: 5336003.d
Date Received: 07/27/12

Tag: SB169 (07-26-12) (1.5-3.5)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 62.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	930	420	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.6	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	25	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	930	31	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.7	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.8	ug/kg		
67-66-3	Chloroform	Not detected	60	9.6	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	8.0	ug/kg		
110-82-7	Cyclohexane	Not detected	60	23	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	27	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	9.0	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	8.0	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.2	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.0	ug/kg		
108-88-3	Toluene	Not detected	60	10	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.9	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.5	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.7	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	10	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	9.0	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	23	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	11	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.2	ug/kg		
Total Solids							
TSOLIDS	Total Solids	89	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.03
Data File: 5336003.d
Date Received: 07/27/12

Tag: SB169 (07-26-12) (1.5-3.5)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.04
Data File: 5336004.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 60.1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	900	410	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.3	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	25	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	900	30	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.4	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.5	ug/kg		
67-66-3	Chloroform	Not detected	60	9.3	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.7	ug/kg		
110-82-7	Cyclohexane	Not detected	60	22	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	26	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.7	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.8	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.9	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.7	ug/kg		
108-88-3	Toluene	Not detected	60	10	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.5	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.7	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.7	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	22	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	10	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (89%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (98%)					
2037-26-5	Toluene-D8	Pass (97%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.04
Data File: 5336004.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.05
Data File: 5336005m.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MS
Notes: 100ul ms 3s0731 1m0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 59.7

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	3100	100	13	ug/kg	08/01/12	*
67-64-1	Acetone	3550	900	400	ug/kg		*
75-15-0	Carbon disulfide	2500	300	8.2	ug/kg		*
79-20-9	Methyl Acetate	Not detected	3000	24	ug/kg		*
1634-04-4	tert-Methyl butyl ether (MTBE)	2900	300	11	ug/kg		*
78-93-3	2-Butanone (MEK)	3240	900	29	ug/kg		*
75-71-8	Dichlorodifluoromethane	2510	60	13	ug/kg		*
74-87-3	Chloromethane	2600	300	12	ug/kg		*
75-01-4	Vinyl chloride	2800	100	12	ug/kg		*
74-83-9	Bromomethane	2900	300	13	ug/kg		*
75-00-3	Chloroethane	3100	300	13	ug/kg		*
75-69-4	Trichlorofluoromethane	3400	100	9.3	ug/kg		*
75-35-4	1,1-Dichloroethene	2850	60	13	ug/kg		*
75-09-2	Methylene chloride	2600	300	13	ug/kg		*
156-60-5	trans-1,2-Dichloroethene	2770	60	10	ug/kg		*
75-34-3	1,1-Dichloroethane	2790	60	10	ug/kg		*
156-59-2	cis-1,2-Dichloroethene	2830	60	9.4	ug/kg		*
67-66-3	Chloroform	2870	60	9.3	ug/kg		*
71-55-6	1,1,1-Trichloroethane	3100	60	7.6	ug/kg		*
110-82-7	Cyclohexane	2280	60	22	ug/kg		*
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	26	ug/kg		*
591-78-6	2-Hexanone	3000	3000	15	ug/kg		*
56-23-5	Carbon tetrachloride	3170	60	8.7	ug/kg		*
71-43-2	Benzene	2860	60	11	ug/kg		*
107-06-2	1,2-Dichloroethane	2970	60	13	ug/kg		*
79-01-6	Trichloroethene	2970	60	11	ug/kg		*
78-87-5	1,2-Dichloropropane	2840	60	7.7	ug/kg		*
75-27-4	Bromodichloromethane	3020	60	8.8	ug/kg		*
108-87-2	Methyl cyclohexane	3040	60	11	ug/kg		*
10061-01-5	cis-1,3-Dichloropropene	2950	60	8.7	ug/kg		*
108-88-3	Toluene	2960	60	10	ug/kg		*
10061-02-6	trans-1,3-Dichloropropene	3010	60	7.6	ug/kg		*
79-00-5	1,1,2-Trichloroethane	2870	60	11	ug/kg		*
127-18-4	Tetrachloroethene	2850	60	11	ug/kg		*
124-48-1	Dibromochloromethane	3220	60	7.2	ug/kg		*
106-93-4	1,2-Dibromoethane	3090	60	7.4	ug/kg		*
108-90-7	Chlorobenzene	2950	60	9.7	ug/kg		*
79-34-5	1,1,2,2-Tetrachloroethane	3030	60	8.6	ug/kg		*
100-41-4	Ethylbenzene	3110	60	11	ug/kg		*
M/P-XYLENE	p,m-Xylene	6160	60	22	ug/kg		*
95-47-6	o-Xylene	3130	60	11	ug/kg		*
100-42-5	Styrene	3040	60	11	ug/kg		*
98-82-8	Isopropylbenzene	3220	60	10	ug/kg		*
75-25-2	Bromoform	3030	60	12	ug/kg		*
541-73-1	1,3-Dichlorobenzene	3110	60	12	ug/kg		*
106-46-7	1,4-Dichlorobenzene	3020	60	10	ug/kg		*
95-50-1	1,2-Dichlorobenzene	3150	60	13	ug/kg		*
96-12-8	1,2-Dibromo-3-chloropropane	3390	60	13	ug/kg		*
120-82-1	1,2,4-Trichlorobenzene	3000	100	7.9	ug/kg		*
Total Solids							
TSOLIDS	Total Solids	91	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (100%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (98%)					
2037-26-5	Toluene-D8	Pass (100%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.05
Data File: 5336005m.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MS
Notes: 100ul ms 3s0731 1m0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.06
Data File: 5336006n.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MSD
Notes: 100ul msd 3s0731 1m0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 59.7

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	3200	100	13	ug/kg	08/01/12	*
67-64-1	Acetone	3260	900	400	ug/kg		*
75-15-0	Carbon disulfide	2600	300	8.2	ug/kg		*
79-20-9	Methyl Acetate	Not detected	3000	24	ug/kg		*
1634-04-4	tert-Methyl butyl ether (MTBE)	3000	300	11	ug/kg		*
78-93-3	2-Butanone (MEK)	3220	900	29	ug/kg		*
75-71-8	Dichlorodifluoromethane	2550	60	13	ug/kg		*
74-87-3	Chloromethane	2700	300	12	ug/kg		*
75-01-4	Vinyl chloride	2800	100	12	ug/kg		*
74-83-9	Bromomethane	3000	300	13	ug/kg		*
75-00-3	Chloroethane	3200	300	13	ug/kg		*
75-69-4	Trichlorofluoromethane	3600	100	9.3	ug/kg		*
75-35-4	1,1-Dichloroethene	2830	60	13	ug/kg		*
75-09-2	Methylene chloride	2700	300	13	ug/kg		*
156-60-5	trans-1,2-Dichloroethene	2880	60	10	ug/kg		*
75-34-3	1,1-Dichloroethane	2910	60	10	ug/kg		*
156-59-2	cis-1,2-Dichloroethene	2940	60	9.4	ug/kg		*
67-66-3	Chloroform	2990	60	9.3	ug/kg		*
71-55-6	1,1,1-Trichloroethane	3250	60	7.6	ug/kg		*
110-82-7	Cyclohexane	2460	60	22	ug/kg		*
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	26	ug/kg		*
591-78-6	2-Hexanone	3000	3000	15	ug/kg		*
56-23-5	Carbon tetrachloride	3260	60	8.7	ug/kg		*
71-43-2	Benzene	2890	60	11	ug/kg		*
107-06-2	1,2-Dichloroethane	2990	60	13	ug/kg		*
79-01-6	Trichloroethene	2970	60	11	ug/kg		*
78-87-5	1,2-Dichloropropane	2860	60	7.7	ug/kg		*
75-27-4	Bromodichloromethane	3060	60	8.8	ug/kg		*
108-87-2	Methyl cyclohexane	3130	60	11	ug/kg		*
10061-01-5	cis-1,3-Dichloropropene	3010	60	8.7	ug/kg		*
108-88-3	Toluene	2990	60	10	ug/kg		*
10061-02-6	trans-1,3-Dichloropropene	3080	60	7.6	ug/kg		*
79-00-5	1,1,2-Trichloroethane	2890	60	11	ug/kg		*
127-18-4	Tetrachloroethene	2910	60	11	ug/kg		*
124-48-1	Dibromochloromethane	3280	60	7.2	ug/kg		*
106-93-4	1,2-Dibromoethane	3070	60	7.4	ug/kg		*
108-90-7	Chlorobenzene	2970	60	9.7	ug/kg		*
79-34-5	1,1,2,2-Tetrachloroethane	3060	60	8.6	ug/kg		*
100-41-4	Ethylbenzene	3110	60	11	ug/kg		*
M/P-XYLENE	p,m-Xylene	6180	60	22	ug/kg		*
95-47-6	o-Xylene	3150	60	11	ug/kg		*
100-42-5	Styrene	3040	60	11	ug/kg		*
98-82-8	Isopropylbenzene	3260	60	10	ug/kg		*
75-25-2	Bromoform	3100	60	12	ug/kg		*
541-73-1	1,3-Dichlorobenzene	3130	60	12	ug/kg		*
106-46-7	1,4-Dichlorobenzene	3020	60	10	ug/kg		*
95-50-1	1,2-Dichlorobenzene	3180	60	13	ug/kg		*
96-12-8	1,2-Dibromo-3-chloropropane	3450	60	13	ug/kg		*
120-82-1	1,2,4-Trichlorobenzene	3100	100	7.9	ug/kg		*
Total Solids							
TSOLIDS	Total Solids	91	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (102%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (98%)					
2037-26-5	Toluene-D8	Pass (100%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.06
Data File: 5336006n.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MSD
Notes: 100ul msd 3s0731 1m0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.07
Data File: 5336007.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (7.5-9.5)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 63.8

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	960	430	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.8	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	26	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	960	32	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10.0	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	10	ug/kg		
67-66-3	Chloroform	Not detected	60	9.9	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	8.2	ug/kg		
110-82-7	Cyclohexane	Not detected	60	23	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	28	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	9.3	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	8.2	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.4	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.3	ug/kg		
108-88-3	Toluene	Not detected	60	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	8.1	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.7	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.9	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	10	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	9.2	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	23	ug/kg		
95-47-6	o-Xylene	Not detected	60	12	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	11	ug/kg		
75-25-2	Bromoform	Not detected	60	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.4	ug/kg		
Total Solids							
TSOLIDS	Total Solids	87	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (95%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.07
Data File: 5336007.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (7.5-9.5)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.08
Data File: 5336008.d
Date Received: 07/27/12

Tag: SB145 (07-27-12) (2-4)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 62.9

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	940	420	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.7	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	26	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	940	31	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.8	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.9	ug/kg		
67-66-3	Chloroform	Not detected	60	9.7	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	8.1	ug/kg		
110-82-7	Cyclohexane	Not detected	60	23	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	27	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	9.1	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	8.1	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.3	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.1	ug/kg		
108-88-3	Toluene	Not detected	60	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	8.0	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.6	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.8	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	10	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	9.1	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	23	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	11	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.3	ug/kg		
Total Solids							
TSOLIDS	Total Solids	89	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.08
Data File: 5336008.d
Date Received: 07/27/12

Tag: SB145 (07-27-12) (2-4)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.09
Data File: 5336009.d
Date Received: 07/27/12

Tag: SB145 (07-27-12) (6-8)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 44.5

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	90	9.4	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	670	300	ug/kg		
75-15-0	Carbon disulfide	Not detected	200	6.1	ug/kg		
79-20-9	Methyl Acetate	Not detected	2000	18	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	200	8.1	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	670	22	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	40	10.0	ug/kg		
74-87-3	Chloromethane	Not detected	200	8.8	ug/kg		
75-01-4	Vinyl chloride	Not detected	90	8.9	ug/kg		
74-83-9	Bromomethane	Not detected	200	9.4	ug/kg		
75-00-3	Chloroethane	Not detected	200	9.6	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	90	6.9	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	40	9.6	ug/kg		
75-09-2	Methylene chloride	Not detected	200	9.5	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	40	7.5	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	40	7.6	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	40	7.0	ug/kg		
67-66-3	Chloroform	Not detected	40	6.9	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	40	5.7	ug/kg		
110-82-7	Cyclohexane	Not detected	40	16	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	2000	19	ug/kg		
591-78-6	2-Hexanone	Not detected	2000	11	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	40	6.5	ug/kg		
71-43-2	Benzene	Not detected	40	8.2	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	40	10	ug/kg		
79-01-6	Trichloroethene	Not detected	40	8.3	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	40	5.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	40	6.6	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	40	8.5	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	40	6.5	ug/kg		
108-88-3	Toluene	Not detected	40	7.5	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	40	5.7	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	40	8.1	ug/kg		
127-18-4	Tetrachloroethene	Not detected	40	8.0	ug/kg		
124-48-1	Dibromochloromethane	Not detected	40	5.4	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	40	5.5	ug/kg		
108-90-7	Chlorobenzene	Not detected	40	7.2	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	40	6.4	ug/kg		
100-41-4	Ethylbenzene	Not detected	40	8.5	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	40	16	ug/kg		
95-47-6	o-Xylene	Not detected	40	8.1	ug/kg		
100-42-5	Styrene	Not detected	40	8.5	ug/kg		
98-82-8	Isopropylbenzene	Not detected	40	7.6	ug/kg		
75-25-2	Bromoform	Not detected	40	8.8	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	40	8.9	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	40	7.6	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	40	9.6	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	40	9.5	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	90	5.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	82	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (94%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.09
Data File: 5336009.d
Date Received: 07/27/12

Tag: SB145 (07-27-12) (6-8)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.10
Data File: 5336010.d
Date Received: 07/27/12

Tag: SB106 (07-27-12) (8-10)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 62.6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	940	420	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.6	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	26	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	940	31	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.8	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.9	ug/kg		
67-66-3	Chloroform	Not detected	60	9.7	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	8.0	ug/kg		
110-82-7	Cyclohexane	Not detected	60	23	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	27	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	9.1	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	8.1	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.3	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.1	ug/kg		
108-88-3	Toluene	Not detected	60	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	8.0	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.6	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.8	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	10	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	9.0	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	23	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	11	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.3	ug/kg		
Total Solids							
TSOLIDS	Total Solids	89	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (95%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.10
Data File: 5336010.d
Date Received: 07/27/12

Tag: SB106 (07-27-12) (8-10)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.11
Data File: 5336011.d
Date Received: 07/27/12

Tag: SB106 (07-27-12) (32-34)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 70.7

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	1100	480	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	9.8	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	29	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	35	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	16	ug/kg		
74-87-3	Chloromethane	Not detected	400	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	400	15	ug/kg		
75-00-3	Chloroethane	Not detected	400	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	400	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	9.0	ug/kg		
110-82-7	Cyclohexane	Not detected	70	26	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	31	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	18	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	10	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.1	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	10	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	9.0	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.6	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.8	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	10	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	26	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.3	ug/kg		
Total Solids							
TSOLIDS	Total Solids	83	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (98%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.11
Data File: 5336011.d
Date Received: 07/27/12

Tag: SB106 (07-27-12) (32-34)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.12
Data File: 5336012.d
Date Received: 07/27/12

Tag: SB100 (07-27-12) (2-4)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 67.8

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	1000	460	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.4	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	33	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.7	ug/kg		
110-82-7	Cyclohexane	Not detected	70	25	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	29	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.8	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.7	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.8	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.6	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.2	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.4	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.8	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	25	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.9	ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (96%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (97%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.12
Data File: 5336012.d
Date Received: 07/27/12

Tag: SB100 (07-27-12) (2-4)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.13
Data File: 5336013.d
Date Received: 07/27/12

Tag: SB101 (07-27-12) (2.5-4.5)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor: 61.4

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/01/12	
67-64-1	Acetone	Not detected	920	410	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.5	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	25	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	920	30	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.6	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.7	ug/kg		
67-66-3	Chloroform	Not detected	60	9.5	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.9	ug/kg		
110-82-7	Cyclohexane	Not detected	60	23	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	27	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.9	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.9	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.1	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.9	ug/kg		
108-88-3	Toluene	Not detected	60	10	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.8	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.4	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.6	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.9	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.8	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	22	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	10	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.1	ug/kg		
Total Solids							
TSOLIDS	Total Solids	90	1		%	07/31/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/01/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/01/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120731b5.3

LIMS ID: S53360.13
Data File: 5336013.d
Date Received: 07/27/12

Tag: SB101 (07-27-12) (2.5-4.5)
Notes: 100ul 3s0731
s/50 id:vf120731s4

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
Analytical Batch: 120802a3.3
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\5336001.d Vial: 21
Acq On : 2 Aug 12 5:26 pm Operator: lbr
Sample : 5ml 1dr0731 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:25 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

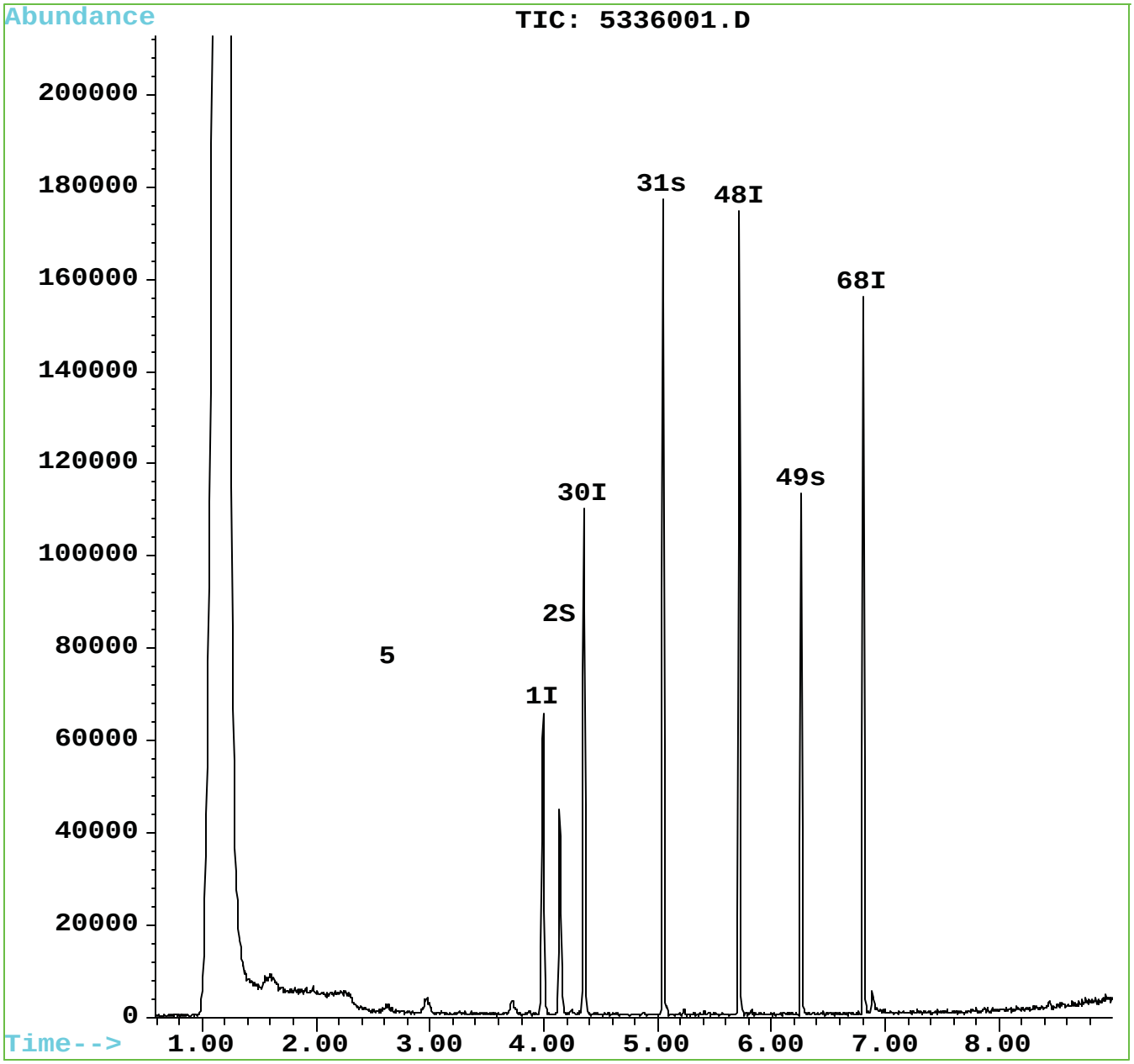
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30112	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	53819	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29915	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23669	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	22220	5.08	ug/l	101.6
31) TOLUENE-D8 (S)	5.05	98	67471	5.07	ug/l	101.3
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14871	4.70	ug/l	93.9
Target Compounds						Qvalu
5) Acetone (*)	2.63	43	2062	1.36	ug/l	8

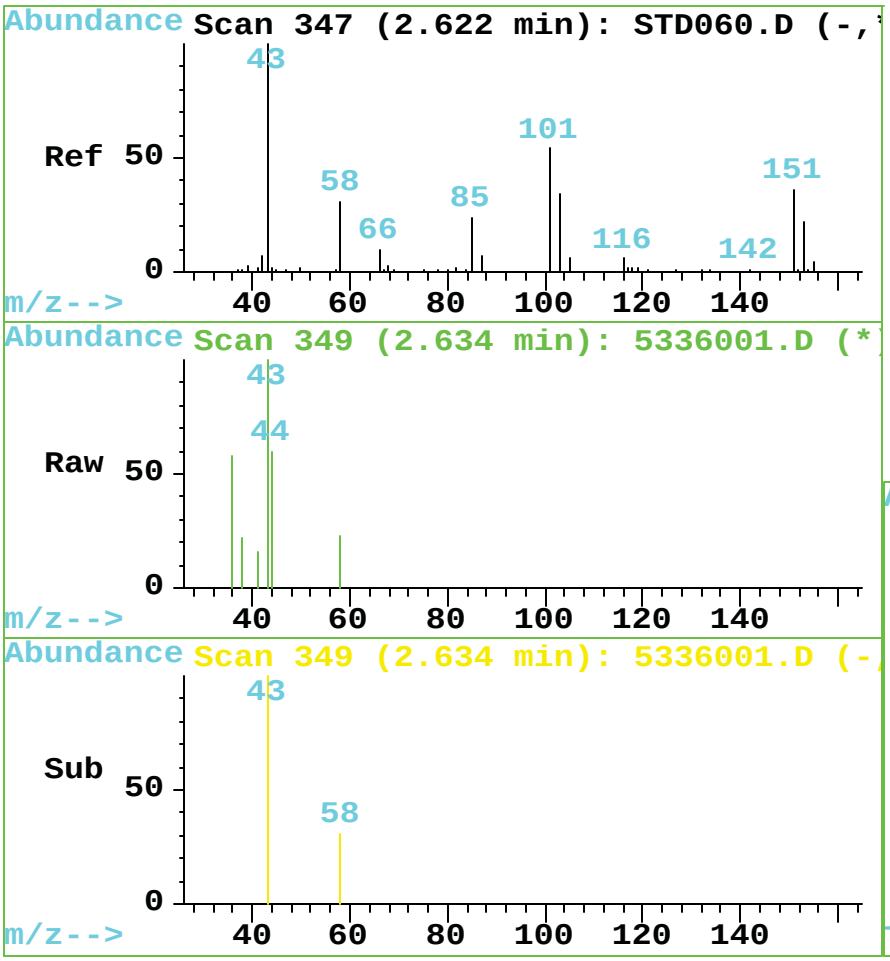
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\5336001.d Vial: 21
Acq On : 2 Aug 12 5:26 pm Operator: lbr
Sample : 5ml 1dr0731 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:25 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

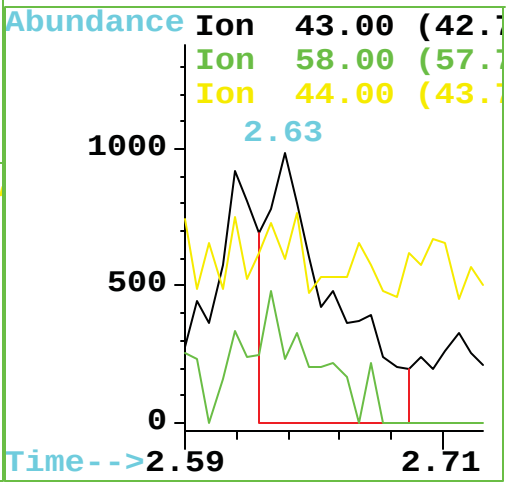




#5
Acetone (*)
Concen: 1.36 ug/l
RT: 2.63 min Scan# 349
Delta R.T. 0.02 min
Lab File: 5336001.d
Acq: 2 Aug 12 5:26 pm

Tgt Ion:43 Resp: 2062

Ion	Ratio	Lower	Upper
43	100		
58	48.1	11.0	71.0
44	9.7	0.0	33.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336002.d Vial: 17
Acq On : 1 Aug 12 5:34 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

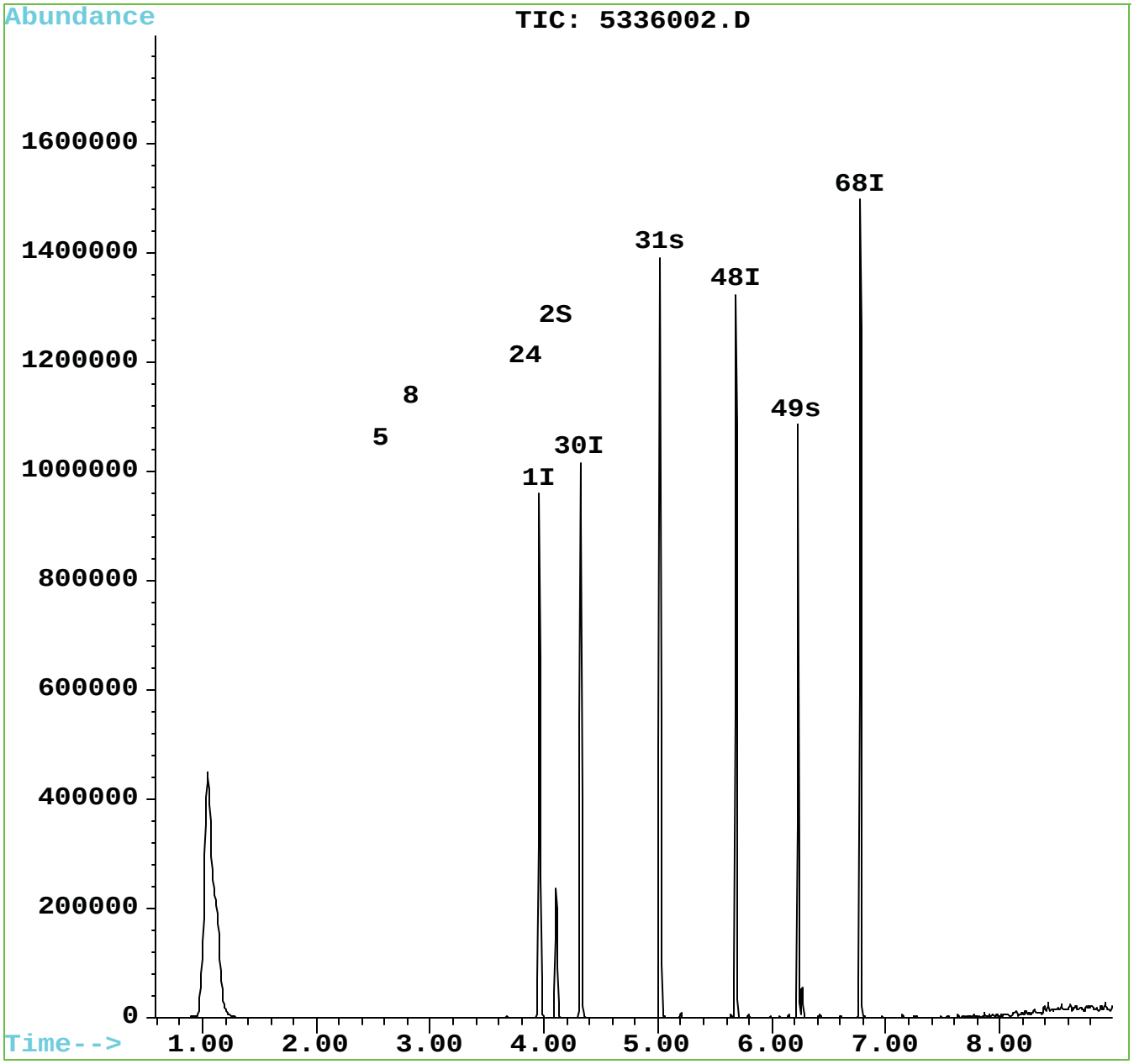
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	551221	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	631150	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	220312	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	301344	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	97505	46.78	ug/l	93.5
31) TOLUENE-D8 (S)	5.02	98	623476	48.89	ug/l	97.7
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	264699	50.52	ug/l	101.0
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	533	2.60	ug/l #	6
8) Methyl Acetate	2.84	43	1141	1.53	ug/l #	7
24) Tetrahydrofuran	3.84	42	808	2.66	ug/l #	

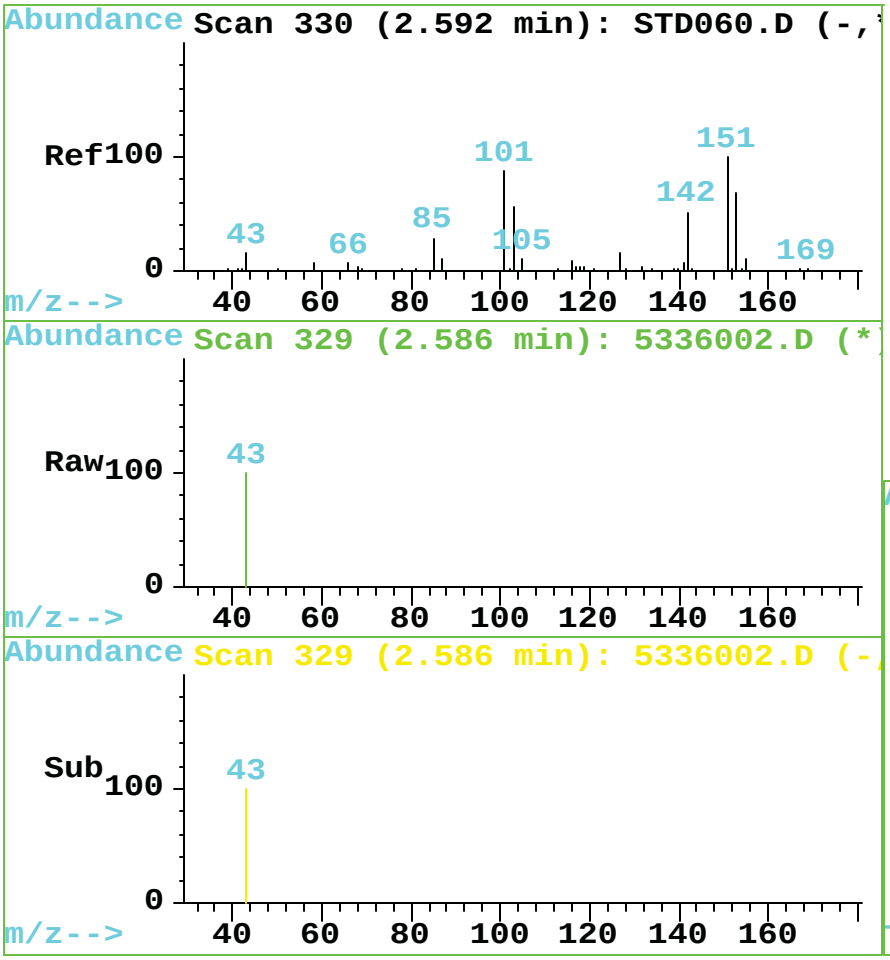
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336002.d Vial: 17
Acq On : 1 Aug 12 5:34 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

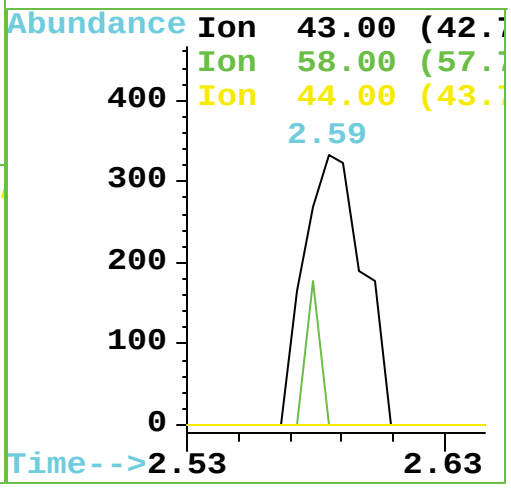


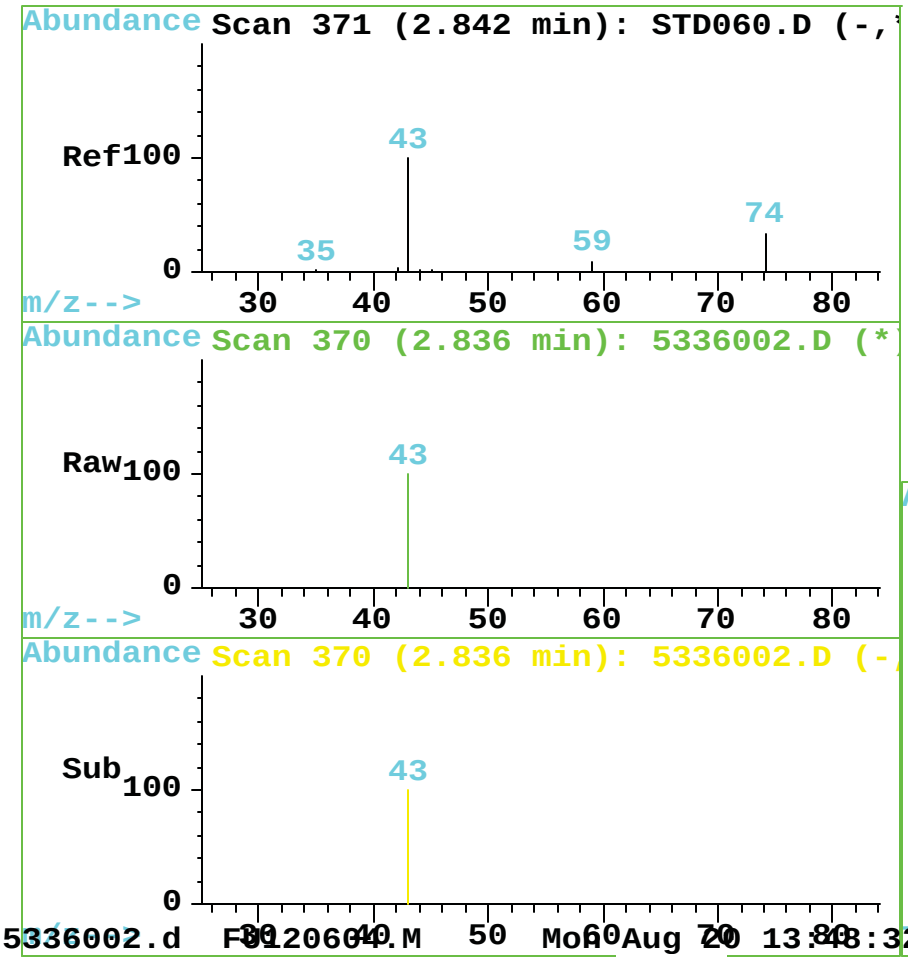


#5
Acetone (*)
Concen: 2.60 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5336002.d
Acq: 1 Aug 12 5:34 am

Tgt Ion:43 Resp: 533

Ion	Ratio	Lower	Upper
43	100		
58	12.2	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

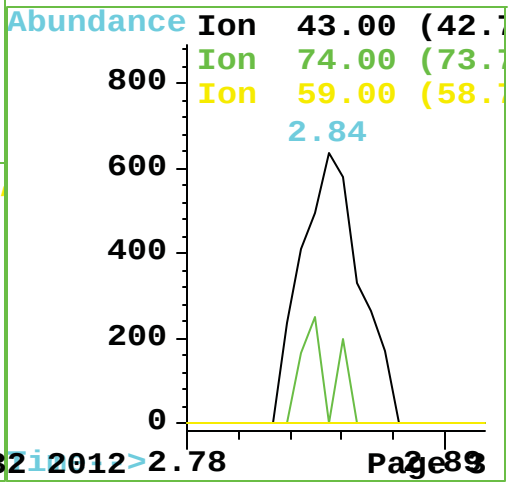


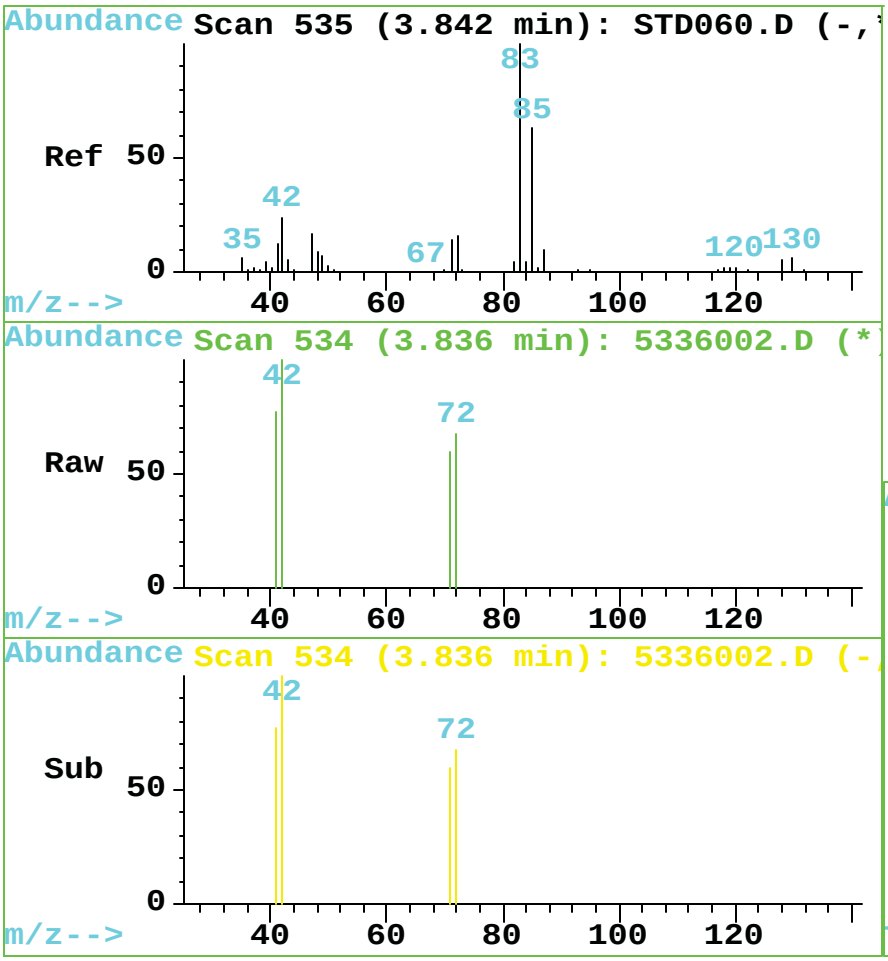


#8
Methyl Acetate
Concen: 1.53 ug/l
RT: 2.84 min Scan# 370
Delta R.T. 0.01 min
Lab File: 5336002.d
Acq: 1 Aug 12 5:34 am

Tgt Ion:43 Resp: 1141

Ion	Ratio	Lower	Upper
43	100		
74	19.6	4.8	64.8
59	0.0	0.0	40.3
0	0.0	0.0	0.0

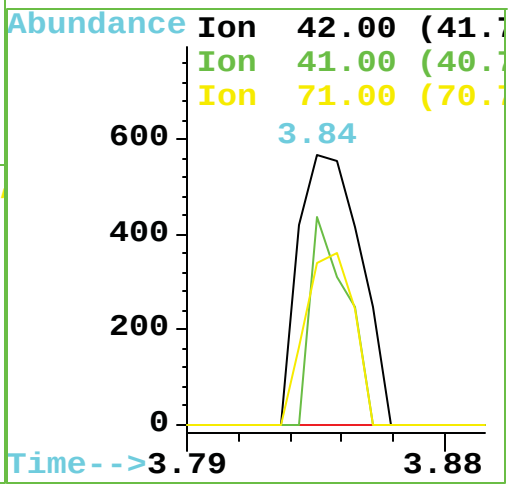




#24
Tetrahydrofuran
Concen: 2.66 ug/l
RT: 3.84 min Scan# 534
Delta R.T. 0.00 min
Lab File: 5336002.d
Acq: 1 Aug 12 5:34 am

Tgt Ion:42 Resp: 808

Ion	Ratio	Lower	Upper
42	100		
41	45.0	222.5	282.5#
71	50.1	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336003.d Vial: 18
Acq On : 1 Aug 12 5:54 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

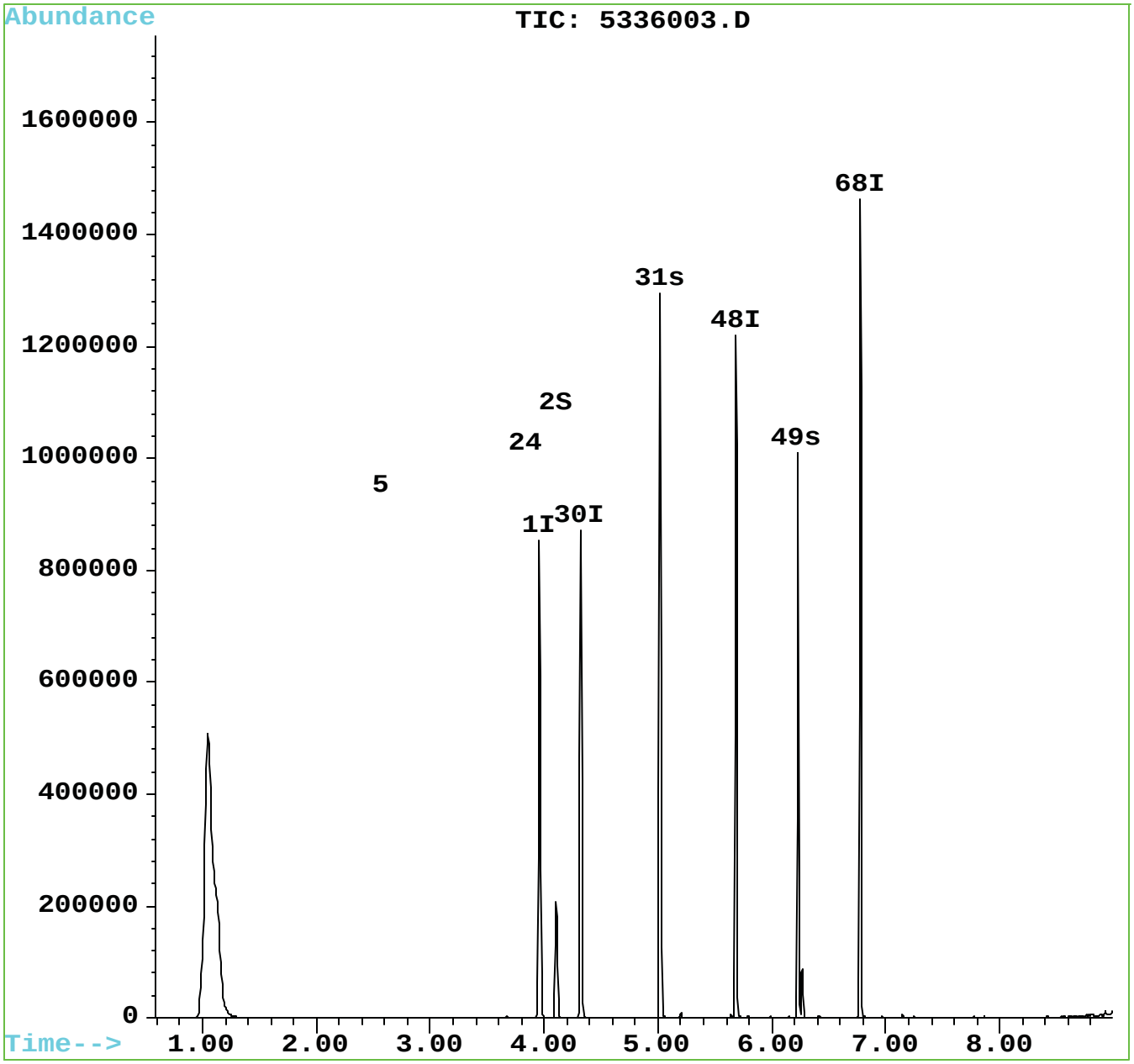
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	509530	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	580090	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	204949	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	281820	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	89636	46.53	ug/l	93.0
31) TOLUENE-D8 (S)	5.02	98	578746	49.38	ug/l	98.7
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	242292	49.71	ug/l	99.4
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	324	1.71	ug/l #	4
24) Tetrahydrofuran	3.84	42	820	2.92	ug/l #	

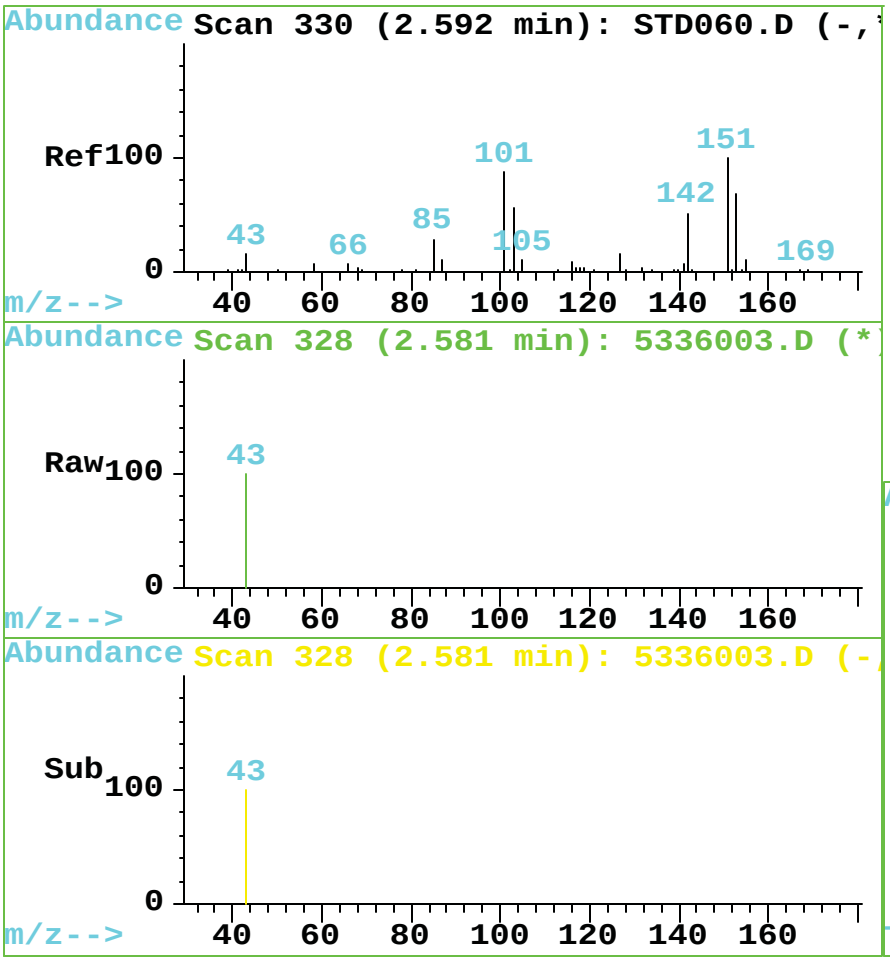
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336003.d Vial: 18
Acq On : 1 Aug 12 5:54 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

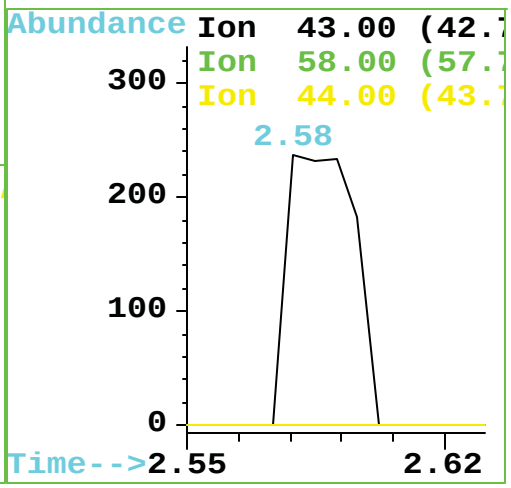


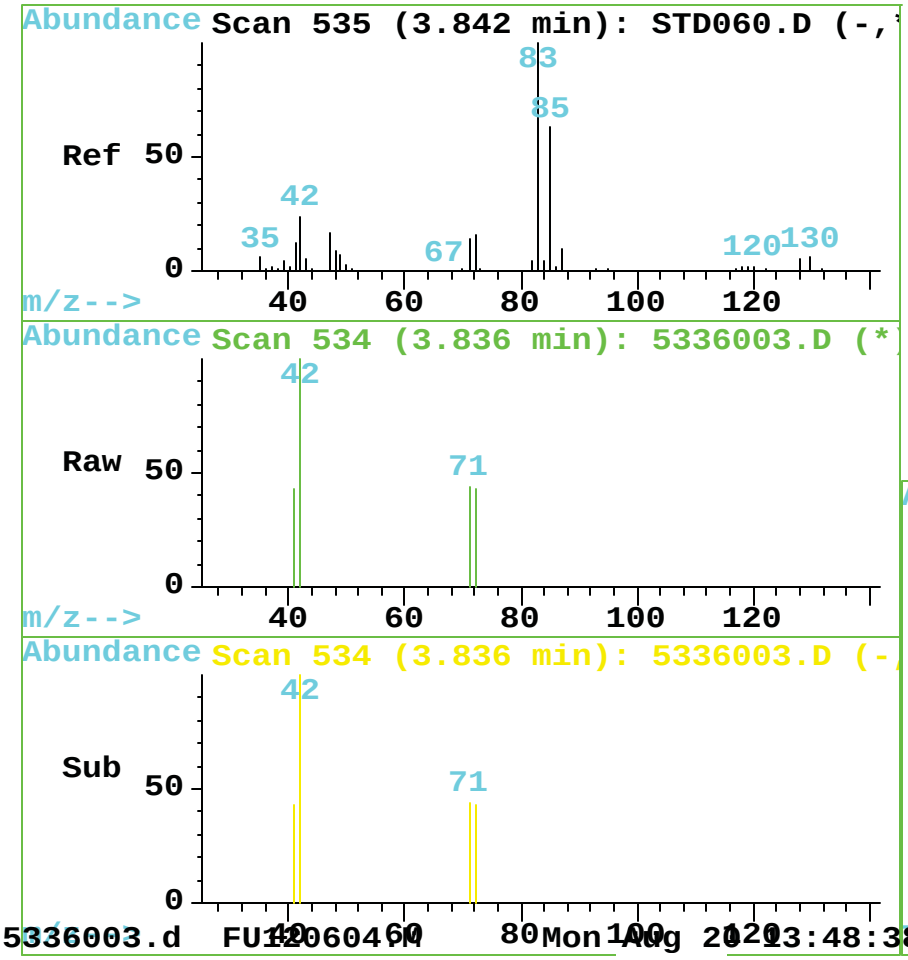


#5
Acetone (*)
Concen: 1.71 ug/l
RT: 2.58 min Scan# 328
Delta R.T. 0.01 min
Lab File: 5336003.d
Acq: 1 Aug 12 5:54 am

Tgt Ion:43 Resp: 324

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

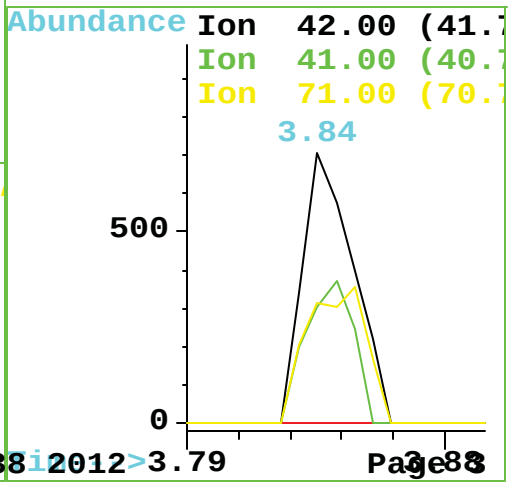




#24
Tetrahydrofuran
Concen: 2.92 ug/l
RT: 3.84 min Scan# 534
Delta R.T. 0.00 min
Lab File: 5336003.d
Acq: 1 Aug 12 5:54 am

Tgt Ion:42 Resp: 820

Ion	Ratio	Lower	Upper
42	100		
41	50.1	222.5	282.5#
71	59.8	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336004.d Vial: 19
Acq On : 1 Aug 12 6:14 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

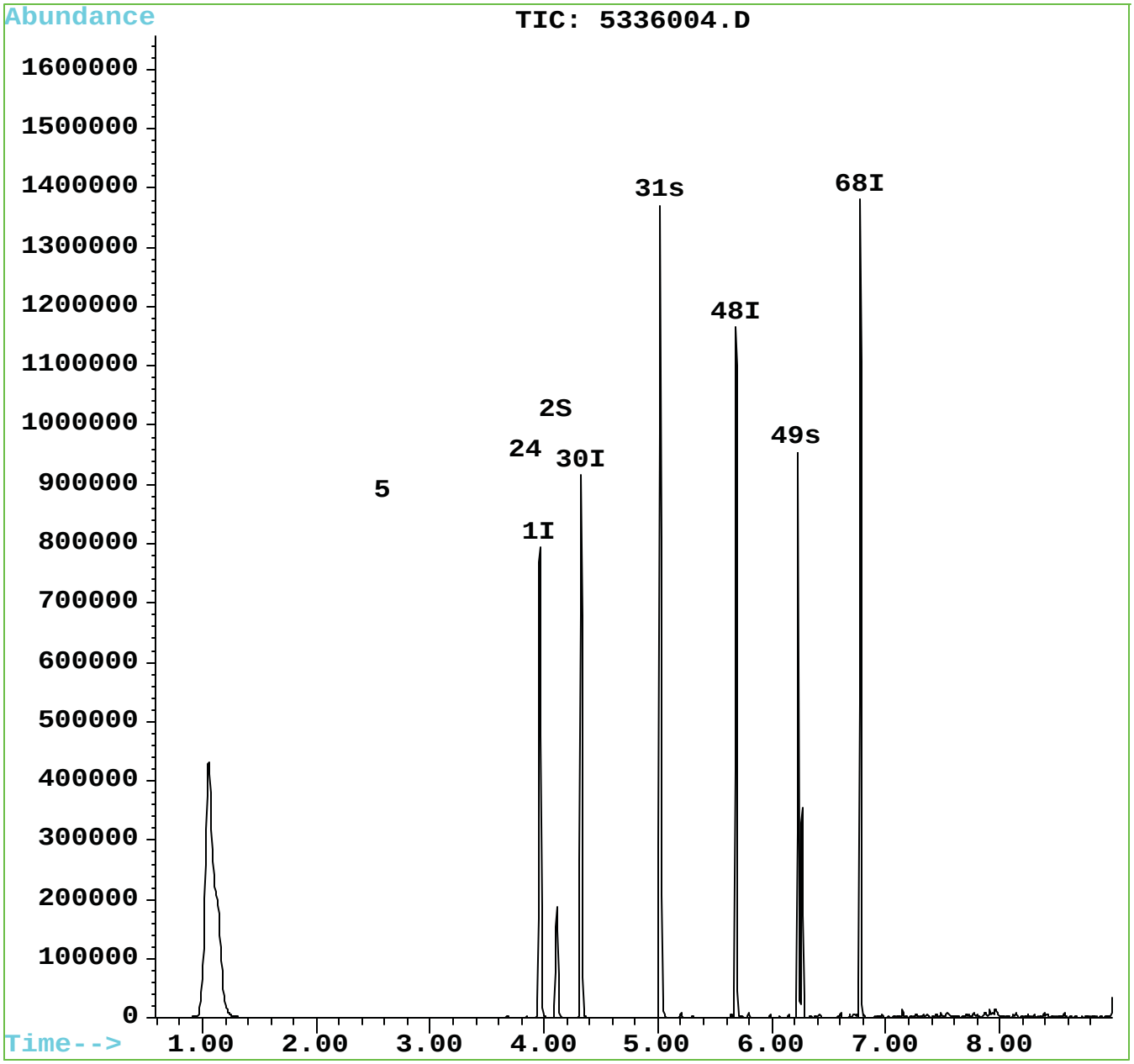
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	527666	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	595088	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	203549	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	271581	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	88985	44.60	ug/l	89.2
31) TOLUENE-D8 (S)	5.02	98	584858	48.64	ug/l	97.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	236626	48.88	ug/l	97.7
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	328	1.67	ug/l #	4
24) Tetrahydrofuran	3.84	42	897	3.08	ug/l #	

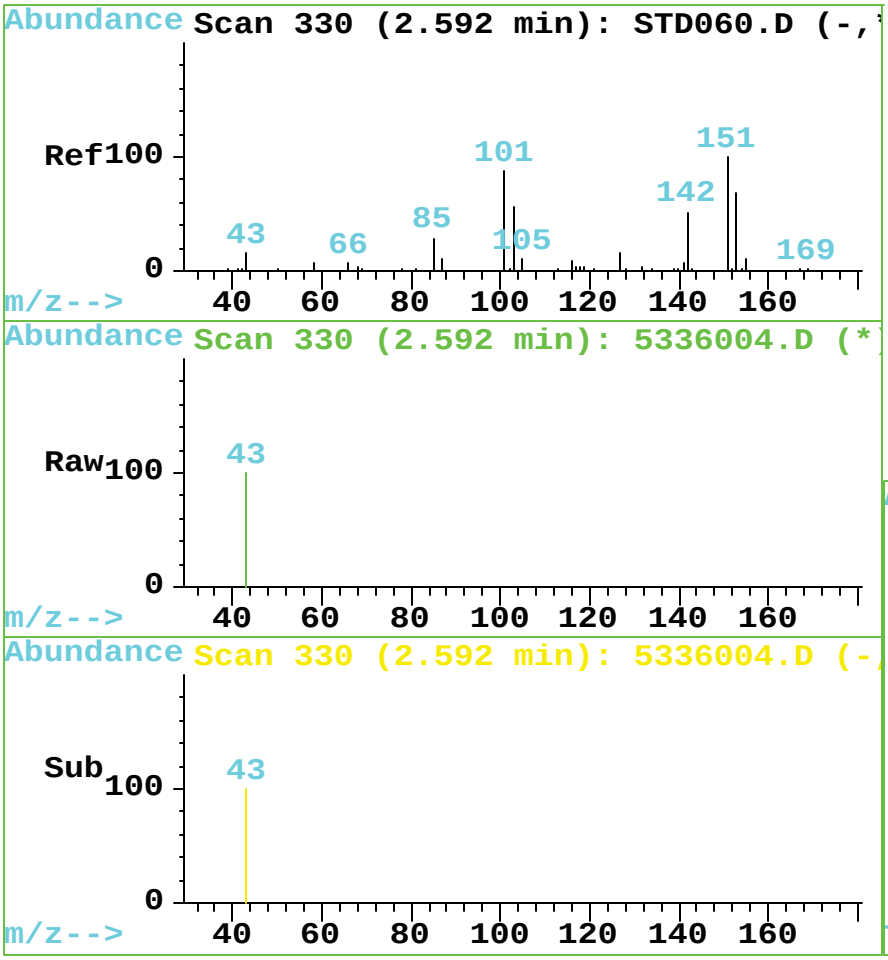
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336004.d Vial: 19
Acq On : 1 Aug 12 6:14 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

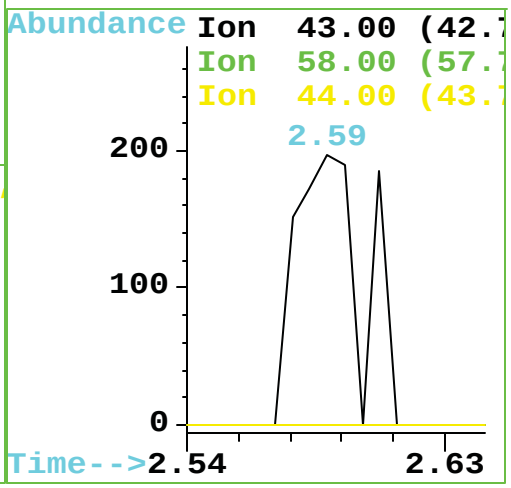


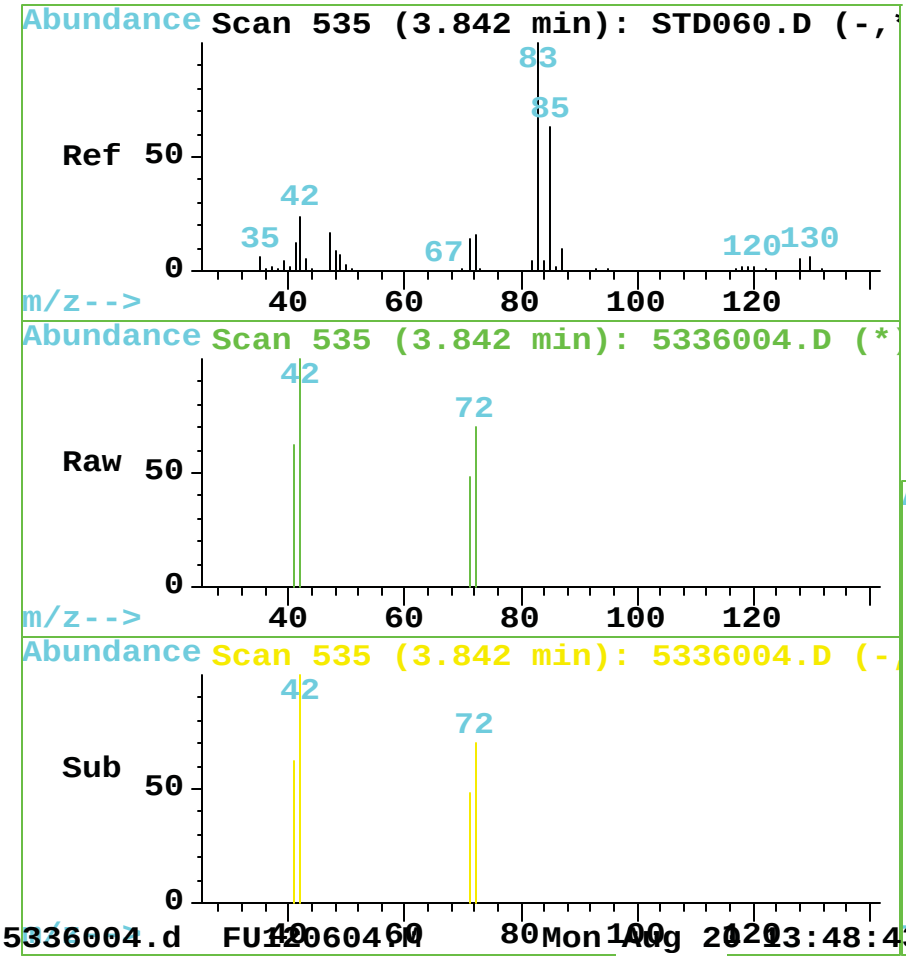


#5
Acetone (*)
Concen: 1.67 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5336004.d
Acq: 1 Aug 12 6:14 am

Tgt Ion:43 Resp: 328

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

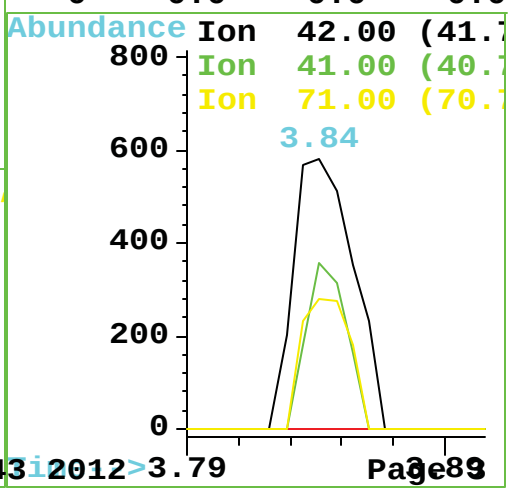




#24
Tetrahydrofuran
Concen: 3.08 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5336004.d
Acq: 1 Aug 12 6:14 am

Tgt Ion:42 Resp: 897

Ion	Ratio	Lower	Upper
42	100		
41	41.6	222.5	282.5#
71	39.5	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336005m.d Vial: 27
Acq On : 1 Aug 12 8:56 am Operator: wat
Sample : 100ul ms 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	508734	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	593771	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	206670	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	263532	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	96070	49.94	ug/l		99.8
31) TOLUENE-D8 (S)	5.02	98	597051	49.77	ug/l		99.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	240622	48.96	ug/l		97.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	172283	52.67	ug/l		9
4) Diethyl ether (*)	2.35	74	44804	47.67	ug/l		9
5) Acetone (*)	2.60	43	11267	59.49	ug/l	#	9
6) Methyl iodide (iodomethane	2.63	142	322554	46.96	ug/l		9
7) Carbon disulfide (*)	2.67	76	399676	41.12	ug/l		9
8) Methyl Acetate	2.84	43	29725	43.28	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	228285	48.10	ug/l		9
10) Acrylonitrile (*)	3.08	53	19972	47.88	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	15950	54.29	ug/l		9
12) Dichlorodifluoromethane	1.23	85	86441	42.07	ug/l		9
13) Chloromethane (SPCC)	1.34	50	102926	44.11	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	121145	46.14	ug/l		9
15) Bromomethane	1.74	94	56185	48.18	ug/l		9
16) Chloroethane	1.84	64	28948	51.72	ug/l		9
18) Trichlorofluoromethane	2.12	101	175376	57.32	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	155348	47.80	ug/l		8
20) Methylene Chloride	2.90	84	136399	43.42	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	156998	46.39	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	198145	46.76	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	167795	47.39	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11300	40.26	ug/l	#	
25) Chloroform (CCC)	3.86	83	218818	48.03	ug/l		9
26) Bromochloromethane	3.81	130	105705	46.65	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	231810	51.97	ug/l	#	4
29) Cyclohexane	3.98	42	39304	38.14	ug/l	#	3
32) 4-Methyl-2-pentanone (MIBK	4.96	58	17902	47.28	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	15310	51.87	ug/l		9
35) Carbon Tetrachloride	4.04	117	223255	53.02	ug/l		9
36) Benzene (MS)	4.14	78	569017	47.95	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336005m.d Vial: 27
Acq On : 1 Aug 12 8:56 am Operator: wat
Sample : 100ul ms 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
37) 1,2-Dichloroethane	4.15	62	106810	49.69 ug/l	9
38) Trichloroethene (MS)	4.45	95	161206	49.78 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	109830	47.61 ug/l	9
40) Bromodichloromethane	4.68	83	145988	50.61 ug/l	9
41) Methyl Cyclohexane	4.54	55	170622	50.89 ug/l	8
42) Dibromomethane	4.62	174	113344	50.57 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	177495	49.34 ug/l	9
44) Toluene (CCC/MS)	5.05	91	689916	49.54 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	136663	50.50 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	71518	48.01 ug/l	9
47) Tetrachloroethene	5.31	166	274949	47.78 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	14311	50.11 ug/l #	7
51) Dibromochloromethane	5.42	129	127378	54.02 ug/l	9
52) 1,2-Dibromoethane	5.48	107	98282	51.84 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	472247	49.34 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	171428	53.61 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	748223	52.15 ug/l	9
56) p,m-Xylene	5.79	106	632106	103.11 ug/l	9
57) o-Xylene	5.98	91	573485	52.42 ug/l	9
58) Styrene	5.99	104	452990	50.88 ug/l	9
59) Isopropylbenzene	6.15	105	871581	54.00 ug/l	9
60) Bromoform (SPCC)	6.09	173	83601	50.79 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	89715	50.78 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	30630	52.58 ug/l #	8
63) n-Propylbenzene	6.34	91	880866	53.07 ug/l	9
64) Bromobenzene	6.31	156	228808	50.26 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	387445	52.03 ug/l	9
66) tert-Butylbenzene	6.58	91	418577	54.96 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	417551	53.09 ug/l	9
69) sec-Butylbenzene	6.68	105	968621	57.99 ug/l	9
70) p-Isopropyltoluene	6.75	119	819001	58.07 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	400829	52.04 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	399701	50.55 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	377987	52.78 ug/l	9
74) 1,2,3-Trimethylbenzene	6.80	105	622812	53.41 ug/l	9
75) n-Butylbenzene	6.95	91	600255	53.72 ug/l	9
76) Hexachloroethane	7.10	201	178145	53.29 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	22621	56.80 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	247514	50.62 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	208283	52.11 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336005m.d Vial: 27
Acq On : 1 Aug 12 8:56 am Operator: wat
Sample : 100ul ms 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

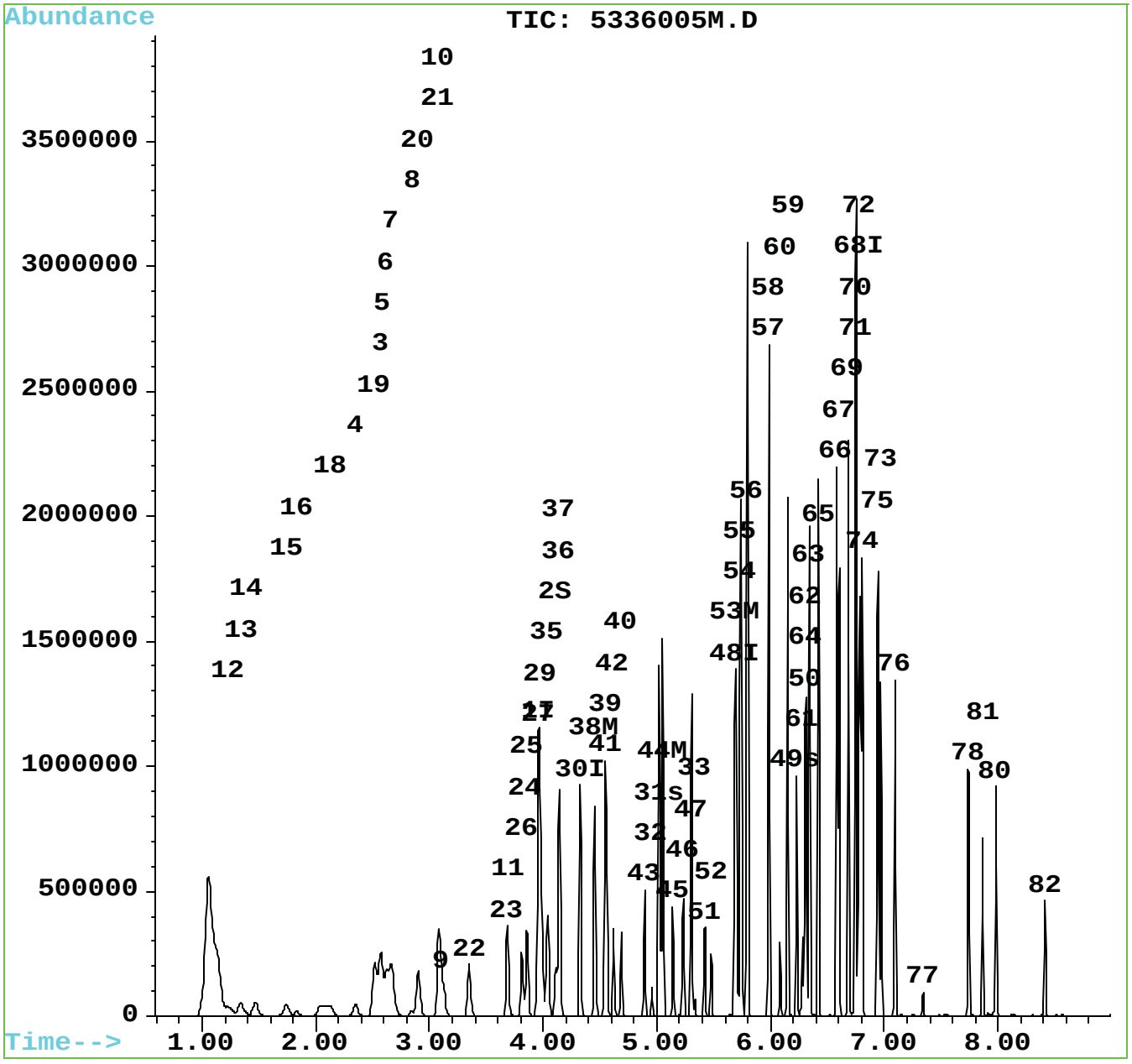
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
81)	Naphthalene	7.87	128	351654	58.78 ug/l	9
82)	2-Methylnaphthalene	8.41	142	140599	46.40 ug/l	9

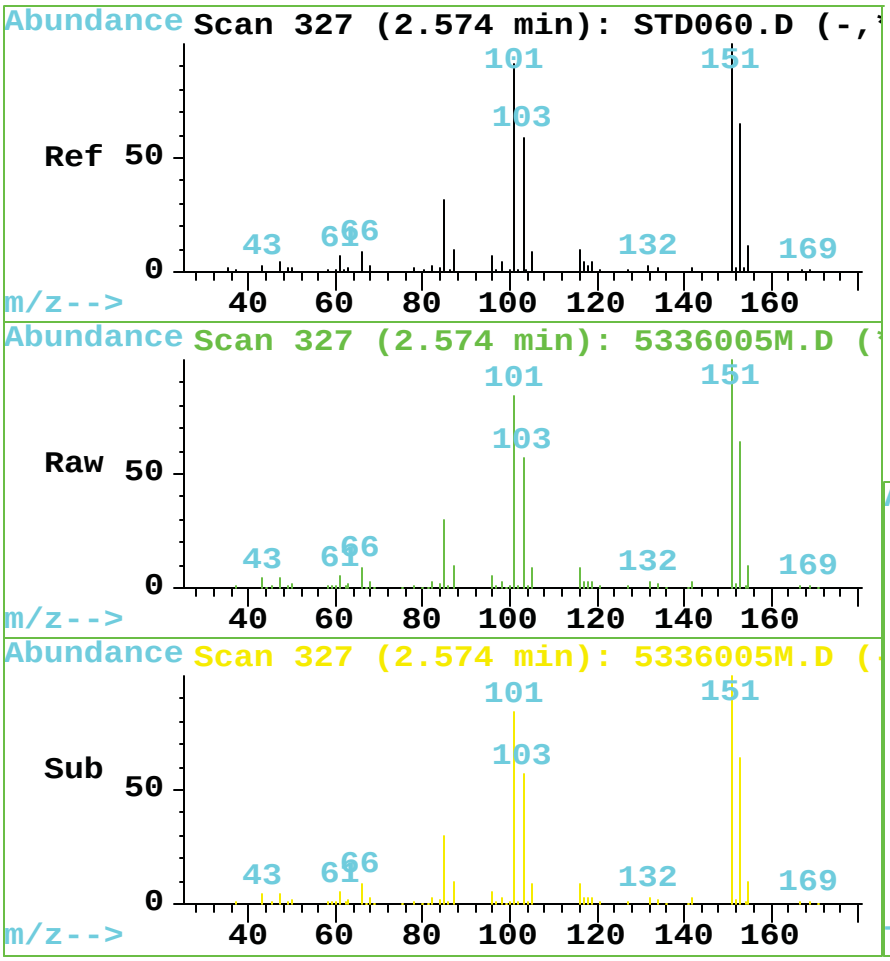
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336005m.d Vial: 27
Acq On : 1 Aug 12 8:56 am Operator: wat
Sample : 100ul ms 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

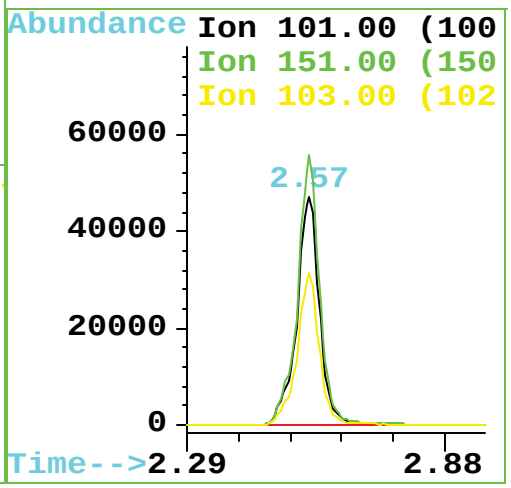


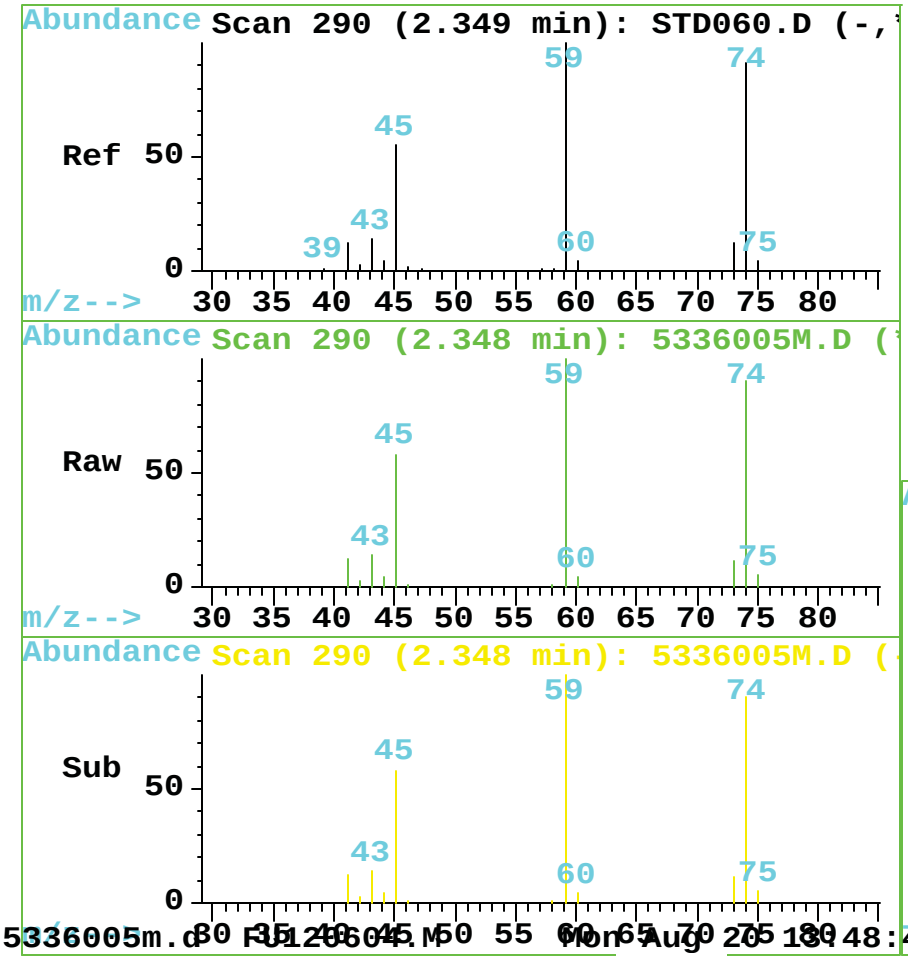


#3
1,1,2-Trichloro-1,2,2-trif
Concen: 52.67 ug/l
RT: 2.57 min Scan# 327
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:101 Resp: 172283

Ion	Ratio	Lower	Upper
101	100		
151	114.9	76.1	136.1
103	64.3	35.2	95.2
0	0.0	0.0	0.0

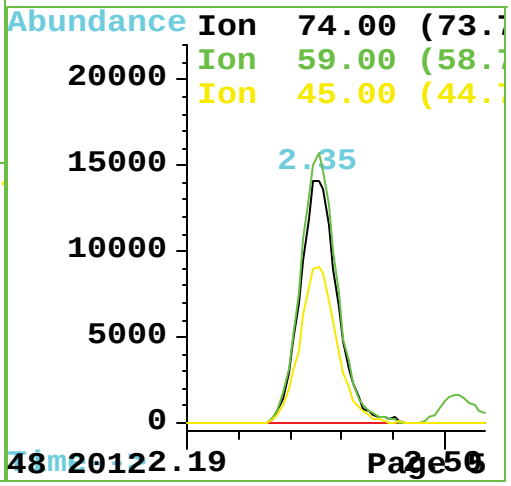


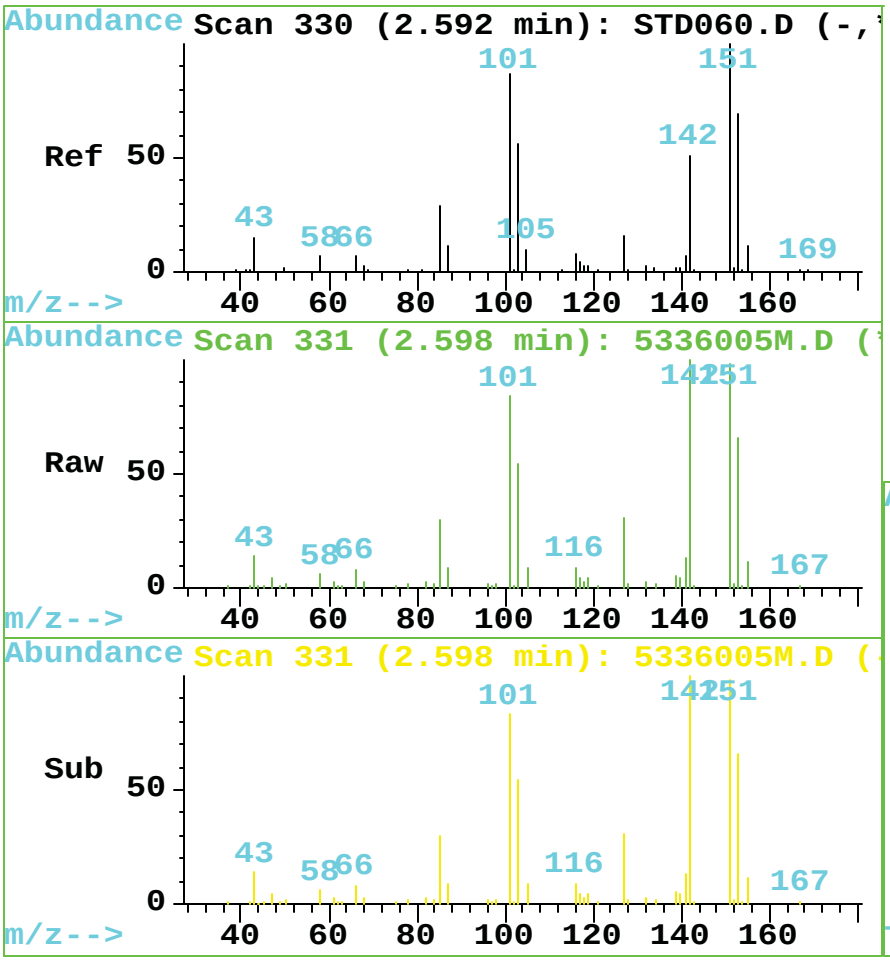


#4
Diethyl ether (*)
Concen: 47.67 ug/l
RT: 2.35 min Scan# 290
Delta R.T. 0.02 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:74 Resp: 44804

Ion	Ratio	Lower	Upper
74	100		
59	109.3	86.2	146.2
45	63.8	37.4	97.4
0	0.0	0.0	0.0

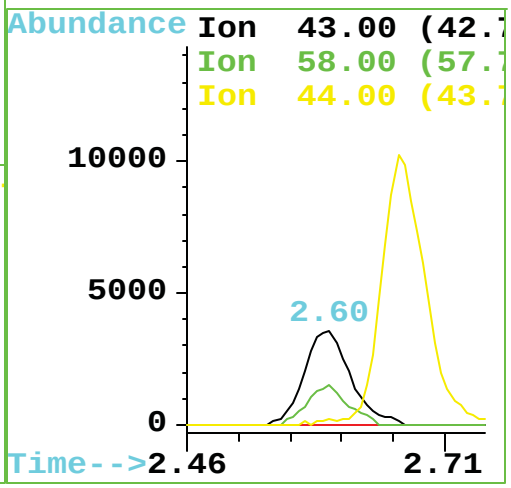


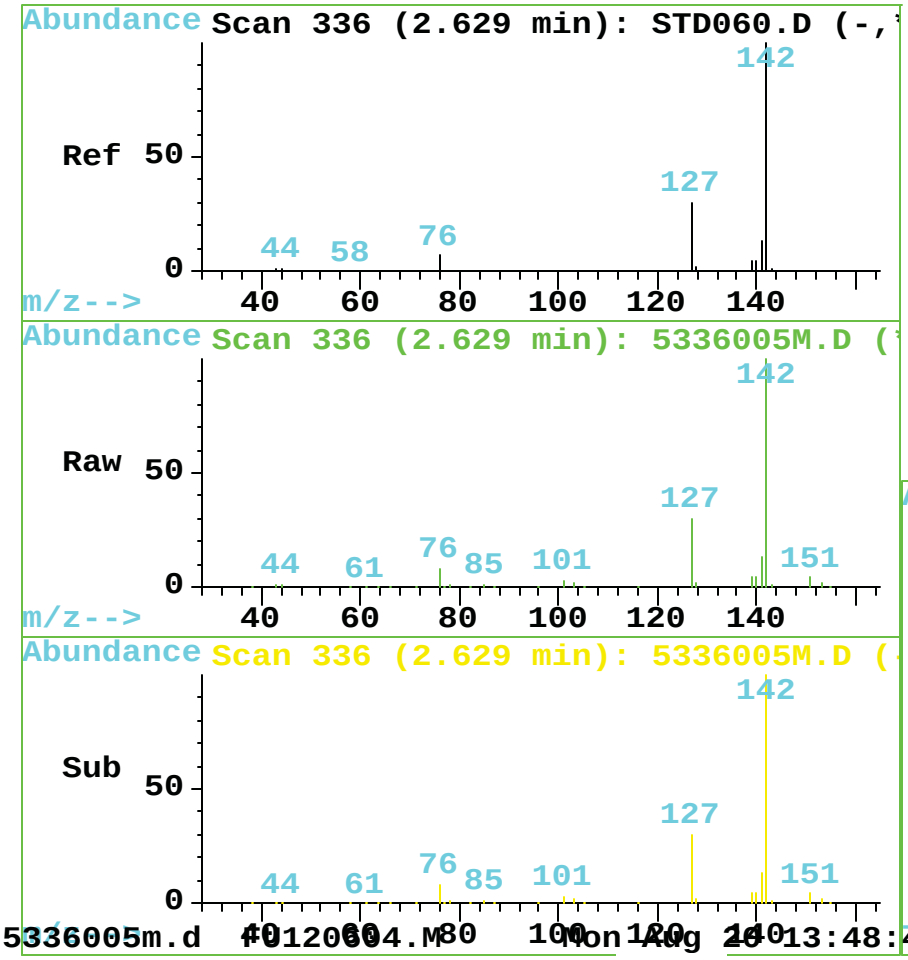


#5
Acetone (*)
Concen: 59.49 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:43 Resp: 11267

Ion	Ratio	Lower	Upper
43	100		
58	37.4	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

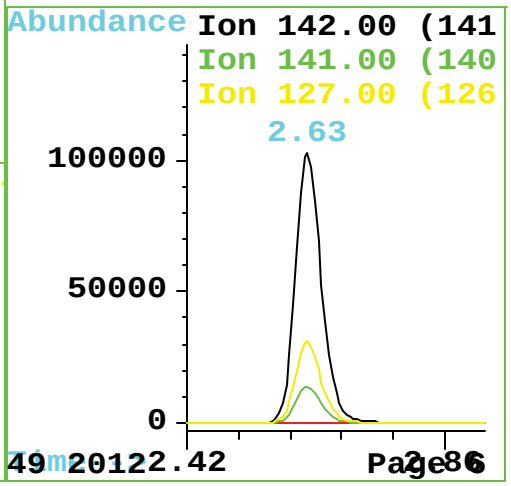


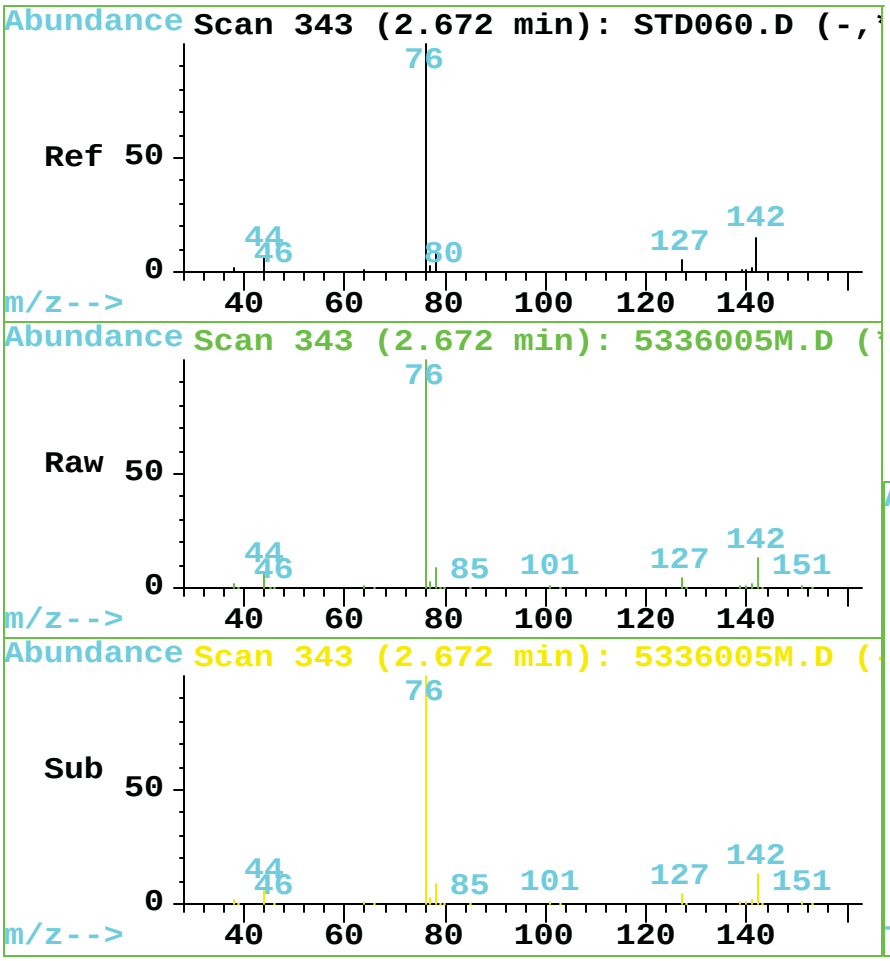


#6
Methyl iodide (iodomethane
Concen: 46.96 ug/l
RT: 2.63 min Scan# 336
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:142 Resp: 322554

Ion	Ratio	Lower	Upper
142	100		
141	13.4	0.0	43.8
127	30.0	5.1	65.1
0	0.0	0.0	0.0

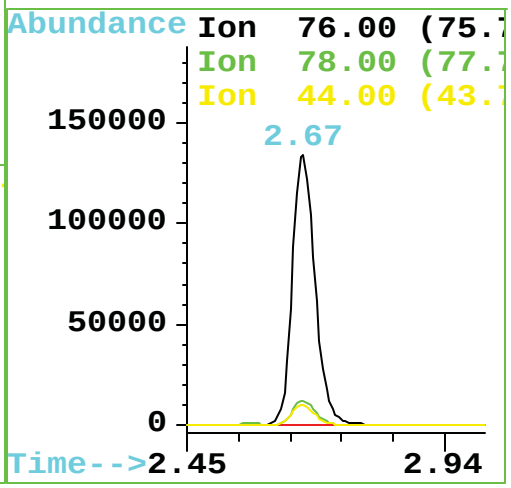


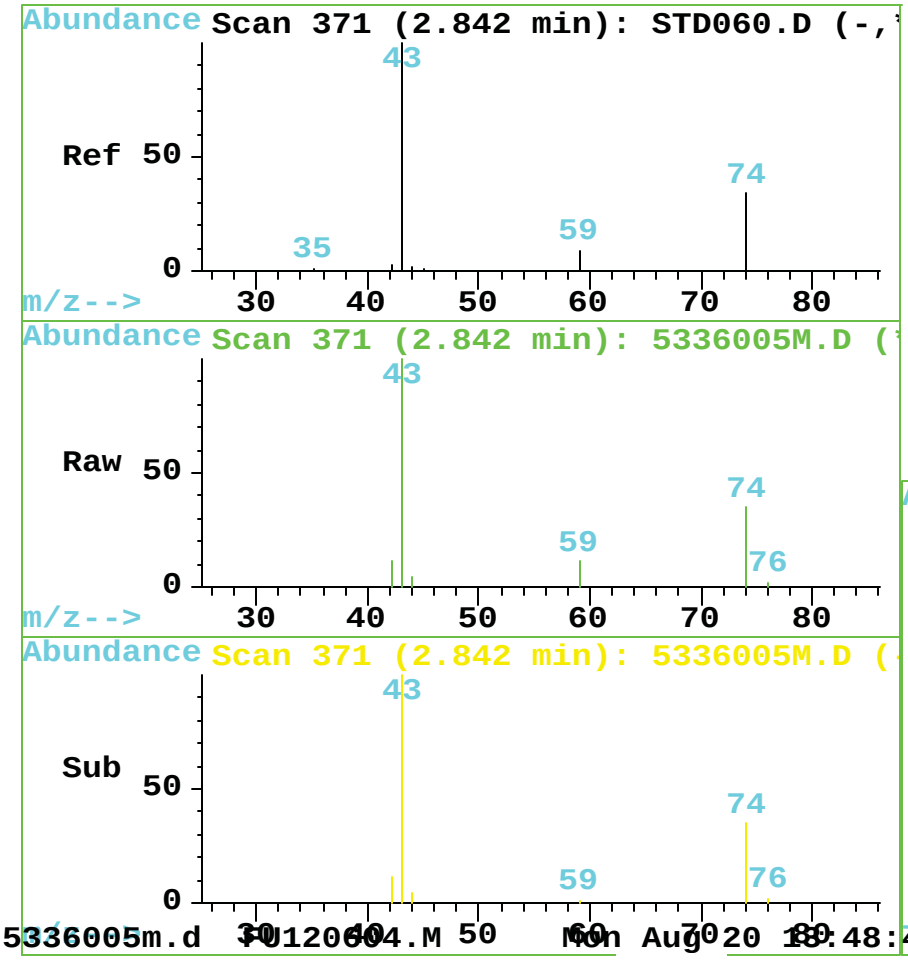


#7
Carbon disulfide (*)
Concen: 41.12 ug/l
RT: 2.67 min Scan# 343
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:76 Resp: 399676

Ion	Ratio	Lower	Upper
76	100		
78	9.1	0.0	39.3
44	7.6	0.0	40.9
0	0.0	0.0	0.0

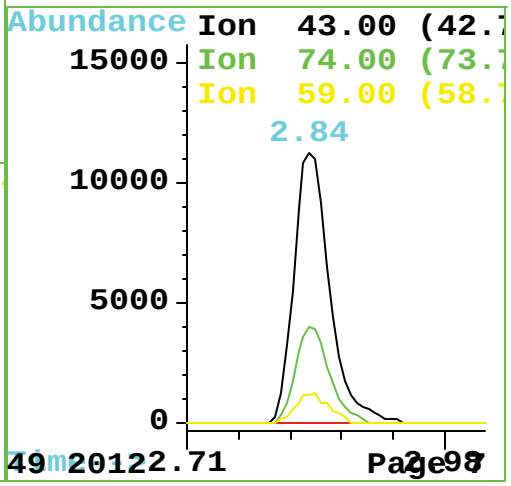


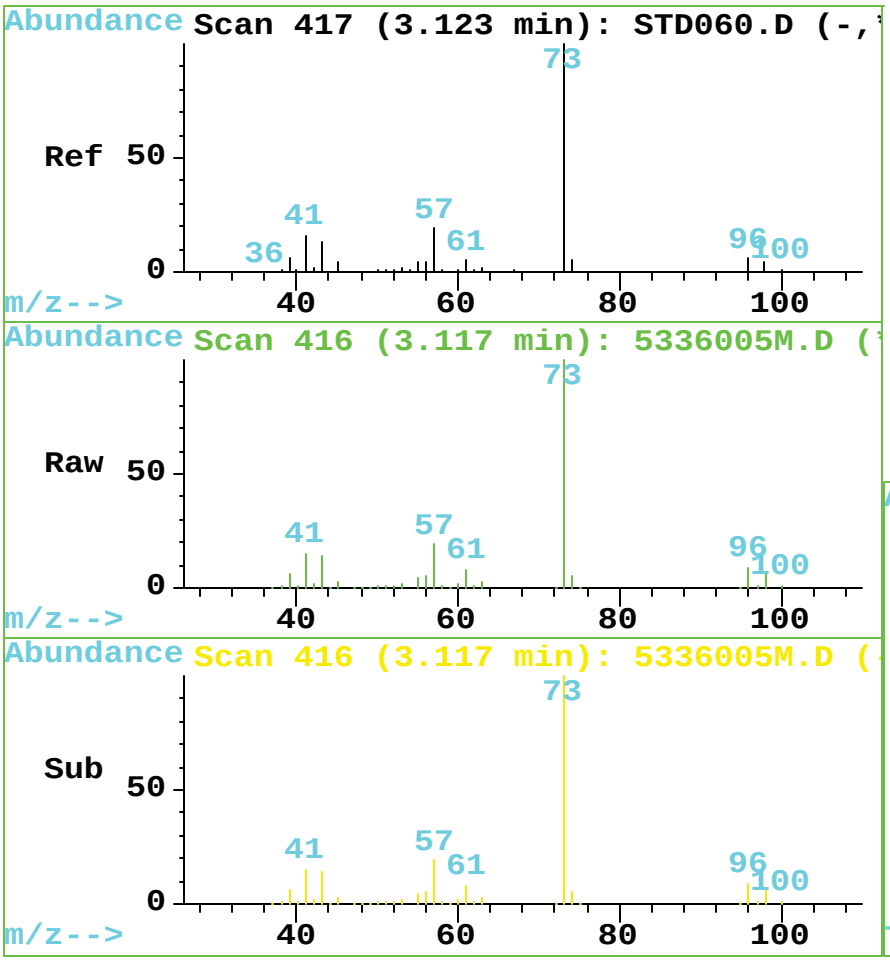


#8
Methyl Acetate
Concen: 43.28 ug/l
RT: 2.84 min Scan# 371
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:43 Resp: 29725

Ion	Ratio	Lower	Upper
43	100		
74	33.6	4.8	64.8
59	10.2	0.0	40.3
0	0.0	0.0	0.0

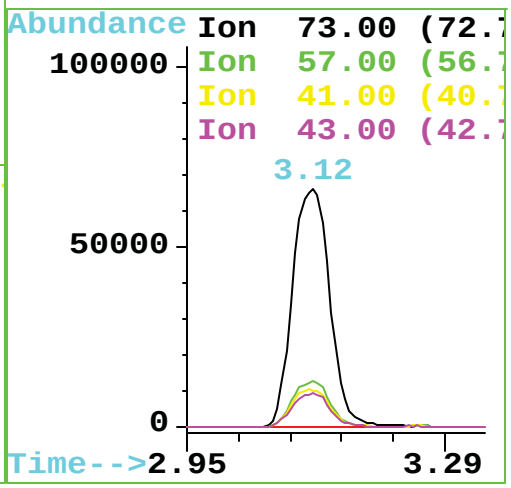


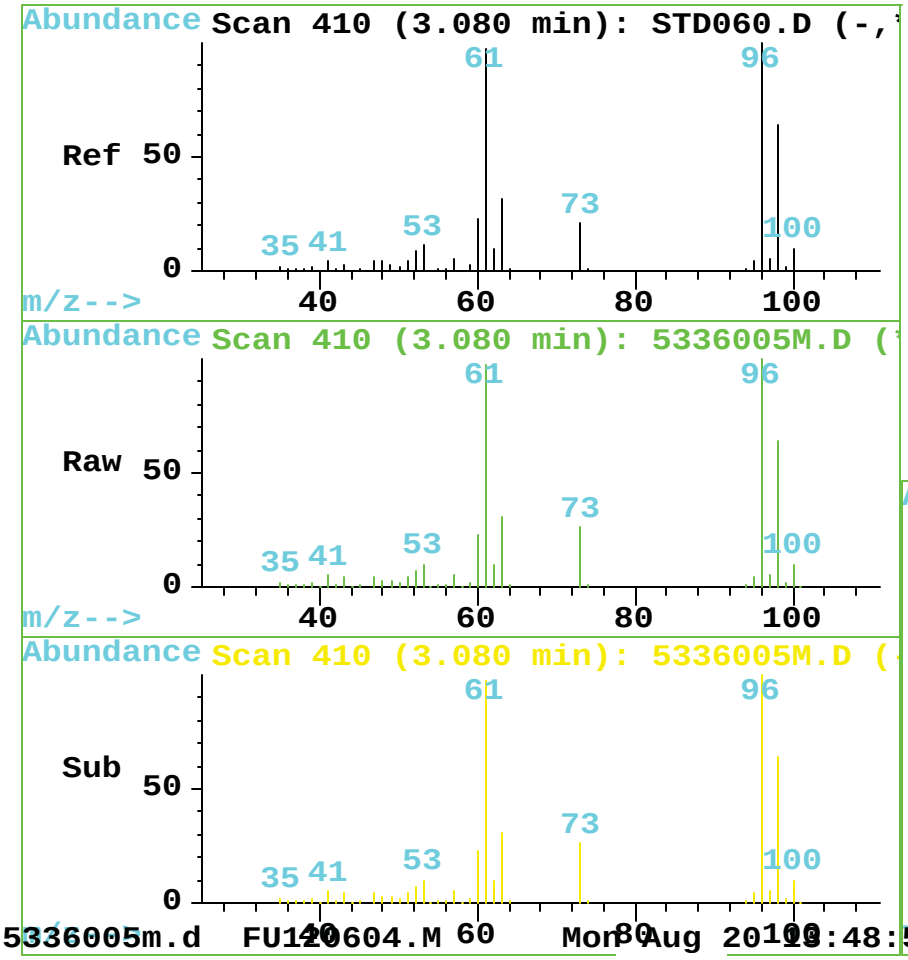


#9
tert-Methyl butyl ether (M
Concen: 48.10 ug/l
RT: 3.12 min Scan# 416
Delta R.T. 0.02 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:73 Resp: 228285

Ion	Ratio	Lower	Upper
73	100		
57	18.5	0.0	48.6
41	15.4	0.0	46.3
43	13.3	0.0	47.6

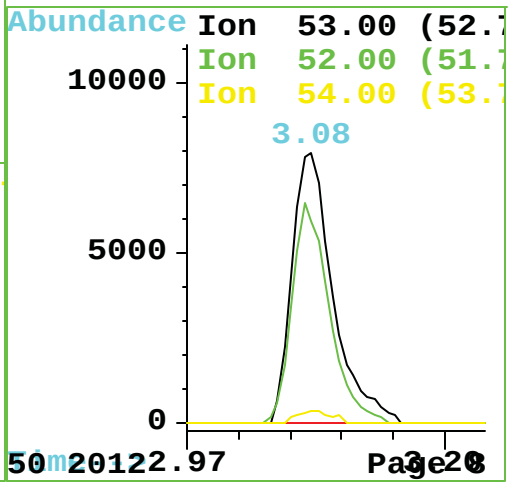


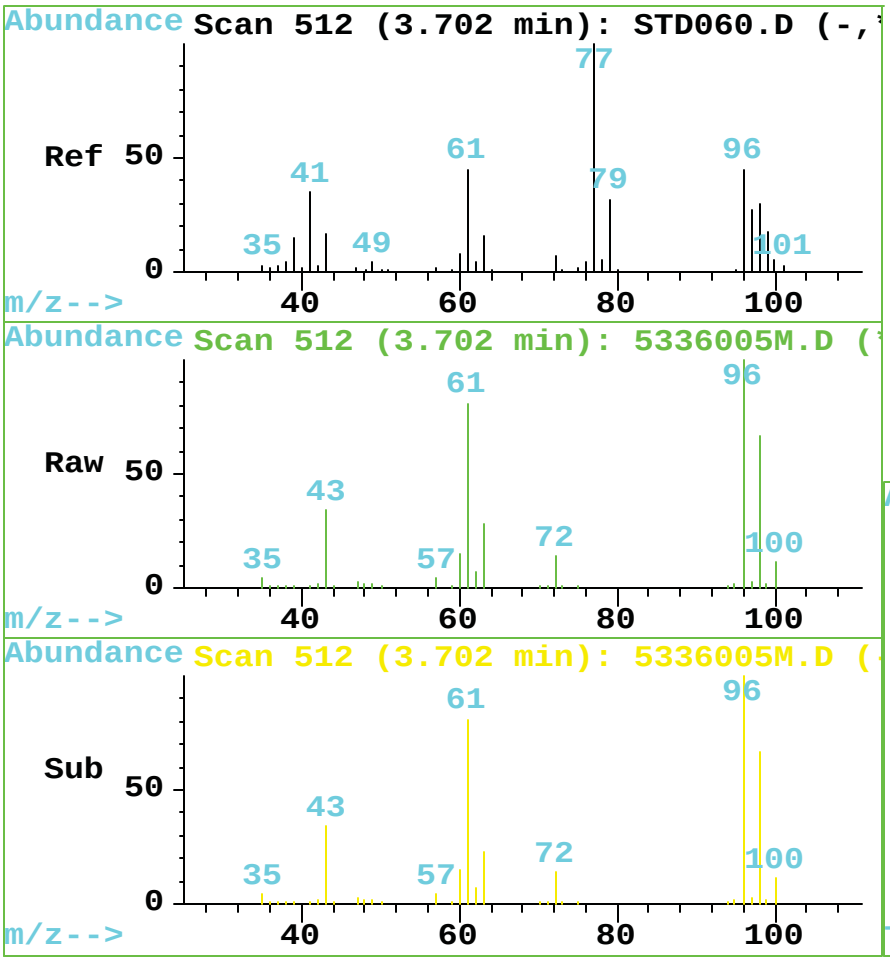


#10
Acrylonitrile (*)
Concen: 47.88 ug/l
RT: 3.08 min Scan# 410
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:53 Resp: 19972

Ion	Ratio	Lower	Upper
53	100		
52	74.3	45.4	105.4
54	3.8	0.0	32.6
0	0.0	0.0	0.0

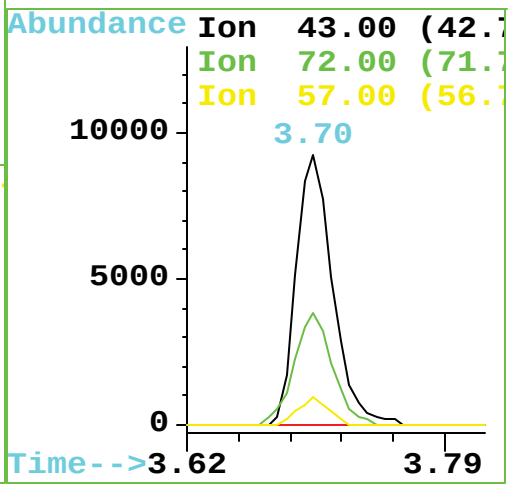


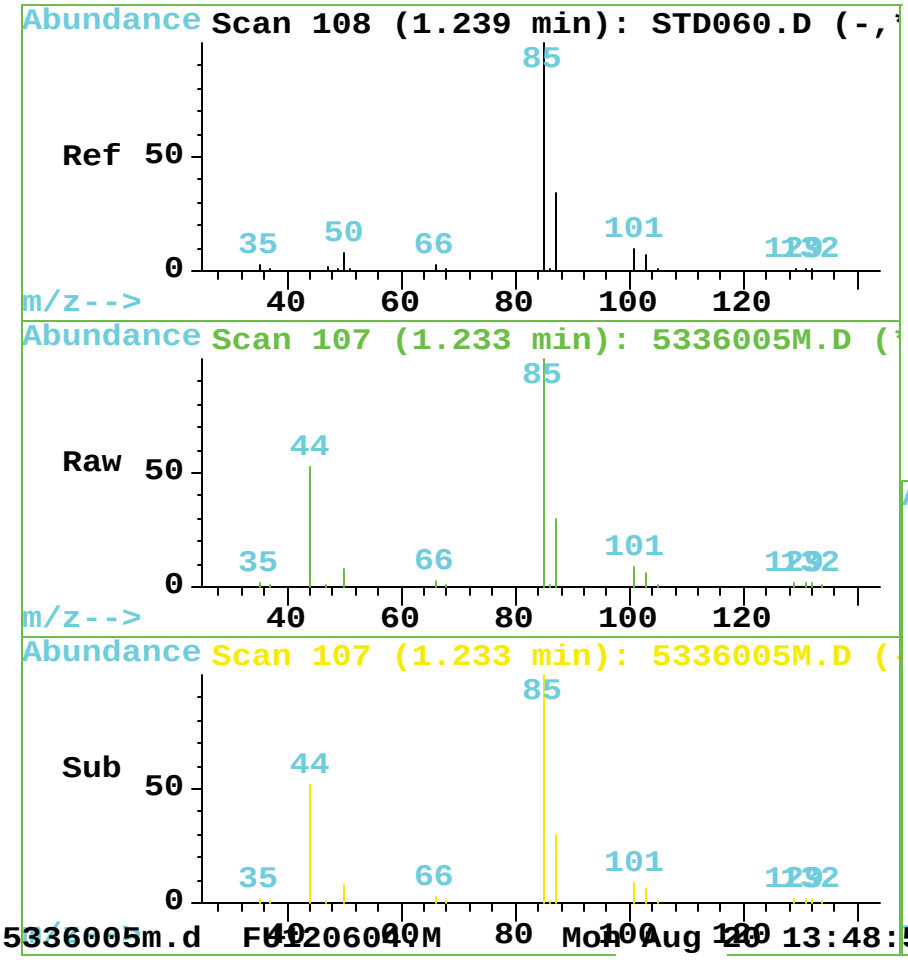


#11
2-Butanone (MEK) (*)
Concen: 54.29 ug/l
RT: 3.70 min Scan# 512
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:43 Resp: 15950

Ion	Ratio	Lower	Upper
43	100		
72	43.2	9.3	69.3
57	8.6	0.0	38.8
0	0.0	0.0	0.0

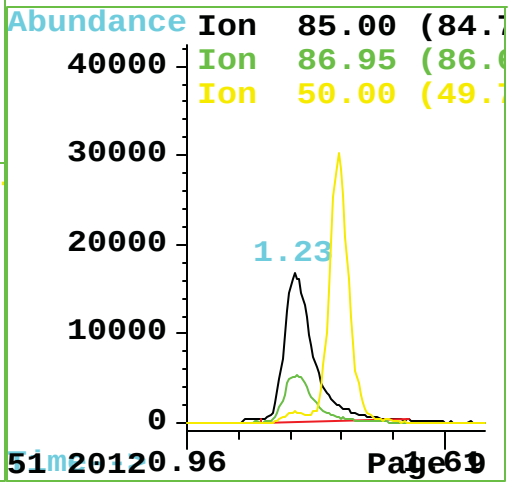


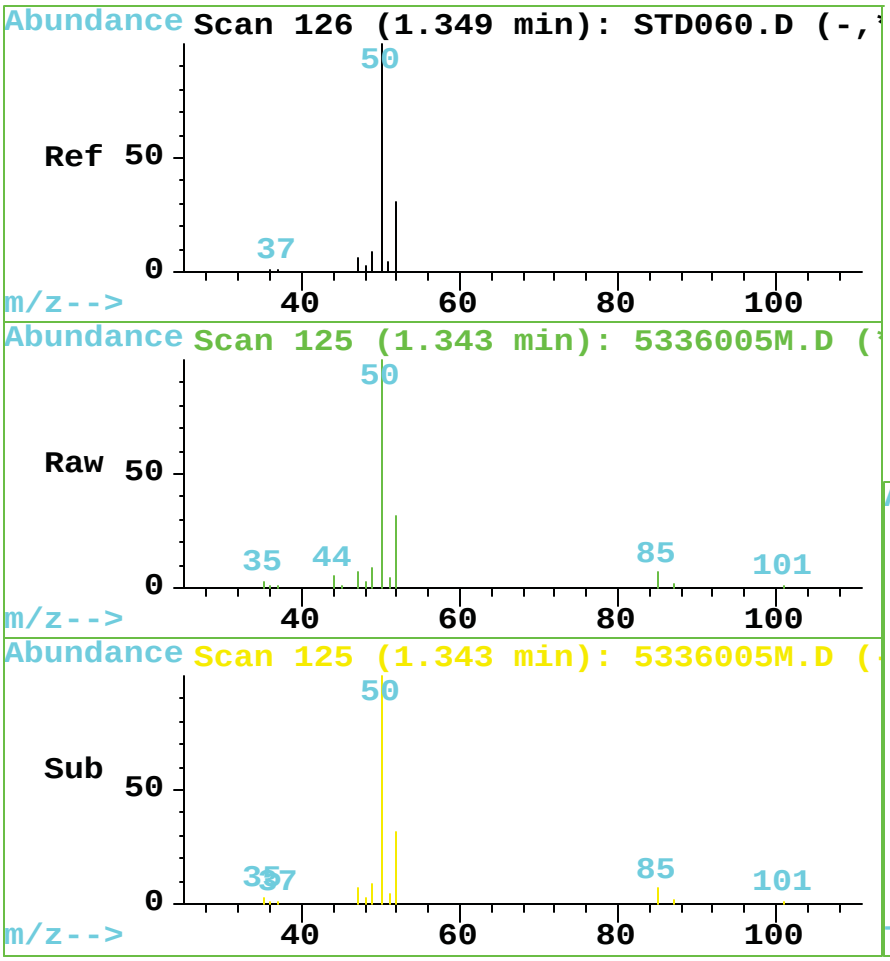


#12
Dichlorodifluoromethane
Concen: 42.07 ug/l
RT: 1.23 min Scan# 107
Delta R.T. -0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:85 Resp: 86441

Ion	Ratio	Lower	Upper
85	100		
87	33.7	2.5	62.5
50	5.6	0.0	36.8
0	0.0	0.0	0.0

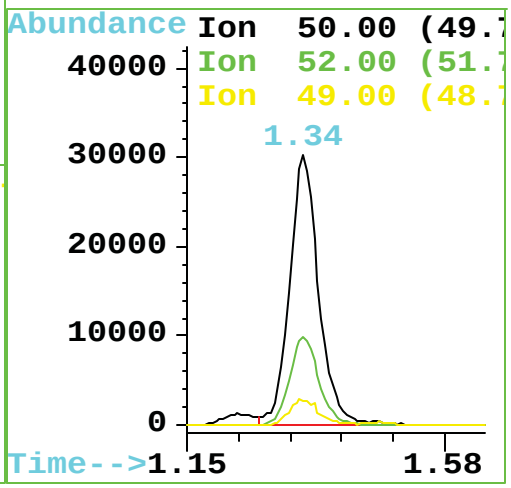


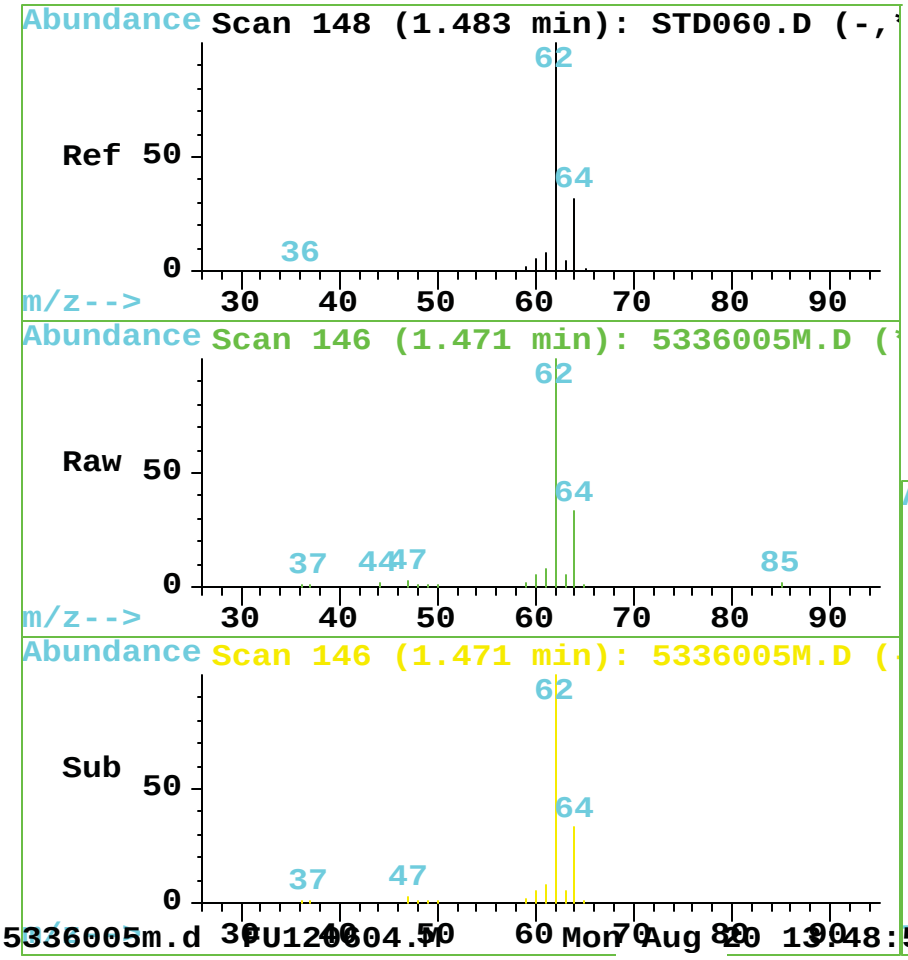


#13
Chloromethane (SPCC)
Concen: 44.11 ug/l
RT: 1.34 min Scan# 125
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:50 Resp: 102926

Ion	Ratio	Lower	Upper
50	100		
52	32.5	2.5	62.5
49	9.6	0.0	41.2
0	0.0	0.0	0.0

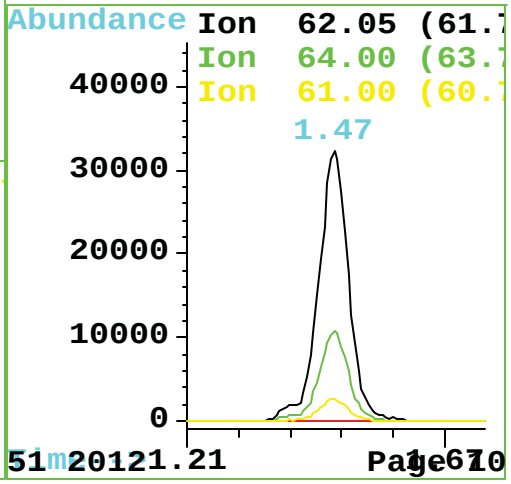


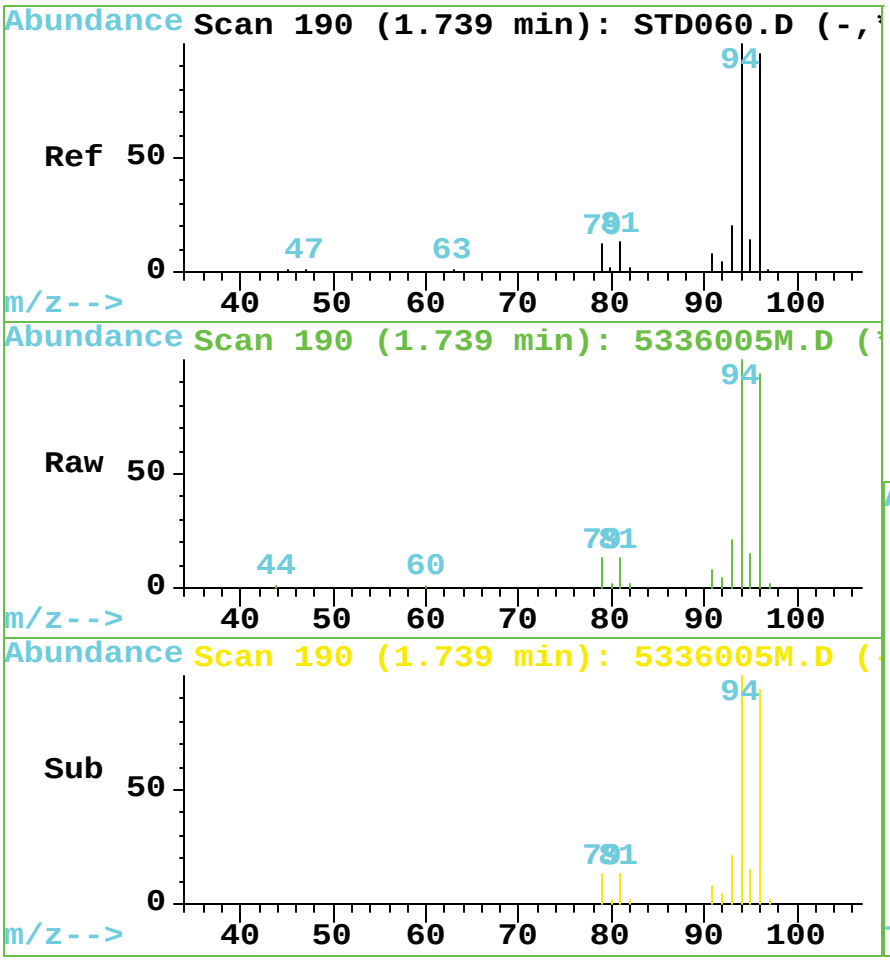


#14
Vinyl Chloride (CCC)
Concen: 46.14 ug/l
RT: 1.47 min Scan# 146
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:62.05 Resp: 12114

Ion	Ratio	Lower	Upper
62	100		
64	32.8	3.8	63.8
61	7.9	0.0	38.3
0	0.0	0.0	0.0

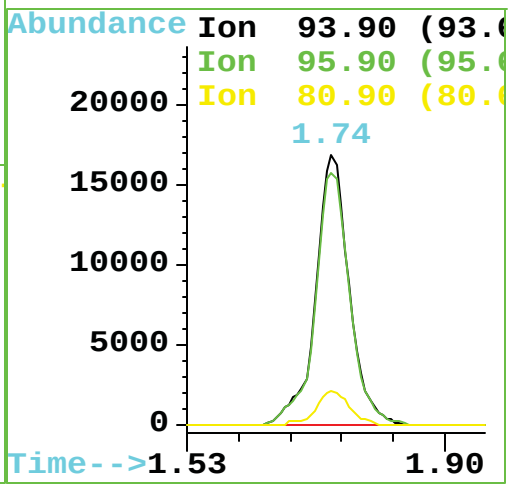


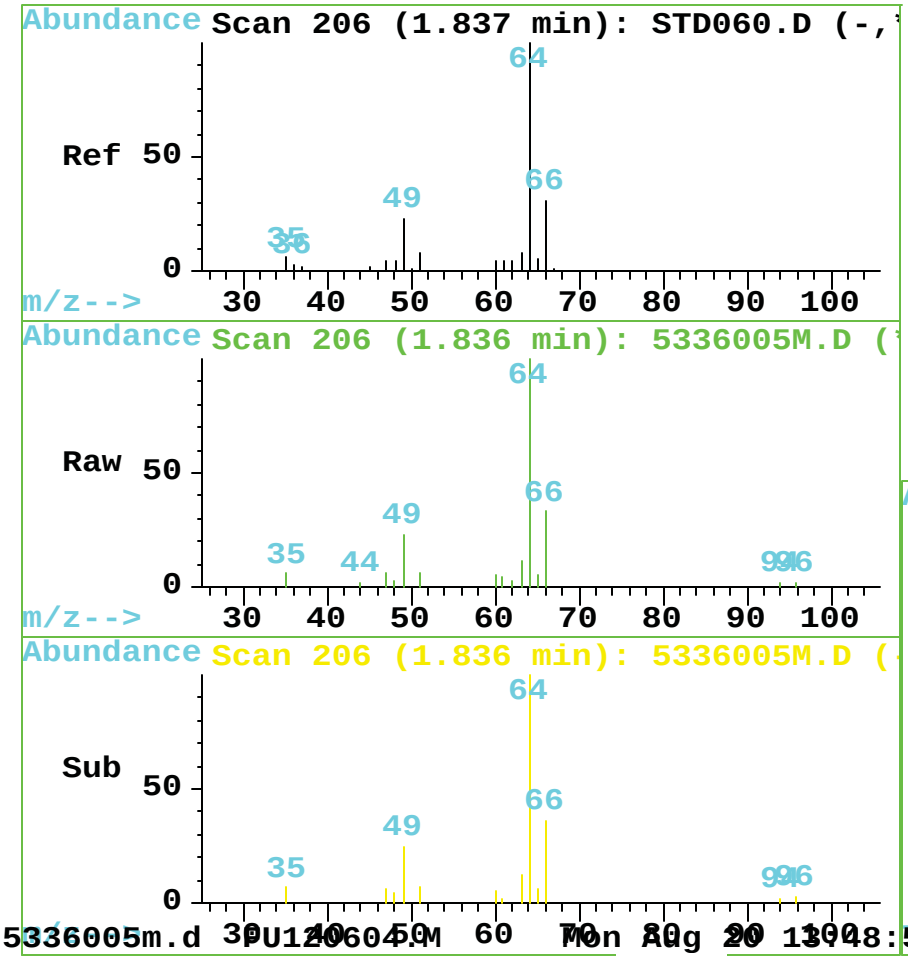


#15
Bromomethane
Concen: 48.18 ug/l
RT: 1.74 min Scan# 190
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:93.9 Resp: 56185

Ion	Ratio	Lower	Upper
94	100		
96	96.3	64.8	124.8
81	12.6	0.0	43.5
0	0.0	0.0	0.0

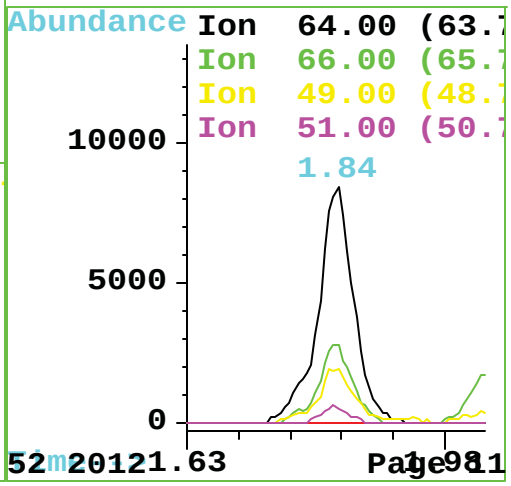


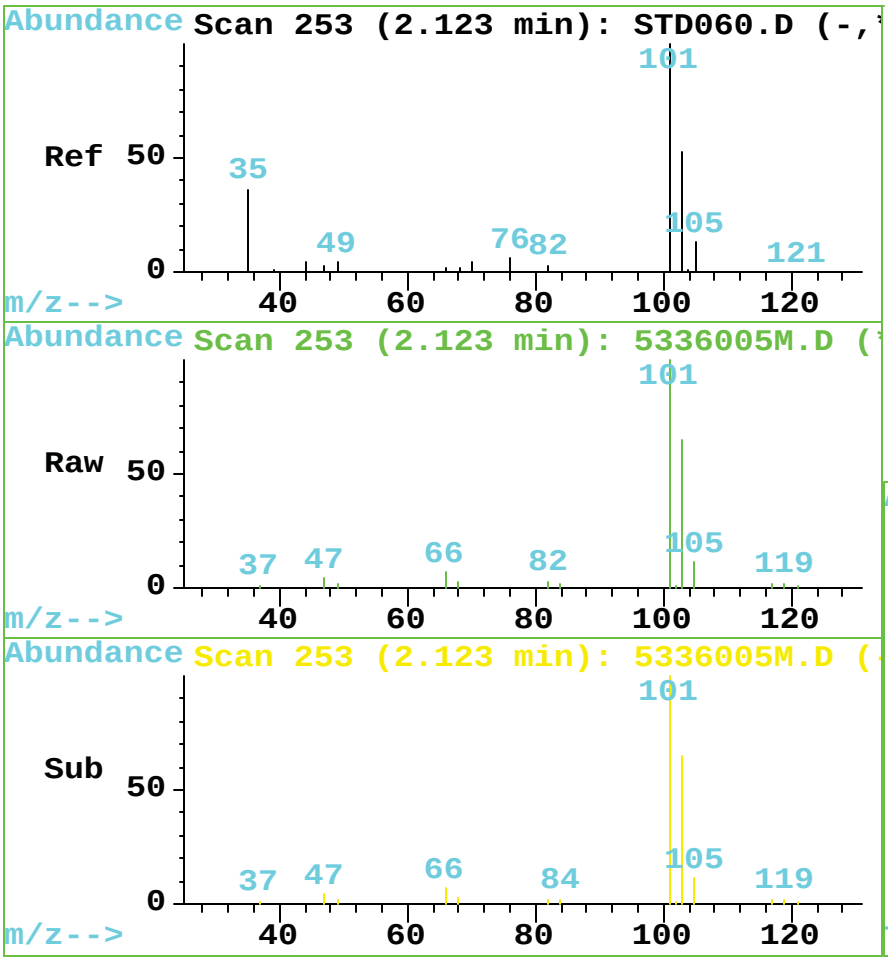


#16
Chloroethane
Concen: 51.72 ug/l
RT: 1.84 min Scan# 206
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:64 Resp: 28948

Ion	Ratio	Lower	Upper
64	100		
66	32.5	2.8	62.8
49	25.6	0.0	54.8
51	5.7	0.0	36.5

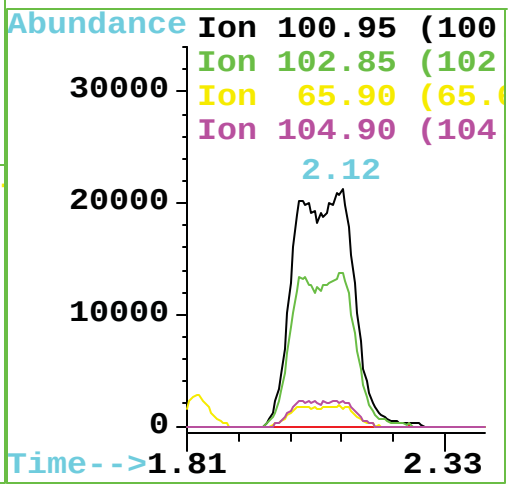


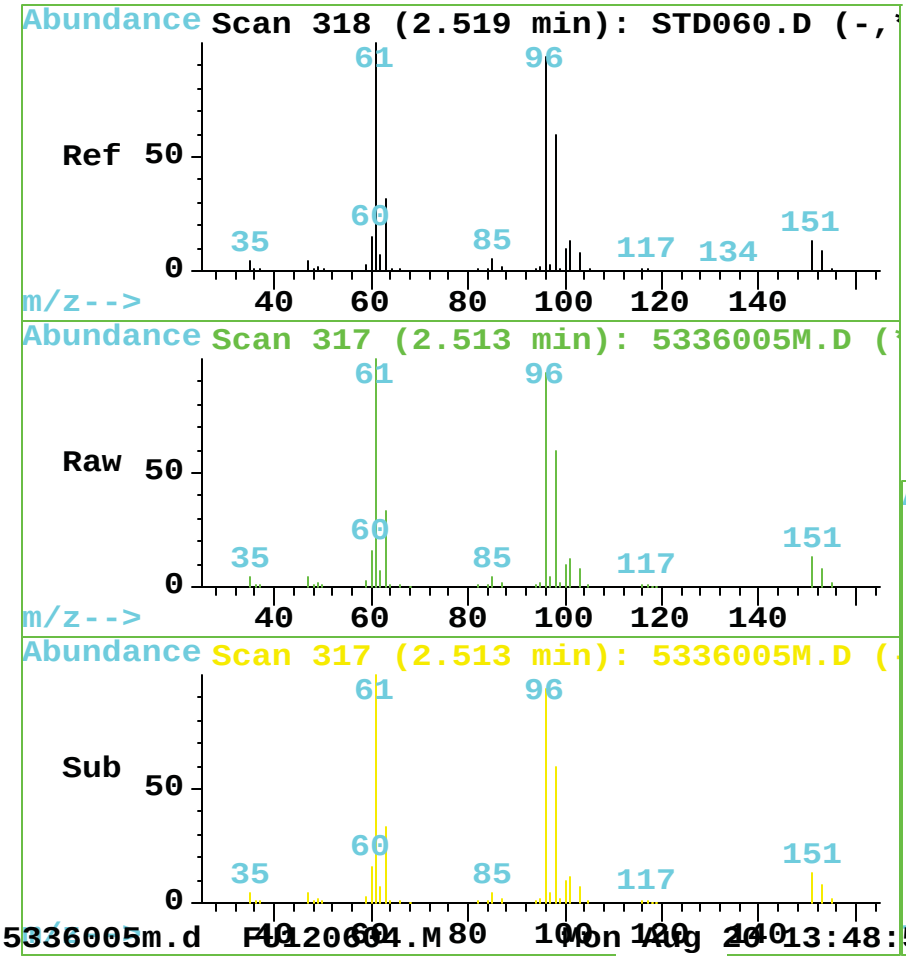


#18
Trichlorofluoromethane
Concen: 57.32 ug/l
RT: 2.12 min Scan# 253
Delta R.T. 0.07 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:100.95 Resp: 1753

Ion	Ratio	Lower	Upper
101	100		
103	65.5	34.1	94.1
66	4.3	0.0	40.0
105	10.7	0.0	40.1

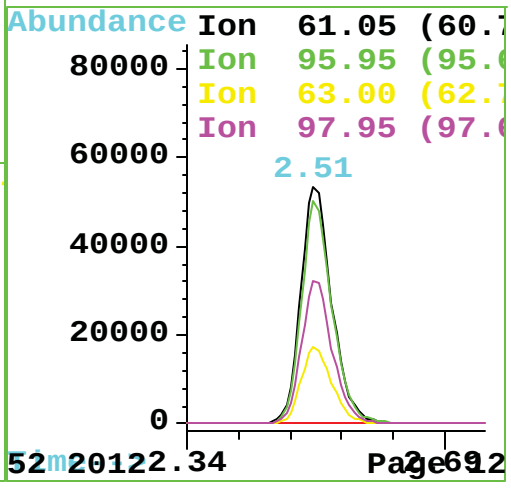


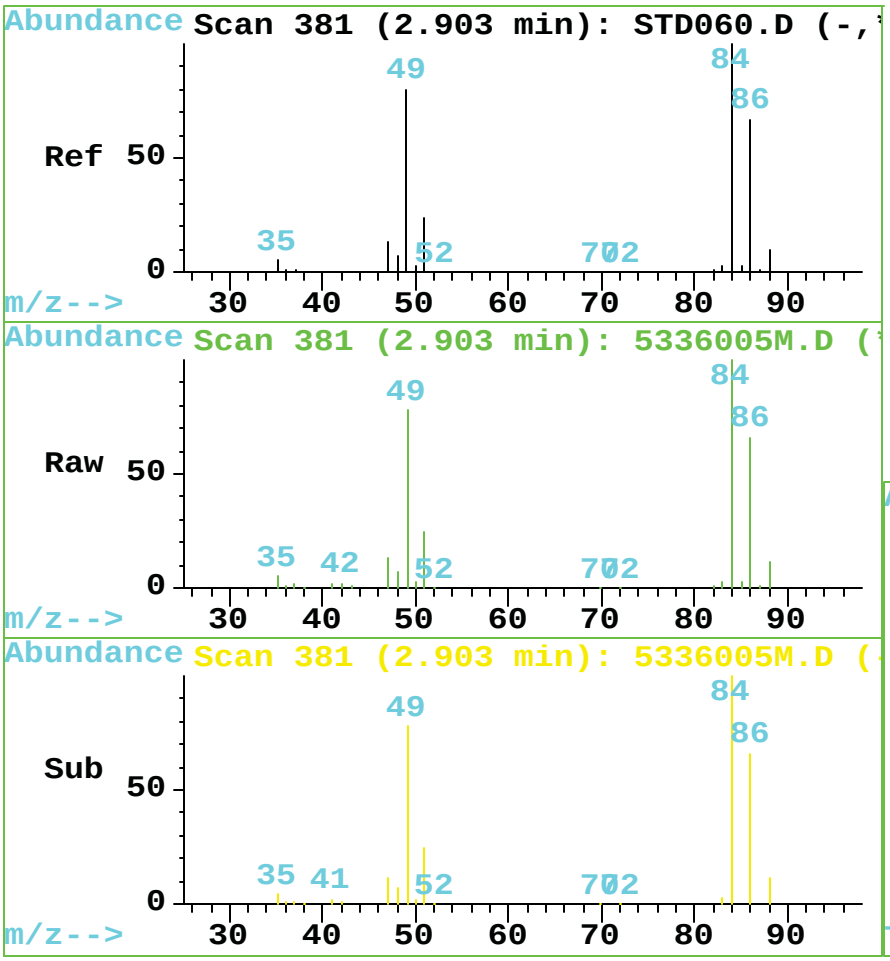


#19
1,1-Dichloroethene (CCC/MS
Concen: 47.80 ug/l
RT: 2.51 min Scan# 317
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:61.05 Resp: 15534

Ion	Ratio	Lower	Upper
61	100		
96	93.1	44.2	104.2
63	32.6	2.8	62.8
98	60.0	18.3	78.3

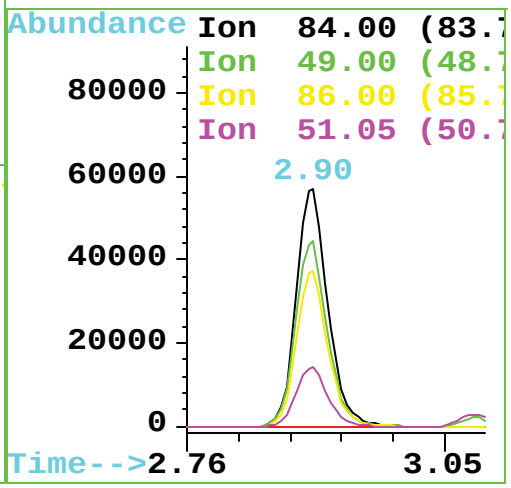


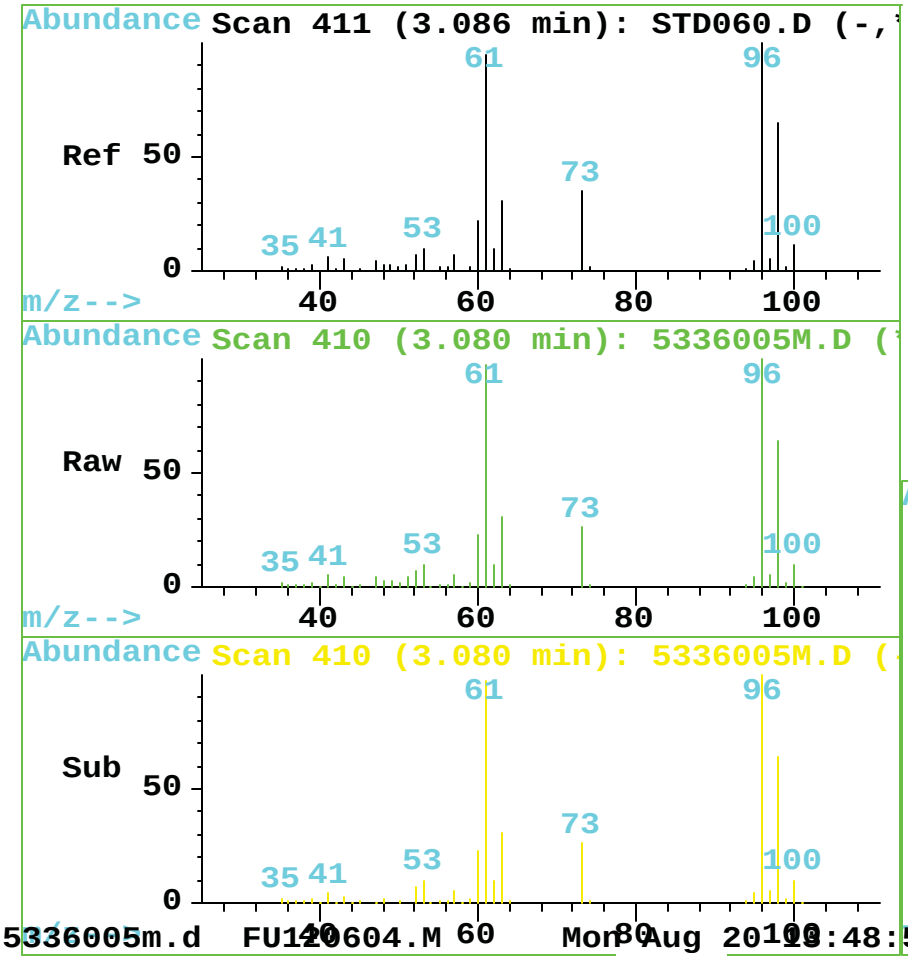


#20
Methylene Chloride
Concen: 43.42 ug/l
RT: 2.90 min Scan# 381
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:84 Resp: 136399

Ion	Ratio	Lower	Upper
84	100		
49	78.8	59.2	119.2
86	65.3	34.7	94.7
51	24.8	0.0	58.1

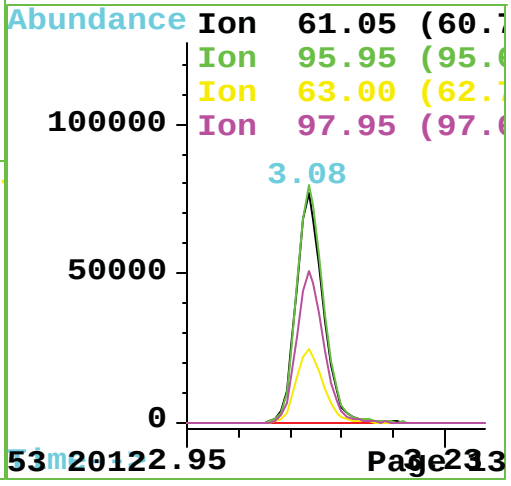


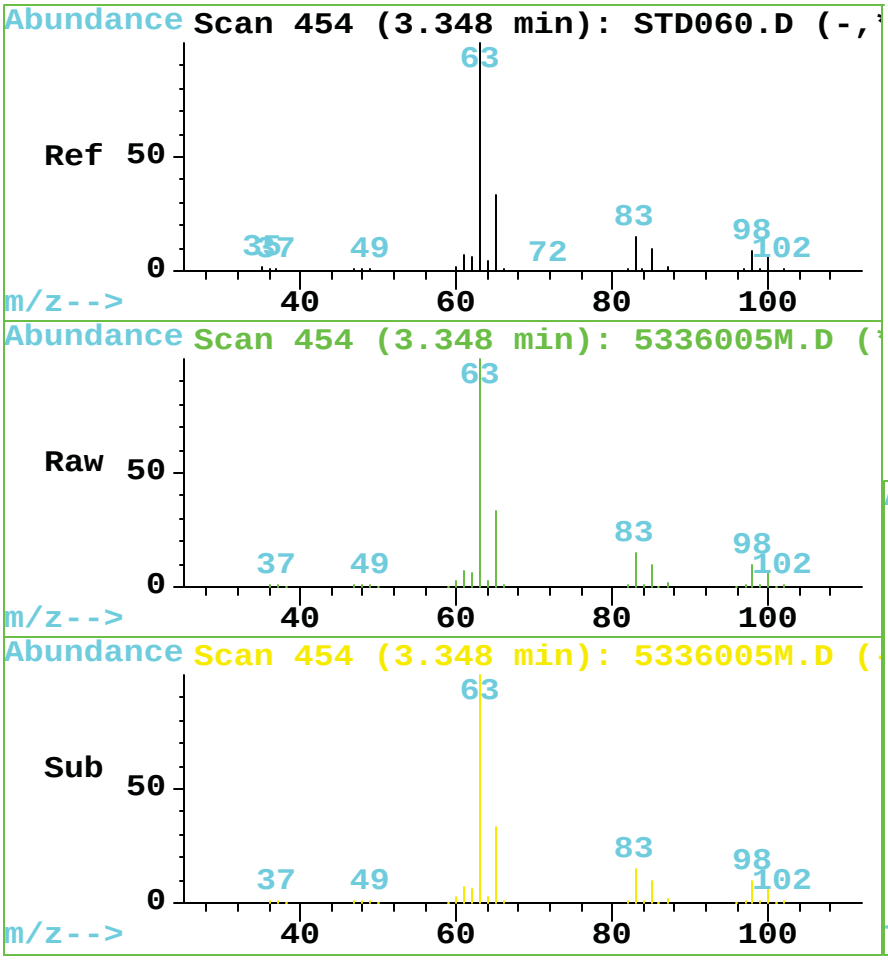


#21
trans-1,2-Dichloroethene
Concen: 46.39 ug/l
RT: 3.08 min Scan# 410
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:61.05 Resp: 15699

Ion	Ratio	Lower	Upper
61	100		
96	103.4	56.7	116.7
63	32.1	2.7	62.7
98	66.3	25.6	85.6

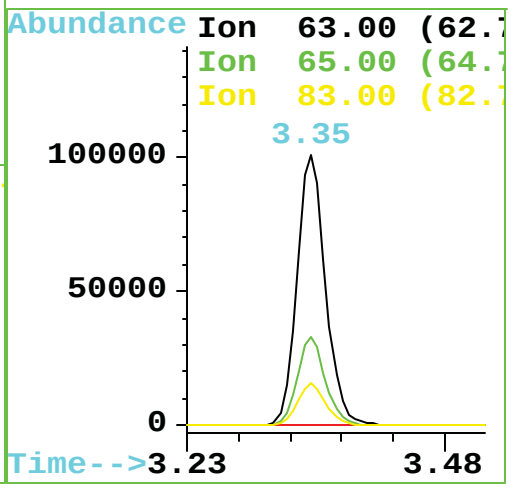


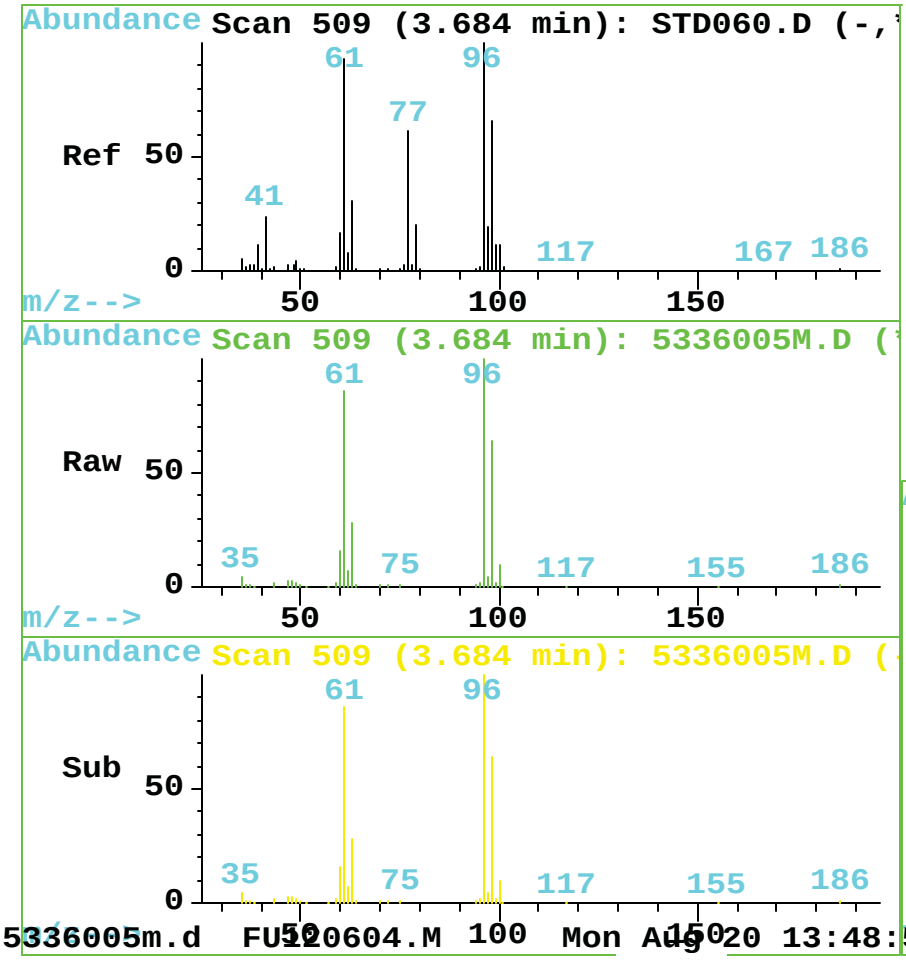


#22
1,1-Dichloroethane (SPCC)
Concen: 46.76 ug/l
RT: 3.35 min Scan# 454
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:63 Resp: 198145

Ion	Ratio	Lower	Upper
63	100		
65	32.2	2.0	62.0
83	15.2	0.0	44.9
0	0.0	0.0	0.0

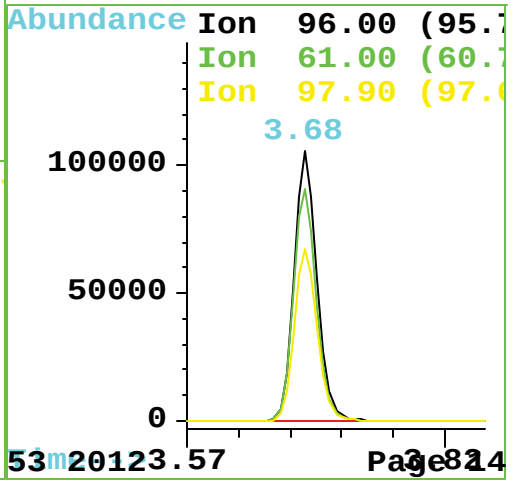


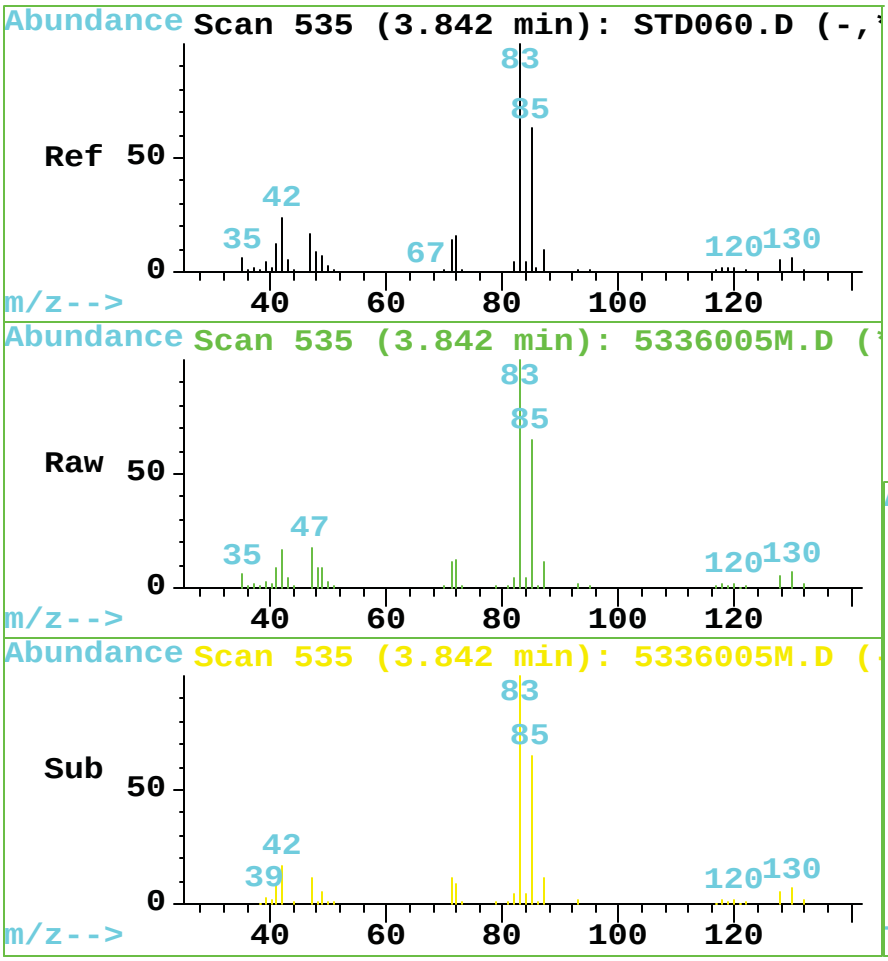


#23
cis-1,2-Dichloroethene
Concen: 47.39 ug/l
RT: 3.68 min Scan# 509
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:96 Resp: 167795

Ion	Ratio	Lower	Upper
96	100		
61	87.1	90.9	150.9#
98	64.5	34.6	94.6
0	0.0	0.0	0.0

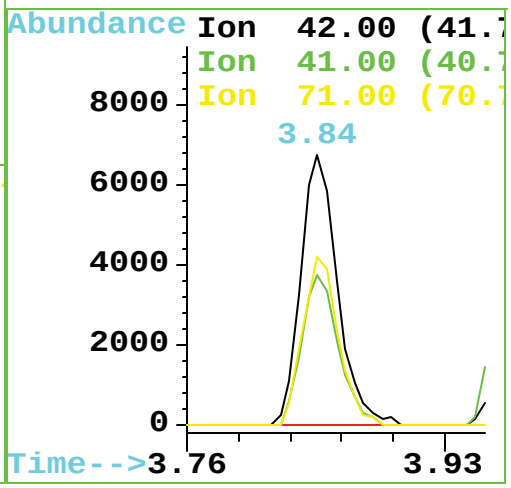


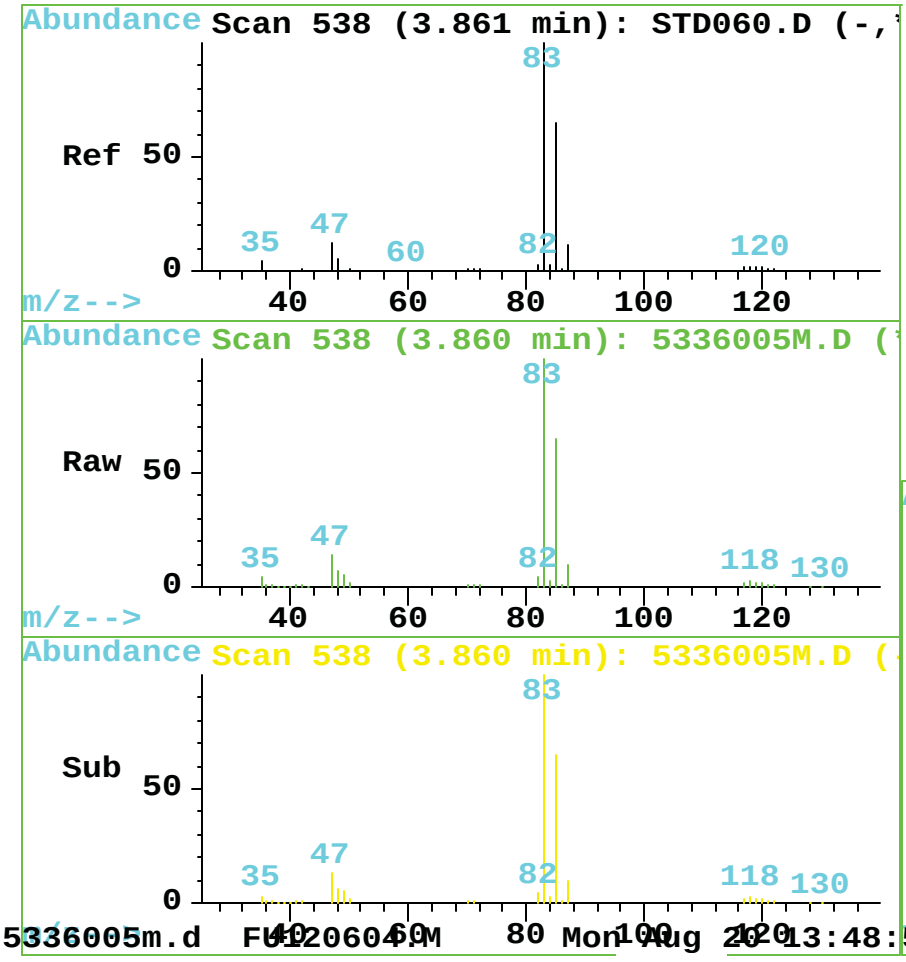


#24
Tetrahydrofuran
Concen: 40.26 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:42 Resp: 11300

Ion	Ratio	Lower	Upper
42	100		
41	55.3	222.5	282.5#
71	60.1	24.9	84.9
0	0.0	0.0	0.0

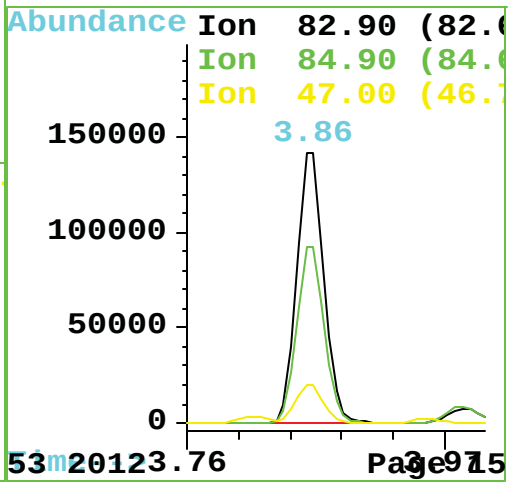


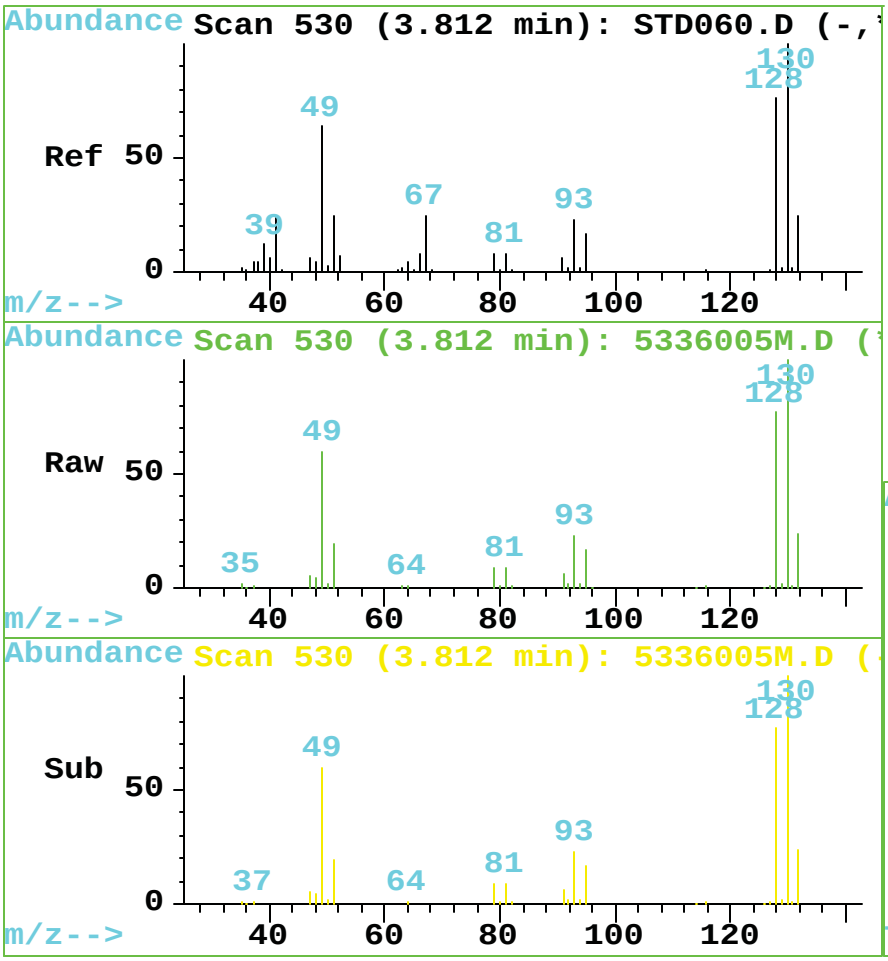


#25
Chloroform (CCC)
Concen: 48.03 ug/l
RT: 3.86 min Scan# 538
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:82.9 Resp: 218818

Ion	Ratio	Lower	Upper
83	100		
85	65.6	35.0	95.0
47	14.3	0.0	48.4
0	0.0	0.0	0.0

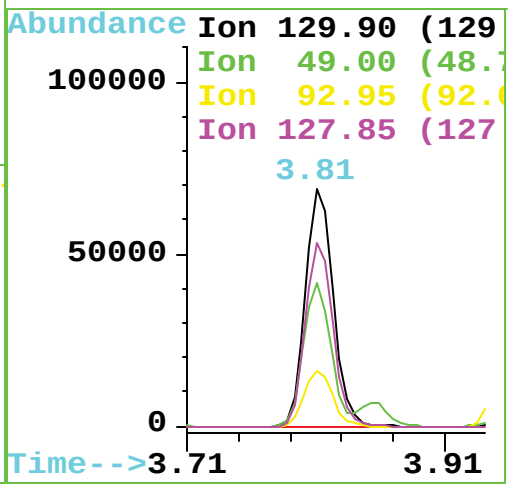


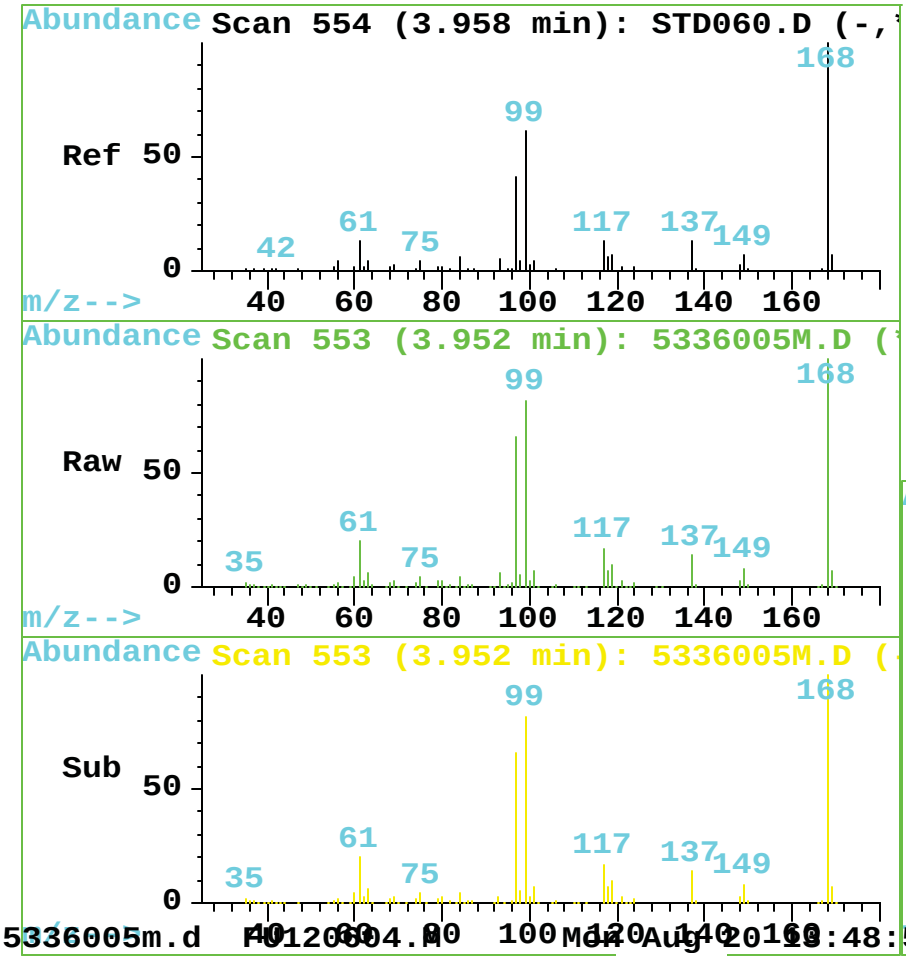


#26
Bromochloromethane
Concen: 46.65 ug/l
RT: 3.81 min Scan# 530
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:129.9 Resp: 10570

Ion	Ratio	Lower	Upper
130	100		
49	60.3	41.7	101.7
93	23.6	0.0	58.1
128	76.9	45.4	105.4

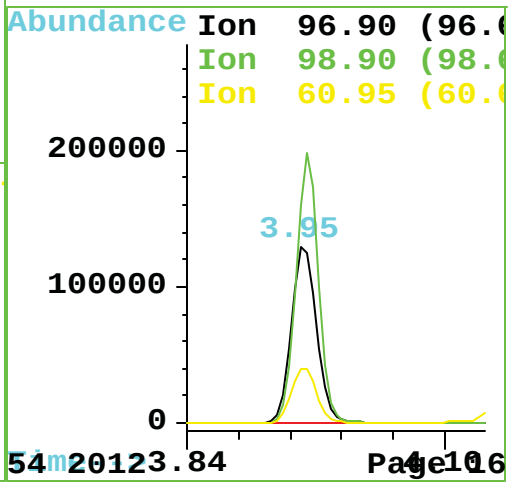


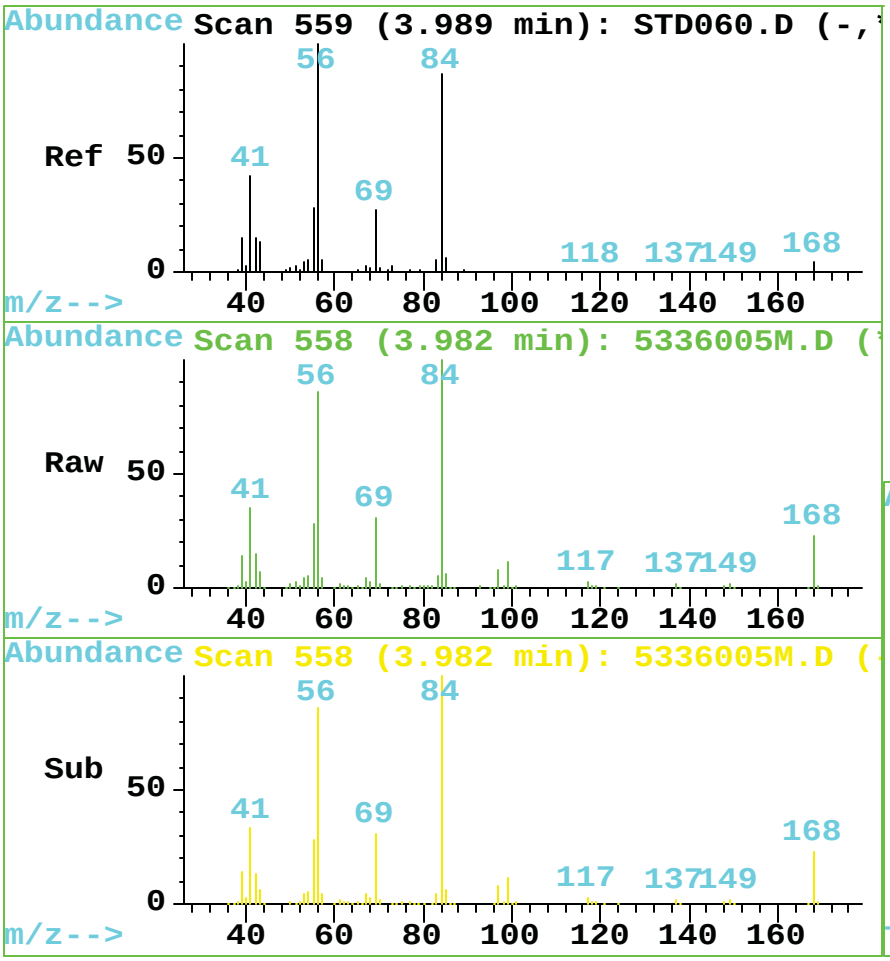


#27
1,1,1-Trichloroethane
Concen: 51.97 ug/l
RT: 3.95 min Scan# 553
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:96.9 Resp: 231810

Ion	Ratio	Lower	Upper
97	100		
99	135.1	214.4	274.4#
61	31.5	12.5	72.5
0	0.0	0.0	0.0

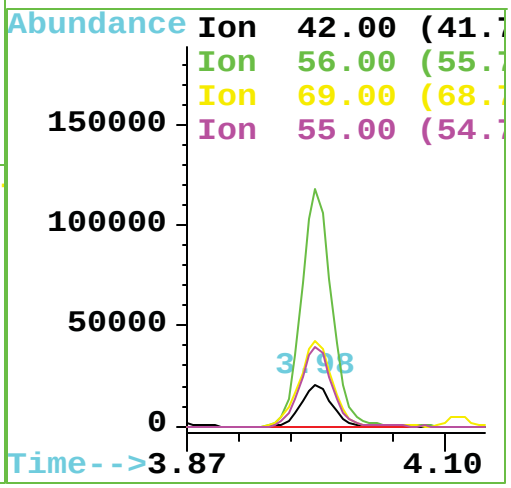


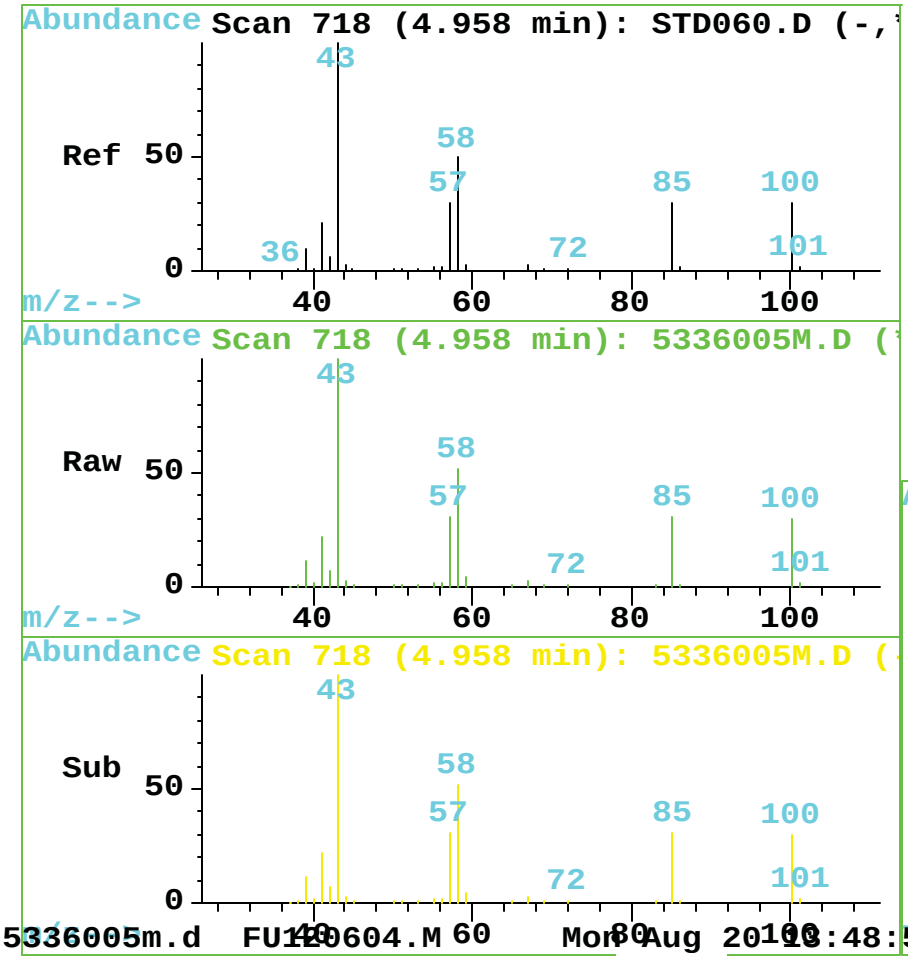


#29
Cyclohexane
Concen: 38.14 ug/l
RT: 3.98 min Scan# 558
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:42 Resp: 39304

Ion	Ratio	Lower	Upper
42	100		
56	570.0	958.1	1018.1#
69	222.6	188.2	248.2
55	198.0	209.1	269.1#

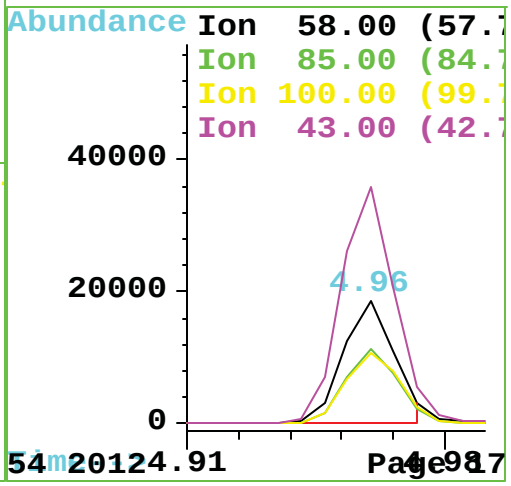


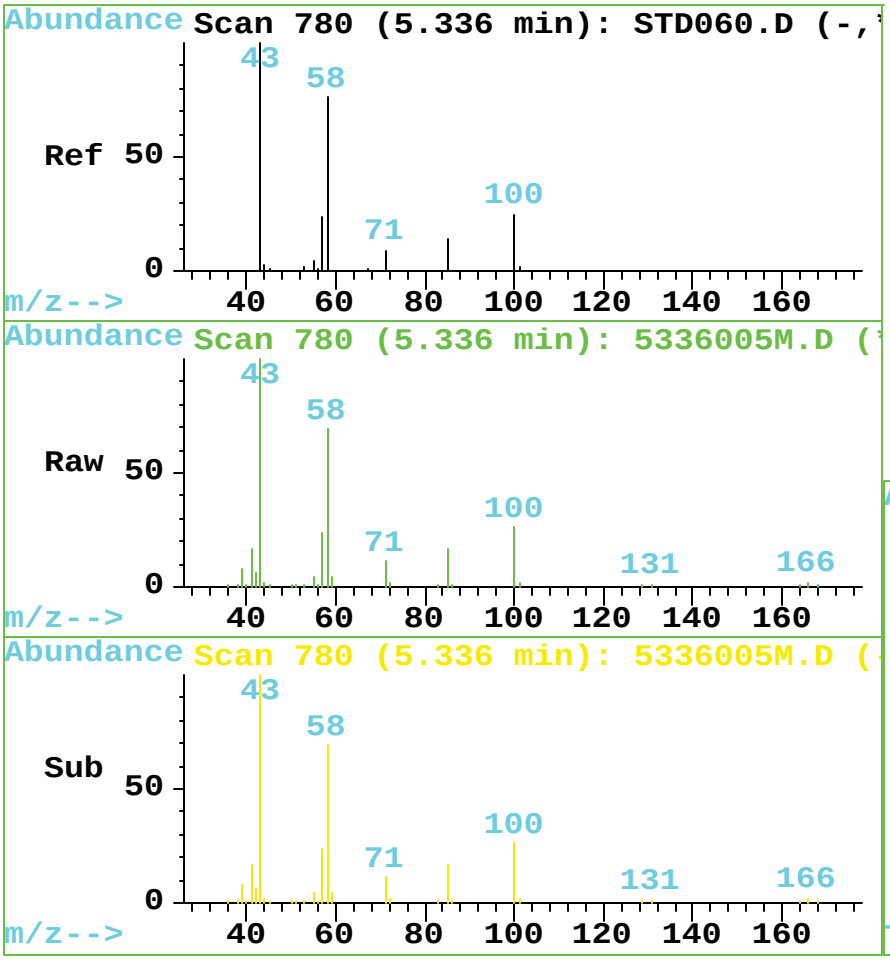


#32
4-Methyl-2-pentanone (MIBK
Concen: 47.28 ug/l
RT: 4.96 min Scan# 718
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:58 Resp: 17902

Ion	Ratio	Lower	Upper
58	100		
85	61.9	33.3	93.3
100	60.4	29.4	89.4
43	197.0	197.3	257.3#

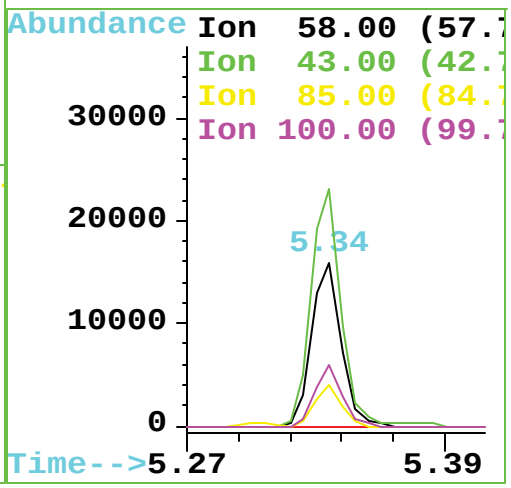


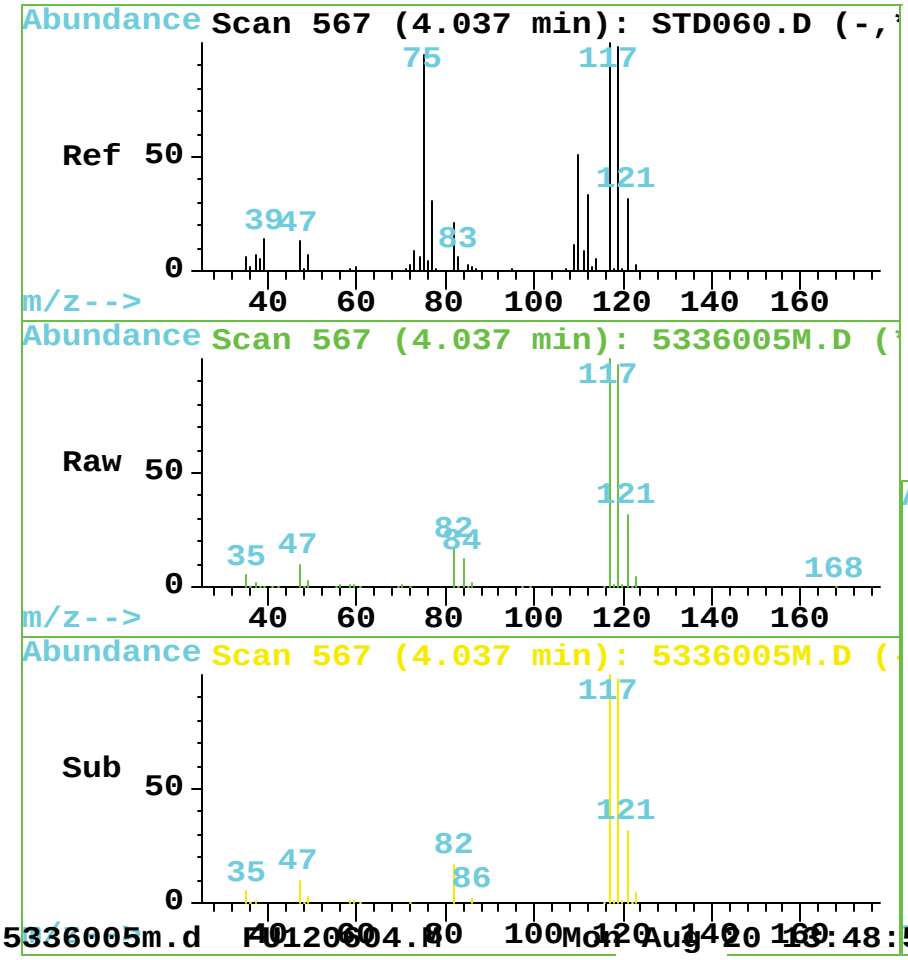


#33
2-Hexanone (*)
Concen: 51.87 ug/l
RT: 5.34 min Scan# 780
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:58 Resp: 15310

Ion	Ratio	Lower	Upper
58	100		
43	147.5	122.2	182.2
85	22.5	0.0	52.9
100	34.0	2.6	62.6

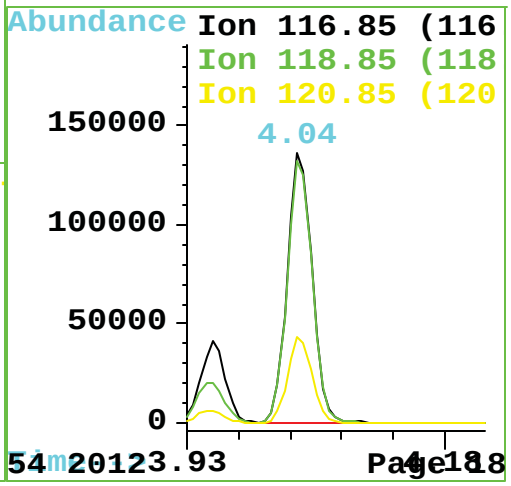


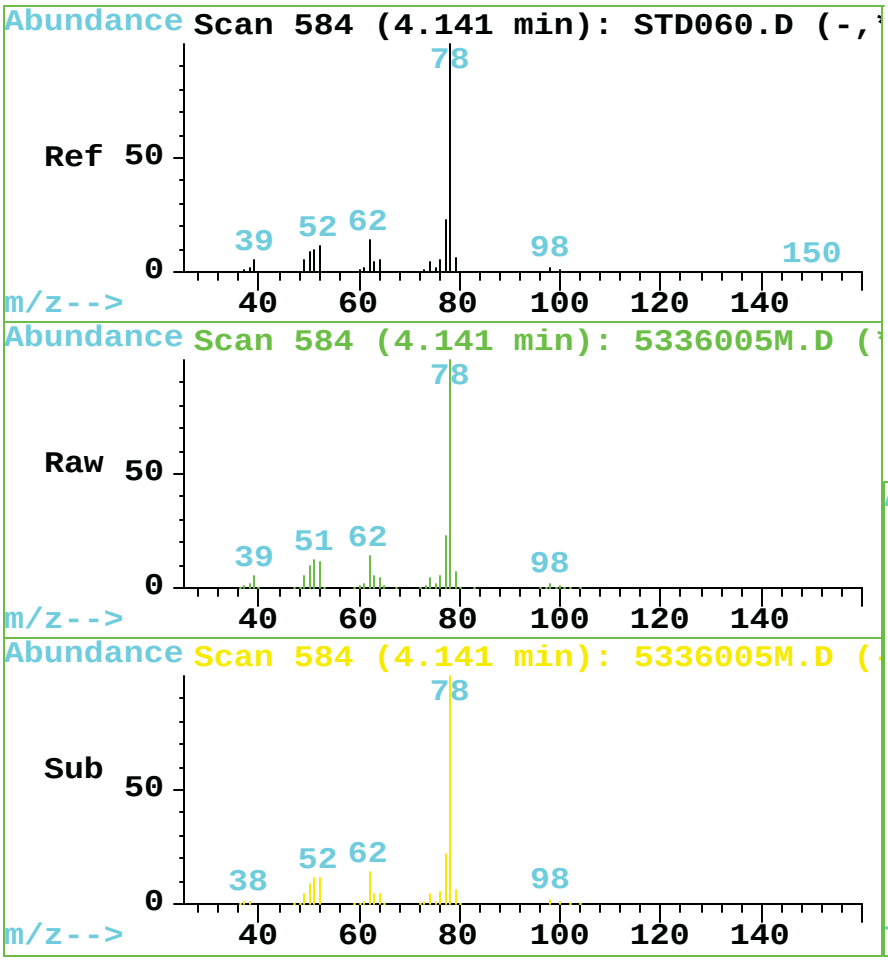


#35
Carbon Tetrachloride
Concen: 53.02 ug/l
RT: 4.04 min Scan# 567
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:116.85 Resp: 2232

Ion	Ratio	Lower	Upper
117	100		
119	97.5	65.5	125.5
121	31.5	0.5	60.5
0	0.0	0.0	0.0

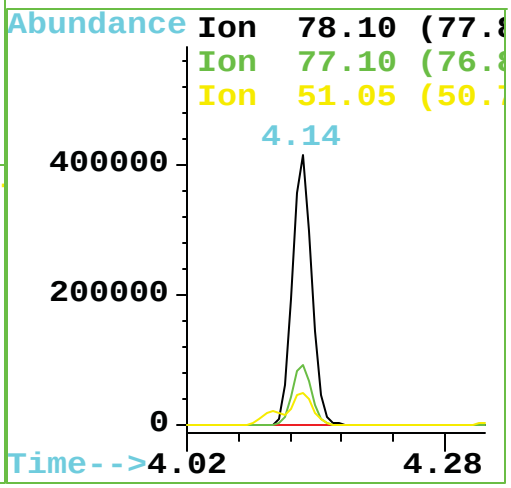


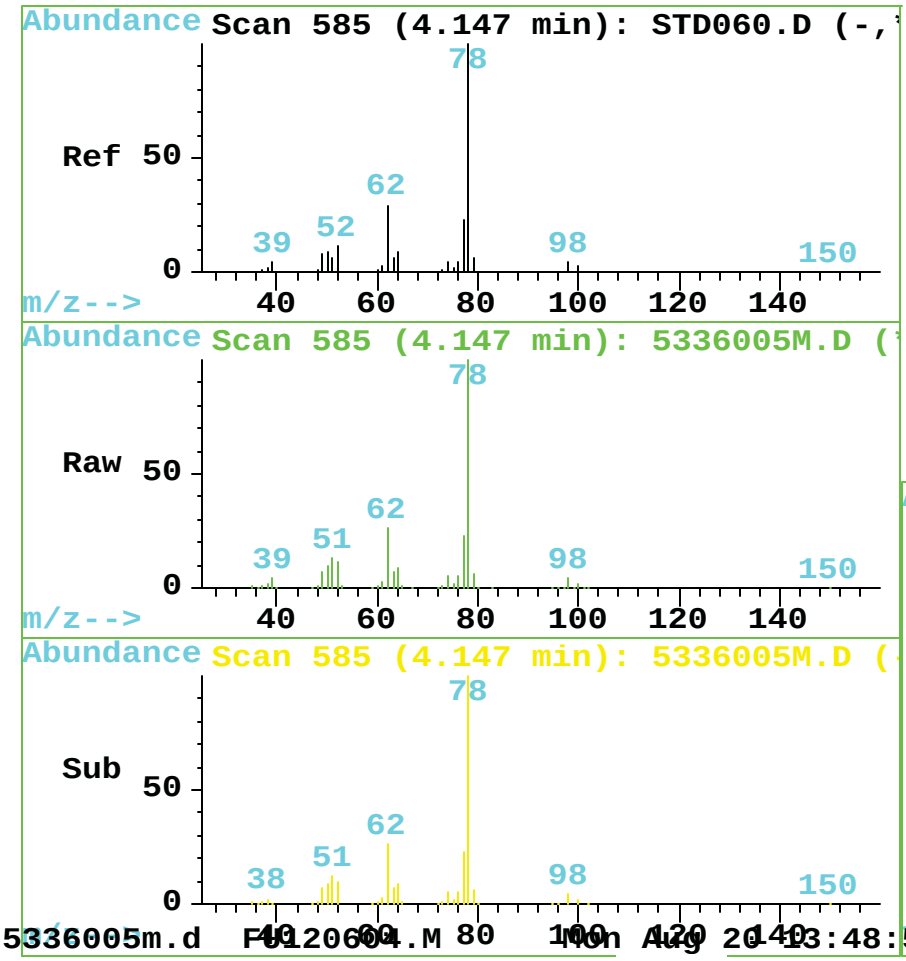


#36
Benzene (MS)
Concen: 47.95 ug/l
RT: 4.14 min Scan# 584
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:78.1 Resp: 569017

Ion	Ratio	Lower	Upper
78	100		
77	22.6	0.0	52.9
51	12.2	0.0	44.8
0	0.0	0.0	0.0

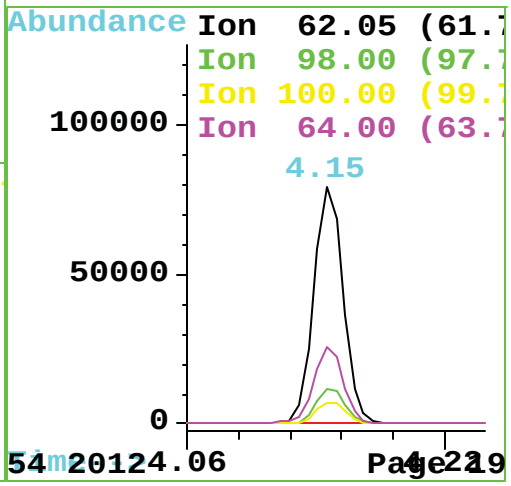


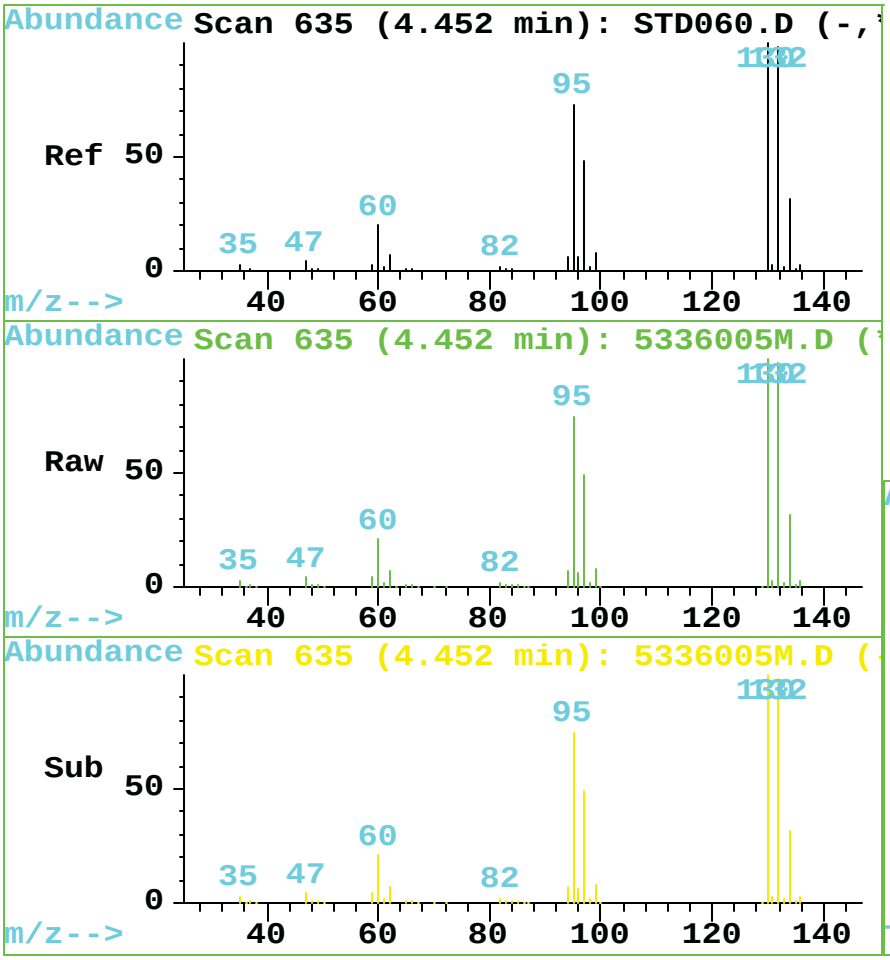


#37
1,2-Dichloroethane
Concen: 49.69 ug/l
RT: 4.15 min Scan# 585
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:62.05 Resp: 10681

Ion	Ratio	Lower	Upper
62	100		
98	14.8	0.0	40.9
100	9.3	0.0	37.0
64	33.3	3.1	63.1

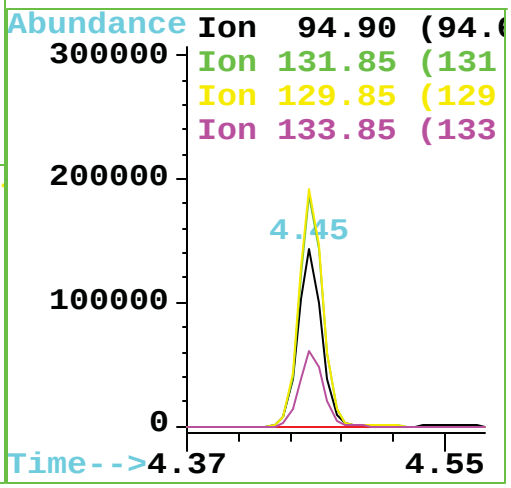


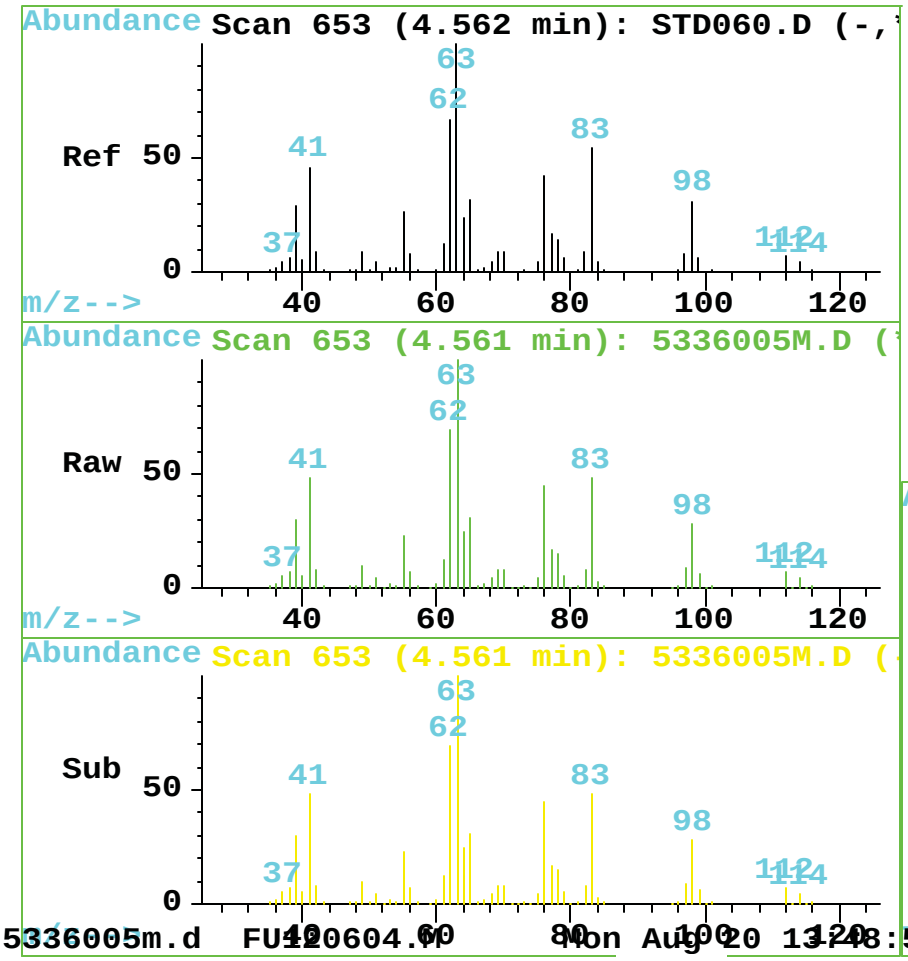


#38
Trichloroethene (MS)
Concen: 49.78 ug/l
RT: 4.45 min Scan# 635
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:94.9 Resp: 161206

Ion	Ratio	Lower	Upper
95	100		
132	131.2	90.7	150.7
130	135.5	93.9	153.9
134	42.7	8.4	68.4

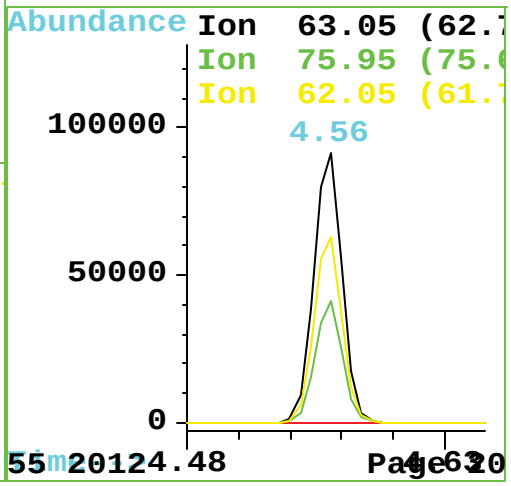


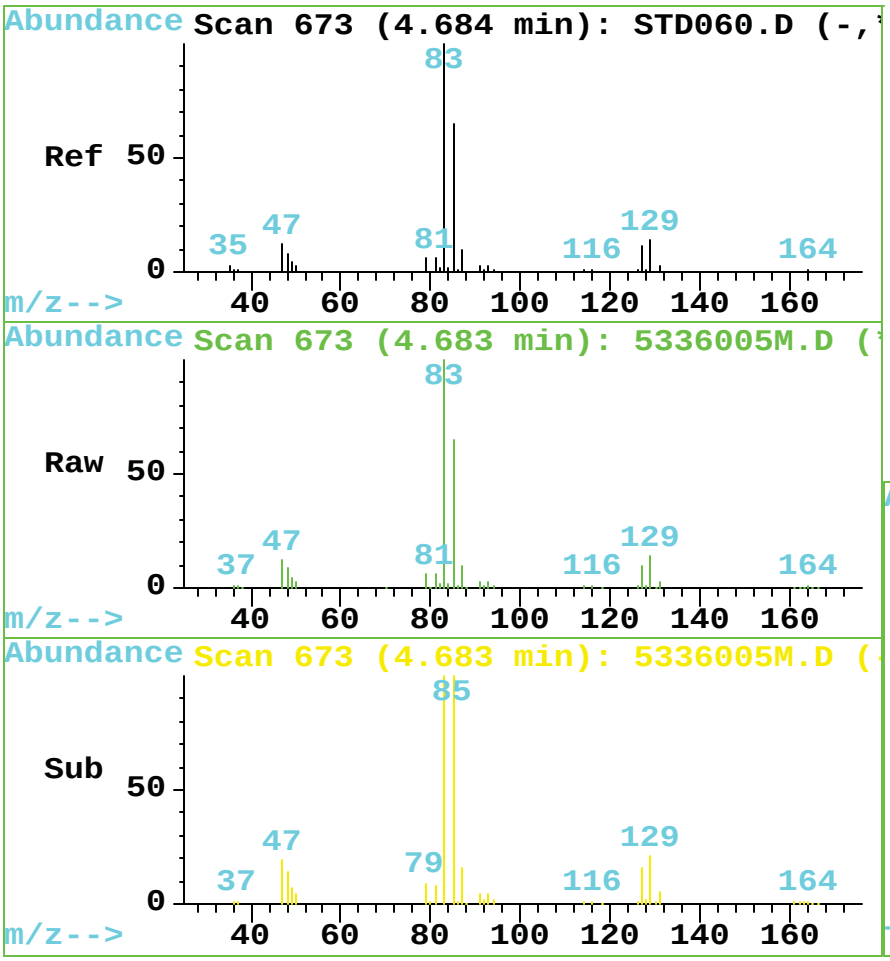


#39
1,2-Dichloropropane (CCC)
Concen: 47.61 ug/l
RT: 4.56 min Scan# 653
Delta R.T. 0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:63.05 Resp: 10983

Ion	Ratio	Lower	Upper
63	100		
76	43.8	23.2	83.2
62	68.3	37.6	97.6
0	0.0	0.0	0.0

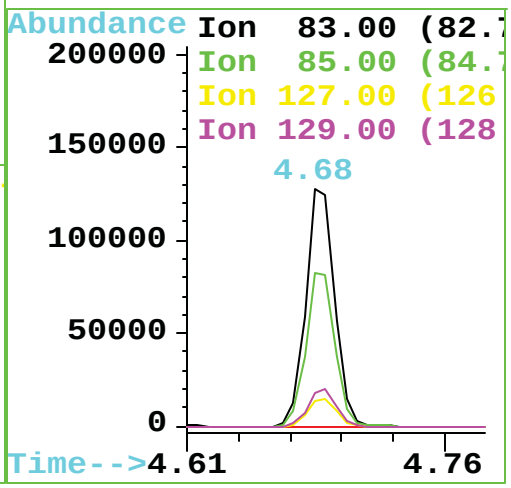


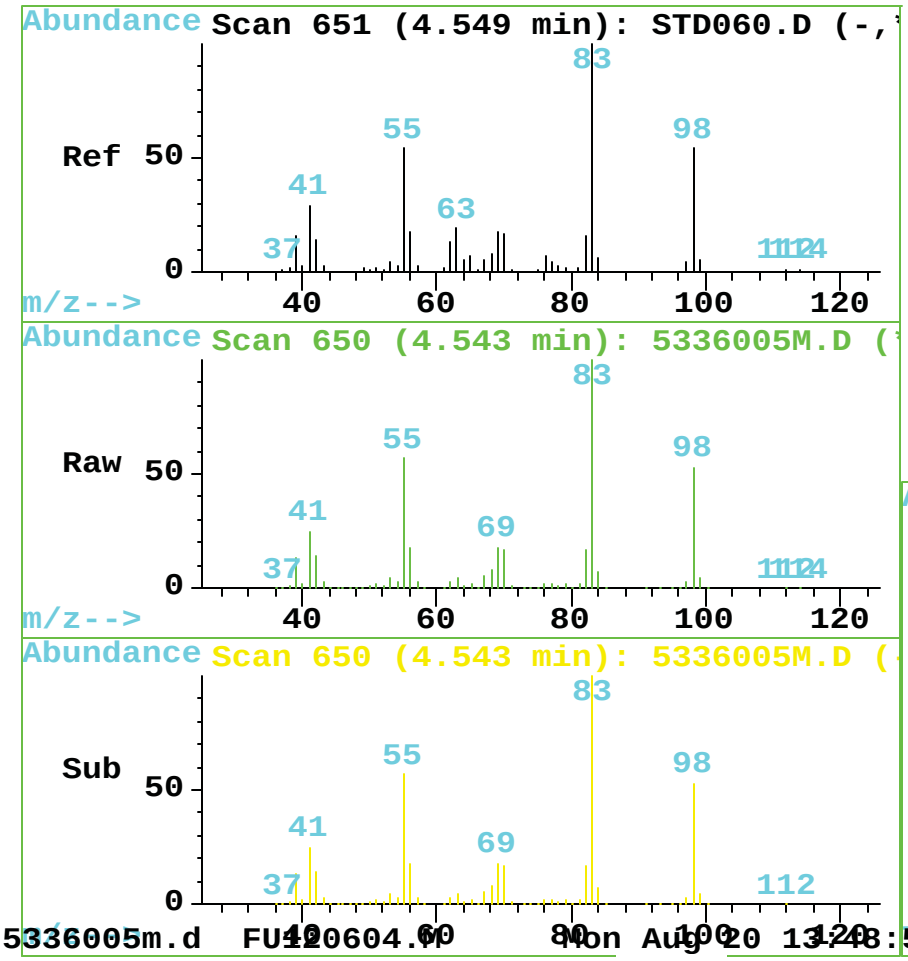


#40
Bromodichloromethane
Concen: 50.61 ug/l
RT: 4.68 min Scan# 673
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:83 Resp: 145988

Ion	Ratio	Lower	Upper
83	100		
85	64.9	33.6	93.6
127	11.2	0.0	40.3
129	15.0	0.0	43.6

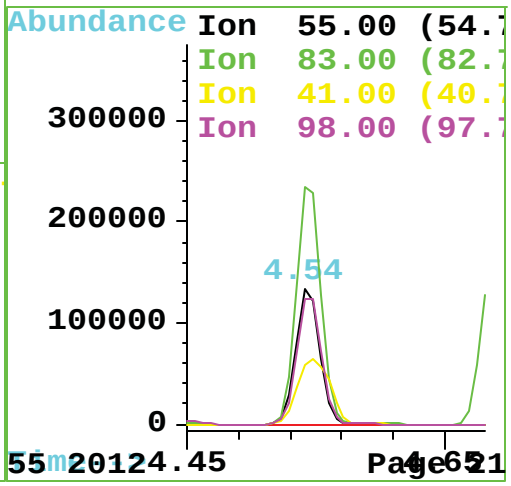


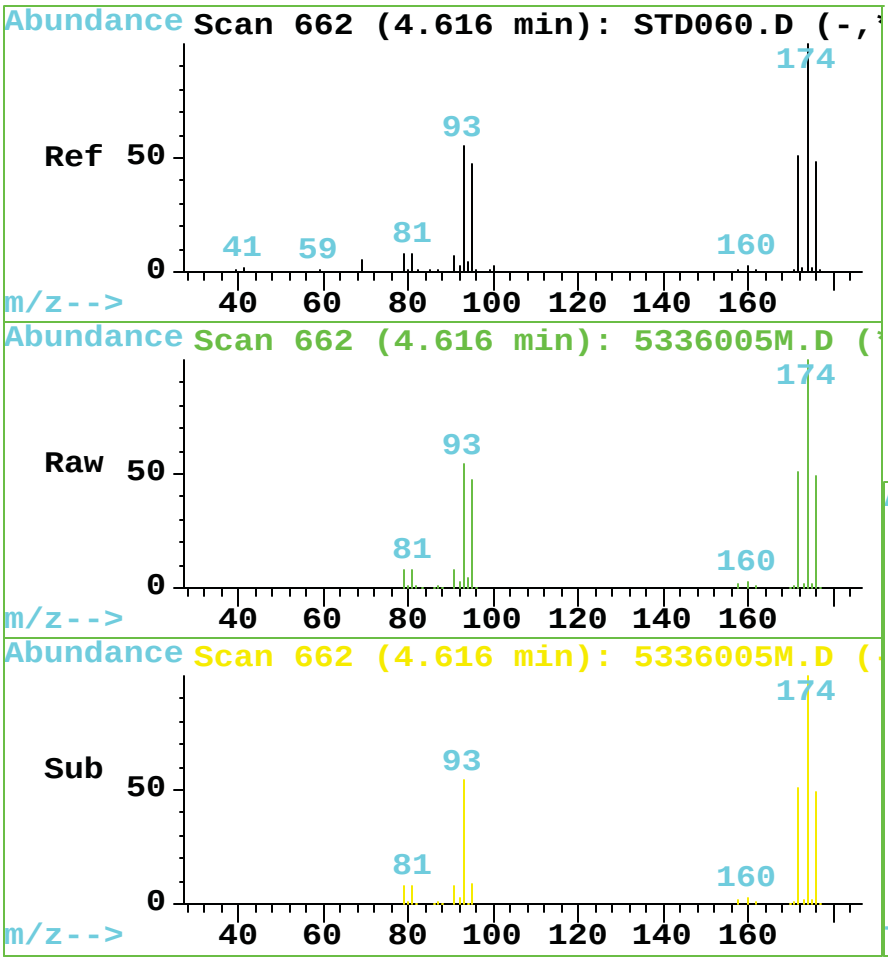


#41
Methyl Cyclohexane
Concen: 50.89 ug/l
RT: 4.54 min Scan# 650
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:55 Resp: 170622

Ion	Ratio	Lower	Upper
55	100		
83	181.0	131.0	191.0
41	65.8	42.0	102.0
98	96.8	55.3	115.3

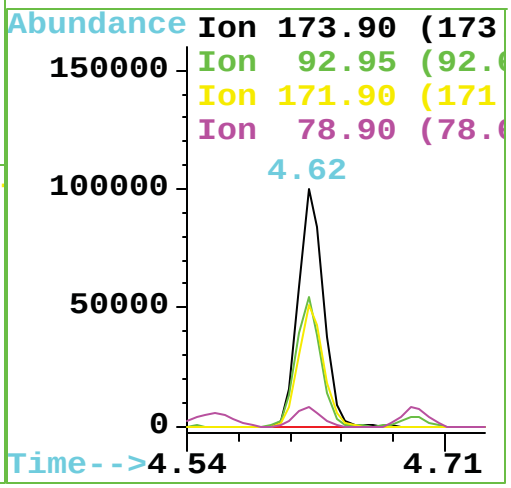


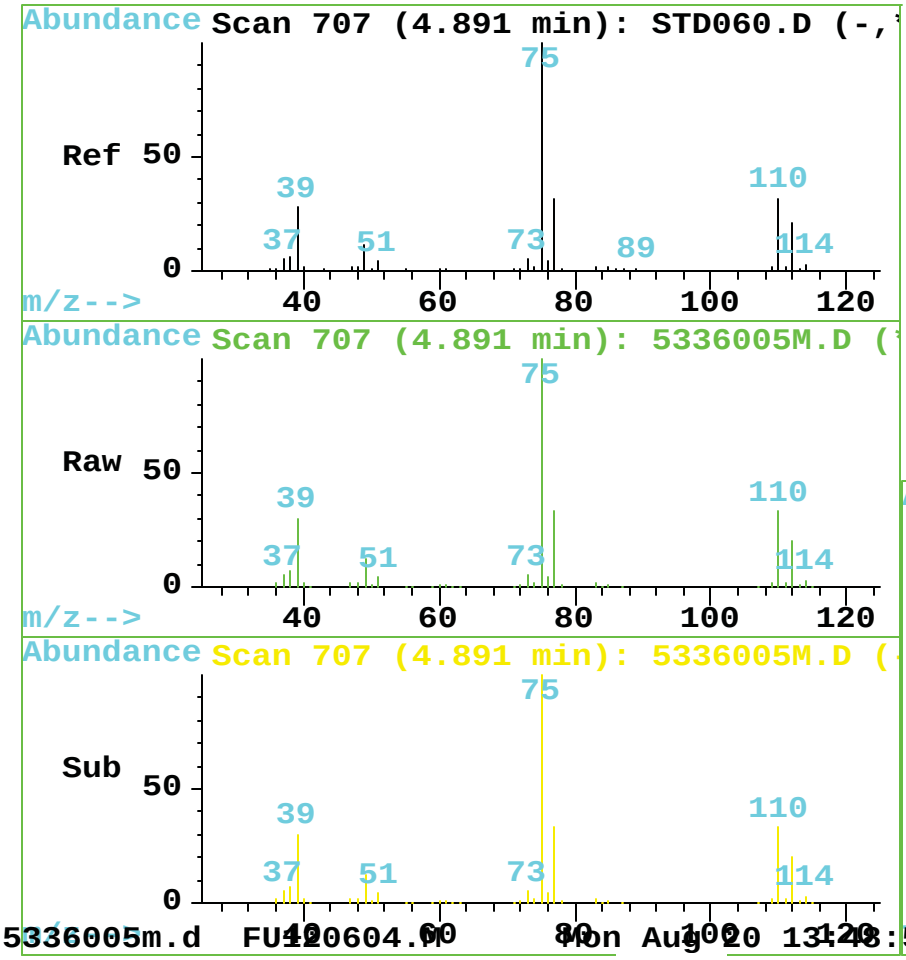


#42
Dibromomethane
Concen: 50.57 ug/l
RT: 4.62 min Scan# 662
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:173.9 Resp: 11334

Ion	Ratio	Lower	Upper
174	100		
93	53.6	32.9	92.9
172	51.0	19.9	79.9
79	8.3	0.0	43.6

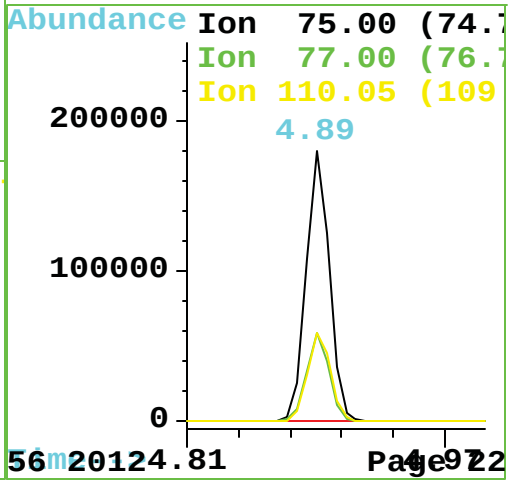


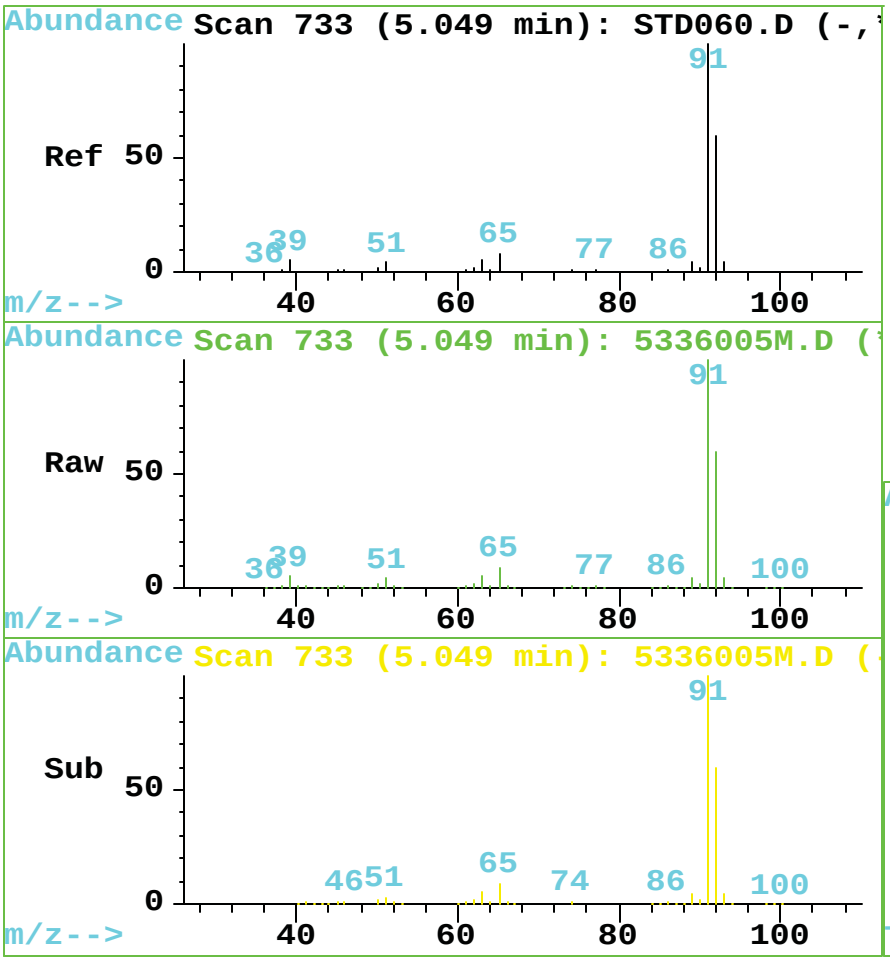


#43
cis-1,3-Dichloropropene
Concen: 49.34 ug/l
RT: 4.89 min Scan# 707
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:75 Resp: 177495

Ion	Ratio	Lower	Upper
75	100		
77	32.2	2.0	62.0
110	32.4	0.0	58.0
0	0.0	0.0	0.0

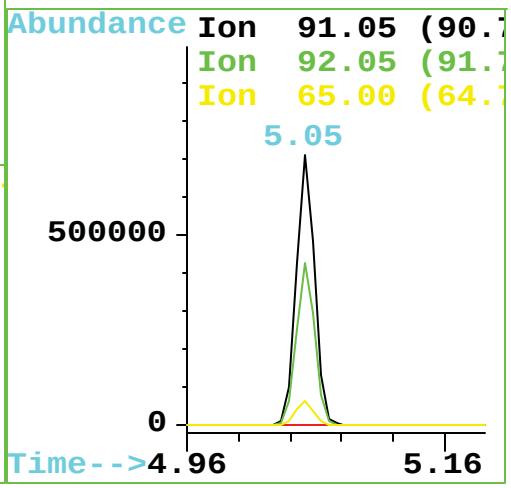


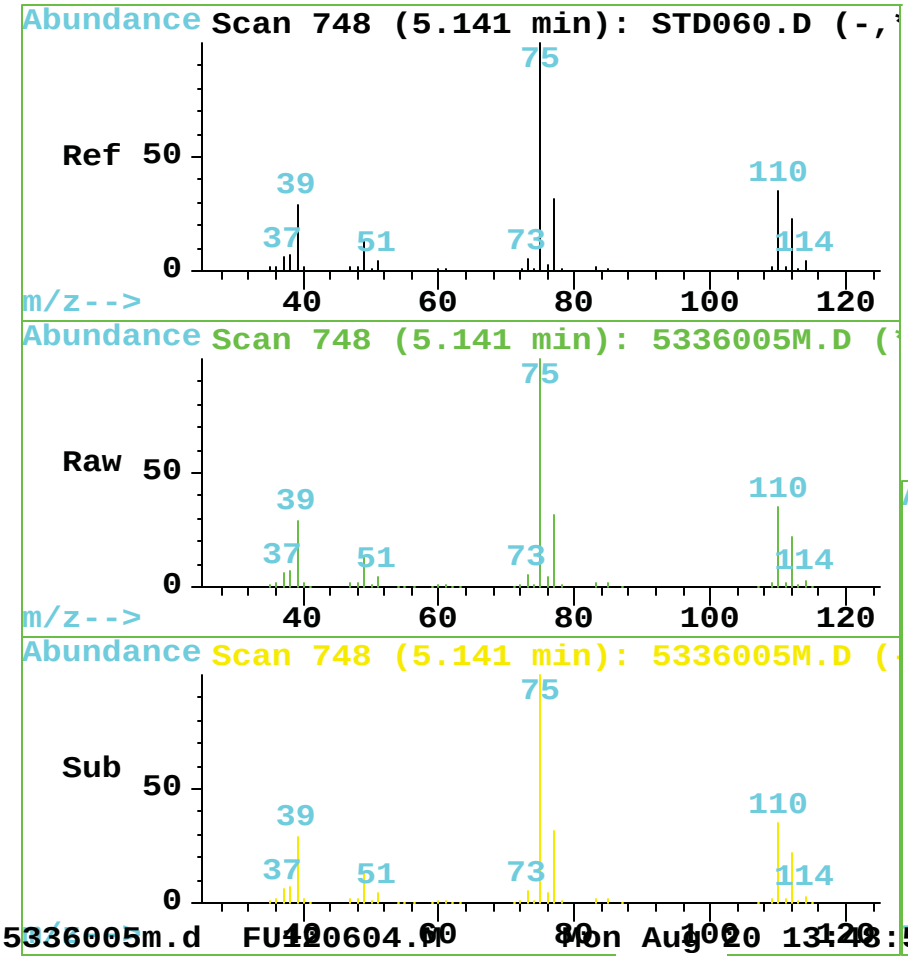


#44
Toluene (CCC/MS)
Concen: 49.54 ug/l
RT: 5.05 min Scan# 733
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:91.05 Resp: 68991

Ion	Ratio	Lower	Upper
91	100		
92	60.1	30.0	90.0
65	8.6	0.0	40.0
0	0.0	0.0	0.0

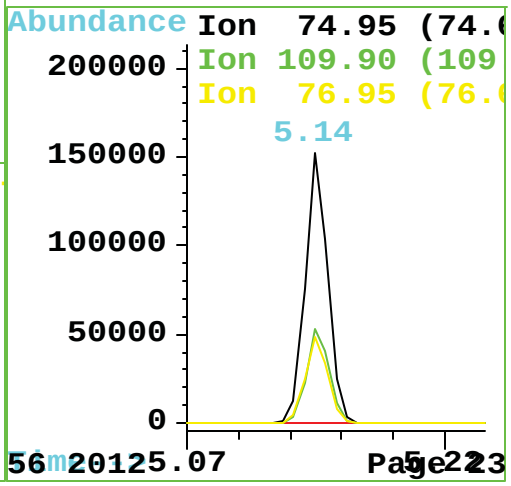


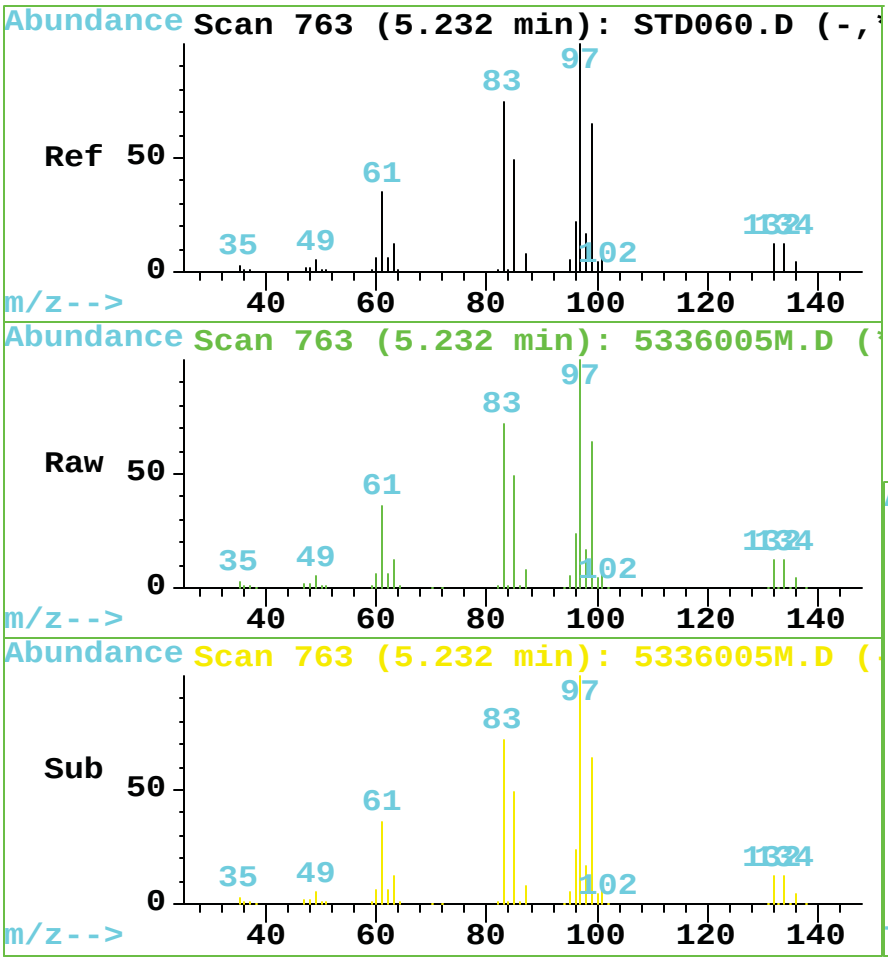


#45
trans-1,3-Dichloropropene
Concen: 50.50 ug/l
RT: 5.14 min Scan# 748
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:74.95 Resp: 13666

Ion	Ratio	Lower	Upper
75	100		
110	35.2	0.0	58.2
77	32.2	1.0	61.0
0	0.0	0.0	0.0

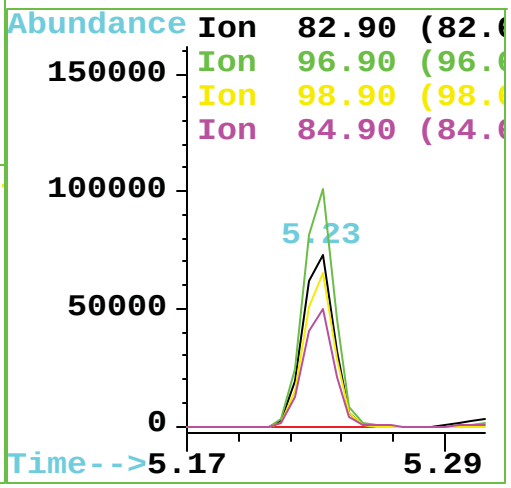


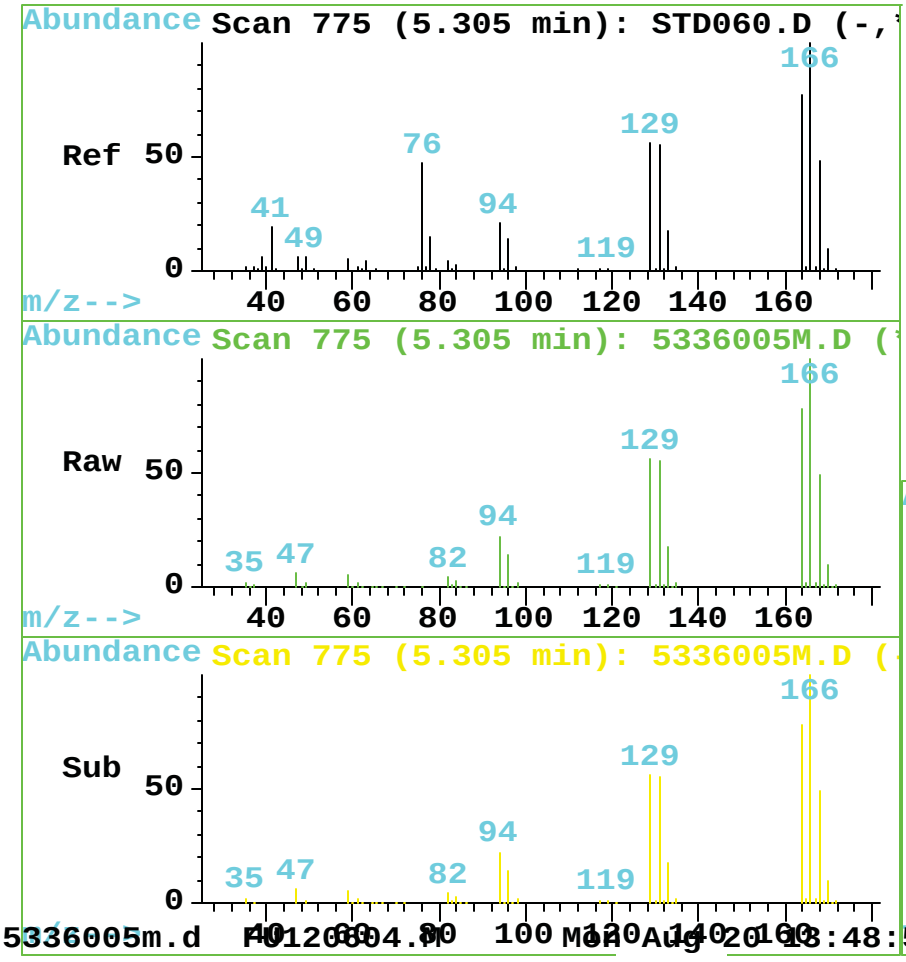


#46
1,1,2-Trichloroethane
Concen: 48.01 ug/l
RT: 5.23 min Scan# 763
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:82.9 Resp: 71518

Ion	Ratio	Lower	Upper
83	100		
97	135.2	104.2	164.2
99	85.2	54.5	114.5
85	66.0	36.7	96.7

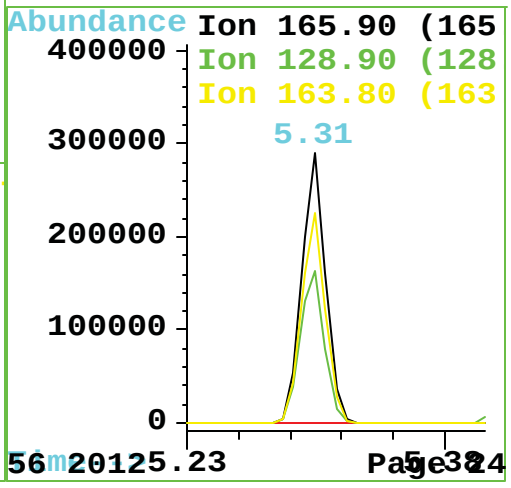


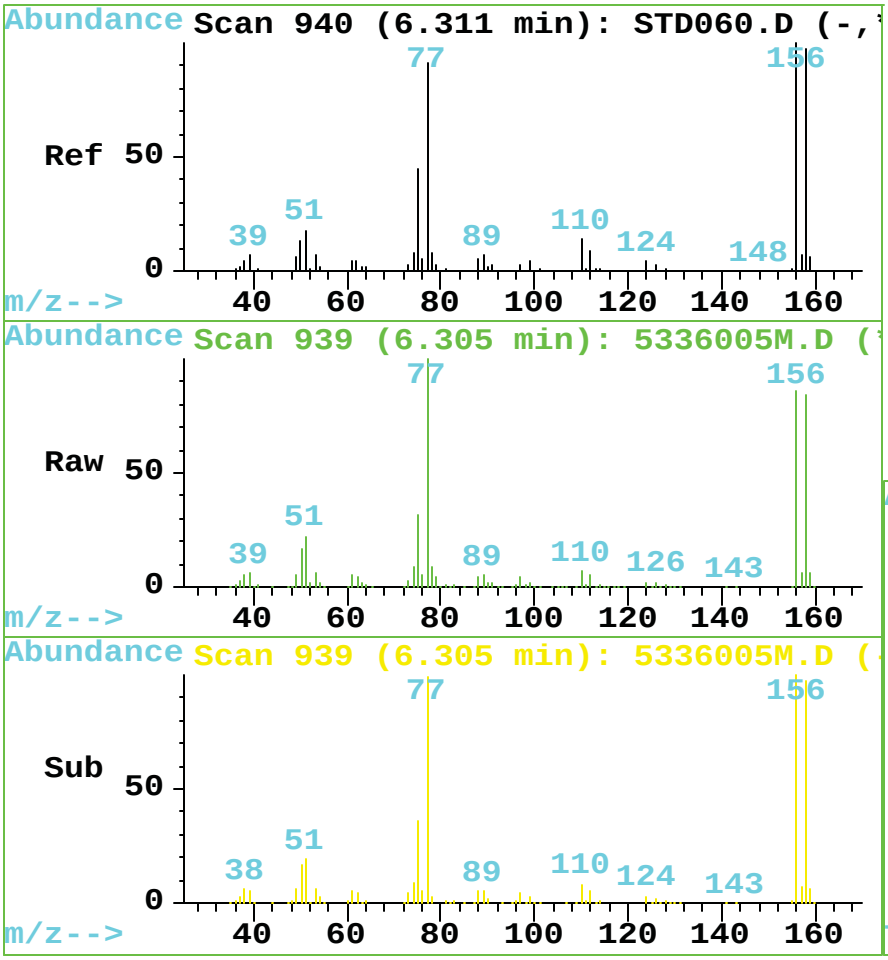


#47
Tetrachloroethene
Concen: 47.78 ug/l
RT: 5.31 min Scan# 775
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:165.9 Resp: 27494

Ion	Ratio	Lower	Upper
166	100		
129	58.1	31.8	91.8
164	78.0	47.4	107.4
0	0.0	0.0	0.0

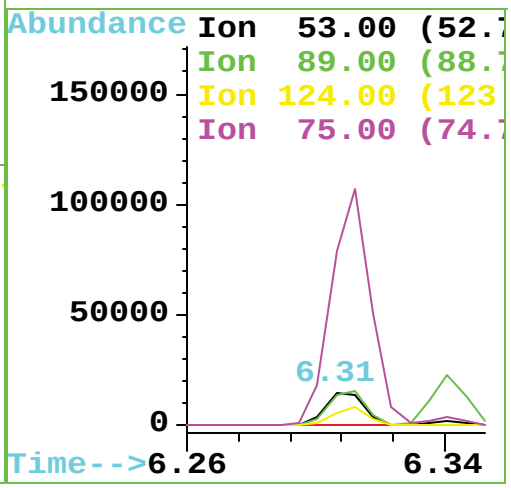


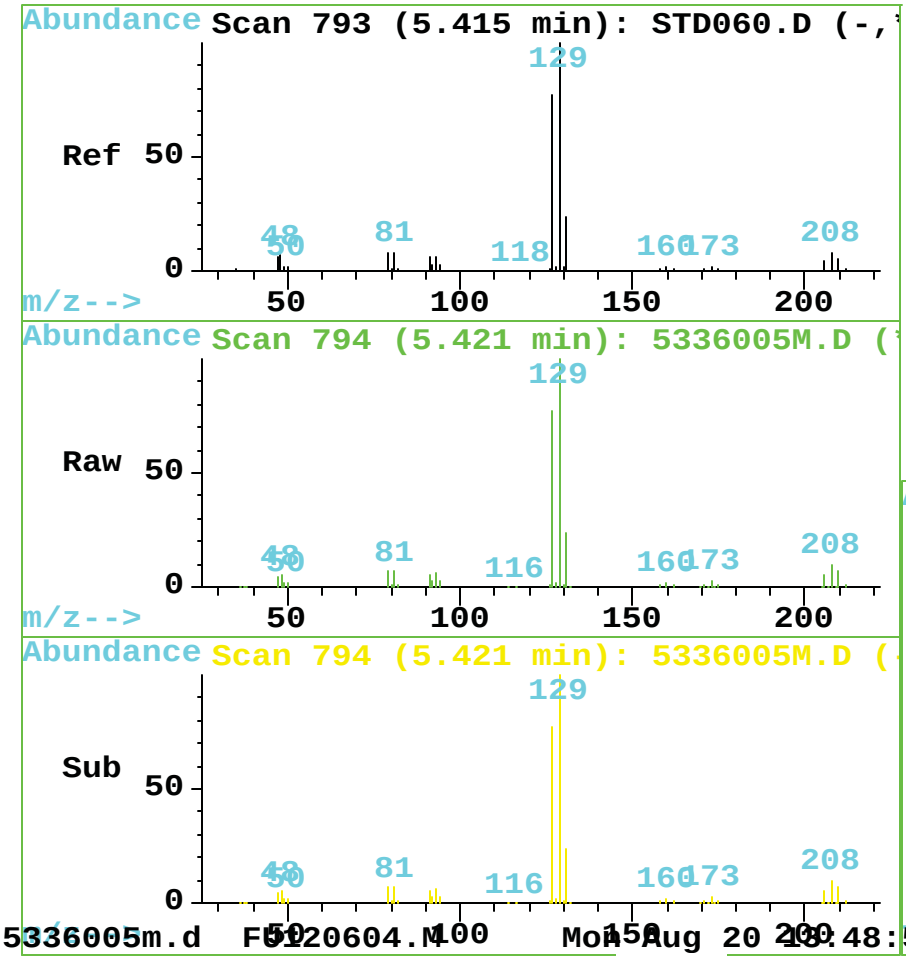


#50
trans-1,4-Dichloro-2-buten
Concen: 50.11 ug/l
RT: 6.31 min Scan# 939
Delta R.T. -0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:53 Resp: 14311

Ion	Ratio	Lower	Upper
53	100		
89	98.0	53.8	113.8
124	49.5	6.0	66.0
75	688.9	570.7	630.7#

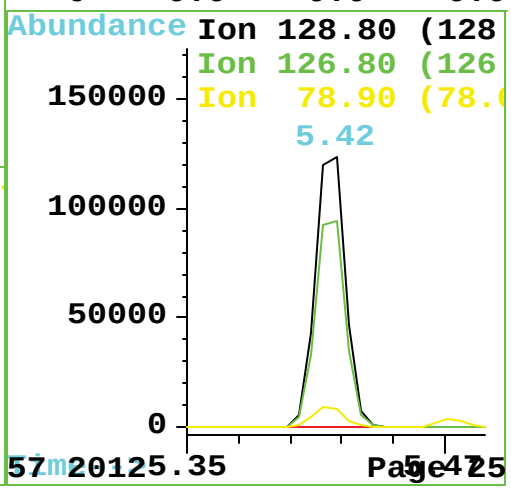


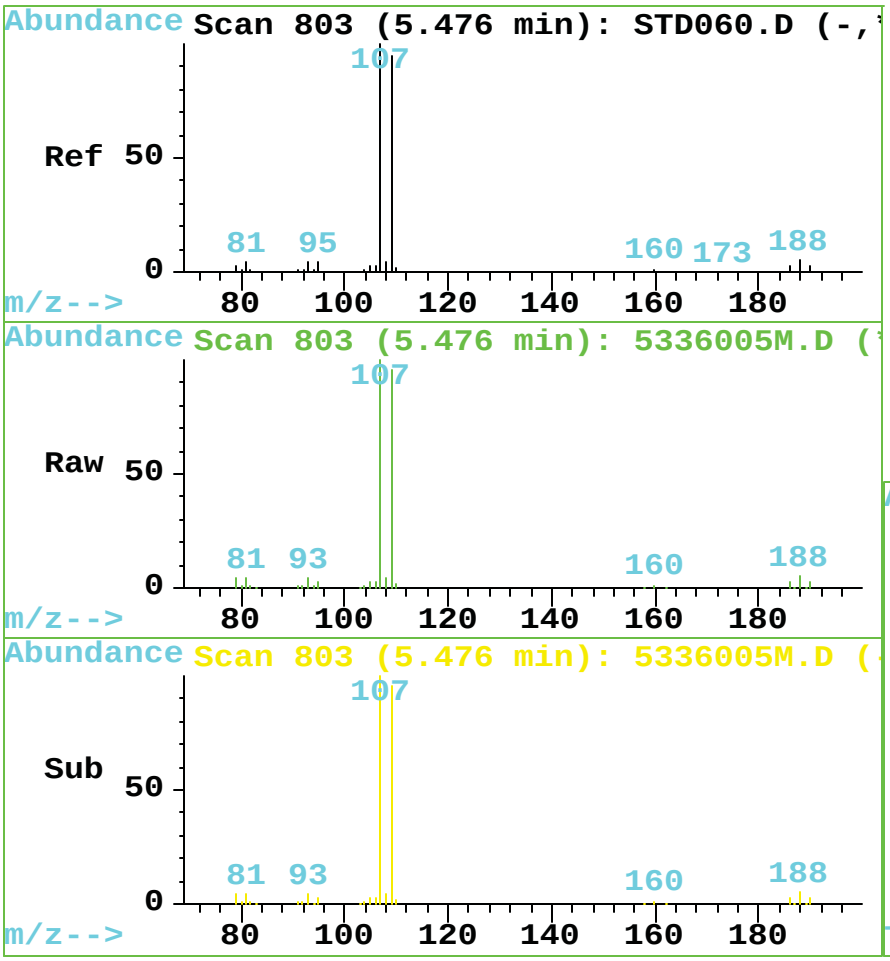


#51
Dibromochloromethane
Concen: 54.02 ug/l
RT: 5.42 min Scan# 794
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:128.8 Resp: 12737

Ion	Ratio	Lower	Upper
129	100		
127	76.6	47.0	107.0
79	7.4	0.0	40.2
0	0.0	0.0	0.0

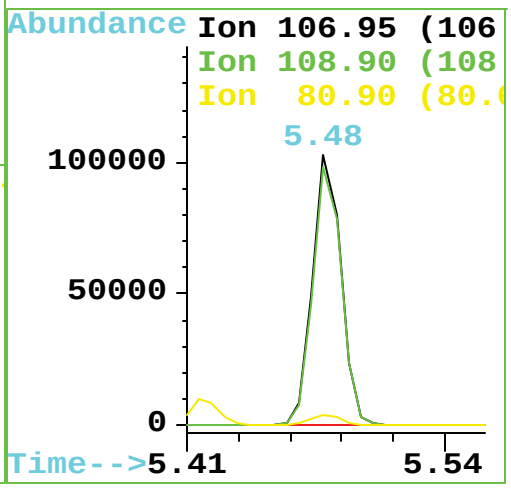


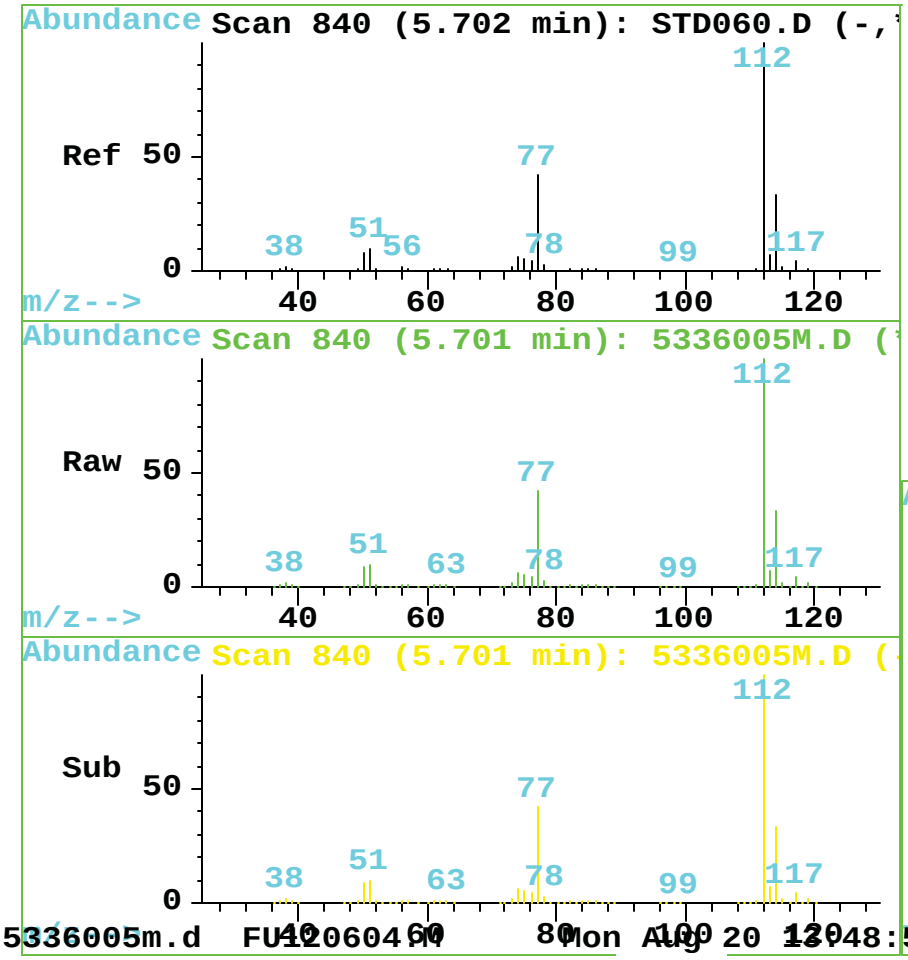


#52
1,2-Dibromoethane
Concen: 51.84 ug/l
RT: 5.48 min Scan# 803
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:106.95 Resp: 982

Ion	Ratio	Lower	Upper
107	100		
109	96.2	64.8	124.8
81	3.7	0.0	35.1
0	0.0	0.0	0.0

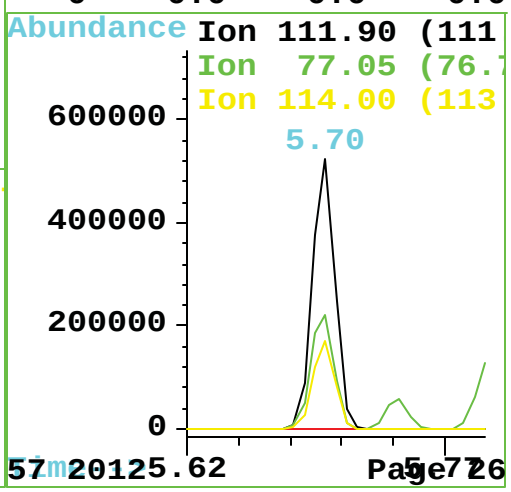


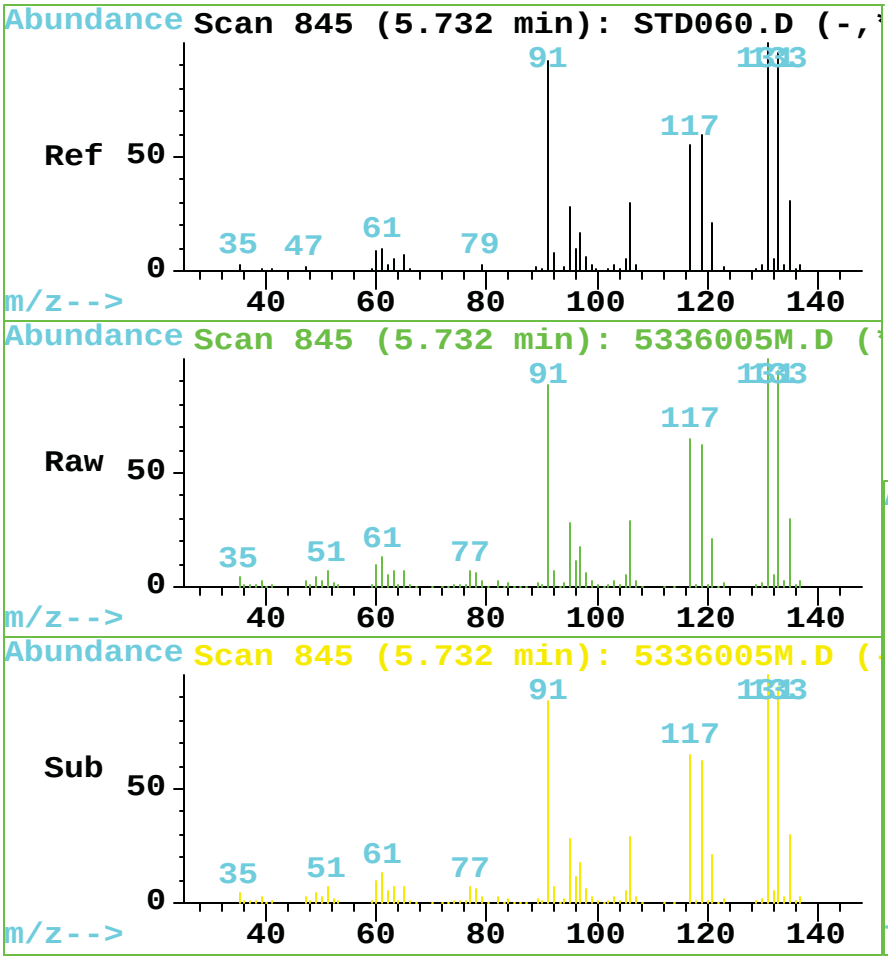


#53
Chlorobenzene (SPCC/MS)
Concen: 49.34 ug/l
RT: 5.70 min Scan# 840
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:111.9 Resp: 47224

Ion	Ratio	Lower	Upper
112	100		
77	44.2	21.6	81.6
114	32.2	2.4	62.4
0	0.0	0.0	0.0

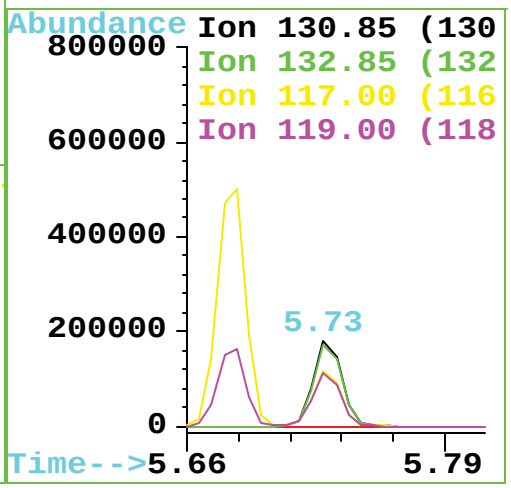


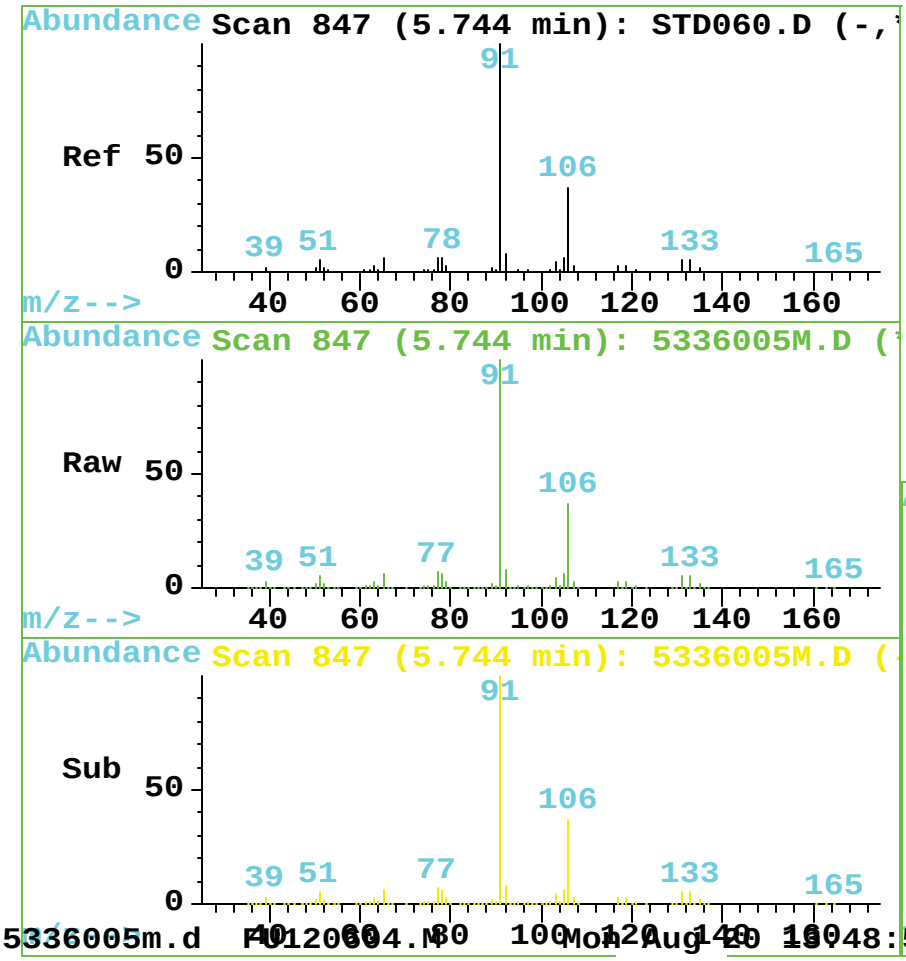


#54
1,1,1,2-Tetrachloroethane
Concen: 53.61 ug/l
RT: 5.73 min Scan# 845
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:130.85 Resp: 1714

Ion	Ratio	Lower	Upper
131	100		
133	95.6	65.8	125.8
117	63.4	30.1	90.1
119	61.7	27.4	87.4

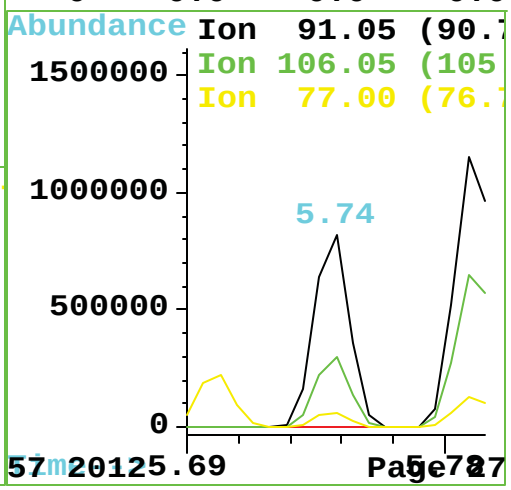


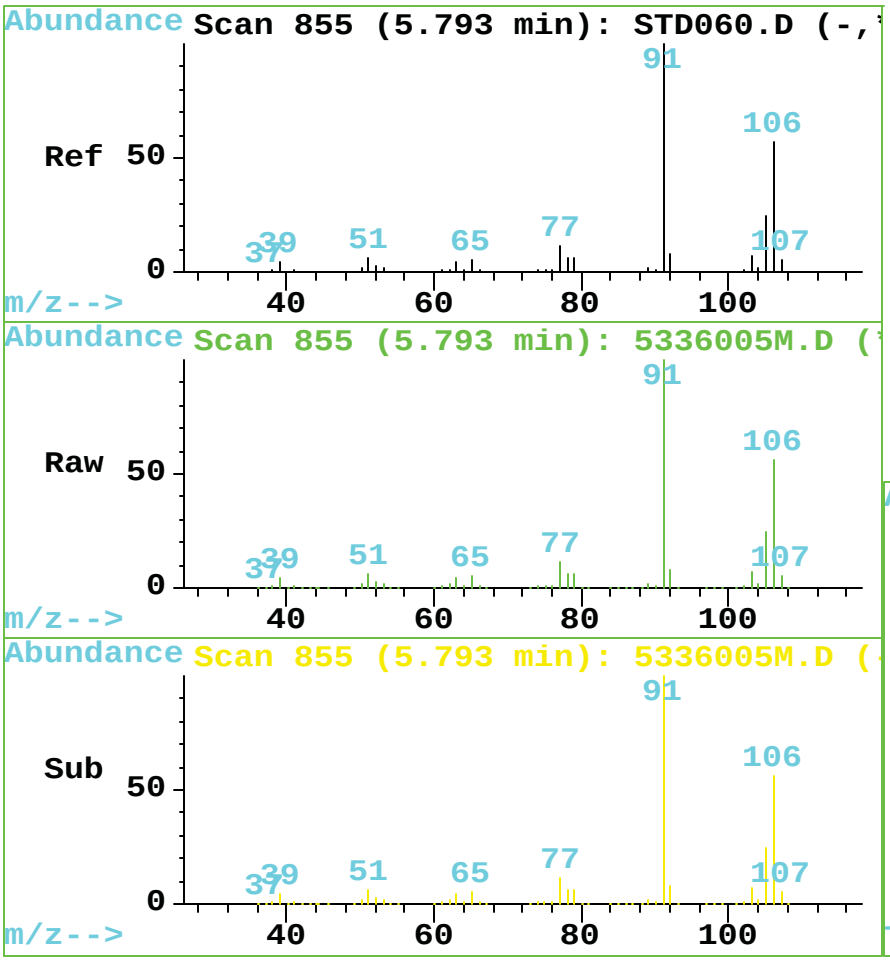


#55
Ethylbenzene (CCC)
Concen: 52.15 ug/l
RT: 5.74 min Scan# 847
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:91.05 Resp: 74822

Ion	Ratio	Lower	Upper
91	100		
106	36.3	3.8	63.8
77	7.2	0.0	37.9
0	0.0	0.0	0.0

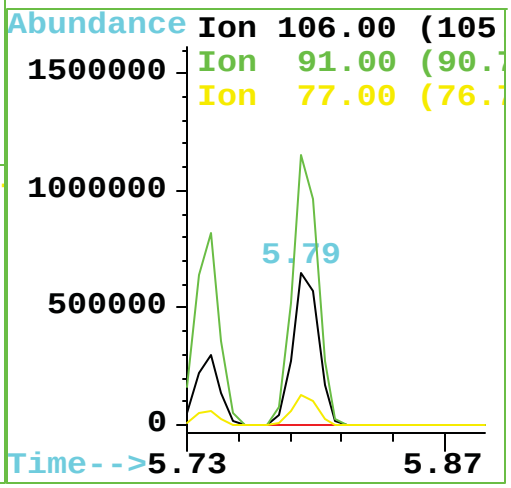


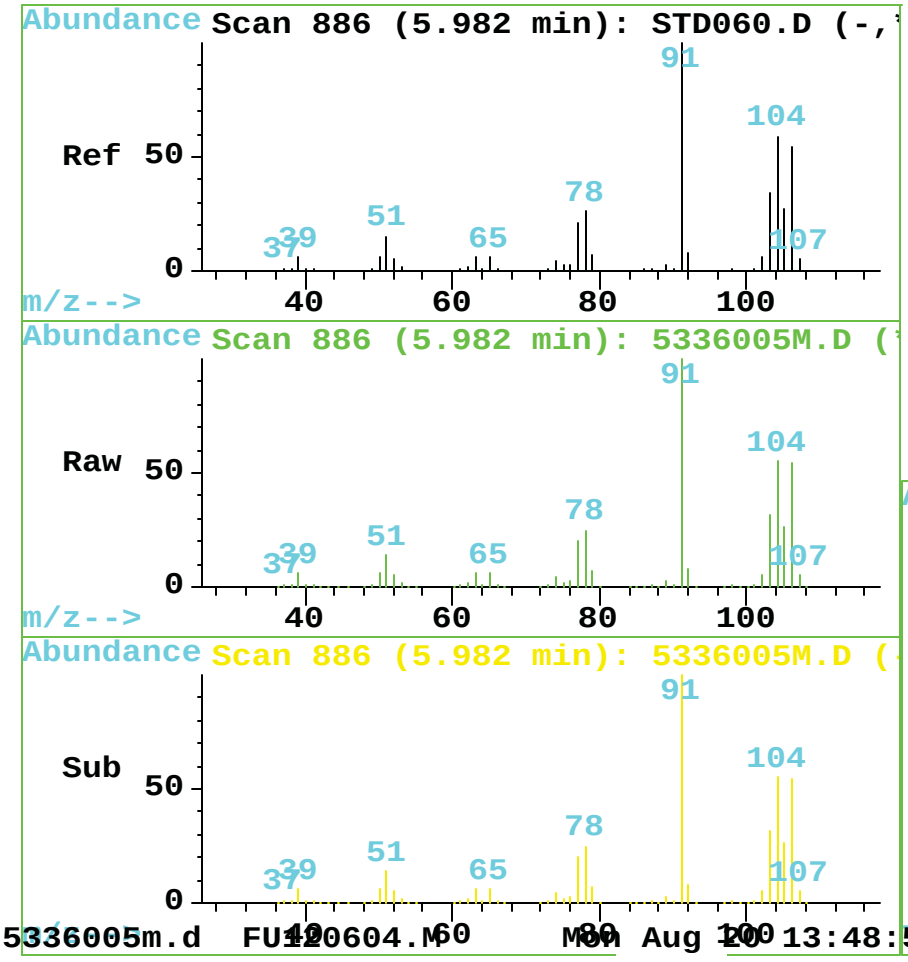


#56
p,m-Xylene
Concen: 103.11 ug/l
RT: 5.79 min Scan# 855
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:106 Resp: 632106

Ion	Ratio	Lower	Upper
106	100		
91	174.6	160.1	220.1
77	19.4	0.0	52.4
0	0.0	0.0	0.0

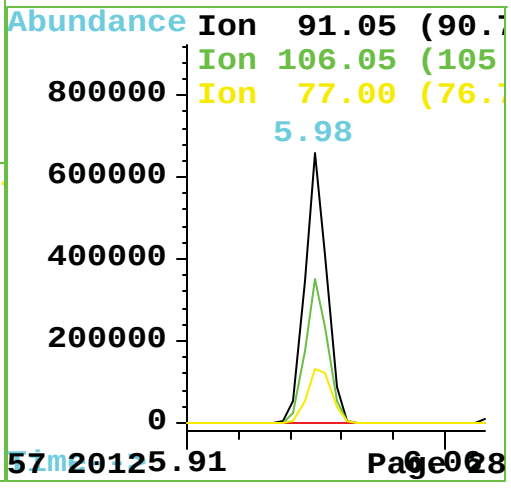


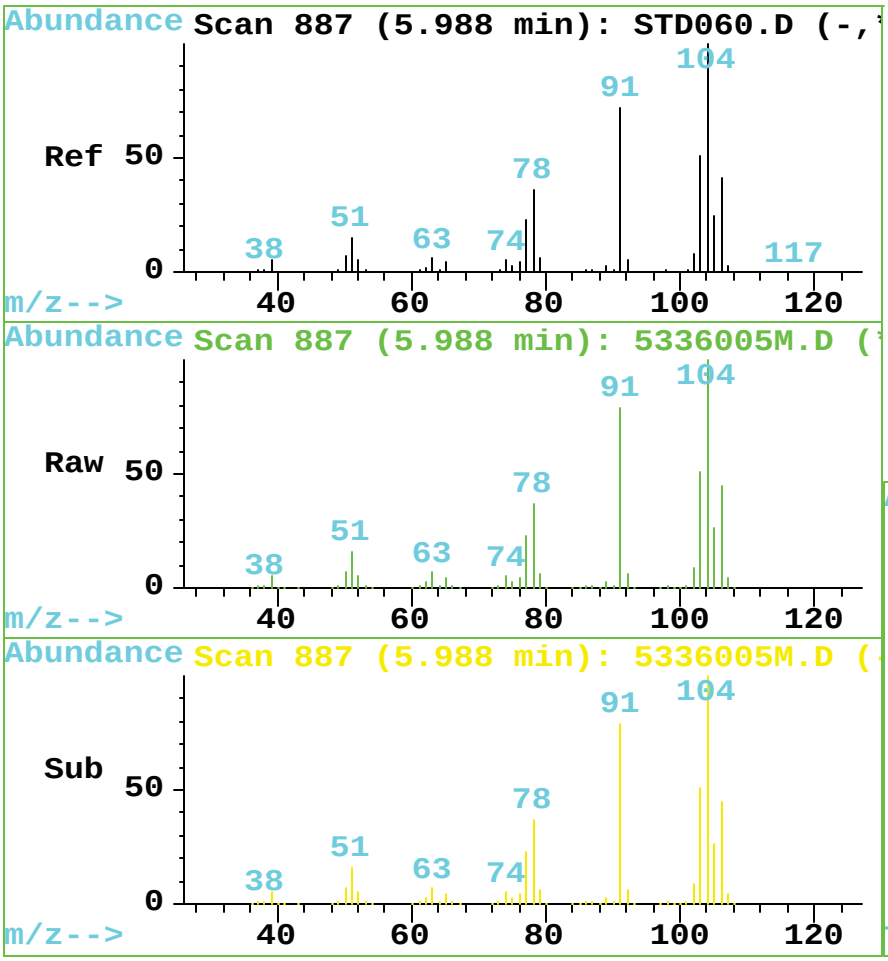


#57
o-Xylene
Concen: 52.42 ug/l
RT: 5.98 min Scan# 886
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:91.05 Resp: 57348

Ion	Ratio	Lower	Upper
91	100		
106	54.1	20.0	80.0
77	22.9	0.0	54.7
0	0.0	0.0	0.0

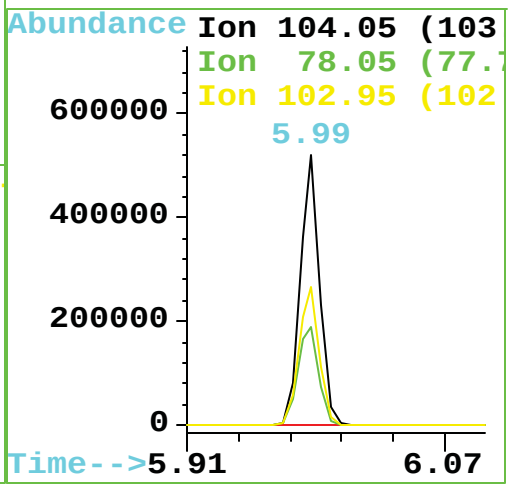


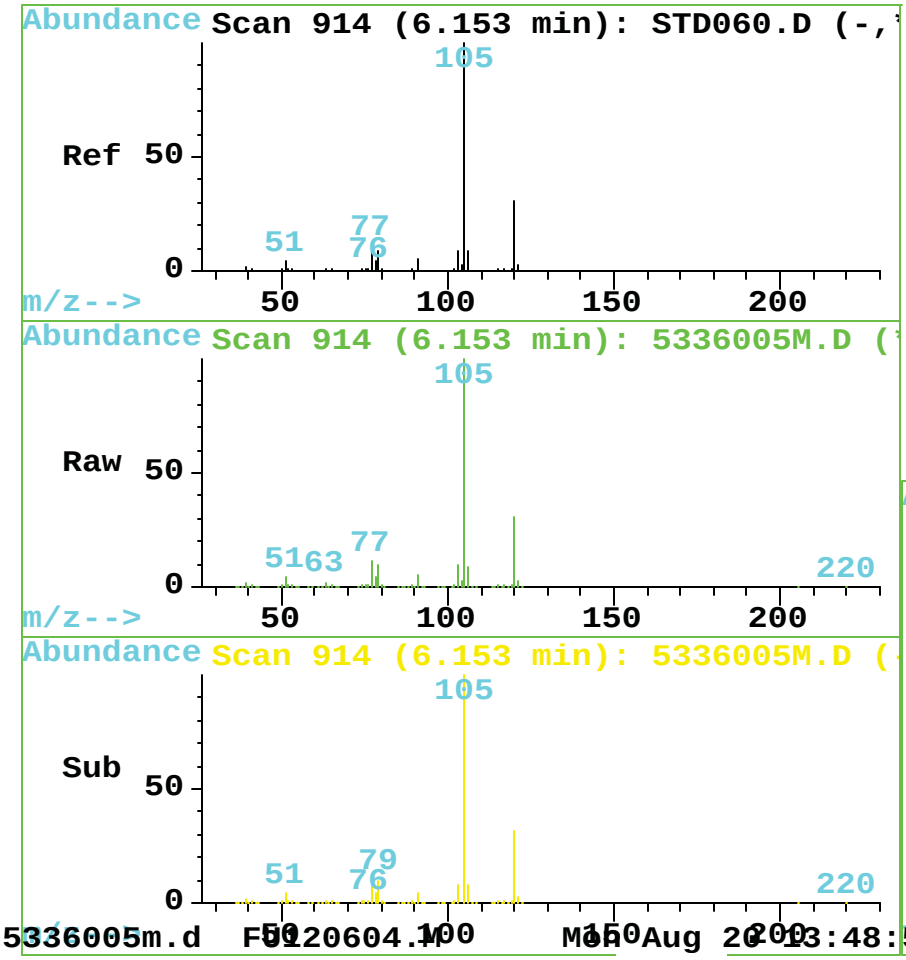


#58
Styrene
Concen: 50.88 ug/l
RT: 5.99 min Scan# 887
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:104.05 Resp: 4529

Ion	Ratio	Lower	Upper
104	100		
78	39.9	15.3	75.3
103	54.0	24.1	84.1
0	0.0	0.0	0.0

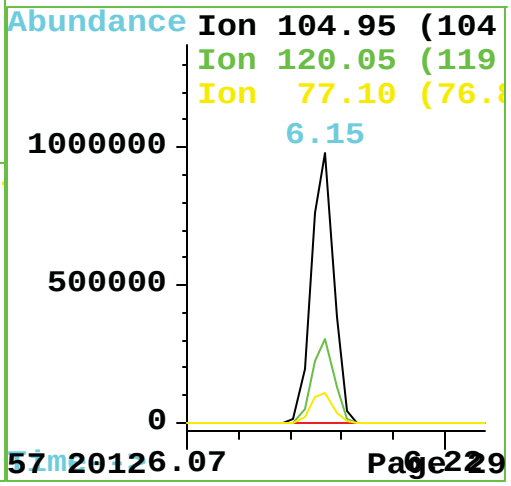


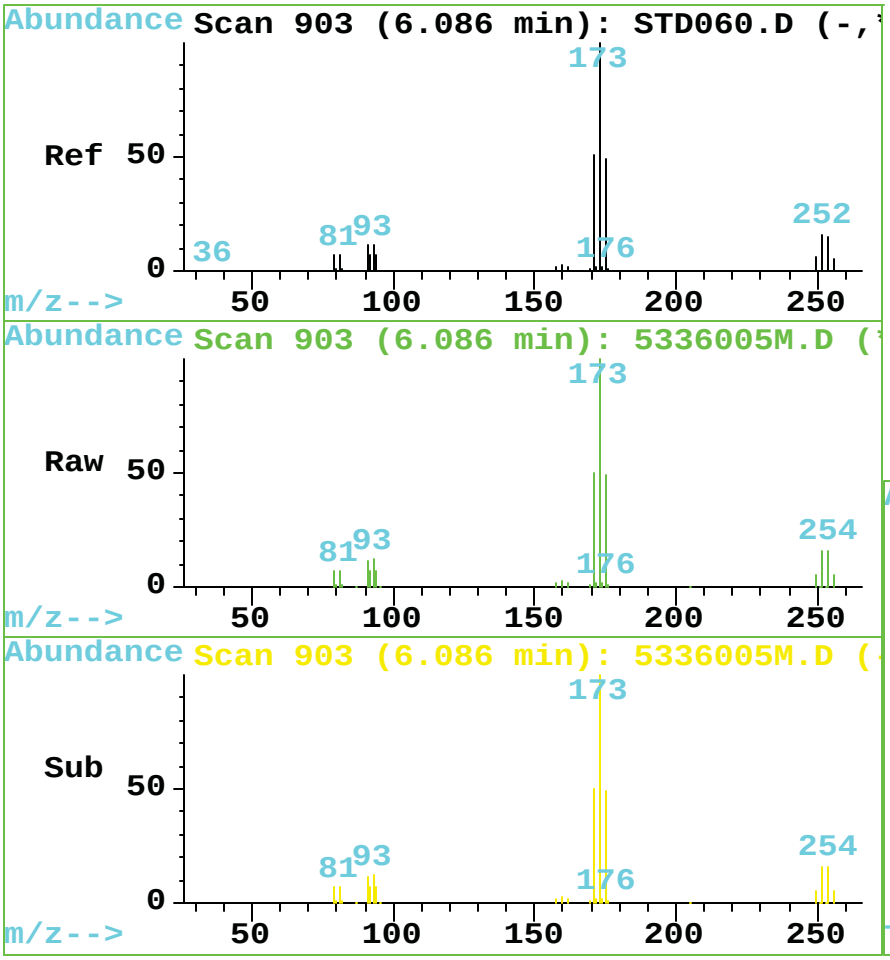


#59
Isopropylbenzene
Concen: 54.00 ug/l
RT: 6.15 min Scan# 914
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:104.95 Resp: 8715

Ion	Ratio	Lower	Upper
105	100		
120	30.7	0.0	58.6
77	11.4	0.0	43.1
0	0.0	0.0	0.0

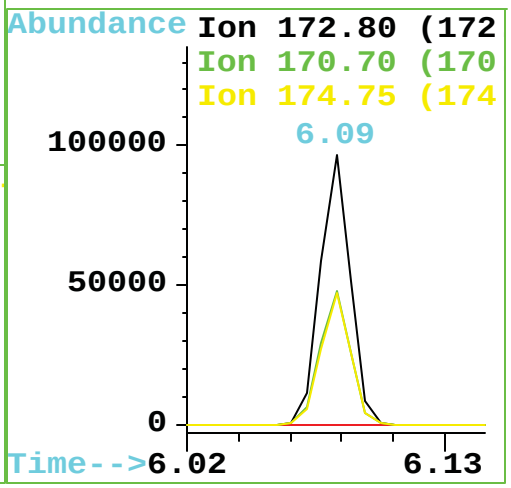


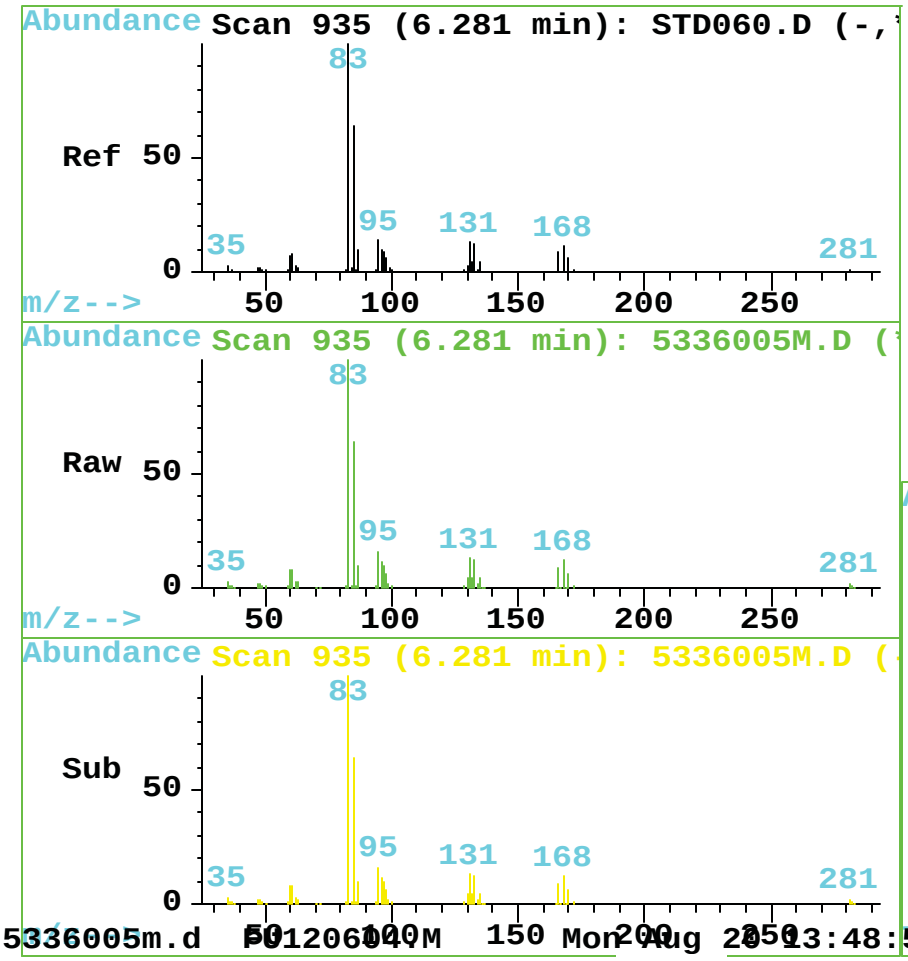


#60
Bromoform (SPCC)
Concen: 50.79 ug/l
RT: 6.09 min Scan# 903
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:172.8 Resp: 8360

Ion	Ratio	Lower	Upper
173	100		
171	50.3	19.9	79.9
175	48.5	17.5	77.5
0	0.0	0.0	0.0

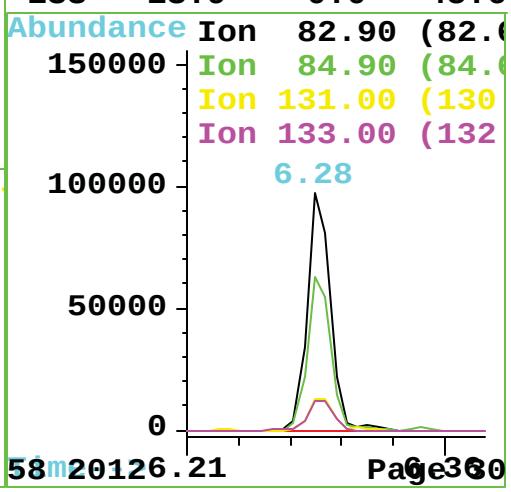


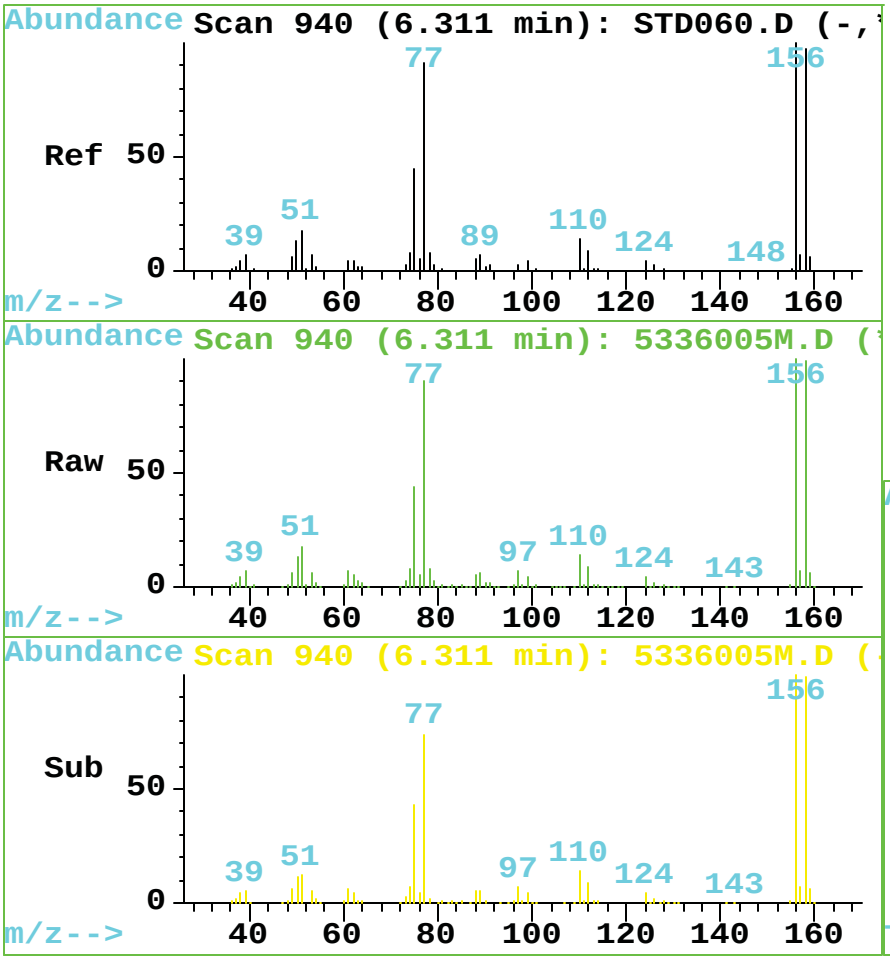


#61
1,1,2,2-Tetrachloroethane
Concen: 50.78 ug/l
RT: 6.28 min Scan# 935
Delta R.T. -0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:82.9 Resp: 89715

Ion	Ratio	Lower	Upper
83	100		
85	65.6	34.6	94.6
131	14.9	0.0	44.8
133	13.9	0.0	45.6

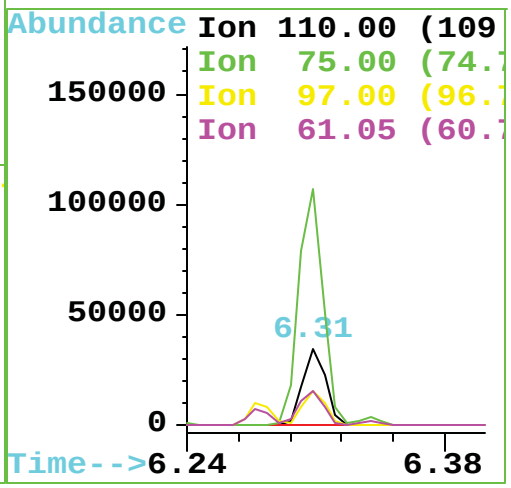


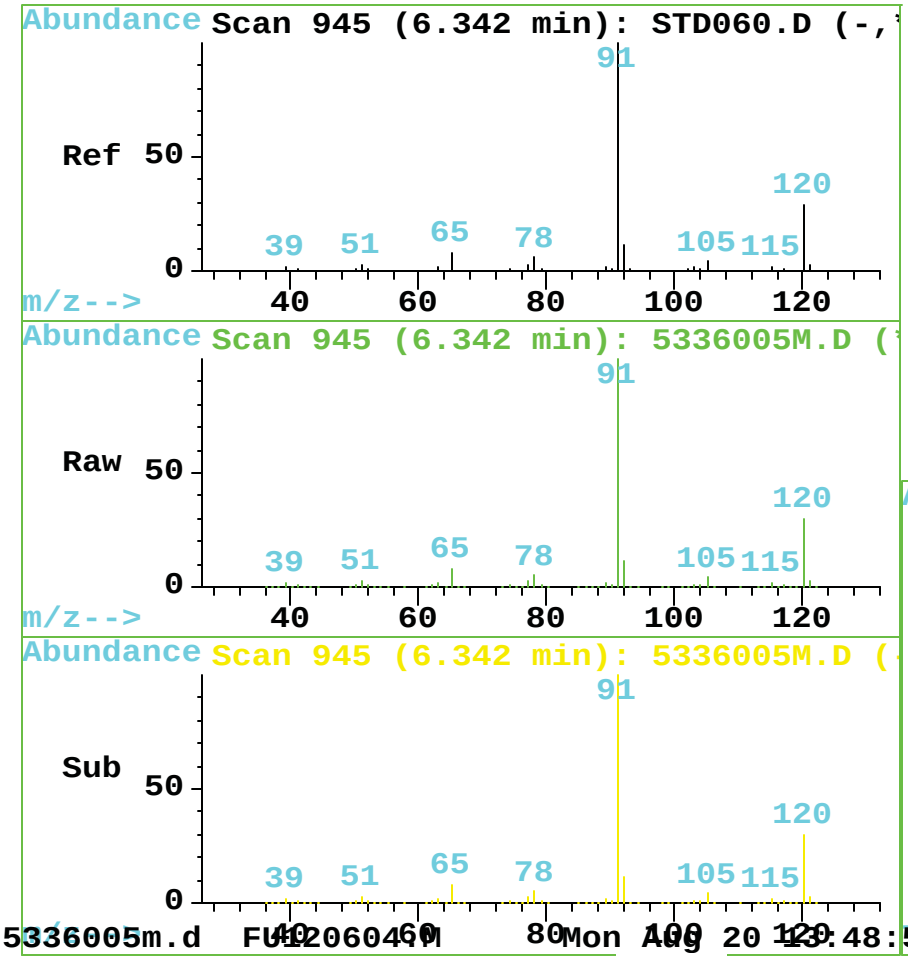


#62
1,2,3-Trichloropropane
Concen: 52.58 ug/l
RT: 6.31 min Scan# 940
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:110 Resp: 30630

Ion	Ratio	Lower	Upper
110	100		
75	321.9	327.3	387.3#
97	44.8	15.8	75.8
61	48.2	24.6	84.6

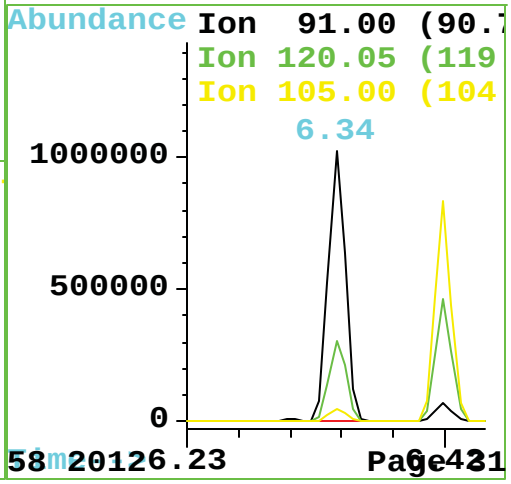


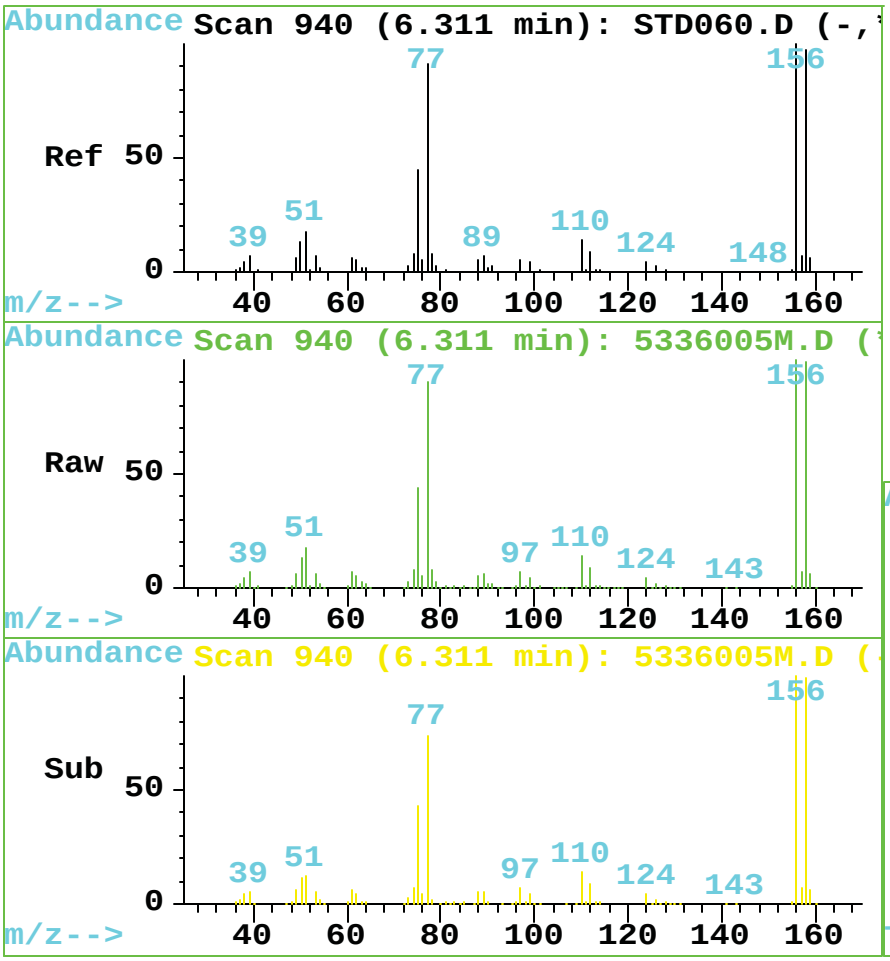


#63
n-Propylbenzene
Concen: 53.07 ug/l
RT: 6.34 min Scan# 945
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:91 Resp: 880866

Ion	Ratio	Lower	Upper
91	100		
120	30.0	0.0	57.3
105	4.1	0.0	34.1
0	0.0	0.0	0.0

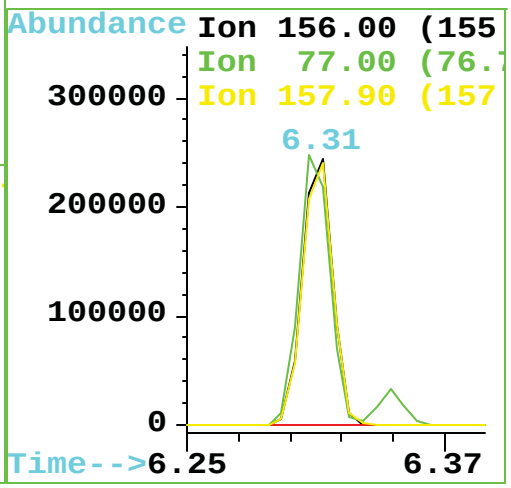


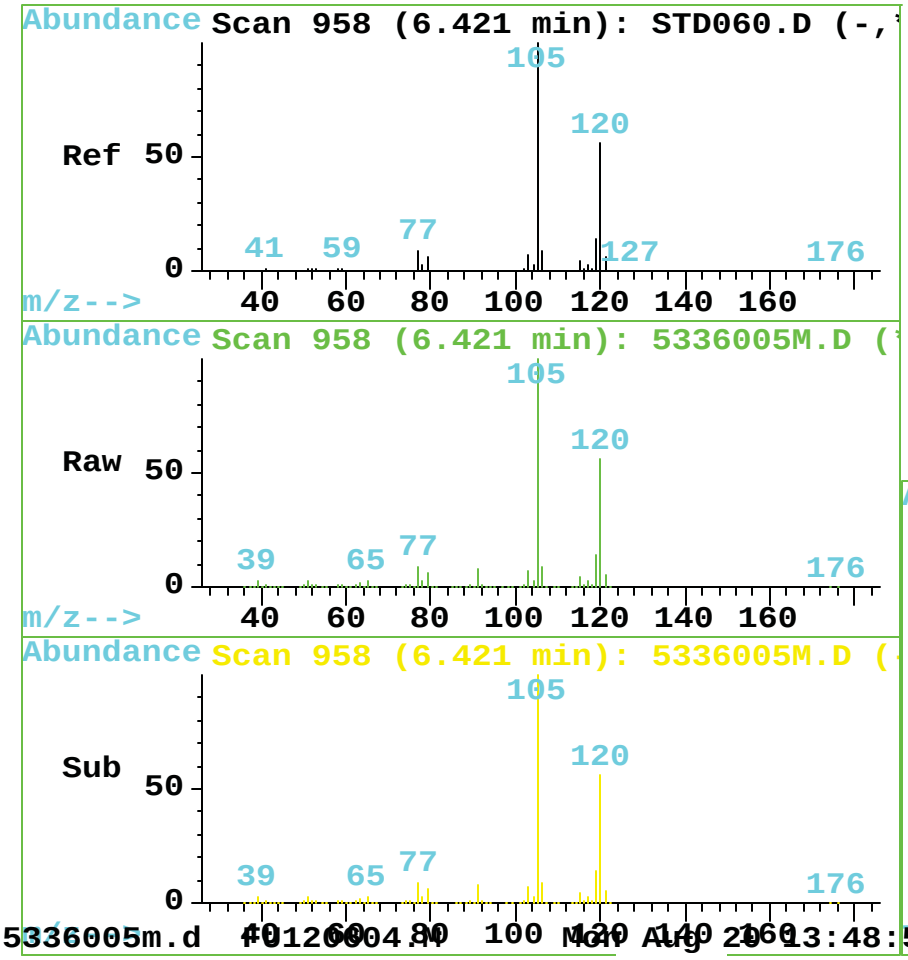


#64
Bromobenzene
Concen: 50.26 ug/l
RT: 6.31 min Scan# 940
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:156 Resp: 228808

Ion	Ratio	Lower	Upper
156	100		
77	103.6	96.5	156.5
158	98.2	68.0	128.0
0	0.0	0.0	0.0

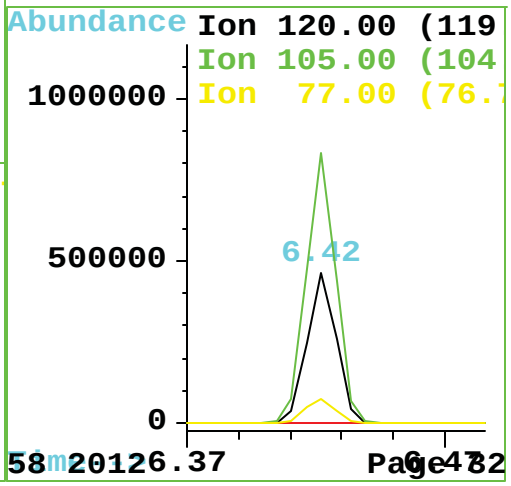


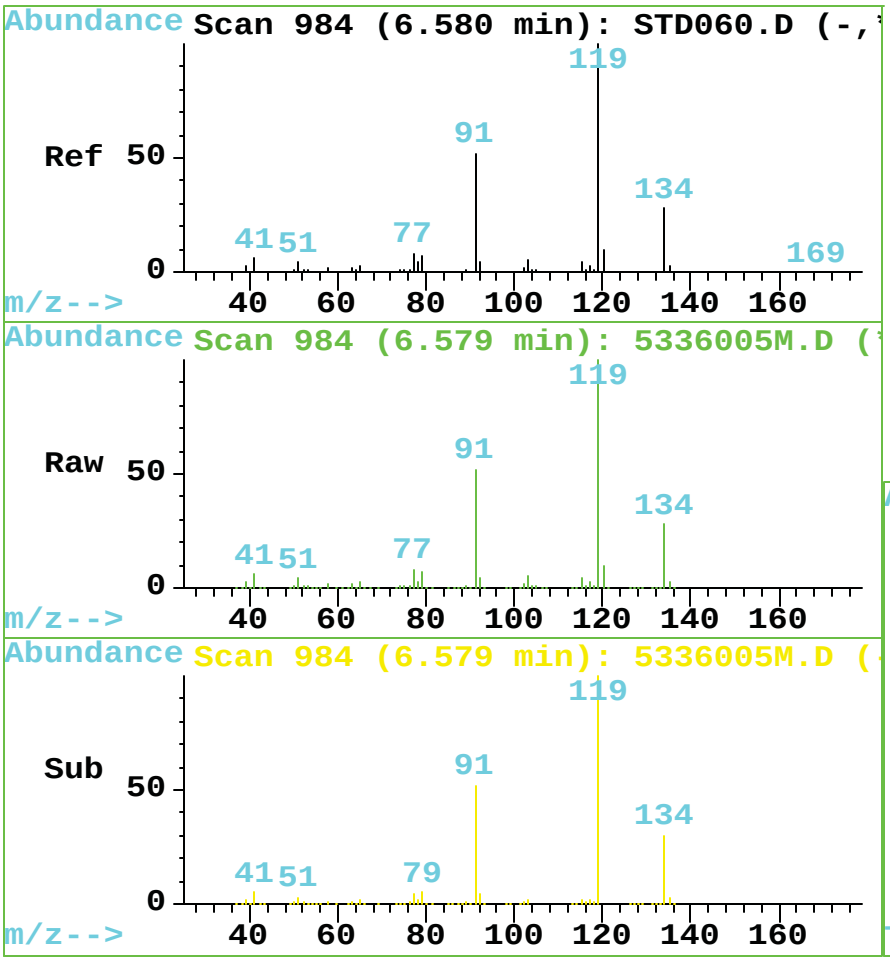


#65
1,3,5-Trimethylbenzene
Concen: 52.03 ug/l
RT: 6.42 min Scan# 958
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:120 Resp: 387445

Ion	Ratio	Lower	Upper
120	100		
105	179.0	162.2	222.2
77	16.5	0.0	51.0
0	0.0	0.0	0.0

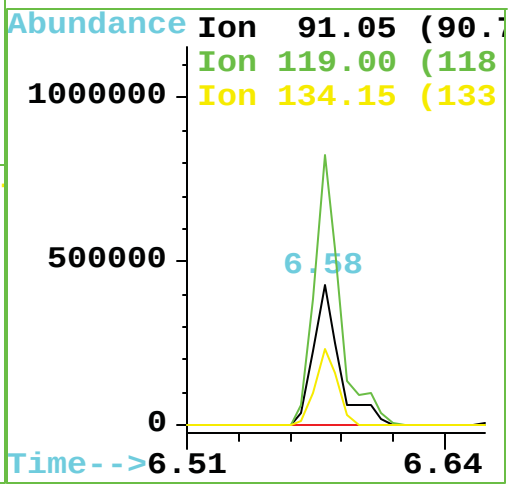


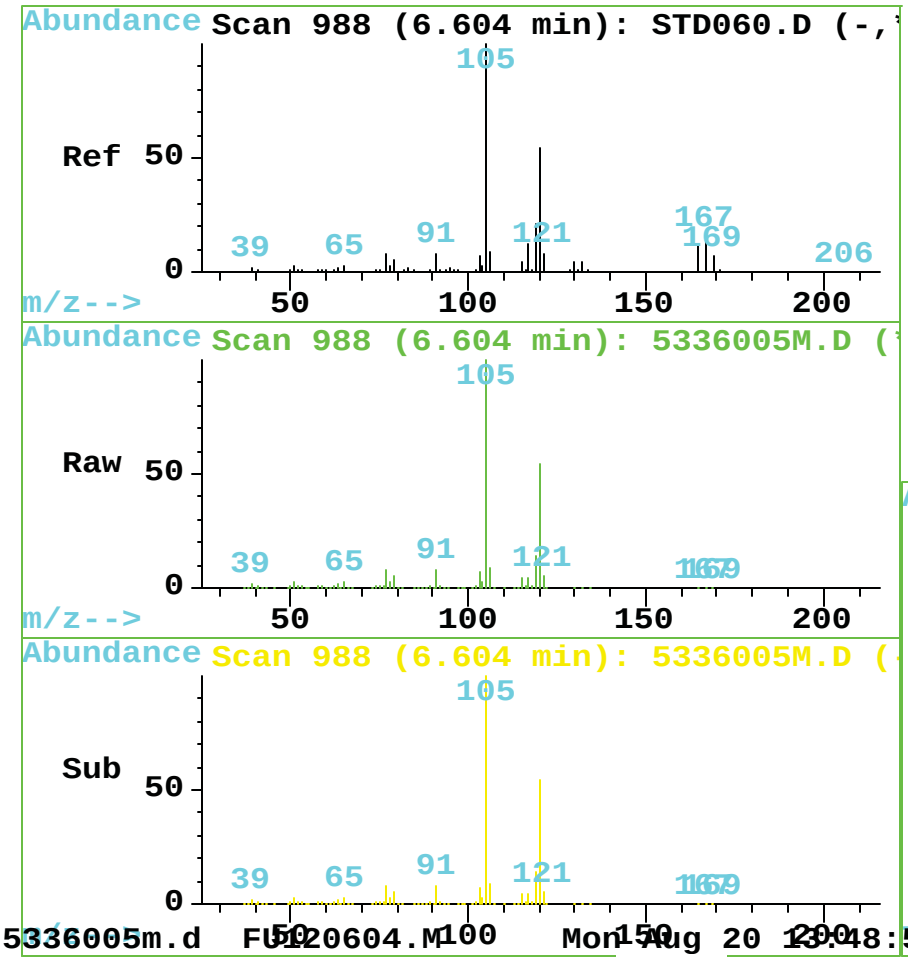


#66
tert-Butylbenzene
Concen: 54.96 ug/l
RT: 6.58 min Scan# 984
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:91.05 Resp: 41857

Ion	Ratio	Lower	Upper
91	100		
119	190.2	148.4	208.4
134	47.4	11.4	71.4
0	0.0	0.0	0.0

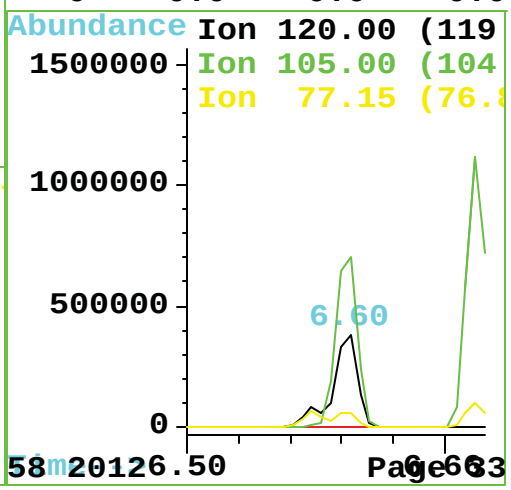


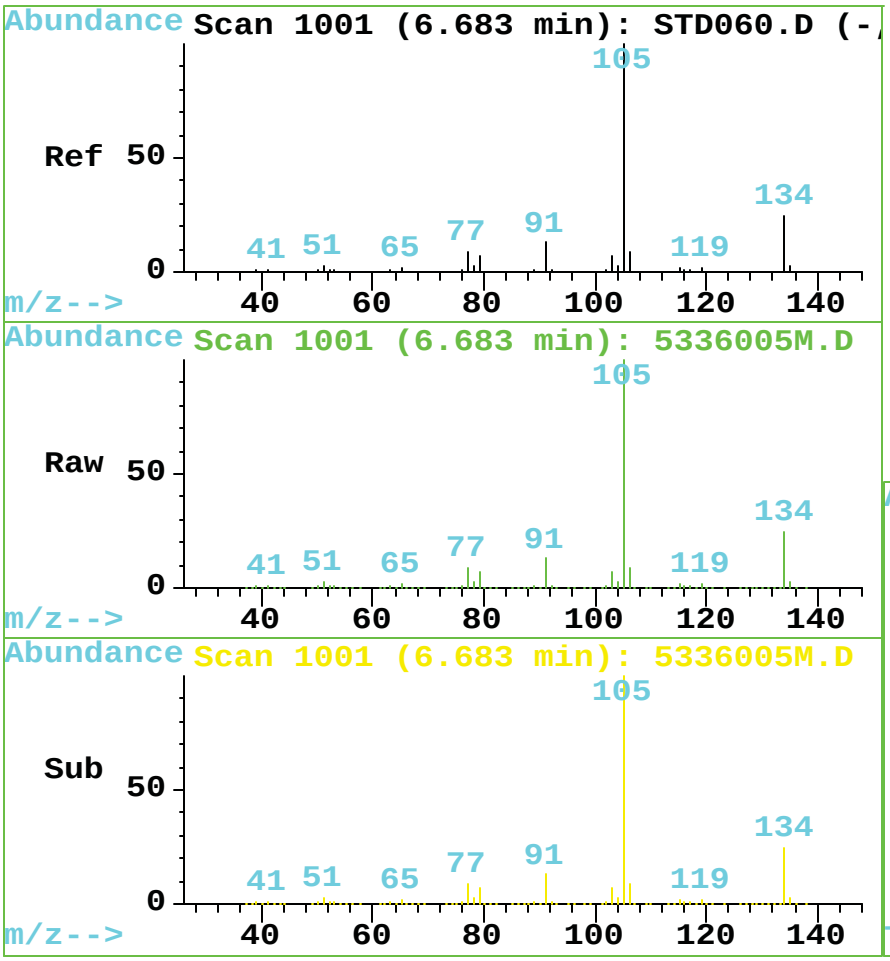


#67
1,2,4-Trimethylbenzene
Concen: 53.09 ug/l
RT: 6.60 min Scan# 988
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:120 Resp: 417551

Ion	Ratio	Lower	Upper
120	100		
105	160.0	144.1	204.1
77	12.3	0.0	45.7
0	0.0	0.0	0.0

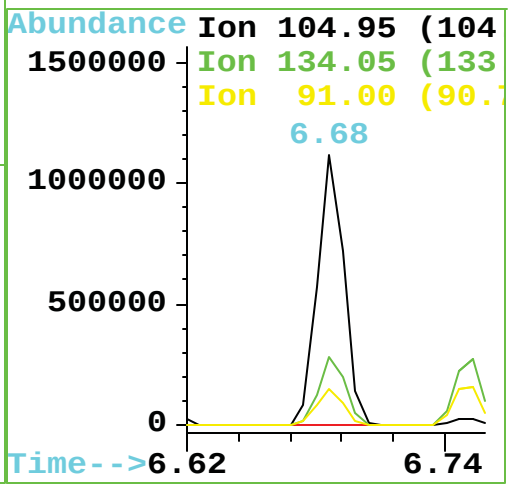


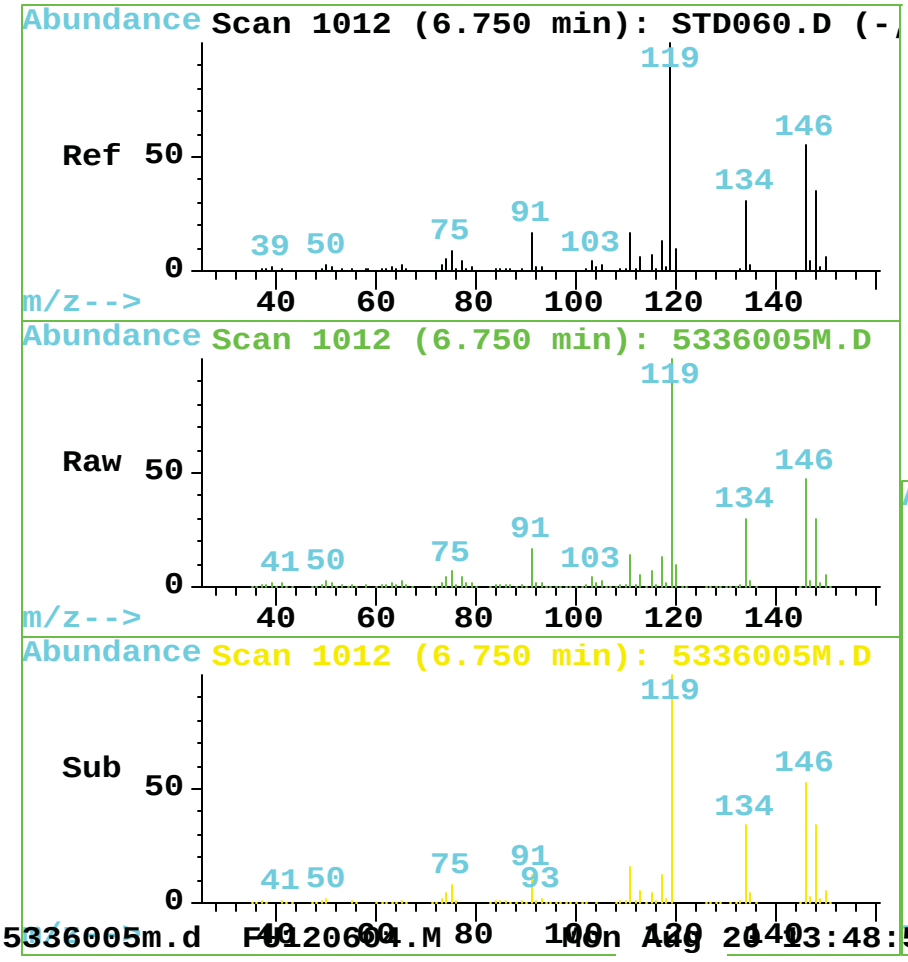


#69
sec-Butylbenzene
Concen: 57.99 ug/l
RT: 6.68 min Scan# 1001
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:104.95 Resp: 9686

Ion	Ratio	Lower	Upper
105	100		
134	25.4	0.0	53.6
91	13.5	0.0	44.8
0	0.0	0.0	0.0

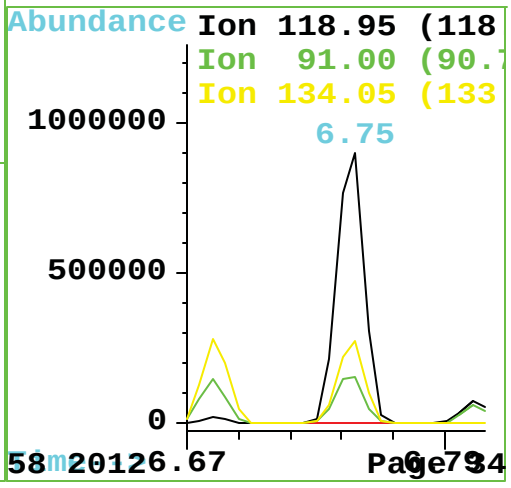


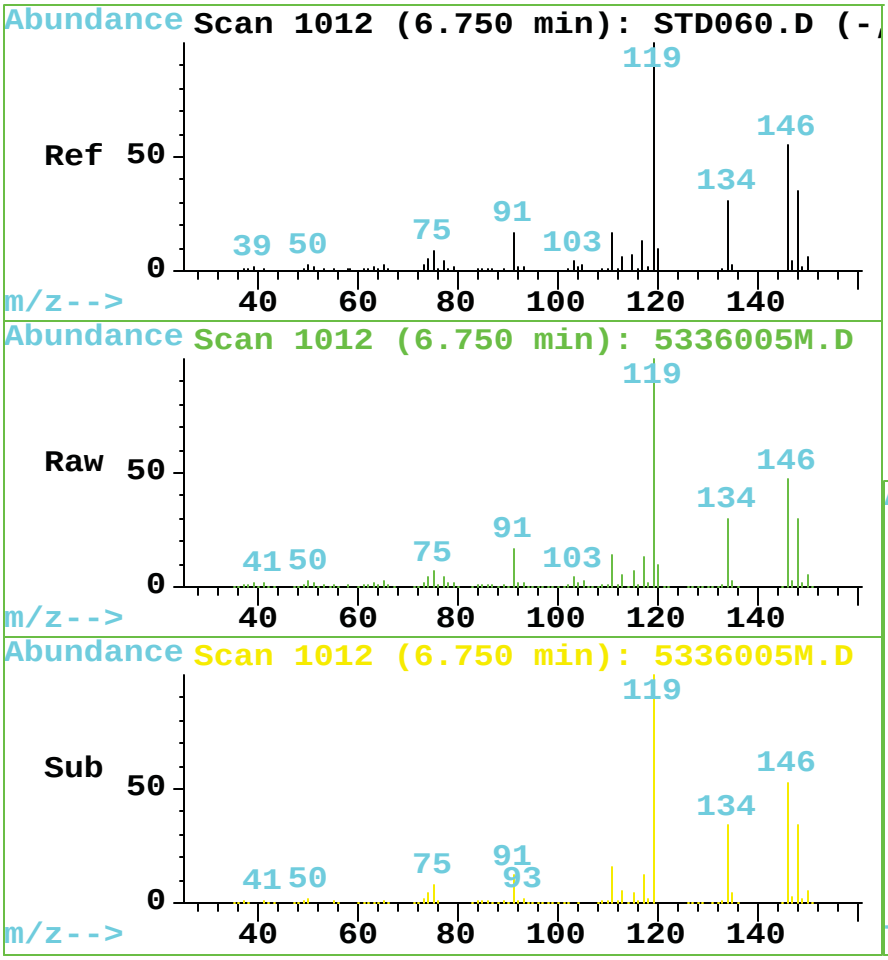


#70
p-Isopropyltoluene
Concen: 58.07 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:118.95 Resp: 8190

Ion	Ratio	Lower	Upper
119	100		
91	18.1	0.0	50.6
134	29.9	0.0	58.1
0	0.0	0.0	0.0

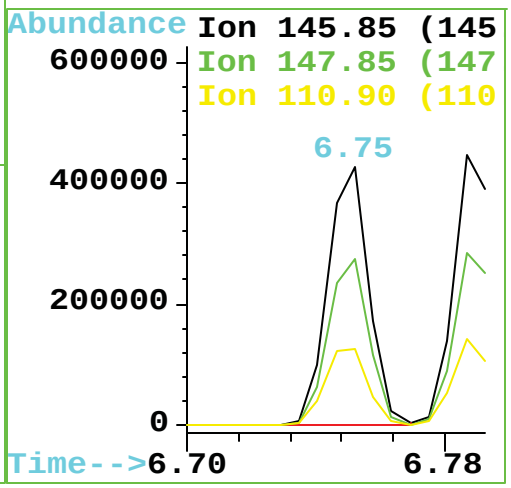


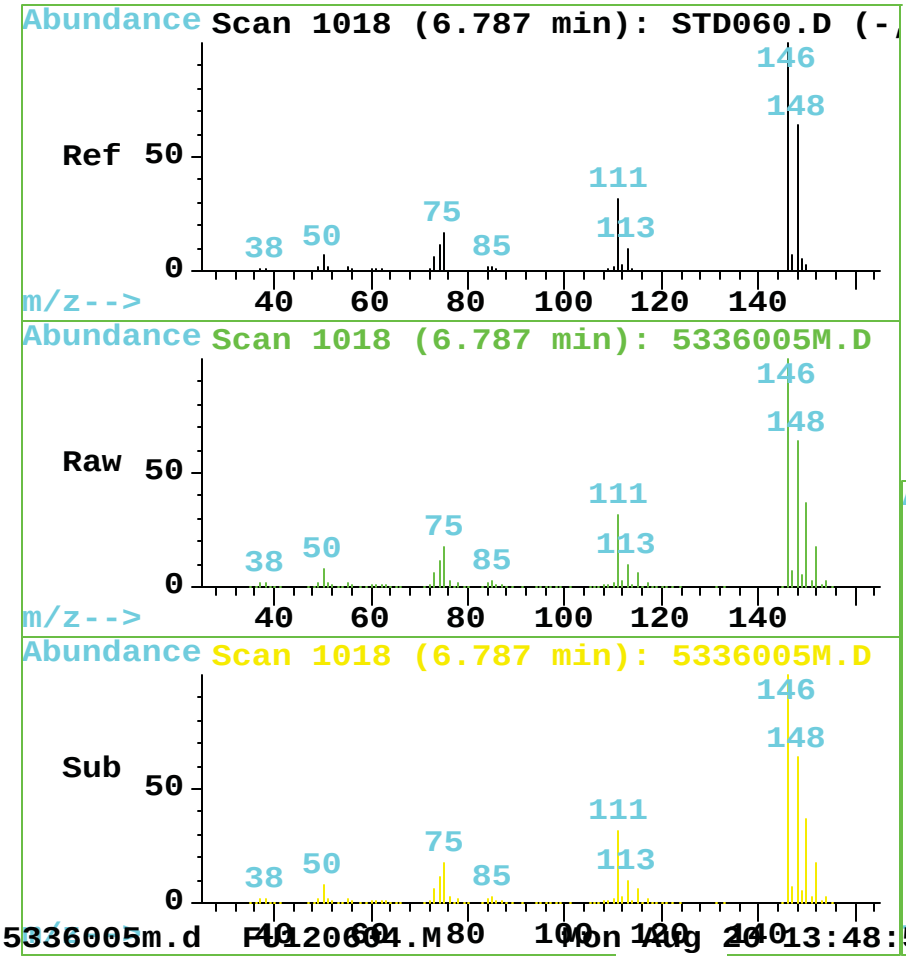


#71
1,3-Dichlorobenzene
Concen: 52.04 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:145.85 Resp: 4008

Ion	Ratio	Lower	Upper
146	100		
148	64.6	34.8	94.8
111	31.4	6.2	66.2
0	0.0	0.0	0.0

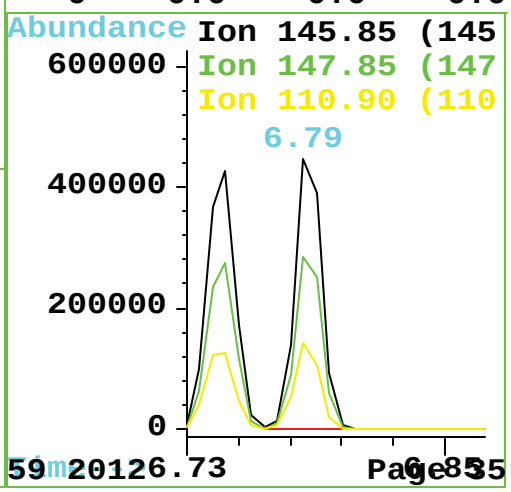


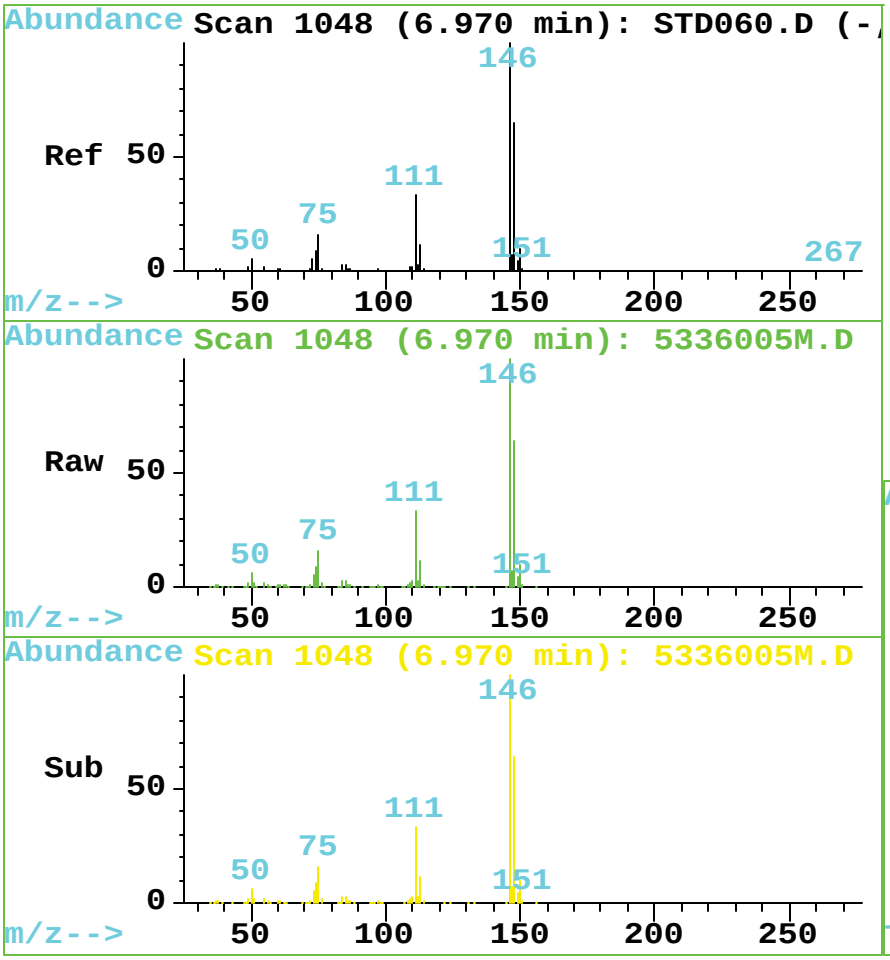


#72
1,4-Dichlorobenzene
Concen: 50.55 ug/l
RT: 6.79 min Scan# 1018
Delta R.T. -0.01 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:145.85 Resp: 3997

Ion	Ratio	Lower	Upper
146	100		
148	64.1	33.9	93.9
111	30.3	5.2	65.2
0	0.0	0.0	0.0

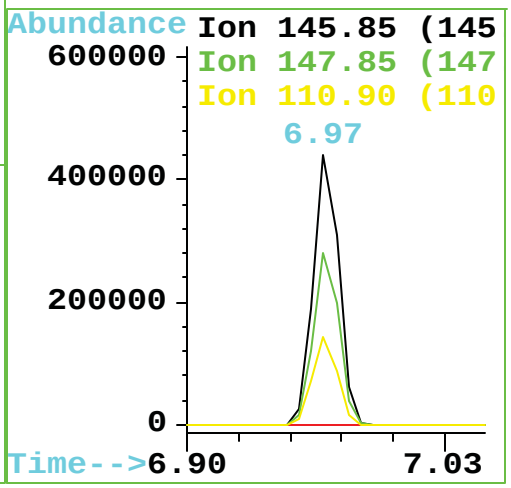


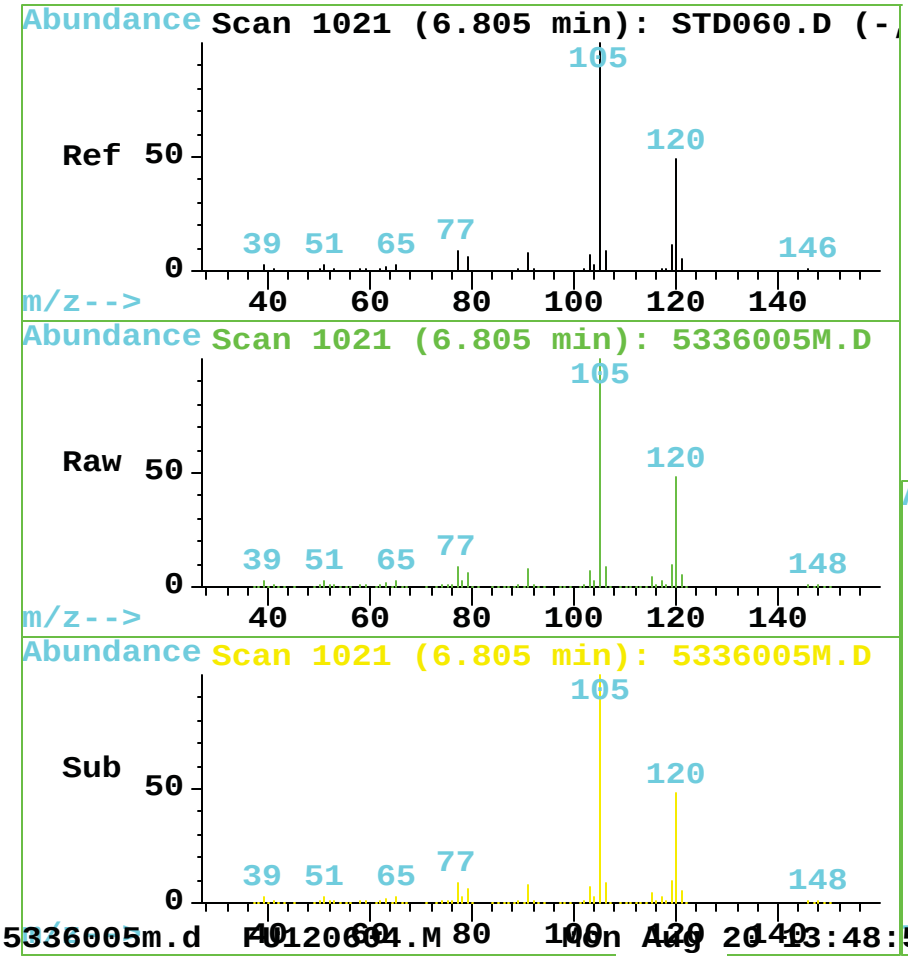


#73
1,2-Dichlorobenzene
Concen: 52.78 ug/l
RT: 6.97 min Scan# 1048
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:145.85 Resp: 3779

Ion	Ratio	Lower	Upper
146	100		
148	63.8	34.1	94.1
111	32.1	6.5	66.5
0	0.0	0.0	0.0

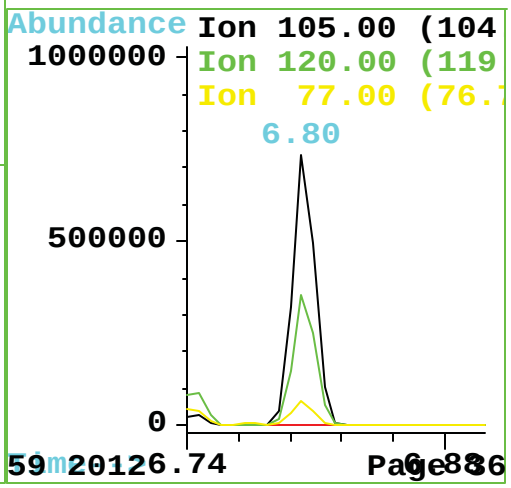


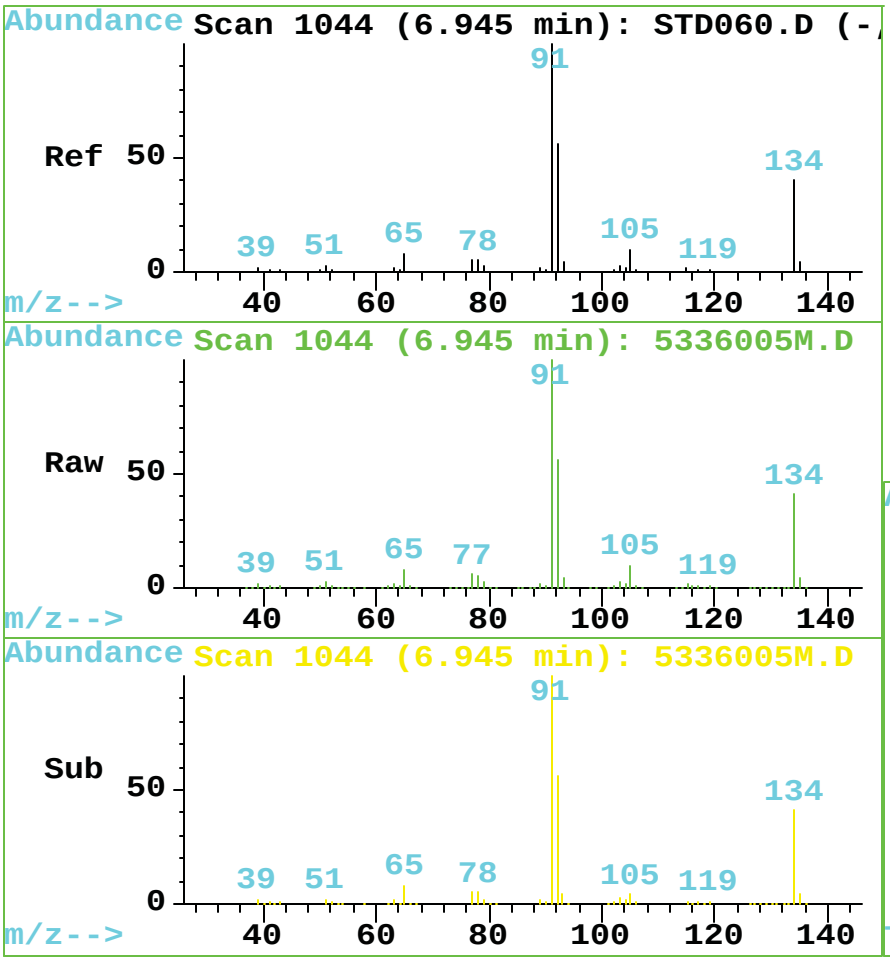


#74
1,2,3-Trimethylbenzene
Concen: 53.41 ug/l
RT: 6.80 min Scan# 1021
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:105 Resp: 622812

Ion	Ratio	Lower	Upper
105	100		
120	49.0	15.1	75.1
77	8.9	0.0	40.2
0	0.0	0.0	0.0

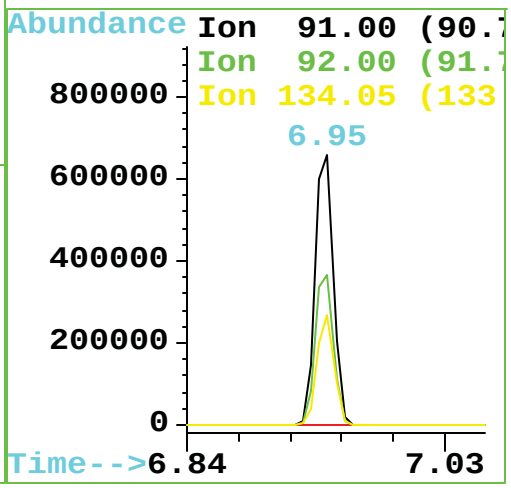


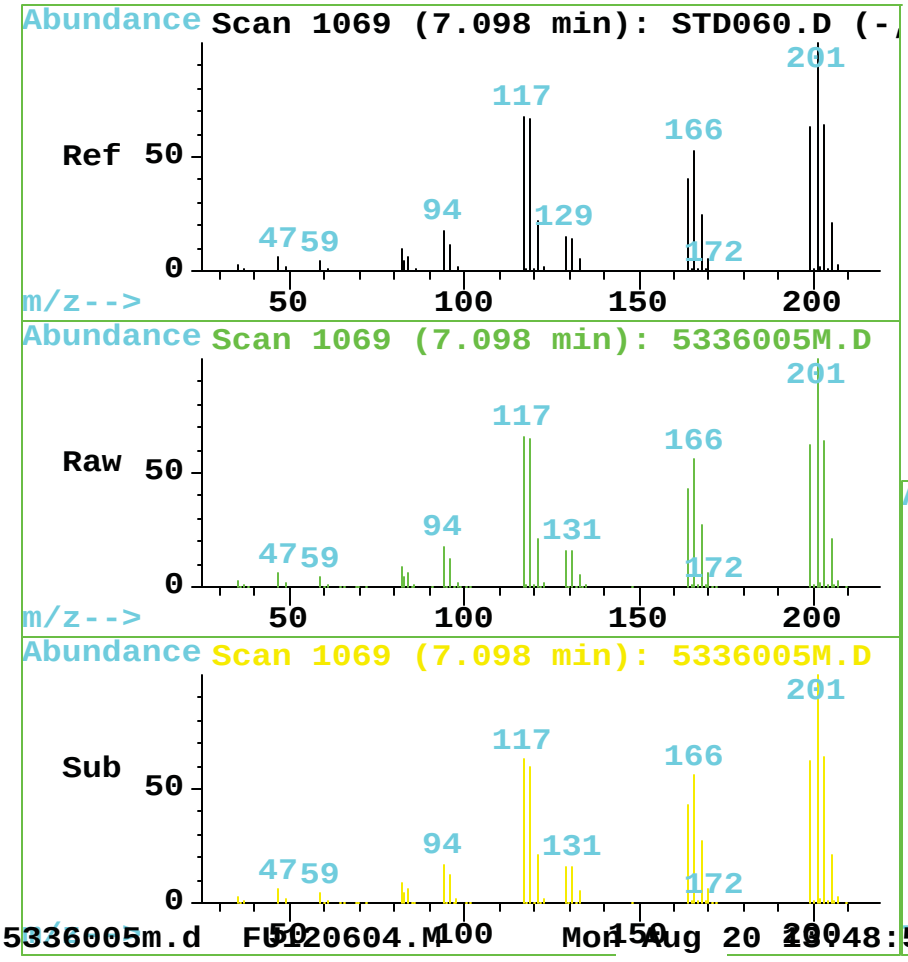


#75
n-Butylbenzene
Concen: 53.72 ug/l
RT: 6.95 min Scan# 1044
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:91 Resp: 600255

Ion	Ratio	Lower	Upper
91	100		
92	55.7	25.5	85.5
134	37.8	4.2	64.2
0	0.0	0.0	0.0

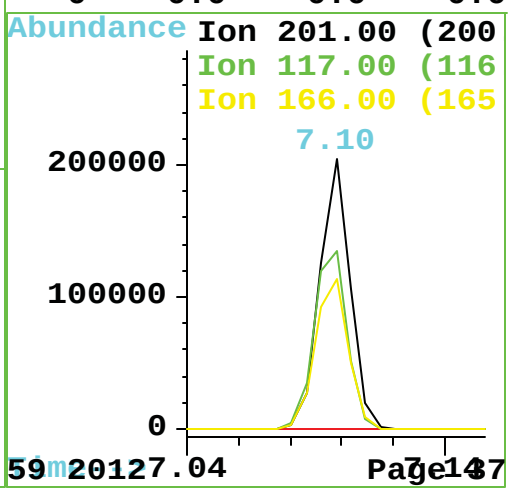


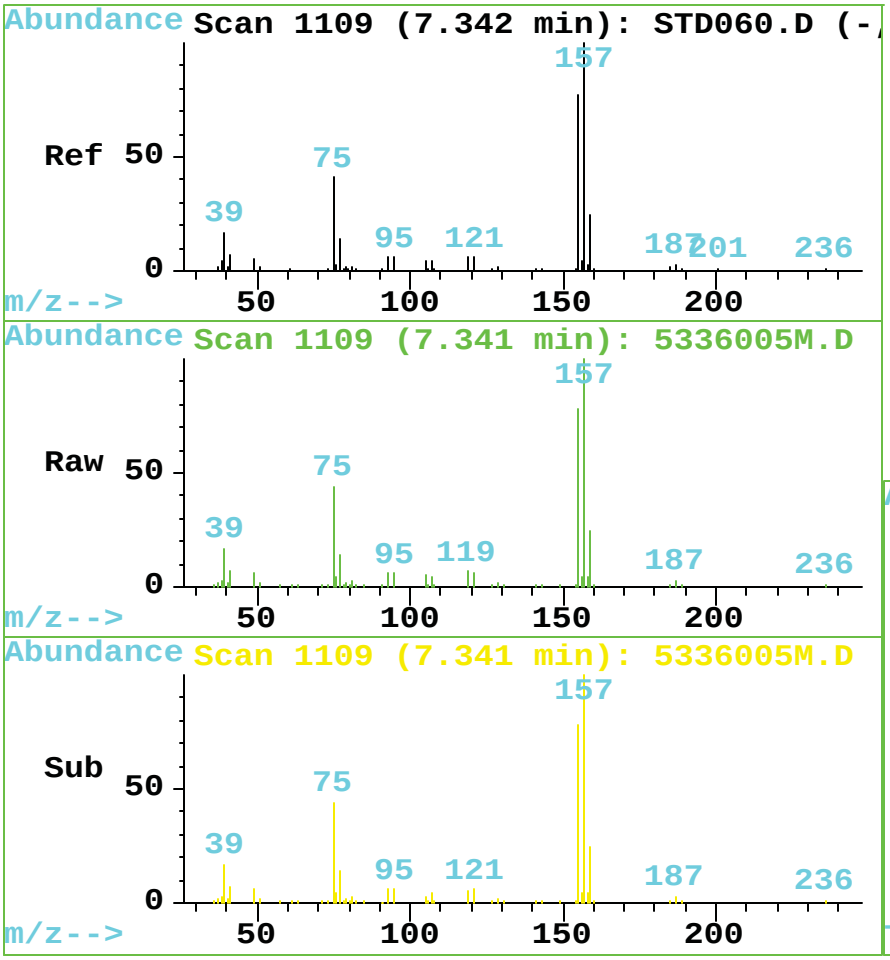


#76
Hexachloroethane
Concen: 53.29 ug/l
RT: 7.10 min Scan# 1069
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:201 Resp: 178145

Ion	Ratio	Lower	Upper
201	100		
117	72.7	50.2	110.2
166	60.9	38.0	98.0
0	0.0	0.0	0.0

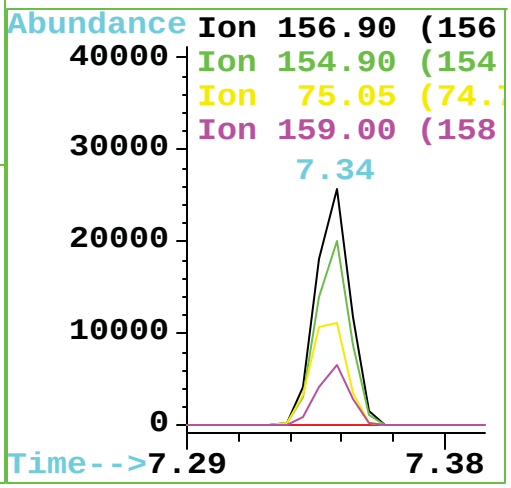


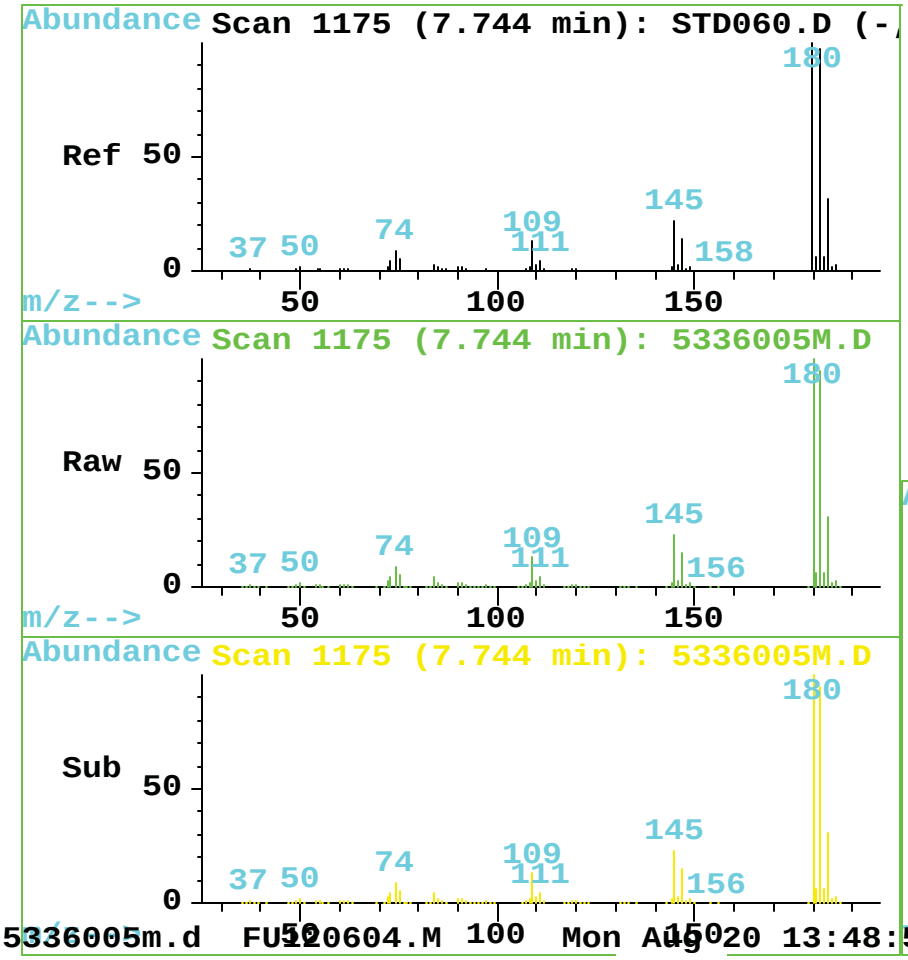


#77
1,2-Dibromo-3-Chloropropan
Concen: 56.80 ug/l
RT: 7.34 min Scan# 1109
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:156.9 Resp: 2262

Ion	Ratio	Lower	Upper
157	100		
155	77.6	46.1	106.1
75	47.9	34.3	94.3
159	24.3	0.0	54.7

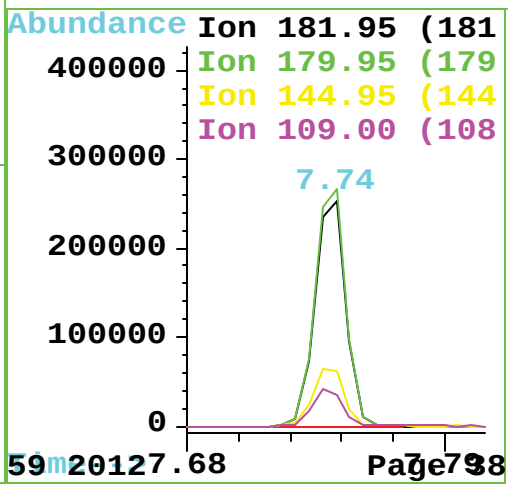


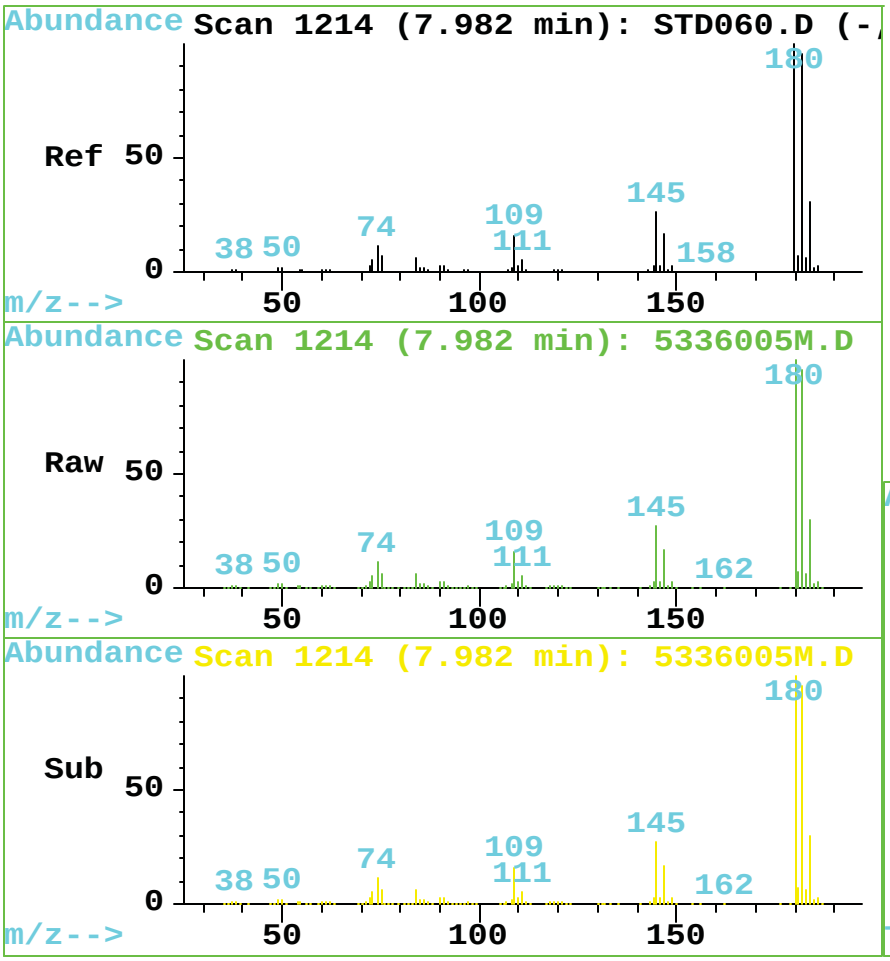


#78
1,2,4-Trichlorobenzene
Concen: 50.62 ug/l
RT: 7.74 min Scan# 1175
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:181.95 Resp: 2475

Ion	Ratio	Lower	Upper
182	100		
180	104.3	74.1	134.1
145	25.5	0.0	57.2
109	16.2	0.0	48.9

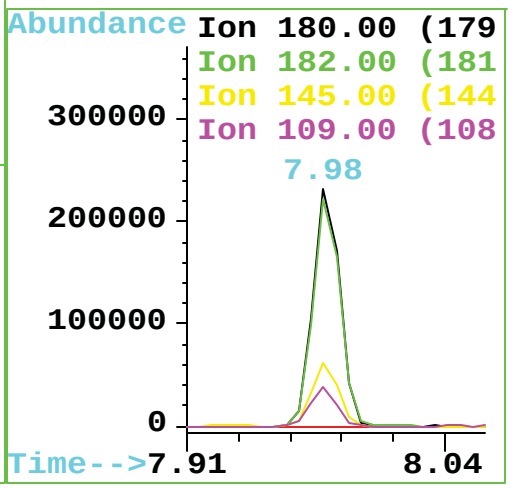


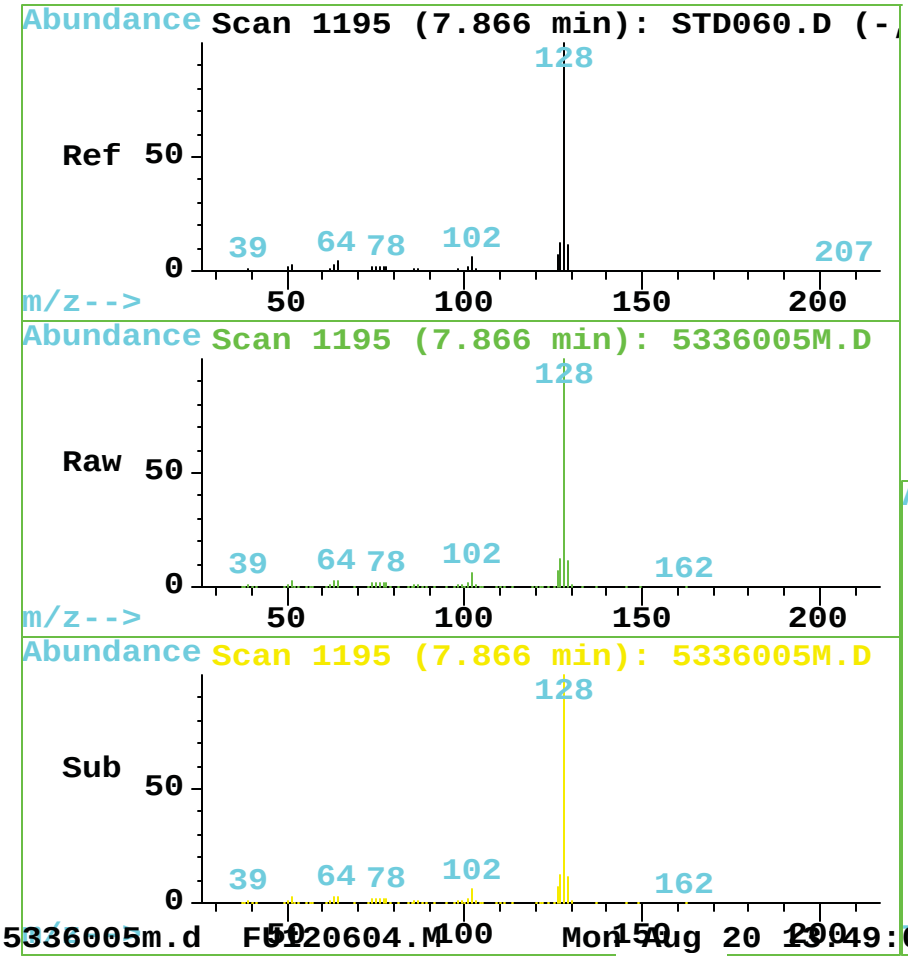


#80
1,2,3-Trichlorobenzene
Concen: 52.11 ug/l
RT: 7.98 min Scan# 1214
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:180 Resp: 208283

Ion	Ratio	Lower	Upper
180	100		
182	96.4	66.9	126.9
145	26.4	0.0	57.7
109	15.6	0.0	48.8

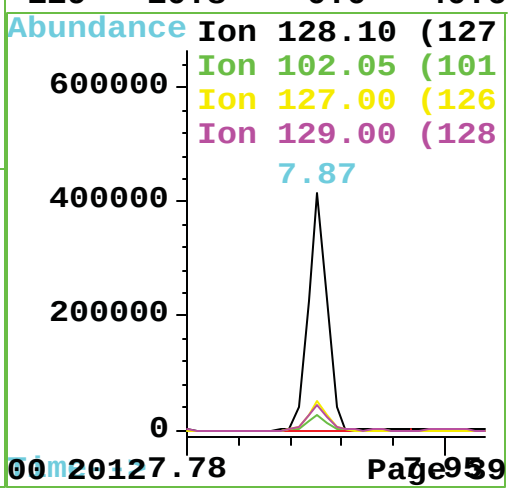


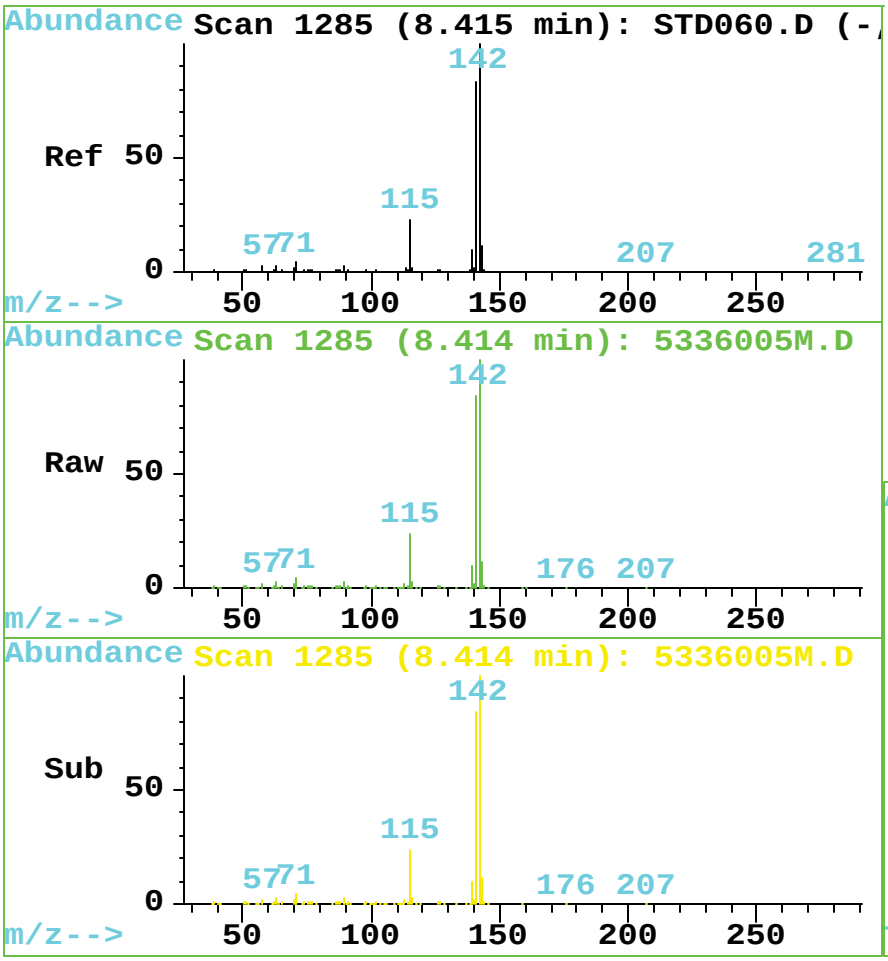


#81
Naphthalene
Concen: 58.78 ug/l
RT: 7.87 min Scan# 1195
Delta R.T. -0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:128.1 Resp: 35165

Ion	Ratio	Lower	Upper
128	100		
102	6.5	0.0	37.4
127	12.1	0.0	42.3
129	10.8	0.0	40.6

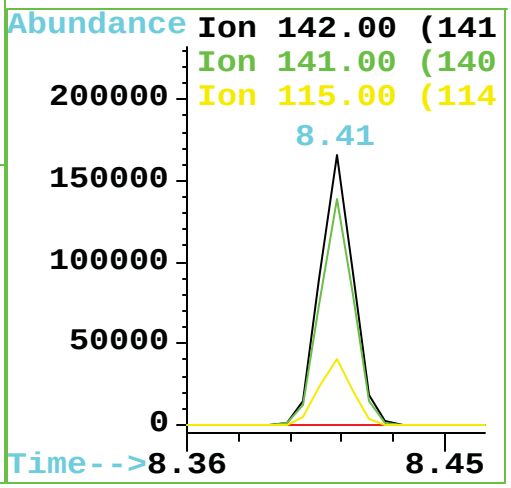




#82
2-Methylnaphthalene
Concen: 46.40 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5336005m.d
Acq: 1 Aug 12 8:56 am

Tgt Ion:142 Resp: 140599

Ion	Ratio	Lower	Upper
142	100		
141	83.8	55.8	115.8
115	24.9	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336006n.d Vial: 28
Acq On : 1 Aug 12 9:16 am Operator: wat
Sample : 100ul msd 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	463973	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	551643	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	194981	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	248868	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	89360	50.94	ug/l		101.8
31) TOLUENE-D8 (S)	5.02	98	559658	50.21	ug/l		100.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	226815	48.91	ug/l		97.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	161057	53.99	ug/l		9
4) Diethyl ether (*)	2.34	74	42430	49.50	ug/l		9
5) Acetone (*)	2.59	43	9431	54.60	ug/l	#	8
6) Methyl iodide (iodomethane	2.62	142	310122	49.51	ug/l		9
7) Carbon disulfide (*)	2.67	76	386010	43.55	ug/l		9
8) Methyl Acetate	2.84	43	28080	44.82	ug/l		9
9) tert-Methyl butyl ether (M	3.11	73	218899	50.58	ug/l		9
10) Acrylonitrile (*)	3.07	53	18706	49.18	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	14459	53.96	ug/l		9
12) Dichlorodifluoromethane	1.24	85	79954	42.66	ug/l		9
13) Chloromethane (SPCC)	1.34	50	96916	45.54	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	112132	46.83	ug/l		9
15) Bromomethane	1.74	94	53224	50.04	ug/l		9
16) Chloroethane	1.83	64	27055	53.00	ug/l		9
18) Trichlorofluoromethane	2.12	101	166059	59.52	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	140673	47.46	ug/l		8
20) Methylene Chloride	2.90	84	130252	45.46	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	148855	48.23	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.34	63	188315	48.73	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	158891	49.20	ug/l	#	8
24) Tetrahydrofuran	3.84	42	10866	42.45	ug/l	#	
25) Chloroform (CCC)	3.85	83	208338	50.14	ug/l		9
26) Bromochloromethane	3.81	130	101638	49.18	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	221234	54.38	ug/l	#	4
29) Cyclohexane	3.98	42	38790	41.28	ug/l	#	2
32) 4-Methyl-2-pentanone (MIBK	4.96	58	16353	46.49	ug/l		8
33) 2-Hexanone (*)	5.34	58	14456	52.72	ug/l		9
35) Carbon Tetrachloride	4.04	117	213769	54.65	ug/l		9
36) Benzene (MS)	4.13	78	533464	48.38	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336006n.d Vial: 28
Acq On : 1 Aug 12 9:16 am Operator: wat
Sample : 100ul msd 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
37) 1,2-Dichloroethane	4.15	62	99996	50.07 ug/l	9
38) Trichloroethene (MS)	4.45	95	149811	49.80 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	102592	47.87 ug/l	9
40) Bromodichloromethane	4.68	83	137255	51.21 ug/l	9
41) Methyl Cyclohexane	4.54	55	163167	52.39 ug/l	8
42) Dibromomethane	4.62	174	107215	51.48 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	168270	50.35 ug/l	9
44) Toluene (CCC/MS)	5.05	91	647961	50.08 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	129707	51.59 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	66963	48.38 ug/l	9
47) Tetrachloroethene	5.31	166	260767	48.77 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	13748	51.02 ug/l #	7
51) Dibromochloromethane	5.42	129	122029	54.86 ug/l	9
52) 1,2-Dibromoethane	5.48	107	92127	51.50 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	449116	49.74 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	164526	54.53 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	705826	52.14 ug/l	9
56) p,m-Xylene	5.79	106	599080	103.58 ug/l	9
57) o-Xylene	5.98	91	545160	52.82 ug/l	9
58) Styrene	5.99	104	427502	50.89 ug/l	9
59) Isopropylbenzene	6.15	105	831968	54.63 ug/l	9
60) Bromoform (SPCC)	6.09	173	80722	51.93 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	85492	51.30 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	29019	52.80 ug/l #	8
63) n-Propylbenzene	6.34	91	833924	53.25 ug/l	9
64) Bromobenzene	6.31	156	220259	51.28 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	368522	52.46 ug/l	9
66) tert-Butylbenzene	6.58	91	398667	55.48 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	401630	54.13 ug/l	9
69) sec-Butylbenzene	6.68	105	921814	58.44 ug/l	9
70) p-Isopropyltoluene	6.75	119	783410	58.82 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	381242	52.41 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	377832	50.60 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	360097	53.24 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	596375	54.15 ug/l	9
75) n-Butylbenzene	6.95	91	576401	54.62 ug/l	9
76) Hexachloroethane	7.10	201	172864	54.75 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	21762	57.81 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	239531	51.88 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	209835	55.59 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336006n.d Vial: 28
Acq On : 1 Aug 12 9:16 am Operator: wat
Sample : 100ul msd 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

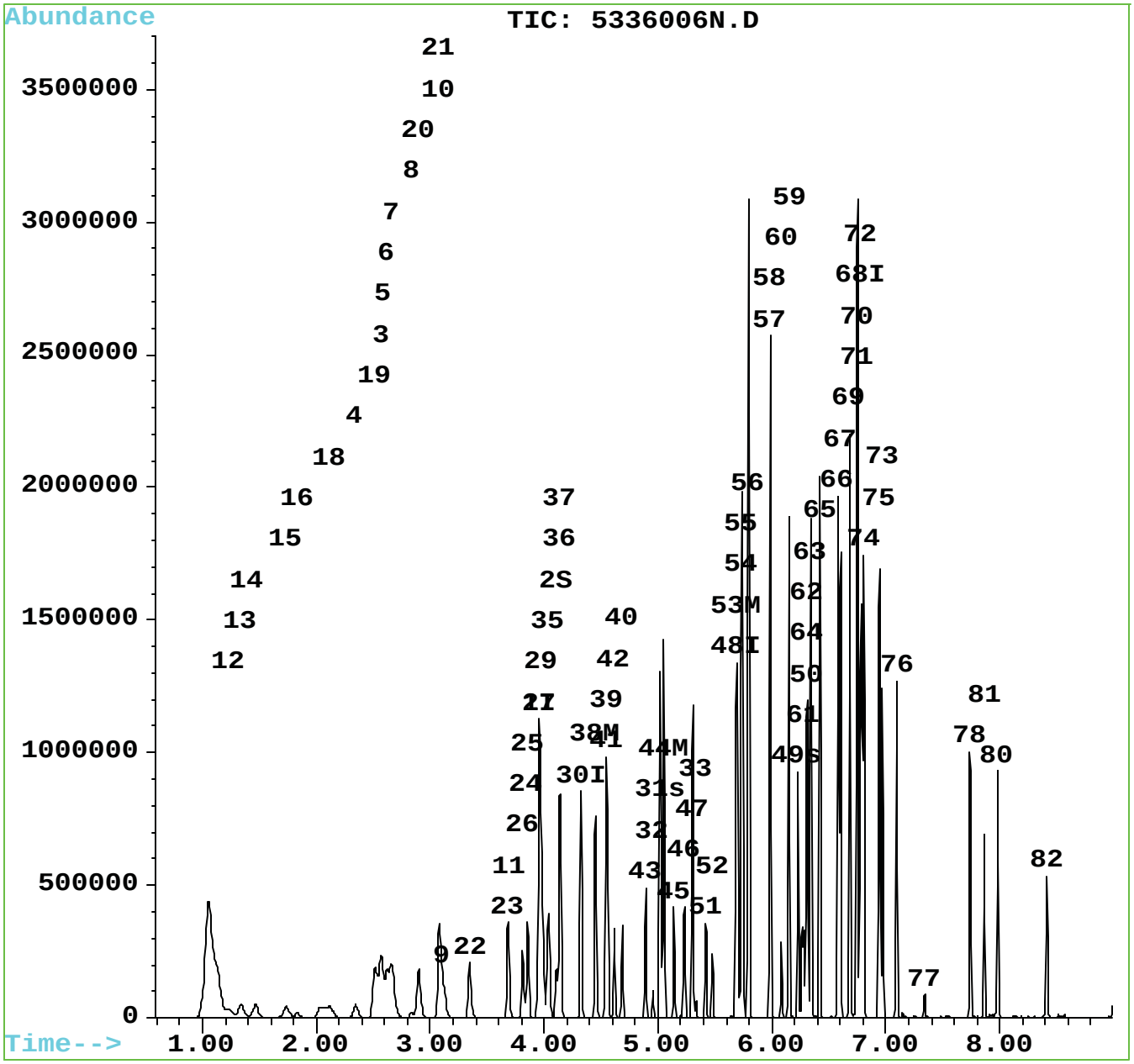
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
81)	Naphthalene	7.87	128	345463	61.15 ug/l	9
82)	2-Methylnaphthalene	8.41	142	168279	58.80 ug/l	9

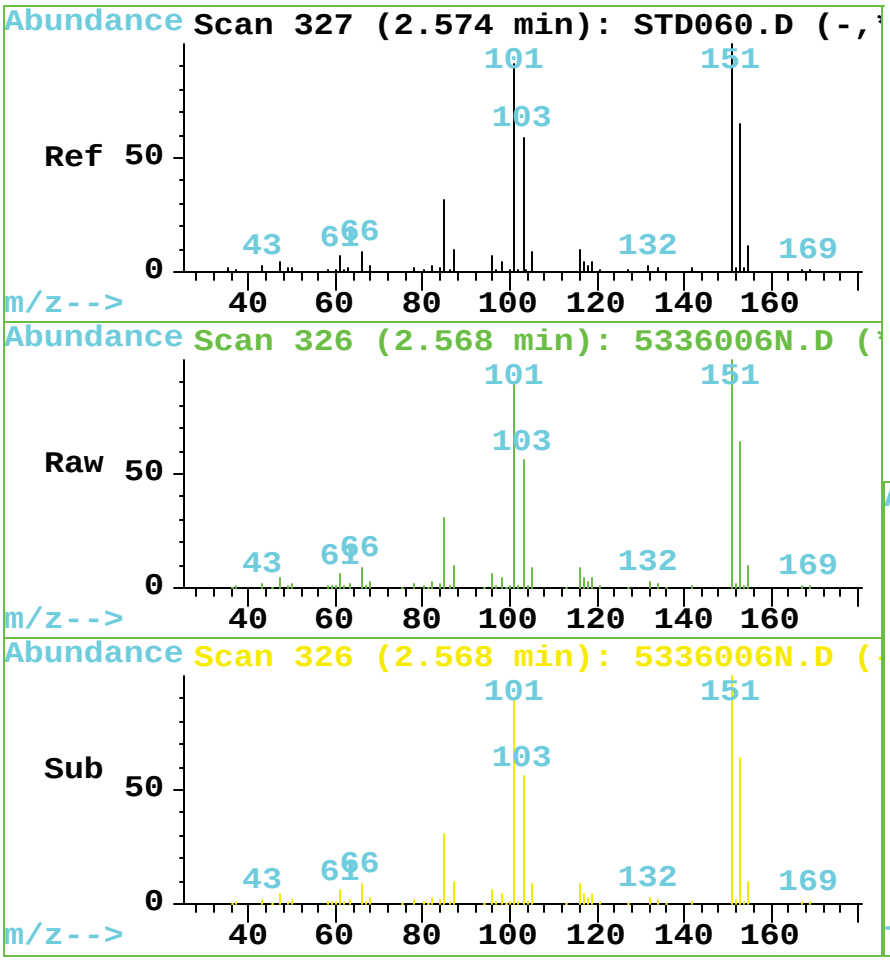
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336006n.d Vial: 28
Acq On : 1 Aug 12 9:16 am Operator: wat
Sample : 100ul msd 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

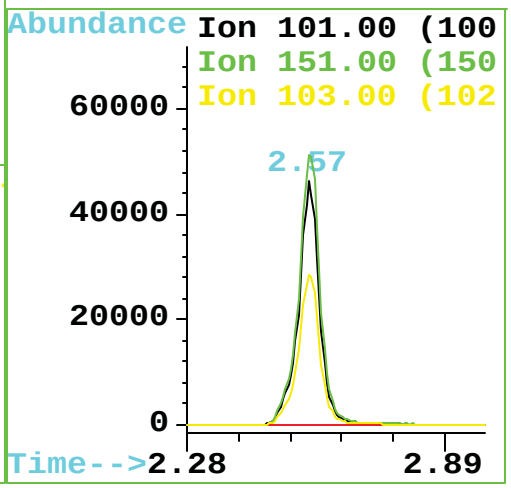


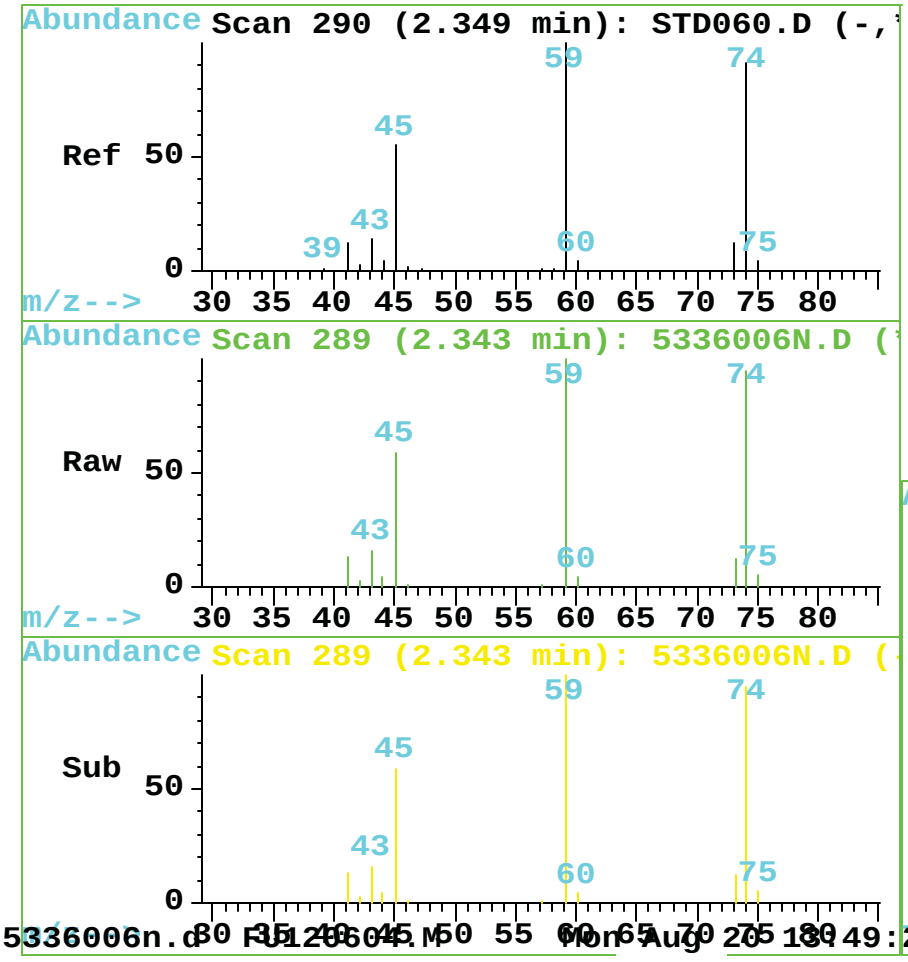


#3
1,1,2-Trichloro-1,2,2-trif
Concen: 53.99 ug/l
RT: 2.57 min Scan# 326
Delta R.T. -0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:101 Resp: 161057

Ion	Ratio	Lower	Upper
101	100		
151	114.9	76.1	136.1
103	64.0	35.2	95.2
0	0.0	0.0	0.0

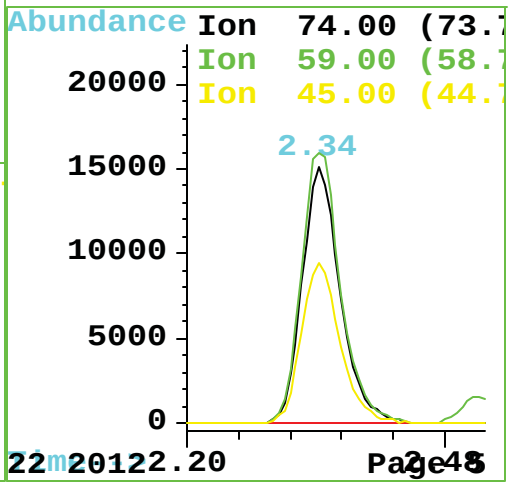


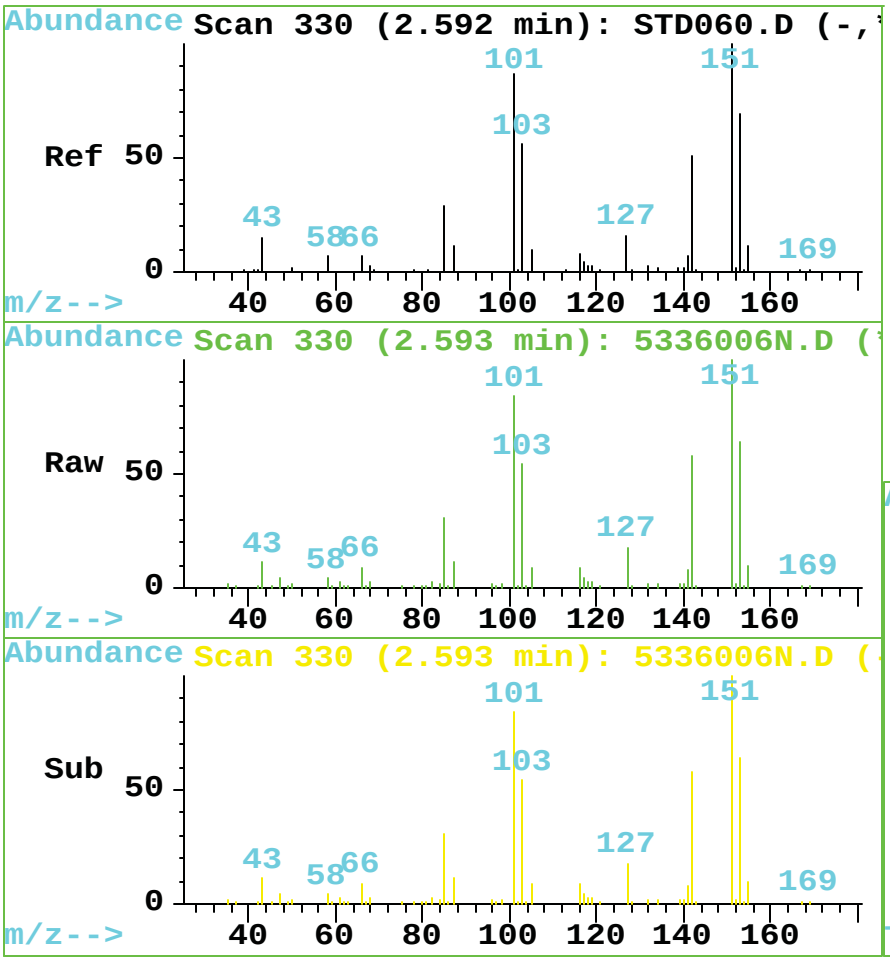


#4
Diethyl ether (*)
Concen: 49.50 ug/l
RT: 2.34 min Scan# 289
Delta R.T. 0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:74 Resp: 42430

Ion	Ratio	Lower	Upper
74	100		
59	109.8	86.2	146.2
45	63.4	37.4	97.4
0	0.0	0.0	0.0

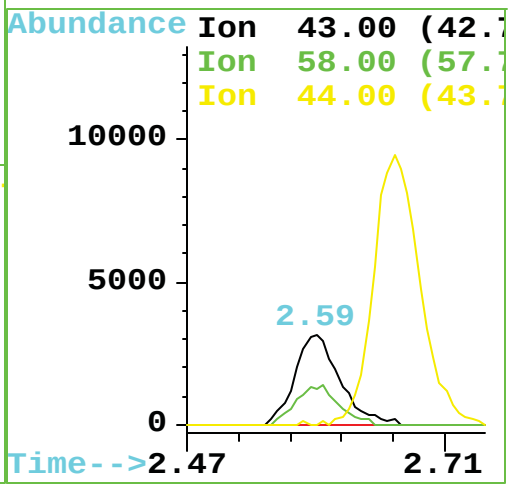


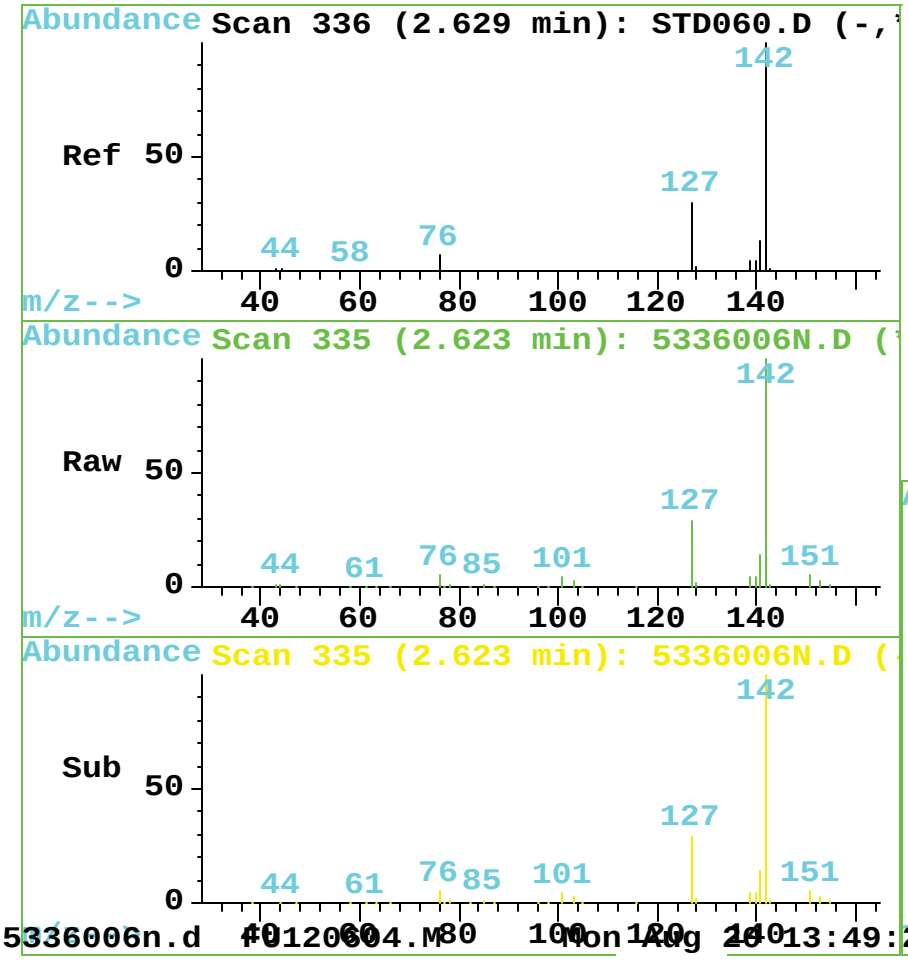


#5
Acetone (*)
Concen: 54.60 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:43 Resp: 9431

Ion	Ratio	Lower	Upper
43	100		
58	41.3	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

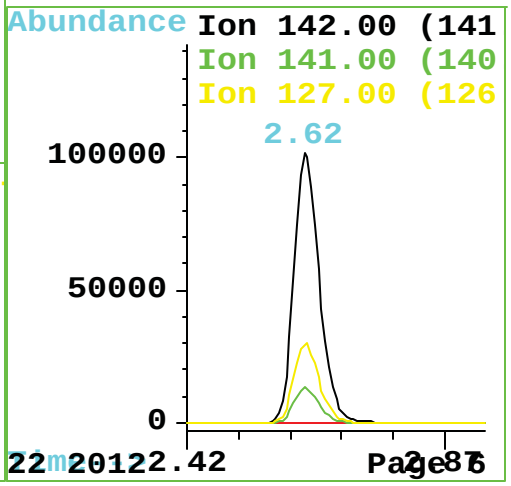


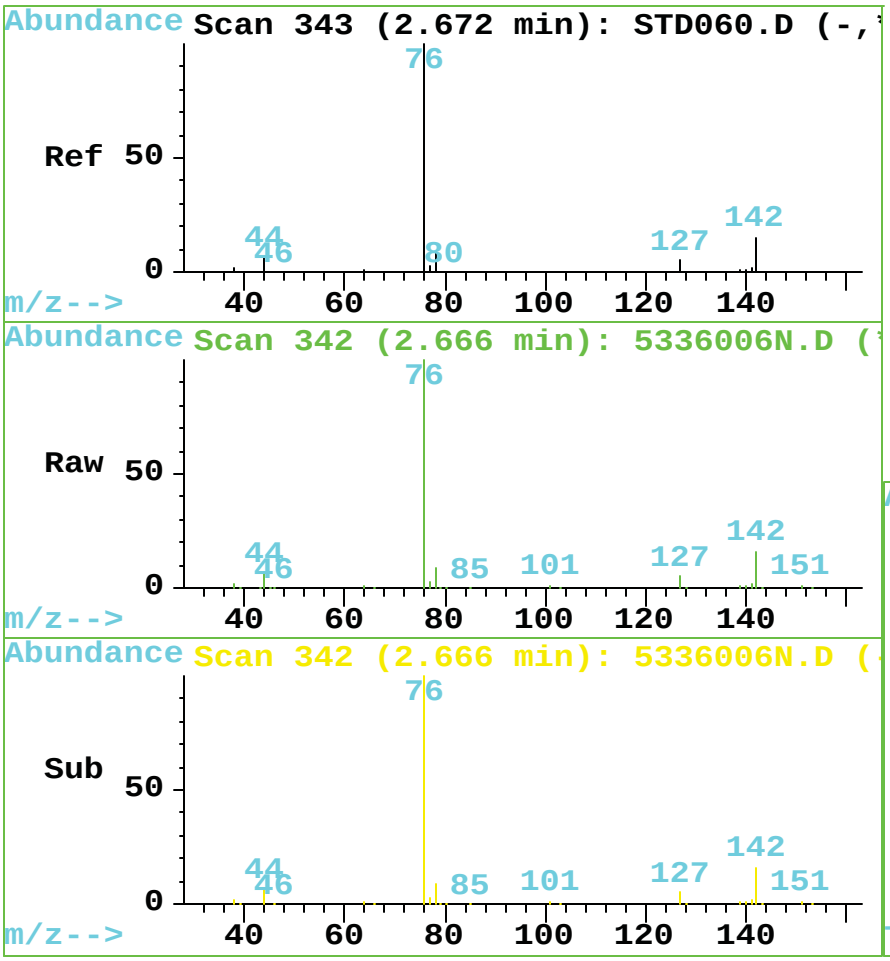


#6
Methyl iodide (iodomethane
Concen: 49.51 ug/l
RT: 2.62 min Scan# 335
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:142 Resp: 310122

Ion	Ratio	Lower	Upper
142	100		
141	13.3	0.0	43.8
127	29.9	5.1	65.1
0	0.0	0.0	0.0

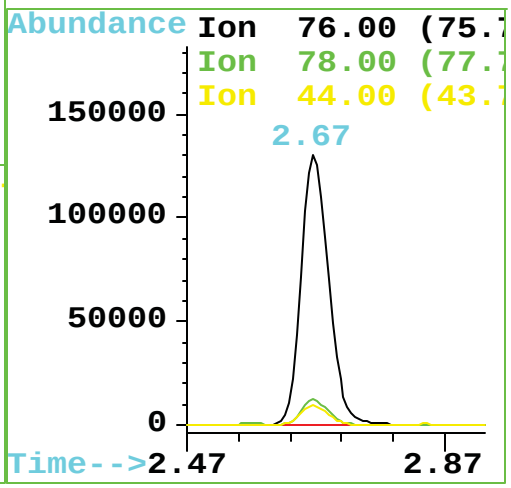


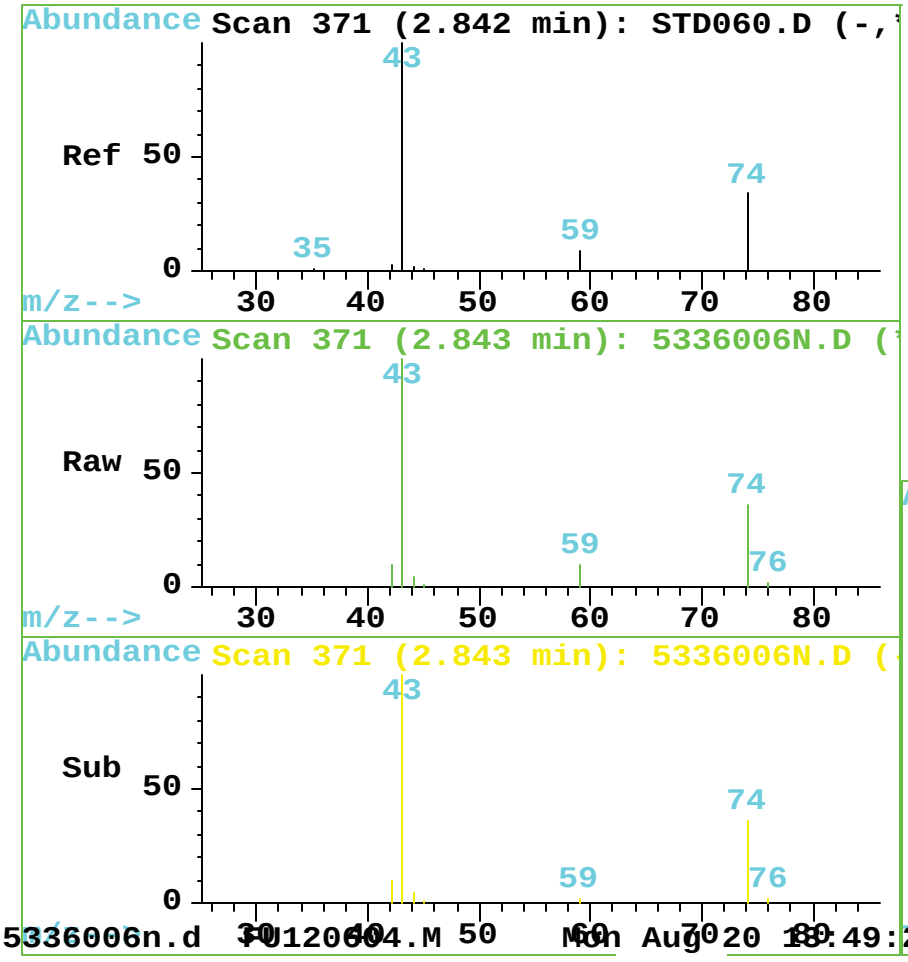


#7
Carbon disulfide (*)
Concen: 43.55 ug/l
RT: 2.67 min Scan# 342
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:76 Resp: 386010

Ion	Ratio	Lower	Upper
76	100		
78	9.2	0.0	39.3
44	7.4	0.0	40.9
0	0.0	0.0	0.0

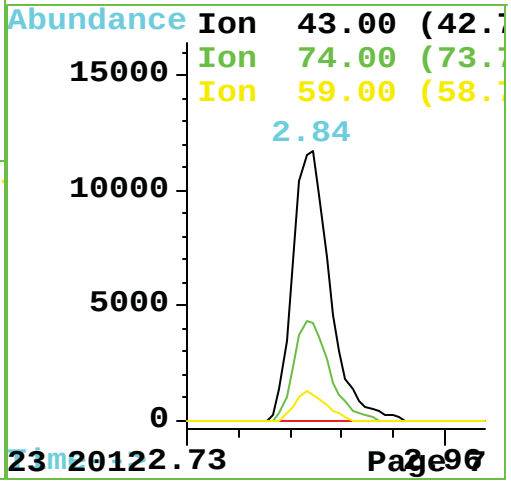


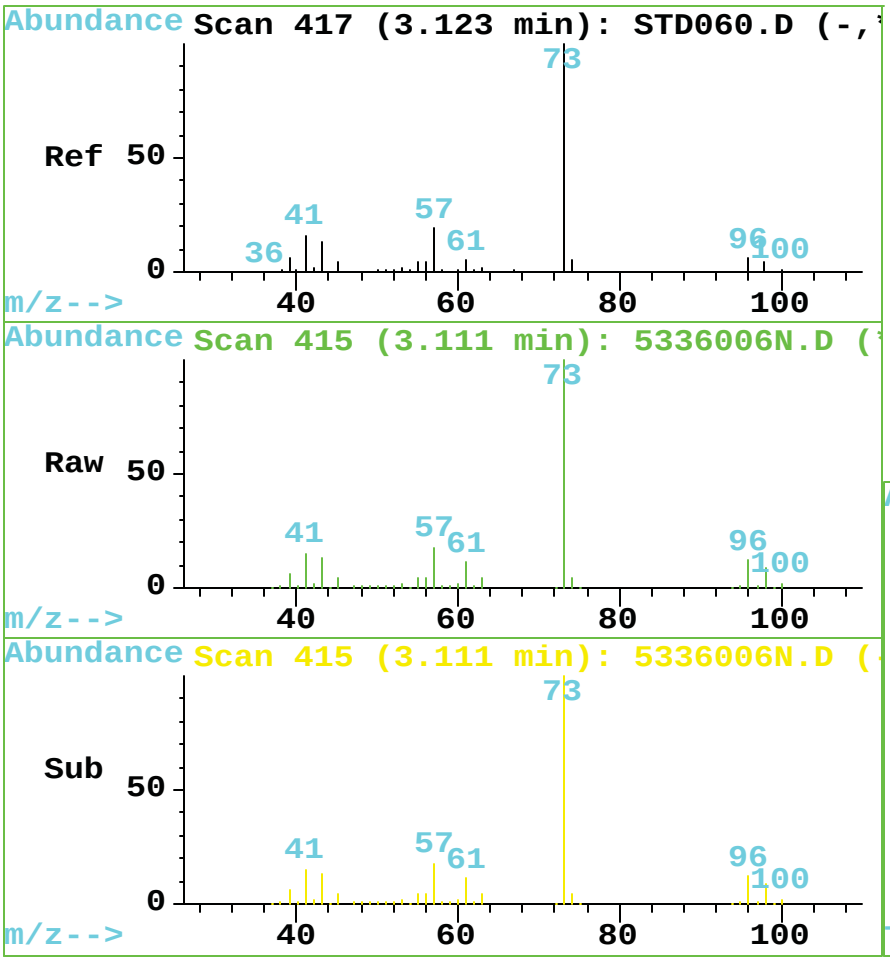


#8
Methyl Acetate
Concen: 44.82 ug/l
RT: 2.84 min Scan# 371
Delta R.T. 0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:43 Resp: 28080

Ion	Ratio	Lower	Upper
43	100		
74	35.5	4.8	64.8
59	9.2	0.0	40.3
0	0.0	0.0	0.0

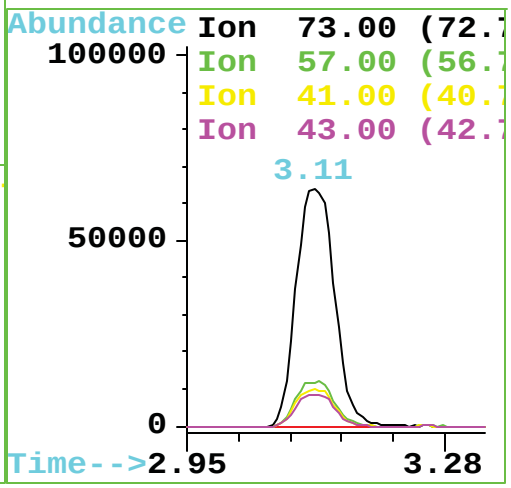


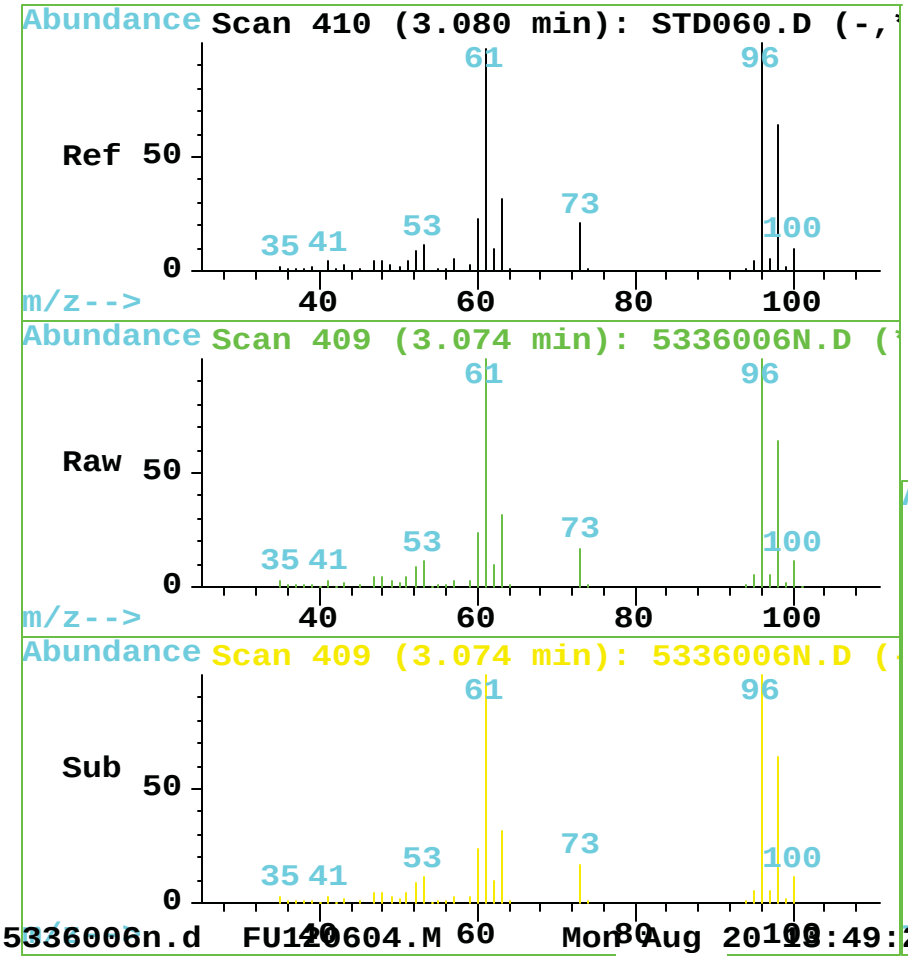


#9
tert-Methyl butyl ether (M
Concen: 50.58 ug/l
RT: 3.11 min Scan# 415
Delta R.T. 0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:73 Resp: 218899

Ion	Ratio	Lower	Upper
73	100		
57	18.5	0.0	48.6
41	15.5	0.0	46.3
43	13.2	0.0	47.6

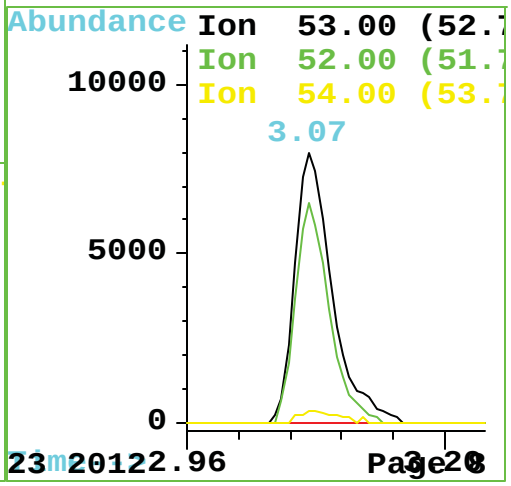


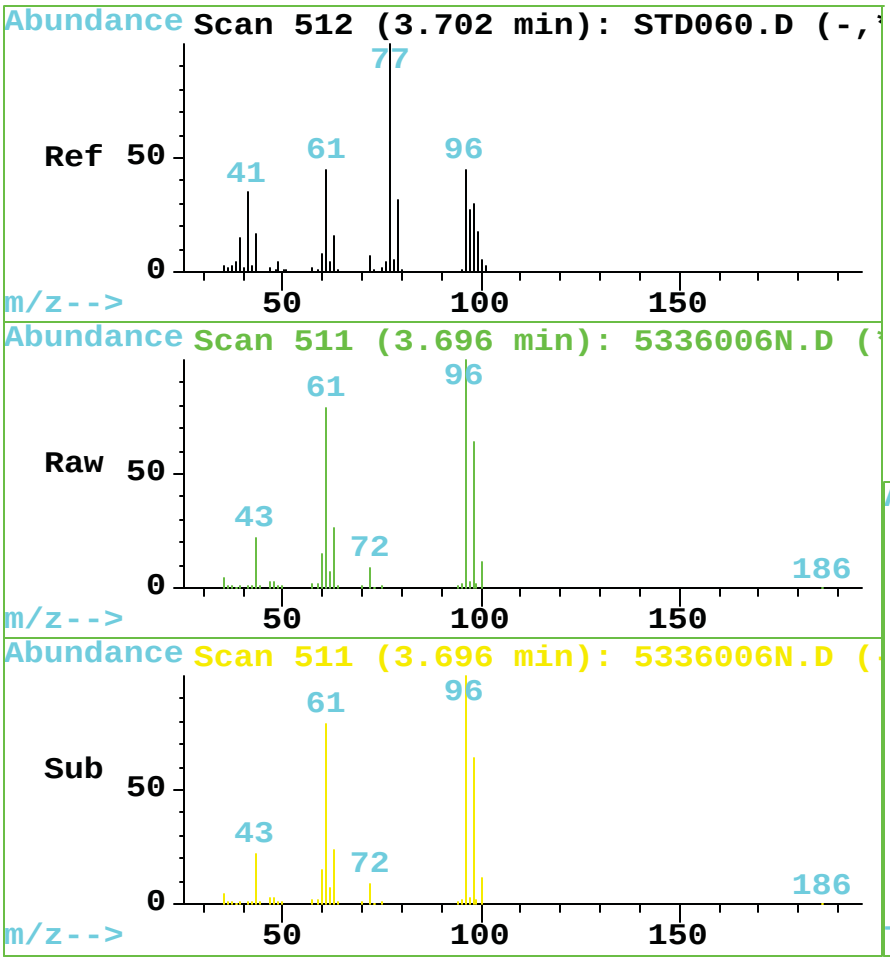


#10
Acrylonitrile (*)
Concen: 49.18 ug/l
RT: 3.07 min Scan# 409
Delta R.T. 0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:53 Resp: 18706

Ion	Ratio	Lower	Upper
53	100		
52	74.0	45.4	105.4
54	4.8	0.0	32.6
0	0.0	0.0	0.0

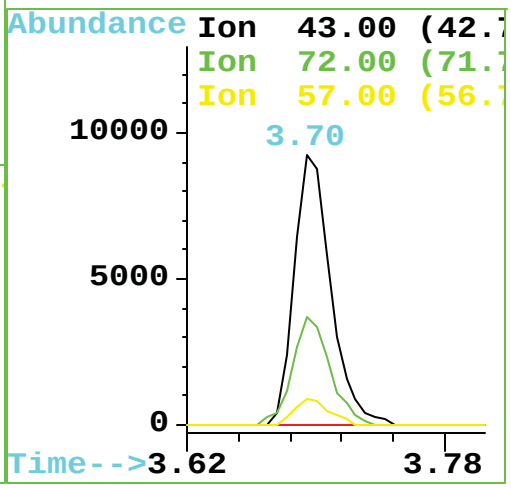


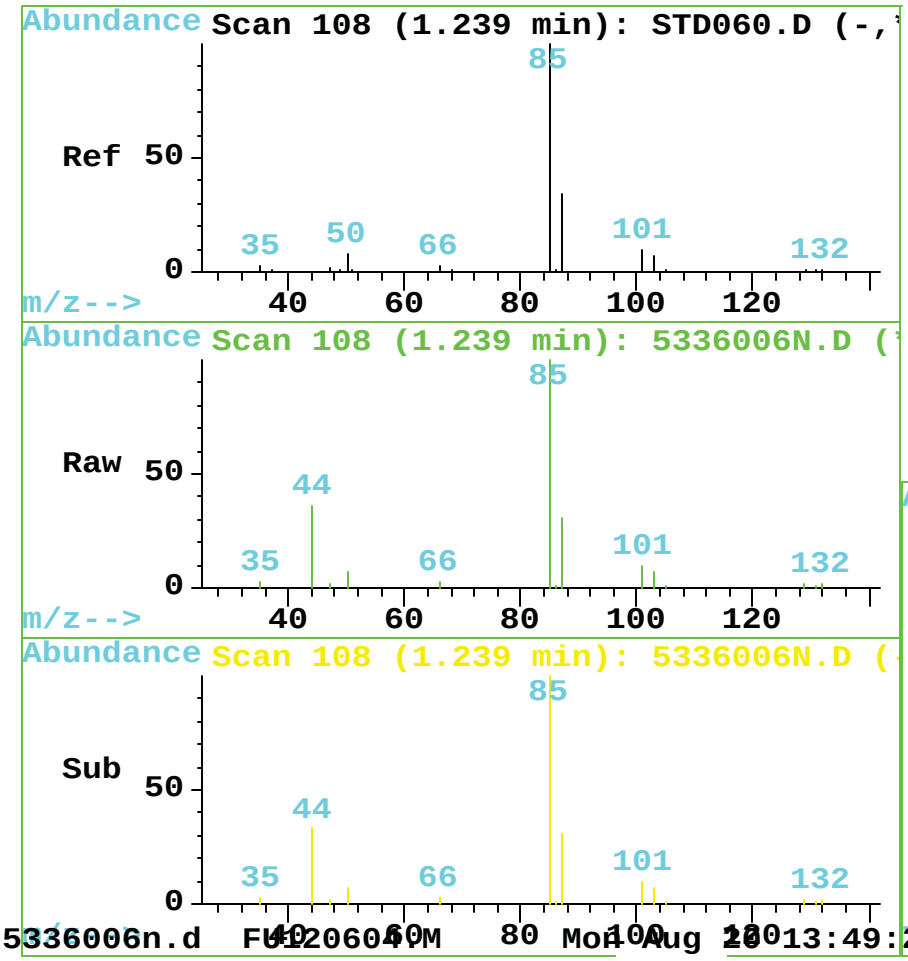


#11
2-Butanone (MEK) (*)
Concen: 53.96 ug/l
RT: 3.70 min Scan# 511
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:43 Resp: 14459

Ion	Ratio	Lower	Upper
43	100		
72	41.4	9.3	69.3
57	9.1	0.0	38.8
0	0.0	0.0	0.0

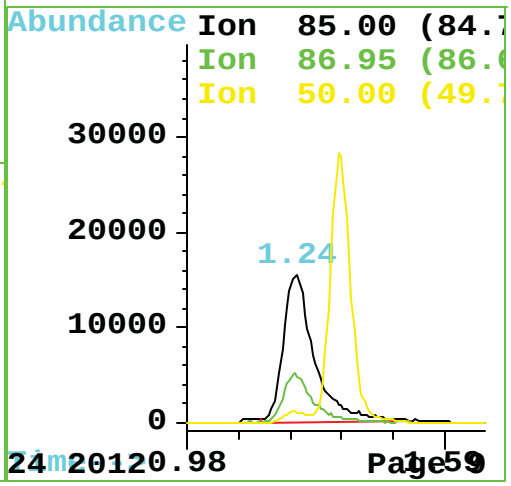


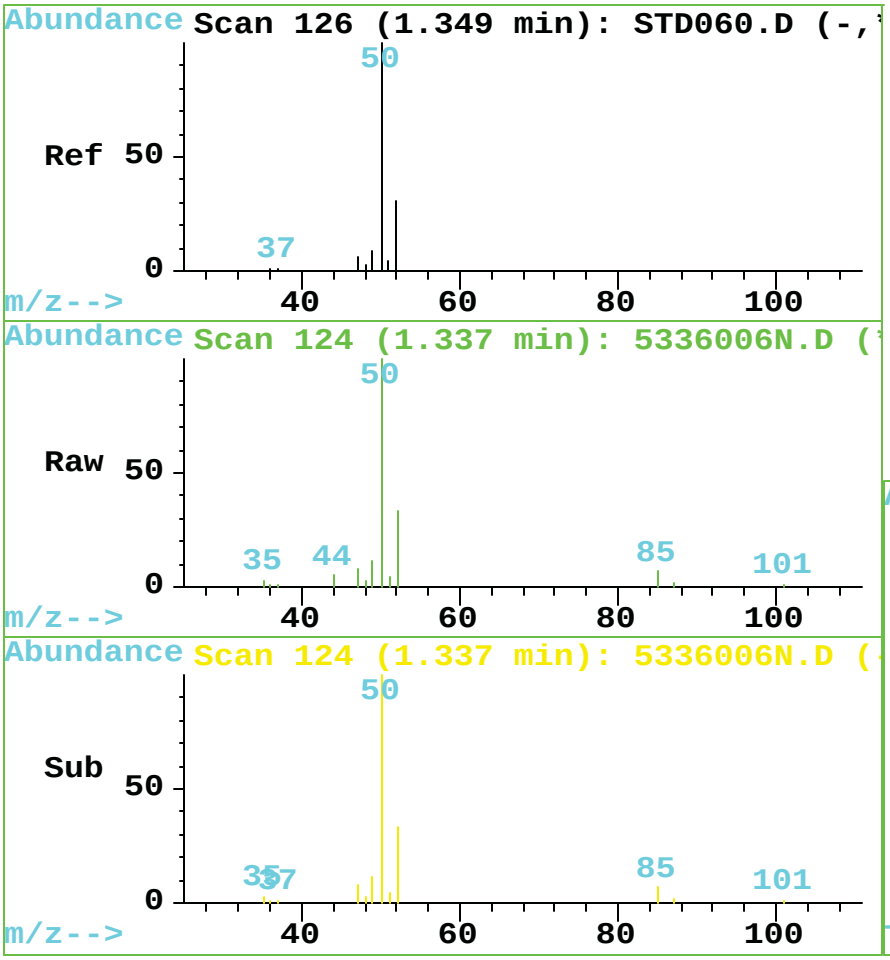


#12
Dichlorodifluoromethane
Concen: 42.66 ug/l
RT: 1.24 min Scan# 108
Delta R.T. -0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:85 Resp: 79954

Ion	Ratio	Lower	Upper
85	100		
87	33.7	2.5	62.5
50	5.7	0.0	36.8
0	0.0	0.0	0.0

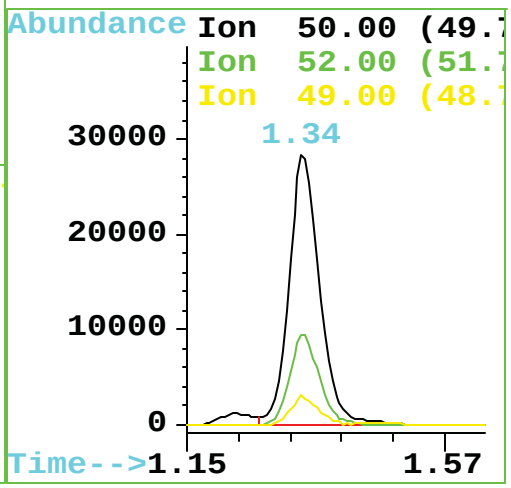


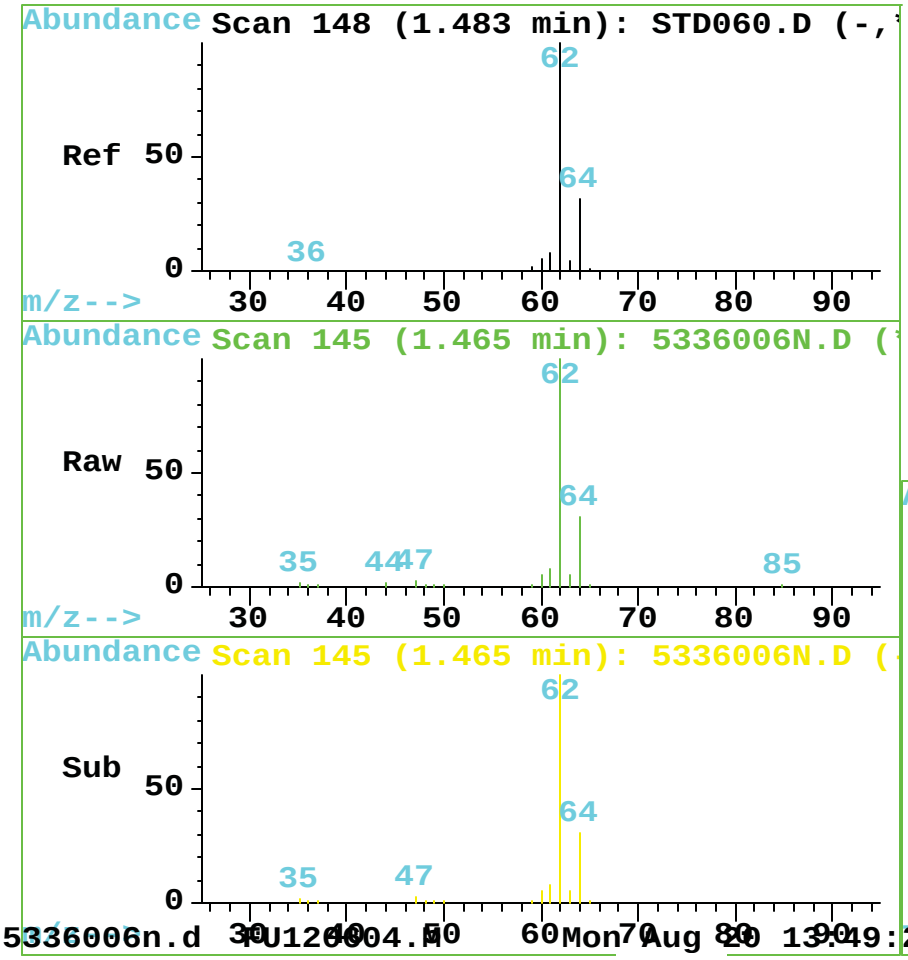


#13
Chloromethane (SPCC)
Concen: 45.54 ug/l
RT: 1.34 min Scan# 124
Delta R.T. -0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:50 Resp: 96916

Ion	Ratio	Lower	Upper
50	100		
52	32.5	2.5	62.5
49	9.7	0.0	41.2
0	0.0	0.0	0.0

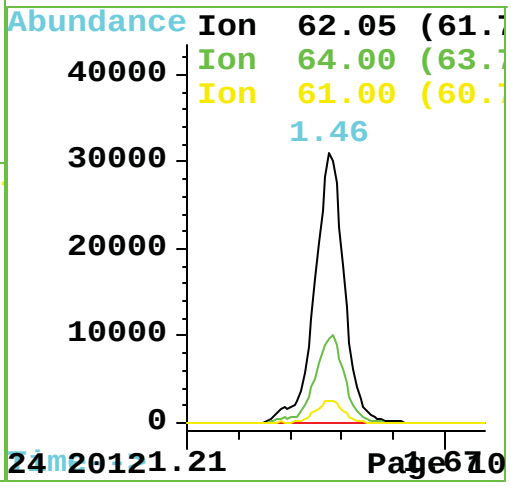


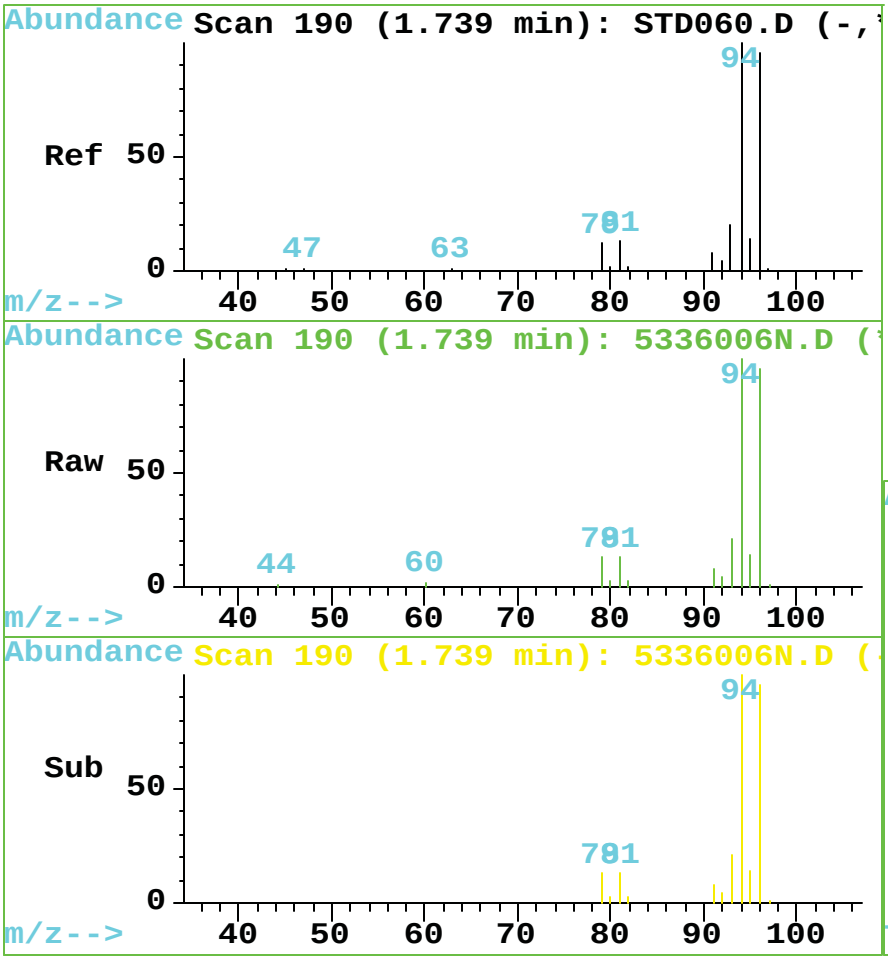


#14
Vinyl Chloride (CCC)
Concen: 46.83 ug/l
RT: 1.46 min Scan# 145
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:62.05 Resp: 11213

Ion	Ratio	Lower	Upper
62	100		
64	32.9	3.8	63.8
61	7.9	0.0	38.3
0	0.0	0.0	0.0

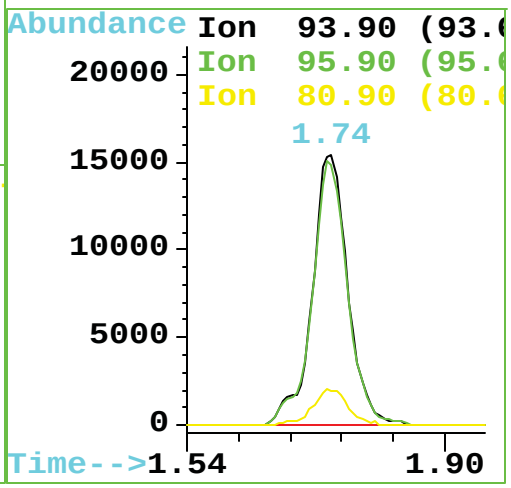


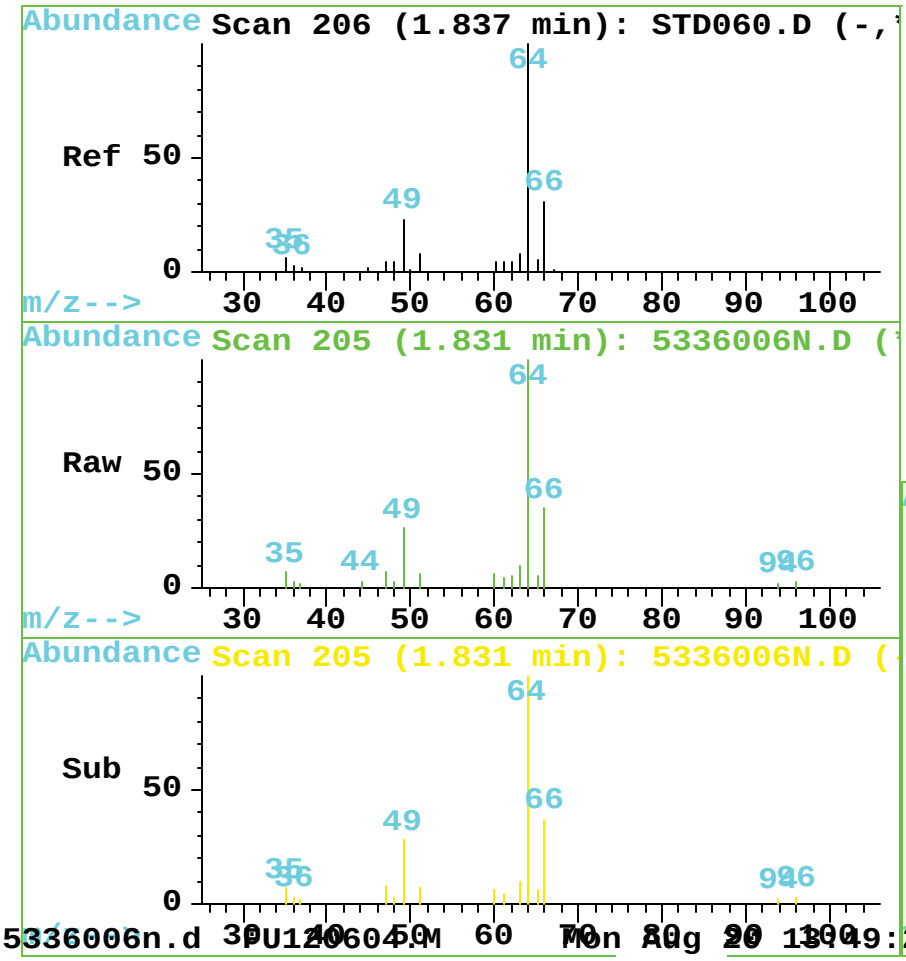


#15
Bromomethane
Concen: 50.04 ug/l
RT: 1.74 min Scan# 190
Delta R.T. 0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:93.9 Resp: 53224

Ion	Ratio	Lower	Upper
94	100		
96	97.0	64.8	124.8
81	13.1	0.0	43.5
0	0.0	0.0	0.0

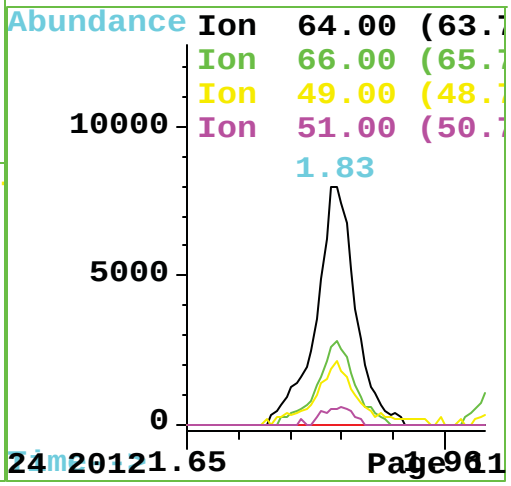


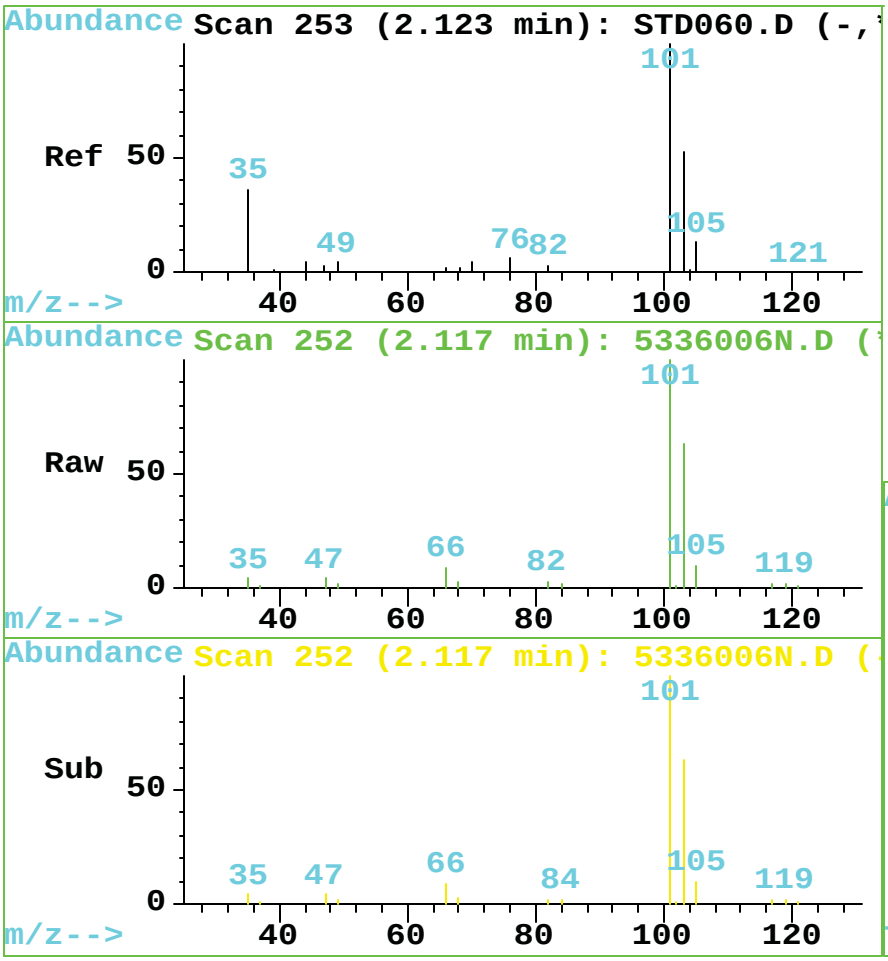


#16
Chloroethane
Concen: 53.00 ug/l
RT: 1.83 min Scan# 205
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:64 Resp: 27055

Ion	Ratio	Lower	Upper
64	100		
66	32.7	2.8	62.8
49	28.0	0.0	54.8
51	5.5	0.0	36.5

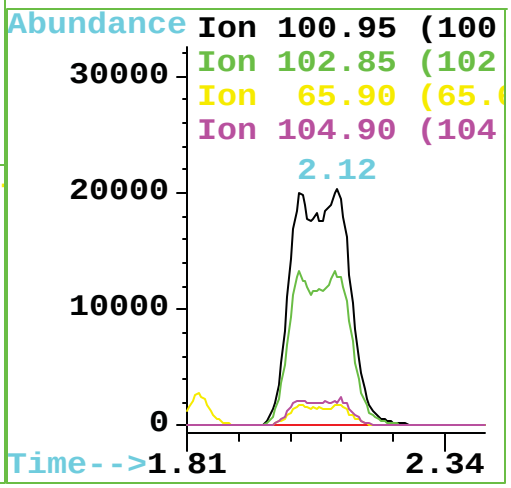


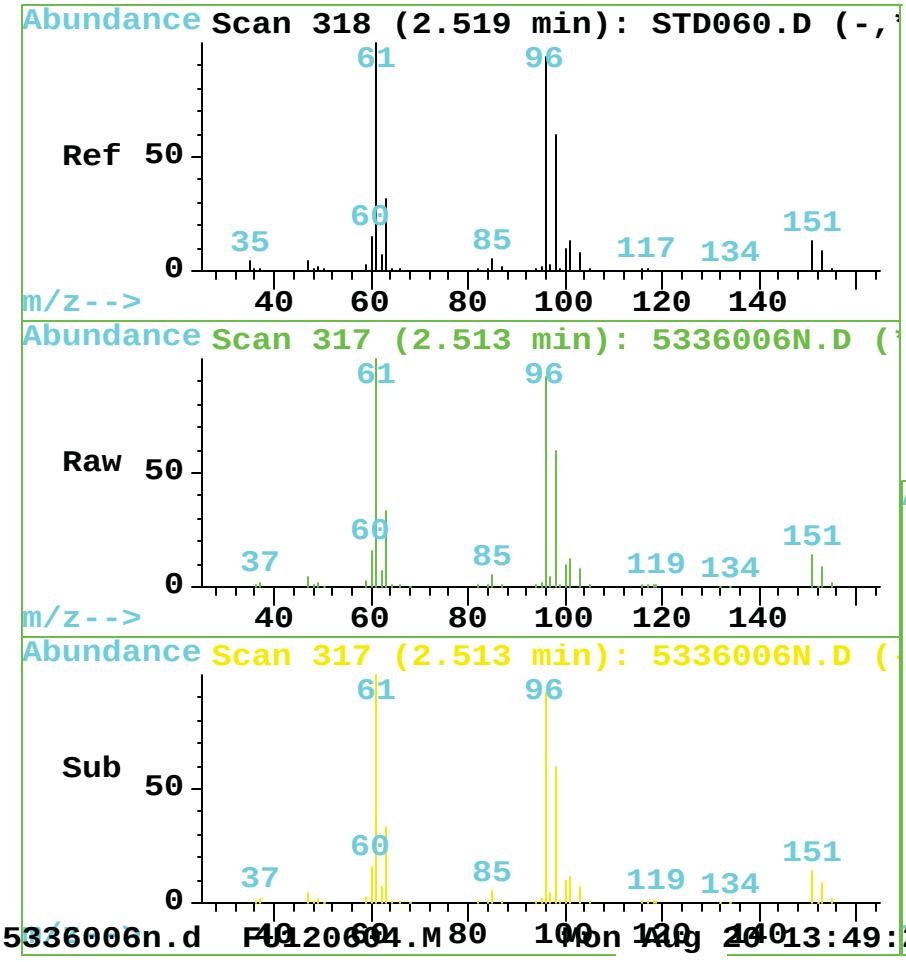


#18
Trichlorofluoromethane
Concen: 59.52 ug/l
RT: 2.12 min Scan# 252
Delta R.T. 0.07 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:100.95 Resp: 1660

Ion	Ratio	Lower	Upper
101	100		
103	65.8	34.1	94.1
66	2.8	0.0	40.0
105	10.8	0.0	40.1

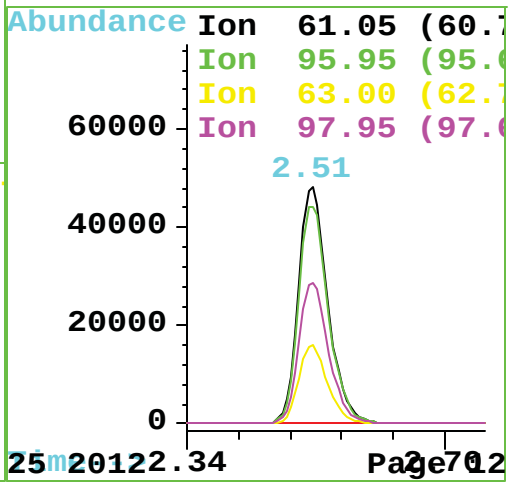


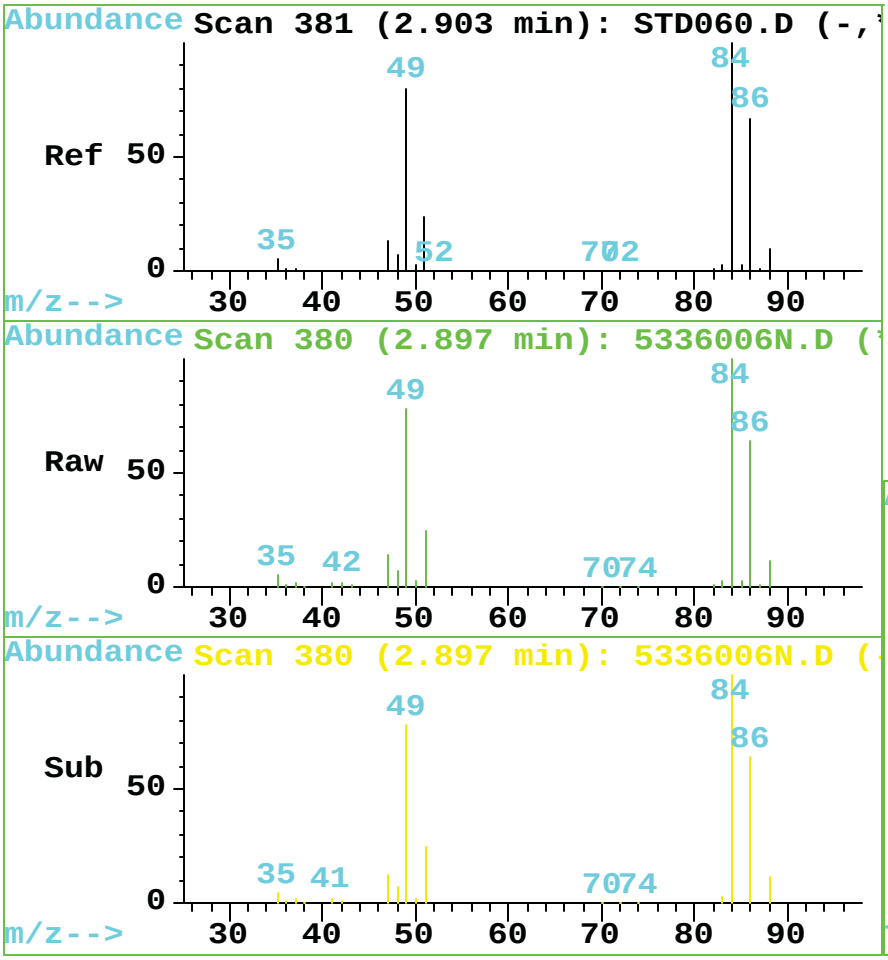


#19
1,1-Dichloroethene (CCC/MS
Concen: 47.46 ug/l
RT: 2.51 min Scan# 317
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:61.05 Resp: 14067

Ion	Ratio	Lower	Upper
61	100		
96	93.4	44.2	104.2
63	32.7	2.8	62.8
98	60.5	18.3	78.3

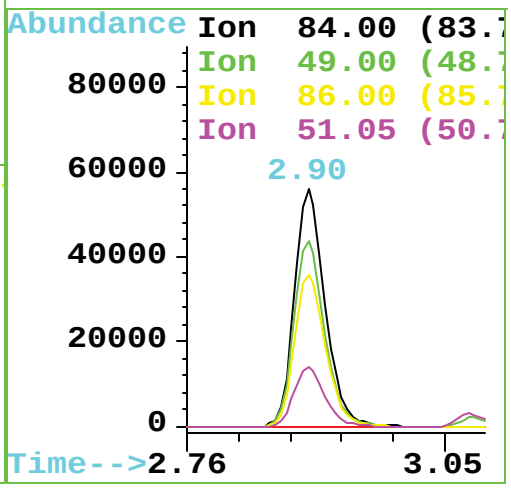


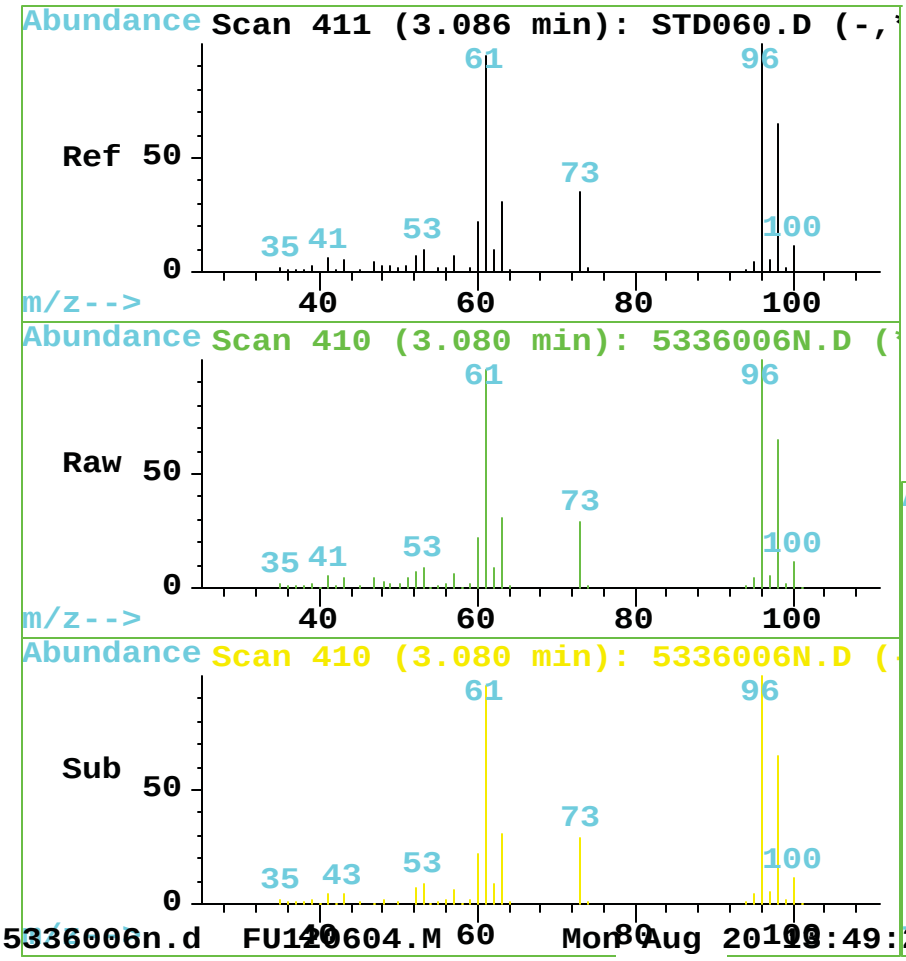


#20
Methylene Chloride
Concen: 45.46 ug/l
RT: 2.90 min Scan# 380
Delta R.T. 0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:84 Resp: 130252

Ion	Ratio	Lower	Upper
84	100		
49	78.8	59.2	119.2
86	64.9	34.7	94.7
51	25.1	0.0	58.1

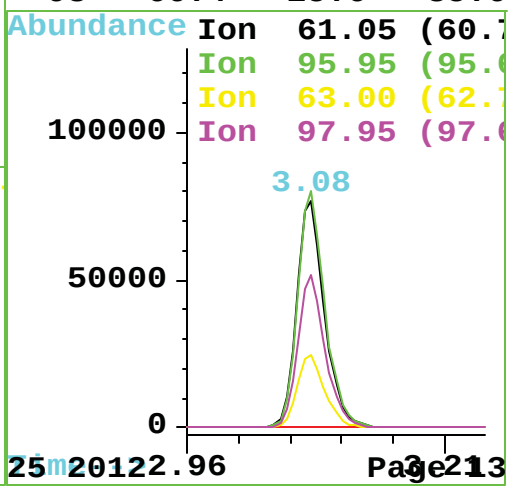


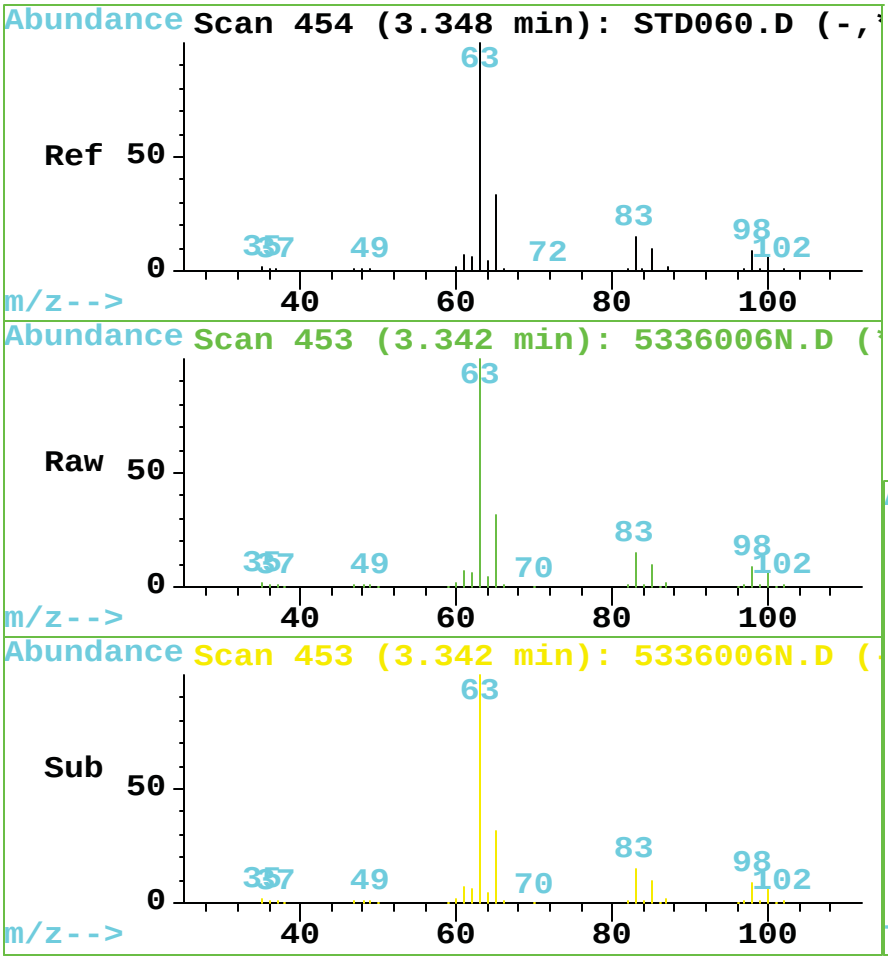


#21
trans-1,2-Dichloroethene
Concen: 48.23 ug/l
RT: 3.08 min Scan# 410
Delta R.T. 0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:61.05 Resp: 14885

Ion	Ratio	Lower	Upper
61	100		
96	103.0	56.7	116.7
63	32.3	2.7	62.7
98	66.4	25.6	85.6

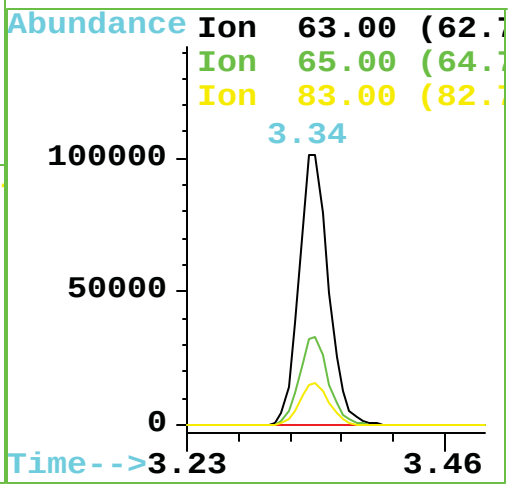


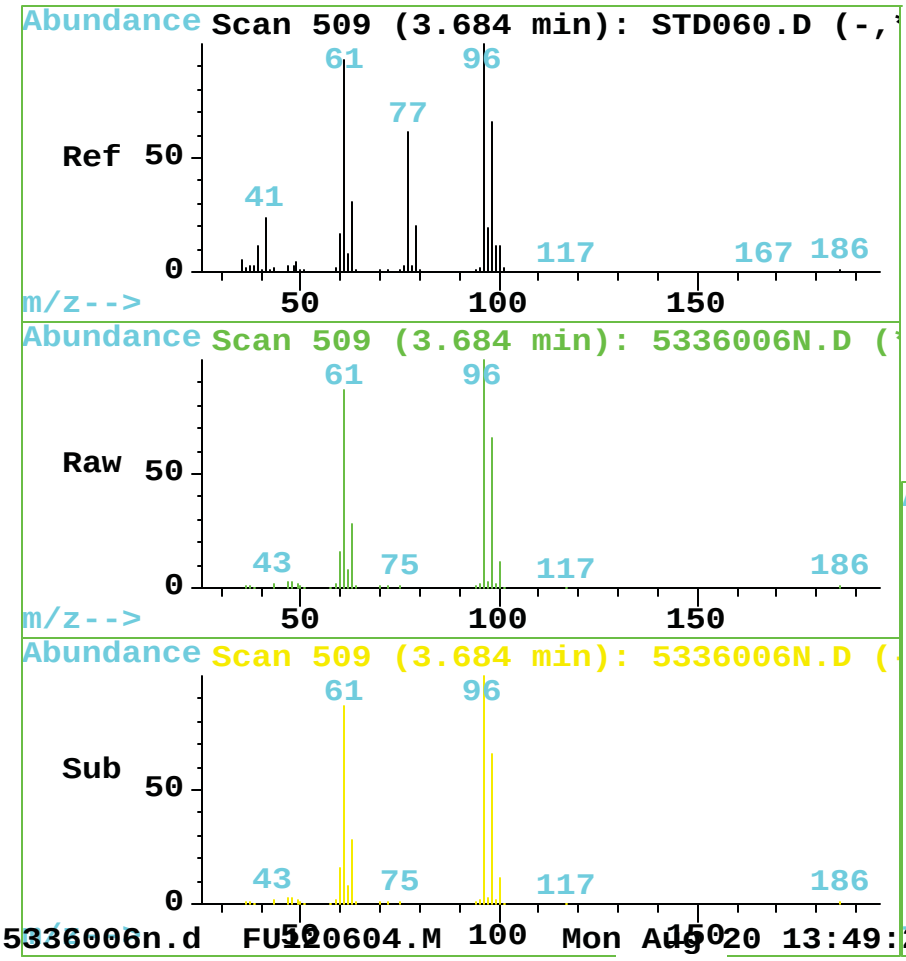


#22
1,1-Dichloroethane (SPCC)
Concen: 48.73 ug/l
RT: 3.34 min Scan# 453
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:63 Resp: 188315

Ion	Ratio	Lower	Upper
63	100		
65	31.9	2.0	62.0
83	15.3	0.0	44.9
0	0.0	0.0	0.0

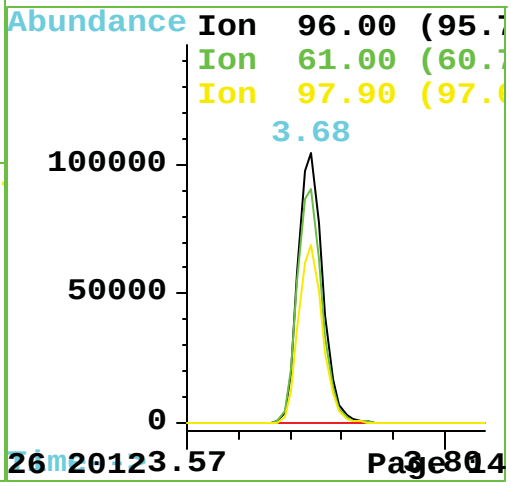


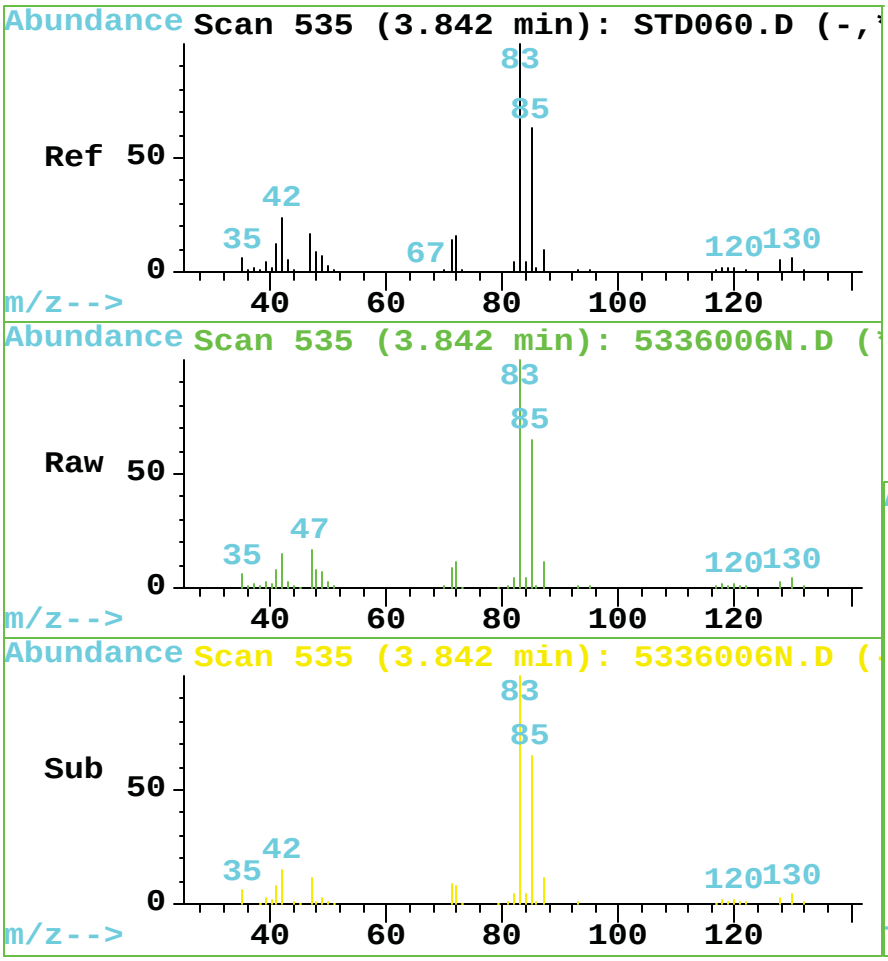


#23
cis-1,2-Dichloroethene
Concen: 49.20 ug/l
RT: 3.68 min Scan# 509
Delta R.T. 0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:96 Resp: 158891

Ion	Ratio	Lower	Upper
96	100		
61	87.4	90.9	150.9#
98	64.6	34.6	94.6
0	0.0	0.0	0.0

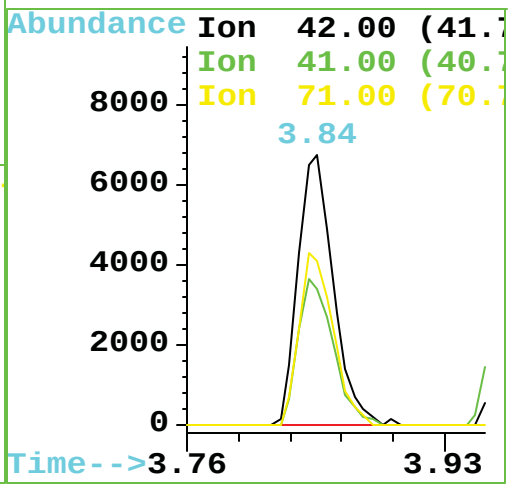


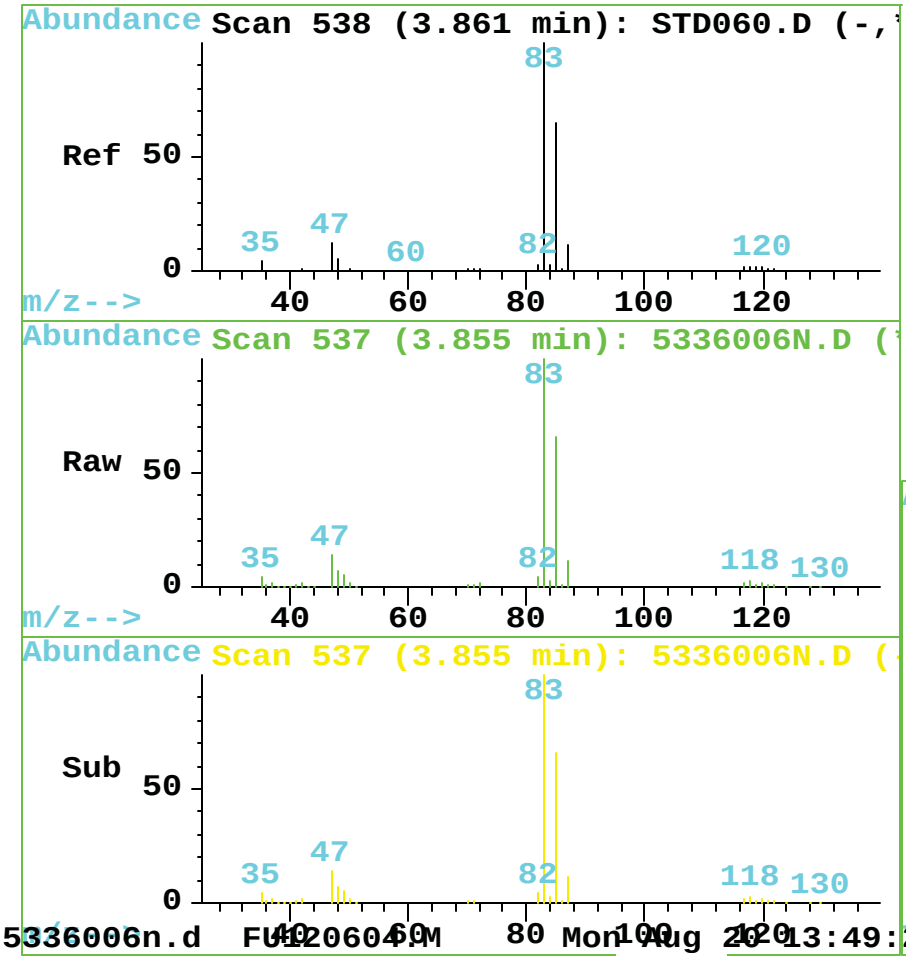


#24
Tetrahydrofuran
Concen: 42.45 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:42 Resp: 10866

Ion	Ratio	Lower	Upper
42	100		
41	54.1	222.5	282.5#
71	61.2	24.9	84.9
0	0.0	0.0	0.0

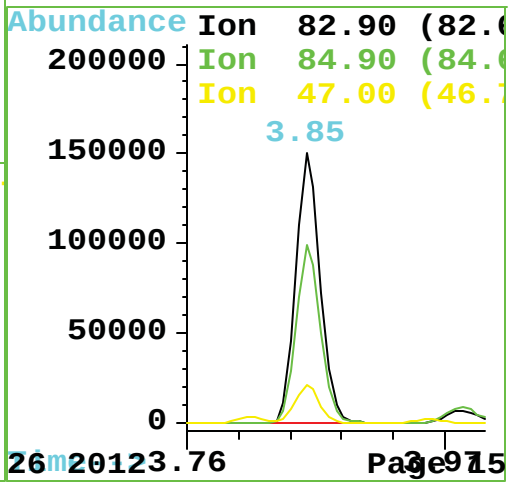


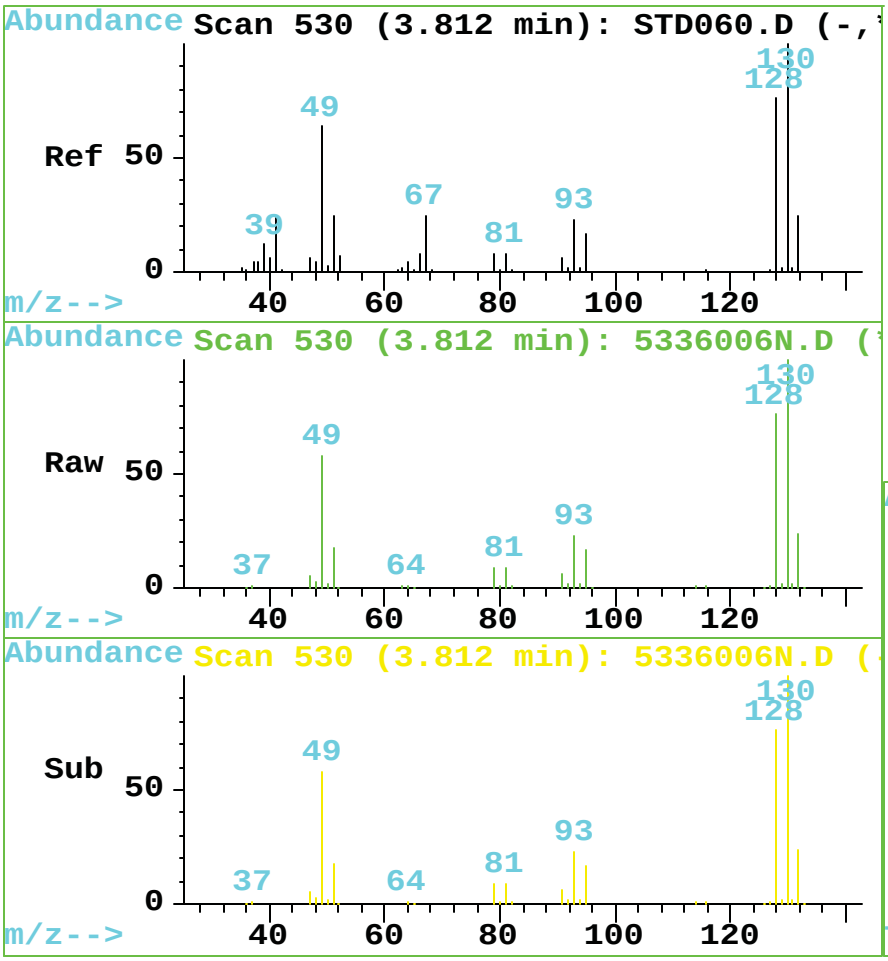


#25
Chloroform (CCC)
Concen: 50.14 ug/l
RT: 3.85 min Scan# 537
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:82.9 Resp: 208338

Ion	Ratio	Lower	Upper
83	100		
85	66.0	35.0	95.0
47	14.2	0.0	48.4
0	0.0	0.0	0.0

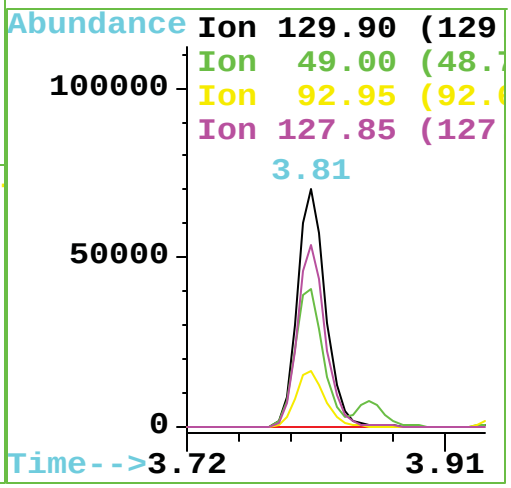


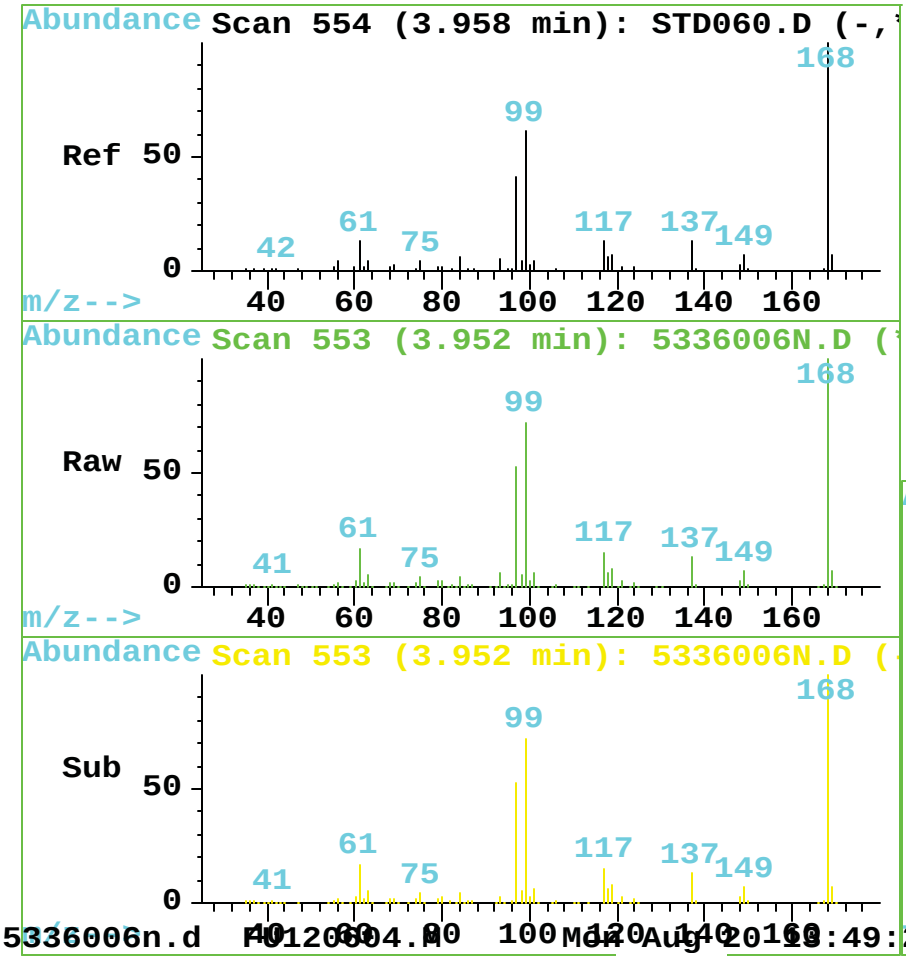


#26
Bromochloromethane
Concen: 49.18 ug/l
RT: 3.81 min Scan# 530
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:129.9 Resp: 10163

Ion	Ratio	Lower	Upper
130	100		
49	58.6	41.7	101.7
93	23.4	0.0	58.1
128	75.6	45.4	105.4

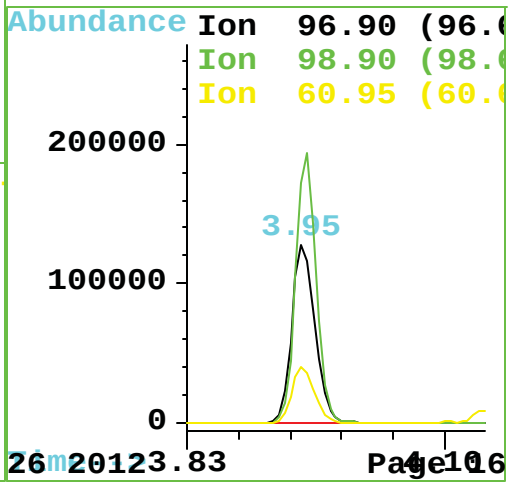


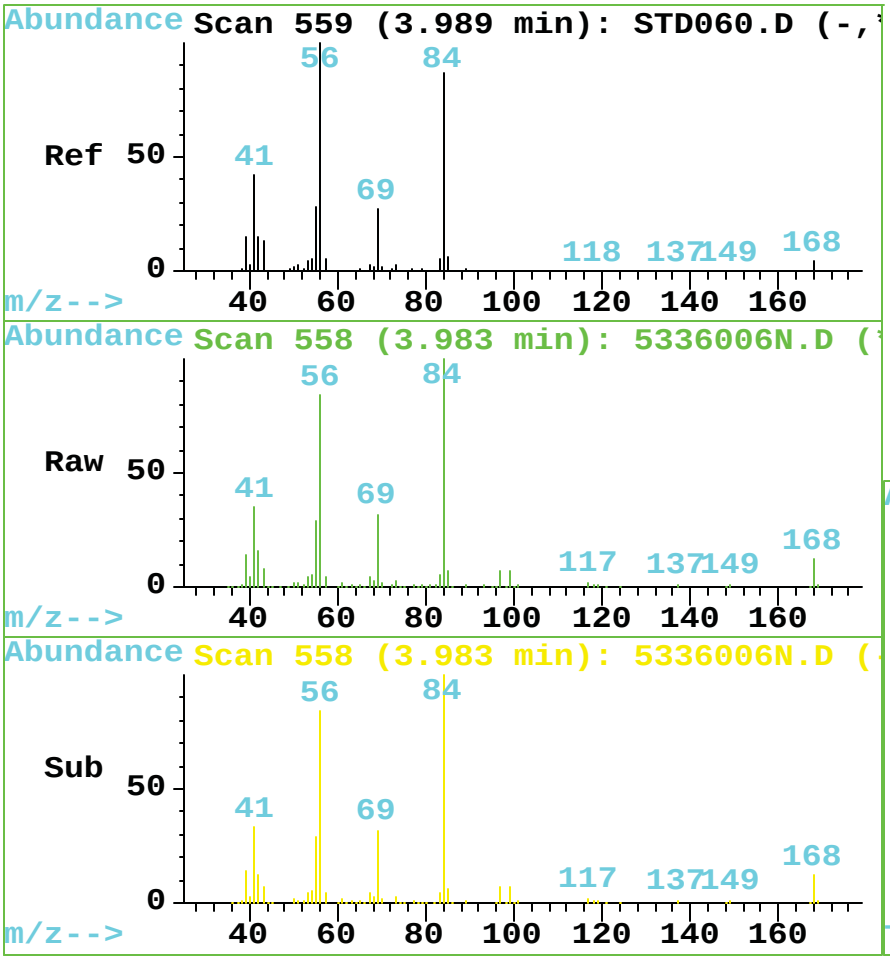


#27
1,1,1-Trichloroethane
Concen: 54.38 ug/l
RT: 3.95 min Scan# 553
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:96.9 Resp: 221234

Ion	Ratio	Lower	Upper
97	100		
99	132.0	214.4	274.4#
61	31.3	12.5	72.5
0	0.0	0.0	0.0

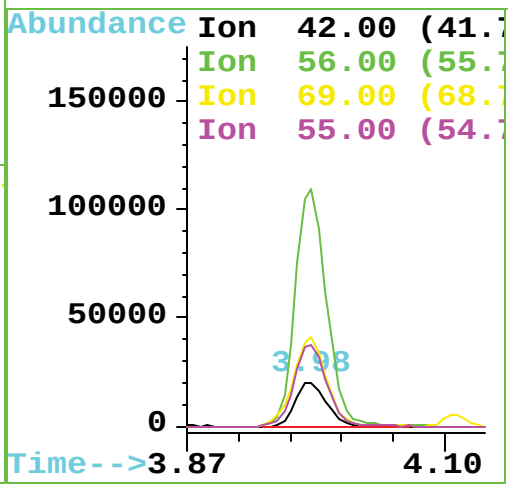


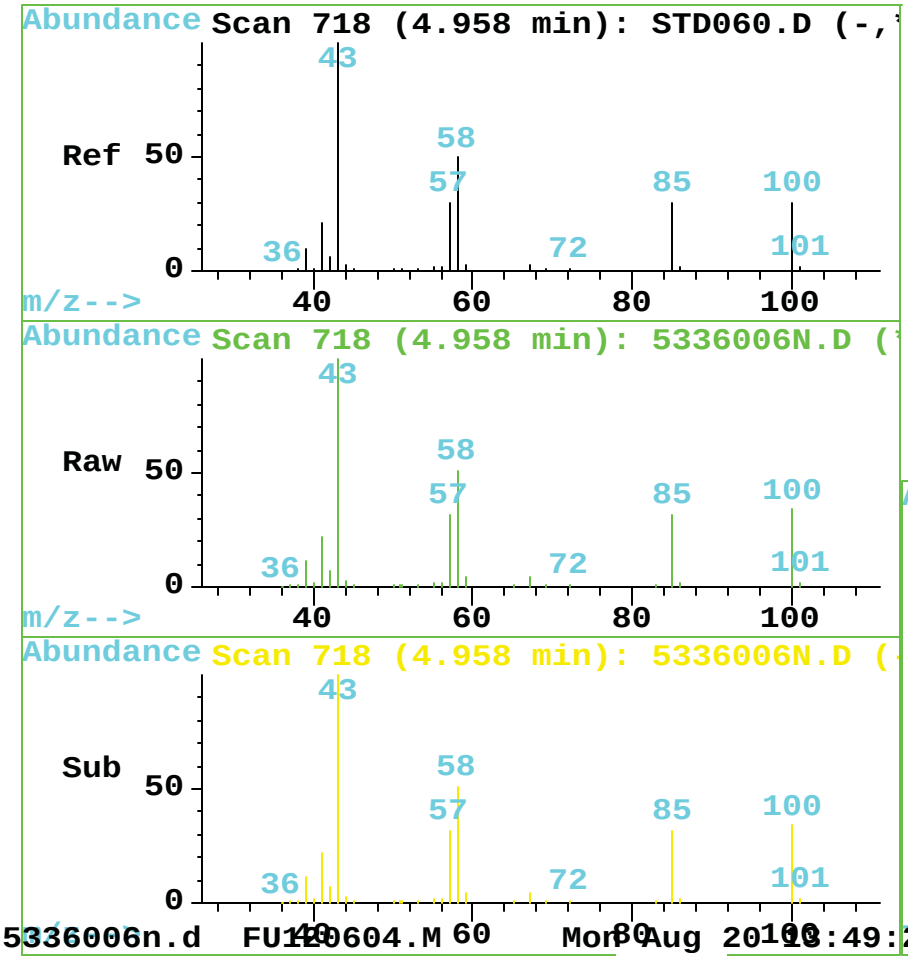


#29
Cyclohexane
Concen: 41.28 ug/l
RT: 3.98 min Scan# 558
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:42 Resp: 38790

Ion	Ratio	Lower	Upper
42	100		
56	541.3	958.1	1018.1#
69	214.1	188.2	248.2
55	191.3	209.1	269.1#

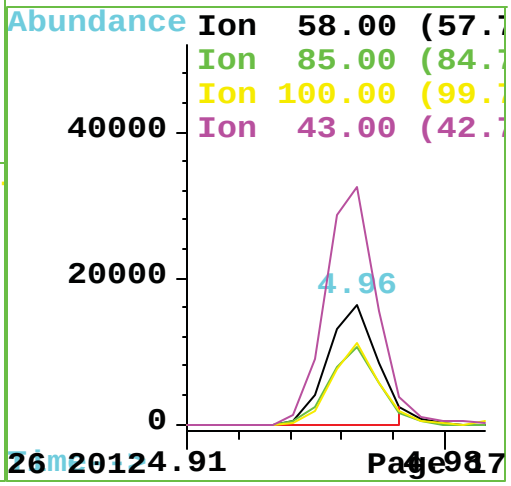


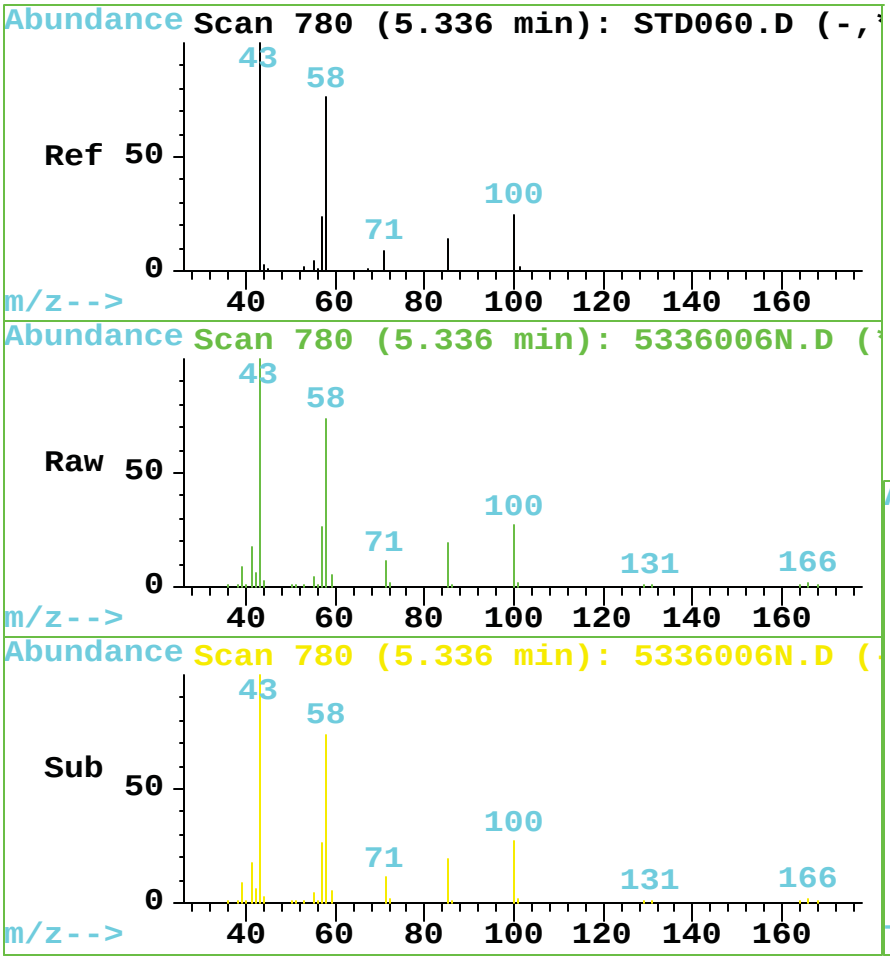


#32
4-Methyl-2-pentanone (MIBK
Concen: 46.49 ug/l
RT: 4.96 min Scan# 718
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:58 Resp: 16353

Ion	Ratio	Lower	Upper
58	100		
85	62.9	33.3	93.3
100	63.1	29.4	89.4
43	202.8	197.3	257.3

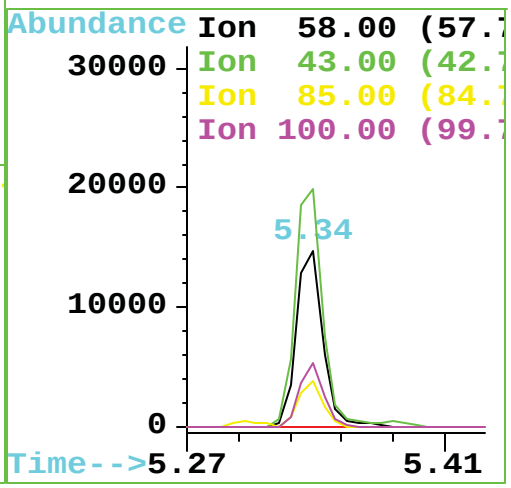


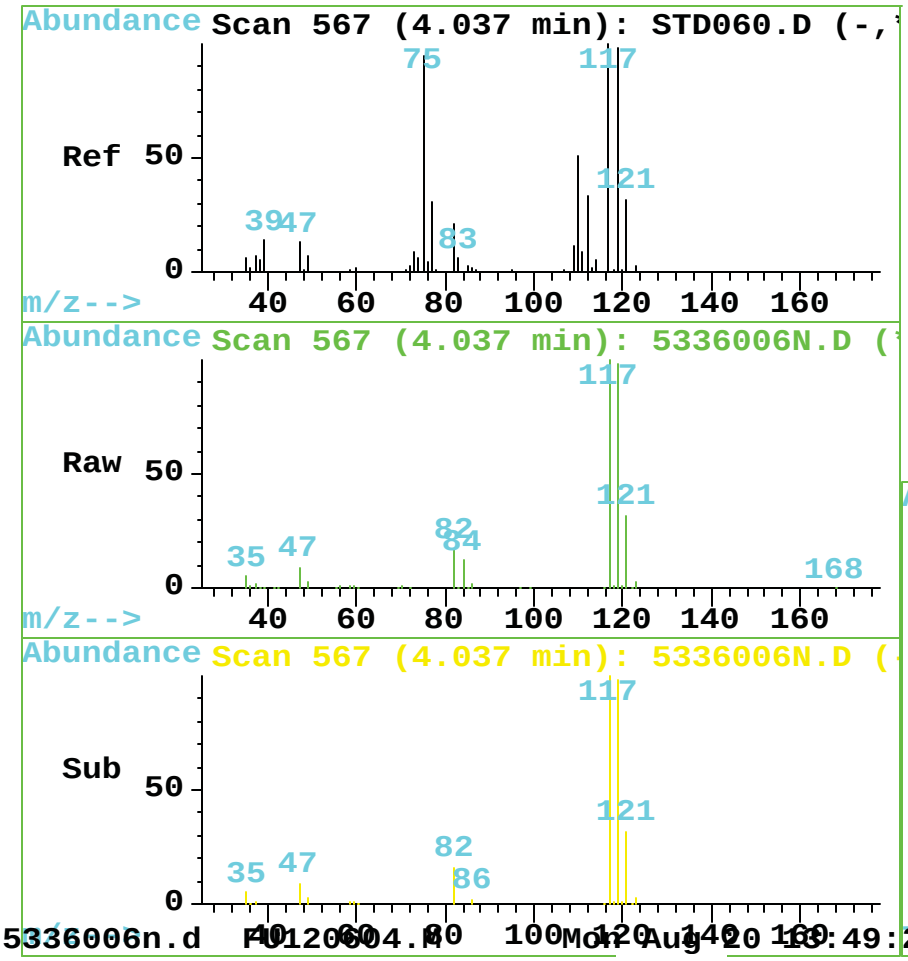


#33
2-Hexanone (*)
Concen: 52.72 ug/l
RT: 5.34 min Scan# 780
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:58 Resp: 14456

Ion	Ratio	Lower	Upper
58	100		
43	140.1	122.2	182.2
85	23.0	0.0	52.9
100	32.5	2.6	62.6

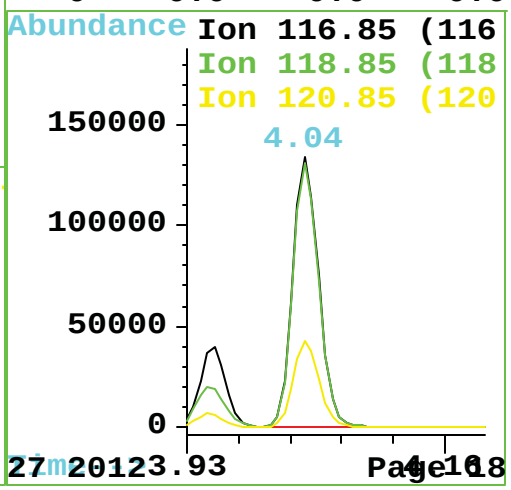


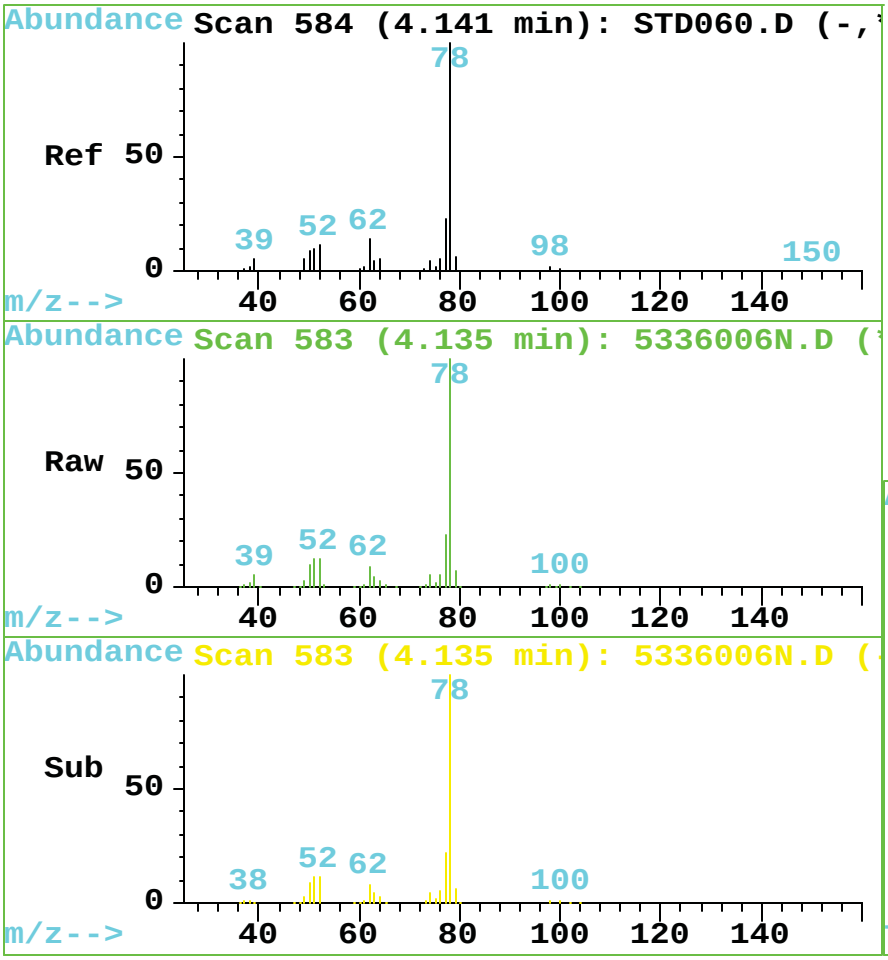


#35
Carbon Tetrachloride
Concen: 54.65 ug/l
RT: 4.04 min Scan# 567
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:116.85 Resp: 2137

Ion	Ratio	Lower	Upper
117	100		
119	97.9	65.5	125.5
121	31.8	0.5	60.5
0	0.0	0.0	0.0

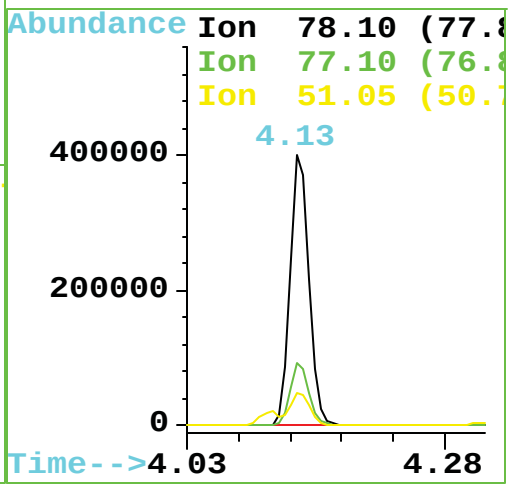


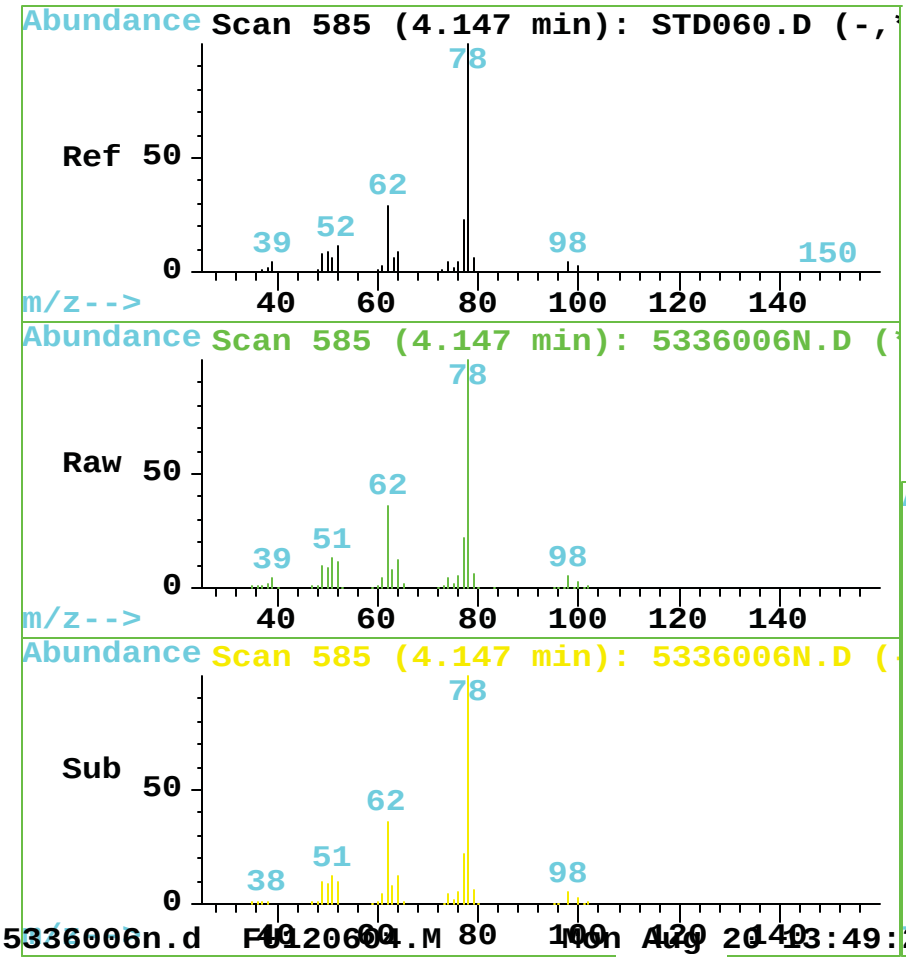


#36
Benzene (MS)
Concen: 48.38 ug/l
RT: 4.13 min Scan# 583
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:78.1 Resp: 533464

Ion	Ratio	Lower	Upper
78	100		
77	22.5	0.0	52.9
51	12.7	0.0	44.8
0	0.0	0.0	0.0

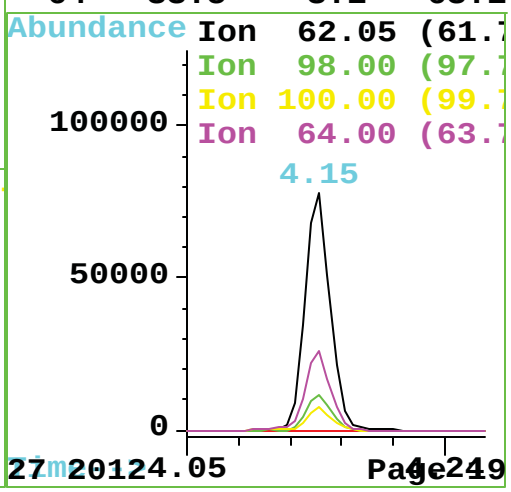


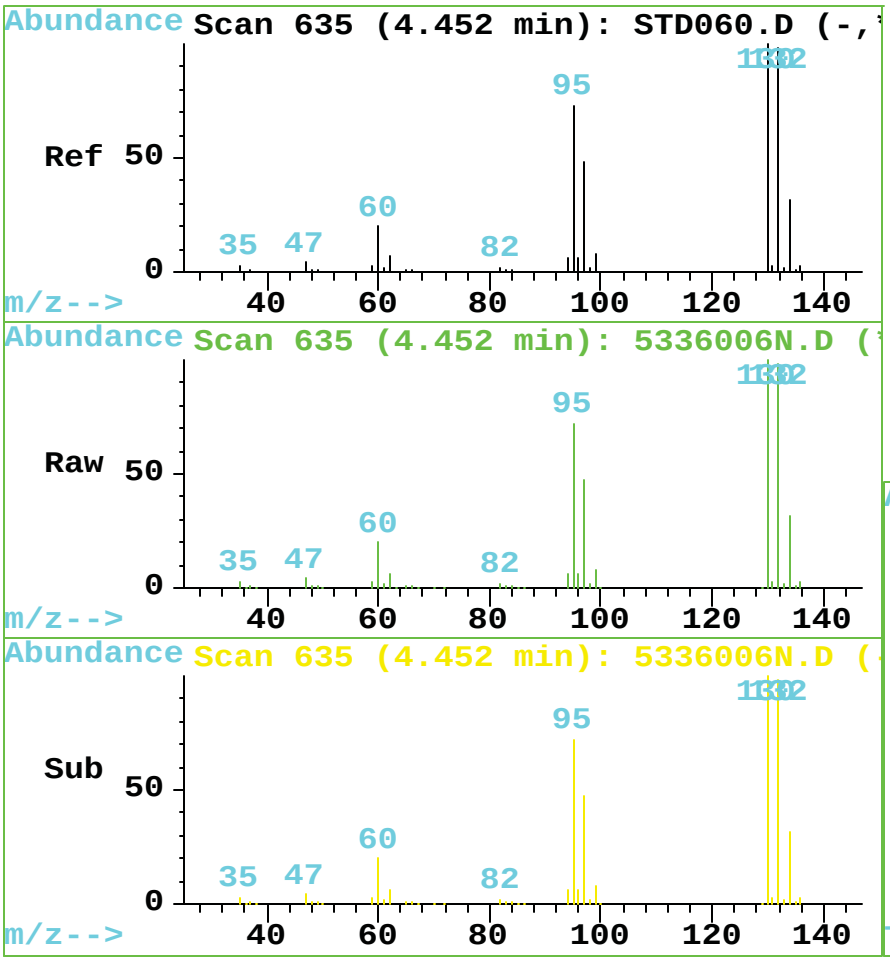


#37
1,2-Dichloroethane
Concen: 50.07 ug/l
RT: 4.15 min Scan# 585
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:62.05 Resp: 9999

Ion	Ratio	Lower	Upper
62	100		
98	14.6	0.0	40.9
100	9.1	0.0	37.0
64	33.5	3.1	63.1

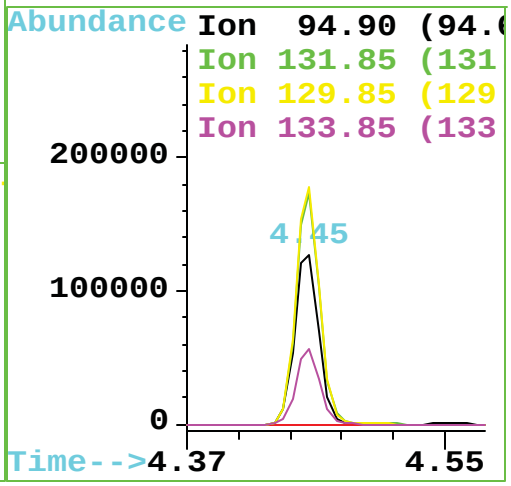


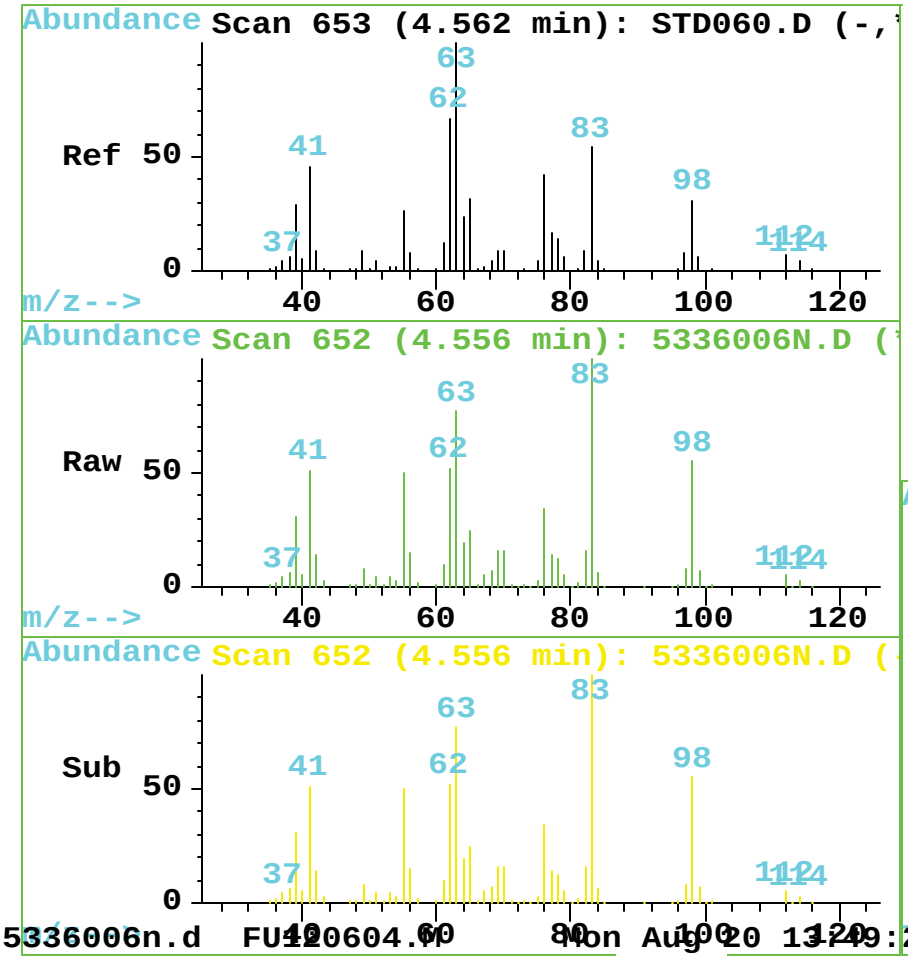


#38
Trichloroethene (MS)
Concen: 49.80 ug/l
RT: 4.45 min Scan# 635
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:94.9 Resp: 149811

Ion	Ratio	Lower	Upper
95	100		
132	132.8	90.7	150.7
130	135.8	93.9	153.9
134	43.0	8.4	68.4

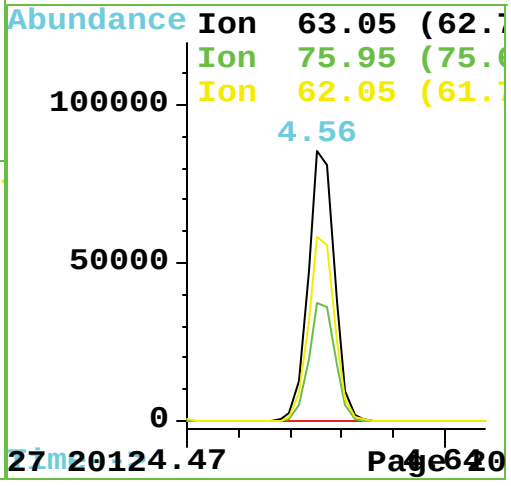


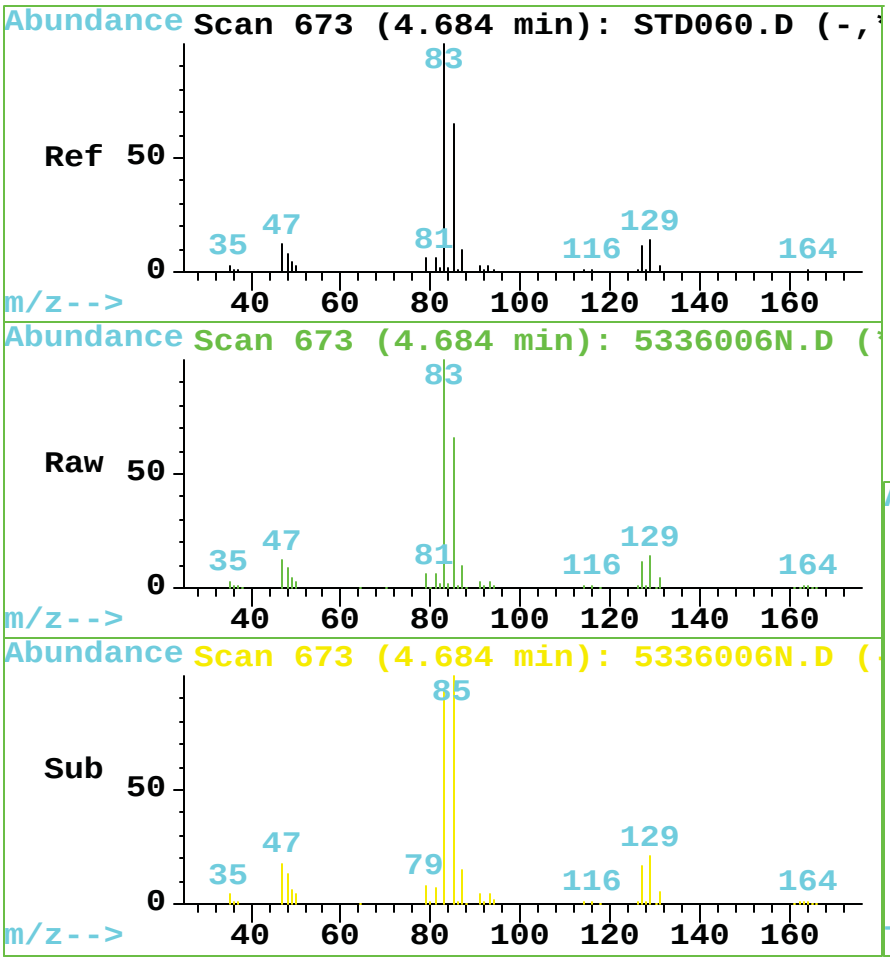


#39
1,2-Dichloropropane (CCC)
Concen: 47.87 ug/l
RT: 4.56 min Scan# 652
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:63.05 Resp: 10259

Ion	Ratio	Lower	Upper
63	100		
76	43.8	23.2	83.2
62	67.9	37.6	97.6
0	0.0	0.0	0.0

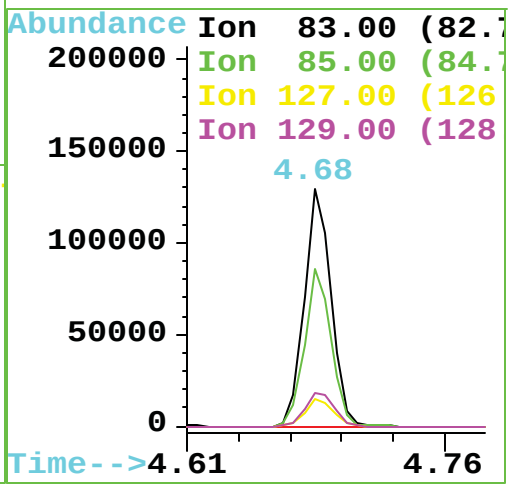


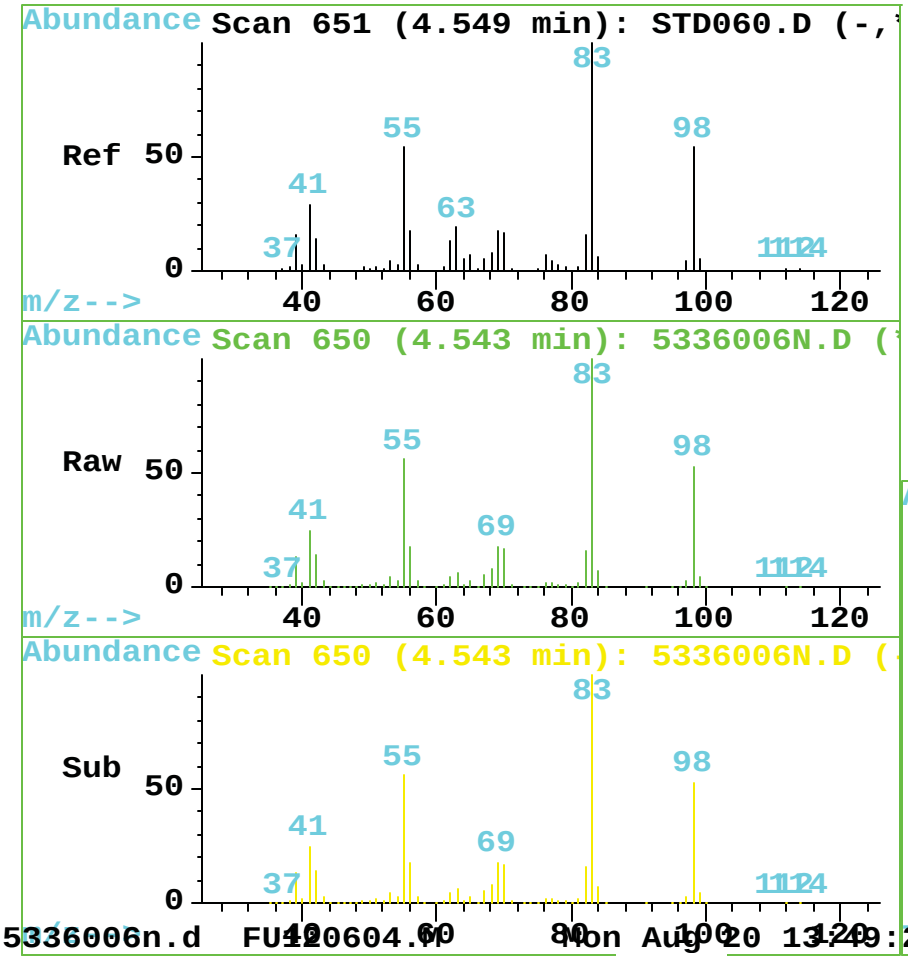


#40
Bromodichloromethane
Concen: 51.21 ug/l
RT: 4.68 min Scan# 673
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:83 Resp: 137255

Ion	Ratio	Lower	Upper
83	100		
85	65.5	33.6	93.6
127	11.4	0.0	40.3
129	14.9	0.0	43.6

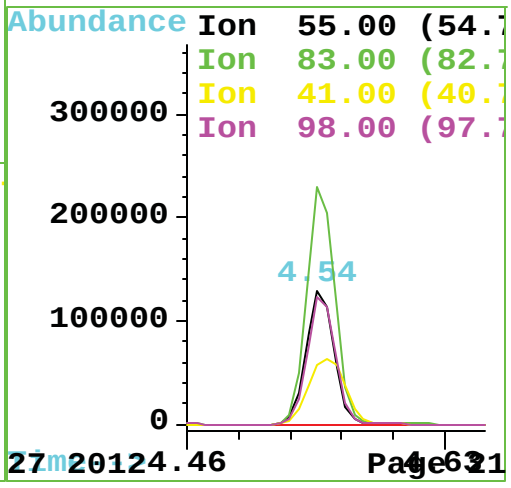


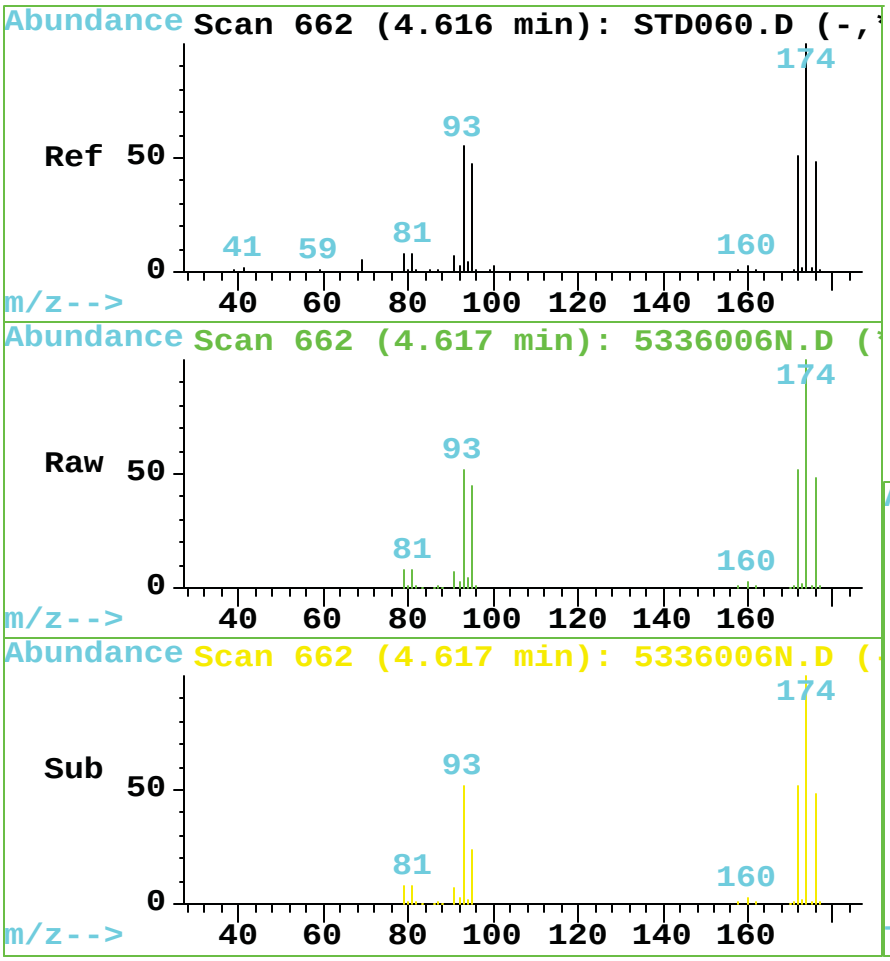


#41
Methyl Cyclohexane
Concen: 52.39 ug/l
RT: 4.54 min Scan# 650
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:55 Resp: 163167

Ion	Ratio	Lower	Upper
55	100		
83	179.9	131.0	191.0
41	64.9	42.0	102.0
98	96.4	55.3	115.3

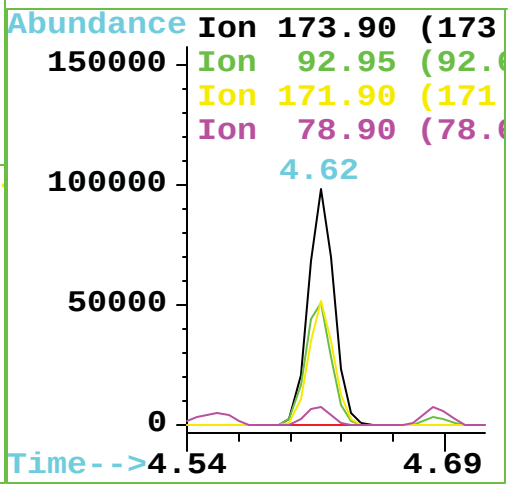


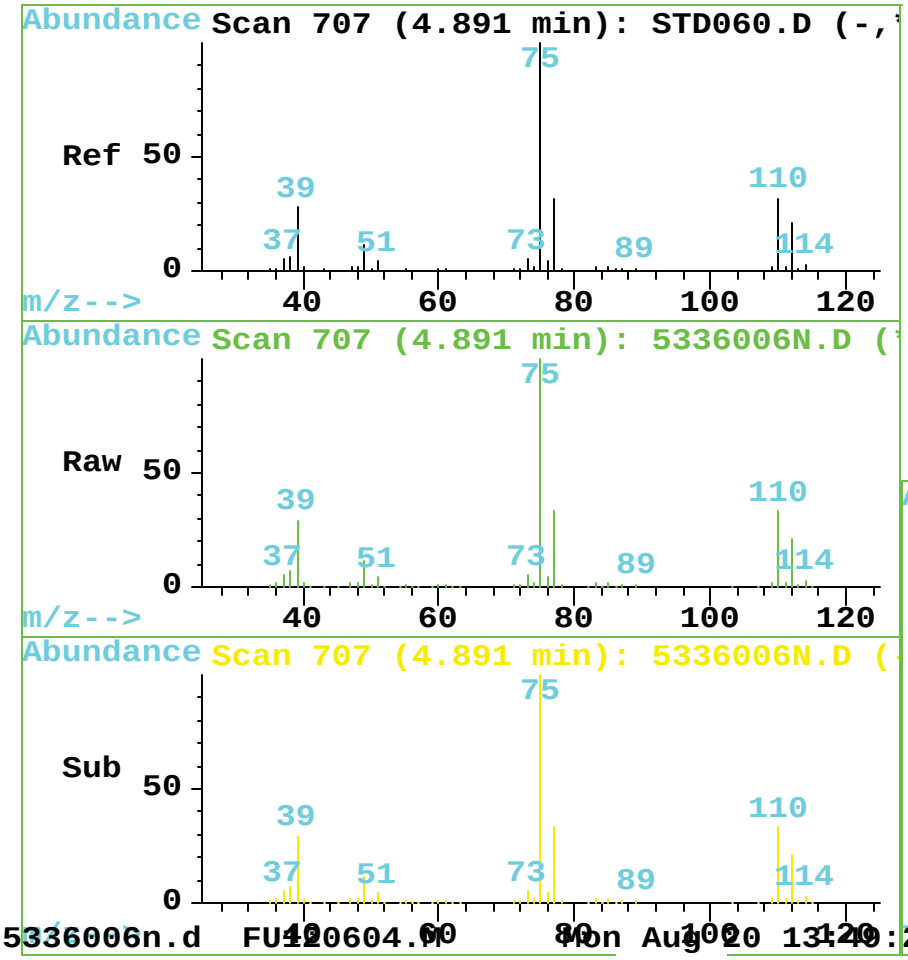


#42
Dibromomethane
Concen: 51.48 ug/l
RT: 4.62 min Scan# 662
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:173.9 Resp: 10721

Ion	Ratio	Lower	Upper
174	100		
93	53.1	32.9	92.9
172	51.5	19.9	79.9
79	8.3	0.0	43.6

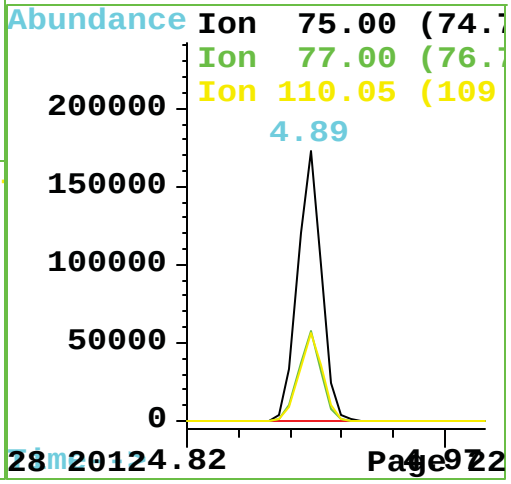


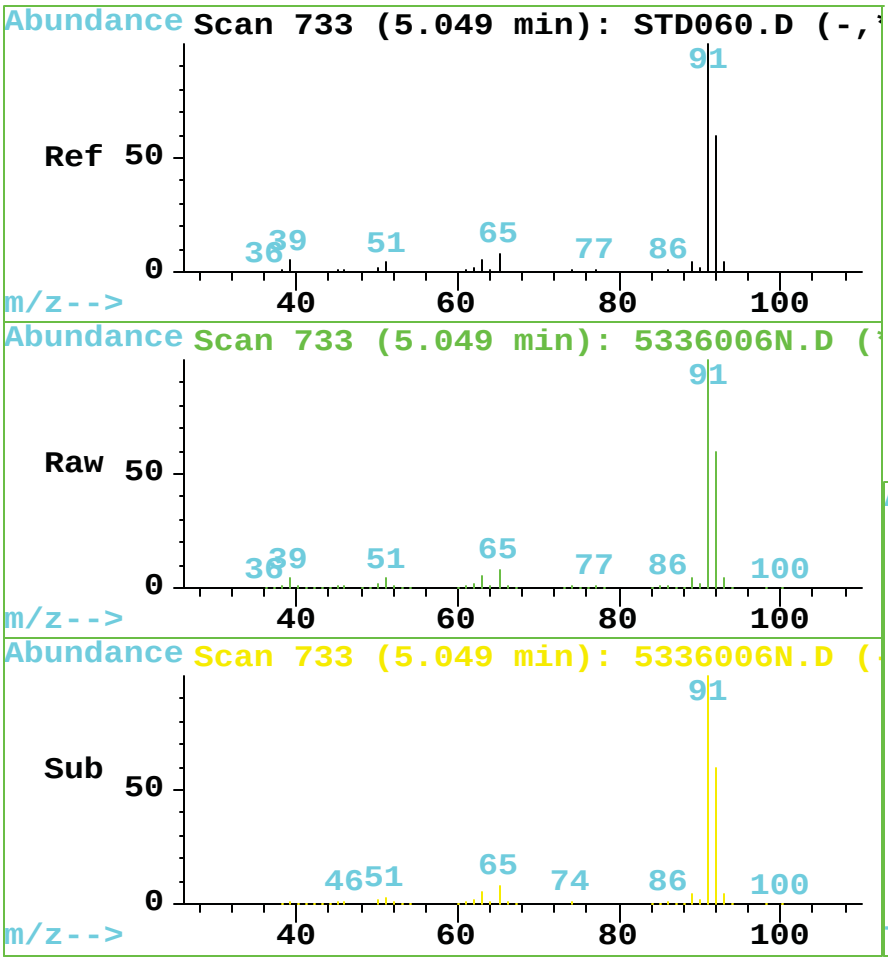


#43
cis-1,3-Dichloropropene
Concen: 50.35 ug/l
RT: 4.89 min Scan# 707
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:75 Resp: 168270

Ion	Ratio	Lower	Upper
75	100		
77	32.2	2.0	62.0
110	32.1	0.0	58.0
0	0.0	0.0	0.0

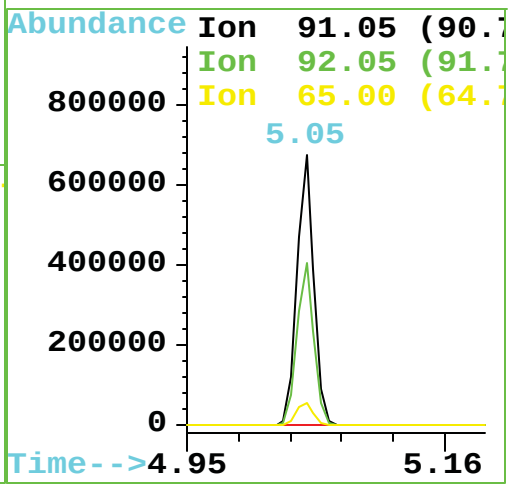


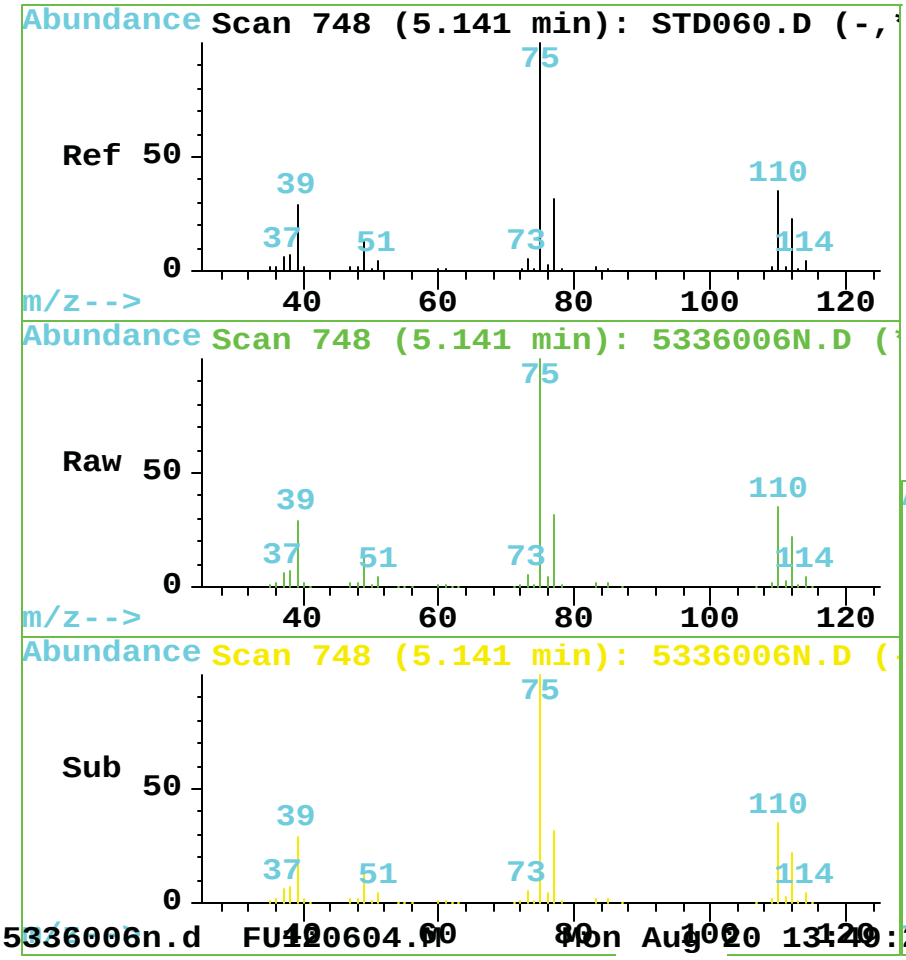


#44
Toluene (CCC/MS)
Concen: 50.08 ug/l
RT: 5.05 min Scan# 733
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:91.05 Resp: 64796

Ion	Ratio	Lower	Upper
91	100		
92	60.1	30.0	90.0
65	8.7	0.0	40.0
0	0.0	0.0	0.0

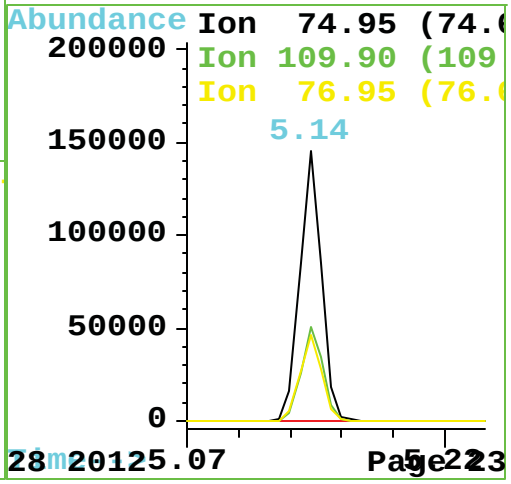


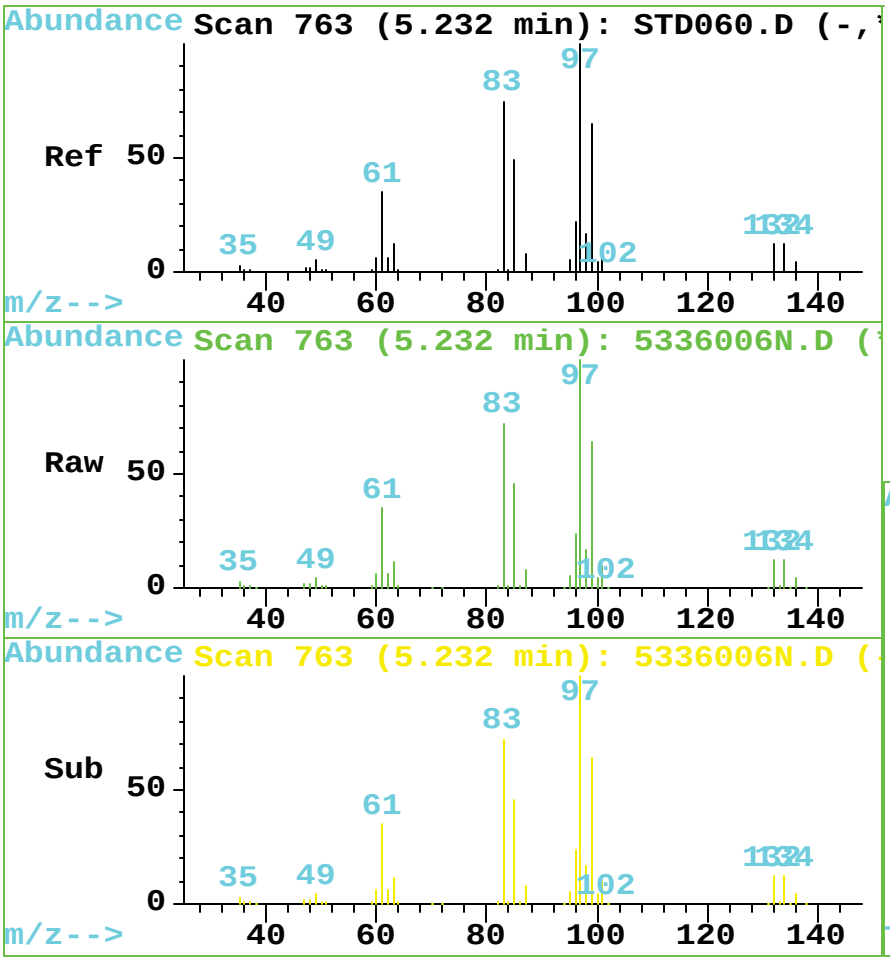


#45
trans-1,3-Dichloropropene
Concen: 51.59 ug/l
RT: 5.14 min Scan# 748
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:74.95 Resp: 12970

Ion	Ratio	Lower	Upper
75	100		
110	35.2	0.0	58.2
77	31.9	1.0	61.0
0	0.0	0.0	0.0

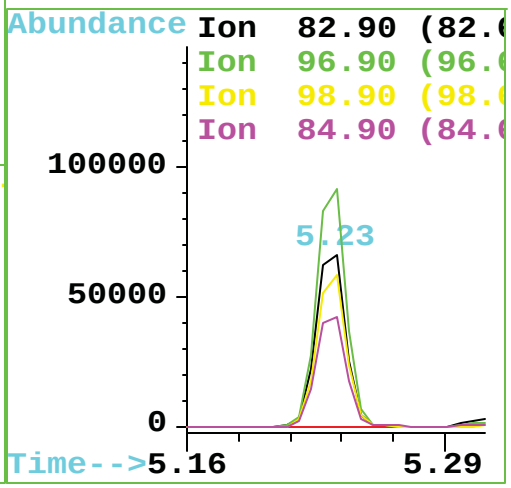


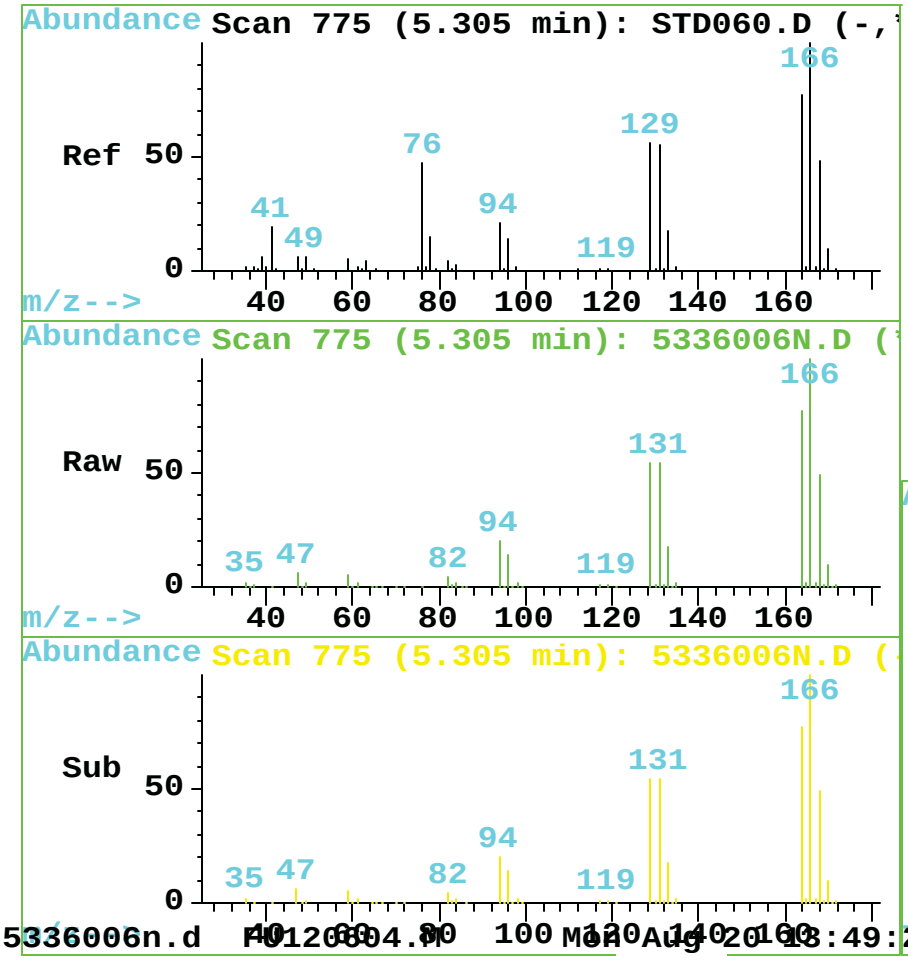


#46
1,1,2-Trichloroethane
Concen: 48.38 ug/l
RT: 5.23 min Scan# 763
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:82.9 Resp: 66963

Ion	Ratio	Lower	Upper
83	100		
97	136.5	104.2	164.2
99	86.0	54.5	114.5
85	65.3	36.7	96.7

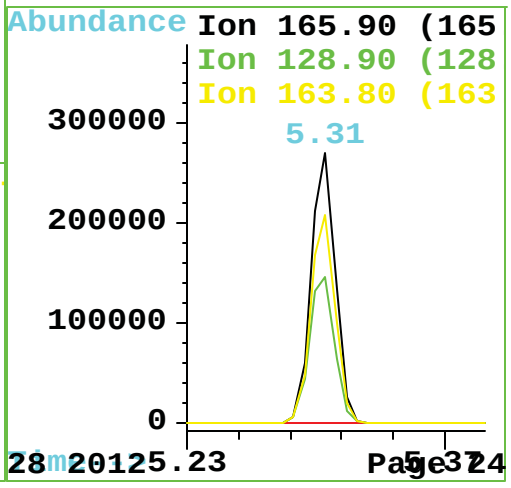


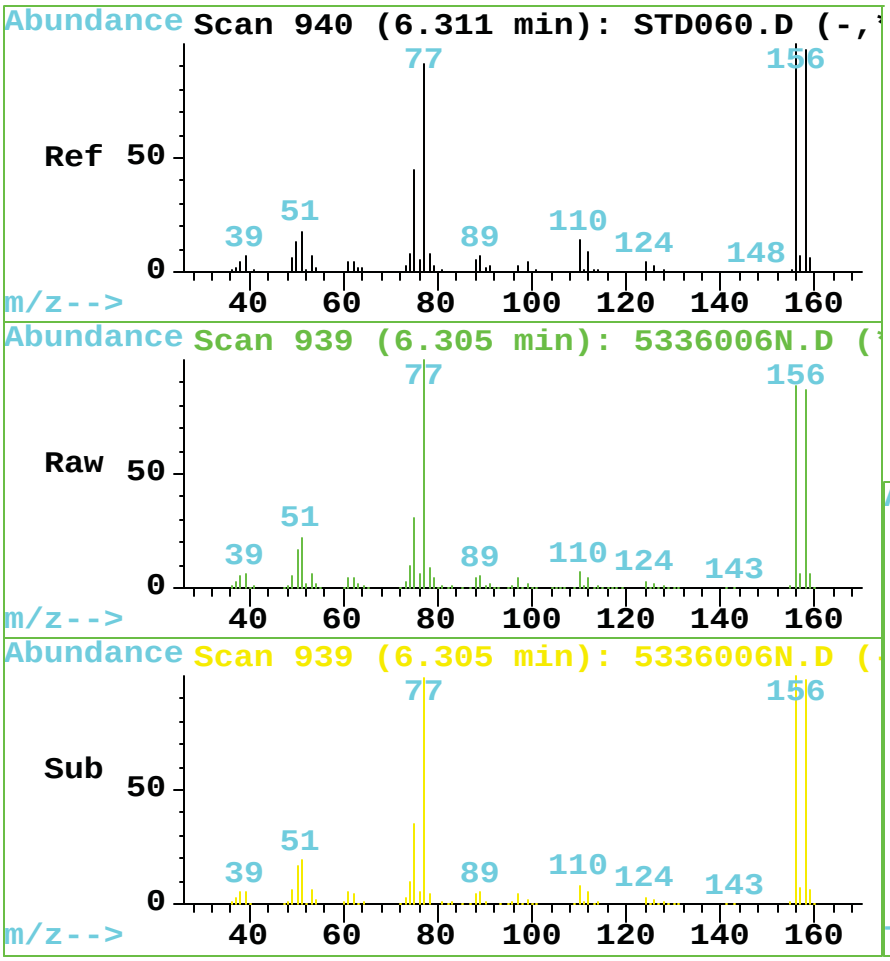


#47
Tetrachloroethene
Concen: 48.77 ug/l
RT: 5.31 min Scan# 775
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:165.9 Resp: 26076

Ion	Ratio	Lower	Upper
166	100		
129	56.7	31.8	91.8
164	77.3	47.4	107.4
0	0.0	0.0	0.0

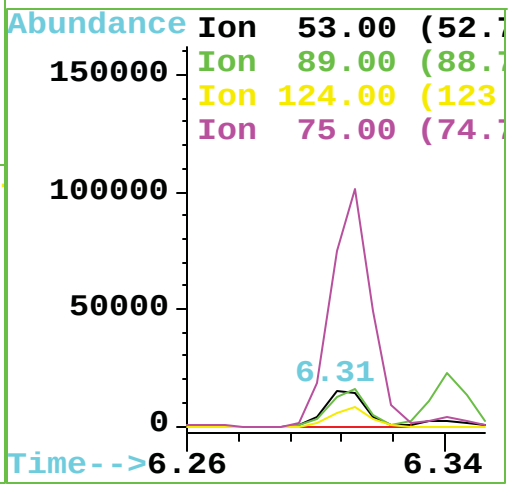


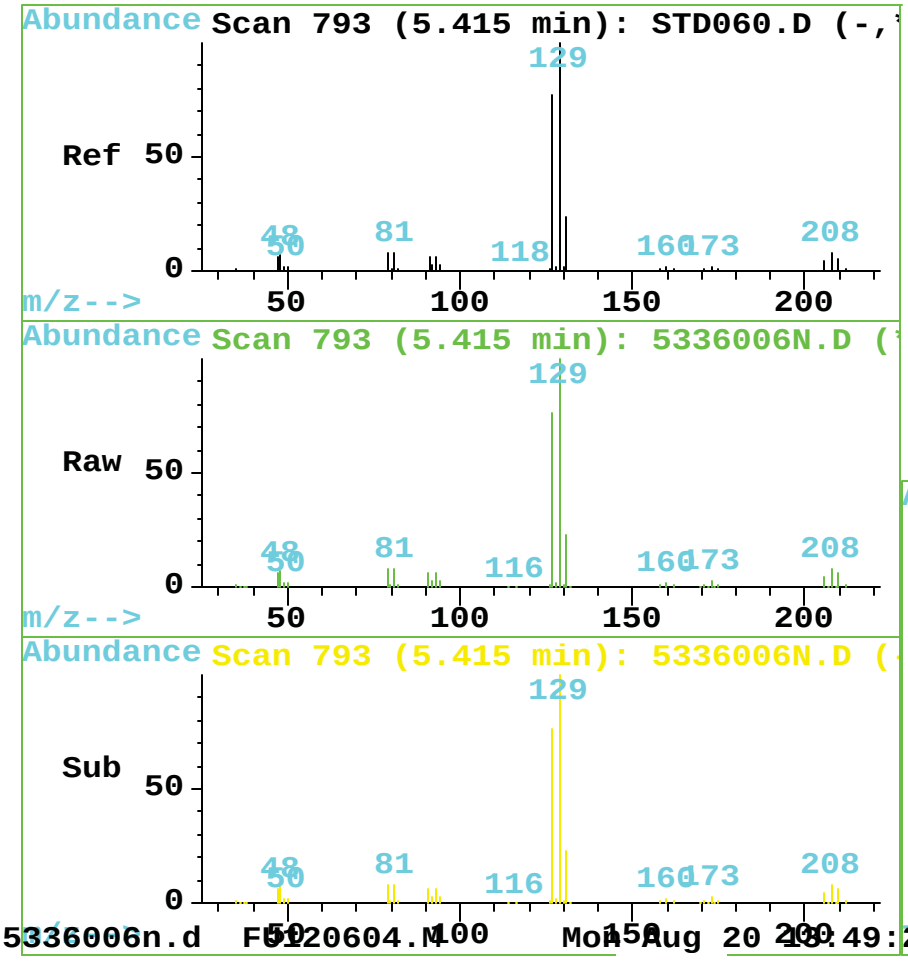


#50
trans-1,4-Dichloro-2-buten
Concen: 51.02 ug/l
RT: 6.31 min Scan# 939
Delta R.T. -0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:53 Resp: 13748

Ion	Ratio	Lower	Upper
53	100		
89	99.4	53.8	113.8
124	50.2	6.0	66.0
75	684.8	570.7	630.7#

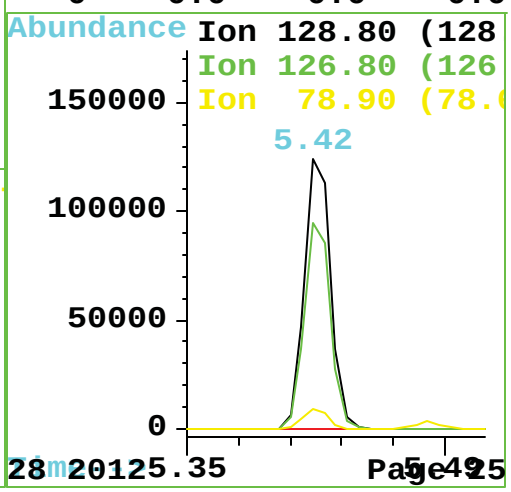


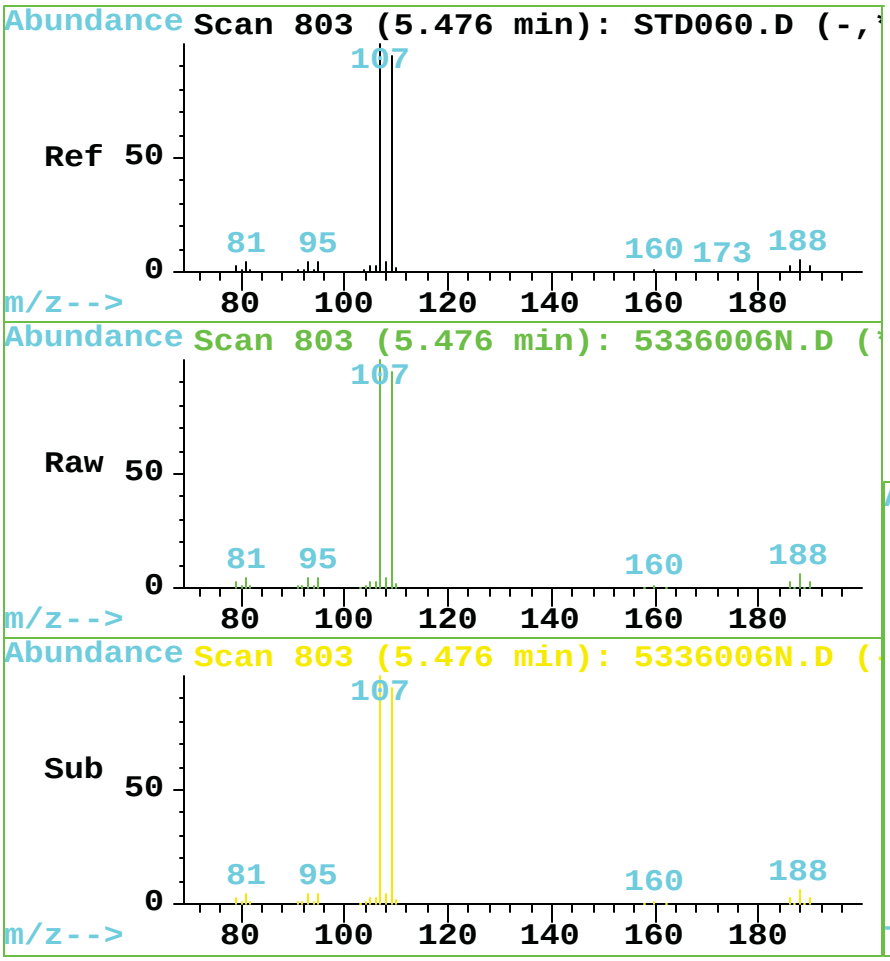


#51
Dibromochloromethane
Concen: 54.86 ug/l
RT: 5.42 min Scan# 793
Delta R.T. -0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:128.8 Resp: 12202

Ion	Ratio	Lower	Upper
129	100		
127	76.5	47.0	107.0
79	7.3	0.0	40.2
0	0.0	0.0	0.0

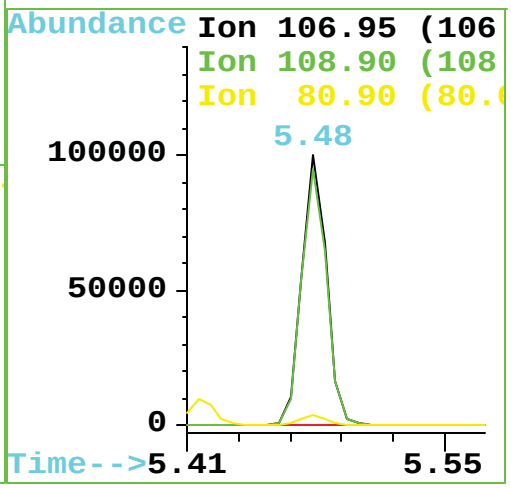


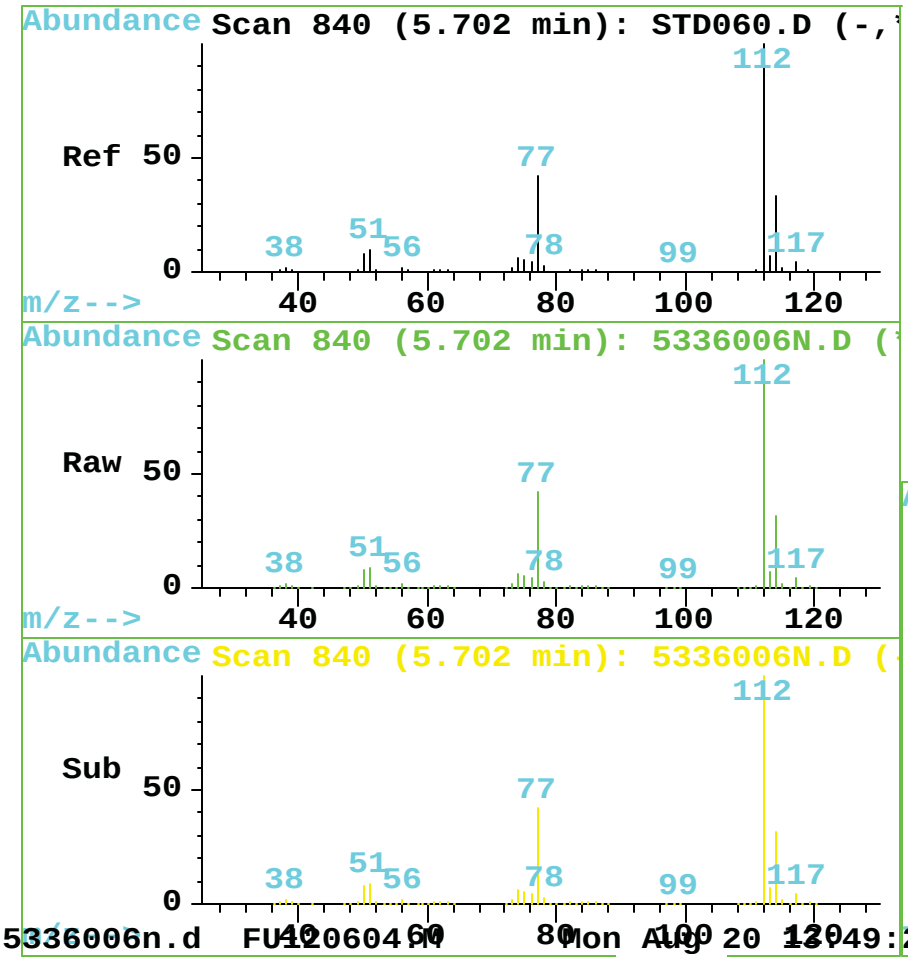


#52
1,2-Dibromoethane
Concen: 51.50 ug/l
RT: 5.48 min Scan# 803
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:106.95 Resp: 921

Ion	Ratio	Lower	Upper
107	100		
109	96.2	64.8	124.8
81	3.7	0.0	35.1
0	0.0	0.0	0.0

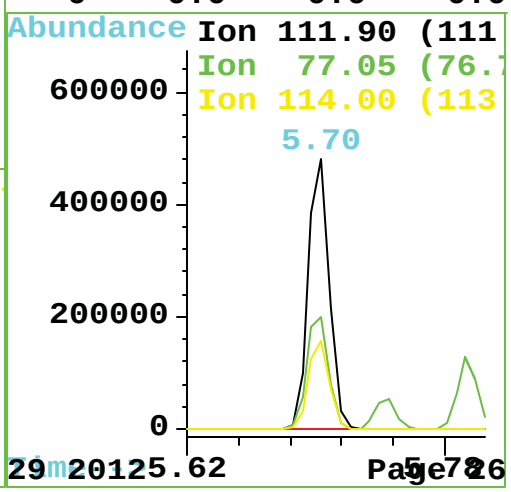


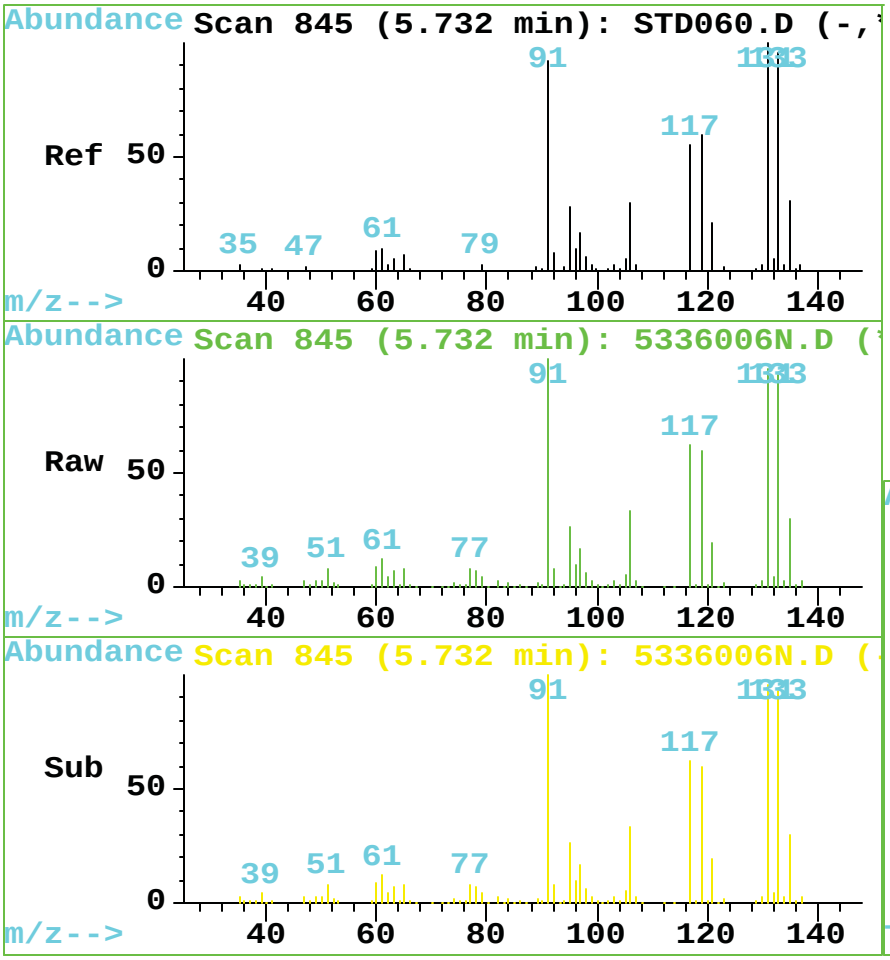


#53
Chlorobenzene (SPCC/MS)
Concen: 49.74 ug/l
RT: 5.70 min Scan# 840
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:111.9 Resp: 44911

Ion	Ratio	Lower	Upper
112	100		
77	44.1	21.6	81.6
114	32.5	2.4	62.4
0	0.0	0.0	0.0

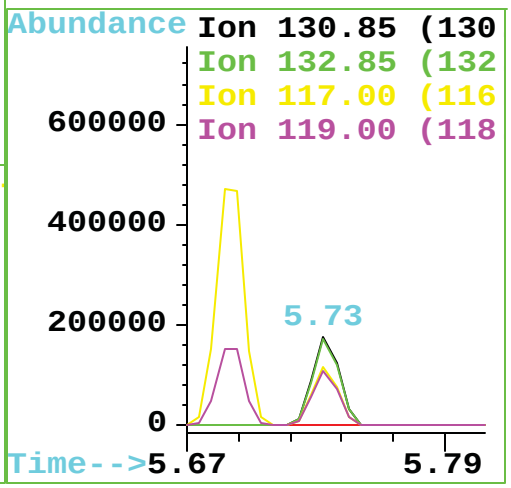


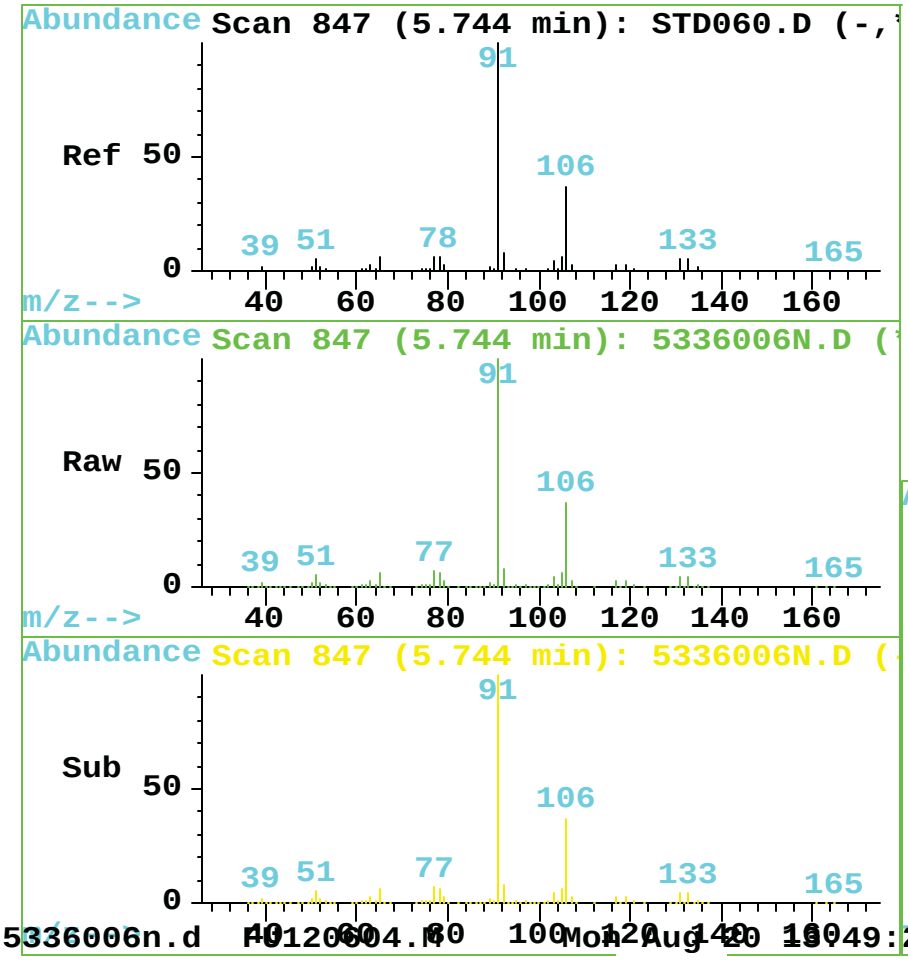


#54
1,1,1,2-Tetrachloroethane
Concen: 54.53 ug/l
RT: 5.73 min Scan# 845
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:130.85 Resp: 1645

Ion	Ratio	Lower	Upper
131	100		
133	96.5	65.8	125.8
117	63.7	30.1	90.1
119	61.8	27.4	87.4

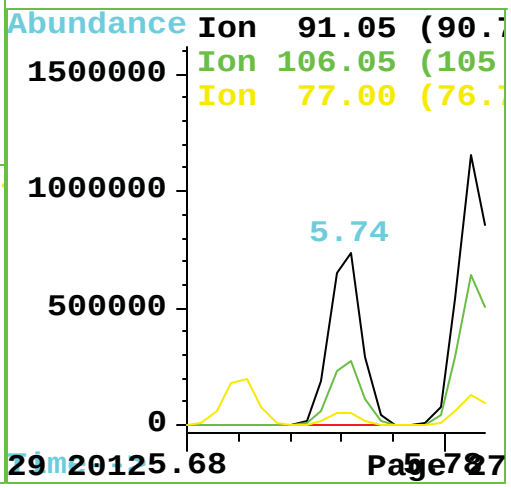


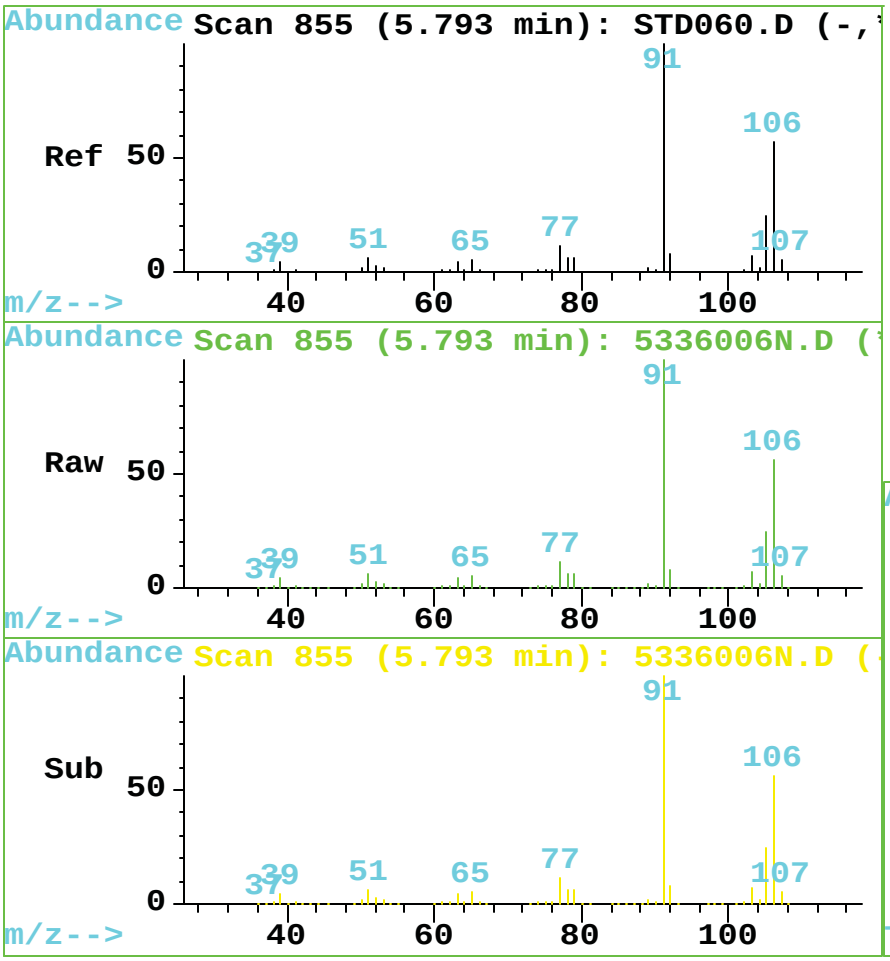


#55
Ethylbenzene (CCC)
Concen: 52.14 ug/l
RT: 5.74 min Scan# 847
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:91.05 Resp: 70582

Ion	Ratio	Lower	Upper
91	100		
106	36.4	3.8	63.8
77	7.1	0.0	37.9
0	0.0	0.0	0.0

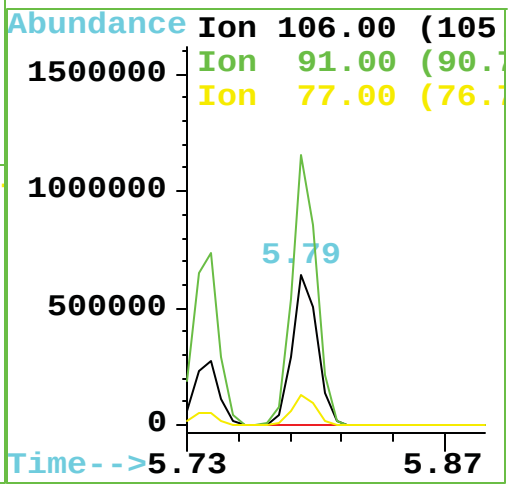


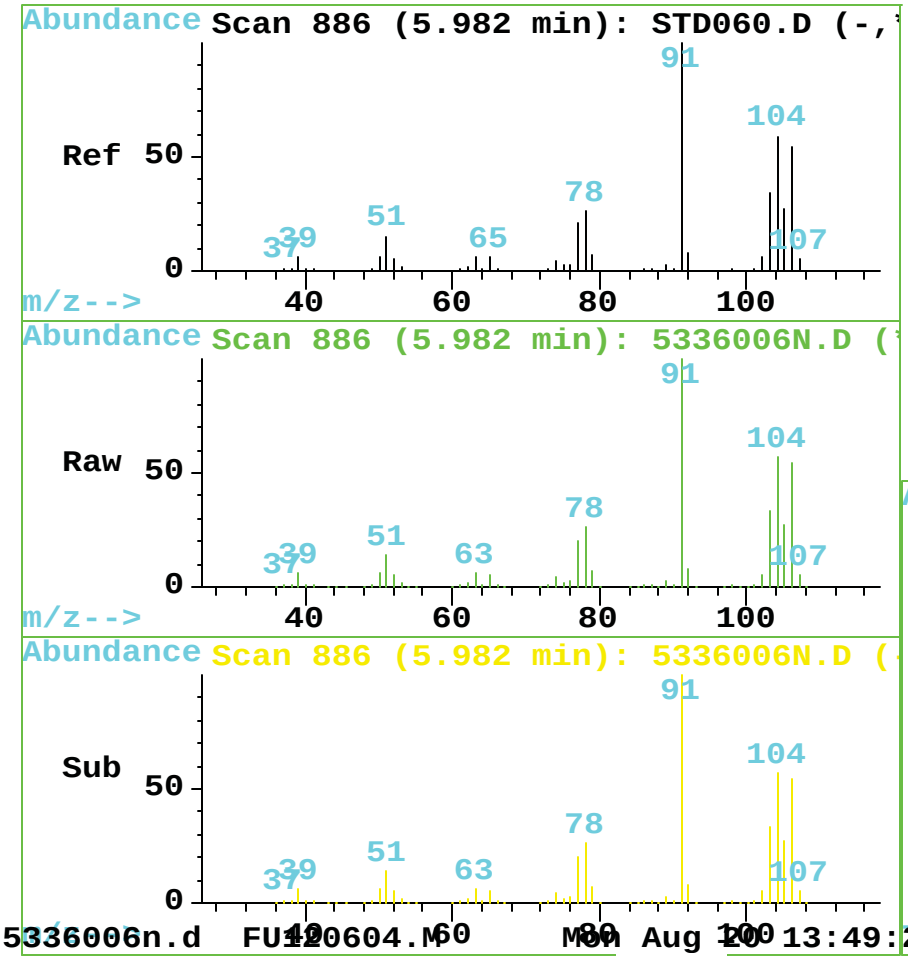


#56
p,m-Xylene
Concen: 103.58 ug/l
RT: 5.79 min Scan# 855
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:106 Resp: 599080

Ion	Ratio	Lower	Upper
106	100		
91	175.6	160.1	220.1
77	19.3	0.0	52.4
0	0.0	0.0	0.0

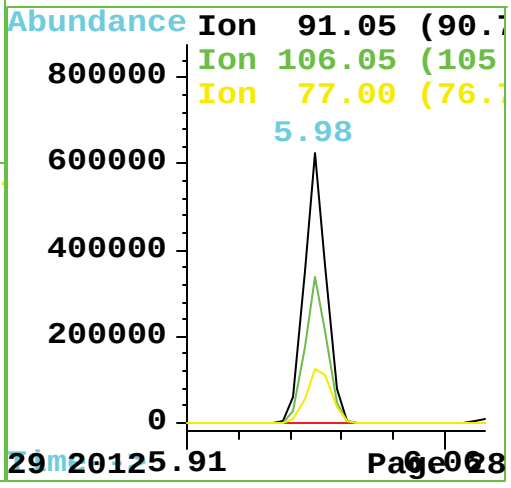


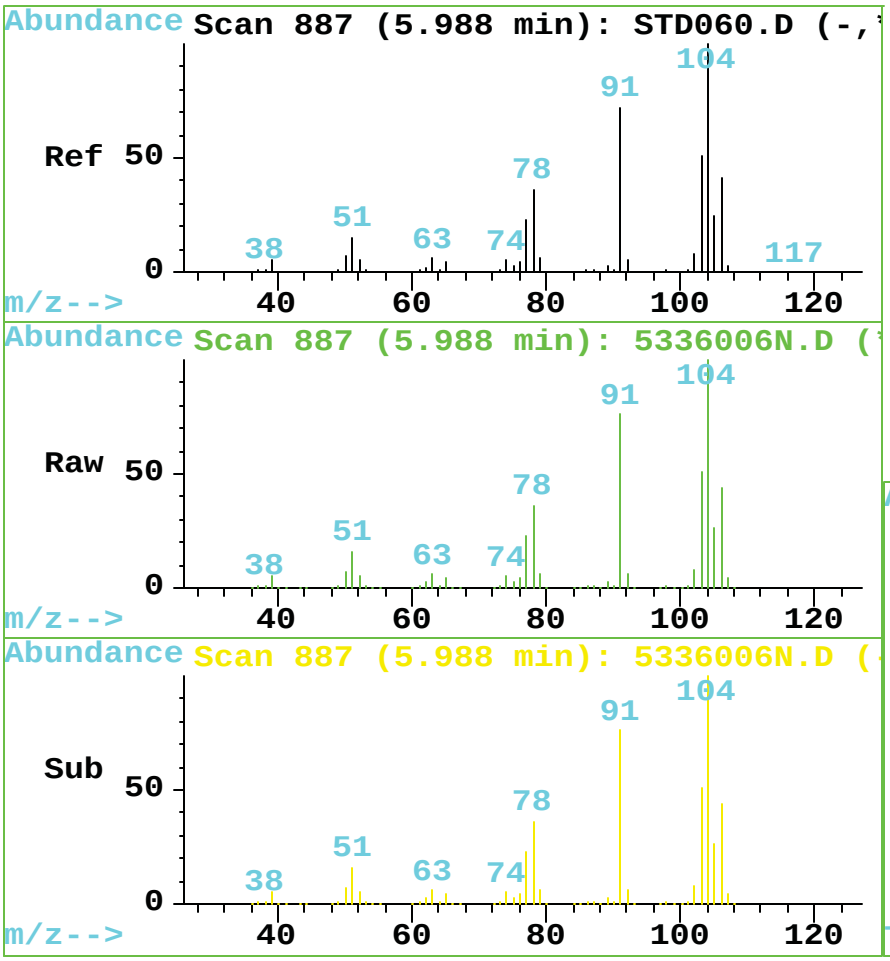


#57
o-Xylene
Concen: 52.82 ug/l
RT: 5.98 min Scan# 886
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:91.05 Resp: 54516

Ion	Ratio	Lower	Upper
91	100		
106	54.2	20.0	80.0
77	22.8	0.0	54.7
0	0.0	0.0	0.0

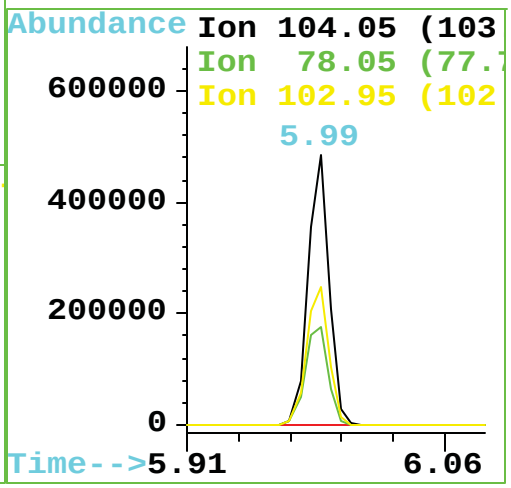


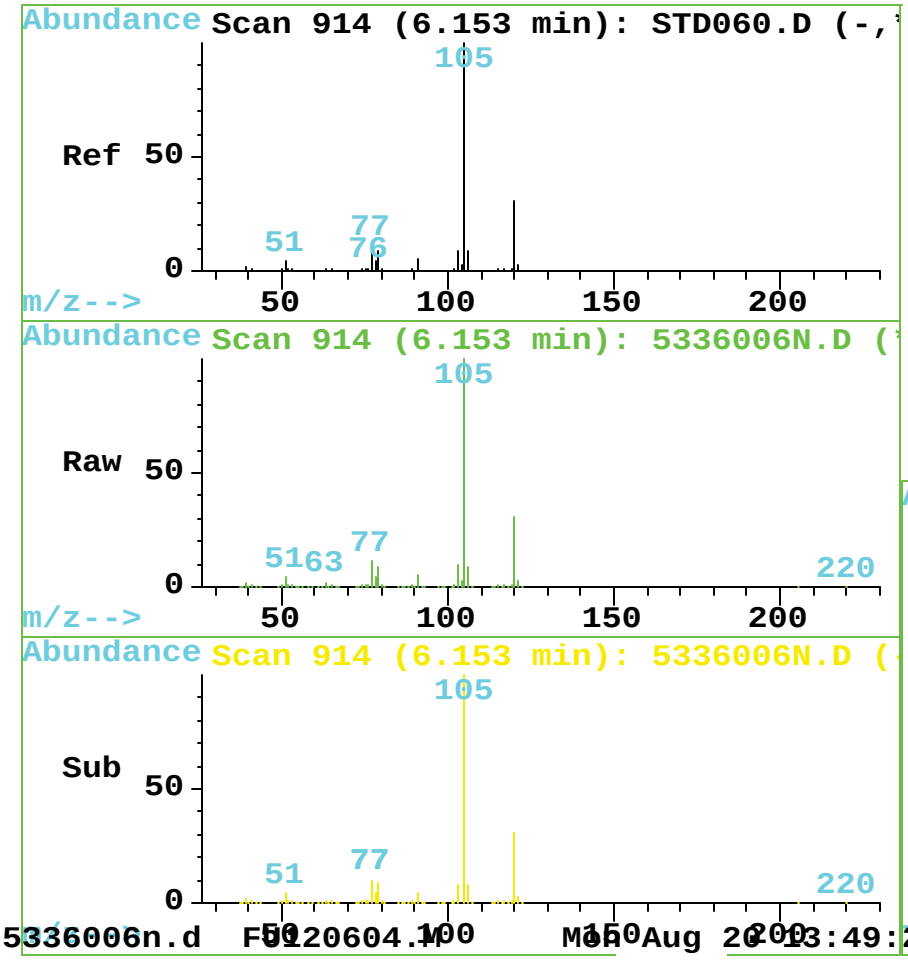


#58
Styrene
Concen: 50.89 ug/l
RT: 5.99 min Scan# 887
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:104.05 Resp: 4275

Ion	Ratio	Lower	Upper
104	100		
78	39.9	15.3	75.3
103	54.1	24.1	84.1
0	0.0	0.0	0.0

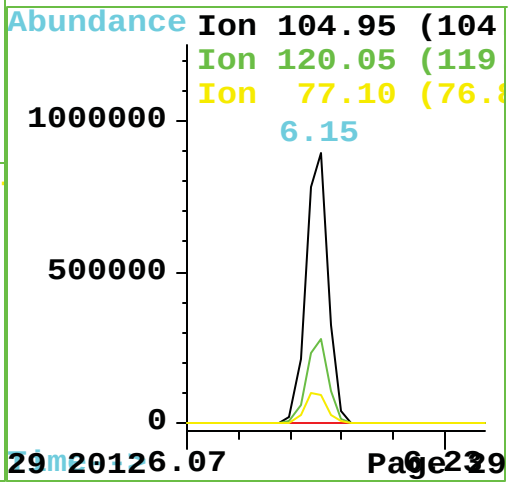


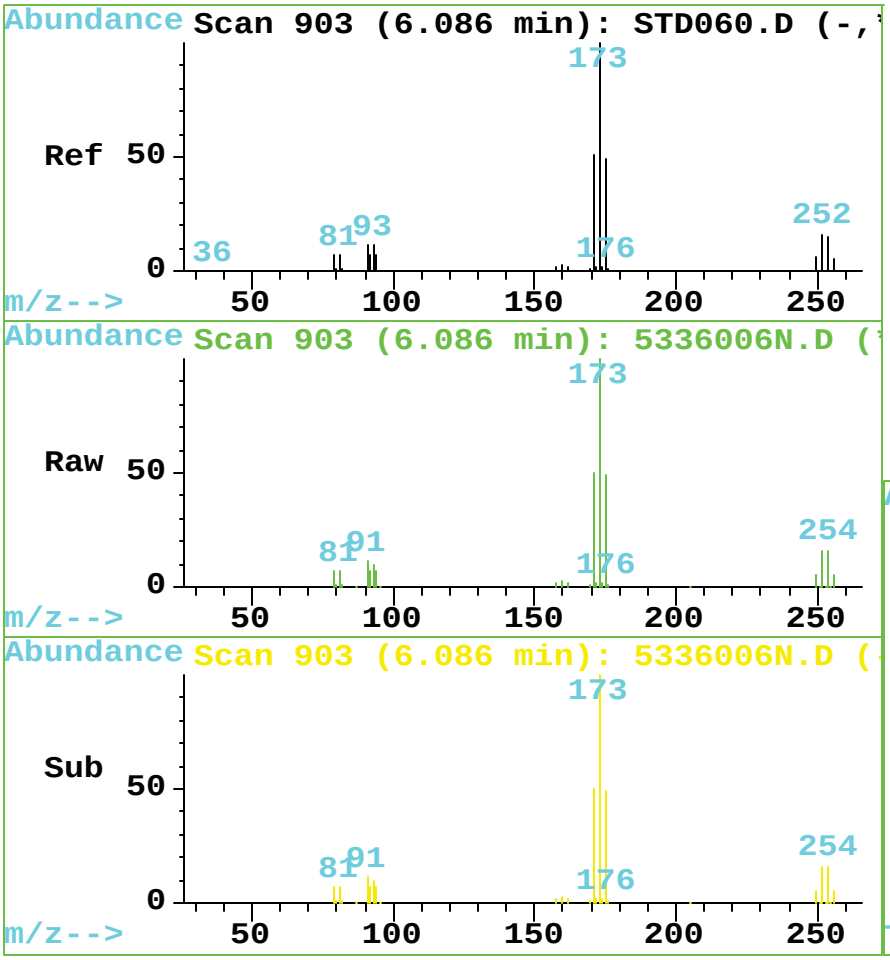


#59
Isopropylbenzene
Concen: 54.63 ug/l
RT: 6.15 min Scan# 914
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:104.95 Resp: 8319

Ion	Ratio	Lower	Upper
105	100		
120	30.4	0.0	58.6
77	11.3	0.0	43.1
0	0.0	0.0	0.0

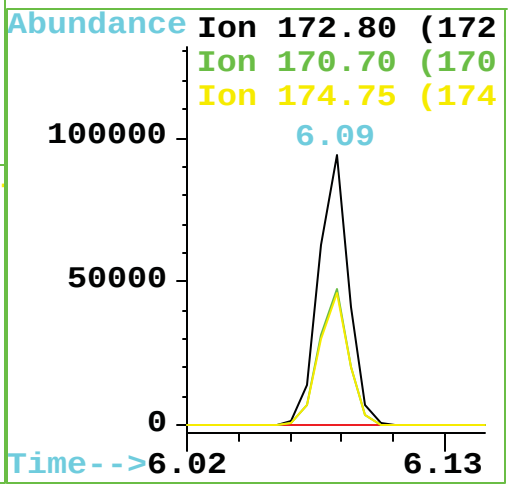


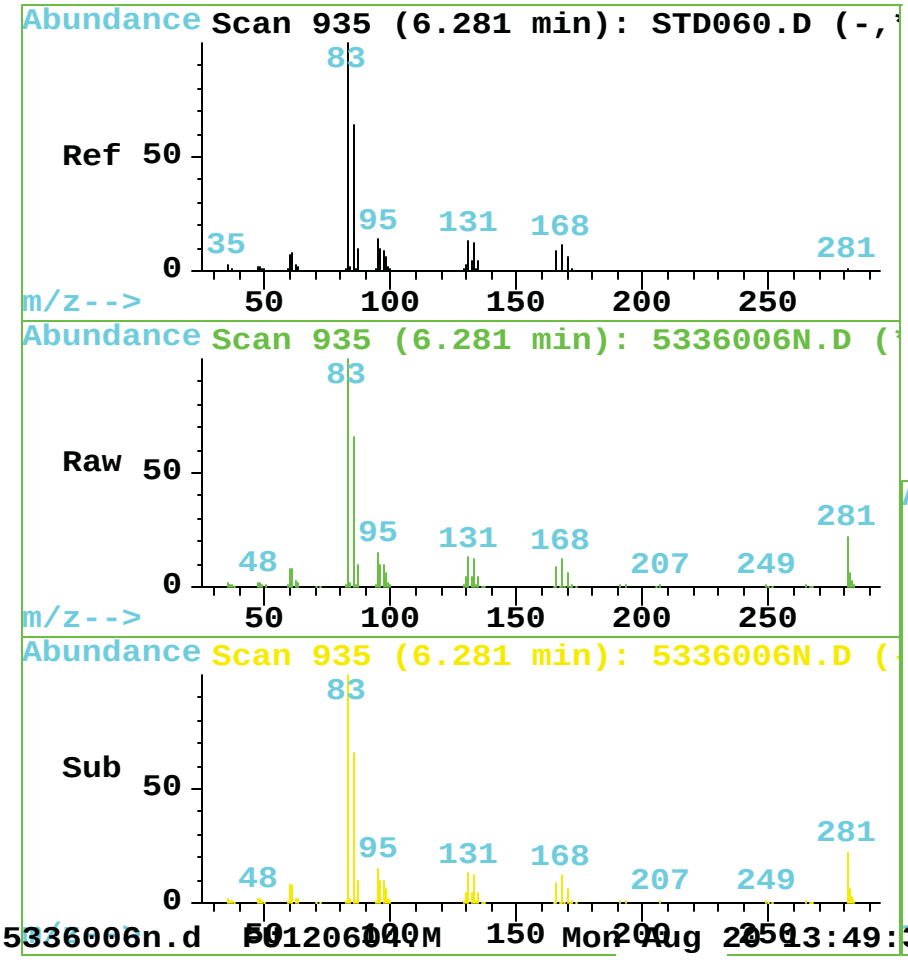


#60
Bromoform (SPCC)
Concen: 51.93 ug/l
RT: 6.09 min Scan# 903
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:172.8 Resp: 8072

Ion	Ratio	Lower	Upper
173	100		
171	50.3	19.9	79.9
175	48.7	17.5	77.5
0	0.0	0.0	0.0

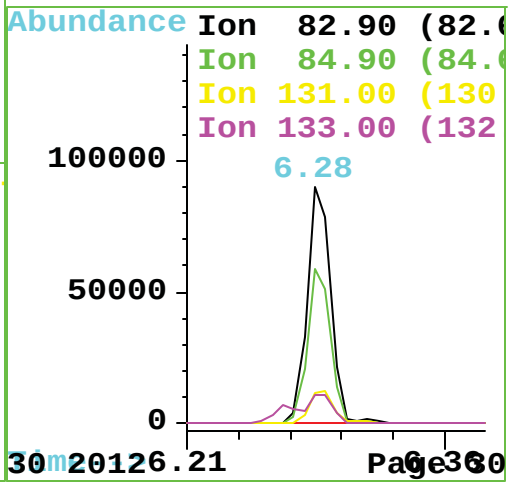


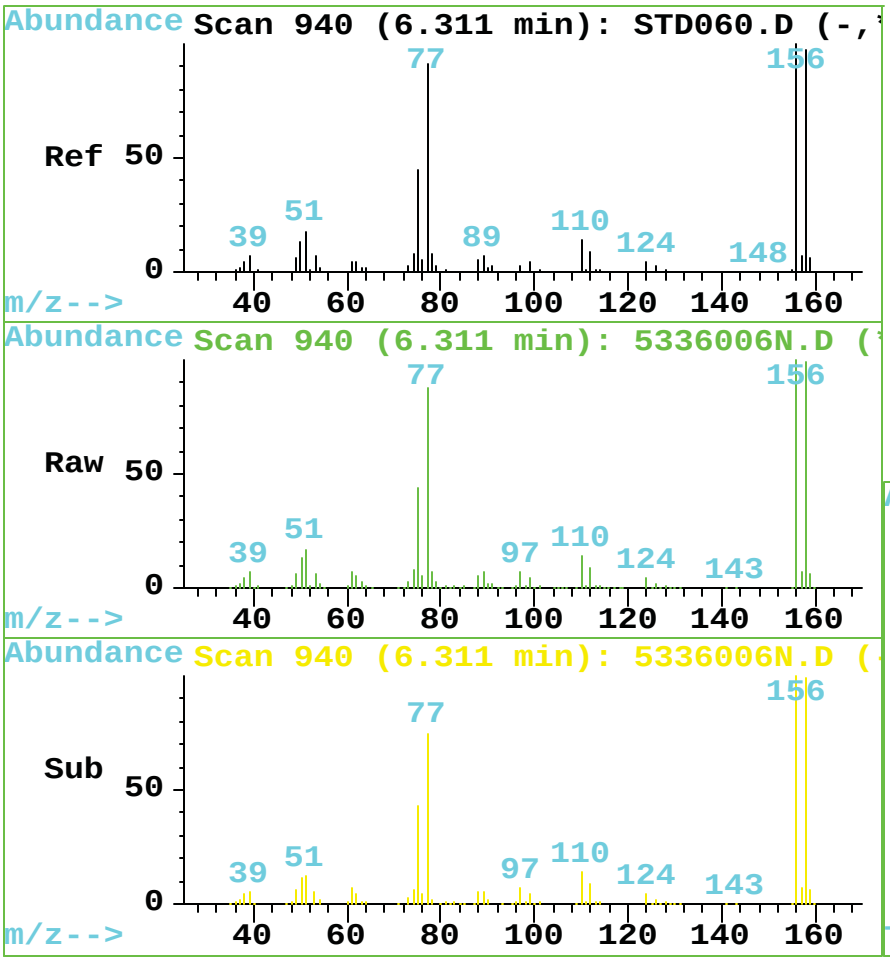


#61
1,1,2,2-Tetrachloroethane
Concen: 51.30 ug/l
RT: 6.28 min Scan# 935
Delta R.T. -0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:82.9 Resp: 85492

Ion	Ratio	Lower	Upper
83	100		
85	65.1	34.6	94.6
131	15.2	0.0	44.8
133	21.2	0.0	45.6

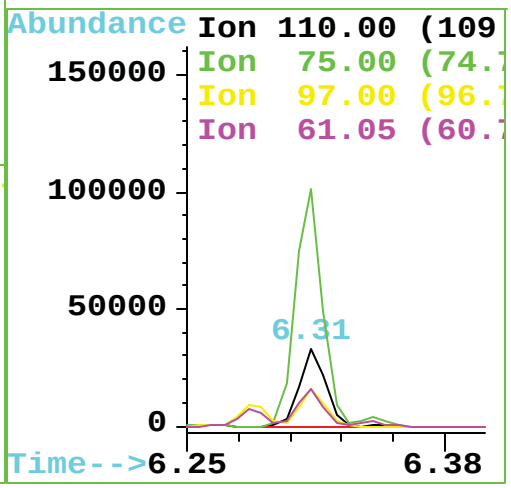


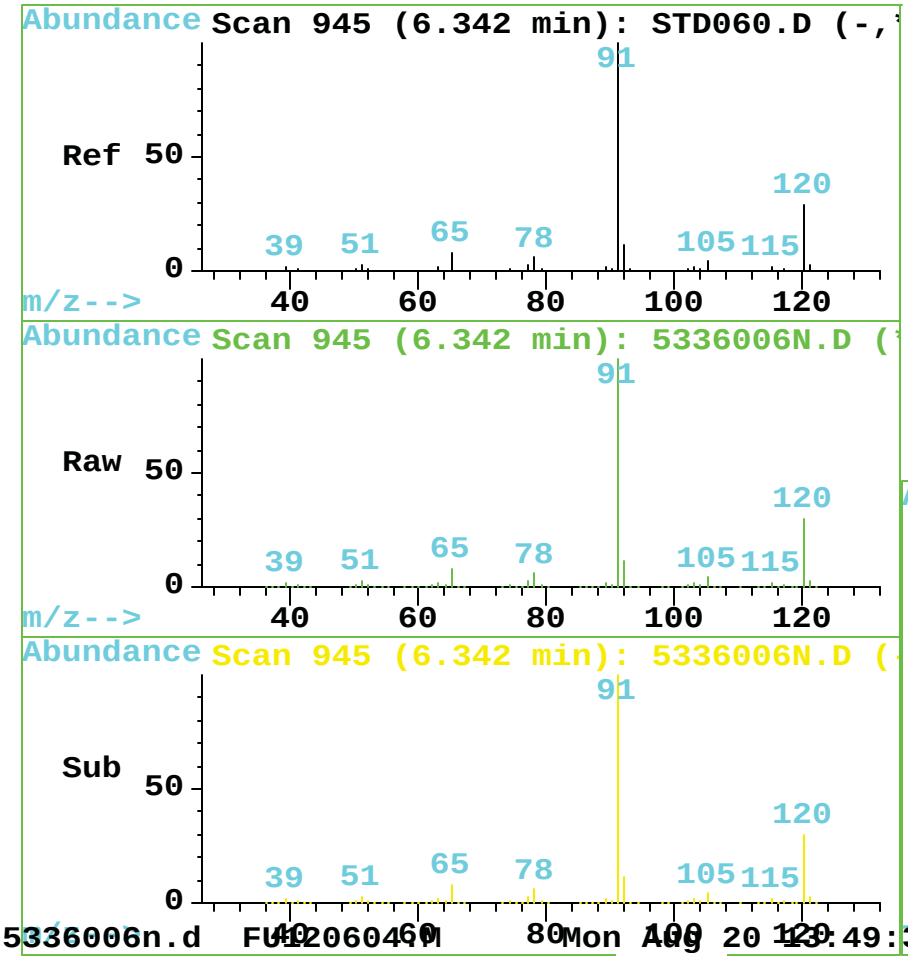


#62
1,2,3-Trichloropropane
Concen: 52.80 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:110 Resp: 29019

Ion	Ratio	Lower	Upper
110	100		
75	324.4	327.3	387.3#
97	45.4	15.8	75.8
61	48.2	24.6	84.6

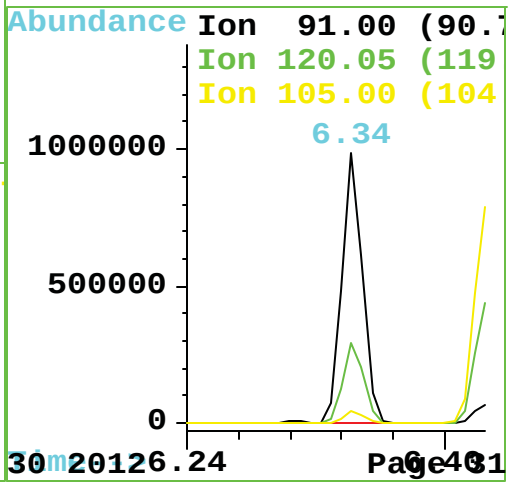


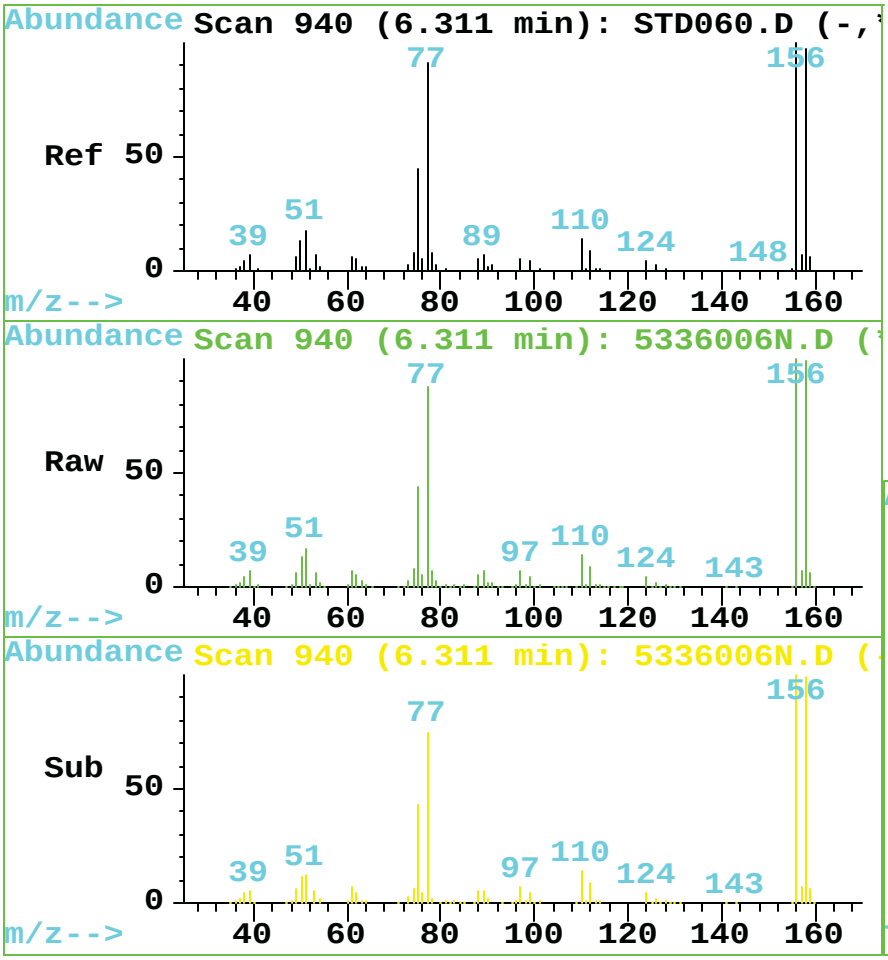


#63
n-Propylbenzene
Concen: 53.25 ug/l
RT: 6.34 min Scan# 945
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:91 Resp: 833924

Ion	Ratio	Lower	Upper
91	100		
120	30.0	0.0	57.3
105	4.1	0.0	34.1
0	0.0	0.0	0.0

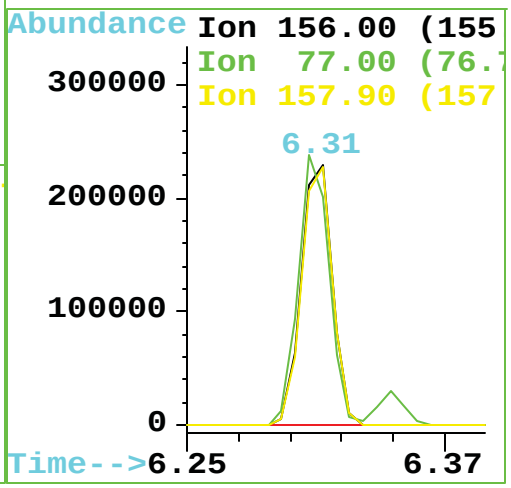


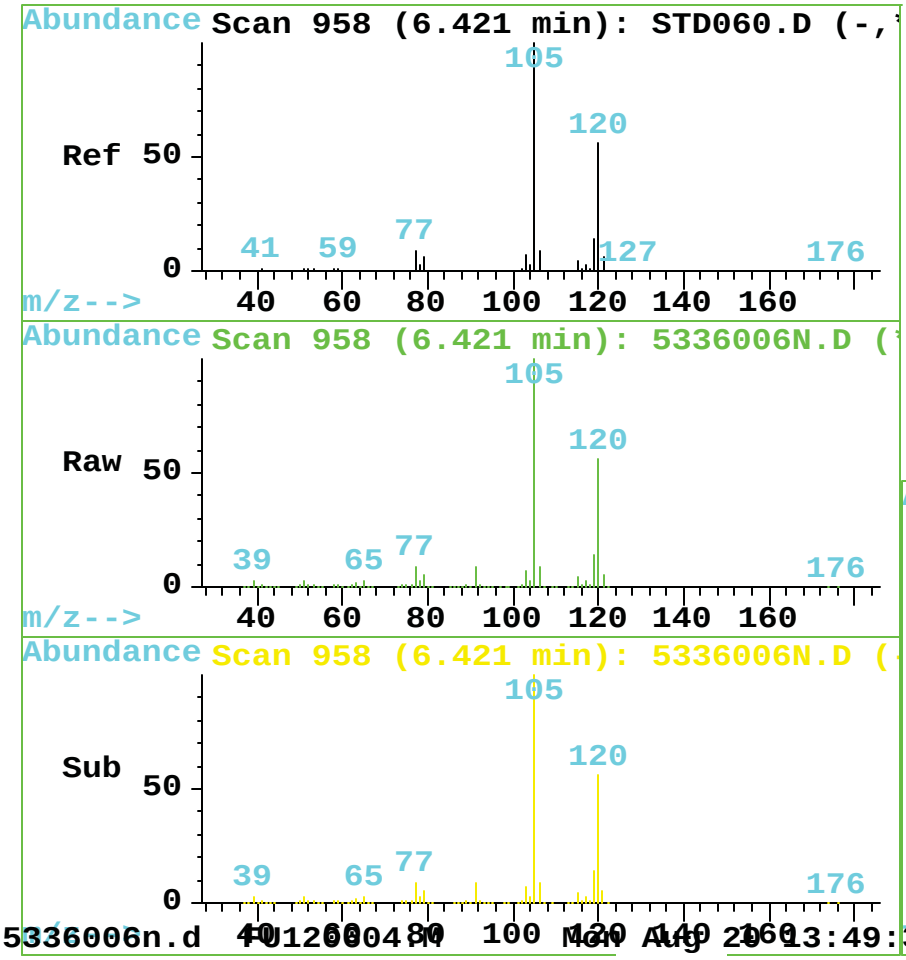


#64
Bromobenzene
Concen: 51.28 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:156 Resp: 220259

Ion	Ratio	Lower	Upper
156	100		
77	102.5	96.5	156.5
158	98.2	68.0	128.0
0	0.0	0.0	0.0

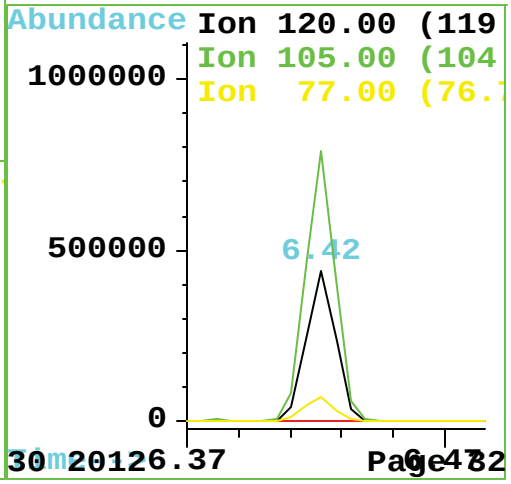


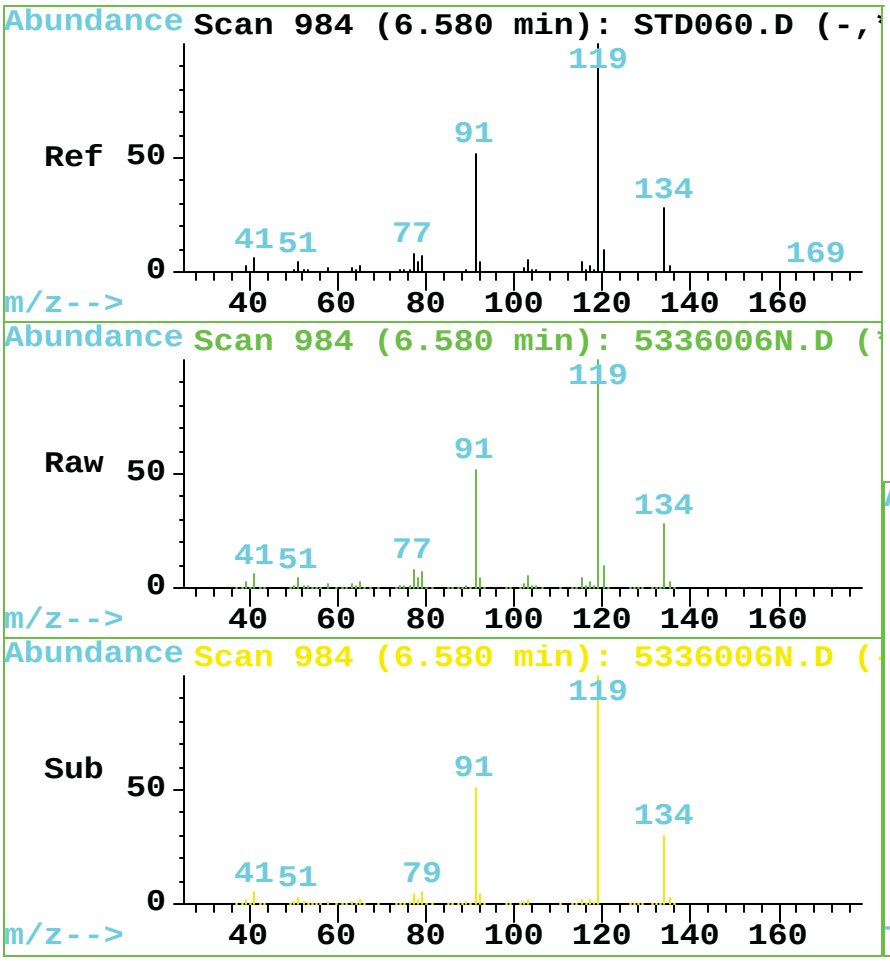


#65
1,3,5-Trimethylbenzene
Concen: 52.46 ug/l
RT: 6.42 min Scan# 958
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:120 Resp: 368522

Ion	Ratio	Lower	Upper
120	100		
105	179.8	162.2	222.2
77	16.5	0.0	51.0
0	0.0	0.0	0.0

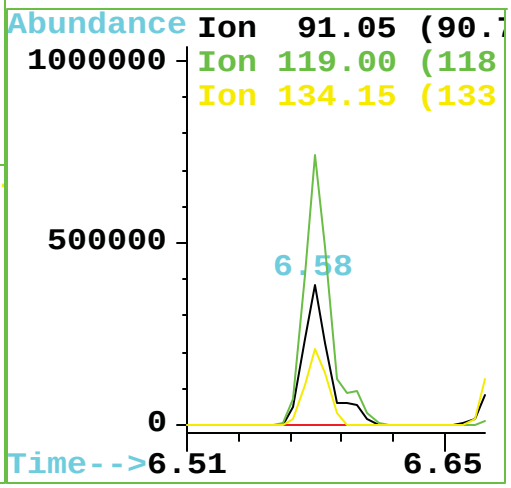


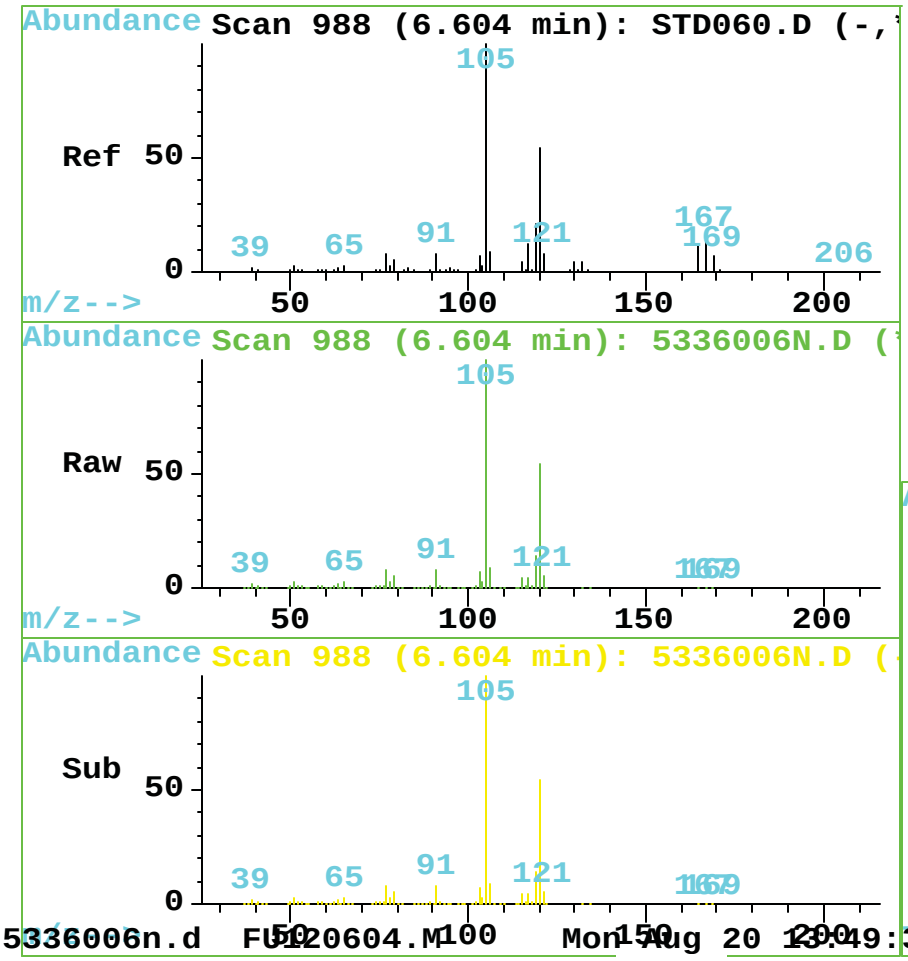


#66
tert-Butylbenzene
Concen: 55.48 ug/l
RT: 6.58 min Scan# 984
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:91.05 Resp: 39866

Ion	Ratio	Lower	Upper
91	100		
119	190.1	148.4	208.4
134	47.4	11.4	71.4
0	0.0	0.0	0.0

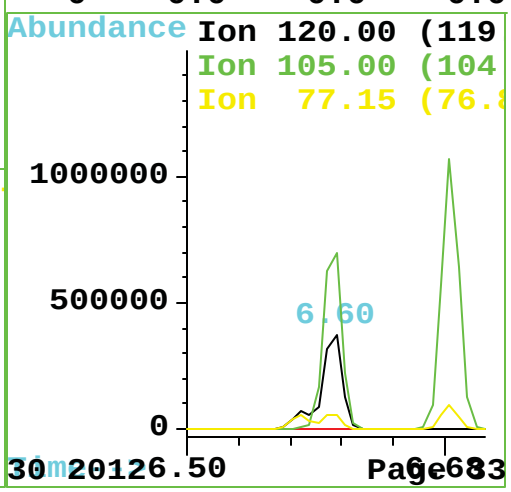


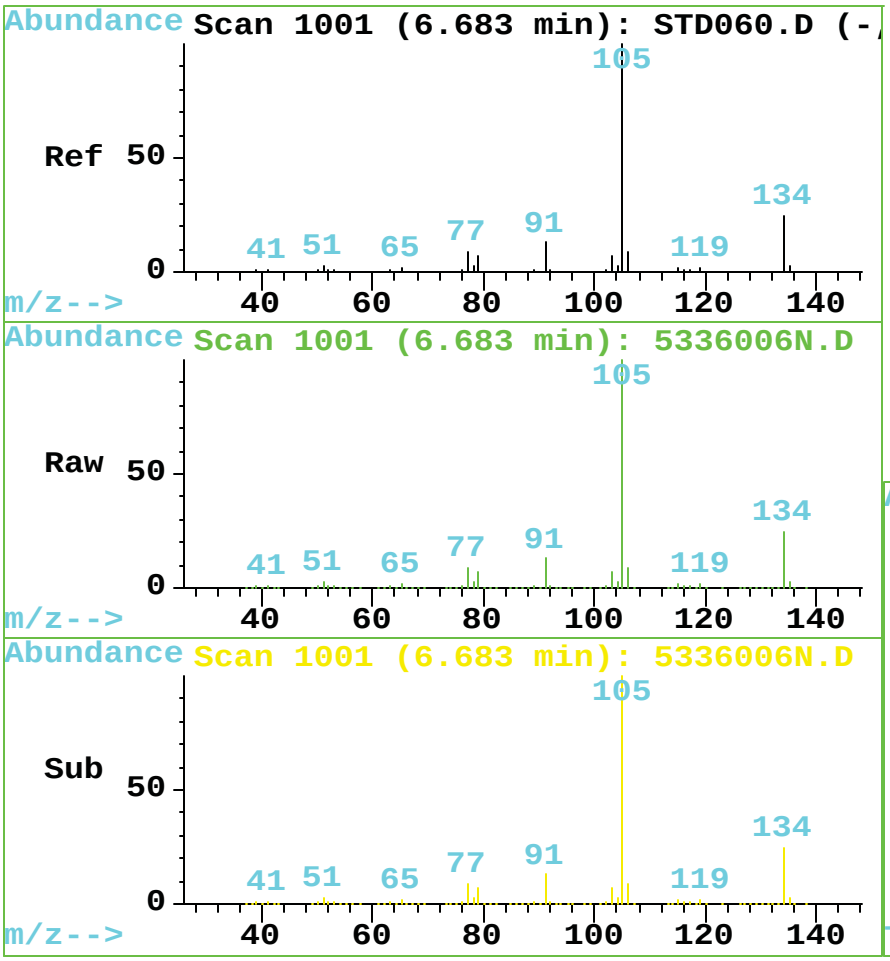


#67
1,2,4-Trimethylbenzene
Concen: 54.13 ug/l
RT: 6.60 min Scan# 988
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:120 Resp: 401630

Ion	Ratio	Lower	Upper
120	100		
105	159.7	144.1	204.1
77	12.3	0.0	45.7
0	0.0	0.0	0.0

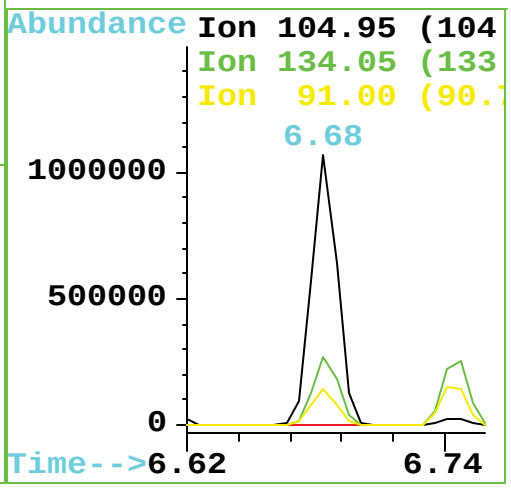


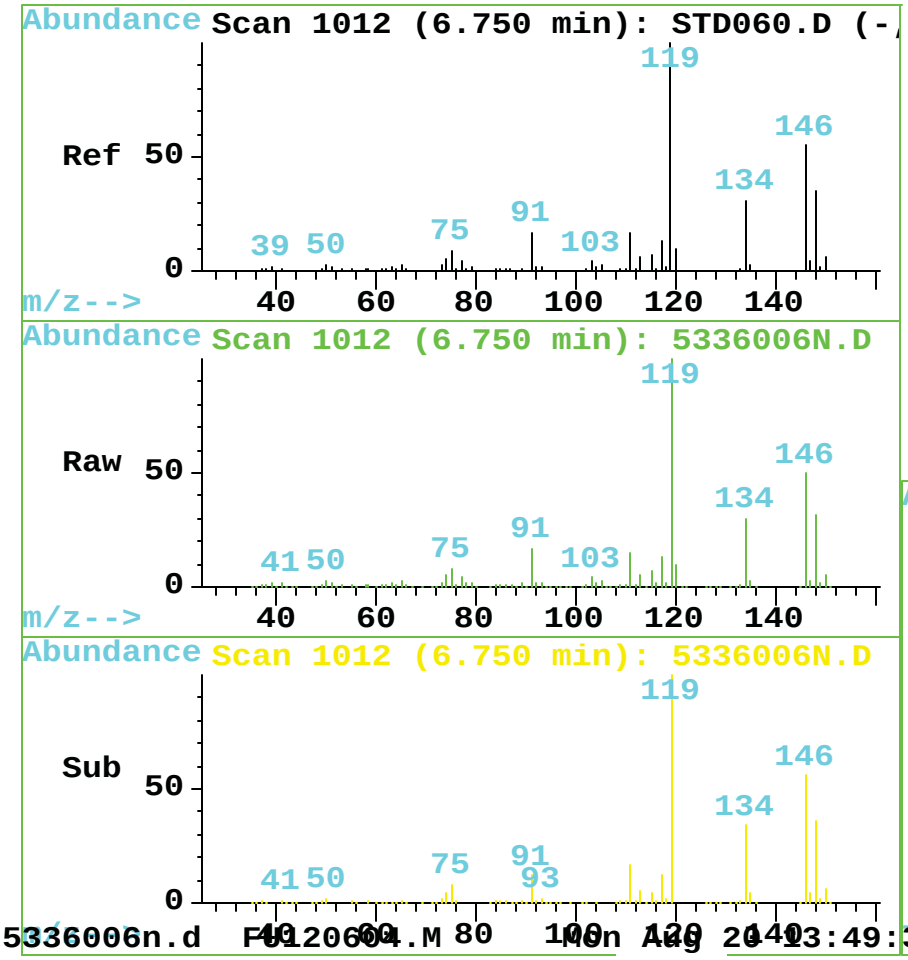


#69
sec-Butylbenzene
Concen: 58.44 ug/l
RT: 6.68 min Scan# 1001
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:104.95 Resp: 9218

Ion	Ratio	Lower	Upper
105	100		
134	25.3	0.0	53.6
91	13.5	0.0	44.8
0	0.0	0.0	0.0

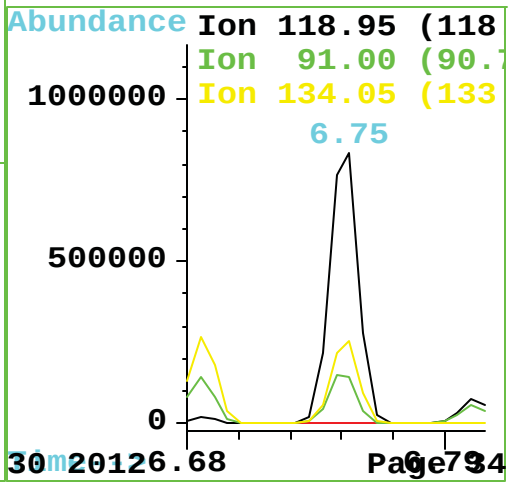


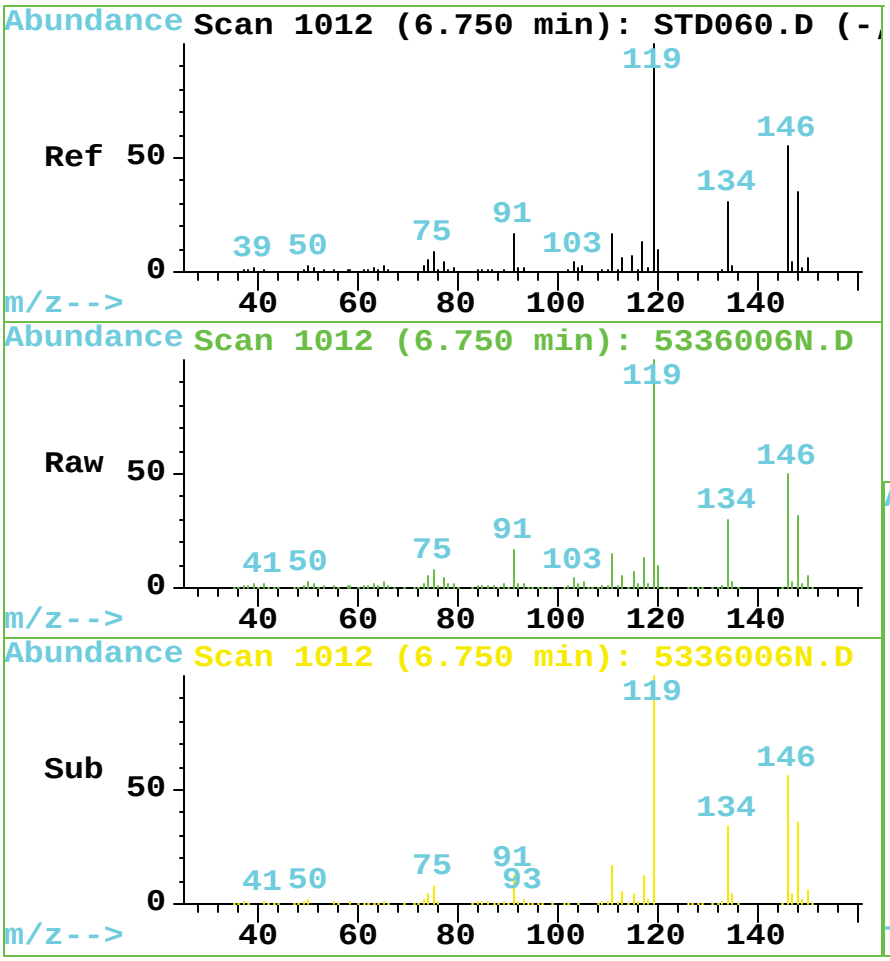


#70
p-Isopropyltoluene
Concen: 58.82 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:118.95 Resp: 7834

Ion	Ratio	Lower	Upper
119	100		
91	18.2	0.0	50.6
134	29.6	0.0	58.1
0	0.0	0.0	0.0

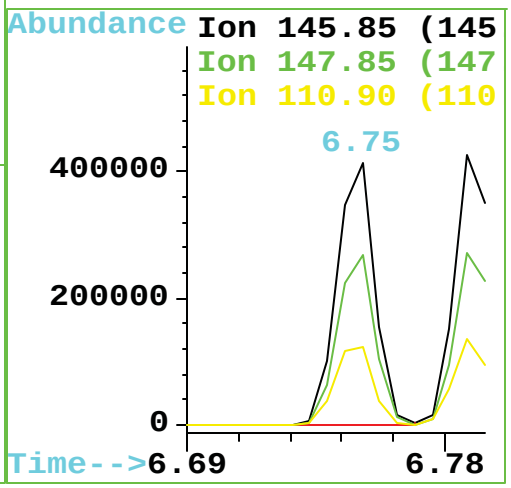


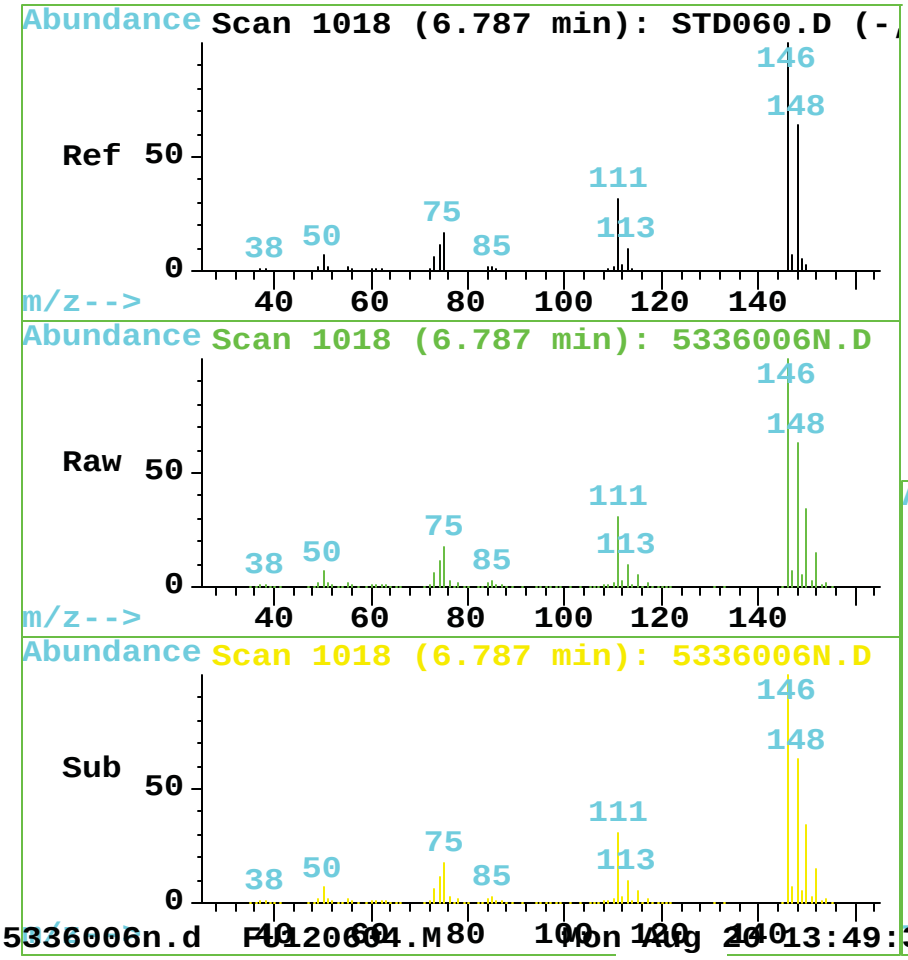


#71
1,3-Dichlorobenzene
Concen: 52.41 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:145.85 Resp: 3812

Ion	Ratio	Lower	Upper
146	100		
148	64.7	34.8	94.8
111	31.5	6.2	66.2
0	0.0	0.0	0.0

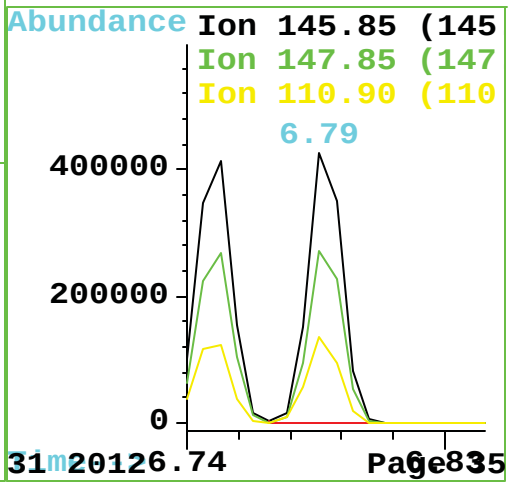


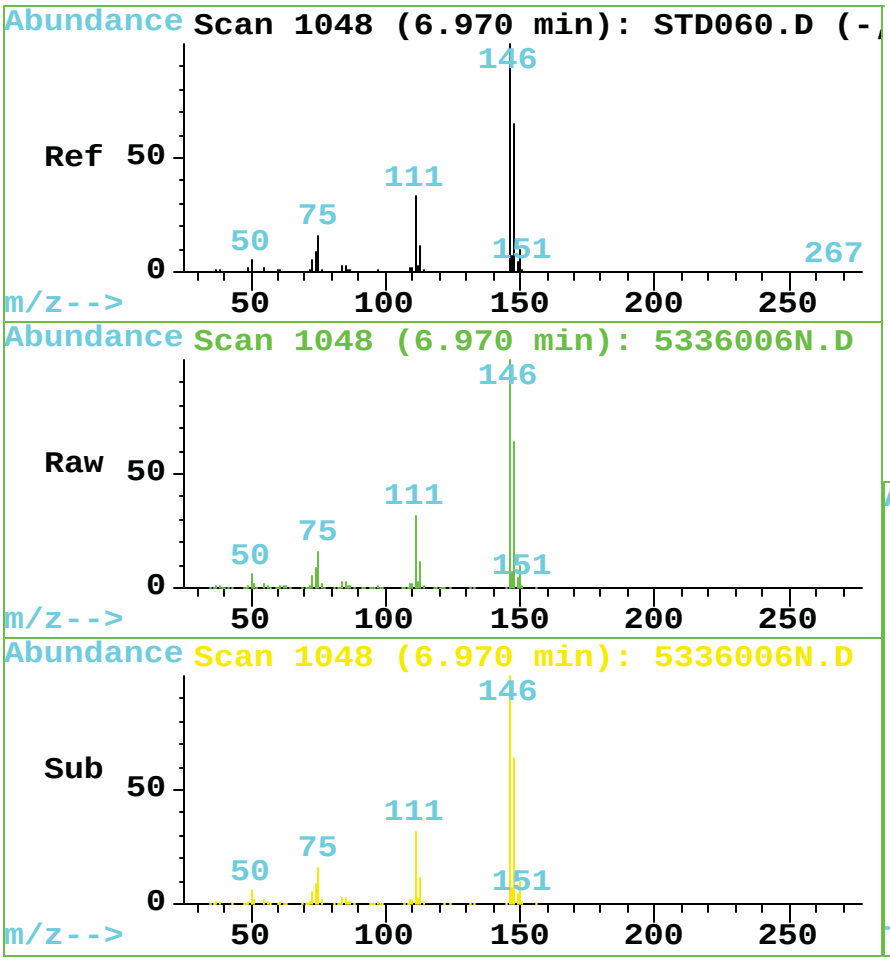


#72
1,4-Dichlorobenzene
Concen: 50.60 ug/l
RT: 6.79 min Scan# 1018
Delta R.T. -0.01 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:145.85 Resp: 3778

Ion	Ratio	Lower	Upper
146	100		
148	64.2	33.9	93.9
111	30.5	5.2	65.2
0	0.0	0.0	0.0

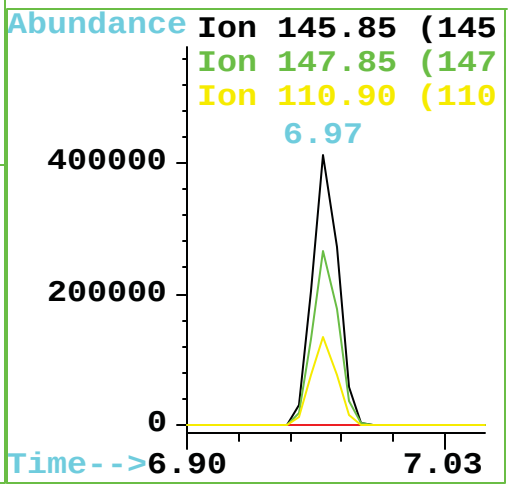


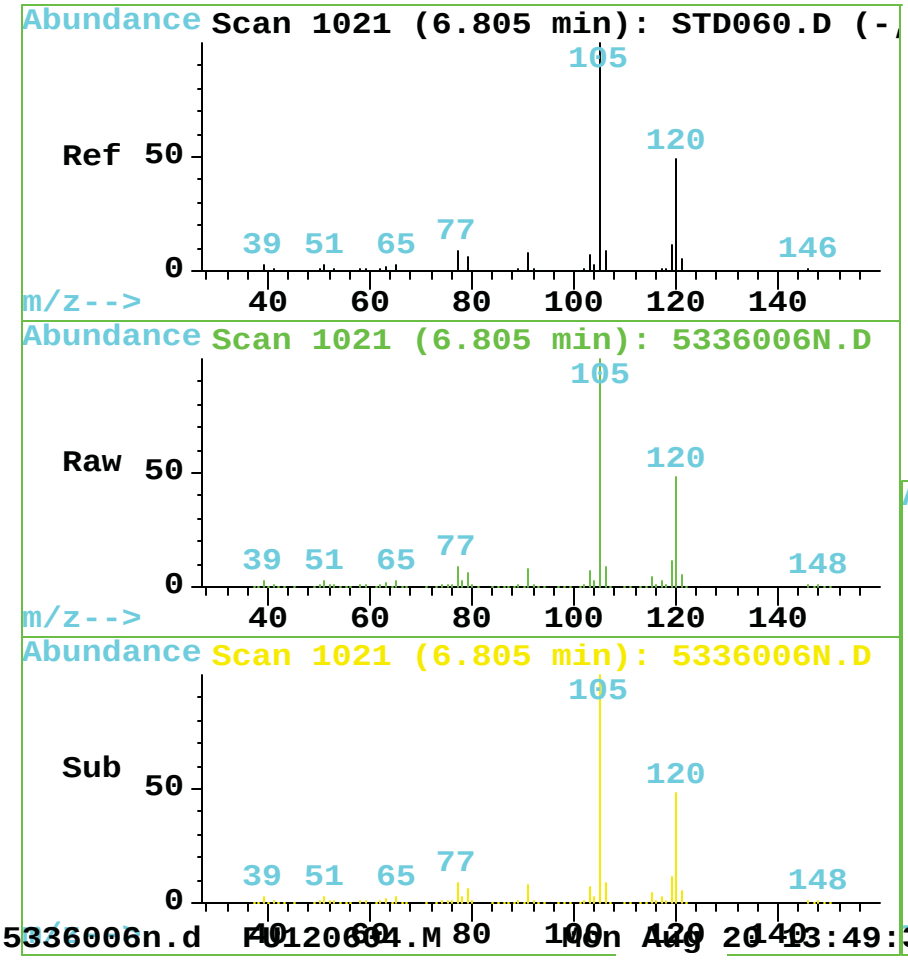


#73
1,2-Dichlorobenzene
Concen: 53.24 ug/l
RT: 6.97 min Scan# 1048
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:145.85 Resp: 3600

Ion	Ratio	Lower	Upper
146	100		
148	64.5	34.1	94.1
111	32.1	6.5	66.5
0	0.0	0.0	0.0

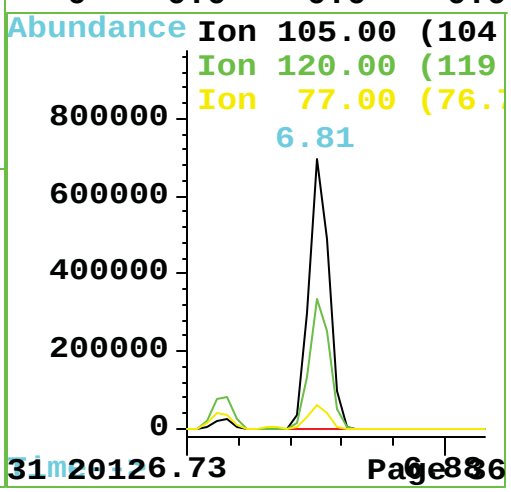


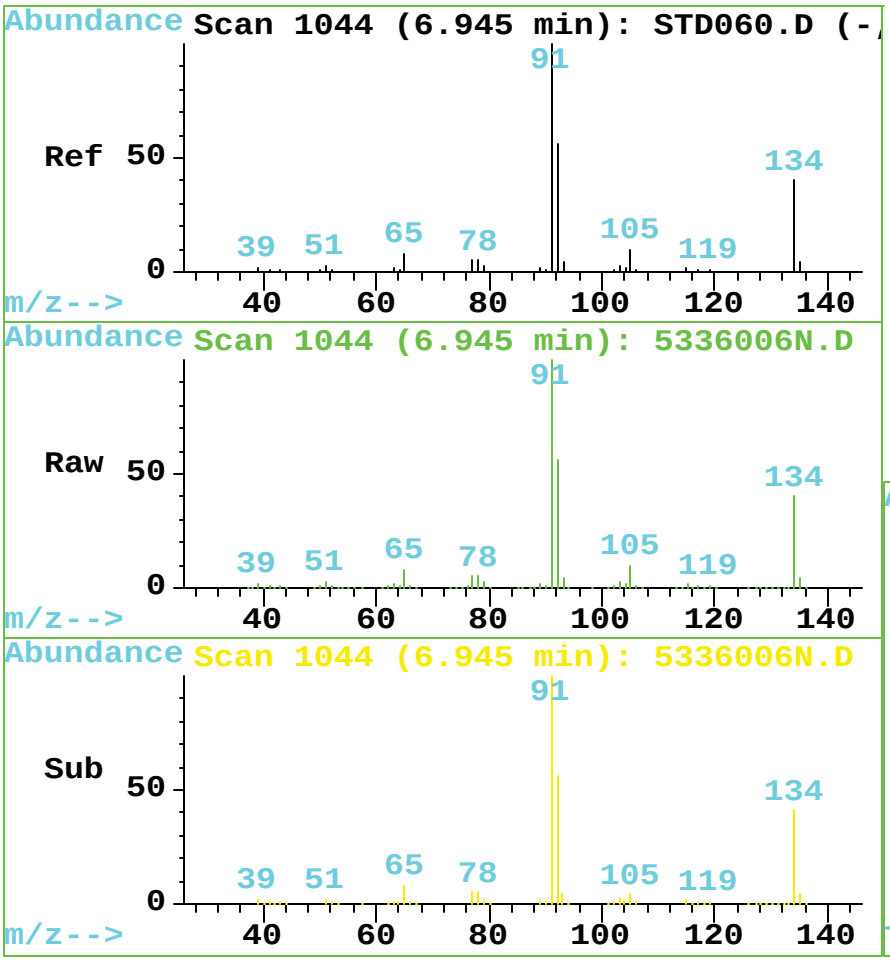


#74
1,2,3-Trimethylbenzene
Concen: 54.15 ug/l
RT: 6.81 min Scan# 1021
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:105 Resp: 596375

Ion	Ratio	Lower	Upper
105	100		
120	48.8	15.1	75.1
77	9.0	0.0	40.2
0	0.0	0.0	0.0

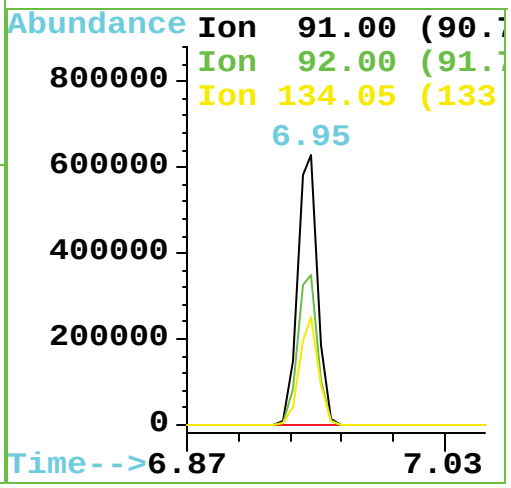


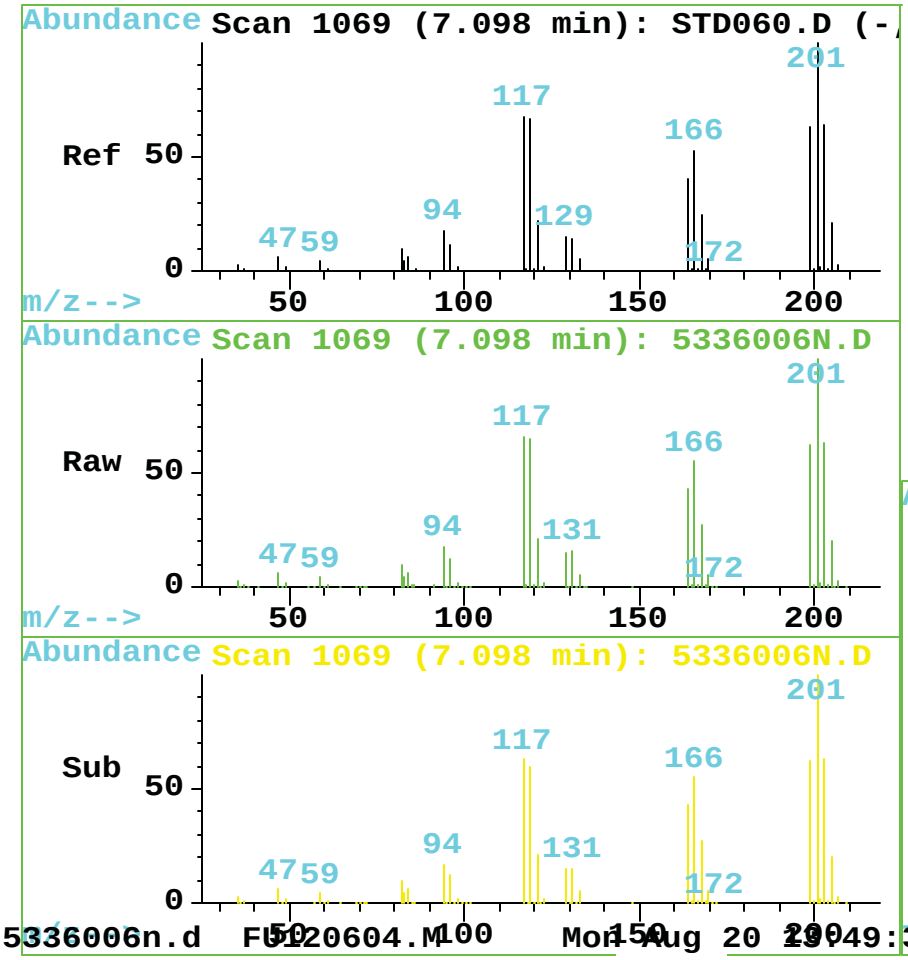


#75
n-Butylbenzene
Concen: 54.62 ug/l
RT: 6.95 min Scan# 1044
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:91 Resp: 576401

Ion	Ratio	Lower	Upper
91	100		
92	55.8	25.5	85.5
134	37.6	4.2	64.2
0	0.0	0.0	0.0

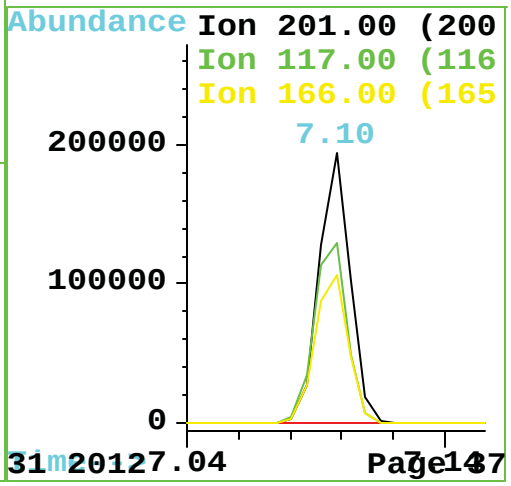


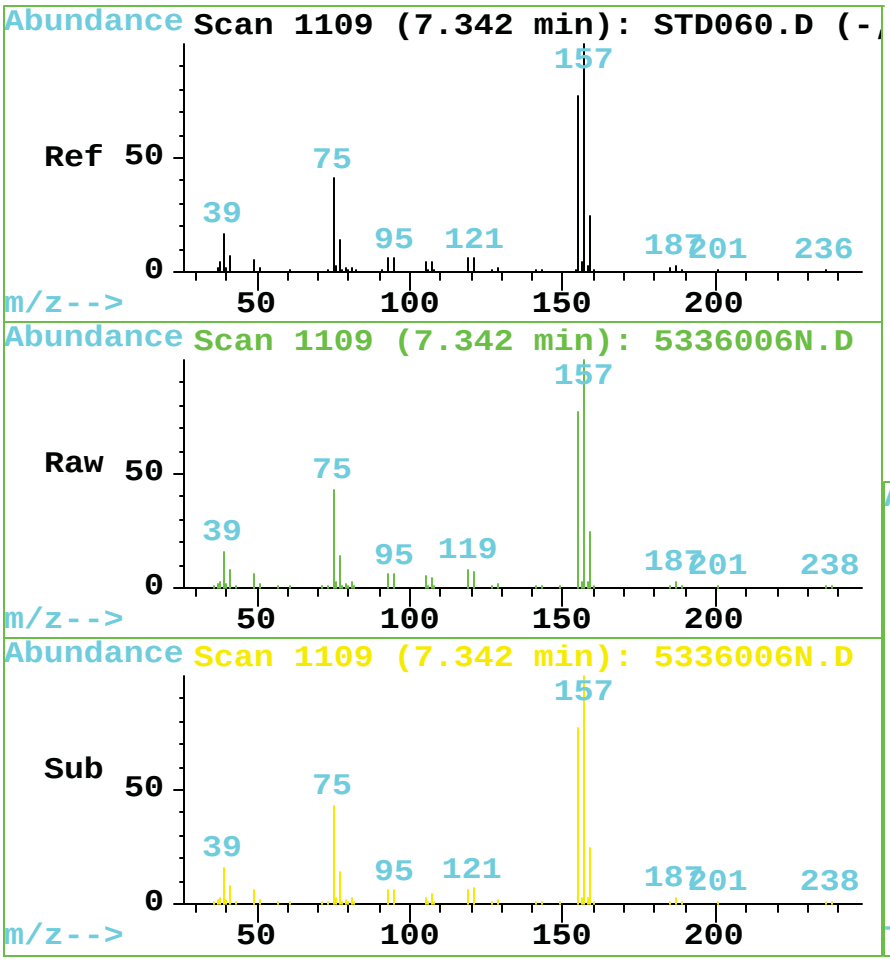


#76
Hexachloroethane
Concen: 54.75 ug/l
RT: 7.10 min Scan# 1069
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:201 Resp: 172864

Ion	Ratio	Lower	Upper
201	100		
117	71.4	50.2	110.2
166	59.0	38.0	98.0
0	0.0	0.0	0.0

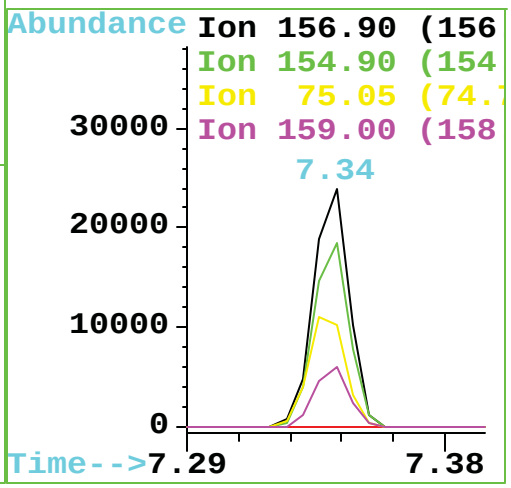


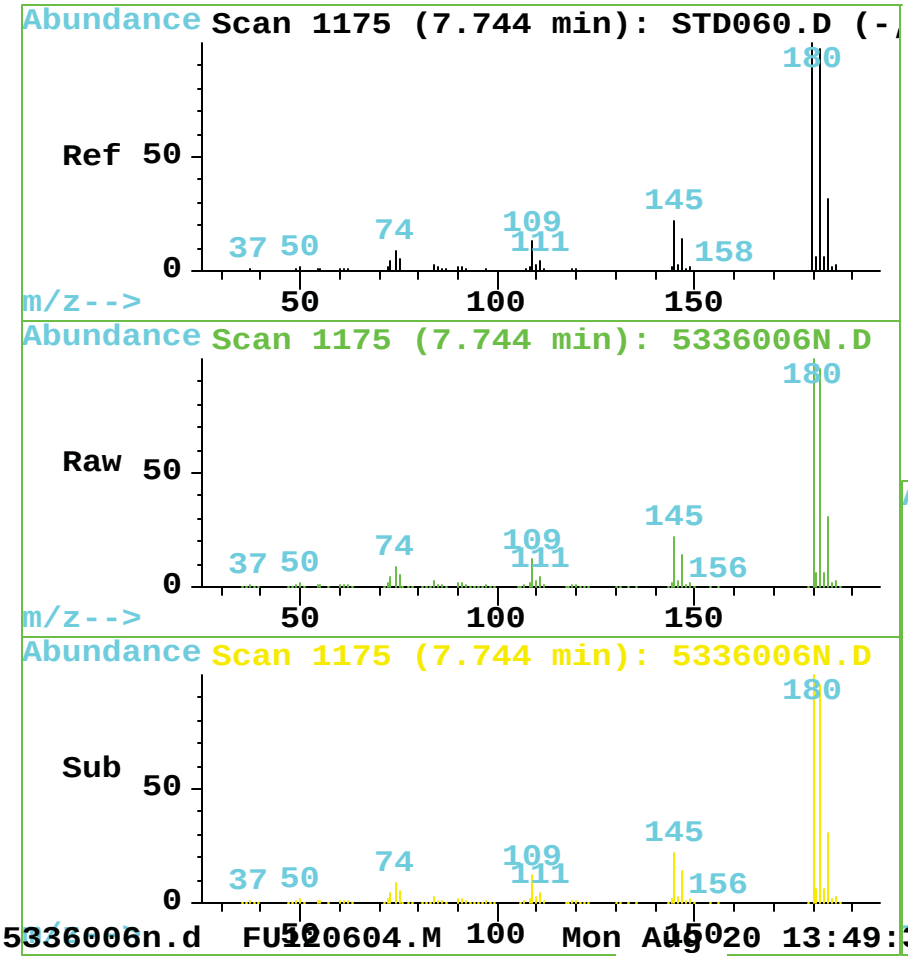


#77
1,2-Dibromo-3-Chloropropan
Concen: 57.81 ug/l
RT: 7.34 min Scan# 1109
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:156.9 Resp: 2176

Ion	Ratio	Lower	Upper
157	100		
155	77.8	46.1	106.1
75	48.8	34.3	94.3
159	24.1	0.0	54.7

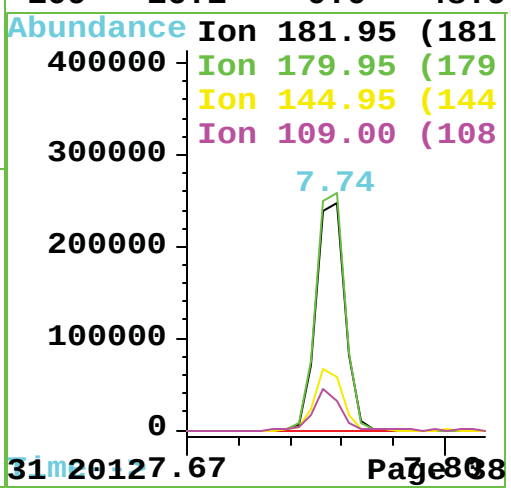


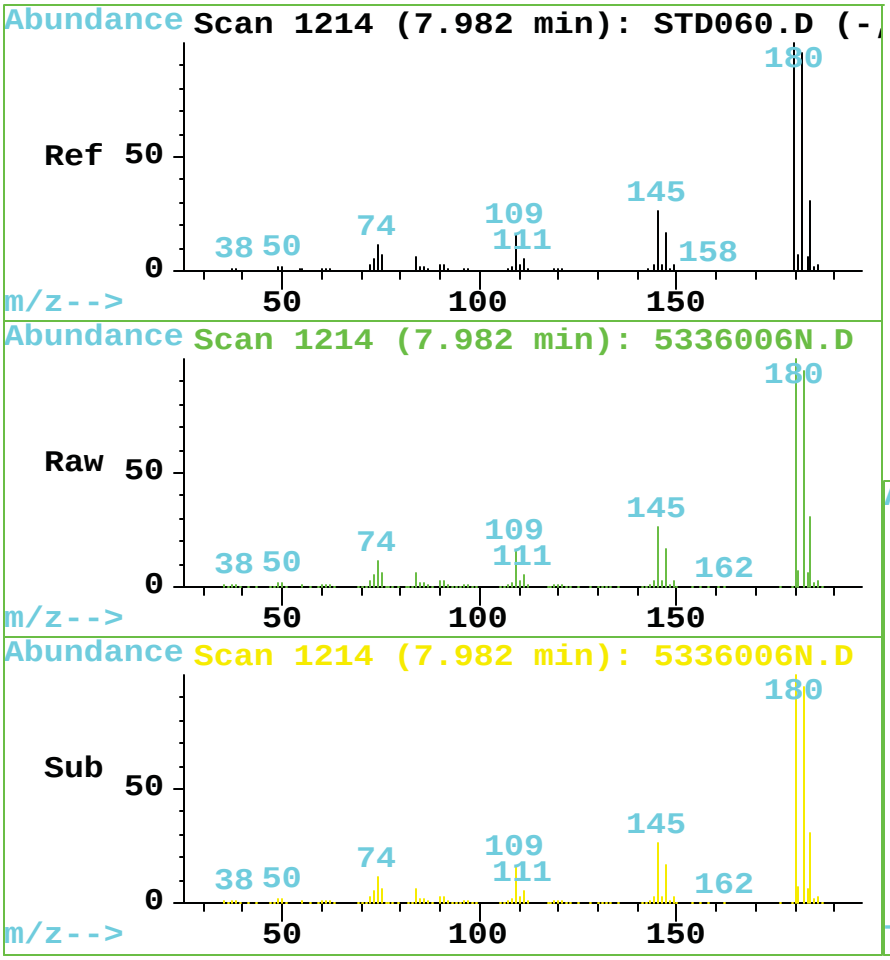


#78
1,2,4-Trichlorobenzene
Concen: 51.88 ug/l
RT: 7.74 min Scan# 1175
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:181.95 Resp: 2395

Ion	Ratio	Lower	Upper
182	100		
180	104.3	74.1	134.1
145	25.6	0.0	57.2
109	16.1	0.0	48.9

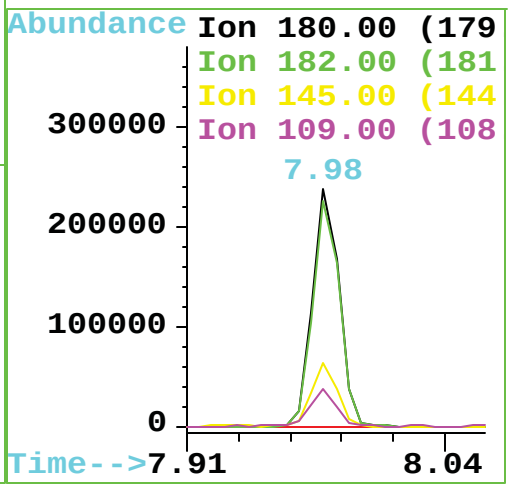


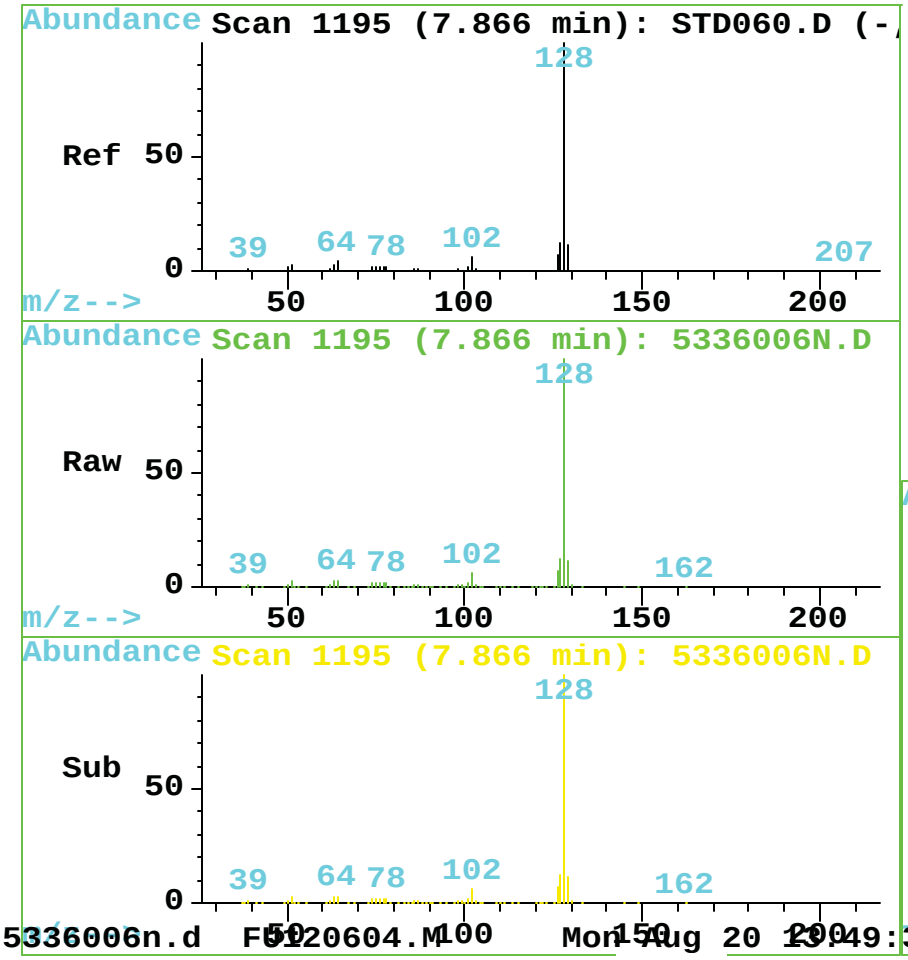


#80
1,2,3-Trichlorobenzene
Concen: 55.59 ug/l
RT: 7.98 min Scan# 1214
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:180 Resp: 209835

Ion	Ratio	Lower	Upper
180	100		
182	95.6	66.9	126.9
145	26.1	0.0	57.7
109	15.4	0.0	48.8

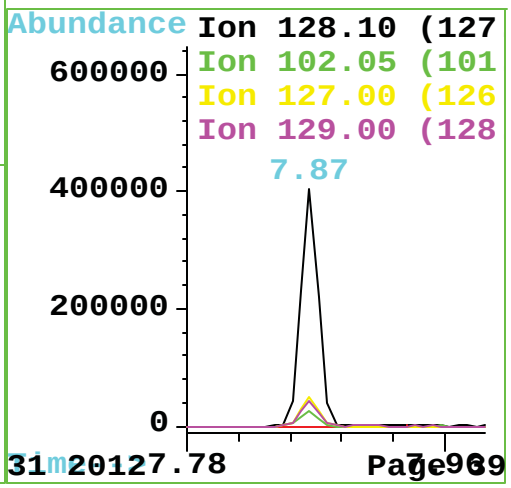


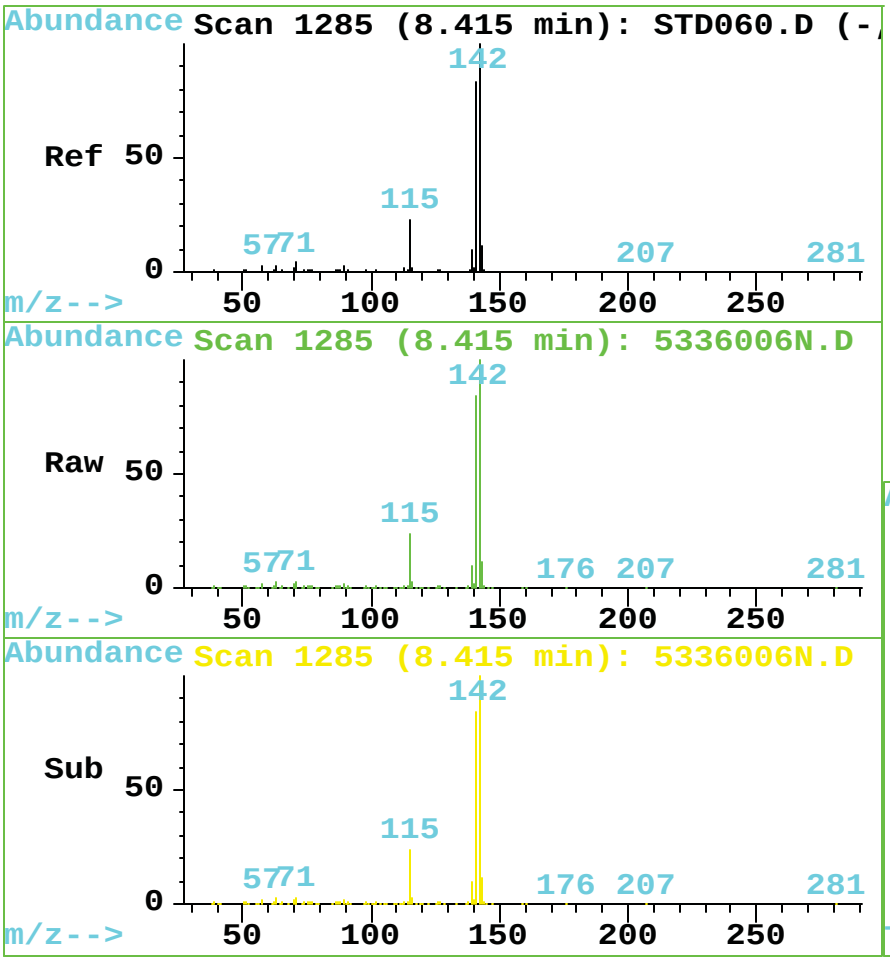


#81
Naphthalene
Concen: 61.15 ug/l
RT: 7.87 min Scan# 1195
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:128.1 Resp: 34546

Ion	Ratio	Lower	Upper
128	100		
102	6.4	0.0	37.4
127	12.0	0.0	42.3
129	10.8	0.0	40.6

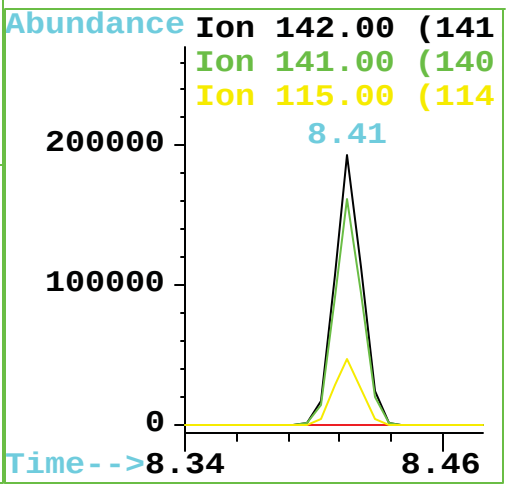




#82
2-Methylnaphthalene
Concen: 58.80 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5336006n.d
Acq: 1 Aug 12 9:16 am

Tgt Ion:142 Resp: 168279

Ion	Ratio	Lower	Upper
142	100		
141	83.8	55.8	115.8
115	24.7	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336007.d Vial: 20
Acq On : 1 Aug 12 6:34 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

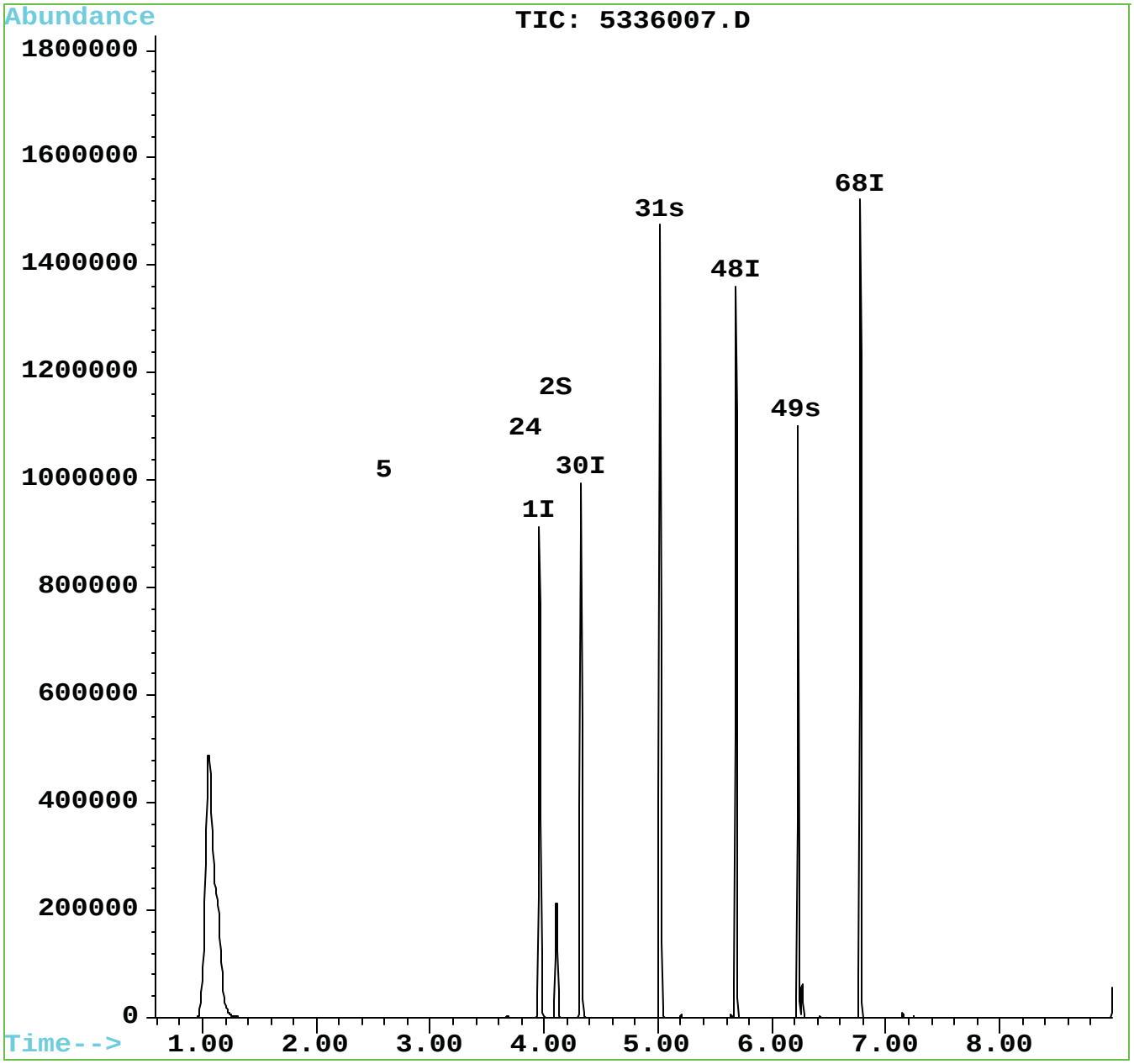
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	549463	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	634060	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	225107	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	305744	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	98232	47.28	ug/l	94.5
31) TOLUENE-D8 (S)	5.02	98	633862	49.48	ug/l	98.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	266950	49.86	ug/l	99.7
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	324	1.58	ug/l #	4
24) Tetrahydrofuran	3.84	42	796	2.63	ug/l #	

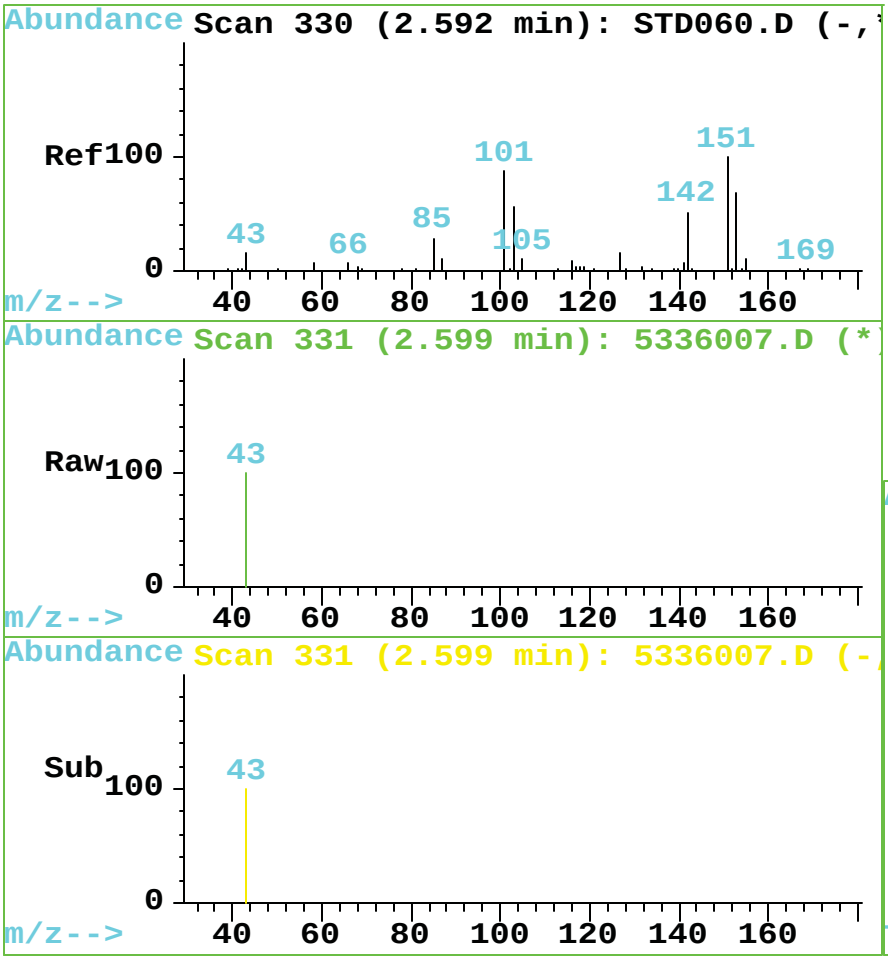
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336007.d Vial: 20
Acq On : 1 Aug 12 6:34 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

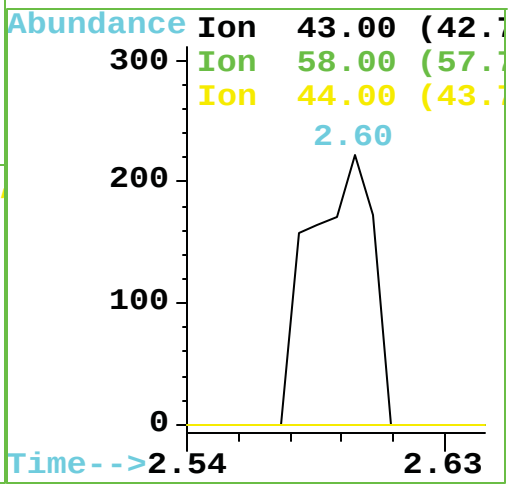


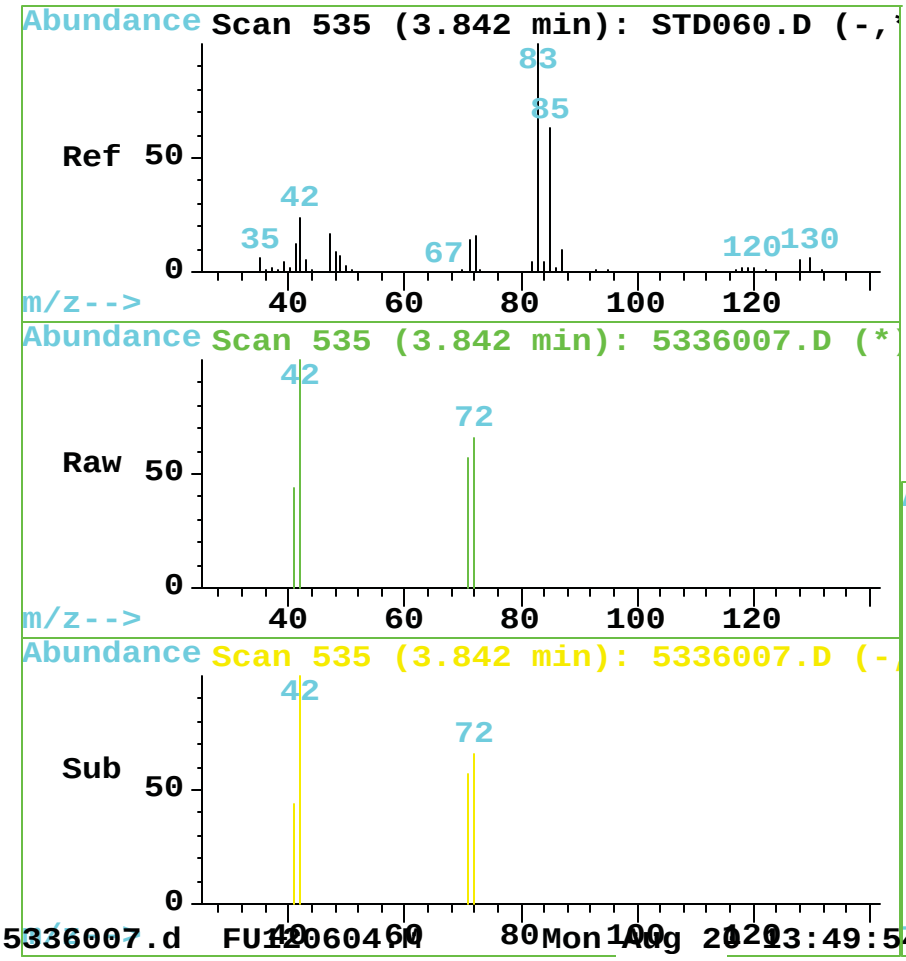


#5
Acetone (*)
Concen: 1.58 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5336007.d
Acq: 1 Aug 12 6:34 am

Tgt Ion:43 Resp: 324

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

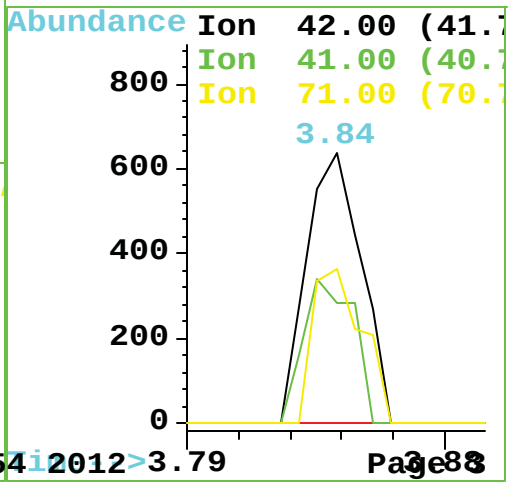




#24
Tetrahydrofuran
Concen: 2.63 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5336007.d
Acq: 1 Aug 12 6:34 am

Tgt Ion:42 Resp: 796

Ion	Ratio	Lower	Upper
42	100		
41	48.9	222.5	282.5#
71	52.1	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336008.d Vial: 21
Acq On : 1 Aug 12 6:54 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

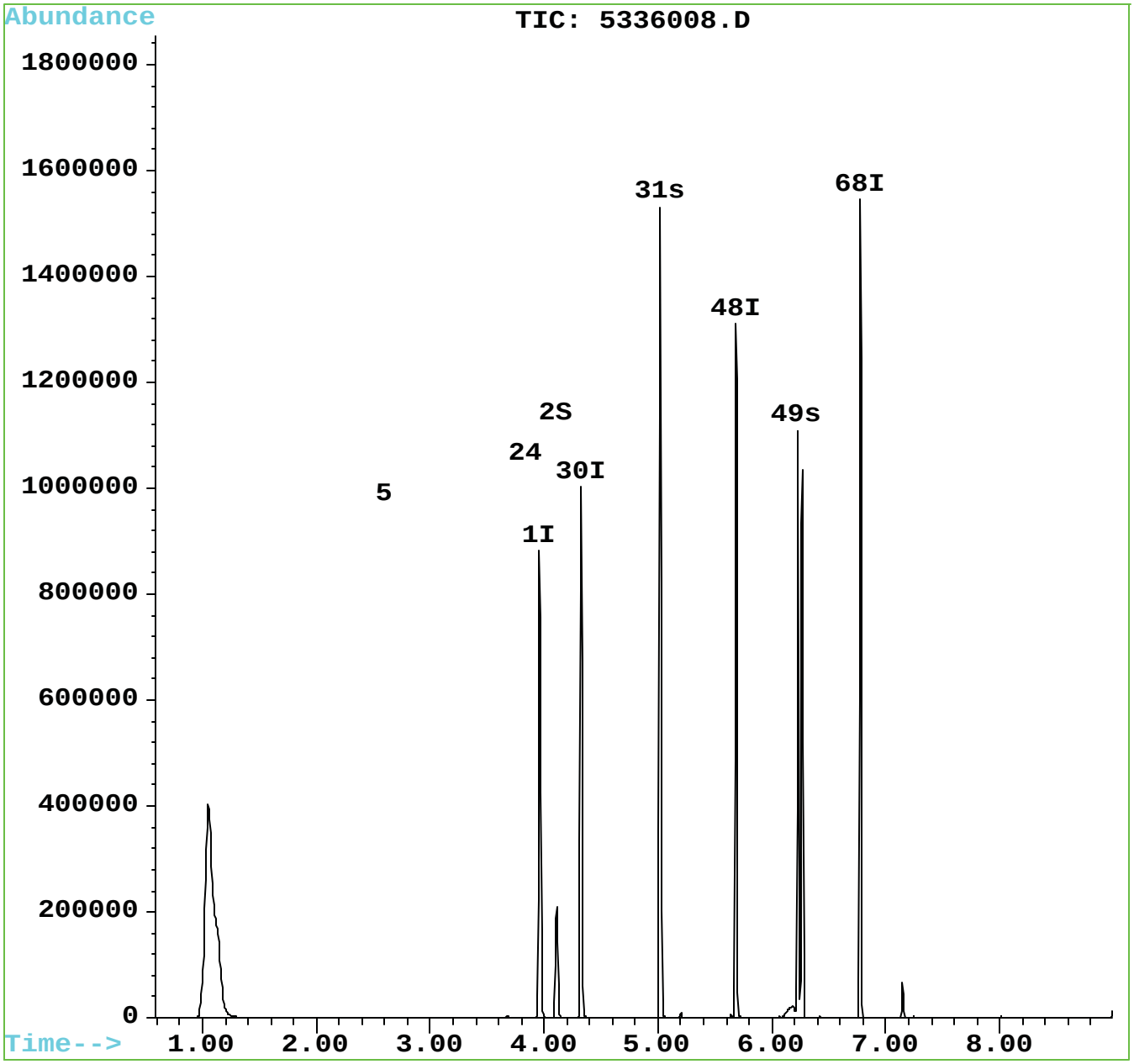
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	559720	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	645381	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	226931	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	305349	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	97652	46.14	ug/l	92.2
31) TOLUENE-D8 (S)	5.02	98	646683	49.59	ug/l	99.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	265922	49.27	ug/l	98.5
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	492	2.36	ug/l #	4
24) Tetrahydrofuran	3.84	42	885	2.87	ug/l #	

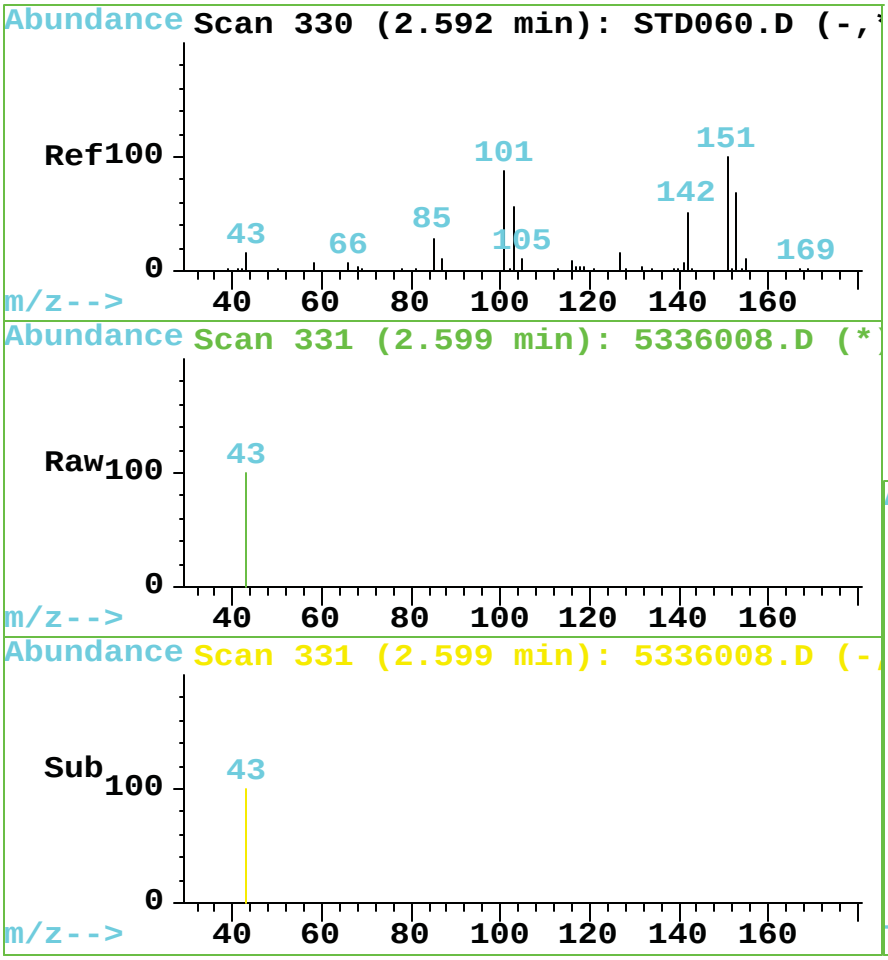
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336008.d Vial: 21
Acq On : 1 Aug 12 6:54 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

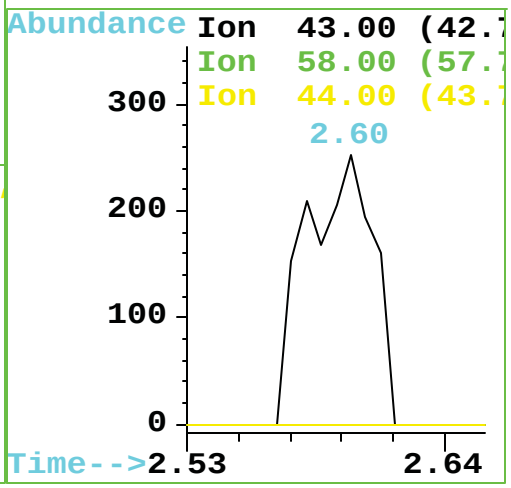


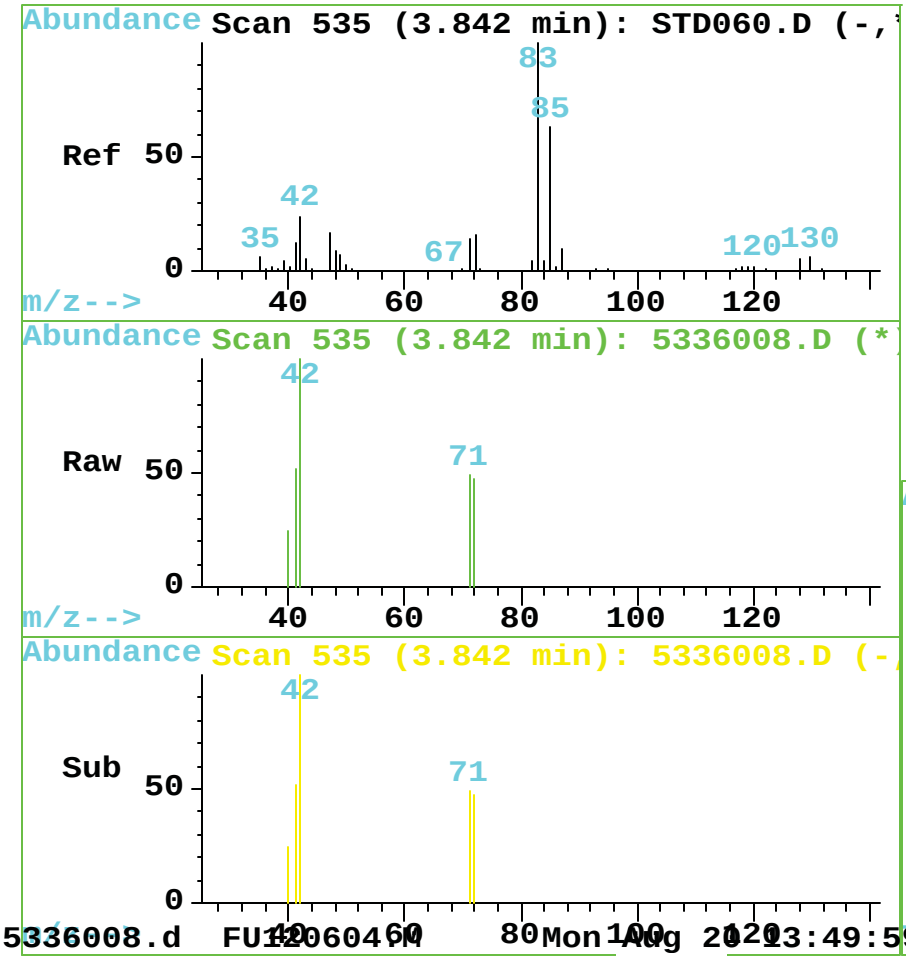


#5
Acetone (*)
Concen: 2.36 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5336008.d
Acq: 1 Aug 12 6:54 am

Tgt Ion:43 Resp: 492

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

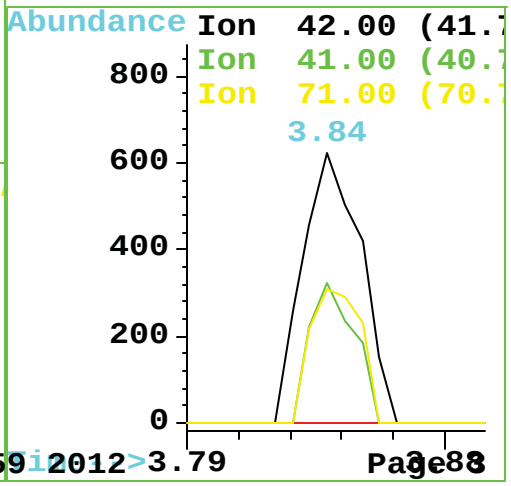




#24
Tetrahydrofuran
Concen: 2.87 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5336008.d
Acq: 1 Aug 12 6:54 am

Tgt Ion:42 Resp: 885

Ion	Ratio	Lower	Upper
42	100		
41	39.9	222.5	282.5#
71	43.3	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336009.d Vial: 22
Acq On : 1 Aug 12 7:14 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

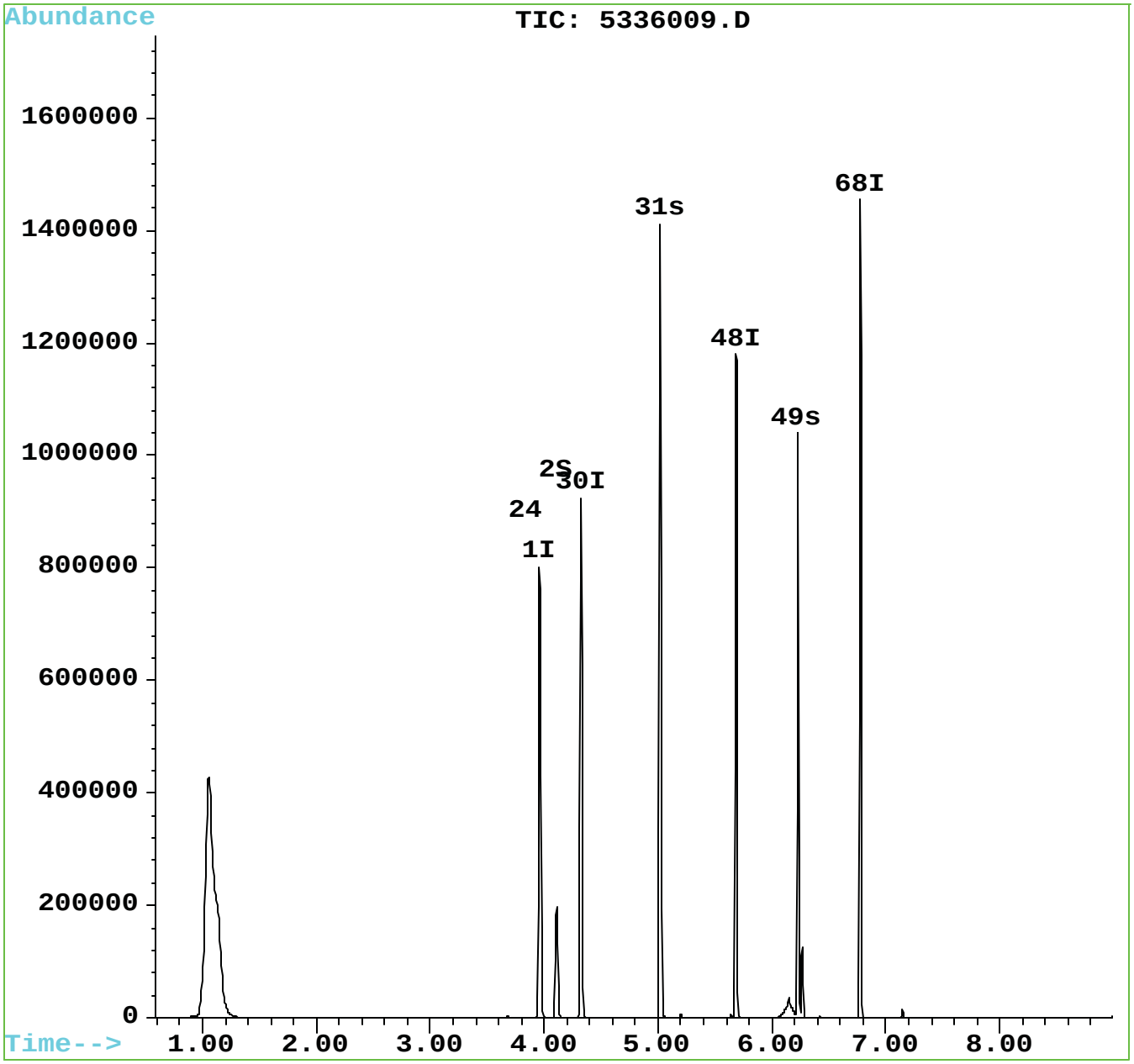
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	529136	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	612396	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	213538	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	284568	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	93848	46.91	ug/l	93.8
31) TOLUENE-D8 (S)	5.02	98	609620	49.27	ug/l	98.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	252254	49.67	ug/l	99.3
Target Compounds						Qvalu
24) Tetrahydrofuran	3.84	42	901	3.09	ug/l	#

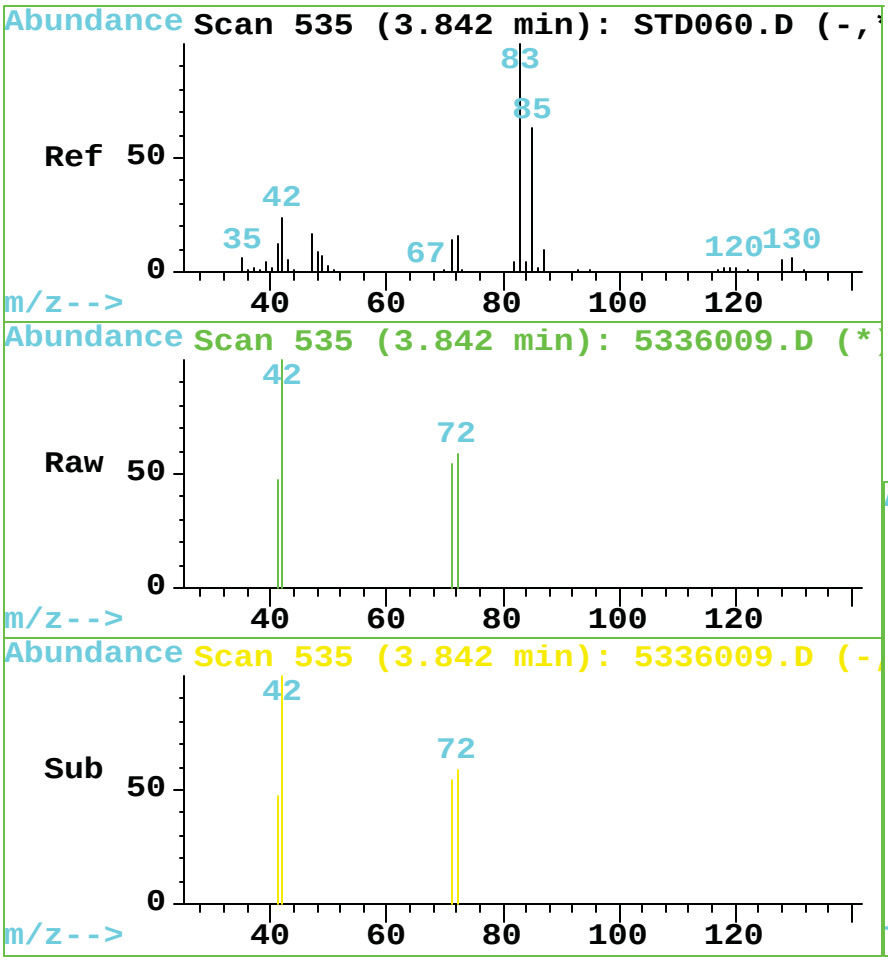
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336009.d Vial: 22
Acq On : 1 Aug 12 7:14 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

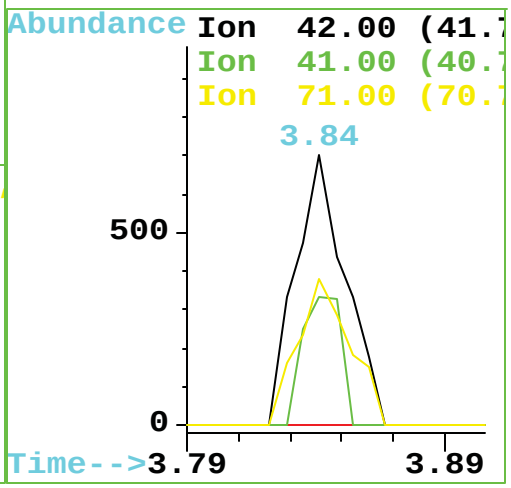




#24
Tetrahydrofuran
Concen: 3.09 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5336009.d
Acq: 1 Aug 12 7:14 am

Tgt Ion:42 Resp: 901

Ion	Ratio	Lower	Upper
42	100		
41	37.0	222.5	282.5#
71	56.6	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336010.d Vial: 23
Acq On : 1 Aug 12 7:34 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:12 19112

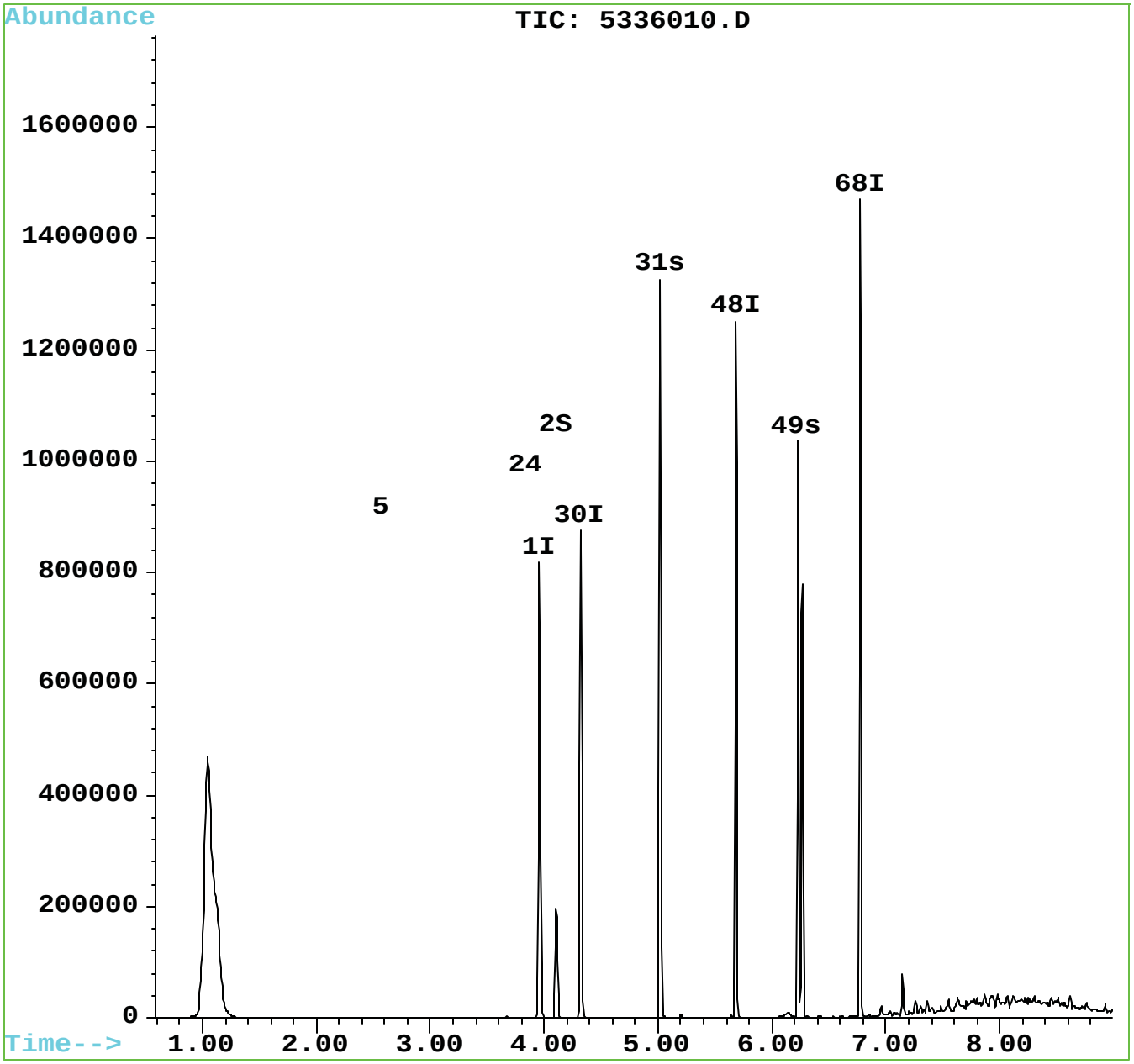
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

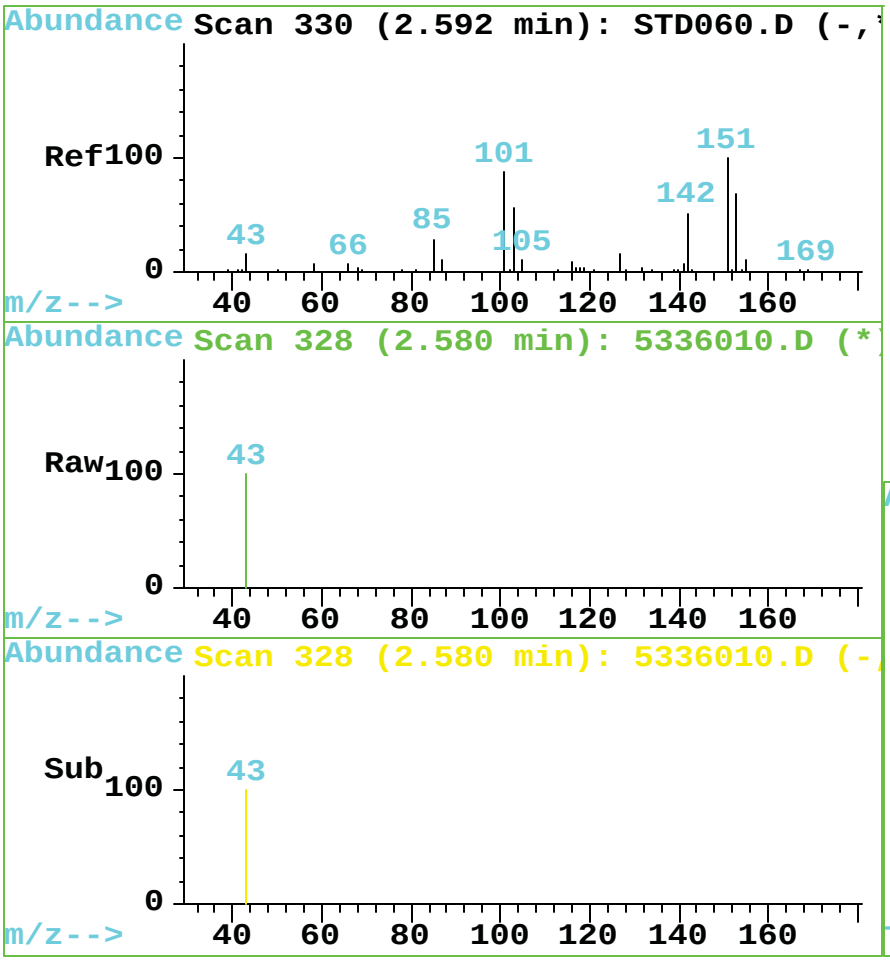
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	506467	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	590311	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	206942	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	277441	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	91212	47.63	ug/l	95.2
31) TOLUENE-D8 (S)	5.02	98	583325	48.91	ug/l	97.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	243204	49.42	ug/l	98.8
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	200	1.06	ug/l #	4
24) Tetrahydrofuran	3.84	42	811	2.90	ug/l #	

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336010.d Vial: 23
Acq On : 1 Aug 12 7:34 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

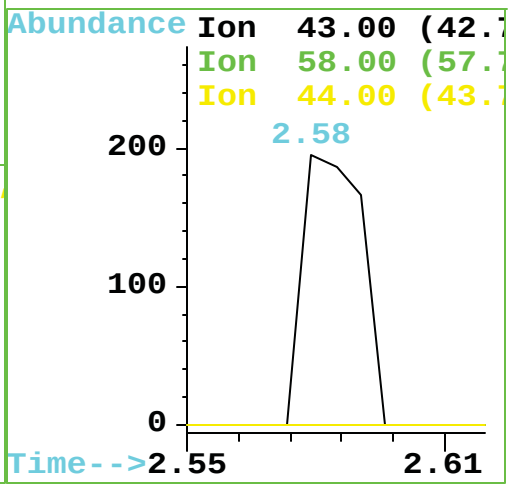


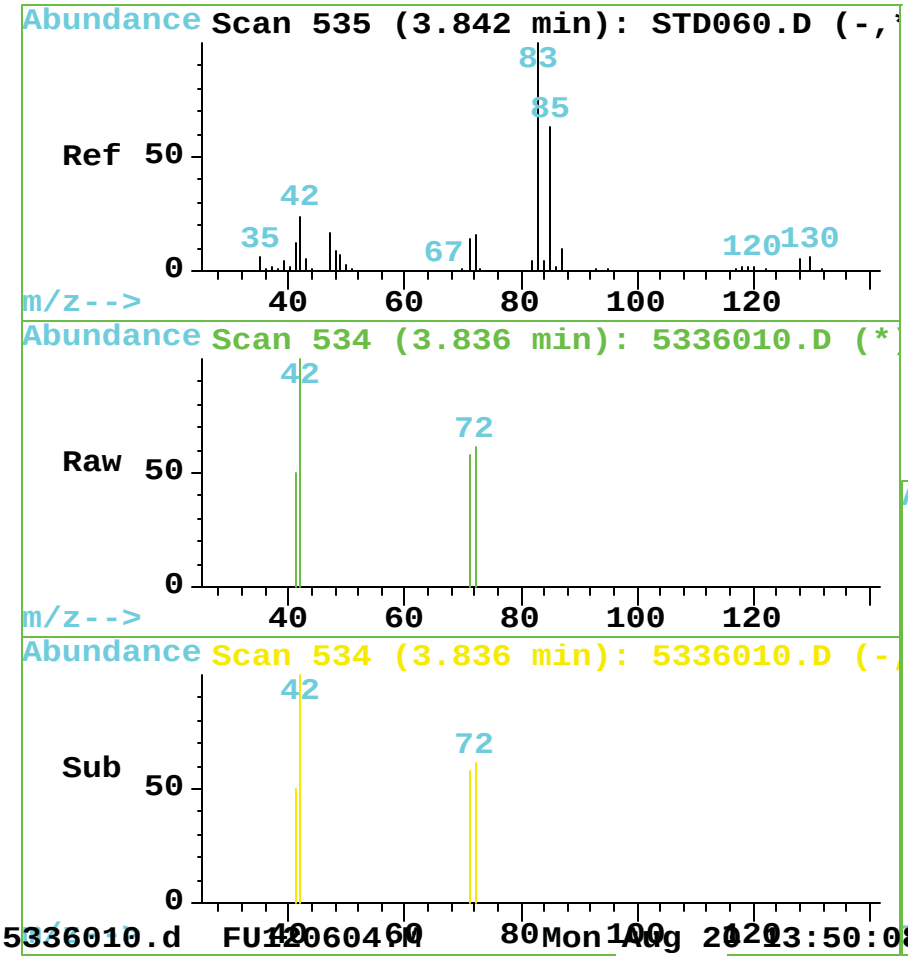


#5
Acetone (*)
Concen: 1.06 ug/l
RT: 2.58 min Scan# 328
Delta R.T. 0.01 min
Lab File: 5336010.d
Acq: 1 Aug 12 7:34 am

Tgt Ion:43 Resp: 200

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

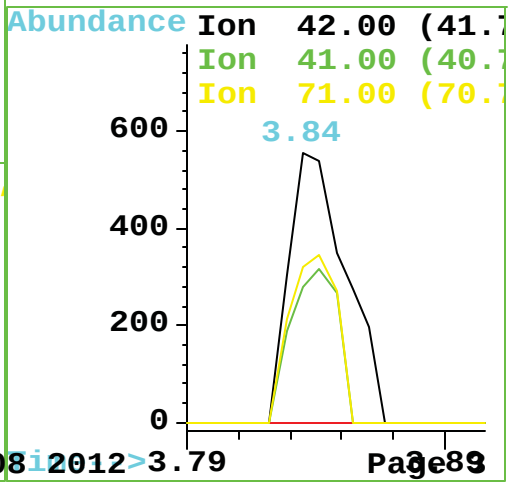




#24
Tetrahydrofuran
Concen: 2.90 ug/l
RT: 3.84 min Scan# 534
Delta R.T. 0.00 min
Lab File: 5336010.d
Acq: 1 Aug 12 7:34 am

Tgt Ion:42 Resp: 811

Ion	Ratio	Lower	Upper
42	100		
41	47.2	222.5	282.5#
71	51.9	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336011.d Vial: 24
Acq On : 1 Aug 12 7:55 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

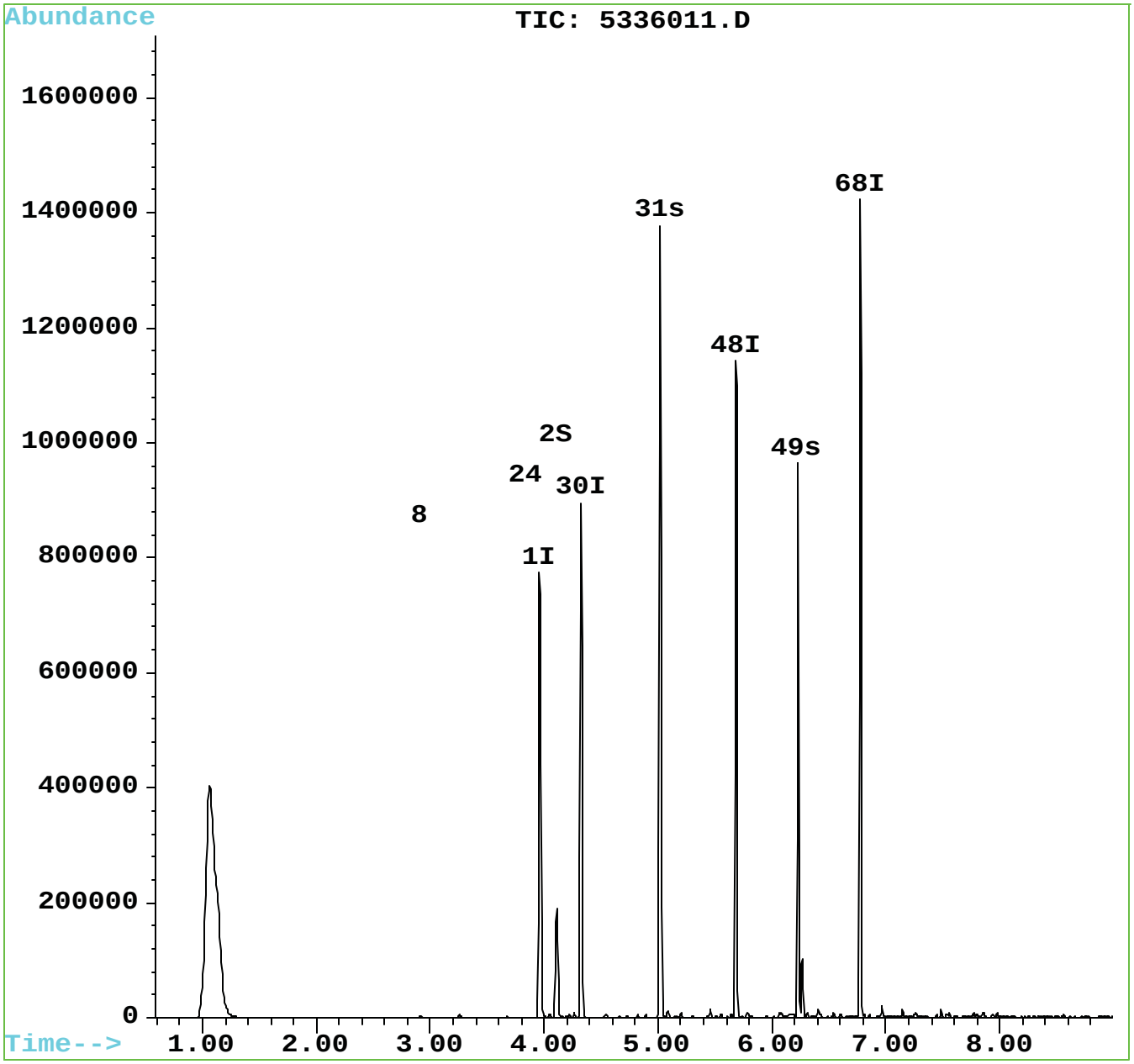
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	502070	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	584944	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	204174	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	277503	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	88289	46.51	ug/l	93.0
31) TOLUENE-D8 (S)	5.02	98	584584	49.46	ug/l	98.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	238763	49.17	ug/l	98.3
Target Compounds						Qvalu
8) Methyl Acetate	2.92	43	2755	4.06	ug/l #	4
24) Tetrahydrofuran	3.84	42	821	2.96	ug/l #	

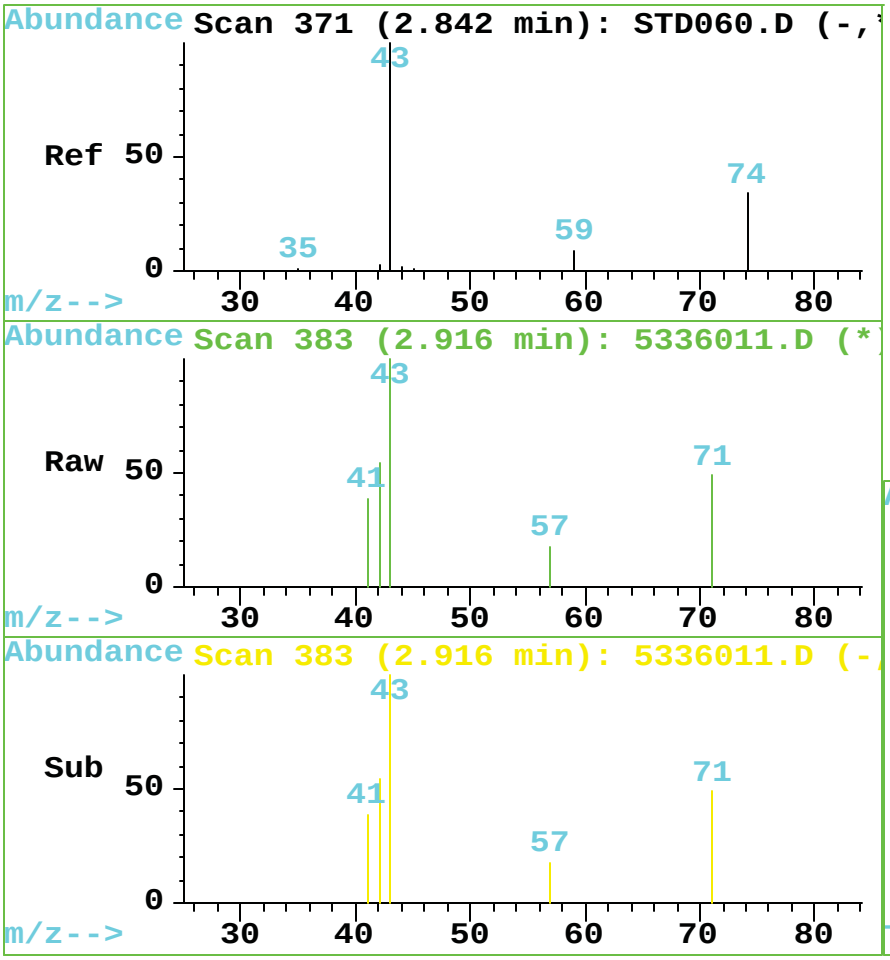
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336011.d Vial: 24
Acq On : 1 Aug 12 7:55 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

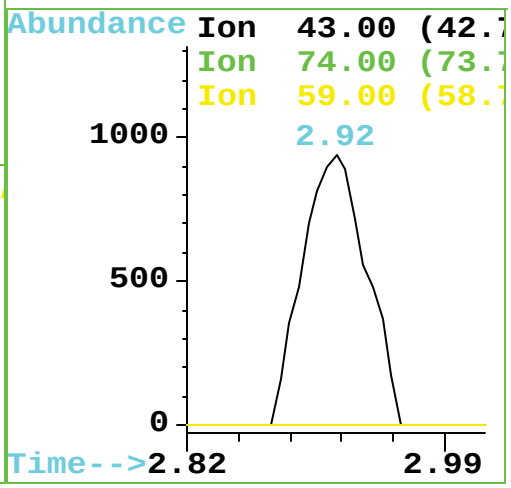


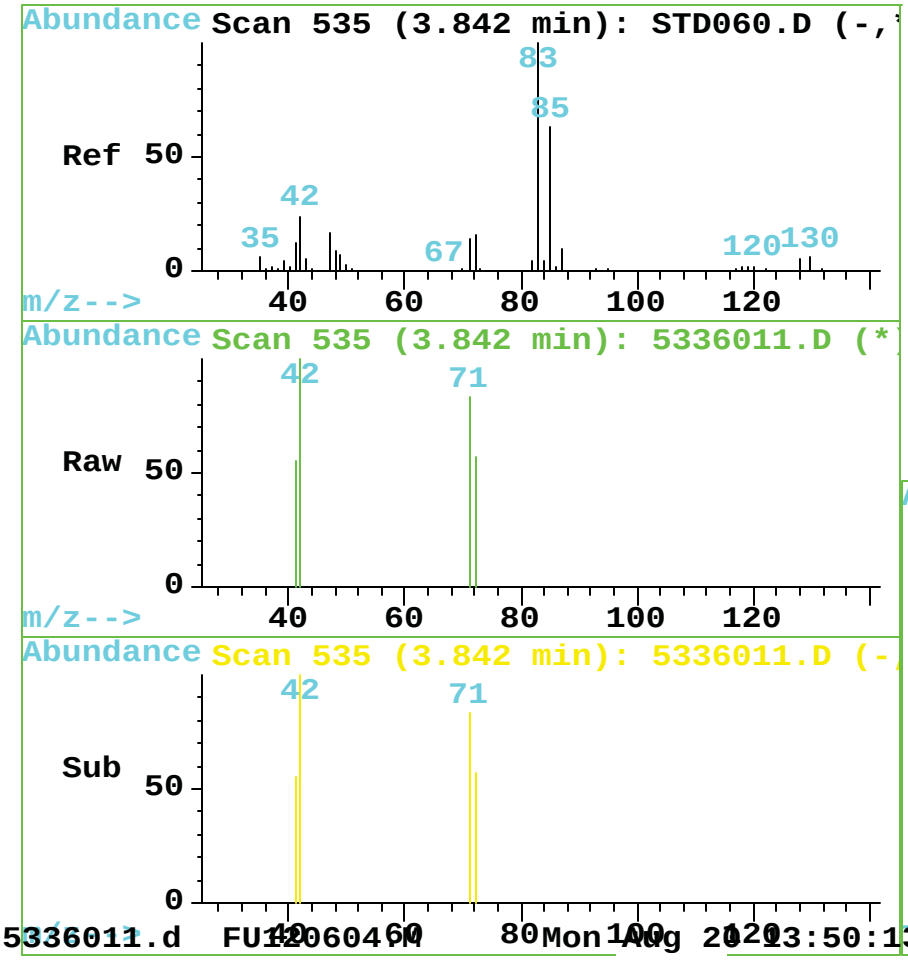


#8
Methyl Acetate
Concen: 4.06 ug/l
RT: 2.92 min Scan# 383
Delta R.T. 0.09 min
Lab File: 5336011.d
Acq: 1 Aug 12 7:55 am

Tgt Ion:43 Resp: 2755

Ion	Ratio	Lower	Upper
43	100		
74	0.0	4.8	64.8#
59	0.0	0.0	40.3
0	0.0	0.0	0.0

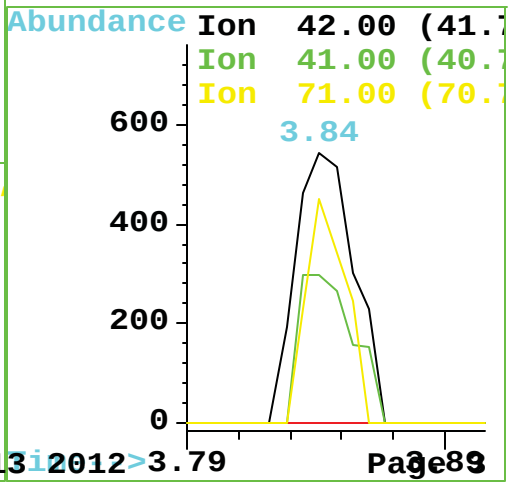




#24
Tetrahydrofuran
Concen: 2.96 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5336011.d
Acq: 1 Aug 12 7:55 am

Tgt Ion:42 Resp: 821

Ion	Ratio	Lower	Upper
42	100		
41	52.1	222.5	282.5#
71	56.5	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336012.d Vial: 25
Acq On : 1 Aug 12 8:15 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

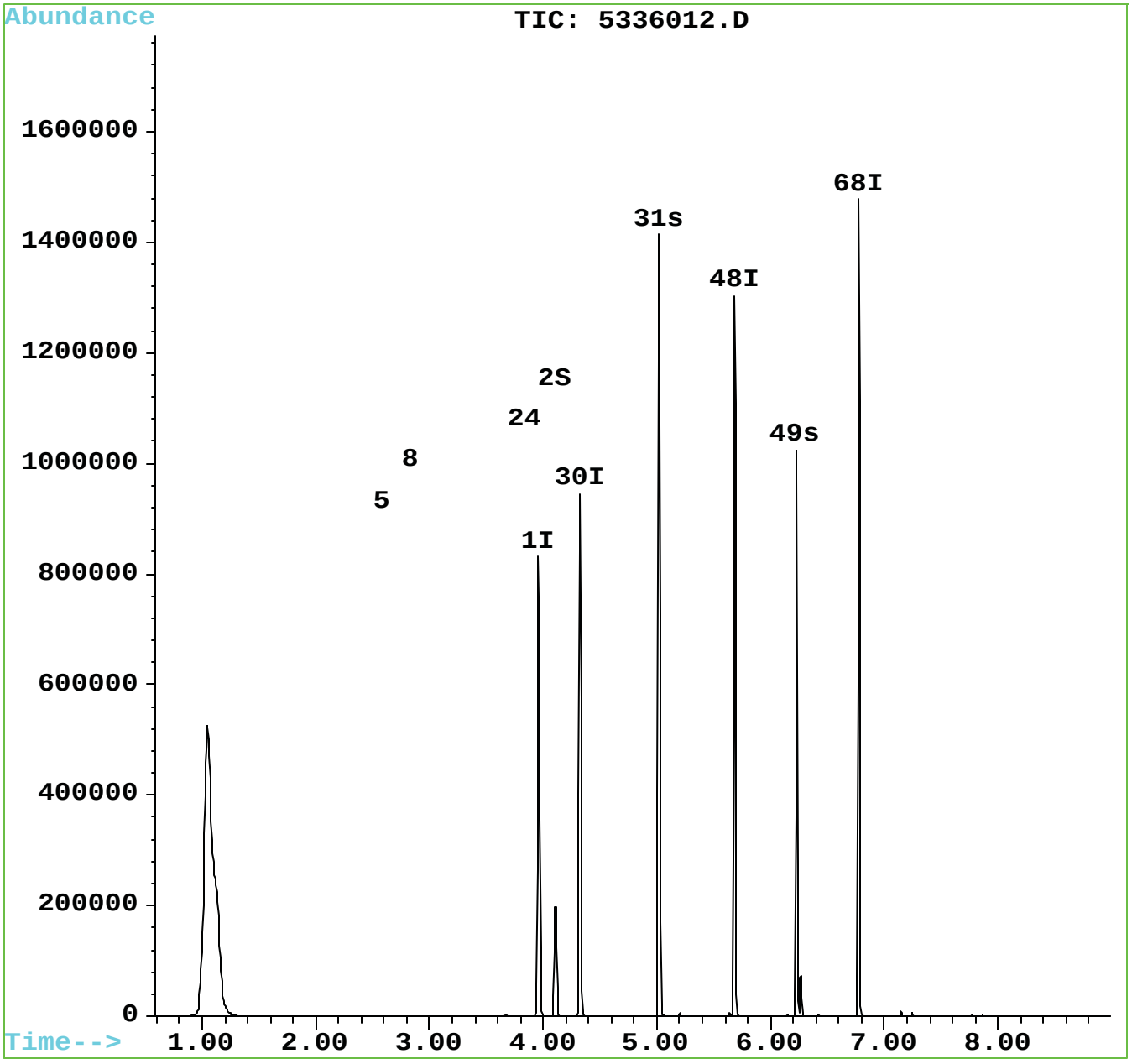
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	531025	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	627766	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	219326	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	281247	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	95825	47.73	ug/l	95.4
31) TOLUENE-D8 (S)	5.02	98	624898	49.27	ug/l	98.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	251761	48.27	ug/l	96.5
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	323	1.63	ug/l #	4
8) Methyl Acetate	2.84	43	907	1.27	ug/l #	6
24) Tetrahydrofuran	3.84	42	810	2.76	ug/l #	

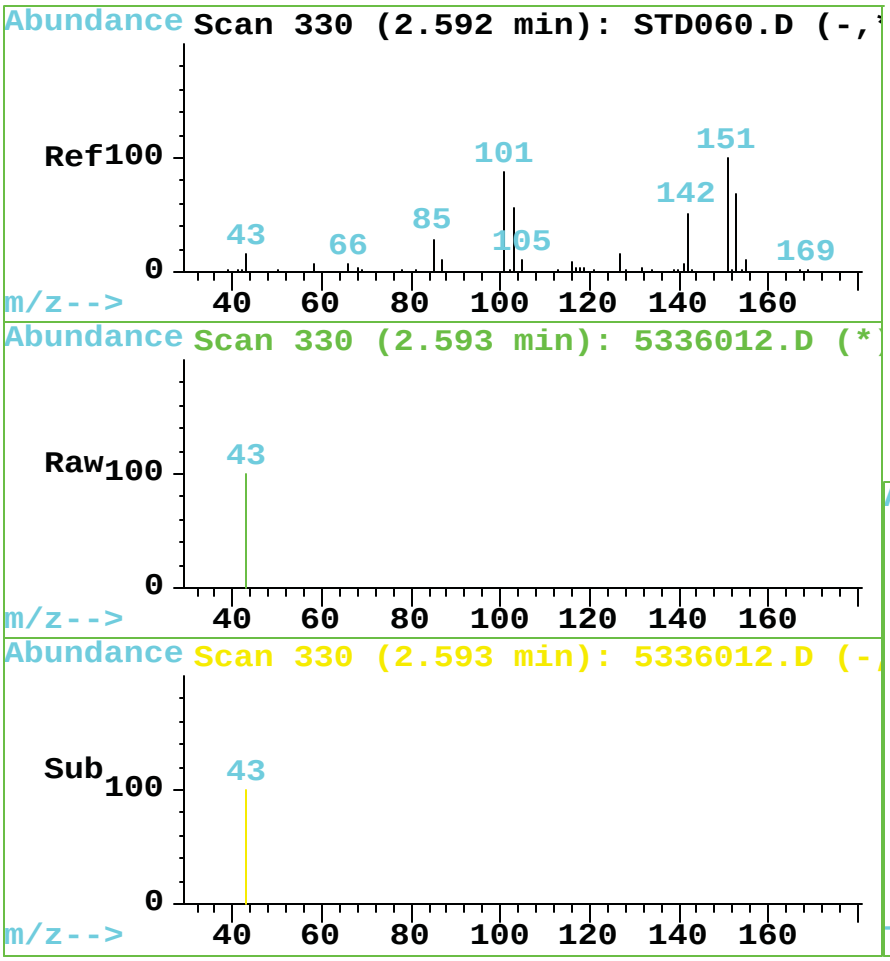
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336012.d Vial: 25
Acq On : 1 Aug 12 8:15 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

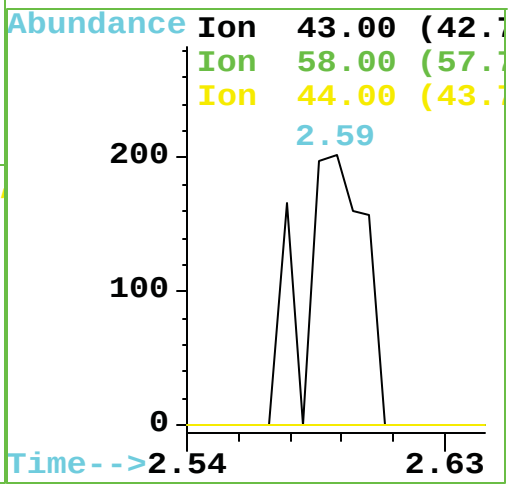


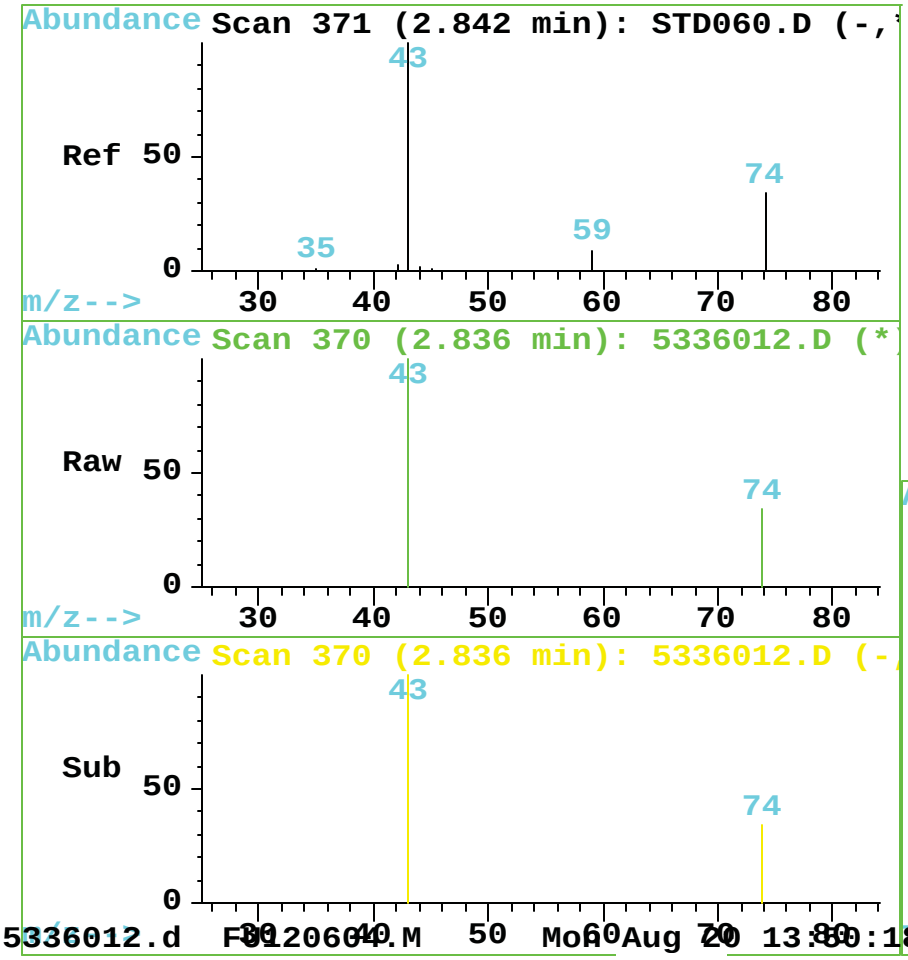


#5
Acetone (*)
Concen: 1.63 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5336012.d
Acq: 1 Aug 12 8:15 am

Tgt Ion:43 Resp: 323

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

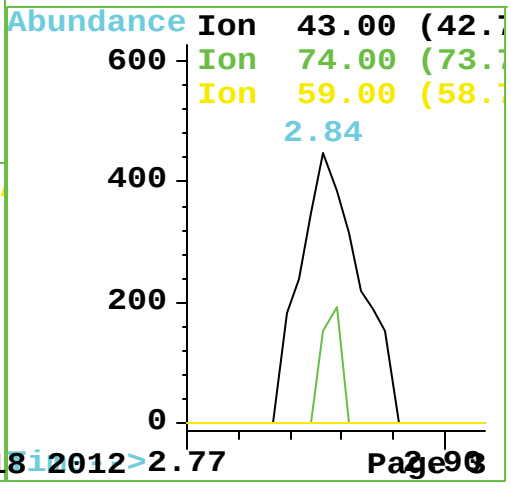


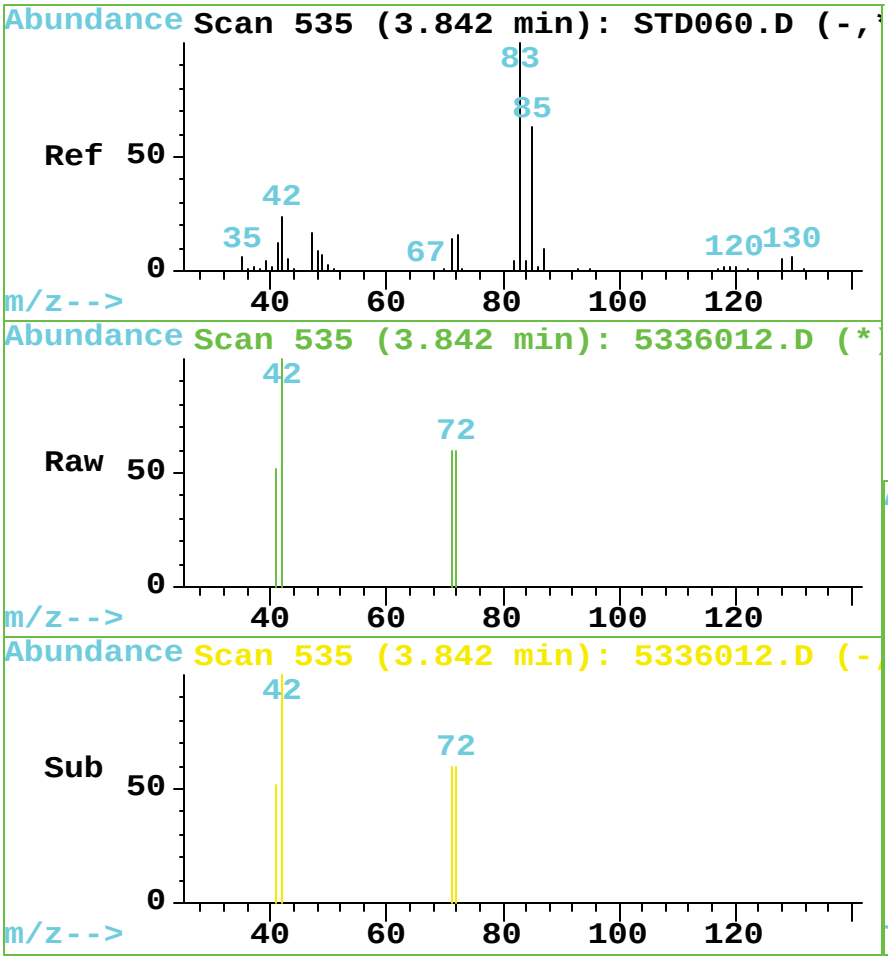


#8
Methyl Acetate
Concen: 1.27 ug/l
RT: 2.84 min Scan# 370
Delta R.T. 0.01 min
Lab File: 5336012.d
Acq: 1 Aug 12 8:15 am

Tgt Ion:43 Resp: 907

Ion	Ratio	Lower	Upper
43	100		
74	14.0	4.8	64.8
59	0.0	0.0	40.3
0	0.0	0.0	0.0

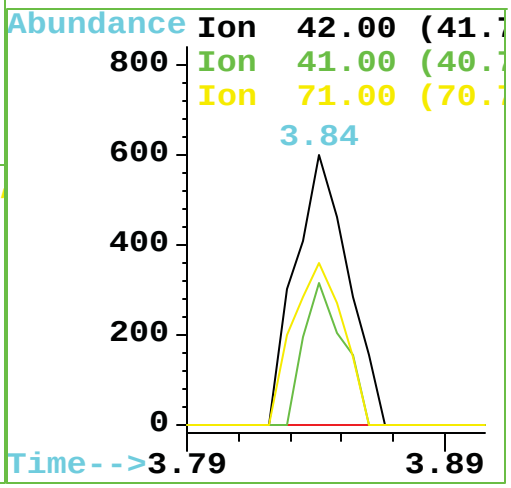




#24
Tetrahydrofuran
Concen: 2.76 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5336012.d
Acq: 1 Aug 12 8:15 am

Tgt Ion:42 Resp: 810

Ion	Ratio	Lower	Upper
42	100		
41	39.4	222.5	282.5#
71	57.2	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336013.d Vial: 26
Acq On : 1 Aug 12 8:35 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

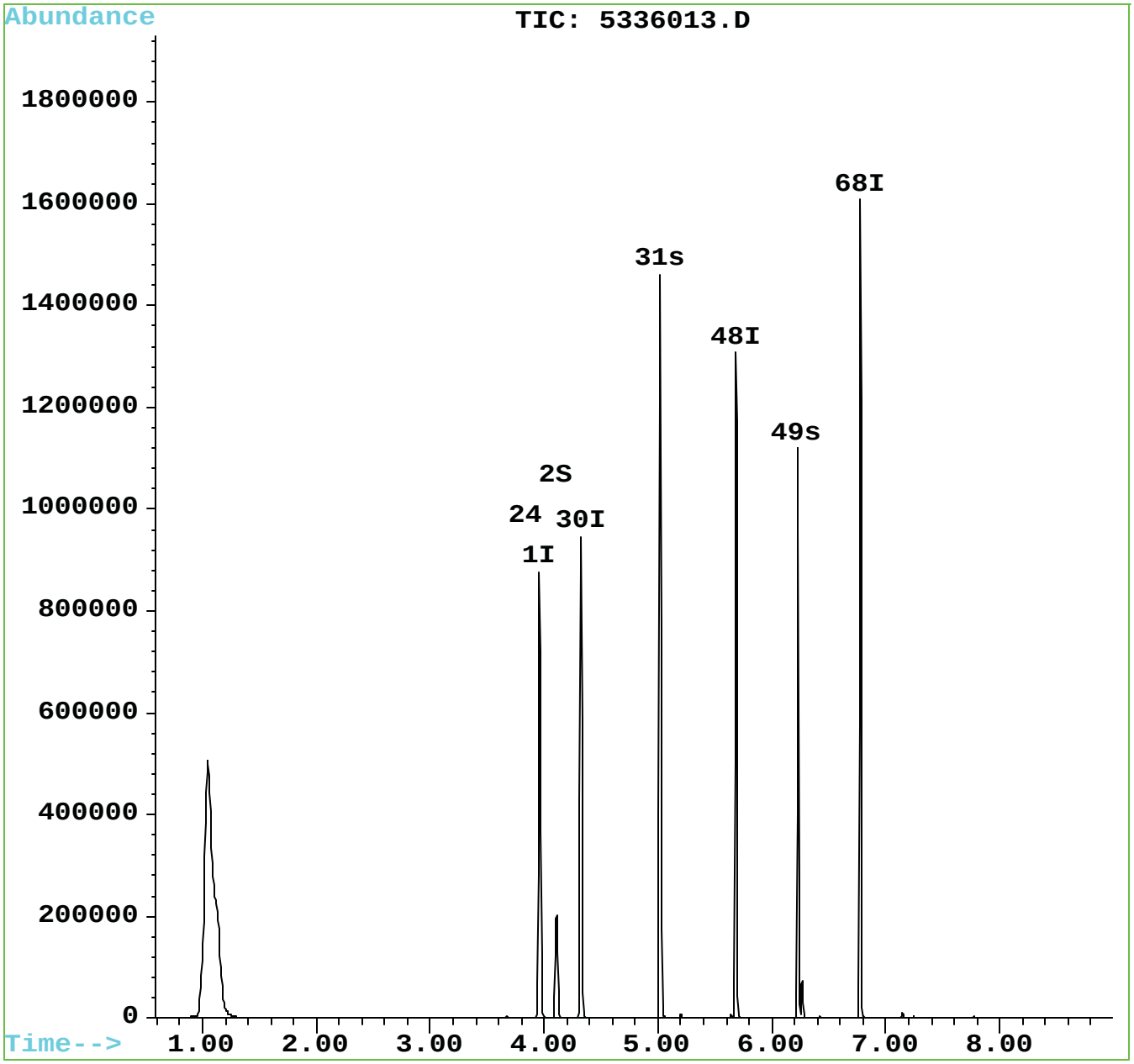
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	559886	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	645699	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	225608	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	301182	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	98274	46.42	ug/l	92.8
31) TOLUENE-D8 (S)	5.02	98	639945	49.05	ug/l	98.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	264958	49.38	ug/l	98.7
Target Compounds						Qvalu
24) Tetrahydrofuran	3.84	42	781	2.53	ug/l	#

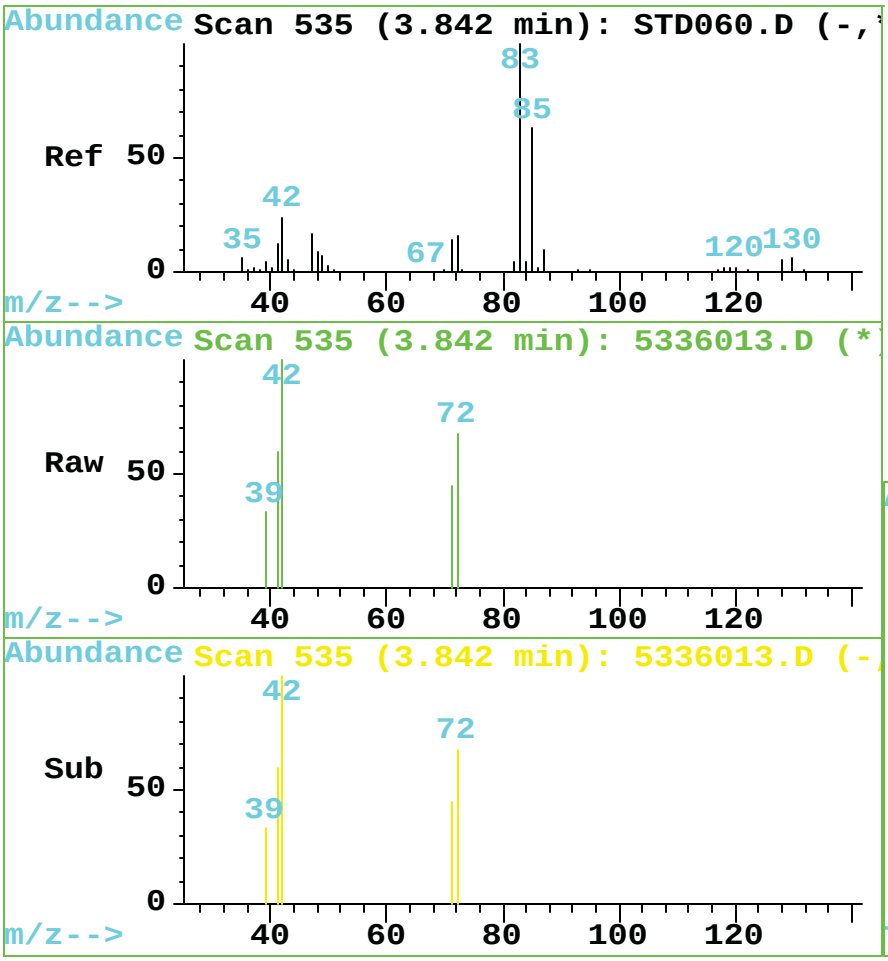
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\5336013.d Vial: 26
Acq On : 1 Aug 12 8:35 am Operator: wat
Sample : 100ul 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

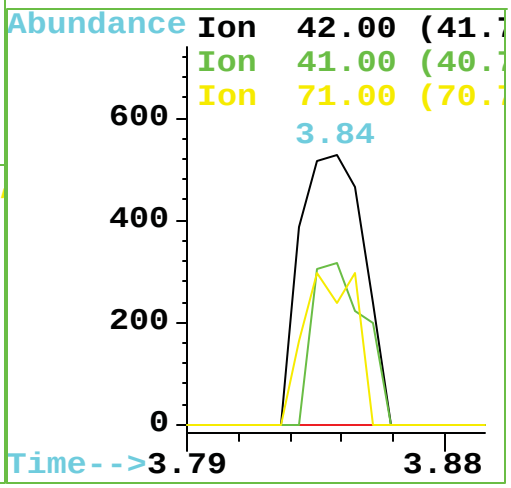




#24
Tetrahydrofuran
Concen: 2.53 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5336013.d
Acq: 1 Aug 12 8:35 am

Tgt Ion:42 Resp: 781

Ion	Ratio	Lower	Upper
42	100		
41	48.9	222.5	282.5#
71	47.0	24.9	84.9
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.189	1.69	0.187	0.194	0.190	0.185	0.188	0.191				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.321	2.04	0.310	0.321	0.323	0.320	0.324	0.330				
	Diethyl ether (*)	A	0.093	2.34	0.090	0.096	0.091	0.092	0.092	0.094				
	Acetone (*)	LO	0.020	16.90		0.025	0.017	0.021	0.017	0.019	0.99	0.00	0.019	0.00
	Methyl iodide (iodomethane) (*	A	0.675	1.86	0.663	0.675	0.665	0.669	0.683	0.696				
	Carbon disulfide (*)	LO	0.837	15.25	0.624	0.764	0.829	0.900	0.937	0.966	1.00	0.00	0.955	0.00
	Methyl Acetate	A	0.068	5.50	0.074	0.069	0.067	0.064	0.064	0.068				
	tert-Methyl butyl ether (MTBE)	A	0.467	4.09	0.442	0.460	0.462	0.461	0.475	0.499				
	Acrylonitrile (*)	A	0.041	12.24	0.031	0.045	0.043	0.042	0.042	0.043				
	2-Butanone (MEK) (*)	LO	0.034	21.27		0.046	0.033	0.033	0.028	0.029	1.00	0.00	0.029	0.00
	Dichlorodifluoromethane	QO	0.183	19.21	0.118	0.179	0.178	0.203	0.208	0.213	1.00	0.00	0.199	0.00
	Chloromethane (SPCC)	A	0.230	3.47	0.214	0.234	0.229	0.231	0.236	0.233				
	Vinyl Chloride (CCC)	A	0.258	3.98	0.240	0.262	0.260	0.263	0.270	0.254				
	Bromomethane	A	0.115	5.21	0.104	0.121	0.114	0.114	0.117	0.119				
	Chloroethane	A	0.055	9.88	0.044	0.057	0.056	0.056	0.057	0.059				
	Acrolein	A												
	Trichlorofluoromethane	A	0.301	5.21	0.283	0.308	0.281	0.300	0.315	0.317				
	1,1-Dichloroethene (CCC/MS)	A	0.320	3.94	0.307	0.313	0.333	0.334	0.306	0.324				
	Methylene Chloride	A	0.309	6.48	0.349	0.306	0.299	0.296	0.299	0.304				
	trans-1,2-Dichloroethene	A	0.333	0.80	0.329	0.332	0.336	0.330	0.334	0.334				
	1,1-Dichloroethane (SPCC)	A	0.417	1.85	0.403	0.418	0.419	0.413	0.421	0.425				
	cis-1,2-Dichloroethene	A	0.348	0.98	0.345	0.346	0.354	0.346	0.350	0.347				
	Tetrahydrofuran	A	0.027	13.06		0.033	0.029	0.025	0.025	0.025				
	Chloroform (CCC)	A	0.448	1.09	0.445	0.454	0.451	0.440	0.448	0.449				
	Bromochloromethane	A	0.223	1.41	0.218	0.224	0.223	0.220	0.223	0.227				
	1,1,1-Trichloroethane	A	0.438	6.04	0.388	0.433	0.446	0.446	0.456	0.461				
	1,1-Dichloropropene	A	0.367	3.62	0.365	0.377	0.386	0.365	0.363	0.347				
	Cyclohexane	A	0.101	6.77	0.104	0.107	0.110	0.096	0.099	0.092				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.010	5.44	1.018	1.058	1.063	1.016	0.994	0.912				
	4-Methyl-2-pentanone (MIBK) (*	LO	0.029	17.01	0.019	0.028	0.030	0.031	0.031	0.032	1.00	0.00	0.032	0.00
	2-Hexanone (*)	A	0.025	11.08	0.021	0.023	0.023	0.027	0.026	0.028				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.355	5.17	0.320	0.350	0.364	0.367	0.369	0.358				
	Benzene (MS)	A	1.000	6.75	1.062	1.044	1.050	0.993	0.962	0.886				
	1,2-Dichloroethane	A	0.181	4.10	0.190	0.184	0.187	0.179	0.176	0.170				
	Trichloroethene (MS)	A	0.273	2.82	0.268	0.278	0.283	0.274	0.272	0.261				
	1,2-Dichloropropane (CCC)	A	0.195	6.61	0.204	0.204	0.203	0.195	0.190	0.171				
	Bromodichloromethane	A	0.243	10.47	0.195	0.234	0.251	0.257	0.262	0.258				
	Methyl Cyclohexane	A	0.283	6.15	0.281	0.296	0.300	0.287	0.280	0.251				
	Dibromomethane	A	0.189	3.98	0.174	0.189	0.194	0.193	0.193	0.189				
	cis-1,3-Dichloropropene	A	0.303	10.83	0.238	0.301	0.318	0.322	0.324	0.314				
	Toluene (CCC/MS)	A	1.173	6.12	1.178	1.235	1.244	1.184	1.149	1.046				
	trans-1,3-Dichloropropene	A	0.228	12.49	0.174	0.218	0.239	0.244	0.248	0.244				
	1,1,2-Trichloroethane	A	0.125	1.47	0.127	0.125	0.127	0.125	0.125	0.122				
	Tetrachloroethene	A	0.485	6.21	0.494	0.491	0.525	0.472	0.491	0.434				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	1.189	4.16	1.270	1.200	1.204	1.160	1.178	1.123				
	trans-1,4-Dichloro-2-butene	A	0.069	6.87	0.061	0.071	0.075	0.070	0.071	0.067				
	Dibromochloromethane	A	0.570	14.80	0.417	0.536	0.580	0.618	0.630	0.641				
	1,2-Dibromoethane	A	0.459	4.13	0.422	0.455	0.470	0.466	0.469	0.471				
	Chlorobenzene (SPCC/MS)	A	2.315	6.75	2.518	2.398	2.396	2.276	2.232	2.072				
	1,1,1,2-Tetrachloroethane	A	0.774	6.88	0.684	0.808	0.821	0.805	0.788	0.735				
	Ethylbenzene (CCC)	A	3.471	8.72	3.621	3.696	3.733	3.487	3.372	2.918				
	p,m-Xylene	A	1.483	14.01	1.631	1.642	1.639	1.488	1.381	1.117				
	o-Xylene	A	2.647	10.04	2.798	2.845	2.865	2.662	2.546	2.164				
	Styrene	A	2.154	10.38	2.010	2.320	2.398	2.251	2.155	1.790				
	Isopropylbenzene	A	3.905	7.55	3.731	4.156	4.257	3.971	3.870	3.445				
	Bromoform (SPCC)	QO	0.364	19.60	0.250	0.320	0.353	0.395	0.420	0.443	1.00	0.00	0.383	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.427	4.34	0.390	0.436	0.440	0.432	0.434	0.432				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	1,2,3-Trichloropropane	A	0.141	4.87	0.151	0.143	0.145	0.138	0.136	0.132				
	n-Propylbenzene	A	4.016	7.55	3.862	4.278	4.350	4.072	4.020	3.514				
	Bromobenzene	A	1.102	4.68	1.138	1.138	1.143	1.097	1.084	1.009				
	1,3,5-Trimethylbenzene	A	1.801	8.11	1.769	1.930	1.960	1.819	1.780	1.550				
	tert-Butylbenzene	A	1.843	6.47	1.765	1.943	1.980	1.861	1.852	1.654				
	1,2,4-Trimethylbenzene	A	1.903	10.03	1.881	2.038	2.118	1.941	1.874	1.564				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.169	8.51	2.891	3.389	3.456	3.301	3.179	2.798				
	p-Isopropyltoluene	A	2.676	10.95	2.508	2.945	2.977	2.785	2.639	2.202				
	1,3-Dichlorobenzene	A	1.462	12.17	1.620	1.583	1.585	1.457	1.370	1.154				
	1,4-Dichlorobenzene	A	1.500	5.88	1.605	1.548	1.558	1.471	1.461	1.359				
	1,2-Dichlorobenzene	A	1.359	4.10	1.399	1.411	1.407	1.334	1.329	1.273				
	1,2,3-Trimethylbenzene	A	2.213	5.18	2.172	2.302	2.344	2.247	2.190	2.020				
	n-Butylbenzene	A	2.120	6.98	1.974	2.225	2.296	2.167	2.146	1.912				
	Hexachloroethane	QO	0.565	17.65	0.389	0.514	0.574	0.621	0.650	0.640	1.00	0.00	0.632	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.070	20.12	0.045	0.066	0.068	0.073	0.080	0.085	1.00	0.00	0.071	0.00
	1,2,4-Trichlorobenzene	A	0.928	2.87	0.941	0.913	0.949	0.912	0.961	0.891				
	Hexachlorobutadiene	A	0.882	4.04	0.921	0.886	0.887	0.862	0.912	0.823				
	1,2,3-Trichlorobenzene	A	0.758	4.14	0.807	0.738	0.759	0.732	0.784	0.730				
	Naphthalene	A	1.135	6.37	1.023	1.081	1.148	1.149	1.222	1.187				
	2-Methylnaphthalene	LO	0.504	16.36	0.448	0.392	0.472	0.525	0.615	0.571	1.00	0.00	0.575	0.00

Calibration Date: 06/04/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): fu120604.M (Mean %RSD: 7.41)

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wt120801.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.726	2.57	0.721	0.762	0.722	0.719	0.726	0.707				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.484	5.86	0.451	0.455	0.475	0.491	0.511	0.519				
	Diethyl ether (*)	A	0.373	2.84	0.357	0.368	0.371	0.374	0.387	0.382				
	Acetone (*)	A	0.253	8.61		0.258	0.218	0.252	0.278	0.257				
	Methyl iodide (iodomethane) (*	A	0.652	5.17	0.605	0.638	0.637	0.653	0.684	0.697				
	Carbon disulfide (*)	A	1.705	9.40	1.470	1.594	1.686	1.730	1.849	1.903				
	Methyl Acetate	A	0.517	3.32	0.492	0.505	0.523	0.514	0.523	0.542				
	tert-Methyl butyl ether (MTBE)	A	1.557	6.74	1.422	1.455	1.555	1.568	1.655	1.686				
	Acrylonitrile (*)	A	0.266	14.79	0.191	0.260	0.277	0.274	0.293	0.300				
	2-Butanone (MEK) (*)	A	0.372	5.23		0.362	0.346	0.372	0.394	0.388				
	Dichlorodifluoromethane	QO	0.461	21.53	0.304	0.436	0.441	0.446	0.567	0.571	1.00	0.00	0.485	0.00
	Chloromethane (SPCC)	A	0.835	6.11	0.766	0.844	0.803	0.814	0.904	0.879				
	Vinyl Chloride (CCC)	A	0.751	8.18	0.639	0.747	0.759	0.747	0.812	0.801				
	Bromomethane	A	0.342	14.05	0.376	0.384	0.381	0.329	0.319	0.262				
	Chloroethane	A	0.403	13.50	0.394	0.459	0.451	0.410	0.398	0.307				
	Acrolein	A	0.100	5.92		0.093	0.098	0.098	0.106	0.107				
	Trichlorofluoromethane	A	0.757	5.47	0.680	0.782	0.777	0.773	0.790	0.740				
	1,1-Dichloroethene (CCC/MS)	A	0.946	5.34	0.868	0.928	0.928	0.953	0.992	1.008				
	Methylene Chloride	A	0.578	2.21	0.580	0.578	0.562	0.565	0.586	0.596				
	trans-1,2-Dichloroethene	A	0.922	4.55	0.866	0.895	0.898	0.935	0.964	0.971				
	1,1-Dichloroethane (SPCC)	A	1.106	4.25	1.032	1.081	1.094	1.125	1.144	1.161				
	cis-1,2-Dichloroethene	A	0.597	3.11	0.566	0.595	0.591	0.598	0.615	0.617				
	Tetrahydrofuran	A	0.238	8.66		0.268	0.251	0.219	0.223	0.231				
	Chloroform (CCC)	A	0.951	1.74	0.940	0.930	0.945	0.950	0.963	0.976				
	Bromochloromethane	A	0.314	4.10	0.292	0.306	0.314	0.320	0.324	0.326				
	1,1,1-Trichloroethane	A	0.823	6.08	0.761	0.766	0.827	0.837	0.866	0.881				
	1,1-Dichloropropene	A	0.826	2.26	0.802	0.819	0.811	0.829	0.851	0.842				
	Cyclohexane	A	0.374	3.99	0.353	0.368	0.363	0.382	0.389	0.389				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.237	1.02	1.226	1.221	1.230	1.251	1.244	1.248				
	4-Methyl-2-pentanone (MIBK) (*	A	0.120	14.73	0.090	0.110	0.120	0.129	0.135	0.136				
	2-Hexanone (*)	LO	0.119	24.06	0.065	0.117	0.116	0.130	0.143	0.140	1.00	0.00	0.140	0.00
	2-chloroethylvinyl ether	A	0.230	7.00	0.205	0.215	0.236	0.234	0.247	0.240				
	Carbon Tetrachloride	A	0.358	8.73	0.317	0.334	0.341	0.372	0.393	0.388				
	Benzene (MS)	A	1.314	2.75	1.285	1.277	1.310	1.311	1.379	1.322				
	1,2-Dichloroethane	A	0.473	3.47	0.455	0.465	0.464	0.475	0.502	0.479				
	Trichloroethene (MS)	A	0.303	3.49	0.291	0.300	0.294	0.302	0.318	0.313				
	1,2-Dichloropropane (CCC)	A	0.349	6.13	0.313	0.344	0.344	0.353	0.376	0.363				
	Bromodichloromethane	A	0.369	12.86	0.288	0.349	0.361	0.390	0.411	0.414				
	Methyl Cyclohexane	A	0.479	6.40	0.443	0.455	0.462	0.487	0.518	0.510				
	Dibromomethane	A	0.147	4.89	0.157	0.137	0.141	0.145	0.150	0.150				
	cis-1,3-Dichloropropene	LO	0.478	17.82	0.326	0.450	0.474	0.514	0.552	0.553	1.00	0.00	0.549	0.00
	Toluene (CCC/MS)	A	1.374	2.71	1.375	1.358	1.325	1.376	1.439	1.369				
	trans-1,3-Dichloropropene	QO	0.423	21.90	0.263	0.378	0.418	0.468	0.501	0.507	1.00	0.00	0.469	0.00
	1,1,2-Trichloroethane	A	0.225	2.89	0.224	0.217	0.218	0.226	0.234	0.229				
	Tetrachloroethene	A	0.257	4.78	0.236	0.251	0.257	0.261	0.272	0.263				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.529	4.01	0.511	0.536	0.546	0.509	0.512	0.559				
	trans-1,4-Dichloro-2-butene	QO	0.101	53.27	0.014	0.069	0.092	0.129	0.148	0.154	1.00	0.00	0.127	0.00
	Dibromochloromethane	A	0.411	14.40	0.315	0.373	0.407	0.441	0.463	0.468				
	1,2-Dibromoethane	A	0.453	5.31	0.408	0.445	0.464	0.463	0.468	0.472				
	Chlorobenzene (SPCC/MS)	A	1.451	1.89	1.482	1.433	1.469	1.444	1.467	1.408				
	1,1,1,2-Tetrachloroethane	A	0.432	10.75	0.346	0.417	0.459	0.463	0.470	0.437				
	Ethylbenzene (CCC)	A	2.688	3.98	2.624	2.652	2.750	2.779	2.798	2.522				
	p,m-Xylene	A	0.995	6.59	0.986	1.011	1.049	1.034	1.019	0.868				
	o-Xylene	A	2.153	4.96	2.139	2.120	2.218	2.241	2.239	1.962				
	Styrene	A	1.663	7.00	1.525	1.661	1.755	1.762	1.757	1.516				
	Isopropylbenzene	A	2.536	6.25	2.254	2.514	2.663	2.634	2.666	2.482				
	Bromoform (SPCC)	QO	0.214	25.74	0.122	0.186	0.206	0.239	0.255	0.273	1.00	0.00	0.228	0.00
	1,1,2,2-Tetrachloroethane (SPC	A	0.640	6.49	0.558	0.639	0.660	0.652	0.666	0.666				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wt120801.m	1,2,3-Trichloropropane	A	0.182	5.43	0.164	0.182	0.189	0.186	0.192	0.181				
	n-Propylbenzene	A	3.005	6.53	2.643	2.965	3.126	3.118	3.184	2.993				
	Bromobenzene	A	0.502	5.22	0.455	0.500	0.515	0.519	0.528	0.493				
	1,3,5-Trimethylbenzene	A	0.984	5.53	0.891	0.989	1.008	1.026	1.037	0.953				
	tert-Butylbenzene	A	1.425	4.85	1.326	1.367	1.436	1.484	1.509	1.430				
	1,2,4-Trimethylbenzene	A	1.076	8.58	0.927	1.077	1.135	1.154	1.154	1.007				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.240	5.09	2.943	3.206	3.257	3.344	3.427	3.265				
	p-Isopropyltoluene	A	2.528	6.08	2.330	2.583	2.600	2.682	2.634	2.339				
	1,3-Dichlorobenzene	A	1.223	5.51	1.222	1.242	1.268	1.269	1.246	1.090				
	1,4-Dichlorobenzene	A	1.312	0.90	1.306	1.316	1.307	1.313	1.332	1.297				
	1,2-Dichlorobenzene	A	1.245	1.08	1.256	1.244	1.226	1.251	1.259	1.231				
	1,2,3-Trimethylbenzene	A	2.758	5.67	2.457	2.789	2.795	2.878	2.880	2.747				
	n-Butylbenzene	A	2.510	6.28	2.218	2.480	2.518	2.610	2.669	2.562				
	Hexachloroethane	QO	0.233	24.82	0.131	0.215	0.224	0.263	0.279	0.287	1.00	0.00	0.259	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.102	32.85	0.039	0.095	0.104	0.116	0.123	0.132	1.00	0.00	0.111	0.00
	1,2,4-Trichlorobenzene	A	0.663	5.07	0.617	0.633	0.653	0.688	0.694	0.694				
	Hexachlorobutadiene	A	0.240	9.84	0.197	0.238	0.235	0.248	0.261	0.260				
	1,2,3-Trichlorobenzene	A	0.601	3.14	0.570	0.589	0.606	0.610	0.624	0.607				
	Naphthalene	A	2.025	9.47	1.683	1.933	2.053	2.121	2.189	2.172				
	2-Methylnaphthalene	QO	0.677	16.47	0.532	0.544	0.710	0.752	0.795	0.730	1.00	0.00	0.804	0.00

Calibration Date: 08/01/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): wt120801.M (Mean %RSD: 8.34)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\urborg.fft\methods\fu120604.m\

Injection Time	Calibration Data File
06/04/12 15:11	bfb04c.d
06/04/12 17:12	std001.d
06/04/12 17:33	std010.d
06/04/12 17:53	std020.d
06/04/12 18:13	std060.d
06/04/12 18:33	std100.d
06/04/12 18:53	std200.d

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

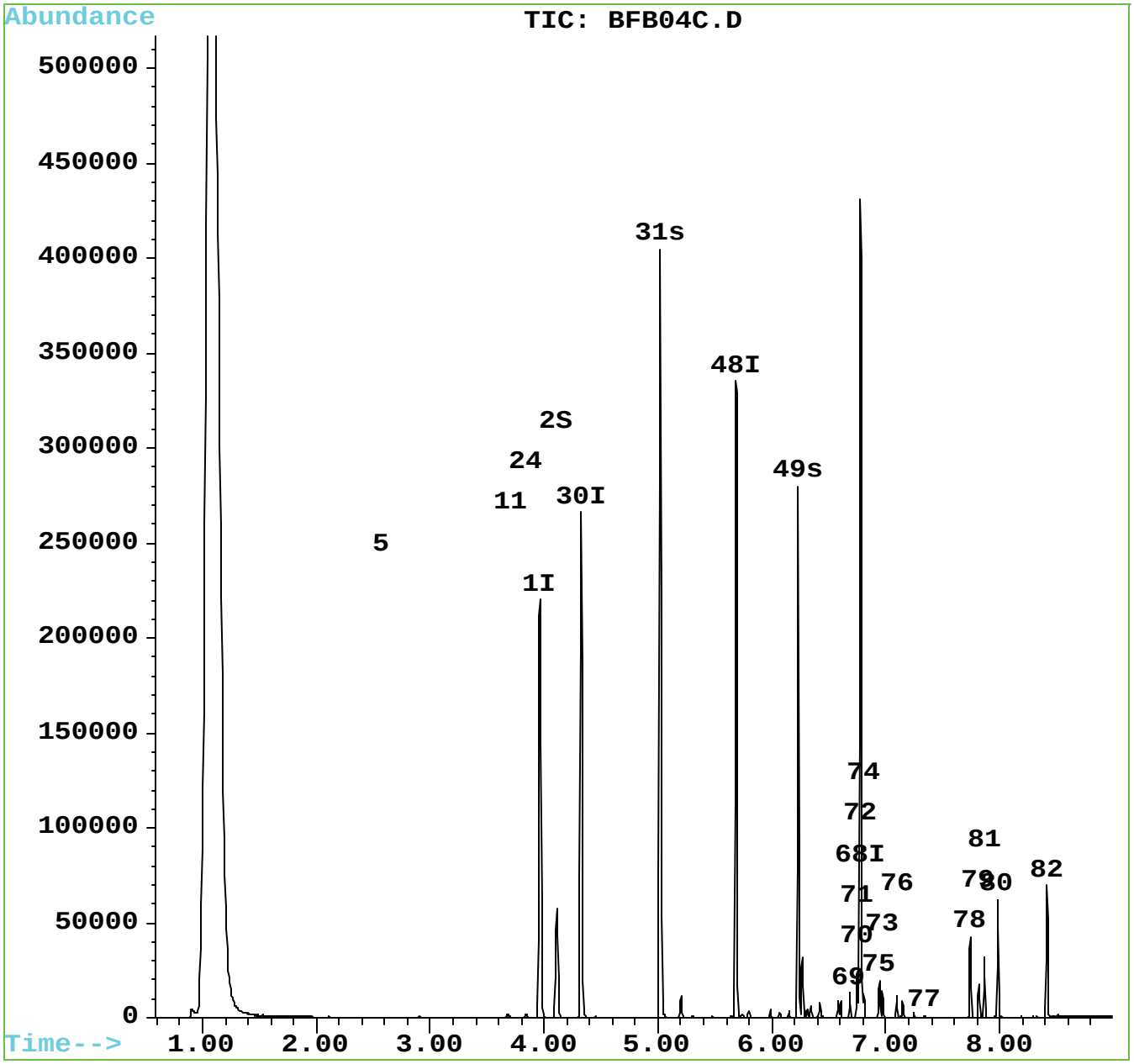
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	149094	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	170397	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	58855	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	89237	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	25625	45.46	ug/l		90.9
31) TOLUENE-D8 (S)	5.02	98	166719	48.42	ug/l		96.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	68907	49.23	ug/l		98.4
Target Compounds							Qvalu
5) Acetone (*)	2.57	43	63	1.14	ug/l	#	
11) 2-Butanone (MEK) (*)	3.70	43	336	3.90	ug/l	#	4
24) Tetrahydrofuran	3.84	42	879	10.69	ug/l	#	
69) sec-Butylbenzene	6.68	105	5698	1.01	ug/l		9
70) p-Isopropyltoluene	6.74	119	5654	1.18	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	4460	1.71	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	4908	1.83	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	4574	1.89	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	4618	1.17	ug/l		9
75) n-Butylbenzene	6.95	91	6419	1.70	ug/l		9
76) Hexachloroethane	7.10	201	1448	1.28	ug/l		7
77) 1,2-Dibromo-3-Chloropropan	7.34	157	330	2.57	ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.74	182	10848	6.55	ug/l		9
79) Hexachlorobutadiene	7.82	225	2912	1.85	ug/l		9
80) 1,2,3-Trichlorobenzene	7.98	180	15542	11.48	ug/l		9
81) Naphthalene	7.87	128	17573	8.67	ug/l		9
82) 2-Methylnaphthalene	8.41	142	23182	22.59	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

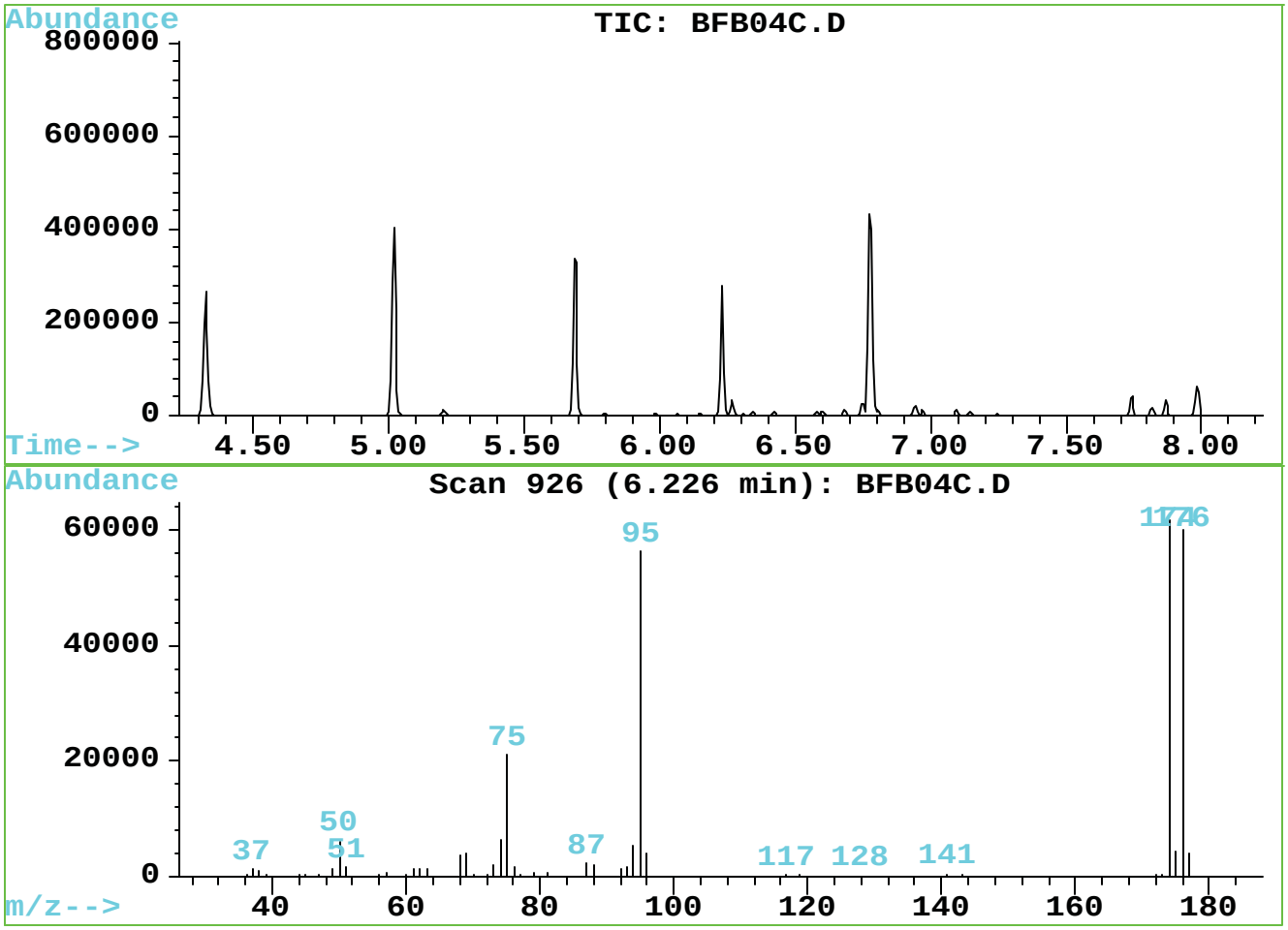
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.9	6123	PASS
75	95	30	66	37.5	21088	PASS
95	95	100	100	100.0	56240	PASS
96	95	5	9	7.1	4010	PASS
173	174	0	2	0.5	328	PASS
174	95	50	120	109.6	61664	PASS
175	174	4	9	6.9	4224	PASS
176	174	93	101	97.4	60088	PASS
177	176	5	9	6.5	3929	PASS

BFB04C.D FU120604.M Thu Jul 12 16:20:21 2012 TEST

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	700150	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	808489	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288497	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	414328	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	2614	1.37	ug/l		2.7
31) TOLUENE-D8 (S)	5.02	98	16460	1.01	ug/l		2.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	7329	1.11	ug/l		2.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	4345	0.88	ug/l		9
4) Diethyl ether (*)	2.35	74	1265	1.68	ug/l		8
5) Acetone (*)	2.59	43	1101	2.69	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	9290	1.12	ug/l		9
7) Carbon disulfide (*)	2.68	76	8736	0.59	ug/l		8
8) Methyl Acetate	2.84	43	1042	0.81	ug/l	#	5
9) tert-Methyl butyl ether (M	3.11	73	6186	1.24	ug/l		8
10) Acrylonitrile (*)	3.09	53	434	0.50	ug/l	#	9
11) 2-Butanone (MEK) (*)	3.70	43	2004	3.80	ug/l		9
12) Dichlorodifluoromethane	1.22	85	1656	0.44	ug/l	#	6
13) Chloromethane (SPCC)	1.34	50	2994	0.81	ug/l	#	8
14) Vinyl Chloride (CCC)	1.45	62	3355	0.75	ug/l	#	8
15) Bromomethane	1.73	94	1457	1.03	ug/l	#	9
16) Chloroethane	1.84	64	621	0.74	ug/l	#	2
18) Trichlorofluoromethane	2.12	101	3960	1.12	ug/l	m	6
19) 1,1-Dichloroethene (CCC/MS	2.52	61	4293	0.93	ug/l		8
20) Methylene Chloride	2.90	84	4885	1.44	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	4602	1.00	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	5643	1.09	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	4836	1.18	ug/l		8
24) Tetrahydrofuran	3.84	42	1414	2.47	ug/l	#	
25) Chloroform (CCC)	3.85	83	6228	1.22	ug/l		9
26) Bromochloromethane	3.81	130	3055	1.31	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	5438	0.89	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	5116	0.93	ug/l		9
29) Cyclohexane	3.98	42	1455	0.86	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	308	0.50	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	345	0.65	ug/l	#	7
35) Carbon Tetrachloride	4.04	117	5180	0.78	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.13	78	17168	1.05 ug/l	9
37) 1,2-Dichloroethane	4.15	62	3072	1.26 ug/l	9
38) Trichloroethene (MS)	4.45	95	4332	0.89 ug/l	8
39) 1,2-Dichloropropane (CCC)	4.56	63	3296	1.20 ug/l	9
40) Bromodichloromethane	4.68	83	3156	0.99 ug/l	9
41) Methyl Cyclohexane	4.54	55	4537	0.76 ug/l	9
42) Dibromomethane	4.62	174	2816	1.09 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	3853	0.95 ug/l	9
44) Toluene (CCC/MS)	5.05	91	19045	1.00 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	2821	0.93 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	2059	1.20 ug/l	9
47) Tetrachloroethene	5.31	166	7985	0.77 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	354	0.70 ug/l #	6
51) Dibromochloromethane	5.42	129	2406	0.72 ug/l	9
52) 1,2-Dibromoethane	5.48	107	2435	0.94 ug/l #	9
53) Chlorobenzene (SPCC/MS)	5.70	112	14530	1.08 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.73	131	3946	0.98 ug/l #	7
55) Ethylbenzene (CCC)	5.74	91	20894	0.91 ug/l	9
56) p,m-Xylene	5.79	106	18819	1.92 ug/l	8
57) o-Xylene	5.98	91	16146	0.99 ug/l	9
58) Styrene	5.99	104	11598	0.91 ug/l	9
59) Isopropylbenzene	6.15	105	21529	0.80 ug/l	9
60) Bromoform (SPCC)	6.09	173	1444	0.64 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	2250	0.92 ug/l	8
62) 1,2,3-Trichloropropane	6.31	110	873	0.88 ug/l #	7
63) n-Propylbenzene	6.34	91	22281	0.79 ug/l	9
64) Bromobenzene	6.31	156	6565	1.07 ug/l	9
65) 1,3,5-Trimethylbenzene	6.42	120	10207	0.87 ug/l	8
66) tert-Butylbenzene	6.58	91	10186	0.81 ug/l	8
67) 1,2,4-Trimethylbenzene	6.60	120	10851	0.88 ug/l	9
69) sec-Butylbenzene	6.68	105	23956	0.71 ug/l	9
70) p-Isopropyltoluene	6.75	119	20779	0.75 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	13421	1.06 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	13301	1.05 ug/l	8
73) 1,2-Dichlorobenzene	6.97	146	11592	1.05 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	17998	0.98 ug/l	9
75) n-Butylbenzene	6.95	91	16359	0.73 ug/l	9
76) Hexachloroethane	7.10	201	3221	0.57 ug/l #	6
77) 1,2-Dibromo-3-Chloropropan	7.34	157	377	0.43 ug/l #	7
78) 1,2,4-Trichlorobenzene	7.74	182	7794	0.99 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

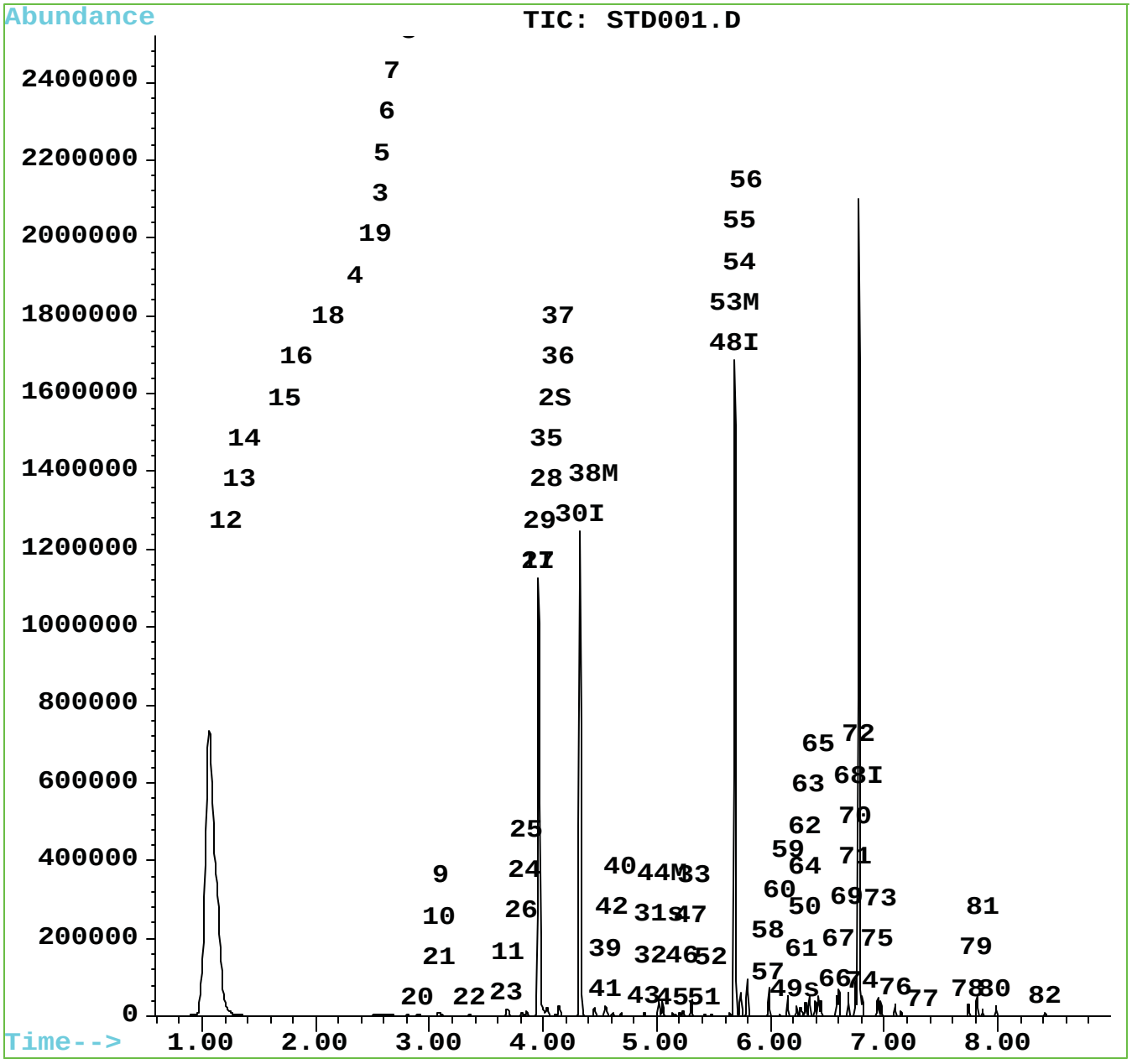
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	7628	0.81	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	6691	1.04	ug/l	9
81)	Naphthalene	7.87	128	8480	0.73	ug/l	9
82)	2-Methylnaphthalene	8.41	142	3709	0.79	ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	682071	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	801325	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288586	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	394725	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	26439	14.21	ug/l		28.4
31) TOLUENE-D8 (S)	5.02	98	169634	10.50	ug/l		21.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	69262	10.51	ug/l		21.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	43785	9.08	ug/l		9
4) Diethyl ether (*)	2.35	74	13061	17.75	ug/l		9
5) Acetone (*)	2.59	43	3379	8.48	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	92043	11.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	104193	7.28	ug/l		9
8) Methyl Acetate	2.84	43	9355	7.51	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	62726	12.90	ug/l		9
10) Acrylonitrile (*)	3.08	53	6179	7.36	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	6284	12.23	ug/l		9
12) Dichlorodifluoromethane	1.23	85	24480	6.75	ug/l	#	5
13) Chloromethane (SPCC)	1.34	50	31951	8.92	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	35708	8.22	ug/l		9
15) Bromomethane	1.73	94	16455	11.98	ug/l		9
16) Chloroethane	1.83	64	7811	9.60	ug/l		8
18) Trichlorofluoromethane	2.12	101	42017	12.15	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	42759	9.53	ug/l		8
20) Methylene Chloride	2.90	84	41726	12.59	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	45284	10.11	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	57014	11.28	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	47225	11.79	ug/l		8
24) Tetrahydrofuran	3.84	42	4482	8.04	ug/l		8
25) Chloroform (CCC)	3.85	83	61944	12.44	ug/l		9
26) Bromochloromethane	3.81	130	30607	13.45	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	59062	9.90	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	51446	9.59	ug/l		9
29) Cyclohexane	3.98	42	14529	8.79	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	4526	7.43	ug/l		9
33) 2-Hexanone (*)	5.34	58	3739	7.03	ug/l		9
35) Carbon Tetrachloride	4.04	117	56039	8.46	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36) Benzene (MS)	4.14	78	167262	10.36 ug/l		9
37) 1,2-Dichloroethane	4.15	62	29557	12.25 ug/l		9
38) Trichloroethene (MS)	4.45	95	44502	9.19 ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	32643	11.98 ug/l		9
40) Bromodichloromethane	4.68	83	37532	11.83 ug/l		9
41) Methyl Cyclohexane	4.54	55	47431	8.07 ug/l		9
42) Dibromomethane	4.62	174	30292	11.86 ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	48244	12.06 ug/l		9
44) Toluene (CCC/MS)	5.05	91	197973	10.46 ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	34925	11.65 ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	20058	11.76 ug/l		9
47) Tetrachloroethene	5.31	166	78758	7.65 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	4076	8.03 ug/l	#	8
51) Dibromochloromethane	5.42	129	30965	9.25 ug/l		9
52) 1,2-Dibromoethane	5.48	107	26247	10.12 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	138379	10.24 ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	46654	11.55 ug/l		9
55) Ethylbenzene (CCC)	5.74	91	213344	9.25 ug/l		9
56) p,m-Xylene	5.79	106	189596	19.33 ug/l		8
57) o-Xylene	5.98	91	164221	10.10 ug/l		9
58) Styrene	5.99	104	133879	10.53 ug/l		9
59) Isopropylbenzene	6.15	105	239852	8.91 ug/l		9
60) Bromoform (SPCC)	6.09	173	18451	8.11 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	25150	10.29 ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	8275	8.34 ug/l		8
63) n-Propylbenzene	6.34	91	246890	8.70 ug/l		9
64) Bromobenzene	6.31	156	65654	10.74 ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	111420	9.50 ug/l		8
66) tert-Butylbenzene	6.58	91	112146	8.93 ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.60	120	117646	9.49 ug/l		9
69) sec-Butylbenzene	6.68	105	267519	8.38 ug/l		9
70) p-Isopropyltoluene	6.75	119	232466	8.82 ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	124985	10.32 ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	122183	10.08 ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	111374	10.57 ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	181720	10.42 ug/l		9
75) n-Butylbenzene	6.95	91	175684	8.18 ug/l		9
76) Hexachloroethane	7.10	201	40609	7.46 ug/l		9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	5208	6.12 ug/l		8
78) 1,2,4-Trichlorobenzene	7.74	182	72052	9.63 ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

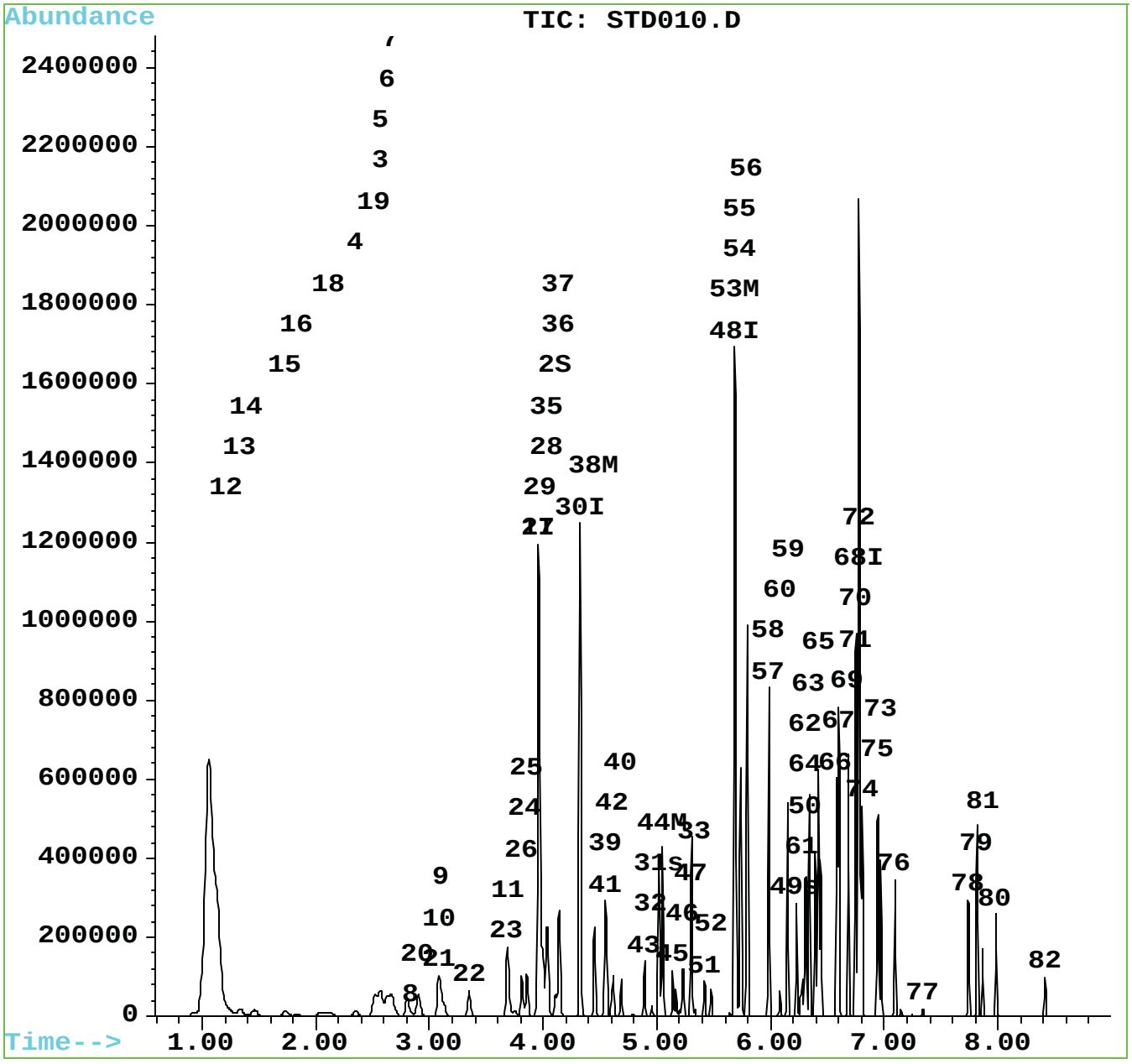
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	69955	7.80	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	58236	9.54	ug/l	9
81)	Naphthalene	7.87	128	85357	7.76	ug/l	9
82)	2-Methylnaphthalene	8.41	142	30930	6.85	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	709486	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	825373	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	299894	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	409867	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	53897	27.85	ug/l		55.7
31) TOLUENE-D8 (S)	5.02	98	351021	21.10	ug/l		42.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	144461	21.10	ug/l		42.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	91781	18.31	ug/l		9
4) Diethyl ether (*)	2.35	74	25711	33.60	ug/l		9
5) Acetone (*)	2.60	43	4942	11.93	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	188646	22.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	235375	15.82	ug/l		9
8) Methyl Acetate	2.85	43	18887	14.57	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	131145	25.92	ug/l		9
10) Acrylonitrile (*)	3.08	53	12124	13.89	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	9327	17.45	ug/l		9
12) Dichlorodifluoromethane	1.23	85	50440	13.36	ug/l		9
13) Chloromethane (SPCC)	1.34	50	64854	17.41	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	73753	16.33	ug/l		9
15) Bromomethane	1.73	94	32316	22.61	ug/l		9
16) Chloroethane	1.83	64	15915	18.80	ug/l		9
18) Trichlorofluoromethane	2.12	101	79626	22.13	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	94639	20.29	ug/l		8
20) Methylene Chloride	2.90	84	84820	24.61	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	95379	20.46	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	118876	22.61	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	100420	24.10	ug/l		8
24) Tetrahydrofuran	3.84	42	8270	14.27	ug/l		9
25) Chloroform (CCC)	3.86	83	127954	24.71	ug/l		9
26) Bromochloromethane	3.81	130	63310	26.75	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	126518	20.39	ug/l		9
28) 1,1-Dichloropropene	4.03	75	109525	19.62	ug/l		9
29) Cyclohexane	3.98	42	31157	18.13	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	9937	15.84	ug/l		9
33) 2-Hexanone (*)	5.34	58	7624	13.86	ug/l		9
35) Carbon Tetrachloride	4.04	117	120064	17.61	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	346640	20.85 ug/l	9
37) 1,2-Dichloroethane	4.15	62	61814	24.88 ug/l	9
38) Trichloroethene (MS)	4.45	95	93456	18.74 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	66909	23.84 ug/l	9
40) Bromodichloromethane	4.68	83	83011	25.40 ug/l	9
41) Methyl Cyclohexane	4.54	55	98953	16.34 ug/l	8
42) Dibromomethane	4.62	174	64214	24.41 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	105104	25.51 ug/l	9
44) Toluene (CCC/MS)	5.05	91	410707	21.07 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	79001	25.57 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	42064	23.95 ug/l	9
47) Tetrachloroethene	5.31	166	173216	16.33 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	8960	16.98 ug/l #	8
51) Dibromochloromethane	5.42	129	69610	20.02 ug/l	9
52) 1,2-Dibromoethane	5.48	107	56350	20.90 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	287425	20.47 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	98529	23.48 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	447837	18.69 ug/l	9
56) p,m-Xylene	5.79	106	393276	38.59 ug/l	8
57) o-Xylene	5.98	91	343694	20.34 ug/l	9
58) Styrene	5.99	104	287633	21.77 ug/l	9
59) Isopropylbenzene	6.15	105	510716	18.27 ug/l	9
60) Bromoform (SPCC)	6.09	173	42375	17.80 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	52746	20.76 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	17382	16.87 ug/l	9
63) n-Propylbenzene	6.34	91	521769	17.68 ug/l	9
64) Bromobenzene	6.31	156	137054	21.58 ug/l	9
65) 1,3,5-Trimethylbenzene	6.42	120	235119	19.28 ug/l	8
66) tert-Butylbenzene	6.58	91	237568	18.20 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	254120	19.73 ug/l	8
69) sec-Butylbenzene	6.68	105	566596	17.09 ug/l	9
70) p-Isopropyltoluene	6.74	119	488044	17.83 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	259870	20.67 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	255459	20.30 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	230653	21.09 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	384373	21.22 ug/l	9
75) n-Butylbenzene	6.95	91	376350	16.87 ug/l	9
76) Hexachloroethane	7.10	201	94123	16.60 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	11200	12.58 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	155584	20.02 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

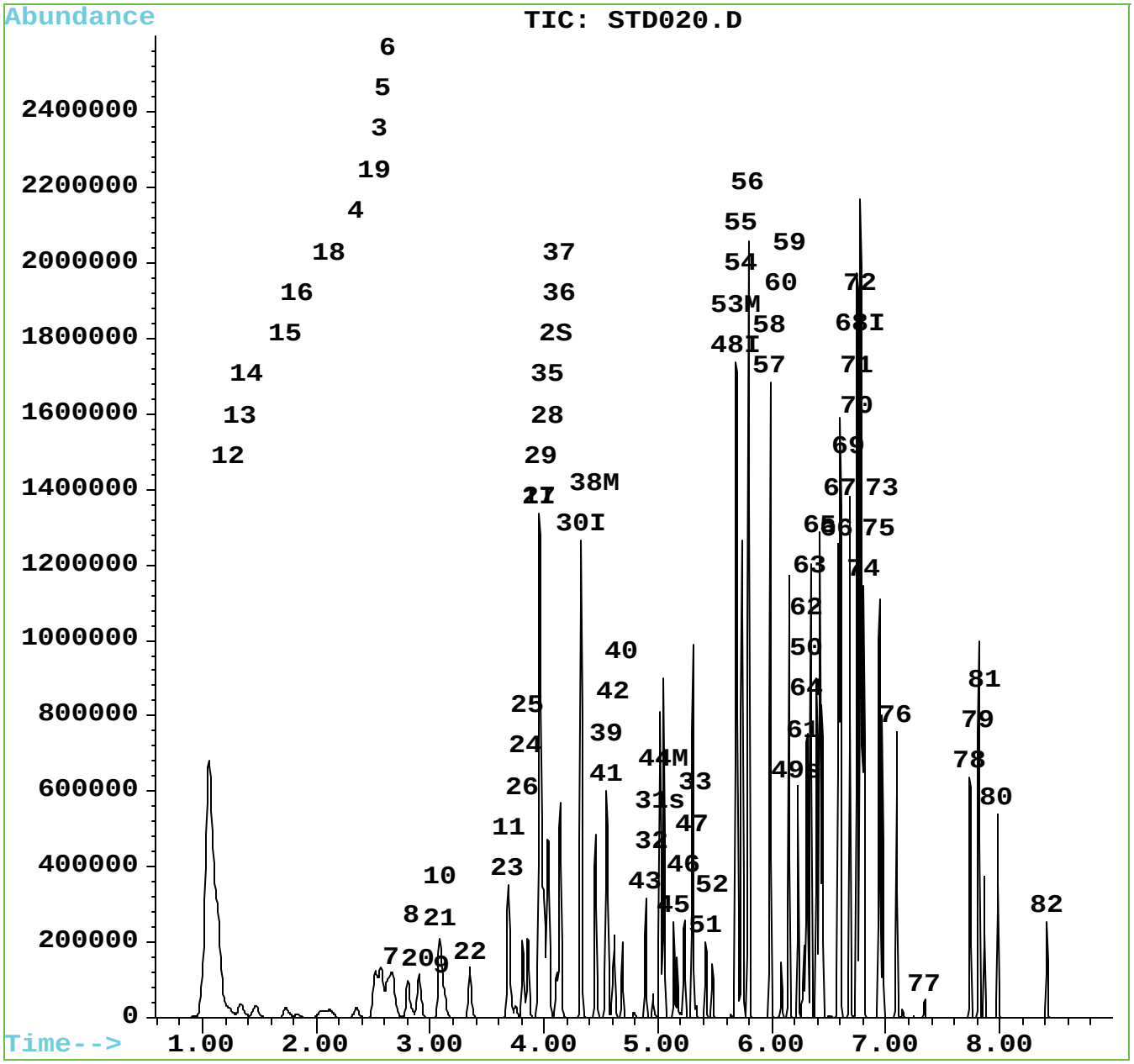
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	145427	15.61 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	124462	19.64 ug/l	9
81)	Naphthalene	7.87	128	188147	16.48 ug/l	9
82)	2-Methylnaphthalene	8.41	142	77365	16.33 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	718453	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	838217	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	305349	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	406145	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	159458	81.36	ug/l		162.7
31) TOLUENE-D8 (S)	5.02	98	1021635	60.46	ug/l		120.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	425016	60.98	ug/l		121.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	275989	54.36	ug/l		9
4) Diethyl ether (*)	2.35	74	79137	102.12	ug/l		9
5) Acetone (*)	2.59	43	17957	42.81	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	576645	67.45	ug/l		9
7) Carbon disulfide (*)	2.67	76	775809	51.48	ug/l		9
8) Methyl Acetate	2.84	43	54937	41.85	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	397720	77.63	ug/l		9
10) Acrylonitrile (*)	3.08	53	36473	41.27	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	28683	53.00	ug/l		9
12) Dichlorodifluoromethane	1.24	85	175155	45.82	ug/l		9
13) Chloromethane (SPCC)	1.35	50	199235	52.82	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	227100	49.64	ug/l		9
15) Bromomethane	1.74	94	97960	67.68	ug/l		9
16) Chloroethane	1.84	64	48474	56.54	ug/l		9
18) Trichlorofluoromethane	2.12	101	258964	71.07	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.52	61	287633	60.89	ug/l		8
20) Methylene Chloride	2.90	84	254920	73.03	ug/l		9
21) trans-1,2-Dichloroethene	3.09	61	284751	60.33	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	356405	66.94	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	298452	70.73	ug/l		8
24) Tetrahydrofuran	3.84	42	21830	37.19	ug/l		9
25) Chloroform (CCC)	3.86	83	379380	72.36	ug/l		9
26) Bromochloromethane	3.81	130	189594	79.11	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	384589	61.20	ug/l	#	3
28) 1,1-Dichloropropene	4.03	75	314724	55.68	ug/l		9
29) Cyclohexane	3.99	42	82335	47.31	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	31183	48.94	ug/l		9
33) 2-Hexanone (*)	5.34	58	27660	48.50	ug/l		9
35) Carbon Tetrachloride	4.04	117	369330	53.33	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	998814	59.16 ug/l	9
37) 1,2-Dichloroethane	4.15	62	179875	71.29 ug/l	9
38) Trichloroethene (MS)	4.45	95	275694	54.44 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	195965	68.74 ug/l	9
40) Bromodichloromethane	4.68	83	258599	77.91 ug/l	9
41) Methyl Cyclohexane	4.55	55	289075	47.00 ug/l	8
42) Dibromomethane	4.62	174	194155	72.68 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	324088	77.44 ug/l	9
44) Toluene (CCC/MS)	5.05	91	1190657	60.15 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	245175	78.15 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	126122	70.70 ug/l	9
47) Tetrachloroethene	5.31	166	475083	44.11 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	25702	47.84 ug/l #	7
51) Dibromochloromethane	5.42	129	226338	63.93 ug/l	9
52) 1,2-Dibromoethane	5.48	107	170570	62.14 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	834134	58.35 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	295143	69.09 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	1277879	52.37 ug/l	9
56) p,m-Xylene	5.79	106	1090584	105.11 ug/l	8
57) o-Xylene	5.98	91	975511	56.71 ug/l	9
58) Styrene	5.99	104	824730	61.29 ug/l	9
59) Isopropylbenzene	6.15	105	1455204	51.12 ug/l	9
60) Bromoform (SPCC)	6.09	173	144672	58.16 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	158438	61.24 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	50455	48.09 ug/l	9
63) n-Propylbenzene	6.34	91	1492185	49.67 ug/l	9
64) Bromobenzene	6.31	156	402124	62.17 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	666617	53.70 ug/l	9
66) tert-Butylbenzene	6.58	91	681991	51.32 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	711162	54.22 ug/l	9
69) sec-Butylbenzene	6.68	105	1608849	48.98 ug/l	9
70) p-Isopropyltoluene	6.75	119	1357400	50.03 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	709873	56.97 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	716942	57.49 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	650136	59.98 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	1095014	61.02 ug/l	9
75) n-Butylbenzene	6.95	91	1056273	47.79 ug/l	9
76) Hexachloroethane	7.10	201	302724	53.07 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	35812	39.31 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	444417	57.72 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

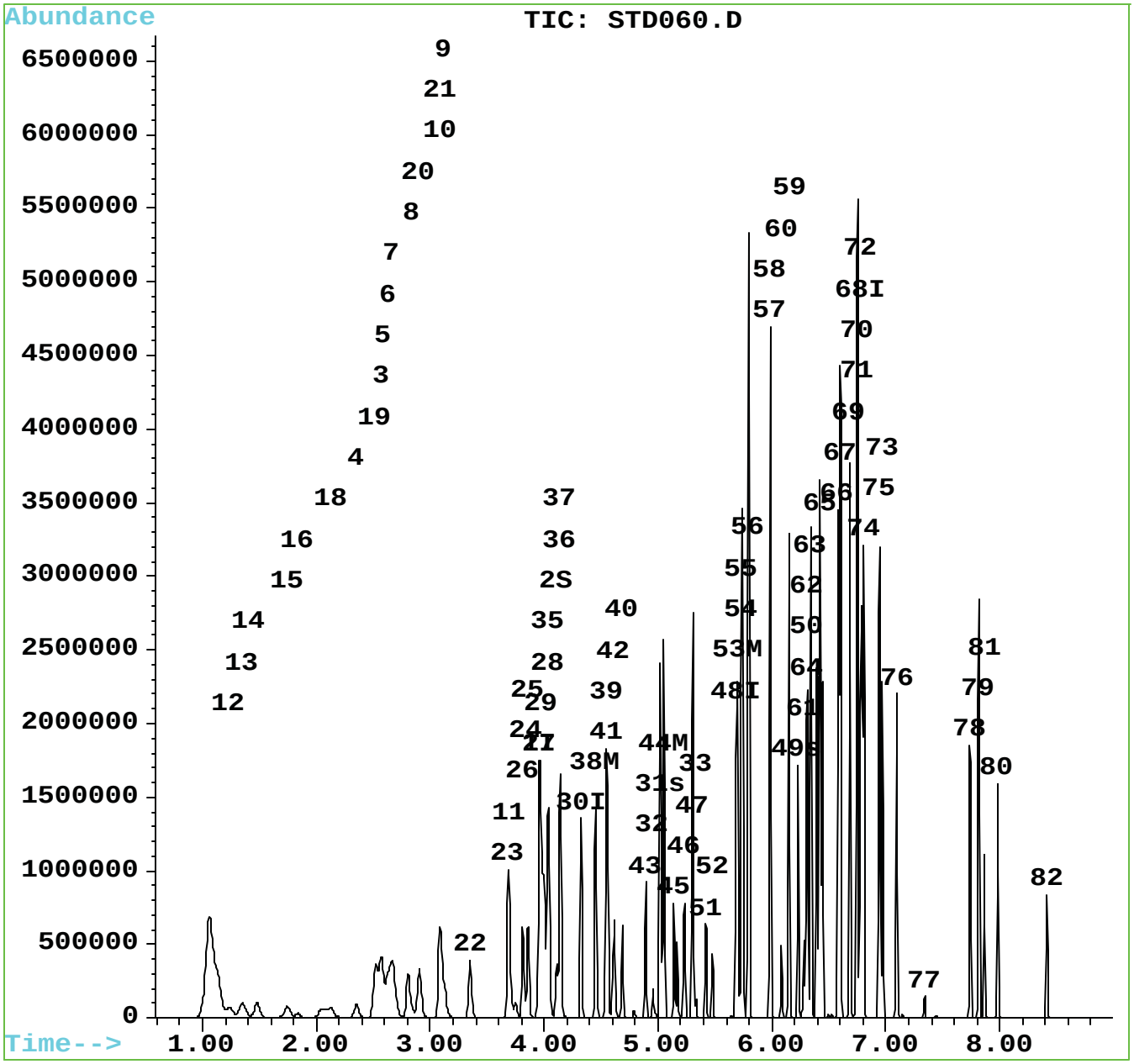
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	420276	45.53 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	356654	56.79 ug/l	9
81)	Naphthalene	7.87	128	559897	49.50 ug/l	9
82)	2-Methylnaphthalene	8.41	142	255721	52.36 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	708225	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	842056	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	310341	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	420177	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	266464	137.93	ug/l		275.8
31) TOLUENE-D8 (S)	5.02	98	1674468	98.65	ug/l		197.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	730962	103.18	ug/l		206.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	458452	91.60	ug/l		9
4) Diethyl ether (*)	2.35	74	130554	170.91	ug/l		9
5) Acetone (*)	2.60	43	24499	59.25	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	967325	114.78	ug/l		9
7) Carbon disulfide (*)	2.67	76	1327315	89.35	ug/l		9
8) Methyl Acetate	2.84	43	90663	70.06	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	672818	133.22	ug/l		9
10) Acrylonitrile (*)	3.08	53	59377	68.16	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	40056	75.08	ug/l		8
12) Dichlorodifluoromethane	1.23	85	294663	78.20	ug/l		9
13) Chloromethane (SPCC)	1.35	50	334048	89.83	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	381940	84.70	ug/l		9
15) Bromomethane	1.75	94	165451	115.97	ug/l		9
16) Chloroethane	1.83	64	81311	96.21	ug/l		9
18) Trichlorofluoromethane	2.13	101	446143	124.21	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	432880	92.96	ug/l		8
20) Methylene Chloride	2.90	84	424114	123.26	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	473743	101.83	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	595985	113.55	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	495434	119.10	ug/l		8
24) Tetrahydrofuran	3.84	42	35840	61.95	ug/l		9
25) Chloroform (CCC)	3.86	83	634132	122.70	ug/l		9
26) Bromochloromethane	3.81	130	316285	133.88	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	646098	104.29	ug/l	#	2
28) 1,1-Dichloropropene	4.03	75	514252	92.29	ug/l		9
29) Cyclohexane	3.99	42	140936	82.15	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	52354	81.80	ug/l		9
33) 2-Hexanone (*)	5.34	58	43937	75.48	ug/l		9
35) Carbon Tetrachloride	4.04	117	620967	89.26	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.14	78	1620241	95.53	ug/l		9
37) 1,2-Dichloroethane	4.15	62	295703	116.66	ug/l		9
38) Trichloroethene (MS)	4.45	95	458355	90.09	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	319257	111.48	ug/l		9
40) Bromodichloromethane	4.68	83	440414	132.08	ug/l		9
41) Methyl Cyclohexane	4.54	55	470767	76.20	ug/l		8
42) Dibromomethane	4.62	174	324265	120.84	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	545507	129.75	ug/l		9
44) Toluene (CCC/MS)	5.05	91	1935644	97.34	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	417540	132.49	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	210750	117.60	ug/l		9
47) Tetrachloroethene	5.31	166	827035	76.44	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	44222	80.98	ug/l	#	7
51) Dibromochloromethane	5.42	129	390996	108.67	ug/l		9
52) 1,2-Dibromoethane	5.48	107	291010	104.31	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	1385172	95.34	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	489204	112.67	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	2092868	84.40	ug/l		9
56) p,m-Xylene	5.79	106	1714294	162.56	ug/l		9
57) o-Xylene	5.98	91	1580494	90.41	ug/l		9
58) Styrene	5.99	104	1337756	97.82	ug/l		9
59) Isopropylbenzene	6.15	105	2402114	83.02	ug/l		9
60) Bromoform (SPCC)	6.09	173	260844	100.47	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	269439	102.47	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	84719	79.44	ug/l		9
63) n-Propylbenzene	6.34	91	2494881	81.71	ug/l		9
64) Bromobenzene	6.31	156	672863	102.36	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	1105110	87.59	ug/l		9
66) tert-Butylbenzene	6.58	91	1149321	85.10	ug/l		8
67) 1,2,4-Trimethylbenzene	6.60	120	1163043	87.25	ug/l		9
69) sec-Butylbenzene	6.68	105	2671833	78.62	ug/l		9
70) p-Isopropyltoluene	6.75	119	2217346	79.00	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	1151355	89.31	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	1227498	95.14	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	1117041	99.62	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	1840375	99.13	ug/l		9
75) n-Butylbenzene	6.95	91	1803285	78.87	ug/l		9
76) Hexachloroethane	7.10	201	546020	91.11	ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	67377	69.05	ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	807872	101.42	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

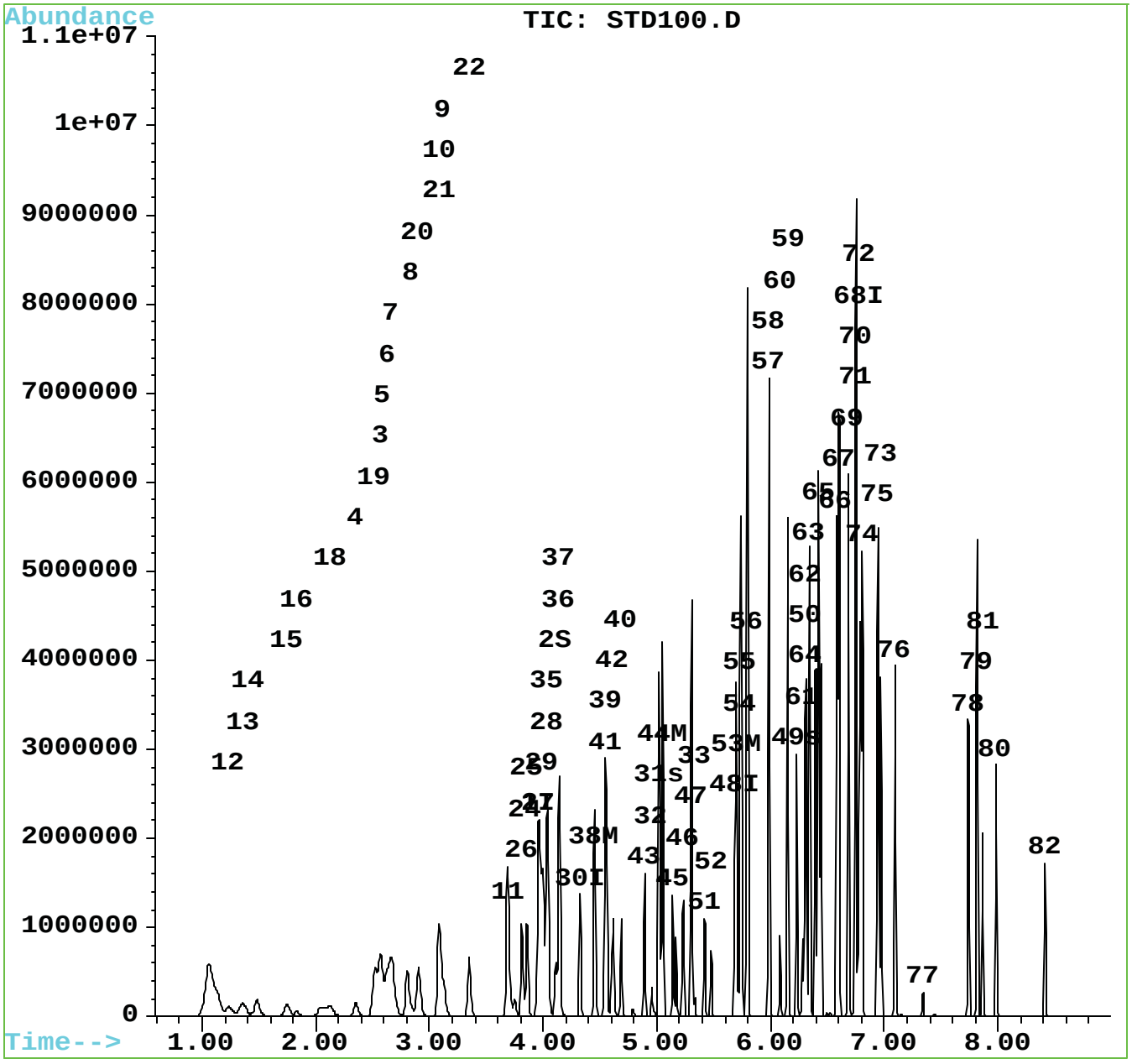
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	766294	80.25	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	658965	101.43	ug/l	9
81)	Naphthalene	7.87	128	1027251	87.78	ug/l	9
82)	2-Methylnaphthalene	8.41	142	517086	97.58	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	688743	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	845341	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	308126	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	406115	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	525719	279.82	ug/l		559.6
31) TOLUENE-D8 (S)	5.02	98	3083752	180.96	ug/l		361.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	1383700	196.72	ug/l		393.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	910425	187.06	ug/l		9
4) Diethyl ether (*)	2.35	74	257886	347.15	ug/l		9
5) Acetone (*)	2.60	43	51628	128.38	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	1916805	233.87	ug/l		9
7) Carbon disulfide (*)	2.67	76	2662579	184.32	ug/l		9
8) Methyl Acetate	2.84	43	186727	148.37	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	1373395	279.62	ug/l		9
10) Acrylonitrile (*)	3.08	53	117707	138.93	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	78647	151.59	ug/l		8
12) Dichlorodifluoromethane	1.23	85	585957	159.91	ug/l		9
13) Chloromethane (SPCC)	1.37	50	640687	177.17	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	699592	159.53	ug/l		9
15) Bromomethane	1.75	94	327119	235.77	ug/l		9
16) Chloroethane	1.83	64	161920	197.00	ug/l		9
18) Trichlorofluoromethane	2.12	101	874370	250.32	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	891921	196.95	ug/l		8
20) Methylene Chloride	2.90	84	837145	250.19	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	920836	203.52	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	1170821	229.39	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	955274	236.15	ug/l		8
24) Tetrahydrofuran	3.84	42	69742	123.96	ug/l		9
25) Chloroform (CCC)	3.85	83	1237261	246.16	ug/l		9
26) Bromochloromethane	3.81	130	626413	272.65	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	1270184	210.83	ug/l	#	1
28) 1,1-Dichloropropene	4.03	75	955460	176.31	ug/l		9
29) Cyclohexane	3.99	42	254634	152.62	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	108848	169.40	ug/l		9
33) 2-Hexanone (*)	5.34	58	93899	153.65	ug/l		9
35) Carbon Tetrachloride	4.04	117	1209587	173.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.14	78	2994921	175.89	ug/l		9
37)	1,2-Dichloroethane	4.15	62	574923	225.94	ug/l		9
38)	Trichloroethene (MS)	4.45	95	882992	172.88	ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	577886	201.01	ug/l		9
40)	Bromodichloromethane	4.68	83	872875	260.76	ug/l		9
41)	Methyl Cyclohexane	4.54	55	847603	136.66	ug/l		8
42)	Dibromomethane	4.62	174	640027	237.58	ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	1061342	251.47	ug/l		9
44)	Toluene (CCC/MS)	5.05	91	3536540	177.16	ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	824716	260.67	ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	413284	229.72	ug/l		9
47)	Tetrachloroethene	5.31	166	1468387	135.19	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	81968	151.19	ug/l	#	8
51)	Dibromochloromethane	5.42	129	790200	221.19	ug/l		9
52)	1,2-Dibromoethane	5.48	107	580990	209.74	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	2554280	177.08	ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	905805	210.11	ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	3596434	146.07	ug/l		9
56)	p,m-Xylene	5.80	106	2753302	262.96	ug/l		9
57)	o-Xylene	5.98	91	2667192	153.66	ug/l		9
58)	Styrene	5.99	104	2206761	162.53	ug/l		9
59)	Isopropylbenzene	6.15	105	4245829	147.80	ug/l		9
60)	Bromoform (SPCC)	6.09	173	546176	199.61	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.29	83	532985	204.16	ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	162450	153.42	ug/l		8
63)	n-Propylbenzene	6.34	91	4330762	142.86	ug/l		9
64)	Bromobenzene	6.31	156	1243615	190.55	ug/l		8
65)	1,3,5-Trimethylbenzene	6.42	120	1910200	152.49	ug/l		9
66)	tert-Butylbenzene	6.58	91	2038129	152.00	ug/l		8
67)	1,2,4-Trimethylbenzene	6.60	120	1928173	145.69	ug/l		9
69)	sec-Butylbenzene	6.68	105	4544434	138.36	ug/l		9
70)	p-Isopropyltoluene	6.75	119	3576681	131.84	ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	1874024	150.41	ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	2207783	177.05	ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	2067733	190.79	ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	3281860	182.89	ug/l		9
75)	n-Butylbenzene	6.95	91	3105508	140.52	ug/l		9
76)	Hexachloroethane	7.10	201	1039766	173.73	ug/l		8
77)	1,2-Dibromo-3-Chloropropan	7.34	157	138631	136.48	ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	1446629	187.89	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

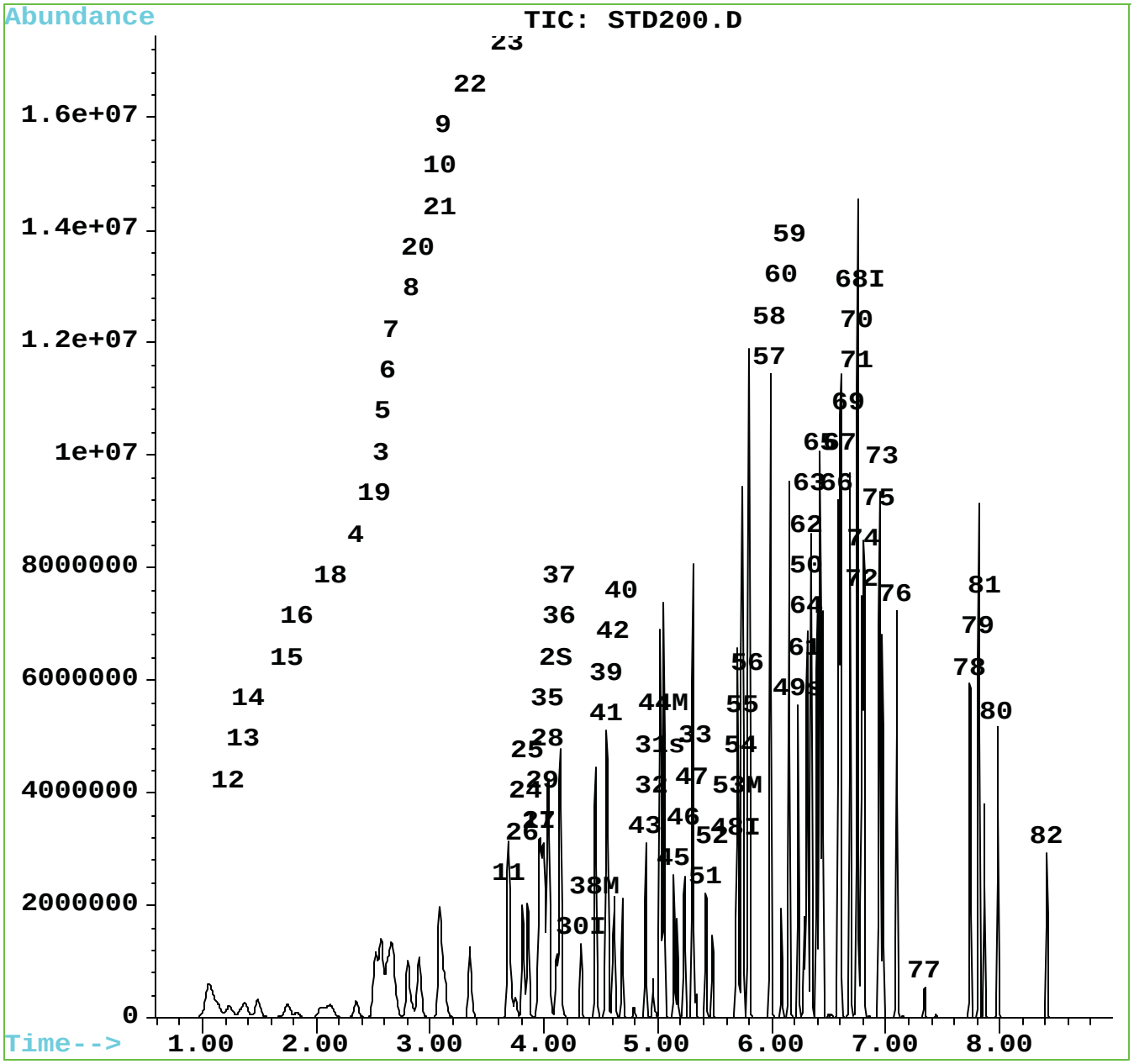
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	1337439	144.91	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	1185710	188.82	ug/l	9
81)	Naphthalene	7.87	128	1928293	170.48	ug/l	9
82)	2-Methylnaphthalene	8.41	142	927349	168.70	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\merfolk.thd\methods\wt120801.m\

Injection Time	Calibration Data File
08/01/12 10:52	bfb01a.d
08/01/12 13:01	std001.d
08/01/12 13:22	std010.d
08/01/12 13:42	std020.d
08/01/12 14:02	std060.d
08/01/12 14:22	std100.d
08/01/12 14:42	std200.d
08/01/12 16:20	icv01a.d

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\bfb01a.d Vial:
Acq On : 1 Aug 12 10:52 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:37 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

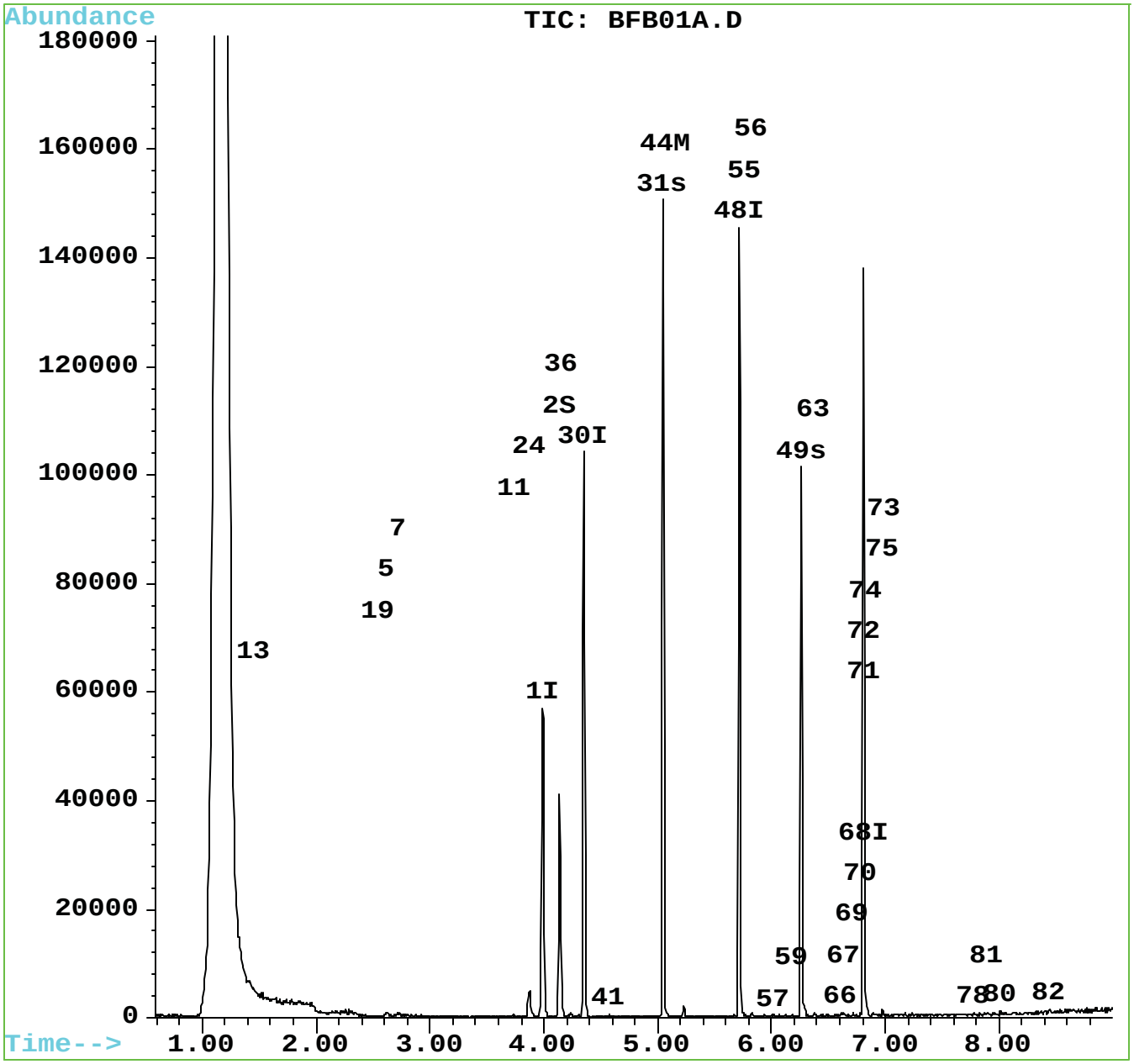
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	25765	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	46803	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26358	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	19557	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18278	5.66	ug/l	113.1
31) TOLUENE-D8 (S)	5.05	98	56424	5.05	ug/l	100.9
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	13363	4.42	ug/l	88.5
Target Compounds						Qvalu
5) Acetone (*)	2.63	43	1196	0.78	ug/l #	4
7) Carbon disulfide (*)	2.71	76	1334	0.17	ug/l #	7
11) 2-Butanone (MEK) (*)	3.74	43	166	0.09	ug/l #	4
13) Chloromethane (SPCC)	1.45	50	60	0.02	ug/l #	5
19) 1,1-Dichloroethene (CCC/MS	2.55	61	54	0.01	ug/l #	2
24) Tetrahydrofuran	3.87	42	3142	2.66	ug/l #	1
36) Benzene (MS)	4.16	78	137	0.01	ug/l #	
41) Methyl Cyclohexane	4.57	55	55	0.01	ug/l #	6
44) Toluene (CCC/MS)	5.08	91	384	0.03	ug/l #	2
55) Ethylbenzene (CCC)	5.77	91	178	0.01	ug/l #	4
56) p,m-Xylene	5.82	106	127	0.02	ug/l #	4
57) o-Xylene	6.02	91	112	0.01	ug/l #	3
59) Isopropylbenzene	6.19	105	194	0.01	ug/l #	5
63) n-Propylbenzene	6.37	91	249	0.02	ug/l #	5
66) tert-Butylbenzene	6.61	91	77	0.01	ug/l #	7
67) 1,2,4-Trimethylbenzene	6.63	120	90	0.02	ug/l #	6
69) sec-Butylbenzene	6.72	105	254	0.02	ug/l #	5
70) p-Isopropyltoluene	6.78	119	158	0.02	ug/l #	5
71) 1,3-Dichlorobenzene	6.82	146	112	0.03	ug/l #	
72) 1,4-Dichlorobenzene	6.82	146	112	0.02	ug/l #	
73) 1,2-Dichlorobenzene	7.00	146	56	0.01	ug/l #	2
74) 1,2,3-Trimethylbenzene	6.84	105	251	0.03	ug/l #	
75) n-Butylbenzene	6.97	91	314	0.03	ug/l #	6
78) 1,2,4-Trichlorobenzene	7.77	182	137	0.05	ug/l #	6
80) 1,2,3-Trichlorobenzene	8.01	180	132	0.05	ug/l #	6
81) Naphthalene	7.90	128	444	0.05	ug/l #	7
82) 2-Methylnaphthalene	8.45	142	229	0.06	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\bfb01a.d Vial:
Acq On : 1 Aug 12 10:52 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:37 19112

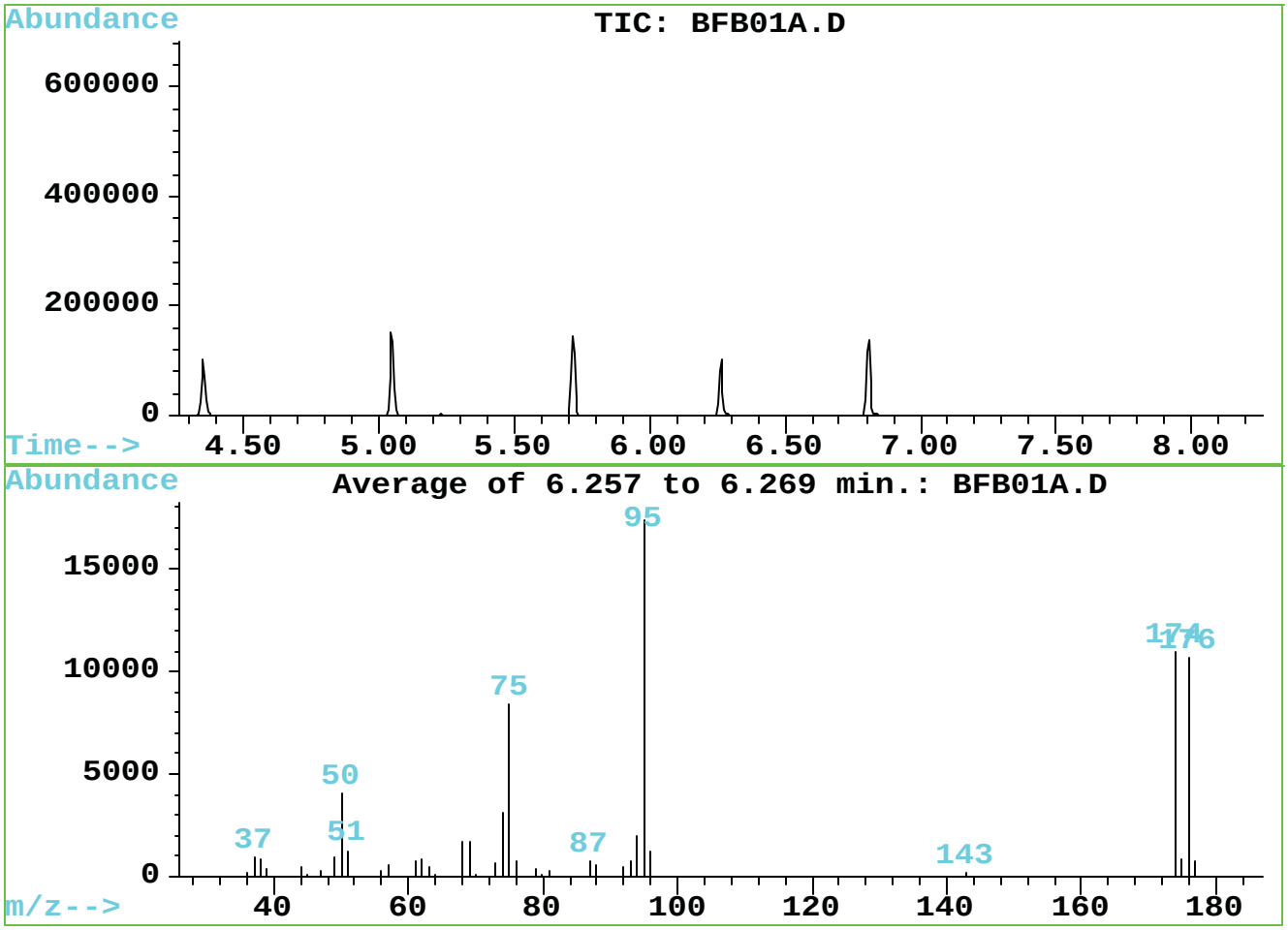
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M\BFB01A.D Vial:
Acq On : 1 Aug 12 10:52 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 966

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	23.2	4031	PASS
75	95	30	66	48.3	8382	PASS
95	95	100	100	100.0	17361	PASS
96	95	5	9	6.9	1204	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	62.9	10920	PASS
175	174	4	9	7.5	816	PASS
176	174	93	101	97.4	10640	PASS
177	176	5	9	7.5	802	PASS

BFB01A.D WT120801.M Mon Aug 20 17:21:58 2012

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	25565	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	46282	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	25723	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	20002	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18428	5.75	ug/l		115.0
31) TOLUENE-D8 (S)	5.05	98	56738	5.13	ug/l		102.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	13149	4.46	ug/l		89.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	2307	1.03	ug/l	#	5
4) Diethyl ether (*)	2.37	74	1827	1.07	ug/l		7
5) Acetone (*)	2.62	43	1544	1.02	ug/l		5
6) Methyl iodide (iodomethane	2.66	142	3094	0.95	ug/l		8
7) Carbon disulfide (*)	2.70	76	7516	0.96	ug/l		8
8) Methyl Acetate	2.87	43	2514	1.02	ug/l	#	6
9) tert-Methyl butyl ether (M	3.13	73	7273	0.93	ug/l		7
10) Acrylonitrile (*)	3.12	53	975	0.74	ug/l	#	9
11) 2-Butanone (MEK) (*)	3.73	43	2023	1.05	ug/l	#	6
12) Dichlorodifluoromethane	1.26	85	1556	0.73	ug/l	m	7
13) Chloromethane (SPCC)	1.40	50	3916	1.09	ug/l		8
14) Vinyl Chloride (CCC)	1.51	62	3269	1.02	ug/l		6
15) Bromomethane	1.78	94	1925	1.42	ug/l	#	4
16) Chloroethane	1.86	64	2012	1.22	ug/l	#	6
17) Acrolein	2.46	56	114	0.19	ug/l	m	7
18) Trichlorofluoromethane	2.13	101	3477	1.16	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.56	61	4438	1.08	ug/l		7
20) Methylene Chloride	2.95	84	2968	1.10	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	4430	1.09	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	5279	1.06	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	2893	1.04	ug/l	#	6
24) Tetrahydrofuran	3.87	42	3769	3.22	ug/l	#	1
25) Chloroform (CCC)	3.89	83	4806	1.12	ug/l		9
26) Bromochloromethane	3.85	130	1495	0.96	ug/l	#	2
27) 1,1,1-Trichloroethane	3.99	97	3889	1.03	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	4101	1.13	ug/l		8
29) Cyclohexane	4.01	42	1803	1.15	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.99	58	833	0.70	ug/l	#	4
33) 2-Hexanone (*)	5.37	58	599	0.48	ug/l	#	3

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	1896	0.97 ug/l		8
35) Carbon Tetrachloride	4.06	117	2933	0.97 ug/l		9
36) Benzene (MS)	4.17	78	11897	1.08 ug/l	#	2
37) 1,2-Dichloroethane	4.18	62	4211	1.12 ug/l		9
38) Trichloroethene (MS)	4.47	95	2697	1.04 ug/l		8
39) 1,2-Dichloropropane (CCC)	4.59	63	2897	1.01 ug/l		9
40) Bromodichloromethane	4.72	83	2670	0.85 ug/l		9
41) Methyl Cyclohexane	4.57	55	4099	0.99 ug/l	#	5
42) Dibromomethane	4.65	174	1457	1.07 ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	3022	0.71 ug/l		8
44) Toluene (CCC/MS)	5.08	91	12731	1.11 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	2436	0.63 ug/l		8
46) 1,1,2-Trichloroethane	5.26	83	2069	1.07 ug/l		8
47) Tetrachloroethene	5.33	166	2189	0.94 ug/l		7
50) trans-1,4-Dichloro-2-buten	6.35	53	70	0.07 ug/l	#	
51) Dibromochloromethane	5.45	129	1623	0.68 ug/l		9
52) 1,2-Dibromoethane	5.51	107	2097	0.87 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	7623	1.04 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	1780	0.78 ug/l		8
55) Ethylbenzene (CCC)	5.77	91	13502	1.03 ug/l		9
56) p,m-Xylene	5.83	106	10149	2.05 ug/l		8
57) o-Xylene	6.02	91	11006	1.06 ug/l		9
58) Styrene	6.02	104	7843	0.95 ug/l		9
59) Isopropylbenzene	6.18	105	11594	0.90 ug/l		9
60) Bromoform (SPCC)	6.12	173	628	0.44 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	2872	0.85 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	842	0.87 ug/l		8
63) n-Propylbenzene	6.37	91	13595	0.90 ug/l		9
64) Bromobenzene	6.34	156	2341	0.89 ug/l	#	2
65) 1,3,5-Trimethylbenzene	6.45	120	4583	0.89 ug/l	#	7
66) tert-Butylbenzene	6.61	91	6820	0.96 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	4767	0.85 ug/l	#	6
69) sec-Butylbenzene	6.72	105	11775	0.93 ug/l		9
70) p-Isopropyltoluene	6.77	119	9319	0.95 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	4890	1.07 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	5225	1.05 ug/l		8
73) 1,2-Dichlorobenzene	7.00	146	5023	1.05 ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	9830	0.96 ug/l		8
75) n-Butylbenzene	6.97	91	8871	0.91 ug/l		8
76) Hexachloroethane	7.13	201	526	0.44 ug/l	#	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

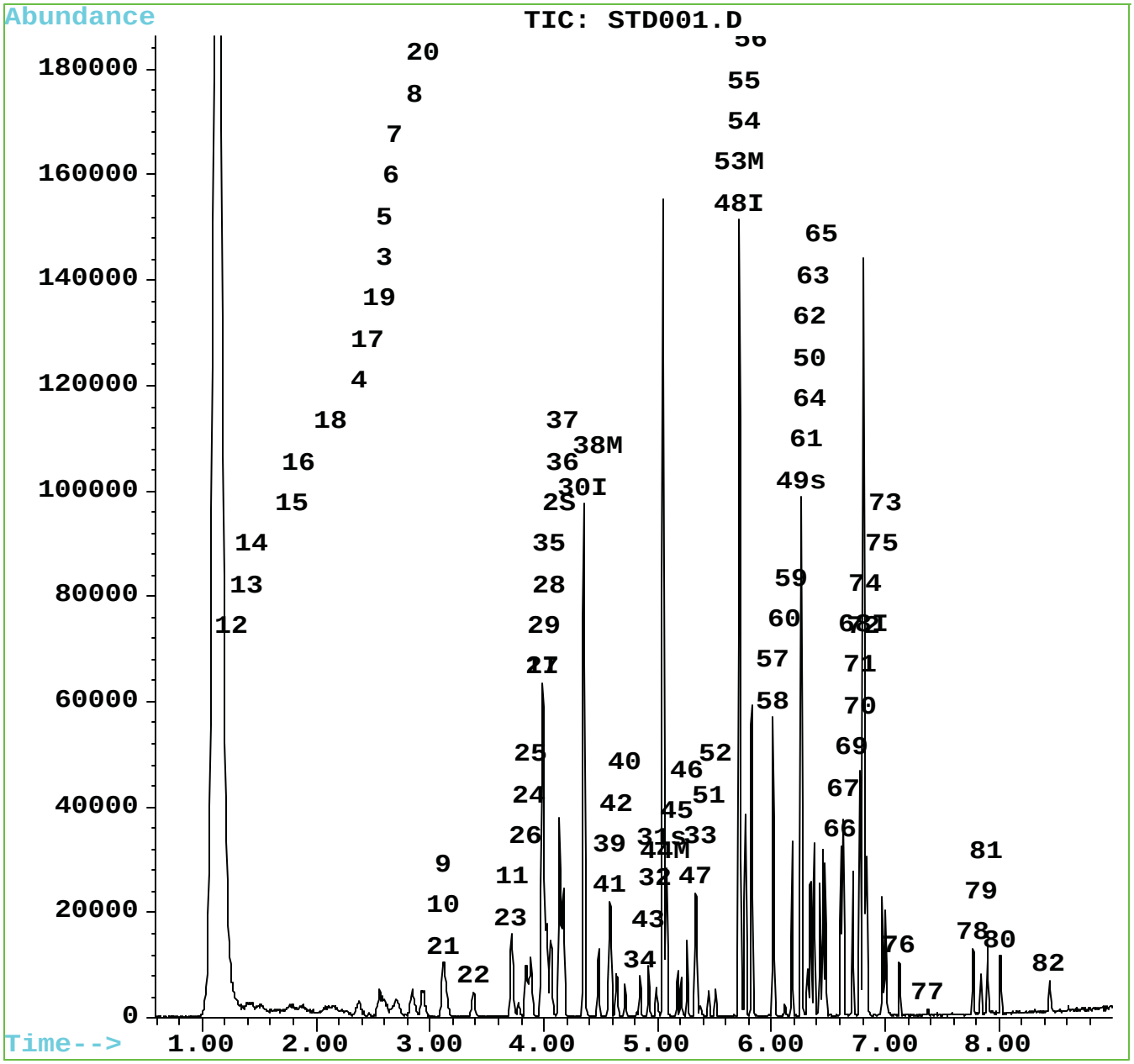
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.38	157	157	0.26	ug/l	#	4
78)	1,2,4-Trichlorobenzene	7.77	182	2468	0.86	ug/l		9
79)	Hexachlorobutadiene	7.85	225	789	0.65	ug/l	#	7
80)	1,2,3-Trichlorobenzene	8.02	180	2281	0.84	ug/l		9
81)	Naphthalene	7.90	128	6734	0.72	ug/l		9
82)	2-Methylnaphthalene	8.45	142	2130	0.52	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	26057	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	47576	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26732	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	20548	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19864	6.08	ug/l		121.6
31) TOLUENE-D8 (S)	5.05	98	58067	5.11	ug/l		102.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14322	4.68	ug/l		93.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	23726	10.42	ug/l		8
4) Diethyl ether (*)	2.39	74	19189	10.99	ug/l	#	6
5) Acetone (*)	2.62	43	13465	8.71	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	33271	10.02	ug/l		8
7) Carbon disulfide (*)	2.71	76	83046	10.43	ug/l		8
8) Methyl Acetate	2.87	43	26316	10.50	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	75818	9.55	ug/l		7
10) Acrylonitrile (*)	3.11	53	13564	10.08	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	18889	9.59	ug/l		7
12) Dichlorodifluoromethane	1.28	85	22728	10.29	ug/l		9
13) Chloromethane (SPCC)	1.42	50	43999	11.99	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	38934	11.89	ug/l		9
15) Bromomethane	1.81	94	20005	14.76	ug/l		9
16) Chloroethane	1.88	64	23943	14.60	ug/l		8
17) Acrolein	2.49	56	4872	7.90	ug/l		8
18) Trichlorofluoromethane	2.13	101	40762	13.29	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	48346	11.53	ug/l		7
20) Methylene Chloride	2.94	84	30124	10.98	ug/l	#	6
21) trans-1,2-Dichloroethene	3.12	61	46628	11.30	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	56329	11.15	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	30996	10.90	ug/l	#	6
24) Tetrahydrofuran	3.87	42	13984	11.72	ug/l		9
25) Chloroform (CCC)	3.89	83	48490	11.10	ug/l		9
26) Bromochloromethane	3.85	130	15952	10.06	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	39912	10.33	ug/l	#	2
28) 1,1-Dichloropropene	4.06	75	42696	11.58	ug/l		8
29) Cyclohexane	4.02	42	19158	11.95	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	10512	8.61	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	11104	8.63	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	20455	10.23 ug/l		9
35) Carbon Tetrachloride	4.07	117	31766	10.21 ug/l		9
36) Benzene (MS)	4.17	78	121525	10.77 ug/l		8
37) 1,2-Dichloroethane	4.17	62	44240	11.41 ug/l		9
38) Trichloroethene (MS)	4.48	95	28517	10.73 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	32759	11.15 ug/l		9
40) Bromodichloromethane	4.72	83	33205	10.26 ug/l		9
41) Methyl Cyclohexane	4.57	55	43261	10.21 ug/l	#	5
42) Dibromomethane	4.65	174	13079	9.35 ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	42850	9.75 ug/l		9
44) Toluene (CCC/MS)	5.08	91	129199	10.93 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	35991	9.08 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	20647	10.36 ug/l		9
47) Tetrachloroethene	5.33	166	23925	9.97 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	3713	3.77 ug/l	#	
51) Dibromochloromethane	5.45	129	19924	8.03 ug/l		9
52) 1,2-Dibromoethane	5.51	107	23802	9.47 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	76627	10.06 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	22271	9.42 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	141786	10.43 ug/l		9
56) p,m-Xylene	5.83	106	108088	20.97 ug/l		8
57) o-Xylene	6.02	91	113367	10.50 ug/l		8
58) Styrene	6.02	104	88793	10.40 ug/l		9
59) Isopropylbenzene	6.18	105	134416	10.01 ug/l		9
60) Bromoform (SPCC)	6.12	173	9945	6.76 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	34178	9.68 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	9741	9.64 ug/l	#	7
63) n-Propylbenzene	6.37	91	158507	10.09 ug/l		9
64) Bromobenzene	6.34	156	26715	9.78 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	52872	9.88 ug/l	#	7
66) tert-Butylbenzene	6.61	91	73061	9.87 ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.63	120	57580	9.91 ug/l	#	7
69) sec-Butylbenzene	6.72	105	131761	10.11 ug/l		9
70) p-Isopropyltoluene	6.77	119	106144	10.56 ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	51021	10.88 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	54089	10.57 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	51121	10.44 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	114627	10.90 ug/l		9
75) n-Butylbenzene	6.97	91	101916	10.18 ug/l		9
76) Hexachloroethane	7.13	201	8856	7.23 ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

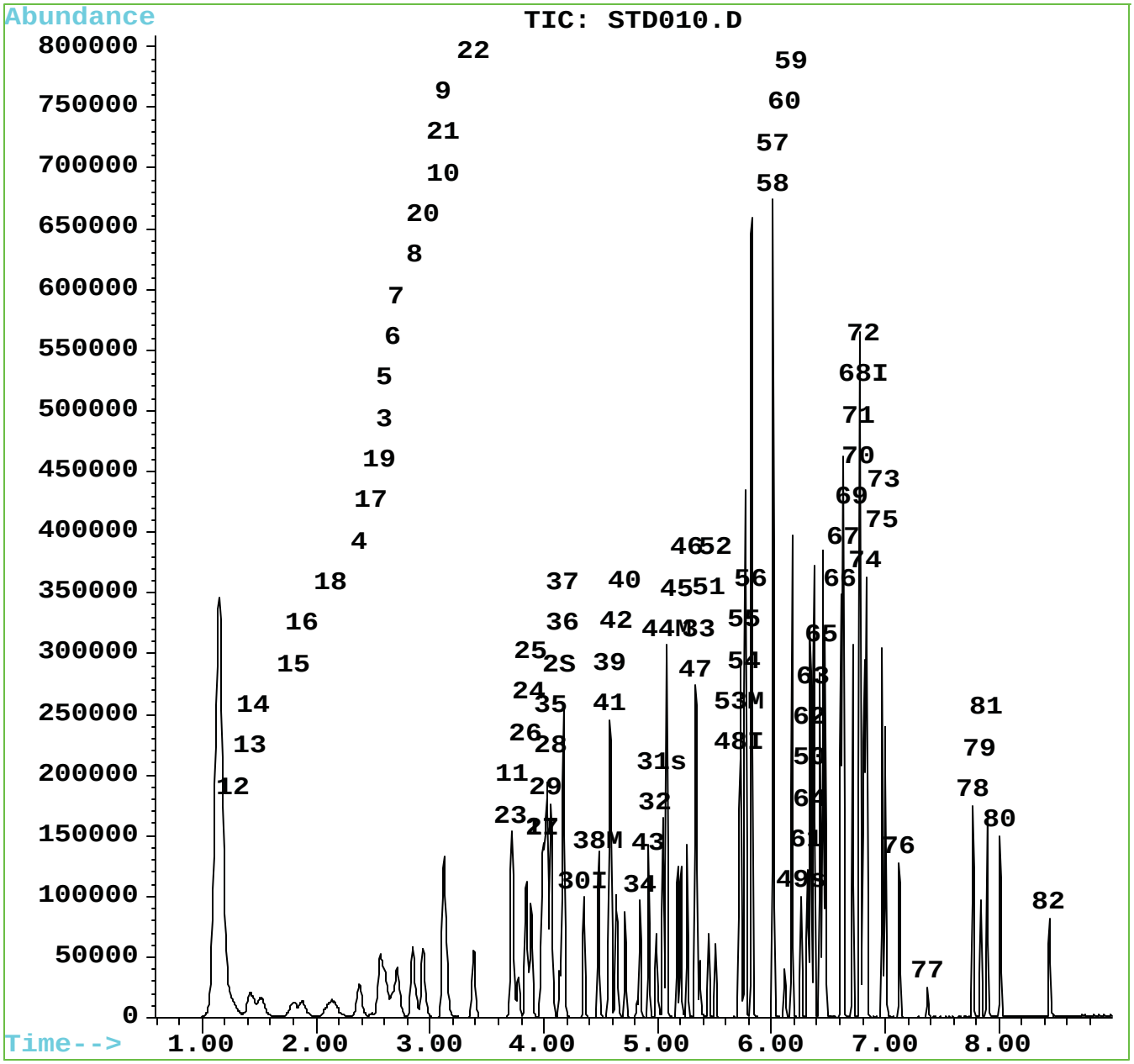
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	3914	6.39	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	25996	8.86	ug/l		9
79)	Hexachlorobutadiene	7.84	225	9779	7.83	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	24192	8.66	ug/l		9
81)	Naphthalene	7.90	128	79440	8.29	ug/l		9
82)	2-Methylnaphthalene	8.45	142	22346	5.32	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	26189	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	48324	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26468	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	21098	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18903	5.76	ug/l		115.1
31) TOLUENE-D8 (S)	5.05	98	59432	5.15	ug/l		103.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14461	4.77	ug/l		95.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	49775	21.75	ug/l		8
4) Diethyl ether (*)	2.37	74	38915	22.17	ug/l	#	6
5) Acetone (*)	2.61	43	22849	14.71	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	66713	19.99	ug/l		8
7) Carbon disulfide (*)	2.71	76	176661	22.08	ug/l		8
8) Methyl Acetate	2.86	43	54822	21.76	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	162943	20.43	ug/l		8
10) Acrylonitrile (*)	3.11	53	29054	21.49	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	36213	18.30	ug/l		7
12) Dichlorodifluoromethane	1.26	85	46170	20.43	ug/l		9
13) Chloromethane (SPCC)	1.41	50	84167	22.81	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	79516	24.17	ug/l		9
15) Bromomethane	1.79	94	39935	30.02	ug/l		9
16) Chloroethane	1.87	64	47213	29.37	ug/l		8
17) Acrolein	2.48	56	10290	16.60	ug/l		9
18) Trichlorofluoromethane	2.14	101	81344	26.38	ug/l	m	3
19) 1,1-Dichloroethene (CCC/MS	2.56	61	97242	23.07	ug/l	#	7
20) Methylene Chloride	2.93	84	58885	21.35	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	94085	22.68	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	114570	22.56	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	61951	21.69	ug/l	#	6
24) Tetrahydrofuran	3.87	42	26342	21.96	ug/l		8
25) Chloroform (CCC)	3.89	83	98947	22.54	ug/l		9
26) Bromochloromethane	3.85	130	32897	20.63	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	86585	22.29	ug/l	#	1
28) 1,1-Dichloropropene	4.06	75	84979	22.94	ug/l		9
29) Cyclohexane	4.02	42	37998	23.58	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	23137	18.67	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	22417	17.15	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	45660	22.48 ug/l		8
35) Carbon Tetrachloride	4.07	117	65872	20.84 ug/l		9
36) Benzene (MS)	4.17	78	253268	22.09 ug/l		8
37) 1,2-Dichloroethane	4.17	62	89664	22.77 ug/l		9
38) Trichloroethene (MS)	4.48	95	56867	21.06 ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	66495	22.29 ug/l		9
40) Bromodichloromethane	4.72	83	69829	21.24 ug/l		9
41) Methyl Cyclohexane	4.57	55	89278	20.74 ug/l	#	5
42) Dibromomethane	4.65	174	27162	19.11 ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	91676	20.54 ug/l		9
44) Toluene (CCC/MS)	5.08	91	256081	21.34 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	80869	20.09 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	42230	20.86 ug/l		9
47) Tetrachloroethene	5.33	166	49699	20.39 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.34	53	9786	10.04 ug/l	#	5
51) Dibromochloromethane	5.45	129	43084	17.53 ug/l		9
52) 1,2-Dibromoethane	5.51	107	49084	19.72 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	155507	20.61 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	48593	20.75 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	291172	21.63 ug/l		9
56) p,m-Xylene	5.83	106	222173	43.54 ug/l		8
57) o-Xylene	6.02	91	234807	21.96 ug/l		9
58) Styrene	6.02	104	185838	21.99 ug/l		9
59) Isopropylbenzene	6.18	105	281970	21.22 ug/l		9
60) Bromoform (SPCC)	6.12	173	21797	14.91 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	69868	19.99 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	19987	19.98 ug/l	#	8
63) n-Propylbenzene	6.37	91	330985	21.29 ug/l		8
64) Bromobenzene	6.34	156	54565	20.18 ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	106702	20.13 ug/l	#	7
66) tert-Butylbenzene	6.61	91	152026	20.73 ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.63	120	120208	20.89 ug/l	#	7
69) sec-Butylbenzene	6.71	105	274831	20.55 ug/l		9
70) p-Isopropyltoluene	6.77	119	219425	21.27 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	107044	22.23 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	110266	20.99 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	103479	20.59 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	235913	21.86 ug/l		8
75) n-Butylbenzene	6.97	91	212492	20.67 ug/l		9
76) Hexachloroethane	7.13	201	18933	15.04 ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

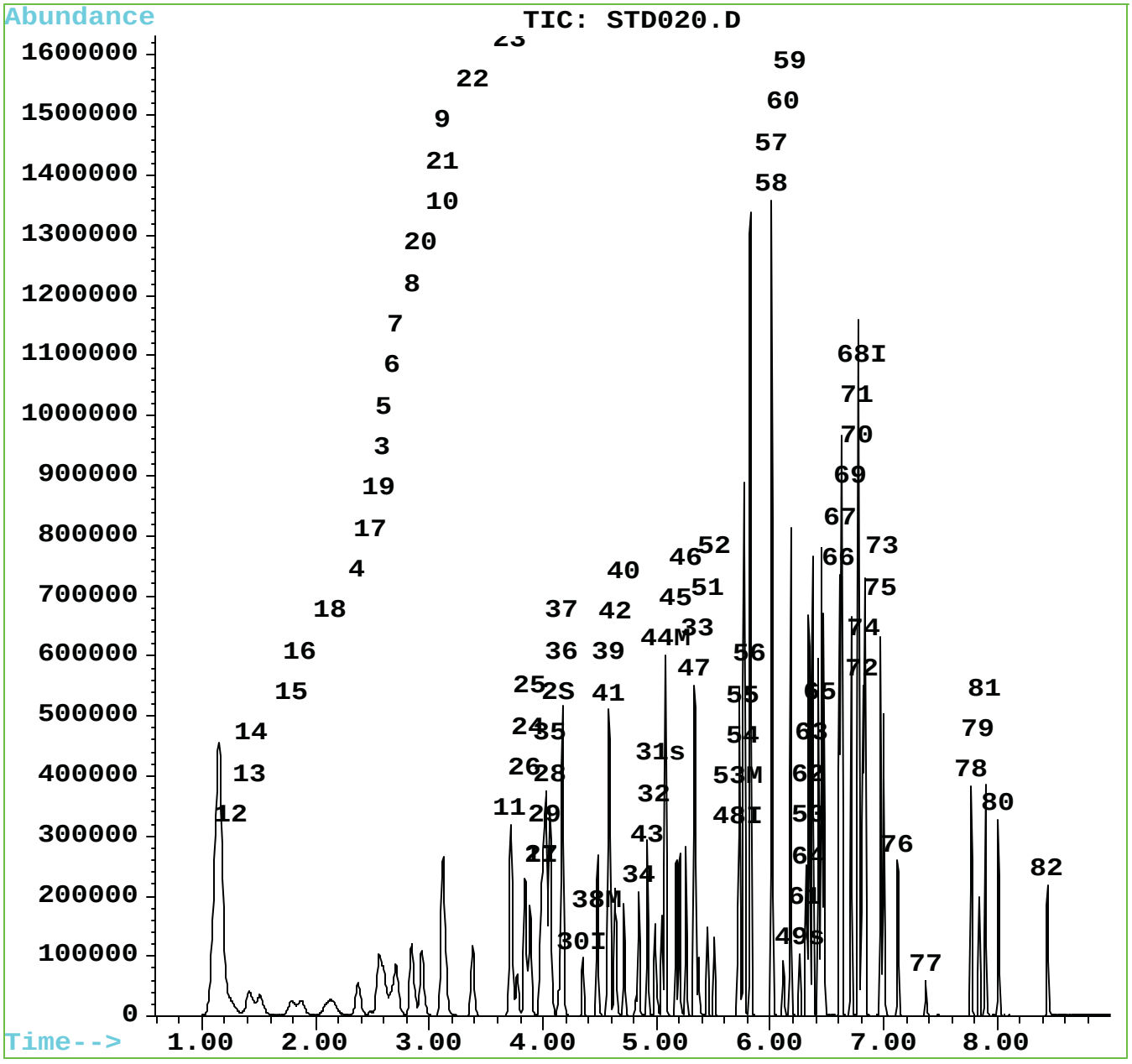
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	8778	13.96	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	55138	18.30	ug/l		9
79)	Hexachlorobutadiene	7.85	225	19852	15.48	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	51172	17.83	ug/l		9
81)	Naphthalene	7.89	128	173253	17.61	ug/l		9
82)	2-Methylnaphthalene	8.44	142	59914	13.90	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	27134	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	49502	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	27852	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	21684	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19516	5.74	ug/l		114.7
31) TOLUENE-D8 (S)	5.05	98	61916	5.24	ug/l		104.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14182	4.44	ug/l		88.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	159916	67.44	ug/l	#	8
4) Diethyl ether (*)	2.37	74	121850	67.01	ug/l	#	6
5) Acetone (*)	2.62	43	81985	50.95	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	212599	61.47	ug/l		8
7) Carbon disulfide (*)	2.71	76	563341	67.96	ug/l		9
8) Methyl Acetate	2.87	43	167423	64.14	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	510679	61.79	ug/l		8
10) Acrylonitrile (*)	3.11	53	89286	63.74	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	121131	59.08	ug/l		7
12) Dichlorodifluoromethane	1.27	85	145331	58.35	ug/l		9
13) Chloromethane (SPCC)	1.42	50	264973	69.32	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	243252	71.36	ug/l		9
15) Bromomethane	1.80	94	107251	85.31	ug/l		9
16) Chloroethane	1.87	64	133549	89.52	ug/l		8
17) Acrolein	2.49	56	32019	49.84	ug/l		9
18) Trichlorofluoromethane	2.15	101	251567	78.74	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	310262	71.04	ug/l	#	7
20) Methylene Chloride	2.94	84	184121	64.43	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	304449	70.85	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	366259	69.61	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	194868	65.84	ug/l	#	6
24) Tetrahydrofuran	3.87	42	71295	57.36	ug/l	#	7
25) Chloroform (CCC)	3.89	83	309224	68.00	ug/l		9
26) Bromochloromethane	3.85	130	104258	63.12	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	272389	67.69	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	269855	70.31	ug/l		8
29) Cyclohexane	4.02	42	124356	74.49	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	76806	60.49	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	77134	57.60	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	139110	66.85	ug/l		8
35) Carbon Tetrachloride	4.07	117	220731	68.19	ug/l		9
36) Benzene (MS)	4.17	78	778900	66.33	ug/l		8
37) 1,2-Dichloroethane	4.17	62	282094	69.92	ug/l		9
38) Trichloroethene (MS)	4.48	95	179333	64.82	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	209835	68.66	ug/l		9
40) Bromodichloromethane	4.72	83	231638	68.78	ug/l		9
41) Methyl Cyclohexane	4.57	55	289086	65.57	ug/l	#	5
42) Dibromomethane	4.65	174	85881	58.99	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	305105	66.73	ug/l		9
44) Toluene (CCC/MS)	5.08	91	817244	66.48	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	278019	67.41	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	134459	64.83	ug/l		9
47) Tetrachloroethene	5.33	166	155264	62.18	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	42962	41.89	ug/l		9
51) Dibromochloromethane	5.45	129	147287	56.95	ug/l		9
52) 1,2-Dibromoethane	5.51	107	154724	59.06	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	482753	60.80	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	154891	62.86	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	928668	65.57	ug/l		9
56) p,m-Xylene	5.83	106	691126	128.72	ug/l	#	7
57) o-Xylene	6.02	91	749017	66.56	ug/l		8
58) Styrene	6.02	104	588909	66.22	ug/l		9
59) Isopropylbenzene	6.18	105	880374	62.96	ug/l		9
60) Bromoform (SPCC)	6.12	173	79916	51.12	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	217988	59.26	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	62291	59.18	ug/l	#	6
63) n-Propylbenzene	6.37	91	1042169	63.69	ug/l		8
64) Bromobenzene	6.34	156	173502	60.97	ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	343071	61.50	ug/l	#	7
66) tert-Butylbenzene	6.61	91	496122	64.30	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	385721	63.71	ug/l	#	7
69) sec-Butylbenzene	6.72	105	870158	63.30	ug/l		9
70) p-Isopropyltoluene	6.77	119	697891	65.82	ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	330322	66.73	ug/l		8
72) 1,4-Dichlorobenzene	6.82	146	341591	63.25	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	325420	63.00	ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	748753	67.49	ug/l		8
75) n-Butylbenzene	6.97	91	679214	64.28	ug/l		9
76) Hexachloroethane	7.13	201	68488	52.95	ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

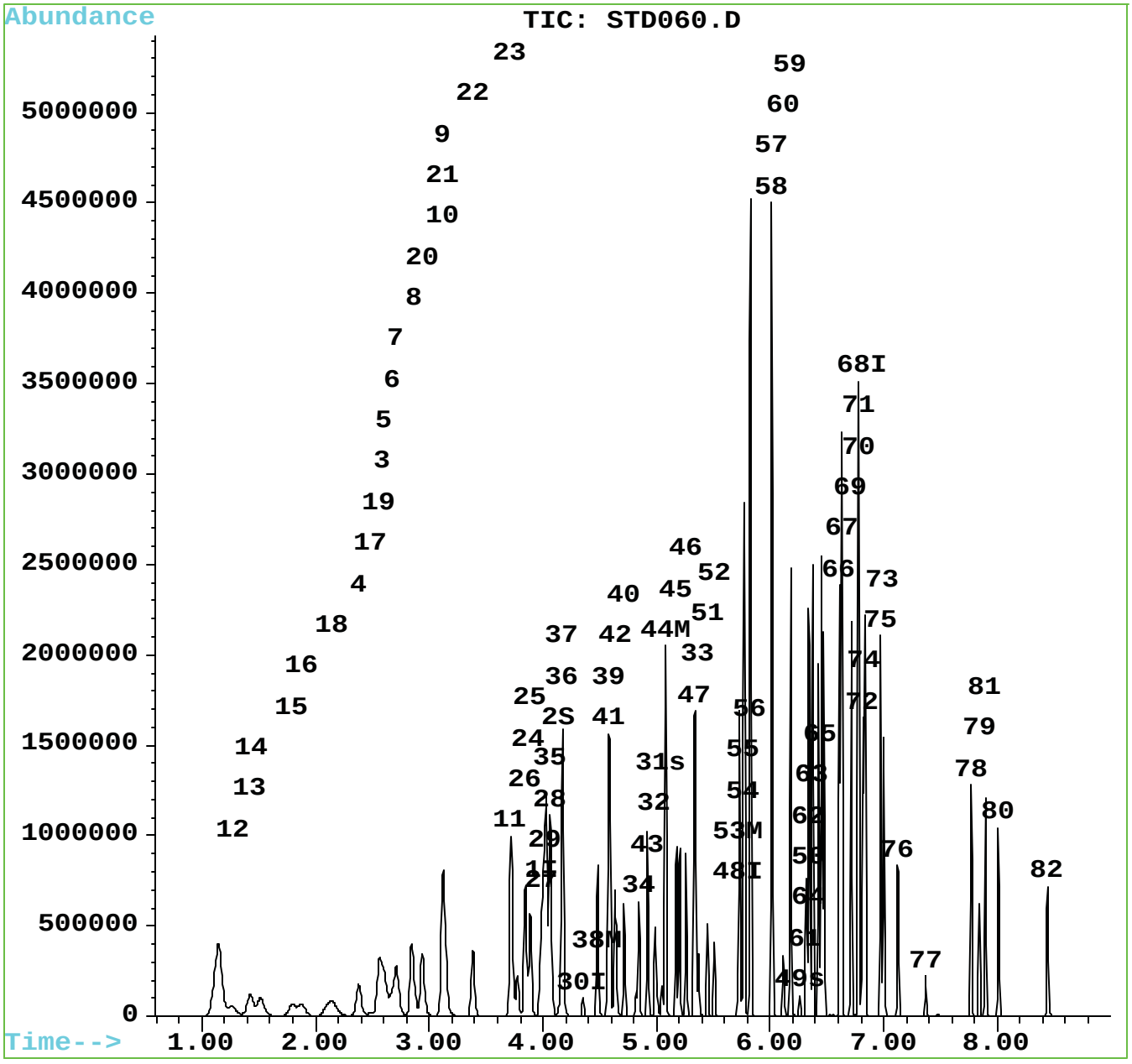
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	30152	46.84	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	179017	57.82	ug/l		9
79)	Hexachlorobutadiene	7.85	225	64467	48.90	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	158820	53.85	ug/l		9
81)	Naphthalene	7.90	128	551895	54.58	ug/l		9
82)	2-Methylnaphthalene	8.45	142	195795	44.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	28803	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	51293	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29297	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22937	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	20922	5.79	ug/l		115.8
31) TOLUENE-D8 (S)	5.05	98	63786	5.21	ug/l		104.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15012	4.47	ug/l		89.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	294611	117.04	ug/l		8
4) Diethyl ether (*)	2.38	74	222819	115.44	ug/l	#	6
5) Acetone (*)	2.62	43	159895	93.62	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	393985	107.31	ug/l		8
7) Carbon disulfide (*)	2.71	76	1065290	121.07	ug/l		9
8) Methyl Acetate	2.87	43	301044	108.64	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	953487	108.68	ug/l		8
10) Acrylonitrile (*)	3.11	53	168881	113.58	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	226926	104.27	ug/l		7
12) Dichlorodifluoromethane	1.26	85	326519	113.58	ug/l		9
13) Chloromethane (SPCC)	1.43	50	520983	128.40	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	467590	129.22	ug/l		9
15) Bromomethane	1.80	94	183553	157.22	ug/l		9
16) Chloroethane	1.88	64	229093	172.20	ug/l		8
17) Acrolein	2.49	56	61335	89.95	ug/l		9
18) Trichlorofluoromethane	2.15	101	455163	134.21	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	571183	123.21	ug/l	#	7
20) Methylene Chloride	2.94	84	337650	111.31	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	555076	121.69	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	659191	118.02	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	354000	112.67	ug/l	#	6
24) Tetrahydrofuran	3.87	42	128603	97.48	ug/l	#	7
25) Chloroform (CCC)	3.89	83	555008	114.97	ug/l		9
26) Bromochloromethane	3.85	130	186525	106.38	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	498970	116.82	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	490201	120.33	ug/l		8
29) Cyclohexane	4.02	42	224284	126.57	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	138511	105.29	ug/l	#	6
33) 2-Hexanone (*)	5.36	58	146766	105.78	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	253275	117.46	ug/l		8
35) Carbon Tetrachloride	4.07	117	403015	120.15	ug/l		9
36) Benzene (MS)	4.17	78	1414631	116.26	ug/l		8
37) 1,2-Dichloroethane	4.18	62	514515	123.08	ug/l		9
38) Trichloroethene (MS)	4.48	95	326701	113.97	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	386216	121.97	ug/l		9
40) Bromodichloromethane	4.72	83	421205	120.70	ug/l		9
41) Methyl Cyclohexane	4.57	55	531858	116.43	ug/l	#	5
42) Dibromomethane	4.65	174	153931	102.04	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	565814	119.43	ug/l		9
44) Toluene (CCC/MS)	5.08	91	1475726	115.85	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	513877	120.24	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	239644	111.50	ug/l		9
47) Tetrachloroethene	5.33	166	279137	107.88	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	86515	80.19	ug/l	#	7
51) Dibromochloromethane	5.45	129	271069	99.65	ug/l		9
52) 1,2-Dibromoethane	5.51	107	274147	99.48	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	859818	102.95	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	275373	106.24	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	1639554	110.06	ug/l		9
56) p,m-Xylene	5.83	106	1194174	211.44	ug/l	#	7
57) o-Xylene	6.02	91	1311895	110.82	ug/l		8
58) Styrene	6.02	104	1029613	110.07	ug/l		9
59) Isopropylbenzene	6.18	105	1561888	106.18	ug/l		9
60) Bromoform (SPCC)	6.12	173	149209	89.23	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	389964	100.78	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	112295	101.42	ug/l	#	6
63) n-Propylbenzene	6.37	91	1865569	108.39	ug/l		8
64) Bromobenzene	6.34	156	309349	103.35	ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	607487	103.53	ug/l	#	7
66) tert-Butylbenzene	6.61	91	884411	108.96	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	676034	106.15	ug/l	#	7
69) sec-Butylbenzene	6.72	105	1572225	108.12	ug/l		9
70) p-Isopropyltoluene	6.78	119	1208413	107.74	ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	571482	109.14	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	610967	106.95	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	577647	105.71	ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	1321187	112.59	ug/l		8
75) n-Butylbenzene	6.97	91	1224185	109.52	ug/l		9
76) Hexachloroethane	7.13	201	127924	93.50	ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

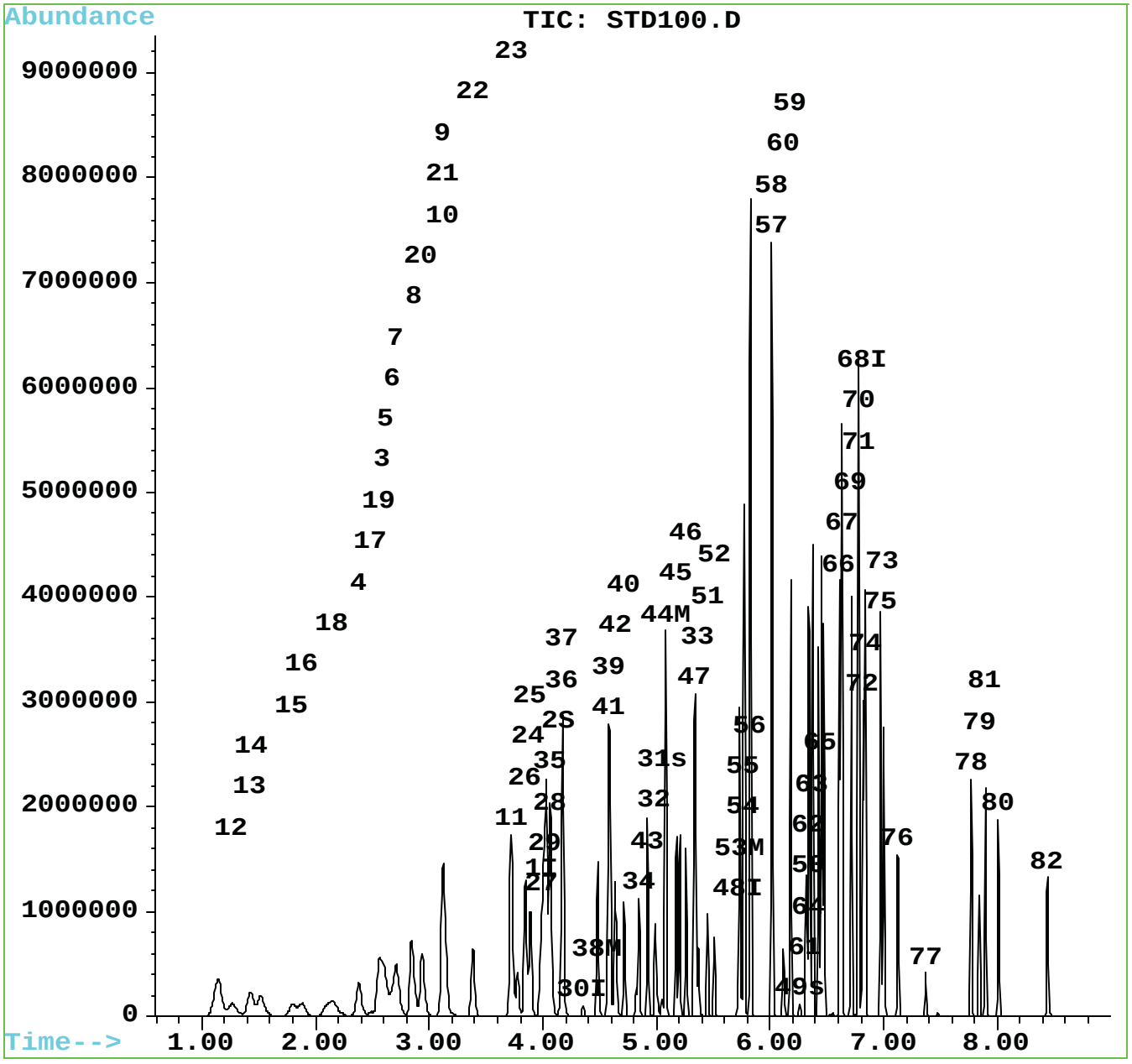
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	56200	82.86	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	318169	97.16	ug/l		9
79)	Hexachlorobutadiene	7.85	225	119783	85.89	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	286357	91.78	ug/l		9
81)	Naphthalene	7.90	128	1004411	93.90	ug/l		9
82)	2-Methylnaphthalene	8.45	142	364661	77.81	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	29908	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54448	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30819	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23675	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	21145	4.92	ug/l		98.4
31) TOLUENE-D8 (S)	5.05	98	67968	5.07	ug/l		101.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17238	5.23	ug/l		104.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	620618	216.86	ug/l		8
4) Diethyl ether (*)	2.37	74	457556	208.80	ug/l	#	5
5) Acetone (*)	2.62	43	307549	201.98	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	833633	214.35	ug/l		8
7) Carbon disulfide (*)	2.70	76	2277038	226.24	ug/l		9
8) Methyl Acetate	2.87	43	648573	210.85	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	2017218	217.73	ug/l		8
10) Acrylonitrile (*)	3.10	53	358705	227.19	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	463857	212.10	ug/l		7
12) Dichlorodifluoromethane	1.26	85	682569	202.43	ug/l		9
13) Chloromethane (SPCC)	1.42	50	1050991	214.34	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	957966	217.52	ug/l		9
17) Acrolein	2.49	56	128378	207.81	ug/l		10
18) Trichlorofluoromethane	2.13	101	885458	201.06	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	1205631	217.90	ug/l		7
20) Methylene Chloride	2.93	84	713538	208.35	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	1161048	215.60	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	1388428	213.70	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	738321	210.17	ug/l	#	6
24) Tetrahydrofuran	3.87	42	275835	193.68	ug/l	#	7
25) Chloroform (CCC)	3.89	83	1167198	208.68	ug/l		9
26) Bromochloromethane	3.85	130	390306	209.88	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	1054022	217.14	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	1007082	209.02	ug/l		8
29) Cyclohexane	4.02	42	465605	214.42	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	296966	227.40	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	304371	236.08	ug/l	#	7
34) 2-chloroethylvinyl ether	4.85	63	521763	213.57	ug/l		8
35) Carbon Tetrachloride	4.07	117	845996	222.64	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.17	78	2878906	206.70	ug/l		8
37) 1,2-Dichloroethane	4.18	62	1043325	208.80	ug/l		9
38) Trichloroethene (MS)	4.48	95	680750	210.60	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	791053	214.56	ug/l		9
40) Bromodichloromethane	4.72	83	902308	230.17	ug/l		9
41) Methyl Cyclohexane	4.57	55	1111691	217.33	ug/l	#	5
42) Dibromomethane	4.65	174	327314	206.03	ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	1205329	237.67	ug/l		9
44) Toluene (CCC/MS)	5.08	91	2980882	204.49	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	1104074	245.82	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	499629	207.97	ug/l		9
47) Tetrachloroethene	5.33	166	573569	209.06	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	189640	178.19	ug/l	#	6
51) Dibromochloromethane	5.45	129	576961	203.09	ug/l		9
52) 1,2-Dibromoethane	5.51	107	581877	208.44	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	1735841	196.17	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.77	131	538965	205.01	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	3109373	190.78	ug/l		9
56) p,m-Xylene	5.83	106	2139865	354.48	ug/l	#	7
57) o-Xylene	6.02	91	2418086	185.22	ug/l		8
58) Styrene	6.02	104	1869438	185.04	ug/l		8
59) Isopropylbenzene	6.18	105	3060173	197.93	ug/l		9
60) Bromoform (SPCC)	6.12	173	336607	186.59	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	821106	208.59	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	223470	200.24	ug/l	#	6
63) n-Propylbenzene	6.37	91	3690182	201.69	ug/l		9
64) Bromobenzene	6.34	156	607182	198.93	ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	1174728	195.09	ug/l	#	7
66) tert-Butylbenzene	6.61	91	1762240	203.65	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	1241530	189.52	ug/l	#	7
69) sec-Butylbenzene	6.72	105	3092179	205.19	ug/l		9
70) p-Isopropyltoluene	6.78	119	2214725	188.98	ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	1032019	182.49	ug/l		8
72) 1,4-Dichlorobenzene	6.82	146	1228542	201.98	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	1165425	201.22	ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	2601639	204.62	ug/l		8
75) n-Butylbenzene	6.97	91	2426504	207.49	ug/l		9
76) Hexachloroethane	7.13	201	271333	197.49	ug/l	#	5
77) 1,2-Dibromo-3-Chloropropan	7.37	157	125010	185.57	ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	657094	209.93	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

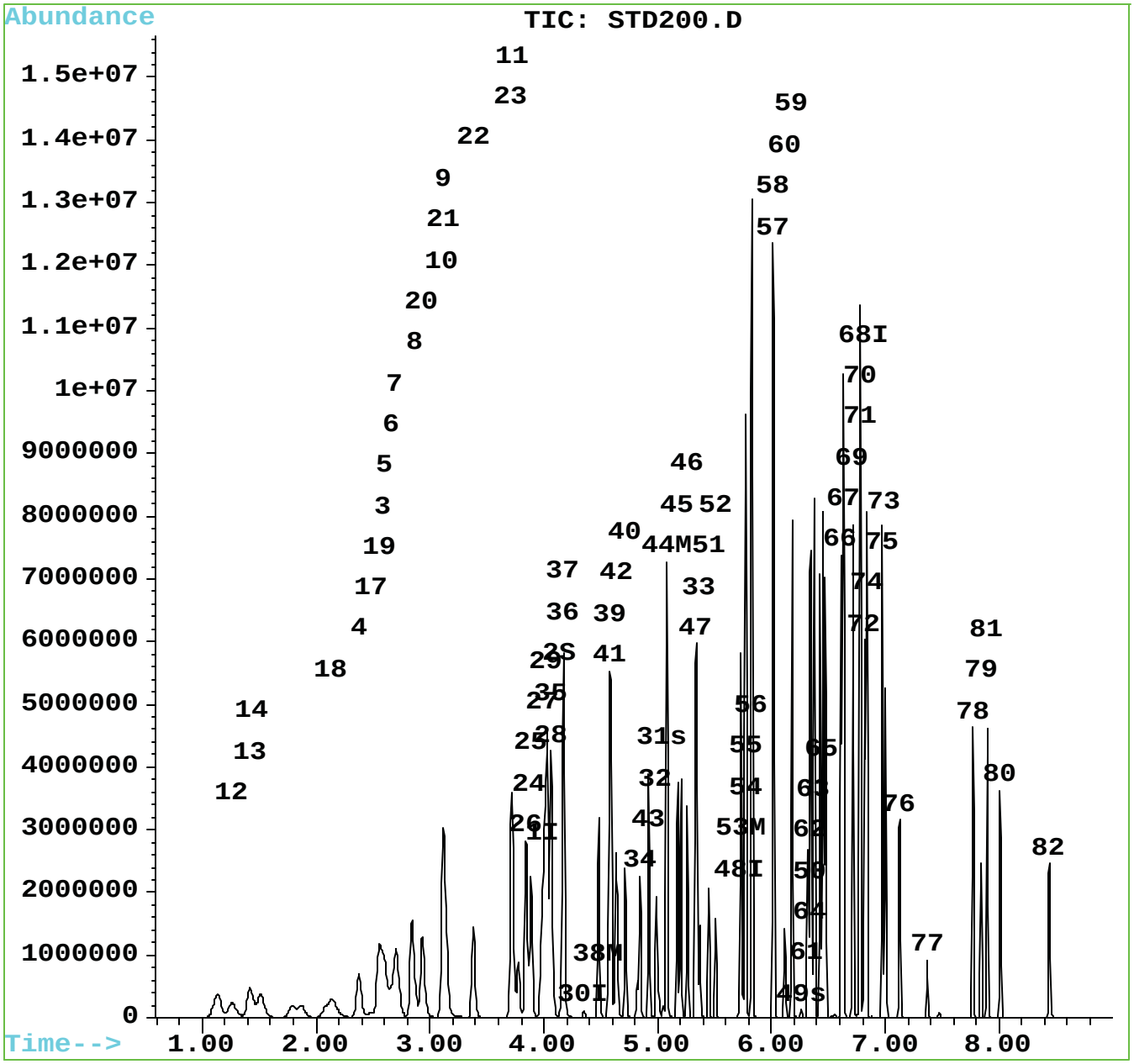
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.85	225	246065	210.95	ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	575121	199.81	ug/l	9
81)	Naphthalene	7.90	128	2056504	213.81	ug/l	9
82)	2-Methylnaphthalene	8.45	142	691275	201.41	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	28802	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	52581	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29736	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23065	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19953	4.77	ug/l		95.3
31) TOLUENE-D8 (S)	5.05	98	64881	4.99	ug/l		99.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15135	4.81	ug/l		96.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	158288	56.79	ug/l		8
4) Diethyl ether (*)	2.37	74	114788	53.36	ug/l	#	6
5) Acetone (*)	2.61	43	73198	50.31	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	202789	53.97	ug/l		8
7) Carbon disulfide (*)	2.71	76	551088	56.10	ug/l		9
8) Methyl Acetate	2.86	43	154362	51.88	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	500062	55.75	ug/l		8
10) Acrylonitrile (*)	3.10	53	86480	56.46	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	104271	48.61	ug/l		8
12) Dichlorodifluoromethane	1.25	85	157605	53.79	ug/l		9
13) Chloromethane (SPCC)	1.41	50	279286	58.06	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	232157	53.68	ug/l		9
15) Bromomethane	1.79	94	105273	53.45	ug/l		9
16) Chloroethane	1.86	64	131026	56.42	ug/l		8
17) Acrolein	2.48	56	29225	50.35	ug/l		9
18) Trichlorofluoromethane	2.13	101	245665	56.34	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	291561	53.50	ug/l	#	7
20) Methylene Chloride	2.93	84	177230	53.22	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	283731	53.46	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	335408	52.64	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	179892	52.31	ug/l	#	7
24) Tetrahydrofuran	3.86	42	67059	48.81	ug/l	#	1
25) Chloroform (CCC)	3.89	83	286290	52.28	ug/l		9
26) Bromochloromethane	3.85	130	95809	53.00	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	252651	53.31	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	459	0.10	ug/l	#	
29) Cyclohexane	4.01	42	98611	45.78	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	71452	56.55	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	72296	49.29	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	115764	47.98	ug/l		8
35) Carbon Tetrachloride	4.07	117	202147	53.78	ug/l		9
36) Benzene (MS)	4.17	78	721415	52.20	ug/l		8
37) 1,2-Dichloroethane	4.17	62	263202	52.89	ug/l		9
38) Trichloroethene (MS)	4.48	95	165943	52.07	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	197490	53.80	ug/l		9
40) Bromodichloromethane	4.72	83	212879	54.87	ug/l		9
41) Methyl Cyclohexane	4.57	55	278513	55.27	ug/l	#	5
42) Dibromomethane	4.65	174	78676	50.99	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	279442	48.34	ug/l		9
44) Toluene (CCC/MS)	5.08	91	739071	51.17	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	253894	50.40	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	123622	52.31	ug/l		9
47) Tetrachloroethene	5.33	166	140081	51.84	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.34	53	38326	48.31	ug/l		9
51) Dibromochloromethane	5.45	129	137396	56.20	ug/l		9
52) 1,2-Dibromoethane	5.51	107	141403	52.46	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	443690	51.43	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	142764	55.56	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	837144	52.37	ug/l		9
56) p,m-Xylene	5.83	106	626217	105.87	ug/l	#	7
57) o-Xylene	6.02	91	686512	53.61	ug/l		9
58) Styrene	6.02	104	520202	52.61	ug/l		9
59) Isopropylbenzene	6.18	105	798140	52.93	ug/l		9
60) Bromoform (SPCC)	6.12	173	73012	51.25	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	198679	52.18	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	57902	53.40	ug/l	#	6
63) n-Propylbenzene	6.37	91	970898	54.33	ug/l		9
64) Bromobenzene	6.34	156	158201	53.03	ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	313841	53.63	ug/l	#	7
66) tert-Butylbenzene	6.61	91	450317	53.13	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	354119	55.36	ug/l	#	7
69) sec-Butylbenzene	6.72	105	806478	53.95	ug/l		9
70) p-Isopropyltoluene	6.77	119	648345	55.60	ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	305012	54.07	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	315549	52.15	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	302174	52.64	ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	695043	54.63	ug/l		8
75) n-Butylbenzene	6.97	91	625456	54.03	ug/l		9
76) Hexachloroethane	7.13	201	61852	50.38	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

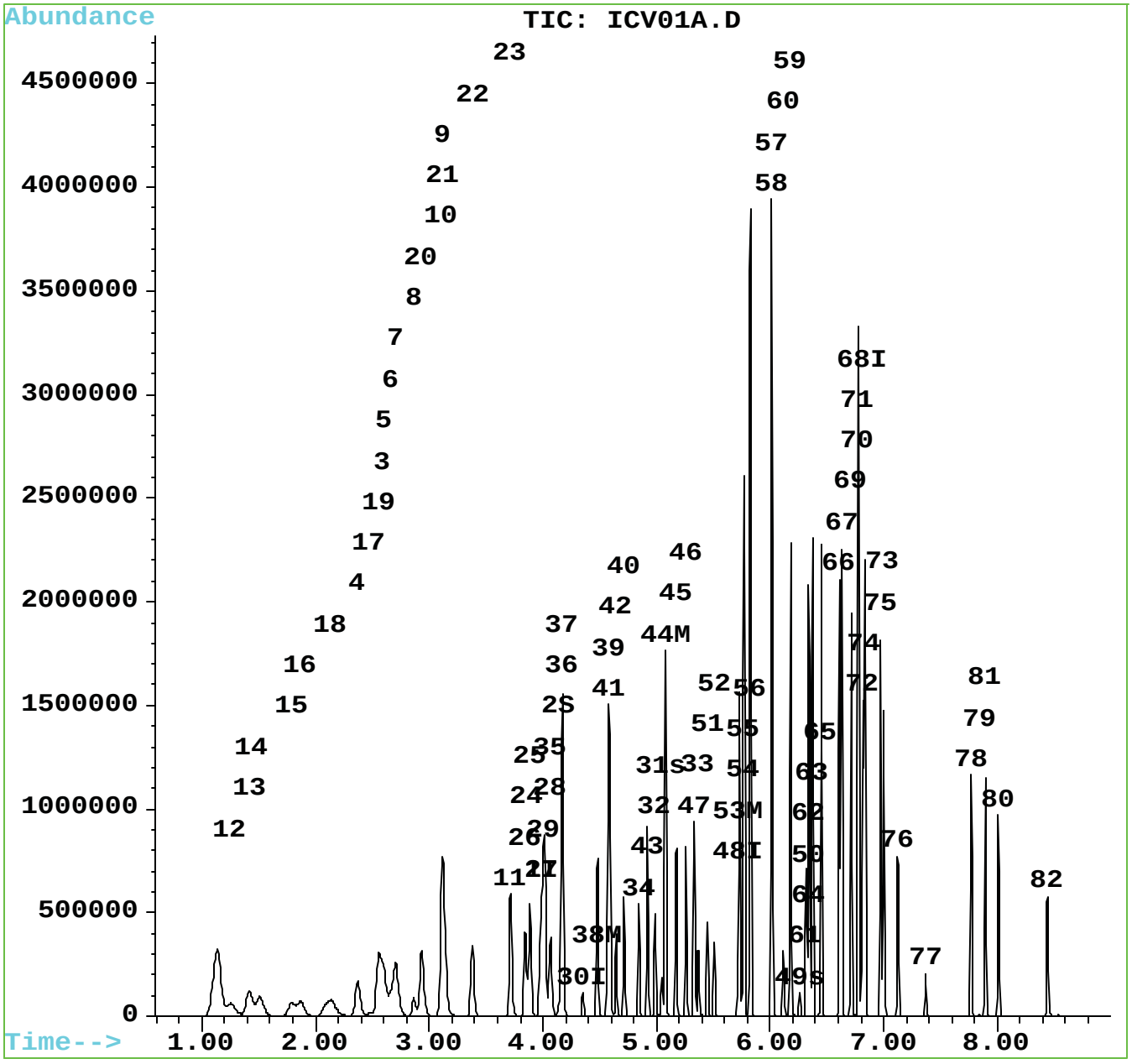
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	27900	52.19	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	165223	54.02	ug/l		9
79)	Hexachlorobutadiene	7.85	225	1124	1.02	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	151418	54.60	ug/l		9
81)	Naphthalene	7.89	128	518180	55.47	ug/l		9
82)	2-Methylnaphthalene	8.45	142	165543	45.54	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120731b5.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc31c.d	07/31/12 23:41	1,1,2-Trichloro-1,2,2-trifluoroethane	0.292	0.05
		Diethyl ether	0.078	0.05
		Acetone	0.011	0.01
		Methyl iodide	0.589	0.05
		Carbon disulfide	0.789	0.05
		Methyl acetate	0.054	0.05
		tert-Methyl butyl ether	0.406	0.05
		Acrylonitrile	0.035	0.01
		2-Butanone	0.019	0.01
		Dichlorodifluoromethane	0.214	0.05
		Chloromethane	0.202	0.10
		Vinyl Chloride	0.244	0.05
		Bromomethane	0.103	0.05
		Chloroethane	0.050	0.05
		Trichlorofluoromethane	0.296	0.05
		1,1-Dichloroethene	0.283	0.05
		Methylene Chloride	0.247	0.05
		trans-1,2-Dichloroethene	0.284	0.05
		1,1-Dichloroethane	0.349	0.10
		cis-1,2-Dichloroethene	0.295	0.05
		Tetrahydrofuran	0.023	0.01
		Chloroform	0.380	0.05
		Bromochloromethane	0.189	0.05
		1,1,1-Trichloroethane	0.409	0.05
		Cyclohexane	0.094	0.05
		4-Methyl-2-pentanone	0.029	0.01
		2-Hexanone	0.021	0.01
		Carbon Tetrachloride	0.354	0.05
		Benzene	0.899	0.05
		1,2-Dichloroethane	0.169	0.05
		Trichloroethene	0.258	0.05
		1,2-Dichloropropane	0.173	0.05
		Bromodichloromethane	0.236	0.05
		Methyl cyclohexane	0.263	0.05
		Dibromomethane	0.187	0.05
		cis-1,3-Dichloropropene	0.301	0.05
		Toluene	1.117	0.05
		trans-1,3-Dichloropropene	0.233	0.05
		1,1,2-Trichloroethane	0.114	0.05
		Tetrachloroethene	0.466	0.05
		trans-1,4-Dichloro-2-butene	0.070	0.05
		Dibromochloromethane	0.592	0.05
		1,2-Dibromoethane	0.457	0.05
		Chlorobenzene	2.141	0.30
		1,1,1,2-Tetrachloroethane	0.759	0.05
		Ethylbenzene	3.380	0.05
		p,m-Xylene	1.454	0.05
		o-Xylene	2.587	0.05
		Styrene	2.165	0.05
		Isopropylbenzene	3.892	0.05
		Bromoform	0.392	0.10
		1,1,2,2-Tetrachloroethane	0.422	0.30
		1,2,3-Trichloropropane	0.140	0.05
		n-Propylbenzene	3.954	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120731b5.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	1.054	0.05
		1,3,5-Trimethylbenzene	1.794	0.05
		tert-Butylbenzene	1.865	0.05
		1,2,4-Trimethylbenzene	1.898	0.05
		sec-Butylbenzene	3.127	0.05
		p-Isopropyltoluene	2.703	0.05
		1,3-Dichlorobenzene	1.387	0.05
		1,4-Dichlorobenzene	1.400	0.05
		1,2-Dichlorobenzene	1.270	0.05
		1,2,3-Trimethylbenzene	2.046	0.05
		n-Butylbenzene	2.095	0.05
		Hexachloroethane	0.587	0.05
		1,2-Dibromo-3-Chloropropane	0.078	0.05
		1,2,4-Trichlorobenzene	1.001	0.05
		1,2,3-Trichlorobenzene	0.803	0.05
		Naphthalene	1.269	0.05
		2-Methylnaphthalene	0.636	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120802a3.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc02a.d	08/02/12 11:17	1,1,2-Trichloro-1,2,2-trifluoroethane	0.506	0.05
		Diethyl ether	0.375	0.05
		Acetone	0.225	0.01
		Methyl iodide	0.671	0.05
		Carbon disulfide	1.784	0.05
		Methyl acetate	0.513	0.05
		tert-Methyl butyl ether	1.591	0.05
		Acrylonitrile	0.276	0.01
		2-Butanone	0.348	0.01
		Dichlorodifluoromethane	0.510	0.05
		Chloromethane	0.891	0.10
		Vinyl Chloride	0.802	0.05
		Bromomethane	0.402	0.05
		Chloroethane	0.478	0.05
		Trichlorofluoromethane	0.818	0.05
		1,1-Dichloroethene	0.993	0.05
		Methylene Chloride	0.592	0.05
		trans-1,2-Dichloroethene	0.961	0.05
		1,1-Dichloroethane	1.149	0.10
		cis-1,2-Dichloroethene	0.626	0.05
		Tetrahydrofuran	0.221	0.01
		Chloroform	0.991	0.05
		Bromochloromethane	0.332	0.05
		1,1,1-Trichloroethane	0.866	0.05
		Cyclohexane	0.390	0.05
		4-Methyl-2-pentanone	0.123	0.01
		2-Hexanone	0.123	0.01
		Carbon Tetrachloride	0.369	0.05
		Benzene	1.322	0.05
		1,2-Dichloroethane	0.480	0.05
		Trichloroethene	0.305	0.05
		1,2-Dichloropropane	0.359	0.05
		Bromodichloromethane	0.392	0.05
		Methyl cyclohexane	0.503	0.05
		Dibromomethane	0.142	0.05
		cis-1,3-Dichloropropene	0.520	0.05
		Toluene	1.395	0.05
		trans-1,3-Dichloropropene	0.468	0.05
		1,1,2-Trichloroethane	0.224	0.05
		Tetrachloroethene	0.265	0.05
		trans-1,4-Dichloro-2-butene	0.132	0.05
		Dibromochloromethane	0.444	0.05
		1,2-Dibromoethane	0.468	0.05
		Chlorobenzene	1.499	0.30
		1,1,1,2-Tetrachloroethane	0.484	0.05
		Ethylbenzene	2.879	0.05
		p,m-Xylene	1.075	0.05
		o-Xylene	2.358	0.05
		Styrene	1.844	0.05
		Isopropylbenzene	2.741	0.05
		Bromoform	0.237	0.10
		1,1,2,2-Tetrachloroethane	0.666	0.30
		1,2,3-Trichloropropane	0.191	0.05
		n-Propylbenzene	3.253	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120802a3.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	0.540	0.05
		1,3,5-Trimethylbenzene	1.079	0.05
		tert-Butylbenzene	1.525	0.05
		1,2,4-Trimethylbenzene	1.210	0.05
		sec-Butylbenzene	3.430	0.05
		p-Isopropyltoluene	2.781	0.05
		1,3-Dichlorobenzene	1.305	0.05
		1,4-Dichlorobenzene	1.345	0.05
		1,2-Dichlorobenzene	1.291	0.05
		1,2,3-Trimethylbenzene	2.946	0.05
		n-Butylbenzene	2.719	0.05
		Hexachloroethane	0.264	0.05
		1,2-Dibromo-3-Chloropropane	0.110	0.05
		1,2,4-Trichlorobenzene	0.674	0.05
		1,2,3-Trichlorobenzene	0.601	0.05
		Naphthalene	2.054	0.05
		2-Methylnaphthalene	0.644	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
spcc31c.d	07/31/12 23:41	1,1,2-Trichloro-1,2,2-trifluoroet	45.3/ 50.0		9.3/ 20.0
		Diethyl ether	42.4/ 50.0		15.2/ 20.0
		Acetone	30.1/ 50.0	*	39.8/ 20.0
		Methyl iodide	43.6/ 50.0		12.8/ 20.0
		Carbon disulfide	41.3/ 50.0		17.4/ 20.0
		Methyl acetate	39.7/ 50.0	*	20.6/ 20.0
		tert-Methyl butyl ether	43.6/ 50.0		12.8/ 20.0
		Acrylonitrile	42.5/ 50.0		15.1/ 20.0
		2-Butanone	32.9/ 50.0	*	34.1/ 20.0
		Dichlorodifluoromethane	52.8/ 50.0		5.6/ 20.0
		Chloromethane	44.2/ 50.0		11.7/ 20.0
		Vinyl Chloride	47.2/ 50.0		5.6/ 20.0
		Bromomethane	44.6/ 50.0		10.7/ 20.0
		Chloroethane	45.4/ 50.0		9.3/ 20.0
		Trichlorofluoromethane	49.2/ 50.0		1.5/ 20.0
		1,1-Dichloroethene	44.3/ 50.0		11.4/ 20.0
		Methylene Chloride	39.9/ 50.0	*	20.2/ 20.0
		trans-1,2-Dichloroethene	42.6/ 50.0		14.9/ 20.0
		1,1-Dichloroethane	41.8/ 50.0		16.3/ 20.0
		cis-1,2-Dichloroethene	42.4/ 50.0		15.2/ 20.0
		Tetrahydrofuran	41.7/ 50.0		16.6/ 20.0
		Chloroform	42.4/ 50.0		15.3/ 20.0
		Bromochloromethane	42.4/ 50.0		15.2/ 20.0
		1,1,1-Trichloroethane	46.6/ 50.0		6.7/ 20.0
		Cyclohexane	46.3/ 50.0		7.4/ 20.0
		4-Methyl-2-pentanone	44.6/ 50.0		10.8/ 20.0
		2-Hexanone	41.0/ 50.0		17.9/ 20.0
		Carbon Tetrachloride	49.9/ 50.0		0.2/ 20.0
		Benzene	45.0/ 50.0		10.0/ 20.0
		1,2-Dichloroethane	46.8/ 50.0		6.5/ 20.0
		Trichloroethene	47.3/ 50.0		5.4/ 20.0
		1,2-Dichloropropane	44.7/ 50.0		10.7/ 20.0
		Bromodichloromethane	48.5/ 50.0		2.9/ 20.0
		Methyl cyclohexane	46.6/ 50.0		6.8/ 20.0
		Dibromomethane	49.4/ 50.0		1.2/ 20.0
		cis-1,3-Dichloropropene	49.6/ 50.0		0.8/ 20.0
		Toluene	47.6/ 50.0		4.7/ 20.0
		trans-1,3-Dichloropropene	51.0/ 50.0		2.0/ 20.0
		1,1,2-Trichloroethane	45.5/ 50.0		9.1/ 20.0
		Tetrachloroethene	48.1/ 50.0		3.9/ 20.0
		trans-1,4-Dichloro-2-butene	50.7/ 50.0		1.4/ 20.0
		Dibromochloromethane	51.9/ 50.0		3.8/ 20.0
		1,2-Dibromoethane	49.8/ 50.0		0.4/ 20.0
		Chlorobenzene	46.2/ 50.0		7.5/ 20.0
		1,1,1,2-Tetrachloroethane	49.0/ 50.0		2.0/ 20.0
		Ethylbenzene	48.7/ 50.0		2.6/ 20.0
		p,m-Xylene	98.1/100.0		1.9/ 20.0
		o-Xylene	48.9/ 50.0		2.3/ 20.0
		Styrene	50.3/ 50.0		0.5/ 20.0
		Isopropylbenzene	49.8/ 50.0		0.3/ 20.0
		Bromoform	49.3/ 50.0		1.5/ 20.0
		1,1,2,2-Tetrachloroethane	49.5/ 50.0		1.1/ 20.0
		1,2,3-Trichloropropane	49.6/ 50.0		0.9/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120731b5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	49.2/ 50.0	1.5/ 20.0
		Bromobenzene	47.9/ 50.0	4.3/ 20.0
		1,3,5-Trimethylbenzene	49.8/ 50.0	0.4/ 20.0
		tert-Butylbenzene	50.6/ 50.0	1.2/ 20.0
		1,2,4-Trimethylbenzene	49.9/ 50.0	0.3/ 20.0
		sec-Butylbenzene	49.3/ 50.0	1.3/ 20.0
		p-Isopropyltoluene	50.5/ 50.0	1.0/ 20.0
		1,3-Dichlorobenzene	47.5/ 50.0	5.0/ 20.0
		1,4-Dichlorobenzene	46.7/ 50.0	6.7/ 20.0
		1,2-Dichlorobenzene	46.7/ 50.0	6.5/ 20.0
		1,2,3-Trimethylbenzene	46.3/ 50.0	7.5/ 20.0
		n-Butylbenzene	49.4/ 50.0	1.2/ 20.0
		Hexachloroethane	46.3/ 50.0	7.5/ 20.0
		1,2-Dibromo-3-Chloropropane	51.9/ 50.0	3.8/ 20.0
		1,2,4-Trichlorobenzene	53.9/ 50.0	7.8/ 20.0
		1,2,3-Trichlorobenzene	53.0/ 50.0	6.0/ 20.0
		Naphthalene	55.9/ 50.0	11.8/ 20.0
		2-Methylnaphthalene	55.3/ 50.0	10.6/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
spcc02a.d	08/02/12 11:17	1,1,2-Trichloro-1,2,2-trifluoroet	52.3/ 50.0	4.6/ 20.0
		Diethyl ether	50.3/ 50.0	0.6/ 20.0
		Acetone	44.4/ 50.0	11.2/ 20.0
		Methyl iodide	51.5/ 50.0	2.9/ 20.0
		Carbon disulfide	52.3/ 50.0	4.6/ 20.0
		Methyl acetate	49.7/ 50.0	0.6/ 20.0
		tert-Methyl butyl ether	51.1/ 50.0	2.2/ 20.0
		Acrylonitrile	51.8/ 50.0	3.6/ 20.0
		2-Butanone	46.8/ 50.0	6.5/ 20.0
		Dichlorodifluoromethane	50.3/ 50.0	0.7/ 20.0
		Chloromethane	53.4/ 50.0	6.8/ 20.0
		Vinyl Chloride	53.4/ 50.0	6.8/ 20.0
		Bromomethane	58.8/ 50.0	17.5/ 20.0
		Chloroethane	59.3/ 50.0	18.6/ 20.0
		Trichlorofluoromethane	54.0/ 50.0	8.0/ 20.0
		1,1-Dichloroethene	52.5/ 50.0	4.9/ 20.0
		Methylene Chloride	51.3/ 50.0	2.5/ 20.0
		trans-1,2-Dichloroethene	52.2/ 50.0	4.3/ 20.0
		1,1-Dichloroethane	51.9/ 50.0	3.9/ 20.0
		cis-1,2-Dichloroethene	52.5/ 50.0	4.9/ 20.0
		Tetrahydrofuran	46.5/ 50.0	6.9/ 20.0
		Chloroform	52.1/ 50.0	4.2/ 20.0
		Bromochloromethane	52.9/ 50.0	5.9/ 20.0
		1,1,1-Trichloroethane	52.6/ 50.0	5.2/ 20.0
		Cyclohexane	52.2/ 50.0	4.4/ 20.0
		4-Methyl-2-pentanone	51.2/ 50.0	2.5/ 20.0
		2-Hexanone	44.2/ 50.0	11.6/ 20.0
		Carbon Tetrachloride	51.7/ 50.0	3.5/ 20.0
		Benzene	50.3/ 50.0	0.6/ 20.0
		1,2-Dichloroethane	50.8/ 50.0	1.5/ 20.0
		Trichloroethene	50.3/ 50.0	0.7/ 20.0
		1,2-Dichloropropane	51.5/ 50.0	2.9/ 20.0
		Bromodichloromethane	53.2/ 50.0	6.4/ 20.0
		Methyl cyclohexane	52.5/ 50.0	5.0/ 20.0
		Dibromomethane	48.3/ 50.0	3.4/ 20.0
		cis-1,3-Dichloropropene	47.2/ 50.0	5.5/ 20.0
		Toluene	50.8/ 50.0	1.6/ 20.0
		trans-1,3-Dichloropropene	48.8/ 50.0	2.4/ 20.0
		1,1,2-Trichloroethane	49.8/ 50.0	0.4/ 20.0
		Tetrachloroethene	51.6/ 50.0	3.3/ 20.0
		trans-1,4-Dichloro-2-butene	49.3/ 50.0	1.5/ 20.0
		Dibromochloromethane	54.0/ 50.0	8.0/ 20.0
		1,2-Dibromoethane	51.7/ 50.0	3.4/ 20.0
		Chlorobenzene	51.7/ 50.0	3.3/ 20.0
		1,1,1,2-Tetrachloroethane	56.0/ 50.0	12.0/ 20.0
		Ethylbenzene	53.6/ 50.0	7.1/ 20.0
		p,m-Xylene	108.0/100.0	8.0/ 20.0
		o-Xylene	54.8/ 50.0	9.5/ 20.0
		Styrene	55.4/ 50.0	10.9/ 20.0
		Isopropylbenzene	54.0/ 50.0	8.1/ 20.0
		Bromoform	49.7/ 50.0	0.7/ 20.0
		1,1,2,2-Tetrachloroethane	52.0/ 50.0	4.0/ 20.0
		1,2,3-Trichloropropane	52.4/ 50.0	4.8/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120802a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	54.1/ 50.0	8.2/ 20.0
		Bromobenzene	53.8/ 50.0	7.6/ 20.0
		1,3,5-Trimethylbenzene	54.8/ 50.0	9.7/ 20.0
		tert-Butylbenzene	53.5/ 50.0	7.0/ 20.0
		1,2,4-Trimethylbenzene	56.2/ 50.0	12.5/ 20.0
		sec-Butylbenzene	52.9/ 50.0	5.9/ 20.0
		p-Isopropyltoluene	55.0/ 50.0	10.0/ 20.0
		1,3-Dichlorobenzene	53.4/ 50.0	6.7/ 20.0
		1,4-Dichlorobenzene	51.3/ 50.0	2.5/ 20.0
		1,2-Dichlorobenzene	51.9/ 50.0	3.8/ 20.0
		1,2,3-Trimethylbenzene	53.4/ 50.0	6.8/ 20.0
		n-Butylbenzene	54.2/ 50.0	8.4/ 20.0
		Hexachloroethane	49.6/ 50.0	0.7/ 20.0
		1,2-Dibromo-3-Chloropropane	47.8/ 50.0	4.3/ 20.0
		1,2,4-Trichlorobenzene	50.8/ 50.0	1.6/ 20.0
		1,2,3-Trichlorobenzene	50.0/ 50.0	0.0/ 20.0
		Naphthalene	50.7/ 50.0	1.4/ 20.0
		2-Methylnaphthalene	40.8/ 50.0	18.4/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\spcc31c.d Vial: 3
Acq On : 31 Jul 12 11:41 pm Operator: wat
Sample : spcc/ccc 4s0731 2v0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 10:15 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	568957	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	639152	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	230083	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	321119	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	94853	44.09	ug/l		88.1
31) TOLUENE-D8 (S)	5.02	98	615004	47.62	ug/l		95.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	260197	47.55	ug/l		95.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	165878	45.34	ug/l		9
4) Diethyl ether (*)	2.35	74	44544	42.38	ug/l		9
5) Acetone (*)	2.60	43	6379	30.12	ug/l	#	9
6) Methyl iodide (iodomethane	2.63	142	335110	43.62	ug/l		9
7) Carbon disulfide (*)	2.67	76	449007	41.31	ug/l		9
8) Methyl Acetate	2.84	43	30485	39.68	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	231362	43.59	ug/l		9
10) Acrylonitrile (*)	3.08	53	19804	42.46	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	10820	32.93	ug/l		9
12) Dichlorodifluoromethane	1.24	85	121809	52.81	ug/l		9
13) Chloromethane (SPCC)	1.34	50	115239	44.16	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	138551	47.19	ug/l		9
15) Bromomethane	1.74	94	58215	44.63	ug/l		9
16) Chloroethane	1.83	64	28405	45.37	ug/l		9
18) Trichlorofluoromethane	2.04	101	168442	49.23	ug/l	#	3
19) 1,1-Dichloroethene (CCC/MS	2.51	61	161023	44.30	ug/l		8
20) Methylene Chloride	2.90	84	140186	39.90	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	161132	42.57	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	198306	41.84	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	167834	42.38	ug/l		8
24) Tetrahydrofuran	3.84	42	13083	41.68	ug/l		10
25) Chloroform (CCC)	3.85	83	215818	42.36	ug/l		9
26) Bromochloromethane	3.81	130	107454	42.40	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	232644	46.64	ug/l	#	4
28) 1,1-Dichloropropene	4.03	75	188732	45.17	ug/l		9
29) Cyclohexane	3.98	42	53354	46.30	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	18186	44.62	ug/l		9
33) 2-Hexanone (*)	5.34	58	13036	41.03	ug/l		9
35) Carbon Tetrachloride	4.04	117	226168	49.90	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\spcc31c.d Vial: 3
Acq On : 31 Jul 12 11:41 pm Operator: wat
Sample : spcc/ccc 4s0731 2v0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 10:15 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	575037	45.01 ug/l	9
37) 1,2-Dichloroethane	4.15	62	108223	46.77 ug/l	9
38) Trichloroethene (MS)	4.45	95	164887	47.31 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	110904	44.66 ug/l	9
40) Bromodichloromethane	4.68	83	150713	48.53 ug/l	9
41) Methyl Cyclohexane	4.54	55	168221	46.61 ug/l	8
42) Dibromomethane	4.62	174	119234	49.42 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	192048	49.59 ug/l	9
44) Toluene (CCC/MS)	5.05	91	713951	47.63 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	148609	51.02 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	72914	45.47 ug/l	9
47) Tetrachloroethene	5.31	166	297797	48.07 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	16117	50.69 ug/l #	8
51) Dibromochloromethane	5.42	129	136219	51.89 ug/l	9
52) 1,2-Dibromoethane	5.48	107	105073	49.78 ug/l	10
53) Chlorobenzene (SPCC/MS)	5.70	112	492589	46.23 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	174440	49.00 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	777679	48.68 ug/l	9
56) p,m-Xylene	5.79	106	669255	98.06 ug/l	9
57) o-Xylene	5.98	91	595292	48.87 ug/l	9
58) Styrene	5.99	104	498210	50.26 ug/l	9
59) Isopropylbenzene	6.15	105	895409	49.83 ug/l	9
60) Bromoform (SPCC)	6.09	173	90194	49.27 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	97253	49.45 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	32137	49.56 ug/l	9
63) n-Propylbenzene	6.34	91	909737	49.23 ug/l	9
64) Bromobenzene	6.31	156	242578	47.86 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	412894	49.81 ug/l	9
66) tert-Butylbenzene	6.58	91	428954	50.59 ug/l #	8
67) 1,2,4-Trimethylbenzene	6.60	120	436692	49.87 ug/l	9
69) sec-Butylbenzene	6.68	105	1004124	49.34 ug/l	9
70) p-Isopropyltoluene	6.75	119	868075	50.51 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	445616	47.48 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	449450	46.65 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	407785	46.73 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	657180	46.25 ug/l	9
75) n-Butylbenzene	6.95	91	672707	49.41 ug/l	9
76) Hexachloroethane	7.10	201	188368	46.27 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	25075	51.90 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	321216	53.92 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\spcc31c.d Vial: 3
Acq On : 31 Jul 12 11:41 pm Operator: wat
Sample : spcc/ccc 4s0731 2v0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 10:15 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

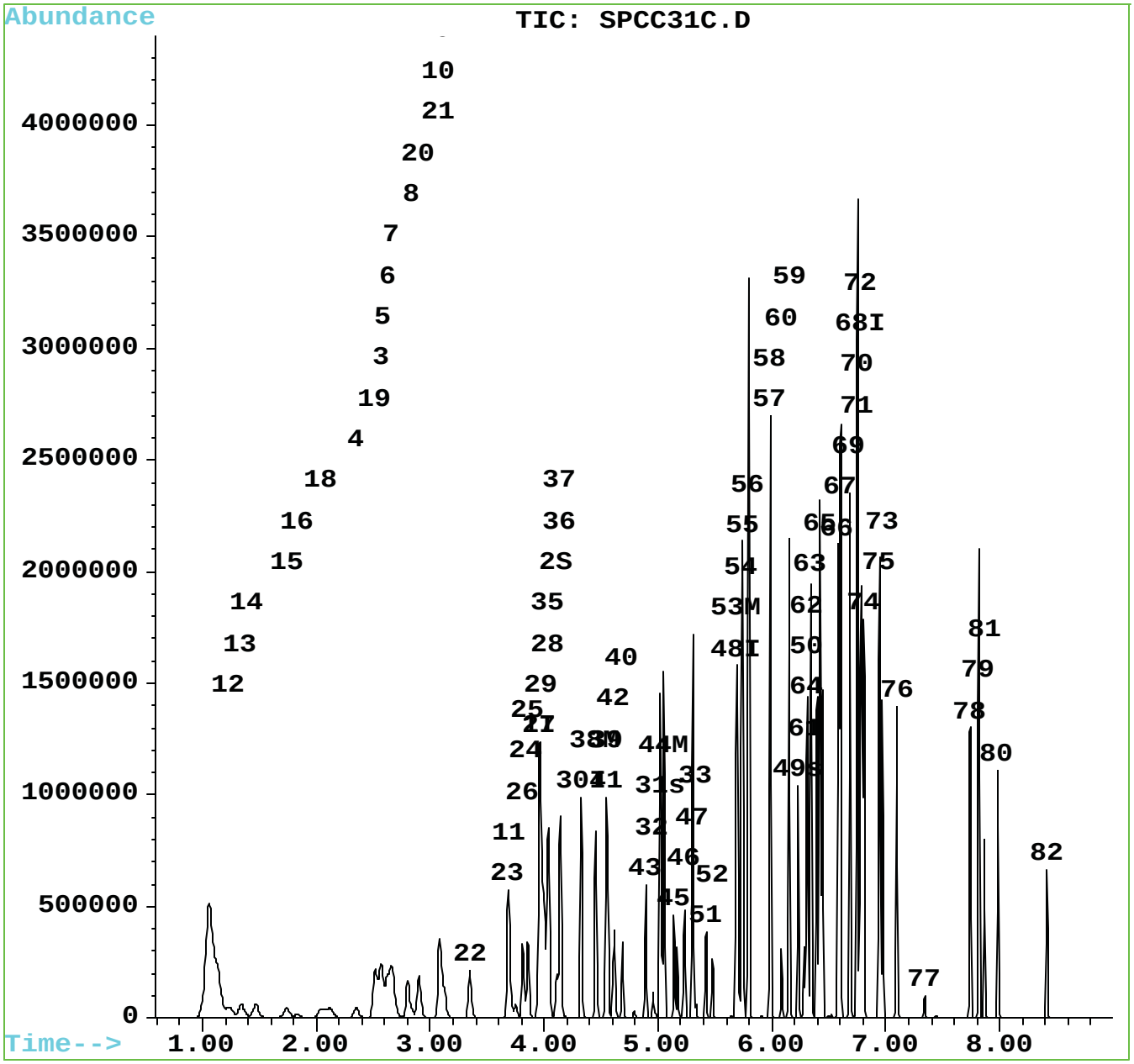
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	294904	52.07 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	258109	52.99 ug/l	9
81)	Naphthalene	7.87	128	407398	55.89 ug/l	9
82)	2-Methylnaphthalene	8.41	142	204148	55.29 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\spcc31c.d Vial: 3
Acq On : 31 Jul 12 11:41 pm Operator: wat
Sample : spcc/ccc 4s0731 2v0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 10:15 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\spcc02a.d Vial: 2
Acq On : 2 Aug 12 11:17 am Operator: lbr
Sample : spcc/ccc 1dr0731 1v0802 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	25056	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	47094	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	25784	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	20520	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	17620	4.84	ug/l		96.8
31) TOLUENE-D8 (S)	5.05	98	57493	4.94	ug/l		98.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	13490	4.94	ug/l		98.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	126810	52.30	ug/l		8
4) Diethyl ether (*)	2.37	74	94105	50.29	ug/l	#	5
5) Acetone (*)	2.61	43	56221	44.42	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	168220	51.46	ug/l		8
7) Carbon disulfide (*)	2.71	76	446832	52.28	ug/l		8
8) Methyl Acetate	2.86	43	128605	49.69	ug/l		8
9) tert-Methyl butyl ether (M	3.12	73	398748	51.10	ug/l		8
10) Acrylonitrile (*)	3.10	53	69011	51.79	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	87253	46.76	ug/l		7
12) Dichlorodifluoromethane	1.26	85	127917	50.33	ug/l		9
13) Chloromethane (SPCC)	1.41	50	223383	53.38	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	200884	53.39	ug/l		9
15) Bromomethane	1.79	94	100648	58.75	ug/l		9
16) Chloroethane	1.88	64	119807	59.30	ug/l		9
18) Trichlorofluoromethane	2.14	101	204894	54.02	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	248743	52.47	ug/l	#	7
20) Methylene Chloride	2.93	84	148481	51.25	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	240823	52.16	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	287874	51.93	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	156932	52.45	ug/l	#	6
24) Tetrahydrofuran	3.87	42	55609	46.53	ug/l	#	7
25) Chloroform (CCC)	3.89	83	248191	52.10	ug/l		9
26) Bromochloromethane	3.84	130	83247	52.94	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	216823	52.59	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	216576	52.34	ug/l		8
29) Cyclohexane	4.02	42	97817	52.20	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	57976	51.24	ug/l	#	5
33) 2-Hexanone (*)	5.37	58	58062	44.19	ug/l	#	6
35) Carbon Tetrachloride	4.07	117	174156	51.74	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\spcc02a.d Vial: 2
Acq On : 2 Aug 12 11:17 am Operator: lbr
Sample : spcc/ccc 1dr0731 1v0802 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.17	78	622705	50.31	ug/l		8
37)	1,2-Dichloroethane	4.17	62	226215	50.75	ug/l		9
38)	Trichloroethene (MS)	4.48	95	143680	50.34	ug/l	#	7
39)	1,2-Dichloropropane (CCC)	4.59	63	169186	51.46	ug/l		9
40)	Bromodichloromethane	4.72	83	184795	53.18	ug/l		9
41)	Methyl Cyclohexane	4.57	55	236850	52.48	ug/l	#	5
42)	Dibromomethane	4.65	174	66757	48.31	ug/l	#	5
43)	cis-1,3-Dichloropropene	4.92	75	244586	47.24	ug/l		9
44)	Toluene (CCC/MS)	5.08	91	657027	50.79	ug/l		9
45)	trans-1,3-Dichloropropene	5.17	75	220133	48.82	ug/l		9
46)	1,1,2-Trichloroethane	5.26	83	105410	49.80	ug/l		9
47)	Tetrachloroethene	5.33	166	124995	51.64	ug/l		8
50)	trans-1,4-Dichloro-2-buten	6.35	53	33917	49.26	ug/l	#	8
51)	Dibromochloromethane	5.45	129	114427	53.98	ug/l		9
52)	1,2-Dibromoethane	5.51	107	120848	51.71	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.73	112	386497	51.67	ug/l		8
54)	1,1,1,2-Tetrachloroethane	5.76	131	124787	56.01	ug/l		9
55)	Ethylbenzene (CCC)	5.77	91	742414	53.57	ug/l		9
56)	p,m-Xylene	5.83	106	554090	108.04	ug/l	#	7
57)	o-Xylene	6.02	91	608040	54.76	ug/l		8
58)	Styrene	6.02	104	475383	55.44	ug/l		9
59)	Isopropylbenzene	6.18	105	706601	54.04	ug/l		9
60)	Bromoform (SPCC)	6.12	173	61244	49.65	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.32	83	171670	52.00	ug/l		9
62)	1,2,3-Trichloropropane	6.35	110	49255	52.39	ug/l	#	7
63)	n-Propylbenzene	6.37	91	838611	54.12	ug/l		8
64)	Bromobenzene	6.34	156	139227	53.82	ug/l	#	3
65)	1,3,5-Trimethylbenzene	6.45	120	278257	54.84	ug/l	#	7
66)	tert-Butylbenzene	6.61	91	393324	53.52	ug/l	#	7
67)	1,2,4-Trimethylbenzene	6.63	120	311982	56.24	ug/l	#	7
69)	sec-Butylbenzene	6.72	105	703857	52.93	ug/l		9
70)	p-Isopropyltoluene	6.77	119	570727	55.01	ug/l		9
71)	1,3-Dichlorobenzene	6.78	146	267852	53.37	ug/l		9
72)	1,4-Dichlorobenzene	6.82	146	275900	51.25	ug/l		9
73)	1,2-Dichlorobenzene	7.00	146	264952	51.88	ug/l		9
74)	1,2,3-Trimethylbenzene	6.84	105	604347	53.40	ug/l		8
75)	n-Butylbenzene	6.97	91	557944	54.18	ug/l		9
76)	Hexachloroethane	7.13	201	54202	49.64	ug/l	#	5
77)	1,2-Dibromo-3-Chloropropan	7.37	157	22656	47.83	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	138246	50.80	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\spcc02a.d Vial: 2
Acq On : 2 Aug 12 11:17 am Operator: lbr
Sample : spcc/ccc 1dr0731 1v0802 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

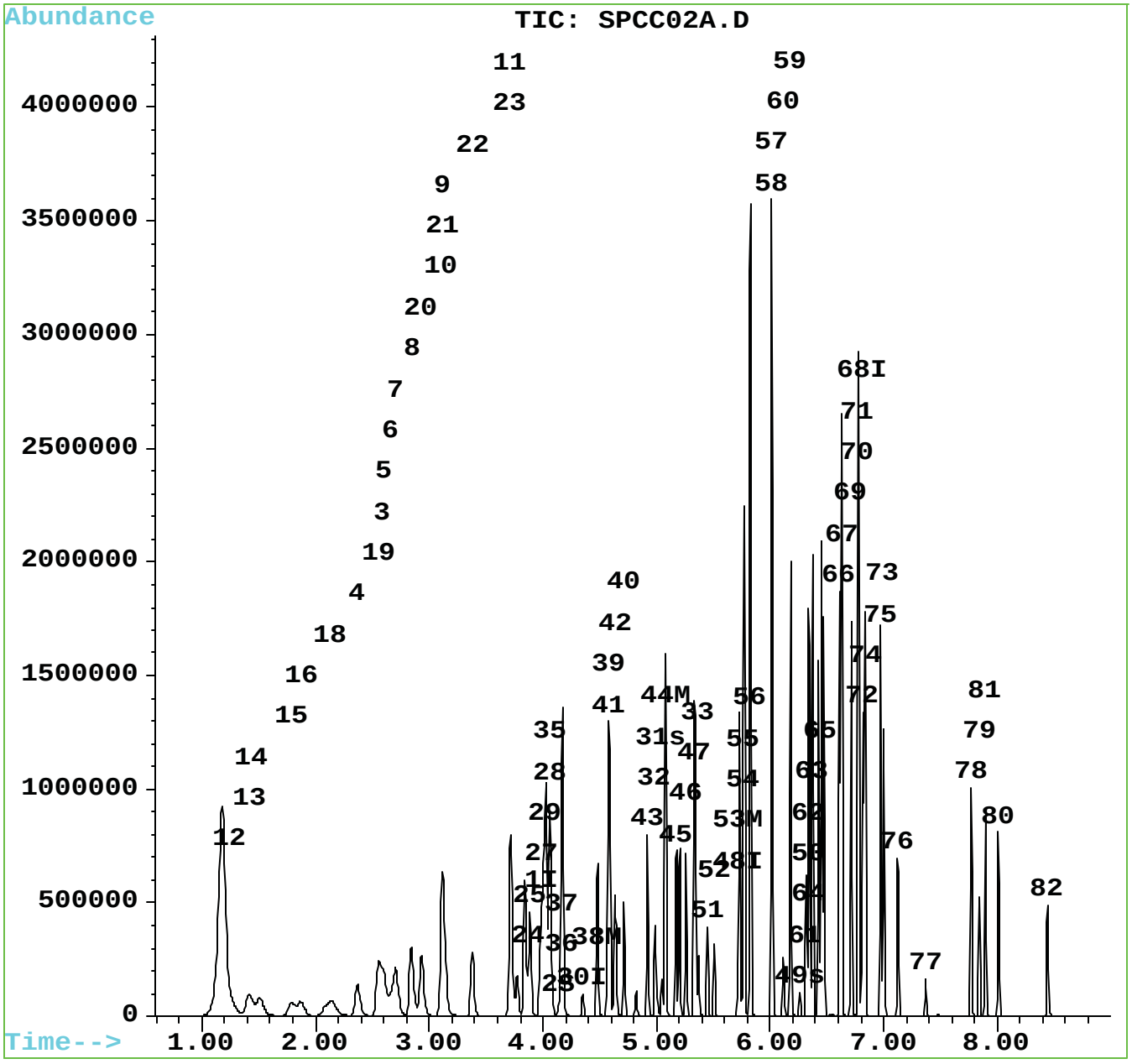
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.85	225	52280	53.11 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	123315	49.98 ug/l	9
81)	Naphthalene	7.90	128	421449	50.71 ug/l	9
82)	2-Methylnaphthalene	8.45	142	132171	40.78 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\spcc02a.d Vial: 2
Acq On : 2 Aug 12 11:17 am Operator: lbr
Sample : spcc/ccc 1dr0731 1v0802 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\bfb31b.d Vial: 1
Acq On : 31 Jul 12 10:37 pm Operator: wat
Sample : 50ng/bfb 3s0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 10:14 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

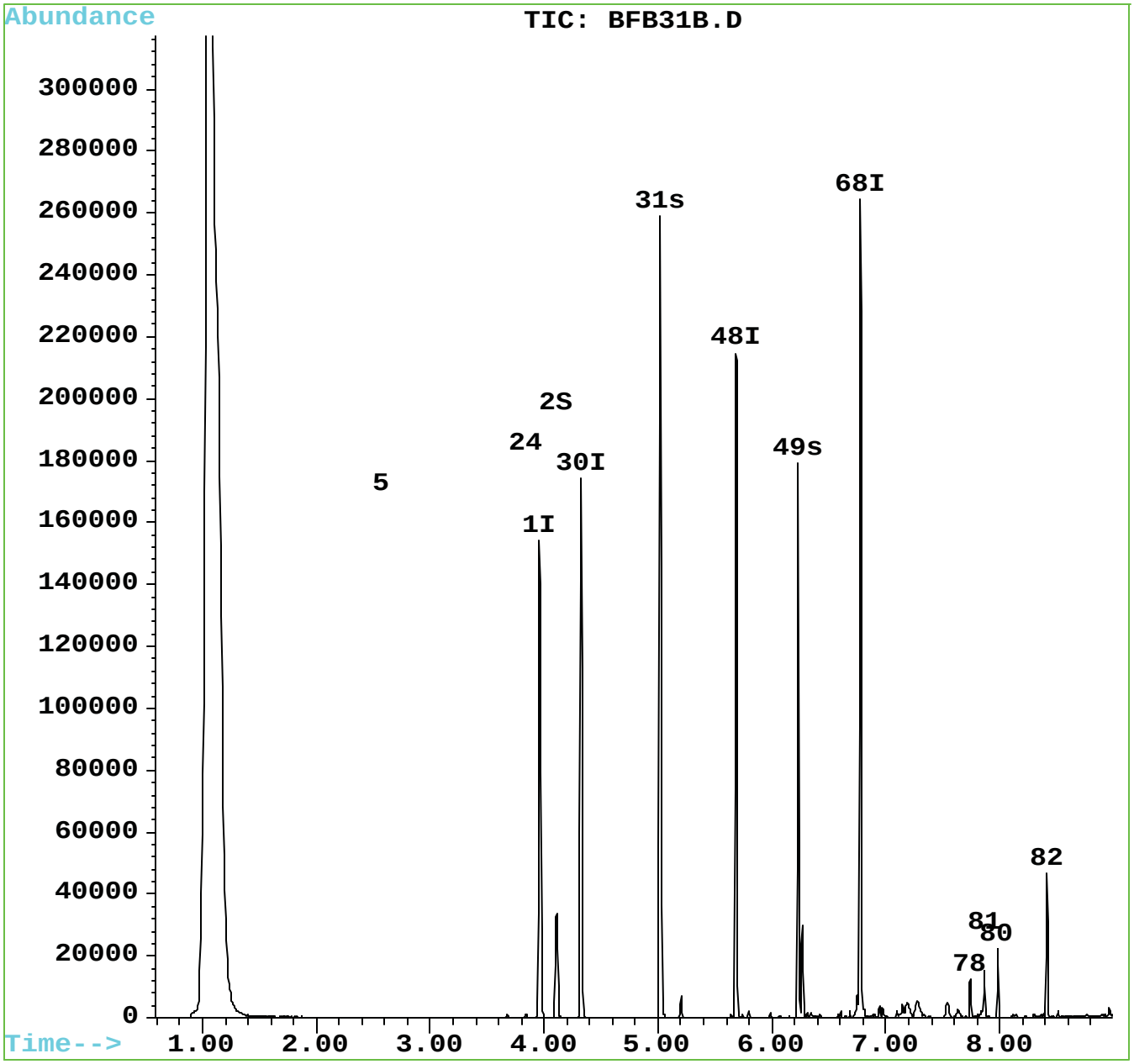
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	99227	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	112238	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	38355	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	53997	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	16243	43.29	ug/l	86.5
31) TOLUENE-D8 (S)	5.02	98	110376	48.67	ug/l	97.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	44336	48.60	ug/l	97.2
Target Compounds						Qvalu
5) Acetone (*)	2.58	43	114	3.09	ug/l #	4
24) Tetrahydrofuran	3.84	42	609	11.12	ug/l #	
78) 1,2,4-Trichlorobenzene	7.74	182	3436	3.43	ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	5348	6.53	ug/l	9
81) Naphthalene	7.87	128	7962	6.50	ug/l	9
82) 2-Methylnaphthalene	8.41	142	14924	24.04	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\bfb31b.d Vial: 1
Acq On : 31 Jul 12 10:37 pm Operator: wat
Sample : 50ng/bfb 3s0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 10:14 19112

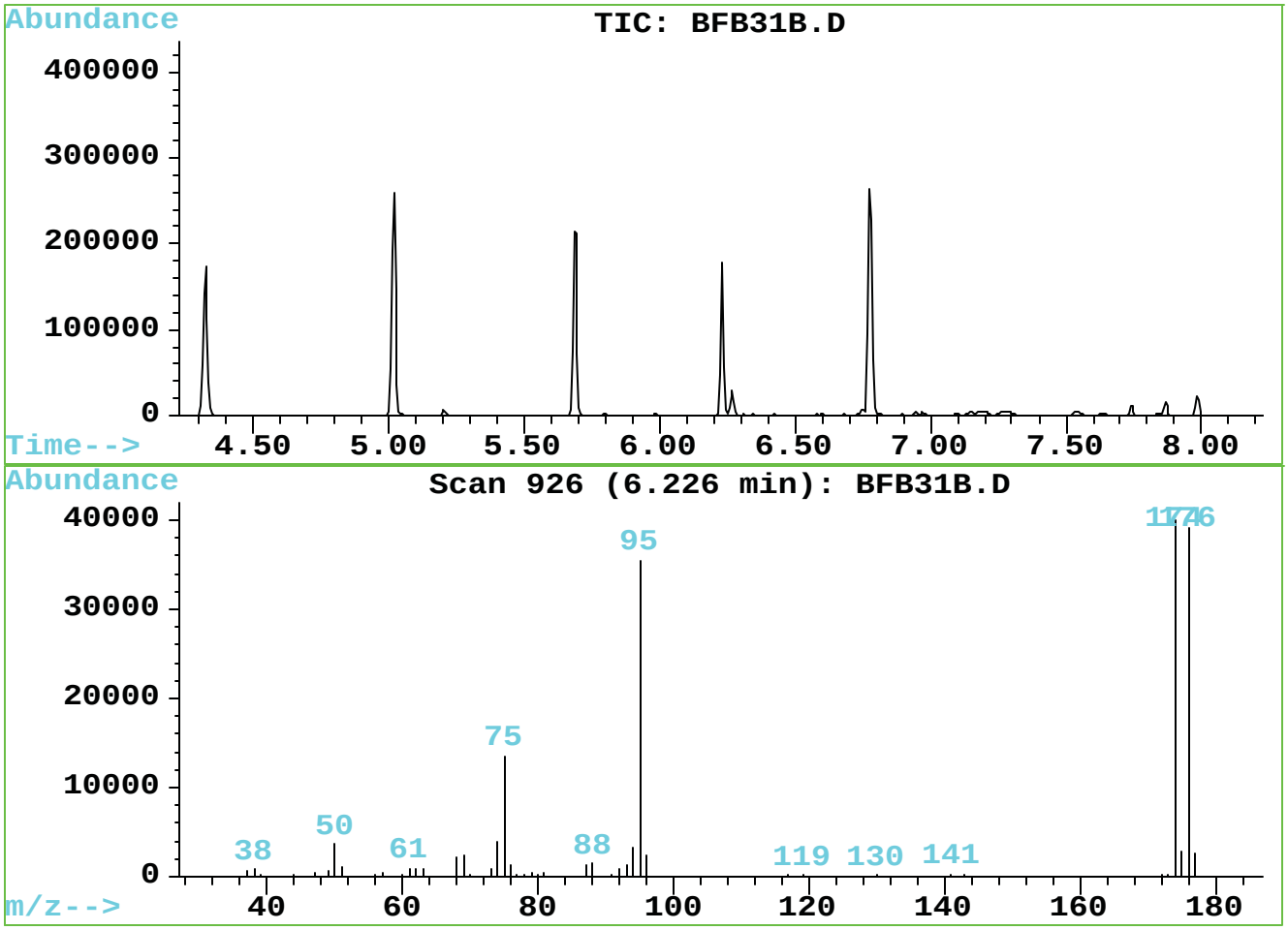
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\DATA\120731B5\BFB31B.D Vial: 1
Acq On : 31 Jul 12 10:37 pm Operator: wat
Sample : 50ng/bfb 3s0731 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.3	3665	PASS
75	95	30	66	38.0	13489	PASS
95	95	100	100	100.0	35528	PASS
96	95	5	9	6.8	2433	PASS
173	174	0	2	0.6	244	PASS
174	95	50	120	112.5	39984	PASS
175	174	4	9	7.1	2854	PASS
176	174	93	101	98.1	39216	PASS
177	176	5	9	7.0	2727	PASS

BFB31B.D FU120604.M Mon Aug 20 14:11:44 2012

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\bfb02a.d Vial: 1
Acq On : 2 Aug 12 10:42 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

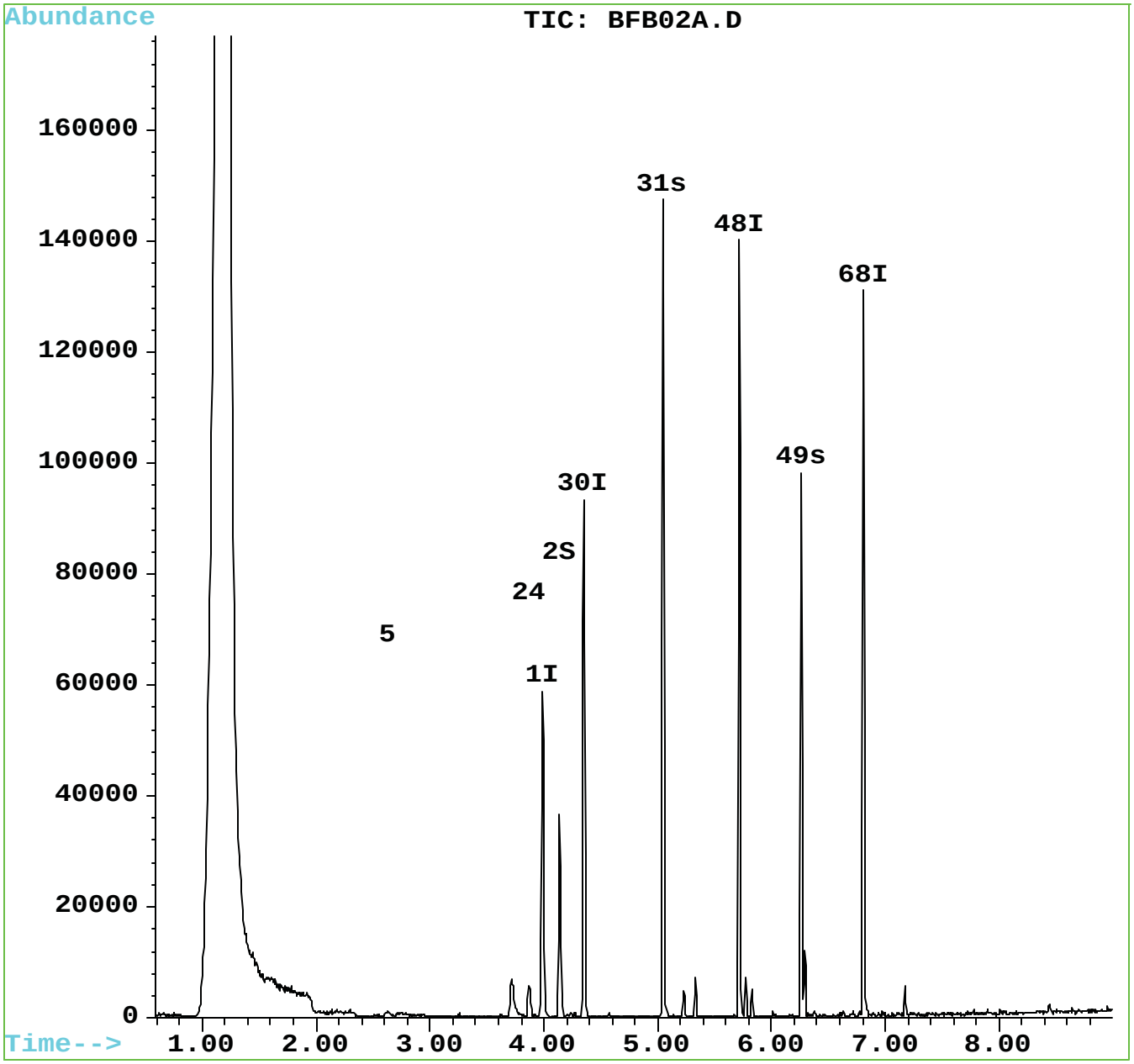
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	24219	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	44590	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	24276	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	18333	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	16706	4.75	ug/l	94.9
31) TOLUENE-D8 (S)	5.05	98	54827	4.97	ug/l	99.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	12872	5.01	ug/l	100.2
Target Compounds						Qvalu
5) Acetone (*)	2.63	43	2105	1.72	ug/l	5
24) Tetrahydrofuran	3.87	42	3166	2.74	ug/l #	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\bfb02a.d Vial: 1
Acq On : 2 Aug 12 10:42 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

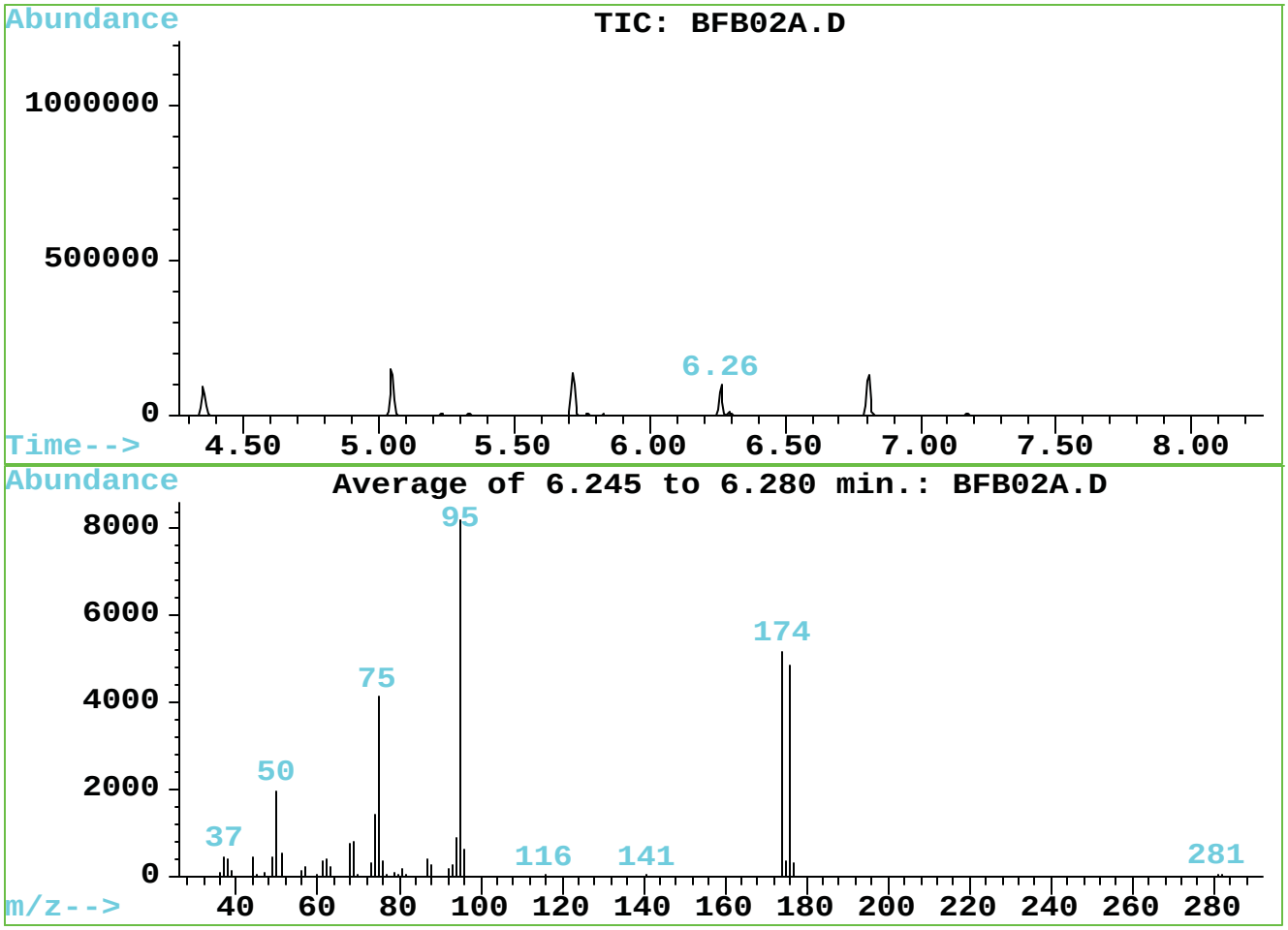
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\DATA\120802A3\BFB02A.D Vial: 1
Acq On : 2 Aug 12 10:42 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260



Peak Apex is scan: 966

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.0	1970	PASS
75	95	30	66	50.4	4131	PASS
95	95	100	100	100.0	8192	PASS
96	95	5	9	7.4	610	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	63.3	5185	PASS
175	174	4	9	7.0	364	PASS
176	174	93	101	94.2	4883	PASS
177	176	5	9	6.4	313	PASS

BFB02A.D WT120801.M Mon Aug 20 16:01:18 2012

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\blks31a.d Vial: 6
Acq On : 1 Aug 12 1:52 am Operator: wat
Sample : 100ul blank 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:14 19112

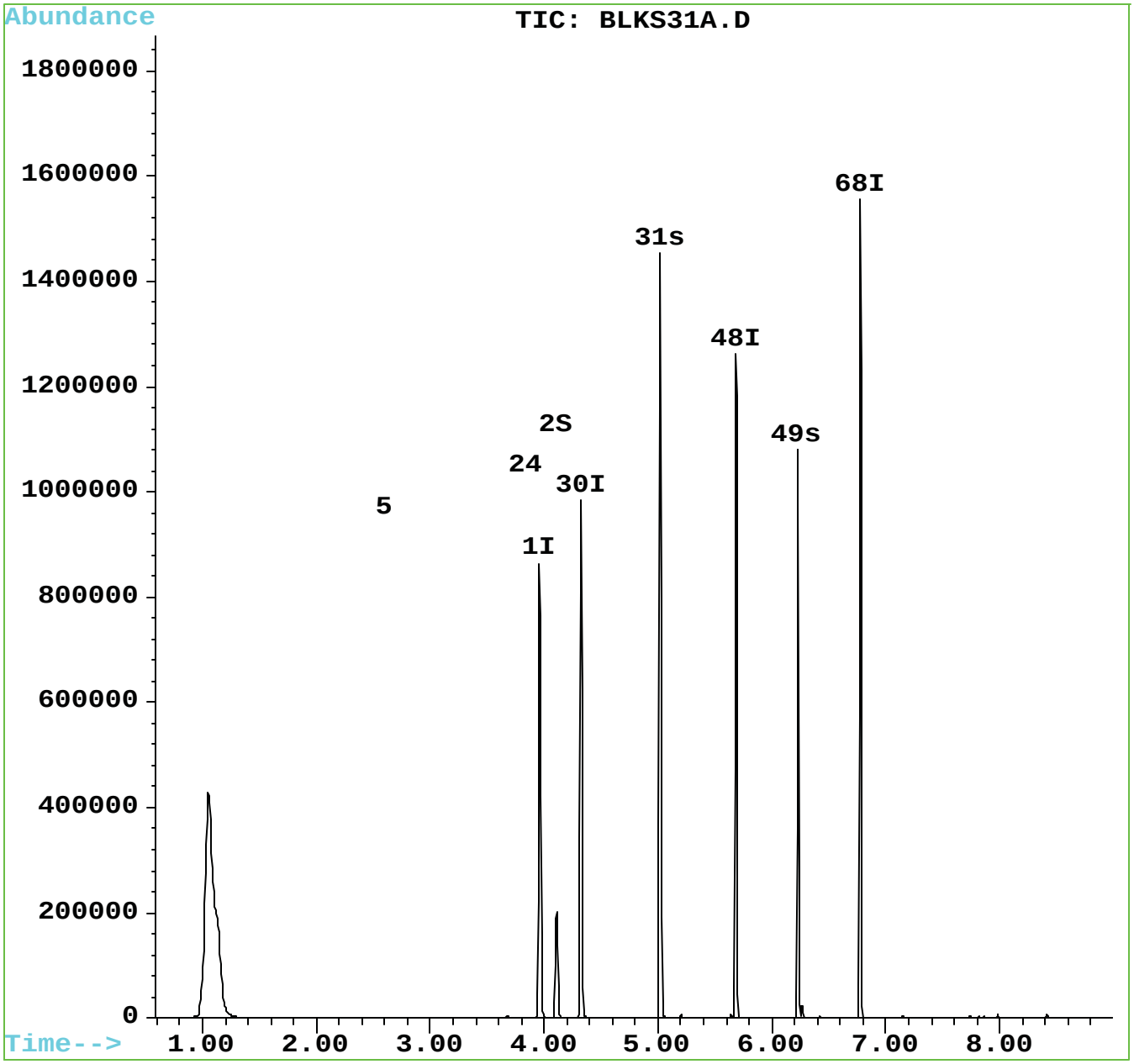
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	555359	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	633940	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	221827	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	298955	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	94848	45.17	ug/l	90.3
31) TOLUENE-D8 (S)	5.02	98	633333	49.44	ug/l	98.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	260573	49.39	ug/l	98.7
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	244	1.18	ug/l #	4
24) Tetrahydrofuran	3.84	42	779	2.54	ug/l #	

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120731b5\blks31a.d Vial: 6
Acq On : 1 Aug 12 1:52 am Operator: wat
Sample : 100ul blank 3s0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:14 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\blkw02a.d Vial: 6
Acq On : 2 Aug 12 1:24 pm Operator: lbr
Sample : 5ml blank 1dr0731 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

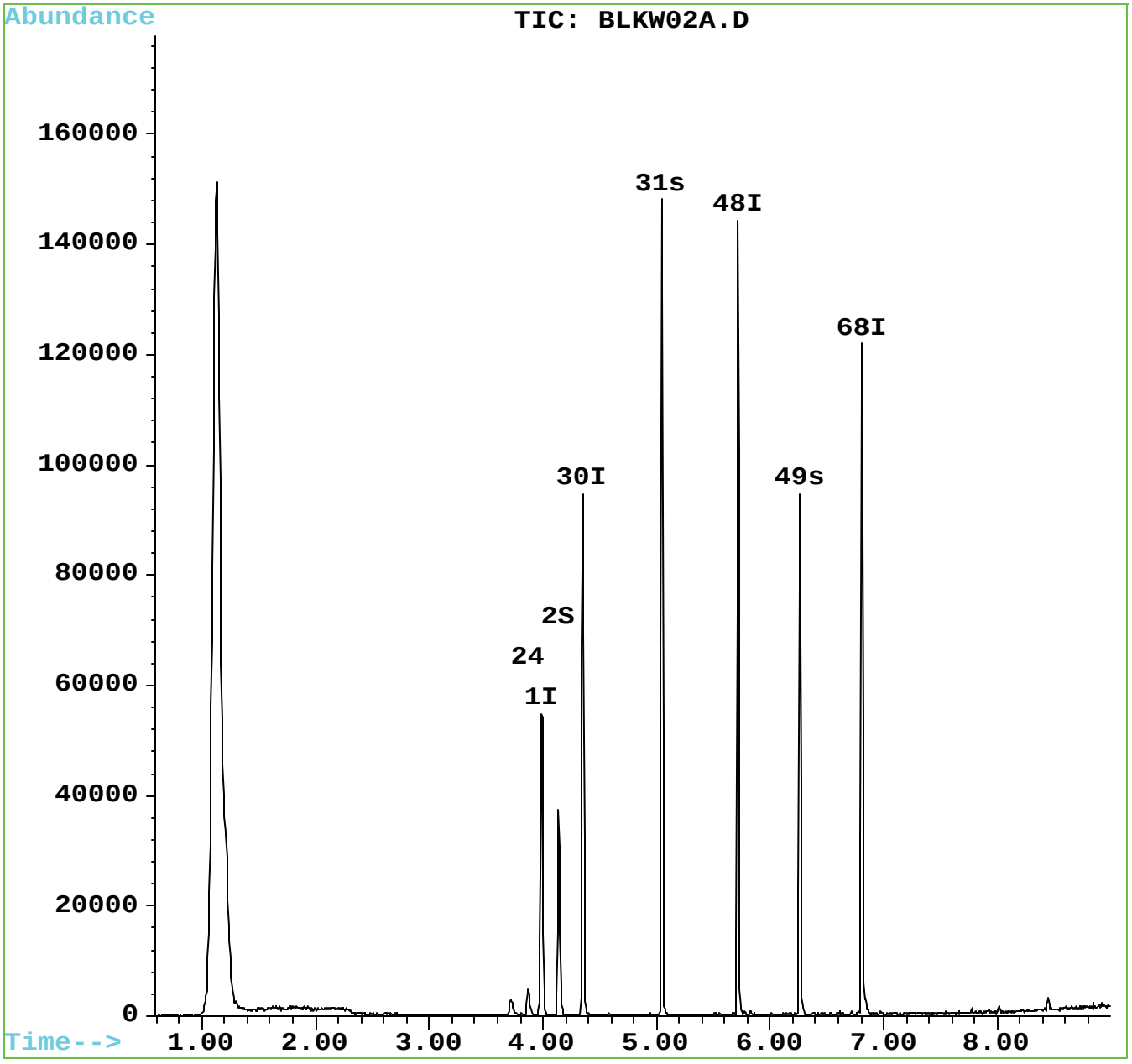
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	26100	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	45469	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	24679	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	18937	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18040	4.76	ug/l	95.1
31) TOLUENE-D8 (S)	5.05	98	55922	4.97	ug/l	99.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	13045	5.00	ug/l	99.9
Target Compounds						Qvalu
24) Tetrahydrofuran	3.87	42	2871	2.31	ug/l #	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\blkw02a.d Vial: 6
Acq On : 2 Aug 12 1:24 pm Operator: lbr
Sample : 5ml blank 1dr0731 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\lcss31b.d Vial: 4
Acq On : 1 Aug 12 12:11 am Operator: wat
Sample : 100ul blankms 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:16 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	501524	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	575295	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	207030	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	282776	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	90509	47.73	ug/l		95.4
31) TOLUENE-D8 (S)	5.02	98	587113	50.51	ug/l		101.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	247559	50.28	ug/l		100.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	149585	46.39	ug/l		9
4) Diethyl ether (*)	2.35	74	39247	42.36	ug/l		9
5) Acetone (*)	2.59	43	8820	47.24	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	294886	43.55	ug/l		9
7) Carbon disulfide (*)	2.67	76	371056	38.73	ug/l		9
8) Methyl Acetate	2.84	43	26506	39.14	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	208481	44.56	ug/l		9
10) Acrylonitrile (*)	3.08	53	18131	44.09	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	13706	47.32	ug/l		9
12) Dichlorodifluoromethane	1.24	85	74504	36.85	ug/l		9
13) Chloromethane (SPCC)	1.34	50	87672	38.11	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	105201	40.65	ug/l		9
15) Bromomethane	1.74	94	49236	42.83	ug/l		9
16) Chloroethane	1.83	64	25891	46.92	ug/l		9
18) Trichlorofluoromethane	2.12	101	151759	50.32	ug/l	m	3
19) 1,1-Dichloroethene (CCC/MS	2.51	61	133838	41.77	ug/l		8
20) Methylene Chloride	2.90	84	124952	40.35	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	142383	42.68	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	178564	42.74	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	151639	43.44	ug/l	#	8
24) Tetrahydrofuran	3.84	42	10267	37.10	ug/l	#	1
25) Chloroform (CCC)	3.85	83	195487	43.53	ug/l		9
26) Bromochloromethane	3.81	130	96996	43.42	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	210178	47.80	ug/l	#	4
28) 1,1-Dichloropropene	4.03	75	4473	1.21	ug/l		9
29) Cyclohexane	3.98	42	36063	35.50	ug/l	#	3
32) 4-Methyl-2-pentanone (MIBK	4.96	58	15640	42.63	ug/l		8
33) 2-Hexanone (*)	5.34	58	13935	48.73	ug/l		9
35) Carbon Tetrachloride	4.04	117	202585	49.66	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\lcss31b.d Vial: 4
Acq On : 1 Aug 12 12:11 am Operator: wat
Sample : 100ul blankms 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:16 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	511686	44.50 ug/l	9
37) 1,2-Dichloroethane	4.15	62	94759	45.50 ug/l	9
38) Trichloroethene (MS)	4.45	95	145162	46.27 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	98701	44.16 ug/l	9
40) Bromodichloromethane	4.68	83	133975	47.93 ug/l	9
41) Methyl Cyclohexane	4.54	55	152329	46.90 ug/l	8
42) Dibromomethane	4.62	174	103751	47.77 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	166385	47.73 ug/l	9
44) Toluene (CCC/MS)	5.05	91	627626	46.52 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	128952	49.18 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	64401	44.62 ug/l	9
47) Tetrachloroethene	5.31	166	256599	46.02 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	13639	47.67 ug/l #	7
51) Dibromochloromethane	5.42	129	119857	50.75 ug/l	9
52) 1,2-Dibromoethane	5.48	107	90145	47.46 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	443511	46.26 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	158625	49.52 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	693778	48.27 ug/l	9
56) p,m-Xylene	5.79	106	595536	96.98 ug/l	9
57) o-Xylene	5.98	91	537339	49.03 ug/l	9
58) Styrene	5.99	104	428853	48.08 ug/l	9
59) Isopropylbenzene	6.15	105	803905	49.72 ug/l	9
60) Bromoform (SPCC)	6.09	173	79822	48.49 ug/l	10
61) 1,1,2,2-Tetrachloroethane	6.28	83	83337	47.09 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	27575	47.26 ug/l	9
63) n-Propylbenzene	6.34	91	828183	49.81 ug/l	9
64) Bromobenzene	6.31	156	218795	47.98 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	370805	49.71 ug/l	9
66) tert-Butylbenzene	6.58	91	389039	50.99 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	400723	50.86 ug/l	9
69) sec-Butylbenzene	6.68	105	900419	50.24 ug/l	9
70) p-Isopropyltoluene	6.75	119	785273	51.89 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	398587	48.23 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	399455	47.08 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	368426	47.94 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	599406	47.90 ug/l	9
75) n-Butylbenzene	6.95	91	594549	49.59 ug/l	9
76) Hexachloroethane	7.10	201	170379	47.52 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	21898	51.49 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	276921	52.78 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\lcss31b.d Vial: 4
Acq On : 1 Aug 12 12:11 am Operator: wat
Sample : 100ul blankms 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:16 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

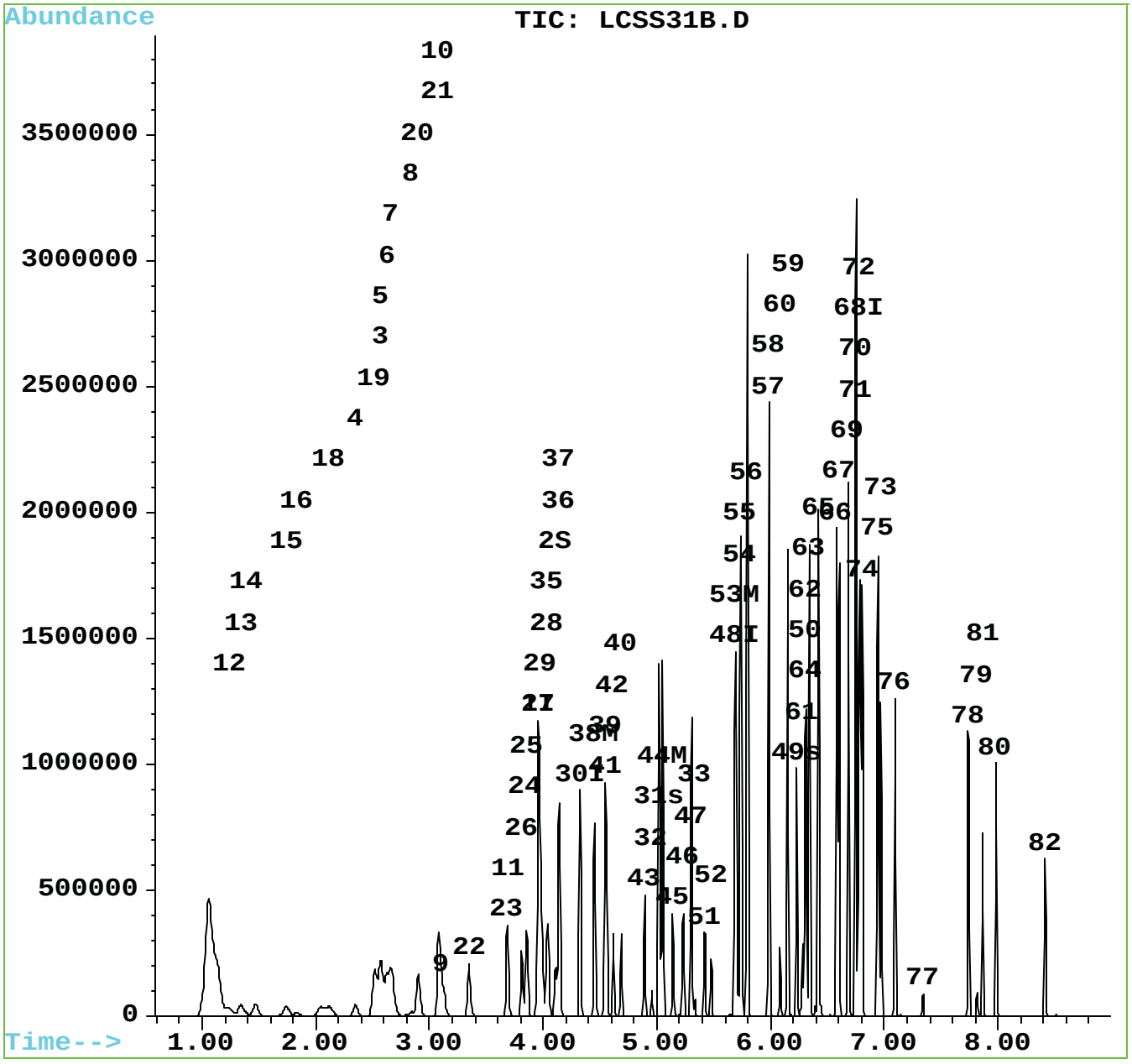
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	13494	2.71	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	236920	55.24	ug/l	9
81)	Naphthalene	7.87	128	365633	56.96	ug/l	9
82)	2-Methylnaphthalene	8.41	142	191518	58.90	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\lcss31b.d Vial: 4
Acq On : 1 Aug 12 12:11 am Operator: wat
Sample : 100ul blankms 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 11:16 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\lcss31c.d Vial: 5
Acq On : 1 Aug 12 12:32 am Operator: wat
Sample : 100ul blankmsd 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:15 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	506762	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	594113	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	213157	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	280358	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	95205	49.69	ug/l		99.3
31) TOLUENE-D8 (S)	5.02	98	605871	50.47	ug/l		100.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	252751	49.86	ug/l		99.7
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	173047	53.11	ug/l		9
4) Diethyl ether (*)	2.34	74	44772	47.82	ug/l		9
5) Acetone (*)	2.59	43	9034	47.89	ug/l	#	8
6) Methyl iodide (iodomethane	2.62	142	338621	49.49	ug/l		9
7) Carbon disulfide (*)	2.67	76	434355	44.87	ug/l		9
8) Methyl Acetate	2.84	43	29429	43.01	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	236998	50.13	ug/l		9
10) Acrylonitrile (*)	3.07	53	19894	47.88	ug/l		10
11) 2-Butanone (MEK) (*)	3.70	43	15003	51.26	ug/l		9
12) Dichlorodifluoromethane	1.23	85	85360	41.71	ug/l		9
13) Chloromethane (SPCC)	1.34	50	106376	45.76	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	122248	46.74	ug/l		9
15) Bromomethane	1.73	94	57543	49.53	ug/l		9
16) Chloroethane	1.83	64	29717	53.30	ug/l		9
18) Trichlorofluoromethane	2.11	101	175374	57.55	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	157904	48.78	ug/l		8
20) Methylene Chloride	2.90	84	141810	45.32	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	162039	48.07	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.34	63	204865	48.53	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	172244	48.83	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11619	41.56	ug/l	#	
25) Chloroform (CCC)	3.85	83	226186	49.84	ug/l		9
26) Bromochloromethane	3.81	130	110317	48.88	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	240574	54.14	ug/l	#	4
29) Cyclohexane	3.98	42	42727	41.63	ug/l	#	2
32) 4-Methyl-2-pentanone (MIBK	4.96	58	18207	48.06	ug/l		8
33) 2-Hexanone (*)	5.34	58	15271	51.71	ug/l		9
35) Carbon Tetrachloride	4.04	117	233305	55.38	ug/l		9
36) Benzene (MS)	4.14	78	582212	49.03	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\lcss31c.d Vial: 5
Acq On : 1 Aug 12 12:32 am Operator: wat
Sample : 100ul blankmsd 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:15 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
37) 1,2-Dichloroethane	4.15	62	108438	50.42 ug/l	9
38) Trichloroethene (MS)	4.45	95	165397	51.05 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	111908	48.49 ug/l	9
40) Bromodichloromethane	4.68	83	153465	53.17 ug/l	9
41) Methyl Cyclohexane	4.54	55	173886	51.84 ug/l	8
42) Dibromomethane	4.62	174	117359	52.33 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	190739	52.99 ug/l	9
44) Toluene (CCC/MS)	5.05	91	712123	51.11 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	147678	54.54 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	73746	49.48 ug/l	9
47) Tetrachloroethene	5.31	166	290615	50.47 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	15112	51.30 ug/l #	7
51) Dibromochloromethane	5.42	129	137062	56.36 ug/l	9
52) 1,2-Dibromoethane	5.48	107	102843	52.59 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	502738	50.93 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	182137	55.22 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	786709	53.16 ug/l	9
56) p,m-Xylene	5.79	106	669155	105.83 ug/l	9
57) o-Xylene	5.98	91	609161	53.98 ug/l	9
58) Styrene	5.99	104	483841	52.69 ug/l	9
59) Isopropylbenzene	6.15	105	912537	54.81 ug/l	9
60) Bromoform (SPCC)	6.09	173	90767	53.36 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	94527	51.88 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	31488	52.41 ug/l	8
63) n-Propylbenzene	6.34	91	934618	54.59 ug/l	9
64) Bromobenzene	6.31	156	245039	52.19 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	414179	53.93 ug/l	9
66) tert-Butylbenzene	6.58	91	442108	56.28 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	448786	55.33 ug/l	9
69) sec-Butylbenzene	6.68	105	1019432	57.37 ug/l	9
70) p-Isopropyltoluene	6.75	119	880232	58.67 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	438831	53.55 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	438724	52.15 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	411947	54.07 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	670285	54.03 ug/l	9
75) n-Butylbenzene	6.95	91	655482	55.14 ug/l	9
76) Hexachloroethane	7.10	201	195408	54.94 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	24578	57.95 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	297510	57.20 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	253979	59.73 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120731b5\lcss31c.d Vial: 5
Acq On : 1 Aug 12 12:32 am Operator: wat
Sample : 100ul blankmsd 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:15 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

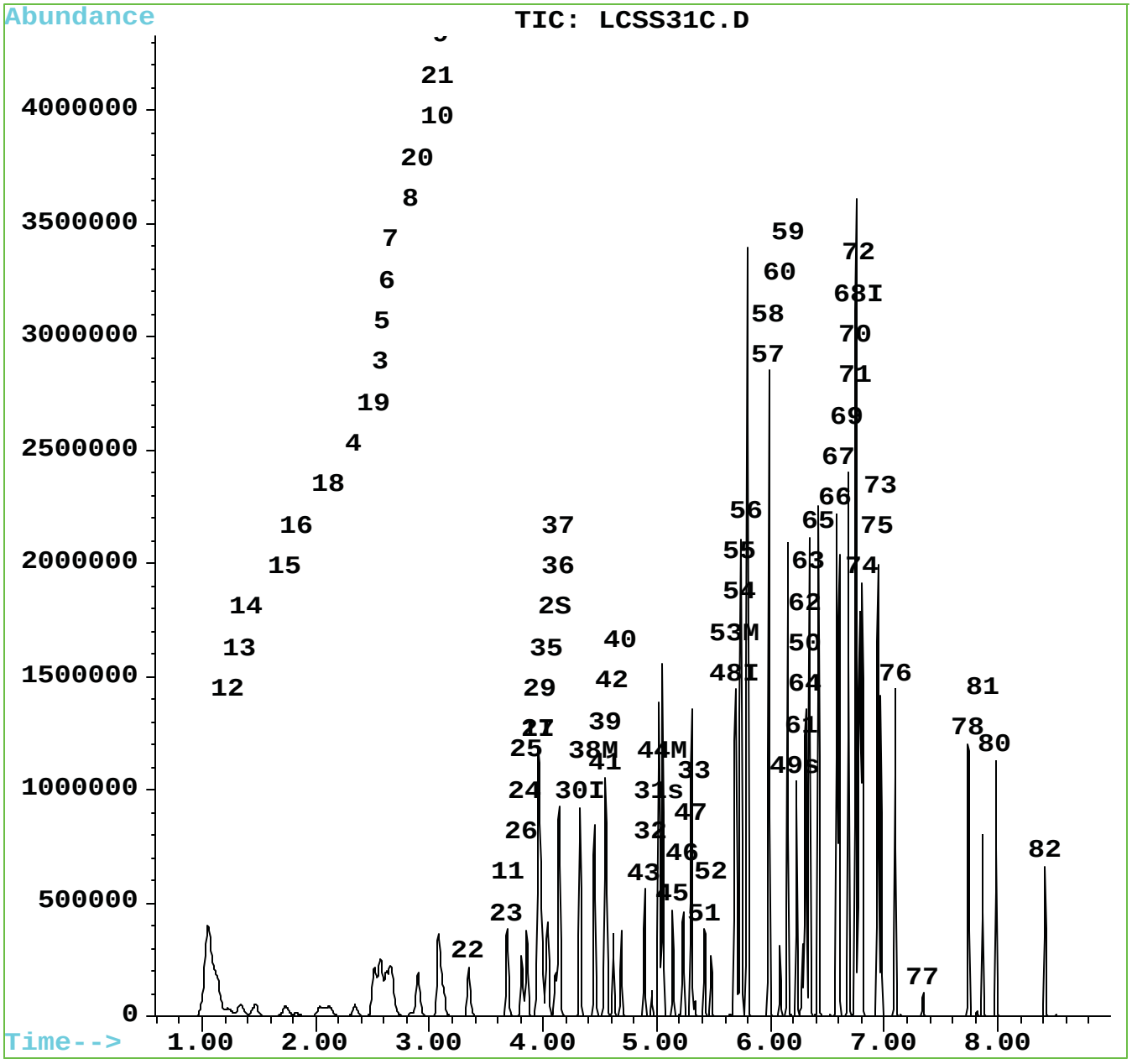
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
81)	Naphthalene	7.87	128	399132	62.71 ug/l	9
82)	2-Methylnaphthalene	8.41	142	202858	62.92 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120731b5\lcss31c.d Vial: 5
Acq On : 1 Aug 12 12:32 am Operator: wat
Sample : 100ul blankmsd 3s0731 1m0731 Inst : Urborg
Misc : s/50 id:vf120731s4 Multiplr: 1.00
Quant Time: Aug 1 10:15 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\lcsw02a.d Vial: 3
Acq On : 2 Aug 12 12:03 pm Operator: lbr
Sample : blank ms 1dr0731 1m0802 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	26116	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	48021	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26472	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	21070	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18447	4.86	ug/l		97.2
31) TOLUENE-D8 (S)	5.05	98	59785	5.03	ug/l		100.6
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14144	5.05	ug/l		100.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	138540	54.82	ug/l		8
4) Diethyl ether (*)	2.37	74	100438	51.50	ug/l	#	6
5) Acetone (*)	2.61	43	95773	72.59	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	177210	52.01	ug/l		8
7) Carbon disulfide (*)	2.70	76	484936	54.44	ug/l		9
8) Methyl Acetate	2.86	43	131808	48.86	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	429158	52.77	ug/l		8
10) Acrylonitrile (*)	3.10	53	73675	53.04	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	112716	57.95	ug/l		8
12) Dichlorodifluoromethane	1.26	85	136592	51.51	ug/l		9
13) Chloromethane (SPCC)	1.41	50	251351	57.63	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	206180	52.57	ug/l		9
15) Bromomethane	1.79	94	105442	59.05	ug/l		9
16) Chloroethane	1.86	64	128237	60.90	ug/l		9
18) Trichlorofluoromethane	2.15	101	226456	57.28	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	259199	52.46	ug/l	#	7
20) Methylene Chloride	2.93	84	155713	51.57	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	253121	52.59	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	298657	51.69	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	163069	52.29	ug/l	#	7
24) Tetrahydrofuran	3.86	42	54291	43.58	ug/l	#	1
25) Chloroform (CCC)	3.89	83	257849	51.93	ug/l		9
26) Bromochloromethane	3.84	130	85866	52.39	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	222703	51.82	ug/l	#	
29) Cyclohexane	4.01	42	87269	44.68	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	60740	52.64	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	77106	57.56	ug/l	#	6
35) Carbon Tetrachloride	4.07	117	182593	53.20	ug/l		9
36) Benzene (MS)	4.17	78	645041	51.11	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\lcsw02a.d Vial: 3
Acq On : 2 Aug 12 12:03 pm Operator: lbr
Sample : blank ms 1dr0731 1m0802 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
37) 1,2-Dichloroethane	4.17	62	239047	52.60 ug/l		9
38) Trichloroethene (MS)	4.48	95	149634	51.41 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	178759	53.33 ug/l		9
40) Bromodichloromethane	4.72	83	191053	53.92 ug/l		9
41) Methyl Cyclohexane	4.57	55	257960	56.06 ug/l	#	5
42) Dibromomethane	4.65	174	70411	49.97 ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	254642	48.24 ug/l		9
44) Toluene (CCC/MS)	5.08	91	681709	51.68 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	229314	49.85 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	109787	50.87 ug/l		9
47) Tetrachloroethene	5.33	166	127574	51.69 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	33296	47.20 ug/l		9
51) Dibromochloromethane	5.45	129	122134	56.12 ug/l		9
52) 1,2-Dibromoethane	5.51	107	125279	52.21 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	403786	52.58 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	127562	55.77 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	765965	53.83 ug/l		9
56) p,m-Xylene	5.83	106	576041	109.40 ug/l	#	7
57) o-Xylene	6.02	91	624532	54.78 ug/l		9
58) Styrene	6.02	104	476673	54.15 ug/l		9
59) Isopropylbenzene	6.18	105	721124	53.72 ug/l		9
60) Bromoform (SPCC)	6.12	173	66019	52.02 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	174562	51.50 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	50369	52.18 ug/l	#	6
63) n-Propylbenzene	6.37	91	886751	55.74 ug/l		9
64) Bromobenzene	6.34	156	144950	54.58 ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	280484	53.84 ug/l	#	7
66) tert-Butylbenzene	6.61	91	403164	53.43 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	318541	55.93 ug/l	#	7
69) sec-Butylbenzene	6.72	105	736748	53.95 ug/l		9
70) p-Isopropyltoluene	6.77	119	598057	56.14 ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	281452	54.62 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	290455	52.54 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	273221	52.10 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	624901	53.77 ug/l		8
75) n-Butylbenzene	6.97	91	592750	56.05 ug/l		9
76) Hexachloroethane	7.13	201	55780	49.75 ug/l	#	5
77) 1,2-Dibromo-3-Chloropropan	7.37	157	24463	50.19 ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	153022	54.77 ug/l		9
79) Hexachlorobutadiene	7.85	225	3011	2.98 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\lcsw02a.d Vial: 3
Acq On : 2 Aug 12 12:03 pm Operator: lbr
Sample : blank ms 1dr0731 1m0802 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

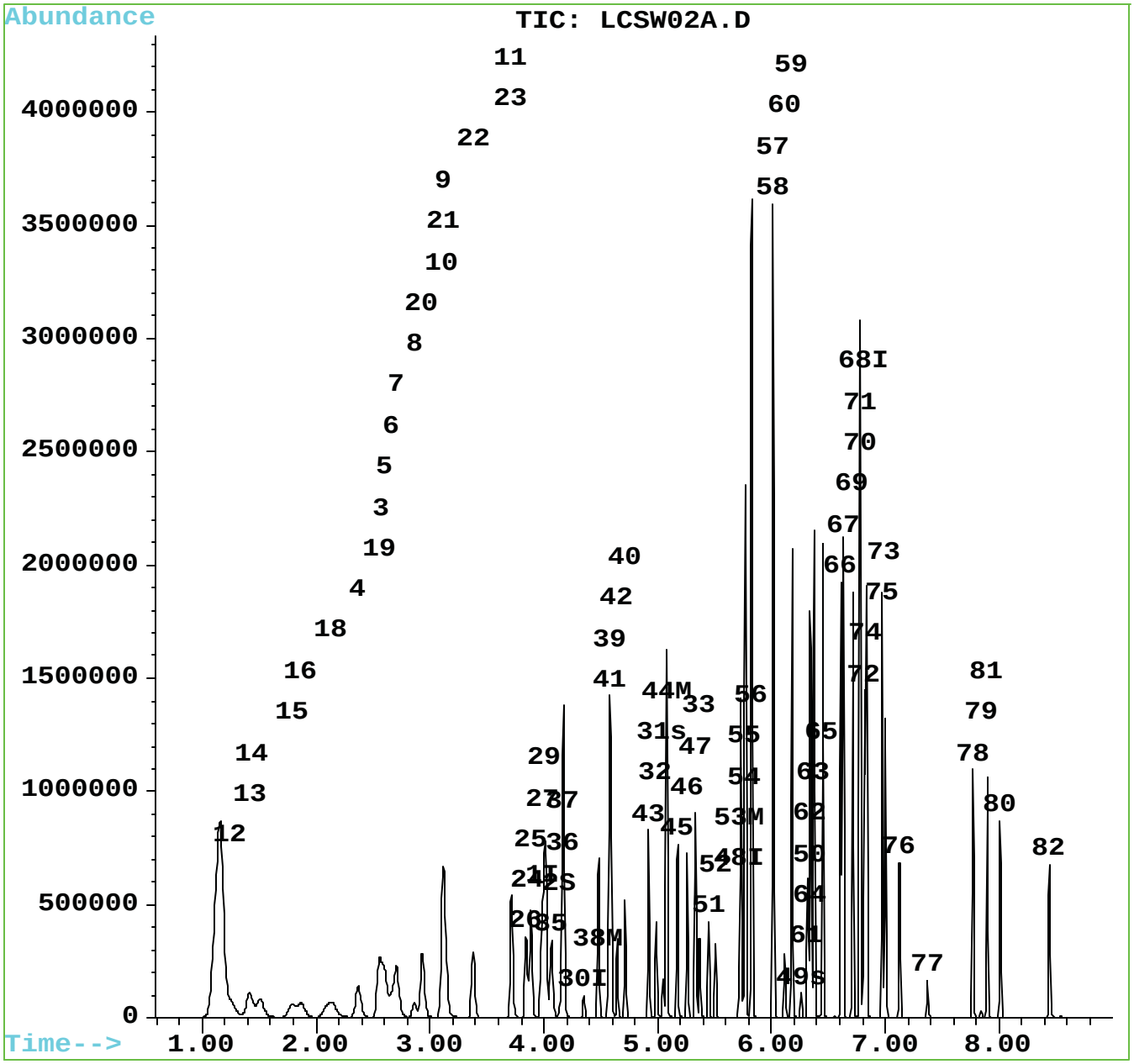
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	8.01	180	139777	55.17 ug/l	9
81)	Naphthalene	7.90	128	461014	54.02 ug/l	9
82)	2-Methylnaphthalene	8.45	142	177371	53.61 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\lcsw02a.d Vial: 3
Acq On : 2 Aug 12 12:03 pm Operator: lbr
Sample : blank ms 1dr0731 1m0802 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\lcsw02b.d Vial: 4
Acq On : 2 Aug 12 12:23 pm Operator: lbr
Sample : blank msd 1dr0731 1m0802 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	26390	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	48977	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26975	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	21533	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19313	5.04	ug/l		100.7
31) TOLUENE-D8 (S)	5.05	98	59912	4.95	ug/l		98.9
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14508	5.08	ug/l		101.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	140735	55.11	ug/l	#	8
4) Diethyl ether (*)	2.37	74	102526	52.02	ug/l	#	6
5) Acetone (*)	2.62	43	98657	74.00	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	176037	51.13	ug/l		8
7) Carbon disulfide (*)	2.72	76	483655	53.73	ug/l		8
8) Methyl Acetate	2.87	43	143460	52.63	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	447995	54.51	ug/l		8
10) Acrylonitrile (*)	3.11	53	76133	54.24	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	115230	58.63	ug/l		8
12) Dichlorodifluoromethane	1.26	85	132064	49.38	ug/l		9
13) Chloromethane (SPCC)	1.43	50	250288	56.79	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	201920	50.95	ug/l		9
15) Bromomethane	1.80	94	103078	57.12	ug/l		9
16) Chloroethane	1.89	64	127343	59.85	ug/l		9
18) Trichlorofluoromethane	2.15	101	221823	55.52	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	255305	51.13	ug/l	#	7
20) Methylene Chloride	2.94	84	156810	51.39	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	251776	51.77	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	304972	52.24	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	161796	51.35	ug/l	#	7
24) Tetrahydrofuran	3.87	42	58729	46.65	ug/l	#	1
25) Chloroform (CCC)	3.89	83	261002	52.02	ug/l		9
26) Bromochloromethane	3.85	130	86874	52.45	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	224243	51.64	ug/l	#	
28) 1,1-Dichloropropene	4.17	75	10464	2.40	ug/l	#	
29) Cyclohexane	4.02	42	86399	43.78	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	65677	55.81	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	78237	57.26	ug/l	#	6
35) Carbon Tetrachloride	4.07	117	182904	52.25	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\lcsw02b.d Vial: 4
Acq On : 2 Aug 12 12:23 pm Operator: lbr
Sample : blank msd 1dr0731 1m0802 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
36) Benzene (MS)	4.17	78	647863	50.33 ug/l		8
37) 1,2-Dichloroethane	4.18	62	238403	51.43 ug/l		9
38) Trichloroethene (MS)	4.48	95	148202	49.93 ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	177041	51.78 ug/l		9
40) Bromodichloromethane	4.72	83	194704	53.88 ug/l		9
41) Methyl Cyclohexane	4.57	55	255367	54.41 ug/l	#	5
42) Dibromomethane	4.65	174	70514	49.07 ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	255532	47.46 ug/l		9
44) Toluene (CCC/MS)	5.08	91	679858	50.53 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	232359	49.53 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	112110	50.93 ug/l		9
47) Tetrachloroethene	5.33	166	127585	50.69 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.34	53	37453	51.85 ug/l	#	8
51) Dibromochloromethane	5.45	129	122318	55.15 ug/l		9
52) 1,2-Dibromoethane	5.51	107	129415	52.93 ug/l		10
53) Chlorobenzene (SPCC/MS)	5.73	112	405412	51.80 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	127372	54.65 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	757012	52.21 ug/l		9
56) p,m-Xylene	5.83	106	569801	106.19 ug/l	#	7
57) o-Xylene	6.02	91	628974	54.15 ug/l		9
58) Styrene	6.02	104	478450	53.34 ug/l		9
59) Isopropylbenzene	6.18	105	723431	52.89 ug/l		9
60) Bromoform (SPCC)	6.12	173	68263	52.75 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	184518	53.42 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	53111	53.99 ug/l	#	6
63) n-Propylbenzene	6.37	91	885538	54.63 ug/l		8
64) Bromobenzene	6.34	156	141591	52.32 ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	280170	52.78 ug/l	#	7
66) tert-Butylbenzene	6.61	91	405769	52.77 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	319649	55.08 ug/l	#	7
69) sec-Butylbenzene	6.72	105	729868	52.30 ug/l		9
70) p-Isopropyltoluene	6.78	119	593175	54.49 ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	279771	53.12 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	287324	50.86 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	276847	51.66 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	620960	52.28 ug/l		8
75) n-Butylbenzene	6.97	91	579688	53.64 ug/l		9
76) Hexachloroethane	7.13	201	55156	48.17 ug/l	#	5
77) 1,2-Dibromo-3-Chloropropan	7.37	157	27033	54.07 ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	153047	53.60 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\lcsw02b.d Vial: 4
Acq On : 2 Aug 12 12:23 pm Operator: lbr
Sample : blank msd 1dr0731 1m0802 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

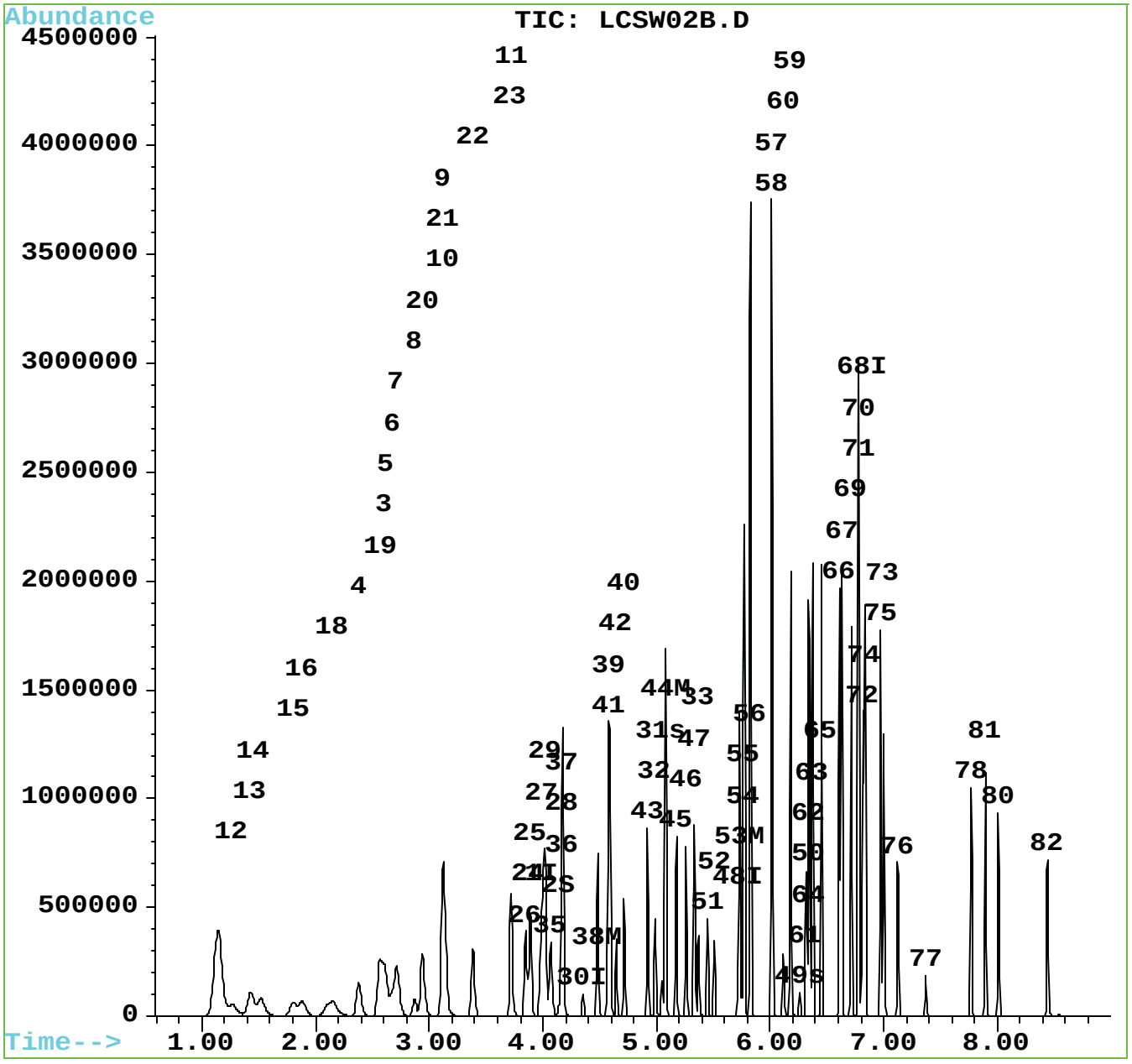
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	8.01	180	143918	55.59 ug/l	9
81)	Naphthalene	7.89	128	492241	56.44 ug/l	9
82)	2-Methylnaphthalene	8.45	142	201593	59.79 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120802a3\lcsw02b.d Vial: 4
Acq On : 2 Aug 12 12:23 pm Operator: lbr
Sample : blank msd 1dr0731 1m0802 Inst : Merfolk
Misc : w/1 id:vf120802w1 Multiplr: 1.00
Quant Time: Aug 3 10:26 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d03a.d	08/03/12 10:54	dftpp std (120801) [none]	WW	IP	**1**	
spnn03a.d	08/03/12 11:16	pna std 50 (120314) [none]	WW	CV	**1**	
blks03a.d	08/03/12 11:45	pna-s 30g/1ml df:1 sp120801s02	SO	Bl	**1**	
lcss03a.d	08/03/12 12:07	pna-s 30g/1ml df:1 sp120801s02	SO	MS	**1**	
5336007.d	08/03/12 12:30	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336008.d	08/03/12 12:52	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336009.d	08/03/12 13:15	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336010.d	08/03/12 13:38	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336011.d	08/03/12 14:00	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336013.d	08/03/12 14:23	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340103.d	08/03/12 14:45	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340104.d	08/03/12 15:08	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340105.d	08/03/12 15:31	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340108.d	08/03/12 15:53	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340109.d	08/03/12 16:16	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340110.d	08/03/12 16:39	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340111.d	08/03/12 17:01	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336002.d	08/03/12 17:24	pna-s 30g/1ml df:15 sp120801s02	SO		**1**	
5340106.d	08/03/12 17:47	pna-s 30g/1ml df:15 sp120801s02	SO		**1**	
5340107.d	08/03/12 18:09	pna-s 30g/1ml df:15 sp120801s02	SO		**1**	
5336003.d	08/03/12 18:32	pna-s 30g/1ml df:20 sp120801s02	SO		**1**	
5336004.d	08/03/12 18:54	pna-s 30g/2ml df:40 sp120801s02	SO		**1**	
5336005m.d	08/03/12 19:17	pna-s 30g/2ml df:40 sp120801s02	SO	MS	**1**	
5336006n.d	08/03/12 19:40	pna-s 30g/2ml df:40 sp120801s02	SO	MS	**1**	
5340102.d	08/03/12 20:02	pna-s 30g/1ml df:100 sp120801s02	SO		**1**	
5336012.d	08/03/12 20:25	pna-s 30g/1ml df:10 sp120801s02	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	22
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	3
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spnn03a.d	2-Fluorobiphenyl	53.7/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	52.1/100.0	n/a	10.0/114.0	
	Terphenyl-D14	55.1/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blks03a.d	2-Fluorobiphenyl	97.9/100.0	97.9	10.0/115.0	SO
	Nitrobenzene-D5	72.8/100.0	72.8	18.5/120.0	
	Terphenyl-D14	113.0/100.0	113.0	10.3/137.0	
				Total Outliers: 0	
lcss03a.d	2-Fluorobiphenyl	84.6/100.0	84.6	10.0/115.0	SO
	Nitrobenzene-D5	62.4/100.0	62.4	18.5/120.0	
	Terphenyl-D14	104.6/100.0	104.6	10.3/137.0	
				Total Outliers: 0	
5336007.d	2-Fluorobiphenyl	63.0/100.0	63.0	10.0/115.0	SO
	Nitrobenzene-D5	72.7/100.0	72.7	18.5/120.0	
	Terphenyl-D14	74.8/100.0	74.8	10.3/137.0	
				Total Outliers: 0	
5336008.d	2-Fluorobiphenyl	54.4/100.0	54.4	10.0/115.0	SO
	Nitrobenzene-D5	59.2/100.0	59.2	18.5/120.0	
	Terphenyl-D14	60.2/100.0	60.2	10.3/137.0	
				Total Outliers: 0	
5336009.d	2-Fluorobiphenyl	60.2/100.0	60.2	10.0/115.0	SO
	Nitrobenzene-D5	67.2/100.0	67.2	18.5/120.0	
	Terphenyl-D14	69.6/100.0	69.6	10.3/137.0	
				Total Outliers: 0	
5336010.d	2-Fluorobiphenyl	53.3/100.0	53.3	10.0/115.0	SO
	Nitrobenzene-D5	53.3/100.0	53.3	18.5/120.0	
	Terphenyl-D14	59.7/100.0	59.7	10.3/137.0	
				Total Outliers: 0	
5336011.d	2-Fluorobiphenyl	72.9/100.0	72.9	10.0/115.0	SO
	Nitrobenzene-D5	77.5/100.0	77.5	18.5/120.0	
	Terphenyl-D14	78.1/100.0	78.1	10.3/137.0	
				Total Outliers: 0	
5336013.d	2-Fluorobiphenyl	59.0/100.0	59.0	10.0/115.0	SO
	Nitrobenzene-D5	63.7/100.0	63.7	18.5/120.0	
	Terphenyl-D14	65.4/100.0	65.4	10.3/137.0	
				Total Outliers: 0	
5340103.d	2-Fluorobiphenyl	68.6/100.0	68.6	10.0/115.0	SO
	Nitrobenzene-D5	68.5/100.0	68.5	18.5/120.0	
	Terphenyl-D14	75.4/100.0	75.4	10.3/137.0	
				Total Outliers: 0	
5340104.d	2-Fluorobiphenyl	66.9/100.0	66.9	10.0/115.0	SO
	Nitrobenzene-D5	65.4/100.0	65.4	18.5/120.0	
	Terphenyl-D14	71.0/100.0	71.0	10.3/137.0	
				Total Outliers: 0	
5340105.d	2-Fluorobiphenyl	68.5/100.0	68.5	10.0/115.0	SO
	Nitrobenzene-D5	67.1/100.0	67.1	18.5/120.0	
	Terphenyl-D14	73.2/100.0	73.2	10.3/137.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
5340108.d	2-Fluorobiphenyl	67.8/100.0	67.8	10.0/115.0	SO
	Nitrobenzene-D5	71.5/100.0	71.5	18.5/120.0	
	Terphenyl-D14	68.2/100.0	68.2	10.3/137.0	
				Total Outliers: 0	
5340109.d	2-Fluorobiphenyl	61.1/100.0	61.1	10.0/115.0	SO
	Nitrobenzene-D5	64.7/100.0	64.7	18.5/120.0	
	Terphenyl-D14	61.1/100.0	61.1	10.3/137.0	
				Total Outliers: 0	
5340110.d	2-Fluorobiphenyl	61.5/100.0	61.5	10.0/115.0	SO
	Nitrobenzene-D5	64.9/100.0	64.9	18.5/120.0	
	Terphenyl-D14	63.8/100.0	63.8	10.3/137.0	
				Total Outliers: 0	
5340111.d	2-Fluorobiphenyl	69.2/100.0	69.2	10.0/115.0	SO
	Nitrobenzene-D5	69.9/100.0	69.9	18.5/120.0	
	Terphenyl-D14	77.8/100.0	77.8	10.3/137.0	
				Total Outliers: 0	
5336002.d	2-Fluorobiphenyl	49.0/100.0	49.0	10.0/115.0	SO
	Nitrobenzene-D5	52.8/100.0	52.8	18.5/120.0	
	Terphenyl-D14	57.3/100.0	57.3	10.3/137.0	
				Total Outliers: 0	
5340106.d	2-Fluorobiphenyl	65.5/100.0	65.5	10.0/115.0	SO
	Nitrobenzene-D5	67.9/100.0	67.9	18.5/120.0	
	Terphenyl-D14	67.4/100.0	67.4	10.3/137.0	
				Total Outliers: 0	
5340107.d	2-Fluorobiphenyl	52.1/100.0	52.1	10.0/115.0	SO
	Nitrobenzene-D5	56.1/100.0	56.1	18.5/120.0	
	Terphenyl-D14	54.5/100.0	54.5	10.3/137.0	
				Total Outliers: 0	
5336003.d	2-Fluorobiphenyl	51.7/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	52.9/100.0	n/a	18.5/120.0	
	Terphenyl-D14	56.1/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5336004.d	2-Fluorobiphenyl	76.2/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	81.0/100.0	n/a	18.5/120.0	
	Terphenyl-D14	92.5/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5336005m.d	2-Fluorobiphenyl	69.6/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	71.4/100.0	n/a	18.5/120.0	
	Terphenyl-D14	79.3/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5336006n.d	2-Fluorobiphenyl	84.9/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	87.1/100.0	n/a	18.5/120.0	
	Terphenyl-D14	94.4/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5340102.d	2-Fluorobiphenyl	112.9/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	103.8/100.0	n/a	18.5/120.0	
	Terphenyl-D14	100.4/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5336012.d	2-Fluorobiphenyl	62.1/100.0	62.1	10.0/115.0	SO
	Nitrobenzene-D5	66.9/100.0	66.9	18.5/120.0	
	Terphenyl-D14	66.2/100.0	66.2	10.3/137.0	
				Total Outliers:	**0**

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : 5336006n.d			
Dup ID : S53360.06			
Prep Batch: sp120801s02			
Prep Date : 08/01/12			
Parent File: 5336005m.d			
naphthalene	42.10/ 36.08	15.4/25.0	SO
2-methylnaphthalene	42.88/ 33.11	25.7/25.0*	
1-methylnaphthalene	39.54/ 32.51	19.5/25.0	
acenaphthylene	41.88/ 32.53	25.1/25.0*	
acenaphthene **	44.80/ 33.30	29.4/25.0*	
fluorene	37.28/ 35.59	4.6/25.0	
phenanthrene	42.91/ 36.67	15.7/25.0	
anthracene	42.50/ 35.60	17.7/25.0	
fluoranthene	49.74/ 38.44	25.6/25.0*	
pyrene **	54.77/ 44.93	19.7/25.0	
benzo(a)anthracene	58.32/ 36.37	46.4/25.0*	
chrysene	48.39/ 37.12	26.4/25.0*	
benzo(b)fluoranthene	63.62/ 57.05	10.9/25.0	
benzo(k)fluoranthene	61.02/ 52.87	14.3/25.0	
benzo(a)pyrene	60.10/ 55.89	7.3/25.0	
indeno(1,2,3-cd)pyrene	35.91/ 31.14	14.2/25.0	
dibenzo(ah)anthracene	35.72/ 31.26	13.3/25.0	
benzo(ghi)perylene	33.58/ 29.89	11.6/25.0	
[end of compound list]			
		Total Outliers: 6	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss03a.d						
Spike ID : LCS1						
Prep Batch: sp120801s02						
Prep Date : 08/01/12						
Parent File: blks03a.d						
1-Methylnaphthalene	29.34/	0.00	50.00	58.7	10.0/120.0	SO
2-Methylnaphthalene	31.43/	0.00	50.00	62.9	35.6/120.0	
Acenaphthene	36.65/	0.00	50.00	73.3	10.0/121.0	
Acenaphthylene	36.02/	0.00	50.00	72.0	35.4/127.7	
Anthracene	34.56/	0.00	50.00	69.1	32.3/142.4	
Benzo(a)anthracene	36.07/	0.00	50.00	72.1	36.7/134.7	
Benzo(a)pyrene	38.48/	0.00	50.00	77.0	10.0/140.8	
Benzo(b)fluoranthene	40.31/	0.00	50.00	80.6	29.0/152.7	
Benzo(ghi)perylene	35.25/	0.00	50.00	70.5	45.2/130.7	
Benzo(k)fluoranthene	40.62/	0.00	50.00	81.2	29.8/136.0	
Chrysene	36.77/	0.00	50.00	73.5	38.7/137.1	
Dibenzo(ah)anthracene	38.58/	0.00	50.00	77.2	45.3/130.8	
Fluorene	37.02/	0.00	50.00	74.0	37.8/127.8	
Fluoranthene	35.96/	0.00	50.00	71.9	10.0/145.8	
Indeno(1,2,3-cd)pyrene	38.28/	0.00	50.00	76.6	39.2/137.4	
Naphthalene	31.88/	0.00	50.00	63.8	10.0/110.0	
Phenanthrene	36.02/	0.00	50.00	72.0	36.4/143.0	
Pyrene	37.90/	0.00	50.00	75.8	10.0/135.8	
					Total Outliers:	**0**
Spike File : 5336005m.d						
Spike ID : S53360.05						
Prep Batch: sp120801s02						
Prep Date : 08/01/12						
Parent File: 5336004.d						
1-Methylnaphthalene	32.51/	0.00	50.00	65.0	10.0/120.0	SO
2-Methylnaphthalene	33.11/	0.00	50.00	66.2	35.6/120.0	
Acenaphthene	33.30/	0.00	50.00	66.6	10.0/121.0	
Acenaphthylene	32.53/	0.00	50.00	65.1	35.4/127.7	
Anthracene	35.60/	0.00	50.00	71.2	32.3/142.4	
Benzo(a)anthracene	36.37/	0.00	50.00	72.7	36.7/134.7	
Benzo(a)pyrene	55.89/	0.00	50.00	111.8	10.0/140.8	
Benzo(b)fluoranthene	57.05/	0.00	50.00	114.1	29.0/152.7	
Benzo(ghi)perylene	29.89/	0.00	50.00	59.8	45.2/130.7	
Benzo(k)fluoranthene	52.87/	0.00	50.00	105.7	29.8/136.0	
Chrysene	37.12/	0.00	50.00	74.2	38.7/137.1	
Dibenzo(ah)anthracene	31.26/	0.00	50.00	62.5	45.3/130.8	
Fluorene	35.59/	0.00	50.00	71.2	37.8/127.8	
Fluoranthene	38.44/	0.00	50.00	76.9	10.0/145.8	
Indeno(1,2,3-cd)pyrene	31.14/	0.00	50.00	62.3	39.2/137.4	
Naphthalene	36.08/	0.00	50.00	72.2	10.0/110.0	
Phenanthrene	36.67/	0.00	50.00	73.3	36.4/143.0	
Pyrene	44.93/	0.00	50.00	89.9	10.0/135.8	
					Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : 5336006n.d						
Spike ID : S53360.06						
Prep Batch: sp120801s02						
Prep Date : 08/01/12						
Parent File: 5336004.d						
1-Methylnaphthalene	39.54/	0.00	50.00	79.1	10.0/120.0	SO
2-Methylnaphthalene	42.88/	0.00	50.00	85.8	35.6/120.0	
Acenaphthene	44.80/	0.00	50.00	89.6	10.0/121.0	
Acenaphthylene	41.88/	0.00	50.00	83.8	35.4/127.7	
Anthracene	42.50/	0.00	50.00	85.0	32.3/142.4	
Benzo(a)anthracene	58.32/	0.00	50.00	116.6	36.7/134.7	
Benzo(a)pyrene	60.10/	0.00	50.00	120.2	10.0/140.8	
Benzo(b)fluoranthene	63.62/	0.00	50.00	127.2	29.0/152.7	
Benzo(ghi)perylene	33.58/	0.00	50.00	67.2	45.2/130.7	
Benzo(k)fluoranthene	61.02/	0.00	50.00	122.0	29.8/136.0	
Chrysene	48.39/	0.00	50.00	96.8	38.7/137.1	
Dibenzo(ah)anthracene	35.72/	0.00	50.00	71.4	45.3/130.8	
Fluorene	37.28/	0.00	50.00	74.6	37.8/127.8	
Fluoranthene	49.74/	0.00	50.00	99.5	10.0/145.8	
Indeno(1,2,3-cd)pyrene	35.91/	0.00	50.00	71.8	39.2/137.4	
Naphthalene	42.10/	0.00	50.00	84.2	10.0/110.0	
Phenanthrene	42.91/	0.00	50.00	85.8	36.4/143.0	
Pyrene	54.77/	0.00	50.00	109.5	10.0/135.8	
					Total Outliers:	**0**

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blks03a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120801s02
Prep Date : 08/01/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [mg/kg]	RL [mg/kg]
Benzo(b)fluoranthene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Benzo(a)pyrene	Not detected		0.3	20
Benzo(ghi)perylene	Not detected		0.5	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(a)anthracene	Not detected		0.4	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
1-Methylnaphthalene	Not detected		0.4	20
2-Methylnaphthalene	Not detected		0.2	20
Acenaphthylene	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Naphthalene	Not detected		0.1	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks03a.d
Method Blank Prep Date: 08/01/12
Blank/LCS Preparation Batch: sp120801s02

LCS Data File: lcss03a.d
LCS Prep Date: 08/01/12

Sample ID	Anal. Batch	Prep. Batch	Date	Analysis	Analysis Code
S53360.02	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.03	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.04	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.05	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.06	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.07	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.08	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.09	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.10	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.11	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.12	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.13	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.02	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.03	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.04	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.05	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.06	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.07	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.08	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.09	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.10	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.11	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d03a.d	08/03/12 10:54	51	198	30.0	80.0	65.3	52368	PASS
		68	69	0.0	2.0	1.7	589	PASS
		69	198	0.0	100.0	43.0	34488	PASS
		70	69	0.0	2.0	0.7	235	PASS
		127	198	25.0	75.0	55.6	44592	PASS
		197	198	0.0	1.0	0.8	670	PASS
		198	198	100.0	100.0	100.0	80192	PASS
		199	198	5.0	9.0	6.3	5091	PASS
		275	198	10.0	30.0	24.2	19440	PASS
		365	198	1.0	100.0	3.5	2807	PASS
		441	443	0.0	100.0	70.6	8543	PASS
		442	198	40.0	110.0	67.6	54240	PASS
		443	442	15.0	24.0	22.3	12109	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn03a.d	08/03/12 11:16	1,4-Dichlorobenzene-D4	55202/ 5.11	27601- 110404	4.61- 5.61
		Naphthalene-D8	254545/ 6.06	127273- 509090	5.56- 6.56
		Acenaphthalene-D10	156382/ 7.44	78191- 312764	6.94- 7.94
		Phenanthrene-D10	266681/ 8.72	133341- 533362	8.22- 9.22
		Chrysene-D12	321204/11.52	160602- 642408	11.02-12.02
		Perylene-D12	261291/13.42	130646- 522582	12.92-13.92
					Total Outliers: N/A
blks03a.d	08/03/12 11:45	1,4-Dichlorobenzene-D4	62790/ 5.11	Ratio: 1.137	Diff.: 0.00
		Naphthalene-D8	294448/ 6.06	Ratio: 1.157	Diff.: 0.00
		Acenaphthalene-D10	175891/ 7.44	Ratio: 1.125	Diff.: 0.00
		Phenanthrene-D10	314359/ 8.72	Ratio: 1.179	Diff.: 0.00
		Chrysene-D12	341070/11.51	Ratio: 1.062	Diff.: -0.01
		Perylene-D12	271926/13.42	Ratio: 1.041	Diff.: 0.00
					Total Outliers: 0
lcss03a.d	08/03/12 12:07	1,4-Dichlorobenzene-D4	57449/ 5.11	Ratio: 1.041	Diff.: 0.00
		Naphthalene-D8	281731/ 6.06	Ratio: 1.107	Diff.: 0.00
		Acenaphthalene-D10	168915/ 7.44	Ratio: 1.080	Diff.: 0.00
		Phenanthrene-D10	307463/ 8.72	Ratio: 1.153	Diff.: 0.00
		Chrysene-D12	368261/11.52	Ratio: 1.147	Diff.: 0.00
		Perylene-D12	291560/13.42	Ratio: 1.116	Diff.: 0.00
					Total Outliers: 0
5336007.d	08/03/12 12:30	1,4-Dichlorobenzene-D4	48895/ 5.11	Ratio: 0.886	Diff.: 0.00
		Naphthalene-D8	229796/ 6.06	Ratio: 0.903	Diff.: 0.00
		Acenaphthalene-D10	139057/ 7.44	Ratio: 0.889	Diff.: 0.00
		Phenanthrene-D10	250283/ 8.72	Ratio: 0.939	Diff.: 0.00
		Chrysene-D12	291558/11.51	Ratio: 0.908	Diff.: -0.01
		Perylene-D12	243724/13.41	Ratio: 0.933	Diff.: -0.01
					Total Outliers: 0
5336008.d	08/03/12 12:52	1,4-Dichlorobenzene-D4	59796/ 5.11	Ratio: 1.083	Diff.: 0.00
		Naphthalene-D8	281906/ 6.06	Ratio: 1.107	Diff.: 0.00
		Acenaphthalene-D10	166266/ 7.44	Ratio: 1.063	Diff.: 0.00
		Phenanthrene-D10	300916/ 8.72	Ratio: 1.128	Diff.: 0.00
		Chrysene-D12	322352/11.51	Ratio: 1.004	Diff.: -0.01
		Perylene-D12	264291/13.41	Ratio: 1.011	Diff.: -0.01
					Total Outliers: 0
5336009.d	08/03/12 13:15	1,4-Dichlorobenzene-D4	57584/ 5.11	Ratio: 1.043	Diff.: 0.00
		Naphthalene-D8	264743/ 6.06	Ratio: 1.040	Diff.: 0.00
		Acenaphthalene-D10	160456/ 7.44	Ratio: 1.026	Diff.: 0.00
		Phenanthrene-D10	287378/ 8.72	Ratio: 1.078	Diff.: 0.00
		Chrysene-D12	307811/11.51	Ratio: 0.958	Diff.: -0.01
		Perylene-D12	254146/13.41	Ratio: 0.973	Diff.: -0.01
					Total Outliers: 0
5336010.d	08/03/12 13:38	1,4-Dichlorobenzene-D4	53694/ 5.11	Ratio: 0.973	Diff.: 0.00
		Naphthalene-D8	250866/ 6.06	Ratio: 0.986	Diff.: 0.00
		Acenaphthalene-D10	155067/ 7.44	Ratio: 0.992	Diff.: 0.00
		Phenanthrene-D10	279219/ 8.72	Ratio: 1.047	Diff.: 0.00
		Chrysene-D12	290556/11.51	Ratio: 0.905	Diff.: -0.01
		Perylene-D12	239771/13.41	Ratio: 0.918	Diff.: -0.01
					Total Outliers: 0
5336011.d	08/03/12 14:00	1,4-Dichlorobenzene-D4	50457/ 5.11	Ratio: 0.914	Diff.: 0.00
		Naphthalene-D8	241097/ 6.06	Ratio: 0.947	Diff.: 0.00
		Acenaphthalene-D10	147122/ 7.44	Ratio: 0.941	Diff.: 0.00
		Phenanthrene-D10	264226/ 8.72	Ratio: 0.991	Diff.: 0.00
		Chrysene-D12	277544/11.51	Ratio: 0.864	Diff.: -0.01
		Perylene-D12	229691/13.41	Ratio: 0.879	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5336013.d	08/03/12 14:23	1,4-Dichlorobenzene-D4	49834/ 5.12	Ratio: 0.903	Diff.: 0.01
		Naphthalene-D8	240242/ 6.07	Ratio: 0.944	Diff.: 0.01
		Acenaphthalene-D10	145923/ 7.45	Ratio: 0.933	Diff.: 0.01
		Phenanthrene-D10	262225/ 8.74	Ratio: 0.983	Diff.: 0.02
		Chrysene-D12	283055/11.52	Ratio: 0.881	Diff.: 0.00
		Perylene-D12	235438/13.43	Ratio: 0.901	Diff.: 0.01
					Total Outliers: 0
5340103.d	08/03/12 14:45	1,4-Dichlorobenzene-D4	50391/ 5.11	Ratio: 0.913	Diff.: 0.00
		Naphthalene-D8	237839/ 6.06	Ratio: 0.934	Diff.: 0.00
		Acenaphthalene-D10	143105/ 7.44	Ratio: 0.915	Diff.: 0.00
		Phenanthrene-D10	251882/ 8.72	Ratio: 0.945	Diff.: 0.00
		Chrysene-D12	265413/11.51	Ratio: 0.826	Diff.: -0.01
		Perylene-D12	223436/13.41	Ratio: 0.855	Diff.: -0.01
					Total Outliers: 0
5340104.d	08/03/12 15:08	1,4-Dichlorobenzene-D4	57078/ 5.11	Ratio: 1.034	Diff.: 0.00
		Naphthalene-D8	267853/ 6.06	Ratio: 1.052	Diff.: 0.00
		Acenaphthalene-D10	162758/ 7.44	Ratio: 1.041	Diff.: 0.00
		Phenanthrene-D10	289925/ 8.72	Ratio: 1.087	Diff.: 0.00
		Chrysene-D12	311459/11.51	Ratio: 0.970	Diff.: -0.01
		Perylene-D12	261057/13.41	Ratio: 0.999	Diff.: -0.01
					Total Outliers: 0
5340105.d	08/03/12 15:31	1,4-Dichlorobenzene-D4	52163/ 5.12	Ratio: 0.945	Diff.: 0.01
		Naphthalene-D8	244990/ 6.07	Ratio: 0.962	Diff.: 0.01
		Acenaphthalene-D10	145426/ 7.45	Ratio: 0.930	Diff.: 0.01
		Phenanthrene-D10	260709/ 8.74	Ratio: 0.978	Diff.: 0.02
		Chrysene-D12	270989/11.52	Ratio: 0.844	Diff.: 0.00
		Perylene-D12	227210/13.43	Ratio: 0.870	Diff.: 0.01
					Total Outliers: 0
5340108.d	08/03/12 15:53	1,4-Dichlorobenzene-D4	49251/ 5.11	Ratio: 0.892	Diff.: 0.00
		Naphthalene-D8	233888/ 6.06	Ratio: 0.919	Diff.: 0.00
		Acenaphthalene-D10	138552/ 7.44	Ratio: 0.886	Diff.: 0.00
		Phenanthrene-D10	245047/ 8.72	Ratio: 0.919	Diff.: 0.00
		Chrysene-D12	259274/11.51	Ratio: 0.807	Diff.: -0.01
		Perylene-D12	213542/13.41	Ratio: 0.817	Diff.: -0.01
					Total Outliers: 0
5340109.d	08/03/12 16:16	1,4-Dichlorobenzene-D4	48625/ 5.11	Ratio: 0.881	Diff.: 0.00
		Naphthalene-D8	229550/ 6.06	Ratio: 0.902	Diff.: 0.00
		Acenaphthalene-D10	137360/ 7.44	Ratio: 0.878	Diff.: 0.00
		Phenanthrene-D10	241324/ 8.72	Ratio: 0.905	Diff.: 0.00
		Chrysene-D12	243995/11.51	Ratio: 0.760	Diff.: -0.01
		Perylene-D12	202744/13.41	Ratio: 0.776	Diff.: -0.01
					Total Outliers: 0
5340110.d	08/03/12 16:39	1,4-Dichlorobenzene-D4	46300/ 5.12	Ratio: 0.839	Diff.: 0.01
		Naphthalene-D8	220955/ 6.07	Ratio: 0.868	Diff.: 0.01
		Acenaphthalene-D10	135454/ 7.44	Ratio: 0.866	Diff.: 0.00
		Phenanthrene-D10	243342/ 8.74	Ratio: 0.912	Diff.: 0.02
		Chrysene-D12	258383/11.52	Ratio: 0.804	Diff.: 0.00
		Perylene-D12	214051/13.43	Ratio: 0.819	Diff.: 0.01
					Total Outliers: 0
5340111.d	08/03/12 17:01	1,4-Dichlorobenzene-D4	49386/ 5.11	Ratio: 0.895	Diff.: 0.00
		Naphthalene-D8	234465/ 6.06	Ratio: 0.921	Diff.: 0.00
		Acenaphthalene-D10	139940/ 7.43	Ratio: 0.895	Diff.: -0.01
		Phenanthrene-D10	250309/ 8.72	Ratio: 0.939	Diff.: 0.00
		Chrysene-D12	260183/11.51	Ratio: 0.810	Diff.: -0.01
		Perylene-D12	217926/13.41	Ratio: 0.834	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5336002.d	08/03/12 17:24	1,4-Dichlorobenzene-D4	53894/ 5.11	Ratio: 0.976	Diff.: 0.00
		Naphthalene-D8	268673/ 6.06	Ratio: 1.056	Diff.: 0.00
		Acenaphthalene-D10	166147/ 7.44	Ratio: 1.062	Diff.: 0.00
		Phenanthrene-D10	314044/ 8.72	Ratio: 1.178	Diff.: 0.00
		Chrysene-D12	348595/11.51	Ratio: 1.085	Diff.: -0.01
		Perylene-D12	277086/13.42	Ratio: 1.060	Diff.: 0.00
					Total Outliers: 0
5340106.d	08/03/12 17:47	1,4-Dichlorobenzene-D4	54997/ 5.11	Ratio: 0.996	Diff.: 0.00
		Naphthalene-D8	266089/ 6.06	Ratio: 1.045	Diff.: 0.00
		Acenaphthalene-D10	161313/ 7.44	Ratio: 1.032	Diff.: 0.00
		Phenanthrene-D10	296570/ 8.72	Ratio: 1.112	Diff.: 0.00
		Chrysene-D12	323202/11.51	Ratio: 1.006	Diff.: -0.01
		Perylene-D12	263082/13.41	Ratio: 1.007	Diff.: -0.01
					Total Outliers: 0
5340107.d	08/03/12 18:09	1,4-Dichlorobenzene-D4	51626/ 5.11	Ratio: 0.935	Diff.: 0.00
		Naphthalene-D8	244009/ 6.06	Ratio: 0.959	Diff.: 0.00
		Acenaphthalene-D10	151167/ 7.43	Ratio: 0.967	Diff.: -0.01
		Phenanthrene-D10	273086/ 8.72	Ratio: 1.024	Diff.: 0.00
		Chrysene-D12	303274/11.51	Ratio: 0.944	Diff.: -0.01
		Perylene-D12	243154/13.42	Ratio: 0.931	Diff.: 0.00
					Total Outliers: 0
5336003.d	08/03/12 18:32	1,4-Dichlorobenzene-D4	63055/ 5.12	Ratio: 1.142	Diff.: 0.01
		Naphthalene-D8	298160/ 6.07	Ratio: 1.171	Diff.: 0.01
		Acenaphthalene-D10	182603/ 7.44	Ratio: 1.168	Diff.: 0.00
		Phenanthrene-D10	329343/ 8.74	Ratio: 1.235	Diff.: 0.02
		Chrysene-D12	376899/11.52	Ratio: 1.173	Diff.: 0.00
		Perylene-D12	295963/13.44	Ratio: 1.133	Diff.: 0.02
					Total Outliers: 0
5336004.d	08/03/12 18:54	1,4-Dichlorobenzene-D4	57144/ 5.11	Ratio: 1.035	Diff.: 0.00
		Naphthalene-D8	274458/ 6.06	Ratio: 1.078	Diff.: 0.00
		Acenaphthalene-D10	170782/ 7.44	Ratio: 1.092	Diff.: 0.00
		Phenanthrene-D10	303214/ 8.72	Ratio: 1.137	Diff.: 0.00
		Chrysene-D12	355559/11.51	Ratio: 1.107	Diff.: -0.01
		Perylene-D12	253322/13.43	Ratio: 0.970	Diff.: 0.01
					Total Outliers: 0
5336005m.d	08/03/12 19:17	1,4-Dichlorobenzene-D4	55550/ 5.11	Ratio: 1.006	Diff.: 0.00
		Naphthalene-D8	264992/ 6.06	Ratio: 1.041	Diff.: 0.00
		Acenaphthalene-D10	166941/ 7.43	Ratio: 1.068	Diff.: -0.01
		Phenanthrene-D10	294351/ 8.72	Ratio: 1.104	Diff.: 0.00
		Chrysene-D12	339720/11.51	Ratio: 1.058	Diff.: -0.01
		Perylene-D12	238032/13.43	Ratio: 0.911	Diff.: 0.01
					Total Outliers: 0
5336006n.d	08/03/12 19:40	1,4-Dichlorobenzene-D4	56326/ 5.11	Ratio: 1.020	Diff.: 0.00
		Naphthalene-D8	271255/ 6.06	Ratio: 1.066	Diff.: 0.00
		Acenaphthalene-D10	167362/ 7.43	Ratio: 1.070	Diff.: -0.01
		Phenanthrene-D10	297098/ 8.72	Ratio: 1.114	Diff.: 0.00
		Chrysene-D12	342420/11.51	Ratio: 1.066	Diff.: -0.01
		Perylene-D12	226713/13.42	Ratio: 0.868	Diff.: 0.00
					Total Outliers: 0
5340102.d	08/03/12 20:02	1,4-Dichlorobenzene-D4	56830/ 5.11	Ratio: 1.029	Diff.: 0.00
		Naphthalene-D8	272099/ 6.06	Ratio: 1.069	Diff.: 0.00
		Acenaphthalene-D10	171387/ 7.43	Ratio: 1.096	Diff.: -0.01
		Phenanthrene-D10	300911/ 8.72	Ratio: 1.128	Diff.: 0.00
		Chrysene-D12	315130/11.51	Ratio: 0.981	Diff.: -0.01
		Perylene-D12	248586/13.41	Ratio: 0.951	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5336012.d	08/03/12 20:25	1,4-Dichlorobenzene-D4	60451/ 5.12	Ratio: 1.095	Diff.: 0.01
		Naphthalene-D8	291243/ 6.07	Ratio: 1.144	Diff.: 0.01
		Acenaphthalene-D10	178812/ 7.45	Ratio: 1.143	Diff.: 0.01
		Phenanthrene-D10	311043/ 8.74	Ratio: 1.166	Diff.: 0.02
		Chrysene-D12	330547/11.52	Ratio: 1.029	Diff.: 0.00
		Perylene-D12	246996/13.43	Ratio: 0.945	Diff.: 0.01
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.02
Data File: 5336002.d
Date Received: 07/27/12

Tag: SB120 (07-26-12) (4-6)
Notes: pna-s 30g/1ml df:15
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 15

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	81	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (49%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (53%)					
98904-43-9	Terphenyl-D14	Pass (57%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.03
Data File: 5336003.d
Date Received: 07/27/12

Tag: SB169 (07-26-12) (1.5-3.5)
Notes: pna-s 30g/1ml df:20
sd/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 20

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	400		ug/kg	08/03/12	X
208-96-8	Acenaphthylene	Not detected	400		ug/kg		X
120-12-7	Anthracene	Not detected	400		ug/kg		X
56-55-3	Benzo(a)anthracene	Not detected	400		ug/kg		X
50-32-8	Benzo(a)pyrene	Not detected	400		ug/kg		X
205-99-2	Benzo(b)fluoranthene	Not detected	400		ug/kg		X
207-08-9	Benzo(k)fluoranthene	Not detected	400		ug/kg		X
191-24-2	Benzo(ghi)perylene	Not detected	400		ug/kg		X
218-01-9	Chrysene	Not detected	400		ug/kg		X
53-70-3	Dibenzo(ah)anthracene	Not detected	400		ug/kg		X
206-44-0	Fluoranthene	Not detected	400		ug/kg		X
86-73-7	Fluorene	Not detected	400		ug/kg		X
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	400		ug/kg		X
91-20-3	Naphthalene	Not detected	400		ug/kg		X
85-01-8	Phenanthrene	Not detected	400		ug/kg		X
129-00-0	Pyrene	Not detected	400		ug/kg		X
91-57-6	2-Methylnaphthalene	Not detected	400		ug/kg		X
90-12-0	1-Methylnaphthalene	Not detected	400		ug/kg		X
Total Solids							
TSOLIDS	Total Solids	89	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (52%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (53%)					
98904-43-9	Terphenyl-D14	Pass (56%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.04
Data File: 5336004.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5)
Notes: pna-s 30g/2ml df:40
sd/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 40

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	1400		ug/kg	08/03/12	X
208-96-8	Acenaphthylene	Not detected	1400		ug/kg		X
120-12-7	Anthracene	Not detected	1400		ug/kg		X
56-55-3	Benzo(a)anthracene	Not detected	1400		ug/kg		X
50-32-8	Benzo(a)pyrene	Not detected	1400		ug/kg		X
205-99-2	Benzo(b)fluoranthene	Not detected	1400		ug/kg		X
207-08-9	Benzo(k)fluoranthene	Not detected	1400		ug/kg		X
191-24-2	Benzo(ghi)perylene	Not detected	1400		ug/kg		X
218-01-9	Chrysene	Not detected	1400		ug/kg		X
53-70-3	Dibenzo(ah)anthracene	Not detected	1400		ug/kg		X
206-44-0	Fluoranthene	Not detected	1400		ug/kg		X
86-73-7	Fluorene	Not detected	1400		ug/kg		X
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	1400		ug/kg		X
91-20-3	Naphthalene	Not detected	1400		ug/kg		X
85-01-8	Phenanthrene	Not detected	1400		ug/kg		X
129-00-0	Pyrene	Not detected	1400		ug/kg		X
91-57-6	2-Methylnaphthalene	Not detected	1400		ug/kg		X
90-12-0	1-Methylnaphthalene	Not detected	1400		ug/kg		X
Total Solids							
TSOLIDS	Total Solids	92	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (76%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (81%)					
98904-43-9	Terphenyl-D14	Pass (93%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.05
Data File: 5336005m.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MS
Notes: pna-s 30g/2ml df:40
sd/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 40

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	1500		ug/kg	08/03/12	X*
208-96-8	Acenaphthylene	Not detected	1500		ug/kg		X*
120-12-7	Anthracene	Not detected	1500		ug/kg		X*
56-55-3	Benzo(a)anthracene	Not detected	1500		ug/kg		X*
50-32-8	Benzo(a)pyrene	2000	1500		ug/kg		X*
205-99-2	Benzo(b)fluoranthene	2100	1500		ug/kg		X*
207-08-9	Benzo(k)fluoranthene	1900	1500		ug/kg		X*
191-24-2	Benzo(ghi)perylene	Not detected	1500		ug/kg		X*
218-01-9	Chrysene	Not detected	1500		ug/kg		X*
53-70-3	Dibenzo(ah)anthracene	Not detected	1500		ug/kg		X*
206-44-0	Fluoranthene	Not detected	1500		ug/kg		X*
86-73-7	Fluorene	Not detected	1500		ug/kg		X*
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	1500		ug/kg		X*
91-20-3	Naphthalene	Not detected	1500		ug/kg		X*
85-01-8	Phenanthrene	Not detected	1500		ug/kg		X*
129-00-0	Pyrene	1600	1500		ug/kg		X*
91-57-6	2-Methylnaphthalene	Not detected	1500		ug/kg		X*
90-12-0	1-Methylnaphthalene	Not detected	1500		ug/kg		X*
Total Solids							
TSOLIDS	Total Solids	91	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (70%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (71%)					
98904-43-9	Terphenyl-D14	Pass (79%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.06
Data File: 5336006n.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MSD
Notes: pna-s 30g/2ml df:40
sd/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 40

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	1600	1500		ug/kg	08/03/12	X*
208-96-8	Acenaphthylene	1500	1500		ug/kg		X*
120-12-7	Anthracene	1600	1500		ug/kg		X*
56-55-3	Benzo(a)anthracene	2100	1500		ug/kg		X*
50-32-8	Benzo(a)pyrene	2200	1500		ug/kg		X*
205-99-2	Benzo(b)fluoranthene	2300	1500		ug/kg		X*
207-08-9	Benzo(k)fluoranthene	2200	1500		ug/kg		X*
191-24-2	Benzo(ghi)perylene	Not detected	1500		ug/kg		X*
218-01-9	Chrysene	1800	1500		ug/kg		X*
53-70-3	Dibenzo(ah)anthracene	Not detected	1500		ug/kg		X*
206-44-0	Fluoranthene	1800	1500		ug/kg		X*
86-73-7	Fluorene	Not detected	1500		ug/kg		X*
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	1500		ug/kg		X*
91-20-3	Naphthalene	1500	1500		ug/kg		X*
85-01-8	Phenanthrene	1600	1500		ug/kg		X*
129-00-0	Pyrene	2000	1500		ug/kg		X*
91-57-6	2-Methylnaphthalene	1600	1500		ug/kg		X*
90-12-0	1-Methylnaphthalene	Not detected	1500		ug/kg		X*
Total Solids							
TSOLIDS	Total Solids	91	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (85%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (87%)					
98904-43-9	Terphenyl-D14	Pass (94%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.07
Data File: 5336007.d
Date Received: 07/27/12

Tag: SB144 (07-26-12) (7.5-9.5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	87	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (63%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (73%)					
98904-43-9	Terphenyl-D14	Pass (75%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.08
Data File: 5336008.d
Date Received: 07/27/12

Tag: SB145 (07-27-12) (2-4)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	89	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (54%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (59%)					
98904-43-9	Terphenyl-D14	Pass (60%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.09
Data File: 5336009.d
Date Received: 07/27/12

Tag: SB145 (07-27-12) (6-8)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	82	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (60%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (67%)					
98904-43-9	Terphenyl-D14	Pass (70%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.10
Data File: 5336010.d
Date Received: 07/27/12

Tag: SB106 (07-27-12) (8-10)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	89	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (53%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (53%)					
98904-43-9	Terphenyl-D14	Pass (60%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.11
Data File: 5336011.d
Date Received: 07/27/12

Tag: SB106 (07-27-12) (32-34)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	83	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (73%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (78%)					
98904-43-9	Terphenyl-D14	Pass (78%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.12
Data File: 5336012.d
Date Received: 07/27/12

Tag: SB100 (07-27-12) (2-4)
Notes: pna-s 30g/1ml df:10
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 10

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	600	300		ug/kg		
56-55-3	Benzo(a)anthracene	2500	300		ug/kg		
50-32-8	Benzo(a)pyrene	3400	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	5300	300		ug/kg		p
207-08-9	Benzo(k)fluoranthene	5800	300		ug/kg		p
191-24-2	Benzo(ghi)perylene	1900	300		ug/kg		
218-01-9	Chrysene	2600	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	500	300		ug/kg		
206-44-0	Fluoranthene	5000	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	1600	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	2600	300		ug/kg		
129-00-0	Pyrene	4700	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (62%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (67%)					
98904-43-9	Terphenyl-D14	Pass (66%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53360.13
Data File: 5336013.d
Date Received: 07/27/12

Tag: SB101 (07-27-12) (2.5-4.5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	90	1		%	07/31/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (59%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (64%)					
98904-43-9	Terphenyl-D14	Pass (65%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
Analytical Batch: t120803.2
GC Column: DB-5/L:30m/D:0.25mm

Note/Qualifier Key

A:	TIC is a suspected aldol-condensation product
B:	Compound also found in associated method blank
C:	Analyte presence confirmed by GC/MS
D:	Identified in an analysis at a secondary dilution factor
E:	Concentration exceeds calibration range
J:	Estimated value less than reporting limit, but greater than MDL
N:	Presumptive evidence of TIC
P:	Pesticide/Aroclor 2-column RPD exceeds limit
U:	Analyte not detected above reporting limit
!:	Result is outside of stated limit criteria
F:	Analysis run outside of holding time
G:	Estimated result due to extraction run outside of holding time
H:	Sample submitted and run outside of holding time
I:	Matrix interference with internal standard
K:	Elevated reporting limit due to low total solids
L:	Elevated reporting limit due to low sample amount
M:	Result reported to MDL not RDL
O:	Analysis performed by outside laboratory. See attached report.
Q:	Reported result represents most abundant aroclor
R:	Preliminary result
S:	Surrogate recovery outside of control limits
T:	No correction for total solids
V:	Accurate value not available due to presence of multiple aroclors
W:	Surrogate result not applicable due to sample dilution
X:	Elevated reporting limit due to matrix interference
Y:	Elevated reporting limit due to high target concentration
Z:	Estimated result due to matrix interference
p:	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*:	Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336002.d Vial: 5
Acq On : 3 Aug 12 5:24 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:09 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

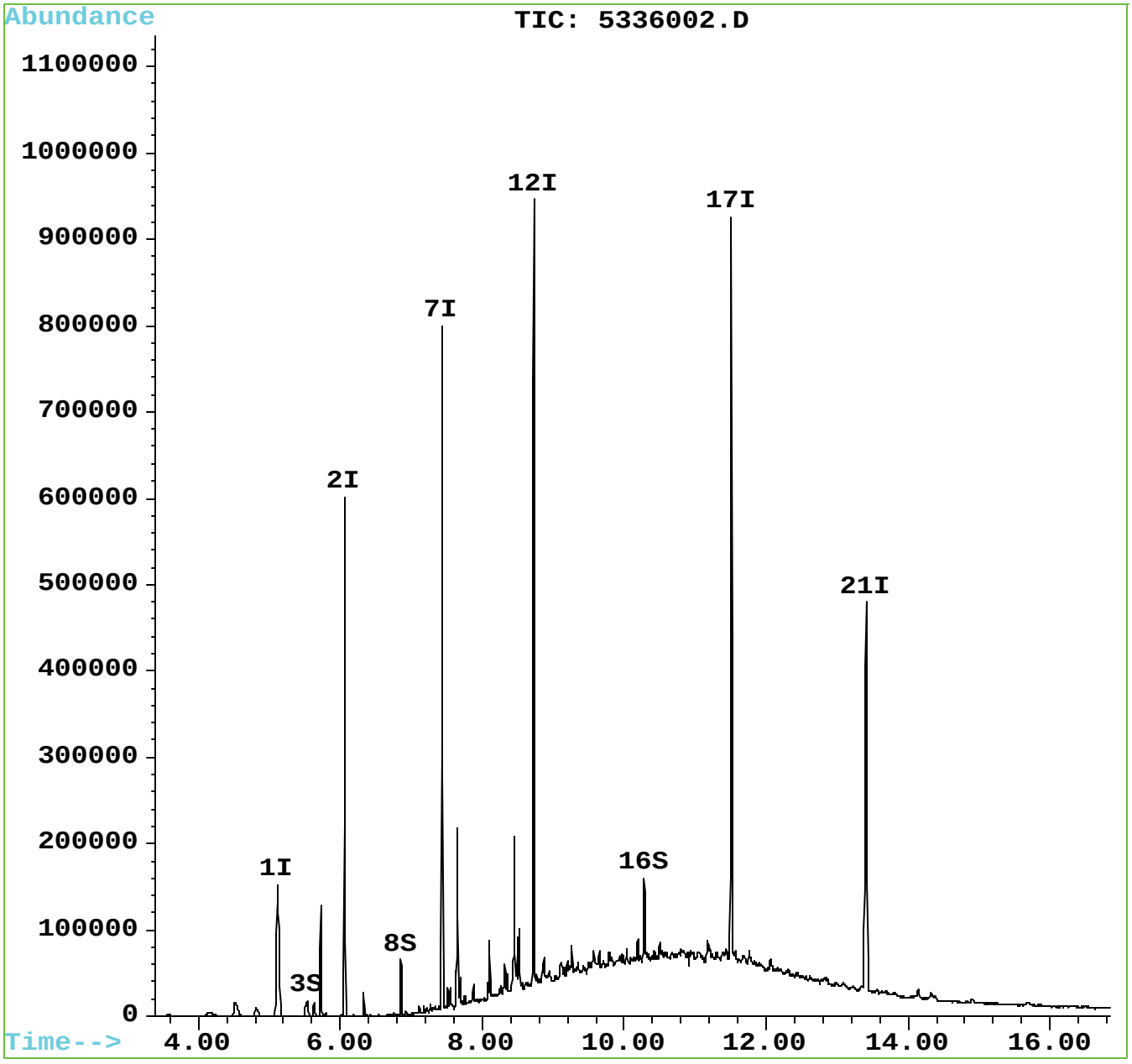
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	53894	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	268673	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	166147	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	314044	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	348595	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	277086	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	7076	3.52	ng/ul	3.5
8) 2-Fluorobiphenyl	6.85	172	16623	3.27	ng/ul	3.2
16) Terphenyl-D14	10.28	244	25458	3.82	ng/ul	3.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336002.d Vial: 5
Acq On : 3 Aug 12 5:24 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:09 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336003.d Vial: 6
Acq On : 3 Aug 12 6:32 pm Operator: PL
Sample : pna-s 30g/1ml df:20 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:10 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

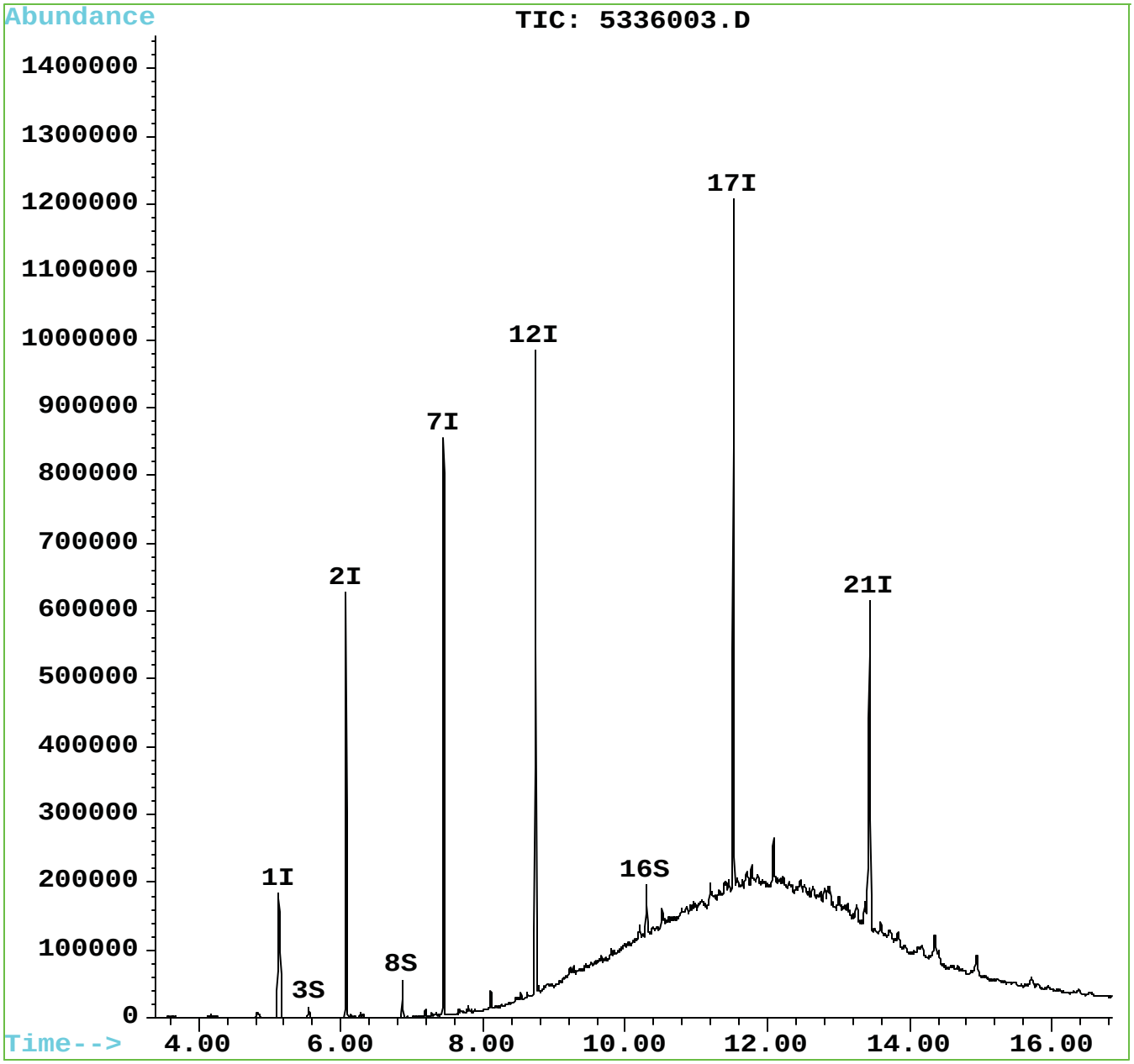
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	63055	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	298160	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.44	164	182603	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.74	188	329343	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	376899	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.44	264	295963	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	5901	2.65	ng/ul	2.6
8) 2-Fluorobiphenyl	6.86	172	14449	2.58	ng/ul	2.5
16) Terphenyl-D14	10.30	244	19632	2.81	ng/ul	2.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336003.d Vial: 6
Acq On : 3 Aug 12 6:32 pm Operator: PL
Sample : pna-s 30g/1ml df:20 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:10 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336004.d Vial: 7
Acq On : 3 Aug 12 6:54 pm Operator: PL
Sample : pna-s 30g/2ml df:40 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:11 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

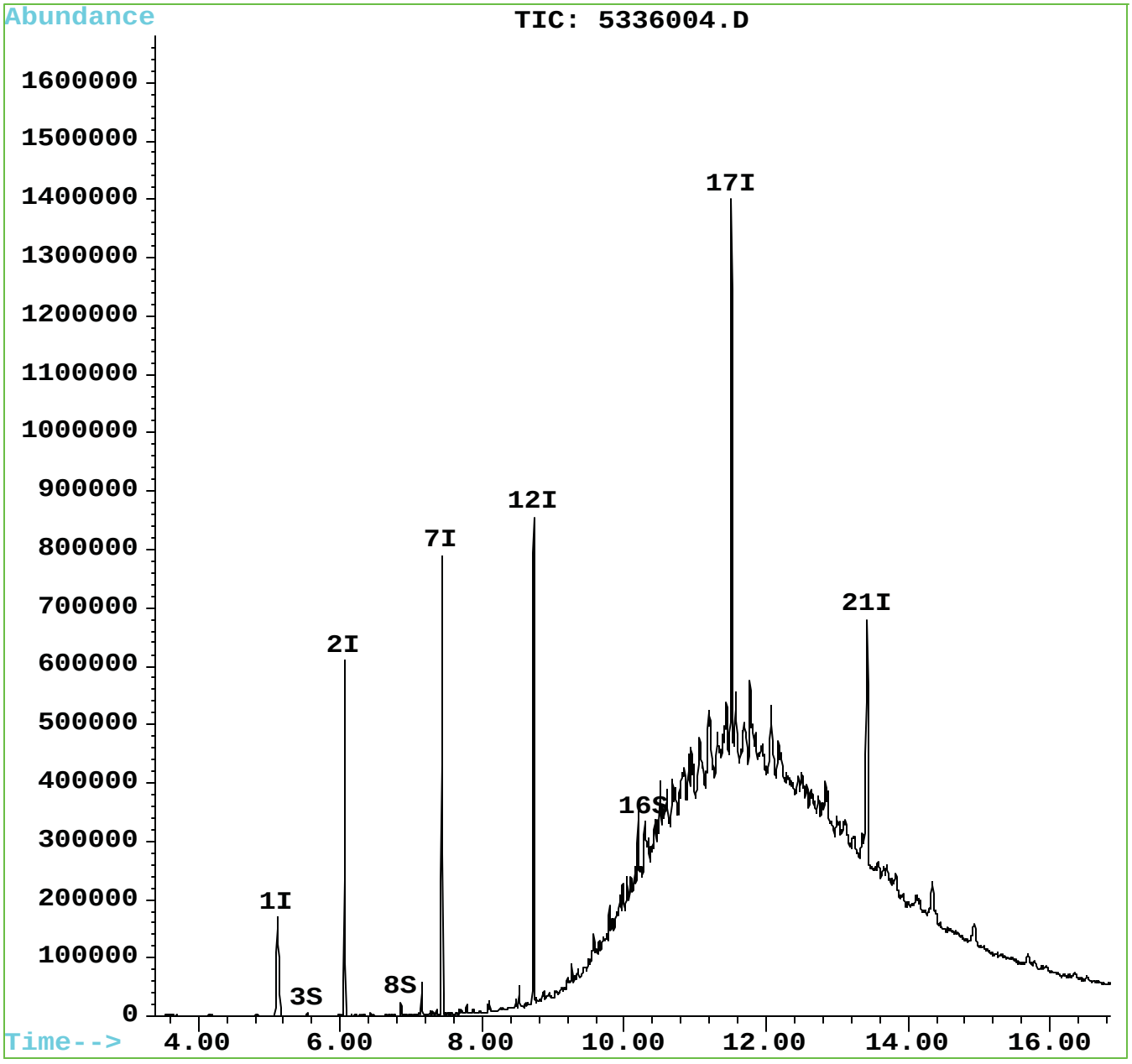
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	57144	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	274458	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	170782	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	303214	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	355559	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	253322	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	2078	1.01	ng/ul	1.0
8) 2-Fluorobiphenyl	6.85	172	4985	0.95	ng/ul	0.9
16) Terphenyl-D14	10.28	244	7444	1.16	ng/ul	1.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336004.d Vial: 7
Acq On : 3 Aug 12 6:54 pm Operator: PL
Sample : pna-s 30g/2ml df:40 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:11 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336005m.d Vial: 8
Acq On : 3 Aug 12 7:17 pm Operator: PL
Sample : pna-s 30g/2ml df:40 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:12 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

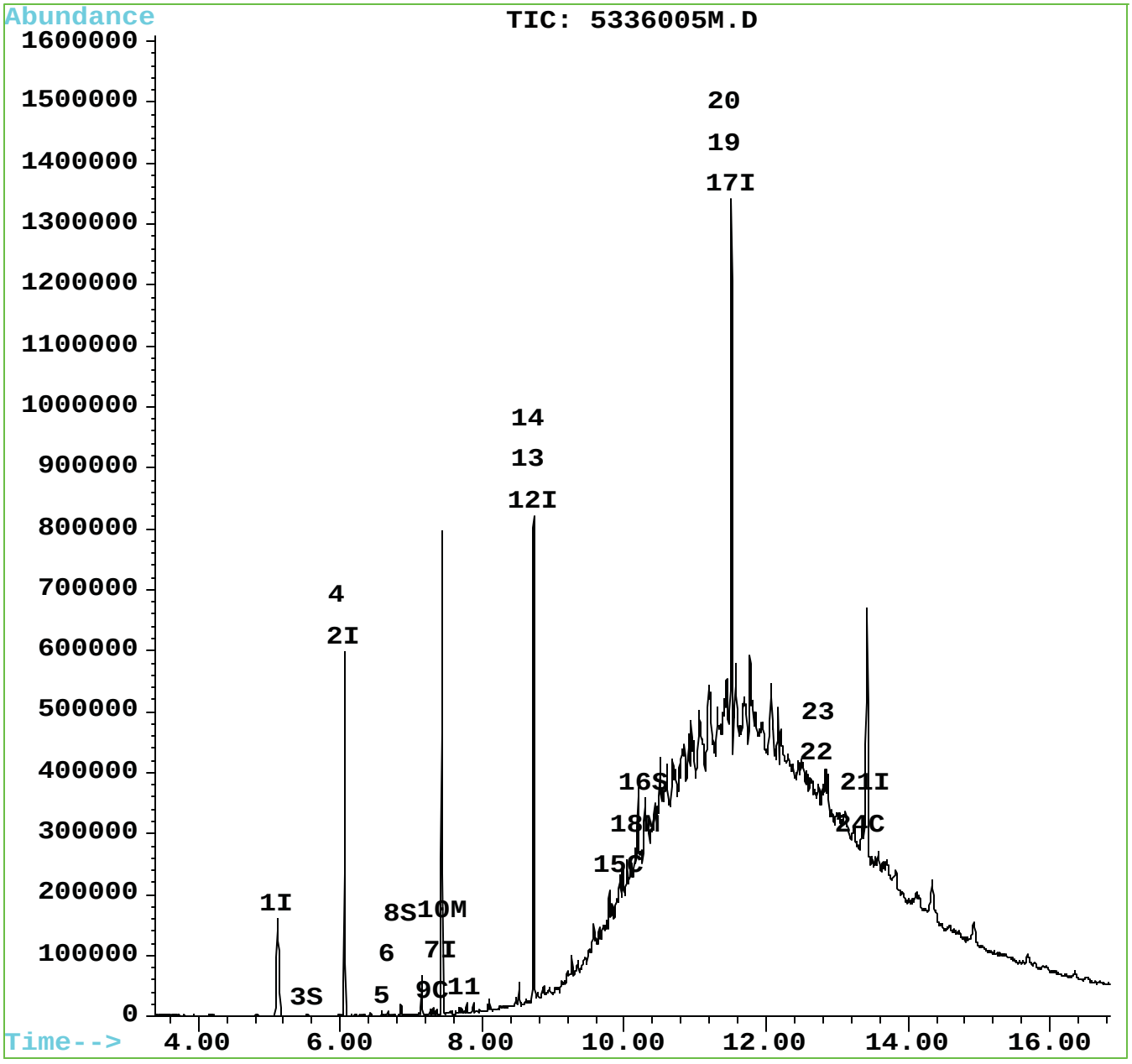
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	55550	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	264992	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.43	164	166941	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	294351	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	339720	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	238032	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	1770	0.89	ng/ul	0.8
8) 2-Fluorobiphenyl	6.85	172	4448	0.87	ng/ul	0.8
16) Terphenyl-D14	10.29	244	6195	0.99	ng/ul	0.9
Target Compounds						Qvalu
4) Naphthalene	6.07	128	2969	0.45	ng/ul	9
5) 2-Methylnaphthalene	6.59	141	1526	0.41	ng/ul	8
6) 1-Methylnaphthalene	6.67	142	1744	0.41	ng/ul	9
9) Acenaphthylene	7.31	152	2782	0.41	ng/ul	9
10) Acenaphthene **	7.46	154	1699	0.42	ng/ul	8
11) Fluorene	7.88	166	2345	0.44	ng/ul	9
13) Phenanthrene	8.78	178	3530	0.46	ng/ul	9
14) Anthracene	8.78	178	3460	0.45	ng/ul	9
15) Fluoranthene	9.92	202	4170	0.48	ng/ul	9
18) Pyrene **	10.17	202	4673	0.56	ng/ul	9
19) Benzo(a)anthracene	11.54	228	3816	0.45	ng/ul	9
20) Chrysene	11.54	228	3826	0.46	ng/ul	9
22) Benzo(b)fluoranthene	12.84	252	4440	0.71	ng/ulm	
23) Benzo(k)fluoranthene	12.86	252	3785	0.66	ng/ulm	
24) Benzo(a)pyrene	13.33	252	3640	0.70	ng/ul	8

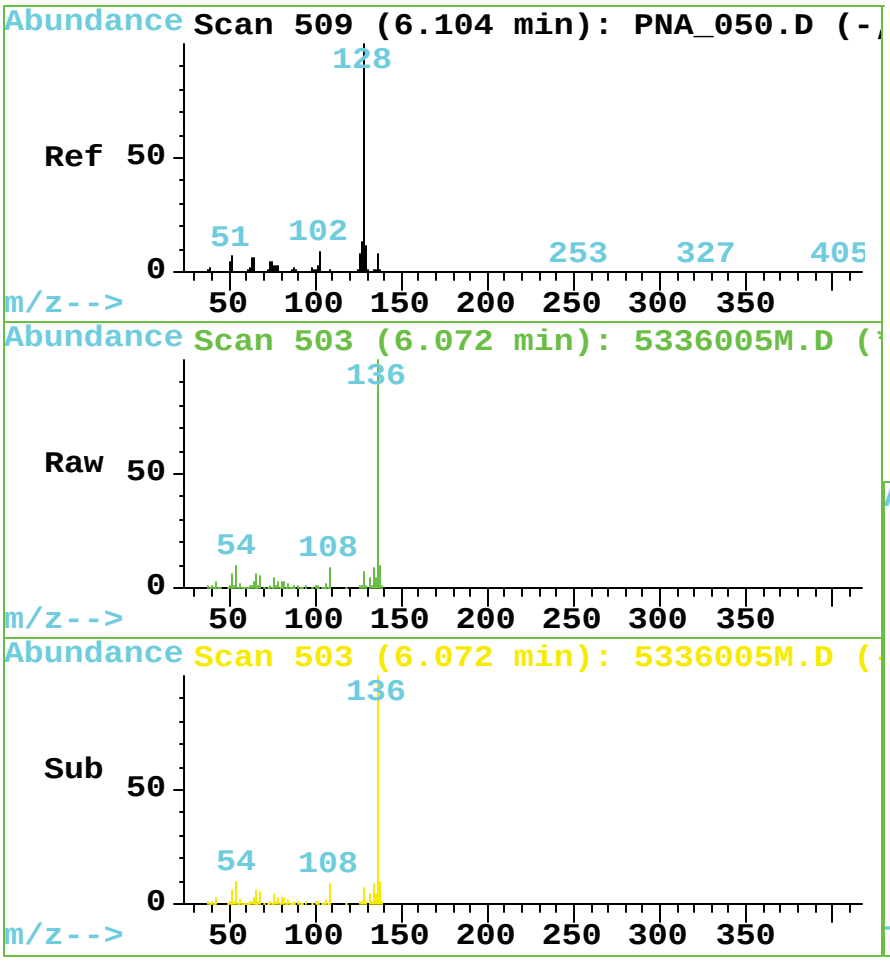
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336005m.d Vial: 8
Acq On : 3 Aug 12 7:17 pm Operator: PL
Sample : pna-s 30g/2ml df:40 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:12 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

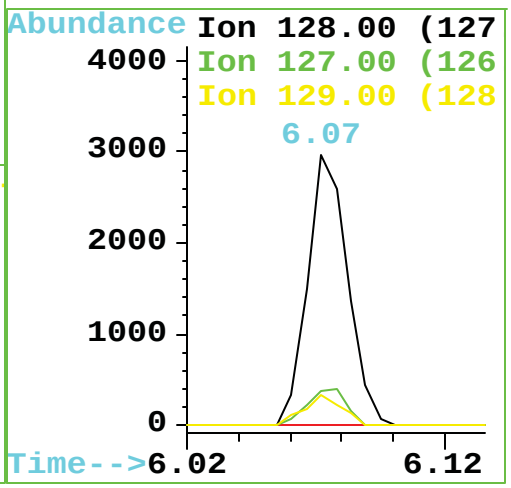


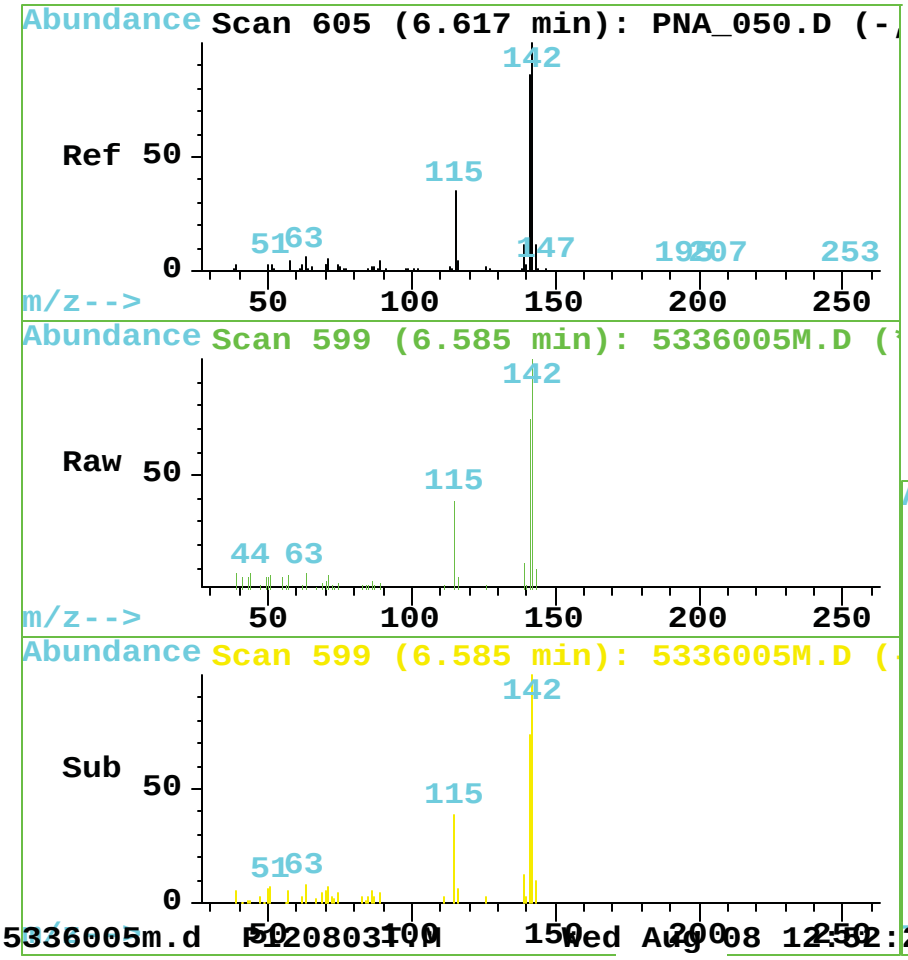


#4
Naphthalene
Concen: 0.45 ng/ul
RT: 6.07 min Scan# 503
Delta R.T. -0.02 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:128 Resp: 2969

Ion	Ratio	Lower	Upper
128	100		
127	12.9	0.0	43.0
129	10.4	0.0	41.1
0	0.0	0.0	0.0

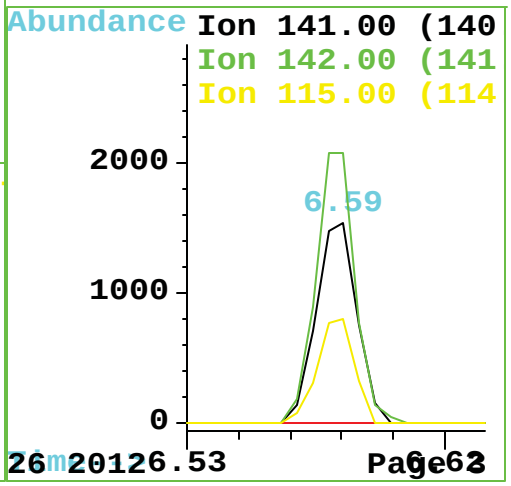


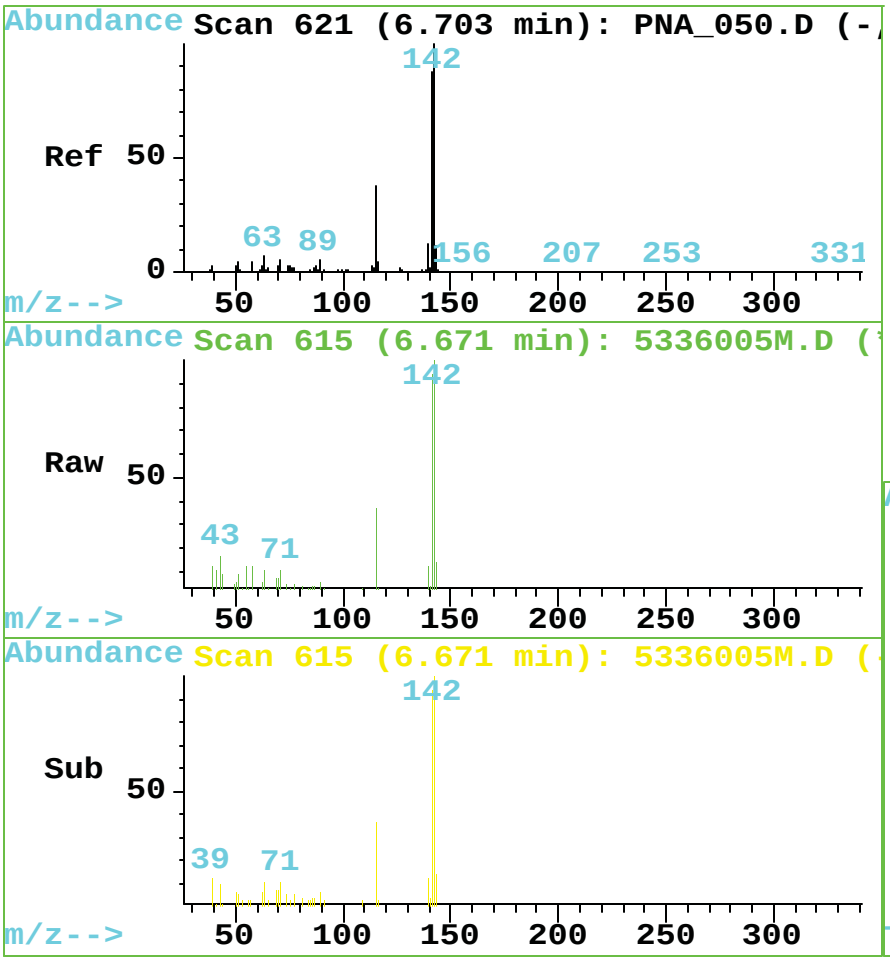


#5
2-Methylnaphthalene
Concen: 0.41 ng/ul
RT: 6.59 min Scan# 599
Delta R.T. -0.01 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:141 Resp: 1526

Ion	Ratio	Lower	Upper
141	100		
142	130.1	82.2	152.5
115	48.3	29.2	54.3
0	0.0	0.0	0.0

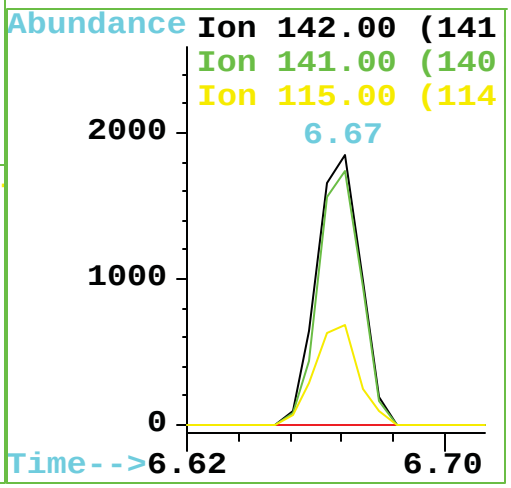


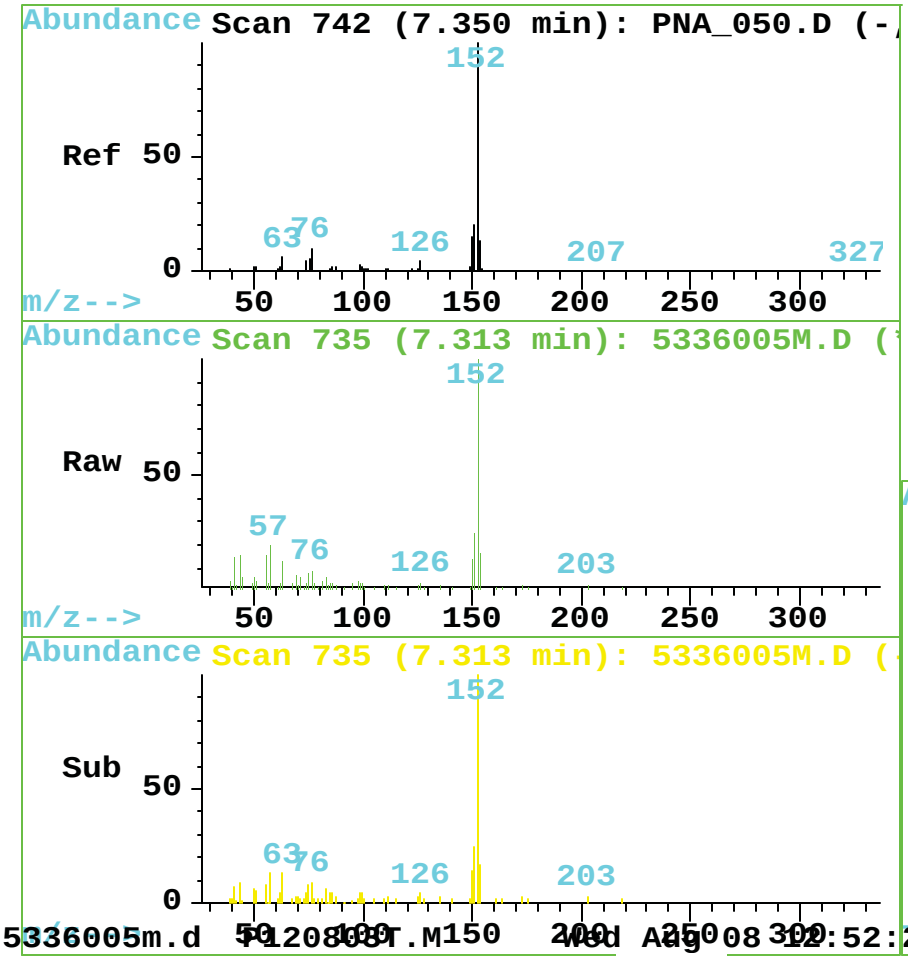


#6
1-Methylnaphthalene
Concen: 0.41 ng/ul
RT: 6.67 min Scan# 615
Delta R.T. -0.01 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:142 Resp: 1744

Ion	Ratio	Lower	Upper
142	100		
141	90.8	70.6	105.9
115	36.8	30.1	45.1
0	0.0	0.0	0.0

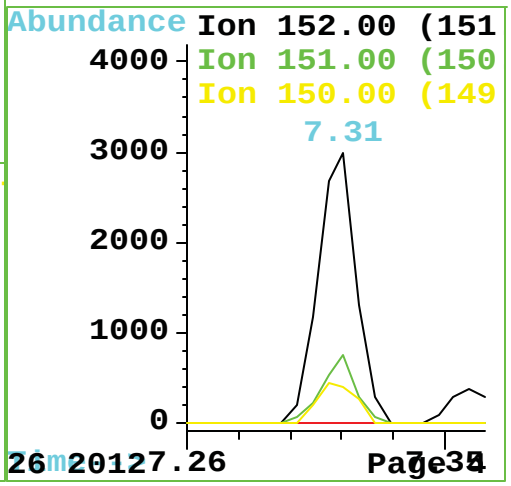


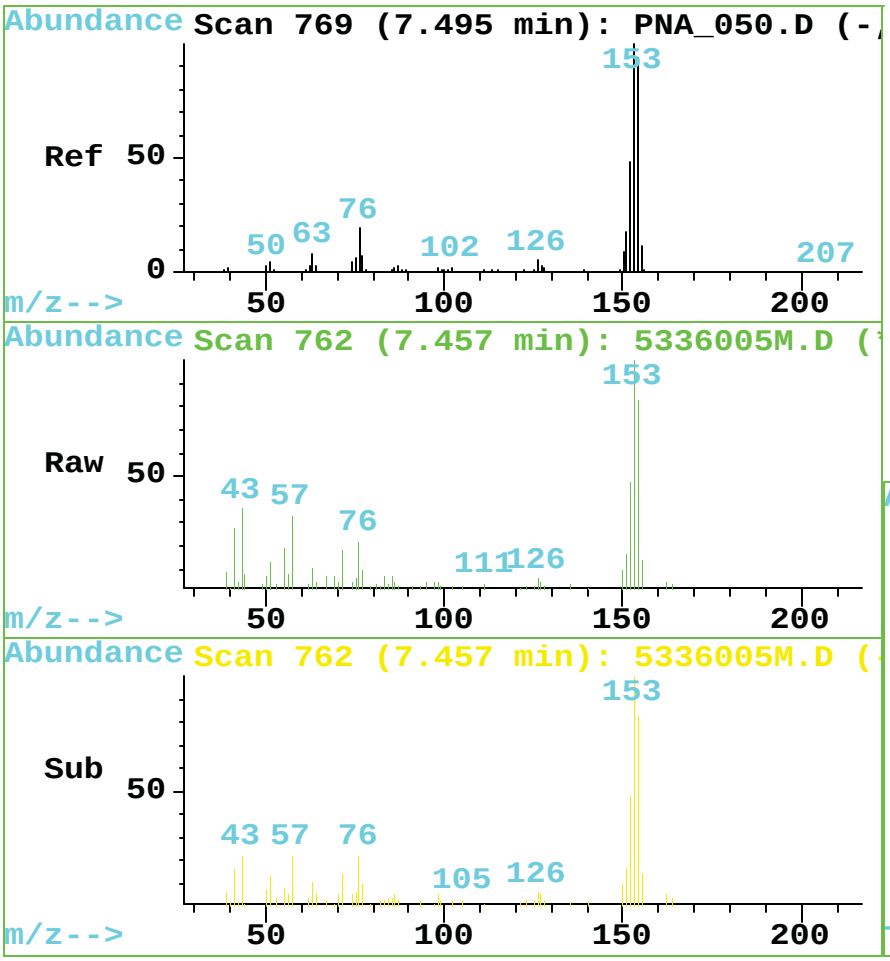


#9
Acenaphthylene
Concen: 0.41 ng/ul
RT: 7.31 min Scan# 735
Delta R.T. -0.02 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:152 Resp: 2782

Ion	Ratio	Lower	Upper
152	100		
151	21.9	0.0	50.1
150	15.2	0.0	44.4
0	0.0	0.0	0.0

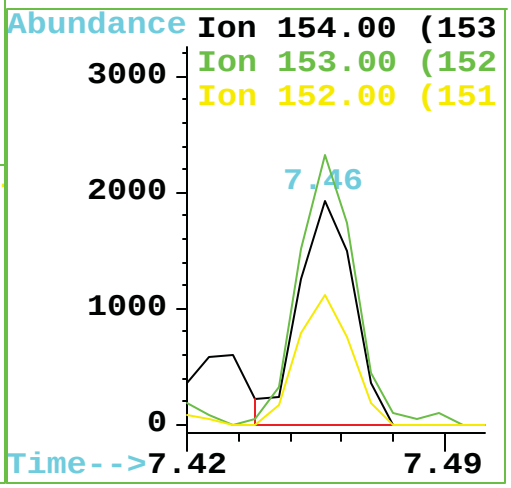


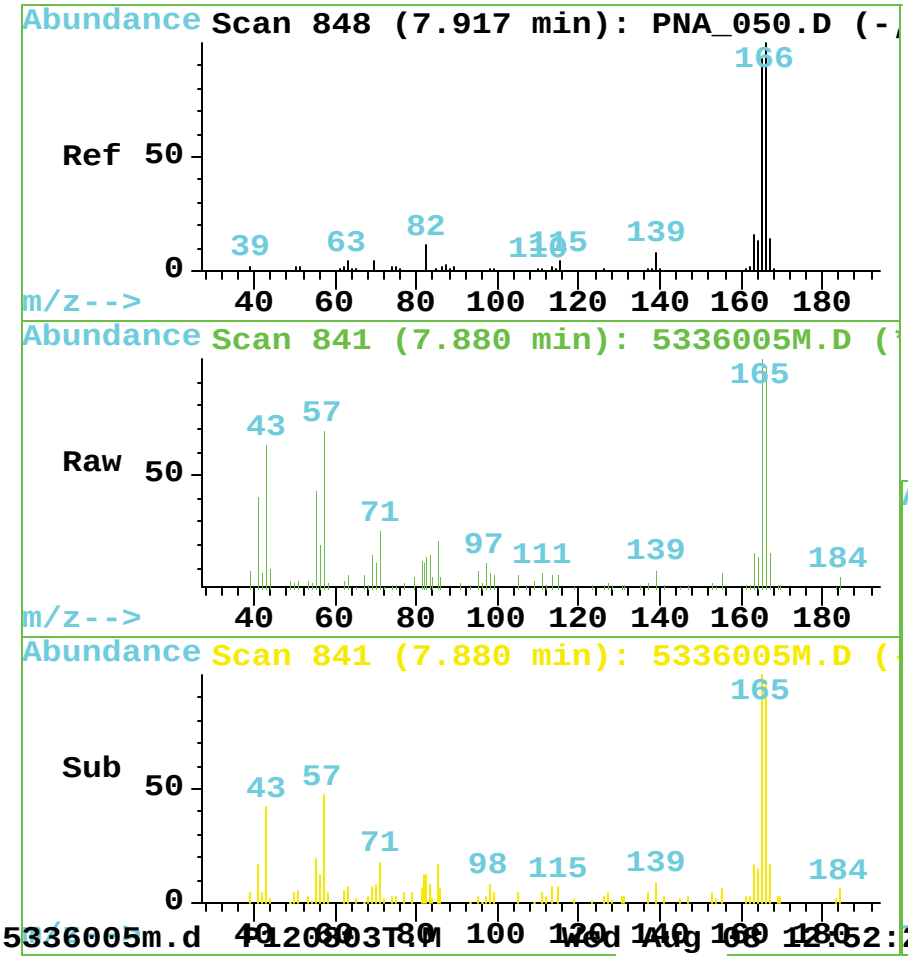


#10
Acenaphthene **
Concen: 0.42 ng/ul
RT: 7.46 min Scan# 762
Delta R.T. -0.02 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:154 Resp: 1699

Ion	Ratio	Lower	Upper
154	100		
153	125.8	76.9	136.9
152	57.0	26.1	76.1
0	0.0	0.0	0.0

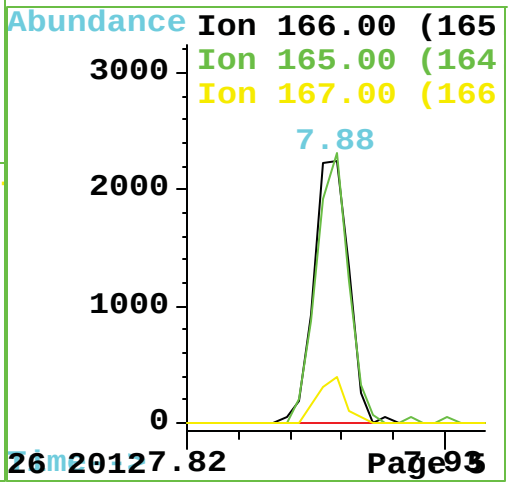


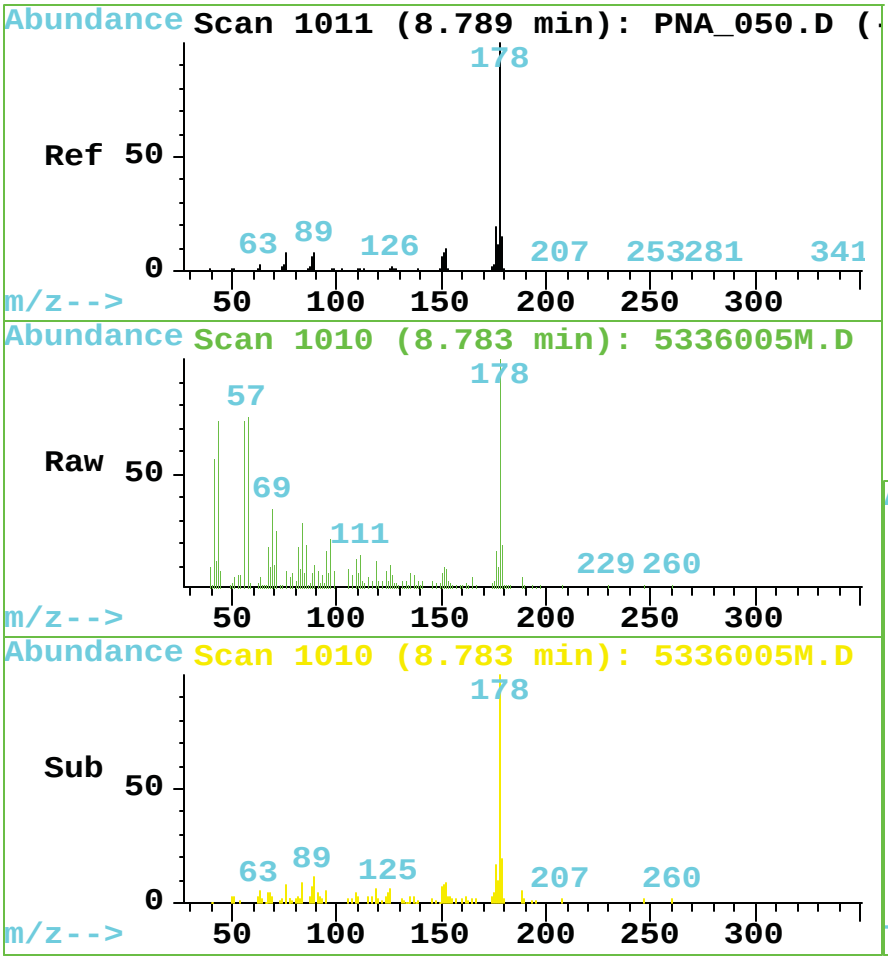


#11
Fluorene
Concen: 0.44 ng/ul
RT: 7.88 min Scan# 841
Delta R.T. -0.02 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:166 Resp: 2345

Ion	Ratio	Lower	Upper
166	100		
165	94.8	63.1	123.1
167	13.9	0.0	43.4
0	0.0	0.0	0.0

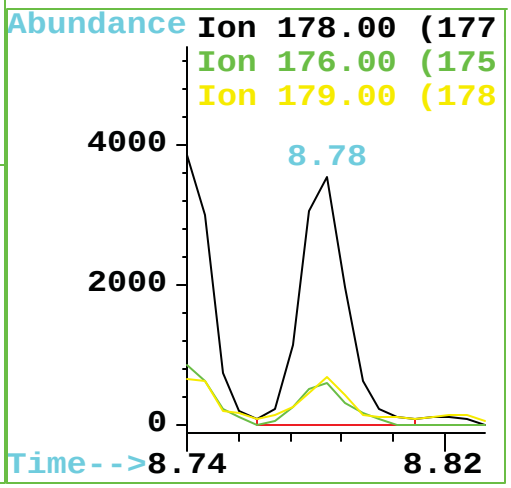


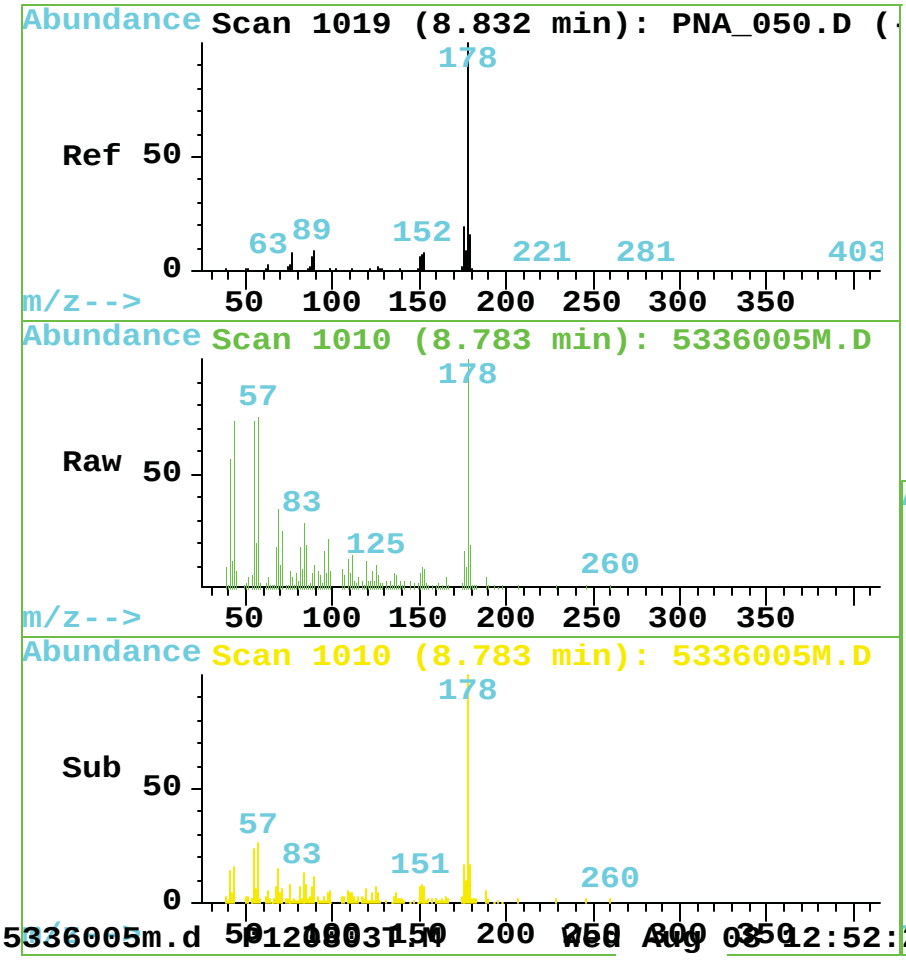


#13
Phenanthrene
Concen: 0.46 ng/ul
RT: 8.78 min Scan# 1010
Delta R.T. 0.02 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:178 Resp: 3530

Ion	Ratio	Lower	Upper
178	100		
176	17.9	0.0	49.3
179	18.6	0.0	45.3
0	0.0	0.0	0.0

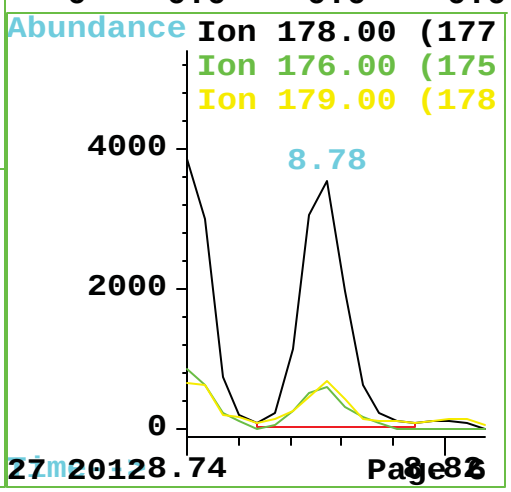


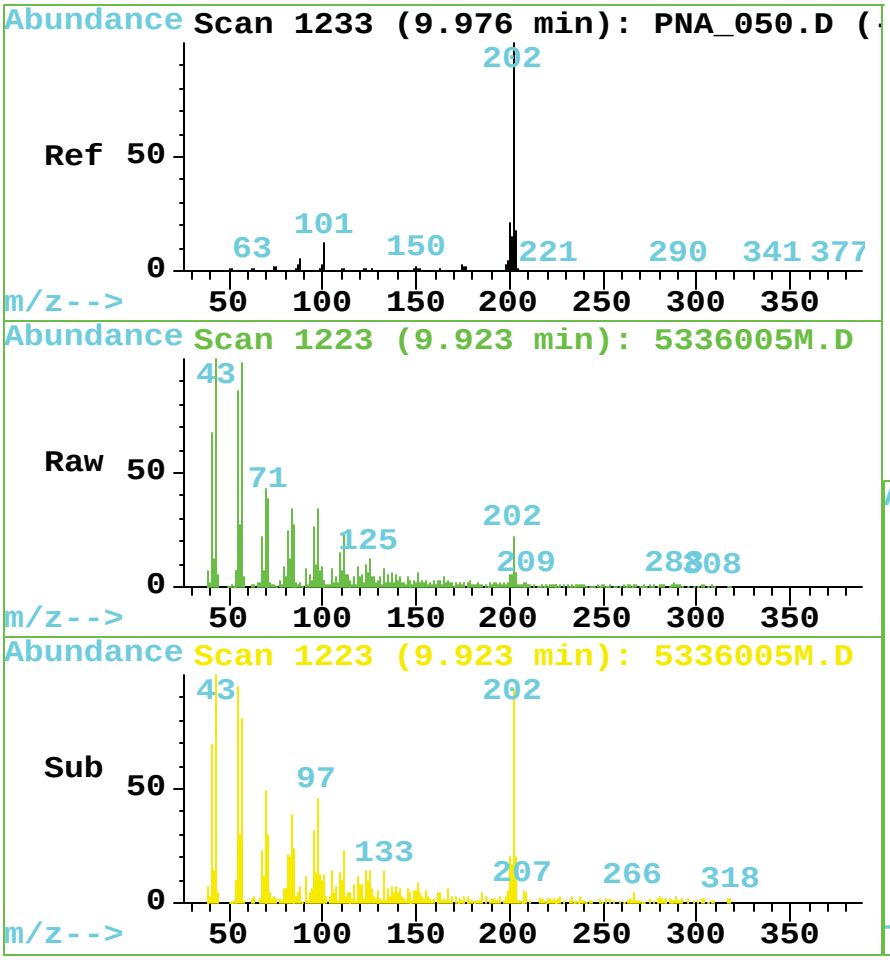


#14
Anthracene
Concen: 0.45 ng/ul
RT: 8.78 min Scan# 1010
Delta R.T. -0.03 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:178 Resp: 3460

Ion	Ratio	Lower	Upper
178	100		
176	18.3	0.0	49.0
179	17.4	0.0	45.6
0	0.0	0.0	0.0

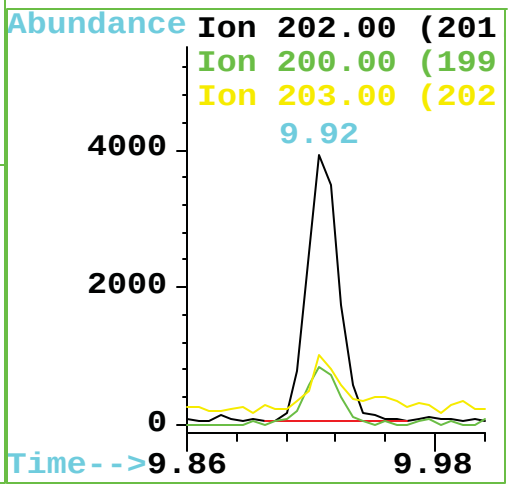


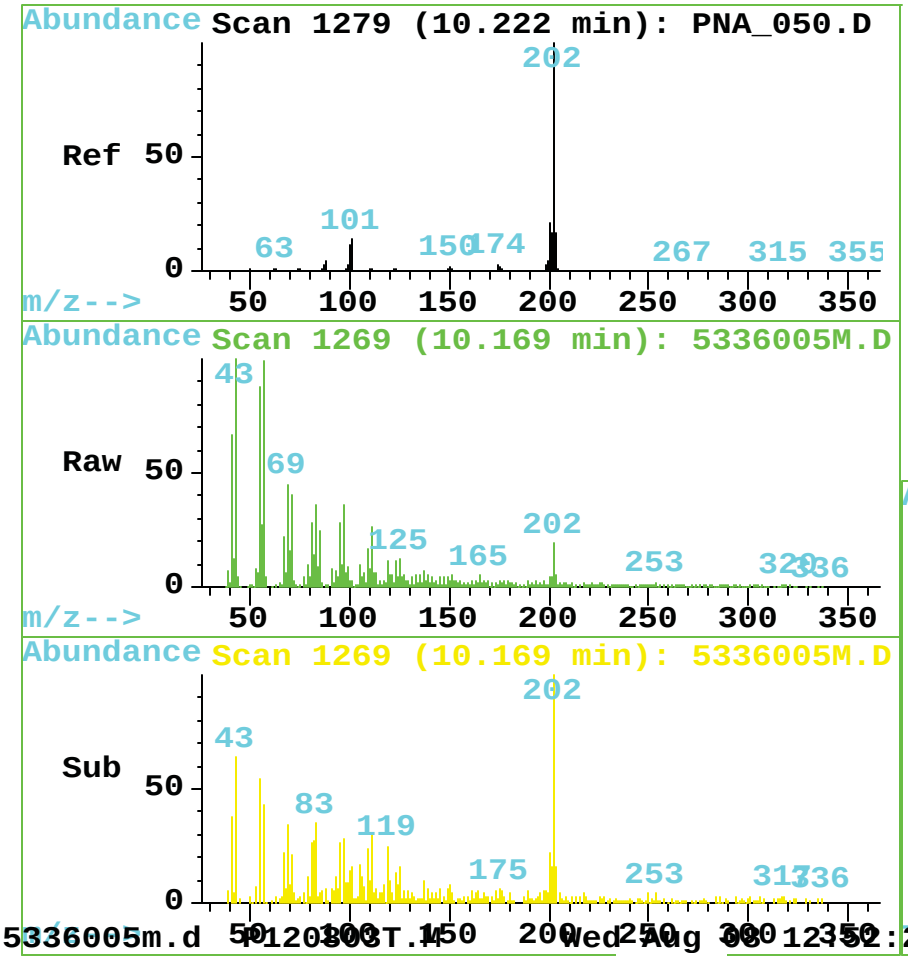


#15
Fluoranthene
Concen: 0.48 ng/ul
RT: 9.92 min Scan# 1223
Delta R.T. -0.03 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:202 Resp: 4170

Ion	Ratio	Lower	Upper
202	100		
200	24.3	0.0	50.9
203	22.3	0.0	47.6
0	0.0	0.0	0.0

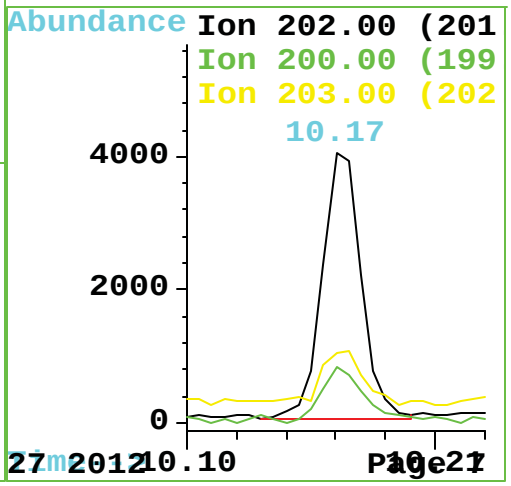


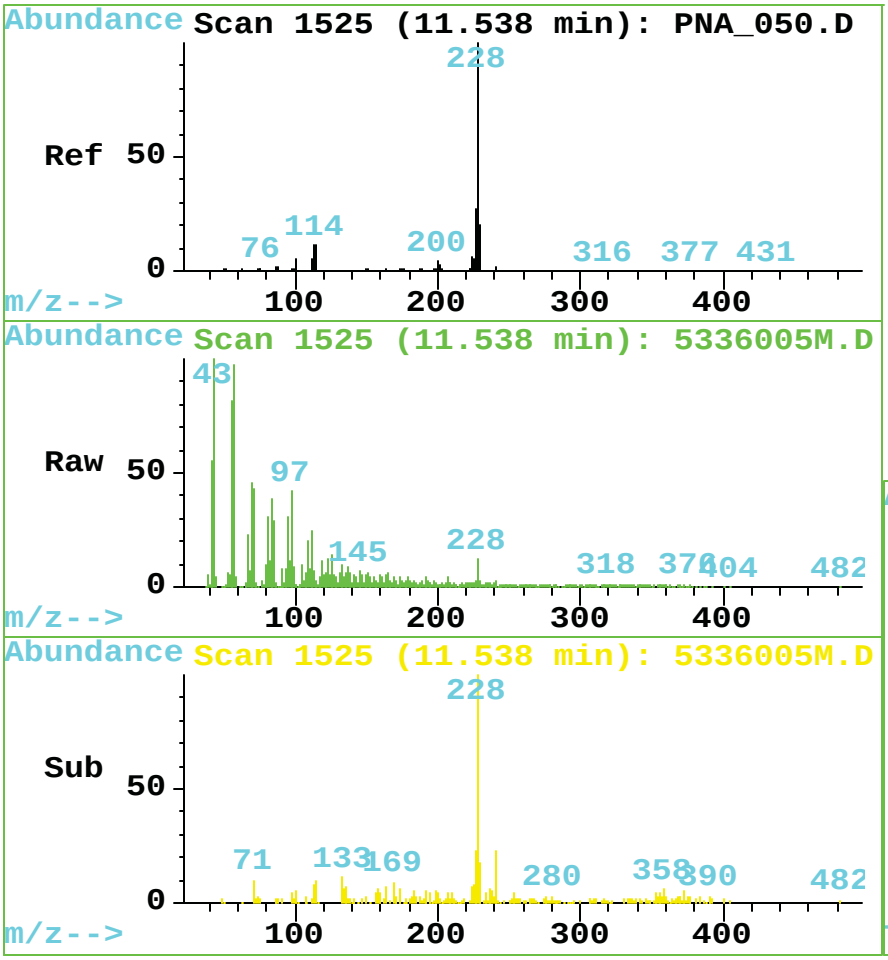


#18
Pyrene **
Concen: 0.56 ng/ul
RT: 10.17 min Scan# 1269
Delta R.T. -0.03 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:202 Resp: 4673

Ion	Ratio	Lower	Upper
202	100		
200	25.3	0.0	51.0
203	18.9	0.0	47.7
0	0.0	0.0	0.0

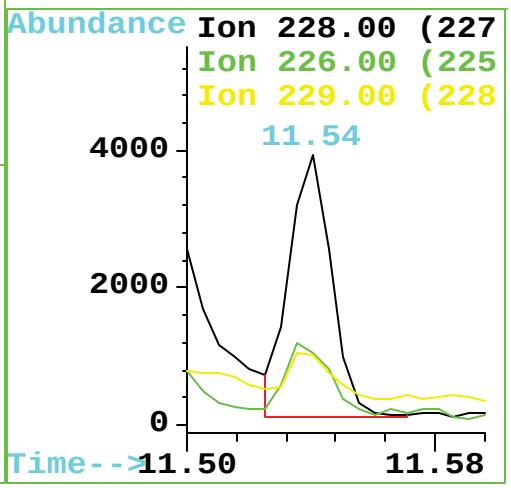


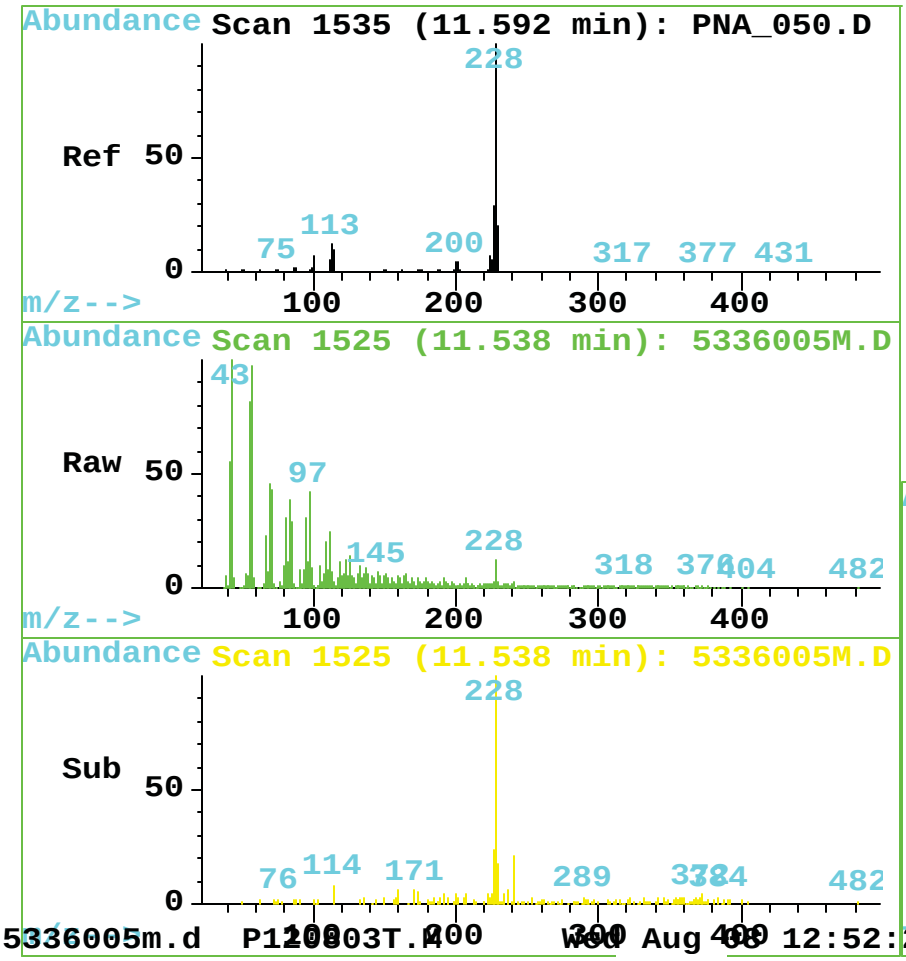


#19
Benzo(a)anthracene
Concen: 0.45 ng/ul
RT: 11.54 min Scan# 1525
Delta R.T. 0.03 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:228 Resp: 3816

Ion	Ratio	Lower	Upper
228	100		
226	31.4	0.0	57.0
229	24.0	0.0	49.7
0	0.0	0.0	0.0

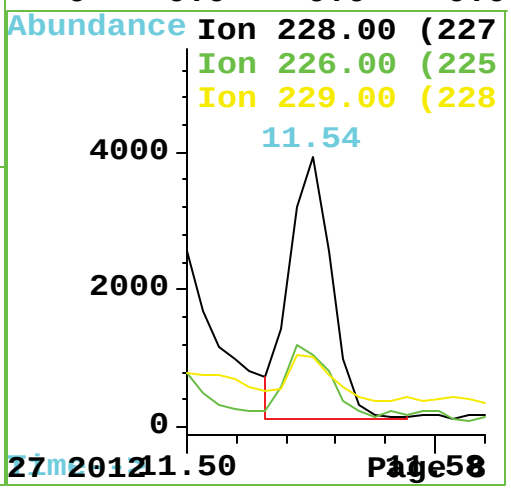


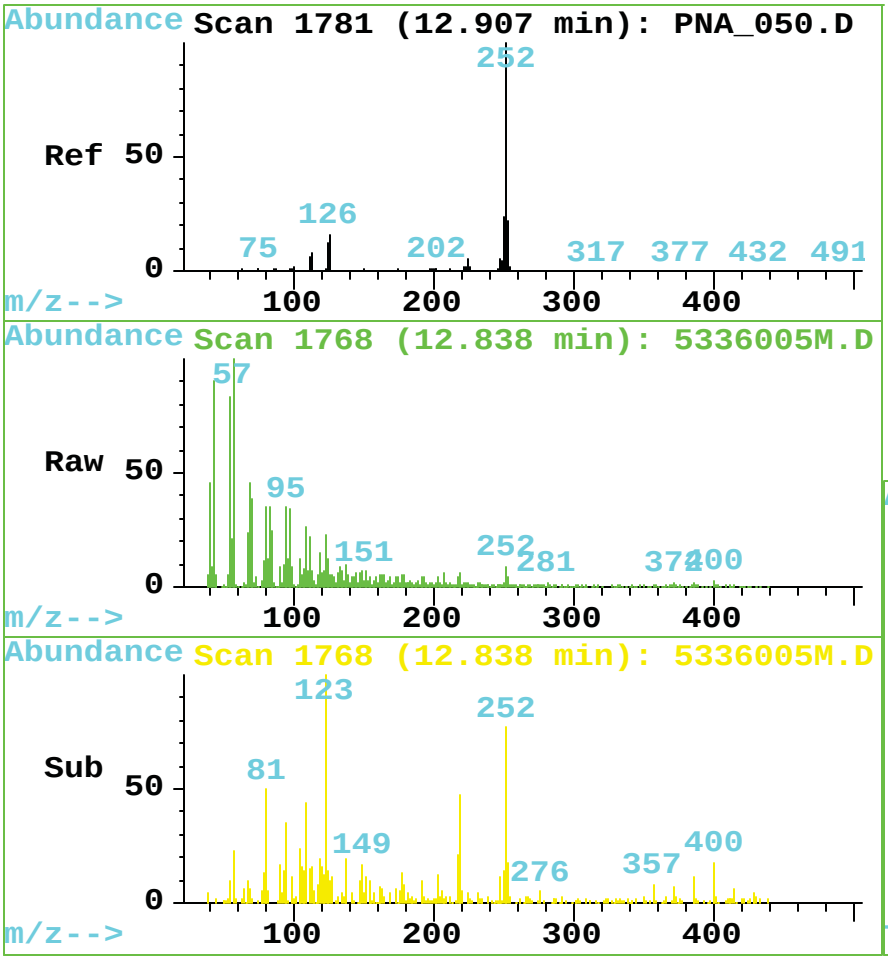


#20
Chrysene
Concen: 0.46 ng/ul
RT: 11.54 min Scan# 1525
Delta R.T. -0.03 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:228 Resp: 3826

Ion	Ratio	Lower	Upper
228	100		
226	30.7	0.0	59.5
229	19.1	0.0	49.6
0	0.0	0.0	0.0

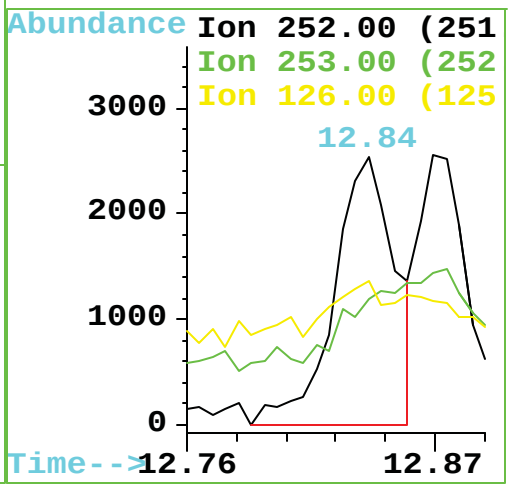


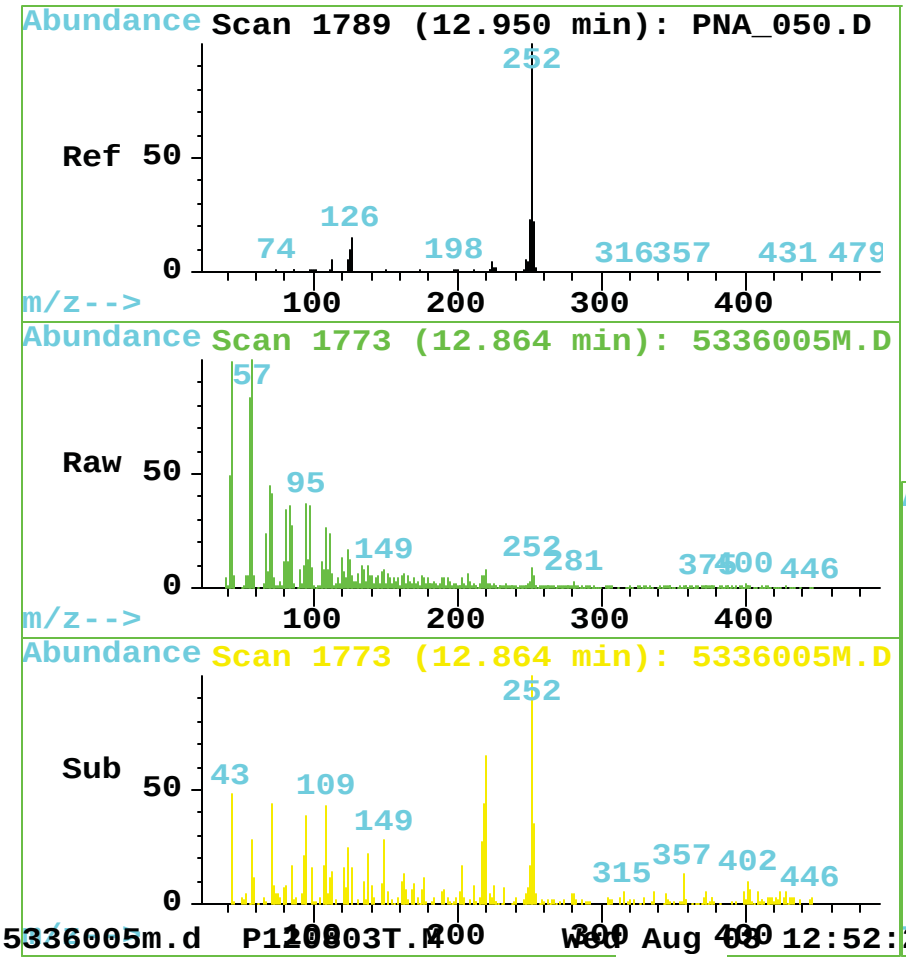


#22
Benzo(b)fluoranthene
Concen: 0.71 ng/ul m
RT: 12.84 min Scan# 1768
Delta R.T. -0.02 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:252 Resp: 4440

Ion	Ratio	Lower	Upper
252	100		
253	47.4	0.0	52.1
126	54.2	0.0	45.1#
0	0.0	0.0	0.0

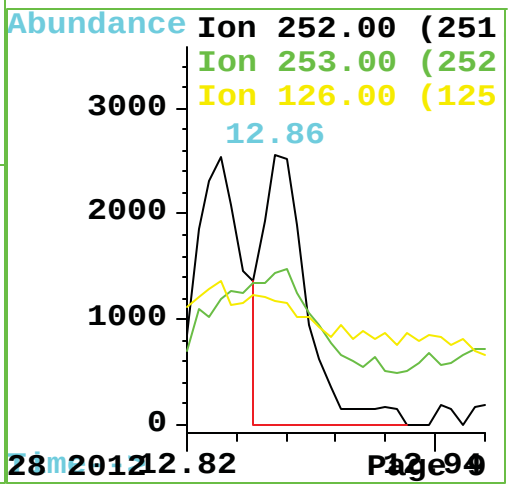


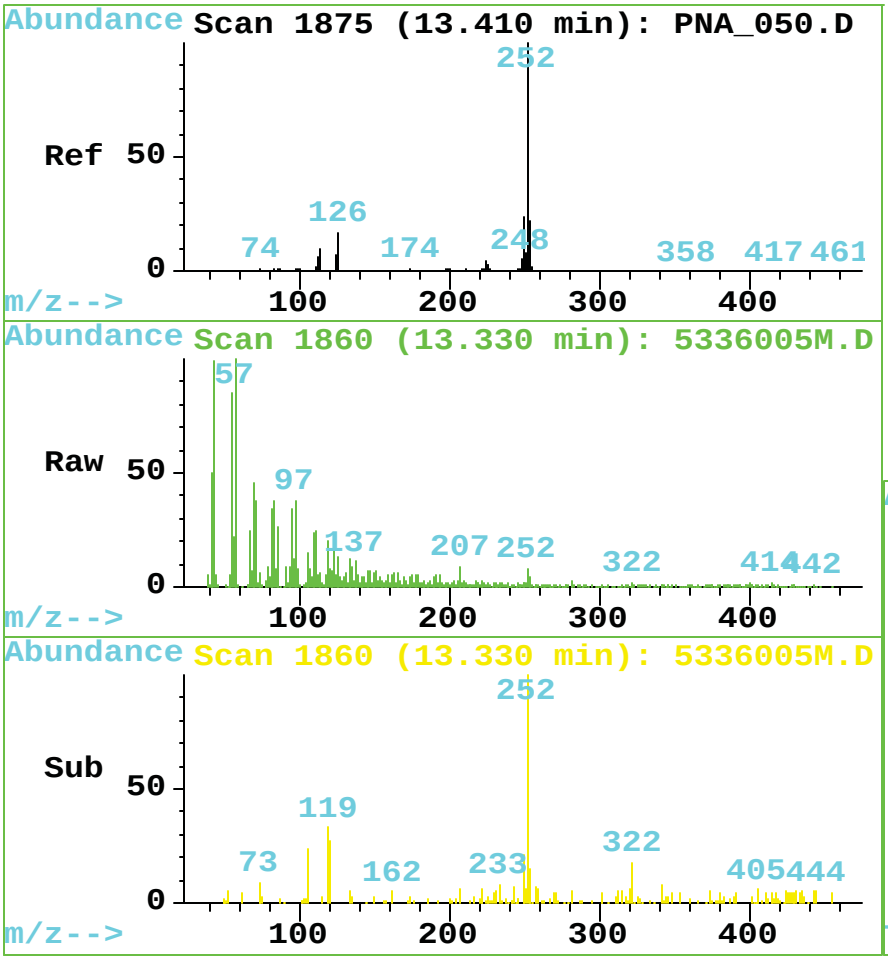


#23
Benzo(k)fluoranthene
Concen: 0.66 ng/ul m
RT: 12.86 min Scan# 1773
Delta R.T. -0.04 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:252 Resp: 3785

Ion	Ratio	Lower	Upper
252	100		
253	56.4	0.0	51.9#
126	46.1	0.0	46.4
0	0.0	0.0	0.0

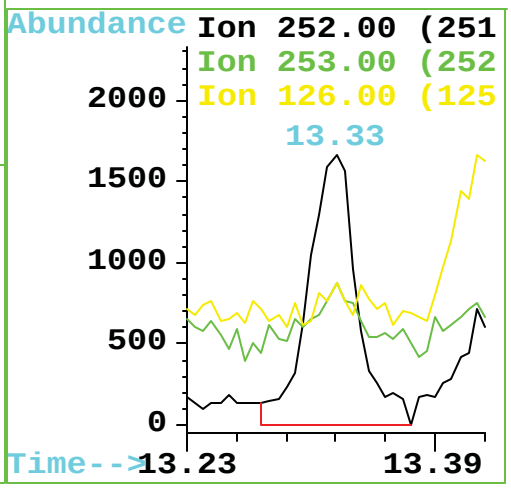




#24
Benzo(a)pyrene
Concen: 0.70 ng/ul
RT: 13.33 min Scan# 1860
Delta R.T. -0.03 min
Lab File: 5336005m.d
Acq: 3 Aug 12 7:17 pm

Tgt Ion:252 Resp: 3640

Ion	Ratio	Lower	Upper
252	100		
253	33.5	0.0	52.0
126	12.5	0.0	47.3
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336006n.d Vial: 9
Acq On : 3 Aug 12 7:40 pm Operator: PL
Sample : pna-s 30g/2ml df:40 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:14 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

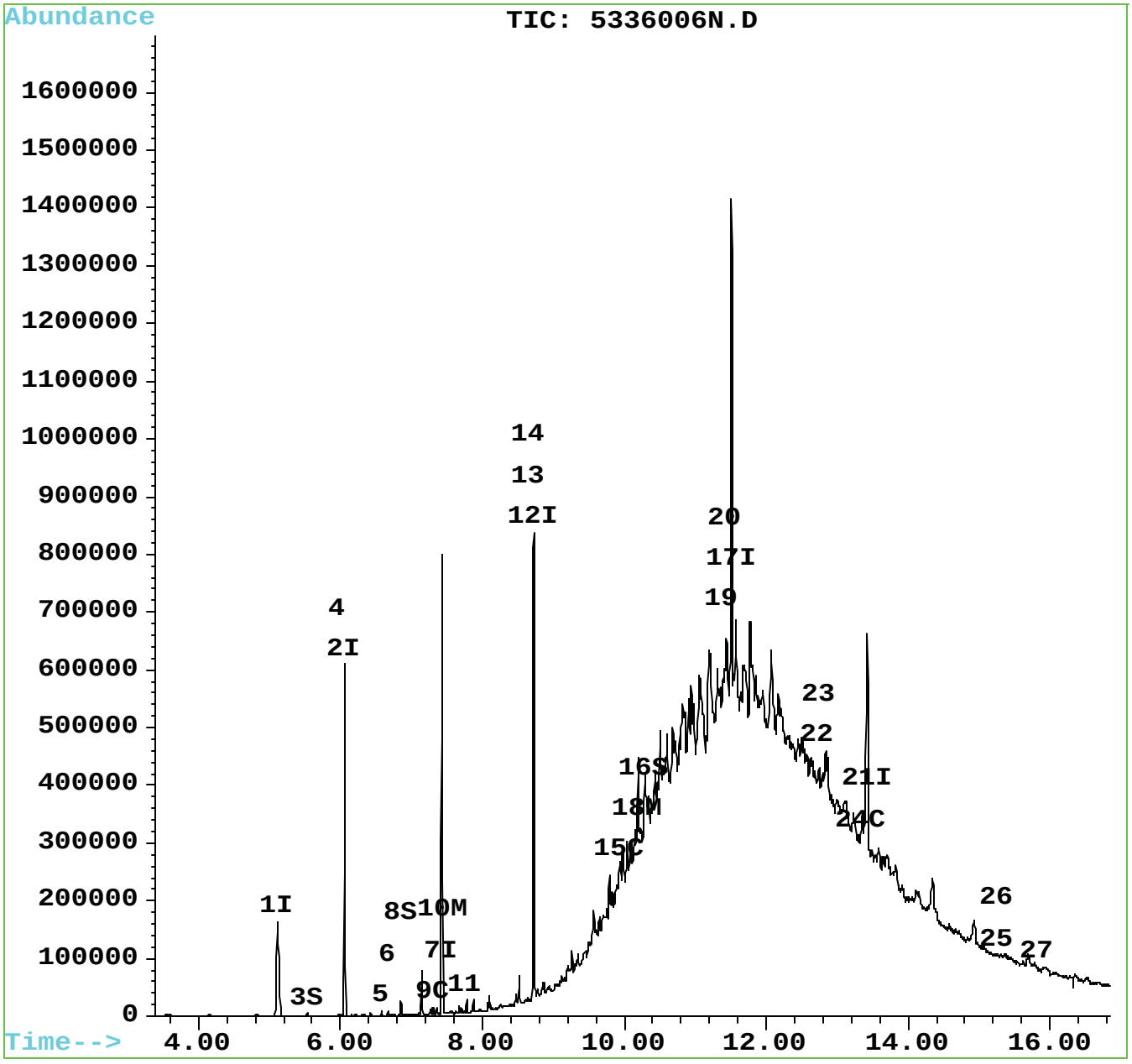
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	56326	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	271255	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.43	164	167362	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	297098	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	342420	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	226713	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	2209	1.09	ng/ul	1.0
8) 2-Fluorobiphenyl	6.85	172	5444	1.06	ng/ul	1.0
16) Terphenyl-D14	10.28	244	7443	1.18	ng/ul	1.1
Target Compounds						Qvalu
4) Naphthalene	6.07	128	3546	0.53	ng/ul	9
5) 2-Methylnaphthalene	6.58	141	2023	0.54	ng/ul	9
6) 1-Methylnaphthalene	6.67	142	2171	0.49	ng/ul	9
9) Acenaphthylene	7.31	152	3590	0.52	ng/ul	9
10) Acenaphthene **	7.46	154	2292	0.56	ng/ul	9
11) Fluorene	7.87	166	2463	0.47	ng/ul	9
13) Phenanthrene	8.78	178	4169	0.54	ng/ul	9
14) Anthracene	8.78	178	4169	0.53	ng/ul	9
15) Fluoranthene	9.92	202	5446	0.62	ng/ul	9
18) Pyrene **	10.17	202	5742	0.68	ng/ul	9
19) Benzo(a)anthracene	11.49	228	6168	0.73	ng/ul	8
20) Chrysene	11.54	228	5028	0.60	ng/ul	9
22) Benzo(b)fluoranthene	12.84	252	4716	0.80	ng/ul	8
23) Benzo(k)fluoranthene	12.87	252	4161	0.76	ng/ulm	8
24) Benzo(a)pyrene	13.33	252	3728	0.75	ng/ul	8
25) Indeno(1,2,3-cd)pyrene	15.36	276	2990	0.45	ng/ul	7
26) Dibenzo(ah)anthracene	15.36	278	2519	0.45	ng/ul	8
27) Benzo(ghi)perylene	15.95	276	2260	0.42	ng/ul	8

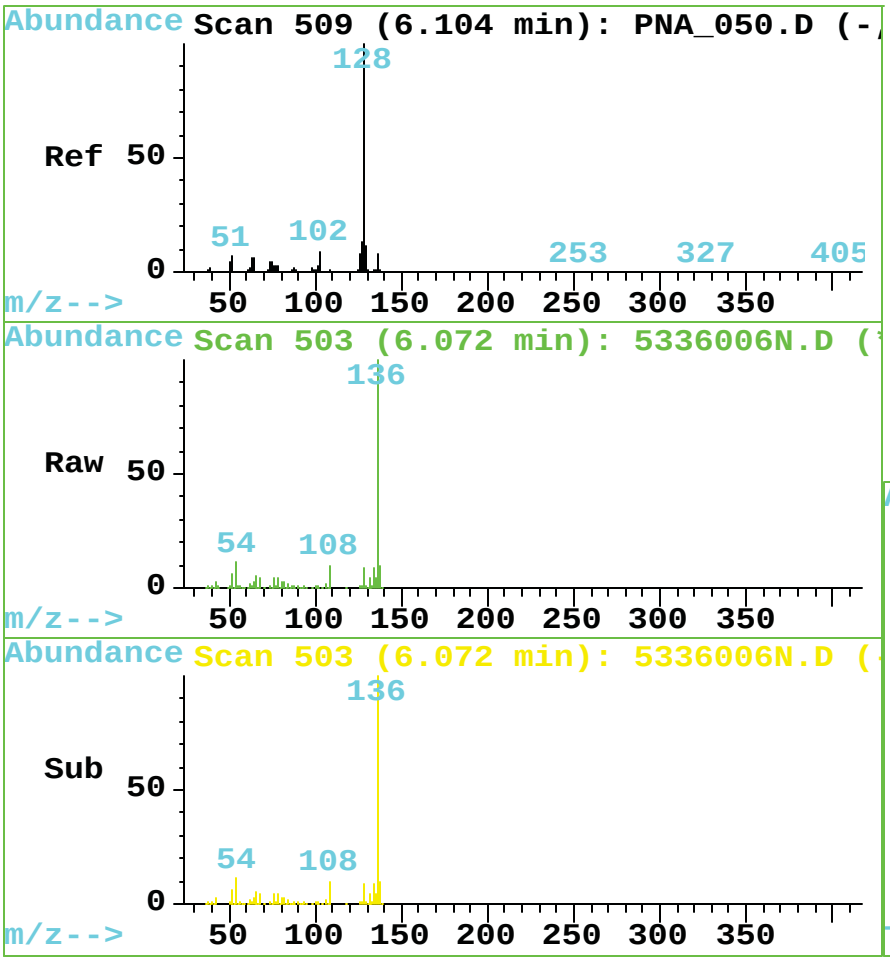
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336006n.d Vial: 9
Acq On : 3 Aug 12 7:40 pm Operator: PL
Sample : pna-s 30g/2ml df:40 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:14 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

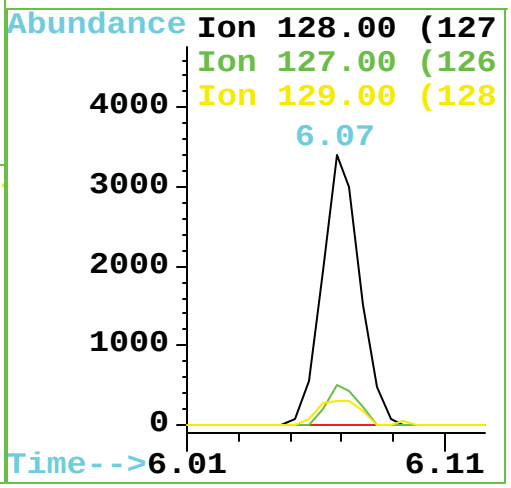


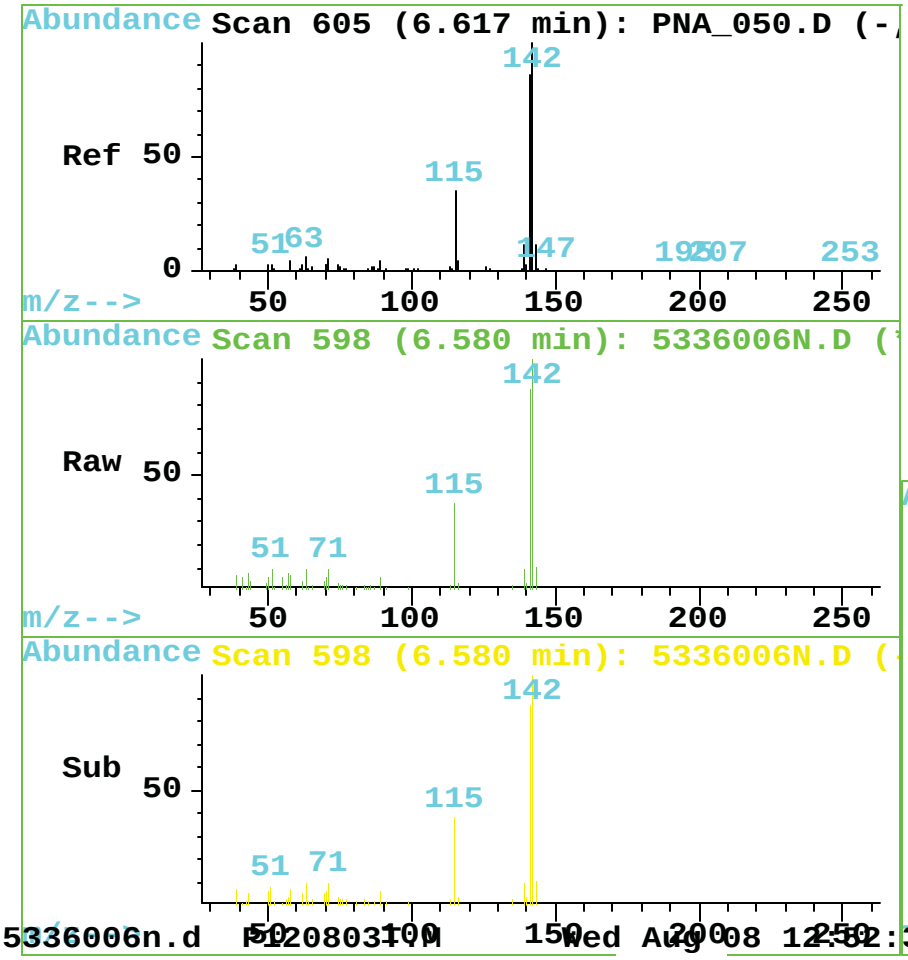


#4
Naphthalene
Concen: 0.53 ng/ul
RT: 6.07 min Scan# 503
Delta R.T. -0.02 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:128 Resp: 3546

Ion	Ratio	Lower	Upper
128	100		
127	12.2	0.0	43.0
129	10.3	0.0	41.1
0	0.0	0.0	0.0

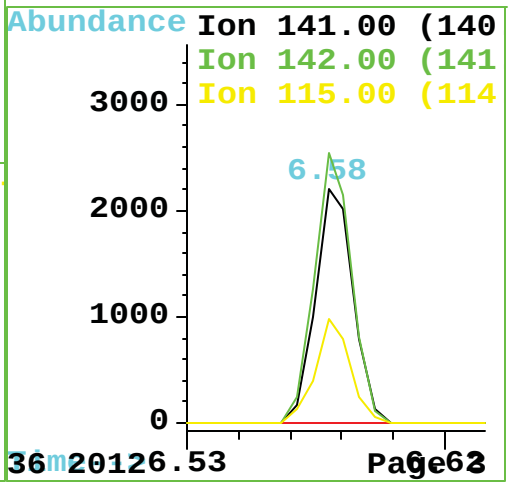


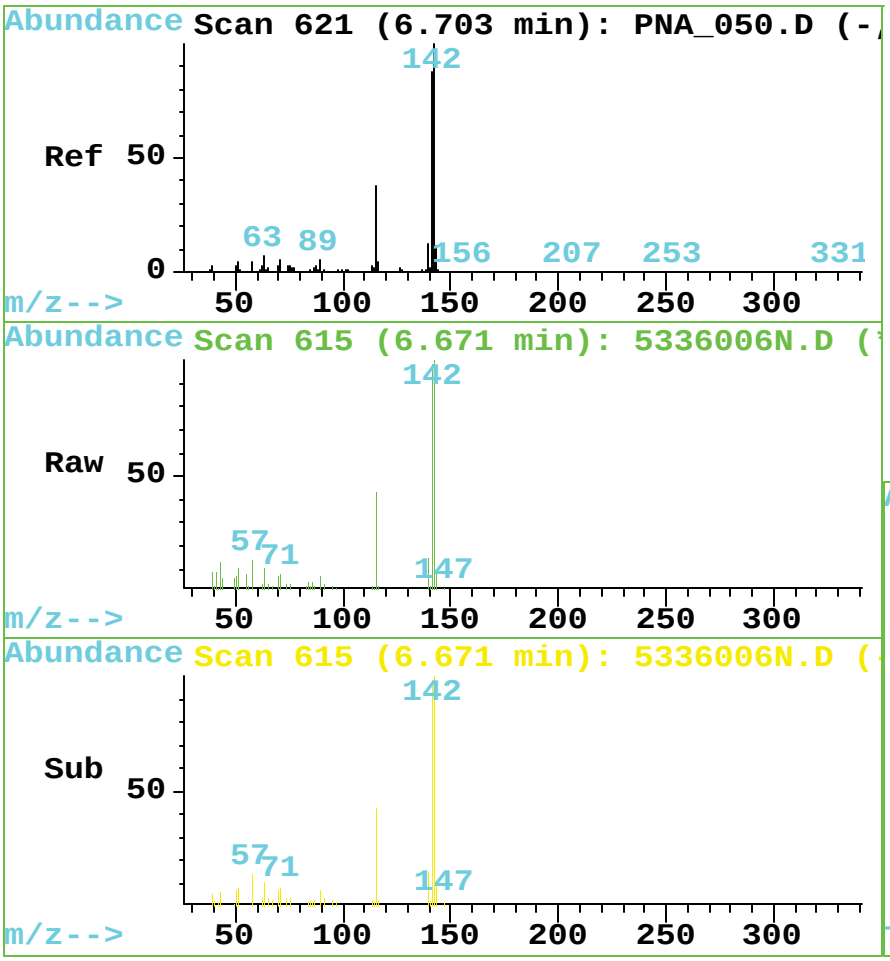


#5
2-Methylnaphthalene
Concen: 0.54 ng/ul
RT: 6.58 min Scan# 598
Delta R.T. -0.02 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:141 Resp: 2023

Ion	Ratio	Lower	Upper
141	100		
142	113.0	82.2	152.5
115	41.2	29.2	54.3
0	0.0	0.0	0.0

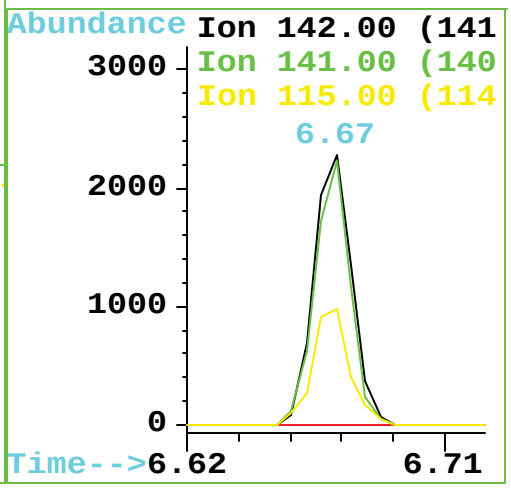


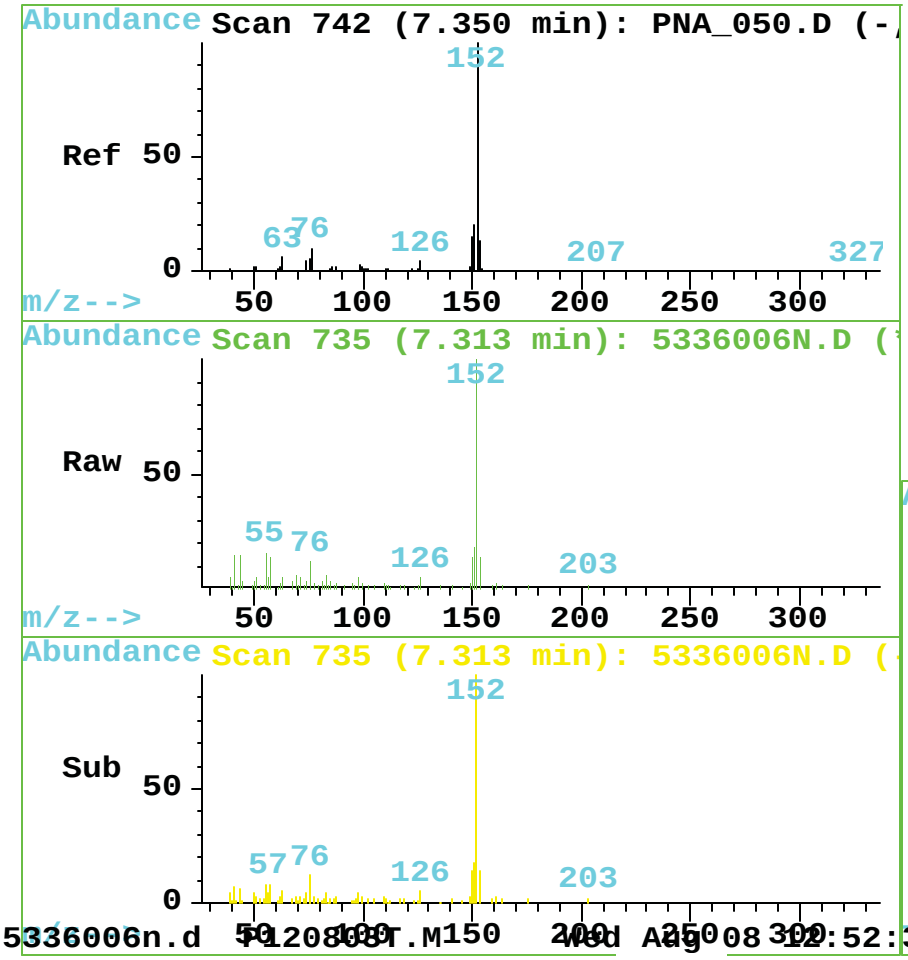


#6
1-Methylnaphthalene
Concen: 0.49 ng/ul
RT: 6.67 min Scan# 615
Delta R.T. -0.01 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:142 Resp: 2171

Ion	Ratio	Lower	Upper
142	100		
141	90.8	70.6	105.9
115	42.4	30.1	45.1
0	0.0	0.0	0.0

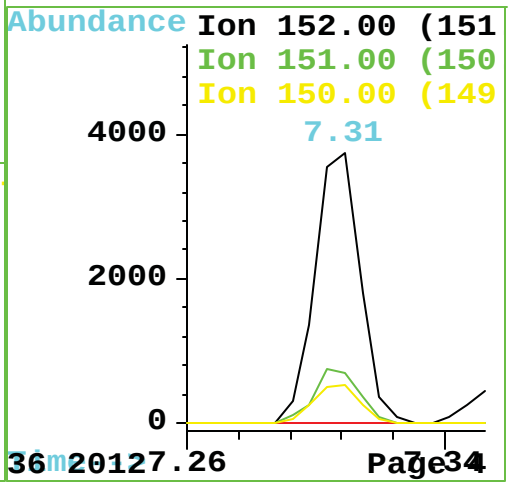


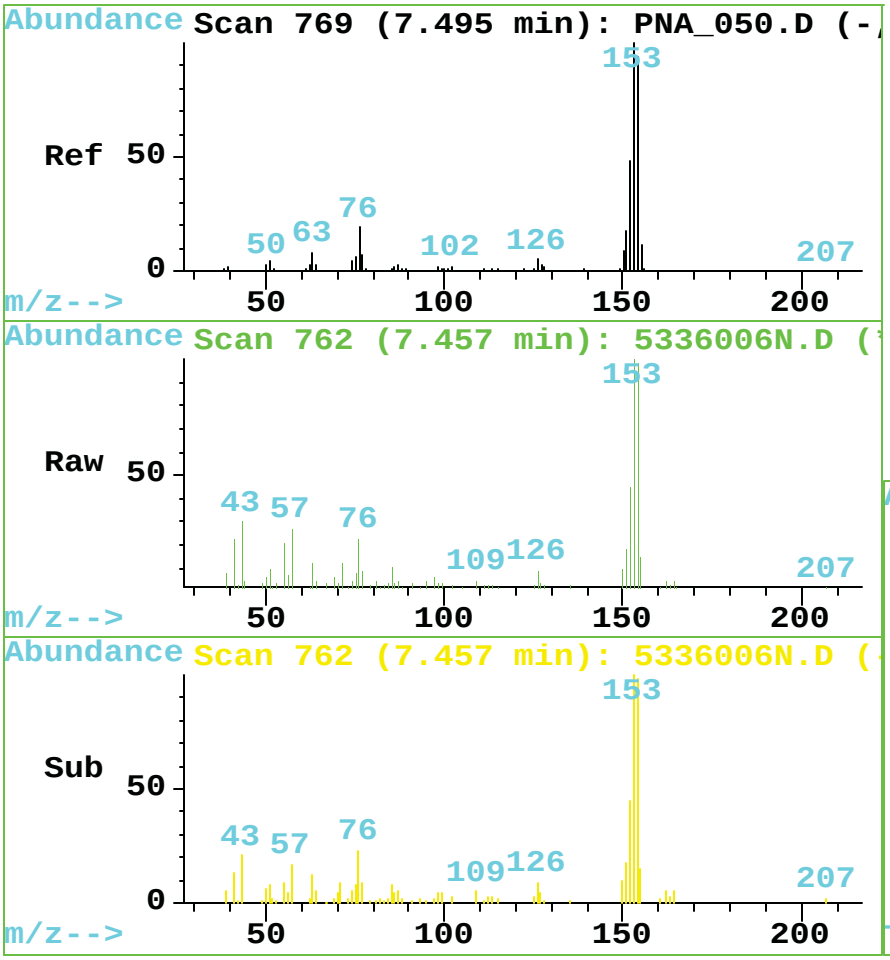


#9
Acenaphthylene
Concen: 0.52 ng/ul
RT: 7.31 min Scan# 735
Delta R.T. -0.02 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:152 Resp: 3590

Ion	Ratio	Lower	Upper
152	100		
151	19.9	0.0	50.1
150	14.7	0.0	44.4
0	0.0	0.0	0.0

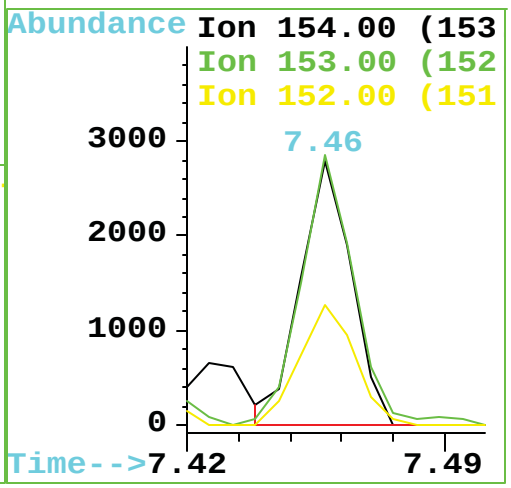


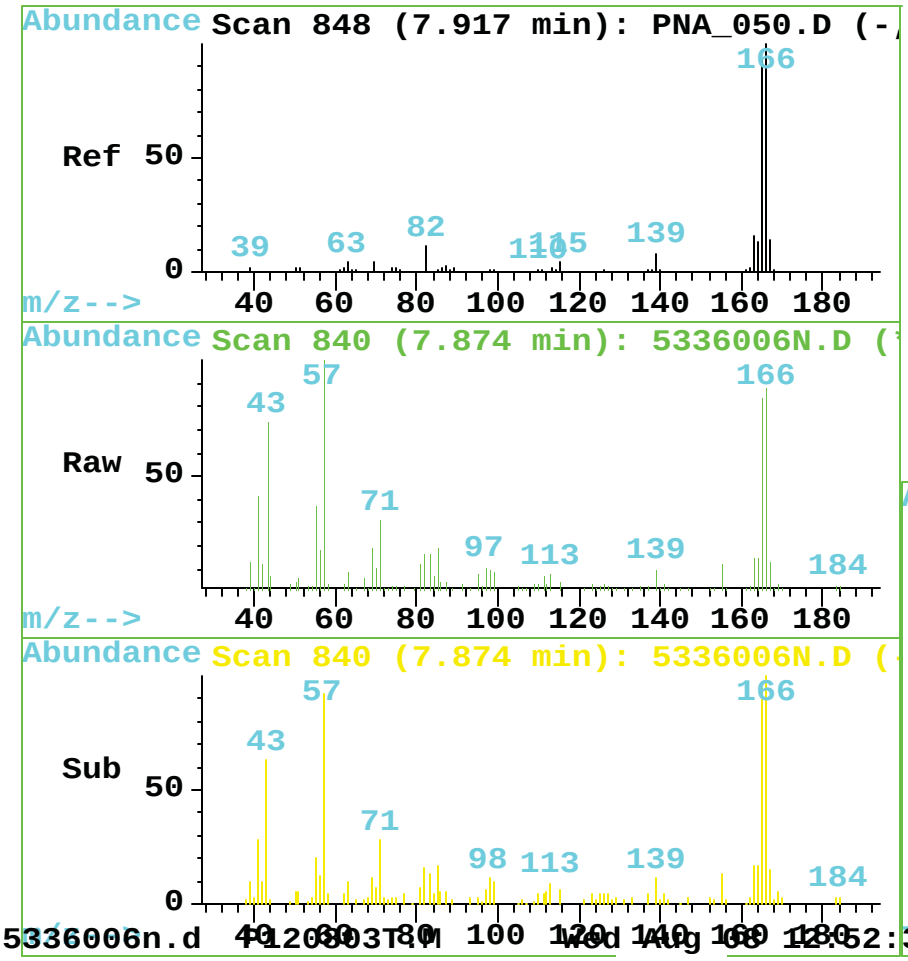


#10
Acenaphthene **
Concen: 0.56 ng/ul
RT: 7.46 min Scan# 762
Delta R.T. -0.02 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:154 Resp: 2292

Ion	Ratio	Lower	Upper
154	100		
153	107.5	76.9	136.9
152	49.9	26.1	76.1
0	0.0	0.0	0.0

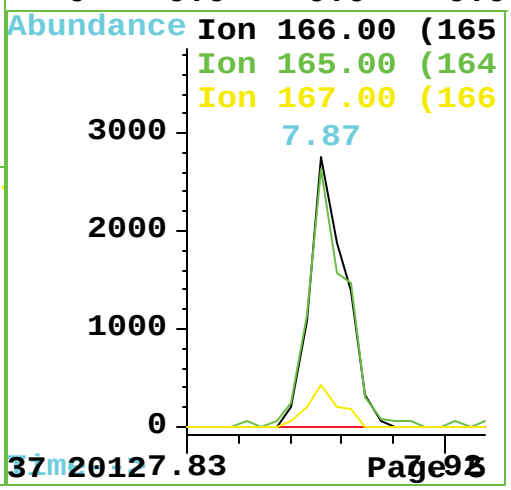


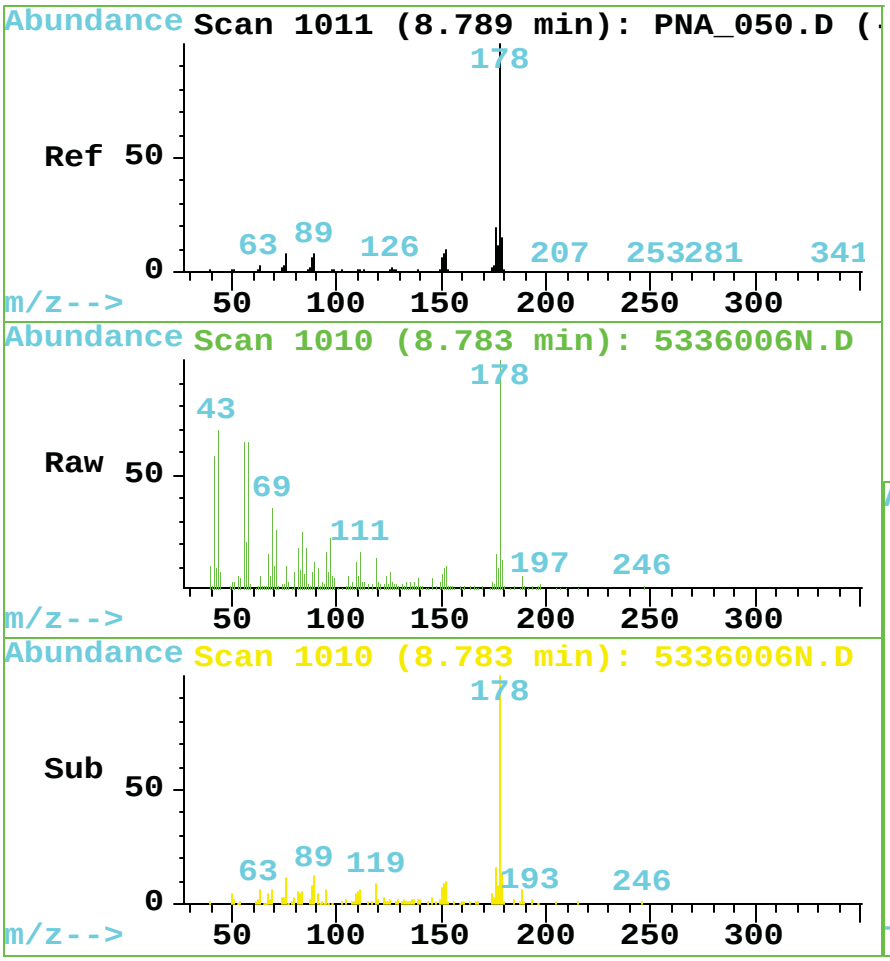


#11
Fluorene
Concen: 0.47 ng/ul
RT: 7.87 min Scan# 840
Delta R.T. -0.03 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:166 Resp: 2463

Ion	Ratio	Lower	Upper
166	100		
165	100.2	63.1	123.1
167	14.1	0.0	43.4
0	0.0	0.0	0.0

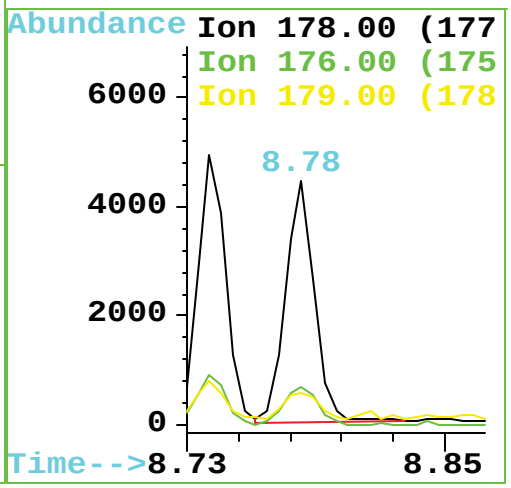


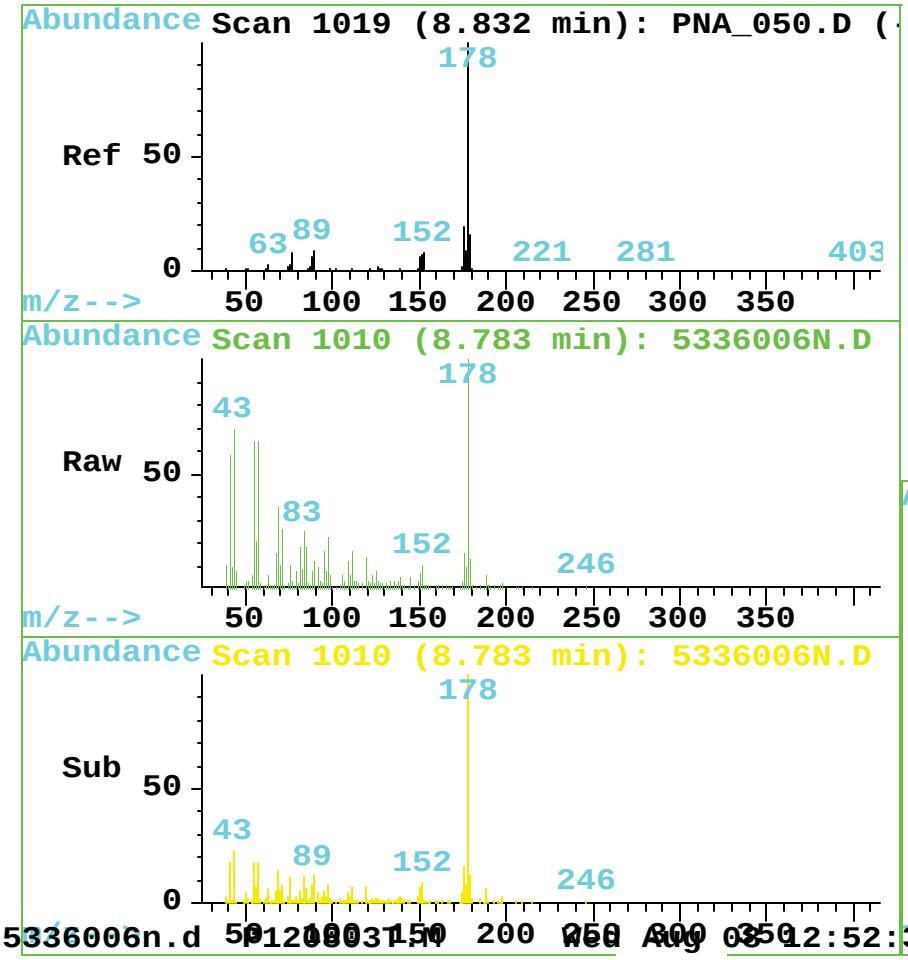


#13
Phenanthrene
Concen: 0.54 ng/ul
RT: 8.78 min Scan# 1010
Delta R.T. 0.02 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:178 Resp: 4169

Ion	Ratio	Lower	Upper
178	100		
176	18.6	0.0	49.3
179	16.8	0.0	45.3
0	0.0	0.0	0.0

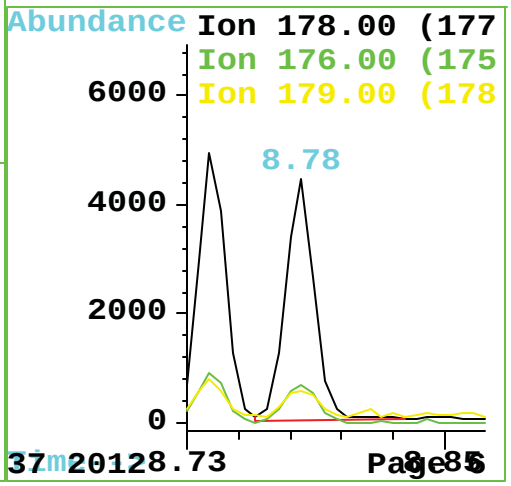


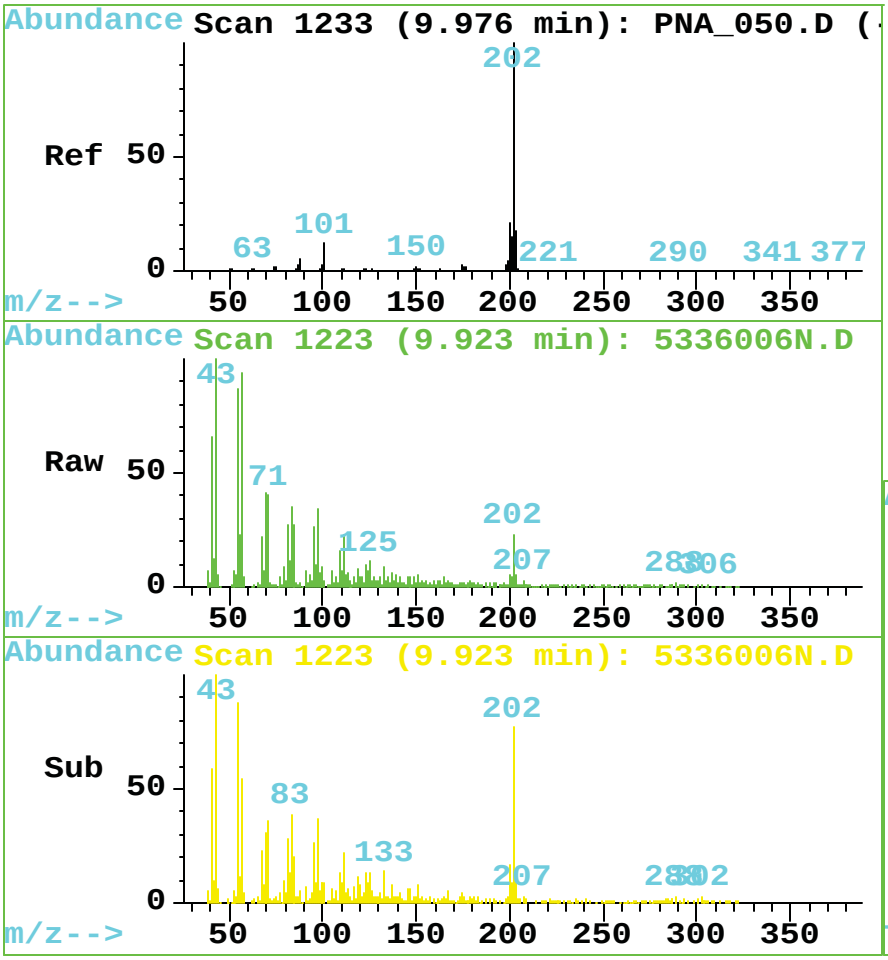


#14
Anthracene
Concen: 0.53 ng/ul
RT: 8.78 min Scan# 1010
Delta R.T. -0.03 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:178 Resp: 4169

Ion	Ratio	Lower	Upper
178	100		
176	18.6	0.0	49.0
179	14.9	0.0	45.6
0	0.0	0.0	0.0

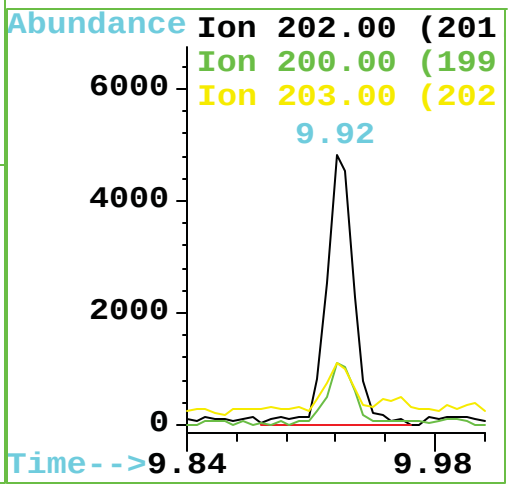


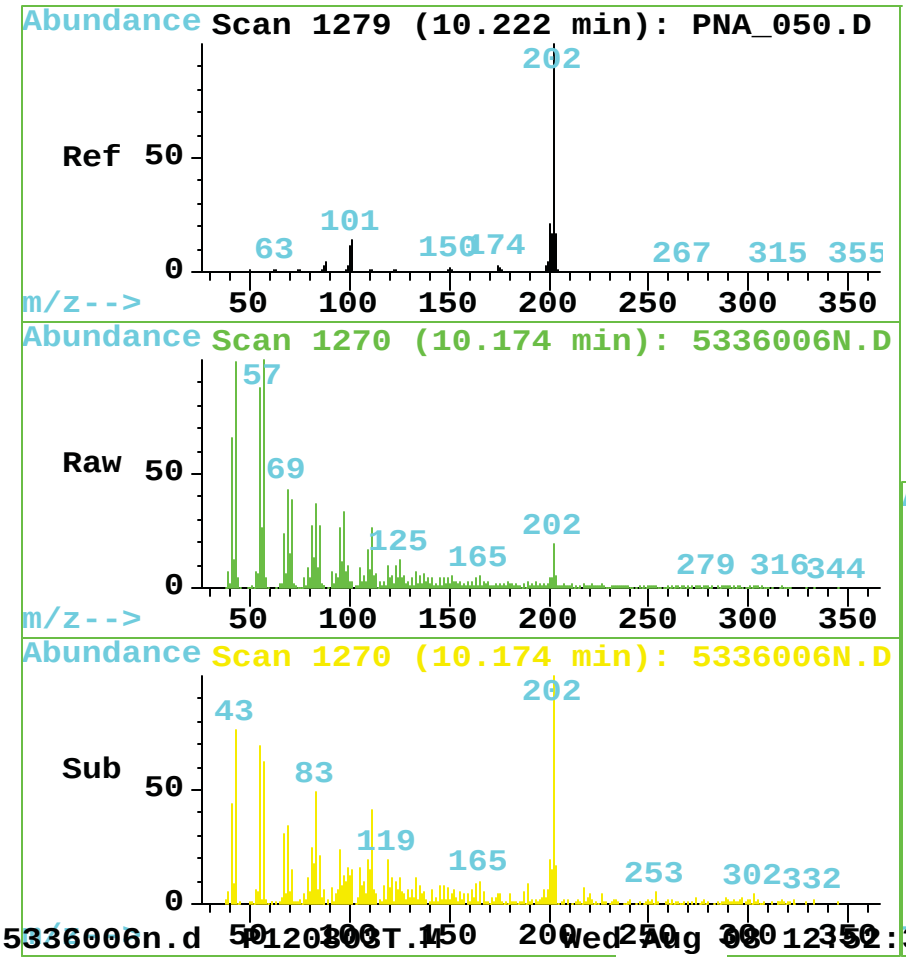


#15
Fluoranthene
Concen: 0.62 ng/ul
RT: 9.92 min Scan# 1223
Delta R.T. -0.03 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:202 Resp: 5446

Ion	Ratio	Lower	Upper
202	100		
200	23.7	0.0	50.9
203	17.6	0.0	47.6
0	0.0	0.0	0.0

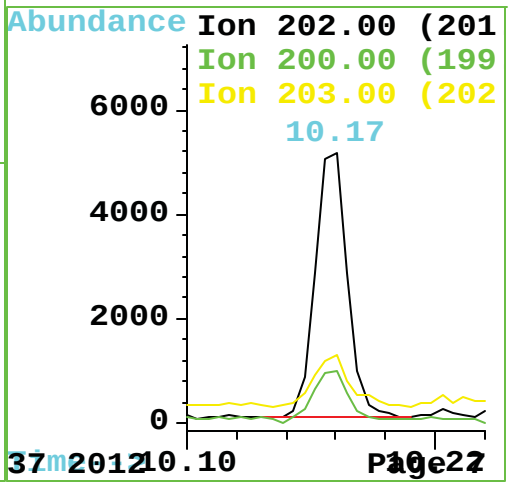


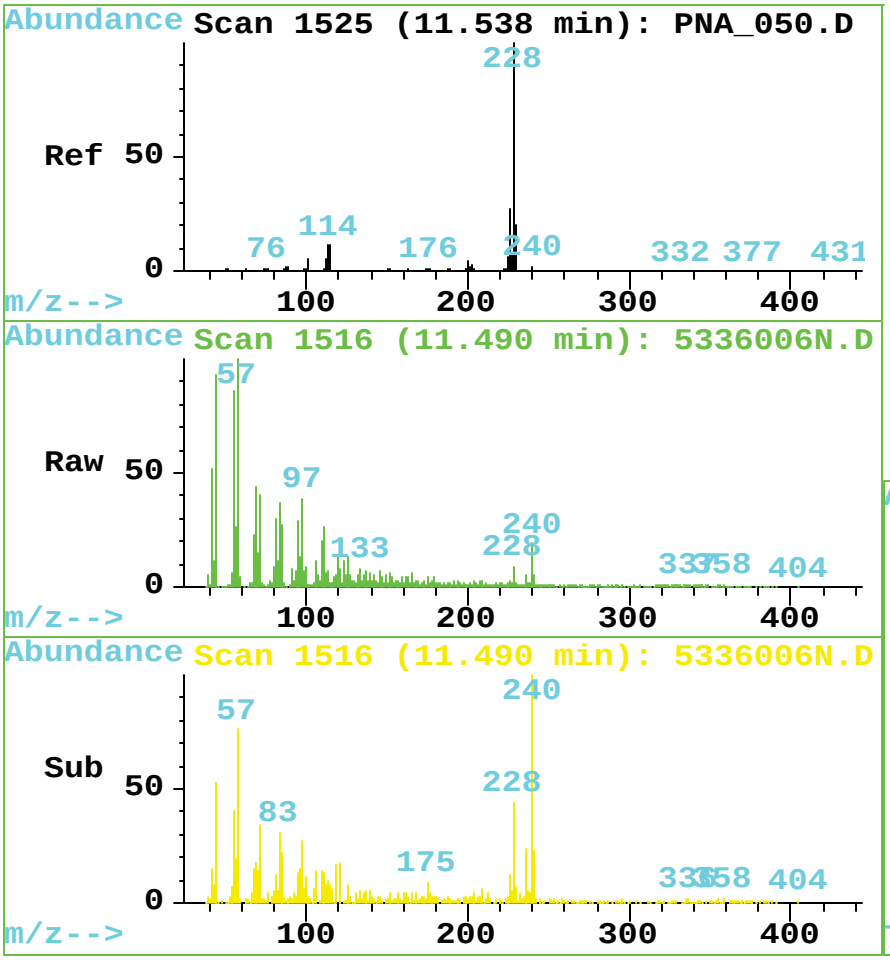


#18
Pyrene **
Concen: 0.68 ng/ul
RT: 10.17 min Scan# 1270
Delta R.T. -0.02 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:202 Resp: 5742

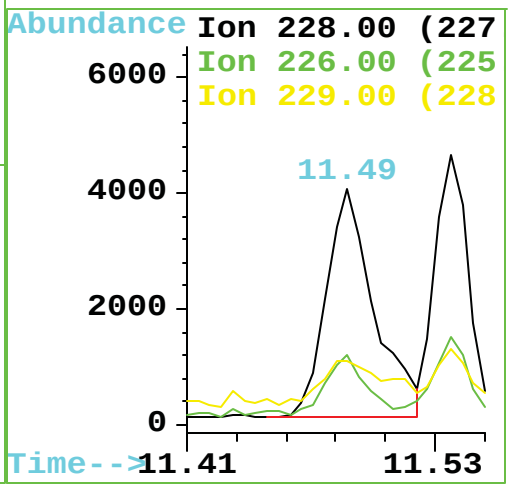
Ion	Ratio	Lower	Upper
202	100		
200	23.7	0.0	51.0
203	22.4	0.0	47.7
0	0.0	0.0	0.0

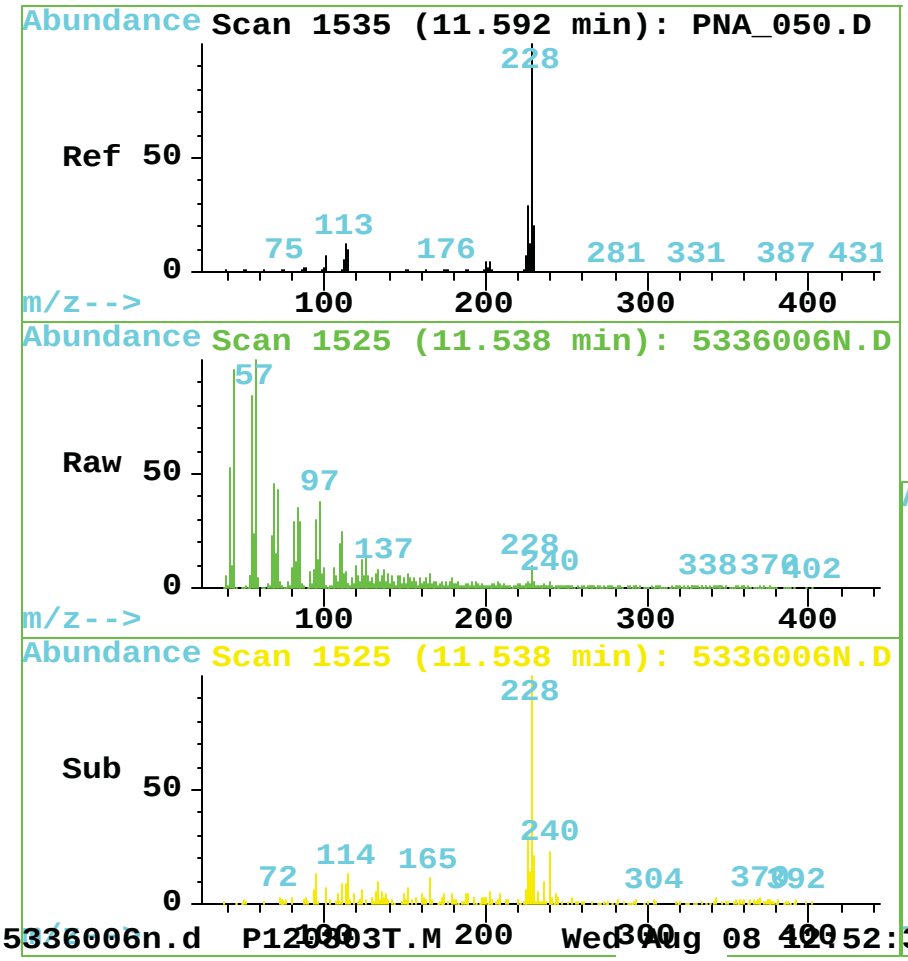




#19
Benzo(a)anthracene
Concen: 0.73 ng/ul
RT: 11.49 min Scan# 1516
Delta R.T. -0.02 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

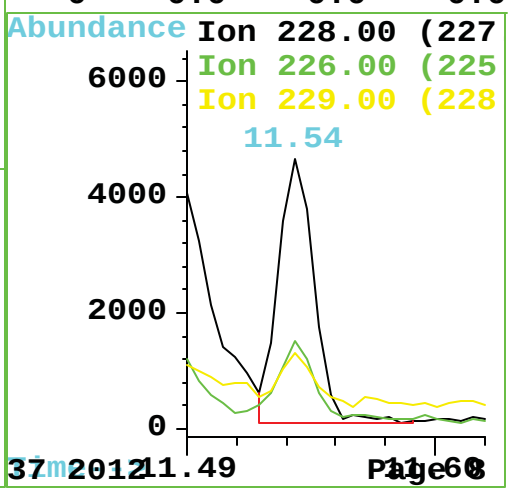
Tgt Ion:228	Resp:	6168	
Ion	Ratio	Lower	Upper
228	100		
226	25.1	0.0	57.0
229	29.5	0.0	49.7
0	0.0	0.0	0.0

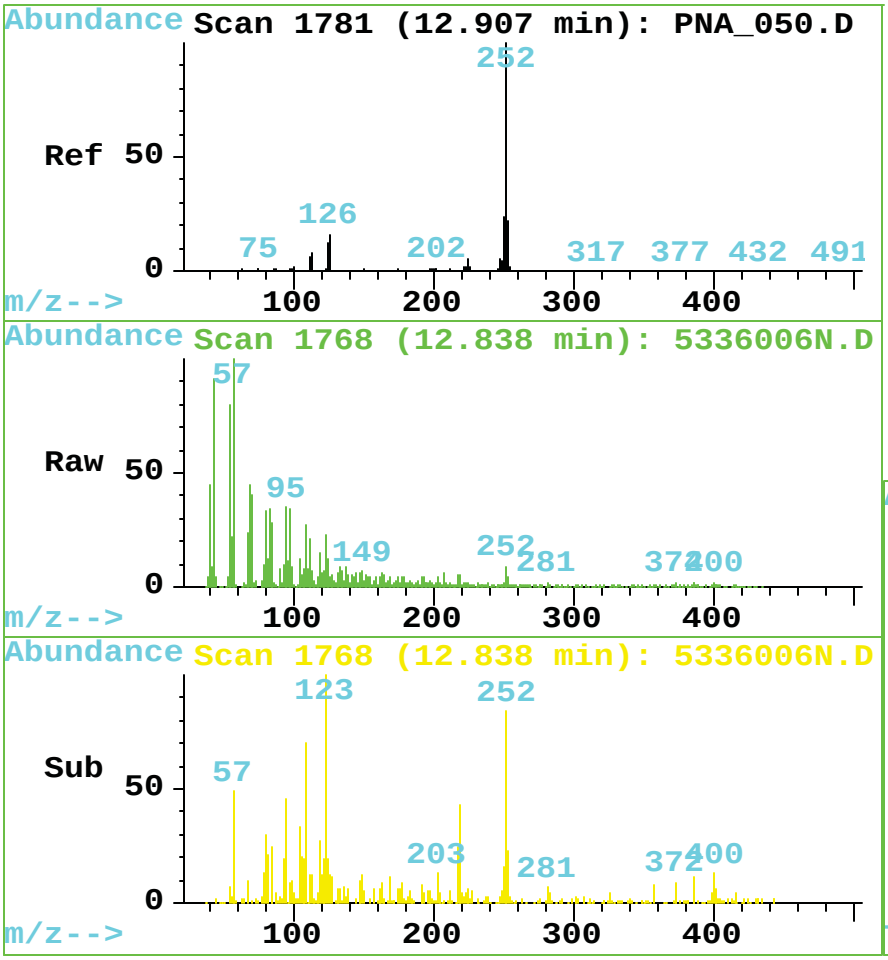




#20
Chrysene
Concen: 0.60 ng/ul
RT: 11.54 min Scan# 1525
Delta R.T. -0.03 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:228	Resp:	5028	
Ion	Ratio	Lower	Upper
228	100		
226	33.1	0.0	59.5
229	24.2	0.0	49.6
0	0.0	0.0	0.0

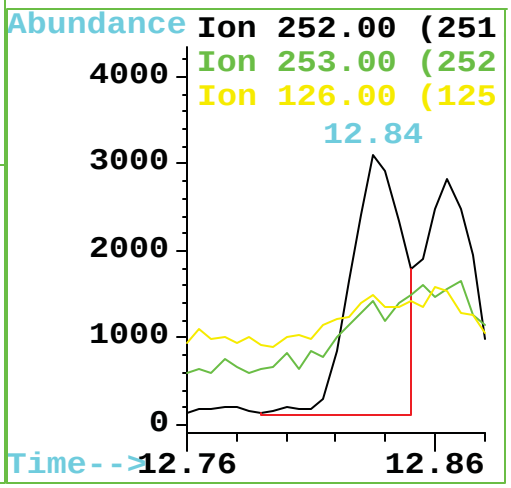


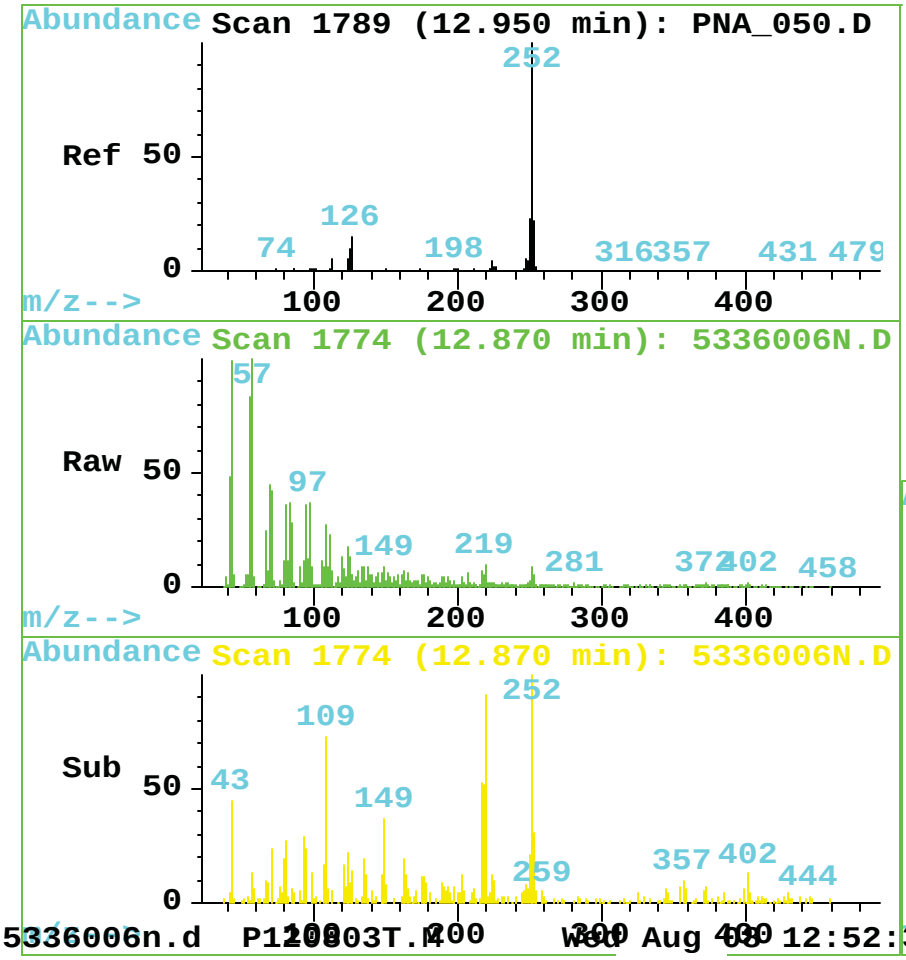


#22
Benzo(b)fluoranthene
Concen: 0.80 ng/ul
RT: 12.84 min Scan# 1768
Delta R.T. -0.02 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:252 Resp: 4716

Ion	Ratio	Lower	Upper
252	100		
253	25.0	0.0	52.1
126	23.0	0.0	45.1
0	0.0	0.0	0.0

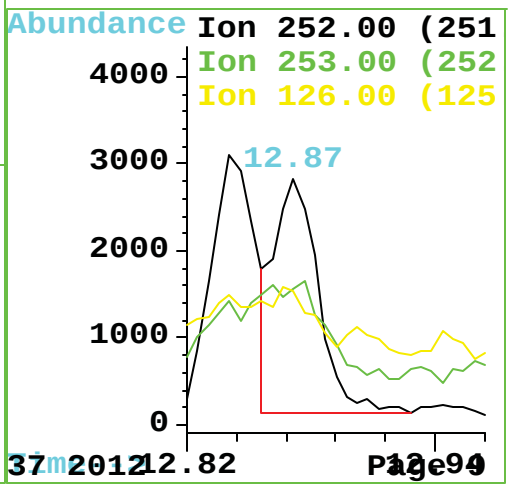


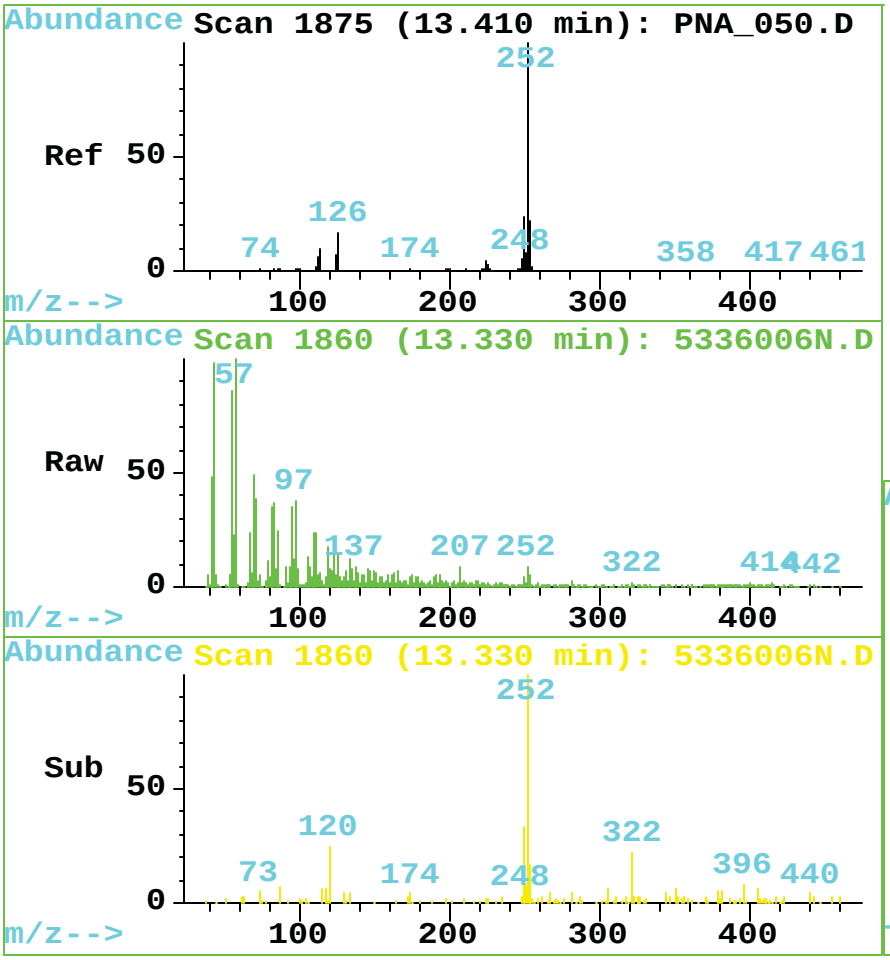


#23
Benzo(k)fluoranthene
Concen: 0.76 ng/ul m
RT: 12.87 min Scan# 1774
Delta R.T. -0.03 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:252 Resp: 4161

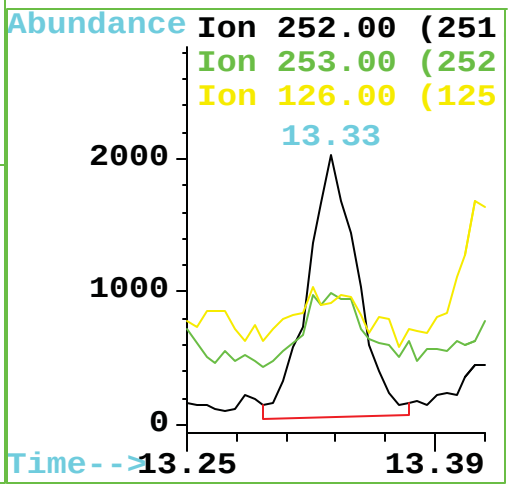
Ion	Ratio	Lower	Upper
252	100		
253	55.6	0.0	51.9#
126	54.1	0.0	46.4#
0	0.0	0.0	0.0

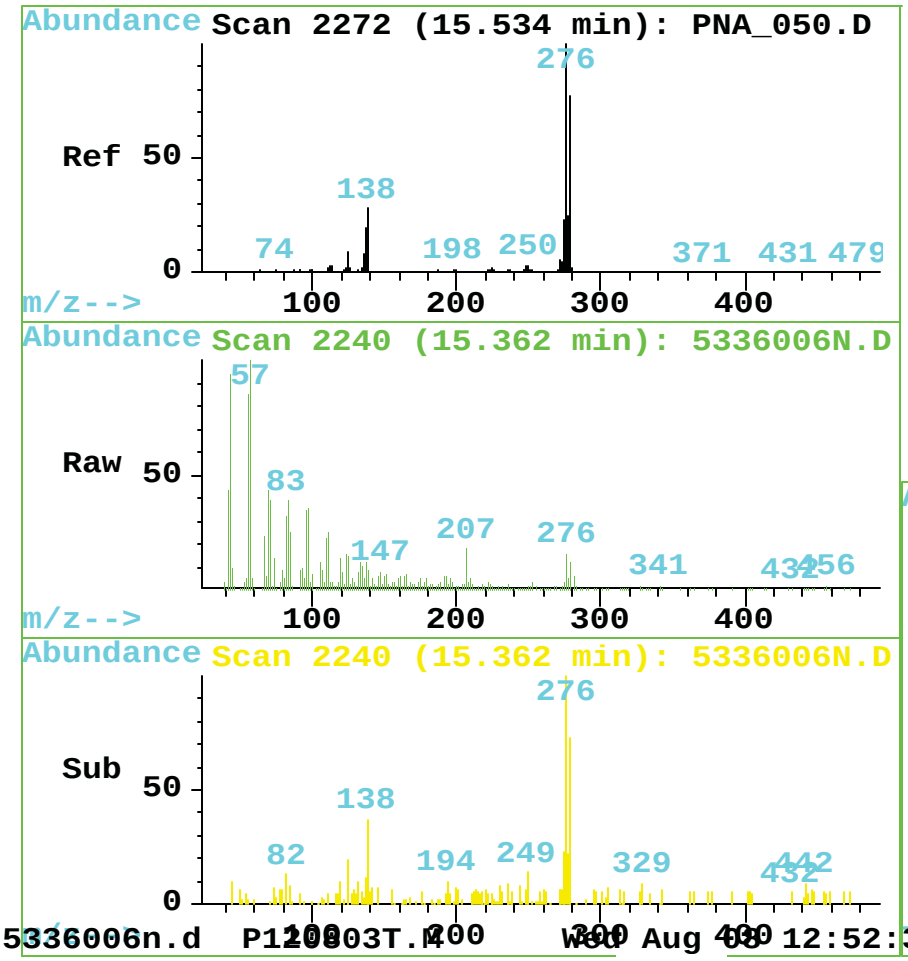




#24
Benzo(a)pyrene
Concen: 0.75 ng/ul
RT: 13.33 min Scan# 1860
Delta R.T. -0.03 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

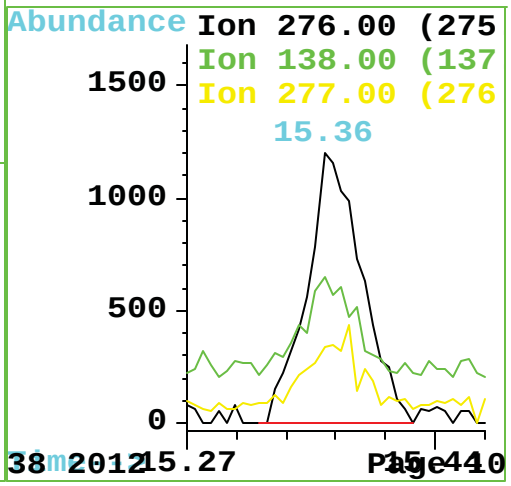
Tgt Ion:252	Resp:	3728	
Ion	Ratio	Lower	Upper
252	100		
253	35.9	0.0	52.0
126	13.5	0.0	47.3
0	0.0	0.0	0.0

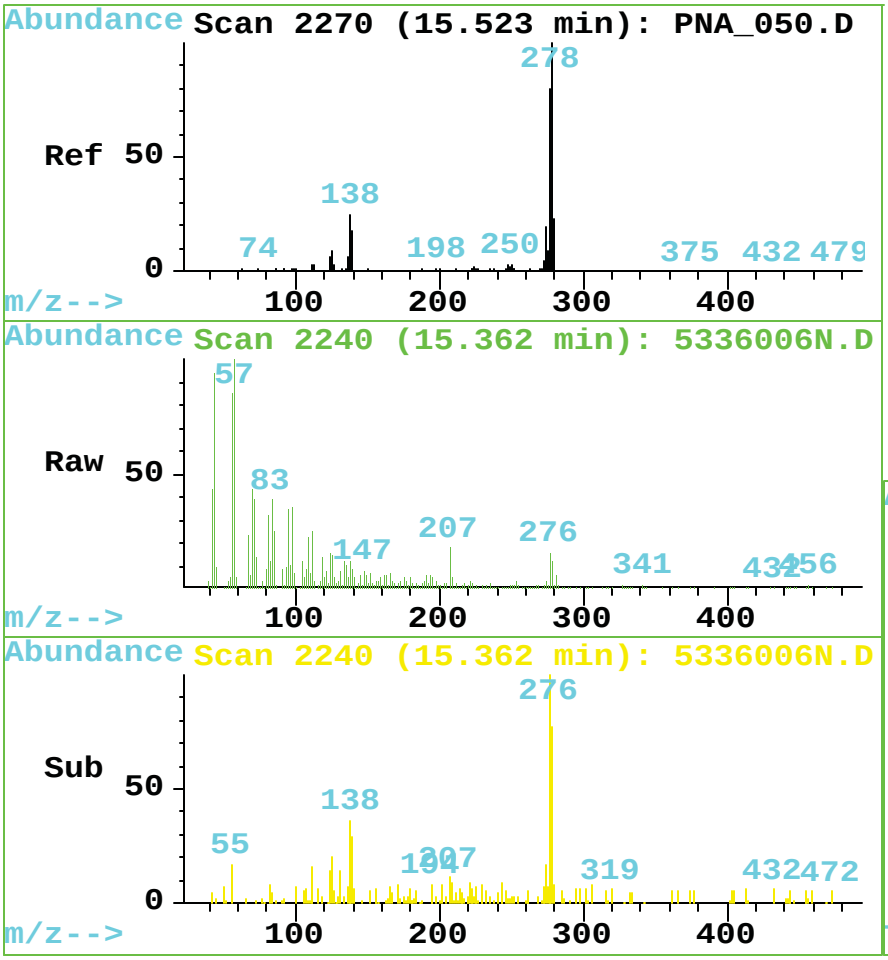




#25
Indeno(1,2,3-cd)pyrene
Concen: 0.45 ng/ul
RT: 15.36 min Scan# 2240
Delta R.T. -0.12 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:276	Resp:	2990	
Ion	Ratio	Lower	Upper
276	100		
138	34.7	0.0	57.7
277	41.9	5.1	45.1
0	0.0	0.0	0.0

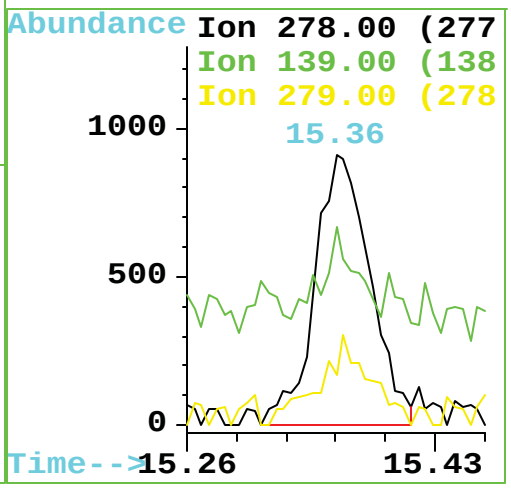


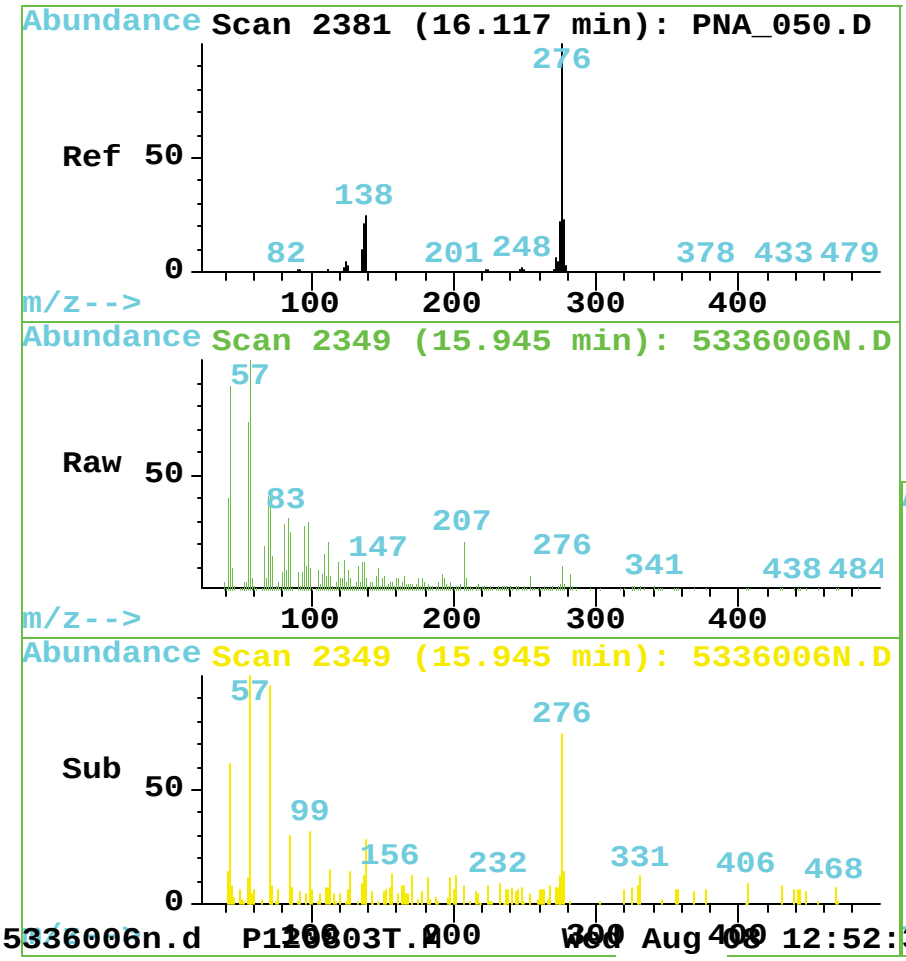


#26
Dibenzo(ah)anthracene
Concen: 0.45 ng/ul
RT: 15.36 min Scan# 2240
Delta R.T. -0.11 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:278 Resp: 2519

Ion	Ratio	Lower	Upper
278	100		
139	23.4	0.0	48.9
279	30.1	8.4	38.4
0	0.0	0.0	0.0

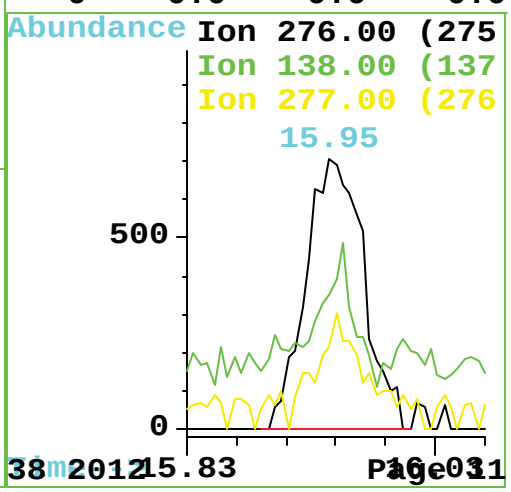




#27
Benzo(ghi)perylene
Concen: 0.42 ng/ul
RT: 15.95 min Scan# 2349
Delta R.T. -0.11 min
Lab File: 5336006n.d
Acq: 3 Aug 12 7:40 pm

Tgt Ion:276 Resp: 2260

Ion	Ratio	Lower	Upper
276	100		
138	28.0	0.0	55.4
277	38.1	3.5	43.5
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336007.d Vial: 10
Acq On : 3 Aug 12 12:30 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:14 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

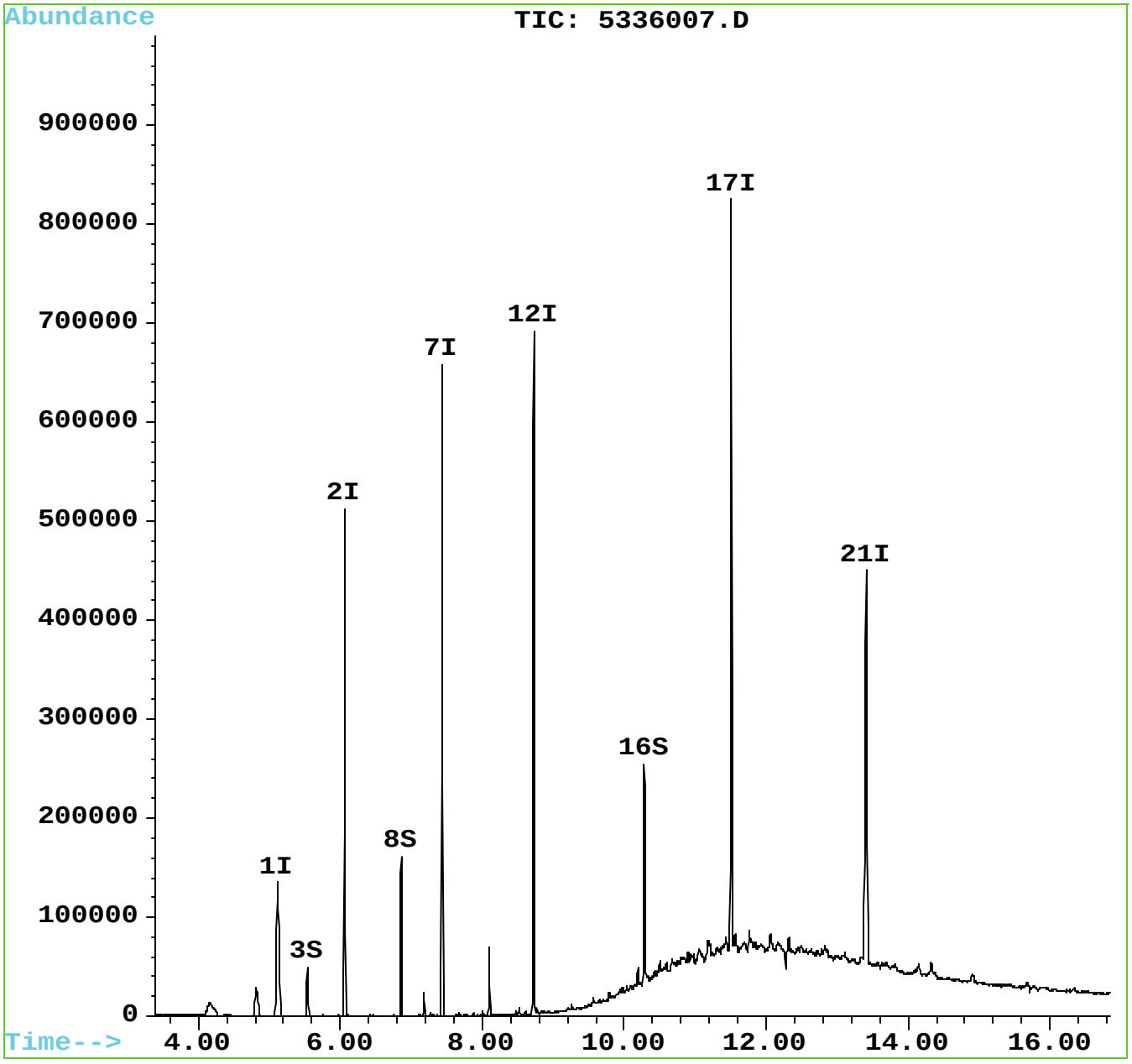
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	48895	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	229796	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	139057	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	250283	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	291558	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	243724	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	20842	12.12	ng/ul	12.1
8) 2-Fluorobiphenyl	6.86	172	44721	10.50	ng/ul	10.5
16) Terphenyl-D14	10.28	244	66250	12.46	ng/ul	12.4
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336007.d Vial: 10
Acq On : 3 Aug 12 12:30 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:14 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336008.d Vial: 11
Acq On : 3 Aug 12 12:52 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:14 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

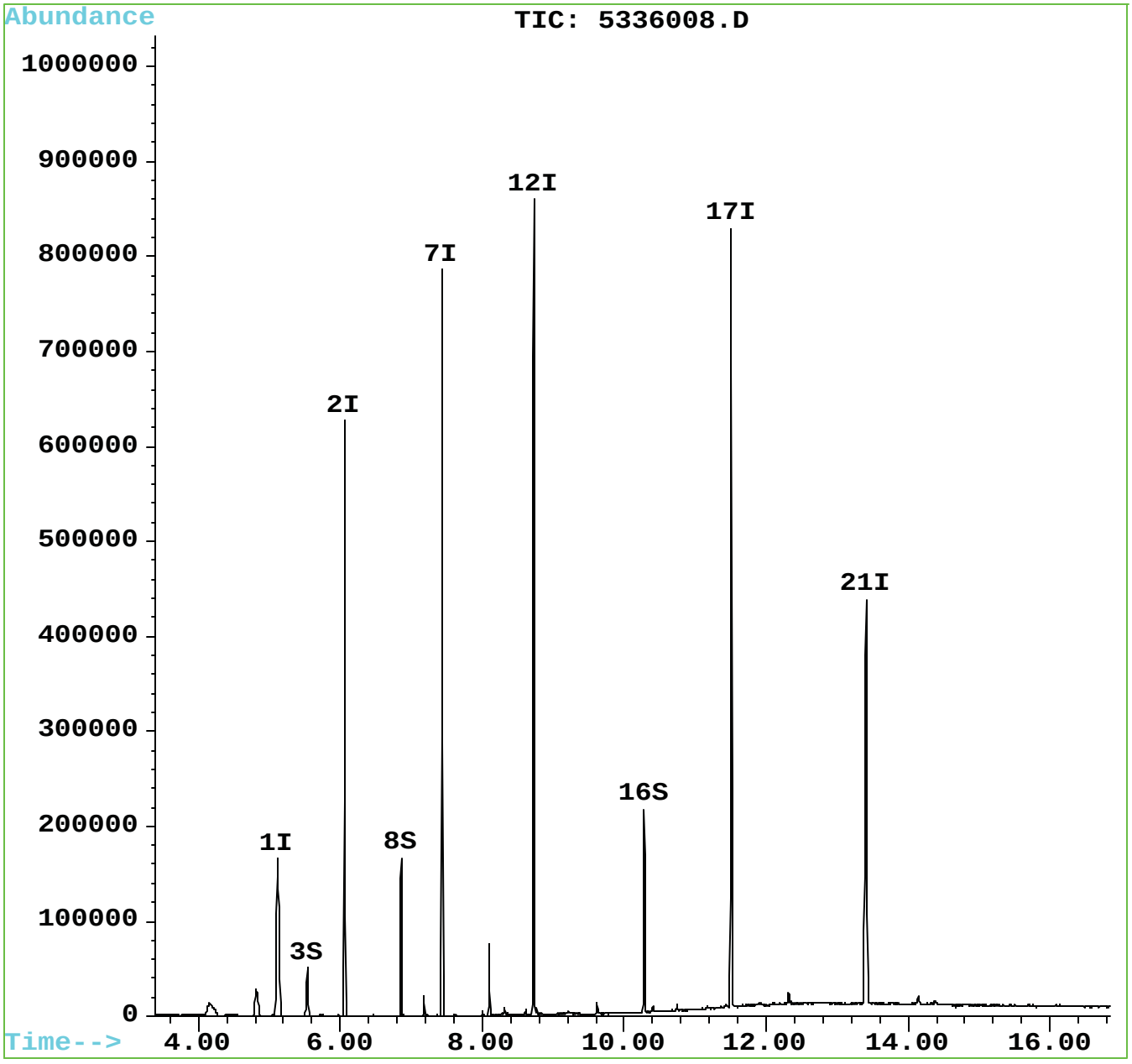
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	59796	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	281906	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	166266	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	300916	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	322352	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	264291	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	20809	9.87	ng/ul	9.8
8) 2-Fluorobiphenyl	6.86	172	46150	9.06	ng/ul	9.0
16) Terphenyl-D14	10.28	244	64117	10.03	ng/ul	10.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336008.d Vial: 11
Acq On : 3 Aug 12 12:52 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:14 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336009.d Vial: 12
Acq On : 3 Aug 12 1:15 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:15 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

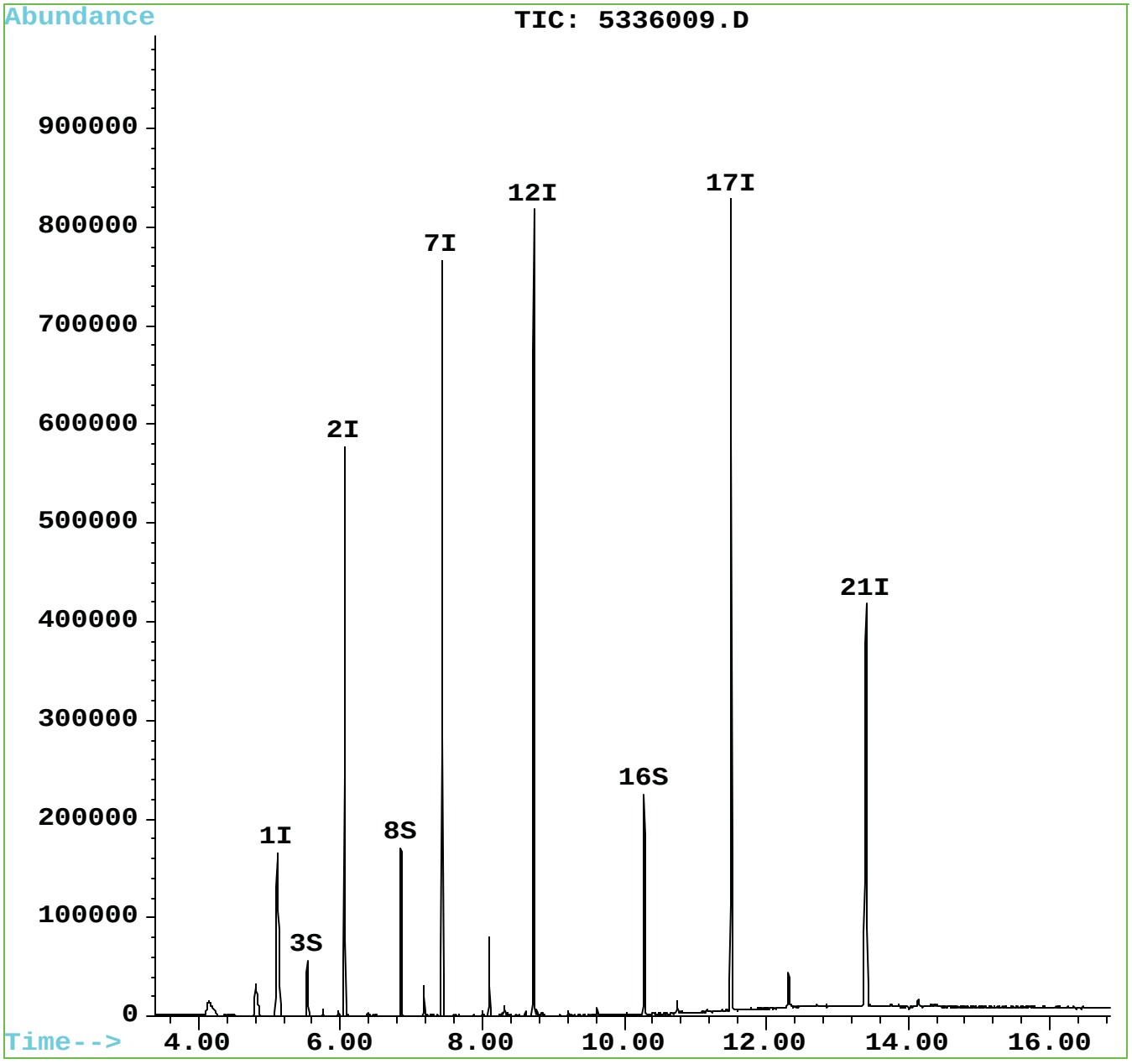
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	57584	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	264743	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	160456	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	287378	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	307811	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	254146	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	22165	11.19	ng/ul	11.1
8) 2-Fluorobiphenyl	6.86	172	49346	10.04	ng/ul	10.0
16) Terphenyl-D14	10.28	244	70786	11.60	ng/ul	11.6
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336009.d Vial: 12
Acq On : 3 Aug 12 1:15 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:15 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336010.d Vial: 13
Acq On : 3 Aug 12 1:38 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:15 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

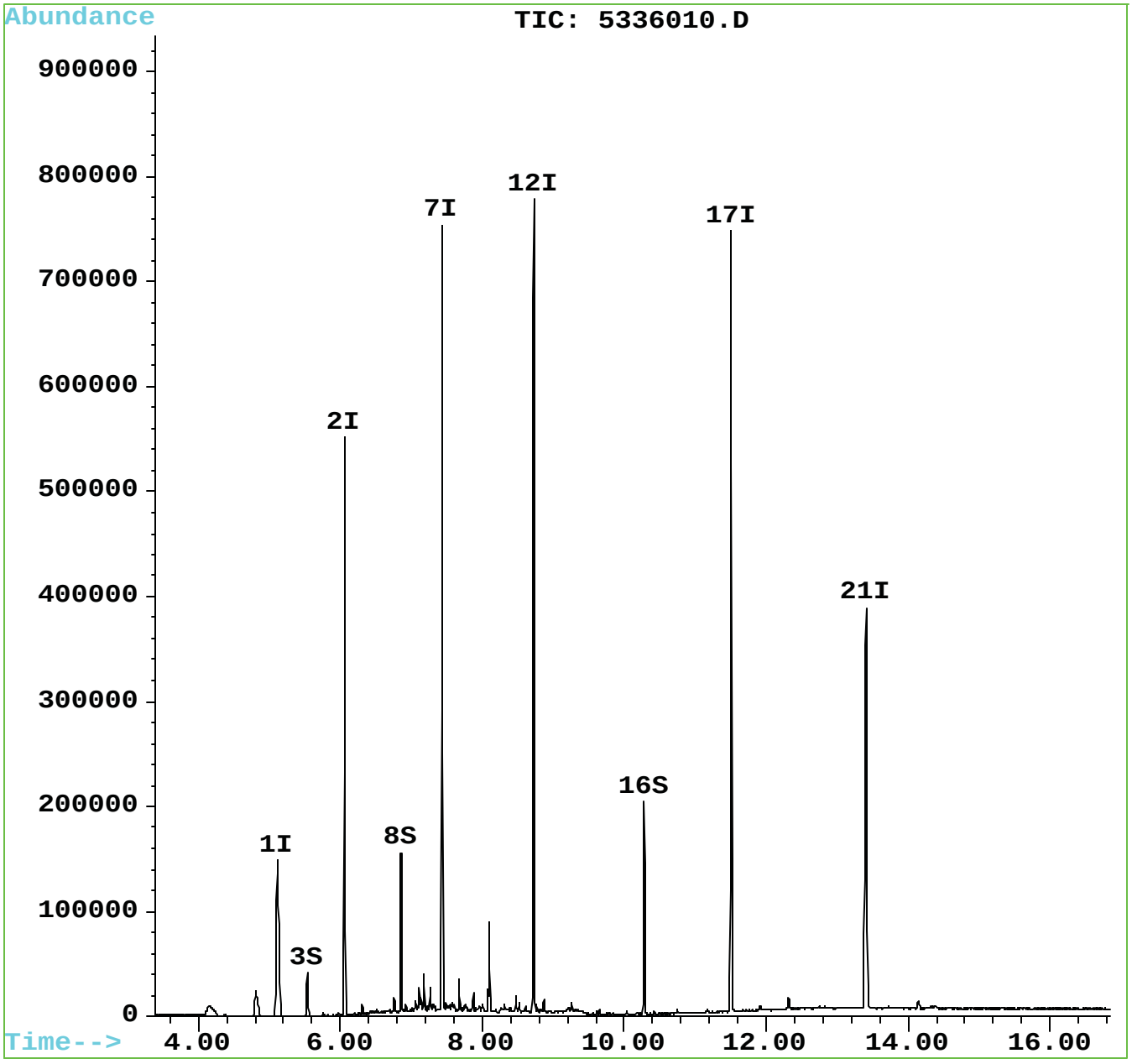
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	53694	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	250866	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	155067	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	279219	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	290556	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	239771	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	16660	8.88	ng/ul	8.8
8) 2-Fluorobiphenyl	6.86	172	42167	8.87	ng/ul	8.8
16) Terphenyl-D14	10.28	244	59029	9.95	ng/ul	9.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336010.d Vial: 13
Acq On : 3 Aug 12 1:38 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:15 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336011.d Vial: 14
Acq On : 3 Aug 12 2:00 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:15 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

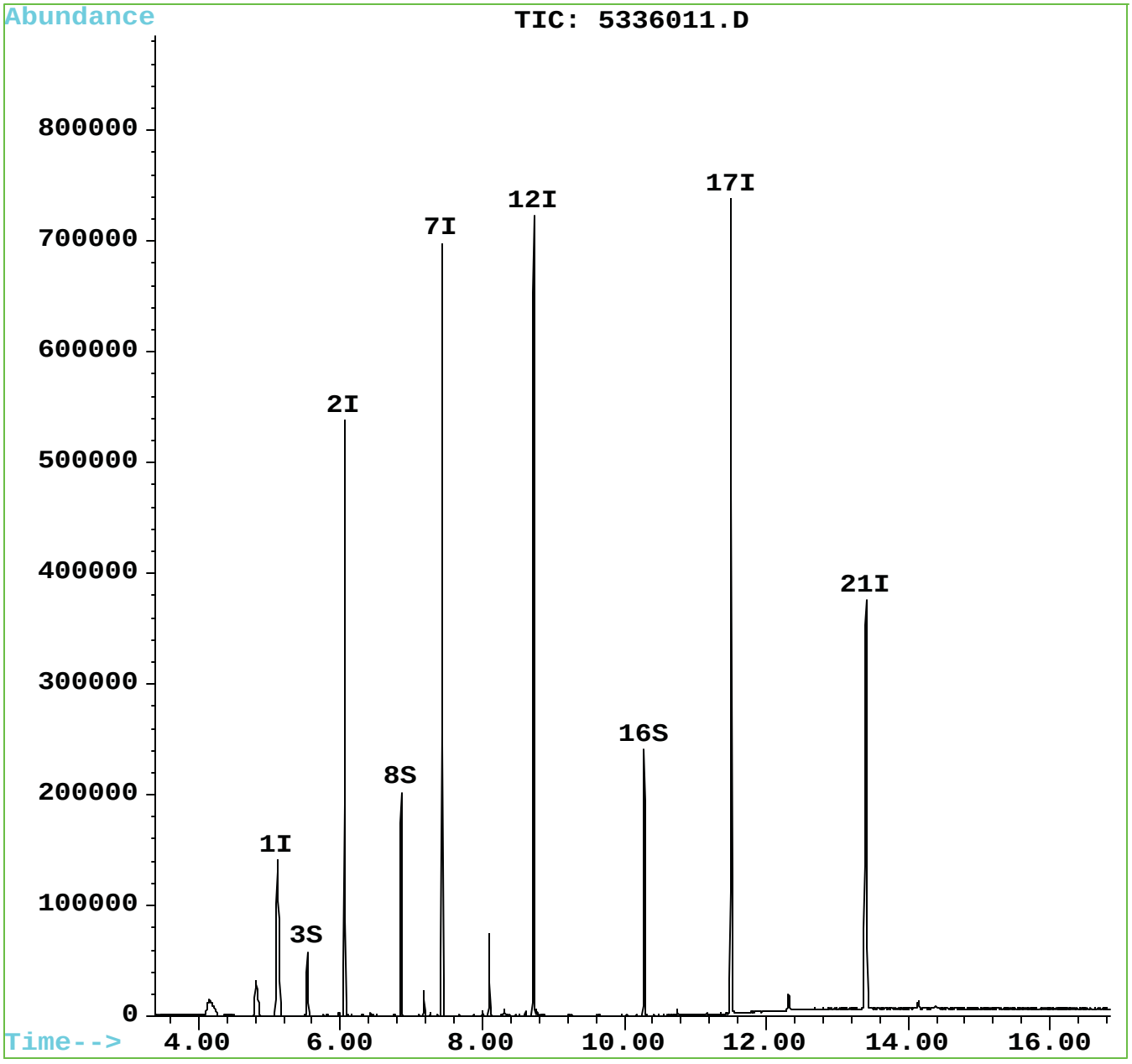
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	50457	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	241097	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	147122	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	264226	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	277544	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	229691	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	23300	12.92	ng/ul	12.9
8) 2-Fluorobiphenyl	6.86	172	54799	12.16	ng/ul	12.1
16) Terphenyl-D14	10.28	244	73039	13.02	ng/ul	13.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336011.d Vial: 14
Acq On : 3 Aug 12 2:00 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:15 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336012.d Vial: 15
Acq On : 3 Aug 12 8:25 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:26 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

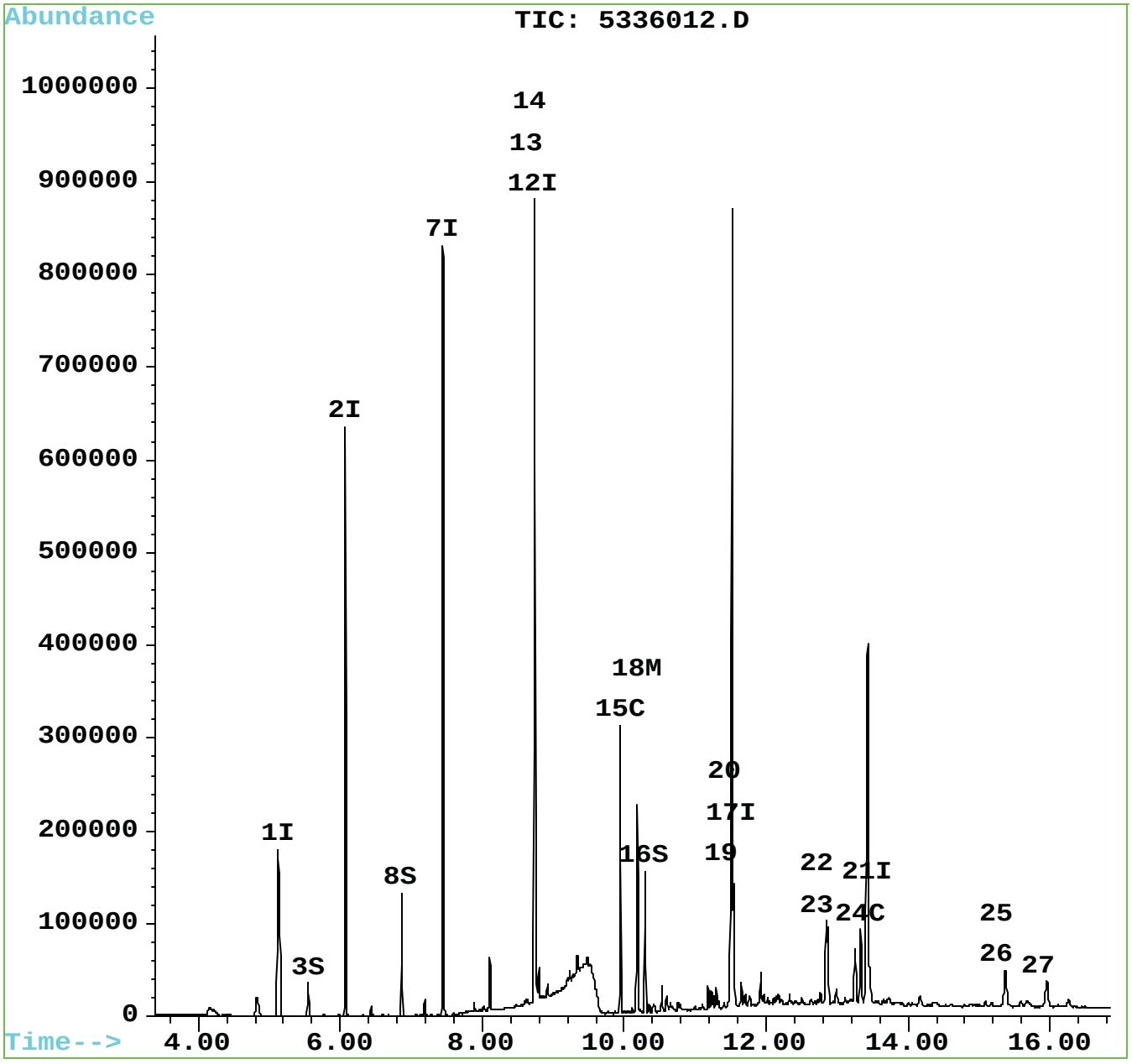
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	60451	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	291243	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	178812	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	311043	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	330547	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	246996	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	14582	6.69	ng/ul	6.6
8) 2-Fluorobiphenyl	6.86	172	34014	6.21	ng/ul	6.2
16) Terphenyl-D14	10.29	244	43724	6.62	ng/ul	6.6
Target Compounds						Qvalu
13) Phenanthrene	8.76	178	54113	6.65	ng/ul	9
14) Anthracene	8.79	178	11910	1.45	ng/ul	9
15) Fluoranthene	9.94	202	116776	12.73	ng/ul	9
18) Pyrene **	10.18	202	98043	12.11	ng/ul	9
19) Benzo(a)anthracene	11.50	228	51028	6.25	ng/ul	9
20) Chrysene	11.55	228	53370	6.65	ng/ul	9
22) Benzo(b)fluoranthene	12.84	252	88091	13.63	ng/ulm	9
23) Benzo(k)fluoranthene	12.84	252	88091	14.82	ng/ulm	9
24) Benzo(a)pyrene	13.34	252	46820	8.66	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.37	276	30049	4.14	ng/ul	9
26) Dibenzo(ah)anthracene	15.37	278	8587	1.40	ng/ulm	8
27) Benzo(ghi)perylene	15.96	276	28450	4.85	ng/ul	9

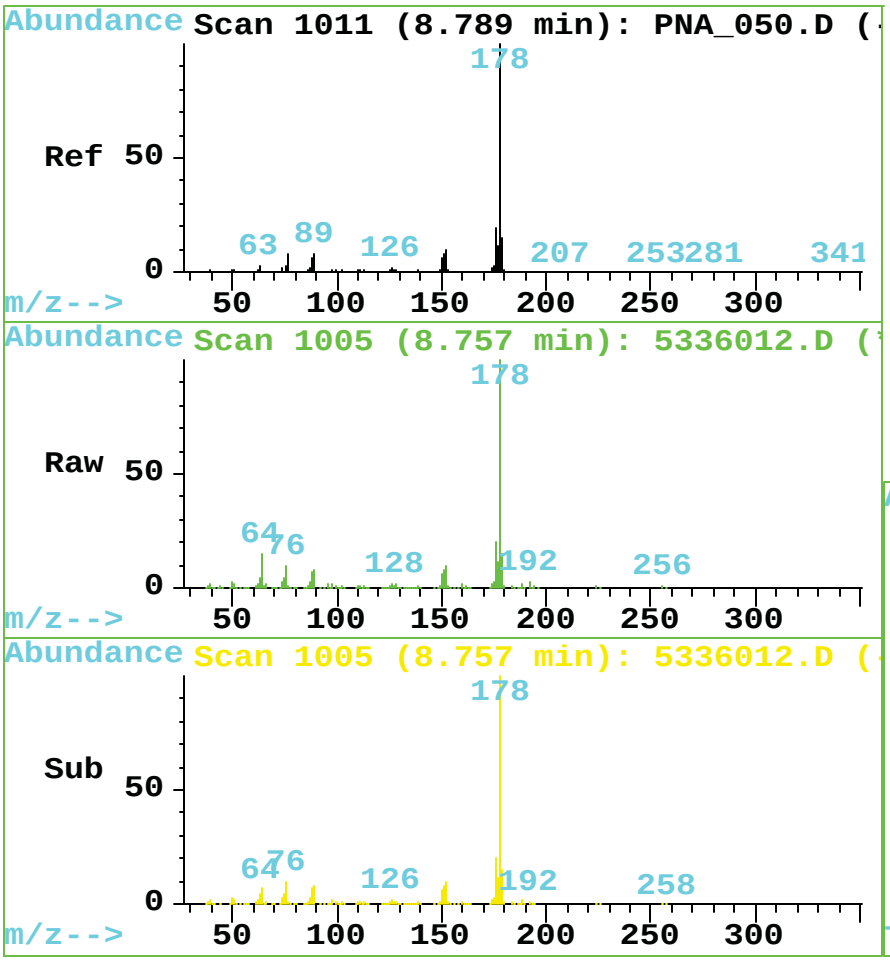
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336012.d Vial: 15
Acq On : 3 Aug 12 8:25 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:26 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

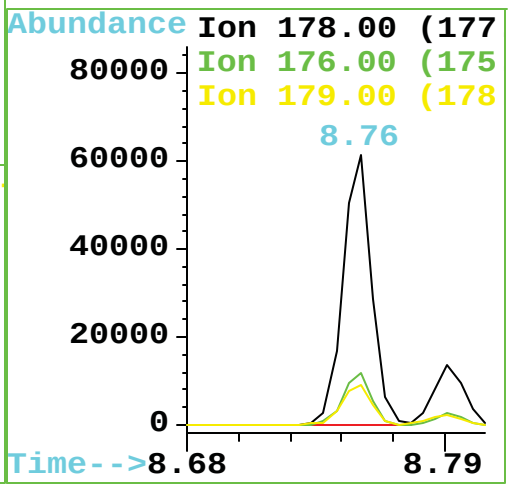


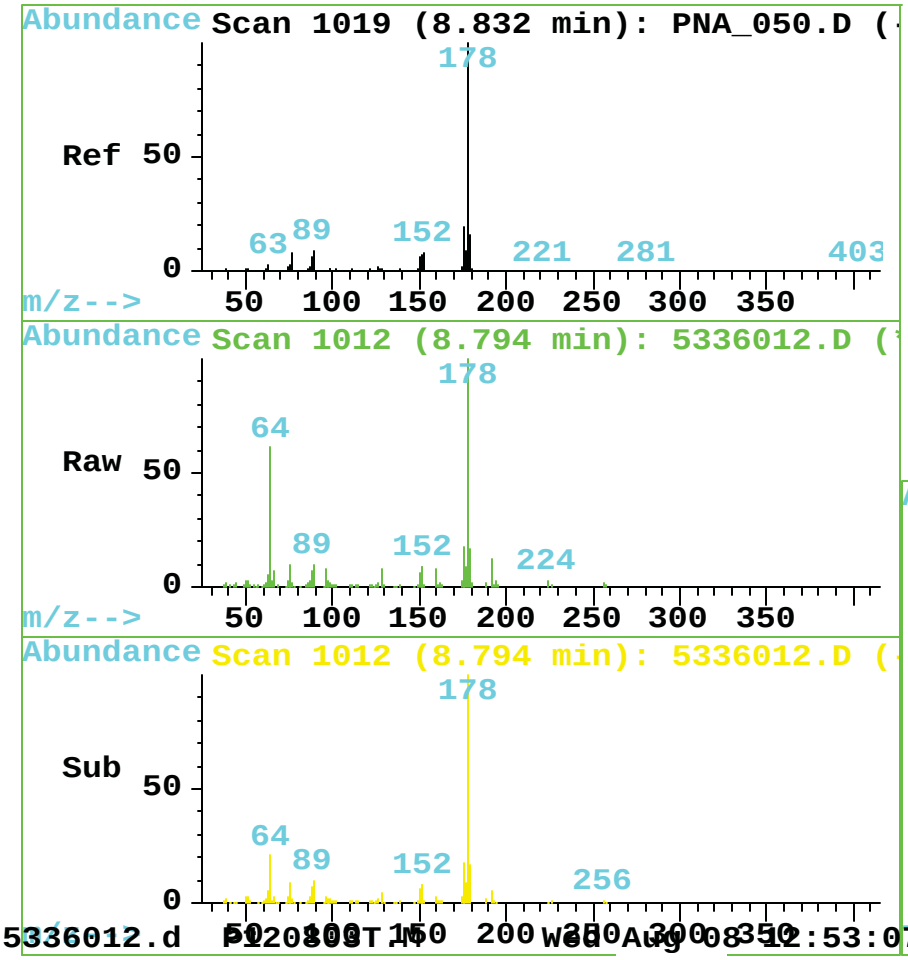


#13
Phenanthrene
Concen: 6.65 ng/ul
RT: 8.76 min Scan# 1005
Delta R.T. -0.01 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:178 Resp: 54113

Ion	Ratio	Lower	Upper
178	100		
176	19.3	0.0	49.3
179	15.8	0.0	45.3
0	0.0	0.0	0.0

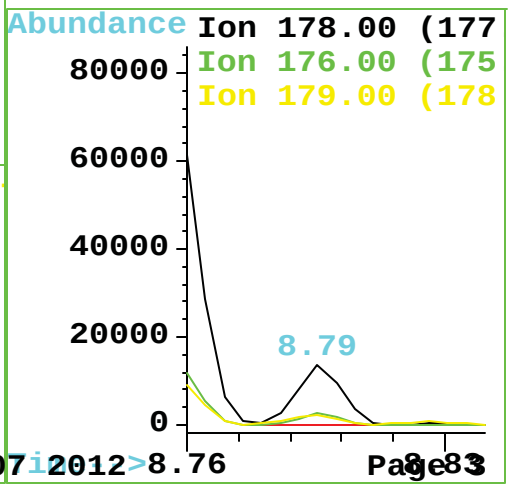


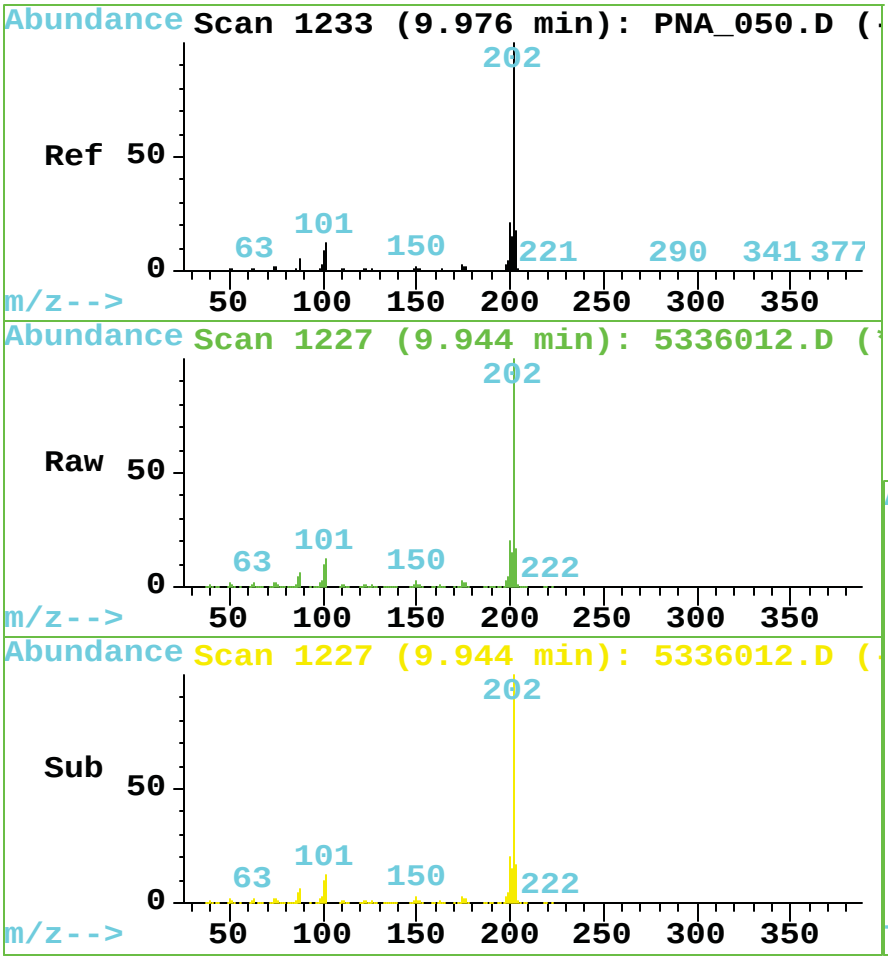


#14
Anthracene
Concen: 1.45 ng/ul
RT: 8.79 min Scan# 1012
Delta R.T. -0.02 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:178 Resp: 11910

Ion	Ratio	Lower	Upper
178	100		
176	19.5	0.0	49.0
179	19.4	0.0	45.6
0	0.0	0.0	0.0

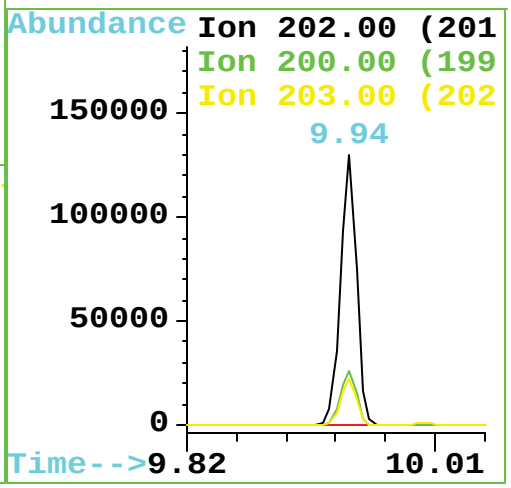


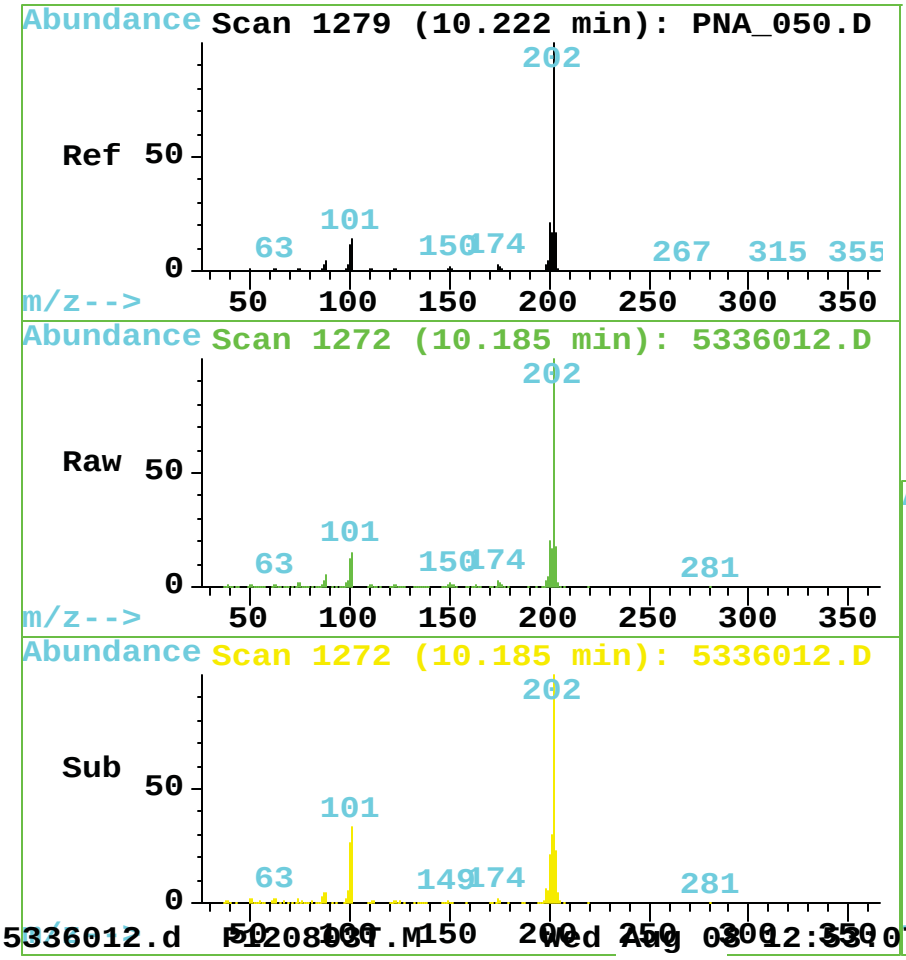


#15
Fluoranthene
Concen: 12.73 ng/ul
RT: 9.94 min Scan# 1227
Delta R.T. -0.01 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:202 Resp: 116776

Ion	Ratio	Lower	Upper
202	100		
200	20.0	0.0	50.9
203	17.3	0.0	47.6
0	0.0	0.0	0.0

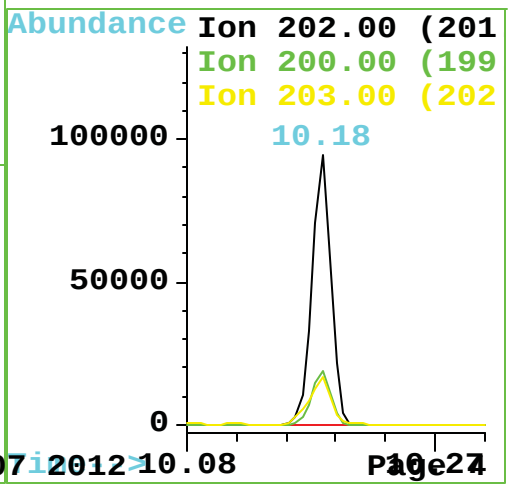


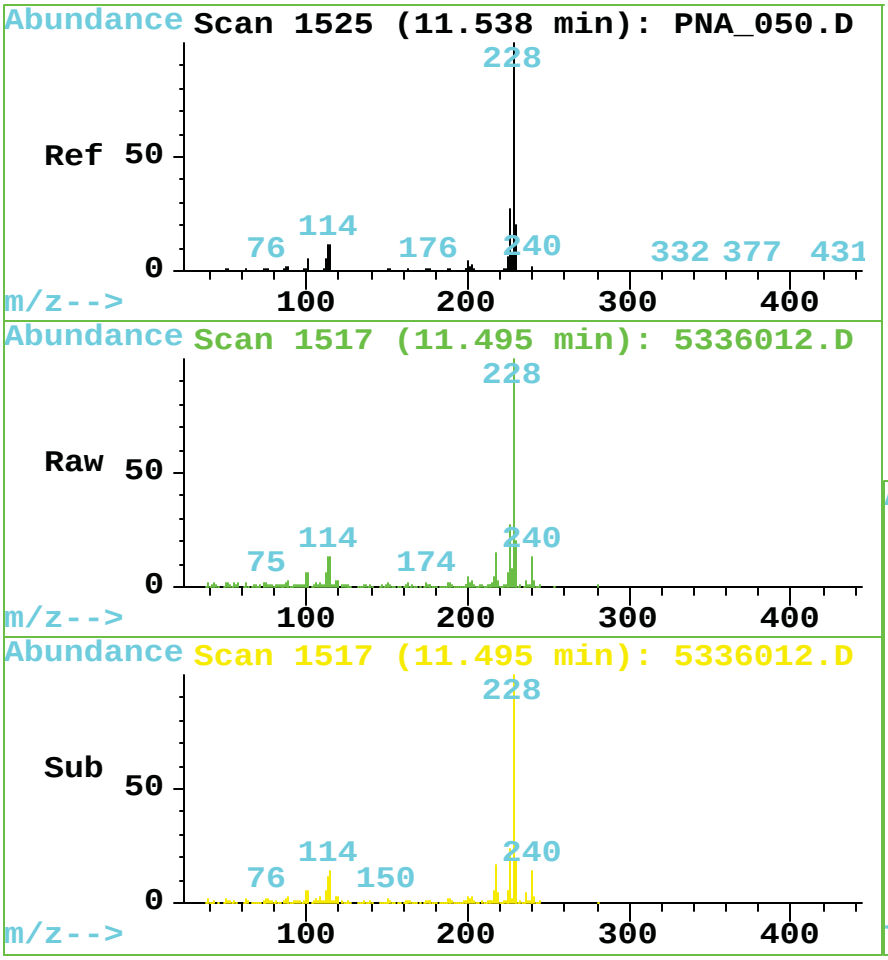


#18
Pyrene **
Concen: 12.11 ng/ul
RT: 10.18 min Scan# 1272
Delta R.T. -0.01 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:202 Resp: 98043

Ion	Ratio	Lower	Upper
202	100		
200	20.6	0.0	51.0
203	21.8	0.0	47.7
0	0.0	0.0	0.0

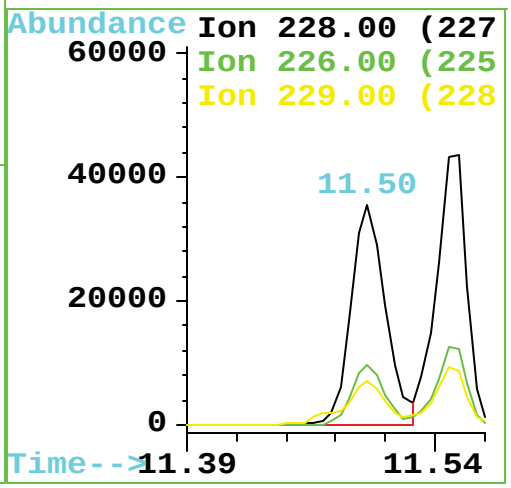


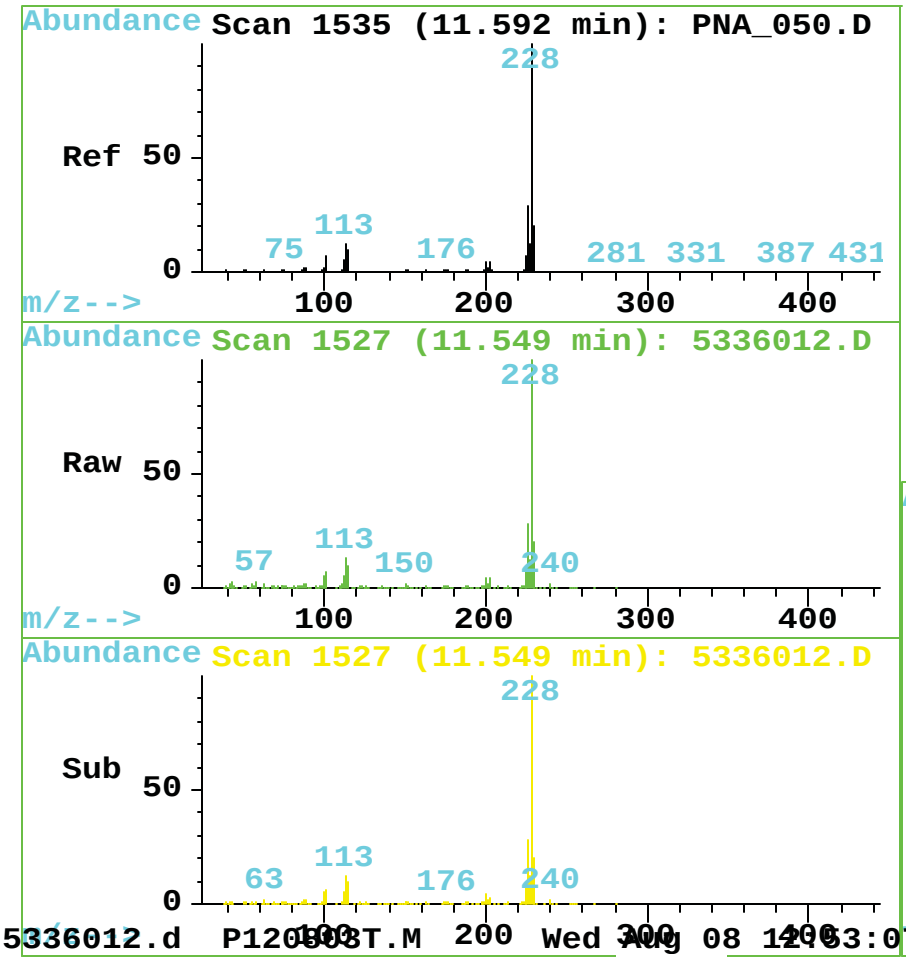


#19
Benzo(a)anthracene
Concen: 6.25 ng/ul
RT: 11.50 min Scan# 1517
Delta R.T. -0.02 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:228 Resp: 51028

Ion	Ratio	Lower	Upper
228	100		
226	25.8	0.0	57.0
229	23.7	0.0	49.7
0	0.0	0.0	0.0

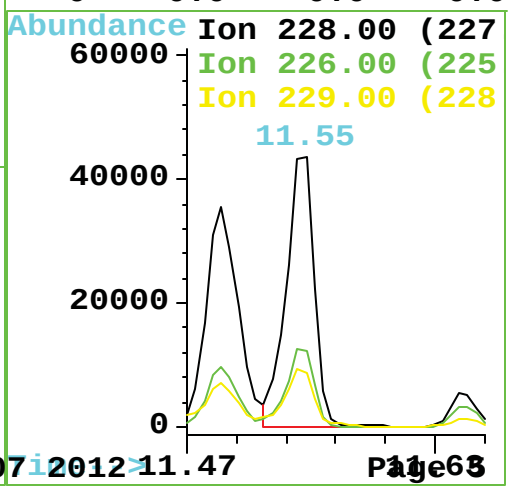


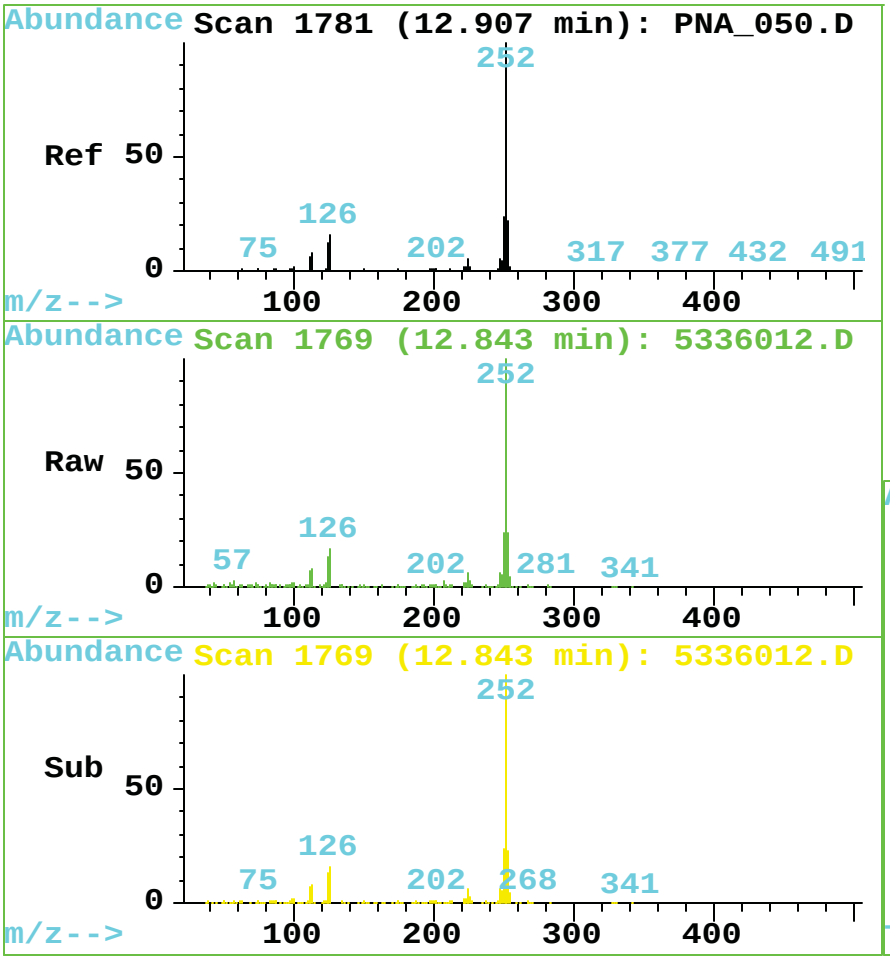


#20
Chrysene
Concen: 6.65 ng/ul
RT: 11.55 min Scan# 1527
Delta R.T. -0.02 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:228 Resp: 53370

Ion	Ratio	Lower	Upper
228	100		
226	29.5	0.0	59.5
229	23.6	0.0	49.6
0	0.0	0.0	0.0

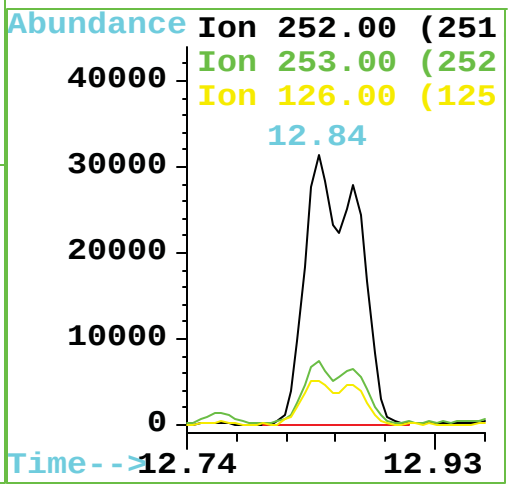


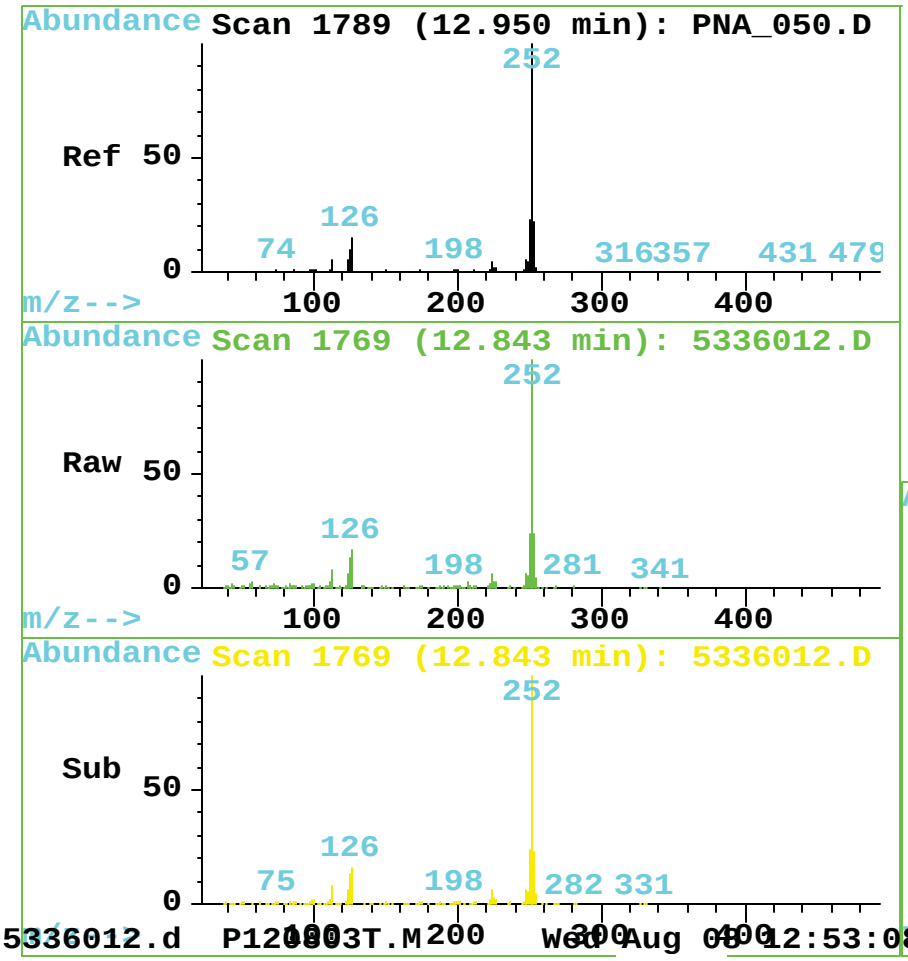


#22
Benzo(b)fluoranthene
Concen: 13.63 ng/ul m
RT: 12.84 min Scan# 1769
Delta R.T. -0.02 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:252 Resp: 88091

Ion	Ratio	Lower	Upper
252	100		
253	24.0	0.0	52.1
126	16.5	0.0	45.1
0	0.0	0.0	0.0

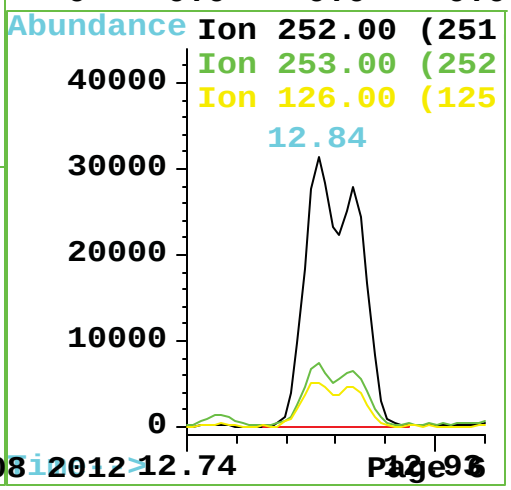


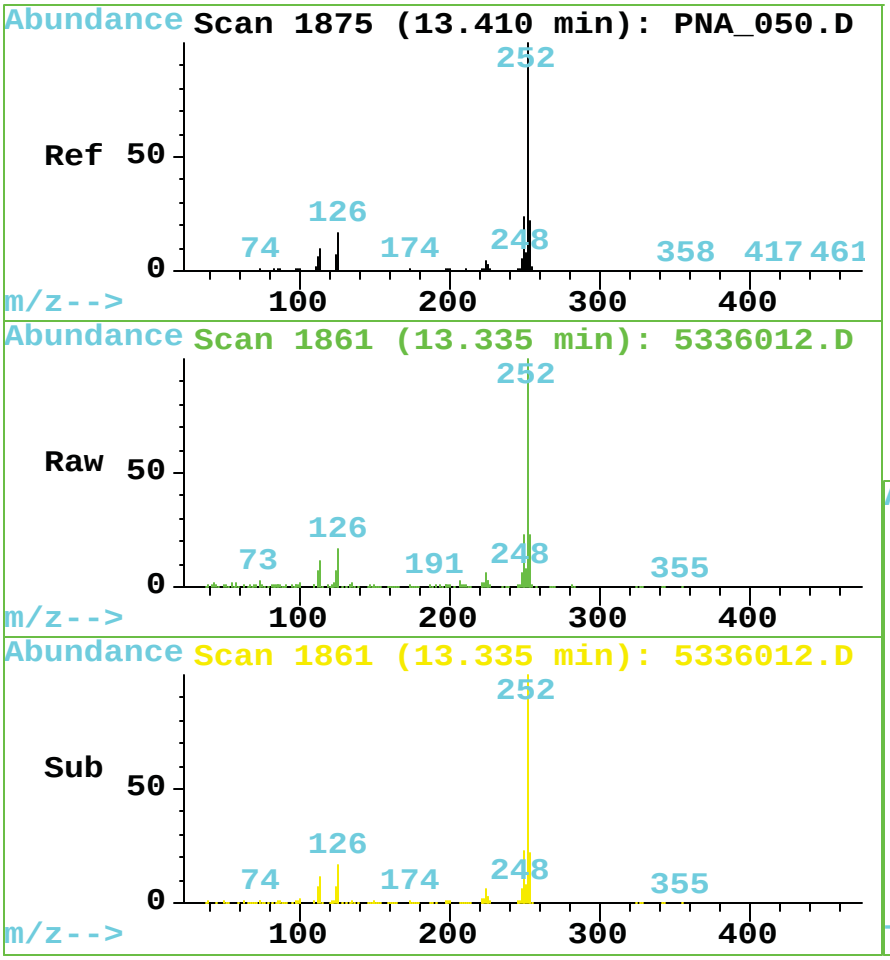


#23
Benzo(k)fluoranthene
Concen: 14.82 ng/ul m
RT: 12.84 min Scan# 1769
Delta R.T. -0.06 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:252 Resp: 88091

Ion	Ratio	Lower	Upper
252	100		
253	24.0	0.0	51.9
126	16.5	0.0	46.4
0	0.0	0.0	0.0

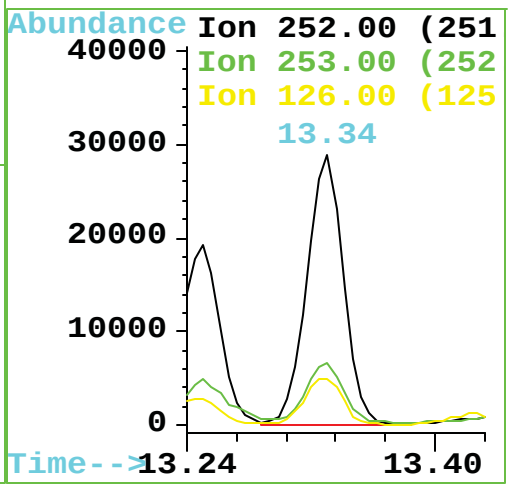


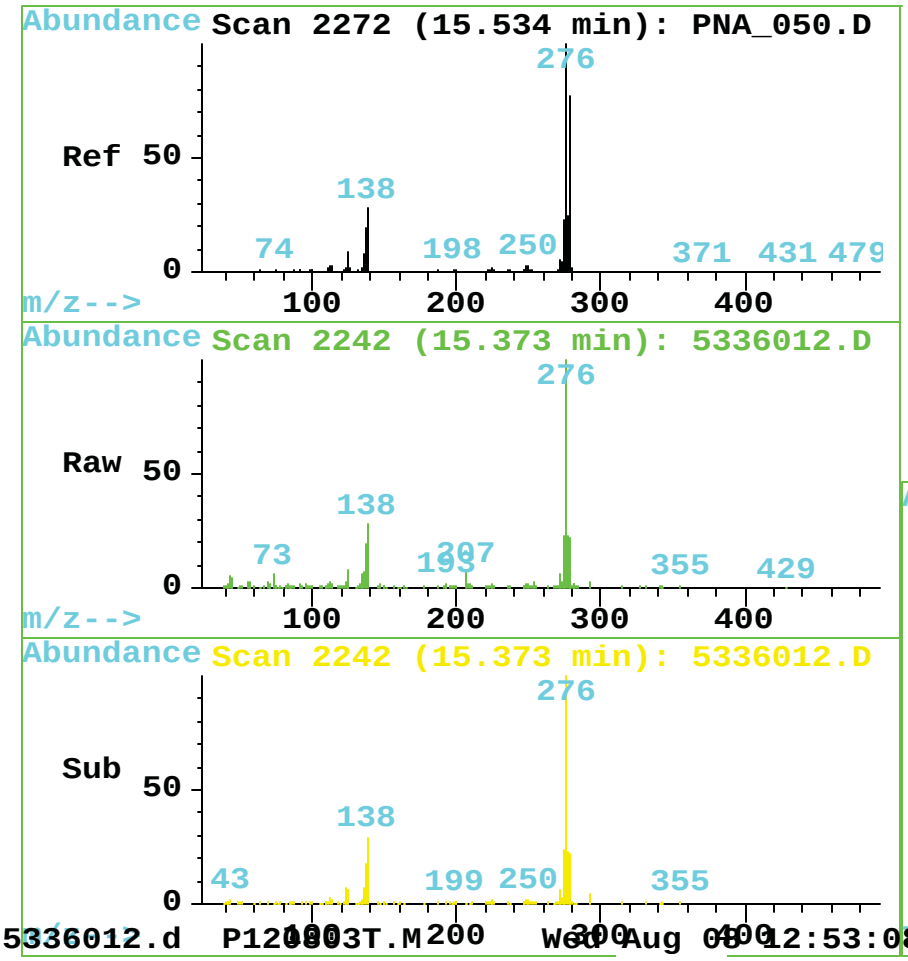


#24
Benzo(a)pyrene
Concen: 8.66 ng/ul
RT: 13.34 min Scan# 1861
Delta R.T. -0.03 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:252 Resp: 46820

Ion	Ratio	Lower	Upper
252	100		
253	22.8	0.0	52.0
126	18.4	0.0	47.3
0	0.0	0.0	0.0

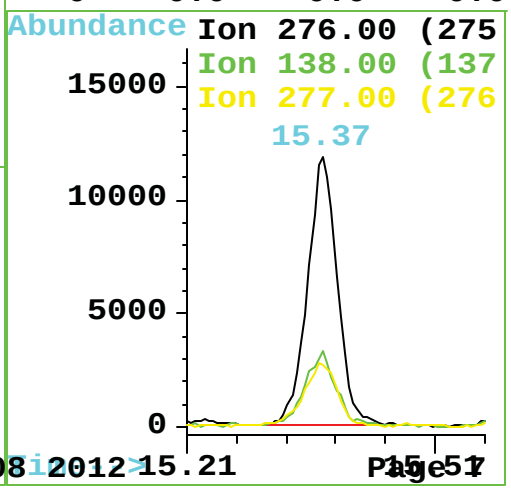


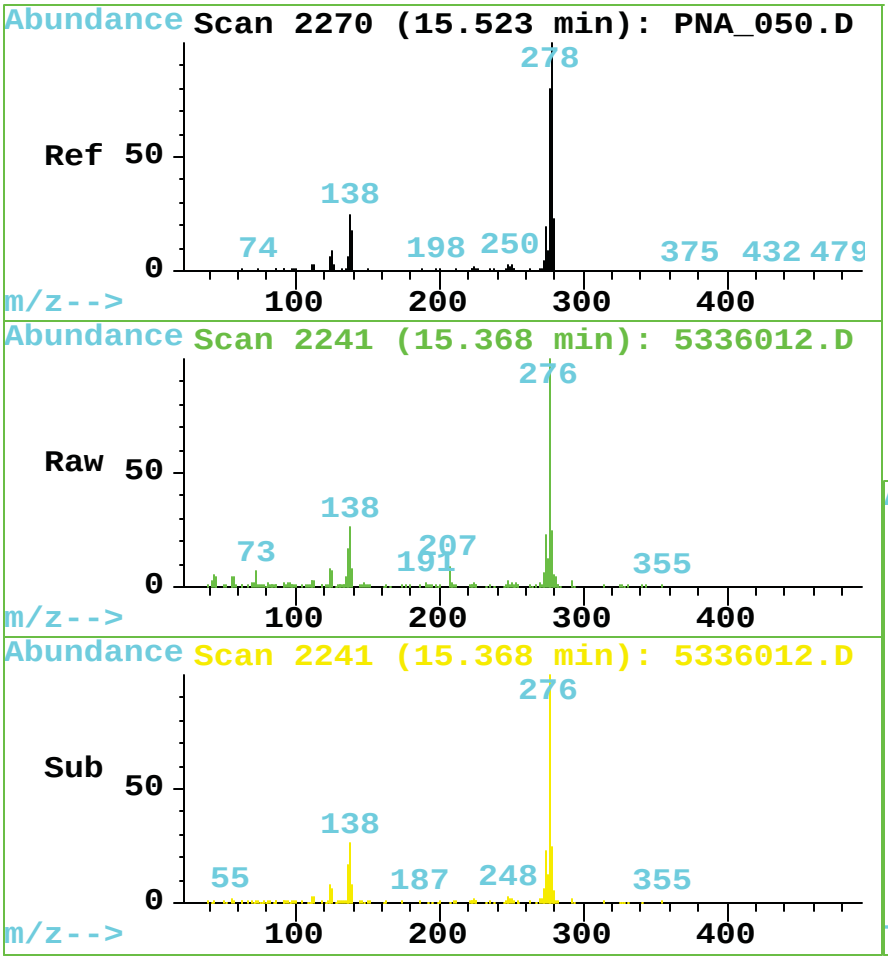


#25
Indeno(1,2,3-cd)pyrene
Concen: 4.14 ng/ul
RT: 15.37 min Scan# 2242
Delta R.T. -0.11 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:276 Resp: 30049

Ion	Ratio	Lower	Upper
276	100		
138	29.6	0.0	57.7
277	27.8	5.1	45.1
0	0.0	0.0	0.0

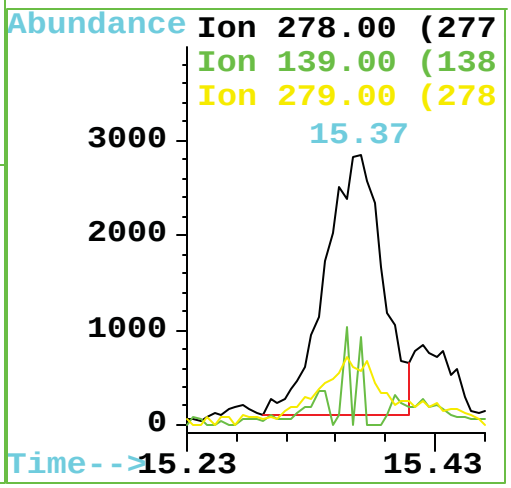


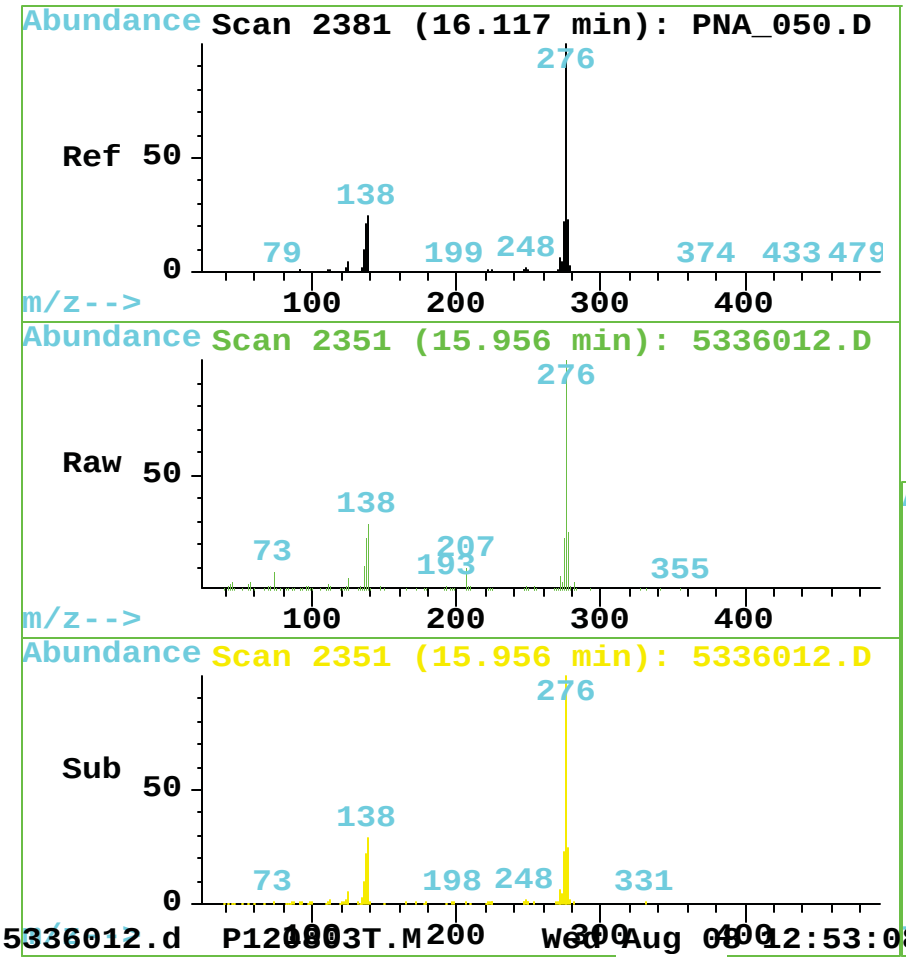


#26
Dibenzo(ah)anthracene
Concen: 1.40 ng/ul m
RT: 15.37 min Scan# 2241
Delta R.T. -0.10 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:278 Resp: 8587

Ion	Ratio	Lower	Upper
278	100		
139	32.2	0.0	48.9
279	19.6	8.4	38.4
0	0.0	0.0	0.0

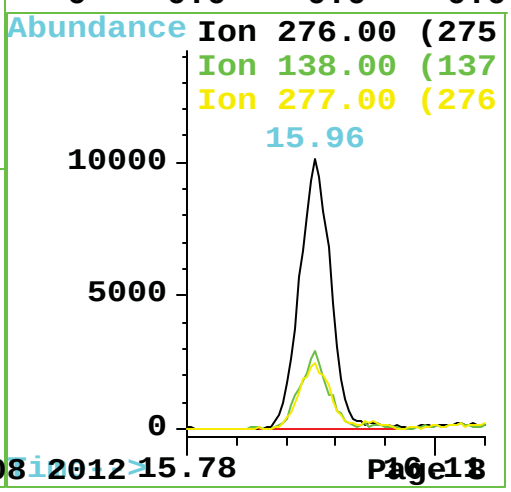




#27
Benzo(ghi)perylene
Concen: 4.85 ng/ul
RT: 15.96 min Scan# 2351
Delta R.T. -0.10 min
Lab File: 5336012.d
Acq: 3 Aug 12 8:25 pm

Tgt Ion:276 Resp: 28450

Ion	Ratio	Lower	Upper
276	100		
138	26.0	0.0	55.4
277	24.2	3.5	43.5
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336013.d Vial: 16
Acq On : 3 Aug 12 2:23 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:15 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

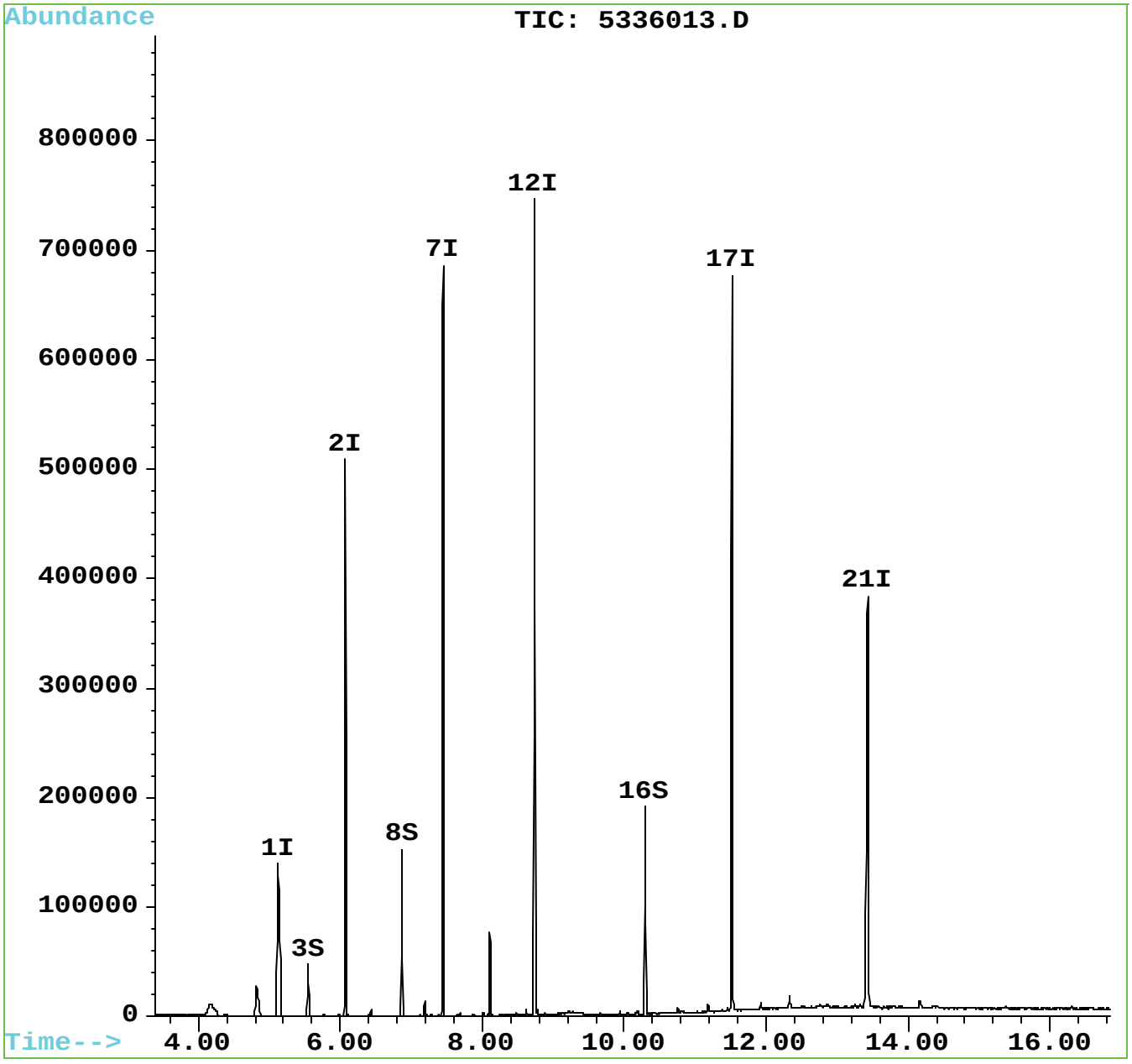
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	49834	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	240242	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	145923	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	262225	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	283055	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	235438	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	19075	10.61	ng/ul	10.6
8) 2-Fluorobiphenyl	6.87	172	43986	9.84	ng/ul	9.8
16) Terphenyl-D14	10.29	244	60711	10.90	ng/ul	10.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5336013.d Vial: 16
Acq On : 3 Aug 12 2:23 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:15 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120803t.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	A	0.299	3.04	0.288	0.295	0.291	0.306	0.309	0.307				
	Naphthalene	A	0.994	2.36	1.014	0.969	0.959	1.007	1.009	1.004				
	2-Methylnaphthalene	A	0.556	3.05	0.542	0.540	0.541	0.568	0.575	0.572				
	1-Methylnaphthalene	A	0.648	3.33	0.626	0.628	0.632	0.659	0.673	0.669				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.226	4.08	1.179	1.179	1.184	1.265	1.286	1.261				
	Acenaphthylene	A	1.639	7.00	1.432	1.610	1.621	1.711	1.734	1.726				
	Acenaphthene **	A	0.978	3.73	0.937	0.953	0.948	1.007	1.024	1.000				
	Fluorene	A	1.263	4.43	1.187	1.220	1.237	1.304	1.324	1.307				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	A	1.047	3.62	1.100	1.002	1.006	1.047	1.072	1.053				
	Anthracene	A	1.057	3.26	1.024	1.025	1.035	1.065	1.108	1.083				
	Fluoranthene	A	1.179	5.74	1.081	1.132	1.151	1.228	1.243	1.241				
	Terphenyl-D14	A	0.850	7.10	0.811	0.775	0.803	0.887	0.916	0.906				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	0.980	8.44	0.819	0.981	0.985	1.026	1.045	1.024				
	Benzo(a)anthracene	A	0.988	3.92	0.975	0.939	0.956	1.000	1.041	1.019				
	Chrysene	A	0.971	5.16	0.901	0.939	0.945	0.999	1.027	1.016				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	1.046	9.60	0.869	0.990	1.076	1.110	1.140	1.092				
	Benzo(k)fluoranthene	A	0.963	10.65	0.835	0.872	0.916	1.030	1.030	1.092				
	Benzo(a)pyrene	A	0.876	7.14	0.792	0.811	0.867	0.919	0.937	0.927				
	Indeno(1,2,3-cd)pyrene	A	1.175	10.15	0.969	1.106	1.184	1.256	1.267	1.269				
	Dibenzo(ah)anthracene	A	0.996	11.49	0.797	0.924	1.018	1.076	1.082	1.076				
	Benzo(ghi)perylene	A	0.950	4.75	0.889	0.904	0.944	0.986	0.993	0.984				

Calibration Date: 80/3t/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120803t.M (Mean %RSD: 5.81)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\thanatos.4\methods\p120803t.m\

Injection Time	Calibration Data File
06/20/12 14:26	d20a.d
06/20/12 14:54	pna0005.d
06/20/12 16:01	pna_020.d
06/20/12 16:23	pna_040.d
06/20/12 16:46	pna_050.d
06/20/12 17:08	pna_060.d
06/20/12 17:31	pna_080.d
06/20/12 17:53	pna_100.d

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

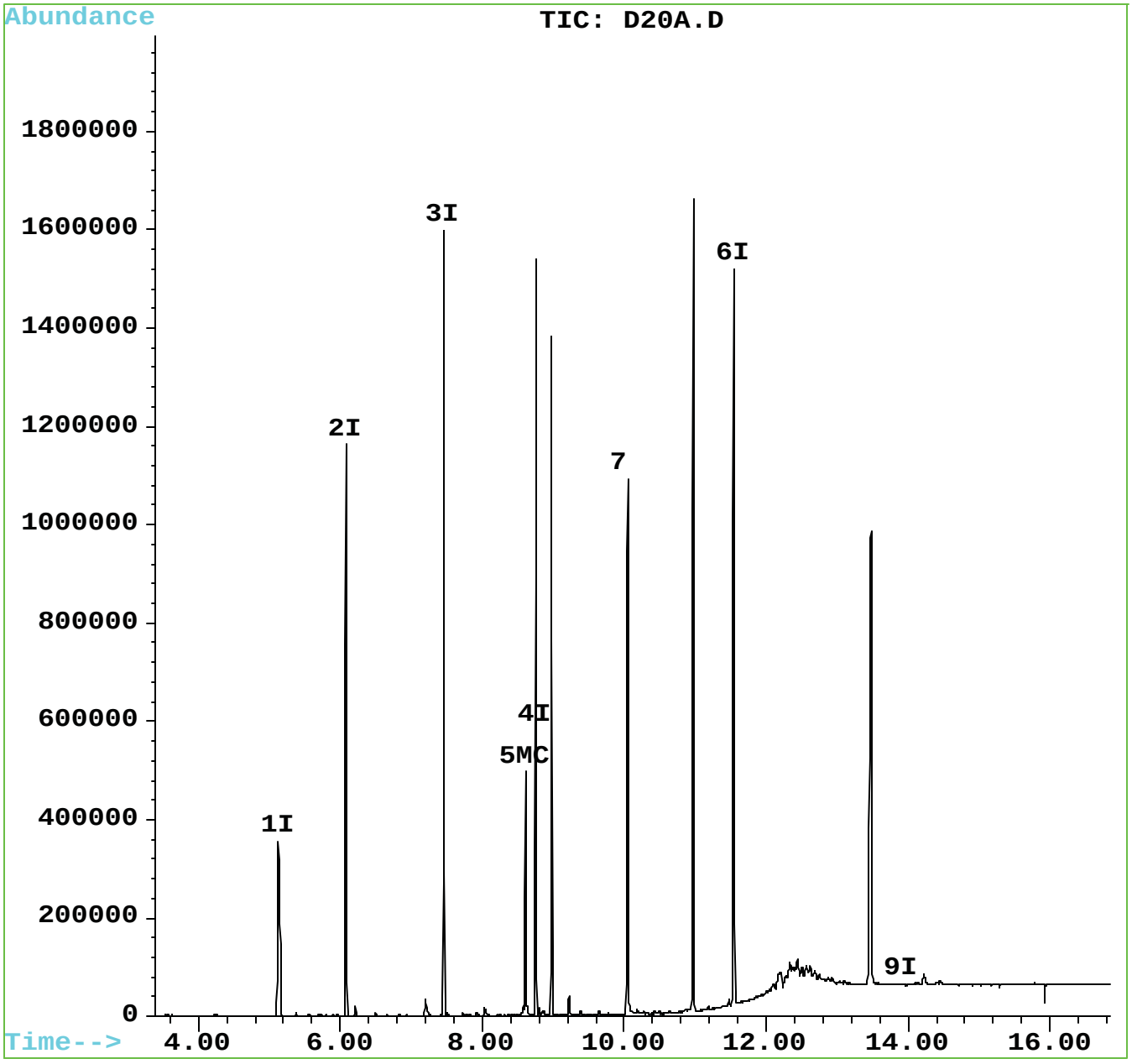
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	132678	40.00	ng/ul	-0.1
2) NAPHTHALENE-D8	6.08	136	569431	40.00	ng/ul	-0.1
3) ACENAPHTHALENE-D10	7.46	160	141248	40.00	ng/ul	-0.1
4) PHENANTHRENE-D10	8.75	188	623392	40.00	ng/ul	-0.1
6) CHRYSENE-D12	11.55	240	698034	40.00	ng/ul	-0.1
9) PERYLENE-D12	13.91	264	138	40.00	ng/ul	0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.61	266	58390	28.87	ng/ul	9
7) Benzidine	10.05	184	503493	85.56	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

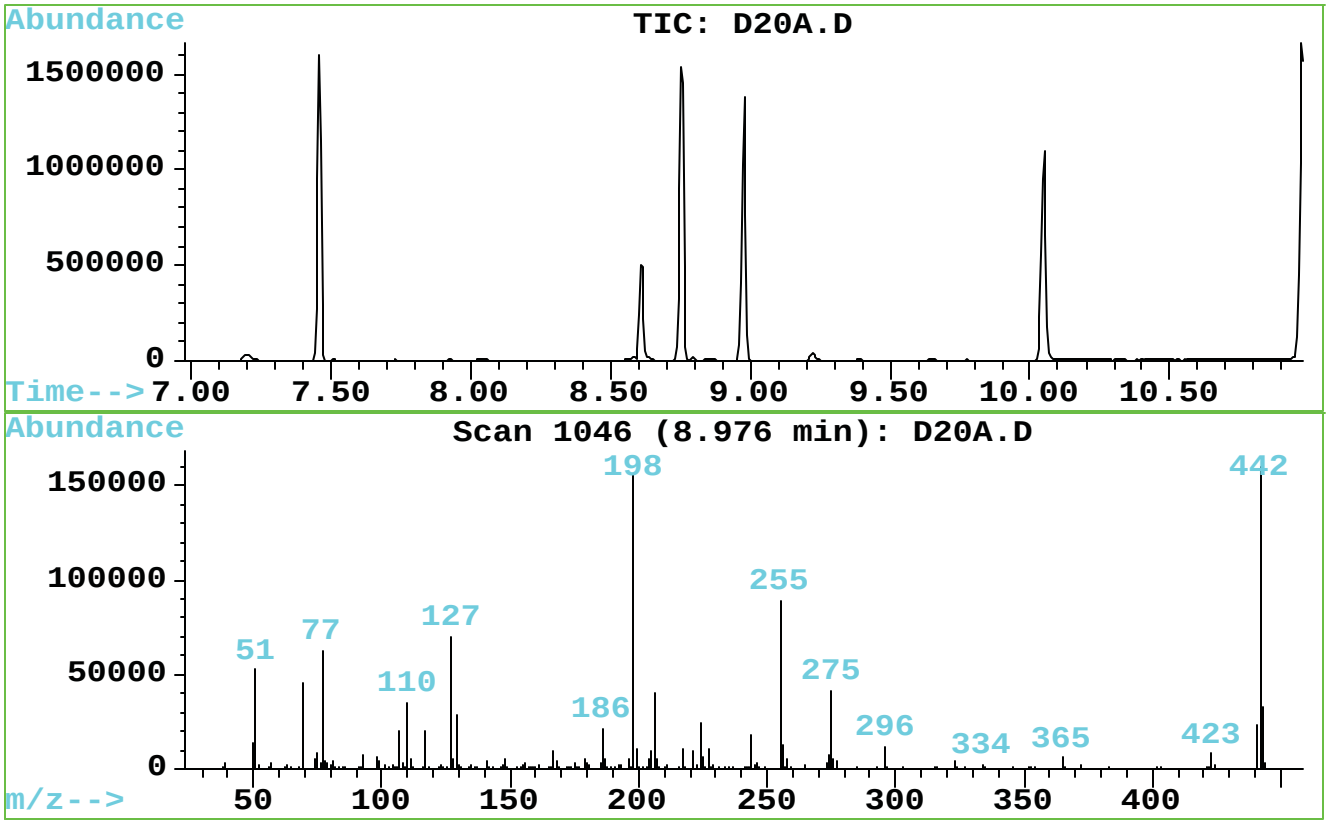
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120620.CAL\D20A.D Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270



Peak Apex is scan: 1046

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	33.7	52576	PASS
68	69	0	2	1.6	727	PASS
69	198	0	100	29.2	45504	PASS
70	69	0	2	0.6	257	PASS
127	198	25	75	45.1	70240	PASS
197	198	0	1	0.7	1032	PASS
198	198	100	100	100.0	155904	PASS
199	198	5	9	6.7	10402	PASS
275	198	10	30	26.5	41352	PASS
365	198	1	100	3.8	5941	PASS
441	443	0	100	71.5	23560	PASS
442	198	40	110	102.8	160256	PASS
443	442	15	24	20.6	32936	PASS

D20A.D P120620T.M Thu Jul 05 13:13:55 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

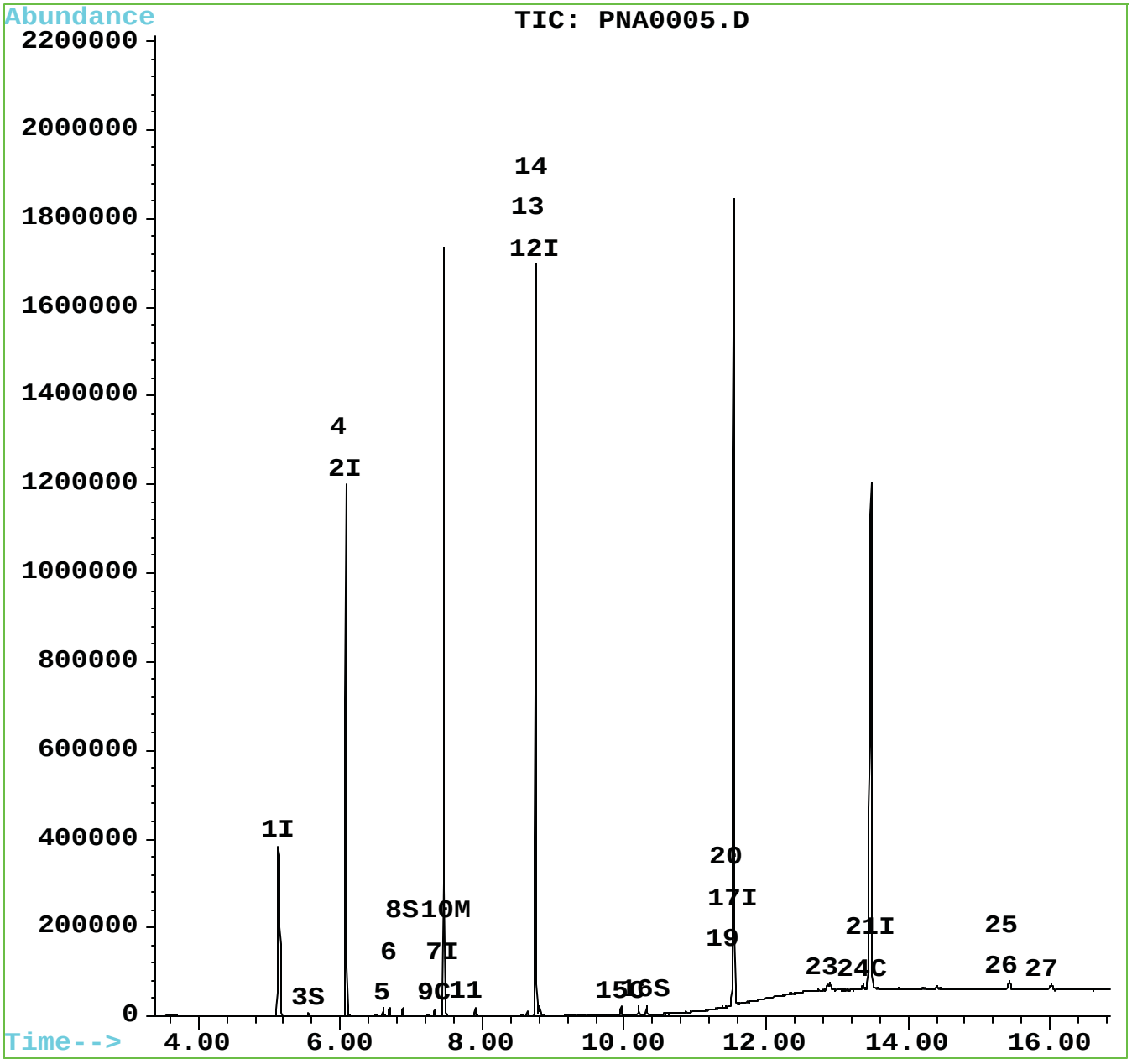
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	143390	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	584359	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	361670	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640265	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	851411	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	810081	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	2104	0.41	ng/ul	0.4
8) 2-Fluorobiphenyl	6.88	172	5332	0.49	ng/ul	0.4
16) Terphenyl-D14	10.31	244	6487	0.47	ng/ul	0.4
Target Compounds						Qvalu
4) Naphthalene	6.09	128	7409	0.50	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	3958	0.49	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	4576	0.49	ng/ul	9
9) Acenaphthylene	7.33	152	6474	0.43	ng/ul	9
10) Acenaphthene **	7.48	154	4235	0.49	ng/ul	10
11) Fluorene	7.90	166	5367	0.48	ng/ul	10
13) Phenanthrene	8.77	178	8800	0.53	ng/ul	9
14) Anthracene	8.81	178	8193	0.48	ng/ul	10
15) Fluoranthene	9.95	202	8650	0.46	ng/ul	9
19) Benzo(a)anthracene	11.52	228	10380	0.49	ng/ulm	9
20) Chrysene	11.57	228	9593	0.45	ng/ul	9
23) Benzo(k)fluoranthene	12.90	252	8460	0.41	ng/ul	9
24) Benzo(a)pyrene	13.37	252	8024	0.44	ng/ul	7
25) Indeno(1,2,3-cd)pyrene	15.43	276	9817	0.47	ng/ul	9
26) Dibenzo(ah)anthracene	15.43	278	8071	2.93	ng/ulm	
27) Benzo(ghi)perylene	16.02	276	9004	0.53	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

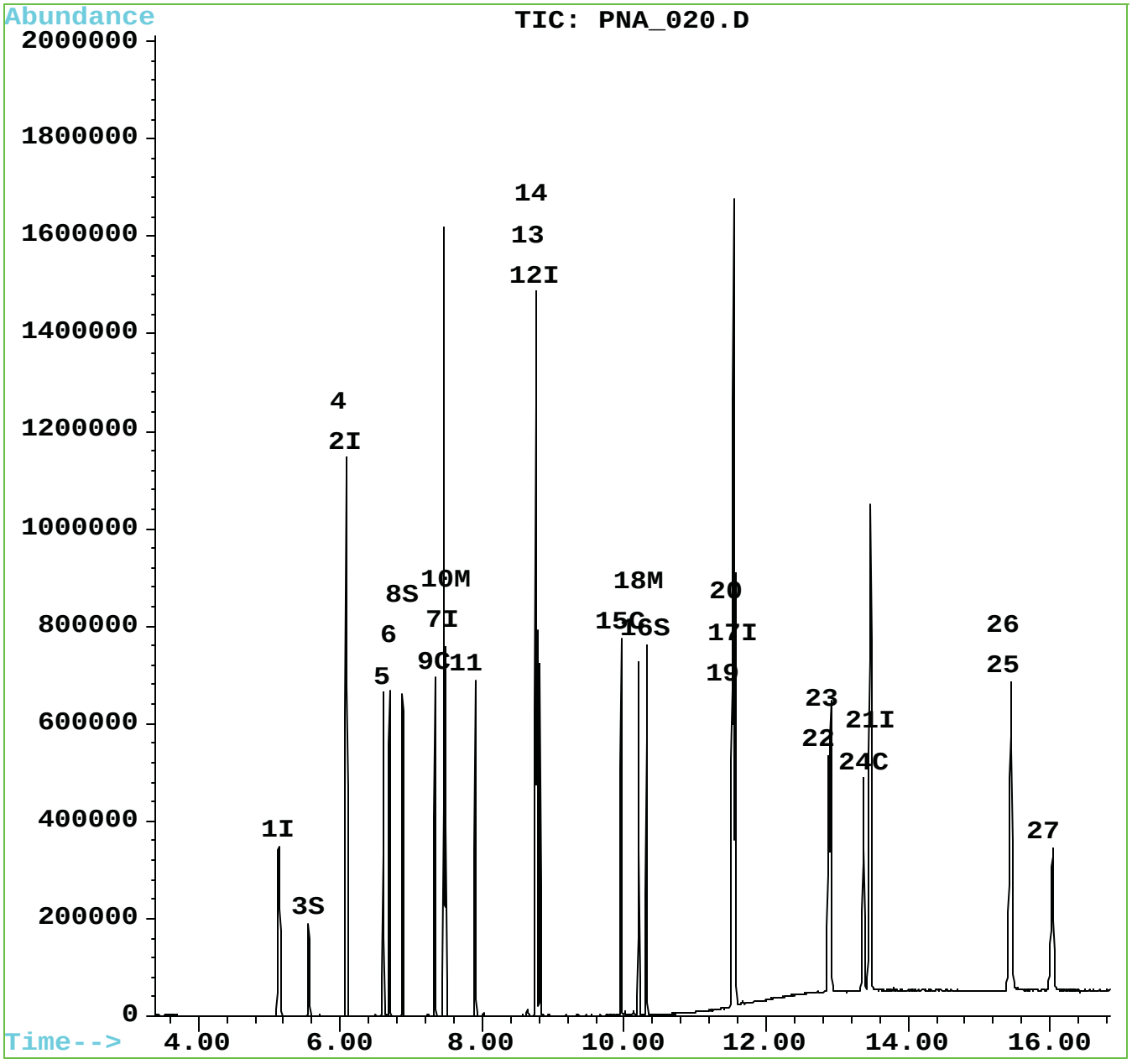
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	135615	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	556039	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	346157	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	598956	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.54	240	709363	40.00	ng/ul	0.0
21) PERYLENE-D12	13.47	264	692857	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	82003	17.37	ng/ul	17.3
8) 2-Fluorobiphenyl	6.88	172	204105	19.88	ng/ul	19.8
16) Terphenyl-D14	10.31	244	231969	19.02	ng/ul	19.0
Target Compounds						Qvalu
4) Naphthalene	6.09	128	269421	19.32	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	150167	19.85	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	174575	20.06	ng/ul	9
9) Acenaphthylene	7.33	152	278716	19.95	ng/ul	9
10) Acenaphthene **	7.48	154	164917	20.36	ng/ul	9
11) Fluorene	7.91	166	211147	19.78	ng/ul	9
13) Phenanthrene	8.77	178	300111	19.28	ng/ul	9
14) Anthracene	8.82	178	306951	19.46	ng/ul	9
15) Fluoranthene	9.95	202	339050	19.64	ng/ul	9
18) Pyrene **	10.21	202	347810	19.42	ng/ul	9
19) Benzo(a)anthracene	11.52	228	333084	19.02	ng/ul	9
20) Chrysene	11.57	228	333074	19.43	ng/ul	9
22) Benzo(b)fluoranthene	12.88	252	343106	19.00	ng/ul	9
23) Benzo(k)fluoranthene	12.91	252	301991	17.52	ng/ul	9
24) Benzo(a)pyrene	13.37	252	280817	18.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.45	276	383241	21.67	ng/ul	9
26) Dibenzo(ah)anthracene	15.45	278	320076	76.29	ng/ul#	
27) Benzo(ghi)perylene	16.04	276	313019	21.38	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

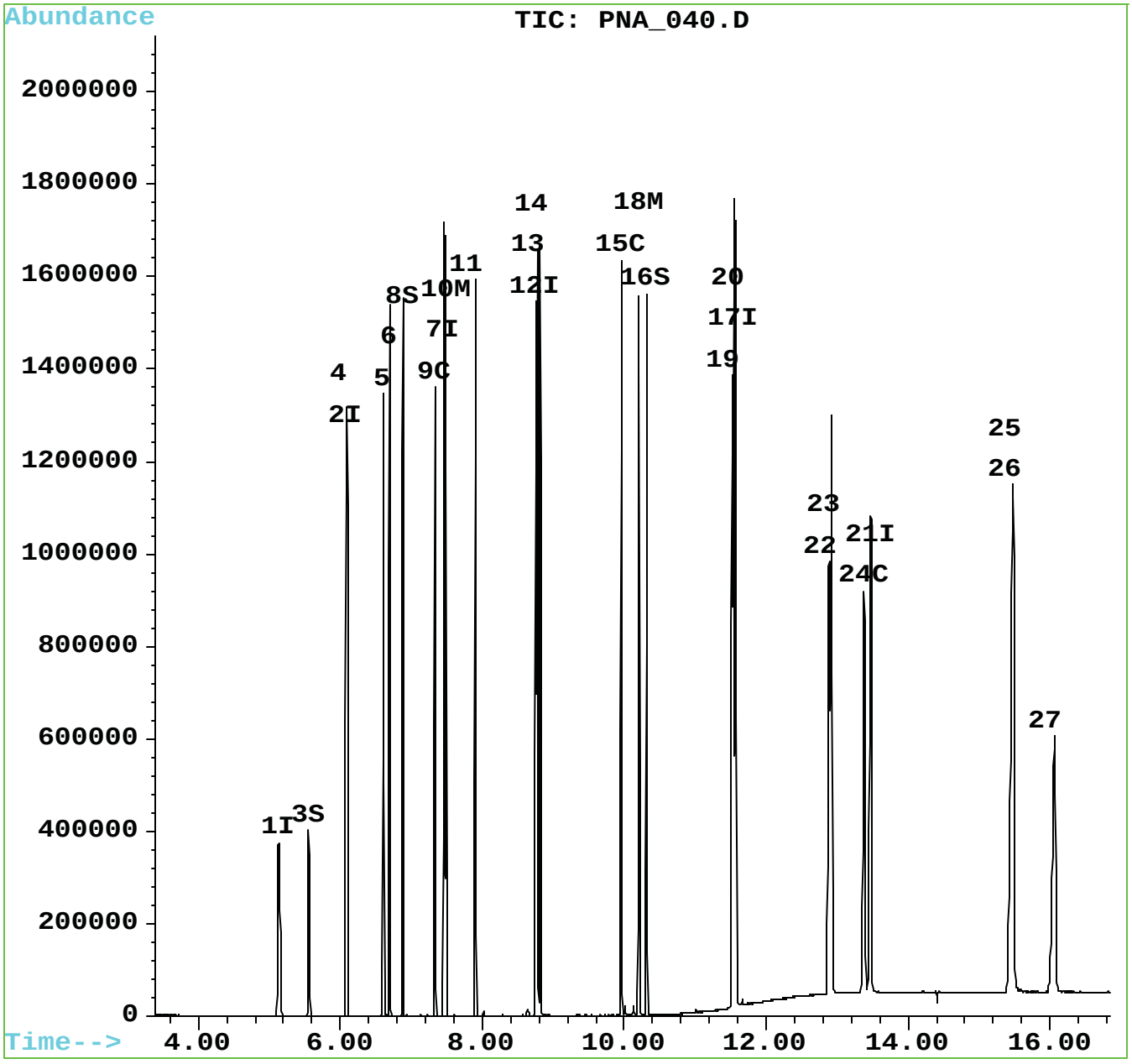
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	145174	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	600445	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	372384	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640122	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	768198	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	711428	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	174537	35.18	ng/ul	35.1
8) 2-Fluorobiphenyl	6.88	172	440917	40.11	ng/ul	40.1
16) Terphenyl-D14	10.32	244	513941	39.56	ng/ul	39.5
Target Compounds						Qvalu
4) Naphthalene	6.09	128	575604	38.59	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	325059	39.88	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	379358	40.37	ng/ul	9
9) Acenaphthylene	7.34	152	603631	40.34	ng/ul	9
10) Acenaphthene **	7.48	154	353127	40.59	ng/ul	9
11) Fluorene	7.91	166	460460	40.27	ng/ul	9
13) Phenanthrene	8.77	178	643835	38.97	ng/ul	10
14) Anthracene	8.82	178	662219	39.53	ng/ul	10
15) Fluoranthene	9.96	202	736945	40.05	ng/ul	10
18) Pyrene **	10.21	202	756635	39.53	ng/ul	10
19) Benzo(a)anthracene	11.52	228	734403	38.98	ng/ul	9
20) Chrysene	11.58	228	725802	39.40	ng/ul	9
22) Benzo(b)fluoranthene	12.89	252	765726	41.58	ng/ul	9
23) Benzo(k)fluoranthene	12.92	252	651601	37.90	ng/ulm	9
24) Benzo(a)pyrene	13.38	252	616751	39.86	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.49	276	842409	45.64	ng/ul	9
26) Dibenzo(ah)anthracene	15.48	278	724171	108.89	ng/ul#	
27) Benzo(ghi)perylene	16.07	276	671310	44.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

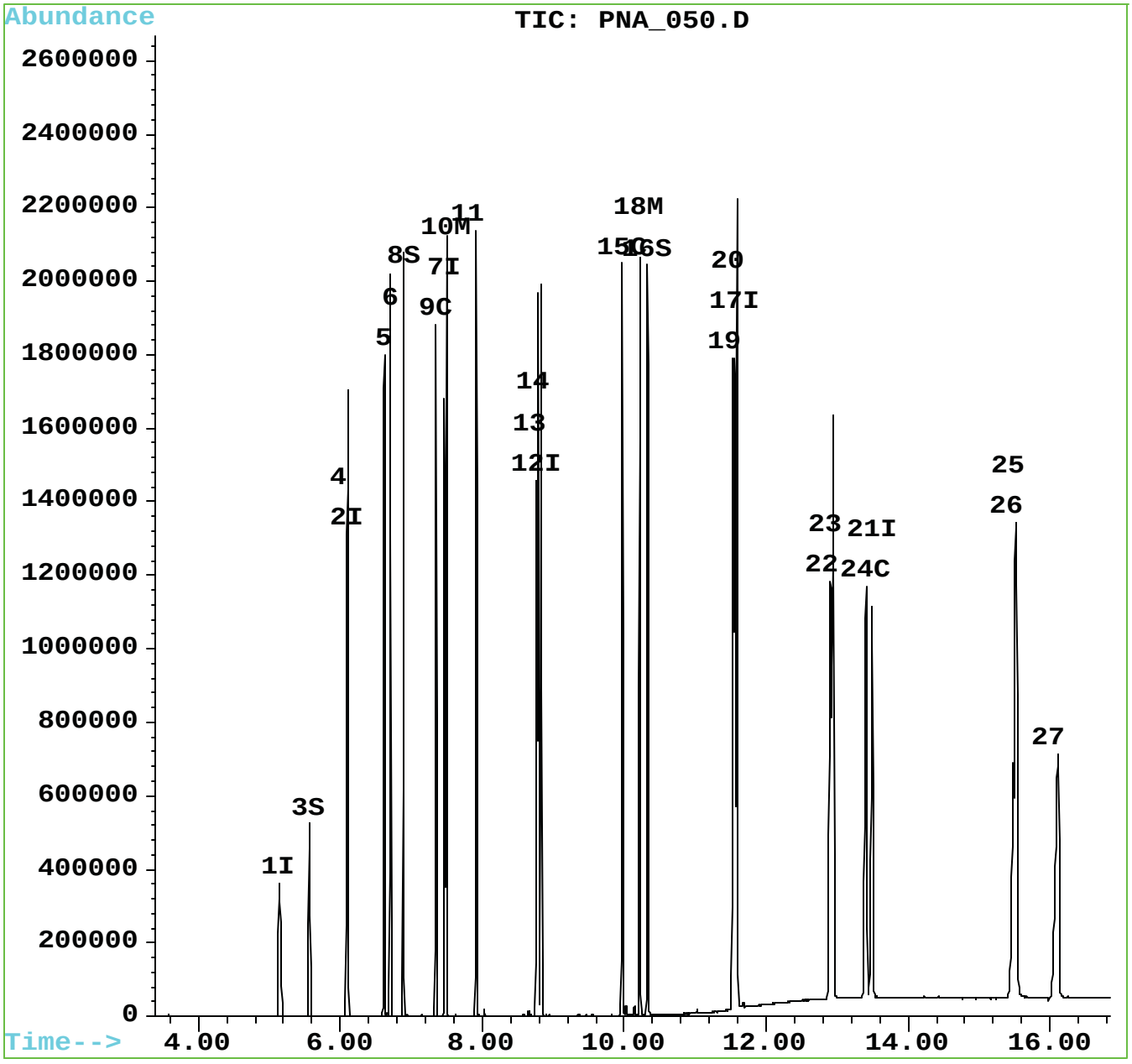
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.14	152	140598	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.09	136	584387	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.47	164	376489	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.76	188	622177	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.56	240	765174	40.00	ng/ul	0.0
21) PERYLENE-D12	13.50	264	703377	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	229947	52.60	ng/ul	52.6
8) 2-Fluorobiphenyl	6.89	172	607779	52.68	ng/ul	52.6
16) Terphenyl-D14	10.33	244	692330	52.39	ng/ul	52.3
Target Compounds						Qvalu
4) Naphthalene	6.10	128	751033	51.74	ng/ul	10
5) 2-Methylnaphthalene	6.62	141	434353	53.42	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	506957	53.57	ng/ul	9
9) Acenaphthylene	7.35	152	823667	53.39	ng/ul	9
10) Acenaphthene **	7.49	154	486187	52.81	ng/ul	9
11) Fluorene	7.92	166	607540	51.10	ng/ul	9
13) Phenanthrene	8.79	178	840726	51.65	ng/ul	10
14) Anthracene	8.83	178	824151	50.15	ng/ulm	10
15) Fluoranthene	9.98	202	961499	52.42	ng/ul	10
18) Pyrene **	10.22	202	986114	52.61	ng/ul	10
19) Benzo(a)anthracene	11.54	228	956291	50.58	ng/ul	9
20) Chrysene	11.59	228	954806	51.40	ng/ul	9
22) Benzo(b)fluoranthene	12.91	252	1007548	54.76	ng/ul	9
23) Benzo(k)fluoranthene	12.95	252	869858	51.39	ng/ulm	9
24) Benzo(a)pyrene	13.41	252	810603	52.65	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1043907	50.51	ng/ulm	8
26) Dibenzo(ah)anthracene	15.52	278	891914	50.95	ng/ul#	
27) Benzo(ghi)perylene	16.12	276	876303	52.46	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

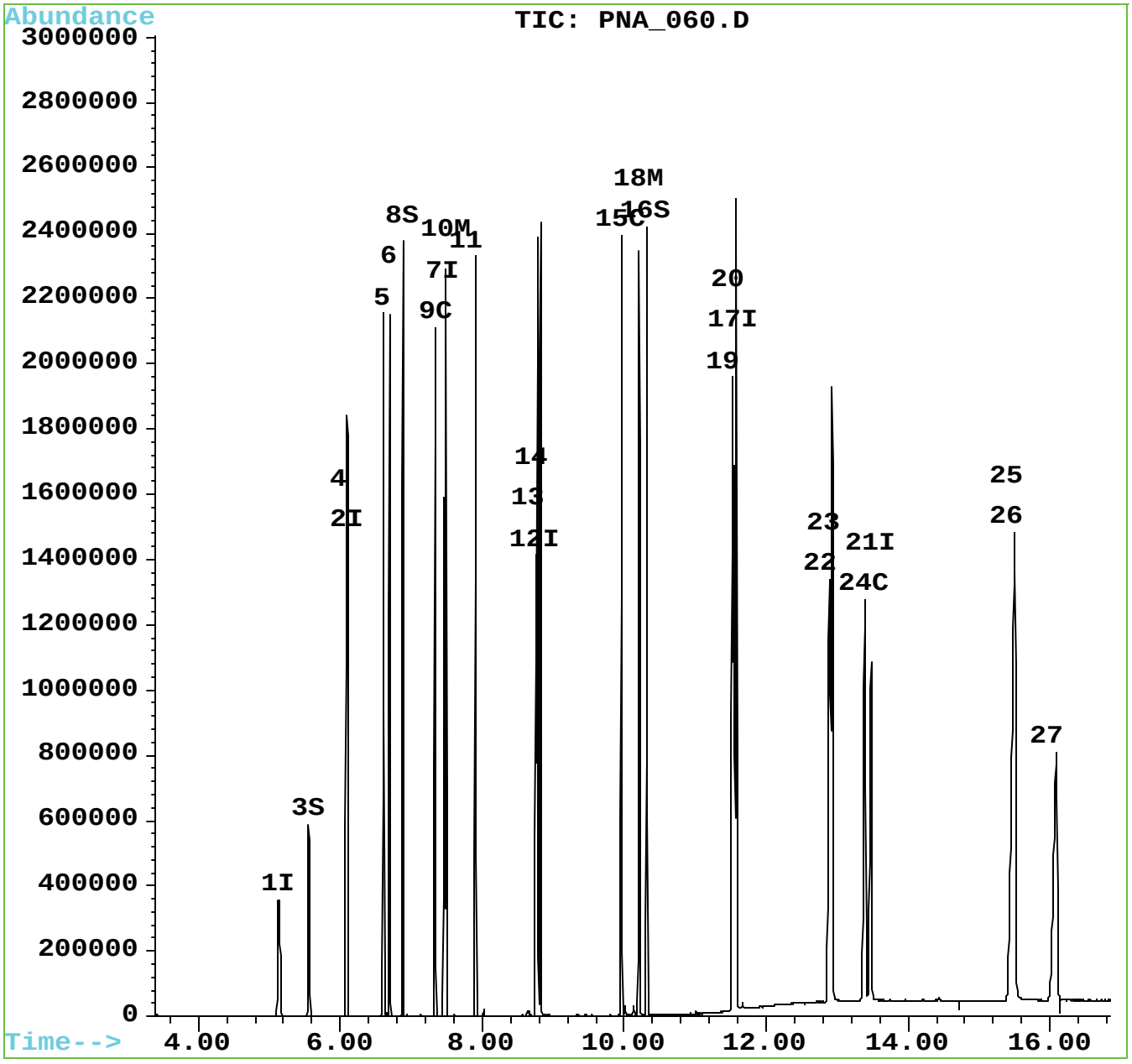
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	139447	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	575362	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	353288	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	616305	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	748003	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	682703	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	264229	57.14	ng/ul	57.1
8) 2-Fluorobiphenyl	6.88	172	670339	64.21	ng/ul	64.2
16) Terphenyl-D14	10.32	244	820095	65.45	ng/ul	65.4
Target Compounds						Qvalu
4) Naphthalene	6.10	128	868848	61.11	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	490465	62.75	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	569018	62.98	ng/ul	9
9) Acenaphthylene	7.34	152	906881	63.94	ng/ul	9
10) Acenaphthene **	7.48	154	533576	64.40	ng/ul	9
11) Fluorene	7.91	166	690907	63.53	ng/ul	9
13) Phenanthrene	8.78	178	967482	60.95	ng/ul	10
14) Anthracene	8.82	178	984460	61.22	ng/ul	10
15) Fluoranthene	9.97	202	1135196	64.07	ng/ul	10
18) Pyrene **	10.21	202	1150667	62.18	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1121641	61.16	ng/ul	9
20) Chrysene	11.59	228	1120370	62.57	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1137138	63.75	ng/ul	9
23) Benzo(k)fluoranthene	12.93	252	1055134	64.94	ng/ulm	9
24) Benzo(a)pyrene	13.39	252	941272	63.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.51	276	1286560	70.60	ng/ul	9
26) Dibenzo(ah)anthracene	15.50	278	1101876	123.88	ng/ul#	
27) Benzo(ghi)perylene	16.10	276	1009761	67.42	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

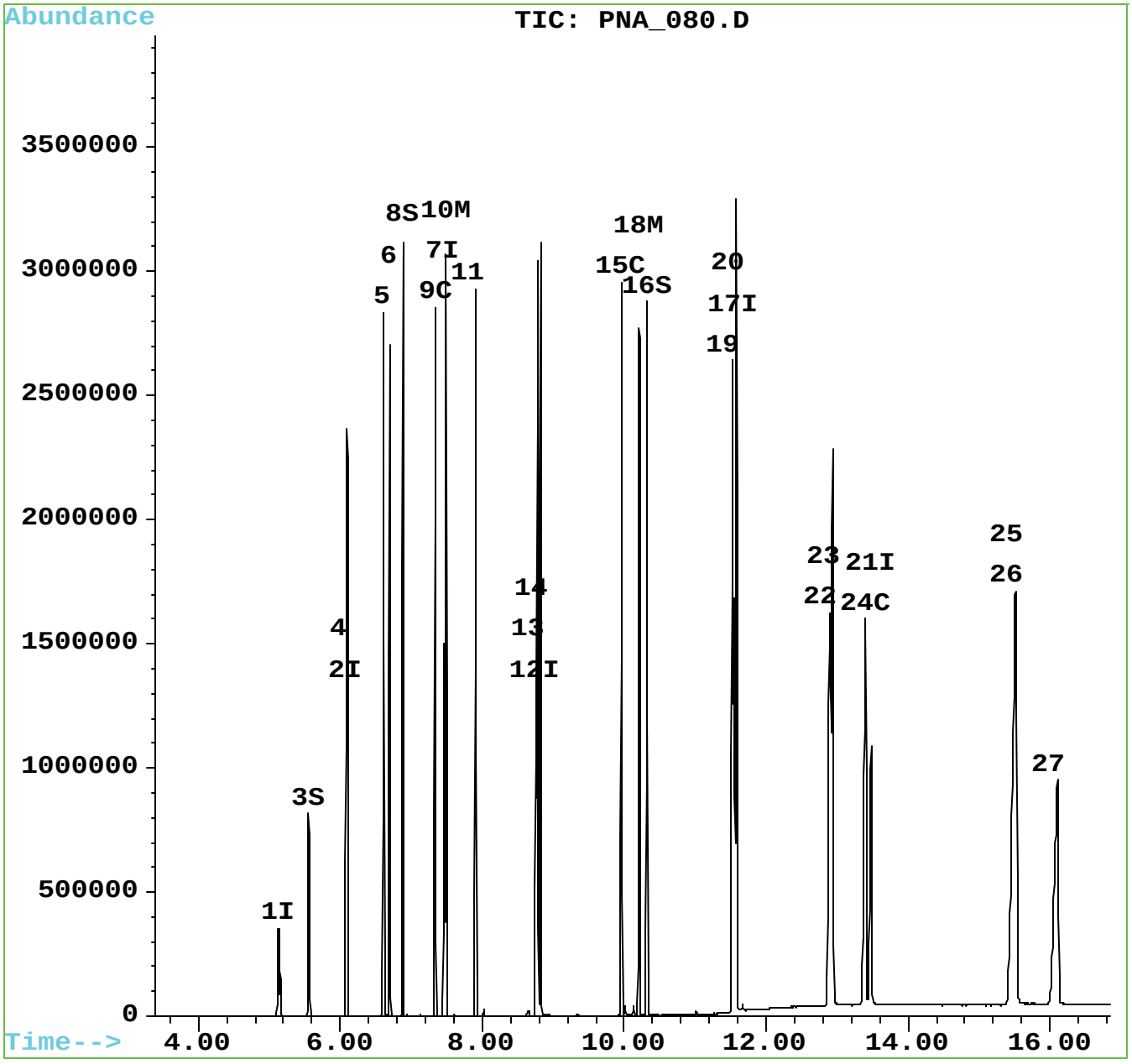
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	84162	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	560653	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	344328	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	593618	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	724268	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	668390	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	346243	78.73	ng/ul	78.7
8) 2-Fluorobiphenyl	6.88	172	885493	86.15	ng/ul	86.1
16) Terphenyl-D14	10.32	244	1087992	88.89	ng/ul	88.8
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1131267	81.69	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	644735	84.16	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	754321	85.15	ng/ul	9
9) Acenaphthylene	7.34	152	1193934	86.08	ng/ul	9
10) Acenaphthene **	7.49	154	705426	86.33	ng/ul	9
11) Fluorene	7.91	166	911878	85.55	ng/ul	10
13) Phenanthrene	8.78	178	1272975	83.14	ng/ul	9
14) Anthracene	8.82	178	1315513	84.88	ng/ul	10
15) Fluoranthene	9.97	202	1475282	85.92	ng/ul	10
18) Pyrene **	10.22	202	1513446	85.04	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1508631	85.06	ng/ul	9
20) Chrysene	11.59	228	1487020	85.85	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1523698	87.00	ng/ul	9
23) Benzo(k)fluoranthene	12.94	252	1376522	86.71	ng/ulm	9
24) Benzo(a)pyrene	13.40	252	1253005	86.05	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1693105	91.97	ng/ul	9
26) Dibenzo(ah)anthracene	15.51	278	1446162	127.51	ng/ul#	
27) Benzo(ghi)perylene	16.11	276	1327841	88.30	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

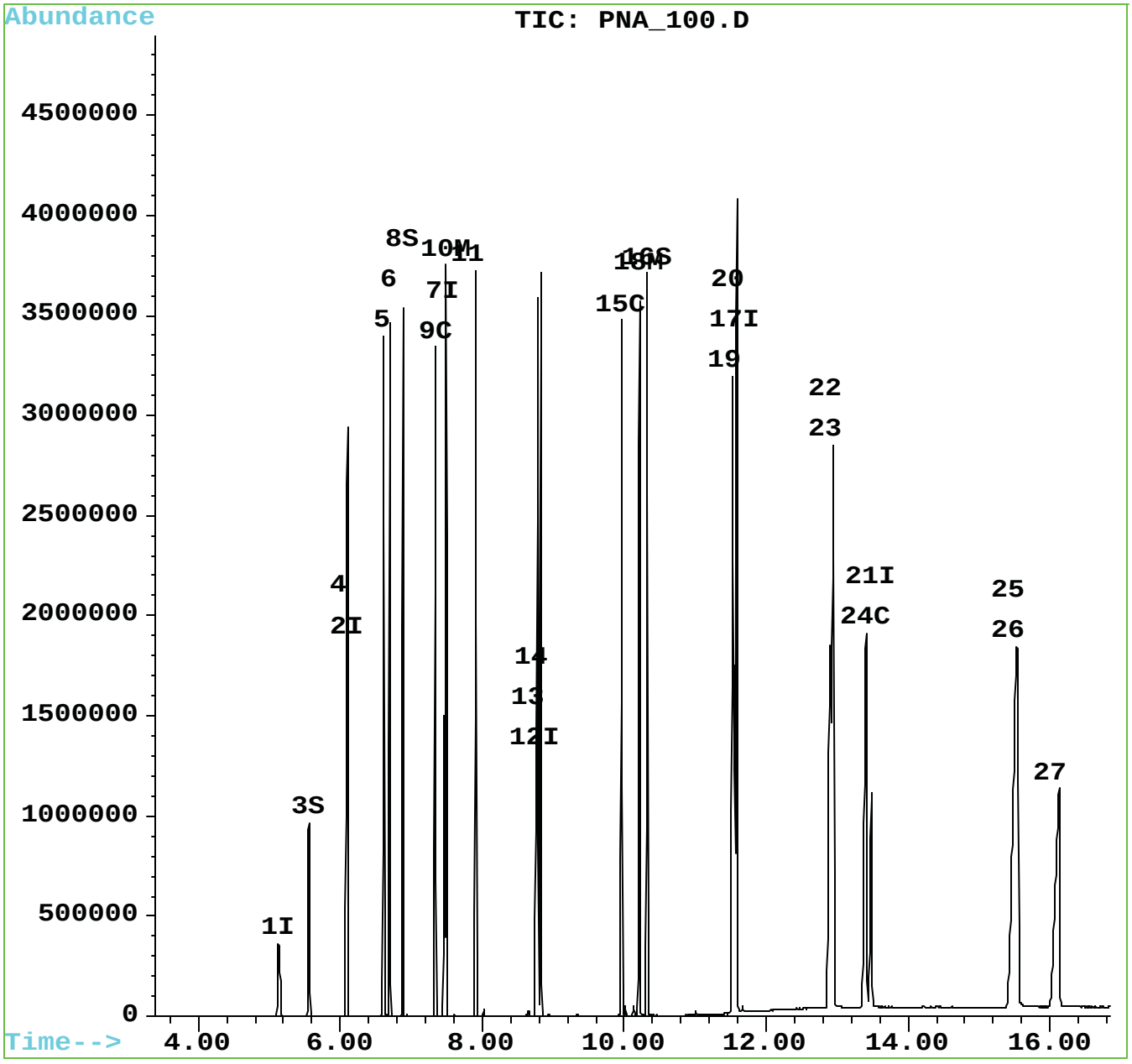
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	138171	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	568205	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	351986	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	611911	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	757963	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	692918	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	435831	100.13	ng/ul	100.1
8) 2-Fluorobiphenyl	6.88	172	1109224	104.17	ng/ul	104.1
16) Terphenyl-D14	10.32	244	1385539	108.11	ng/ul	108.1
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1425996	101.45	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	813163	103.78	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	949708	104.58	ng/ul	9
9) Acenaphthylene	7.34	152	1519026	106.44	ng/ul	9
10) Acenaphthene **	7.49	154	879645	103.79	ng/ul	9
11) Fluorene	7.91	166	1150248	104.66	ng/ul	9
13) Phenanthrene	8.78	178	1610327	101.32	ng/ul	9
14) Anthracene	8.83	178	1657005	103.19	ng/ul	10
15) Fluoranthene	9.97	202	1898025	106.43	ng/ul	9
18) Pyrene **	10.22	202	1939528	104.36	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1930239	103.53	ng/ul	9
20) Chrysene	11.59	228	1924431	105.47	ng/ul	9
22) Benzo(b)fluoranthene	12.95	252	3782432	207.76	ng/ulm	9
23) Benzo(k)fluoranthene	12.95	252	3782795	230.09	ng/ulm	10
24) Benzo(a)pyrene	13.41	252	1605543	106.12	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.55	276	2198376	111.69	ng/ul	10
26) Dibenzo(ah)anthracene	15.53	278	1864392	128.64	ng/ul#	
27) Benzo(ghi)perylene	16.13	276	1705175	106.54	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn03a.d	08/03/12 11:16	Acenaphthylene	1.806	0.30
		Benzo(b)fluoranthene	1.178	0.30
		Naphthalene	1.046	0.30
		Phenanthrene	1.159	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn03a.d	08/03/12 11:16	1-methylnaphthalene	53.3/ 50.0	6.6/ 20.0
		2-Methylnaphthalene	52.9/ 50.0	5.8/ 20.0
		Acenaphthene	54.8/ 50.0	9.6/ 20.0
		Acenaphthylene	55.1/ 50.0	10.2/ 20.0
		Anthracene	55.4/ 50.0	10.7/ 20.0
		Benzo(a)anthracene	52.6/ 50.0	5.2/ 20.0
		Benzo(a)pyrene	55.1/ 50.0	10.2/ 20.0
		Benzo(b)fluoranthene	56.3/ 50.0	12.7/ 20.0
		Benzo(ghi)perylene	50.0/ 50.0	0.0/ 20.0
		Benzo(k)fluoranthene	54.2/ 50.0	8.4/ 20.0
		Chrysene	54.4/ 50.0	8.9/ 20.0
		Dibenzo(ah)anthracene	55.0/ 50.0	10.1/ 20.0
		Fluorene	55.4/ 50.0	10.8/ 20.0
		Fluoranthene	56.4/ 50.0	12.8/ 20.0
		Indeno(1,2,3-cd)pyrene	54.0/ 50.0	8.0/ 20.0
		Naphthalene	52.6/ 50.0	5.3/ 20.0
		Phenanthrene	55.4/ 50.0	10.8/ 20.0
		Pyrene	57.3/ 50.0	14.6/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\spnn03a.d Vial: 2
Acq On : 3 Aug 12 11:16 am Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 11:50 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

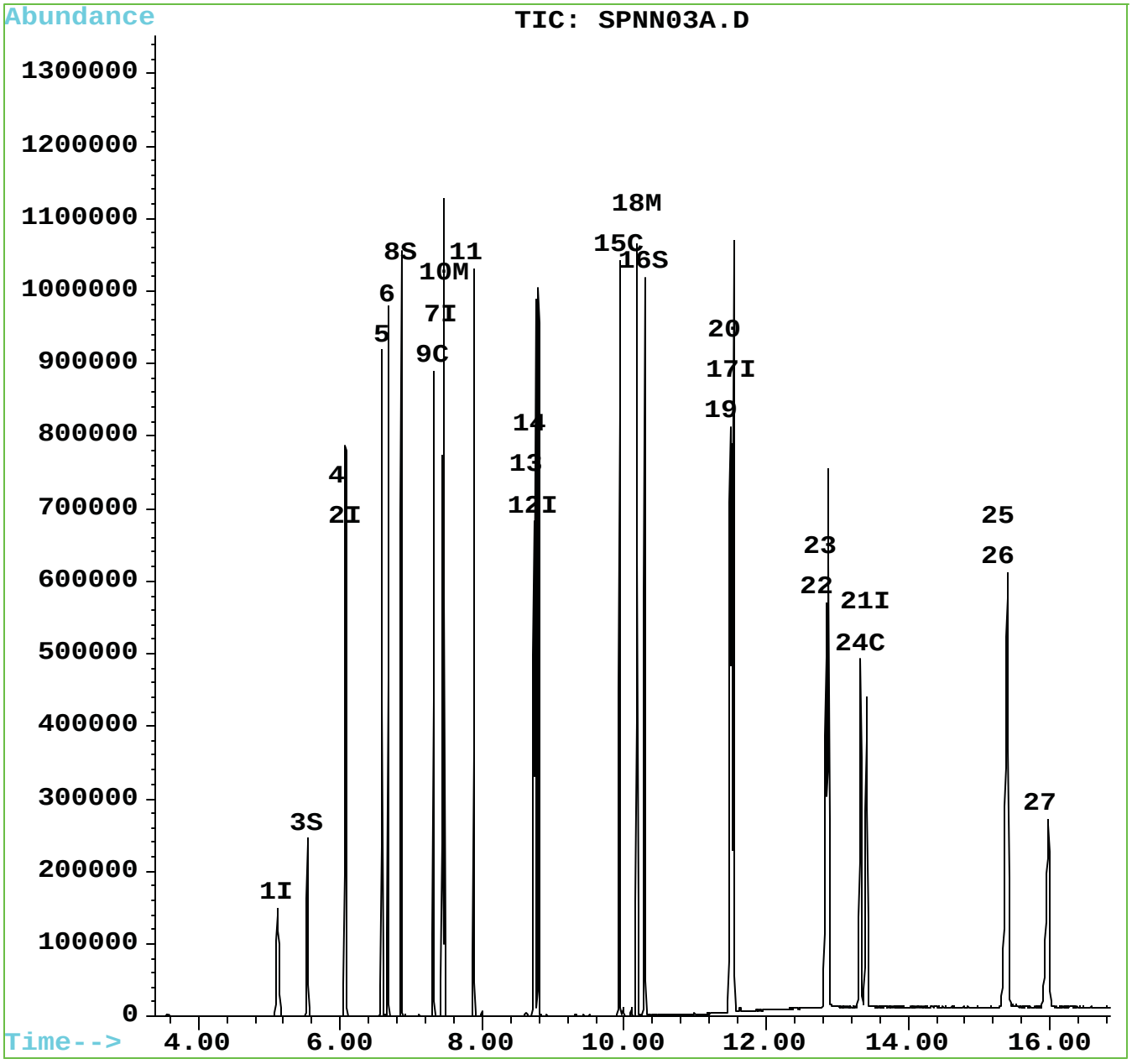
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	55202	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	254545	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	156382	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	266681	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	321204	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	261291	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	99168	52.08	ng/ul	52.0
8) 2-Fluorobiphenyl	6.86	172	257439	53.72	ng/ul	53.7
16) Terphenyl-D14	10.29	244	312226	55.13	ng/ul	55.1
Target Compounds						Qvalu
4) Naphthalene	6.08	128	332760	52.63	ng/ul	10
5) 2-Methylnaphthalene	6.59	141	187281	52.88	ng/ul	9
6) 1-Methylnaphthalene	6.67	142	219817	53.32	ng/ul	9
9) Acenaphthylene	7.31	152	352936	55.08	ng/ul	9
10) Acenaphthene **	7.46	154	209525	54.79	ng/ul	9
11) Fluorene	7.88	166	273492	55.38	ng/ul	10
13) Phenanthrene	8.75	178	386365	55.38	ng/ul	10
14) Anthracene	8.79	178	389939	55.36	ng/ul	9
15) Fluoranthene	9.93	202	443530	56.41	ng/ul	9
18) Pyrene **	10.18	202	450650	57.28	ng/ul	9
19) Benzo(a)anthracene	11.49	228	417405	52.59	ng/ul	10
20) Chrysene	11.55	228	424407	54.43	ng/ul	10
22) Benzo(b)fluoranthene	12.84	252	385021	56.33	ng/ul	9
23) Benzo(k)fluoranthene	12.88	252	379715	54.18	ng/ul	10
24) Benzo(a)pyrene	13.34	252	315020	55.08	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.41	276	414711	54.02	ng/ul	9
26) Dibenzo(ah)anthracene	15.40	278	357901	55.04	ng/ul	9
27) Benzo(ghi)perylene	15.98	276	310243	49.99	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\spnn03a.d Vial: 2
Acq On : 3 Aug 12 11:16 am Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 11:50 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\d03a.d Vial: 1
Acq On : 3 Aug 12 10:54 am Operator: PL
Sample : dftpp std (120801) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 11:51 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

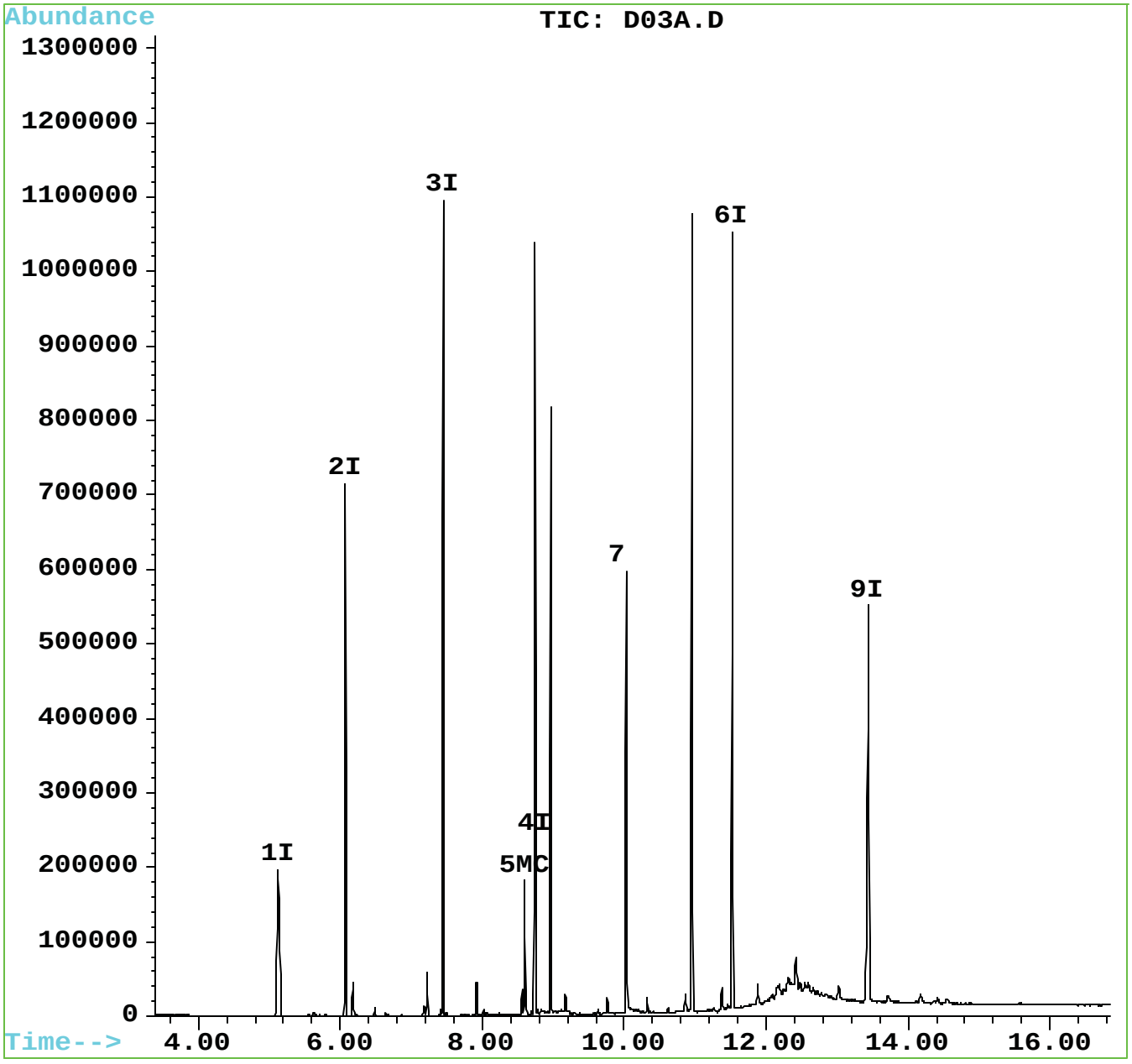
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	72488	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	345624	40.00	ng/ul	0.0
3) ACENAPHTHALENE-D10	7.45	160	87970	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.74	188	376347	40.00	ng/ul	-0.0
6) CHRYSENE-D12	11.53	240	410162	40.00	ng/ul	-0.0
9) PERYLENE-D12	13.44	264	333911	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.60	266	17279	14.15	ng/ul	9
7) Benzidine	10.03	184	235725	68.17	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\d03a.d Vial: 1
Acq On : 3 Aug 12 10:54 am Operator: PL
Sample : dftpp std (120801) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 11:51 19112

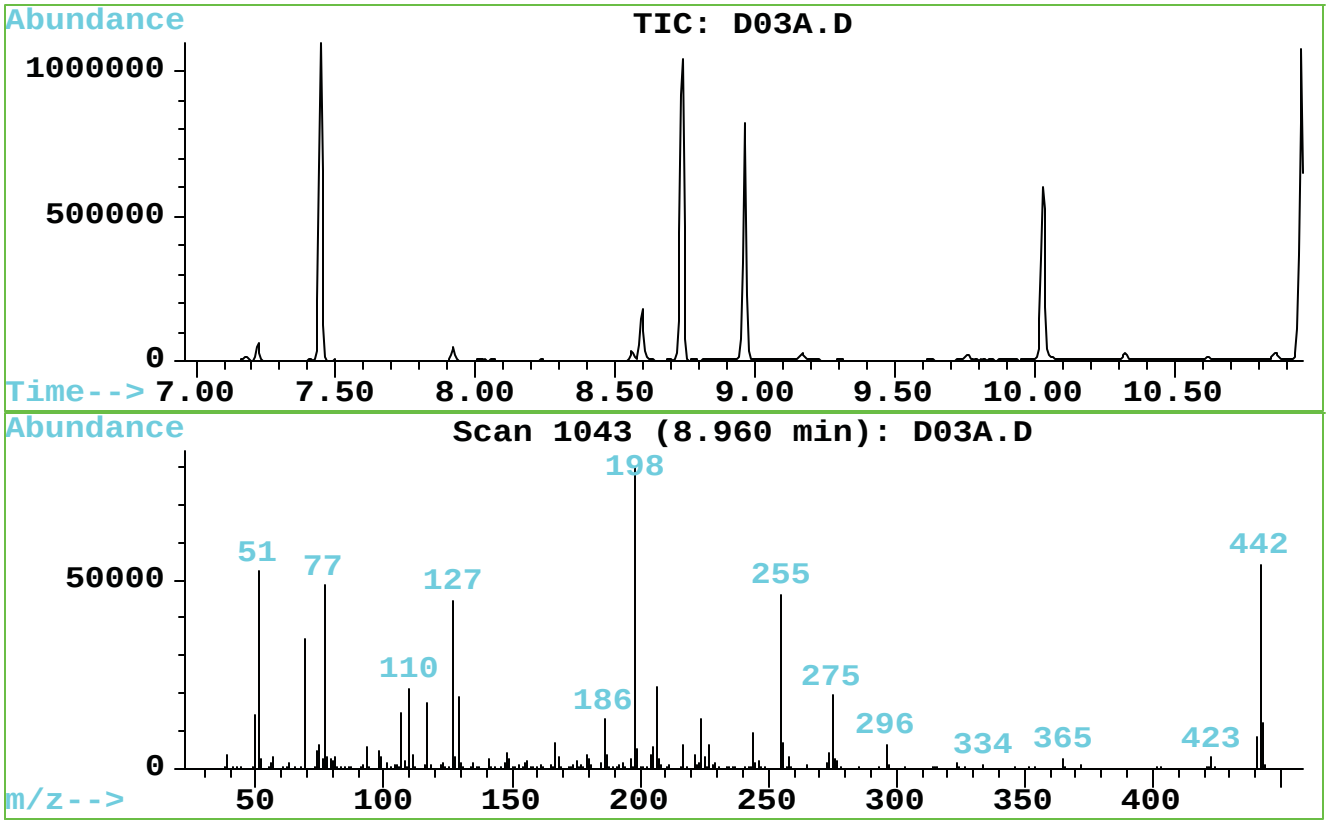
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120803\D03A.D Vial: 1
Acq On : 3 Aug 12 10:54 am Operator: PL
Sample : dftpp std (120801) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270



Peak Apex is scan: 1043

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	65.3	52368	PASS
68	69	0	2	1.7	589	PASS
69	198	0	100	43.0	34488	PASS
70	69	0	2	0.7	235	PASS
127	198	25	75	55.6	44592	PASS
197	198	0	1	0.8	670	PASS
198	198	100	100	100.0	80192	PASS
199	198	5	9	6.3	5091	PASS
275	198	10	30	24.2	19440	PASS
365	198	1	100	3.5	2807	PASS
441	443	0	100	70.6	8543	PASS
442	198	40	110	67.6	54240	PASS
443	442	15	24	22.3	12109	PASS

D03A.D P120803T.M Tue Aug 07 11:40:25 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\blks03a.d Vial: 3
Acq On : 3 Aug 12 11:45 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:08 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

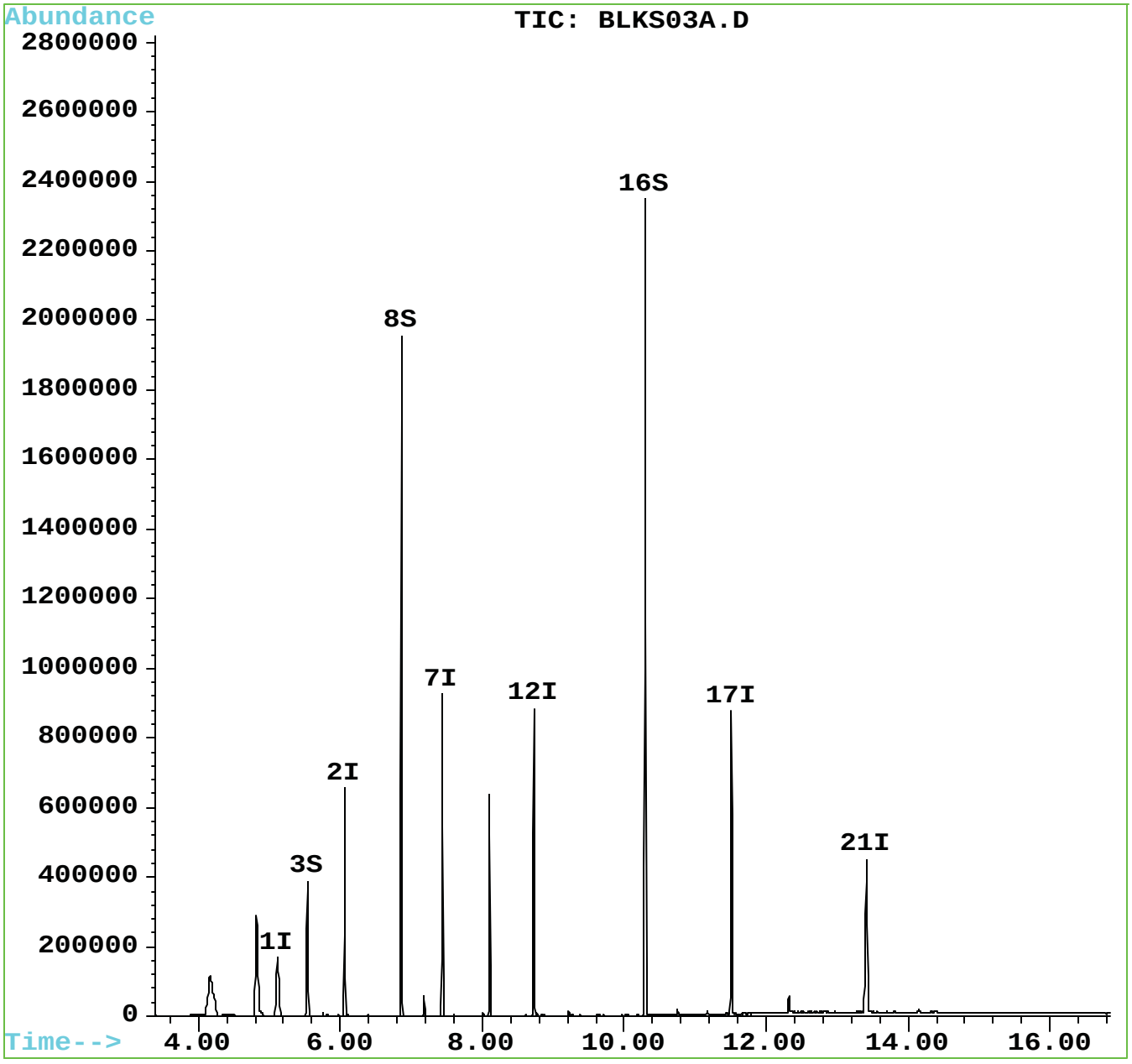
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	62790	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	294448	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	175891	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	314359	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	341070	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	271926	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	160448	72.84	ng/ul	72.8
8) 2-Fluorobiphenyl	6.86	172	527648	97.90	ng/ul	97.9
16) Terphenyl-D14	10.30	244	754358	112.99	ng/ul	112.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\blks03a.d Vial: 3
Acq On : 3 Aug 12 11:45 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:08 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\lcss03a.d Vial: 4
Acq On : 3 Aug 12 12:07 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:08 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

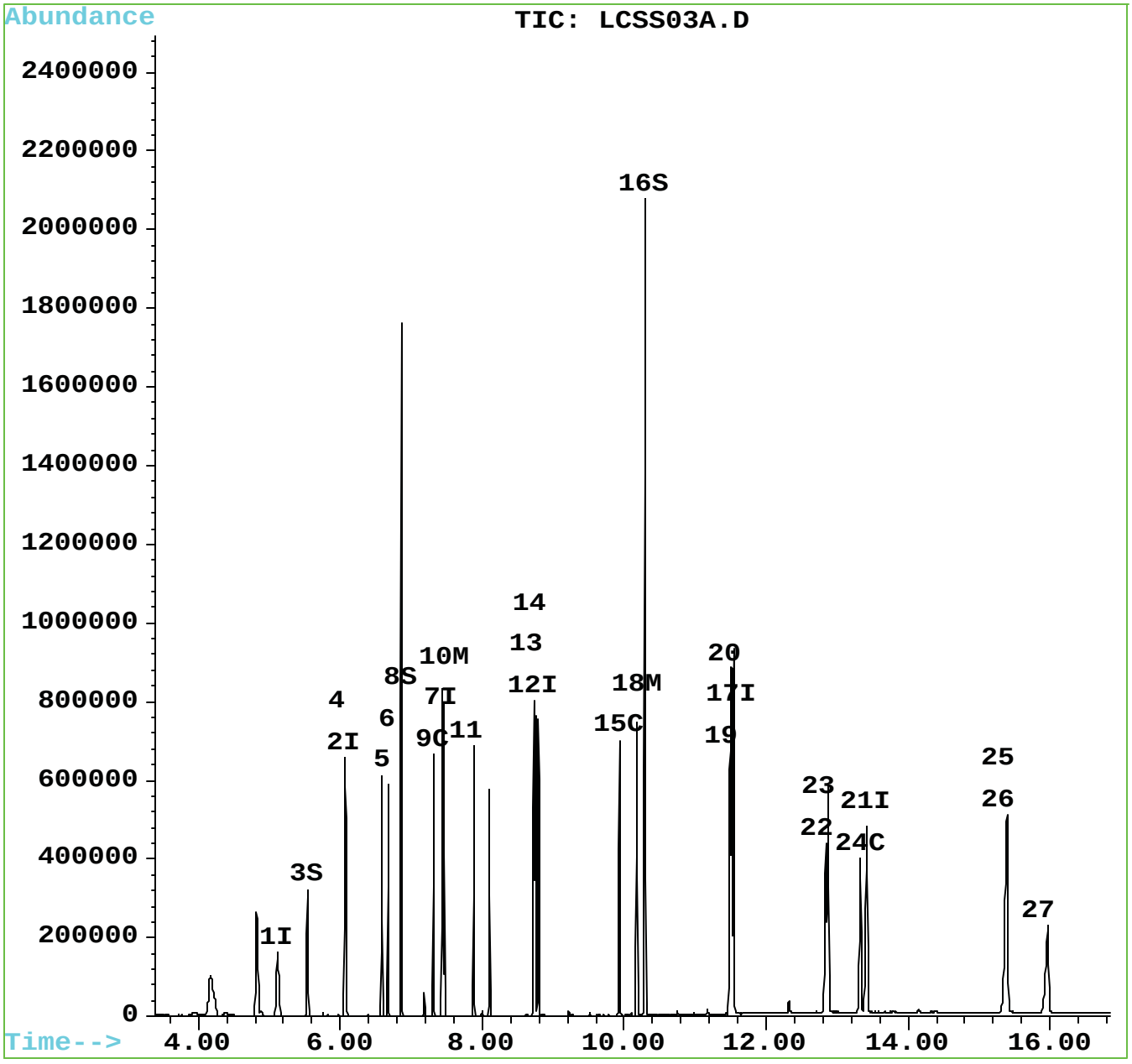
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	57449	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	281731	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	168915	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	307463	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	368261	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	291560	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	131607	62.44	ng/ul	62.4
8) 2-Fluorobiphenyl	6.86	172	437651	84.56	ng/ul	84.5
16) Terphenyl-D14	10.29	244	683294	104.64	ng/ul	104.6
Target Compounds						Qvalu
4) Naphthalene	6.08	128	223082	31.88	ng/ul	9
5) 2-Methylnaphthalene	6.59	141	123215	31.43	ng/ul	9
6) 1-Methylnaphthalene	6.67	142	133867	29.34	ng/ul	9
9) Acenaphthylene	7.31	152	249347	36.02	ng/ul	9
10) Acenaphthene **	7.46	154	151379	36.65	ng/ul	10
11) Fluorene	7.89	166	197477	37.02	ng/ul	10
13) Phenanthrene	8.75	178	289745	36.02	ng/ul	10
14) Anthracene	8.79	178	280700	34.56	ng/ul	9
15) Fluoranthene	9.93	202	325928	35.96	ng/ul	9
18) Pyrene **	10.18	202	341847	37.90	ng/ul	10
19) Benzo(a)anthracene	11.49	228	328193	36.07	ng/ul	10
20) Chrysene	11.54	228	328686	36.77	ng/ul	10
22) Benzo(b)fluoranthene	12.84	252	307459	40.31	ng/ulm	9
23) Benzo(k)fluoranthene	12.88	252	284974	40.62	ng/ul	9
24) Benzo(a)pyrene	13.33	252	245603	38.48	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.40	276	327931	38.28	ng/ul	9
26) Dibenzo(ah)anthracene	15.39	278	279922	38.58	ng/ul	9
27) Benzo(ghi)perylene	15.97	276	244100	35.25	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\lcss03a.d Vial: 4
Acq On : 3 Aug 12 12:07 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:08 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

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Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120801.01r	sblk-r.01	08/01/12 09:18	SBLK-R.01	WW	Bl	**4**	
a120801.02r	sc1660.01	08/01/12 09:28	SC1660.01 0.5ppm 7/23/12	WW	CV	**4**	
a120801.03r	sblk-s.01	08/01/12 10:16	sBLK-S.01 20.0g s/1 ID:PA120801s01	SO	Bl	**4**	
a120801.04r	slcs-s.01	08/01/12 10:39	sLCS-S.01 20.0g s/1 ID:PA120801s01	SO	MS	**4**	
a120801.05r	s53238.01	08/01/12 11:01	s53238.01 1L w/1 LOD ID:PA120724w01	WW		**4**	
a120801.06r	s53238.02	08/01/12 11:27	s53238.02 1L w/1 LOQ ID:PA120724w01	WW		**4**	
a120801.07r	s53238.03	08/01/12 11:42	s53238.03 20.0g s/1 LOD	SO		**4**	
a120801.08r	s53238.04	08/01/12 11:54	s53238.04 20.0g s/1 LOQ	SO		**4**	
a120801.09r	s53360.07	08/01/12 13:50	s53360.07 20.2g s/1 ID:PA120801s01	SO		**4**	
a120801.10r	s53360.08	08/01/12 14:03	s53360.08 20.1g s/1 ID:PA120801s01	SO		**4**	
a120801.11r	s53360.09	08/01/12 14:14	s53360.09 20.2g s/1 ID:PA120801s01	SO		**4**	
a120801.12r	s53360.10	08/01/12 14:24	s53360.10 20.2g s/1 ID:PA120801s01	SO		**4**	
a120801.13r	s53360.11	08/01/12 14:35	s53360.11 20.1g s/1 ID:PA120801s01	SO		**4**	
a120801.17r	s53360.03	08/01/12 15:17	s53360.03 20.0g s/1 C ID:PA120801s01	SO		**4**	
a120801.20r	slcs-al.0	08/01/12 15:48	sLCS-Al.01 0.5ppm ID:Cleanup	WW	MS	**4**	
a120801.21r	ss1660.01	08/01/12 15:59	ss1660.01 0.1ppm 7/23/12	WW		**4**	
a120801.22r	sc1660.02	08/01/12 16:09	SC1660.02 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	2	Soil Samples:	8
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	1	Soil Spikes:	1
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

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Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120801b.01	sblk-r.01	08/01/12 09:18	SBLK-R.01	WW	Bl	**4**	
a120801b.02	sc1660.01	08/01/12 09:28	SC1660.01 0.5ppm 7/23/12	WW	CV	**4**	
a120801b.03	sblk-s.01	08/01/12 10:16	sBLK-S.01 20.0g s/1 ID:PA120801s01	SO	Bl	**4**	
a120801b.04	slcs-s.01	08/01/12 10:39	sLCS-S.01 20.0g s/1 ID:PA120801s01	SO	MS	**4**	
a120801b.05	s53238.01	08/01/12 11:01	s53238.01 1L w/1 LOD ID:PA120724w01	WW		**4**	
a120801b.06	s53238.02	08/01/12 11:27	s53238.02 1L w/1 LOQ ID:PA120724w01	WW		**4**	
a120801b.07	s53238.03	08/01/12 11:42	s53238.03 20.0g s/1 LOD	SO		**4**	
a120801b.08	s53238.04	08/01/12 11:54	s53238.04 20.0g s/1 LOQ	SO		**4**	
a120801b.09	s53360.07	08/01/12 13:50	s53360.07 20.2g s/1 ID:PA120801s01	SO		**4**	
a120801b.10	s53360.08	08/01/12 14:03	s53360.08 20.1g s/1 ID:PA120801s01	SO		**4**	
a120801b.11	s53360.09	08/01/12 14:14	s53360.09 20.2g s/1 ID:PA120801s01	SO		**4**	
a120801b.12	s53360.10	08/01/12 14:24	s53360.10 20.2g s/1 ID:PA120801s01	SO		**4**	
a120801b.13	s53360.11	08/01/12 14:35	s53360.11 20.1g s/1 ID:PA120801s01	SO		**4**	
a120801b.17	s53360.03	08/01/12 15:17	s53360.03 20.0g s/1 C ID:PA120801s01	SO		**4**	
a120801b.20	slcs-al.0	08/01/12 15:48	sLCS-Al.01 0.5ppm ID:Cleanup	WW	MS	**4**	
a120801b.21	ss1660.01	08/01/12 15:59	ss1660.01 0.1ppm 7/23/12	WW		**4**	
a120801b.22	sc1660.02	08/01/12 16:09	SC1660.02 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	2	Soil Samples:	8
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	1	Soil Spikes:	1
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

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Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120802.01r	sblk-r.01	08/02/12 09:48	SBLK-R.01	WW	Bl	**4**	
a120802.02r	sc1660.01	08/02/12 09:58	SC1660.01 0.5ppm 7/23/12	WW	CV	**4**	
a120802.03r	ss1254.01	08/02/12 11:21	ss1254.01 0.1ppm 8/2/12	WW		**4**	
a120802.04r	ss1254.02	08/02/12 11:31	ss1254.02 0.3ppm 8/2/12	WW		**4**	
a120802.05r	ss1254.03	08/02/12 11:42	ss1254.03 0.5ppm 8/2/12	WW		**4**	
a120802.06r	ss1254.04	08/02/12 11:52	ss1254.04 0.7ppm 8/2/12	WW		**4**	
a120802.07r	ss1254.05	08/02/12 12:03	ss1254.05 1.0ppm 8/2/12	WW		**4**	
a120802.08r	ss1254.06	08/02/12 12:14	ss1254.06 0.5ppm 8/2/12	WW		**4**	
a120802.09r	s53360.12	08/02/12 12:57	s53360.12 20.3g s/1 C ID:PA120801s01	SO		**4**	
a120802.10r	s53360.13	08/02/12 13:08	s53360.13 20.0g s/1 ID:PA120801s01	SO		**4**	
a120802.11r	s53360.04	08/02/12 13:18	s53360.04 20.2g s/1 dx	SO		**4**	
a120802.12r	s53360.05	08/02/12 13:55	s53360.05 MS 20.1g s/1 dx	SO	MS	**4**	
a120802.13r	s53360.06	08/02/12 14:08	s53360.06 MSD 20.1g s/1 dx	SO	MS	**4**	
a120802.14r	s53360.02	08/02/12 14:21	s53360.02 20.1g s/1 dx	SO		**4**	
a120802.16r	ss1660.01	08/02/12 14:42	ss1660.01 0.1ppm 7/23/12	WW		**4**	
a120802.17r	sc1660.02	08/02/12 14:52	SC1660.02 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	6
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

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Form 0: GC/ECD Injection Log - PCB Aroclor Analysis
Form 1: GC/ECD Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120802b.01	sblk-r.01	08/02/12 09:48	SBLK-R.01	WW	Bl	**4**	
a120802b.02	sc1660.01	08/02/12 09:58	SC1660.01 0.5ppm 7/23/12	WW	CV	**4**	
a120802b.03	ss1254.01	08/02/12 11:21	ss1254.01 0.1ppm 8/2/12	WW		**4**	
a120802b.04	ss1254.02	08/02/12 11:31	ss1254.02 0.3ppm 8/2/12	WW		**4**	
a120802b.05	ss1254.03	08/02/12 11:42	ss1254.03 0.5ppm 8/2/12	WW		**4**	
a120802b.06	ss1254.04	08/02/12 11:52	ss1254.04 0.7ppm 8/2/12	WW		**4**	
a120802b.07	ss1254.05	08/02/12 12:03	ss1254.05 1.0ppm 8/2/12	WW		**4**	
a120802b.08	ss1254.06	08/02/12 12:14	ss1254.06 0.5ppm 8/2/12	WW		**4**	
a120802b.09	s53360.12	08/02/12 12:57	s53360.12 20.3g s/1 C ID:PA120801s01	SO		**4**	
a120802b.10	s53360.13	08/02/12 13:08	s53360.13 20.0g s/1 ID:PA120801s01	SO		**4**	
a120802b.11	s53360.04	08/02/12 13:18	s53360.04 20.2g s/1 dx	SO		**4**	
a120802b.12	s53360.05	08/02/12 13:55	s53360.05 MS 20.1g s/1 dx	SO	MS	**4**	
a120802b.13	s53360.06	08/02/12 14:08	s53360.06 MSD 20.1g s/1 dx	SO	MS	**4**	
a120802b.14	s53360.02	08/02/12 14:21	s53360.02 20.1g s/1 dx	SO		**4**	
a120802b.16	ss1660.01	08/02/12 14:42	ss1660.01 0.1ppm 7/23/12	WW		**4**	
a120802b.17	sc1660.02	08/02/12 14:52	SC1660.02 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	6
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120801.01r	sblk-r.01	TCX	23.37/30.00	77.9	34.1/137.1	WW
		DCBP	28.32/30.00	94.4	30.0/138.6	
a120801.02r	sc1660.01	TCX	16.78/30.00	n/a	34.1/137.1	WW
		DCBP	15.33/30.00	n/a	30.0/138.6	
a120801.03r	sblk-s.01	TCX	19.21/30.00	64.0	33.0/135.3	SO
		DCBP	26.82/30.00	89.4	30.0/137.0	
a120801.04r	slcs-s.01	TCX	17.97/30.00	59.9	33.0/135.3	SO
		DCBP	18.55/30.00	61.8	30.0/137.0	
a120801.05r	s53238.01	TCX	32.57/30.00	108.6	34.1/137.1	WW
		DCBP	30.63/30.00	102.1	30.0/138.6	
a120801.06r	s53238.02	TCX	29.17/30.00	97.2	34.1/137.1	WW
		DCBP	27.34/30.00	91.1	30.0/138.6	
a120801.07r	s53238.03	TCX	30.26/30.00	100.9	33.0/135.3	SO
		DCBP	28.16/30.00	93.9	30.0/137.0	
a120801.08r	s53238.04	TCX	28.40/30.00	94.7	33.0/135.3	SO
		DCBP	26.50/30.00	88.3	30.0/137.0	
a120801.09r	s53360.07	TCX	19.98/30.00	66.6	33.0/135.3	SO
		DCBP	23.29/30.00	77.6	30.0/137.0	
a120801.10r	s53360.08	TCX	18.59/30.00	62.0	33.0/135.3	SO
		DCBP	21.61/30.00	72.0	30.0/137.0	
a120801.11r	s53360.09	TCX	20.45/30.00	68.2	33.0/135.3	SO
		DCBP	24.21/30.00	80.7	30.0/137.0	
a120801.12r	s53360.10	TCX	16.88/30.00	56.3	33.0/135.3	SO
		DCBP	24.73/30.00	82.4	30.0/137.0	
a120801.13r	s53360.11	TCX	17.77/30.00	59.2	33.0/135.3	SO
		DCBP	22.78/30.00	75.9	30.0/137.0	
a120801.17r	s53360.03	TCX	14.46/30.00	48.2	33.0/135.3	SO
		DCBP	20.81/30.00	69.4	30.0/137.0	
a120801.20r	slcs-al.0	TCX	18.55/30.00	61.8	34.1/137.1	WW
		DCBP	15.92/30.00	53.1	30.0/138.6	
a120801.21r	ss1660.01	TCX	3.18/30.00	n/a	34.1/137.1	WW
		DCBP	1.96/30.00	n/a	30.0/138.6	
a120801.22r	sc1660.02	TCX	16.85/30.00	n/a	34.1/137.1	WW
		DCBP	12.79/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120801.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120801b.01	sblk-r.01	TCX	25.44/30.00	84.8	34.1/137.1	WW
		DCBP	33.11/30.00	110.4	30.0/138.6	
a120801b.02	sc1660.01	TCX	17.69/30.00	n/a	34.1/137.1	WW
		DCBP	18.10/30.00	n/a	30.0/138.6	
a120801b.03	sblk-s.01	TCX	20.61/30.00	68.7	33.0/135.3	SO
		DCBP	31.24/30.00	104.1	30.0/137.0	
a120801b.04	slcs-s.01	TCX	18.88/30.00	62.9	33.0/135.3	SO
		DCBP	21.51/30.00	71.7	30.0/137.0	
a120801b.05	s53238.01	TCX	35.36/30.00	117.9	34.1/137.1	WW
		DCBP	34.91/30.00	116.4	30.0/138.6	
a120801b.06	s53238.02	TCX	31.29/30.00	104.3	34.1/137.1	WW
		DCBP	31.10/30.00	103.7	30.0/138.6	
a120801b.07	s53238.03	TCX	32.53/30.00	108.4	33.0/135.3	SO
		DCBP	31.95/30.00	106.5	30.0/137.0	
a120801b.08	s53238.04	TCX	30.56/30.00	101.9	33.0/135.3	SO
		DCBP	30.14/30.00	100.5	30.0/137.0	
a120801b.09	s53360.07	TCX	21.31/30.00	71.0	33.0/135.3	SO
		DCBP	26.18/30.00	87.3	30.0/137.0	
a120801b.10	s53360.08	TCX	19.97/30.00	66.6	33.0/135.3	SO
		DCBP	24.99/30.00	83.3	30.0/137.0	
a120801b.11	s53360.09	TCX	21.84/30.00	72.8	33.0/135.3	SO
		DCBP	27.45/30.00	91.5	30.0/137.0	
a120801b.12	s53360.10	TCX	18.00/30.00	60.0	33.0/135.3	SO
		DCBP	28.07/30.00	93.6	30.0/137.0	
a120801b.13	s53360.11	TCX	18.92/30.00	63.1	33.0/135.3	SO
		DCBP	25.92/30.00	86.4	30.0/137.0	
a120801b.17	s53360.03	TCX	14.13/30.00	47.1	33.0/135.3	SO
		DCBP	22.17/30.00	73.9	30.0/137.0	
a120801b.20	slcs-al.0	TCX	18.43/30.00	61.4	34.1/137.1	WW
		DCBP	17.54/30.00	58.5	30.0/138.6	
a120801b.21	ss1660.01	TCX	3.24/30.00	n/a	34.1/137.1	WW
		DCBP	2.31/30.00	n/a	30.0/138.6	
a120801b.22	sc1660.02	TCX	16.78/30.00	n/a	34.1/137.1	WW
		DCBP	14.49/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120802.01r	sblk-r.01	TCX	22.28/30.00	74.3	34.1/137.1	WW
		DCBP	34.78/30.00	115.9	30.0/138.6	
a120802.02r	sc1660.01	TCX	16.65/30.00	n/a	34.1/137.1	WW
		DCBP	12.83/30.00	n/a	30.0/138.6	
a120802.03r	ss1254.01	TCX	5.78/30.00	n/a	34.1/137.1	WW
		DCBP	2.96/30.00	n/a	30.0/138.6	
a120802.04r	ss1254.02	TCX	16.57/30.00	n/a	34.1/137.1	WW
		DCBP	10.24/30.00	n/a	30.0/138.6	
a120802.05r	ss1254.03	TCX	27.70/30.00	n/a	34.1/137.1	WW
		DCBP	17.58/30.00	n/a	30.0/138.6	
a120802.06r	ss1254.04	TCX	38.55/30.00	n/a	34.1/137.1	WW
		DCBP	24.90/30.00	n/a	30.0/138.6	
a120802.07r	ss1254.05	TCX	54.29/30.00	n/a	34.1/137.1	WW
		DCBP	35.65/30.00	n/a	30.0/138.6	
a120802.08r	ss1254.06	TCX	12.52/30.00	n/a	34.1/137.1	WW
		DCBP	14.52/30.00	n/a	30.0/138.6	
a120802.09r	s53360.12	TCX	17.42/30.00	58.1	33.0/135.3	SO
		DCBP	29.66/30.00	98.9	30.0/137.0	
a120802.10r	s53360.13	TCX	20.24/30.00	67.5	33.0/135.3	SO
		DCBP	30.37/30.00	101.2	30.0/137.0	
a120802.11r	s53360.04	TCX	16.96/30.00	56.5	33.0/135.3	SO
		DCBP	19.33/30.00	64.4	30.0/137.0	
a120802.12r	s53360.05	TCX	22.69/30.00	75.6	33.0/135.3	SO
		DCBP	24.31/30.00	81.0	30.0/137.0	
a120802.13r	s53360.06	TCX	22.09/30.00	73.6	33.0/135.3	SO
		DCBP	22.82/30.00	76.1	30.0/137.0	
a120802.14r	s53360.02	TCX	19.89/30.00	66.3	33.0/135.3	SO
		DCBP	23.57/30.00	78.6	30.0/137.0	
a120802.16r	ss1660.01	TCX	2.86/30.00	n/a	34.1/137.1	WW
		DCBP	1.37/30.00	n/a	30.0/138.6	
a120802.17r	sc1660.02	TCX	17.86/30.00	n/a	34.1/137.1	WW
		DCBP	11.35/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

Filename	LIMS ID	SSD Compound	Found/Spiked	%Rec.	LCL/UCL	Matrix
a120802b.01	sblk-r.01	TCX	23.58/30.00	78.6	34.1/137.1	WW
		DCBP	35.84/30.00	119.5	30.0/138.6	
a120802b.02	sc1660.01	TCX	17.26/30.00	n/a	34.1/137.1	WW
		DCBP	14.95/30.00	n/a	30.0/138.6	
a120802b.03	ss1254.01	TCX	3.79/30.00	n/a	34.1/137.1	WW
		DCBP	2.25/30.00	n/a	30.0/138.6	
a120802b.04	ss1254.02	TCX	12.30/30.00	n/a	34.1/137.1	WW
		DCBP	7.90/30.00	n/a	30.0/138.6	
a120802b.05	ss1254.03	TCX	20.83/30.00	n/a	34.1/137.1	WW
		DCBP	13.79/30.00	n/a	30.0/138.6	
a120802b.06	ss1254.04	TCX	29.25/30.00	n/a	34.1/137.1	WW
		DCBP	19.66/30.00	n/a	30.0/138.6	
a120802b.07	ss1254.05	TCX	41.98/30.00	n/a	34.1/137.1	WW
		DCBP	28.19/30.00	n/a	30.0/138.6	
a120802b.08	ss1254.06	TCX	12.60/30.00	n/a	34.1/137.1	WW
		DCBP	14.75/30.00	n/a	30.0/138.6	
a120802b.09	s53360.12	TCX	18.08/30.00	60.3	33.0/135.3	SO
		DCBP	30.19/30.00	100.6	30.0/137.0	
a120802b.10	s53360.13	TCX	20.44/30.00	68.1	33.0/135.3	SO
		DCBP	30.99/30.00	103.3	30.0/137.0	
a120802b.11	s53360.04	TCX	16.67/30.00	55.6	33.0/135.3	SO
		DCBP	20.75/30.00	69.2	30.0/137.0	
a120802b.12	s53360.05	TCX	21.38/30.00	71.3	33.0/135.3	SO
		DCBP	26.01/30.00	86.7	30.0/137.0	
a120802b.13	s53360.06	TCX	21.08/30.00	70.3	33.0/135.3	SO
		DCBP	24.34/30.00	81.1	30.0/137.0	
a120802b.14	s53360.02	TCX	19.69/30.00	65.6	33.0/135.3	SO
		DCBP	25.57/30.00	85.2	30.0/137.0	
a120802b.16	ss1660.01	TCX	2.89/30.00	n/a	34.1/137.1	WW
		DCBP	1.63/30.00	n/a	30.0/138.6	
a120802b.17	sc1660.02	TCX	17.57/30.00	n/a	34.1/137.1	WW
		DCBP	12.64/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

File Name	*LIMS ID*	*Sample Name*	*Target Compound*	*Dup/Samp Conc.*	*%RPD*	*Matrix*
a120802.13r	s53360.06	**a120802.12r**	1016-1	0.417/ 0.446	6.7	SO
			1016-2	0.415/ 0.430	3.6	
			1016-3	0.401/ 0.422	5.1	
			1016-4	0.401/ 0.442	9.7	
			1016-5	0.392/ 0.415	5.7	
			1260-1	0.370/ 0.392	5.8	
			1260-2	0.342/ 0.363	6.0	
			1260-3	0.358/ 0.380	6.0	
			1260-4	0.343/ 0.372	8.1	
			1260-5	0.336/ 0.360	6.9	
			[end of list]			

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
a120802b.13	s53360.06	**a120802b.12**	1016-1	0.361/ 0.392	8.2	SO
			1016-2	0.368/ 0.384	4.3	
			1016-3	0.364/ 0.384	5.3	
			1016-4	0.373/ 0.391	4.7	
			1016-5	0.365/ 0.376	3.0	
			1260-1	0.347/ 0.366	5.3	
			1260-2	0.326/ 0.348	6.5	
			1260-3	0.355/ 0.369	3.9	
			1260-4	0.309/ 0.333	7.5	
			1260-5	0.349/ 0.377	7.7	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120801.04r	slcs-s.01	**a120801.03r**	1016-1	0.448/ 0.000	89.6		SO
			1016-2	0.454/ 0.000	90.8		
			1016-3	0.447/ 0.000	89.4		
			1016-4	0.426/ 0.000	85.2		
			1016-5	0.438/ 0.000	87.6		
			1260-1	0.441/ 0.000	88.2		
			1260-2	0.398/ 0.000	79.6		
			1260-3	0.437/ 0.000	87.4		
			1260-4	0.415/-0.045	92.0		
			1260-5	0.429/ 0.000	85.8		
				Average Recovery	**87.6**	50.0/125.0	
a120801.20r	slcs-al.0		1016-1	0.463/ 0.000	92.6		WW
			1016-2	0.460/ 0.000	92.0		
			1016-3	0.469/ 0.000	93.8		
			1016-4	0.450/ 0.000	90.0		
			1016-5	0.451/ 0.000	90.2		
			1260-1	0.414/ 0.000	82.8		
			1260-2	0.358/ 0.000	71.6		
			1260-3	0.394/ 0.000	78.8		
			1260-4	0.369/ 0.000	73.8		
			1260-5	0.368/ 0.000	73.6		
				Average Recovery	**83.9**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120801b.04	slcs-s.01	**a120801b.03**	1016-1	0.475/ 0.000	95.0		SO
			1016-2	0.435/ 0.000	87.0		
			1016-3	0.465/ 0.000	93.0		
			1016-4	0.473/ 0.000	94.6		
			1016-5	0.394/ 0.000	78.8		
			1260-1	0.466/ 0.000	93.2		
			1260-2	0.457/ 0.000	91.4		
			1260-3	0.474/ 0.000	94.8		
			1260-4	0.447/ 0.000	89.4		
			1260-5	0.474/ 0.000	94.8		
				Average Recovery	**91.2**	50.0/125.0	
a120801b.20	slcs-al.0		1016-1	0.459/ 0.000	91.8		WW
			1016-2	0.416/ 0.000	83.2		
			1016-3	0.431/ 0.000	86.2		
			1016-4	0.432/ 0.000	86.4		
			1016-5	0.336/ 0.000	67.2		
			1260-1	0.382/ 0.000	76.4		
			1260-2	0.375/ 0.000	75.0		
			1260-3	0.386/ 0.000	77.2		
			1260-4	0.357/ 0.000	71.4		
			1260-5	0.372/ 0.000	74.4		
				Average Recovery	**78.9**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120802.12r	s53360.05	**a120802.11r**	1016-1	0.446/ 0.001	89.0		SO
			1016-2	0.430/ 0.003	85.4		
			1016-3	0.422/-0.002	84.8		
			1016-4	0.442/ 0.021	84.2		
			1016-5	0.415/-0.001	83.2		
			1260-1	0.392/ 0.000	78.4		
			1260-2	0.363/-0.052	83.0		
			1260-3	0.380/-0.046	85.2		
			1260-4	0.372/ 0.026	69.2		
			1260-5	0.360/-0.051	82.2		
				Average Recovery	**82.5**	50.0/125.0	
a120802.13r	s53360.06	**a120802.11r**	1016-1	0.417/ 0.001	83.2		SO
			1016-2	0.415/ 0.003	82.4		
			1016-3	0.401/-0.002	80.6		
			1016-4	0.401/ 0.021	76.0		
			1016-5	0.392/-0.001	78.6		
			1260-1	0.370/ 0.000	74.0		
			1260-2	0.342/-0.052	78.8		
			1260-3	0.358/-0.046	80.8		
			1260-4	0.343/ 0.026	63.4		
			1260-5	0.336/-0.051	77.4		
				Average Recovery	**77.5**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120802b.12	s53360.05	**a120802b.11**	1016-1	0.392/-0.016	81.6		SO
			1016-2	0.384/-0.009	78.6		
			1016-3	0.384/ 0.000	76.8		
			1016-4	0.391/-0.004	79.0		
			1016-5	0.376/-0.012	77.6		
			1260-1	0.366/ 0.000	73.2		
			1260-2	0.348/-0.042	78.0		
			1260-3	0.369/-0.043	82.4		
			1260-4	0.333/ 0.033	60.0		
			1260-5	0.377/-0.029	81.2		
				Average Recovery	**76.8**	50.0/125.0	
a120802b.13	s53360.06	**a120802b.11**	1016-1	0.361/-0.016	75.4		SO
			1016-2	0.368/-0.009	75.4		
			1016-3	0.364/ 0.000	72.8		
			1016-4	0.373/-0.004	75.4		
			1016-5	0.365/-0.012	75.4		
			1260-1	0.347/ 0.000	69.4		
			1260-2	0.326/-0.042	73.6		
			1260-3	0.355/-0.043	79.6		
			1260-4	0.309/ 0.033	55.2		
			1260-5	0.349/-0.029	75.6		
				Average Recovery	**72.8**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-5
Level: LOW

Analytical Batch: a120801.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: a120801.03r.bnd
LCS Data File: a120801.04r.bnd

Blank/LCS Preparation Batch: pa120801s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53360.02	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.03	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.04	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.05	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.06	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.07	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.08	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.09	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.10	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.11	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.12	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.13	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53389.01	F120801	PA120801S01	08/01/12	PCB List	$8080A
	PA120801S01		08/01/12	Extraction, PCB	1120S
S53389.02	F120801	PA120801S01	08/01/12	PCB List	$8080A
	PA120801S01		08/01/12	Extraction, PCB	1120S
S53389.03	F120801	PA120801S01	08/01/12	PCB List	$8080A
	PA120801S01		08/01/12	Extraction, PCB	1120S
S53391.01	PA120801S01		08/01/12	Extraction, PCB - Wipes	1120WIPE
	F120801	PA120801S01	08/01/12	PCB Swab List	$PCBSWBL

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-5
Level: LOW

Analytical Batch: a120801.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
a120801.01r	sblk-r.01	08/01/12 09:18	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
a120801.03r	sblk-s.01	08/01/12 10:16	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-608
Level: LOW

Analytical Batch: a120801.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: a120801b.03r.bnd
LCS Data File: a120801b.04r.bnd

Blank/LCS Preparation Batch: pa120801s01

Sample ID	Anal. Batch	Prep. Batch	Date	Analysis	Analysis Code
S53360.02	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.03	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.04	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.05	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.06	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.07	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.08	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.09	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.10	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.11	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 1)	$TCL8082C1
	A120801	PA120801S01	08/01/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.12	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53360.13	PA120801S01		08/01/12	Extraction, PCB	1120S
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 1)	$TCL8082C1
	A120802	PA120801S01	08/02/12	TCL PCB List (Column 2)	$TCL8082C2
S53389.01	F120801	PA120801S01	08/01/12	PCB List	$8080A
	PA120801S01		08/01/12	Extraction, PCB	1120S
S53389.02	F120801	PA120801S01	08/01/12	PCB List	$8080A
	PA120801S01		08/01/12	Extraction, PCB	1120S
S53389.03	F120801	PA120801S01	08/01/12	PCB List	$8080A
	PA120801S01		08/01/12	Extraction, PCB	1120S
S53391.01	PA120801S01		08/01/12	Extraction, PCB - Wipes	1120WIPE
	F120801	PA120801S01	08/01/12	PCB Swab List	$PCBSWBL

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-608
Level: LOW

Analytical Batch: a120801.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	LIMS ID	Run Time	Target Analyte	Conc.	Sample	Matrix
a120801b.01	sblk-r.01	08/01/12 09:18	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
a120801b.03	sblk-s.01	08/01/12 10:16	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-5
Level: LOW

Analytical Batch: a120802.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	LIMS ID	Run Time	Target Analyte	Conc.	Sample	Matrix
a120802.01r	sblk-r.01	08/02/12 09:48	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-608
Level: LOW

Analytical Batch: a120802.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*LIMS ID*	*Run Time*	*Target Analyte*	*Conc.*	*Sample*	*Matrix*
a120802b.01	sblk-r.01	08/02/12 09:48	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

Note/Qualifier Key

A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

LIMS ID: S53360.02
Data File: a120802.14r.bnd
Date Received: 07/27/12

Tag: SB120 (07-26-12) (4-6)
Notes: s53360.02 20.1g s/1 dx ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		81	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120802.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53360.02 **Tag: SB120 (07-26-12) (4-6)** Matrix: SO
Data File: a120802b.14r.bnd Notes: s53360.02 20.1g s/1 dx ID:PA120801s01 Extraction: SONC
Date Received: 07/27/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		81	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

LIMS ID: S53360.03
Data File: a120801.17r.bnd
Date Received: 07/27/12

Tag: SB169 (07-26-12) (1.5-3.5)
Notes: s53360.03 20.0g s/1 C ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		89	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

LIMS ID: S53360.03
Data File: a120801b.17r.bnd
Date Received: 07/27/12

Tag: SB169 (07-26-12) (1.5-3.5)
Notes: s53360.03 20.0g s/1 C ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		89	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

LIMS ID: S53360.04
Data File: a120802.11r.bnd
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5)
Notes: s53360.04 20.2g s/1 dx ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

LIMS ID: S53360.04
Data File: a120802b.11r.bnd
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5)
Notes: s53360.04 20.2g s/1 dx ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		92	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

LIMS ID: S53360.05
Data File: a120802.12r.bnd
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MS
Notes: s53360.05 MS 20.1g s/1 dx ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

LIMS ID: S53360.05
Data File: a120802b.12r.bnd
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MS
Notes: s53360.05 MS 20.1g s/1 dx ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

LIMS ID: S53360.06
Data File: a120802.13r.bnd
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MSD
Notes: s53360.06 MSD 20.1g s/1 dx

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

LIMS ID: S53360.06
Data File: a120802b.13r.bnd
Date Received: 07/27/12

Tag: SB144 (07-26-12) (1.5-3.5) MSD
Notes: s53360.06 MSD 20.1g s/1 dx

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

LIMS ID: S53360.07
Data File: a120801.09r.bnd
Date Received: 07/27/12

Tag: SB144 (07-26-12) (7.5-9.5)
Notes: s53360.07 20.2g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		87	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

LIMS ID: S53360.07
Data File: a120801b.09r.bnd
Date Received: 07/27/12

Tag: SB144 (07-26-12) (7.5-9.5)
Notes: s53360.07 20.2g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		87	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

LIMS ID: S53360.08
Data File: a120801.10r.bnd
Date Received: 07/27/12

Tag: SB145 (07-27-12) (2-4)
Notes: s53360.08 20.1g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		89	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

LIMS ID: S53360.08
Data File: a120801b.10r.bnd
Date Received: 07/27/12

Tag: SB145 (07-27-12) (2-4)
Notes: s53360.08 20.1g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		89	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

LIMS ID: S53360.09
Data File: a120801.11r.bnd
Date Received: 07/27/12

Tag: SB145 (07-27-12) (6-8)
Notes: s53360.09 20.2g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		82	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

LIMS ID: S53360.09
Data File: a120801b.11r.bnd
Date Received: 07/27/12

Tag: SB145 (07-27-12) (6-8)
Notes: s53360.09 20.2g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		82	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

LIMS ID: S53360.10
Data File: a120801.12r.bnd
Date Received: 07/27/12

Tag: SB106 (07-27-12) (8-10)
Notes: s53360.10 20.2g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		89	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

LIMS ID: S53360.10
Data File: a120801b.12r.bnd
Date Received: 07/27/12

Tag: SB106 (07-27-12) (8-10)
Notes: s53360.10 20.2g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		89	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

LIMS ID: S53360.11
Data File: a120801.13r.bnd
Date Received: 07/27/12

Tag: SB106 (07-27-12) (32-34)
Notes: s53360.11 20.1g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		83	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

LIMS ID: S53360.11
Data File: a120801b.13r.bnd
Date Received: 07/27/12

Tag: SB106 (07-27-12) (32-34)
Notes: s53360.11 20.1g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/01/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		83	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

LIMS ID: S53360.12
Data File: a120802.09r.bnd
Date Received: 07/27/12

Tag: SB100 (07-27-12) (2-4)
Notes: s53360.12 20.3g s/1 C ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

LIMS ID: S53360.12
Data File: a120802b.09r.bnd
Date Received: 07/27/12

Tag: SB100 (07-27-12) (2-4)
Notes: s53360.12 20.3g s/1 C ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

LIMS ID: S53360.13
Data File: a120802.10r.bnd
Date Received: 07/27/12

Tag: SB101 (07-27-12) (2.5-4.5)
Notes: s53360.13 20.0g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		90	1	1	%	07/31/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

LIMS ID: S53360.13
Data File: a120802b.10r.bnd
Date Received: 07/27/12

Tag: SB101 (07-27-12) (2.5-4.5)
Notes: s53360.13 20.0g s/1 ID:PA120801s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/02/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/01/12	
Total Solids								
TSOLIDS	Total Solids		90	1	1	%	07/31/12	

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
a66120723.cal	**TCX**	L	2.24	2.29	2.34	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.061
				21.6	1.00	0.11	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.15	3.20	3.25	0.05	0.10	0.30	0.50	0.70	1.00	0.049	0.927
				24.1	1.00	1.72	1.36	1.12	1.06	1.00	0.97		
	1016-2	L	3.41	3.46	3.51	0.05	0.10	0.30	0.50	0.70	1.00	0.156	2.954
				25.0	1.00	5.59	4.34	3.55	3.39	3.15	3.09		
	1016-3	L	3.50	3.55	3.60	0.05	0.10	0.30	0.50	0.70	1.00	0.060	1.236
				23.2	1.00	2.24	1.76	1.47	1.41	1.32	1.29		
	1016-4	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.038	0.909
				20.9	1.00	1.56	1.24	1.05	1.02	0.96	0.94		
	1016-5	L	4.04	4.09	4.14	0.05	0.10	0.30	0.50	0.70	1.00	0.057	1.163
				23.1	1.00	2.11	1.65	1.38	1.32	1.24	1.21		
	1260-1	L	5.09	5.14	5.19	0.05	0.10	0.30	0.50	0.70	1.00	0.096	1.843
				25.0	1.00	3.48	2.70	2.21	2.10	1.96	1.93		
	1260-2	L	5.31	5.36	5.41	0.05	0.10	0.30	0.50	0.70	1.00	0.143	2.727
				25.1	1.00	5.16	4.02	3.27	3.12	2.90	2.86		
	1260-3	L	5.55	5.60	5.65	0.05	0.10	0.30	0.50	0.70	1.00	0.140	2.736
				24.6	1.00	5.12	3.98	3.26	3.13	2.91	2.86		
	1260-4	L	6.15	6.20	6.25	0.05	0.10	0.30	0.50	0.70	1.00	0.092	1.991
				23.6	1.00	3.61	2.84	2.33	2.24	2.09	2.08		
	1260-5	L	6.41	6.46	6.51	0.05	0.10	0.30	0.50	0.70	1.00	0.105	2.032
				24.9	1.00	3.83	2.97	2.43	2.32	2.15	2.13		
	DCBP	L	7.53	7.58	7.63	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.044
				25.4	1.00	0.08	0.07	0.05	0.05	0.05	0.05		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): a66120723.cal / mean %rsd: 23.9

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
a54120802.cal	**TCX**	L	2.24	2.29	2.34	3.00	9.00	15.00	21.00	30.00		0.058	0.061
				9.77	1.00	0.08	0.07	0.07	0.06	0.06			
	1254-1	L	4.32	4.37	4.42	0.10	0.30	0.50	0.70	1.00		0.029	1.396
				8.67	1.00	1.74	1.50	1.44	1.43	1.43			
	1254-2	L	4.54	4.59	4.64	0.10	0.30	0.50	0.70	1.00		0.053	1.917
				9.68	1.00	2.46	2.07	2.03	2.01	1.97			
	1254-3	L	4.87	4.92	4.97	0.10	0.30	0.50	0.70	1.00		0.050	2.321
				8.63	1.00	2.89	2.47	2.41	2.39	2.38			
	1254-4	L	5.10	5.15	5.20	0.10	0.30	0.50	0.70	1.00		0.041	2.411
				8.96	1.00	2.97	2.58	2.51	2.36	2.50			
	1254-5	L	5.55	5.60	5.65	0.10	0.30	0.50	0.70	1.00		0.043	2.110
				8.16	1.00	2.60	2.24	2.18	2.19	2.15			
	DCBP	L	7.52	7.57	7.62	3.00	9.00	15.00	21.00	30.00		0.038	0.030
				13.0	1.00	0.04	0.03	0.03	0.03	0.03			
a66120723.cal	**TCX**	L	2.24	2.29	2.34	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.061
				21.6	1.00	0.11	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.15	3.20	3.25	0.05	0.10	0.30	0.50	0.70	1.00	0.049	0.927
				24.1	1.00	1.72	1.36	1.12	1.06	1.00	0.97		
	1016-2	L	3.41	3.46	3.51	0.05	0.10	0.30	0.50	0.70	1.00	0.156	2.954
				25.0	1.00	5.59	4.34	3.55	3.39	3.15	3.09		
	1016-3	L	3.50	3.55	3.60	0.05	0.10	0.30	0.50	0.70	1.00	0.060	1.236
				23.2	1.00	2.24	1.76	1.47	1.41	1.32	1.29		
	1016-4	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.038	0.909
				20.9	1.00	1.56	1.24	1.05	1.02	0.96	0.94		
	1016-5	L	4.04	4.09	4.14	0.05	0.10	0.30	0.50	0.70	1.00	0.057	1.163
				23.1	1.00	2.11	1.65	1.38	1.32	1.24	1.21		
	1260-1	L	5.09	5.14	5.19	0.05	0.10	0.30	0.50	0.70	1.00	0.096	1.843
				25.0	1.00	3.48	2.70	2.21	2.10	1.96	1.93		
	1260-2	L	5.31	5.36	5.41	0.05	0.10	0.30	0.50	0.70	1.00	0.143	2.727
				25.1	1.00	5.16	4.02	3.27	3.12	2.90	2.86		
	1260-3	L	5.55	5.60	5.65	0.05	0.10	0.30	0.50	0.70	1.00	0.140	2.736
				24.6	1.00	5.12	3.98	3.26	3.13	2.91	2.86		
	1260-4	L	6.15	6.20	6.25	0.05	0.10	0.30	0.50	0.70	1.00	0.092	1.991
				23.6	1.00	3.61	2.84	2.33	2.24	2.09	2.08		
	1260-5	L	6.41	6.46	6.51	0.05	0.10	0.30	0.50	0.70	1.00	0.105	2.032
				24.9	1.00	3.83	2.97	2.43	2.32	2.15	2.13		
	DCBP	L	7.53	7.58	7.63	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.044
				25.4	1.00	0.08	0.07	0.05	0.05	0.05	0.05		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): a54120802.cal / mean %rsd: 9.6
Calibration (2): a66120723.cal / mean %rsd: 23.9

File Name: F:\gcecd.dat\Methods\A54120802.cal
Version: 2

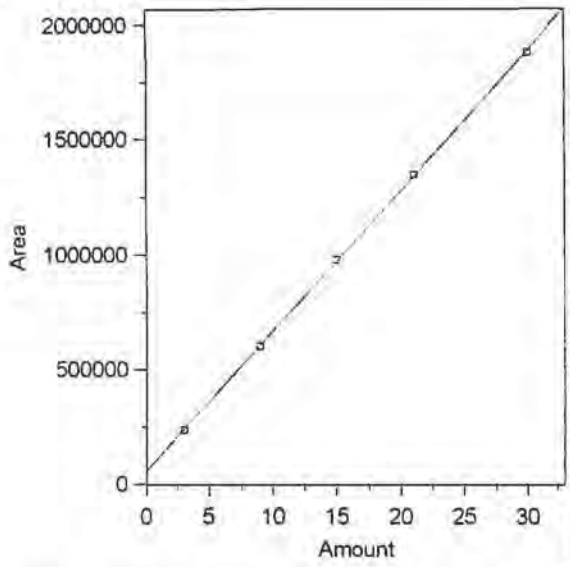
Creator: Janusz
Description: pcb 1254

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.288 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

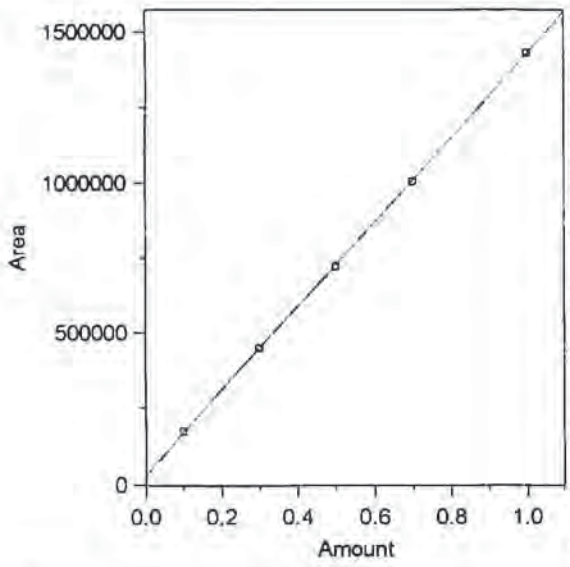
Single peak quantification by area

Y = 61034.17 X + 57857.39

Linear fit with equal weighting
Coefficient of determination: 0.9998731
Average error: 0.772%
Average CF: 67685.27
RSD: 9.772%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	3	237532.7	79177.57	-1.422	F:\gcecd.dat\A120802\A120802.03R.BND	8/2/2012 12:46:57 PM
2	9	603000.2	67000.02	-0.686	F:\gcecd.dat\A120802\A120802.04R.BND	8/2/2012 12:47:03 PM
3	15	980362.7	65357.51	0.718	F:\gcecd.dat\A120802\A120802.05R.BND	8/2/2012 12:47:10 PM
4	21	1347920	64186.67	0.623	F:\gcecd.dat\A120802\A120802.06R.BND	8/2/2012 12:47:15 PM
5	30	1881137	62704.57	-0.410	F:\gcecd.dat\A120802\A120802.07R.BND	8/2/2012 12:47:20 PM

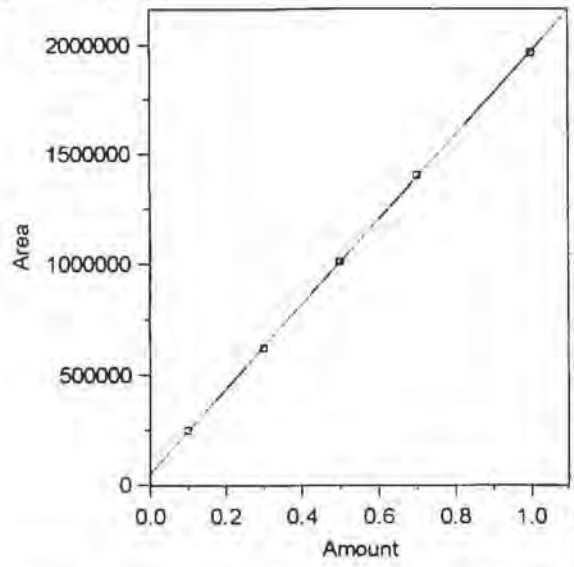
2 1254-1



Expected retention time:	4.374 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1396356 X + 29295.48	
Linear fit with equal weighting	
Coefficient of determination:	0.9998807
Average error:	0.919%
Average CF:	1507420
RSD:	8.674%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	173645.5	1736455	2.791	F:\gceed.dat\A120802\A120802.03R.BND	8/2/2012 12:46:57 PM
2	0.3	448716	1495720	0.115	F:\gceed.dat\A120802\A120802.04R.BND	8/2/2012 12:47:03 PM
3	0.5	720208.9	1440418	-0.999	F:\gceed.dat\A120802\A120802.05R.BND	8/2/2012 12:47:10 PM
4	0.7	1003509	1433584	-0.321	F:\gceed.dat\A120802\A120802.06R.BND	8/2/2012 12:47:15 PM
5	1	1430922	1430922	0.370	F:\gceed.dat\A120802\A120802.07R.BND	8/2/2012 12:47:20 PM

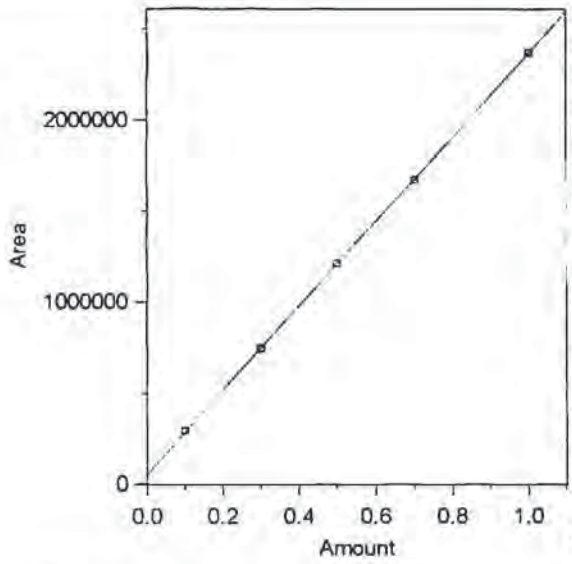
3 1254-2



Expected retention time:	4.586 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1917081 X + 52639.8	
Linear fit with equal weighting	
Coefficient of determination:	0.9999165
Average error:	0.580%
Average CF:	2105368
RSD:	9.677%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	246359.9	2463599	0.823	F:\gceed.dat\A120802\A120802.03R.BND	8/2/2012 12:46:57 PM
2	0.3	620729.9	2069100	-1.121	F:\gceed.dat\A120802\A120802.04R.BND	8/2/2012 12:47:03 PM
3	0.5	1012258	2024516	0.107	F:\gceed.dat\A120802\A120802.05R.BND	8/2/2012 12:47:10 PM
4	0.7	1403177	2004539	0.615	F:\gceed.dat\A120802\A120802.06R.BND	8/2/2012 12:47:15 PM
5	1	1965084	1965084	-0.235	F:\gceed.dat\A120802\A120802.07R.BND	8/2/2012 12:47:20 PM

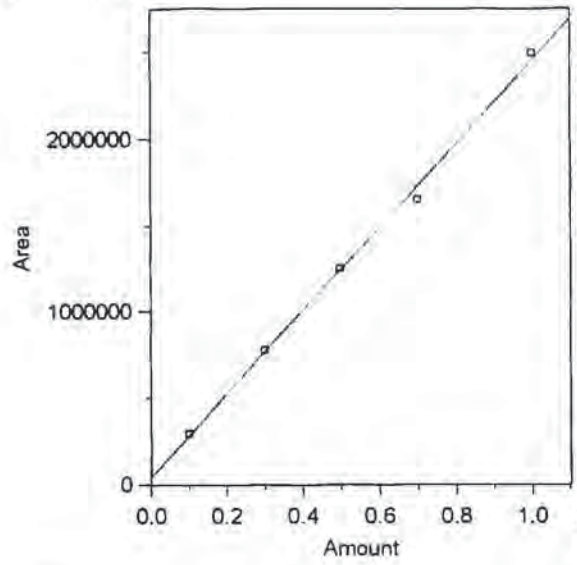
4 1254-3



Expected retention time:	4.919 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2321216 X + 49646.98	
Linear fit with equal weighting	
Coefficient of determination:	0.9999527
Average error:	0.781%
Average CF:	2506967
RSD:	8.633%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	288864.3	2888643	2.518	F:\gceed.dat\A120802\A120802.03R.BND	8/2/2012 12:46:57 PM
2	0.3	740990.7	2469969	-0.673	F:\gceed.dat\A120802\A120802.04R.BND	8/2/2012 12:47:03 PM
3	0.5	1206359	2412718	-0.322	F:\gceed.dat\A120802\A120802.05R.BND	8/2/2012 12:47:10 PM
4	0.7	1671419	2387742	-0.184	F:\gceed.dat\A120802\A120802.06R.BND	8/2/2012 12:47:15 PM
5	1	2375762	2375762	0.207	F:\gceed.dat\A120802\A120802.07R.BND	8/2/2012 12:47:20 PM

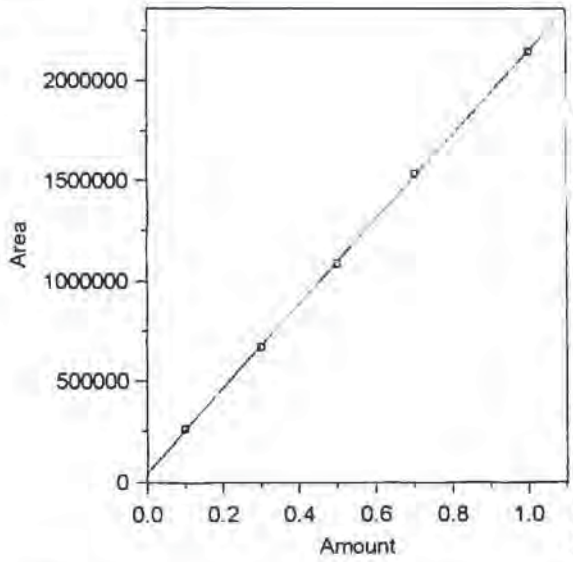
5 1254-4



Expected retention time:	5.152 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2411461 X + 41033.45	
Linear fit with equal weighting	
Coefficient of determination:	0.997028
Average error:	2.678%
Average CF:	2583106
RSD:	8.961%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	297271.3	2972713	5.348	F:\gceed.dat\A120802\A120802.03R.BND	8/2/2012 12:46:57 PM
2	0.3	772490.3	2574968	1.049	F:\gceed.dat\A120802\A120802.04R.BND	8/2/2012 12:47:03 PM
3	0.5	1254734	2509468	0.639	F:\gceed.dat\A120802\A120802.05R.BND	8/2/2012 12:47:10 PM
4	0.7	1651789	2359699	-4.469	F:\gceed.dat\A120802\A120802.06R.BND	8/2/2012 12:47:15 PM
5	1	2498682	2498682	1.883	F:\gceed.dat\A120802\A120802.07R.BND	8/2/2012 12:47:20 PM

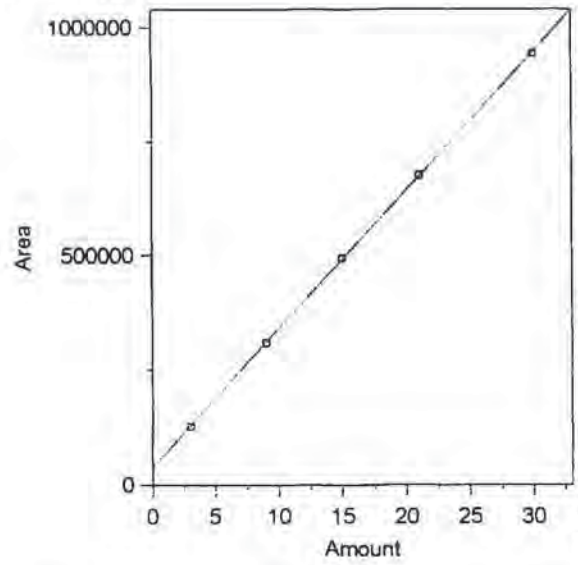
6 1254-5



Expected retention time:	5.604 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2110030 X + 43323.2	
Linear fit with equal weighting	
Coefficient of determination:	0.9998535
Average error:	0.962%
Average CF:	2270152
RSD:	8.165%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	259724.4	2597244	2.123	F:\gceed.dat\A120802\A120802.03R.BND	8/2/2012 12:46:57 PM
2	0.3	670360.3	2234534	-0.883	F:\gceed.dat\A120802\A120802.04R.BND	8/2/2012 12:47:03 PM
3	0.5	1089334	2178668	-0.820	F:\gceed.dat\A120802\A120802.05R.BND	8/2/2012 12:47:10 PM
4	0.7	1533090	2190129	0.838	F:\gceed.dat\A120802\A120802.06R.BND	8/2/2012 12:47:15 PM
5	1	2150184	2150184	-0.147	F:\gceed.dat\A120802\A120802.07R.BND	8/2/2012 12:47:20 PM

7 DCBP



Expected retention time:	7.574 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 30266.45 X + 37557.82	
Linear fit with equal weighting	
Coefficient of determination:	0.9999747
Average error:	0.318%
Average CF:	34666.6
RSD:	13.011%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	3	127503.8	42501.27	-0.665	F:\gceed.dat\A120802\A120802.03R.BND	8/2/2012 12:46:57 PM
2	9	309357.5	34373.05	-0.193	F:\gceed.dat\A120802\A120802.04R.BND	8/2/2012 12:47:03 PM
3	15	492620.8	32841.39	0.217	F:\gceed.dat\A120802\A120802.05R.BND	8/2/2012 12:47:10 PM
4	21	675332.6	32158.7	0.324	F:\gceed.dat\A120802\A120802.06R.BND	8/2/2012 12:47:15 PM
5	30	943757.7	31458.59	-0.190	F:\gceed.dat\A120802\A120802.07R.BND	8/2/2012 12:47:20 PM

File Name: F:\gceecd.dat\Methods\A66120723.cal
Version: 1

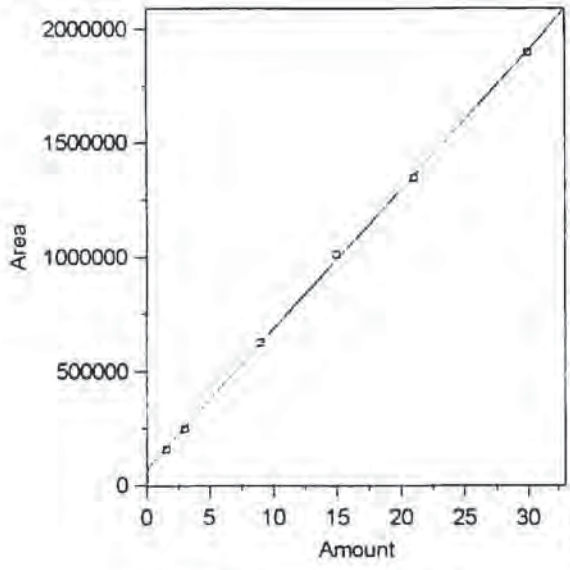
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.288 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

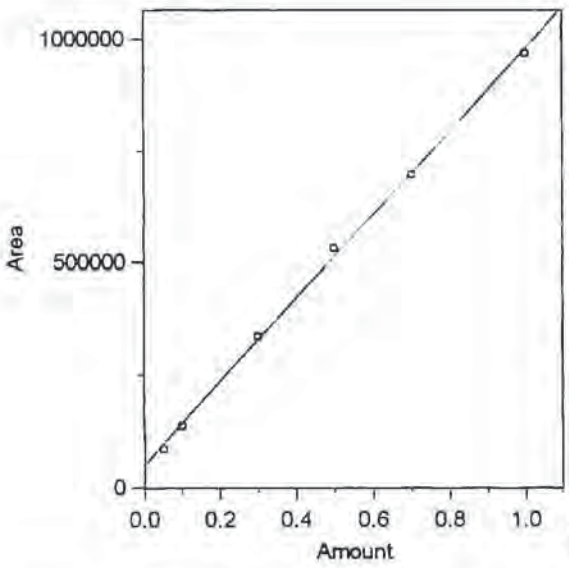
Single peak quantification by area

Y = 61135.64 X + 71564.21

Linear fit with equal weighting
Coefficient of determination: 0.9997023
Average error: 1.671%
Average CF: 75401.86
RSD: 21.587%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	158211.1	105474.1	-3.097	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	3	247381.2	82460.4	-2.977	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	9	627188.6	69687.63	0.869	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	15	1009865	67324.34	2.151	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	21	1346143	64102.05	-0.684	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	30	1900880	63362.67	-0.249	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

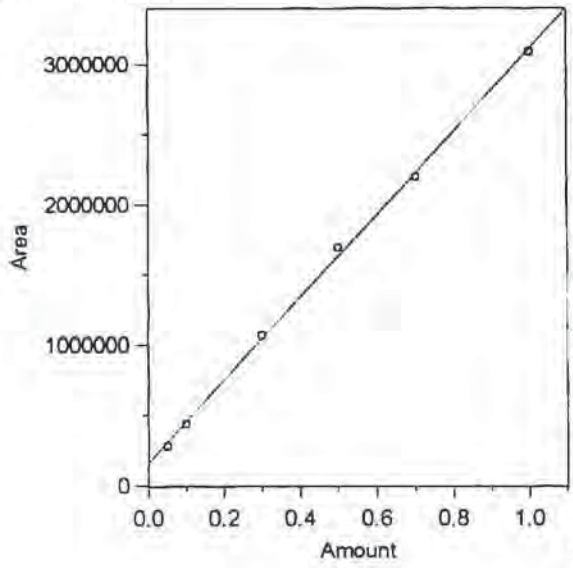
2 1016-1



Expected retention time:	3.204 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 927477.9 X + 49200.14	
Linear fit with equal weighting	
Coefficient of determination:	0.9989657
Average error:	3.530%
Average CF:	1204538
RSD:	24.069%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	86105.43	1722109	-9.907	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	136167.7	1361677	-4.072	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	335690.6	1118969	2.519	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	530850.7	1061701	3.492	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	696663.8	995234.1	-0.254	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	967539.4	967539.4	-0.936	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

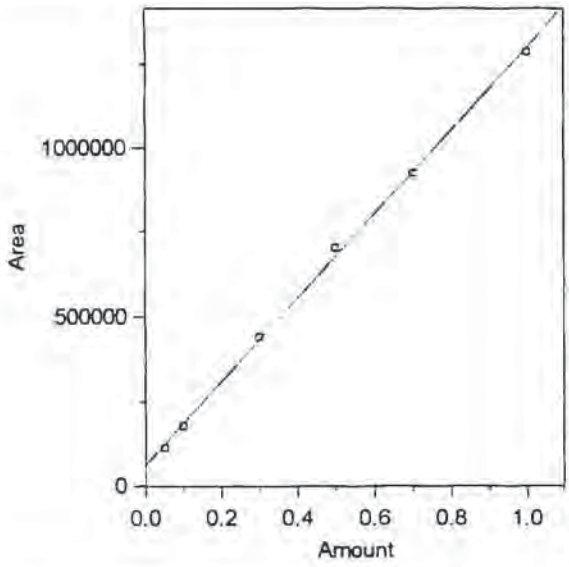
3 1016-2



Expected retention time:	3.458 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2953772 X + 156388.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9989858
Average error:	3.258%
Average CF:	3850246
RSD:	24.990%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	279309.2	5586184	-8.145	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	433994.1	4339941	-3.934	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	1065060	3550200	2.162	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1693959	3387918	3.716	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2202040	3145772	-0.989	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	3091464	3091464	-0.601	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

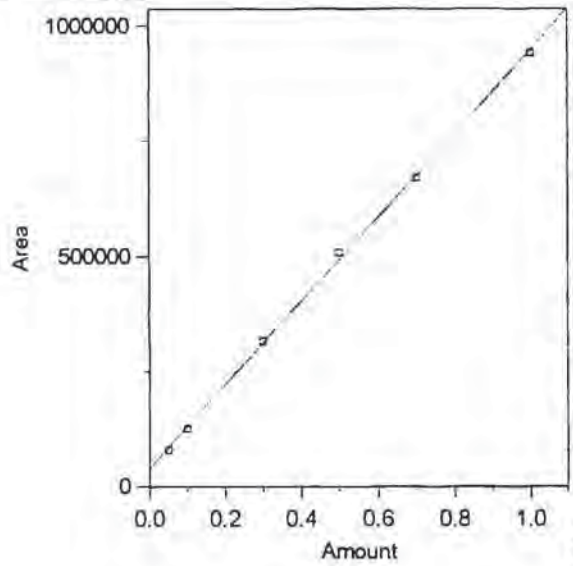
4 1016-3



Expected retention time:	3.55 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1236227 X + 60238.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9991041
Average error:	3.182%
Average CF:	1578939
RSD:	23.167%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	112013.3	2240266	-8.223	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	176181.8	1761818	-4.177	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	439383.1	1464610	1.920	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	702255	1404510	3.524	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	921267.6	1316097	-0.468	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1286331	1286331	-0.782	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

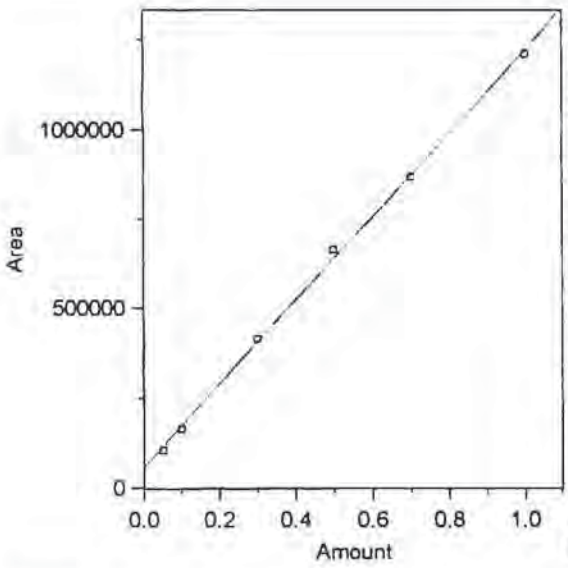
5 1016-4



Expected retention time:	3.62 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 909122.1 X + 38161.76	
Linear fit with equal weighting	
Coefficient of determination:	0.9993291
Average error:	2.779%
Average CF:	1127956
RSD:	20.930%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	77820.7	1556414	-6.933	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	124287.9	1242879	-3.708	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	315925.3	1053084	1.617	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	508258.3	1016517	3.153	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	669641.2	956630.3	-0.727	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	942210.8	942210.8	-0.536	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

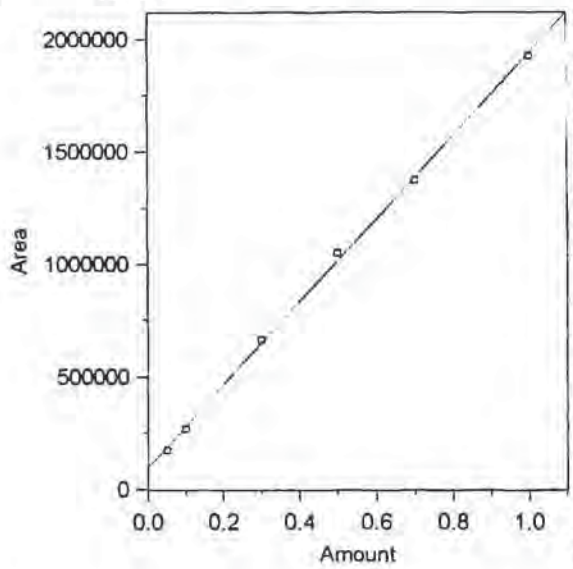
6 1016-5



Expected retention time:	4.087 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1163463 X + 56659.07	
Linear fit with equal weighting	
Coefficient of determination:	0.999
Average error:	3.367%
Average CF:	1484848
RSD:	23.098%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	105395.8	2107916	-8.218	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	164816.7	1648167	-4.733	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	414433.1	1381444	2.153	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	662075.4	1324151	3.710	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	865673.7	1236677	-0.621	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1210736	1210736	-0.769	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

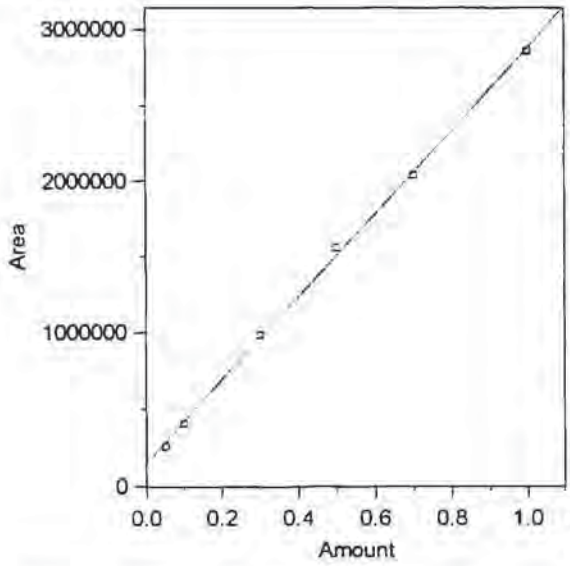
7 1260-1



Expected retention time:	5.141 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1842616 X + 96174.94	
Linear fit with equal weighting	
Coefficient of determination:	0.9991545
Average error:	3.001%
Average CF:	2397846
RSD:	25.044%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	174105.7	3482114	-7.541	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	270409	2704090	-3.576	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	662251.2	2207504	2.048	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1051767	2103534	3.370	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1372902	1961289	-0.945	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1928547	1928547	-0.528	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

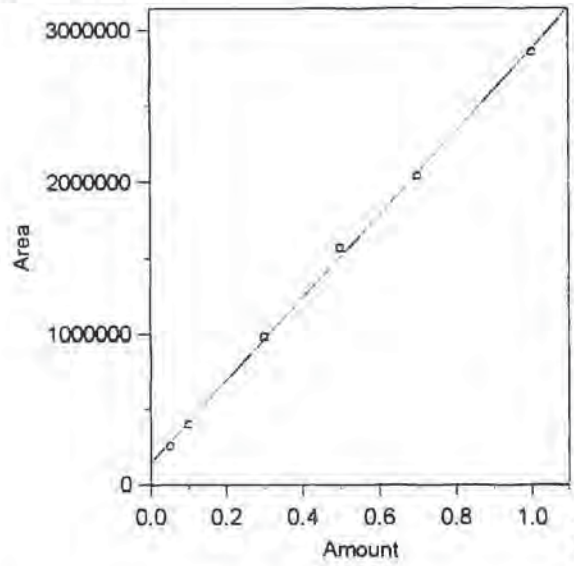
8 1260-2



Expected retention time:	5.36 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2727048 X + 143494.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9991046
Average error:	3.039%
Average CF:	3553938
RSD:	25.062%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	257787.1	5155742	-7.883	F:\gcecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	402170.8	4021708	-3.371	F:\gcecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	980370	3267900	1.951	F:\gcecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1559937	3119874	3.511	F:\gcecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2032394	2903420	-0.976	F:\gcecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2854984	2854984	-0.542	F:\gcecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

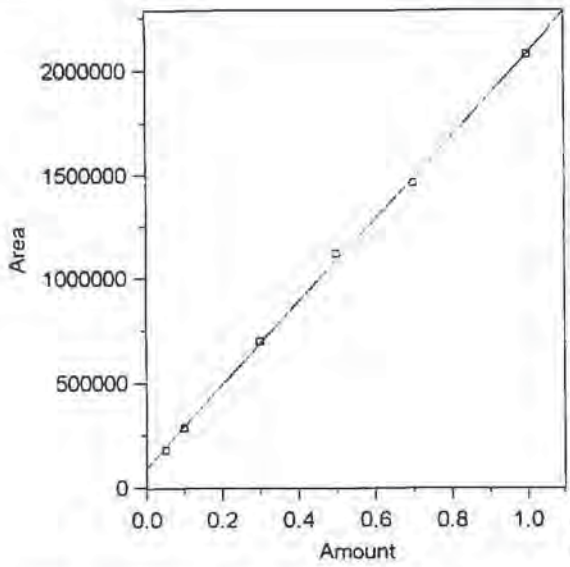
9 1260-3



Expected retention time:	5.603 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2736328 X + 140375.4	
Linear fit with equal weighting	
Coefficient of determination:	0.9990367
Average error:	3.090%
Average CF:	3543684
RSD:	24.588%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	255937.1	5118742	-7.668	F:\gcecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	398342.5	3983425	-3.784	F:\gcecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	978546.4	3261821	1.797	F:\gcecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1564908	3129816	3.737	F:\gcecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2035858	2908369	-0.970	F:\gcecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2859929	2859929	-0.583	F:\gcecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

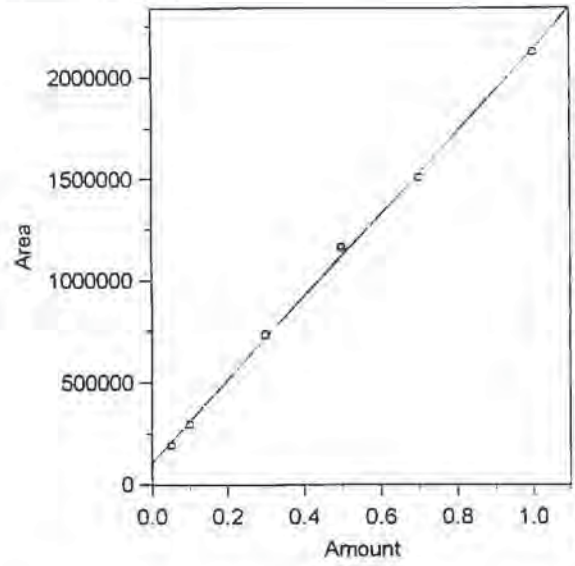
10 1260-4



Expected retention time:	6.203 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1990900 X + 91862.5	
Linear fit with equal weighting	
Coefficient of determination:	0.9993398
Average error:	2.325%
Average CF:	2532612
RSD:	23.638%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	180701	3614020	-5.594	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	284122.4	2841224	-2.347	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	699625.9	2332086	1.523	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1118682	2237364	2.885	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1463119	2090170	-1.506	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2080809	2080809	-0.094	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

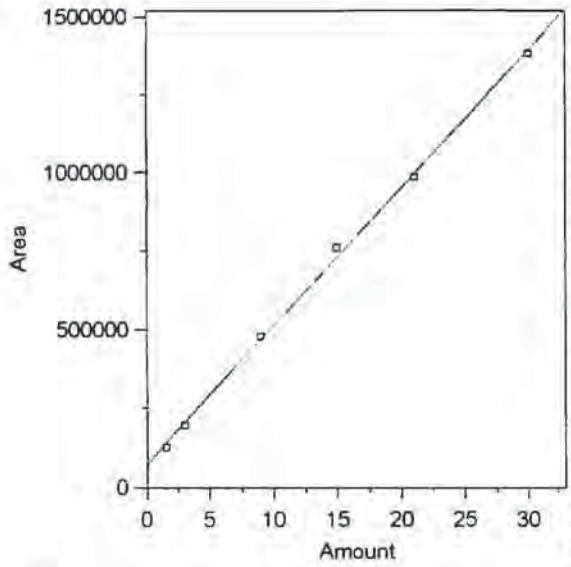
11 1260-5



Expected retention time:	6.46 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2031766 X + 105185.8	
Linear fit with equal weighting	
Coefficient of determination:	0.999006
Average error:	3.100%
Average CF:	2639279
RSD:	24.931%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	191461	3829220	-7.406	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	296913	2969130	-3.713	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	729582.5	2431942	2.080	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1162112	2324224	3.661	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1507168	2153097	-1.326	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2128059	2128059	-0.416	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

12 DCBP



Expected retention time:	7.576 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 43996.59 X + 72227.88	
Linear fit with equal weighting	
Coefficient of determination:	0.9987453
Average error:	3.568%
Average CF:	57719.43
RSD:	25.426%

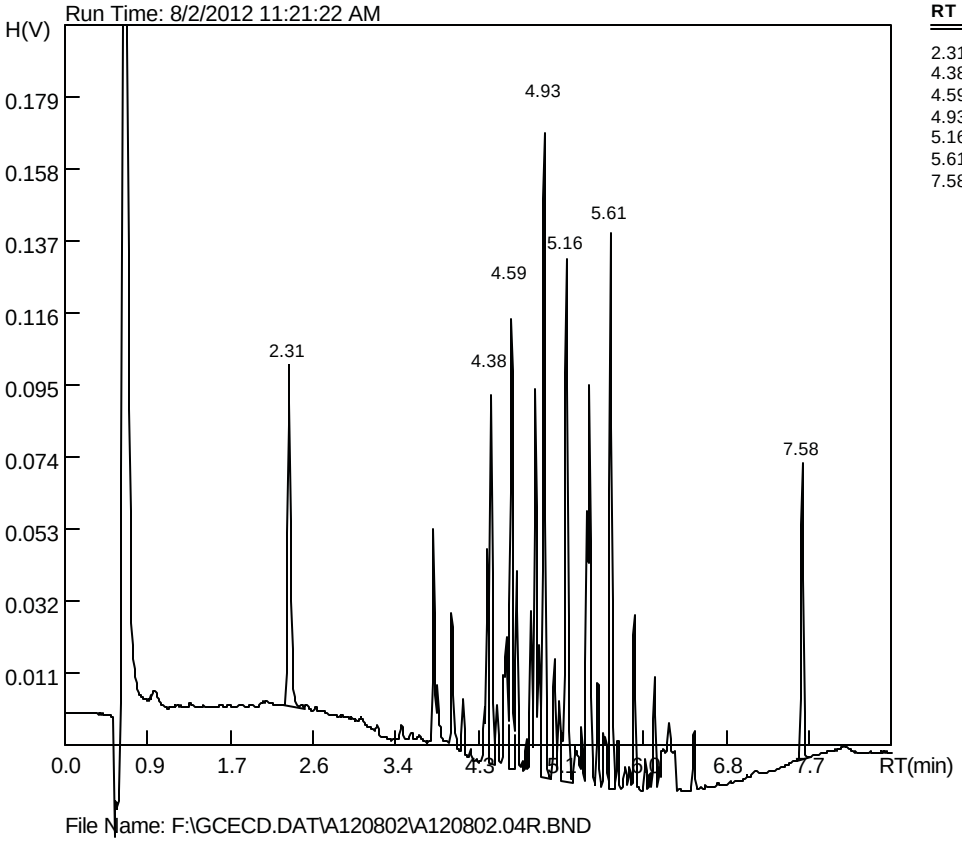
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	126427.5	84285	-8.534	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	3	194791.2	64930.4	-4.616	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	9	479314.4	53257.16	2.374	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	15	762433.2	50828.88	4.132	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	21	985420.3	46924.78	-1.078	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	30	1382710	46090.33	-0.676	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

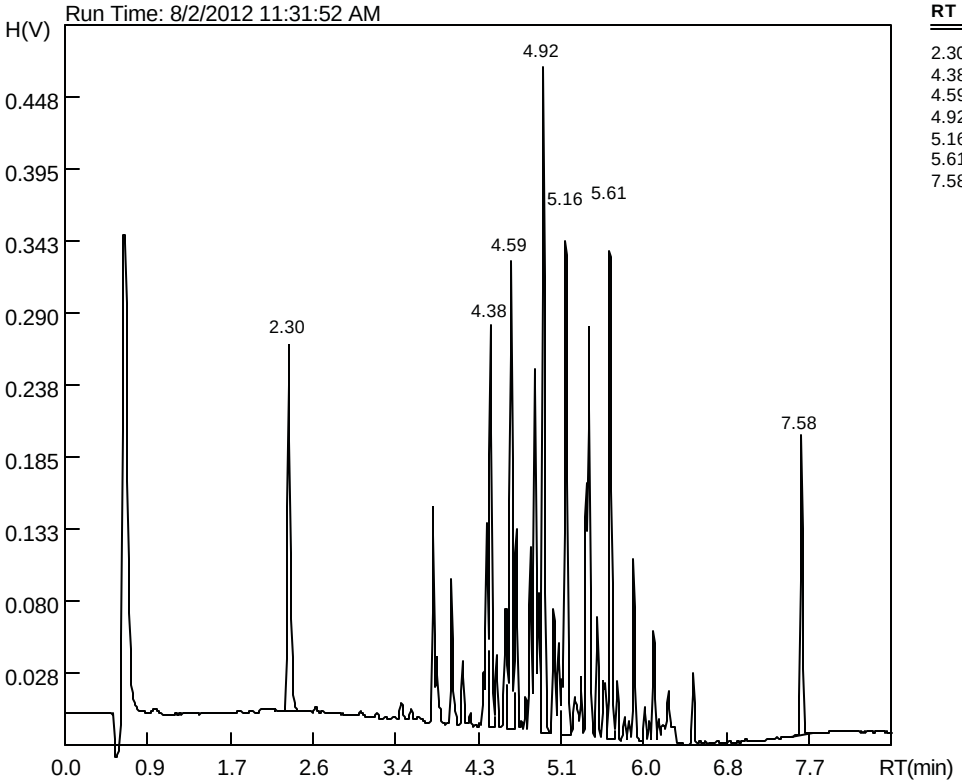
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.03R.BND
Comments: ss1254.01 0.1ppm 8/2/12
Run Time: 8/2/2012 11:21:22 AM



RT	dT	Name	Amt.	Area
2.31	0.02	TCX	5.781	237533
4.38	0.01	1254-1	0.081	173646
4.59	0.01	1254-2	0.079	246360
4.93	0.01	1254-3	0.078	288864
5.16	0.01	1254-4	0.077	297271
5.61	0.01	1254-5	0.074	259724
7.58	0.01	DCBP	2.956	127504

File Name: F:\GCECD.DAT\A120802\A120802.04R.BND
Comments: ss1254.02 0.3ppm 8/2/12
Run Time: 8/2/2012 11:31:52 AM



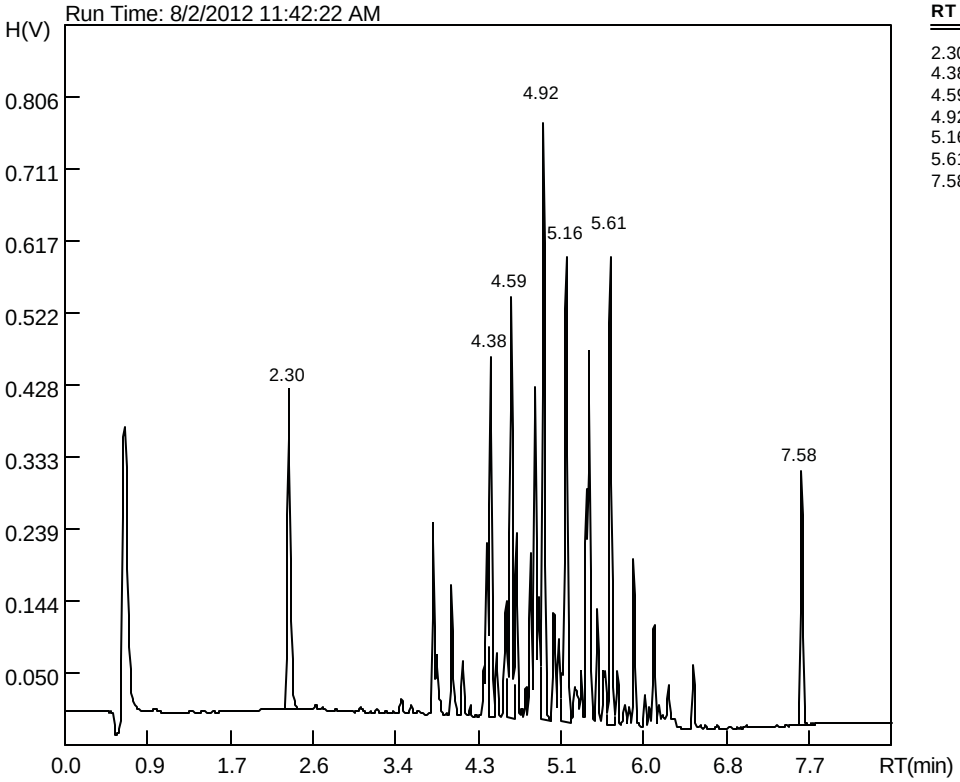
RT	dT	Name	Amt.	Area
2.30	0.02	TCX	16.567	603000
4.38	0.00	1254-1	0.297	448716
4.59	0.00	1254-2	0.289	620730
4.92	0.00	1254-3	0.283	740991
5.16	0.00	1254-4	0.280	772490
5.61	0.00	1254-5	0.273	670360
7.58	0.00	DCBP	10.239	309358

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

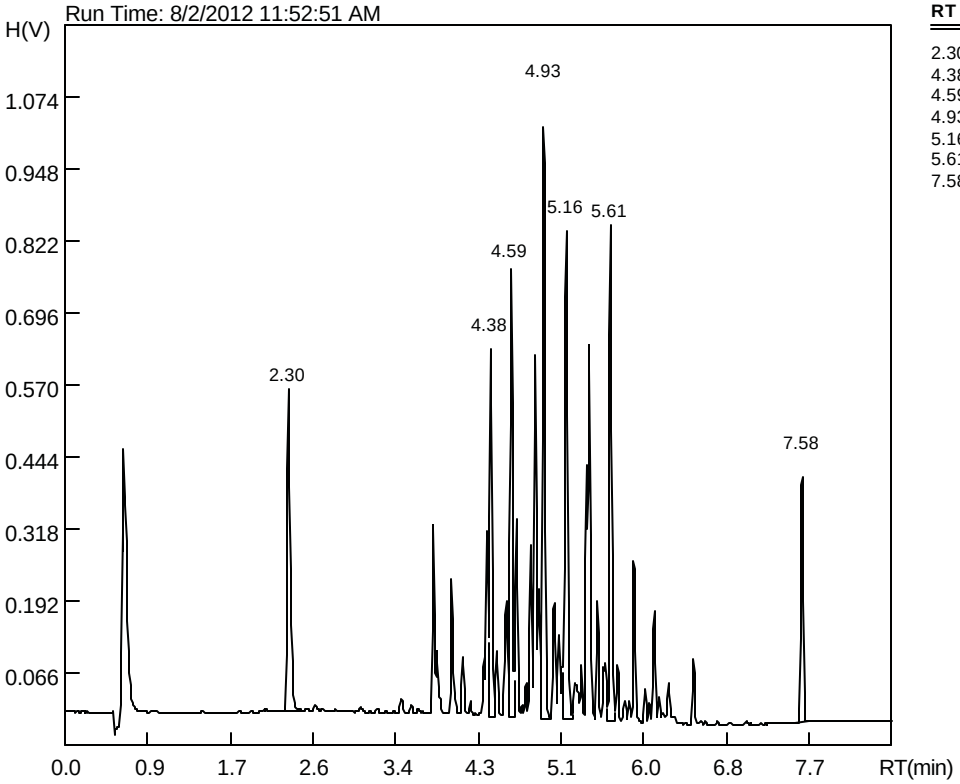
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.05R.BND
Comments: ss1254.03 0.5ppm 8/2/12
Run Time: 8/2/2012 11:42:22 AM



RT	dT	Name	Amt.	Area
2.30	0.02	TCX	27.703	980363
4.38	0.01	1254-1	0.510	720209
4.59	0.01	1254-2	0.508	1012258
4.92	0.00	1254-3	0.494	1206359
5.16	0.01	1254-4	0.487	1254734
5.61	0.00	1254-5	0.476	1089334
7.58	0.00	DCBP	17.579	492621

File Name: F:\GCECD.DAT\A120802\A120802.06R.BND
Comments: ss1254.04 0.7ppm 8/2/12
Run Time: 8/2/2012 11:52:51 AM



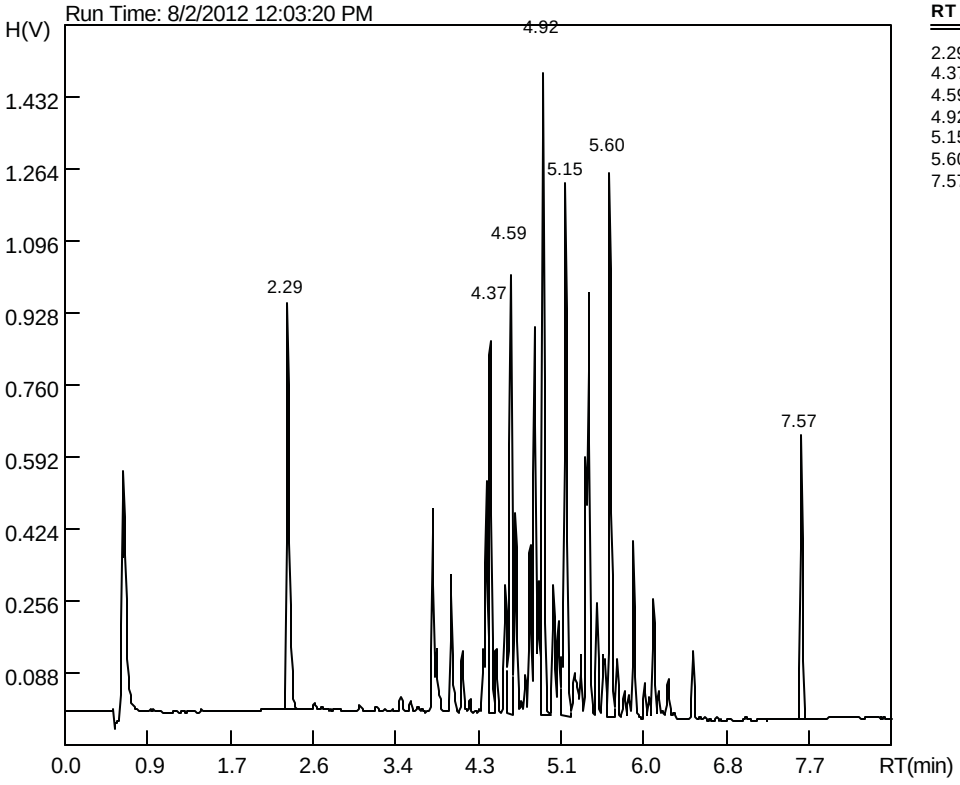
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	38.551	1347920
4.38	0.01	1254-1	0.733	1003509
4.59	0.01	1254-2	0.727	1403177
4.93	0.01	1254-3	0.705	1671419
5.16	0.01	1254-4	0.657	1651789
5.61	0.01	1254-5	0.691	1533090
7.58	0.01	DCBP	24.896	675333

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5 Analytical Batch: a120802.3

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120802\A120802.07R.BND
Comments: ss1254.05 1.0ppm 8/2/12
Run Time: 8/2/2012 12:03:20 PM



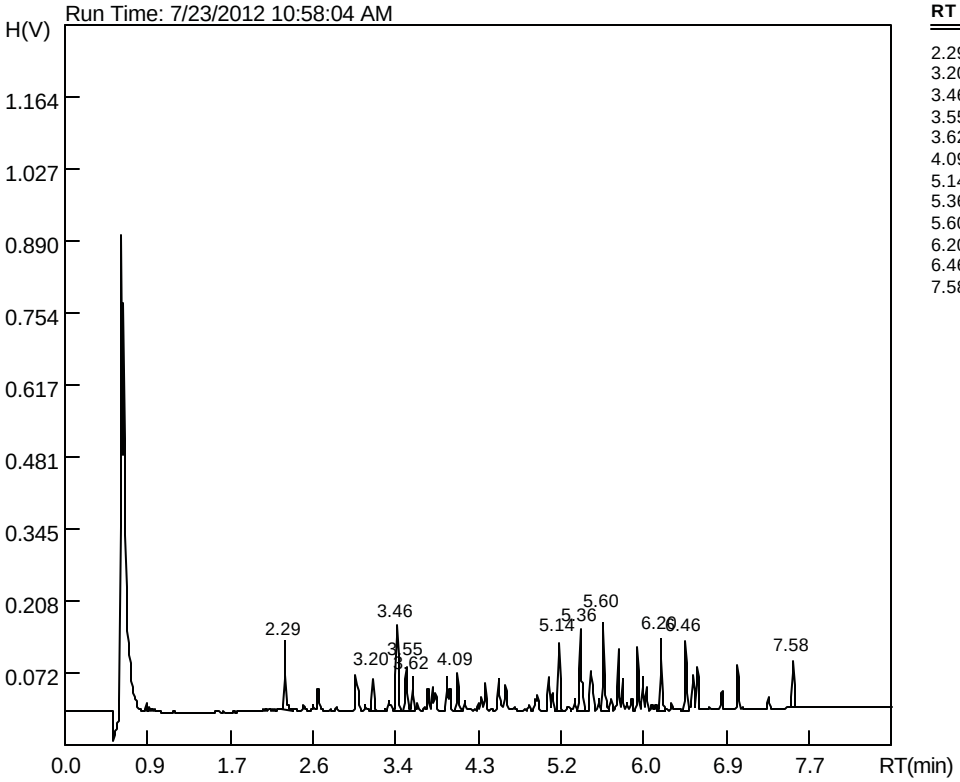
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	54.287	1881137
4.37	0.00	1254-1	1.069	1430922
4.59	0.00	1254-2	1.042	1965084
4.92	0.00	1254-3	1.025	2375762
5.15	0.00	1254-4	1.019	2498682
5.60	0.00	1254-5	0.989	2150184
7.57	0.00	DCBP	35.646	943758

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

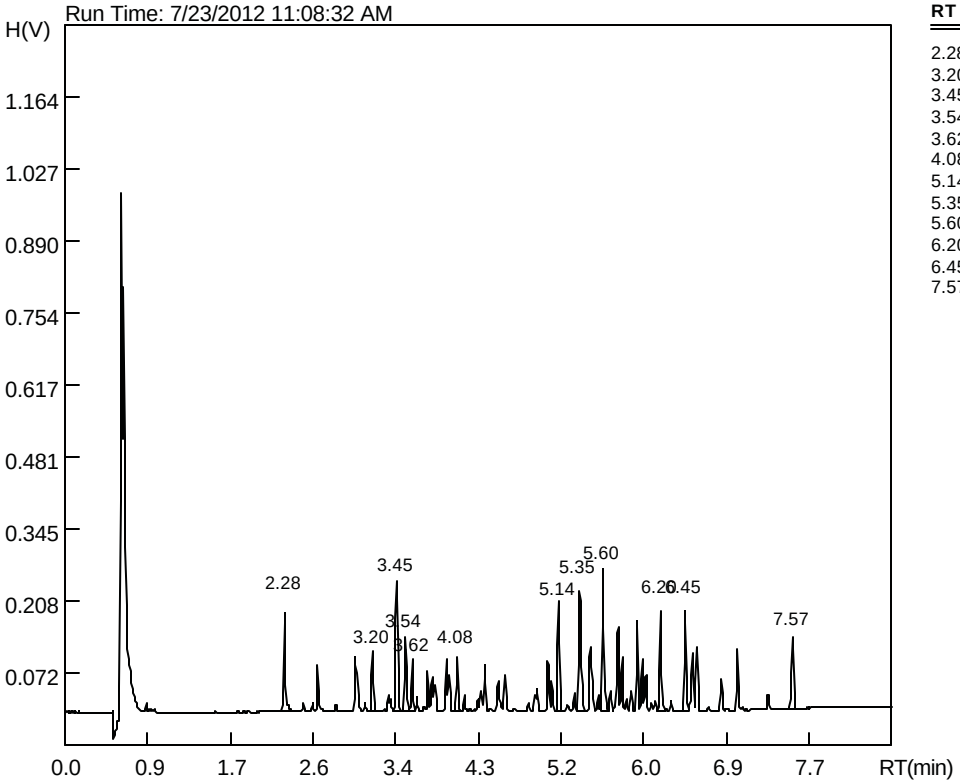
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:04 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	1.962	158211
3.20	0.00	1016-1	0.050	86105
3.46	0.01	1016-2	0.058	279309
3.55	0.00	1016-3	0.053	112013
3.62	0.00	1016-4	0.038	77821
4.09	0.01	1016-5	0.054	105396
5.14	0.00	1260-1	0.055	174106
5.36	0.01	1260-2	0.056	257787
5.60	0.00	1260-3	0.059	255937
6.20	0.00	1260-4	0.066	180701
6.46	0.01	1260-5	0.060	191461
7.58	0.01	DCBP	1.909	126428

File Name: F:\GCECD.DAT\A120723\A120723.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:32 AM



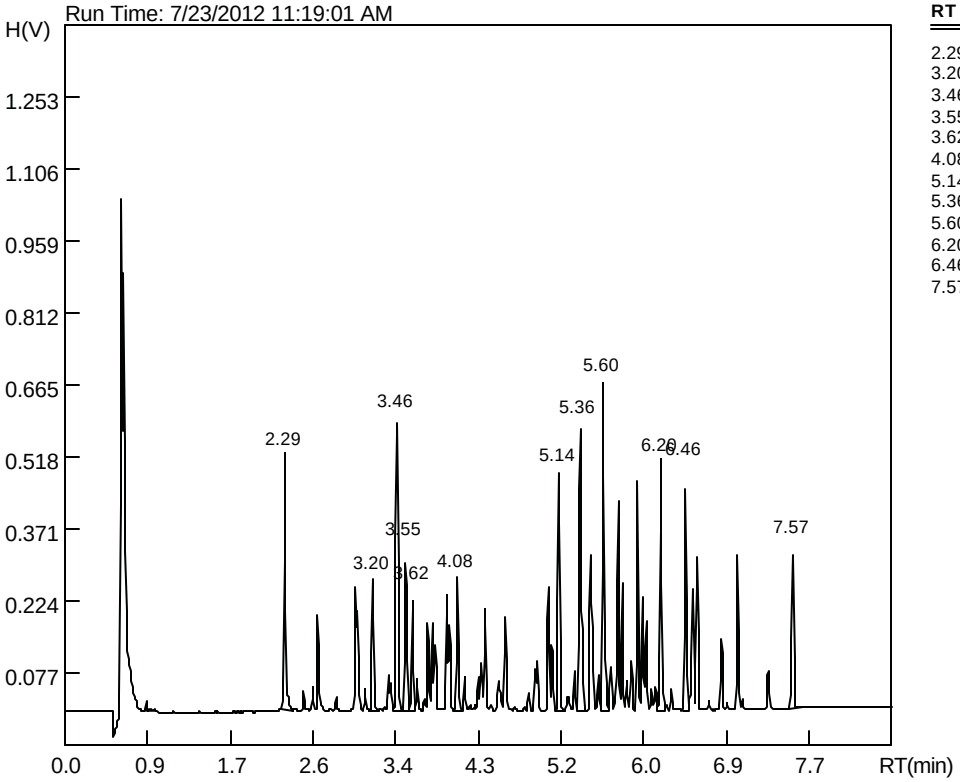
RT	dT	Name	Amt.	Area
2.28	-0.01	TCX	3.894	247381
3.20	0.00	1016-1	0.117	136168
3.45	0.00	1016-2	0.121	433994
3.54	-0.01	1016-3	0.117	176182
3.62	0.00	1016-4	0.102	124288
4.08	0.00	1016-5	0.116	164817
5.14	0.00	1260-1	0.119	270409
5.35	0.00	1260-2	0.122	402171
5.60	0.00	1260-3	0.123	398343
6.20	0.00	1260-4	0.133	284122
6.45	0.00	1260-5	0.126	296913
7.57	0.00	DCBP	4.231	194791

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

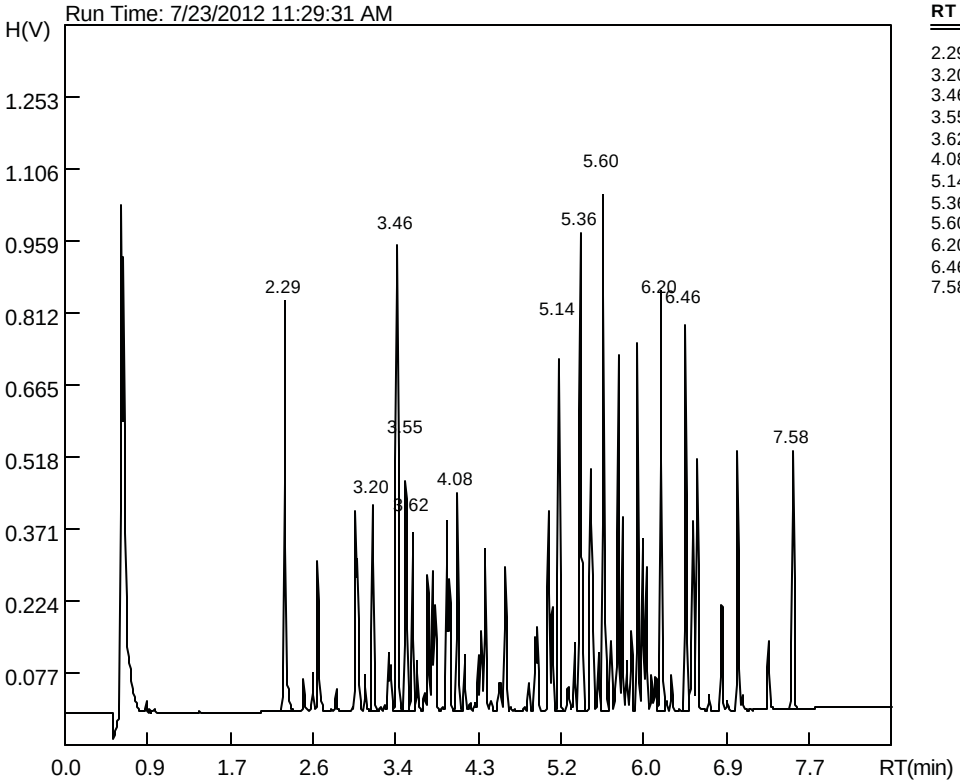
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:01 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	12.123	627189
3.20	0.00	1016-1	0.380	335691
3.46	0.01	1016-2	0.378	1065060
3.55	0.00	1016-3	0.376	439383
3.62	0.00	1016-4	0.368	315925
4.08	0.00	1016-5	0.376	414433
5.14	0.00	1260-1	0.381	662251
5.36	0.01	1260-2	0.385	980370
5.60	0.00	1260-3	0.387	978546
6.20	0.00	1260-4	0.404	699626
6.46	0.01	1260-5	0.397	729583
7.57	0.00	DCBP	13.895	479314

File Name: F:\GCECD.DAT\A120723\A120723.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:31 AM



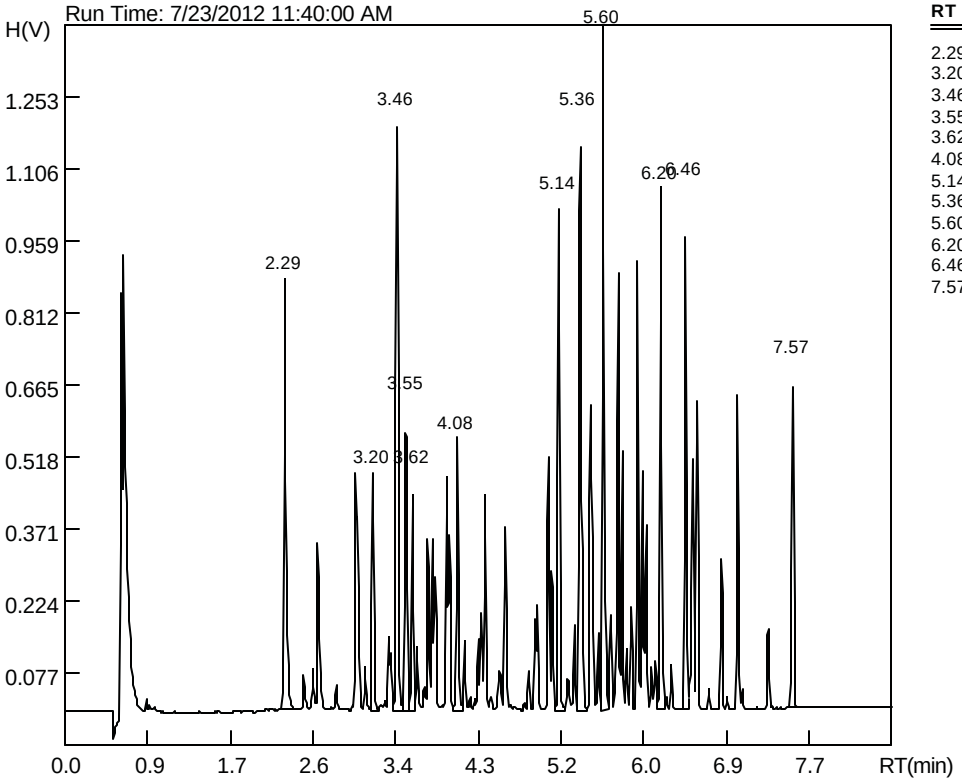
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.415	1009865
3.20	0.00	1016-1	0.638	530851
3.46	0.01	1016-2	0.635	1693959
3.55	0.00	1016-3	0.636	702255
3.62	0.00	1016-4	0.634	508258
4.08	0.00	1016-5	0.634	662075
5.14	0.00	1260-1	0.642	1051767
5.36	0.01	1260-2	0.649	1559937
5.60	0.00	1260-3	0.654	1564908
6.20	0.00	1260-4	0.677	1118682
6.46	0.01	1260-5	0.668	1162112
7.58	0.01	DCBP	23.510	762433

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

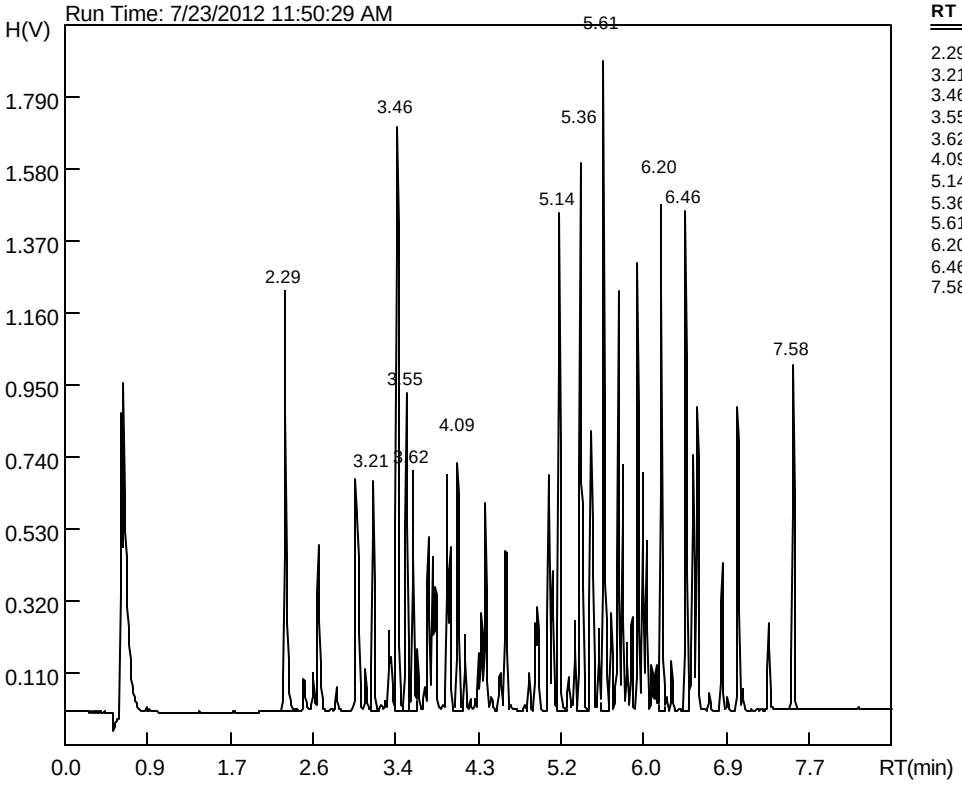
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:00 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	27.701	1346143
3.20	0.00	1016-1	0.858	696664
3.46	0.01	1016-2	0.842	2202040
3.55	0.00	1016-3	0.852	921268
3.62	0.00	1016-4	0.858	669641
4.08	0.00	1016-5	0.846	865674
5.14	0.00	1260-1	0.857	1372902
5.36	0.01	1260-2	0.865	2032394
5.60	0.00	1260-3	0.868	2035858
6.20	0.00	1260-4	0.901	1463119
6.46	0.01	1260-5	0.885	1507168
7.57	0.00	DCBP	31.083	985420

File Name: F:\GCECD.DAT\A120723\A120723.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:29 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	39.721	1900880
3.21	0.01	1016-1	1.216	967539
3.46	0.01	1016-2	1.204	3091464
3.55	0.00	1016-3	1.213	1286331
3.62	0.00	1016-4	1.235	942211
4.09	0.01	1016-5	1.205	1210736
5.14	0.00	1260-1	1.229	1928547
5.36	0.01	1260-2	1.240	2854984
5.61	0.01	1260-3	1.242	2859929
6.20	0.00	1260-4	1.304	2080809
6.46	0.01	1260-5	1.274	2128059
7.58	0.01	DCBP	44.577	1382710

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
ab66120723.ca	**TCX**	L	2.42	2.47	2.52	1.50	3.00	9.00	15.00	21.00	30.00	0.062	0.061
				21.6	1.00	0.10	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.13	3.18	3.23	0.05	0.10	0.30	0.50	0.70	1.00	0.034	0.692
				22.7	1.00	1.25	0.97	0.83	0.79	0.74	0.72		
	1016-2	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.429
				26.2	1.00	2.78	2.13	1.73	1.65	1.53	1.50		
	1016-3	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.118	3.157
				23.5	1.00	5.63	4.28	3.55	3.46	3.24	3.30		
	1016-4	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.052	1.162
				23.2	1.00	2.10	1.57	1.36	1.31	1.22	1.21		
	1016-5	L	4.58	4.63	4.68	0.05	0.10	0.30	0.50	0.70	1.00	0.068	1.154
				27.3	1.00	2.31	1.75	1.42	1.34	1.24	1.21		
	1260-1	L	5.69	5.74	5.79	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.005
				26.0	1.00	3.83	2.92	2.35	2.26	2.11	2.10		
	1260-2	L	5.77	5.82	5.87	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.082
				25.9	1.00	3.95	3.00	2.43	2.33	2.18	2.18		
	1260-3	L	6.18	6.23	6.28	0.05	0.10	0.30	0.50	0.70	1.00	0.100	2.074
				24.7	1.00	3.84	3.03	2.43	2.36	2.17	2.18		
	1260-4	L	6.67	6.72	6.77	0.05	0.10	0.30	0.50	0.70	1.00	0.057	2.106
				21.6	1.00	3.53	2.72	2.24	2.22	2.17	2.18		
	1260-5	L	7.10	7.15	7.20	0.05	0.10	0.30	0.50	0.70	1.00	0.090	1.961
				24.7	1.00	3.63	2.83	2.29	2.20	2.04	2.06		
	DCBP	L	8.28	8.33	8.38	1.50	3.00	9.00	15.00	21.00	30.00	0.064	0.039
				25.5	1.00	0.08	0.06	0.05	0.05	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): ab66120723.cal / mean %rsd: 24.4

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
ab54120802.ca	**TCX**	L	2.42	2.47	2.52	3.00	9.00	15.00	21.00	30.00		0.043	0.062
				7.59	1.00	0.08	0.07	0.07	0.06	0.06			
	1254-1	L	4.96	5.01	5.06	0.10	0.30	0.50	0.70	1.00		0.035	1.363
				10.5	1.00	1.77	1.47	1.42	1.41	1.40			
	1254-2	L	5.02	5.07	5.12	0.10	0.30	0.50	0.70	1.00		0.045	1.620
				11.2	1.00	2.14	1.76	1.70	1.68	1.67			
	1254-3	L	5.52	5.57	5.62	0.10	0.30	0.50	0.70	1.00		0.025	2.348
				8.72	1.00	2.86	2.40	2.35	2.36	2.40			
	1254-4	L	5.63	5.68	5.73	0.10	0.30	0.50	0.70	1.00		0.040	1.644
				9.43	1.00	2.09	1.77	1.71	1.71	1.69			
	1254-5	L	6.18	6.23	6.28	0.10	0.30	0.50	0.70	1.00		0.039	1.680
				9.89	1.00	2.15	1.80	1.75	1.73	1.73			
	DCBP	L	8.27	8.32	8.37	3.00	9.00	15.00	21.00	30.00		0.030	0.030
				11.5	1.00	0.04	0.03	0.03	0.03	0.03			
ab66120723.ca	**TCX**	L	2.42	2.47	2.52	1.50	3.00	9.00	15.00	21.00	30.00	0.062	0.061
				21.6	1.00	0.10	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.13	3.18	3.23	0.05	0.10	0.30	0.50	0.70	1.00	0.034	0.692
				22.7	1.00	1.25	0.97	0.83	0.79	0.74	0.72		
	1016-2	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.429
				26.2	1.00	2.78	2.13	1.73	1.65	1.53	1.50		
	1016-3	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.118	3.157
				23.5	1.00	5.63	4.28	3.55	3.46	3.24	3.30		
	1016-4	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.052	1.162
				23.2	1.00	2.10	1.57	1.36	1.31	1.22	1.21		
	1016-5	L	4.58	4.63	4.68	0.05	0.10	0.30	0.50	0.70	1.00	0.068	1.154
				27.3	1.00	2.31	1.75	1.42	1.34	1.24	1.21		
	1260-1	L	5.69	5.74	5.79	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.005
				26.0	1.00	3.83	2.92	2.35	2.26	2.11	2.10		
	1260-2	L	5.77	5.82	5.87	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.082
				25.9	1.00	3.95	3.00	2.43	2.33	2.18	2.18		
	1260-3	L	6.18	6.23	6.28	0.05	0.10	0.30	0.50	0.70	1.00	0.100	2.074
				24.7	1.00	3.84	3.03	2.43	2.36	2.17	2.18		
	1260-4	L	6.67	6.72	6.77	0.05	0.10	0.30	0.50	0.70	1.00	0.057	2.106
				21.6	1.00	3.53	2.72	2.24	2.22	2.17	2.18		
	1260-5	L	7.10	7.15	7.20	0.05	0.10	0.30	0.50	0.70	1.00	0.090	1.961
				24.7	1.00	3.63	2.83	2.29	2.20	2.04	2.06		
	DCBP	L	8.28	8.33	8.38	1.50	3.00	9.00	15.00	21.00	30.00	0.064	0.039
				25.5	1.00	0.08	0.06	0.05	0.05	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): ab54120802.cal / mean %rsd: 9.8
Calibration (2): ab66120723.cal / mean %rsd: 24.4

File Name: F:\gceed.dat\Methods\Ab54120802.cal
Version: 2

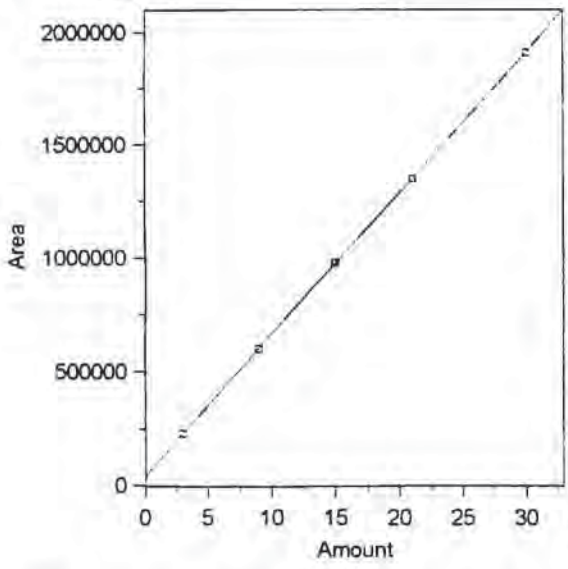
Creator: Janusz
Description: pcb 1254

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.472 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

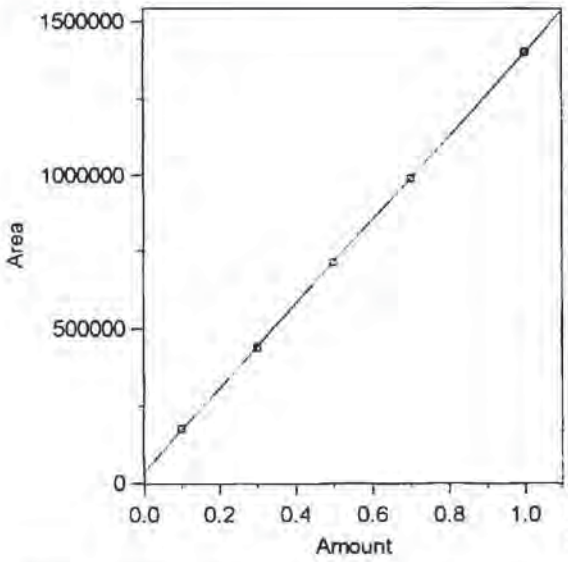
Single peak quantification by area

Y = 62294.64 X + 42640.9

Linear fit with equal weighting
Coefficient of determination: 0.9999956
Average error: 0.162%
Average CF: 67293.15
RSD: 7.592%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	3	228437.7	76145.9	-0.474	F:\gceed.dat\A120802\A120802B.03R.BND	8/2/2012 12:55:04 PM
2	9	603380	67042.22	0.014	F:\gceed.dat\A120802\A120802B.04R.BND	8/2/2012 12:55:09 PM
3	15	979376.4	65291.76	0.237	F:\gceed.dat\A120802\A120802B.05R.BND	8/2/2012 12:55:14 PM
4	21	1350027	64287	-0.059	F:\gceed.dat\A120802\A120802B.06R.BND	8/2/2012 12:55:20 PM
5	30	1910966	63698.87	-0.027	F:\gceed.dat\A120802\A120802B.07R.BND	8/2/2012 12:55:27 PM

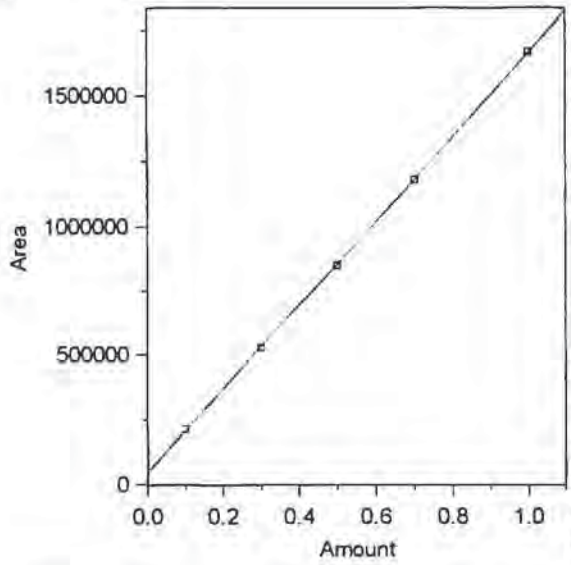
2 1254-1



Expected retention time:	5.014 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1362978 X + 34790.34	
Linear fit with equal weighting	
Coefficient of determination:	0.999907
Average error:	1.071%
Average CF:	1494390
RSD:	10.447%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	177022.8	1770228	3.469	F:\gceed.dat\A120802\A120802B.03R.BND	8/2/2012 12:55:04 PM
2	0.3	439606	1465353	-0.919	F:\gceed.dat\A120802\A120802B.04R.BND	8/2/2012 12:55:09 PM
3	0.5	711979.8	1423960	-0.600	F:\gceed.dat\A120802\A120802B.05R.BND	8/2/2012 12:55:14 PM
4	0.7	987752.2	1411075	-0.114	F:\gceed.dat\A120802\A120802B.06R.BND	8/2/2012 12:55:20 PM
5	1	1401334	1401334	0.255	F:\gceed.dat\A120802\A120802B.07R.BND	8/2/2012 12:55:27 PM

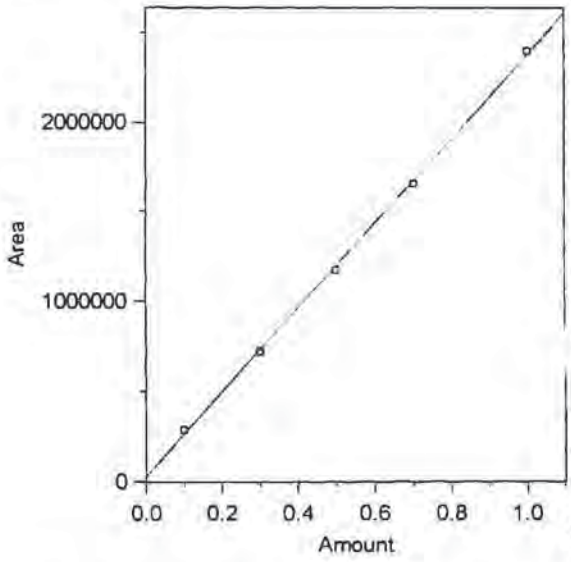
3 1254-2



Expected retention time:	5.074 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1620287 X + 44572.98	
Linear fit with equal weighting	
Coefficient of determination:	0.9998809
Average error:	1.123%
Average CF:	1788756
RSD:	11.150%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	214044.1	2140441	3.602	F:\gceed.dat\A120802\A120802B.03R.BND	8/2/2012 12:55:04 PM
2	0.3	527109.6	1757032	-0.669	F:\gceed.dat\A120802\A120802B.04R.BND	8/2/2012 12:55:09 PM
3	0.5	847582.9	1695166	-0.835	F:\gceed.dat\A120802\A120802B.05R.BND	8/2/2012 12:55:14 PM
4	0.7	1176618	1680883	-0.183	F:\gceed.dat\A120802\A120802B.06R.BND	8/2/2012 12:55:20 PM
5	1	1670256	1670256	0.324	F:\gceed.dat\A120802\A120802B.07R.BND	8/2/2012 12:55:27 PM

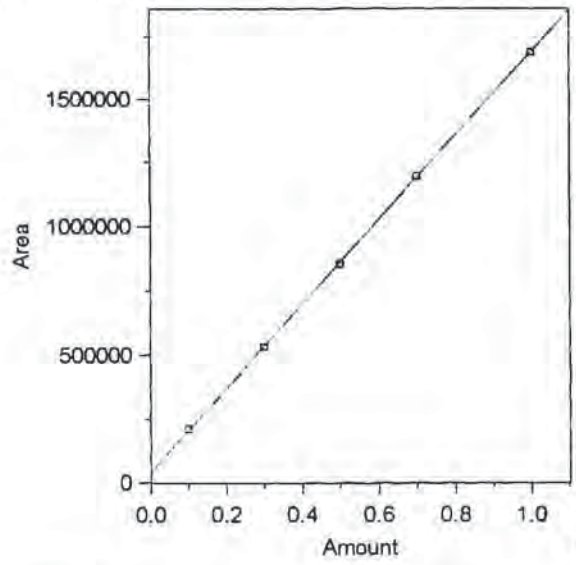
4 1254-3



Expected retention time:	5.571 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2348134 X + 24566.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9991546
Average error:	3.070%
Average CF:	2472107
RSD:	8.720%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	285523.3	2855233	10.079	F:\gceed dat\A120802\A120802B.03R.BND	8/2/2012 12:55:04 PM
2	0.3	720961.3	2403204	-1.104	F:\gceed dat\A120802\A120802B.04R.BND	8/2/2012 12:55:09 PM
3	0.5	1172611	2345222	-2.171	F:\gceed dat\A120802\A120802B.05R.BND	8/2/2012 12:55:14 PM
4	0.7	1651974	2359963	-0.976	F:\gceed dat\A120802\A120802B.06R.BND	8/2/2012 12:55:20 PM
5	1	2396911	2396911	1.020	F:\gceed dat\A120802\A120802B.07R.BND	8/2/2012 12:55:27 PM

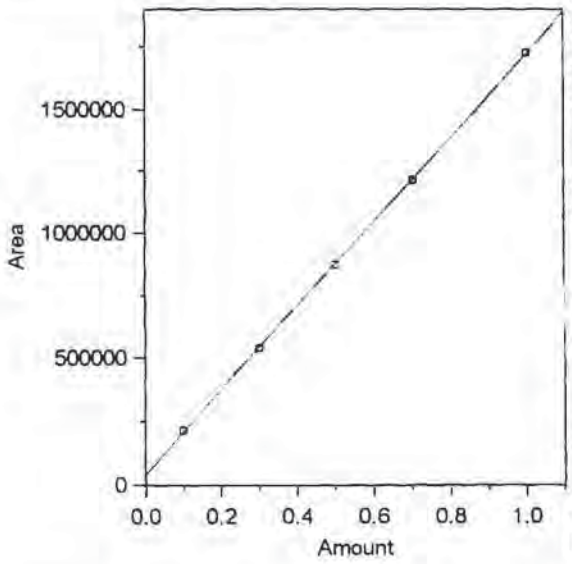
5 1254-4



Expected retention time:	5.683 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1644358 X + 39685.38	
Linear fit with equal weighting	
Coefficient of determination:	0.9999256
Average error:	0.778%
Average CF:	1791760
RSD:	9.433%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	208860.2	2088602	2.322	F:\gceed dat\A120802\A120802B.03R.BND	8/2/2012 12:55:04 PM
2	0.3	531347.8	1771159	-0.309	F:\gceed dat\A120802\A120802B.04R.BND	8/2/2012 12:55:09 PM
3	0.5	854016.4	1708033	-0.911	F:\gceed dat\A120802\A120802B.05R.BND	8/2/2012 12:55:14 PM
4	0.7	1193436	1704909	0.227	F:\gceed dat\A120802\A120802B.06R.BND	8/2/2012 12:55:20 PM
5	1	1686096	1686096	0.122	F:\gceed dat\A120802\A120802B.07R.BND	8/2/2012 12:55:27 PM

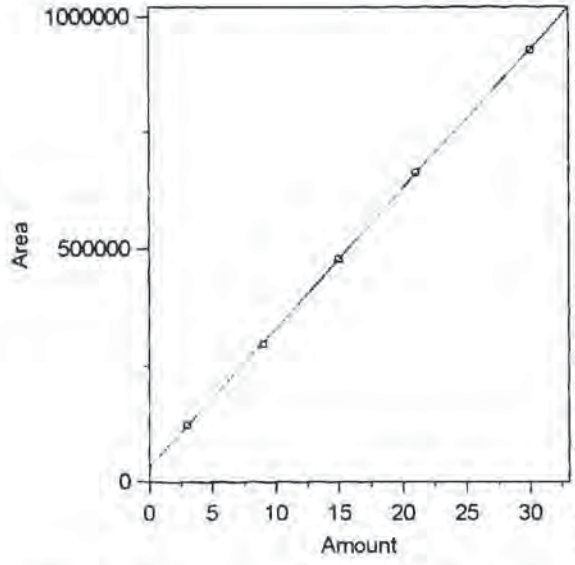
6 1254-5



Expected retention time:	6.227 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1254	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1680415 X + 39054.1	
Linear fit with equal weighting	
Coefficient of determination:	0.9998876
Average error:	1.171%
Average CF:	1829653
RSD:	9.887%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.1	214962.7	2149627	3.799	F:\gceed.dat\A120802\A120802B.03R.BND	8/2/2012 12:55:04 PM
2	0.3	538400.4	1794668	-0.880	F:\gceed.dat\A120802\A120802B.04R.BND	8/2/2012 12:55:09 PM
3	0.5	872938.9	1745878	-0.719	F:\gceed.dat\A120802\A120802B.05R.BND	8/2/2012 12:55:14 PM
4	0.7	1213431	1733473	-0.157	F:\gceed.dat\A120802\A120802B.06R.BND	8/2/2012 12:55:20 PM
5	1	1724617	1724617	0.299	F:\gceed.dat\A120802\A120802B.07R.BND	8/2/2012 12:55:27 PM

7 DCBP



Expected retention time:	8.322 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 29920.76 X + 29877.85	
Linear fit with equal weighting	
Coefficient of determination:	0.9999478
Average error:	0.506%
Average CF:	33487.28
RSD:	11.471%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	3	120680.7	40226.9	0.870	F:\gceed.dat\A120802\A120802B.03R.BND	8/2/2012 12:55:04 PM
2	9	296274.7	32919.41	-0.966	F:\gceed.dat\A120802\A120802B.04R.BND	8/2/2012 12:55:09 PM
3	15	479095.7	31939.71	0.085	F:\gceed.dat\A120802\A120802B.05R.BND	8/2/2012 12:55:14 PM
4	21	661157.9	31483.71	0.447	F:\gceed.dat\A120802\A120802B.06R.BND	8/2/2012 12:55:20 PM
5	30	925999.3	30866.64	-0.162	F:\gceed.dat\A120802\A120802B.07R.BND	8/2/2012 12:55:27 PM

File Name: F:\gceed.dat\Methods\Ab66120723.cal
Version: 2

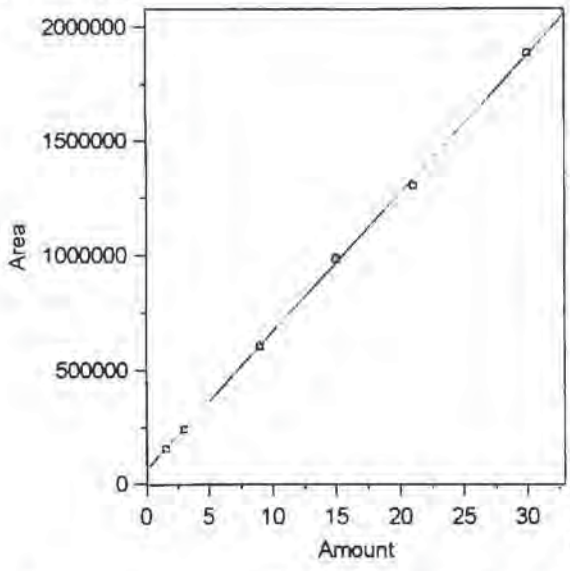
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.473 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

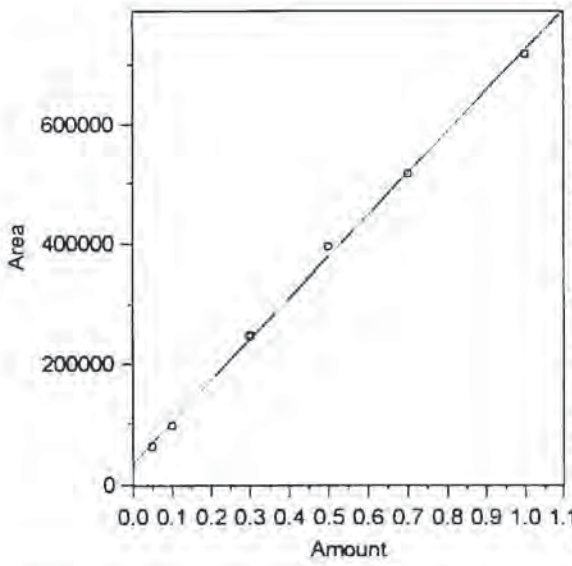
Single peak quantification by area

Y = 60506.64 X + 62130.27

Linear fit with equal weighting
Coefficient of determination: 0.9993865
Average error: 1.127%
Average CF: 73646.06
RSD: 21.557%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	154585.1	103056.7	1.109	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	3	241599.4	80533.13	-0.842	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	9	606330.7	67370.08	-0.059	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	15	988404.6	65893.64	1.926	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	21	1303269	62060.43	-2.213	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	30	1888871	62962.37	0.615	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

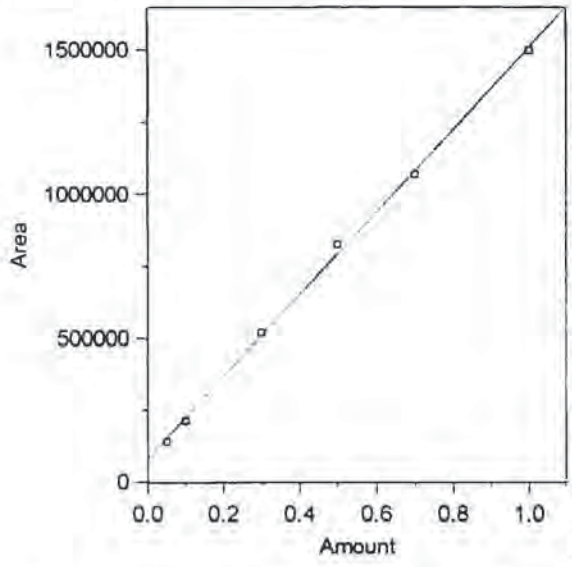
2 1016-1



Expected retention time:	3.181 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 692366 X + 33994.13	
Linear fit with equal weighting	
Coefficient of determination:	0.9987106
Average error:	3.850%
Average CF:	882283.4
RSD:	22.698%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	62399.82	1247996	-9.055	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	97106.09	971060.9	-5.933	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	247847.9	826159.6	2.542	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	395872.5	791745	4.128	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	516202.8	737432.6	-0.472	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	719305.7	719305.7	-0.971	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

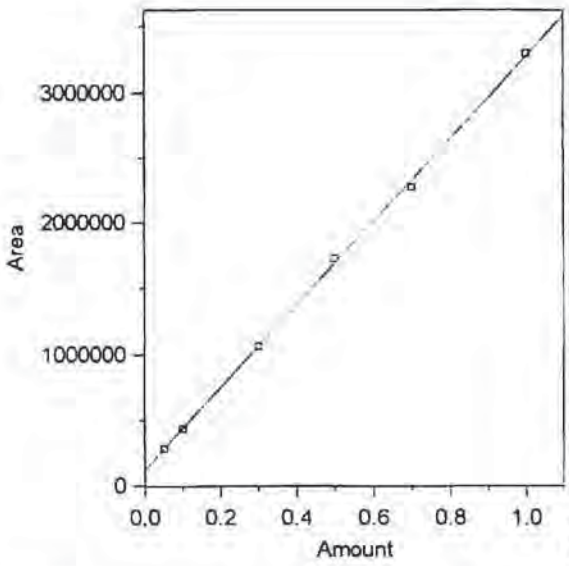
3 1016-2



Expected retention time:	3.617 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1428928 X + 79457.95	
Linear fit with equal weighting	
Coefficient of determination:	0.998931
Average error:	3.280%
Average CF:	1885609
RSD:	26.147%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	138943.8	2778876	-7.926	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	212955.3	2129553	-4.225	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	518948.3	1729828	2.128	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	824309.8	1648620	3.828	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1069894	1528420	-0.909	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1498355	1498355	-0.665	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

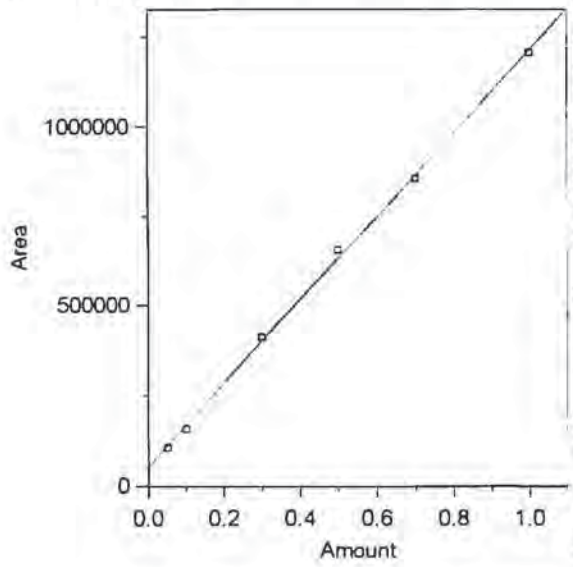
4 1016-3



Expected retention time:	3.988 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 3156785 X + 118310.8	
Linear fit with equal weighting	
Coefficient of determination:	0.9992492
Average error:	1.412%
Average CF:	3911380
RSD:	23.540%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	281423.1	5628462	1.909	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	428290.6	4282906	-1.313	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	1066353	3554510	0.094	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1730023	3460046	1.964	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	2270575	3243679	-2.469	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	3298679	3298679	0.720	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

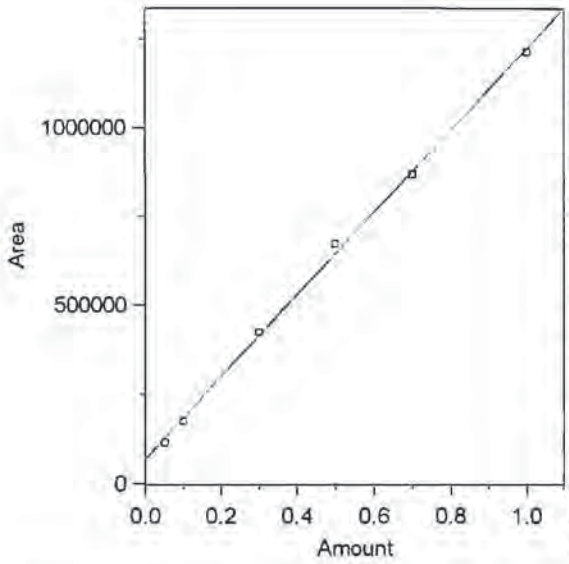
5 1016-4



Expected retention time:	4.149 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1161559 X + 51833.45	
Linear fit with equal weighting	
Coefficient of determination:	0.9989865
Average error:	3.106%
Average CF:	1461707
RSD:	23.149%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	104985.3	2099706	-4.482	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	156684.8	1566848	-6.729	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	408429	1361430	2.030	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	656541.9	1313084	3.783	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	855590.8	1222273	-1.079	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1206900	1206900	-0.535	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

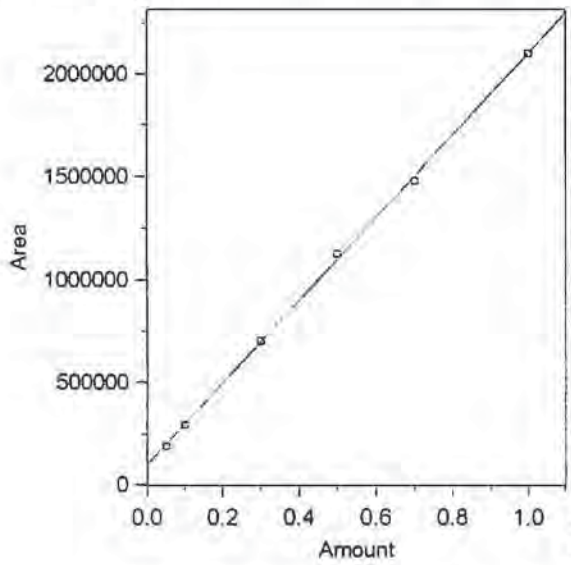
6 1016-5



Expected retention time:	4.629 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1154245 X + 67757.28	
Linear fit with equal weighting	
Coefficient of determination:	0.9987983
Average error:	3.468%
Average CF:	1543858
RSD:	27.259%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	115365.6	2307312	-8.053	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	174881.3	1748813	-4.531	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	424610.2	1415367	2.555	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	670161.4	1340323	3.920	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	865803.4	1236862	-1.133	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1214470	1214470	-0.616	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

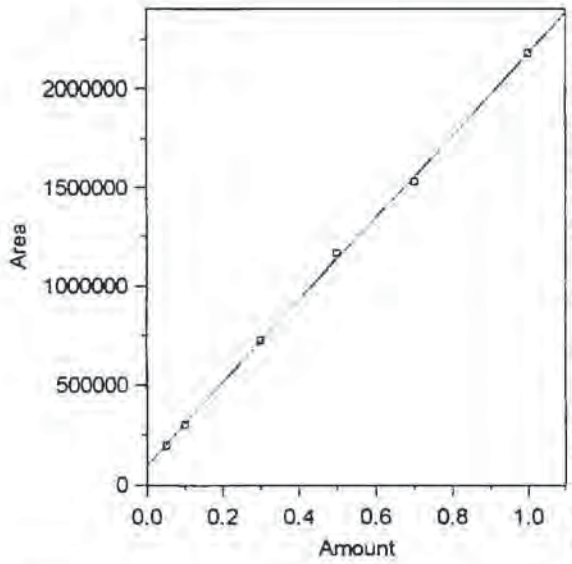
7 1260-1



Expected retention time:	5.743 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2005174 X + 97193.69	
Linear fit with equal weighting	
Coefficient of determination:	0.9994695
Average error:	1.695%
Average CF:	2593997
RSD:	26.000%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	191382.1	3827642	-3.074	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	291676.3	2916763	-2.027	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	705101.4	2350338	0.910	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1127409	2254818	2.512	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1477266	2110380	-1.569	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2104039	2104039	0.079	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

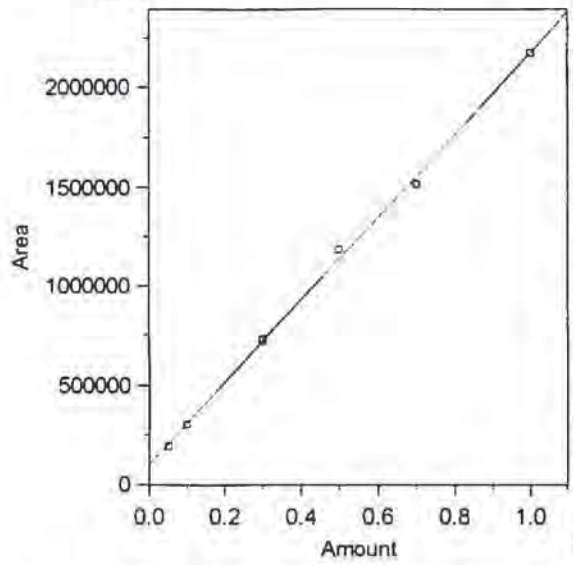
8 1260-2



Expected retention time:	5.822 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2081540 X + 97401.23	
Linear fit with equal weighting	
Coefficient of determination:	0.9995247
Average error:	1.410%
Average CF:	2678917
RSD:	25.897%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	197603.3	3952066	-1.923	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	300385.3	3003853	-1.692	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	727442.8	2424809	0.773	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1162717	2325434	2.157	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1528331	2183330	-1.682	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2184009	2184009	0.233	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

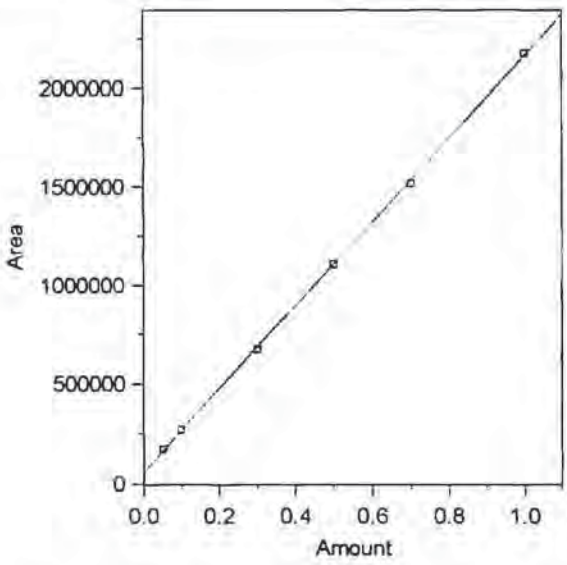
9 1260-3



Expected retention time:	6.23 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2073863 X + 100220.7	
Linear fit with equal weighting	
Coefficient of determination:	0.998819
Average error:	2.366%
Average CF:	2667973
RSD:	24.651%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	192217.1	3844342	-5.736	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	303286.6	3032866	-1.405	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	727830.3	2426101	0.755	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1181106	2362212	3.865	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1515952	2165646	-2.318	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2176670	2176670	0.119	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

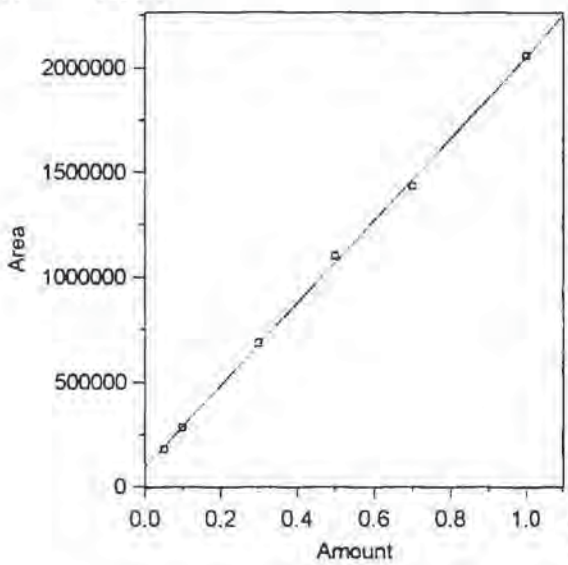
10 1260-4



Expected retention time:	6.722 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2106471 X + 57440.12	
Linear fit with equal weighting	
Coefficient of determination:	0.9997017
Average error:	2.317%
Average CF:	2509388
RSD:	21.566%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	176450.7	3529014	8.409	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	271829.1	2718291	1.396	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	673277.1	2244257	-2.336	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1109205	2218410	-0.132	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1517431	2167759	-0.949	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2178597	2178597	0.679	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

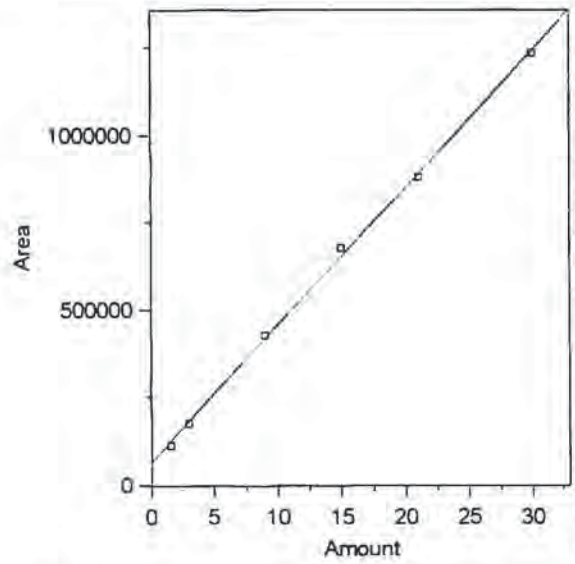
11 1260-5



Expected retention time:	7.147 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1960779 X + 90247.53	
Linear fit with equal weighting	
Coefficient of determination:	0.9992098
Average error:	1.887%
Average CF:	2506504
RSD:	24.679%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	181261.2	3625224	-3.731	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	282723	2827230	-1.258	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	685929.3	2286431	1.098	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1099473	2198946	2.693	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1430408	2043440	-2.214	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2057755	2057755	0.328	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

12 DCBP



Expected retention time:	8.327 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 39254.41 X + 64315.68	
Linear fit with equal weighting	
Coefficient of determination:	0.9989673
Average error:	3.334%
Average CF:	51535.38
RSD:	25.446%

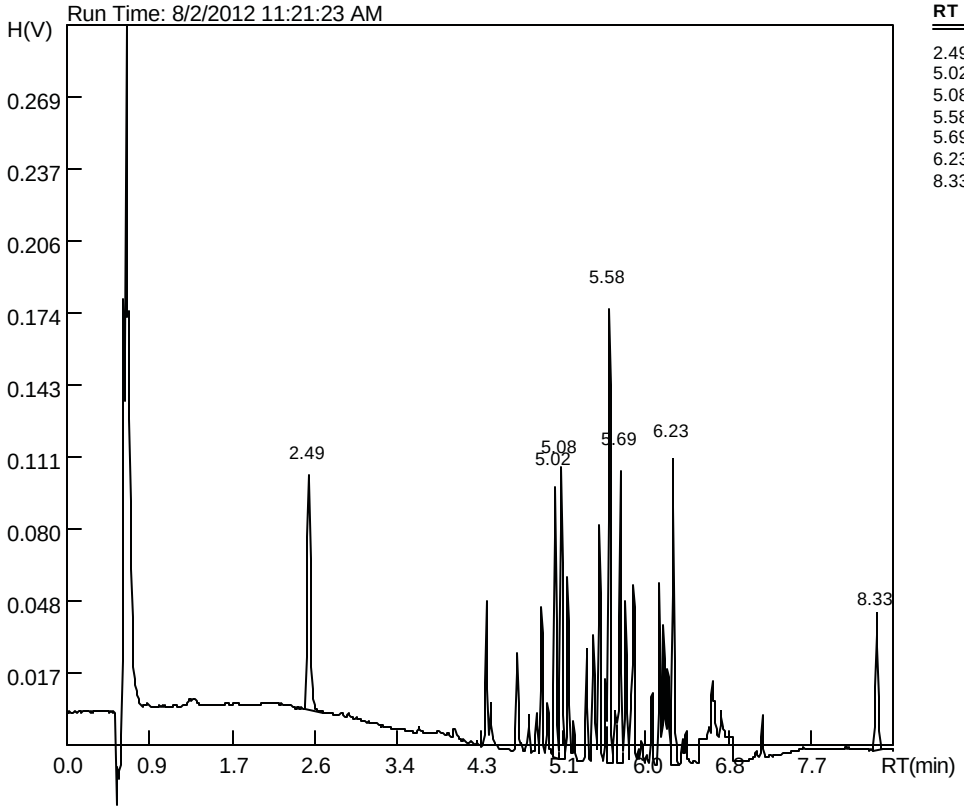
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	112589.1	75059.4	-8.611	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	3	175413.3	58471.1	-3.661	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	9	427896.9	47544.1	2.464	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	15	676751.8	45116.79	3.616	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	21	878867.2	41850.82	-1.102	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	30	1235101	41170.04	-0.551	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

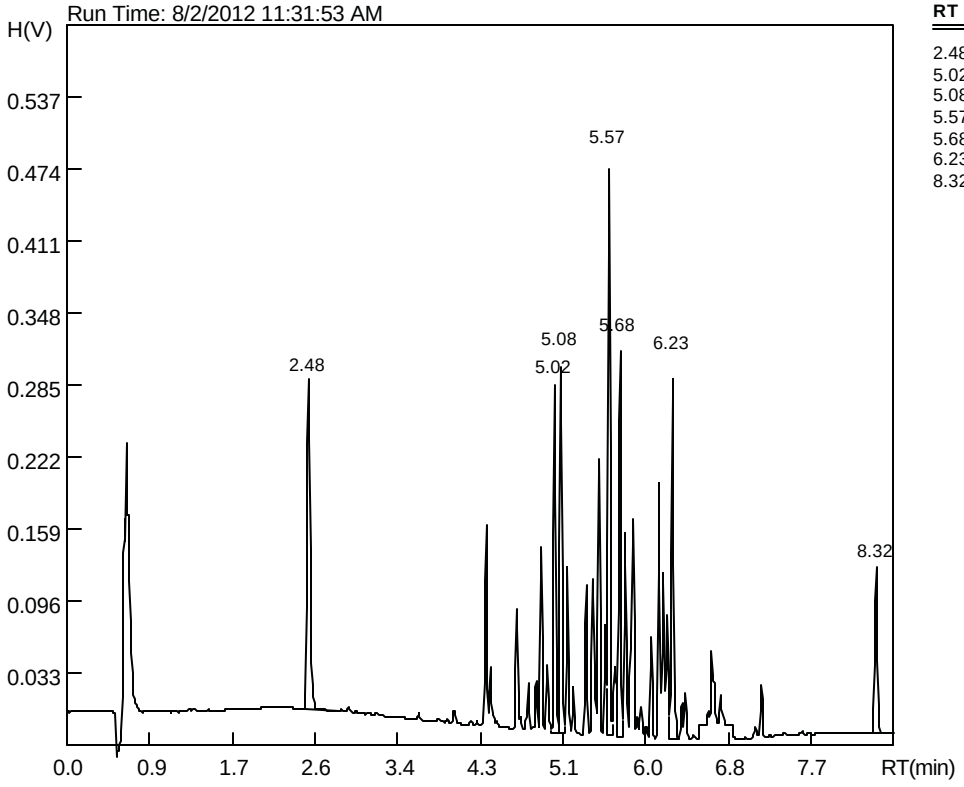
Analytical Batch: a120802.4

File Name: F:\GCECD.DAT\A120802\A120802B.03R.BND
Comments: ss1254.01 0.1ppm 8/2/12
Run Time: 8/2/2012 11:21:23 AM



RT	dT	Name	Amt.	Area
2.49	0.01	TCX	3.786	228438
5.02	0.01	1254-1	0.057	177023
5.08	0.01	1254-2	0.060	214044
5.58	0.01	1254-3	0.152	285523
5.69	0.01	1254-4	0.073	208860
6.23	0.01	1254-5	0.056	214963
8.33	0.01	DCBP	2.246	120681

File Name: F:\GCECD.DAT\A120802\A120802B.04R.BND
Comments: ss1254.02 0.3ppm 8/2/12
Run Time: 8/2/2012 11:31:53 AM



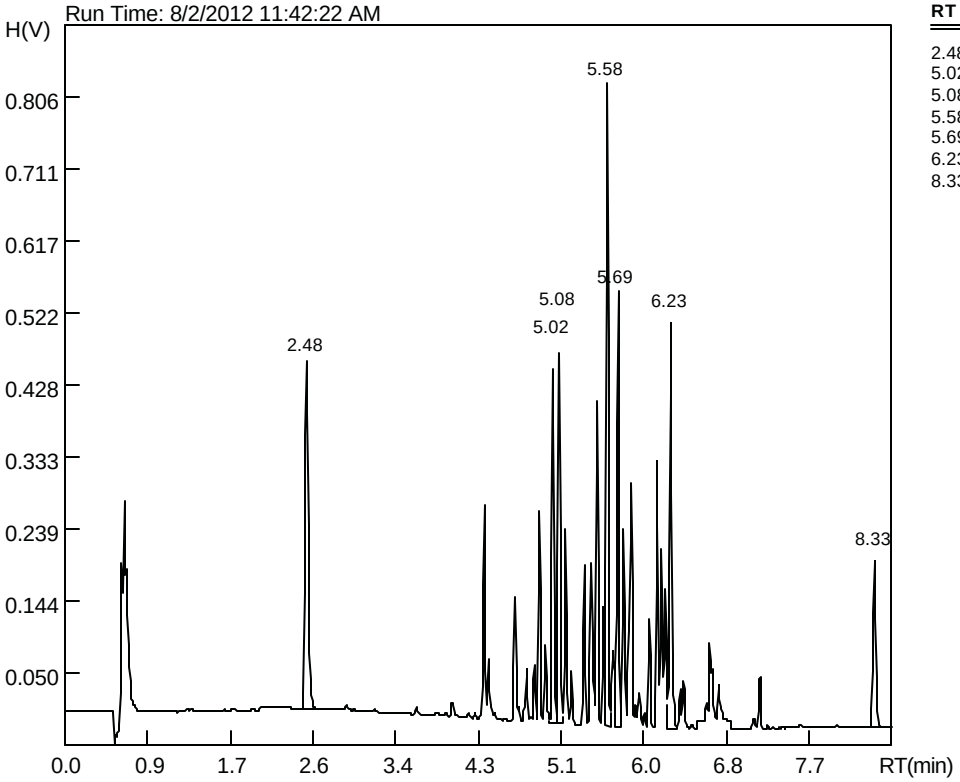
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	12.298	603380
5.02	0.00	1254-1	0.204	439606
5.08	0.00	1254-2	0.208	527110
5.57	0.00	1254-3	0.444	720961
5.68	0.00	1254-4	0.228	531348
6.23	0.00	1254-5	0.188	538400
8.32	0.00	DCBP	7.904	296275

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

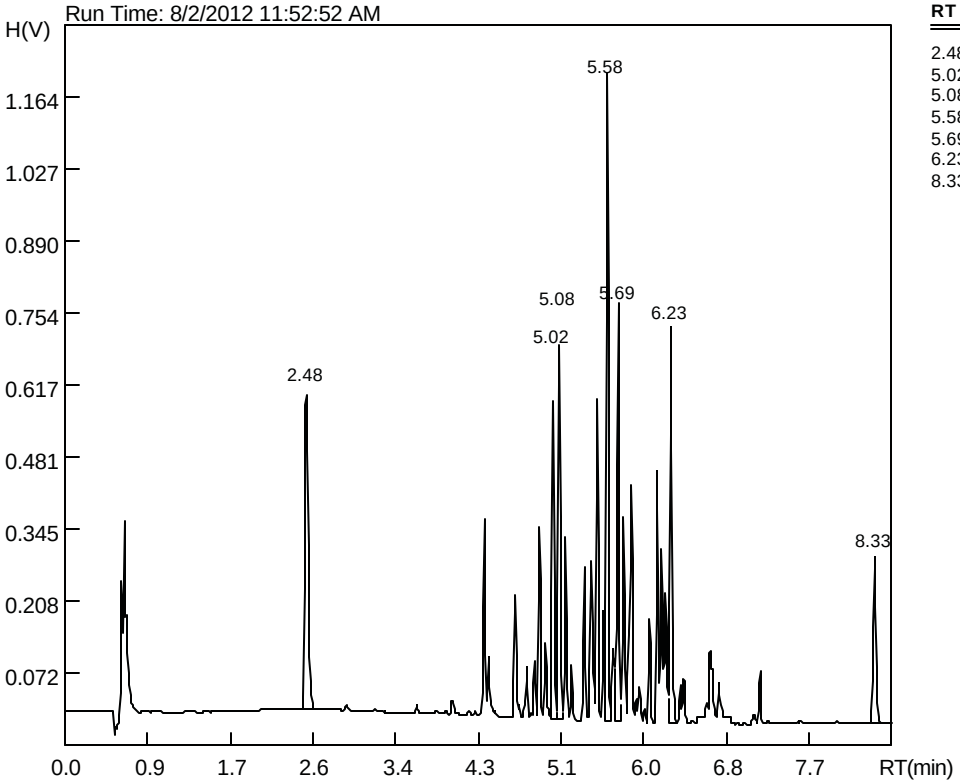
Analytical Batch: a120802.4

File Name: F:\GCECD.DAT\A120802\A120802B.05R.BND
Comments: ss1254.03 0.5ppm 8/2/12
Run Time: 8/2/2012 11:42:22 AM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	20.833	979376
5.02	0.00	1254-1	0.357	711980
5.08	0.01	1254-2	0.359	847583
5.58	0.01	1254-3	0.748	1172611
5.69	0.00	1254-4	0.384	854016
6.23	0.00	1254-5	0.325	872939
8.33	0.00	DCBP	13.794	479096

File Name: F:\GCECD.DAT\A120802\A120802B.06R.BND
Comments: ss1254.04 0.7ppm 8/2/12
Run Time: 8/2/2012 11:52:52 AM



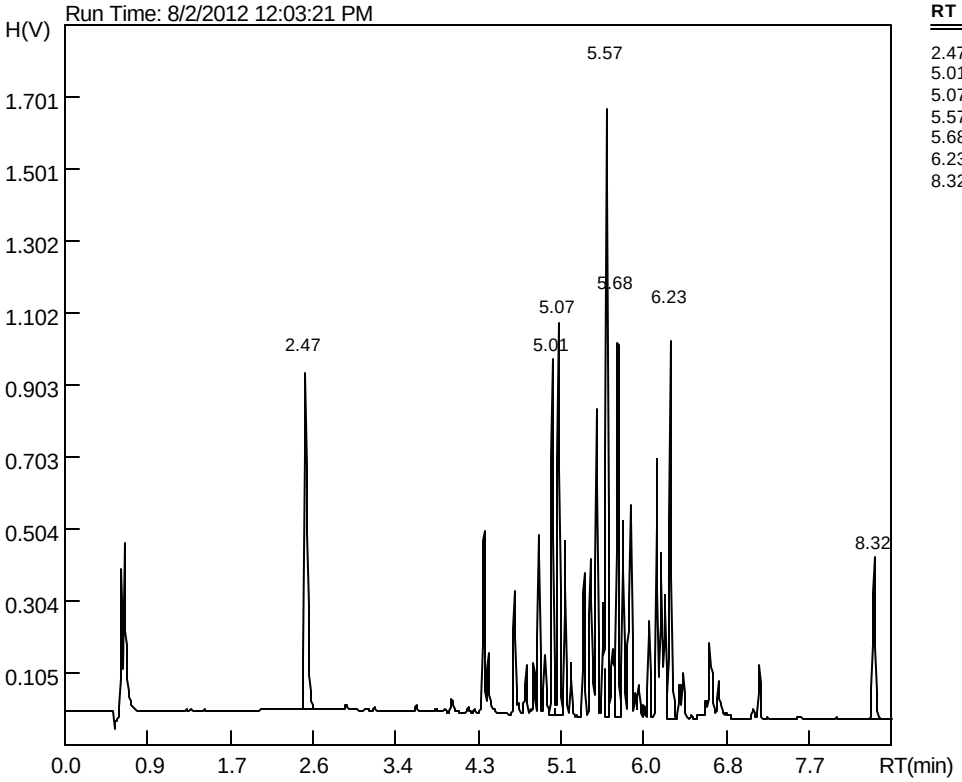
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	29.247	1350027
5.02	0.01	1254-1	0.511	987752
5.08	0.01	1254-2	0.515	1176618
5.58	0.01	1254-3	1.070	1651974
5.69	0.00	1254-4	0.548	1193436
6.23	0.00	1254-5	0.464	1213431
8.33	0.01	DCBP	19.660	661158

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608 Analytical Batch: a120802.4

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120802\A120802B.07R.BND
Comments: ss1254.05 1.0ppm 8/2/12
Run Time: 8/2/2012 12:03:21 PM



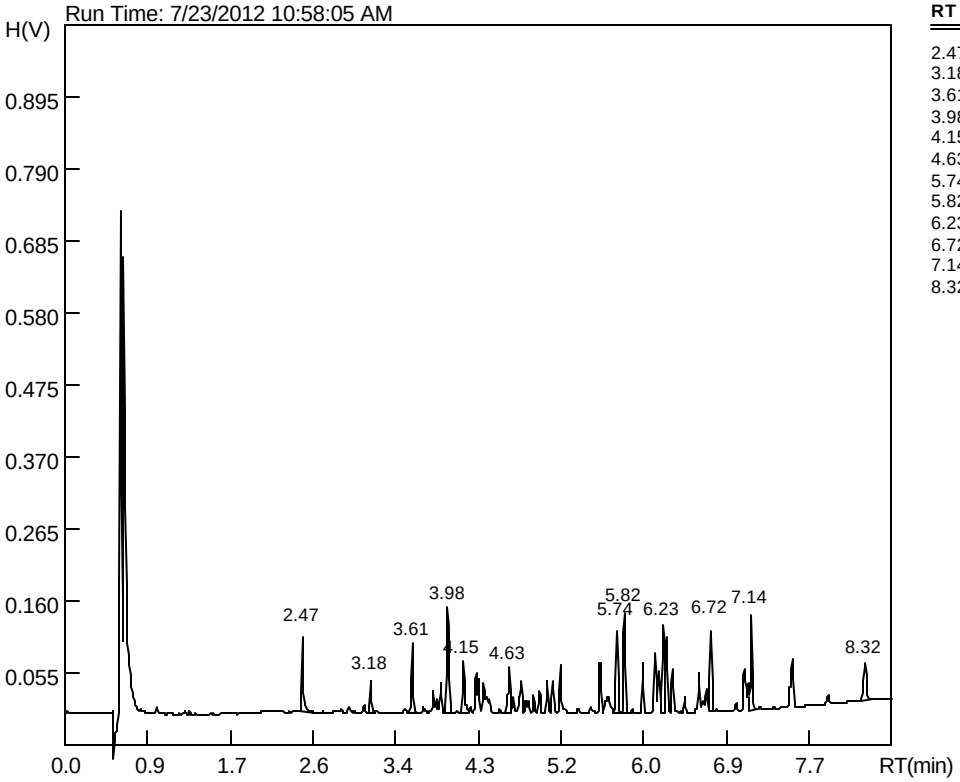
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	41.981	1910966
5.01	0.00	1254-1	0.743	1401334
5.07	0.00	1254-2	0.748	1670256
5.57	0.00	1254-3	1.570	2396911
5.68	0.00	1254-4	0.786	1686096
6.23	0.00	1254-5	0.673	1724617
8.32	0.00	DCBP	28.193	925999

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

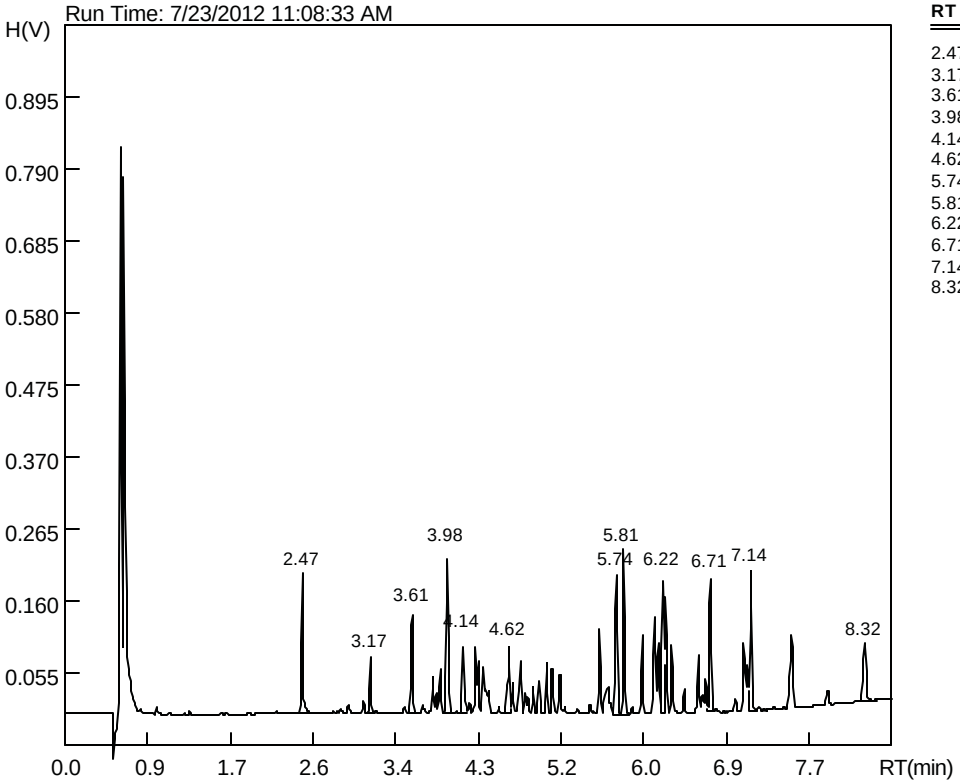
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:05 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	1.459	154585
3.18	0.00	1016-1	0.043	62400
3.61	0.00	1016-2	0.041	138944
3.98	0.00	1016-3	0.060	281423
4.15	0.00	1016-4	0.037	104985
4.63	0.01	1016-5	0.042	115366
5.74	0.00	1260-1	0.044	191382
5.82	0.00	1260-2	0.048	197603
6.23	0.00	1260-3	0.051	192217
6.72	0.01	1260-4	0.064	176451
7.14	0.00	1260-5	0.047	181261
8.32	0.00	DCBP	1.459	112589

File Name: F:\GCECD.DAT\A120723\A120723B.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:33 AM



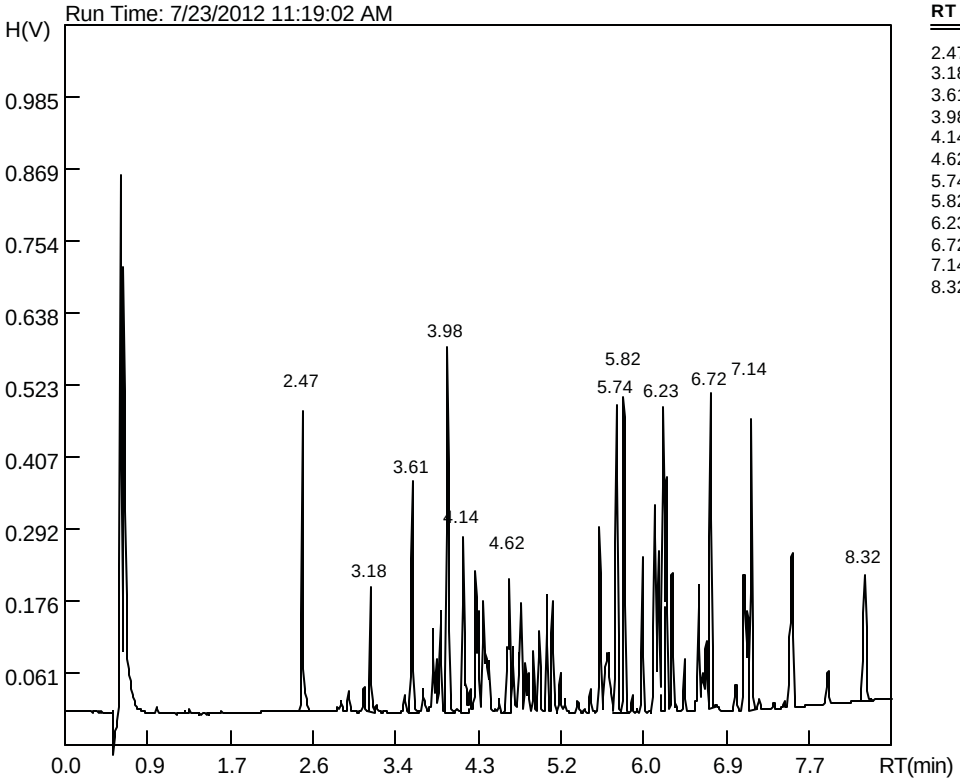
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	2.926	241599
3.17	0.00	1016-1	0.092	97106
3.61	0.00	1016-2	0.091	212955
3.98	0.00	1016-3	0.108	428291
4.14	0.00	1016-4	0.082	156685
4.62	0.00	1016-5	0.094	174881
5.74	0.00	1260-1	0.093	291676
5.81	0.00	1260-2	0.098	300385
6.22	0.00	1260-3	0.106	303287
6.71	0.00	1260-4	0.108	271829
7.14	0.00	1260-5	0.100	282723
8.32	0.00	DCBP	3.389	175413

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

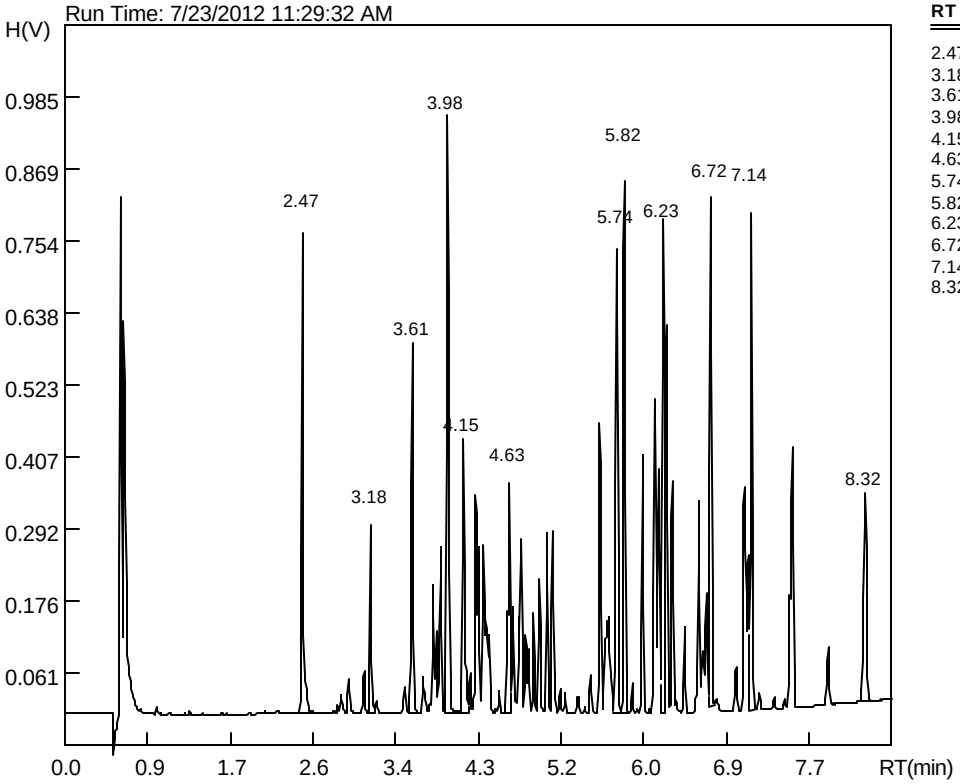
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:02 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	9.075	606331
3.18	0.00	1016-1	0.304	247848
3.61	0.00	1016-2	0.301	518948
3.98	0.00	1016-3	0.315	1066353
4.14	0.00	1016-4	0.301	408429
4.62	0.00	1016-5	0.310	424610
5.74	0.00	1260-1	0.294	705101
5.82	0.00	1260-2	0.306	727443
6.23	0.00	1260-3	0.318	727830
6.72	0.00	1260-4	0.293	673277
7.14	0.00	1260-5	0.313	685929
8.32	0.00	DCBP	11.145	427897

File Name: F:\GCECD.DAT\A120723\A120723B.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:32 AM



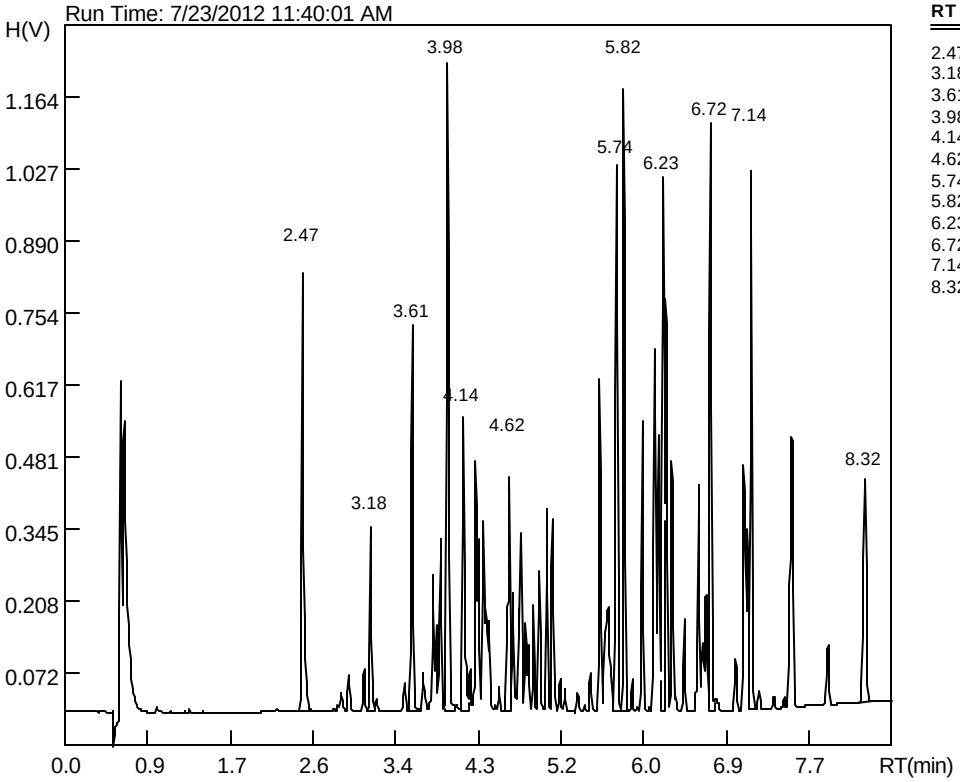
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	15.517	988405
3.18	0.00	1016-1	0.512	395873
3.61	0.00	1016-2	0.509	824310
3.98	0.00	1016-3	0.531	1730023
4.15	0.00	1016-4	0.517	656542
4.63	0.00	1016-5	0.522	670161
5.74	0.00	1260-1	0.500	1127409
5.82	0.00	1260-2	0.517	1162717
6.23	0.00	1260-3	0.543	1181106
6.72	0.00	1260-4	0.494	1109205
7.14	0.00	1260-5	0.532	1099473
8.32	0.00	DCBP	18.789	676752

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

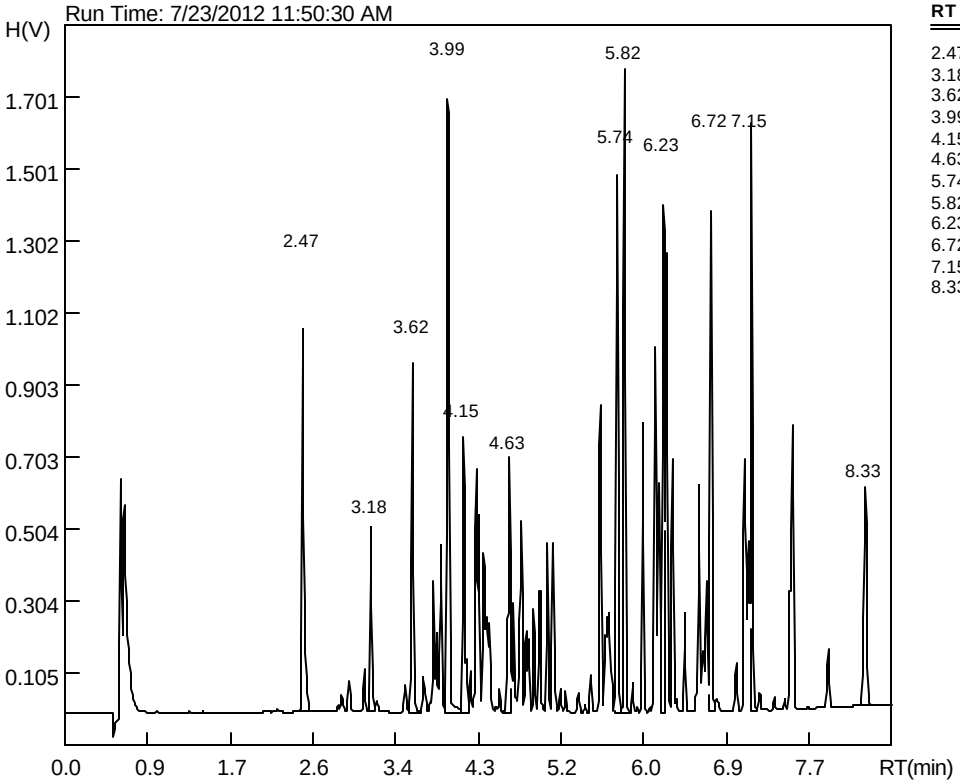
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:01 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.826	1303269
3.18	0.00	1016-1	0.682	516203
3.61	0.00	1016-2	0.677	1069894
3.98	0.00	1016-3	0.707	2270575
4.14	0.00	1016-4	0.691	855591
4.62	0.00	1016-5	0.691	865803
5.74	0.00	1260-1	0.670	1477266
5.82	0.00	1260-2	0.695	1528331
6.23	0.00	1260-3	0.710	1515952
6.72	0.00	1260-4	0.682	1517431
7.14	0.00	1260-5	0.707	1430408
8.32	0.00	DCBP	24.998	878867

File Name: F:\GCECD.DAT\A120723\A120723B.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:30 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	30.699	1888871
3.18	0.01	1016-1	0.968	719306
3.62	0.01	1016-2	0.970	1498355
3.99	0.01	1016-3	1.041	3298679
4.15	0.01	1016-4	0.996	1206900
4.63	0.01	1016-5	0.992	1214470
5.74	0.01	1260-1	0.975	2104039
5.82	0.01	1260-2	1.013	2184009
6.23	0.01	1260-3	1.039	2176670
6.72	0.01	1260-4	0.986	2178597
7.15	0.01	1260-5	1.038	2057755
8.33	0.01	DCBP	35.941	1235101

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120801.3

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
a120801.02r	sc1660.01	08/01/12 09:28	1016-1	0.01/0.05	0.554/0.500	10.8
			1016-2	0.00/0.05	0.550/0.500	10.0
			1016-3	0.00/0.05	0.548/0.500	9.6
			1016-4	0.00/0.05	0.544/0.500	8.8
			1016-5	0.00/0.05	0.540/0.500	8.0
			1260-1	0.00/0.05	0.532/0.500	6.4
			1260-2	0.00/0.05	0.530/0.500	6.0
			1260-3	0.00/0.05	0.529/0.500	5.8
			1260-4	0.00/0.05	0.510/0.500	2.0
			1260-5	0.00/0.05	0.514/0.500	2.8
					Average	**7.0/ 20.0**
a120801.22r	sc1660.02	08/01/12 16:09	1016-1	0.01/0.05	0.558/0.500	11.6
			1016-2	0.00/0.05	0.549/0.500	9.8
			1016-3	0.01/0.05	0.551/0.500	10.2
			1016-4	0.01/0.05	0.552/0.500	10.4
			1016-5	0.00/0.05	0.551/0.500	10.2
			1260-1	0.00/0.05	0.506/0.500	1.2
			1260-2	0.00/0.05	0.498/0.500	0.4
			1260-3	0.01/0.05	0.486/0.500	2.8
			1260-4	0.01/0.05	0.459/0.500	8.2
			1260-5	0.00/0.05	0.450/0.500	10.0
					Average	**3.2/ 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120801.4

Filename	*LIMS ID*	*Run Time*	*CVM Component*	*? RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
a120801b.02	sc1660.01	08/01/12 09:28	1016-1	0.00/0.05	0.600/0.500	20.0
			1016-2	0.00/0.05	0.590/0.500	18.0
			1016-3	0.00/0.05	0.567/0.500	13.4
			1016-4	0.00/0.05	0.589/0.500	17.8
			1016-5	0.00/0.05	0.590/0.500	18.0
			1260-1	0.00/0.05	0.576/0.500	15.2
			1260-2	0.00/0.05	0.573/0.500	14.6
			1260-3	0.00/0.05	0.578/0.500	15.6
			1260-4	0.00/0.05	0.559/0.500	11.8
			1260-5	0.00/0.05	0.579/0.500	15.8
					Average	**16.0 / 20.0**
a120801b.22	sc1660.02	08/01/12 16:09	1016-1	0.01/0.05	0.570/0.500	14.0
			1016-2	0.00/0.05	0.554/0.500	10.8
			1016-3	0.00/0.05	0.532/0.500	6.4
			1016-4	0.00/0.05	0.547/0.500	9.4
			1016-5	0.00/0.05	0.530/0.500	6.0
			1260-1	0.00/0.05	0.484/0.500	3.2
			1260-2	0.00/0.05	0.483/0.500	3.4
			1260-3	0.00/0.05	0.463/0.500	7.4
			1260-4	0.00/0.05	0.449/0.500	10.2
			1260-5	0.00/0.05	0.460/0.500	8.0
					Average	**1.4 / 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120802.3

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
a120802.02r	sc1660.01	08/02/12 09:58	1016-1	0.00/0.05	0.551/0.500	10.2
			1016-2	0.00/0.05	0.544/0.500	8.8
			1016-3	0.00/0.05	0.540/0.500	8.0
			1016-4	0.00/0.05	0.535/0.500	7.0
			1016-5	0.00/0.05	0.533/0.500	6.6
			1260-1	0.00/0.05	0.497/0.500	0.6
			1260-2	0.00/0.05	0.497/0.500	0.6
			1260-3	0.00/0.05	0.491/0.500	1.8
			1260-4	0.00/0.05	0.469/0.500	6.2
			1260-5	0.00/0.05	0.451/0.500	9.8
					Average	**2.2/ 20.0**
a120802.17r	sc1660.02	08/02/12 14:52	1016-1	0.01/0.05	0.614/0.500	22.8
			1016-2	0.01/0.05	0.586/0.500	17.2
			1016-3	0.01/0.05	0.590/0.500	18.0
			1016-4	0.01/0.05	0.581/0.500	16.2
			1016-5	0.00/0.05	0.581/0.500	16.2
			1260-1	0.00/0.05	0.521/0.500	4.2
			1260-2	0.00/0.05	0.503/0.500	0.6
			1260-3	0.01/0.05	0.493/0.500	1.4
			1260-4	0.01/0.05	0.463/0.500	7.4
			1260-5	0.00/0.05	0.436/0.500	12.8
					Average	**7.4/ 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120802.4

Filename	LIMS ID	Run Time	CVM Component	? RT/Win.	CVM Conc.	CVM %D/ UCL
a120802b.02	sc1660.01	08/02/12 09:58	1016-1	0.00/0.05	0.593/0.500	18.6
			1016-2	-.01/0.05	0.575/0.500	15.0
			1016-3	-.01/0.05	0.551/0.500	10.2
			1016-4	0.00/0.05	0.571/0.500	14.2
			1016-5	-.01/0.05	0.566/0.500	13.2
			1260-1	0.00/0.05	0.517/0.500	3.4
			1260-2	0.00/0.05	0.512/0.500	2.4
			1260-3	0.00/0.05	0.490/0.500	2.0
			1260-4	0.00/0.05	0.472/0.500	5.6
			1260-5	-.01/0.05	0.479/0.500	4.2
					Average	**6.5/ 20.0**
a120802b.17	sc1660.02	08/02/12 14:52	1016-1	0.01/0.05	0.568/0.500	13.6
			1016-2	0.00/0.05	0.580/0.500	16.0
			1016-3	0.00/0.05	0.563/0.500	12.6
			1016-4	0.00/0.05	0.567/0.500	13.4
			1016-5	0.00/0.05	0.540/0.500	8.0
			1260-1	0.00/0.05	0.486/0.500	2.8
			1260-2	0.00/0.05	0.484/0.500	3.2
			1260-3	0.00/0.05	0.467/0.500	6.6
			1260-4	0.00/0.05	0.433/0.500	13.4
			1260-5	0.00/0.05	0.438/0.500	12.4
					Average	**2.5/ 20.0**

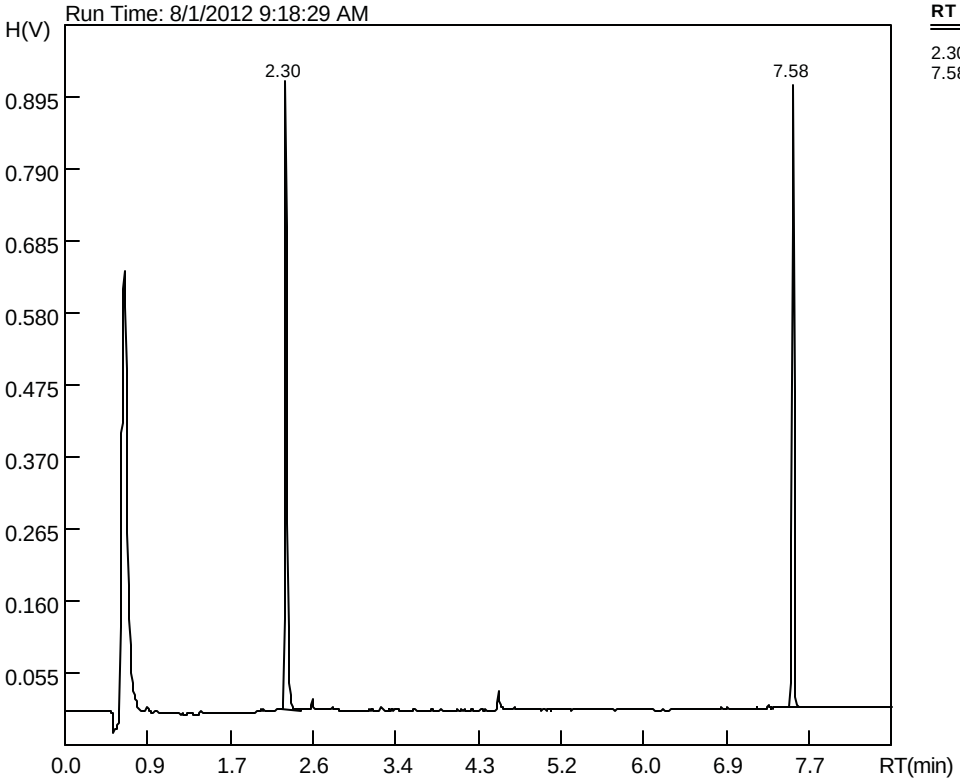
NOTES
*: Calibration check drift outside of method-established control limits

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5 Analytical Batch: a120801.3

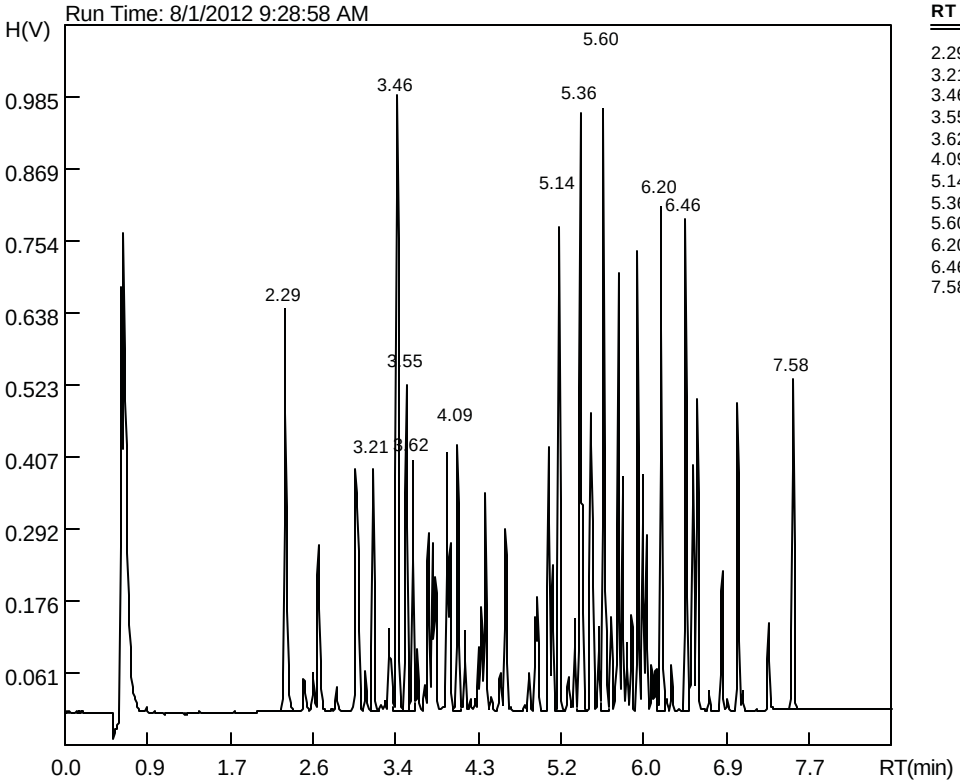
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120801\A120801.01R.BND
Comments: SBLK-R.01
Run Time: 8/1/2012 9:18:29 AM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	23.366	1500063
7.58	0.00	DCBP	28.316	1318026

File Name: F:\GCECD.DAT\A120801\A120801.02R.BND
Comments: SC1660.01 0.5ppm 7/23/12
Run Time: 8/1/2012 9:28:58 AM



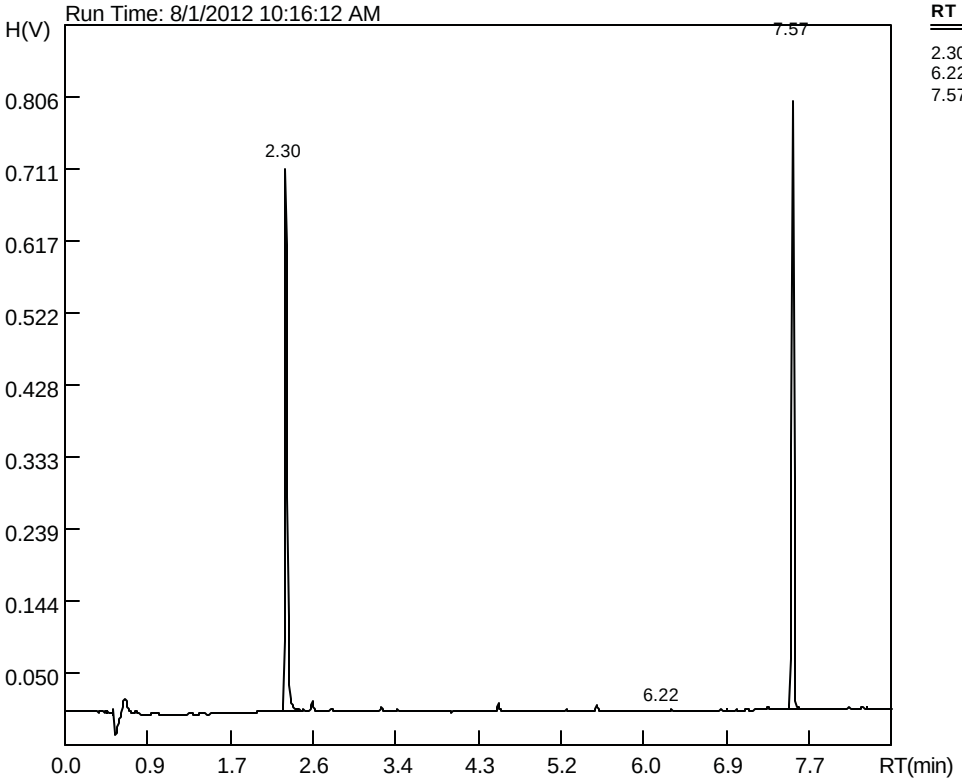
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	16.778	1097299
3.21	0.00	1016-1	0.554	562706
3.46	0.00	1016-2	0.550	1781891
3.55	0.00	1016-3	0.548	737116
3.62	0.00	1016-4	0.544	532829
4.09	0.00	1016-5	0.540	685372
5.14	0.00	1260-1	0.532	1076872
5.36	0.00	1260-2	0.530	1588869
5.60	0.00	1260-3	0.529	1588349
6.20	0.00	1260-4	0.510	1107849
6.46	0.00	1260-5	0.514	1150031
7.58	0.00	DCBP	15.328	746603

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

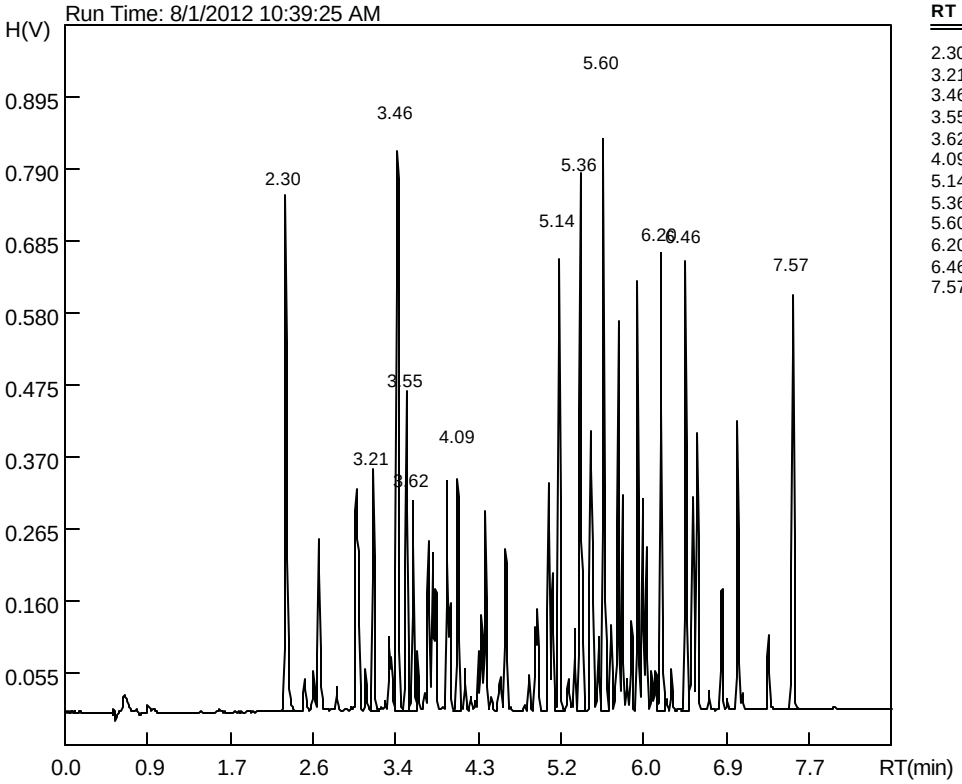
Analytical Batch: a120801.3

File Name: F:\GCECD.DAT\A120801\A120801.03R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120801s01
Run Time: 8/1/2012 10:16:12 AM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	19.208	1245839
6.22	0.02	1260-4	-0.045	1889
7.57	0.00	DCBP	26.816	1252054

File Name: F:\GCECD.DAT\A120801\A120801.04R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120801s01
Run Time: 8/1/2012 10:39:25 AM



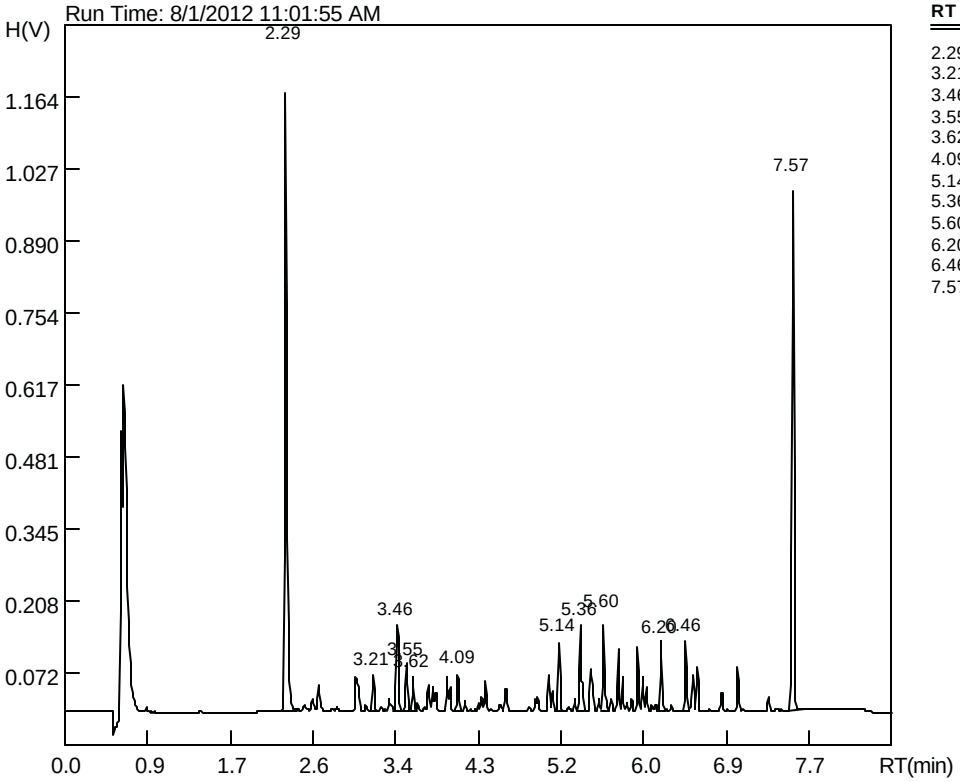
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	17.967	1170009
3.21	0.00	1016-1	0.448	464457
3.46	0.00	1016-2	0.454	1497724
3.55	0.00	1016-3	0.447	612403
3.62	0.00	1016-4	0.426	425796
4.09	0.00	1016-5	0.438	566560
5.14	0.00	1260-1	0.441	907980
5.36	0.00	1260-2	0.398	1228688
5.60	0.00	1260-3	0.437	1337384
6.20	0.00	1260-4	0.415	917301
6.46	0.00	1260-5	0.429	977779
7.57	0.00	DCBP	18.551	888417

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

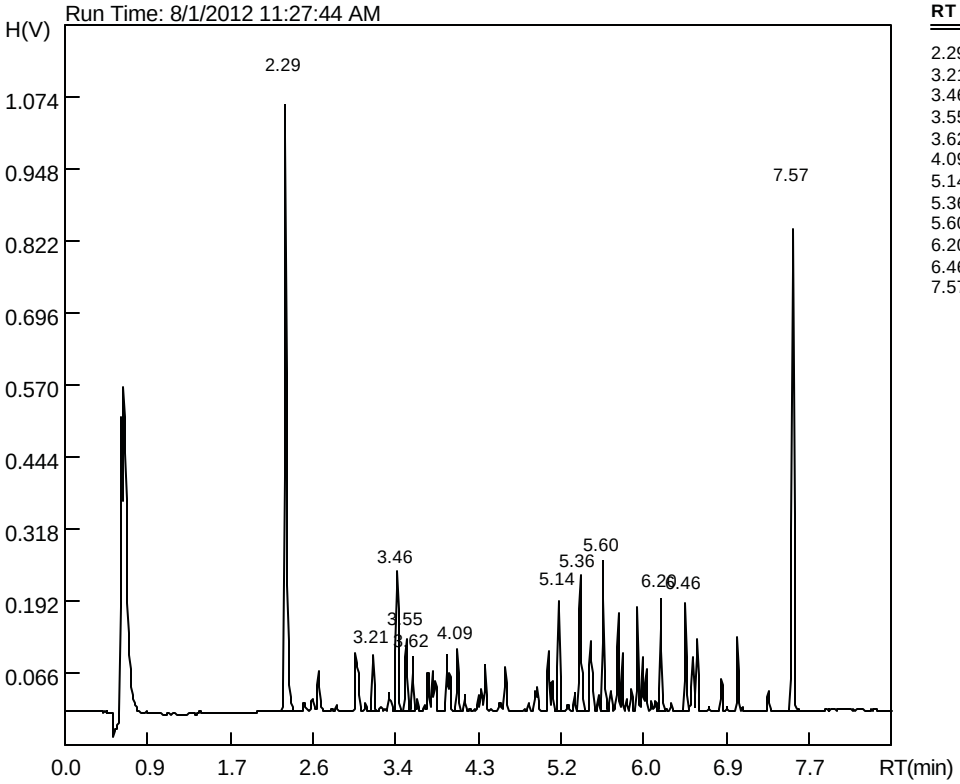
Analytical Batch: a120801.3

File Name: F:\GCECD.DAT\A120801\A120801.05R.BND
Comments: s53238.01 1L w/1 LOD ID:PA120724w01
Run Time: 8/1/2012 11:01:55 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	32.565	2062423
3.21	0.00	1016-1	0.044	90245
3.46	0.00	1016-2	0.045	290764
3.55	0.00	1016-3	0.047	118549
3.62	0.00	1016-4	0.049	83147
4.09	0.00	1016-5	0.046	110407
5.14	0.00	1260-1	0.046	180250
5.36	0.00	1260-2	0.045	267304
5.60	0.00	1260-3	0.044	261605
6.20	0.00	1260-4	0.045	180678
6.46	0.00	1260-5	0.042	190749
7.57	0.00	DCBP	30.632	1419952

File Name: F:\GCECD.DAT\A120801\A120801.06R.BND
Comments: s53238.02 1L w/1 LOQ ID:PA120724w01
Run Time: 8/1/2012 11:27:44 AM



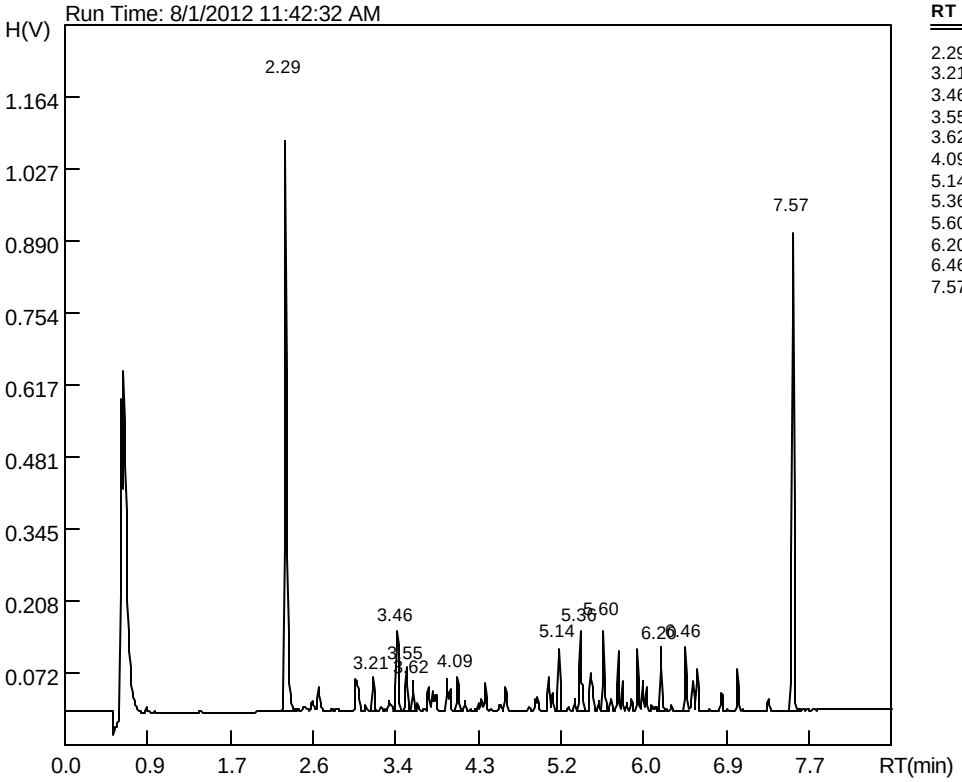
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	29.170	1854883
3.21	0.00	1016-1	0.094	135944
3.46	0.00	1016-2	0.095	438273
3.55	0.00	1016-3	0.096	179496
3.62	0.00	1016-4	0.098	127236
4.09	0.00	1016-5	0.094	165665
5.14	0.00	1260-1	0.094	269520
5.36	0.00	1260-2	0.094	399541
5.60	0.00	1260-3	0.092	392544
6.20	0.00	1260-4	0.091	273841
6.46	0.00	1260-5	0.090	287530
7.57	0.00	DCBP	27.340	1275082

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

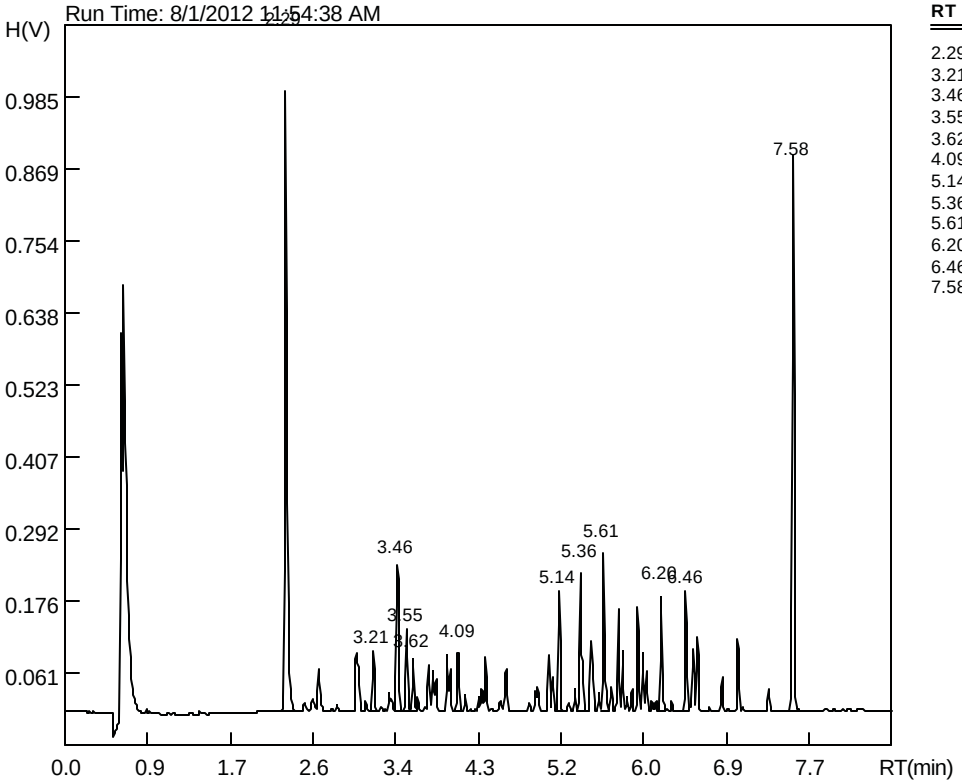
Analytical Batch: a120801.3

File Name: F:\GCECD.DAT\A120801\A120801.07R.BND
Comments: s53238.03 20.0g s/1 LOD ID:PA120719s01
Run Time: 8/1/2012 11:42:32 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	30.262	1921622
3.21	0.00	1016-1	0.037	83925
3.46	0.00	1016-2	0.039	271101
3.55	0.00	1016-3	0.040	110138
3.62	0.00	1016-4	0.043	77233
4.09	0.00	1016-5	0.038	101070
5.14	0.00	1260-1	0.038	166494
5.36	0.00	1260-2	0.038	246702
5.60	0.00	1260-3	0.037	241969
6.20	0.00	1260-4	0.040	170938
6.46	0.00	1260-5	0.035	177277
7.57	0.00	DCBP	28.159	1311106

File Name: F:\GCECD.DAT\A120801\A120801.08R.BND
Comments: s53238.04 20.0g s/1 LOQ ID:PA120719s01
Run Time: 8/1/2012 11:54:38 AM



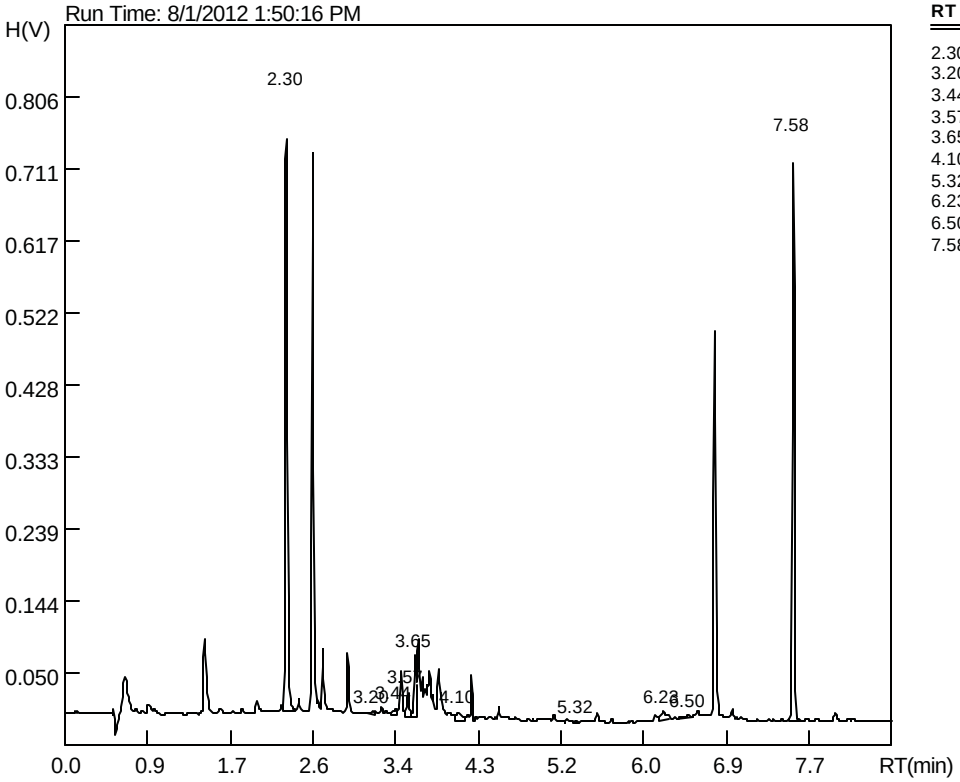
RT	dT	Name	Amt.	Area
2.29	0.01	TCX	28.401	1807895
3.21	0.01	1016-1	0.088	130992
3.46	0.00	1016-2	0.091	425822
3.55	0.00	1016-3	0.092	173902
3.62	0.00	1016-4	0.093	122856
4.09	0.00	1016-5	0.090	161789
5.14	0.00	1260-1	0.090	261211
5.36	0.00	1260-2	0.089	386474
5.61	0.00	1260-3	0.088	380552
6.20	0.00	1260-4	0.088	266946
6.46	0.00	1260-5	0.086	279386
7.58	0.00	DCBP	26.501	1238185

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

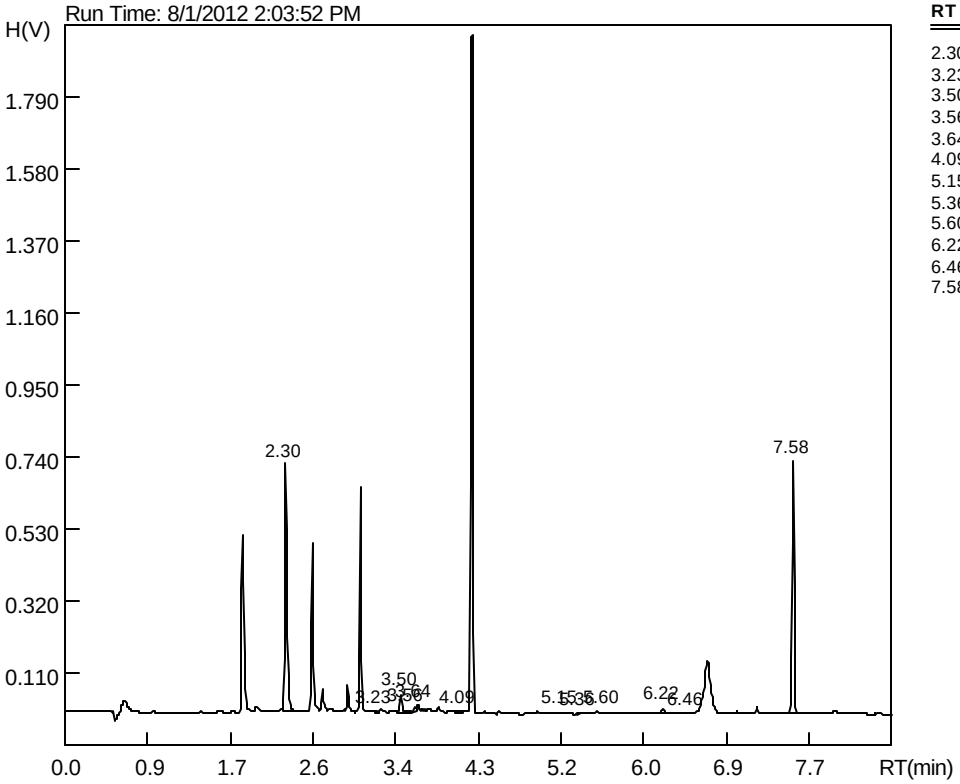
Analytical Batch: a120801.3

File Name: F:\GCECD.DAT\A120801\A120801.09R.BND
Comments: s53360.07 20.2g s/1 ID:PA120801s01
Run Time: 8/1/2012 1:50:16 PM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	19.981	1293085
3.20	0.00	1016-1	-0.045	7612
3.44	-0.02	1016-2	-0.043	28236
3.57	0.02	1016-3	-0.005	54582
3.65	0.03	1016-4	0.090	120015
4.10	0.01	1016-5	-0.011	43364
5.32	-0.04	1260-2	-0.052	1408
6.23	0.02	1260-4	-0.024	43716
6.50	0.04	1260-5	-0.048	7369
7.58	0.00	DCBP	23.286	1096719

File Name: F:\GCECD.DAT\A120801\A120801.10R.BND
Comments: s53360.08 20.1g s/1 ID:PA120801s01
Run Time: 8/1/2012 2:03:52 PM



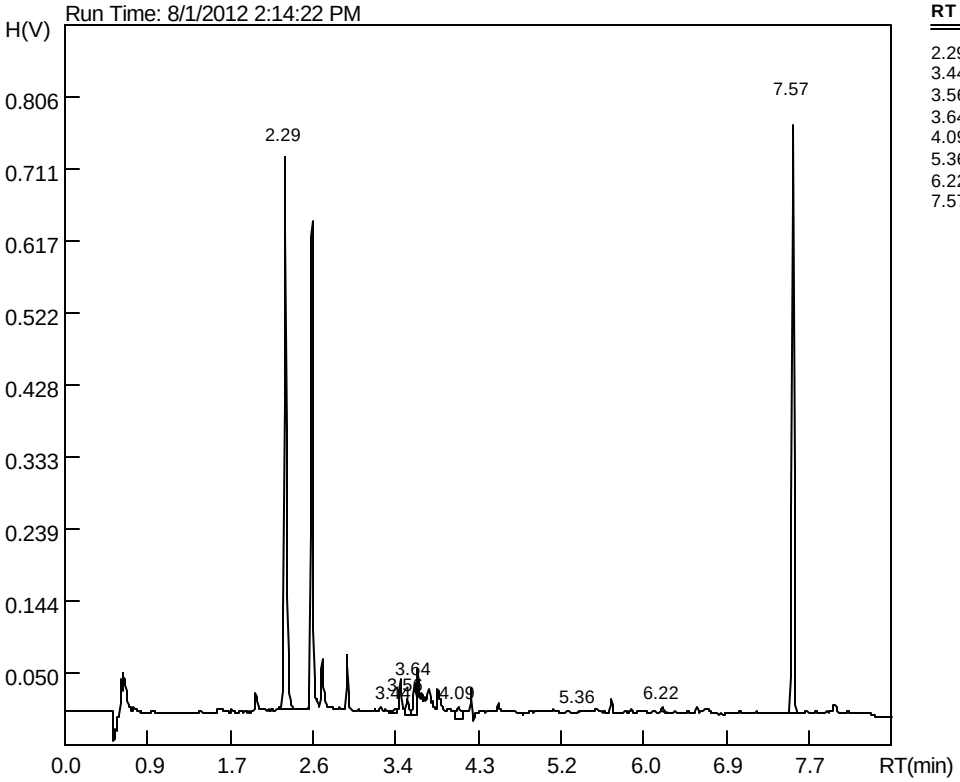
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	18.586	1207856
3.23	0.03	1016-1	-0.048	4621
3.50	0.04	1016-2	-0.027	76314
3.56	0.01	1016-3	-0.041	9661
3.64	0.02	1016-4	-0.018	21635
4.09	0.01	1016-5	-0.035	15809
5.15	0.01	1260-1	-0.047	9410
5.36	0.00	1260-2	-0.052	2510
5.60	0.00	1260-3	-0.049	6189
6.22	0.02	1260-4	-0.028	36175
6.46	0.00	1260-5	-0.048	6672
7.58	0.00	DCBP	21.609	1022961

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

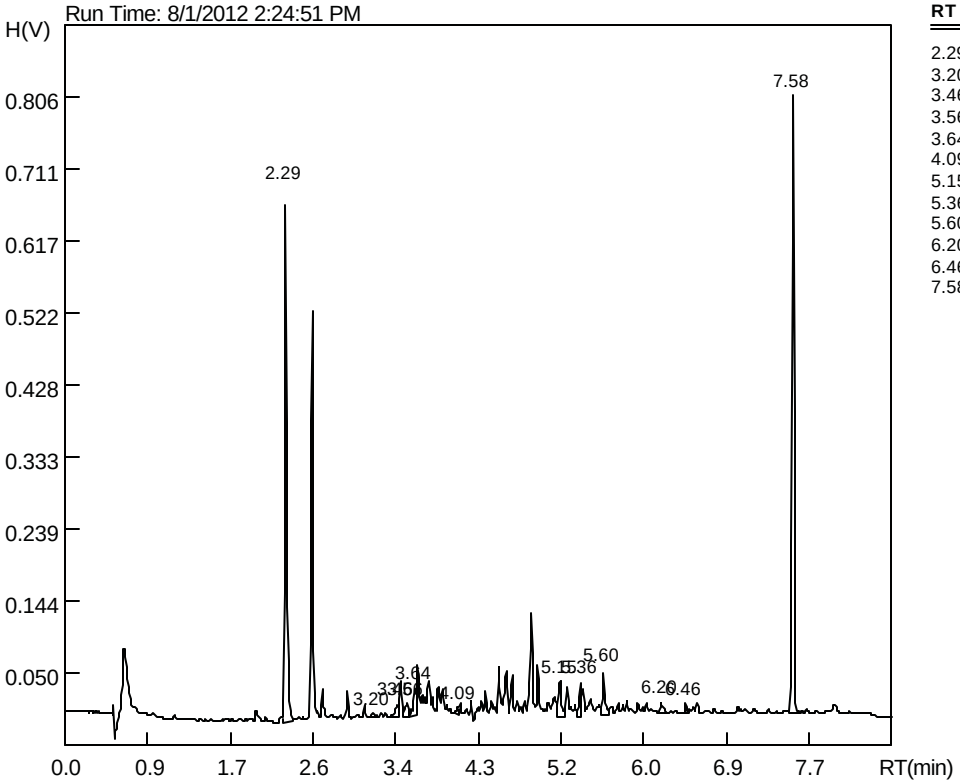
Analytical Batch: a120801.3

File Name: F:\GCECD.DAT\A120801\A120801.11R.BND
Comments: s53360.09 20.2g s/1 ID:PA120801s01
Run Time: 8/1/2012 2:14:22 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.449	1321719
3.44	-0.02	1016-2	-0.047	18203
3.56	0.01	1016-3	-0.021	34228
3.64	0.02	1016-4	0.032	66989
4.09	0.01	1016-5	0.006	63885
5.36	0.00	1260-2	-0.052	1529
6.22	0.02	1260-4	-0.042	9057
7.57	0.00	DCBP	24.214	1137552

File Name: F:\GCECD.DAT\A120801\A120801.12R.BND
Comments: s53360.10 20.2g s/1 ID:PA120801s01
Run Time: 8/1/2012 2:24:51 PM



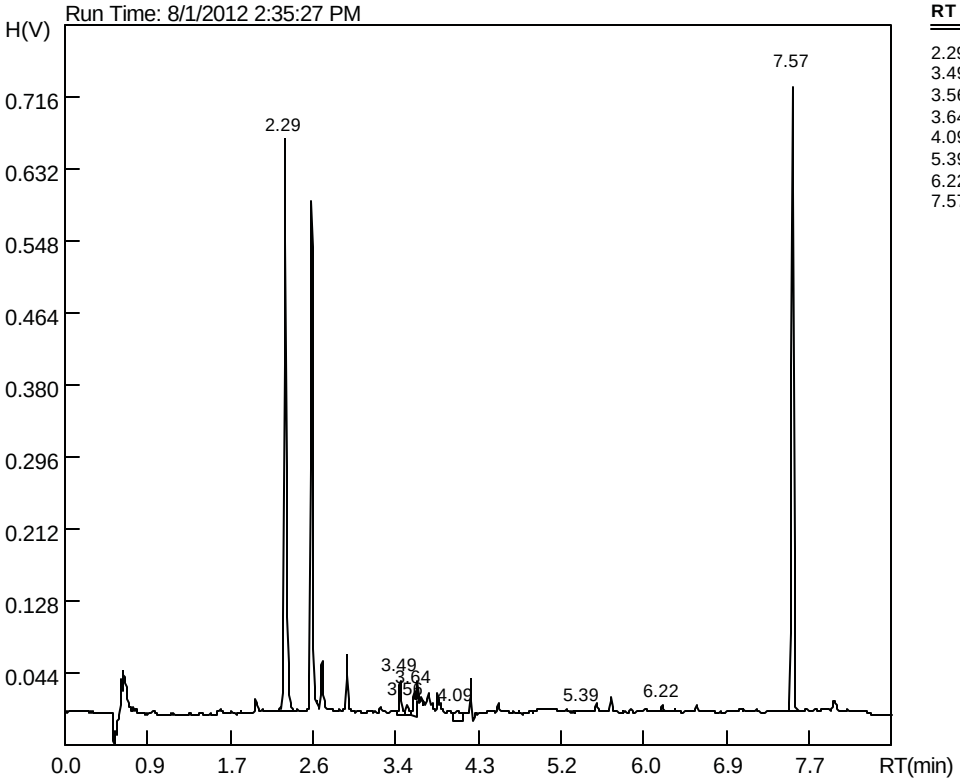
RT	dT	Name	Amt.	Area
2.29	0.01	TCX	16.884	1103791
3.20	0.00	1016-1	-0.039	12919
3.46	0.00	1016-2	-0.039	41881
3.56	0.01	1016-3	-0.018	37728
3.64	0.02	1016-4	0.030	65340
4.09	0.00	1016-5	-0.035	16268
5.15	0.01	1260-1	0.008	110890
5.36	0.00	1260-2	-0.026	73188
5.60	0.00	1260-3	-0.011	110041
6.20	0.00	1260-4	-0.030	32879
6.46	0.00	1260-5	-0.043	18786
7.58	0.00	DCBP	24.730	1160249

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

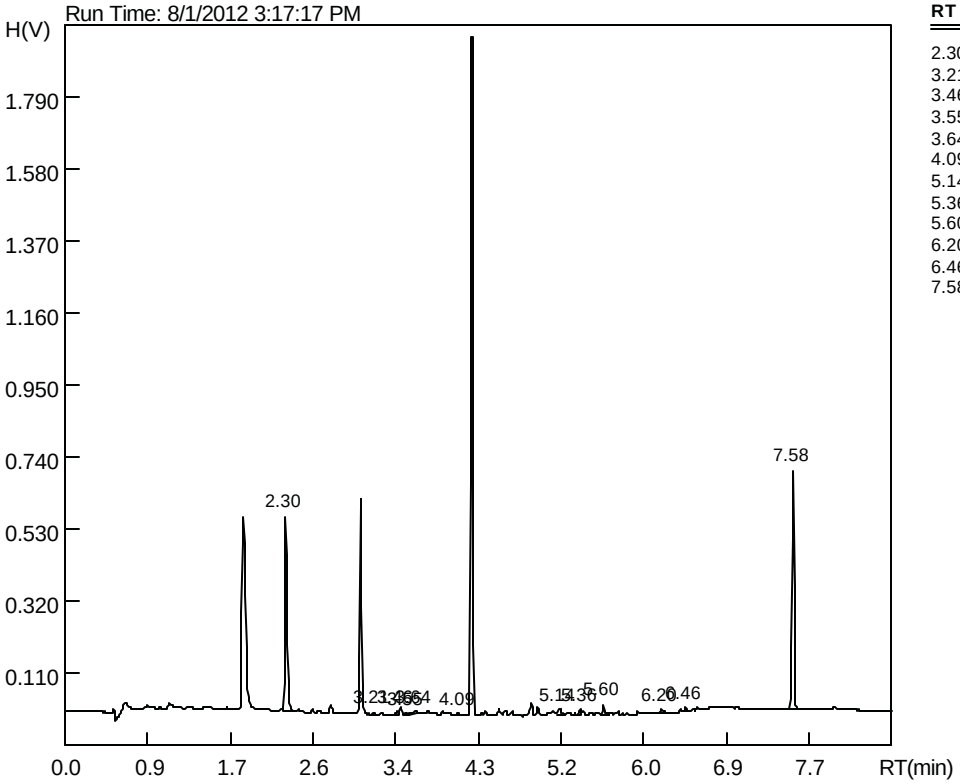
Analytical Batch: a120801.3

File Name: F:\GCECD.DAT\A120801\A120801.13R.BND
Comments: s53360.11 20.1g s/1 ID:PA120801s01
Run Time: 8/1/2012 2:35:27 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	17.768	1157831
3.49	0.03	1016-2	-0.029	70222
3.56	0.01	1016-3	-0.028	25932
3.64	0.02	1016-4	0.012	48688
4.09	0.00	1016-5	0.004	61807
5.39	0.03	1260-2	-0.051	5067
6.22	0.01	1260-4	-0.041	10741
7.57	-0.01	DCBP	22.783	1074595

File Name: F:\GCECD.DAT\A120801\A120801.17R.BND
Comments: s53360.03 20.0g s/1 C ID:PA120801s01
Run Time: 8/1/2012 3:17:17 PM



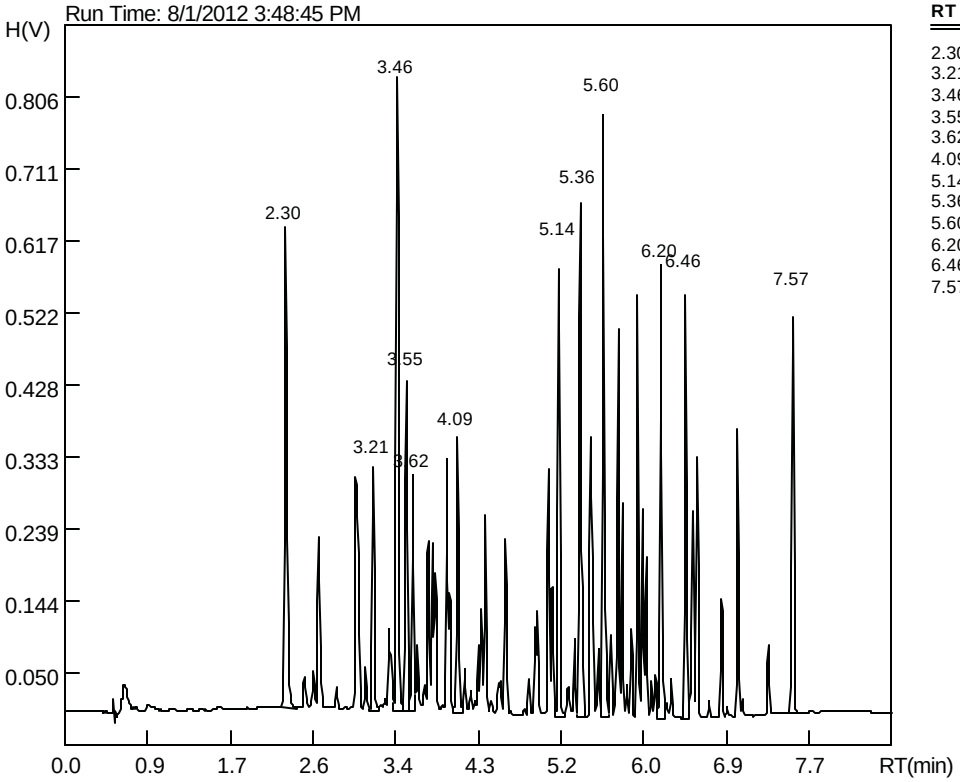
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	14.456	955367
3.21	0.00	1016-1	-0.041	11397
3.46	0.00	1016-2	-0.047	16610
3.55	0.00	1016-3	-0.044	6335
3.64	0.02	1016-4	-0.037	4843
4.09	0.00	1016-5	-0.041	9201
5.14	0.00	1260-1	-0.023	53593
5.36	0.00	1260-2	-0.042	29234
5.60	0.00	1260-3	-0.032	53124
6.20	0.00	1260-4	-0.026	40133
6.46	0.00	1260-5	-0.044	15379
7.58	0.00	DCBP	20.807	987653

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

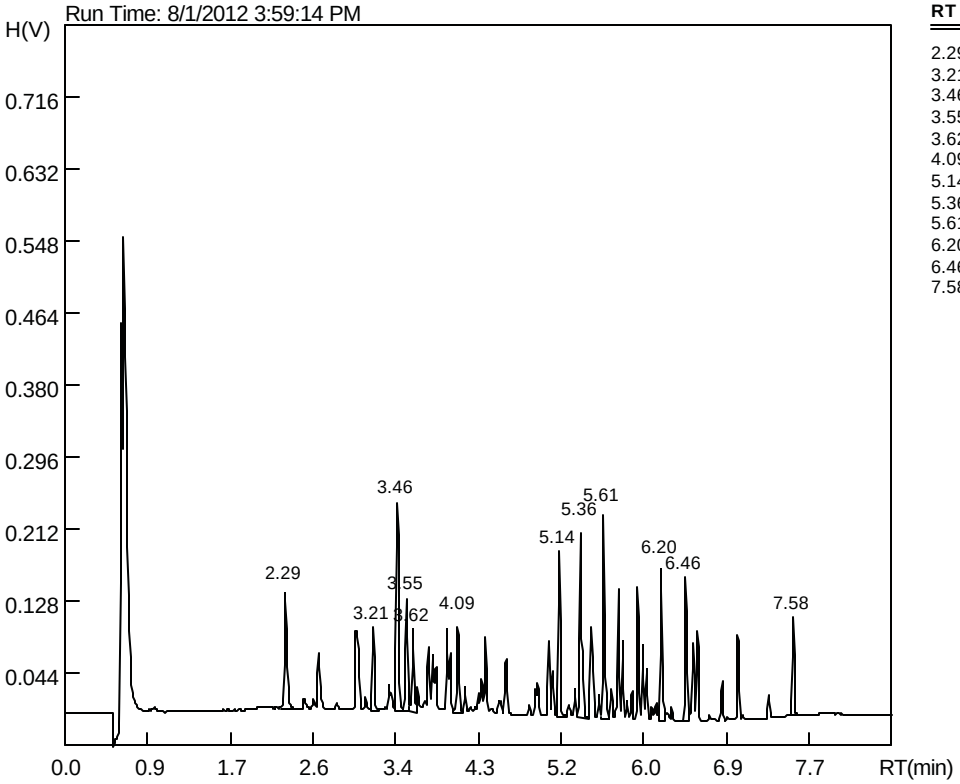
Analytical Batch: a120801.3

File Name: F:\GCECD.DAT\A120801\A120801.20R.BND
Comments: sLCS-Al.01 0.5ppm ID:Cleanup
Run Time: 8/1/2012 3:48:45 PM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	18.545	1205315
3.21	0.00	1016-1	0.463	478460
3.46	0.00	1016-2	0.460	1514984
3.55	0.00	1016-3	0.469	640496
3.62	0.00	1016-4	0.450	447224
4.09	0.00	1016-5	0.451	581501
5.14	0.00	1260-1	0.414	859522
5.36	0.00	1260-2	0.358	1120608
5.60	0.00	1260-3	0.394	1218667
6.20	0.00	1260-4	0.369	826131
6.46	0.00	1260-5	0.368	851925
7.57	0.00	DCBP	15.917	772518

File Name: F:\GCECD.DAT\A120801\A120801.21R.BND
Comments: ss1660.01 0.1ppm 7/23/12
Run Time: 8/1/2012 3:59:14 PM



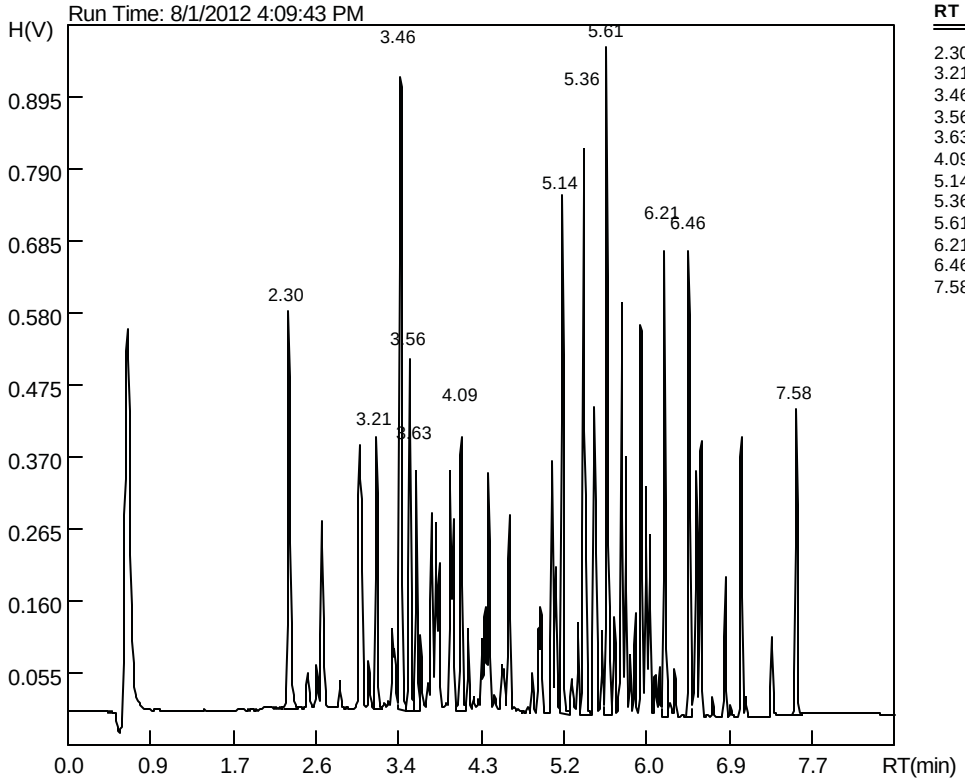
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	3.180	265981
3.21	0.00	1016-1	0.103	144499
3.46	0.00	1016-2	0.101	455422
3.55	0.00	1016-3	0.111	196888
3.62	0.00	1016-4	0.119	146574
4.09	0.00	1016-5	0.107	181283
5.14	0.00	1260-1	0.091	263211
5.36	0.00	1260-2	0.086	378290
5.61	0.00	1260-3	0.078	354566
6.20	0.00	1260-4	0.090	270130
6.46	0.00	1260-5	0.074	254585
7.58	0.00	DCBP	1.959	158397

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5 Analytical Batch: a120801.3

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120801\A120801.22R.BND
Comments: SC1660.02 0.5ppm 7/23/12
Run Time: 8/1/2012 4:09:43 PM

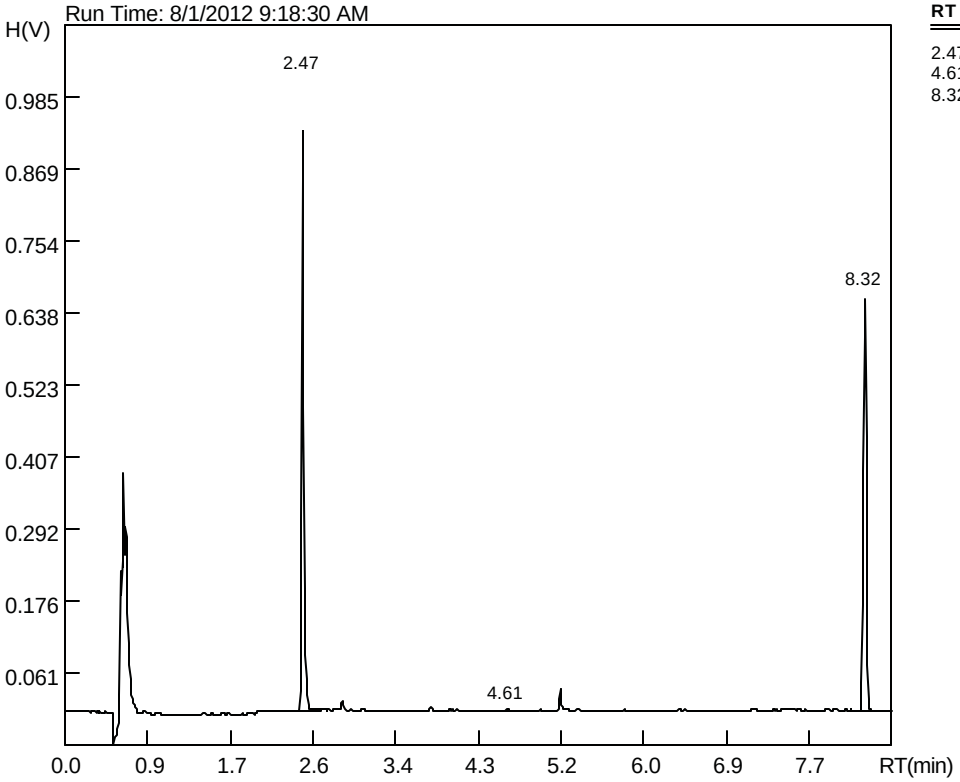


RT	dT	Name	Amt.	Area
2.30	0.01	TCX	16.851	1101769
3.21	0.01	1016-1	0.558	566331
3.46	0.00	1016-2	0.549	1777623
3.56	0.01	1016-3	0.551	741535
3.63	0.01	1016-4	0.552	539993
4.09	0.00	1016-5	0.551	698189
5.14	0.00	1260-1	0.506	1029057
5.36	0.00	1260-2	0.498	1501766
5.61	0.01	1260-3	0.486	1471233
6.21	0.00	1260-4	0.459	1006645
6.46	0.00	1260-5	0.450	1019283
7.58	0.00	DCBP	12.786	634763

GC/ECD Analysis: Raw Chromatographic Data

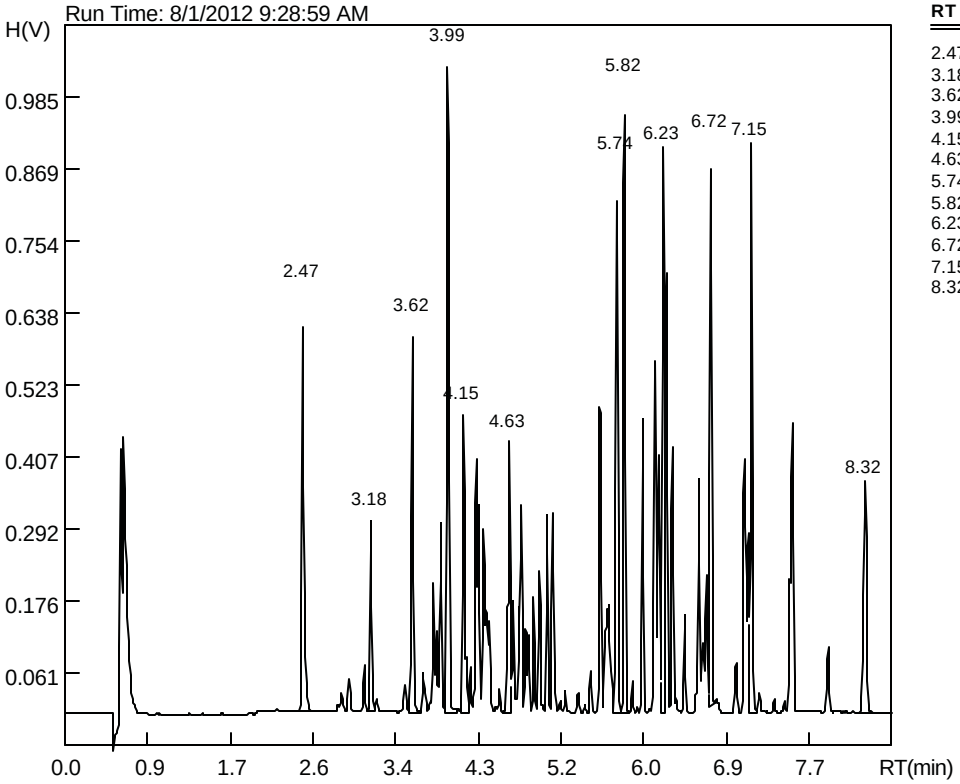
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120801.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120801\A120801B.01R.BND
Comments: SBLK-R.01
Run Time: 8/1/2012 9:18:30 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	25.443	1601622
4.61	-0.02	1016-5	-0.053	6476
8.32	0.00	DCBP	33.108	1363960

File Name: F:\GCECD.DAT\A120801\A120801B.02R.BND
Comments: SC1660.01 0.5ppm 7/23/12
Run Time: 8/1/2012 9:28:59 AM



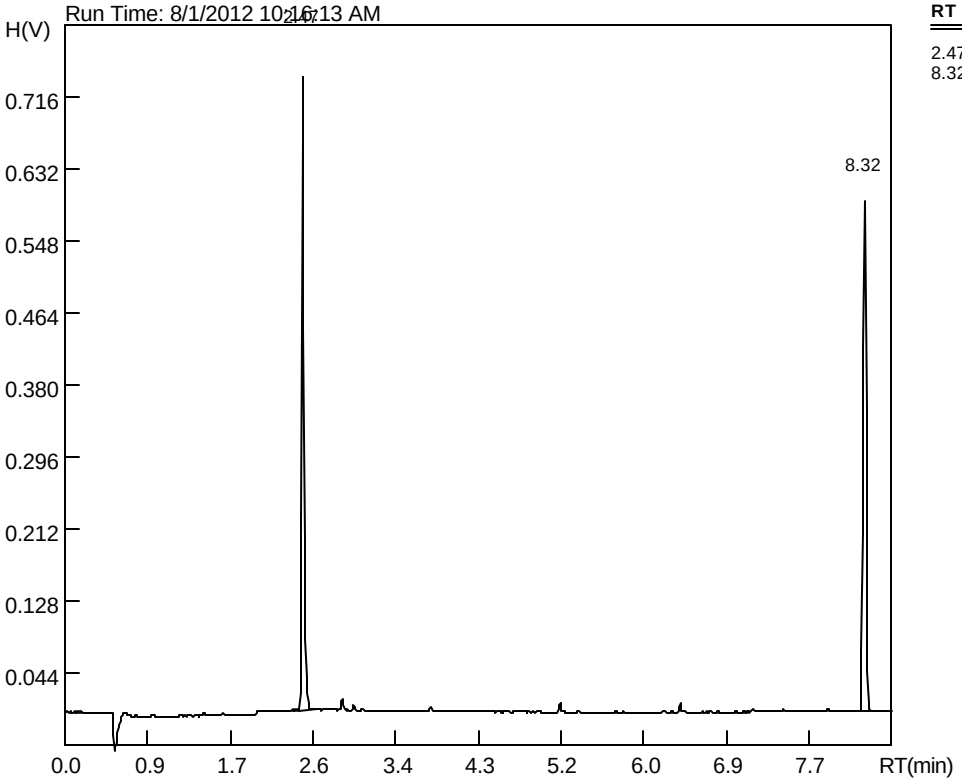
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.690	1132471
3.18	0.00	1016-1	0.600	449596
3.62	0.00	1016-2	0.590	921872
3.99	0.00	1016-3	0.567	1909759
4.15	0.00	1016-4	0.589	736393
4.63	0.00	1016-5	0.590	748397
5.74	0.00	1260-1	0.576	1252671
5.82	0.00	1260-2	0.573	1289951
6.23	0.00	1260-3	0.578	1298674
6.72	0.00	1260-4	0.559	1235931
7.15	0.00	1260-5	0.579	1226487
8.32	0.00	DCBP	18.104	774981

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

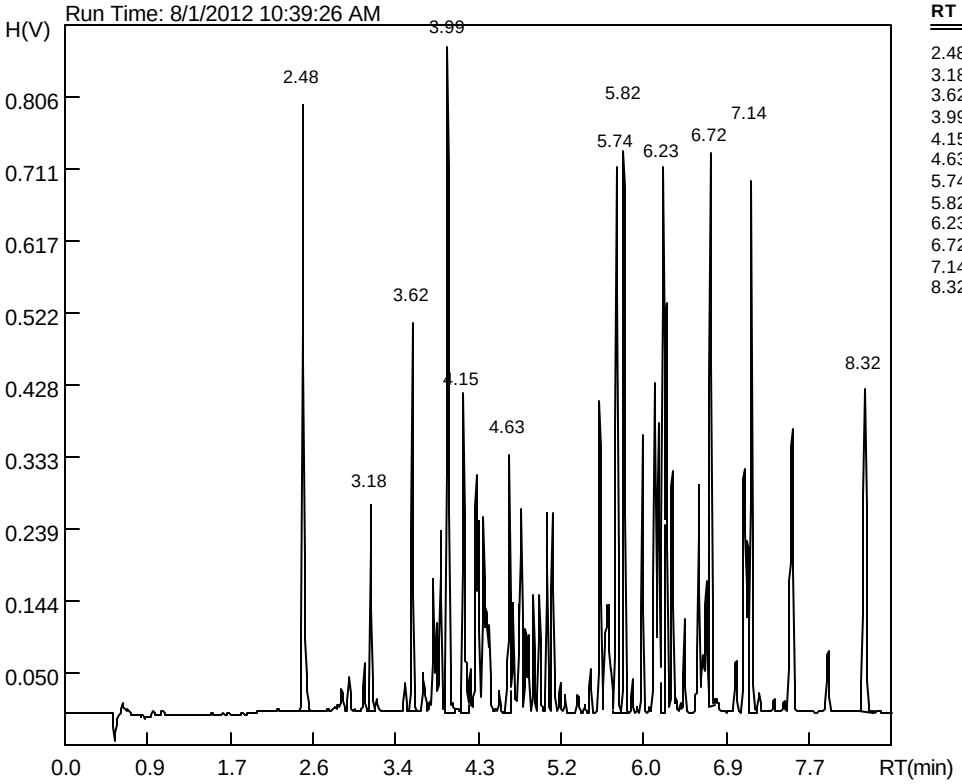
Analytical Batch: a120801.4

File Name: F:\GCECD.DAT\A120801\A120801B.03R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120801s01
Run Time: 8/1/2012 10:16:13 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.614	1309402
8.32	-0.01	DCBP	31.244	1290794

File Name: F:\GCECD.DAT\A120801\A120801B.04R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120801s01
Run Time: 8/1/2012 10:39:26 AM



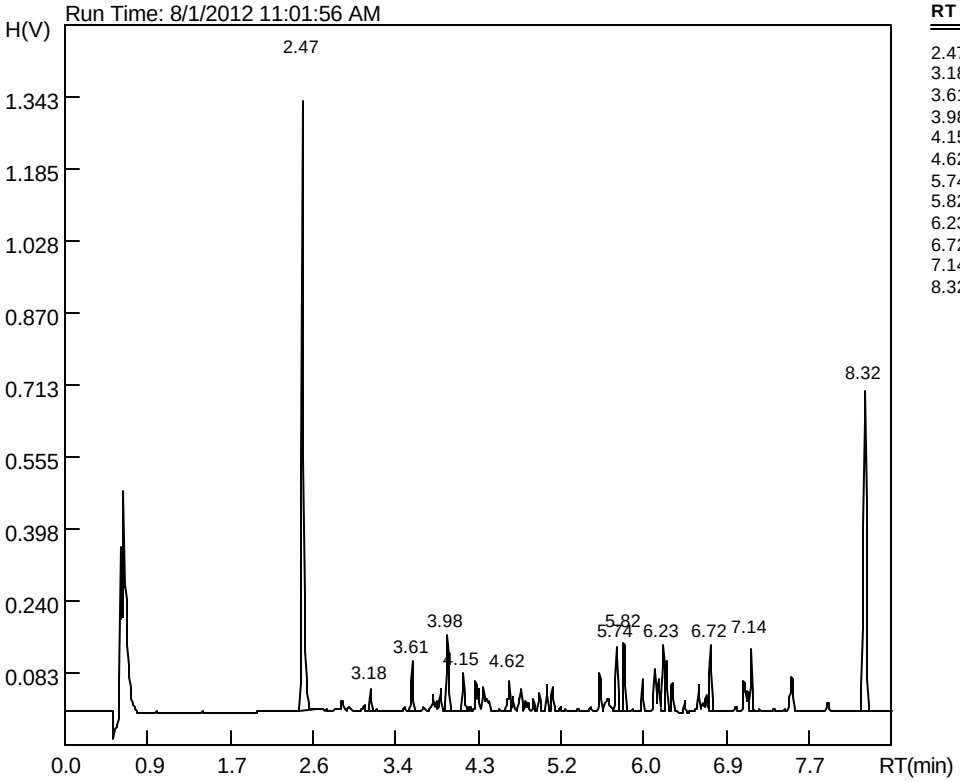
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	18.877	1204337
3.18	0.00	1016-1	0.475	363089
3.62	0.00	1016-2	0.435	701716
3.99	0.00	1016-3	0.465	1585831
4.15	0.00	1016-4	0.473	601425
4.63	0.00	1016-5	0.394	521992
5.74	0.00	1260-1	0.466	1032338
5.82	0.00	1260-2	0.457	1047673
6.23	0.00	1260-3	0.474	1083523
6.72	0.00	1260-4	0.447	999588
7.14	0.00	1260-5	0.474	1020016
8.32	-0.01	DCBP	21.509	908623

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

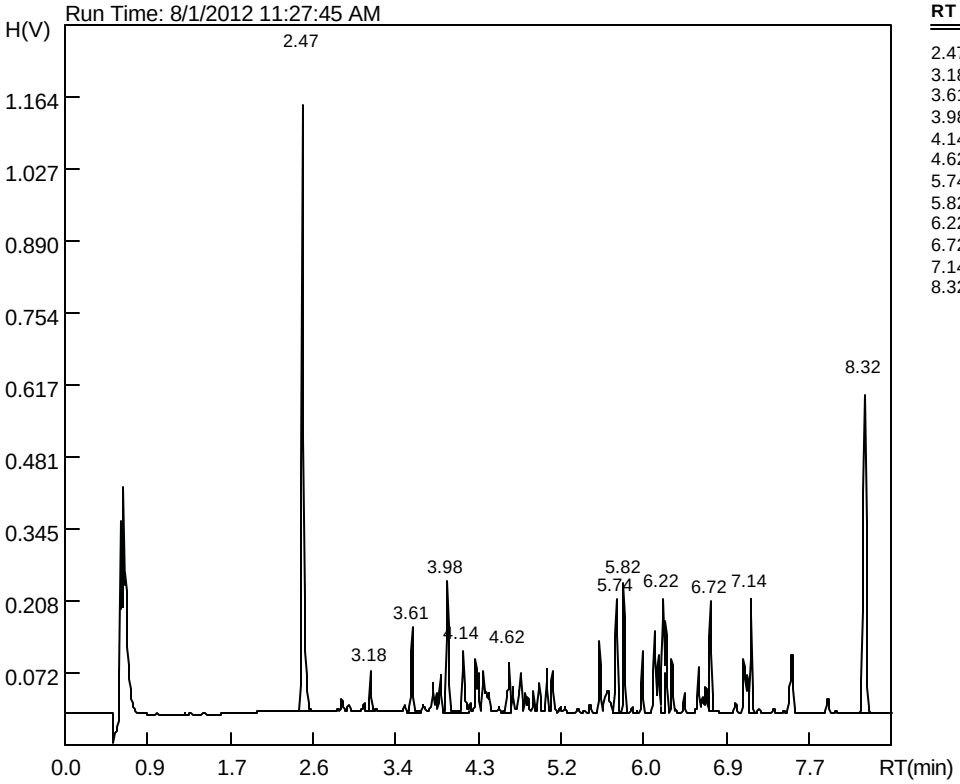
Analytical Batch: a120801.4

File Name: F:\GCECD.DAT\A120801\A120801B.05R.BND
Comments: s53238.01 1L w/1 LOD ID:PA120724w01
Run Time: 8/1/2012 11:01:56 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	35.362	2201774
3.18	0.00	1016-1	0.053	70791
3.61	0.00	1016-2	0.052	153647
3.98	0.00	1016-3	0.059	304392
4.15	0.00	1016-4	0.054	115068
4.62	0.00	1016-5	0.045	120177
5.74	0.00	1260-1	0.056	209709
5.82	0.00	1260-2	0.057	216707
6.23	0.00	1260-3	0.054	211997
6.72	0.00	1260-4	0.065	194974
7.14	0.00	1260-5	0.057	202021
8.32	0.00	DCBP	34.905	1434478

File Name: F:\GCECD.DAT\A120801\A120801B.06R.BND
Comments: s53238.02 1L w/1 LOQ ID:PA120724w01
Run Time: 8/1/2012 11:27:45 AM



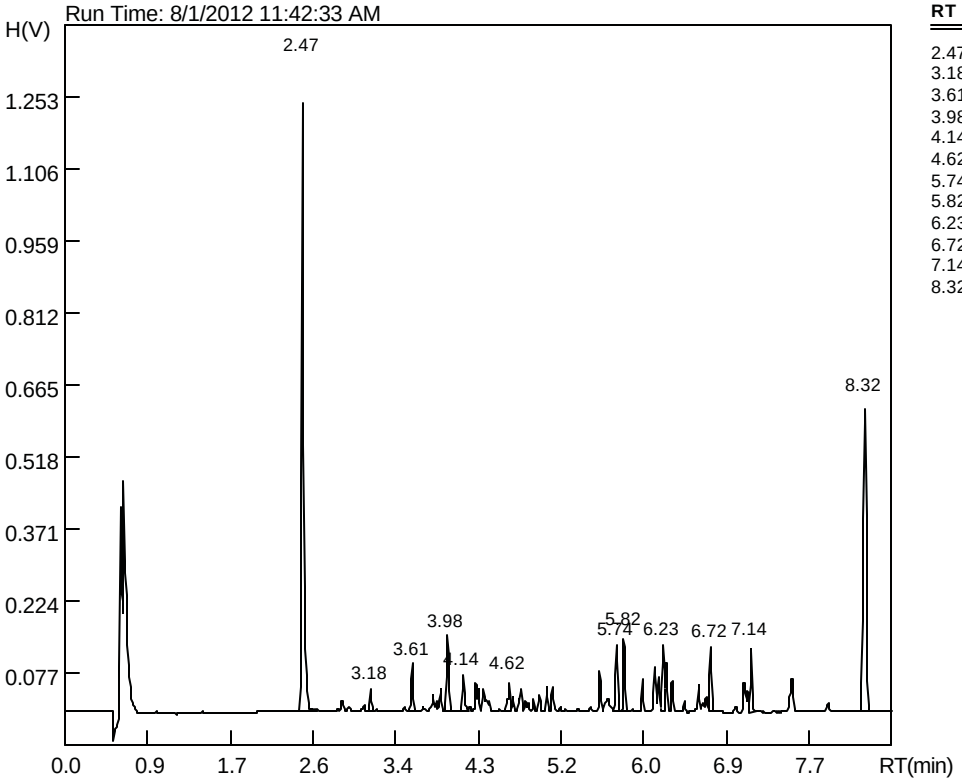
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	31.292	1955515
3.18	0.00	1016-1	0.105	106962
3.61	0.00	1016-2	0.107	233030
3.98	-0.01	1016-3	0.110	466460
4.14	0.00	1016-4	0.110	179820
4.62	-0.01	1016-5	0.099	182568
5.74	-0.01	1260-1	0.107	311442
5.82	-0.01	1260-2	0.107	320306
6.22	-0.01	1260-3	0.107	322653
6.72	-0.01	1260-4	0.109	287256
7.14	-0.01	1260-5	0.107	300374
8.32	-0.01	DCBP	31.097	1285017

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

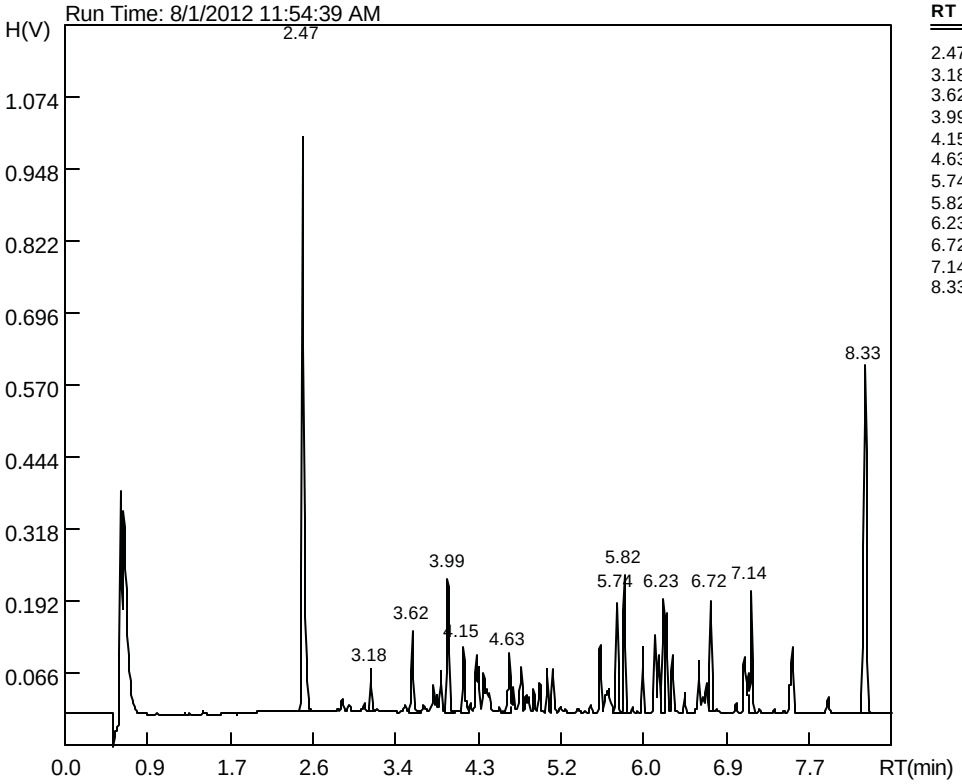
Analytical Batch: a120801.4

File Name: F:\GCECD.DAT\A120801\A120801B.07R.BND
Comments: s53238.03 20.0g s/1 LOD ID:PA120719s01
Run Time: 8/1/2012 11:42:33 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	32.528	2030261
3.18	0.00	1016-1	0.046	65855
3.61	0.00	1016-2	0.043	140935
3.98	0.00	1016-3	0.051	279501
4.14	0.00	1016-4	0.047	106341
4.62	0.00	1016-5	0.038	111370
5.74	-0.01	1260-1	0.048	193892
5.82	0.00	1260-2	0.049	199776
6.23	0.00	1260-3	0.048	198807
6.72	0.00	1260-4	0.058	179237
7.14	0.00	1260-5	0.049	185354
8.32	-0.01	DCBP	31.947	1318375

File Name: F:\GCECD.DAT\A120801\A120801B.08R.BND
Comments: s53238.04 20.0g s/1 LOQ ID:PA120719s01
Run Time: 8/1/2012 11:54:39 AM



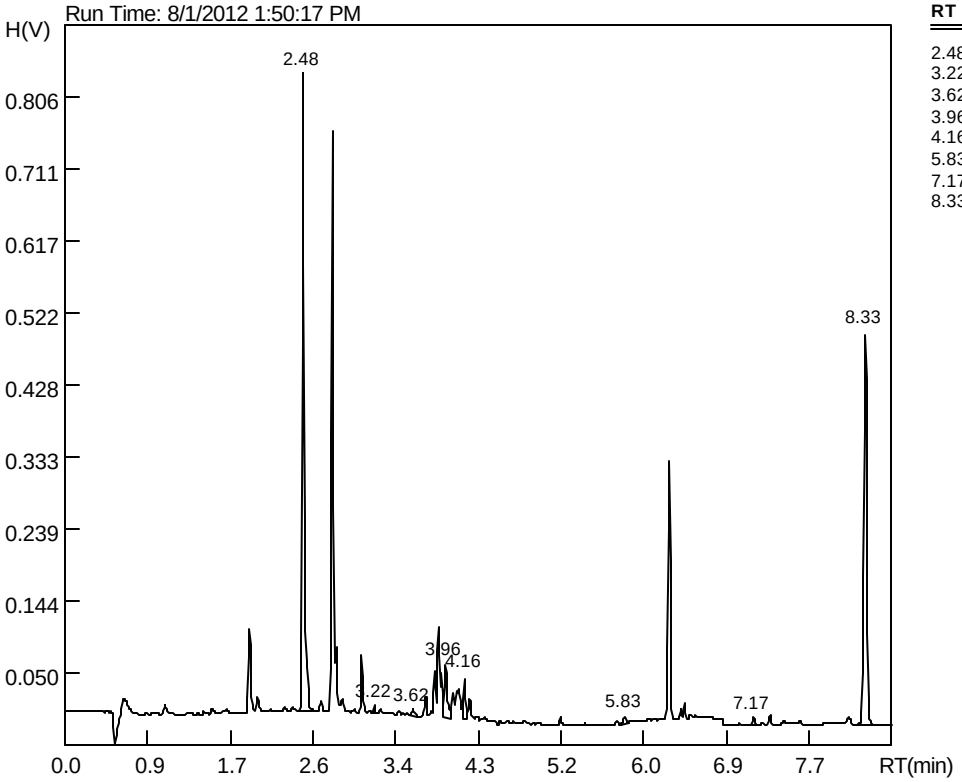
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	30.563	1911414
3.18	0.00	1016-1	0.101	104102
3.62	0.00	1016-2	0.105	228903
3.99	0.00	1016-3	0.104	446335
4.15	0.00	1016-4	0.107	175722
4.63	0.00	1016-5	0.095	176841
5.74	0.00	1260-1	0.102	301136
5.82	0.00	1260-2	0.102	309431
6.23	0.00	1260-3	0.099	304803
6.72	0.00	1260-4	0.105	278776
7.14	0.00	1260-5	0.101	288409
8.33	0.00	DCBP	30.142	1247518

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120801.4

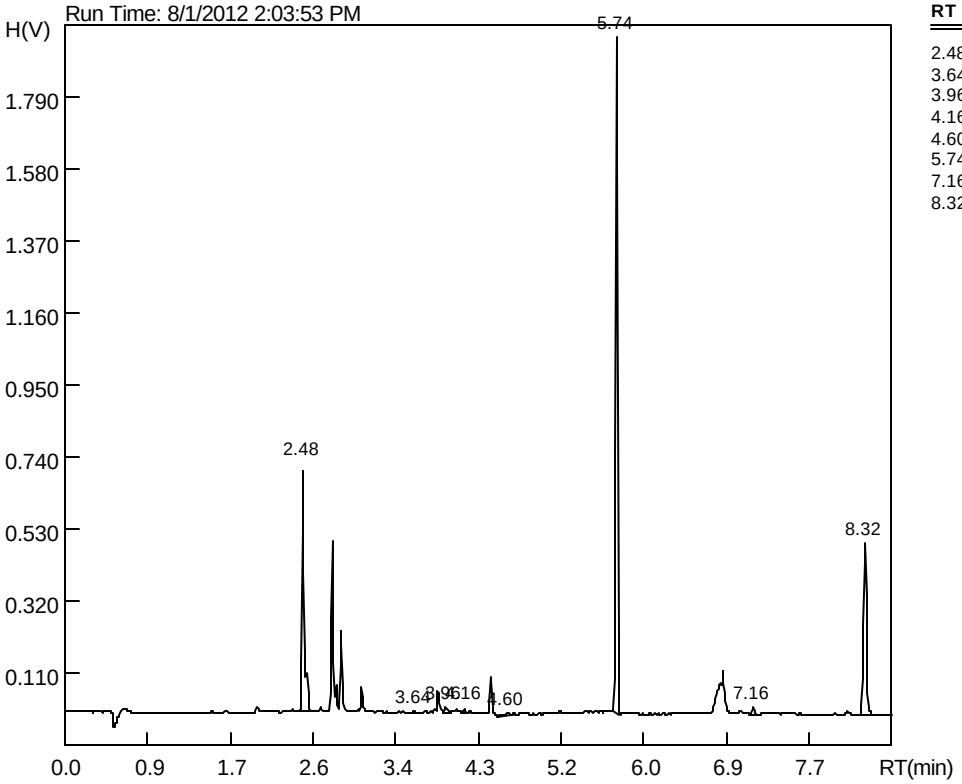
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120801\A120801B.09R.BND
Comments: s53360.07 20.2g s/1 ID:PA120801s01
Run Time: 8/1/2012 1:50:17 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	21.312	1351655
3.22	0.04	1016-1	-0.032	11843
3.62	0.00	1016-2	-0.045	14579
3.96	-0.03	1016-3	0.007	140188
4.16	0.01	1016-4	0.038	95742
5.83	0.01	1260-2	-0.039	16486
7.17	0.02	1260-5	-0.039	14615
8.33	0.00	DCBP	26.184	1092154

File Name: F:\GCECD.DAT\A120801\A120801B.10R.BND
Comments: s53360.08 20.1g s/1 ID:PA120801s01
Run Time: 8/1/2012 2:03:53 PM



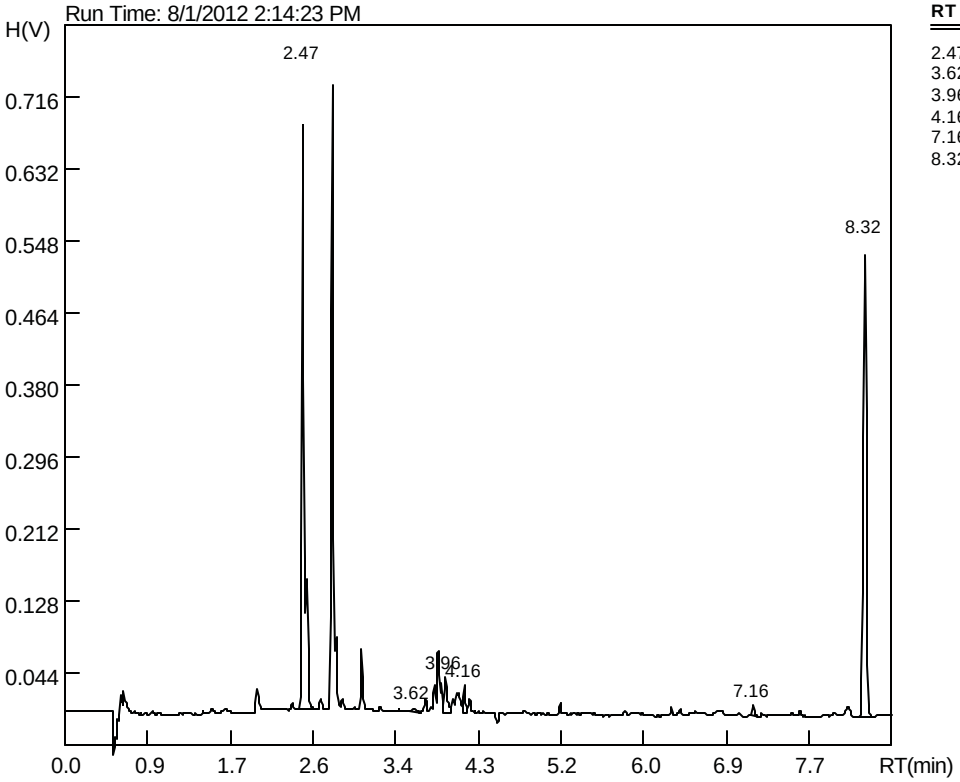
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	19.965	1270122
3.64	0.02	1016-2	-0.050	8664
3.96	-0.03	1016-3	-0.027	32152
4.16	0.01	1016-4	-0.033	13661
4.60	-0.03	1016-5	-0.032	30424
5.74	0.00	1260-1	1.137	2376815
7.16	0.02	1260-5	-0.031	30435
8.32	0.00	DCBP	24.993	1045399

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

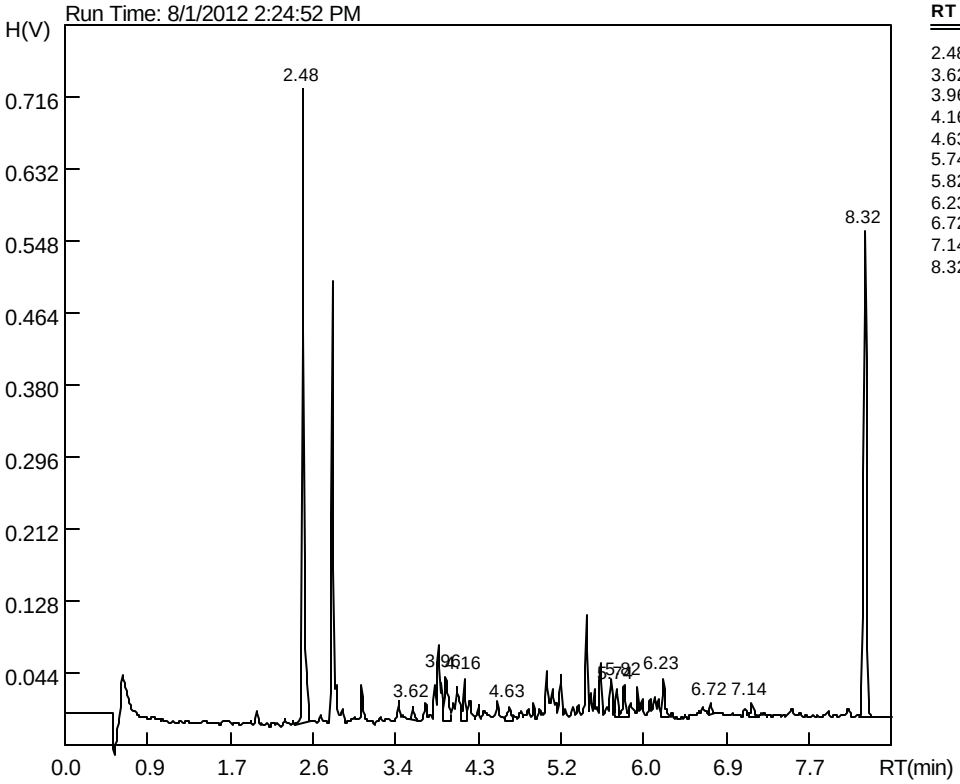
Analytical Batch: a120801.4

File Name: F:\GCECD.DAT\A120801\A120801B.11R.BND
Comments: s53360.09 20.2g s/1 ID:PA120801s01
Run Time: 8/1/2012 2:14:23 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	21.836	1383326
3.62	0.00	1016-2	-0.047	11842
3.96	-0.03	1016-3	-0.011	82246
4.16	0.01	1016-4	-0.001	50968
7.16	0.02	1260-5	-0.037	17322
8.32	-0.01	DCBP	27.453	1141959

File Name: F:\GCECD.DAT\A120801\A120801B.12R.BND
Comments: s53360.10 20.2g s/1 ID:PA120801s01
Run Time: 8/1/2012 2:24:52 PM



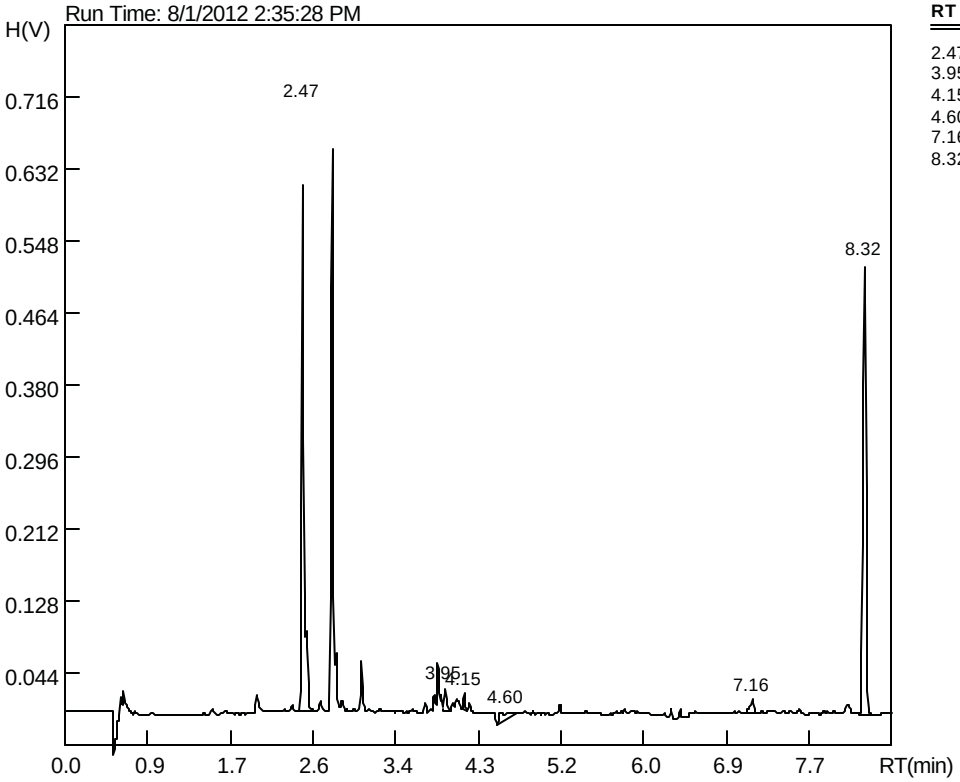
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	18.003	1151455
3.62	0.00	1016-2	-0.035	29152
3.96	-0.03	1016-3	0.006	136139
4.16	0.01	1016-4	0.036	93191
4.63	0.00	1016-5	-0.021	43742
5.74	0.00	1260-1	-0.020	57291
5.82	0.00	1260-2	-0.008	81502
6.23	0.00	1260-3	-0.013	72845
6.72	0.00	1260-4	-0.018	20107
7.14	0.00	1260-5	-0.029	32482
8.32	0.00	DCBP	28.074	1166344

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

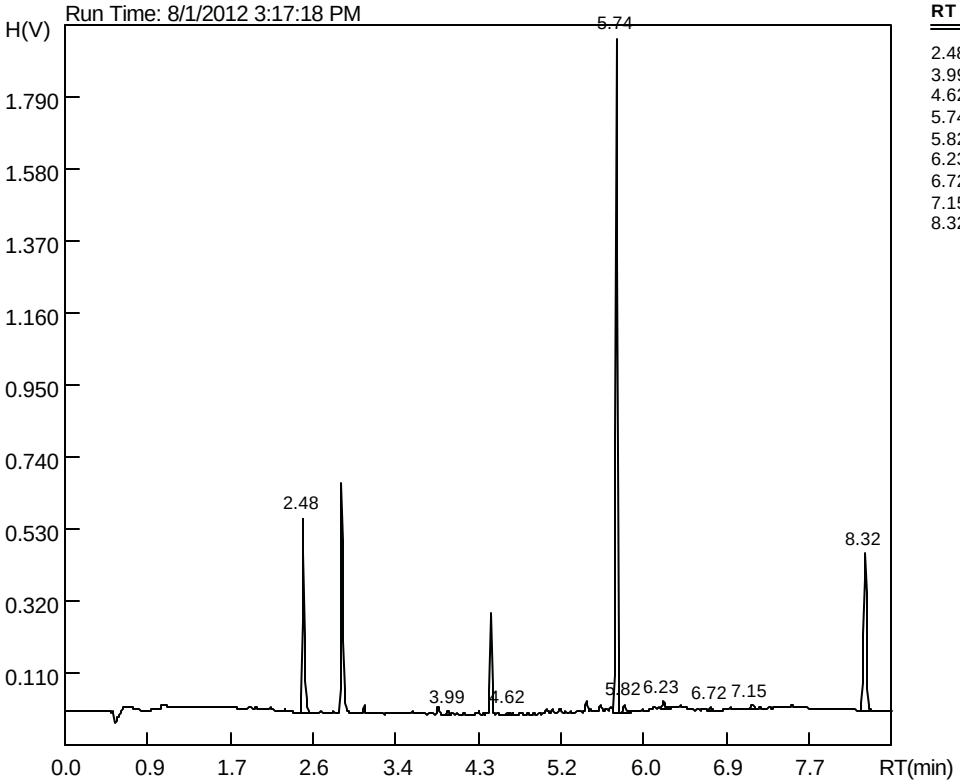
Analytical Batch: a120801.4

File Name: F:\GCECD.DAT\A120801\A120801B.13R.BND
Comments: s53360.11 20.1g s/1 ID:PA120801s01
Run Time: 8/1/2012 2:35:28 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	18.924	1207155
3.95	-0.03	1016-3	-0.023	44872
4.15	0.01	1016-4	-0.024	23644
4.60	-0.03	1016-5	0.003	71422
7.16	0.01	1260-5	-0.023	45276
8.32	-0.01	DCBP	25.917	1081675

File Name: F:\GCECD.DAT\A120801\A120801B.17R.BND
Comments: s53360.03 20.0g s/1 C ID:PA120801s01
Run Time: 8/1/2012 3:17:18 PM



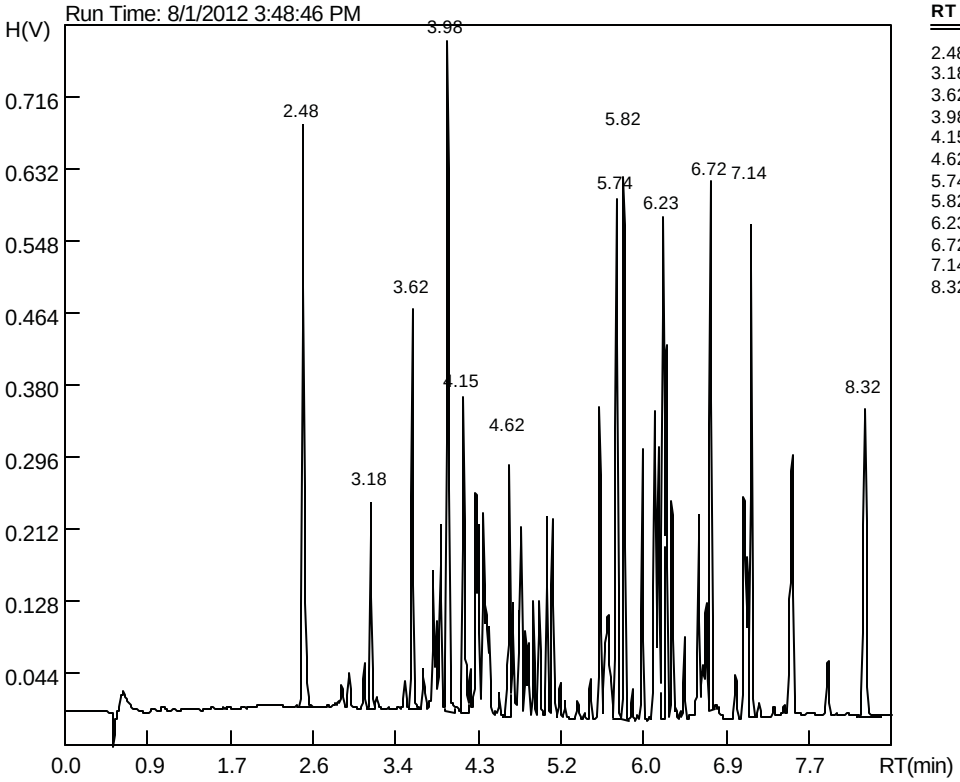
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	14.129	917055
3.99	0.00	1016-3	-0.033	15347
4.62	0.00	1016-5	-0.044	17368
5.74	0.00	1260-1	1.086	2274653
5.82	0.00	1260-2	-0.028	38870
6.23	0.00	1260-3	-0.022	55149
6.72	0.00	1260-4	-0.021	12975
7.15	0.00	1260-5	-0.033	26479
8.32	0.00	DCBP	22.169	934549

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

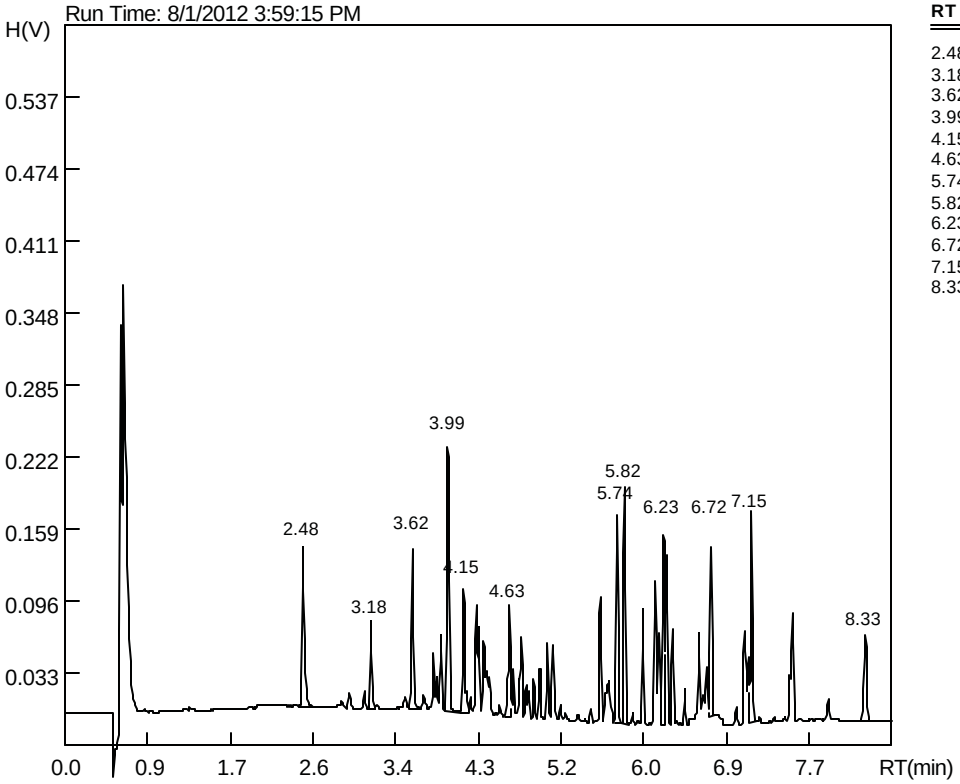
Analytical Batch: a120801.4

File Name: F:\GCECD.DAT\A120801\A120801B.20R.BND
Comments: sLCS-Al.01 0.5ppm ID:Cleanup
Run Time: 8/1/2012 3:48:46 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	18.432	1177415
3.18	0.00	1016-1	0.459	352021
3.62	0.00	1016-2	0.416	673919
3.98	0.00	1016-3	0.431	1480328
4.15	0.00	1016-4	0.432	554130
4.62	0.00	1016-5	0.336	455612
5.74	-0.01	1260-1	0.382	863470
5.82	0.00	1260-2	0.375	878283
6.23	0.00	1260-3	0.386	899855
6.72	0.00	1260-4	0.357	810170
7.14	-0.01	1260-5	0.372	818865
8.32	-0.01	DCBP	17.535	752652

File Name: F:\GCECD.DAT\A120801\A120801B.21R.BND
Comments: ss1660.01 0.1ppm 7/23/12
Run Time: 8/1/2012 3:59:15 PM



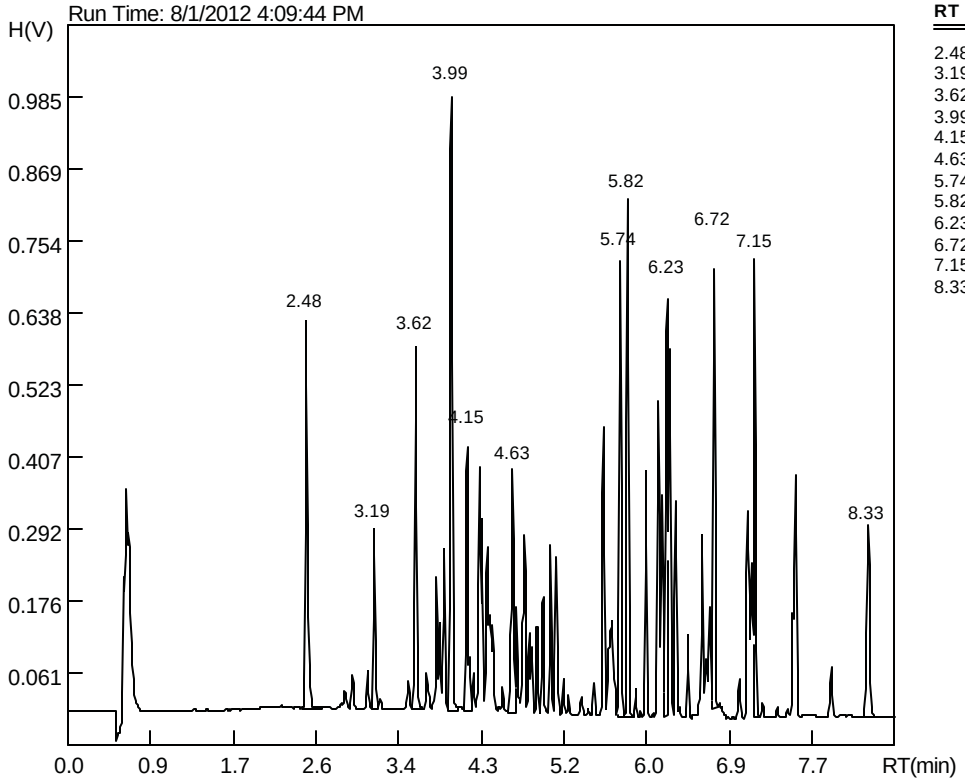
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	3.244	258410
3.18	0.00	1016-1	0.103	105244
3.62	0.00	1016-2	0.105	228975
3.99	0.00	1016-3	0.105	450857
4.15	0.00	1016-4	0.103	170947
4.63	0.00	1016-5	0.084	165282
5.74	0.00	1260-1	0.083	264537
5.82	0.00	1260-2	0.084	273197
6.23	0.00	1260-3	0.078	261896
6.72	0.00	1260-4	0.086	238690
7.15	0.00	1260-5	0.077	241233
8.33	0.00	DCBP	2.306	154850

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120801.4

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120801\A120801B.22R.BND
Comments: SC1660.02 0.5ppm 7/23/12
Run Time: 8/1/2012 4:09:44 PM



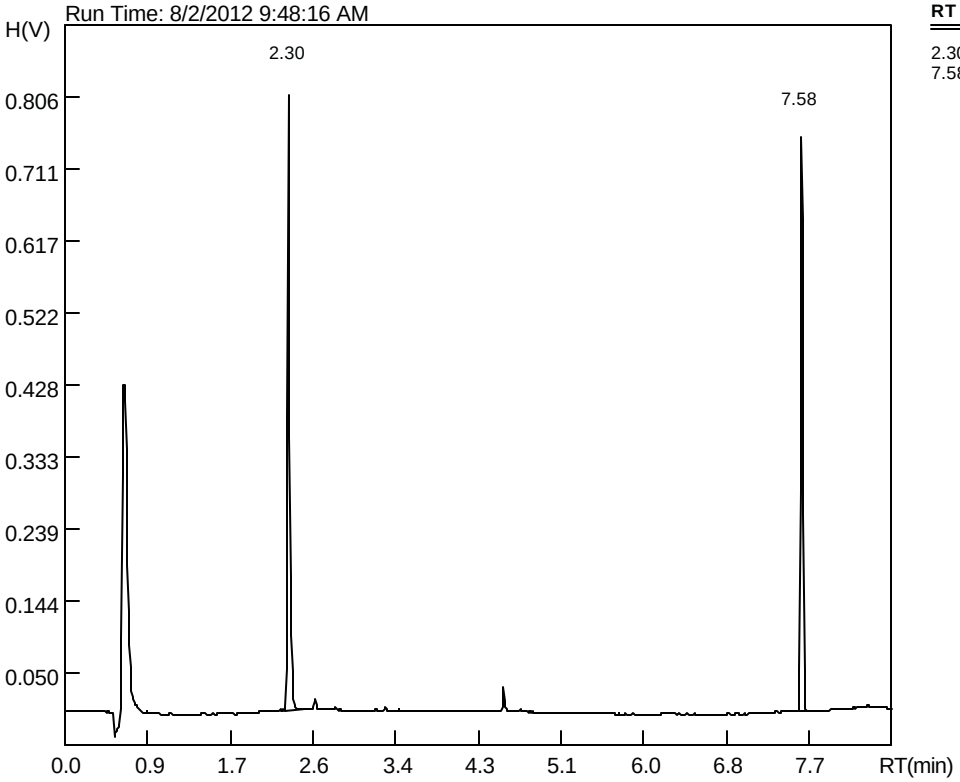
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	16.780	1077441
3.19	0.00	1016-1	0.570	428624
3.62	0.00	1016-2	0.554	871189
3.99	0.00	1016-3	0.532	1797772
4.15	0.00	1016-4	0.547	687147
4.63	0.00	1016-5	0.530	679547
5.74	0.00	1260-1	0.484	1068697
5.82	0.00	1260-2	0.483	1102646
6.23	0.00	1260-3	0.463	1060110
6.72	0.00	1260-4	0.449	1003165
7.15	0.00	1260-5	0.460	991849
8.33	0.00	DCBP	14.485	632916

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

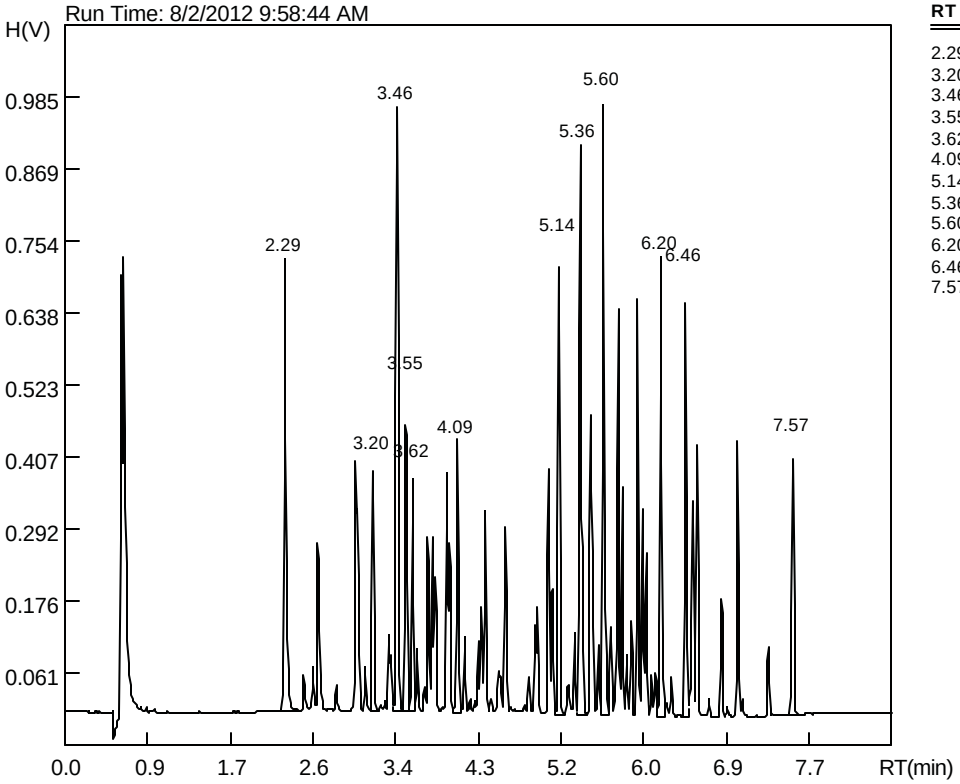
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.01R.BND
Comments: SBLK-R.01
Run Time: 8/2/2012 9:48:16 AM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	22.282	1417821
7.58	0.00	DCBP	34.779	1090188

File Name: F:\GCECD.DAT\A120802\A120802.02R.BND
Comments: SC1660.01 0.5ppm 7/23/12
Run Time: 8/2/2012 9:58:44 AM



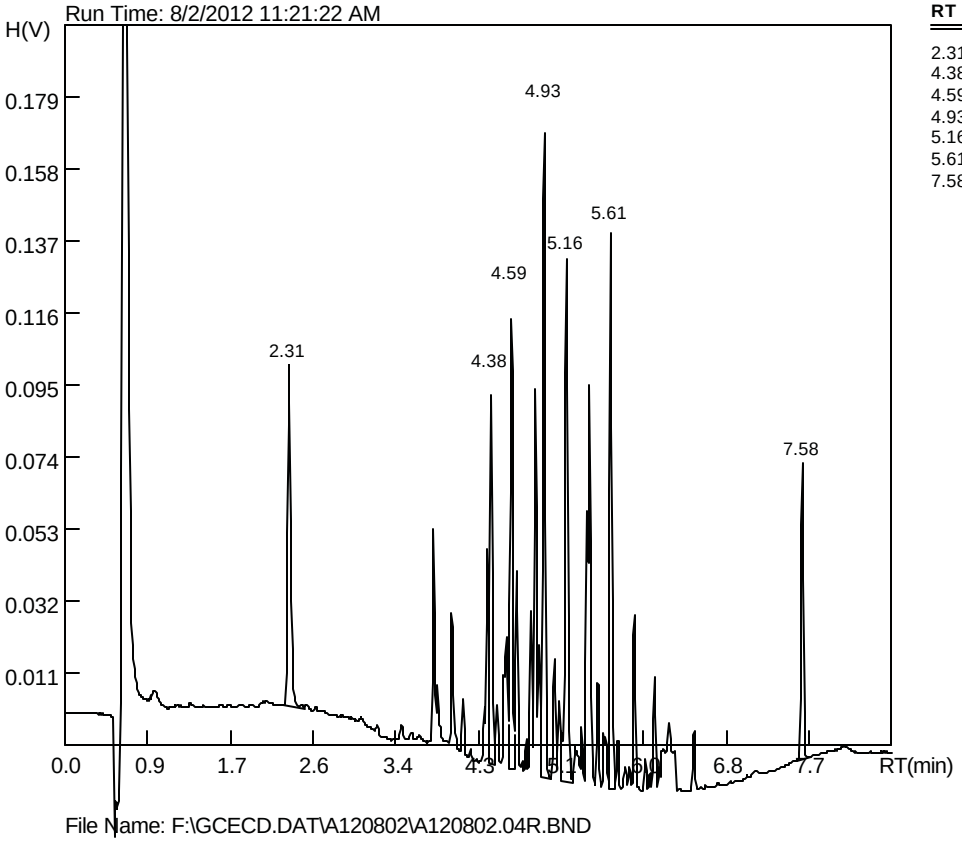
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	16.649	1089402
3.20	0.00	1016-1	0.551	560127
3.46	0.00	1016-2	0.544	1762206
3.55	0.00	1016-3	0.540	727269
3.62	0.00	1016-4	0.535	524106
4.09	0.00	1016-5	0.533	676346
5.14	0.00	1260-1	0.497	1012733
5.36	0.00	1260-2	0.497	1498073
5.60	0.00	1260-3	0.491	1484961
6.20	0.00	1260-4	0.469	1026163
6.46	0.00	1260-5	0.451	1022085
7.57	0.00	DCBP	12.825	636485

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

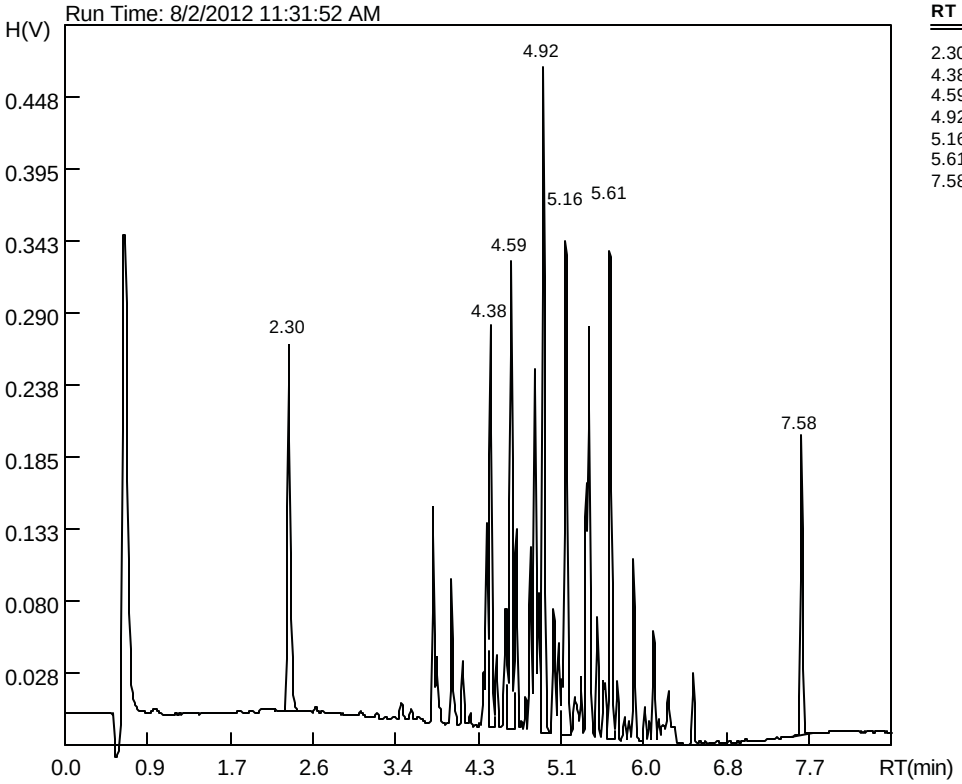
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.03R.BND
Comments: ss1254.01 0.1ppm 8/2/12
Run Time: 8/2/2012 11:21:22 AM



RT	dT	Name	Amt.	Area
2.31	0.02	TCX	5.781	237533
4.38	0.01	1254-1	0.081	173646
4.59	0.01	1254-2	0.079	246360
4.93	0.01	1254-3	0.078	288864
5.16	0.01	1254-4	0.077	297271
5.61	0.01	1254-5	0.074	259724
7.58	0.01	DCBP	2.956	127504

File Name: F:\GCECD.DAT\A120802\A120802.04R.BND
Comments: ss1254.02 0.3ppm 8/2/12
Run Time: 8/2/2012 11:31:52 AM



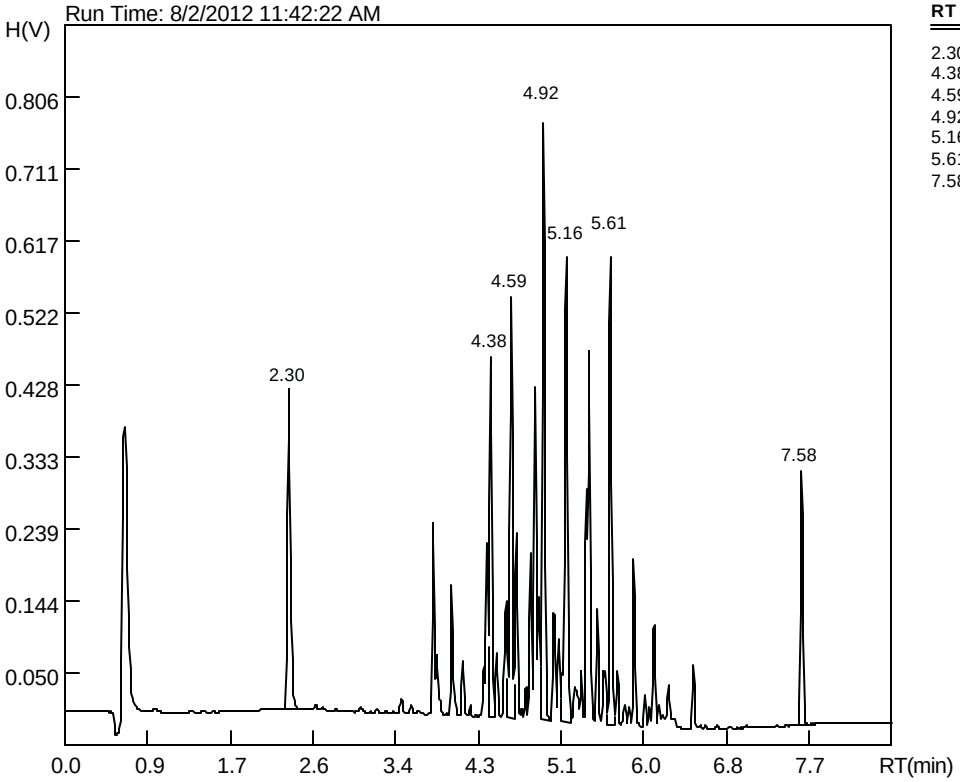
RT	dT	Name	Amt.	Area
2.30	0.02	TCX	16.567	603000
4.38	0.00	1254-1	0.297	448716
4.59	0.00	1254-2	0.289	620730
4.92	0.00	1254-3	0.283	740991
5.16	0.00	1254-4	0.280	772490
5.61	0.00	1254-5	0.273	670360
7.58	0.00	DCBP	10.239	309358

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

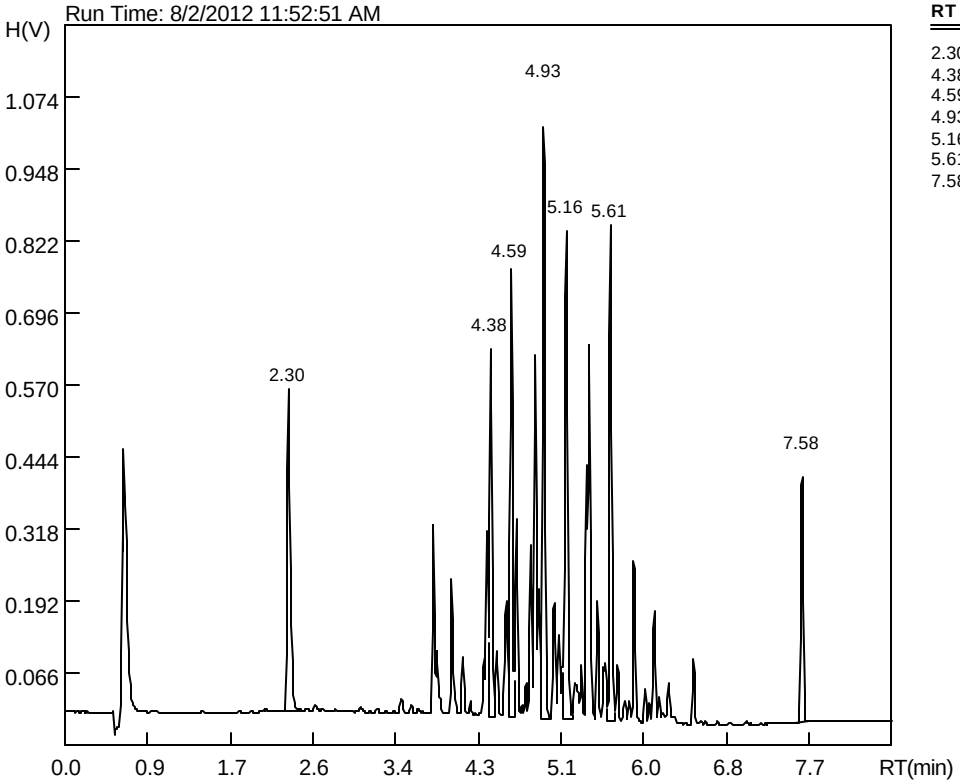
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.05R.BND
Comments: ss1254.03 0.5ppm 8/2/12
Run Time: 8/2/2012 11:42:22 AM



RT	dT	Name	Amt.	Area
2.30	0.02	TCX	27.703	980363
4.38	0.01	1254-1	0.510	720209
4.59	0.01	1254-2	0.508	1012258
4.92	0.00	1254-3	0.494	1206359
5.16	0.01	1254-4	0.487	1254734
5.61	0.00	1254-5	0.476	1089334
7.58	0.00	DCBP	17.579	492621

File Name: F:\GCECD.DAT\A120802\A120802.06R.BND
Comments: ss1254.04 0.7ppm 8/2/12
Run Time: 8/2/2012 11:52:51 AM



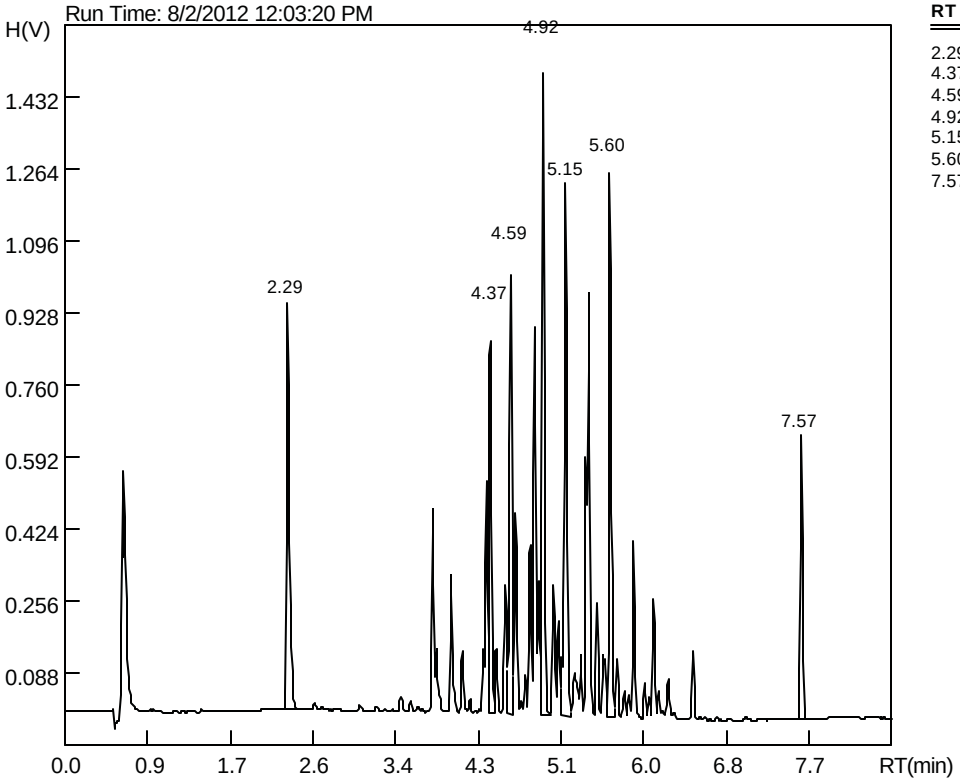
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	38.551	1347920
4.38	0.01	1254-1	0.733	1003509
4.59	0.01	1254-2	0.727	1403177
4.93	0.01	1254-3	0.705	1671419
5.16	0.01	1254-4	0.657	1651789
5.61	0.01	1254-5	0.691	1533090
7.58	0.01	DCBP	24.896	675333

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

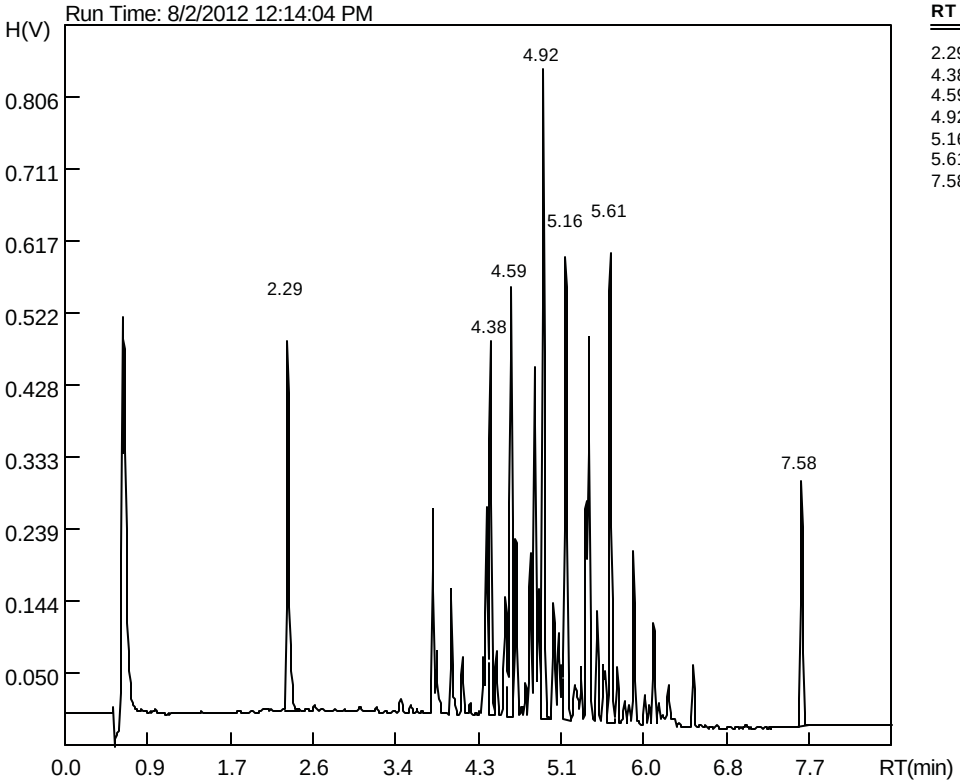
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.07R.BND
Comments: ss1254.05 1.0ppm 8/2/12
Run Time: 8/2/2012 12:03:20 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	54.287	1881137
4.37	0.00	1254-1	1.069	1430922
4.59	0.00	1254-2	1.042	1965084
4.92	0.00	1254-3	1.025	2375762
5.15	0.00	1254-4	1.019	2498682
5.60	0.00	1254-5	0.989	2150184
7.57	0.00	DCBP	35.646	943758

File Name: F:\GCECD.DAT\A120802\A120802.08R.BND
Comments: ss1254.06 0.5ppm 8/2/12
Run Time: 8/2/2012 12:14:04 PM



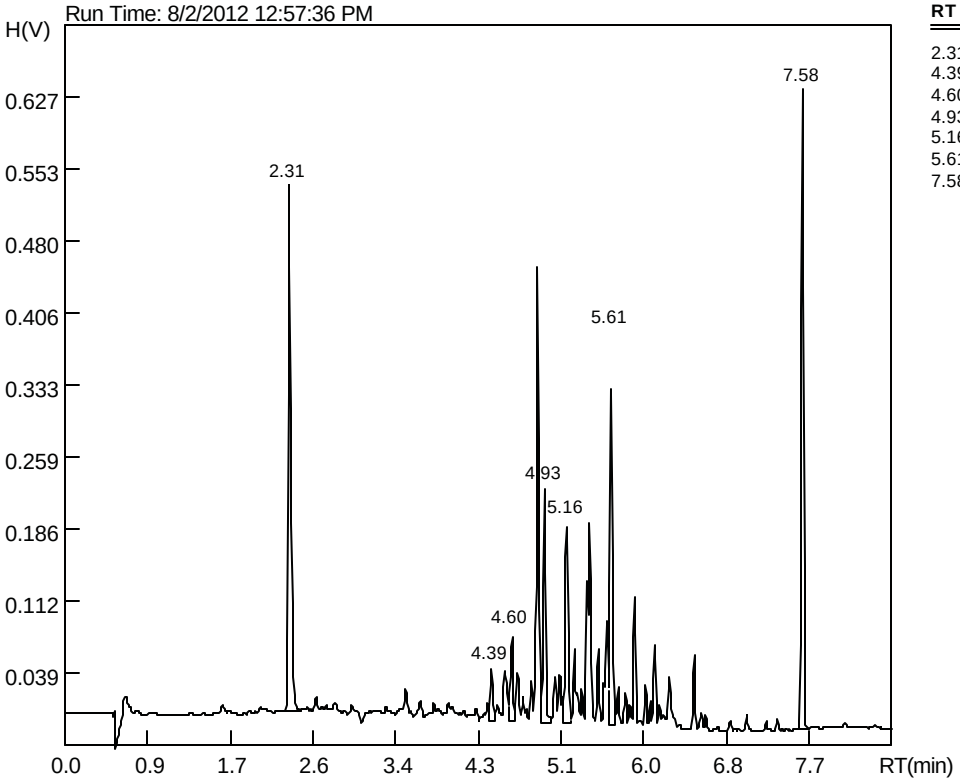
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	12.515	821725
4.38	0.00	1254-1	0.467	681768
4.59	0.00	1254-2	0.476	965229
4.92	0.00	1254-3	0.469	1138343
5.16	0.00	1254-4	0.446	1116272
5.61	0.00	1254-5	0.473	1041608
7.58	0.00	DCBP	14.524	477134

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

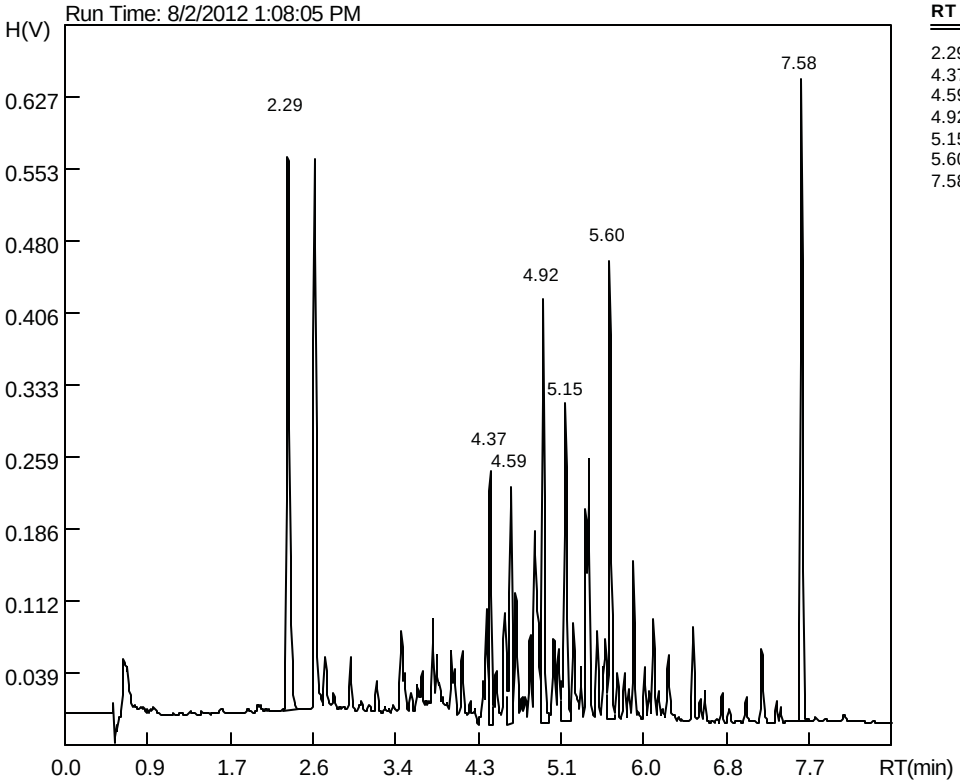
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.09R.BND
Comments: s53360.12 20.3g s/1 C ID:PA120801s01
Run Time: 8/2/2012 12:57:36 PM



RT	dT	Name	Amt.	Area
2.31	0.02	TCX	17.423	1121246
4.39	0.01	1254-1	0.040	84729
4.60	0.01	1254-2	0.062	172245
4.93	0.01	1254-3	0.137	368389
5.16	0.01	1254-4	0.159	424822
5.61	0.01	1254-5	0.289	653894
7.58	0.01	DCBP	29.663	935360

File Name: F:\GCECD.DAT\A120802\A120802.10R.BND
Comments: s53360.13 20.0g s/1 ID:PA120801s01
Run Time: 8/2/2012 1:08:05 PM



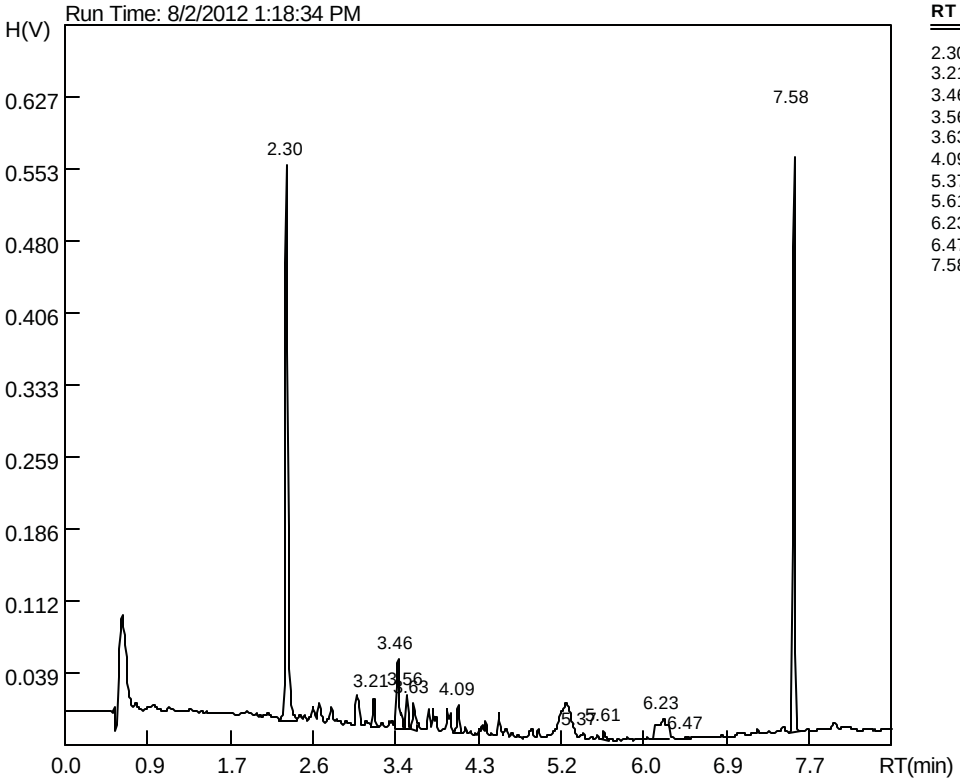
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.237	1293031
4.37	0.00	1254-1	0.281	422115
4.59	0.00	1254-2	0.204	443037
4.92	0.00	1254-3	0.260	653159
5.15	0.00	1254-4	0.275	703777
5.60	0.00	1254-5	0.338	756466
7.58	0.00	DCBP	30.369	956719

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

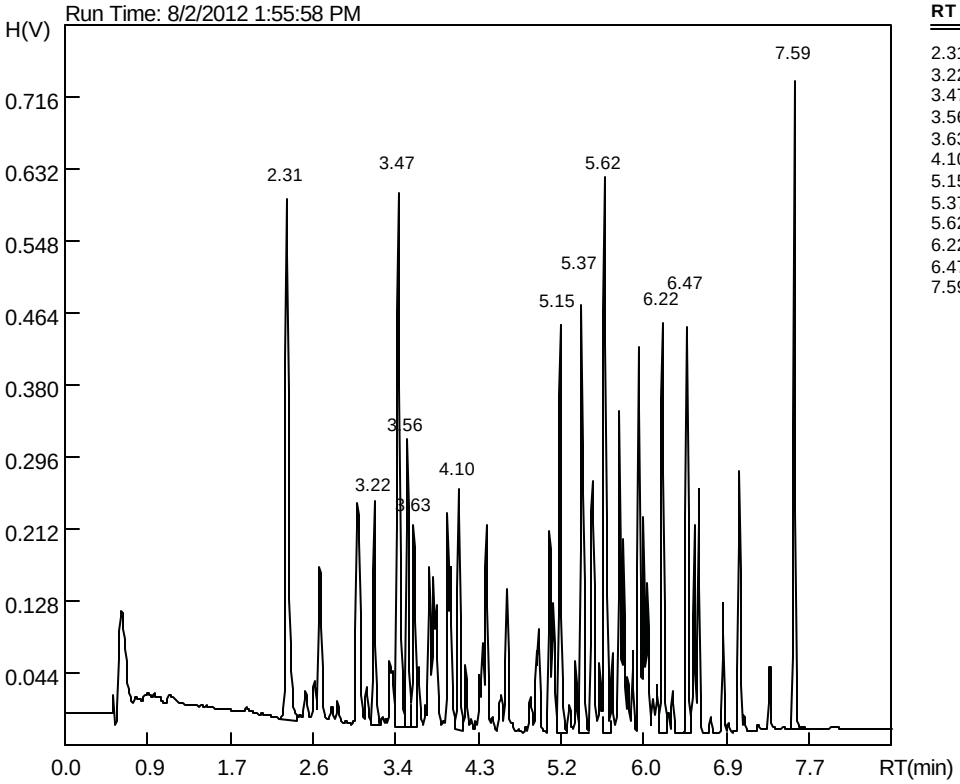
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.11R.BND
Comments: s53360.04 20.2g s/1 dx ID:PA120801s01
Run Time: 8/2/2012 1:18:34 PM



RT	dT	Name	Amt.	Area
2.30	0.02	TCX	16.959	1108348
3.21	0.01	1016-1	0.001	50475
3.46	0.01	1016-2	0.003	165006
3.56	0.01	1016-3	-0.002	58158
3.63	0.01	1016-4	0.021	56855
4.09	0.00	1016-5	-0.001	55900
5.37	0.01	1260-2	-0.052	1809
5.61	0.01	1260-3	-0.046	15708
6.23	0.03	1260-4	0.026	142850
6.47	0.01	1260-5	-0.051	2433
7.58	0.01	DCBP	19.325	922481

File Name: F:\GCECD.DAT\A120802\A120802.12R.BND
Comments: s53360.05 MS 20.1g s/1 dx ID:PA120801s01
Run Time: 8/2/2012 1:55:58 PM



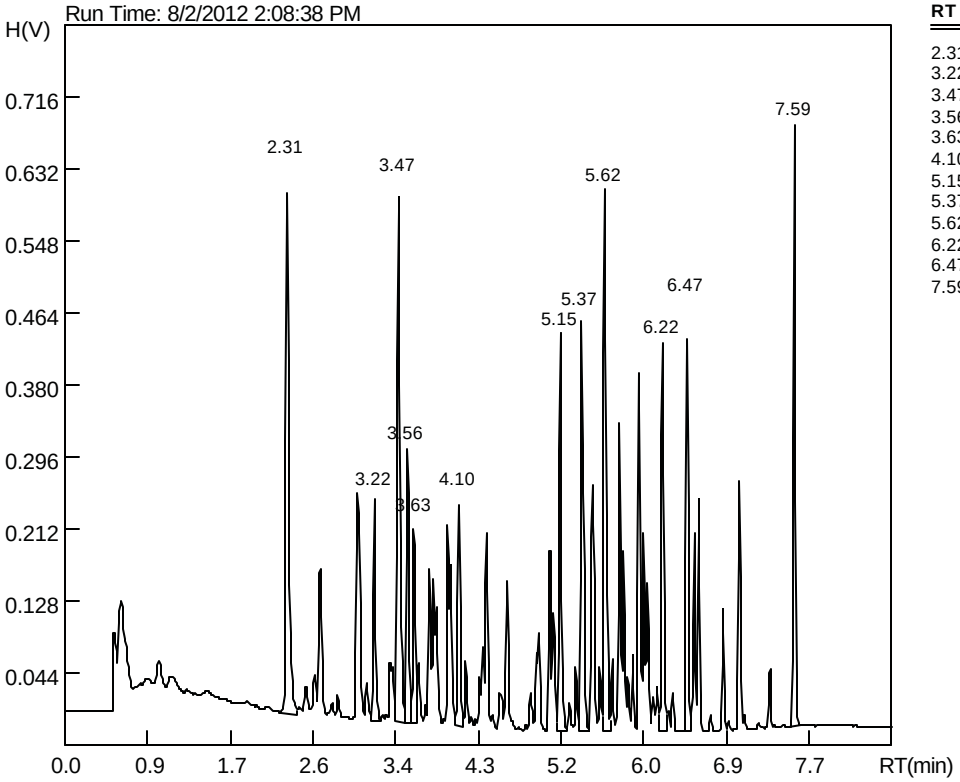
RT	dT	Name	Amt.	Area
2.31	0.02	TCX	22.687	1458564
3.22	0.01	1016-1	0.446	462721
3.47	0.01	1016-2	0.430	1425526
3.56	0.01	1016-3	0.422	581842
3.63	0.01	1016-4	0.442	439593
4.10	0.01	1016-5	0.415	538991
5.15	0.01	1260-1	0.392	818347
5.37	0.01	1260-2	0.363	1132421
5.62	0.01	1260-3	0.380	1181469
6.22	0.01	1260-4	0.372	832269
6.47	0.01	1260-5	0.360	835693
7.59	0.01	DCBP	24.314	1141952

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

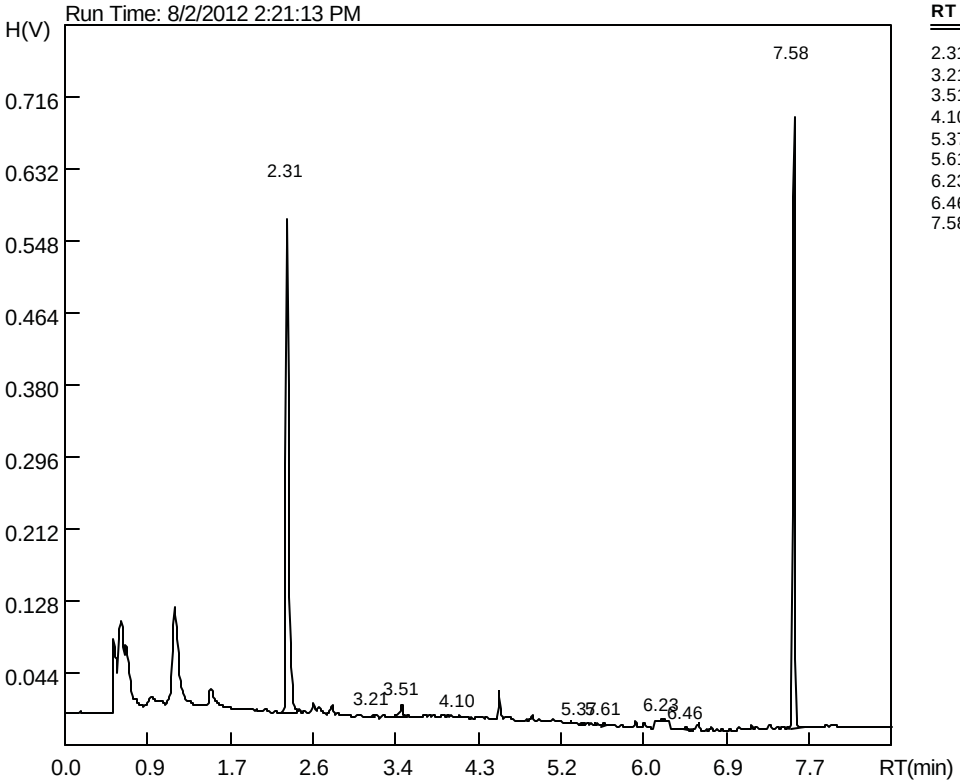
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.13R.BND
Comments: s53360.06 MSD 20.1g s/1 dx ID:PA120801s01
Run Time: 8/2/2012 2:08:38 PM



RT	dT	Name	Amt.	Area
2.31	0.02	TCX	22.088	1421957
3.22	0.01	1016-1	0.417	436159
3.47	0.01	1016-2	0.415	1380754
3.56	0.01	1016-3	0.401	555958
3.63	0.01	1016-4	0.401	402626
4.10	0.01	1016-5	0.392	512818
5.15	0.01	1260-1	0.370	777679
5.37	0.01	1260-2	0.342	1074824
5.62	0.01	1260-3	0.358	1121171
6.22	0.01	1260-4	0.343	775428
6.47	0.01	1260-5	0.336	787317
7.59	0.01	DCBP	22.817	1076083

File Name: F:\GCECD.DAT\A120802\A120802.14R.BND
Comments: s53360.02 20.1g s/1 dx ID:PA120801s01
Run Time: 8/2/2012 2:21:13 PM



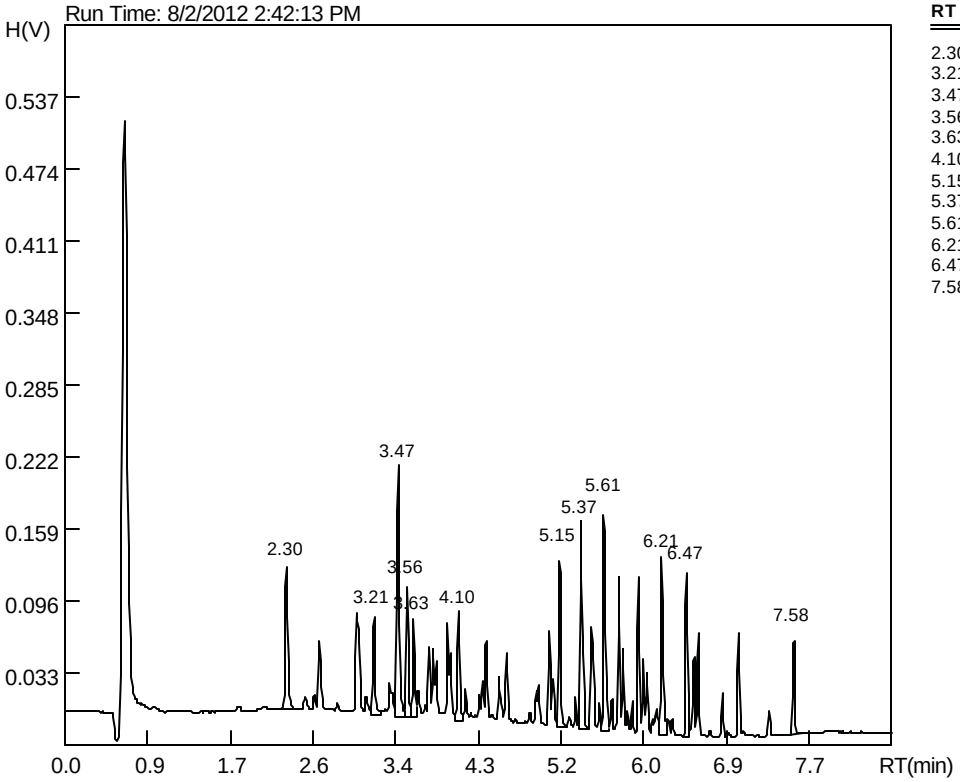
RT	dT	Name	Amt.	Area
2.31	0.02	TCX	19.892	1287672
3.21	0.01	1016-1	-0.050	2764
3.51	-0.04	1016-3	-0.021	34199
4.10	0.01	1016-5	-0.046	3083
5.37	0.01	1260-2	-0.051	4289
5.61	0.01	1260-3	-0.049	5421
6.23	0.02	1260-4	-0.044	4111
6.46	0.00	1260-5	-0.048	6940
7.58	0.01	DCBP	23.572	1109299

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

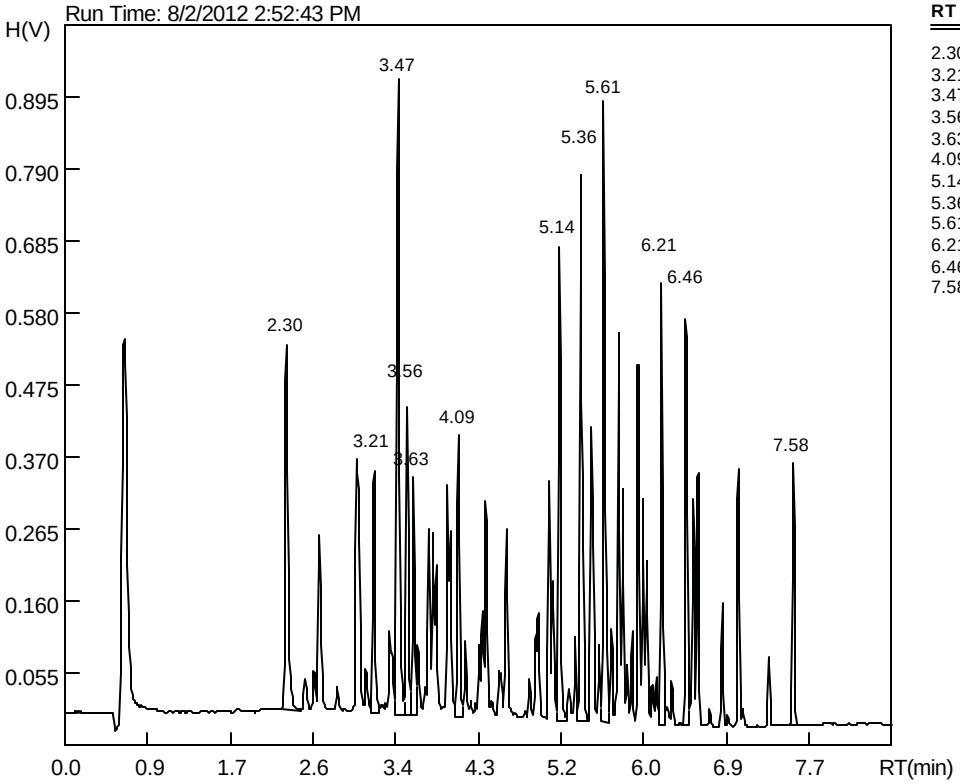
Analytical Batch: a120802.3

File Name: F:\GCECD.DAT\A120802\A120802.16R.BND
Comments: ss1660.01 0.1ppm 7/23/12
Run Time: 8/2/2012 2:42:13 PM



RT	dT	Name	Amt.	Area
2.30	0.02	TCX	2.857	246249
3.21	0.01	1016-1	0.106	147840
3.47	0.01	1016-2	0.094	435236
3.56	0.01	1016-3	0.099	182224
3.63	0.01	1016-4	0.103	131436
4.10	0.01	1016-5	0.097	169008
5.15	0.01	1260-1	0.075	233466
5.37	0.01	1260-2	0.072	338886
5.61	0.01	1260-3	0.067	323618
6.21	0.01	1260-4	0.083	256722
6.47	0.01	1260-5	0.057	220325
7.58	0.01	DCBP	1.370	132509

File Name: F:\GCECD.DAT\A120802\A120802.17R.BND
Comments: SC1660.02 0.5ppm 7/23/12
Run Time: 8/2/2012 2:52:43 PM



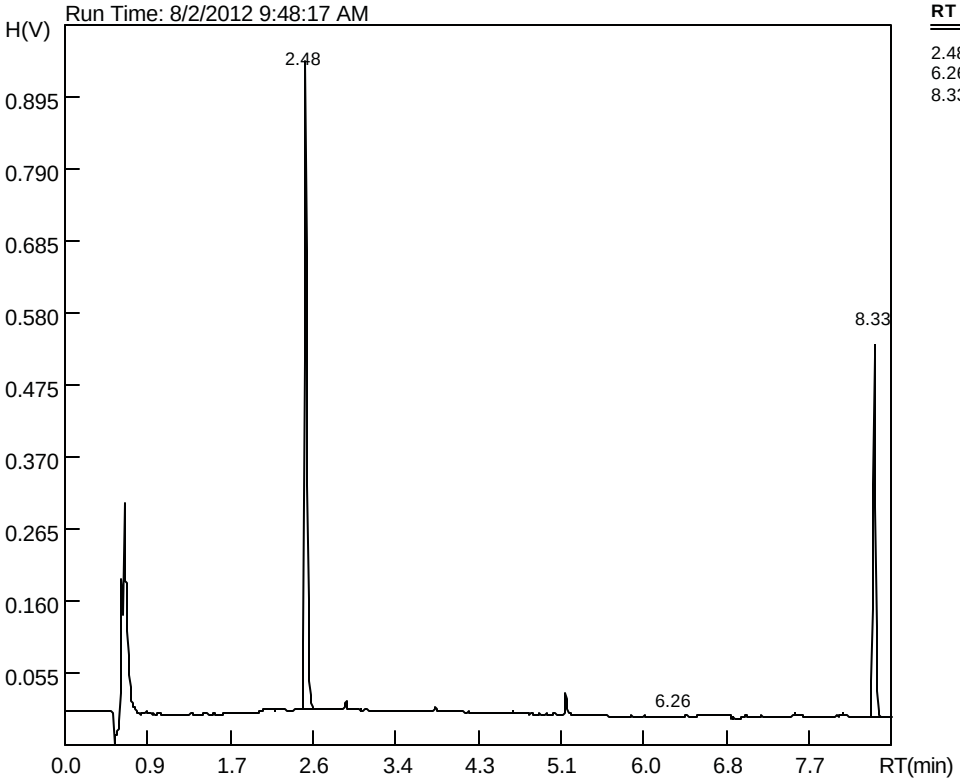
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	17.858	1163311
3.21	0.01	1016-1	0.614	618989
3.47	0.01	1016-2	0.586	1888686
3.56	0.01	1016-3	0.590	789036
3.63	0.01	1016-4	0.581	566735
4.09	0.01	1016-5	0.581	732230
5.14	0.00	1260-1	0.521	1055368
5.36	0.00	1260-2	0.503	1516233
5.61	0.01	1260-3	0.493	1489471
6.21	0.00	1260-4	0.463	1012906
6.46	0.00	1260-5	0.436	990796
7.58	0.00	DCBP	11.347	571437

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

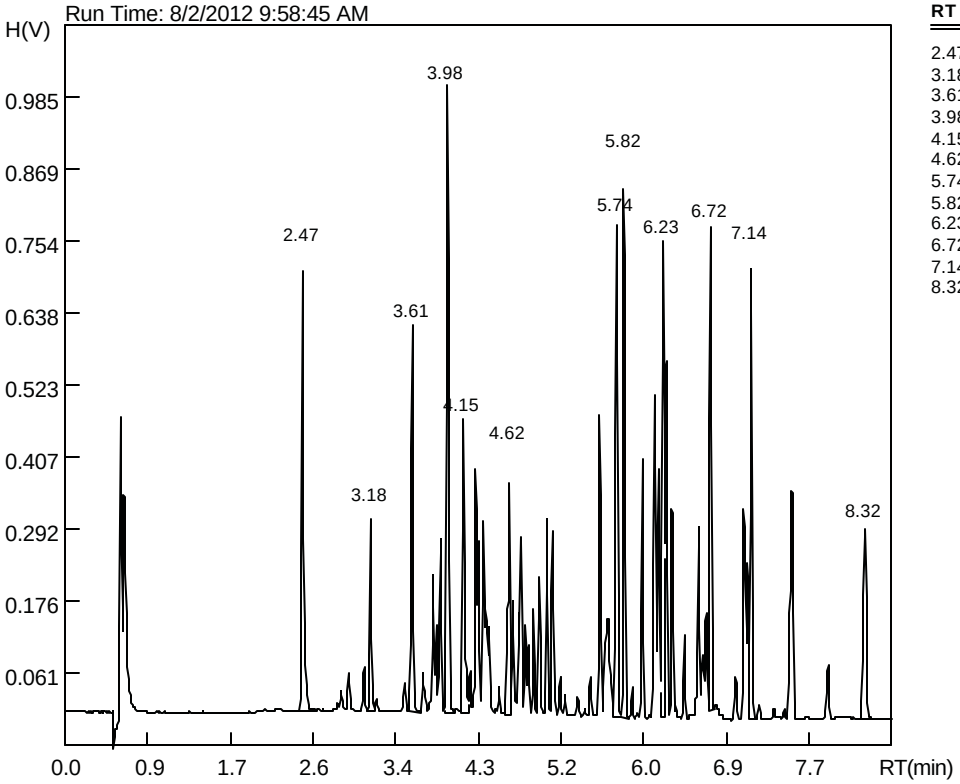
Analytical Batch: a120802.4

File Name: F:\GCECD.DAT\A120802\A120802B.01R.BND
Comments: SBLK-R.01
Run Time: 8/2/2012 9:48:17 AM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	23.584	1511768
6.26	0.04	1254-5	-0.020	5612
8.33	0.00	DCBP	35.840	1102230

File Name: F:\GCECD.DAT\A120802\A120802B.02R.BND
Comments: SC1660.01 0.5ppm 7/23/12
Run Time: 8/2/2012 9:58:45 AM

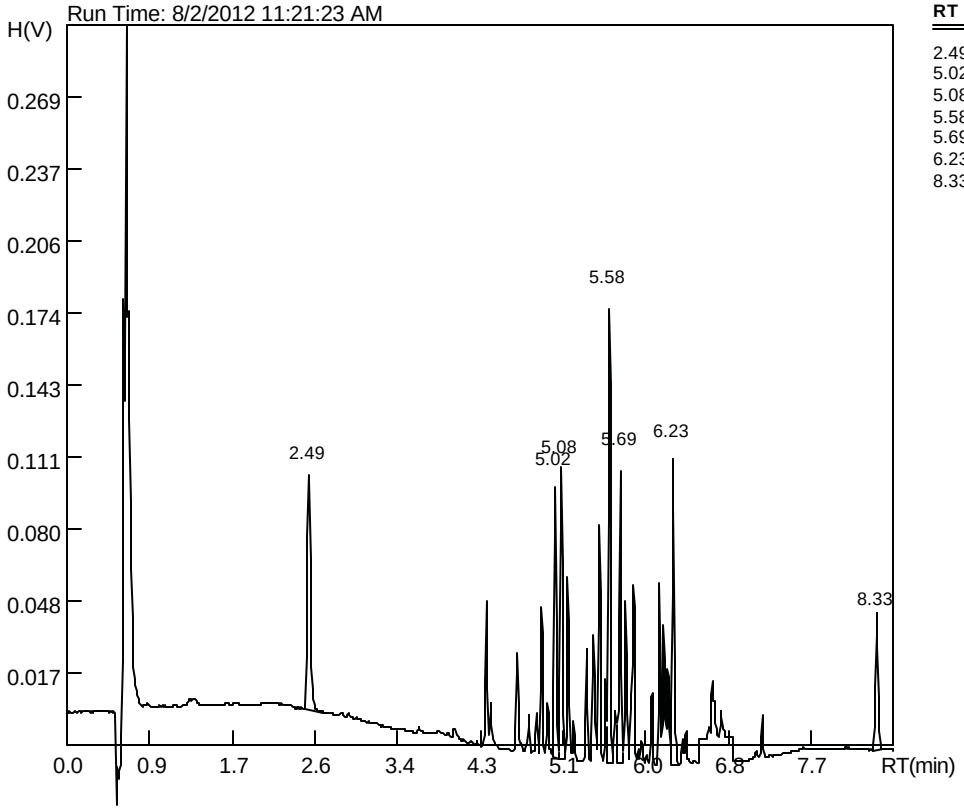


RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.262	1106573
3.18	0.00	1016-1	0.593	444509
3.61	0.00	1016-2	0.575	901488
3.98	0.00	1016-3	0.551	1857516
4.15	0.00	1016-4	0.571	715002
4.62	-0.01	1016-5	0.566	721458
5.74	-0.01	1260-1	0.517	1133239
5.82	0.00	1260-2	0.512	1164185
6.23	0.00	1260-3	0.490	1116938
6.72	0.00	1260-4	0.472	1051737
7.14	-0.01	1260-5	0.479	1029745
8.32	-0.01	DCBP	14.950	651182

GC/ECD Analysis: Raw Chromatographic Data

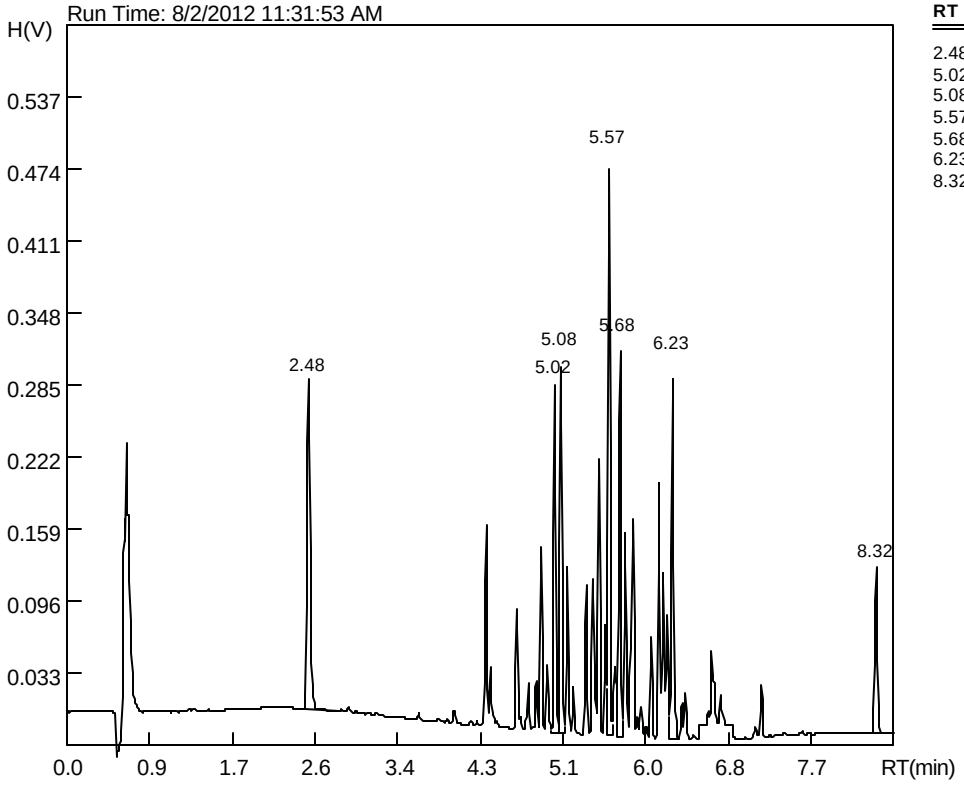
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120802.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120802\A120802B.03R.BND
Comments: ss1254.01 0.1ppm 8/2/12
Run Time: 8/2/2012 11:21:23 AM



RT	dT	Name	Amt.	Area
2.49	0.01	TCX	3.786	228438
5.02	0.01	1254-1	0.057	177023
5.08	0.01	1254-2	0.060	214044
5.58	0.01	1254-3	0.152	285523
5.69	0.01	1254-4	0.073	208860
6.23	0.01	1254-5	0.056	214963
8.33	0.01	DCBP	2.246	120681

File Name: F:\GCECD.DAT\A120802\A120802B.04R.BND
Comments: ss1254.02 0.3ppm 8/2/12
Run Time: 8/2/2012 11:31:53 AM



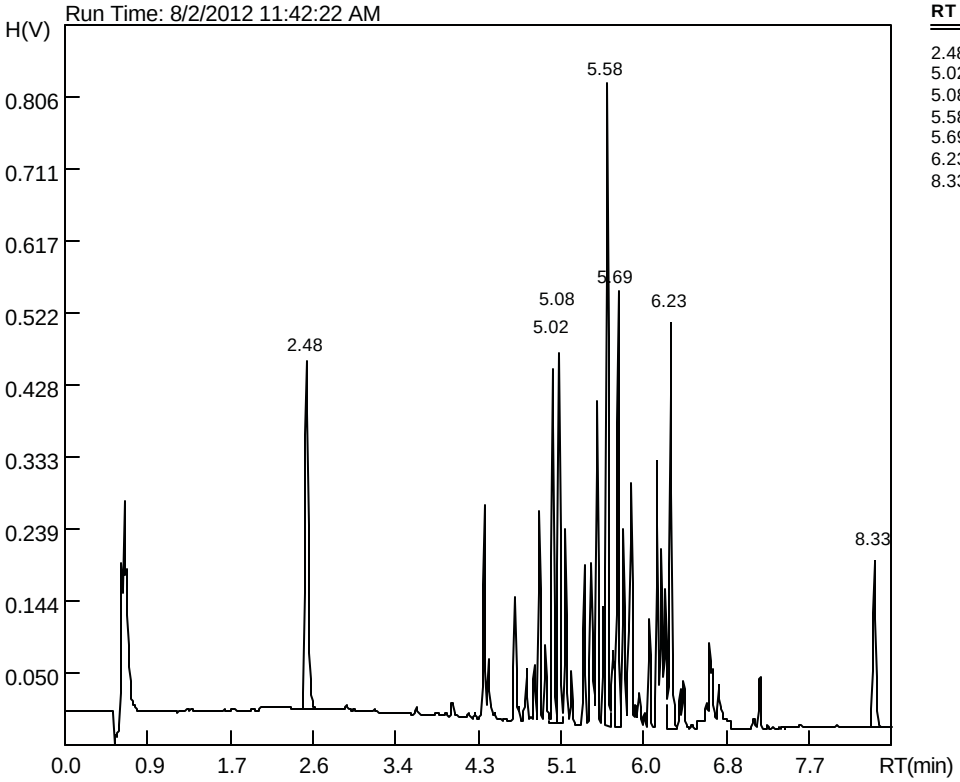
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	12.298	603380
5.02	0.00	1254-1	0.204	439606
5.08	0.00	1254-2	0.208	527110
5.57	0.00	1254-3	0.444	720961
5.68	0.00	1254-4	0.228	531348
6.23	0.00	1254-5	0.188	538400
8.32	0.00	DCBP	7.904	296275

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

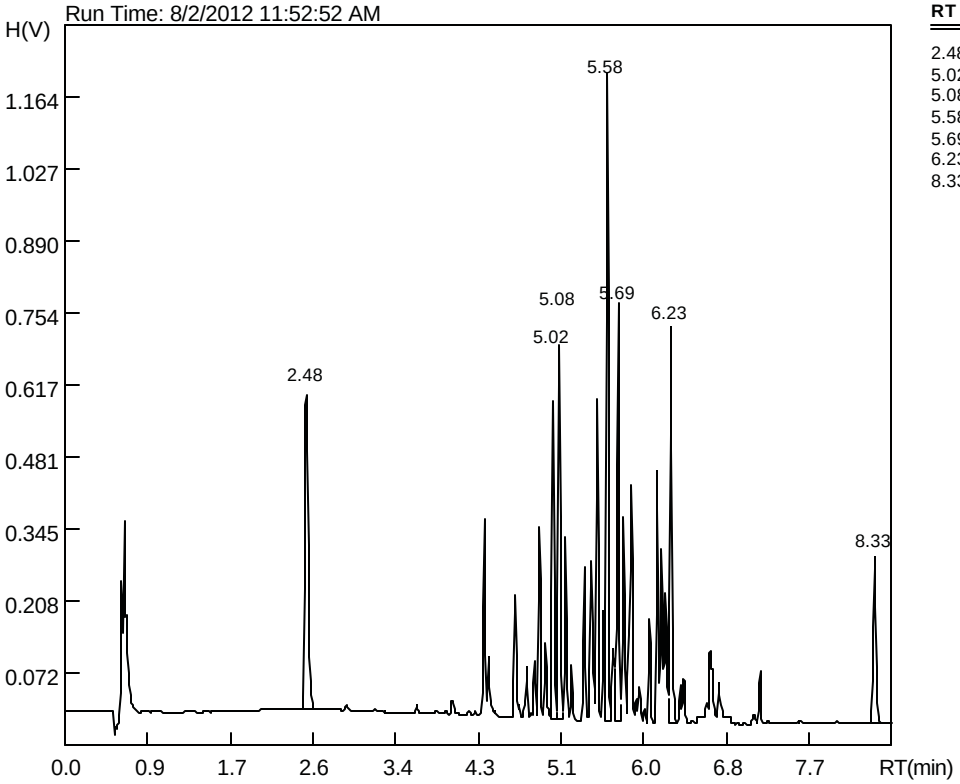
Analytical Batch: a120802.4

File Name: F:\GCECD.DAT\A120802\A120802B.05R.BND
Comments: ss1254.03 0.5ppm 8/2/12
Run Time: 8/2/2012 11:42:22 AM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	20.833	979376
5.02	0.00	1254-1	0.357	711980
5.08	0.01	1254-2	0.359	847583
5.58	0.01	1254-3	0.748	1172611
5.69	0.00	1254-4	0.384	854016
6.23	0.00	1254-5	0.325	872939
8.33	0.00	DCBP	13.794	479096

File Name: F:\GCECD.DAT\A120802\A120802B.06R.BND
Comments: ss1254.04 0.7ppm 8/2/12
Run Time: 8/2/2012 11:52:52 AM



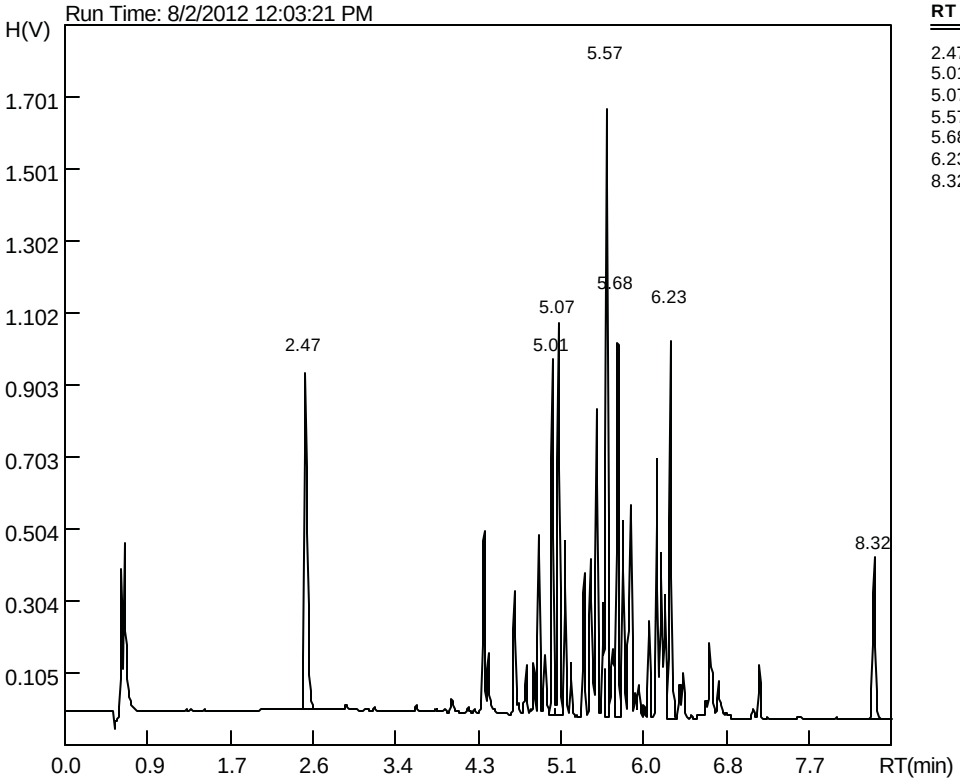
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	29.247	1350027
5.02	0.01	1254-1	0.511	987752
5.08	0.01	1254-2	0.515	1176618
5.58	0.01	1254-3	1.070	1651974
5.69	0.00	1254-4	0.548	1193436
6.23	0.00	1254-5	0.464	1213431
8.33	0.01	DCBP	19.660	661158

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

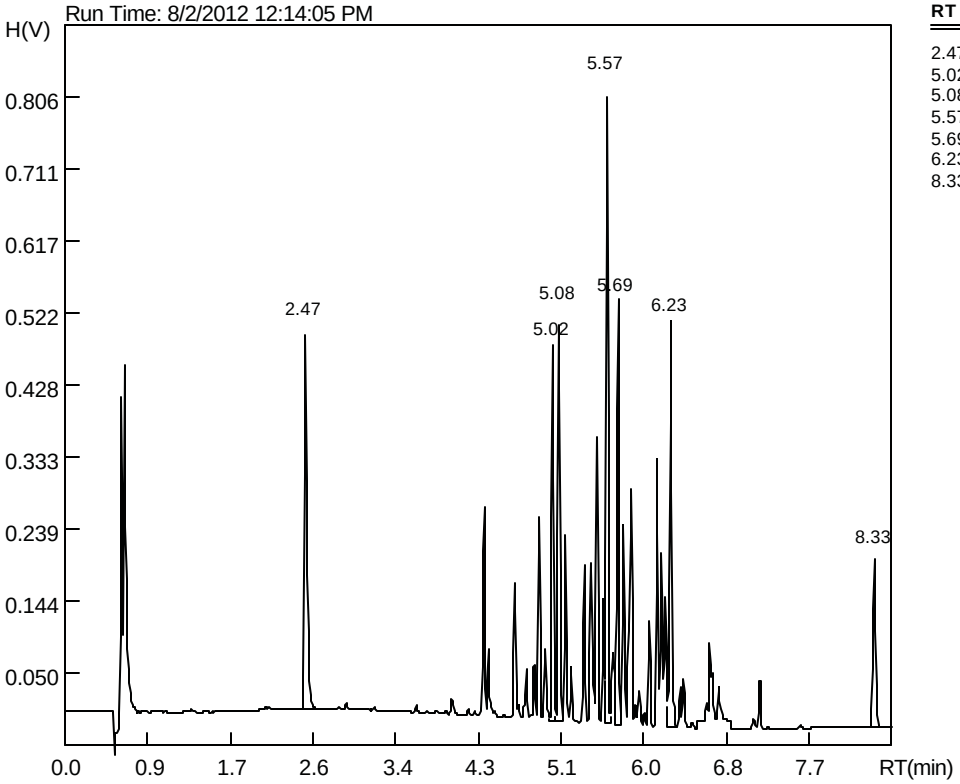
Analytical Batch: a120802.4

File Name: F:\GCECD.DAT\A120802\A120802B.07R.BND
Comments: ss1254.05 1.0ppm 8/2/12
Run Time: 8/2/2012 12:03:21 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	41.981	1910966
5.01	0.00	1254-1	0.743	1401334
5.07	0.00	1254-2	0.748	1670256
5.57	0.00	1254-3	1.570	2396911
5.68	0.00	1254-4	0.786	1686096
6.23	0.00	1254-5	0.673	1724617
8.32	0.00	DCBP	28.193	925999

File Name: F:\GCECD.DAT\A120802\A120802B.08R.BND
Comments: ss1254.06 0.5ppm 8/2/12
Run Time: 8/2/2012 12:14:05 PM

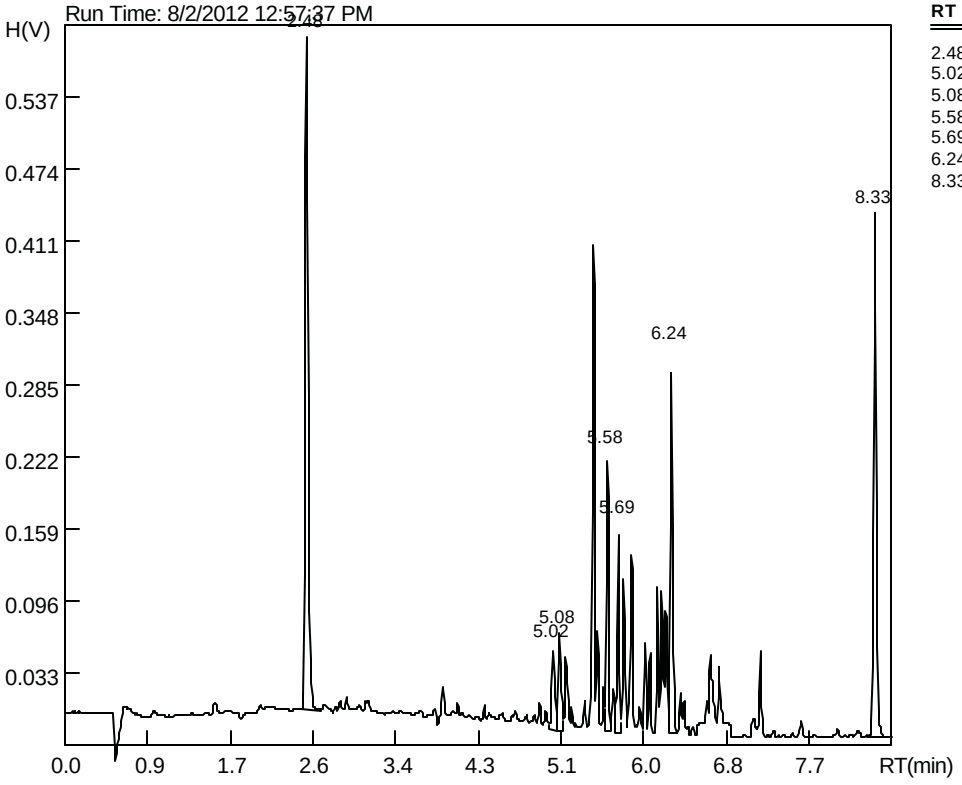


RT	dT	Name	Amt.	Area
2.47	0.00	TCX	12.603	827767
5.02	0.00	1254-1	0.471	676746
5.08	0.00	1254-2	0.470	806437
5.57	0.00	1254-3	0.465	1115977
5.69	0.00	1254-4	0.470	813347
6.23	0.00	1254-5	0.466	821529
8.33	0.00	DCBP	14.746	471101

GC/ECD Analysis: Raw Chromatographic Data

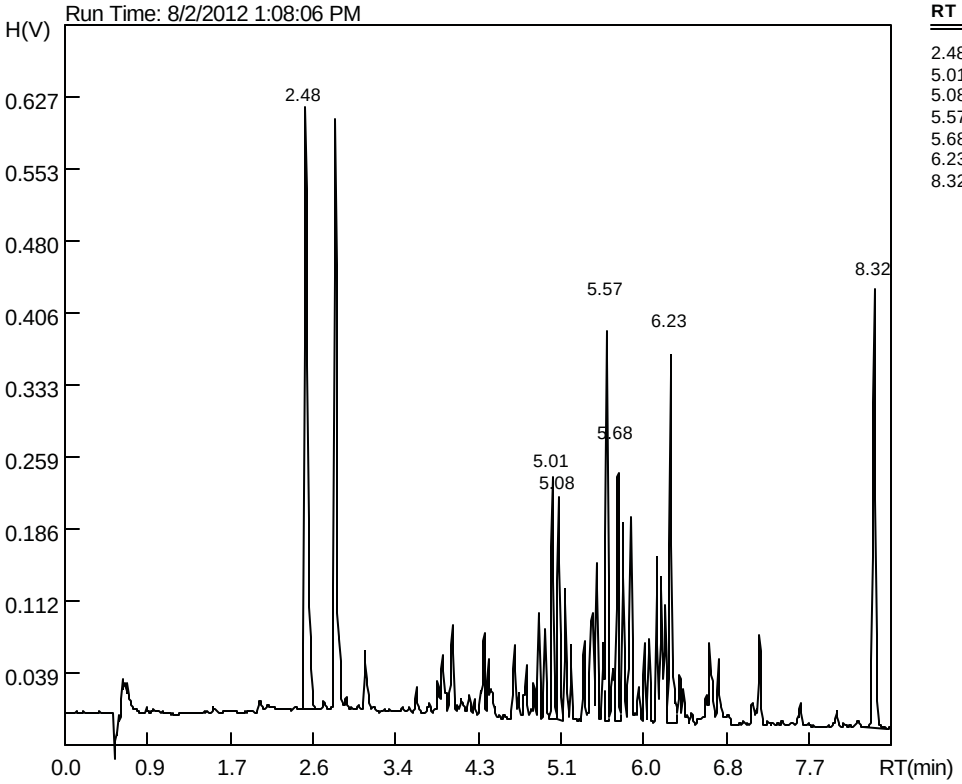
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120802.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120802\A120802B.09R.BND
Comments: s53360.12 20.3g s/1 C ID:PA120801s01
Run Time: 8/2/2012 12:57:37 PM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	18.077	1168766
5.02	0.01	1254-1	0.083	147731
5.08	0.01	1254-2	0.076	167684
5.58	0.01	1254-3	0.140	352908
5.69	0.01	1254-4	0.143	274357
6.24	0.01	1254-5	0.335	602024
8.33	0.01	DCBP	30.185	933049

File Name: F:\GCECD.DAT\A120802\A120802B.10R.BND
Comments: s53360.13 20.0g s/1 ID:PA120801s01
Run Time: 8/2/2012 1:08:06 PM

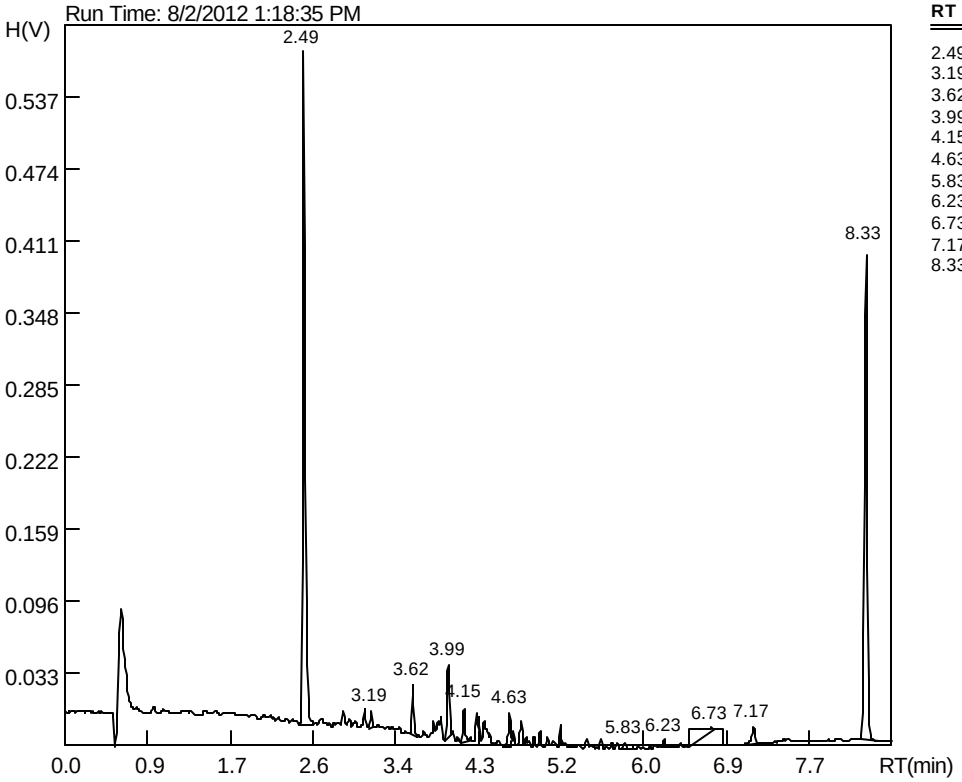


RT	dT	Name	Amt.	Area
2.48	0.00	TCX	20.439	1315867
5.01	0.00	1254-1	0.246	370499
5.08	0.00	1254-2	0.203	373958
5.57	0.00	1254-3	0.239	585915
5.68	0.00	1254-4	0.228	413836
6.23	0.00	1254-5	0.386	688293
8.32	0.00	DCBP	30.985	956971

GC/ECD Analysis: Raw Chromatographic Data

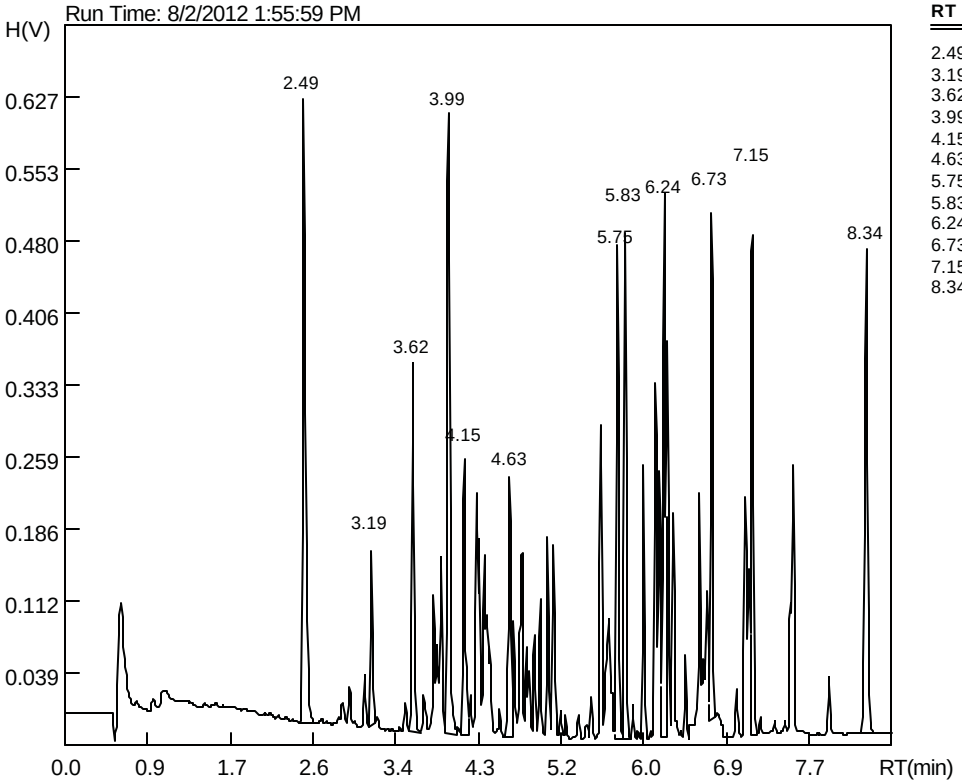
Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120802.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120802\A120802B.11R.BND
Comments: s53360.04 20.2g s/1 dx ID:PA120801s01
Run Time: 8/2/2012 1:18:35 PM



RT	dT	Name	Amt.	Area
2.49	0.01	TCX	16.673	1070983
3.19	0.01	1016-1	-0.016	22874
3.62	0.00	1016-2	-0.009	66429
3.99	0.00	1016-3	0.000	119748
4.15	0.00	1016-4	-0.003	47768
4.63	0.00	1016-5	-0.012	53380
5.83	0.00	1260-2	-0.042	9835
6.23	0.00	1260-3	-0.043	11201
6.73	0.00	1260-4	0.033	127641
7.17	0.02	1260-5	-0.029	34075
8.33	0.01	DCBP	20.751	878886

File Name: F:\GCECD.DAT\A120802\A120802B.12R.BND
Comments: s53360.05 MS 20.1g s/1 dx ID:PA120801s01
Run Time: 8/2/2012 1:55:59 PM



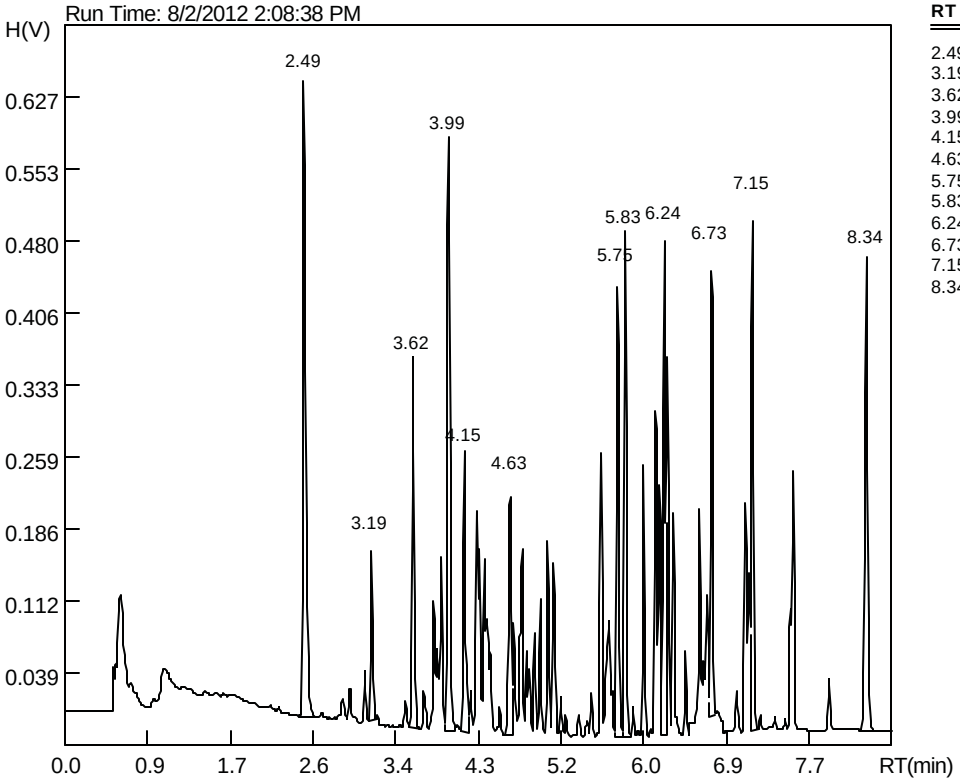
RT	dT	Name	Amt.	Area
2.49	0.01	TCX	21.380	1355786
3.19	0.01	1016-1	0.392	305254
3.62	0.00	1016-2	0.384	628034
3.99	0.00	1016-3	0.384	1330016
4.15	0.00	1016-4	0.391	506390
4.63	0.00	1016-5	0.376	501626
5.75	0.00	1260-1	0.366	831481
5.83	0.01	1260-2	0.348	822526
6.24	0.01	1260-3	0.369	866285
6.73	0.01	1260-4	0.333	759002
7.15	0.00	1260-5	0.377	828487
8.34	0.01	DCBP	26.006	1085166

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

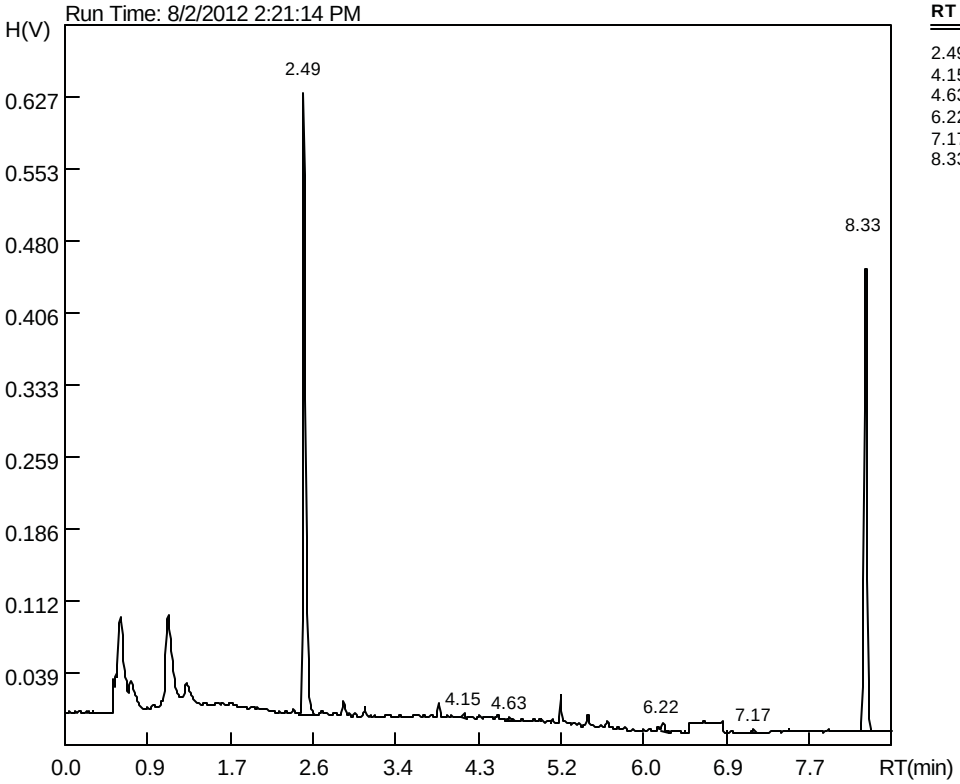
Analytical Batch: a120802.4

File Name: F:\GCECD.DAT\A120802\A120802B.13R.BND
Comments: s53360.06 MSD 20.1g s/1 dx ID:PA120801s01
Run Time: 8/2/2012 2:08:38 PM



RT	dT	Name	Amt.	Area
2.49	0.02	TCX	21.084	1337858
3.19	0.01	1016-1	0.361	284272
3.62	0.01	1016-2	0.368	604877
3.99	0.00	1016-3	0.364	1268709
4.15	0.01	1016-4	0.373	484820
4.63	0.00	1016-5	0.365	488517
5.75	0.01	1260-1	0.347	792620
5.83	0.01	1260-2	0.326	776614
6.24	0.01	1260-3	0.355	835463
6.73	0.01	1260-4	0.309	708962
7.15	0.01	1260-5	0.349	775344
8.34	0.01	DCBP	24.335	1019564

File Name: F:\GCECD.DAT\A120802\A120802B.14R.BND
Comments: s53360.02 20.1g s/1 dx ID:PA120801s01
Run Time: 8/2/2012 2:21:14 PM



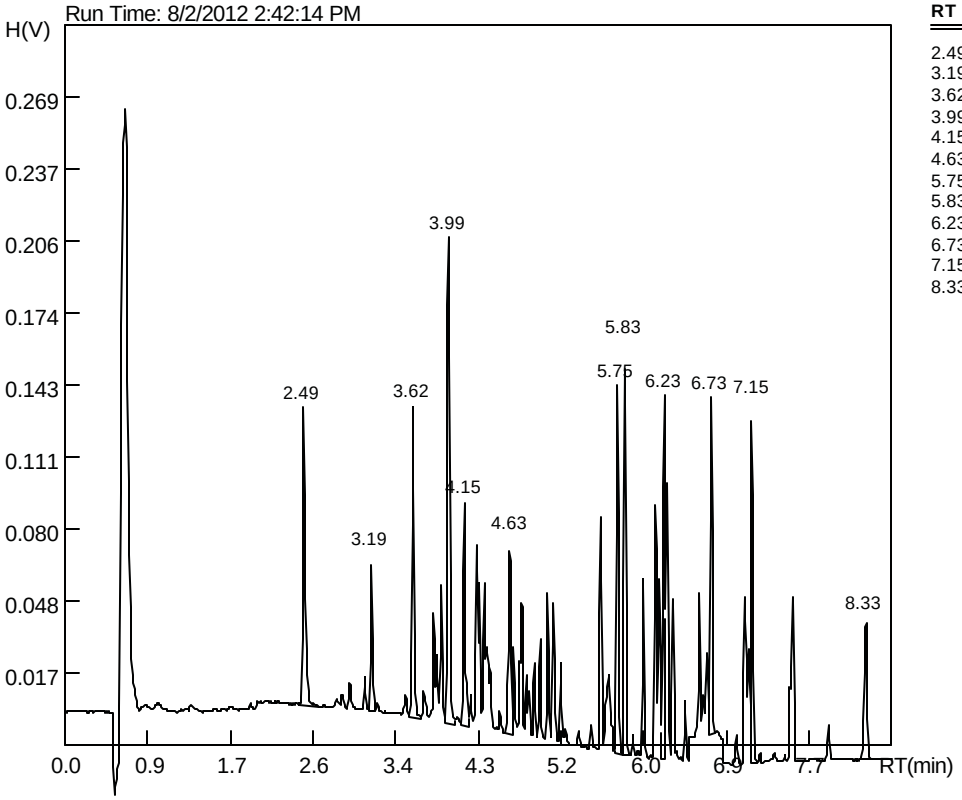
RT	dT	Name	Amt.	Area
2.49	0.02	TCX	19.686	1253267
4.15	0.00	1016-4	-0.038	7779
4.63	0.00	1016-5	-0.049	11092
6.22	-0.01	1260-3	-0.038	21153
7.17	0.02	1260-5	-0.042	7930
8.33	0.00	DCBP	25.573	1068186

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

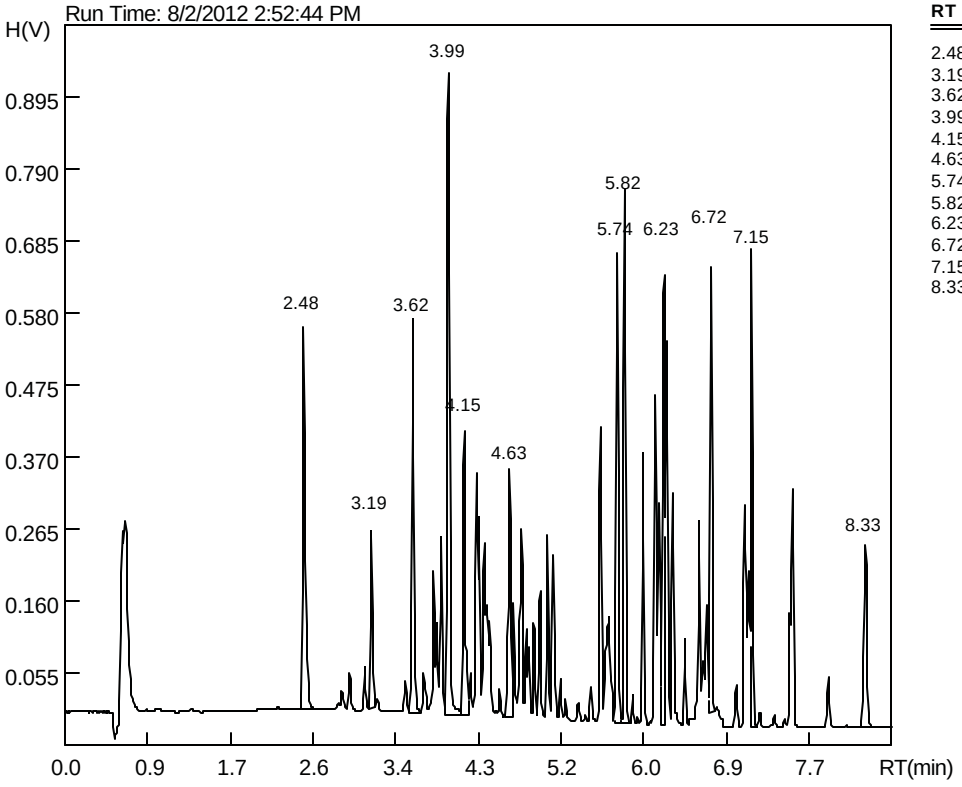
Analytical Batch: a120802.4

File Name: F:\GCECD.DAT\A120802\A120802B.16R.BND
Comments: ss1660.01 0.1ppm 7/23/12
Run Time: 8/2/2012 2:42:14 PM



RT	dT	Name	Amt.	Area
2.49	0.01	TCX	2.891	237040
3.19	0.01	1016-1	0.090	96584
3.62	0.01	1016-2	0.089	205982
3.99	0.00	1016-3	0.092	408646
4.15	0.00	1016-4	0.087	153281
4.63	0.00	1016-5	0.075	153922
5.75	0.00	1260-1	0.072	242007
5.83	0.00	1260-2	0.073	249570
6.23	0.00	1260-3	0.067	238865
6.73	0.00	1260-4	0.072	208272
7.15	0.00	1260-5	0.063	214621
8.33	0.00	DCBP	1.634	128457

File Name: F:\GCECD.DAT\A120802\A120802B.17R.BND
Comments: SC1660.02 0.5ppm 7/23/12
Run Time: 8/2/2012 2:52:44 PM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	17.572	1125338
3.19	0.01	1016-1	0.568	427579
3.62	0.00	1016-2	0.580	908284
3.99	0.00	1016-3	0.563	1896374
4.15	0.00	1016-4	0.567	710528
4.63	0.00	1016-5	0.540	691182
5.74	0.00	1260-1	0.486	1072663
5.82	0.00	1260-2	0.484	1103983
6.23	0.00	1260-3	0.467	1067912
6.72	0.00	1260-4	0.433	969184
7.15	0.00	1260-5	0.438	948815
8.33	0.00	DCBP	12.636	560324

Form 0: Sequence Log

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	12:11:26 Wed 01-Aug-12	Blank	Liquid	
002	12:13:22 Wed 01-Aug-12	std-0.000	Liquid	
003	12:15:18 Wed 01-Aug-12	std-0.0001	Liquid	
004	12:17:20 Wed 01-Aug-12	std-0.001	Liquid	
005	12:19:21 Wed 01-Aug-12	std-0.005	Liquid	
006	12:21:25 Wed 01-Aug-12	std-0.02	Liquid	
007	12:23:34 Wed 01-Aug-12	std-0.05	Liquid	
008	12:25:51 Wed 01-Aug-12	std-0.20	Liquid	
009	12:28:21 Wed 01-Aug-12	ICV-0.10	Liquid	ICV
010	12:31:53 Wed 01-Aug-12	Rinse	Liquid	
011	12:33:54 Wed 01-Aug-12	ICB	Liquid	ICB
012	12:36:28 Wed 01-Aug-12	BS-0.0005	Liquid	BS
013	12:38:29 Wed 01-Aug-12	BS-0.001	Liquid	BS
014	12:40:27 Wed 01-Aug-12	BS-0.002	Liquid	BS
015	12:42:26 Wed 01-Aug-12	ERA-P194	Liquid	ERA
016	12:45:04 Wed 01-Aug-12	Solu-AB	Liquid	AB
017	12:52:40 Wed 01-Aug-12	Solu-AA	Liquid	AA
018	12:54:44 Wed 01-Aug-12	CCV1-0.10	Liquid	CCV
019	12:58:17 Wed 01-Aug-12	Rinse	Liquid	
020	13:00:22 Wed 01-Aug-12	CCB1	Liquid	CCB
021	13:03:57 Wed 01-Aug-12	0801_1 LCS-0.05	Liquid	LCS
022	13:06:48 Wed 01-Aug-12	Rinse	Liquid	
023	13:08:55 Wed 01-Aug-12	LRB_1	Liquid	LRB
024	13:10:48 Wed 01-Aug-12	53345.02s	Soil	S
025	13:12:57 Wed 01-Aug-12	53345.02 dil	Soil	DIL
026	13:15:13 Wed 01-Aug-12	53345.03s	Soil	S
027	13:17:24 Wed 01-Aug-12	53345.04s	Soil	S
028	13:19:35 Wed 01-Aug-12	53345.05s	Soil	S
029	13:21:47 Wed 01-Aug-12	53345.06s	Soil	S
030	13:24:00 Wed 01-Aug-12	53345.07s	Soil	S
031	13:26:12 Wed 01-Aug-12	53345.08s	Soil	S
032	13:28:22 Wed 01-Aug-12	53345.09s	Soil	S
033	13:30:33 Wed 01-Aug-12	53345.09 MS-0.10	Soil	MS
034	13:33:01 Wed 01-Aug-12	53345.09 MSD	Soil	MSD
035	13:38:22 Wed 01-Aug-12	CCV2-0.10	Liquid	CCV
036	13:49:00 Wed 01-Aug-12	Rinse	Liquid	
037	13:51:05 Wed 01-Aug-12	CCB2	Liquid	CCB
038	13:53:55 Wed 01-Aug-12	Blank	Liquid	
039	13:55:52 Wed 01-Aug-12	std-0.000	Liquid	
040	13:57:49 Wed 01-Aug-12	std-0.0001	Liquid	
041	13:59:51 Wed 01-Aug-12	std-0.001	Liquid	
042	14:01:52 Wed 01-Aug-12	std-0.005	Liquid	
043	14:03:57 Wed 01-Aug-12	std-0.02	Liquid	
044	14:06:06 Wed 01-Aug-12	std-0.05	Liquid	
045	14:08:22 Wed 01-Aug-12	std-0.20	Liquid	
046	14:10:52 Wed 01-Aug-12	ICV-0.10	Liquid	ICV
047	14:13:40 Wed 01-Aug-12	Rinse	Liquid	
048	14:15:40 Wed 01-Aug-12	BS-0.0005	Liquid	BS
049	14:17:40 Wed 01-Aug-12	BS-0.001	Liquid	BS
050	14:19:41 Wed 01-Aug-12	ICB	Liquid	ICB
051	14:22:01 Wed 01-Aug-12	53345.10s	Soil	S
052	14:24:09 Wed 01-Aug-12	53345.11s	Soil	S
053	14:26:17 Wed 01-Aug-12	53345.12s	Soil	S

Form 0: Sequence Log

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	14:28:25 Wed 01-Aug-12	53345.13s	Soil	S
055	14:30:31 Wed 01-Aug-12	53345.14s	Soil	S
056	14:32:38 Wed 01-Aug-12	53345.15s	Soil	S
057	14:35:39 Wed 01-Aug-12	53345.16s	Soil	S
058	14:37:48 Wed 01-Aug-12	53347.01s	Soil	S
059	14:39:56 Wed 01-Aug-12	53347.02s	Soil	S
060	14:42:05 Wed 01-Aug-12	53347.03s	Soil	S
061	14:46:25 Wed 01-Aug-12	53347.12s MS-0.10	Soil	MS
062	14:48:43 Wed 01-Aug-12	53347.13s MSD	Soil	MSD
063	14:51:07 Wed 01-Aug-12	CCV3-0.10	Liquid	CCV
064	14:56:50 Wed 01-Aug-12	CCB3	Liquid	CCB
065	14:59:02 Wed 01-Aug-12	0801_2 LCS-0.05	Liquid	LCS
066	15:05:44 Wed 01-Aug-12	LRB_2	Liquid	LRB
067	15:07:41 Wed 01-Aug-12	53347.15s	Liquid	S
068	15:09:44 Wed 01-Aug-12	53347.04s	Soil	S
069	15:11:47 Wed 01-Aug-12	53347.04 dil	Soil	DIL
070	15:13:51 Wed 01-Aug-12	53347.05s	Soil	S
071	15:15:56 Wed 01-Aug-12	53347.06s	Soil	S
072	15:18:00 Wed 01-Aug-12	53347.07s	Soil	S
073	15:20:04 Wed 01-Aug-12	53347.08s	Soil	S
074	15:22:06 Wed 01-Aug-12	53347.09s	Soil	S
075	15:24:09 Wed 01-Aug-12	53347.10s	Soil	S
076	15:26:13 Wed 01-Aug-12	53347.11s	Soil	S
077	15:28:21 Wed 01-Aug-12	CCV4-0.10	Liquid	CCV
078	15:30:37 Wed 01-Aug-12	Rinse	Liquid	
079	15:32:48 Wed 01-Aug-12	CCB4	Liquid	CCB
080	15:34:52 Wed 01-Aug-12	53360.02s	Soil	S
081	15:36:58 Wed 01-Aug-12	53360.03s	Soil	S
082	15:39:03 Wed 01-Aug-12	53360.04s	Soil	S
083	15:41:06 Wed 01-Aug-12	53360.05s MS-0.10	Soil	MS
084	15:45:41 Wed 01-Aug-12	53360.06s MSD	Soil	MSD
085	15:49:07 Wed 01-Aug-12	53360.07s	Soil	S
086	15:51:12 Wed 01-Aug-12	53360.08s	Soil	S
087	15:53:17 Wed 01-Aug-12	53360.09s	Soil	S
088	15:55:24 Wed 01-Aug-12	53360.10s	Soil	S
089	15:57:29 Wed 01-Aug-12	53360.11s	Soil	S
090	15:59:33 Wed 01-Aug-12	53360.12s	Soil	S
091	16:01:37 Wed 01-Aug-12	53360.13s	Soil	S
092	16:03:46 Wed 01-Aug-12	CCV5-0.10	Liquid	CCV
093	16:08:44 Wed 01-Aug-12	CCB5	Liquid	CCB
094	16:17:33 Wed 01-Aug-12	0801_3 LCS-0.05	Liquid	LCS
095	16:22:30 Wed 01-Aug-12	LRB_3	Liquid	LRB
096	16:24:23 Wed 01-Aug-12	53283.01s	Liquid	S
097	16:26:28 Wed 01-Aug-12	53283.01 dil	Liquid	DIL
098	16:28:33 Wed 01-Aug-12	53281.01s tclp	Liquid	S
099	16:30:39 Wed 01-Aug-12	53281.01 MS-0.05	Liquid	MS
100	16:32:45 Wed 01-Aug-12	53281.01 MSD	Liquid	MSD
101	16:34:56 Wed 01-Aug-12	CCV6-0.10	Liquid	CCV
102	16:39:11 Wed 01-Aug-12	CCB6	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.02
Sample Tag: SB120 (07-26-12) (4-6)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	3.49	0.20		mg/kg	244	08/01/2012	
7440-39-3	Barium	54.7	1.0		mg/kg	244	08/01/2012	
7440-43-9	Cadmium	0.21	0.20		mg/kg	244	08/01/2012	
7440-47-3	Chromium	7.59	0.50		mg/kg	244	08/01/2012	
7440-50-8	Copper	17.2	0.50		mg/kg	244	08/01/2012	
7439-92-1	Lead	8.97	0.30		mg/kg	244	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	244	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	244	08/01/2012	
7440-66-6	Zinc	34.8	1.0		mg/kg	244	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.03
Sample Tag: SB169 (07-26-12) (1.5-3.5)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.44	0.20		mg/kg	223	08/01/2012	
7440-39-3	Barium	31.5	1.0		mg/kg	223	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	223	08/01/2012	
7440-47-3	Chromium	3.52	0.50		mg/kg	223	08/01/2012	
7440-50-8	Copper	4.80	0.50		mg/kg	223	08/01/2012	
7439-92-1	Lead	4.00	0.30		mg/kg	223	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	223	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	223	08/01/2012	
7440-66-6	Zinc	11.8	1.0		mg/kg	223	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.04
Sample Tag: SB144 (07-26-12) (1.5-3.5)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.44	0.20		mg/kg	214	08/01/2012	
7440-39-3	Barium	27.5	1.0		mg/kg	214	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	214	08/01/2012	
7440-47-3	Chromium	3.04	0.50		mg/kg	214	08/01/2012	
7440-50-8	Copper	4.95	0.50		mg/kg	214	08/01/2012	
7439-92-1	Lead	3.57	0.30		mg/kg	214	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	214	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	214	08/01/2012	
7440-66-6	Zinc	10.7	1.0		mg/kg	214	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.05
Sample Tag: SB144 (07-26-12) (1.5-3.5) MS
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	23.1	0.20		mg/kg	216	08/01/2012	
7440-39-3	Barium	45.7	1.0		mg/kg	216	08/01/2012	
7440-43-9	Cadmium	21.9	0.20		mg/kg	216	08/01/2012	
7440-47-3	Chromium	26.5	0.50		mg/kg	216	08/01/2012	
7440-50-8	Copper	26.6	0.50		mg/kg	216	08/01/2012	
7439-92-1	Lead	23.9	0.30		mg/kg	216	08/01/2012	
7782-49-2	Selenium	20.5	0.50		mg/kg	216	08/01/2012	
7440-22-4	Silver	20.6	0.10		mg/kg	216	08/01/2012	
7440-66-6	Zinc	32.6	1.0		mg/kg	216	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.06
Sample Tag: SB144 (07-26-12) (1.5-3.5) MSD
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	22.7	0.20		mg/kg	216	08/01/2012	
7440-39-3	Barium	44.9	1.0		mg/kg	216	08/01/2012	
7440-43-9	Cadmium	22.4	0.20		mg/kg	216	08/01/2012	
7440-47-3	Chromium	26.8	0.50		mg/kg	216	08/01/2012	
7440-50-8	Copper	26.2	0.50		mg/kg	216	08/01/2012	
7439-92-1	Lead	23.9	0.30		mg/kg	216	08/01/2012	
7782-49-2	Selenium	20.5	0.50		mg/kg	216	08/01/2012	
7440-22-4	Silver	21.0	0.10		mg/kg	216	08/01/2012	
7440-66-6	Zinc	32.5	1.0		mg/kg	216	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.07
Sample Tag: SB144 (07-26-12) (7.5-9.5)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.59	0.20		mg/kg	229	08/01/2012	
7440-39-3	Barium	58.0	1.0		mg/kg	229	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	229	08/01/2012	
7440-47-3	Chromium	6.78	0.50		mg/kg	229	08/01/2012	
7440-50-8	Copper	5.91	0.50		mg/kg	229	08/01/2012	
7439-92-1	Lead	4.92	0.30		mg/kg	229	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	229	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	229	08/01/2012	
7440-66-6	Zinc	19.6	1.0		mg/kg	229	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.08
Sample Tag: SB145 (07-27-12) (2-4)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.48	0.20		mg/kg	213	08/01/2012	
7440-39-3	Barium	17.7	1.0		mg/kg	213	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	213	08/01/2012	
7440-47-3	Chromium	3.65	0.50		mg/kg	213	08/01/2012	
7440-50-8	Copper	4.51	0.50		mg/kg	213	08/01/2012	
7439-92-1	Lead	2.50	0.30		mg/kg	213	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	213	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	213	08/01/2012	
7440-66-6	Zinc	8.27	1.0		mg/kg	213	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.09
Sample Tag: SB145 (07-27-12) (6-8)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.31	0.20		mg/kg	241	08/01/2012	
7440-39-3	Barium	72.2	1.0		mg/kg	241	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	241	08/01/2012	
7440-47-3	Chromium	8.93	0.50		mg/kg	241	08/01/2012	
7440-50-8	Copper	6.23	0.50		mg/kg	241	08/01/2012	
7439-92-1	Lead	5.60	0.30		mg/kg	241	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	241	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	241	08/01/2012	
7440-66-6	Zinc	23.8	1.0		mg/kg	241	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.10
Sample Tag: SB106 (07-27-12) (8-10)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.44	0.20		mg/kg	227	08/01/2012	
7440-39-3	Barium	25.7	1.0		mg/kg	227	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	227	08/01/2012	
7440-47-3	Chromium	2.83	0.50		mg/kg	227	08/01/2012	
7440-50-8	Copper	2.88	0.50		mg/kg	227	08/01/2012	
7439-92-1	Lead	3.18	0.30		mg/kg	227	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	227	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	227	08/01/2012	
7440-66-6	Zinc	7.45	1.0		mg/kg	227	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.11
Sample Tag: SB106 (07-27-12) (32-34)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	5.41	0.20		mg/kg	237	08/01/2012	
7440-39-3	Barium	66.6	1.0		mg/kg	237	08/01/2012	
7440-43-9	Cadmium	0.25	0.20		mg/kg	237	08/01/2012	
7440-47-3	Chromium	9.27	0.50		mg/kg	237	08/01/2012	
7440-50-8	Copper	16.4	0.50		mg/kg	237	08/01/2012	
7439-92-1	Lead	8.40	0.30		mg/kg	237	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	237	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	237	08/01/2012	
7440-66-6	Zinc	34.8	1.0		mg/kg	237	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.12
Sample Tag: SB100 (07-27-12) (2-4)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.09	0.20		mg/kg	233	08/01/2012	
7440-39-3	Barium	27.8	1.0		mg/kg	233	08/01/2012	
7440-43-9	Cadmium	0.27	0.20		mg/kg	233	08/01/2012	
7440-47-3	Chromium	3.14	0.50		mg/kg	233	08/01/2012	
7440-50-8	Copper	17.4	0.50		mg/kg	233	08/01/2012	
7439-92-1	Lead	38.4	0.30		mg/kg	233	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	233	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	233	08/01/2012	
7440-66-6	Zinc	31.1	1.0		mg/kg	233	08/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Lab Sample ID: S53360.13
Sample Tag: SB101 (07-27-12) (2.5-4.5)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.75	0.20		mg/kg	219	08/01/2012	
7440-39-3	Barium	31.5	1.0		mg/kg	219	08/01/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	219	08/01/2012	
7440-47-3	Chromium	4.37	0.50		mg/kg	219	08/01/2012	
7440-50-8	Copper	9.39	0.50		mg/kg	219	08/01/2012	
7439-92-1	Lead	9.83	0.30		mg/kg	219	08/01/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	219	08/01/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	219	08/01/2012	
7440-66-6	Zinc	15.7	1.0		mg/kg	219	08/01/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
009 ICV-0.10	ICV	1	Cr	0.0999	0.10	100	90/110	mg/L	Liquid
			Cu	0.0998	0.10	100	90/110		
			Zn	0.0997	0.10	100	90/110		
			As	0.101	0.10	101	90/110		
			Se	0.0997	0.10	100	90/110		
			Ag	0.101	0.10	101	90/110		
			Cd	0.101	0.10	101	90/110		
			Ba	0.0986	0.10	99	90/110		
			Pb	0.102	0.10	102	90/110		
018 CCV1-0.10	CCV	1	Cr	0.0962	0.10	96	90/110	mg/L	Liquid
			Cu	0.0972	0.10	97	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.0983	0.10	98	90/110		
			Se	0.0984	0.10	98	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.103	0.10	103	90/110		
			Ba	0.0980	0.10	98	90/110		
			Pb	0.102	0.10	102	90/110		
035 CCV2-0.10	CCV	1	Cr	0.0955	0.10	96	90/110	mg/L	Liquid
			Cu	0.0948	0.10	95	90/110		
			Zn	0.0980	0.10	98	90/110		
			As	0.0923	0.10	92	90/110		
			Se	0.103	0.10	103	90/110		
			Ag	0.102	0.10	102	90/110		
			Cd	0.106	0.10	106	90/110		
			Ba	0.102	0.10	102	90/110		
			Pb	0.102	0.10	102	90/110		
046 ICV-0.10	ICV	1	Cr	0.0975	0.10	98	90/110	mg/L	Liquid
			Cu	0.100	0.10	100	90/110		
			Zn	0.0989	0.10	99	90/110		
			As	0.0997	0.10	100	90/110		
			Se	0.0998	0.10	100	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.101	0.10	101	90/110		
			Ba	0.0991	0.10	99	90/110		
			Pb	0.101	0.10	101	90/110		
063 CCV3-0.10	CCV	1	Cr	0.104	0.10	104	90/110	mg/L	Liquid
			Cu	0.0949	0.10	95	90/110		
			Zn	0.0937	0.10	94	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.103	0.10	103	90/110		
			Ag	0.0999	0.10	100	90/110		
			Cd	0.0985	0.10	99	90/110		
			Ba	0.0996	0.10	100	90/110		
			Pb	0.100	0.10	100	90/110		
077 CCV4-0.10	CCV	1	Cr	0.104	0.10	104	90/110	mg/L	Liquid
			Cu	0.0934	0.10	93	90/110		
			Zn	0.0935	0.10	94	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.104	0.10	104	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.0987	0.10	99	90/110		
			Ba	0.101	0.10	101	90/110		

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
077 CCV4-0.10	CCV	1	Pb	0.101	0.10	101	90/110	mg/L	Liquid
092 CCV5-0.10	CCV	1	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Cu	0.0950	0.10	95	90/110		
			Zn	0.0940	0.10	94	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.104	0.10	104	90/110		
			Ag	0.100	0.10	100	90/110		
			Cd	0.0987	0.10	99	90/110		
			Ba	0.0989	0.10	99	90/110		
			Pb	0.100	0.10	100	90/110		
101 CCV6-0.10	CCV	1	Cr	0.103	0.10	103	90/110	mg/L	Liquid
			Cu	0.0951	0.10	95	90/110		
			Zn	0.0935	0.10	94	90/110		
			As	0.0996	0.10	100	90/110		
			Se	0.0990	0.10	99	90/110		
			Ag	0.0994	0.10	99	90/110		
			Cd	0.0991	0.10	99	90/110		
			Ba	0.101	0.10	101	90/110		
			Pb	0.101	0.10	101	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: W-8121-0

Data Set ID: MT2-12-0801A

Instrument ID: PE ELAN

Analysis Date: 08/01/12

Analyst: PER

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
015 ERA-P194	5	Cr	0.607	0.623	97	0.542	0.704	mg/L	Liquid
		Cu	0.832	0.835	100	0.751	0.918		
		Zn	0.407	0.412	99	0.352	0.476		
		As	0.859	0.877	98	0.738	1.030		
		Se	1.00	1.030	97	0.815	1.190		
		Ag	0.179	0.186	96	0.159	0.213		
		Cd	0.115	0.118	98	0.0998	0.135		
		Ba	0.689	0.716	96	0.621	0.807		
		Pb	1.76	1.760	100	1.550	1.970		

Form 3: Blanks

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
011 ICB	ICB	1	Cr	<0.001	0.000015	mg/L	Liquid
			Cu	<0.001	0.000011		
			Zn	<0.001	-0.000068		
			As	<0.0004	0.000010		
			Se	<0.001	-0.000005		
			Ag	<0.0005	0.000024		
			Cd	<0.0001	0.000009		
			Ba	<0.001	0.000033		
			Pb	<0.0006	0.000014		
020 CCB1	CCB	1	Cr	<0.001	-0.000044	mg/L	Liquid
			Cu	<0.001	0.000009		
			Zn	<0.001	-0.000023		
			As	<0.0004	0.000048		
			Se	<0.001	-0.000118		
			Ag	<0.0005	0.000018		
			Cd	<0.0001	0.000007		
			Ba	<0.001	0.000017		
			Pb	<0.0006	0.000019		
023 LRB_1	LRB	1	Cr	<0.001	-0.000045	mg/L	Liquid
			Cu	<0.001	-0.000117		
			Zn	<0.001	-0.000241		
			As	<0.0004	0.000013		
			Se	<0.001	-0.000373		
			Ag	<0.0005	0.000003		
			Cd	<0.0001	-0.000020		
			Ba	<0.001	0.000020		
			Pb	<0.0006	-0.000144		
037 CCB2	CCB	1	Cr	<0.001	-0.000040	mg/L	Liquid
			Cu	<0.001	0.000006		
			Zn	<0.001	-0.000157		
			As	<0.0004	-0.000006		
			Se	<0.001	-0.000284		
			Ag	<0.0005	0.000020		
			Cd	<0.0001	-0.000005		
			Ba	<0.001	0.000032		
			Pb	<0.0006	0.000008		
050 ICB	ICB	1	Cr	<0.001	0.000003	mg/L	Liquid
			Cu	<0.001	-0.000018		
			Zn	<0.001	0.000024		
			As	<0.0004	0.000007		
			Se	<0.001	-0.000395		
			Ag	<0.0005	0.000021		
			Cd	<0.0001	0.000003		
			Ba	<0.001	0.000037		
			Pb	<0.0006	0.000010		
064 CCB3	CCB	1	Cr	<0.001	0.000140	mg/L	Liquid
			Cu	<0.001	0.000072		
			Zn	<0.001	-0.000039		
			As	<0.0004	0.000008		
			Se	<0.001	-0.000296		
			Ag	<0.0005	-0.000002		
			Cd	<0.0001	0.000016		
			Ba	<0.001	0.000041		

Form 3: Blanks

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
064 CCB3	CCB	1	Pb	<0.0006	-0.000010	mg/L	Liquid
066 LRB_2	LRB	1	Cr	<0.001	0.000087	mg/L	Liquid
			Cu	<0.001	-0.000142		
			Zn	<0.001	-0.000412		
			As	<0.0004	-0.000022		
			Se	<0.001	-0.000024		
			Ag	<0.0005	-0.000014		
			Cd	<0.0001	-0.000018		
			Ba	<0.001	0.000017		
			Pb	<0.0006	-0.000194		
079 CCB4	CCB	1	Cr	<0.001	0.000021	mg/L	Liquid
			Cu	<0.001	0.000064		
			Zn	<0.001	-0.000090		
			As	<0.0004	0.000015		
			Se	<0.001	-0.000127		
			Ag	<0.0005	0.000011		
			Cd	<0.0001	0.000021		
			Ba	<0.001	0.000021		
			Pb	<0.0006	0.000010		
093 CCB5	CCB	1	Cr	<0.001	0.000084	mg/L	Liquid
			Cu	<0.001	0.000078		
			Zn	<0.001	-0.000087		
			As	<0.0004	0.000015		
			Se	<0.001	0.000149		
			Ag	<0.0005	0.000001		
			Cd	<0.0001	0.000007		
			Ba	<0.001	0.000022		
			Pb	<0.0006	0.000019		
095 LRB_3	LRB	1	Cr	<0.001	0.000047	mg/L	Liquid
			Cu	<0.001	-0.000126		
			Zn	<0.001	-0.000295		
			As	<0.0004	-0.000018		
			Se	<0.001	-0.000386		
			Ag	<0.0005	-0.000017		
			Cd	<0.0001	-0.000008		
			Ba	<0.001	-0.000006		
			Pb	<0.0006	-0.000164		
102 CCB6	CCB	1	Cr	<0.001	0.000056	mg/L	Liquid
			Cu	<0.001	0.000063		
			Zn	<0.001	-0.000143		
			As	<0.0004	0.000128		
			Se	<0.001	0.000744		
			Ag	<0.0005	0.000013		
			Cd	<0.0001	0.000024		
			Ba	<0.001	0.000030		
			Pb	<0.0006	0.000010		

Form 4B: ICP Interference Check Sample

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
016 Solu-AB	AB	1	Cr	0.0239	0.020	120	70/135	mg/L	Liquid
			Cu	0.0230	0.020	115	70/135		
			Zn	0.0222	0.020	111	70/135		
			As	0.0274	0.025	110	70/135		
			Ag	0.0189	0.020	95	70/135		
			Cd	0.0207	0.020	104	70/135		
017 Solu-AA	AA	1	Cr	<0.005	0.0	N/A	N/A	mg/L	Liquid
			Cu	<0.004	0.0	N/A	N/A		
			Zn	<0.005	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.0005	0.0	N/A	N/A		
			Cd	<0.0005	0.0	N/A	N/A		
			Ba	<0.005	0.0	N/A	N/A		
			Pb	<0.003	0.0	N/A	N/A		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
012 BS-0.0005		1	Cr	0.00048	ND	0.0005	96	70/130	mg/L	Liquid
			Cu	0.00051	ND	0.0005	102	70/130		
			As	0.00050	ND	0.0005	100	70/130		
			Se	0.00042	ND	0.0005	84	70/130		
			Ag	0.00055	ND	0.0005	110	70/130		
			Cd	0.00048	ND	0.0005	96	70/130		
			Ba	0.00049	ND	0.0005	98	70/130		
			Pb	0.00045	ND	0.0005	90	70/130		
013 BS-0.001		1	Cr	0.00099	ND	0.001	99	70/130	mg/L	Liquid
			Cu	0.00088	ND	0.001	88	70/130		
			Zn	0.00087	ND	0.001	87	70/130		
			As	0.00098	ND	0.001	98	70/130		
			Se	0.00095	ND	0.001	95	70/130		
			Ag	0.00096	ND	0.001	96	70/130		
			Cd	0.00093	ND	0.001	93	70/130		
			Ba	0.00097	ND	0.001	97	70/130		
			Pb	0.00098	ND	0.001	98	70/130		
014 BS-0.002		1	Cr	0.00190	ND	0.002	95	70/130	mg/L	Liquid
			Cu	0.00191	ND	0.002	96	70/130		
			Zn	0.00170	ND	0.002	85	70/130		
			As	0.00188	ND	0.002	94	70/130		
			Se	0.00148	ND	0.002	74	70/130		
			Ag	0.00195	ND	0.002	98	70/130		
			Cd	0.00183	ND	0.002	92	70/130		
			Ba	0.00188	ND	0.002	94	70/130		
			Pb	0.00193	ND	0.002	97	70/130		
033 53345.09	**032 53345.09s**	222	Cr	24.8	2.89	22.20	99	75/125	mg/kg	Soil
			Cu	22.7	1.65	22.20	95	75/125		
			Zn	30.6	11.3	22.20	87	75/125		
			As	21.9	<0.20	22.20	99	75/125		
			Se	22.6	<0.50	22.20	102	75/125		
			Ag	22.2	<0.10	22.20	100	75/125		
			Cd	24.4	<0.20	22.20	110	75/125		
			Ba	35.0	9.21	22.20	116	75/125		
			Pb	23.9	2.24	22.20	98	75/125		
048 BS-0.0005		1	Cr	0.00048	ND	0.0005	96	70/130	mg/L	Liquid
			Cu	0.00051	ND	0.0005	102	70/130		
			As	0.00054	ND	0.0005	108	70/130		
			Se	0.00048	ND	0.0005	96	70/130		
			Ag	0.00054	ND	0.0005	108	70/130		
			Cd	0.00054	ND	0.0005	108	70/130		
			Ba	0.00056	ND	0.0005	112	70/130		
			Pb	0.00045	ND	0.0005	90	70/130		
049 BS-0.001		1	Cr	0.00100	ND	0.001	100	70/130	mg/L	Liquid
			Cu	0.00089	ND	0.001	89	70/130		
			Zn	0.00079	ND	0.001	79	70/130		
			As	0.00104	ND	0.001	104	70/130		
			Se	0.00072	ND	0.001	72	70/130		
			Ag	0.00096	ND	0.001	96	70/130		
			Cd	0.00100	ND	0.001	100	70/130		
			Ba	0.00099	ND	0.001	99	70/130		
			Pb	0.00092	ND	0.001	92	70/130		
061 53347.12s	**060 53347.03s**	221	Cr	29.8	5.50	22.10	110	75/125	mg/kg	Soil

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
061 53347.12s	**060 53347.03s**	221	Cu	32.2	11.1	22.10	96	75/125	mg/kg	Soil
			Zn	34.8	13.3	22.10	97	75/125		
			As	26.8	2.76	22.10	109	75/125		
			Se	22.4	<0.50	22.10	101	75/125		
			Ag	20.8	<0.10	22.10	94	75/125		
			Cd	23.0	<0.20	22.10	104	75/125		
			Ba	68.3	44.3	22.10	109	75/125		
			Pb	26.1	5.50	22.10	93	75/125		
083 53360.05s	**082 53360.04s**	216	Cr	26.5	3.04	21.60	109	75/125	mg/kg	Soil
			Cu	26.6	4.95	21.60	100	75/125		
			Zn	32.6	10.7	21.60	101	75/125		
			As	23.1	0.44	21.60	105	75/125		
			Se	20.5	<0.50	21.60	95	75/125		
			Ag	20.6	<0.10	21.60	95	75/125		
			Cd	21.9	<0.20	21.60	101	75/125		
			Ba	45.7	27.5	21.60	84	75/125		
			Pb	23.9	3.57	21.60	94	75/125		
099 53281.01	**098 53281.01s tclp**	25	Cr	1.37	<0.05	1.25	110	75/125	mg/L	Liquid
			Cu	1.28	0.08	1.25	96	75/125		
			Zn	4.48	3.31	1.25	94	75/125		
			As	1.32	<0.02	1.25	106	75/125		
			Se	1.31	<0.05	1.25	105	75/125		
			Ag	1.22	<0.005	1.25	98	75/125		
			Cd	1.27	0.010	1.25	101	75/125		
			Ba	1.43	0.17	1.25	101	75/125		
			Pb	1.26	0.05	1.25	97	75/125		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
034 53345.09 MSD	**033 53345.09 MS-0.10**	222	Cr	23.4	24.8	6	0/20	mg/kg	Soil
			Cu	22.3	22.7	2	0/20		
			Zn	31.4	30.6	3	0/20		
			As	21.5	21.9	2	0/20		
			Se	22.5	22.6	0	0/20		
			Ag	22.0	22.2	1	0/20		
			Cd	23.5	24.4	4	0/20		
			Ba	33.5	35.0	4	0/20		
			Pb	23.8	23.9	0	0/20		
062 53347.13s MSD	**061 53347.12s MS-0.10**	220	Cr	30.1	29.8	1	0/20	mg/kg	Soil
			Cu	31.9	32.2	1	0/20		
			Zn	32.8	34.8	6	0/20		
			As	26.6	26.8	1	0/20		
			Se	22.5	22.4	0	0/20		
			Ag	20.4	20.8	2	0/20		
			Cd	22.4	23.0	3	0/20		
			Ba	67.4	68.3	1	0/20		
			Pb	25.8	26.1	1	0/20		
084 53360.06s MSD	**083 53360.05s MS-0.10**	216	Cr	26.8	26.5	1	0/20	mg/kg	Soil
			Cu	26.2	26.6	2	0/20		
			Zn	32.5	32.6	0	0/20		
			As	22.7	23.1	2	0/20		
			Se	20.5	20.5	0	0/20		
			Ag	21.0	20.6	2	0/20		
			Cd	22.4	21.9	2	0/20		
			Ba	44.9	45.7	2	0/20		
			Pb	23.9	23.9	0	0/20		
100 53281.01 MSD	**099 53281.01 MS-0.05**	25	Cr	1.35	1.37	1	0/20	mg/L	Liquid
			Cu	1.24	1.28	3	0/20		
			Zn	4.40	4.48	2	0/20		
			As	1.30	1.32	2	0/20		
			Se	1.33	1.31	2	0/20		
			Ag	1.20	1.22	2	0/20		
			Cd	1.24	1.27	2	0/20		
			Ba	1.42	1.43	1	0/20		
			Pb	1.27	1.26	1	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
021 0801_1 LCS-0.05	1	Cr	0.0487	0.05	97	85/115	mg/L	Liquid
		Cu	0.0493	0.05	99	85/115		
		Zn	0.0500	0.05	100	85/115		
		As	0.0484	0.05	97	85/115		
		Se	0.0482	0.05	96	85/115		
		Ag	0.0496	0.05	99	85/115		
		Cd	0.0504	0.05	101	85/115		
		Ba	0.0503	0.05	101	85/115		
		Pb	0.0507	0.05	101	85/115		
065 0801_2 LCS-0.05	1	Cr	0.0527	0.05	105	85/115	mg/L	Liquid
		Cu	0.0493	0.05	99	85/115		
		Zn	0.0492	0.05	98	85/115		
		As	0.0525	0.05	105	85/115		
		Se	0.0525	0.05	105	85/115		
		Ag	0.0501	0.05	100	85/115		
		Cd	0.0500	0.05	100	85/115		
		Ba	0.0505	0.05	101	85/115		
		Pb	0.0507	0.05	101	85/115		
094 0801_3 LCS-0.05	1	Cr	0.0526	0.05	105	85/115	mg/L	Liquid
		Cu	0.0479	0.05	96	85/115		
		Zn	0.0468	0.05	94	85/115		
		As	0.0517	0.05	103	85/115		
		Se	0.0525	0.05	105	85/115		
		Ag	0.0501	0.05	100	85/115		
		Cd	0.0500	0.05	100	85/115		
		Ba	0.0505	0.05	101	85/115		
		Pb	0.0506	0.05	101	85/115		

Form 8: Serial Dilutions

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
025 53345.02 dil	**024 53345.02s**	1240	Cr	6.49	6.47	0	0/10	mg/kg	Soil
			Cu	11.7	11.6	1	0/10		
			Zn	31.4	31.2	1	0/10		
			As	2.38	2.28	4	0/10		
			Se	<0.50	<0.50	NC	0/10		
			Ag	<0.10	<0.10	NC	0/10		
			Cd	<0.20	0.21	200*	0/10		
			Ba	50.8	47.9	6	0/10		
			Pb	7.23	7.24	0	0/10		
069 53347.04 dil	**068 53347.04s**	1010	Cr	11.3	11.5	2	0/10	mg/kg	Soil
			Cu	8.59	8.59	0	0/10		
			Zn	14.7	15.3	4	0/10		
			As	0.99	0.96	3	0/10		
			Se	<0.50	<0.50	NC	0/10		
			Ag	<0.10	<0.10	NC	0/10		
			Cd	<0.20	<0.20	NC	0/10		
			Ba	14.2	12.4	14*	0/10		
			Pb	7.73	7.61	2	0/10		
097 53283.01 dil	**096 53283.01s**	125	Cr	0.07	0.07	0	0/10	mg/L	Liquid
			Cu	<0.04	<0.04	NC	0/10		
			Zn	0.16	0.23	36*	0/10		
			As	<0.02	<0.02	NC	0/10		
			Se	<0.05	<0.05	NC	0/10		
			Ag	<0.005	<0.005	NC	0/10		
			Cd	<0.005	<0.005	NC	0/10		
			Ba	0.06	0.10	50*	0/10		
			Pb	<0.03	<0.03	NC	0/10		

Form 13: Analysis Run Log

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
001 Blank	12:11:26 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
002 std-0.000	12:13:22 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
003 std-0.0001	12:15:18 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
004 std-0.001	12:17:20 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
005 std-0.005	12:19:21 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
006 std-0.02	12:21:25 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
007 std-0.05	12:23:34 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
008 std-0.20	12:25:51 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
009 ICV-0.10	12:28:21 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
010 Rinse	12:31:53 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
011 ICB	12:33:54 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
012 BS-0.0005	12:36:28 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se
013 BS-0.001	12:38:29 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
014 BS-0.002	12:40:27 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
015 ERA-P194	12:42:26 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
016 Solu-AB	12:45:04 Wed	Liquid	Ag,As,Cd,Cr,Cu,Zn
017 Solu-AA	12:52:40 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
018 CCV1-0.10	12:54:44 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
019 Rinse	12:58:17 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
020 CCB1	13:00:22 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
021 0801_1 LCS-0.05	13:03:57 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
022 Rinse	13:06:48 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
023 LRB_1	13:08:55 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
024 53345.02s	13:10:48 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
025 53345.02 dil	13:12:57 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
026 53345.03s	13:15:13 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
027 53345.04s	13:17:24 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
028 53345.05s	13:19:35 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
029 53345.06s	13:21:47 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
030 53345.07s	13:24:00 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
031 53345.08s	13:26:12 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
032 53345.09s	13:28:22 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
033 53345.09 MS-0.10	13:30:33 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
034 53345.09 MSD	13:33:01 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
035 CCV2-0.10	13:38:22 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
036 Rinse	13:49:00 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
037 CCB2	13:51:05 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
038 Blank	13:53:55 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
039 std-0.000	13:55:52 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
040 std-0.0001	13:57:49 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
041 std-0.001	13:59:51 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
042 std-0.005	14:01:52 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
043 std-0.02	14:03:57 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
044 std-0.05	14:06:06 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
045 std-0.20	14:08:22 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
046 ICV-0.10	14:10:52 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
047 Rinse	14:13:40 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
048 BS-0.0005	14:15:40 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se
049 BS-0.001	14:17:40 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
050 ICB	14:19:41 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
051 53345.10s	14:22:01 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
052 53345.11s	14:24:09 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
053 53345.12s	14:26:17 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn

Form 13: Analysis Run Log

Data Set ID: MT2-12-0801A
Instrument ID: PE ELAN
Analysis Date: 08/01/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
054 53345.13s	14:28:25 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
055 53345.14s	14:30:31 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
056 53345.15s	14:32:38 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
057 53345.16s	14:35:39 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
058 53347.01s	14:37:48 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
059 53347.02s	14:39:56 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
060 53347.03s	14:42:05 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
061 53347.12s MS-0.10	14:46:25 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
062 53347.13s MSD	14:48:43 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
063 CCV3-0.10	14:51:07 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
064 CCB3	14:56:50 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
065 0801_2 LCS-0.05	14:59:02 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
066 LRB_2	15:05:44 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
067 53347.15s	15:07:41 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
068 53347.04s	15:09:44 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
069 53347.04 dil	15:11:47 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
070 53347.05s	15:13:51 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
071 53347.06s	15:15:56 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
072 53347.07s	15:18:00 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
073 53347.08s	15:20:04 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
074 53347.09s	15:22:06 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
075 53347.10s	15:24:09 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
076 53347.11s	15:26:13 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
077 CCV4-0.10	15:28:21 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
078 Rinse	15:30:37 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
079 CCB4	15:32:48 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
080 53360.02s	15:34:52 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
081 53360.03s	15:36:58 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
082 53360.04s	15:39:03 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
083 53360.05s MS-0.10	15:41:06 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
084 53360.06s MSD	15:45:41 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
085 53360.07s	15:49:07 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
086 53360.08s	15:51:12 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
087 53360.09s	15:53:17 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
088 53360.10s	15:55:24 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
089 53360.11s	15:57:29 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
090 53360.12s	15:59:33 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
091 53360.13s	16:01:37 Wed	Soil	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
092 CCV5-0.10	16:03:46 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
093 CCB5	16:08:44 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
094 0801_3 LCS-0.05	16:17:33 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
095 LRB_3	16:22:30 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
096 53283.01s	16:24:23 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
097 53283.01 dil	16:26:28 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
098 53281.01s tclp	16:28:33 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
099 53281.01 MS-0.05	16:30:39 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
100 53281.01 MSD	16:32:45 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
101 CCV6-0.10	16:34:56 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn
102 CCB6	16:39:11 Wed	Liquid	Ag,As,Ba,Cd,Cr,Cu,Pb,Se,Zn

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, August 01, 2012 12:05:12
Sample Description:
Method File: C:\Elandata\Method\Daily-All.mth
Dataset File: C:\Elandata\DataSet\6020-200.8.tun\Daily Performance Check.2569
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Optimization File: C:\Elandata\Optimize\6020-200.8.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Li	7.0	18419.0	18419.027	528.860	2.9
	Be	9.0	5405.9	5405.857	92.208	1.7
	Mg	24.0	63170.6	63170.622	833.429	1.3
	Co	58.9	121238.2	121238.239	2678.914	2.2
	In	114.9	213013.8	213013.760	1027.366	0.5
	Tl	205.0	100956.6	100956.625	743.050	0.7
	Pb	208.0	66319.7	66319.660	444.502	0.7
>	Ce	139.9	207087.8	207087.815	2279.536	1.1
	Ce++	70.0	2049.2	0.010	0.001	5.8
>	Ce-1	139.9	207087.8	207087.815	2279.536	1.1
	CeO	155.9	6512.5	0.031	0.001	1.7
	Bkgd	220.0	24.9	24.875	3.425	13.8

Current Optimization File Data

Current Value	Description
0.75	Nebulizer Gas Flow
9.00	Lens Voltage
1100.00	ICP RF Power
-1985.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	14.5	6350.2
Co	59	33	15.0	133264.7
In	115	33	15.0	202118.5

SmartTune Wizard - Summary

Optimization Summary

Wizard file: C:\Elandata\Wizard\SmartTune\12-0801A.swz

Start Time: 8/1/2012 12:01:05 PM
End Time: 8/1/2012 12:06:52 PM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
- Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.691)
- Target/Obtained mass (9.0122/9.029), Target/Obtained resolution (0.7/0.700)
- Target/Obtained mass (23.985/23.978), Target/Obtained resolution (0.7/0.703)
- Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.693)
- Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.703)
- Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.691)
- Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.700)

Daily Performance Check - [Passed] Optimum value(s): N/A
- Obtained Intensity (Be 9.0122): 5406
- Obtained Intensity (Bkgd 220): 25
- Obtained Intensity (Co 58.9332): 121238
- Obtained Intensity (In 114.904): 213014
- Obtained Intensity (Li 7.016): 18419
- Obtained Intensity (Mg 23.985): 63171
- Obtained Intensity (Pb 207.977): 66320
- Obtained Intensity (Tl 204.975): 100957
- Obtained Formula (CeO 155.9 / Ce 139.905): 0.031 (=6512 / 207088)
- Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.010 (=2049 / 207088)

SmartTune Wizard - Details

Optimization Details

Wizard file: C:\Elandata\Wizard\SmartTune\12-0801A.swz

Optimization Status

Start Time: 8/1/2012 12:01:05 PM

Mass Calibration and Resolution
Optimization Settings:
Method: C:\Elandata\Method\Tuning-All.mth.
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Iterations: 4
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 5
Optimization Results:
First Pass
Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.691)
Target/Obtained mass (9.0122/9.029), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/23.978), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.693)
Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.691)
Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.700)
[Passed] Optimum value(s): N/A

Daily Performance Check
Optimization Settings:
Method: C:\Elandata\Method\Daily-All.mth.
Intensity Criterion: Be 9.0122 > 1000
Intensity Criterion: Bkgd 220 <= 50
Intensity Criterion: Co 58.9332 > 10000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: Li 7.016 > 2500
Intensity Criterion: Mg 23.985 > 7000
Intensity Criterion: Pb 207.977 > 20000
Intensity Criterion: Tl 204.975 > 40000
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.05
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03
Optimization Results:
First Pass
Obtained Intensity (Be 9.0122): 5406
Obtained Intensity (Bkgd 220): 25
Obtained Intensity (Co 58.9332): 121238
Obtained Intensity (In 114.904): 213014
Obtained Intensity (Li 7.016): 18419
Obtained Intensity (Mg 23.985): 63171
Obtained Intensity (Pb 207.977): 66320
Obtained Intensity (Tl 204.975): 100957
Obtained Formula (CeO 155.9 / Ce 139.905): 0.031 (=6512 / 207088)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.010 (=2049 / 207088)
[Passed] Optimum value(s): N/A

End Time: 8/1/2012 12:06:52 PM

Form 15: Internal Standards Summary

IS Check Reference Sample: 038 Blank

Data Set ID: MT2-12-0801A

Instrument ID: PE ELAN

Analysis Date: 08/01/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	281651	70-125	197156-352064	80-120	225321-337981	0
Re	237906	70-125	166534-297383	80-120	190325-285487	0

Seq ID	QC Type	Rh	Re
038		100	100
039		100	100
040		100	100
041		100	100
042		99	100
043		99	100
044		98	100
045		97	99
046	ICV	98	99
047		98	99
048	BS	98	100
049	BS	99	101
050	ICB	98	99
051	S	99	102
052	S	91	95
053	S	93	95
054	S	103	103
055	S	93	96
056	S	94	97
057	S	95	98
058	S	93	97
059	S	96	99
060	S	92	94
061	MS	93	94
062	MSD	93	96
063	CCV	102	101
064	CCB	98	99
065	LCS	97	98
066	LRB	98	98
067	S	97	96
068	S	94	97
069	DIL	96	97
070	S	91	97
071	S	95	98
072	S	99	99
073	S	91	96
074	S	93	98

Form 15: Internal Standards Summary

IS Check Reference Sample: 038 Blank

Data Set ID: MT2-12-0801A

Instrument ID: PE ELAN

Analysis Date: 08/01/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	281651	70-125	197156-352064	80-120	225321-337981	0
Re	237906	70-125	166534-297383	80-120	190325-285487	0

Seq ID	QC Type	Rh	Re
075	S	96	99
076	S	95	98
077	CCV	97	99
078		98	99
079	CCB	98	98
080	S	92	97
081	S	93	96
082	S	92	98
083	MS	92	97
084	MSD	91	96
085	S	90	95
086	S	96	98
087	S	90	95
088	S	97	98
089	S	87	93
090	S	97	99
091	S	92	96
092	CCV	98	97
093	CCB	96	96
094	LCS	97	98
095	LRB	97	97
096	S	94	98
097	DIL	98	101
098	S	94	99
099	MS	93	98
100	MSD	95	99
101	CCV	98	99
102	CCB	97	97

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	Spike (ug/l)	MDL (ug/l)	Prep Batch
Al-27	4/9/2012	0.50	0.189	MTD-040212-1
Sb-121	3/20/2012	1.00	0.105	MTD-032012-3
As-75	3/20/2012	0.05	0.032	MTD-032012-2
Ba-137	3/20/2012	0.50	0.202	MTD-032012-2
Be-9	4/10/2012	0.10	0.079	MTD-041012-1
B-10	3/20/2012	1.00	0.589	MTD-032012-3
B-11	3/20/2012	1.00	0.277	MTD-032012-3
Cd-111	3/20/2012	0.05	0.038	MTD-032012-2
Cd-114	3/20/2012	0.10	0.030	MTD-032012-2
Cr-52	3/20/2012	0.10	0.023	MTD-032012-2
Cr-53	3/20/2012	0.10	0.054	MTD-032012-2
Co-59	3/20/2012	0.10	0.035	MTD-032012-2
Cu-65	3/20/2012	0.50	0.068	MTD-032012-2
Fe-56	4/9/2012	2.00	0.470	MTD-040912-1
Fe-57	4/9/2012	2.00	0.824	MTD-040912-1
Pb-208	3/20/2012	0.10	0.052	MTD-032012-2
Li-7	3/20/2012	1.00	0.166	MTD-032012-3
Mn-55	3/20/2012	0.10	0.187	MTD-032012-2
Mo-95	4/9/2012	0.50	0.442	MTD-040212-1
Ni-60	4/13/2012	0.10	0.035	MTD-041012-1
Se-78	3/20/2012	0.10	0.058	MTD-032012-2
Se-82	3/20/2012	0.50	0.475	MTD-032012-2
Ag-107	3/20/2012	0.10	0.025	MTD-032012-2
Sr-88	3/20/2012	0.10	0.016	MTD-032012-2
Tl-205	4/9/2012	0.50	0.089	MTD-040212-1
Sn-118	3/20/2012	0.10	0.079	MTD-032012-2
Ti-47	3/20/2012	0.50	0.124	MTD-032012-2
V-51	3/20/2012	0.05	0.018	MTD-032012-2
Zn-66	4/9/2012	2.00	0.366	MTD-040912-1

Element/Mass	Date	Spike (mg/l)	MDL (mg/l)	Prep Batch
Ca-43	4/16/2012	0.01	0.0101	MTD-041012-4
Ca-44	4/16/2012	0.01	0.0041	MTD-041012-4
Mg-24	4/16/2012	0.01	0.0006	MTD-041012-4
K-39	4/16/2012	0.01	0.0030	MTD-041012-4
Na-23	4/16/2012	0.10	0.0101	MTD-041012-4

Linear Range June 2012

		Prep Batch	Run Batch
Aluminum	5.0ppm	MTD-061912-5	MT3-12-0619C
Antimony	5.0ppm	MTD-061912-5	MT3-12-0619C
Arsenic	1.0ppm	MTD-061912-5	MT3-12-0619C
Barium	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-10	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-11	5.0ppm	MTD-061912-5	MT3-12-0619C
Beryllium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-111	5.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-114	5.0ppm	MTD-061912-5	MT3-12-0619C
Chromium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cobalt	2.0ppm	MTD-061912-5	MT3-12-0619C
Copper	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-56	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-57	2.0ppm	MTD-061912-5	MT3-12-0619C
Lead	5.0ppm	MTD-061912-5	MT3-12-0619C
Lithium	2.0ppm	MTD-061912-5	MT3-12-0619C
Manganese	1.0ppm	MTD-061912-5	MT3-12-0619C
Molybdenum	1.0ppm	MTD-061912-5	MT3-12-0619C
Nickel	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-78	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-82	5.0ppm	MTD-061912-5	MT3-12-0619C
Silver	1.0ppm	MTD-061912-5	MT3-12-0619C
Strontium-86	5.0ppm	MTD-061912-5	MT3-12-0619C
Thallium	5.0ppm	MTD-061912-5	MT3-12-0619C
Tin	1.0ppm	MTD-061912-5	MT3-12-0619C
Titanium	1.0ppm	MTD-061912-5	MT3-12-0619C
Vanadium	1.0ppm	MTD-061912-5	MT3-12-0619C
Zinc	2.0ppm	MTD-061912-5	MT3-12-0619C

Sodium-23	50ppm	MTD-061912-5	MT3-12-0619B
Magnesium-24	50ppm	MTD-061912-5	MT3-12-0619B
Potassium-39	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-43	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-44	50ppm	MTD-061912-5	MT3-12-0619B

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 001
Method: 10-mich-2is.mth
Acq Time: 12:11:26 Wed 01-Aug-12
Sample Name: Blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1672.654	0	mg/L		3
Cu	65	164.168	0	mg/L		3
Zn	66	504.181	0	mg/L		3
As	75	42.500	0	mg/L		3
Se	82	11.000	0	mg/L		3
Ag	107	66.667	0	mg/L		3
Cd	111	31.667	0	mg/L		3
Ba	137	53.333	0	mg/L		3
Pb	208	781.700	0	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 002
Method: 10-mich-2is.mth
Acq Time: 12:13:22 Wed 01-Aug-12
Sample Name: std-0.000
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1654.317	0.000010	mg/L		3
Cu	65	171.668	0.000013	mg/L		3
Zn	66	450.845	-0.000077	mg/L		3
As	75	46.667	0.000009	mg/L		3
Se	82	-5.667	-0.000292	mg/L		3
Ag	107	79.167	0.000005	mg/L		3
Cd	111	26.667	-0.000006	mg/L		3
Ba	137	59.167	0.000007	mg/L		3
Pb	208	793.368	0.000006	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 003
Method: 10-mich-2is.mth
Acq Time: 12:15:18 Wed 01-Aug-12
Sample Name: std-0.0001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1920.203	0.000081	mg/L		3
Cu	65	166.668	0.000003	mg/L		3
Zn	66	479.179	-0.000043	mg/L		3
As	75	87.500	0.000076	mg/L		3
Se	82	4.333	-0.000112	mg/L		3
Ag	107	302.505	0.000082	mg/L		3
Cd	111	80.000	0.000065	mg/L		3
Ba	137	155.001	0.000088	mg/L		3
Pb	208	918.380	0.000032	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 004
Method: 10-mich-2is.mth
Acq Time: 12:17:20 Wed 01-Aug-12
Sample Name: std-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	5013.049	0.001065	mg/L		3
Cu	65	1085.898	0.000974	mg/L		3
Zn	66	880.876	0.000730	mg/L		3
As	75	646.690	0.001019	mg/L		3
Se	82	45.000	0.000596	mg/L		3
Ag	107	2669.559	0.000903	mg/L		3
Cd	111	713.361	0.000915	mg/L		3
Ba	137	1191.745	0.000993	mg/L		3
Pb	208	4434.415	0.000953	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 005
Method: 10-mich-2is.mth
Acq Time: 12:19:21 Wed 01-Aug-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	17480.959	0.005002	mg/L		3
Cu	65	5137.285	0.005220	mg/L		3
Zn	66	3262.252	0.005278	mg/L		3
As	75	3147.211	0.005206	mg/L		3
Se	82	272.006	0.004546	mg/L		3
Ag	107	13833.017	0.004753	mg/L		3
Cd	111	3466.494	0.004587	mg/L		3
Ba	137	5535.019	0.004753	mg/L		3
Pb	208	19356.433	0.004905	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 006
Method: 10-mich-2is.mth
Acq Time: 12:21:25 Wed 01-Aug-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	66234.732	0.020706	mg/L		3
Cu	65	20181.561	0.021275	mg/L		3
Zn	66	10748.857	0.019882	mg/L		3
As	75	12294.975	0.020804	mg/L		3
Se	82	1130.746	0.019771	mg/L		3
Ag	107	56009.556	0.019572	mg/L		3
Cd	111	13877.253	0.018745	mg/L		3
Ba	137	21472.002	0.018832	mg/L		3
Pb	208	72286.258	0.019671	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 007
Method: 10-mich-2is.mth
Acq Time: 12:23:34 Wed 01-Aug-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	159064.647	0.051260	mg/L		3
Cu	65	49942.706	0.053562	mg/L		3
Zn	66	27290.957	0.052742	mg/L		3
As	75	29942.570	0.051527	mg/L		3
Se	82	2701.753	0.048450	mg/L		3
Ag	107	137607.878	0.049067	mg/L		3
Cd	111	34914.460	0.048215	mg/L		3
Ba	137	53542.276	0.047979	mg/L		3
Pb	208	179386.648	0.048628	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 008
Method: 10-mich-2is.mth
Acq Time: 12:25:51 Wed 01-Aug-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	626033.235	0.200203	mg/L		3
Cu	65	191007.882	0.199777	mg/L		3
Zn	66	100527.094	0.199505	mg/L		3
As	75	118627.304	0.200198	mg/L		3
Se	82	10768.799	0.200278	mg/L		3
Ag	107	544092.407	0.200177	mg/L		3
Cd	111	135318.921	0.199955	mg/L		3
Ba	137	212051.610	0.200238	mg/L		3
Pb	208	706886.528	0.200038	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 009
Method: 10-mich-2is.mth
Acq Time: 12:28:21 Wed 01-Aug-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 07/24/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	309179.926	0.099981	mg/L		3
Cu	65	94216.640	0.099812	mg/L		3
Zn	66	49808.582	0.099710	mg/L		3
As	75	59504.963	0.101749	mg/L		3
Se	82	5295.257	0.099713	mg/L		3
Ag	107	273288.691	0.101903	mg/L		3
Cd	111	68010.132	0.101841	mg/L		3
Ba	137	103111.775	0.098683	mg/L		3
Pb	208	360152.440	0.102519	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 010
Method: 10-mich-2is.mth
Acq Time: 12:31:53 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1581.805	0.000009	mg/L		3
Cu	65	175.002	0.000024	mg/L		3
Zn	66	451.678	-0.000034	mg/L		3
As	75	56.667	0.000030	mg/L		3
Se	82	4.000	-0.000121	mg/L		3
Ag	107	156.668	0.000035	mg/L		3
Cd	111	28.333	-0.000002	mg/L		3
Ba	137	60.834	0.000011	mg/L		3
Pb	208	838.372	0.000021	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 011
Method: 10-mich-2is.mth
Acq Time: 12:33:54 Wed 01-Aug-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1652.651	0.000015	mg/L		3
Cu	65	168.335	0.000011	mg/L		3
Zn	66	450.011	-0.000068	mg/L		3
As	75	46.667	0.000010	mg/L		3
Se	82	10.333	-0.000005	mg/L		3
Ag	107	130.834	0.000024	mg/L		3
Cd	111	36.667	0.000009	mg/L		3
Ba	137	86.667	0.000033	mg/L		3
Pb	208	824.204	0.000014	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 012
Method: 10-mich-2is.mth
Acq Time: 12:36:28 Wed 01-Aug-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3093.027	0.000476	mg/L		3
Cu	65	645.857	0.000507	mg/L		3
As	75	340.840	0.000503	mg/L		3
Se	77	55.667	0.000419	mg/L		3
Ag	107	1567.636	0.000549	mg/L		3
Cd	111	359.174	0.000482	mg/L		3
Ba	137	569.185	0.000485	mg/L		3
Pb	208	2403.651	0.000453	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 013
Method: 10-mich-2is.mth
Acq Time: 12:38:29 Wed 01-Aug-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	4679.539	0.000988	mg/L		3
Cu	65	1002.555	0.000884	mg/L		3
Zn	66	915.880	0.000870	mg/L		3
As	75	621.688	0.000979	mg/L		3
Se	82	61.668	0.000951	mg/L		3
Ag	107	2682.896	0.000961	mg/L		3
Cd	111	657.524	0.000925	mg/L		3
Ba	137	1079.231	0.000969	mg/L		3
Pb	208	4247.659	0.000975	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 014
Method: 10-mich-2is.mth
Acq Time: 12:40:27 Wed 01-Aug-12
Sample Name: BS-0.002
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	7687.416	0.001905	mg/L		3
Cu	65	2025.226	0.001914	mg/L		3
Zn	66	1361.769	0.001709	mg/L		3
As	75	1180.910	0.001883	mg/L		3
Se	82	91.668	0.001480	mg/L		3
Ag	107	5484.155	0.001954	mg/L		3
Cd	111	1300.093	0.001838	mg/L		3
Ba	137	2092.741	0.001886	mg/L		3
Pb	208	7591.505	0.001934	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 015
Method: 10-mich-2is.mth
Acq Time: 12:42:26 Wed 01-Aug-12
Sample Name: ERA-P194
Sample Type: Sample
Matrix: Liquid
Comments: dil 5/1
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	387679.760	0.607957	mg/L		3
Cu	65	162082.299	0.832951	mg/L		3
Zn	66	42094.756	0.407562	mg/L		3
As	75	103710.482	0.859759	mg/L		3
Se	82	10990.450	1.004005	mg/L		3
Ag	107	99130.934	0.179100	mg/L		3
Cd	111	15914.752	0.115338	mg/L		3
Ba	137	148697.616	0.689675	mg/L		3
Pb	208	1279527.235	1.767942	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 016
Method: 10-mich-2is.mth
Acq Time: 12:45:04 Wed 01-Aug-12
Sample Name: Solu-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	71181.956	0.023922	mg/L		3
Cu	65	20710.234	0.023051	mg/L		3
Zn	68	7734.956	0.022293	mg/L		3
As	75	15235.257	0.027469	mg/L		3
Ag	107	48127.934	0.018938	mg/L		3
Cd	114	30868.730	0.020769	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 017
Method: 10-mich-2is.mth
Acq Time: 12:52:40 Wed 01-Aug-12
Sample Name: Solu-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1540.964	-0.000023	mg/L		3
Cu	65	189.169	0.000032	mg/L		3
Zn	66	591.686	0.000205	mg/L		3
As	75	95.834	0.000091	mg/L		3
Se	82	0.333	-0.000187	mg/L		3
Ag	107	78.334	0.000005	mg/L		3
Cd	111	35.000	0.000006	mg/L		3
Ba	137	77.500	0.000024	mg/L		3
Pb	208	325.006	-0.000133	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 018
Method: 10-mich-2is.mth
Acq Time: 12:54:44 Wed 01-Aug-12
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	296660.802	0.096231	mg/L		3
Cu	65	91433.357	0.097213	mg/L		3
Zn	66	49833.717	0.100112	mg/L		3
As	75	57301.726	0.098327	mg/L		3
Se	82	5208.225	0.098416	mg/L		3
Ag	107	269338.073	0.100794	mg/L		3
Cd	111	68563.417	0.103032	mg/L		3
Ba	137	102164.259	0.098087	mg/L		3
Pb	208	371192.637	0.102522	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 019
Method: 10-mich-2is.mth
Acq Time: 12:58:17 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1578.470	0.000002	mg/L		3
Cu	65	234.170	0.000084	mg/L		3
Zn	66	380.008	-0.000188	mg/L		3
As	75	81.667	0.000071	mg/L		3
Se	82	16.667	0.000120	mg/L		3
Ag	107	150.835	0.000033	mg/L		3
Cd	111	44.167	0.000022	mg/L		3
Ba	137	80.834	0.000029	mg/L		3
Pb	208	773.366	-0.000005	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 020
Method: 10-mich-2is.mth
Acq Time: 13:00:22 Wed 01-Aug-12
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1425.112	-0.000044	mg/L		3
Cu	65	161.668	0.000009	mg/L		3
Zn	66	459.178	-0.000023	mg/L		3
As	75	67.500	0.000048	mg/L		3
Se	82	4.000	-0.000118	mg/L		3
Ag	107	109.167	0.000018	mg/L		3
Cd	111	34.167	0.000007	mg/L		3
Ba	137	67.500	0.000017	mg/L		3
Pb	208	852.540	0.000019	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 021
Method: 10-mich-2is.mth
Acq Time: 13:03:57 Wed 01-Aug-12
Sample Name: 0801_1 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	151126.711	0.048756	mg/L		3
Cu	65	46559.833	0.049396	mg/L		3
Zn	66	25172.307	0.050081	mg/L		3
As	75	28246.363	0.048423	mg/L		3
Se	82	2560.058	0.048273	mg/L		3
Ag	107	132720.270	0.049647	mg/L		3
Cd	111	33570.210	0.050424	mg/L		3
Ba	137	52459.265	0.050343	mg/L		3
Pb	208	185787.634	0.050797	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 022
Method: 10-mich-2is.mth
Acq Time: 13:06:48 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1419.277	-0.000043	mg/L		3
Cu	65	202.502	0.000054	mg/L		3
Zn	66	378.341	-0.000181	mg/L		3
As	75	60.834	0.000037	mg/L		3
Se	82	-12.000	-0.000422	mg/L		3
Ag	107	116.667	0.000021	mg/L		3
Cd	111	29.167	-0.000000	mg/L		3
Ba	137	46.667	-0.000003	mg/L		3
Pb	208	686.693	-0.000025	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 023
Method: 10-mich-2is.mth
Acq Time: 13:08:55 Wed 01-Aug-12
Sample Name: LRB_1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1435.947	-0.000045	mg/L		3
Cu	65	43.333	-0.000117	mg/L		3
Zn	66	355.007	-0.000241	mg/L		3
As	75	47.500	0.000013	mg/L		3
Se	82	-9.667	-0.000373	mg/L		3
Ag	107	71.667	0.000003	mg/L		3
Cd	111	16.667	-0.000020	mg/L		3
Ba	137	71.667	0.000020	mg/L		3
Pb	208	275.004	-0.000144	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 035
Method: 10-mich-2is.mth
Acq Time: 13:38:22 Wed 01-Aug-12
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	263588.897	0.095507	mg/L		3
Cu	65	79883.699	0.094874	mg/L		3
Zn	66	43678.017	0.098029	mg/L		3
As	75	48203.373	0.092391	mg/L		3
Se	82	4909.374	0.103664	mg/L		3
Ag	107	245904.085	0.102821	mg/L		3
Cd	111	63320.615	0.106305	mg/L		3
Ba	137	95430.038	0.102378	mg/L		3
Pb	208	371015.271	0.102440	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 036
Method: 10-mich-2is.mth
Acq Time: 13:49:00 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1330.931	-0.000040	mg/L		3
Cu	65	189.169	0.000054	mg/L		3
Zn	66	266.671	-0.000369	mg/L		3
As	75	55.834	0.000035	mg/L		3
Se	82	-13.333	-0.000467	mg/L		3
Ag	107	102.501	0.000018	mg/L		3
Cd	111	30.000	0.000004	mg/L		3
Ba	137	55.834	0.000010	mg/L		3
Pb	208	664.191	-0.000040	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 037
Method: 10-mich-2is.mth
Acq Time: 13:51:05 Wed 01-Aug-12
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1318.429	-0.000040	mg/L		3
Cu	65	145.835	0.000006	mg/L		3
Zn	66	360.007	-0.000157	mg/L		3
As	75	33.333	-0.000006	mg/L		3
Se	82	-4.333	-0.000284	mg/L		3
Ag	107	105.834	0.000020	mg/L		3
Cd	111	24.167	-0.000005	mg/L		3
Ba	137	76.667	0.000032	mg/L		3
Pb	208	829.205	0.000008	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 038
Method: 10-mich-2is.mth
Acq Time: 13:53:55 Wed 01-Aug-12
Sample Name: Blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1292.592	0	mg/L		3
Cu	65	150.835	0	mg/L		3
Zn	66	375.841	0	mg/L		3
As	75	38.333	0	mg/L		3
Se	82	6.667	0	mg/L		3
Ag	107	100.834	0	mg/L		3
Cd	111	20.833	0	mg/L		3
Ba	137	56.667	0	mg/L		3
Pb	208	853.373	0	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 039
Method: 10-mich-2is.mth
Acq Time: 13:55:52 Wed 01-Aug-12
Sample Name: std-0.000
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1313.428	0.000009	mg/L		3
Cu	65	125.001	-0.000030	mg/L		3
Zn	66	353.340	-0.000048	mg/L		3
As	75	34.167	-0.000008	mg/L		3
Se	82	-0.667	-0.000151	mg/L		3
Ag	107	95.834	-0.000002	mg/L		3
Cd	111	25.000	0.000007	mg/L		3
Ba	137	68.334	0.000013	mg/L		3
Pb	208	872.542	0.000006	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 040
Method: 10-mich-2is.mth
Acq Time: 13:57:49 Wed 01-Aug-12
Sample Name: std-0.0001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1498.457	0.000072	mg/L		3
Cu	65	124.168	-0.000031	mg/L		3
Zn	66	384.175	0.000017	mg/L		3
As	75	73.334	0.000065	mg/L		3
Se	82	9.333	0.000055	mg/L		3
Ag	107	278.338	0.000072	mg/L		3
Cd	111	79.167	0.000095	mg/L		3
Ba	137	129.168	0.000075	mg/L		3
Pb	208	1022.558	0.000045	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 041
Method: 10-mich-2is.mth
Acq Time: 13:59:51 Wed 01-Aug-12
Sample Name: std-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3933.351	0.000942	mg/L		3
Cu	65	870.875	0.000838	mg/L		3
Zn	66	722.529	0.000771	mg/L		3
As	75	566.684	0.000991	mg/L		3
Se	82	37.667	0.000643	mg/L		3
Ag	107	2378.645	0.000931	mg/L		3
Cd	111	638.356	0.001014	mg/L		3
Ba	137	1004.222	0.000994	mg/L		3
Pb	208	4390.228	0.000957	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 042
Method: 10-mich-2is.mth
Acq Time: 14:01:52 Wed 01-Aug-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	14876.330	0.004854	mg/L		3
Cu	65	4135.941	0.004650	mg/L		3
Zn	66	2459.500	0.004633	mg/L		3
As	75	2527.019	0.004679	mg/L		3
Se	82	249.339	0.005035	mg/L		3
Ag	107	12161.473	0.004943	mg/L		3
Cd	111	3169.719	0.005185	mg/L		3
Ba	137	4852.962	0.005047	mg/L		3
Pb	208	19800.709	0.005156	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 043
Method: 10-mich-2is.mth
Acq Time: 14:03:57 Wed 01-Aug-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	55790.712	0.019514	mg/L		3
Cu	65	16357.206	0.018951	mg/L		3
Zn	66	9261.383	0.019777	mg/L		3
As	75	9919.577	0.018628	mg/L		3
Se	82	997.064	0.020586	mg/L		3
Ag	107	49150.861	0.020141	mg/L		3
Cd	111	12834.889	0.021119	mg/L		3
Ba	137	19621.991	0.020615	mg/L		3
Pb	208	77461.125	0.020819	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 044
Method: 10-mich-2is.mth
Acq Time: 14:06:06 Wed 01-Aug-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	133454.120	0.048043	mg/L		3
Cu	65	40030.450	0.047495	mg/L		3
Zn	66	22754.280	0.050621	mg/L		3
As	75	24854.766	0.047558	mg/L		3
Se	82	2413.012	0.050593	mg/L		3
Ag	107	123502.602	0.051272	mg/L		3
Cd	111	31900.887	0.053110	mg/L		3
Ba	137	48807.336	0.051916	mg/L		3
Pb	208	190166.095	0.051309	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 045
Method: 10-mich-2is.mth
Acq Time: 14:08:22 Wed 01-Aug-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	525793.259	0.199966	mg/L		3
Cu	65	158314.128	0.199989	mg/L		3
Zn	66	86963.991	0.199697	mg/L		3
As	75	99112.350	0.200115	mg/L		3
Se	82	9538.104	0.199944	mg/L		3
Ag	107	480491.251	0.199779	mg/L		3
Cd	111	124234.794	0.199768	mg/L		3
Ba	137	191331.672	0.199869	mg/L		3
Pb	208	749992.982	0.199937	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 046
Method: 10-mich-2is.mth
Acq Time: 14:10:52 Wed 01-Aug-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 07/24/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	258669.420	0.097522	mg/L		3
Cu	65	80127.433	0.100507	mg/L		3
Zn	66	43529.827	0.098940	mg/L		3
As	75	49721.437	0.099754	mg/L		3
Se	82	4793.648	0.099814	mg/L		3
Ag	107	242228.466	0.100111	mg/L		3
Cd	111	63587.511	0.101648	mg/L		3
Ba	137	95579.158	0.099174	mg/L		3
Pb	208	379371.916	0.101511	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 047
Method: 10-mich-2is.mth
Acq Time: 14:13:40 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1277.590	0.000004	mg/L		3
Cu	65	144.168	-0.000005	mg/L		3
Zn	66	334.173	-0.000078	mg/L		3
As	75	40.833	0.000007	mg/L		3
Se	82	18.334	0.000245	mg/L		3
Ag	107	150.835	0.000021	mg/L		3
Cd	111	29.167	0.000014	mg/L		3
Ba	137	62.500	0.000007	mg/L		3
Pb	208	877.542	0.000008	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 048
Method: 10-mich-2is.mth
Acq Time: 14:15:40 Wed 01-Aug-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2531.186	0.000477	mg/L		3
Cu	65	552.517	0.000507	mg/L		3
As	75	308.339	0.000542	mg/L		3
Se	77	42.667	0.000482	mg/L		3
Ag	107	1410.109	0.000540	mg/L		3
Cd	111	360.007	0.000541	mg/L		3
Ba	137	595.020	0.000558	mg/L		3
Pb	208	2542.022	0.000449	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 049
Method: 10-mich-2is.mth
Acq Time: 14:17:40 Wed 01-Aug-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3935.852	0.000995	mg/L		3
Cu	65	866.708	0.000891	mg/L		3
Zn	66	719.195	0.000787	mg/L		3
As	75	563.351	0.001041	mg/L		3
Se	82	41.334	0.000715	mg/L		3
Ag	107	2441.995	0.000957	mg/L		3
Cd	111	651.690	0.000996	mg/L		3
Ba	137	1016.724	0.000985	mg/L		3
Pb	208	4360.212	0.000923	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 050
Method: 10-mich-2is.mth
Acq Time: 14:19:41 Wed 01-Aug-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1269.255	0.000003	mg/L		3
Cu	65	132.501	-0.000018	mg/L		3
Zn	66	377.508	0.000024	mg/L		3
As	75	40.833	0.000007	mg/L		3
Se	82	-12.667	-0.000395	mg/L		3
Ag	107	150.001	0.000021	mg/L		3
Cd	111	22.500	0.000003	mg/L		3
Ba	137	90.834	0.000037	mg/L		3
Pb	208	885.043	0.000010	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 063
Method: 10-mich-2is.mth
Acq Time: 14:51:07 Wed 01-Aug-12
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	289295.129	0.104252	mg/L		3
Cu	65	79239.730	0.094951	mg/L		3
Zn	66	43182.323	0.093714	mg/L		3
As	75	53284.885	0.102142	mg/L		3
Se	82	5218.886	0.103836	mg/L		3
Ag	107	253242.830	0.099968	mg/L		3
Cd	111	64567.705	0.098567	mg/L		3
Ba	137	100501.696	0.099639	mg/L		3
Pb	208	381684.434	0.100278	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 064
Method: 10-mich-2is.mth
Acq Time: 14:56:50 Wed 01-Aug-12
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-1
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1641.815	0.000140	mg/L		3
Cu	65	205.836	0.000072	mg/L		3
Zn	66	352.507	-0.000039	mg/L		3
As	75	41.667	0.000008	mg/L		3
Se	82	-7.667	-0.000296	mg/L		3
Ag	107	93.334	-0.000002	mg/L		3
Cd	111	30.833	0.000016	mg/L		3
Ba	137	95.834	0.000041	mg/L		3
Pb	208	805.036	-0.000010	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 065
Method: 10-mich-2is.mth
Acq Time: 14:59:02 Wed 01-Aug-12
Sample Name: 0801_2 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	140047.405	0.052702	mg/L		3
Cu	65	39340.782	0.049364	mg/L		3
Zn	66	21789.415	0.049214	mg/L		3
As	75	26170.959	0.052584	mg/L		3
Se	82	2522.379	0.052593	mg/L		3
Ag	107	121223.927	0.050184	mg/L		3
Cd	111	31235.241	0.050011	mg/L		3
Ba	137	48667.424	0.050597	mg/L		3
Pb	208	188386.277	0.050735	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 066
Method: 10-mich-2is.mth
Acq Time: 15:05:44 Wed 01-Aug-12
Sample Name: LRB_2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1500.124	0.000087	mg/L		3
Cu	65	34.167	-0.000142	mg/L		3
Zn	66	188.335	-0.000412	mg/L		3
As	75	26.667	-0.000022	mg/L		3
Se	82	5.333	-0.000024	mg/L		3
Ag	107	64.167	-0.000014	mg/L		3
Cd	111	9.167	-0.000018	mg/L		3
Ba	137	72.500	0.000017	mg/L		3
Pb	208	117.501	-0.000194	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 077
Method: 10-mich-2is.mth
Acq Time: 15:28:21 Wed 01-Aug-12
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	274314.098	0.104083	mg/L		3
Cu	65	74053.767	0.093427	mg/L		3
Zn	66	40947.022	0.093577	mg/L		3
As	75	50863.573	0.102643	mg/L		3
Se	82	4983.749	0.104393	mg/L		3
Ag	107	241921.969	0.100572	mg/L		3
Cd	111	61405.893	0.098735	mg/L		3
Ba	137	97491.694	0.101761	mg/L		3
Pb	208	377648.628	0.101073	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 078
Method: 10-mich-2is.mth
Acq Time: 15:30:37 Wed 01-Aug-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1248.419	-0.000006	mg/L		3
Cu	65	44.167	-0.000130	mg/L		3
Zn	66	165.835	-0.000462	mg/L		3
As	75	25.833	-0.000023	mg/L		3
Se	82	20.334	0.000287	mg/L		3
Ag	107	157.501	0.000024	mg/L		3
Cd	111	17.500	-0.000004	mg/L		3
Ba	137	77.500	0.000023	mg/L		3
Pb	208	320.006	-0.000140	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 079
Method: 10-mich-2is.mth
Acq Time: 15:32:48 Wed 01-Aug-12
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1317.596	0.000021	mg/L		3
Cu	65	198.336	0.000064	mg/L		3
Zn	66	327.506	-0.000090	mg/L		3
As	75	45.000	0.000015	mg/L		3
Se	82	0.333	-0.000127	mg/L		3
Ag	107	125.001	0.000011	mg/L		3
Cd	111	33.333	0.000021	mg/L		3
Ba	137	75.000	0.000021	mg/L		3
Pb	208	878.376	0.000010	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 080
Method: 10-mich-2is.mth
Acq Time: 15:34:52 Wed 01-Aug-12
Sample Name: 53360.02s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 244

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	78896.753	7.595434	mg/kg		3
Cu	65	53430.743	17.275627	mg/kg		3
Zn	66	59282.752	34.840599	mg/kg		3
As	75	6790.036	3.497771	mg/kg		3
Se	82	28.334	0.119824	mg/kg		3
Ag	107	869.208	0.082729	mg/kg		3
Cd	111	530.849	0.211074	mg/kg		3
Ba	137	204569.439	54.786501	mg/kg		3
Pb	208	135342.650	8.975541	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 081
Method: 10-mich-2is.mth
Acq Time: 15:36:58 Wed 01-Aug-12
Sample Name: 53360.03s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 223

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	41070.118	3.521914	mg/kg		3
Cu	65	16525.006	4.802489	mg/kg		3
Zn	66	22602.233	11.894812	mg/kg		3
As	75	965.885	0.435064	mg/kg		3
Se	82	26.334	0.097459	mg/kg		3
Ag	107	410.843	0.030549	mg/kg		3
Cd	111	315.005	0.110316	mg/kg		3
Ba	137	130111.299	31.501859	mg/kg		3
Pb	208	65999.546	4.000131	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 082
Method: 10-mich-2is.mth
Acq Time: 15:39:03 Wed 01-Aug-12
Sample Name: 53360.04s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 214

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	36507.348	3.041014	mg/kg		3
Cu	65	17492.657	4.954699	mg/kg		3
Zn	66	20914.036	10.713427	mg/kg		3
As	75	1010.056	0.444681	mg/kg		3
Se	82	13.000	0.032629	mg/kg		3
Ag	107	195.002	0.009574	mg/kg		3
Cd	111	450.845	0.156953	mg/kg		3
Ba	137	116718.000	27.527609	mg/kg		3
Pb	208	62568.760	3.579292	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 083
Method: 10-mich-2is.mth
Acq Time: 15:41:06 Wed 01-Aug-12
Sample Name: 53360.05s MS-0.10
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 216

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	305696.528	26.535905	mg/kg		3
Cu	65	92335.838	26.647130	mg/kg		3
Zn	66	62196.254	32.604895	mg/kg		3
As	75	50118.611	23.124686	mg/kg		3
Se	82	4285.062	20.519886	mg/kg		3
Ag	107	216989.598	20.620700	mg/kg		3
Cd	111	59633.394	21.917930	mg/kg		3
Ba	137	191701.025	45.768699	mg/kg		3
Pb	208	406374.987	23.910769	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 084
Method: 10-mich-2is.mth
Acq Time: 15:45:41 Wed 01-Aug-12
Sample Name: 53360.06s MSD
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 216

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	307839.877	26.824640	mg/kg		3
Cu	65	90661.643	26.270995	mg/kg		3
Zn	66	61850.552	32.556543	mg/kg		3
As	75	49165.107	22.777113	mg/kg		3
Se	82	4274.067	20.543750	mg/kg		3
Ag	107	221017.364	21.089371	mg/kg		3
Cd	111	60930.210	22.483978	mg/kg		3
Ba	137	187737.342	44.998931	mg/kg		3
Pb	208	402833.432	23.965831	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 085
Method: 10-mich-2is.mth
Acq Time: 15:49:07 Wed 01-Aug-12
Sample Name: 53360.07s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 229

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	73489.248	6.788760	mg/kg		3
Cu	65	19145.989	5.918146	mg/kg		3
Zn	66	35006.439	19.685207	mg/kg		3
As	75	3238.077	1.593352	mg/kg		3
Se	82	27.667	0.111035	mg/kg		3
Ag	107	520.015	0.043926	mg/kg		3
Cd	111	344.173	0.128872	mg/kg		3
Ba	137	225645.243	58.037111	mg/kg		3
Pb	208	77952.810	4.928516	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 086
Method: 10-mich-2is.mth
Acq Time: 15:51:12 Wed 01-Aug-12
Sample Name: 53360.08s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 213

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	45899.773	3.657217	mg/kg		3
Cu	65	16777.134	4.518382	mg/kg		3
Zn	66	17066.845	8.276945	mg/kg		3
As	75	1135.905	0.476918	mg/kg		3
Se	82	16.000	0.043015	mg/kg		3
Ag	107	280.838	0.016411	mg/kg		3
Cd	111	215.003	0.067361	mg/kg		3
Ba	137	78992.603	17.717918	mg/kg		3
Pb	208	44615.904	2.509530	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 087
Method: 10-mich-2is.mth
Acq Time: 15:53:17 Wed 01-Aug-12
Sample Name: 53360.09s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 241

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	91077.379	8.934727	mg/kg		3
Cu	65	19044.093	6.231773	mg/kg		3
Zn	66	40053.882	23.873849	mg/kg		3
As	75	2531.186	1.314612	mg/kg		3
Se	82	17.000	0.060238	mg/kg		3
Ag	107	493.347	0.043673	mg/kg		3
Cd	111	430.844	0.172780	mg/kg		3
Ba	137	265426.663	72.264890	mg/kg		3
Pb	208	84569.140	5.603052	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 088
Method: 10-mich-2is.mth
Acq Time: 15:55:24 Wed 01-Aug-12
Sample Name: 53360.10s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 227

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	33796.044	2.833338	mg/kg		3
Cu	65	10152.335	2.888133	mg/kg		3
Zn	66	14524.929	7.456540	mg/kg		3
As	75	989.221	0.439139	mg/kg		3
Se	82	12.000	0.026531	mg/kg		3
Ag	107	171.668	0.007033	mg/kg		3
Cd	111	195.835	0.064520	mg/kg		3
Ba	137	108106.649	25.769750	mg/kg		3
Pb	208	52657.088	3.186596	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 089
Method: 10-mich-2is.mth
Acq Time: 15:57:29 Wed 01-Aug-12
Sample Name: 53360.11s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 237

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	92887.191	9.278887	mg/kg		3
Cu	65	49320.941	16.498046	mg/kg		3
Zn	66	57344.465	34.879158	mg/kg		3
As	75	10149.003	5.418160	mg/kg		3
Se	82	53.668	0.266368	mg/kg		3
Ag	107	710.861	0.068767	mg/kg		3
Cd	111	614.187	0.254440	mg/kg		3
Ba	137	240567.085	66.664689	mg/kg		3
Pb	208	124886.175	8.408499	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 090
Method: 10-mich-2is.mth
Acq Time: 15:59:33 Wed 01-Aug-12
Sample Name: 53360.12s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 233

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	36736.581	3.147680	mg/kg		3
Cu	65	59310.451	17.406941	mg/kg		3
Zn	66	58343.358	31.111729	mg/kg		3
As	75	2367.809	1.095397	mg/kg		3
Se	82	18.000	0.056201	mg/kg		3
Ag	107	425.843	0.031708	mg/kg		3
Cd	111	736.697	0.268243	mg/kg		3
Ba	137	114690.672	27.872148	mg/kg		3
Pb	208	614730.669	38.437631	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 091
Method: 10-mich-2is.mth
Acq Time: 16:01:37 Wed 01-Aug-12
Sample Name: 53360.13s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 219

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	50730.354	4.370166	mg/kg		3
Cu	65	32240.425	9.391980	mg/kg		3
Zn	66	29839.741	15.738272	mg/kg		3
As	75	1650.151	0.754729	mg/kg		3
Se	82	18.334	0.059242	mg/kg		3
Ag	107	339.173	0.023726	mg/kg		3
Cd	111	349.173	0.122953	mg/kg		3
Ba	137	130698.689	31.586568	mg/kg		3
Pb	208	163074.962	9.832858	mg/kg		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 092
Method: 10-mich-2is.mth
Acq Time: 16:03:46 Wed 01-Aug-12
Sample Name: CCV5-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	270693.787	0.101994	mg/L		3
Cu	65	75846.955	0.095021	mg/L		3
Zn	66	41446.784	0.094051	mg/L		3
As	75	51051.279	0.102325	mg/L		3
Se	82	5037.115	0.104803	mg/L		3
Ag	107	243230.401	0.100402	mg/L		3
Cd	111	61878.241	0.098796	mg/L		3
Ba	137	95376.952	0.098901	mg/L		3
Pb	208	370620.787	0.100871	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 093
Method: 10-mich-2is.mth
Acq Time: 16:08:44 Wed 01-Aug-12
Sample Name: CCB5
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-2
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1462.618	0.000084	mg/L		3
Cu	65	206.669	0.000078	mg/L		3
Zn	66	324.172	-0.000087	mg/L		3
As	75	44.167	0.000015	mg/L		3
Se	82	13.333	0.000149	mg/L		3
Ag	107	100.001	0.000001	mg/L		3
Cd	111	24.167	0.000007	mg/L		3
Ba	137	75.834	0.000022	mg/L		3
Pb	208	893.377	0.000019	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 094
Method: 10-mich-2is.mth
Acq Time: 16:17:33 Wed 01-Aug-12
Sample Name: 0801_3 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-3
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	139705.360	0.052603	mg/L		3
Cu	65	38192.586	0.047938	mg/L		3
Zn	66	20732.785	0.046812	mg/L		3
As	75	25757.275	0.051775	mg/L		3
Se	82	2517.378	0.052513	mg/L		3
Ag	107	121093.115	0.050144	mg/L		3
Cd	111	31241.100	0.050039	mg/L		3
Ba	137	48565.215	0.050509	mg/L		3
Pb	208	187481.931	0.050663	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 095
Method: 10-mich-2is.mth
Acq Time: 16:22:30 Wed 01-Aug-12
Sample Name: LRB_3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-3
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1376.771	0.000047	mg/L		3
Cu	65	46.667	-0.000126	mg/L		3
Zn	66	236.670	-0.000295	mg/L		3
As	75	28.333	-0.000018	mg/L		3
Se	82	-12.000	-0.000386	mg/L		3
Ag	107	57.500	-0.000017	mg/L		3
Cd	111	15.000	-0.000008	mg/L		3
Ba	137	49.167	-0.000006	mg/L		3
Pb	208	226.670	-0.000164	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 101
Method: 10-mich-2is.mth
Acq Time: 16:34:56 Wed 01-Aug-12
Sample Name: CCV6-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-3
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	274380.692	0.103478	mg/L		3
Cu	65	75878.720	0.095163	mg/L		3
Zn	66	41188.122	0.093548	mg/L		3
As	75	49696.329	0.099656	mg/L		3
Se	82	4760.299	0.099071	mg/L		3
Ag	107	240852.433	0.099469	mg/L		3
Cd	111	62072.067	0.099153	mg/L		3
Ba	137	98292.692	0.101982	mg/L		3
Pb	208	382349.853	0.101998	mg/L		3

Data Set: MT2-12-0801A
Run Date: 08/01/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 102
Method: 10-mich-2is.mth
Acq Time: 16:39:11 Wed 01-Aug-12
Sample Name: CCB6
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0801A.cal
Cal Type: External Calibration
Last Calib: mtd-080112-3
Bkg File:
Int Correct:
Blank File: Blank.039

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1396.774	0.000056	mg/L		3
Cu	65	195.835	0.000063	mg/L		3
Zn	66	301.672	-0.000143	mg/L		3
As	75	100.001	0.000128	mg/L		3
Se	82	41.667	0.000744	mg/L		3
Ag	107	127.501	0.000013	mg/L		3
Cd	111	35.000	0.000024	mg/L		3
Ba	137	83.334	0.000030	mg/L		3
Pb	208	867.541	0.000010	mg/L		3

Metals Digestion

3015A (3050B)

DATE 08/01/12

TIME START 10:00

ANALYST RR

TIME FINISH 10:15

PREP BATCH MTD- 080112-2

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS- 2	----	50	50		—	1
LRB- 2	----	50	50		—	1
53347.04		0.258		dil 5/1 = 1010	96	202
05		0.259			96	201
06		0.250			83	241
07		0.247			84	241
08		0.262			85	224
09		0.251			81	246
10		0.259			98	197
11		0.262			84	227
15		25		FEB	-	2
53360.02		0.252		198	81	244
03		0.251		199	89	223
04		0.254		197	92	214
05 MS		0.254		TO #4 197	91	216
06 MSD		0.254		197	91	216
07		0.251		199	87	229
08		0.263		190	89	213
09		0.252		198	82	241
10		0.248		202	89	227
11		0.254		197	83	237
12		0.252		198	85	233
13		0.254		197	90	219

NOTES: *1) Spike values (unless otherwise stated):*
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078 + D2-SN62033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 112533

3) HNO_3 Lot # 51332-OmniTrace

4) Centrifuge Tube Lot # 120201-960-1

5) Balance ID: M1

Reviewed by SM *On* 08/02/12

Form 0: Sequence Log

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	8/2/2012 2:04:16 PM	Calibration Blank	Liquid	
002	8/2/2012 2:06:31 PM	Standard #1	Liquid	
003	8/2/2012 2:08:45 PM	Standard #2	Liquid	
004	8/2/2012 2:10:59 PM	Standard #3	Liquid	
005	8/2/2012 2:13:12 PM	Standard #4	Liquid	
006	8/2/2012 2:15:25 PM	Standard #5	Liquid	
007	8/2/2012 2:17:36 PM	Standard #6	Liquid	
008	8/2/2012 2:21:33 PM	Standard #7	Liquid	
009	8/2/2012 2:25:26 PM	CCV1-2.0 ppb	Liquid	CCV
010	8/2/2012 2:27:45 PM	CCB1	Liquid	CCB
011	8/2/2012 2:30:03 PM	ICV-5.0	Liquid	ICV
012	8/2/2012 2:34:11 PM	ICB	Liquid	ICB
013	8/2/2012 2:36:28 PM	ERA 8121-05 TV=15.9	Liquid	ERA
014	8/2/2012 2:40:55 PM	BS-0.10	Liquid	BS
015	8/2/2012 2:43:15 PM	08/02 LCS1-2.0 ppb	Liquid	LCS
016	8/2/2012 2:45:35 PM	08/02 LRB1	Liquid	LRB
017	8/2/2012 2:47:46 PM	53384.01s	Liquid	S
018	8/2/2012 2:49:58 PM	53384.02s	Liquid	S
019	8/2/2012 2:52:10 PM	53384.03s	Liquid	S
020	8/2/2012 2:54:23 PM	53384.04s	Liquid	S
021	8/2/2012 2:56:36 PM	53385.01s	Liquid	S
022	8/2/2012 2:58:50 PM	53385.02s	Liquid	S
023	8/2/2012 3:01:05 PM	53385.03s	Liquid	S
024	8/2/2012 3:03:16 PM	53385.04s	Liquid	S
025	8/2/2012 3:05:29 PM	53385.05s	Liquid	S
026	8/2/2012 3:07:42 PM	53385.06s	Liquid	S
027	8/2/2012 3:09:55 PM	53385.06 MS-2.0 ppb	Liquid	MS
028	8/2/2012 3:12:09 PM	53385.06 MSD	Liquid	MSD
029	8/2/2012 3:14:28 PM	CCV2-2.0 ppb	Liquid	CCV
030	8/2/2012 3:16:47 PM	CCB2	Liquid	CCB
031	8/2/2012 3:19:07 PM	08/02 LCS2-2.0 ppb	Soil	LCS
032	8/2/2012 3:21:27 PM	08/02 LRB2	Soil	LRB
033	8/2/2012 3:23:42 PM	53360.02s	Soil	S
034	8/2/2012 3:25:57 PM	53360.03s	Soil	S
035	8/2/2012 3:28:09 PM	53360.07s	Soil	S
036	8/2/2012 3:30:22 PM	53360.08s	Soil	S
037	8/2/2012 3:32:36 PM	53360.09s	Soil	S
038	8/2/2012 3:34:51 PM	53360.10s	Soil	S
039	8/2/2012 3:37:06 PM	53360.11s	Soil	S
040	8/2/2012 3:39:21 PM	53360.12s	Soil	S
041	8/2/2012 3:41:37 PM	53360.13s	Soil	S
042	8/2/2012 3:43:50 PM	53360.04s	Soil	S
043	8/2/2012 3:46:04 PM	53360.05s MS-2.0 ppb	Soil	MS
044	8/2/2012 3:48:18 PM	53360.06s MSD	Soil	MSD
045	8/2/2012 3:50:37 PM	CCV3-2.0 ppb	Liquid	CCV
046	8/2/2012 3:52:56 PM	CCB3	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.02
Sample Tag: SB120 (07-26-12) (4-6)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	61	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.03
Sample Tag: SB169 (07-26-12) (1.5-3.5)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	57	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.04
Sample Tag: SB144 (07-26-12) (1.5-3.5)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	54	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.05
Sample Tag: SB144 (07-26-12) (1.5-3.5) MS
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.118	0.050		mg/kg	55	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.06
Sample Tag: SB144 (07-26-12) (1.5-3.5) MSD
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.118	0.050		mg/kg	55	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.07
Sample Tag: SB144 (07-26-12) (7.5-9.5)
Date Collected: 07/26/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	57	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.08
Sample Tag: SB145 (07-27-12) (2-4)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	56	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.09
Sample Tag: SB145 (07-27-12) (6-8)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	60	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.10
Sample Tag: SB106 (07-27-12) (8-10)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	56	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.11
Sample Tag: SB106 (07-27-12) (32-34)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	59	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.12
Sample Tag: SB100 (07-27-12) (2-4)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	57	08/02/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Lab Sample ID: S53360.13
Sample Tag: SB101 (07-27-12) (2.5-4.5)
Date Collected: 07/27/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	55	08/02/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 CCV1-2.0 ppb	CCV	1.0	Hg	2.041	2.0	102	90/110	ug/L	Liquid
011 ICV-5.0	ICV	1.0	Hg	5.093	5.0	102	90/110	ug/L	Liquid
029 CCV2-2.0 ppb	CCV	1.0	Hg	2.003	2.0	100	90/110	ug/L	Liquid
045 CCV3-2.0 ppb	CCV	1.0	Hg	1.983	2.0	99	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: 8121-05

Data Set ID: HG2-12-0802A

Instrument ID: HG QuickTrace

Analysis Date: 08/02/12

Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
013 ERA 8121-05 TV=15.9	2.0	Hg	16.45	15.9	104	9.76	21.5	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0193	ug/L	Liquid
012 ICB	ICB	1.0	Hg	<0.03	-0.0174	ug/L	Liquid
016 08/02 LRB1	LRB	1.0	Hg	<0.03	0.0023	ug/L	Liquid
030 CCB2	CCB	1.0	Hg	<0.03	-0.0199	ug/L	Liquid
032 08/02 LRB2	LRB	50.0	Hg	<0.15	0.1050	ug/kg	Soil
046 CCB3	CCB	1.0	Hg	<0.03	-0.0195	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0802A

Instrument ID: HG QuickTrace

Analysis Date: 08/02/12

Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
014 BS-0.10		1.0	Hg	0.095	ND	0.10	95	70/130	ug/L	Liquid
027 53385.06 MS-2.0	**026 53385.06s**	1.0	Hg	1.916	<0.2	2.0	96	80/120	ug/L	Liquid
043 53360.05s	**042 53360.04s**	55.1	Hg	118.3	<50	110.2	107	80/120	ug/kg	Soil

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
028 53385.06 MSD	**027 53385.06 MS-2.0**	1.0	Hg	1.898	1.916	1	0/20	ug/L	Liquid
044 53360.06s MSD	**043 53360.05s MS-2.0**	55.2	Hg	118.2	118.3	0	0/20	ug/kg	Soil

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 08/02 LCS1-2.0 ppb	1.0	Hg	2.050	2.0	103	85/115	ug/L	Liquid
031 08/02 LCS2-2.0 ppb	50.0	Hg	102.0	100	102	85/115	ug/kg	Soil

Form 13: Analysis Run Log

Data Set ID: HG2-12-0802A
Instrument ID: HG QuickTrace
Analysis Date: 08/02/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	8/2/2012 2:04:16 PM	Liquid	Hg
002 Standard #1	8/2/2012 2:06:31 PM	Liquid	Hg
003 Standard #2	8/2/2012 2:08:45 PM	Liquid	Hg
004 Standard #3	8/2/2012 2:10:59 PM	Liquid	Hg
005 Standard #4	8/2/2012 2:13:12 PM	Liquid	Hg
006 Standard #5	8/2/2012 2:15:25 PM	Liquid	Hg
007 Standard #6	8/2/2012 2:17:36 PM	Liquid	Hg
008 Standard #7	8/2/2012 2:21:33 PM	Liquid	Hg
009 CCV1-2.0 ppb	8/2/2012 2:25:26 PM	Liquid	Hg
010 CCB1	8/2/2012 2:27:45 PM	Liquid	Hg
011 ICV-5.0	8/2/2012 2:30:03 PM	Liquid	Hg
012 ICB	8/2/2012 2:34:11 PM	Liquid	Hg
013 ERA 8121-05 TV=15.9	8/2/2012 2:36:28 PM	Liquid	Hg
014 BS-0.10	8/2/2012 2:40:55 PM	Liquid	Hg
015 08/02 LCS1-2.0 ppb	8/2/2012 2:43:15 PM	Liquid	Hg
016 08/02 LRB1	8/2/2012 2:45:35 PM	Liquid	Hg
017 53384.01s	8/2/2012 2:47:46 PM	Liquid	Hg
018 53384.02s	8/2/2012 2:49:58 PM	Liquid	Hg
019 53384.03s	8/2/2012 2:52:10 PM	Liquid	Hg
020 53384.04s	8/2/2012 2:54:23 PM	Liquid	Hg
021 53385.01s	8/2/2012 2:56:36 PM	Liquid	Hg
022 53385.02s	8/2/2012 2:58:50 PM	Liquid	Hg
023 53385.03s	8/2/2012 3:01:05 PM	Liquid	Hg
024 53385.04s	8/2/2012 3:03:16 PM	Liquid	Hg
025 53385.05s	8/2/2012 3:05:29 PM	Liquid	Hg
026 53385.06s	8/2/2012 3:07:42 PM	Liquid	Hg
027 53385.06 MS-2.0 ppb	8/2/2012 3:09:55 PM	Liquid	Hg
028 53385.06 MSD	8/2/2012 3:12:09 PM	Liquid	Hg
029 CCV2-2.0 ppb	8/2/2012 3:14:28 PM	Liquid	Hg
030 CCB2	8/2/2012 3:16:47 PM	Liquid	Hg
031 08/02 LCS2-2.0 ppb	8/2/2012 3:19:07 PM	Soil	Hg
032 08/02 LRB2	8/2/2012 3:21:27 PM	Soil	Hg
033 53360.02s	8/2/2012 3:23:42 PM	Soil	Hg
034 53360.03s	8/2/2012 3:25:57 PM	Soil	Hg
035 53360.07s	8/2/2012 3:28:09 PM	Soil	Hg
036 53360.08s	8/2/2012 3:30:22 PM	Soil	Hg
037 53360.09s	8/2/2012 3:32:36 PM	Soil	Hg
038 53360.10s	8/2/2012 3:34:51 PM	Soil	Hg
039 53360.11s	8/2/2012 3:37:06 PM	Soil	Hg
040 53360.12s	8/2/2012 3:39:21 PM	Soil	Hg
041 53360.13s	8/2/2012 3:41:37 PM	Soil	Hg
042 53360.04s	8/2/2012 3:43:50 PM	Soil	Hg
043 53360.05s MS-2.0 ppb	8/2/2012 3:46:04 PM	Soil	Hg
044 53360.06s MSD	8/2/2012 3:48:18 PM	Soil	Hg
045 CCV3-2.0 ppb	8/2/2012 3:50:37 PM	Liquid	Hg
046 CCB3	8/2/2012 3:52:56 PM	Liquid	Hg

Data Set: HG2-12-0802A
Run Date: 08/02/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	8/2/2012 2:04:16 PM	Calibration Blank	984.9000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	8/2/2012 2:06:31 PM	Standard #1	2242.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	8/2/2012 2:08:45 PM	Standard #2	3283.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	8/2/2012 2:10:59 PM	Standard #3	6674.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	8/2/2012 2:13:12 PM	Standard #4	12340.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	8/2/2012 2:15:25 PM	Standard #5	23670.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	8/2/2012 2:17:36 PM	Standard #6	68150.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	8/2/2012 2:21:33 PM	Standard #7	112300.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	8/2/2012 2:25:26 PM	CCV1-2.0 ppb	23880.0000	2.0410	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	8/2/2012 2:27:45 PM	CCB1	938.3000	-0.0193	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	8/2/2012 2:30:03 PM	ICV-5.0	57860.0000	5.0930	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	8/2/2012 2:34:11 PM	ICB	959.2000	-0.0174	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	8/2/2012 2:36:28 PM	ERA 8121-05 TV=15.9	92750.0000	16.4540	ug/L	Liquid	2.0	1.0000	2.0000
Hg	014	8/2/2012 2:40:55 PM	BS-0.10	2207.0000	0.0947	ug/L	Liquid	1.0	1.0000	1.0000
Hg	015	8/2/2012 2:43:15 PM	08/02 LCS1-2.0 ppb	23980.0000	2.0500	ug/L	Liquid	1.0	1.0000	1.0000
Hg	016	8/2/2012 2:45:35 PM	08/02 LRB1	1179.0000	0.0023	ug/L	Liquid	1.0	1.0000	1.0000
Hg	029	8/2/2012 3:14:28 PM	CCV2-2.0 ppb	23450.0000	2.0030	ug/L	Liquid	1.0	1.0000	1.0000
Hg	030	8/2/2012 3:16:47 PM	CCB2	932.1000	-0.0199	ug/L	Liquid	1.0	1.0000	1.0000
Hg	031	8/2/2012 3:19:07 PM	08/02 LCS2-2.0 ppb	23880.0000	102.0500	ug/kg	Soil	50.0	0.5000	25.0000
Hg	032	8/2/2012 3:21:27 PM	08/02 LRB2	1177.0000	0.1050	ug/kg	Soil	50.0	0.5000	25.0000
Hg	033	8/2/2012 3:23:42 PM	53360.02s	3355.0000	12.0795	ug/kg	Soil	61.1	0.4090	25.0000
Hg	034	8/2/2012 3:25:57 PM	53360.03s	3838.0000	13.6463	ug/kg	Soil	56.6	0.4420	25.0000
Hg	035	8/2/2012 3:28:09 PM	53360.07s	4527.0000	17.2161	ug/kg	Soil	56.8	0.4400	25.0000
Hg	036	8/2/2012 3:30:22 PM	53360.08s	3637.0000	12.5828	ug/kg	Soil	56.4	0.4430	25.0000
Hg	037	8/2/2012 3:32:36 PM	53360.09s	4377.0000	17.3181	ug/kg	Soil	59.8	0.4180	25.0000
Hg	038	8/2/2012 3:34:51 PM	53360.10s	3521.0000	11.9694	ug/kg	Soil	56.3	0.4440	25.0000
Hg	039	8/2/2012 3:37:06 PM	53360.11s	3796.0000	14.0303	ug/kg	Soil	59.1	0.4230	25.0000
Hg	040	8/2/2012 3:39:21 PM	53360.12s	6148.0000	25.7048	ug/kg	Soil	57.3	0.4360	25.0000
Hg	041	8/2/2012 3:41:37 PM	53360.13s	5282.0000	20.4311	ug/kg	Soil	55.1	0.4540	25.0000
Hg	042	8/2/2012 3:43:50 PM	53360.04s	3997.0000	13.7916	ug/kg	Soil	54.0	0.4630	25.0000
Hg	043	8/2/2012 3:46:04 PM	53360.05s MS-2.0 ppb	25070.0000	118.3548	ug/kg	Soil	55.1	0.4540	25.0000
Hg	044	8/2/2012 3:48:18 PM	53360.06s MSD	25010.0000	118.2384	ug/kg	Soil	55.2	0.4530	25.0000
Hg	045	8/2/2012 3:50:37 PM	CCV3-2.0 ppb	23230.0000	1.9830	ug/L	Liquid	1.0	1.0000	1.0000
Hg	046	8/2/2012 3:52:56 PM	CCB3	936.1000	-0.0195	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 12:10 — Beginning — End — DATE 08/02/12
TIME FINISH: 14:10 — TEMP: block #1 — °C block #1 — °C — ANALYST SM
PREP BATCH: HGD-080212-2 — block #2 95 °C block #2 95 °C — REVIEWED BY SM
BALANCE ID: M1 — block #3 95 °C block #3 95 °C — REVIEW DATE 08/02/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 2	------	0.5	--------	----------	50	25g	
LRB- 2	------	0.5	--------	----------	50	25g	
53360.02	2	0.505	81	0.409	61		
03		0.497	89	0.442	56		
04		0.503	92	0.463	54		
05 MS	1	0.499	91	0.454	55		
06 MSD	2	0.498	91	0.453	55		
07		0.506	87	0.440	57		
08		0.498	89	0.443	56		
09		0.510	82	0.418	60		
10	1	0.499	89	0.444	56		
11	2	0.510	83	0.423	59		
12	1	0.513	85	0.436	57		
13	2	0.505	90	0.454	55		

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 113201 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)
Sand lot # TH121ZEMS

Effective Date 7/10/12

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 7/31/12 Date Finished: 8/01/12 Date Checked: 8/14/12

Time Started: 15:00 Time Finished: 15:00 Checked By: BB

Analyst: hma Temperature: 103°C Batch: TS120731A

Time in Oven: 24:00 Balance ID: 51 Oven ID: ovi

Merit #	Dish #	Dish Wt. (g)	Wet Smpl. + Dish Wt. (g)	Dry Smpl + Dish Wt. (g)	Ash Smpl + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	1	1.38	1.38	1.38		—		
LCS	2	1.36	1.5	9.5		100		
53360. 02	3	1.32	16.18	13.43		81		
Dup 1 .02	4	1.26	9.87	8.54		~~89~~ 85		
.03	5	1.34	13.12	11.78		~~89~~		
.04	6	1.29	11.52	10.73		92		
.05	~~7~~	1.27	10.07	9.31		~~97~~ 91		
Sam: Sample .06	8	1.37						
.07	9	1.39	11.49	10.15		87		
.08	10	1.36	10.13	9.20		89		
.09	11	1.31	11.45	9.64		82		
.10	12	1.34	13.31	11.97		89		
.11	13	1.36	10.13	8.65		83		
.12	14	1.3	12.84	11.12		85		
Dup 2 .12	15	1.28	12.75	11.07		85		
.13	16	1.26	20.7	18.79		90		
53368. 01	17	1.36	11.24	10.31		91		
02	18	1.33	16.34	15.4		94		
.03	19	1.41	24.42	22.99		94		
53370. 01	20	1.24	11.14	10.02		89		
.02	21	1.51	9.63	8.03		80		
.03	22	1.41	10.38	8.88		83		
.04	23	1.38	11.1	9.58		84		
.05	24	1.37	14.99	12.85		84		

% LCS Recovery: 100 Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 5 Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): 0

Method 5035A (High Level)
Extraction Sheet

Analyst: WAT
Date: 7-31-12
Batch QC ID#: _____

Merit Number	Tare wt (g)	Vial wt (g)	Sample wt.(g)	Methanol (mL)	Sonicate (min)	Time Start / End	Notes
53370.01	30.117	51.419	21.302	+11	✓	14:00	
.02	31.146	46.629	15.483	+5	✓		
.03	31.242	47.428	16.186	+6	✓		
.04	31.172	47.627	16.455	+6	✓		
.05	31.206	50.449	19.243	+9	✓		
.06	31.132	46.354	15.222	+5	✓		
.07	28.758	46.993	18.235	+8	✓	14:09	
553360.02	30.990	48.321	17.331	FB	✓	14:09	~~+7~~ +7
.03	30.959	51.017	20.058	+10	✓		
.04	30.908	45.522	14.614	+5	✓		
.05	30.925	47.998	17.073	+7	✓		
.06	30.899	43.951	13.052	+3	✓		
.07	30.931	54.411	23.480	+13	✓		
.08	30.868	52.647	21.779	+12	✓		
.09	30.949	52.744	21.795	+12	✓		
.10	31.004	45.952	14.948	+5	✓		
.11	31.017	55.941	24.924	+15	✓		
.12	30.945	49.905	18.960	+9	✓		
.13	30.810	51.683	20.873	+11	✓	14:16	

Balance ID: V1
Methanol Lot: 50349

Reviewed By: LBR
Date: 8-21-12

5035A High Level

Prepared by Merit Laboratories, Inc.

Effective Date 6/14/12

Solvent Lot #: 52069
Na2SO4 Lot #: 2351C512
SSD #: AR120730
MS/LCS #: PP120723

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 8-1-2012
Time Started: 8:30
Time Ended: 10:30
Batch ID#: SP120801S03

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	RW		
	LCS	Sand	30.0 g	"	"	"	"	1	"	EVS	BNAs only
	LCSD	Sand	30.0 g	"	"	"	"	1	"	"	[ ]
	53360.05 MS	Soil	30.0	"	"	2ml	"	1	"	"	(Parent sample 53360.04) [X]
	.06 MSD	"	30.0	"	"	2ml	"	1	"	"	
1	53360.02	"	30.2	"	"	1ml	"		"	"	
2	.03	"	30.0	"	"	1	"		"	"	
3	.04	"	30.3	"	"	2ml	"		"	"	
4	.07	"	30.0	"	"	1ml	"		"	"	
5	.08	"	30.0	"	"	1	"		"	"	
6	.09	"	30.0	"	"	"	"		"	"	
7	.10	"	30.2	"	"	"	"		"	"	
8	.11	"	30.0	"	"	"	"		"	"	
9	.12	"	30.0	"	"	"	"		"	"	
10	.13	"	30.2	"	"	"	"		"	"	
11	53401.02	"	30.0	"	"	"	"		"	"	
12	.03	"	30.0	"	"	"	"		"	"	
13	.04	"	30.0	"	"	"	"		"	"	
14	.05	"	30.4	"	"	"	"		"	"	
15	.06	"	30.1	"	"	"	"		"	"	
16	.07	"	30.0	"	"	"	"		"	"	
17	.08	"	30.4	"	"	"	"		"	"	
18	.09	"	30.0	"	"	"	"		"	"	
19	.10	"	30.0	"	"	"	"		"	"	
20	.11	"	30.0	"	"	"	"		"	"	

Reviewed by: [illegible] On: 8/2 Balance ID: e2

Prepared by: Merit Laboratories, Inc.

Hexane 51223
Ether/Hexane 51108129/52088
Na_2SO_4 23510512
H_2SO_4 50328
SSD# 175510
PCB MS ID# 11MS04 Pest MS ID#

PCB/Pesticide Extraction
Method 3550B

Date 8-1-12
Time Started 9:50
Time Ended 16:00
Prep Batch ID# PA120801S01
Balance ID# E2

#	Merit #	Matrix	Sample Wt. (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Alumina Cleanup	Dioxin Cleanup	Turbo Vap	Notes
Initial Q.C.	BLANK	sand	20.0	Hexane	180	1	1		CM			ev2	
	LCS	sand	20.0	↓	↓	↓	↓	1	↓			↓	
	LCSD		~~20.1~~ CM 8-1					1					
	MS 53360.05	soil	20.1	↓	↓	↓	↓	1	↓			ev1	
	MSD .06	soil	20.1	↓	↓	↓	↓	1	↓			↓	
1	53360.02	soil	20.1	Hexane	180	1	1		CM	X	X	ev1	
2	.03	↓	20.0	↓	↓	↓	↓	↓	↓	X		↓	
3	.04	↓	20.2	↓	↓	↓	↓	↓	↓	X	X	↓	
4	.05	↓	20.1	↓	↓	↓	↓	1	↓	X	X	↓	MS of 53360.04
5	.06	↓	20.1	↓	↓	↓	↓	1	↓	X	X	↓	MSD of 53360.04
6	.07	↓	20.2	↓	↓	↓	↓	↓	↓	↓	↓	↓	
7	.08	↓	20.1	↓	↓	↓	↓	↓	↓	↓	↓	ev2	
8	.09	↓	20.2	↓	↓	↓	↓	↓	↓	↓	↓	↓	
9	.10	↓	20.2	↓	↓	↓	↓	↓	↓	↓	↓	↓	
10	.11	↓	20.1	↓	↓	↓	↓	↓	↓	↓	↓	↓	
11	.12	↓	20.3	↓	↓	↓	↓	↓	↓	X	↓	↓	
12	.13	↓	20.0	↓	↓	↓	↓	↓	↓	↓	↓	↓	
13	53391.01	Wipe	Wipe	↓	↓	↓	↓	↓	↓	↓	↓	ev1	
14	53389.01	soil	20.2	↓	↓	↓	↓	↓	↓	↓	↓	↓	
15	.02	↓	20.4	↓	↓	↓	↓	↓	↓	↓	↓	↓	
16	.03	↓	20.1	↓	↓	↓	↓	↓	↓	↓	↓	↓	
17													
18													
19													
20													

Reviewed by: MB On: 8-1

Prepared by: Merit Laboratories, Inc.

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF _____

69773

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: SUSAN HOELTT
COMPANY: HALEY & ALDRICH
ADDRESS: 8899 GANDER CREEK DR
CITY: MIAMISBURG STATE: OH ZIP CODE: 45342
PHONE NO.: 937.530.1400 FAX NO.: 937.530.1458 P.O. NO.: _____
E-MAIL ADDRESS: SHoeltt@haleyaldrich.com QUOTE NO.: _____

INVOICE TO

CONTACT NAME: MELNIE SATINET ☐ SAME
COMPANY: HALEY & ALDRICH
ADDRESS: 5755 GRANGER RD SUITE 320
CITY: CLEVELAND STATE: OH ZIP CODE: 44131
PHONE NO.: 216.706.1330 E-MAIL ADDRESS: MSatinet@haleyaldrich.com

PROJECT NO./NAME: RACER - GMPT - LIVONIA
SAMPLER(S) - PLEASE PRINT/SIGN NAME: CORY BAUER / C. Bauer

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☑ STANDARD ☐ OTHER _____

DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☑ LEVEL IV ☑ EDD ☐ OTHER _____

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other _____

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TCL VOC	TCL PCB	PAH	MI 10 METALS	Special Instructions
53360.01	07/26/12	0100	0908-072612-0001	TB									X				
.02		1110	SB120 (07-26-12) (1105) (4-6)	S	2	1					1		X	X	X	X	
.03		1330	SB169 (07-26-12) (1.5-3.5)		2	1					1		X	X	X	X	
.04/.05/.06		1420	SB144 (07-26-12) (3.5-3.5)		5	2					3		X	X	X	X	ADD'L VOC. FOR MS/MSD
.07	↓	1430	SB144 (07-26-12) (7.5-9.5)		2	1					1		X	X	X	X	
.08	07/27/12	0830	SB145 (07-27-12) (2-4)		2	1					1		X	X	X	X	
.09		0840	SB145 (07-27-12) (6-8)		2	1					1		X	X	X	X	
.10		1030	SB106 (07-27-12) (8-10)		2	1					1		X	X	X	X	
.11		1050	SB106 (07-27-12) (32-34)		2	1					1		X	X	X	X	
.12		1140	SB100 (07-27-12) (2-4)		2	1					1		X	X	X	X	
.13		1310	SB101 (07-27-12) (2.5-4.5)		2	1					1		X	X	X	X	

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
C Bauer / H:A	☑ Sampler	07/27/12	1500
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION: Tabatha Faust	DATE 7/27/12	TIME 1500

SEAL NO. _____ SEAL INTACT YES ☐ NO ☐ INITIALS _____

SEAL NO. _____ SEAL INTACT YES ☐ NO ☐ INITIALS _____

NOTES: TEMP. ON ARRIVAL 5.3

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S53360
Client: HALEYALDRICH (Haley & Aldrich)
Project: RACER GMPT Livonia
Submitted: 07/27/2012 15:00 Login User: TSF

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.3
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1406 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Accounts Payable

Address: Haley & Aldrich, Inc.
70 Blanchard Rd.
Ste. 430
Burlington, MA 01803-5100

Phone: 617-886-7400 FAX: 617-886-7900

Email: Haley Aldrich Invoice Group

Set ID: S53360 Location: HALEYALDRICH (Haley & Aldrich)

Project: RACER GMPT Livonia PO #: PO12727 Site: Site# 1195

Submitted: 07/27/2012 15:00 Due Date: 08/10/2012 Collected by: Corey Barnett Login by: TSF

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S53360.01	0908-072612-0001	Water	07/26/2012 01:00	69773
S53360.02	SB120 (07-26-12) (4-6)	Soil	07/26/2012 11:10	69773
S53360.03	SB169 (07-26-12) (1.5-3.5)	Soil	07/26/2012 13:30	69773
S53360.04	SB144 (07-26-12) (1.5-3.5)	Soil	07/26/2012 14:20	69773
S53360.05	SB144 (07-26-12) (1.5-3.5) MS	Soil	07/26/2012 14:20	69773
S53360.06	SB144 (07-26-12) (1.5-3.5) MSD	Soil	07/26/2012 14:20	69773
S53360.07	SB144 (07-26-12) (7.5-9.5)	Soil	07/26/2012 14:30	69773
S53360.08	SB145 (07-27-12) (2-4)	Soil	07/27/2012 08:30	69773
S53360.09	SB145 (07-27-12) (6-8)	Soil	07/27/2012 08:40	69773
S53360.10	SB106 (07-27-12) (8-10)	Soil	07/27/2012 10:30	69773
S53360.11	SB106 (07-27-12) (32-34)	Soil	07/27/2012 11:30	69773
S53360.12	SB100 (07-27-12) (2-4)	Soil	07/27/2012 11:40	69773
S53360.13	SB101 (07-27-12) (2.5-4.5)	Soil	07/27/2012 13:10	69773

Samples: S53360.01

Analysis Code	Analysis Title	Method	Units	Holding Date
$8260TCL	TCL Volatile Organics 8260	SW8260B	mg/L	08/09/2012

Samples: S53360.02-13

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260TCL	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	mg/kg	08/09/2012
METHEXT	5035 Methanol Extraction	5035		04/21/2015
1605S	Metal Digestion	3050B		01/22/2013
PNAEXTS	Semi Volatile Extraction	3550B		08/09/2012
1120S	Extraction, PCB	3550B		08/09/2012
4605	Total Solids	Std M 2540 B	%	08/23/2012
$PNA8270	Polynuclear Aromatics	SW8270C	mg/kg	09/04/2012
2115SMS	Arsenic	SW6020	mg/kg	01/22/2013
2120SMS	Barium	SW6020	mg/kg	01/22/2013
2135SMS	Cadmium	SW6020	mg/kg	01/22/2013
2145SMS	Chromium	SW6020	mg/kg	01/22/2013
2155SMS	Copper	SW6020	mg/kg	01/22/2013
2165SMS	Lead	SW6020	mg/kg	01/22/2013
2185S	Mercury	SW7471A	mg/kg	08/23/2012
2205SMS	Selenium	SW6020	mg/kg	01/22/2013
2215SMS	Silver	SW6020	mg/kg	01/22/2013
2245SMS	Zinc	SW6020	mg/kg	01/22/2013
1605HGS	Mercury Digestion	SW7471A		08/23/2012
$TCL8082C1	TCL PCB List (Column 1)	SW8082A	mg/kg	09/04/2012
$TCL8082C2	TCL PCB List (Column 2)	SW8082A	mg/kg	09/04/2012

MERIT LABORATORIES, INC.
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HALEY & ALDRICH
RACER GMPT LIVONIA

SDG Batch:
53401

Pages 1 - 627

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HALEY & ALDRICH

PROJECT:
RACER GMPT LIVONIA

SDG Batch:
53401.01

Prepared by:
Merit Laboratories, Inc.

August 21, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53401.01 - .15

Deliverable	References		Pages		Checklist	
	Merit	CLP	From	To	Lab	Audit
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	70	☑	☐
4. **Volatiles Data**			71	297		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			298	424		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
6. **PCB Data**			425	513		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
c. Standards Data (All Instruments)						
Initial Calibration of Multicomponent Data	F. 6	F. VI			☑	☐
Chromatograms and Quantitation Reports for all IC Standards					☑	☐
Calibration Check Standard	F. 7b	F. VII			☑	☐
Chromatograms and Quantitation Reports for all CC Standards					☑	☐
d. Raw QC Data						
Chromatograms and Quantitation Reports - Column 1					☑	☐
Chromatograms and Quantitation Reports - Column 2					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
10. **Miscellaneous Data**			620	623		
Preparation / Extraction logbooks					☑	☐
11. **Shipping / Receiving Documents**			624	627		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53401.01 - .15

Deliverable	References Form	References CLP	Pages From	Pages To	Checklist Lab	Checklist Audit
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	70	☑	☐
7. **ICP/MS Metals Data**			514	592		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
8. **Mercury Data**			593	617		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
9. **Total Solids Data**			618	619		
Bench Sheet - sample and QC sample evaluation					☑	☐
11. **Shipping / Receiving Documents**			624	627		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: RACER GMPT LIVONIA
Merit IDs: S53401.01-S53401.15

Field Sampling: Corey Barnett performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (08/01/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120803A5:

- The CCC had the compounds Carbon Disulfide, Methyl Acetate, and Methylene Chloride outside of control limits.

PCBs: The organic method utilized for this SDG was 8082A (GC/ECD). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

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Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barbara Ball

Barb Ball
QA Officer

08/21/12
Date

Analytical Laboratory Report

Report ID: S53401.01(01)
Generated on 08/10/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1406 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53401.01-S53401.15
Project: RACER GMPT Livonia
Collected Date: 07/30/2012 - 08/01/2012
Submitted Date/Time: 08/01/2012 14:30
Sampled by: Corey Barnett
P.O. #:

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (15 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S53401.01	0908-073012-0001	Methanol	07/30/2012 01:00
S53401.02	SB105 (07-30-12) (0-2)	Soil	07/30/2012 11:20
S53401.03	SB104 (07-30-12) (0-2)	Soil	07/30/2012 13:40
S53401.04	SB103 (07-30-12) (0-2)	Soil	07/30/2012 16:00
S53401.05	SB102 (07-31-12) (2-4)	Soil	07/31/2012 07:35
S53401.06	SB112 (07-31-12) (0-2)	Soil	07/31/2012 08:25
S53401.07	DUP 4 (07-31-12)	Soil	07/31/2012 00:01
S53401.08	SB114 (07-31-12) (2-4)	Soil	07/31/2012 09:30
S53401.09	SB113 (07-31-12) 3-5)	Soil	07/31/2012 10:45
S53401.10	SB109 (07-31-12) (0-2)	Soil	07/31/2012 12:50
S53401.11	SB165 (07-31-12) (8-10)	Soil	07/31/2012 14:45
S53401.12	SB162 (07-31-12) (2-4)	Soil	07/31/2012 16:00
S53401.13	SB142 (08-01-12) (0-2)	Soil	08/01/2012 08:30
S53401.14	SB142 (08-01-12) (0-2) MS	Soil	08/01/2012 08:30
S53401.15	SB142 (08-01-12) (0-2) MSD	Soil	08/01/2012 08:30

Analytical Laboratory Report

Lab Sample ID: S53401.01
Sample Tag: 0908-073012-0001
Collected Date/Time: 07/30/2012 01:00
Matrix: Methanol
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 15:28	WAT	76-13-1	
Acetone	Not detected	ug/kg	750	5035/8260B	08/03/12 15:28	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/03/12 15:28	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 15:28	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/03/12 15:28	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	750	5035/8260B	08/03/12 15:28	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/03/12 15:28	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 15:28	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/03/12 15:28	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/03/12 15:28	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 15:28	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/03/12 15:28	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	156-59-2	
Chloroform	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/03/12 15:28	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/03/12 15:28	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	56-23-5	
Benzene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	10061-01-5	
Toluene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT		
o-Xylene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	95-47-6	
Styrene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	100-42-5	

Lab Sample ID: S53401.01 (continued)
Sample Tag: 0908-073012-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Isopropylbenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	98-82-8	
Bromoform	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	50	5035/8260B	08/03/12 15:28	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 15:28	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.02
Sample Tag: SB105 (07-30-12) (0-2)
Collected Date/Time: 07/30/2012 11:20
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	1.43	mg/kg	0.20	SW6020	08/09/12 12:03	PER	7440-38-2	
Barium	10.1	mg/kg	1.0	SW6020	08/09/12 12:03	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/09/12 12:03	PER	7440-43-9	
Chromium	2.44	mg/kg	0.50	SW6020	08/09/12 12:03	PER	7440-47-3	
Copper	5.73	mg/kg	0.50	SW6020	08/09/12 12:03	PER	7440-50-8	
Lead	3.07	mg/kg	0.30	SW6020	08/09/12 12:03	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:16	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:03	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:03	PER	7440-22-4	
Zinc	13.4	mg/kg	1.0	SW6020	08/09/12 12:03	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 17:08	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	83-32-9	X

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53401.02 (continued)
Sample Tag: SB105 (07-30-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	208-96-8	X
Anthracene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	120-12-7	X
Benzo(a)anthracene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	56-55-3	X
Benzo(a)pyrene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	50-32-8	X
Benzo(b)fluoranthene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	205-99-2	X
Benzo(k)fluoranthene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	207-08-9	X
Benzo(ghi)perylene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	191-24-2	X
Chrysene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	53-70-3	X
Fluoranthene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	206-44-0	X
Fluorene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	86-73-7	X
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	193-39-5	X
Naphthalene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	91-20-3	X
Phenanthrene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	85-01-8	X
Pyrene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	129-00-0	X
2-Methylnaphthalene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	91-57-6	X
1-Methylnaphthalene	Not detected	ug/kg	1,800	SW8270C	08/03/12 20:02	PL	90-12-0	X
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 15:50	WAT	76-13-1	
Acetone	Not detected	ug/kg	910	5035/8260B	08/03/12 15:50	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/03/12 15:50	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 15:50	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/03/12 15:50	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	910	5035/8260B	08/03/12 15:50	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/03/12 15:50	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 15:50	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/03/12 15:50	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/03/12 15:50	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 15:50	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/03/12 15:50	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/03/12 15:50	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/03/12 15:50	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	75-27-4	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53401.02 (continued)
Sample Tag: SB105 (07-30-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/03/12 15:50	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 15:50	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.03
Sample Tag: SB104 (07-30-12) (0-2)
Collected Date/Time: 07/30/2012 13:40
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	88	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	0.40	mg/kg	0.20	SW6020	08/09/12 12:08	PER	7440-38-2	
Barium	7.97	mg/kg	1.0	SW6020	08/09/12 12:08	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/09/12 12:08	PER	7440-43-9	
Chromium	2.17	mg/kg	0.50	SW6020	08/09/12 12:08	PER	7440-47-3	
Copper	2.44	mg/kg	0.50	SW6020	08/09/12 12:08	PER	7440-50-8	
Lead	2.36	mg/kg	0.30	SW6020	08/09/12 12:08	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:30	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:08	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:08	PER	7440-22-4	
Zinc	3.62	mg/kg	1.0	SW6020	08/09/12 12:08	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 15:12	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	83-32-9	

Lab Sample ID: S53401.03 (continued)
Sample Tag: SB104 (07-30-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 14:45	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 16:09	WAT	76-13-1	
Acetone	Not detected	ug/kg	970	5035/8260B	08/03/12 16:09	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/03/12 16:09	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 16:09	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/03/12 16:09	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	970	5035/8260B	08/03/12 16:09	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/03/12 16:09	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 16:09	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/03/12 16:09	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/03/12 16:09	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 16:09	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/03/12 16:09	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/03/12 16:09	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/03/12 16:09	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	108-87-2	

Lab Sample ID: S53401.03 (continued)
Sample Tag: SB104 (07-30-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:09	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 16:09	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.04
Sample Tag: SB103 (07-30-12) (0-2)
Collected Date/Time: 07/30/2012 16:00
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	0.47	mg/kg	0.20	SW6020	08/09/12 12:11	PER	7440-38-2	
Barium	12.7	mg/kg	1.0	SW6020	08/09/12 12:11	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/09/12 12:11	PER	7440-43-9	
Chromium	1.20	mg/kg	0.50	SW6020	08/09/12 12:11	PER	7440-47-3	
Copper	3.64	mg/kg	0.50	SW6020	08/09/12 12:11	PER	7440-50-8	
Lead	4.87	mg/kg	0.30	SW6020	08/09/12 12:11	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:32	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:11	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:11	PER	7440-22-4	
Zinc	5.70	mg/kg	1.0	SW6020	08/09/12 12:11	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 15:23	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	83-32-9	

Lab Sample ID: S53401.04 (continued)
Sample Tag: SB103 (07-30-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 15:08	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 16:30	WAT	76-13-1	
Acetone	Not detected	ug/kg	880	5035/8260B	08/03/12 16:30	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/03/12 16:30	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 16:30	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/03/12 16:30	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	880	5035/8260B	08/03/12 16:30	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/03/12 16:30	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 16:30	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/03/12 16:30	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/03/12 16:30	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 16:30	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/03/12 16:30	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/03/12 16:30	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/03/12 16:30	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	108-87-2	

Lab Sample ID: S53401.04 (continued)
Sample Tag: SB103 (07-30-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/03/12 16:30	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 16:30	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.05
Sample Tag: SB102 (07-31-12) (2-4)
Collected Date/Time: 07/31/2012 07:35
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	83	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	0.60	mg/kg	0.20	SW6020	08/09/12 12:13	PER	7440-38-2	
Barium	50.1	mg/kg	1.0	SW6020	08/09/12 12:13	PER	7440-39-3	
Cadmium	0.35	mg/kg	0.20	SW6020	08/09/12 12:13	PER	7440-43-9	
Chromium	3.75	mg/kg	0.50	SW6020	08/09/12 12:13	PER	7440-47-3	
Copper	6.97	mg/kg	0.50	SW6020	08/09/12 12:13	PER	7440-50-8	
Lead	18.8	mg/kg	0.30	SW6020	08/09/12 12:13	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:34	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:13	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:13	PER	7440-22-4	
Zinc	25.1	mg/kg	1.0	SW6020	08/09/12 12:13	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 15:44	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	83-32-9	

Lab Sample ID: S53401.05 (continued)
Sample Tag: SB102 (07-31-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 15:31	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 16:51	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	08/03/12 16:51	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/03/12 16:51	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 16:51	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/03/12 16:51	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	08/03/12 16:51	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/03/12 16:51	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 16:51	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/03/12 16:51	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/03/12 16:51	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 16:51	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/03/12 16:51	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/03/12 16:51	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/03/12 16:51	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	108-87-2	

Lab Sample ID: S53401.05 (continued)
Sample Tag: SB102 (07-31-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 16:51	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 16:51	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.06
Sample Tag: SB112 (07-31-12) (0-2)
Collected Date/Time: 07/31/2012 08:25
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	81	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	1.47	mg/kg	0.20	SW6020	08/09/12 12:16	PER	7440-38-2	
Barium	38.4	mg/kg	1.0	SW6020	08/09/12 12:16	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/09/12 12:16	PER	7440-43-9	
Chromium	4.29	mg/kg	0.50	SW6020	08/09/12 12:16	PER	7440-47-3	
Copper	6.76	mg/kg	0.50	SW6020	08/09/12 12:16	PER	7440-50-8	
Lead	43.8	mg/kg	0.30	SW6020	08/09/12 12:16	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:37	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:16	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:16	PER	7440-22-4	
Zinc	24.9	mg/kg	1.0	SW6020	08/09/12 12:16	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	11097-69-1	
PCB-1260	400	ug/kg	330	SW8082A	08/03/12 17:18	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 17:18	JANB	11097-69-1	
PCB-1260	400	ug/kg	330	SW8082A	08/03/12 17:18	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	83-32-9	

Lab Sample ID: S53401.06 (continued)
Sample Tag: SB112 (07-31-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 17:47	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 17:11	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	08/03/12 17:11	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/03/12 17:11	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/03/12 17:11	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/03/12 17:11	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	08/03/12 17:11	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/03/12 17:11	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 17:11	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/03/12 17:11	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/03/12 17:11	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 17:11	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/03/12 17:11	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/03/12 17:11	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/03/12 17:11	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	108-87-2	

Lab Sample ID: S53401.06 (continued)
Sample Tag: SB112 (07-31-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	75-25-2	
1,3-Dichlorobenzene	180	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	541-73-1	
1,4-Dichlorobenzene	230	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:11	WAT	96-12-8	
1,2,4-Trichlorobenzene	600	ug/kg	100	5035/8260B	08/03/12 17:11	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.07
Sample Tag: DUP 4 (07-31-12)
Collected Date/Time: 07/31/2012 00:01
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	88	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	1.02	mg/kg	0.20	SW6020	08/09/12 12:18	PER	7440-38-2	
Barium	36.4	mg/kg	1.0	SW6020	08/09/12 12:18	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/09/12 12:18	PER	7440-43-9	
Chromium	4.17	mg/kg	0.50	SW6020	08/09/12 12:18	PER	7440-47-3	
Copper	5.90	mg/kg	0.50	SW6020	08/09/12 12:18	PER	7440-50-8	
Lead	22.1	mg/kg	0.30	SW6020	08/09/12 12:18	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:39	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:18	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:18	PER	7440-22-4	
Zinc	28.6	mg/kg	1.0	SW6020	08/09/12 12:18	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	11097-69-1	
PCB-1260	1,000	ug/kg	330	SW8082A	08/03/12 17:29	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 17:29	JANB	11097-69-1	
PCB-1260	1,000	ug/kg	330	SW8082A	08/03/12 17:29	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	83-32-9	

Lab Sample ID: S53401.07 (continued)
Sample Tag: DUP 4 (07-31-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 18:09	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 17:31	WAT	76-13-1	
Acetone	Not detected	ug/kg	940	5035/8260B	08/03/12 17:31	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/03/12 17:31	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 17:31	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/03/12 17:31	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	940	5035/8260B	08/03/12 17:31	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/03/12 17:31	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 17:31	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/03/12 17:31	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/03/12 17:31	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 17:31	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/03/12 17:31	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/03/12 17:31	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/03/12 17:31	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	108-87-2	

Lab Sample ID: S53401.07 (continued)
Sample Tag: DUP 4 (07-31-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	75-25-2	
1,3-Dichlorobenzene	120	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	541-73-1	
1,4-Dichlorobenzene	150	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/03/12 17:31	WAT	96-12-8	
1,2,4-Trichlorobenzene	400	ug/kg	100	5035/8260B	08/03/12 17:31	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.08
Sample Tag: SB114 (07-31-12) (2-4)
Collected Date/Time: 07/31/2012 09:30
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	87	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	0.44	mg/kg	0.20	SW6020	08/09/12 12:21	PER	7440-38-2	
Barium	26.8	mg/kg	1.0	SW6020	08/09/12 12:21	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/09/12 12:21	PER	7440-43-9	
Chromium	3.11	mg/kg	0.50	SW6020	08/09/12 12:21	PER	7440-47-3	
Copper	7.91	mg/kg	0.50	SW6020	08/09/12 12:21	PER	7440-50-8	
Lead	5.45	mg/kg	0.30	SW6020	08/09/12 12:21	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:41	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:21	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:21	PER	7440-22-4	
Zinc	12.7	mg/kg	1.0	SW6020	08/09/12 12:21	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 15:54	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	83-32-9	

Lab Sample ID: S53401.08 (continued)
Sample Tag: SB114 (07-31-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 15:53	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 17:52	WAT	76-13-1	
Acetone	Not detected	ug/kg	980	5035/8260B	08/03/12 17:52	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/03/12 17:52	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 17:52	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/03/12 17:52	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	980	5035/8260B	08/03/12 17:52	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/03/12 17:52	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 17:52	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/03/12 17:52	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/03/12 17:52	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 17:52	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/03/12 17:52	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/03/12 17:52	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/03/12 17:52	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	108-87-2	

Lab Sample ID: S53401.08 (continued)
Sample Tag: SB114 (07-31-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 17:52	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 17:52	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.09
Sample Tag: SB113 (07-31-12) 3-5)
Collected Date/Time: 07/31/2012 10:45
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	81	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	0.41	mg/kg	0.20	SW6020	08/09/12 12:35	PER	7440-38-2	
Barium	12.8	mg/kg	1.0	SW6020	08/09/12 12:35	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/09/12 12:35	PER	7440-43-9	
Chromium	3.64	mg/kg	0.50	SW6020	08/09/12 12:35	PER	7440-47-3	
Copper	3.96	mg/kg	0.50	SW6020	08/09/12 12:35	PER	7440-50-8	
Lead	2.56	mg/kg	0.30	SW6020	08/09/12 12:35	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:43	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:35	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:35	PER	7440-22-4	
Zinc	9.52	mg/kg	1.0	SW6020	08/09/12 12:35	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 16:15	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	83-32-9	

Lab Sample ID: S53401.09 (continued)
Sample Tag: SB113 (07-31-12) 3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 16:16	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 18:13	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	08/03/12 18:13	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/03/12 18:13	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/03/12 18:13	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/03/12 18:13	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	08/03/12 18:13	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/03/12 18:13	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 18:13	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/03/12 18:13	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/03/12 18:13	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 18:13	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/03/12 18:13	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/03/12 18:13	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/03/12 18:13	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	108-87-2	

Lab Sample ID: S53401.09 (continued)
Sample Tag: SB113 (07-31-12) 3-5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:13	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 18:13	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.10
Sample Tag: SB109 (07-31-12) (0-2)
Collected Date/Time: 07/31/2012 12:50
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	97	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	1.34	mg/kg	0.20	SW6020	08/09/12 12:37	PER	7440-38-2	
Barium	6.65	mg/kg	1.0	SW6020	08/09/12 12:37	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/09/12 12:37	PER	7440-43-9	
Chromium	2.26	mg/kg	0.50	SW6020	08/09/12 12:37	PER	7440-47-3	
Copper	3.78	mg/kg	0.50	SW6020	08/09/12 12:37	PER	7440-50-8	
Lead	2.57	mg/kg	0.30	SW6020	08/09/12 12:37	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:46	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:37	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:37	PER	7440-22-4	
Zinc	9.07	mg/kg	1.0	SW6020	08/09/12 12:37	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 16:26	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	83-32-9	

Lab Sample ID: S53401.10 (continued)
Sample Tag: SB109 (07-31-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 16:39	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 18:33	WAT	76-13-1	
Acetone	Not detected	ug/kg	810	5035/8260B	08/03/12 18:33	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/03/12 18:33	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 18:33	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/03/12 18:33	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	810	5035/8260B	08/03/12 18:33	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/03/12 18:33	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 18:33	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/03/12 18:33	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/03/12 18:33	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 18:33	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/03/12 18:33	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	156-59-2	
Chloroform	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/03/12 18:33	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/03/12 18:33	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	56-23-5	
Benzene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	108-87-2	

Lab Sample ID: S53401.10 (continued)
Sample Tag: SB109 (07-31-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	10061-01-5	
Toluene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT		
o-Xylene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	95-47-6	
Styrene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	98-82-8	
Bromoform	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	50	5035/8260B	08/03/12 18:33	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 18:33	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.11
Sample Tag: SB165 (07-31-12) (8-10)
Collected Date/Time: 07/31/2012 14:45
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/01/12 23:50	EMR		
Inorganics								
Total Solids	82	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	4.59	mg/kg	0.20	SW6020	08/09/12 12:40	PER	7440-38-2	
Barium	72.2	mg/kg	1.0	SW6020	08/09/12 12:40	PER	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	SW6020	08/09/12 12:40	PER	7440-43-9	
Chromium	15.3	mg/kg	0.50	SW6020	08/09/12 12:40	PER	7440-47-3	
Copper	19.1	mg/kg	0.50	SW6020	08/09/12 12:40	PER	7440-50-8	
Lead	9.05	mg/kg	0.30	SW6020	08/09/12 12:40	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:48	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:40	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:40	PER	7440-22-4	
Zinc	42.1	mg/kg	1.0	SW6020	08/09/12 12:40	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 16:47	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	83-32-9	

Lab Sample ID: S53401.11 (continued)
Sample Tag: SB165 (07-31-12) (8-10)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/03/12 17:01	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 18:54	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	08/03/12 18:54	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/03/12 18:54	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/03/12 18:54	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/03/12 18:54	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	08/03/12 18:54	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/03/12 18:54	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 18:54	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/03/12 18:54	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/03/12 18:54	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 18:54	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/03/12 18:54	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/03/12 18:54	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/03/12 18:54	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	108-87-2	

Lab Sample ID: S53401.11 (continued)
Sample Tag: SB165 (07-31-12) (8-10)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 18:54	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 18:54	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.12
Sample Tag: SB162 (07-31-12) (2-4)
Collected Date/Time: 07/31/2012 16:00
Matrix: Soil
COC Reference: 69774

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/07/12 23:10	EMR		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	08/06/12 16:30	AMM		
Metals								
Arsenic	1.98	mg/kg	0.20	SW6020	08/09/12 12:42	PER	7440-38-2	
Barium	64.7	mg/kg	1.0	SW6020	08/09/12 12:42	PER	7440-39-3	
Cadmium	0.82	mg/kg	0.20	SW6020	08/09/12 12:42	PER	7440-43-9	
Chromium	7.31	mg/kg	0.50	SW6020	08/09/12 12:42	PER	7440-47-3	
Copper	31.6	mg/kg	0.50	SW6020	08/09/12 12:42	PER	7440-50-8	
Lead	35.9	mg/kg	0.30	SW6020	08/09/12 12:42	PER	7439-92-1	
Mercury	0.100	mg/kg	0.050	SW7471A	08/07/12 16:50	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:42	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:42	PER	7440-22-4	
Zinc	62.7	mg/kg	1.0	SW6020	08/09/12 12:42	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 16:57	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	83-32-9	

Lab Sample ID: S53401.12 (continued)
Sample Tag: SB162 (07-31-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/08/12 13:34	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 19:14	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,000	5035/8260B	08/03/12 19:14	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	08/03/12 19:14	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 19:14	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	08/03/12 19:14	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,000	5035/8260B	08/03/12 19:14	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	300	5035/8260B	08/03/12 19:14	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 19:14	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	300	5035/8260B	08/03/12 19:14	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	300	5035/8260B	08/03/12 19:14	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 19:14	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	300	5035/8260B	08/03/12 19:14	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	08/03/12 19:14	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	08/03/12 19:14	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	108-87-2	

Lab Sample ID: S53401.12 (continued)
Sample Tag: SB162 (07-31-12) (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:14	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 19:14	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.13
Sample Tag: SB142 (08-01-12) (0-2)
Collected Date/Time: 08/01/2012 08:30
Matrix: Soil
COC Reference: 69775

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/07/12 23:10	EMR		
Inorganics								
Total Solids	83	%	1	Std M 2540 B	08/06/12 16:32	AMM		
Metals								
Arsenic	1.55	mg/kg	0.20	SW6020	08/09/12 12:47	PER	7440-38-2	
Barium	25.1	mg/kg	1.0	SW6020	08/09/12 12:47	PER	7440-39-3	
Cadmium	0.23	mg/kg	0.20	SW6020	08/09/12 12:47	PER	7440-43-9	
Chromium	4.45	mg/kg	0.50	SW6020	08/09/12 12:47	PER	7440-47-3	
Copper	5.90	mg/kg	0.50	SW6020	08/09/12 12:47	PER	7440-50-8	
Lead	12.9	mg/kg	0.30	SW6020	08/09/12 12:47	PER	7439-92-1	
Mercury	Not detected	mg/kg	0.050	SW7471A	08/07/12 16:19	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	SW6020	08/09/12 12:47	PER	7782-49-2	
Silver	Not detected	mg/kg	0.10	SW6020	08/09/12 12:47	PER	7440-22-4	
Zinc	19.5	mg/kg	1.0	SW6020	08/09/12 12:47	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	330	SW8082A	08/03/12 14:14	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	83-32-9	

Lab Sample ID: S53401.13 (continued)
Sample Tag: SB142 (08-01-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	SW8270C	08/08/12 13:57	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	100	5035/8260B	08/03/12 19:34	WAT	76-13-1	
Acetone	Not detected	ug/kg	1,100	5035/8260B	08/03/12 19:34	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	08/03/12 19:34	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	4,000	5035/8260B	08/03/12 19:34	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	5035/8260B	08/03/12 19:34	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	08/03/12 19:34	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	400	5035/8260B	08/03/12 19:34	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	5035/8260B	08/03/12 19:34	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	400	5035/8260B	08/03/12 19:34	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	400	5035/8260B	08/03/12 19:34	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	08/03/12 19:34	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	400	5035/8260B	08/03/12 19:34	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	08/03/12 19:34	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	08/03/12 19:34	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	108-87-2	

Lab Sample ID: S53401.13 (continued)
Sample Tag: SB142 (08-01-12) (0-2)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/03/12 19:34	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	100	5035/8260B	08/03/12 19:34	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53401.14
Sample Tag: SB142 (08-01-12) (0-2) MS
Collected Date/Time: 08/01/2012 08:30
Matrix: Soil
COC Reference: 69775

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/07/12 23:10	EMR		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	08/06/12 16:32	AMM		
Metals								
Arsenic	24.0	mg/kg	0.20	SW6020	08/09/12 12:50	PER	7440-38-2	
Barium	46.0	mg/kg	1.0	SW6020	08/09/12 12:50	PER	7440-39-3	
Cadmium	21.4	mg/kg	0.20	SW6020	08/09/12 12:50	PER	7440-43-9	
Chromium	26.1	mg/kg	0.50	SW6020	08/09/12 12:50	PER	7440-47-3	
Copper	26.6	mg/kg	0.50	SW6020	08/09/12 12:50	PER	7440-50-8	
Lead	33.8	mg/kg	0.30	SW6020	08/09/12 12:50	PER	7439-92-1	
Mercury	0.168	mg/kg	0.050	SW7471A	08/07/12 16:21	JRT	7439-97-6	
Selenium	19.8	mg/kg	0.50	SW6020	08/09/12 12:50	PER	7782-49-2	
Silver	19.7	mg/kg	0.10	SW6020	08/09/12 12:50	PER	7440-22-4	
Zinc	39.7	mg/kg	1.0	SW6020	08/09/12 12:50	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	20	ug/kg	330	SW8082A	08/03/12 14:34	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 14:34	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 14:34	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 14:34	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 14:34	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 14:34	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	08/03/12 14:34	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	20	ug/kg	330	SW8082A	08/03/12 14:35	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 14:35	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 14:35	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 14:35	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 14:35	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 14:35	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	08/03/12 14:35	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	1,500	ug/kg	300	SW8270C	08/08/12 14:19	PL	83-32-9	1
1-Sample spiked at 2.0 mg/kg								

Lab Sample ID: S53401.14 (continued)
Sample Tag: SB142 (08-01-12) (0-2) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	1,400	ug/kg	300	SW8270C	08/08/12 14:19	PL	208-96-8	1
Anthracene	1,400	ug/kg	300	SW8270C	08/08/12 14:19	PL	120-12-7	1
Benzo(a)anthracene	1,500	ug/kg	300	SW8270C	08/08/12 14:19	PL	56-55-3	1
Benzo(a)pyrene	1,600	ug/kg	300	SW8270C	08/08/12 14:19	PL	50-32-8	1
Benzo(b)fluoranthene	1,600	ug/kg	300	SW8270C	08/08/12 14:19	PL	205-99-2	1
Benzo(k)fluoranthene	1,500	ug/kg	300	SW8270C	08/08/12 14:19	PL	207-08-9	1
Benzo(ghi)perylene	1,400	ug/kg	300	SW8270C	08/08/12 14:19	PL	191-24-2	1
Chrysene	1,500	ug/kg	300	SW8270C	08/08/12 14:19	PL	218-01-9	1
Dibenzo(ah)anthracene	1,400	ug/kg	300	SW8270C	08/08/12 14:19	PL	53-70-3	1
Fluoranthene	1,400	ug/kg	300	SW8270C	08/08/12 14:19	PL	206-44-0	1
Fluorene	1,400	ug/kg	300	SW8270C	08/08/12 14:19	PL	86-73-7	1
Indeno(1,2,3-cd)pyrene	1,500	ug/kg	300	SW8270C	08/08/12 14:19	PL	193-39-5	1
Naphthalene	1,400	ug/kg	300	SW8270C	08/08/12 14:19	PL	91-20-3	1
Phenanthrene	1,400	ug/kg	300	SW8270C	08/08/12 14:19	PL	85-01-8	1
Pyrene	1,600	ug/kg	300	SW8270C	08/08/12 14:19	PL	129-00-0	1
2-Methylnaphthalene	1,300	ug/kg	300	SW8270C	08/08/12 14:19	PL	91-57-6	1
1-Methylnaphthalene	1,200	ug/kg	300	SW8270C	08/08/12 14:19	PL	90-12-0	1
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	3,300	ug/kg	100	5035/8260B	08/03/12 19:54	WAT	76-13-1	2
Acetone	3,800	ug/kg	1,000	5035/8260B	08/03/12 19:54	WAT	67-64-1	2
Carbon disulfide	2,700	ug/kg	300	5035/8260B	08/03/12 19:54	WAT	75-15-0	2
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 19:54	WAT	79-20-9	2
tert-Methyl butyl ether (MTBE)	3,300	ug/kg	300	5035/8260B	08/03/12 19:54	WAT	1634-04-4	2
2-Butanone (MEK)	3,600	ug/kg	1,000	5035/8260B	08/03/12 19:54	WAT	78-93-3	2
Dichlorodifluoromethane	3,260	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	75-71-8	2
Chloromethane	3,000	ug/kg	300	5035/8260B	08/03/12 19:54	WAT	74-87-3	2
Vinyl chloride	3,100	ug/kg	100	5035/8260B	08/03/12 19:54	WAT	75-01-4	2
Bromomethane	3,200	ug/kg	300	5035/8260B	08/03/12 19:54	WAT	74-83-9	2
Chloroethane	3,400	ug/kg	300	5035/8260B	08/03/12 19:54	WAT	75-00-3	2
Trichlorofluoromethane	3,600	ug/kg	100	5035/8260B	08/03/12 19:54	WAT	75-69-4	2
1,1-Dichloroethene	2,860	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	75-35-4	2
Methylene chloride	2,800	ug/kg	300	5035/8260B	08/03/12 19:54	WAT	75-09-2	2
trans-1,2-Dichloroethene	2,950	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	156-60-5	2
1,1-Dichloroethane	2,910	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	75-34-3	2
cis-1,2-Dichloroethene	2,960	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	156-59-2	2
Chloroform	2,980	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	67-66-3	2
1,1,1-Trichloroethane	3,250	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	71-55-6	2
Cyclohexane	2,490	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	110-82-7	2
4-Methyl-2-pentanone (MIBK)	3,000	ug/kg	3,000	5035/8260B	08/03/12 19:54	WAT	108-10-1	2
2-Hexanone	4,000	ug/kg	3,000	5035/8260B	08/03/12 19:54	WAT	591-78-6	2
Carbon tetrachloride	3,410	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	56-23-5	2
Benzene	3,030	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	71-43-2	2
1,2-Dichloroethane	3,230	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	107-06-2	2
Trichloroethene	3,160	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	79-01-6	2
1,2-Dichloropropane	2,980	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	78-87-5	2

1-Sample spiked at 2.0 mg/kg
2-Spiked at 2.5 mg/kg

Lab Sample ID: S53401.14 (continued)
Sample Tag: SB142 (08-01-12) (0-2) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Bromodichloromethane	3,280	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	75-27-4	1
Methyl cyclohexane	3,280	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	108-87-2	1
cis-1,3-Dichloropropene	3,250	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	10061-01-5	1
Toluene	3,180	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	108-88-3	1
trans-1,3-Dichloropropene	3,440	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	10061-02-6	1
1,1,2-Trichloroethane	3,230	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	79-00-5	1
Tetrachloroethene	3,140	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	127-18-4	1
Dibromochloromethane	3,470	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	124-48-1	1
1,2-Dibromoethane	3,390	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	106-93-4	1
Chlorobenzene	3,090	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	108-90-7	1
1,1,2,2-Tetrachloroethane	3,370	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	79-34-5	1
Ethylbenzene	3,180	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	100-41-4	1
p,m-Xylene	6,330	ug/kg	70	5035/8260B	08/03/12 19:54	WAT		1
o-Xylene	3,240	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	95-47-6	1
Styrene	3,200	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	100-42-5	1
Isopropylbenzene	3,250	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	98-82-8	1
Bromoform	3,350	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	75-25-2	1
1,3-Dichlorobenzene	3,250	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	541-73-1	1
1,4-Dichlorobenzene	3,130	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	106-46-7	1
1,2-Dichlorobenzene	3,280	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	95-50-1	1
1,2-Dibromo-3-chloropropane	3,790	ug/kg	70	5035/8260B	08/03/12 19:54	WAT	96-12-8	1
1,2,4-Trichlorobenzene	3,300	ug/kg	100	5035/8260B	08/03/12 19:54	WAT	120-82-1	1

1-Spiked at 2.5 mg/kg

Analytical Laboratory Report

Lab Sample ID: S53401.15
Sample Tag: SB142 (08-01-12) (0-2) MSD
Collected Date/Time: 08/01/2012 08:30
Matrix: Soil
COC Reference: 69775

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.3	IR
1	4oz Glass	None	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Extraction, PCB	Completed			3550B	08/03/12 09:45	CCM		
Mercury Digestion	Completed			SW7471A	08/07/12 12:30	JRH		
Metal Digestion	Completed			3050B	08/08/12 09:30	PER		
PNA Extraction	Completed			3550B	08/07/12 23:10	EMR		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	08/06/12 16:32	AMM		
Metals								
Arsenic	24.2	mg/kg	0.20	SW6020	08/09/12 12:52	PER	7440-38-2	
Barium	46.0	mg/kg	1.0	SW6020	08/09/12 12:52	PER	7440-39-3	
Cadmium	21.5	mg/kg	0.20	SW6020	08/09/12 12:52	PER	7440-43-9	
Chromium	26.3	mg/kg	0.50	SW6020	08/09/12 12:52	PER	7440-47-3	
Copper	26.2	mg/kg	0.50	SW6020	08/09/12 12:52	PER	7440-50-8	
Lead	32.9	mg/kg	0.30	SW6020	08/09/12 12:52	PER	7439-92-1	
Mercury	0.164	mg/kg	0.050	SW7471A	08/07/12 16:23	JRT	7439-97-6	
Selenium	19.8	mg/kg	0.50	SW6020	08/09/12 12:52	PER	7782-49-2	
Silver	19.6	mg/kg	0.10	SW6020	08/09/12 12:52	PER	7440-22-4	
Zinc	38.3	mg/kg	1.0	SW6020	08/09/12 12:52	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	20	ug/kg	330	SW8082A	08/03/12 14:47	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	08/03/12 14:47	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	20	ug/kg	330	SW8082A	08/03/12 14:47	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	330	SW8082A	08/03/12 14:47	JANB	11097-69-1	
PCB-1260	20	ug/kg	330	SW8082A	08/03/12 14:47	JANB	11096-82-5	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	1,400	ug/kg	300	SW8270C	08/08/12 14:42	PL	83-32-9	1
1-Sample spiked at 2.0 mg/kg								

Lab Sample ID: S53401.15 (continued)
Sample Tag: SB142 (08-01-12) (0-2) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (continued)								
Acenaphthylene	1,300	ug/kg	300	SW8270C	08/08/12 14:42	PL	208-96-8	1
Anthracene	1,300	ug/kg	300	SW8270C	08/08/12 14:42	PL	120-12-7	1
Benzo(a)anthracene	1,400	ug/kg	300	SW8270C	08/08/12 14:42	PL	56-55-3	1
Benzo(a)pyrene	1,600	ug/kg	300	SW8270C	08/08/12 14:42	PL	50-32-8	1
Benzo(b)fluoranthene	1,600	ug/kg	300	SW8270C	08/08/12 14:42	PL	205-99-2	1
Benzo(k)fluoranthene	1,400	ug/kg	300	SW8270C	08/08/12 14:42	PL	207-08-9	1
Benzo(ghi)perylene	1,400	ug/kg	300	SW8270C	08/08/12 14:42	PL	191-24-2	1
Chrysene	1,400	ug/kg	300	SW8270C	08/08/12 14:42	PL	218-01-9	1
Dibenzo(ah)anthracene	1,400	ug/kg	300	SW8270C	08/08/12 14:42	PL	53-70-3	1
Fluoranthene	1,400	ug/kg	300	SW8270C	08/08/12 14:42	PL	206-44-0	1
Fluorene	1,300	ug/kg	300	SW8270C	08/08/12 14:42	PL	86-73-7	1
Indeno(1,2,3-cd)pyrene	1,400	ug/kg	300	SW8270C	08/08/12 14:42	PL	193-39-5	1
Naphthalene	1,300	ug/kg	300	SW8270C	08/08/12 14:42	PL	91-20-3	1
Phenanthrene	1,300	ug/kg	300	SW8270C	08/08/12 14:42	PL	85-01-8	1
Pyrene	1,500	ug/kg	300	SW8270C	08/08/12 14:42	PL	129-00-0	1
2-Methylnaphthalene	1,200	ug/kg	300	SW8270C	08/08/12 14:42	PL	91-57-6	1
1-Methylnaphthalene	1,100	ug/kg	300	SW8270C	08/08/12 14:42	PL	90-12-0	1
Organics - Volatiles								
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	3,600	ug/kg	100	5035/8260B	08/03/12 20:15	WAT	76-13-1	2
Acetone	3,700	ug/kg	1,000	5035/8260B	08/03/12 20:15	WAT	67-64-1	2
Carbon disulfide	3,000	ug/kg	300	5035/8260B	08/03/12 20:15	WAT	75-15-0	2
Methyl Acetate	Not detected	ug/kg	3,000	5035/8260B	08/03/12 20:15	WAT	79-20-9	2
tert-Methyl butyl ether (MTBE)	3,600	ug/kg	300	5035/8260B	08/03/12 20:15	WAT	1634-04-4	2
2-Butanone (MEK)	3,900	ug/kg	1,000	5035/8260B	08/03/12 20:15	WAT	78-93-3	2
Dichlorodifluoromethane	3,710	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	75-71-8	2
Chloromethane	3,300	ug/kg	300	5035/8260B	08/03/12 20:15	WAT	74-87-3	2
Vinyl chloride	3,400	ug/kg	100	5035/8260B	08/03/12 20:15	WAT	75-01-4	2
Bromomethane	3,500	ug/kg	300	5035/8260B	08/03/12 20:15	WAT	74-83-9	2
Chloroethane	3,600	ug/kg	300	5035/8260B	08/03/12 20:15	WAT	75-00-3	2
Trichlorofluoromethane	3,800	ug/kg	100	5035/8260B	08/03/12 20:15	WAT	75-69-4	2
1,1-Dichloroethene	3,190	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	75-35-4	2
Methylene chloride	3,000	ug/kg	300	5035/8260B	08/03/12 20:15	WAT	75-09-2	2
trans-1,2-Dichloroethene	3,180	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	156-60-5	2
1,1-Dichloroethane	3,120	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	75-34-3	2
cis-1,2-Dichloroethene	3,180	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	156-59-2	2
Chloroform	3,250	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	67-66-3	2
1,1,1-Trichloroethane	3,540	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	71-55-6	2
Cyclohexane	2,770	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	110-82-7	2
4-Methyl-2-pentanone (MIBK)	4,000	ug/kg	3,000	5035/8260B	08/03/12 20:15	WAT	108-10-1	2
2-Hexanone	4,000	ug/kg	3,000	5035/8260B	08/03/12 20:15	WAT	591-78-6	2
Carbon tetrachloride	3,640	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	56-23-5	2
Benzene	3,250	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	71-43-2	2
1,2-Dichloroethane	3,460	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	107-06-2	2
Trichloroethene	3,480	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	79-01-6	2
1,2-Dichloropropane	3,270	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	78-87-5	2

1-Sample spiked at 2.0 mg/kg
2-Spiked at 2.5 mg/kg

Lab Sample ID: S53401.15 (continued)
Sample Tag: SB142 (08-01-12) (0-2) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Bromodichloromethane	3,600	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	75-27-4	1
Methyl cyclohexane	3,450	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	108-87-2	1
cis-1,3-Dichloropropene	3,570	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	10061-01-5	1
Toluene	3,430	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	108-88-3	1
trans-1,3-Dichloropropene	3,720	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	10061-02-6	1
1,1,2-Trichloroethane	3,480	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	79-00-5	1
Tetrachloroethene	3,440	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	127-18-4	1
Dibromochloromethane	3,880	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	124-48-1	1
1,2-Dibromoethane	3,650	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	106-93-4	1
Chlorobenzene	3,390	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	108-90-7	1
1,1,2,2-Tetrachloroethane	3,620	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	79-34-5	1
Ethylbenzene	3,480	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	100-41-4	1
p,m-Xylene	7,000	ug/kg	70	5035/8260B	08/03/12 20:15	WAT		1
o-Xylene	3,560	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	95-47-6	1
Styrene	3,510	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	100-42-5	1
Isopropylbenzene	3,630	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	98-82-8	1
Bromoform	3,690	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	75-25-2	1
1,3-Dichlorobenzene	3,490	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	541-73-1	1
1,4-Dichlorobenzene	3,400	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	106-46-7	1
1,2-Dichlorobenzene	3,540	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	95-50-1	1
1,2-Dibromo-3-chloropropane	4,060	ug/kg	70	5035/8260B	08/03/12 20:15	WAT	96-12-8	1
1,2,4-Trichlorobenzene	3,900	ug/kg	100	5035/8260B	08/03/12 20:15	WAT	120-82-1	1

1-Spiked at 2.5 mg/kg

Quality Control Cover Page

Report ID: S53401.01(01)
Report Date: 08/10/2012
Project: RACER GMPT Livonia
Lab Sample ID(s): S53401.01-S53401.15

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S53401.01	0908-073012-0001	07/30/2012 01:00	Methanol	Extraction / Prep., Organics
S53401.02	SB105 (07-30-12) (0-2)	07/30/2012 11:20	Soil	Extraction / Prep., Inorganics, Metals,
S53401.03	SB104 (07-30-12) (0-2)	07/30/2012 13:40	Soil	Extraction / Prep., Inorganics, Metals,
S53401.04	SB103 (07-30-12) (0-2)	07/30/2012 16:00	Soil	Extraction / Prep., Inorganics, Metals,
S53401.05	SB102 (07-31-12) (2-4)	07/31/2012 07:35	Soil	Extraction / Prep., Inorganics, Metals,
S53401.06	SB112 (07-31-12) (0-2)	07/31/2012 08:25	Soil	Extraction / Prep., Inorganics, Metals,
S53401.07	DUP 4 (07-31-12)	07/31/2012 00:01	Soil	Extraction / Prep., Inorganics, Metals,
S53401.08	SB114 (07-31-12) (2-4)	07/31/2012 09:30	Soil	Extraction / Prep., Inorganics, Metals,
S53401.09	SB113 (07-31-12) 3-5)	07/31/2012 10:45	Soil	Extraction / Prep., Inorganics, Metals,
S53401.10	SB109 (07-31-12) (0-2)	07/31/2012 12:50	Soil	Extraction / Prep., Inorganics, Metals,
S53401.11	SB165 (07-31-12) (8-10)	07/31/2012 14:45	Soil	Extraction / Prep., Inorganics, Metals,
S53401.12	SB162 (07-31-12) (2-4)	07/31/2012 16:00	Soil	Extraction / Prep., Inorganics, Metals,
S53401.13	SB142 (08-01-12) (0-2)	08/01/2012 08:30	Soil	Extraction / Prep., Inorganics, Metals,
S53401.14	SB142 (08-01-12) (0-2) MS	08/01/2012 08:30	Soil	Extraction / Prep., Inorganics, Metals,
S53401.15	SB142 (08-01-12) (0-2) MSD	08/01/2012 08:30	Soil	Extraction / Prep., Inorganics, Metals,

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S53401.01(01)
Generated on 08/14/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53401.01-S53401.15
Project: RACER GMPT Livonia
Submitted Date/Time: 08/01/2012 14:30
Sampled by: Corey Barnett
P.O. #:

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-16)
Prep Batch Summary (Pages 17-21)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S53401.01
Sample Tag: 0908-073012-0001
Collected Date/Time: 07/30/2012 01:00
Matrix: Methanol
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 15:28	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

Lab Sample ID: S53401.02
Sample Tag: SB105 (07-30-12) (0-2)
Collected Date/Time: 07/30/2012 11:20
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:03	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:03	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:03	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:03	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:03	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:03	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:16	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:03	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:03	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:03	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 17:08	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 17:08	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 20:02	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 15:50	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

Lab Sample ID: S53401.03
Sample Tag: SB104 (07-30-12) (0-2)
Collected Date/Time: 07/30/2012 13:40
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:08	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:08	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:08	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:08	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:08	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:08	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:30	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:08	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:08	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:08	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 15:12	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 15:12	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 14:45	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 16:09	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.04
Sample Tag: SB103 (07-30-12) (0-2)
Collected Date/Time: 07/30/2012 16:00
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:11	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:11	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:11	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:11	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:11	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:11	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:32	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:11	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:11	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:11	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 15:23	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 15:23	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 15:08	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 16:30	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.05
Sample Tag: SB102 (07-31-12) (2-4)
Collected Date/Time: 07/31/2012 07:35
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:13	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:13	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:13	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:13	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:13	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:13	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:34	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:13	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:13	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:13	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 15:44	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 15:44	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 15:31	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 16:51	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.06
Sample Tag: SB112 (07-31-12) (0-2)
Collected Date/Time: 07/31/2012 08:25
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:16	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:16	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:16	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:16	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:16	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:16	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:37	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:16	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:16	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:16	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 17:18	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 17:18	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 17:47	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 17:11	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.07
Sample Tag: DUP 4 (07-31-12)
Collected Date/Time: 07/31/2012 00:01
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:18	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:18	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:18	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:18	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:18	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:18	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:39	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:18	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:18	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:18	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 17:29	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 17:29	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 18:09	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 17:31	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.08
Sample Tag: SB114 (07-31-12) (2-4)
Collected Date/Time: 07/31/2012 09:30
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:21	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:21	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:21	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:21	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:21	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:21	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:41	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:21	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:21	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:21	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 15:54	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 15:54	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 15:53	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 17:52	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.09
Sample Tag: SB113 (07-31-12) 3-5)
Collected Date/Time: 07/31/2012 10:45
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:35	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:35	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:35	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:35	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:35	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:35	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:43	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:35	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:35	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:35	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 16:15	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 16:15	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 16:16	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 18:13	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.10
Sample Tag: SB109 (07-31-12) (0-2)
Collected Date/Time: 07/31/2012 12:50
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:37	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:37	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:37	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:37	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:37	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:37	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:46	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:37	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:37	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:37	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 16:26	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 16:26	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 16:39	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 18:33	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.11
Sample Tag: SB165 (07-31-12) (8-10)
Collected Date/Time: 07/31/2012 14:45
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:40	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:40	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:40	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:40	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:40	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:40	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:48	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:40	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:40	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:40	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 16:47	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 16:47	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/03/12 17:01	T120803	SP120801S02	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 18:54	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.12
Sample Tag: SB162 (07-31-12) (2-4)
Collected Date/Time: 07/31/2012 16:00
Matrix: Soil
COC Reference: 69774

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A	TS120803A	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:42	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:42	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:42	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:42	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:42	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:42	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:50	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:42	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:42	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:42	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 16:57	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 16:57	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/08/12 13:34	T120808	SP120807S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 19:14	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.13
Sample Tag: SB142 (08-01-12) (0-2)
Collected Date/Time: 08/01/2012 08:30
Matrix: Soil
COC Reference: 69775

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:32	TS120803B	TS120803B	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:47	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:47	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:47	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:47	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:47	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:47	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:19	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:47	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:47	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:47	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 14:14	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 14:14	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/08/12 13:57	T120808	SP120807S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 19:34	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.14
Sample Tag: SB142 (08-01-12) (0-2) MS
Collected Date/Time: 08/01/2012 08:30
Matrix: Soil
COC Reference: 69775

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:32	TS120803B	TS120803B	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:50	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:50	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:50	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:50	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:50	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:50	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:21	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:50	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:50	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:50	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 14:34	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 14:35	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/08/12 14:19	T120808	SP120807S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 19:54	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Analysis Summary

Lab Sample ID: S53401.15
Sample Tag: SB142 (08-01-12) (0-2) MSD
Collected Date/Time: 08/01/2012 08:30
Matrix: Soil
COC Reference: 69775

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Total Solids	Std M 2540 B	08/06/12 16:32	TS120803B	TS120803B	No	BLK/LCS/DUP
Metals						
Arsenic	SW6020	08/09/12 12:52	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Barium	SW6020	08/09/12 12:52	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Cadmium	SW6020	08/09/12 12:52	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Chromium	SW6020	08/09/12 12:52	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Copper	SW6020	08/09/12 12:52	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Lead	SW6020	08/09/12 12:52	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Mercury	SW7471A	08/07/12 16:23	HG2-12-0807A	HGD-080712-1	No	LCS/BLK/MS/MSD
Selenium	SW6020	08/09/12 12:52	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Silver	SW6020	08/09/12 12:52	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Zinc	SW6020	08/09/12 12:52	MT2-12-0809A	MTD-080812-2	No	LCS/BLK/MS/MSD
Organics - PCBs/Pesticides						
TCL PCB List (Column 1)	SW8082A	08/03/12 14:47	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
TCL PCB List (Column 2)	SW8082A	08/03/12 14:47	A120803	PA120803S01	Yes	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatics	SW8270C	08/08/12 14:42	T120808	SP120807S01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 20:15	120803A5	VF120803S1	Yes	LCS/BLK/MS/MSD/LCS

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: TS120803A

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.02	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.03	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.04	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.05	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.06	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.07	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.08	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.09	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.10	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.11	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A
S53401.12	Total Solids	Std M 2540 B	08/06/12 16:30	TS120803A

Inorganics, Prep Batch ID: TS120803B

Surrogates: No, QC Types: BLK/LCS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.13	Total Solids	Std M 2540 B	08/06/12 16:32	TS120803B
S53401.14	Total Solids	Std M 2540 B	08/06/12 16:32	TS120803B
S53401.15	Total Solids	Std M 2540 B	08/06/12 16:32	TS120803B

Metals, Prep Batch ID: HGD-080712-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.02	Mercury	SW7471A	08/07/12 16:16	HG2-12-0807A
S53401.03	Mercury	SW7471A	08/07/12 16:30	HG2-12-0807A
S53401.04	Mercury	SW7471A	08/07/12 16:32	HG2-12-0807A
S53401.05	Mercury	SW7471A	08/07/12 16:34	HG2-12-0807A
S53401.06	Mercury	SW7471A	08/07/12 16:37	HG2-12-0807A
S53401.07	Mercury	SW7471A	08/07/12 16:39	HG2-12-0807A
S53401.08	Mercury	SW7471A	08/07/12 16:41	HG2-12-0807A
S53401.09	Mercury	SW7471A	08/07/12 16:43	HG2-12-0807A
S53401.10	Mercury	SW7471A	08/07/12 16:46	HG2-12-0807A
S53401.11	Mercury	SW7471A	08/07/12 16:48	HG2-12-0807A
S53401.12	Mercury	SW7471A	08/07/12 16:50	HG2-12-0807A
S53401.13	Mercury	SW7471A	08/07/12 16:19	HG2-12-0807A
S53401.14	Mercury	SW7471A	08/07/12 16:21	HG2-12-0807A
S53401.15	Mercury	SW7471A	08/07/12 16:23	HG2-12-0807A

Metals, Prep Batch ID: MTD-080812-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.02	Arsenic	SW6020	08/09/12 12:03	MT2-12-0809A
S53401.02	Barium	SW6020	08/09/12 12:03	MT2-12-0809A
S53401.02	Cadmium	SW6020	08/09/12 12:03	MT2-12-0809A
S53401.02	Chromium	SW6020	08/09/12 12:03	MT2-12-0809A
S53401.02	Copper	SW6020	08/09/12 12:03	MT2-12-0809A
S53401.02	Lead	SW6020	08/09/12 12:03	MT2-12-0809A
S53401.02	Selenium	SW6020	08/09/12 12:03	MT2-12-0809A
S53401.02	Silver	SW6020	08/09/12 12:03	MT2-12-0809A
S53401.02	Zinc	SW6020	08/09/12 12:03	MT2-12-0809A
S53401.03	Arsenic	SW6020	08/09/12 12:08	MT2-12-0809A

Metals, Prep Batch ID: MTD-080812-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.03	Barium	SW6020	08/09/12 12:08	MT2-12-0809A
S53401.03	Cadmium	SW6020	08/09/12 12:08	MT2-12-0809A
S53401.03	Chromium	SW6020	08/09/12 12:08	MT2-12-0809A
S53401.03	Copper	SW6020	08/09/12 12:08	MT2-12-0809A
S53401.03	Lead	SW6020	08/09/12 12:08	MT2-12-0809A
S53401.03	Selenium	SW6020	08/09/12 12:08	MT2-12-0809A
S53401.03	Silver	SW6020	08/09/12 12:08	MT2-12-0809A
S53401.03	Zinc	SW6020	08/09/12 12:08	MT2-12-0809A
S53401.04	Arsenic	SW6020	08/09/12 12:11	MT2-12-0809A
S53401.04	Barium	SW6020	08/09/12 12:11	MT2-12-0809A
S53401.04	Cadmium	SW6020	08/09/12 12:11	MT2-12-0809A
S53401.04	Chromium	SW6020	08/09/12 12:11	MT2-12-0809A
S53401.04	Copper	SW6020	08/09/12 12:11	MT2-12-0809A
S53401.04	Lead	SW6020	08/09/12 12:11	MT2-12-0809A
S53401.04	Selenium	SW6020	08/09/12 12:11	MT2-12-0809A
S53401.04	Silver	SW6020	08/09/12 12:11	MT2-12-0809A
S53401.04	Zinc	SW6020	08/09/12 12:11	MT2-12-0809A
S53401.05	Arsenic	SW6020	08/09/12 12:13	MT2-12-0809A
S53401.05	Barium	SW6020	08/09/12 12:13	MT2-12-0809A
S53401.05	Cadmium	SW6020	08/09/12 12:13	MT2-12-0809A
S53401.05	Chromium	SW6020	08/09/12 12:13	MT2-12-0809A
S53401.05	Copper	SW6020	08/09/12 12:13	MT2-12-0809A
S53401.05	Lead	SW6020	08/09/12 12:13	MT2-12-0809A
S53401.05	Selenium	SW6020	08/09/12 12:13	MT2-12-0809A
S53401.05	Silver	SW6020	08/09/12 12:13	MT2-12-0809A
S53401.05	Zinc	SW6020	08/09/12 12:13	MT2-12-0809A
S53401.06	Arsenic	SW6020	08/09/12 12:16	MT2-12-0809A
S53401.06	Barium	SW6020	08/09/12 12:16	MT2-12-0809A
S53401.06	Cadmium	SW6020	08/09/12 12:16	MT2-12-0809A
S53401.06	Chromium	SW6020	08/09/12 12:16	MT2-12-0809A
S53401.06	Copper	SW6020	08/09/12 12:16	MT2-12-0809A
S53401.06	Lead	SW6020	08/09/12 12:16	MT2-12-0809A
S53401.06	Selenium	SW6020	08/09/12 12:16	MT2-12-0809A
S53401.06	Silver	SW6020	08/09/12 12:16	MT2-12-0809A
S53401.06	Zinc	SW6020	08/09/12 12:16	MT2-12-0809A
S53401.07	Arsenic	SW6020	08/09/12 12:18	MT2-12-0809A
S53401.07	Barium	SW6020	08/09/12 12:18	MT2-12-0809A
S53401.07	Cadmium	SW6020	08/09/12 12:18	MT2-12-0809A
S53401.07	Chromium	SW6020	08/09/12 12:18	MT2-12-0809A
S53401.07	Copper	SW6020	08/09/12 12:18	MT2-12-0809A
S53401.07	Lead	SW6020	08/09/12 12:18	MT2-12-0809A
S53401.07	Selenium	SW6020	08/09/12 12:18	MT2-12-0809A
S53401.07	Silver	SW6020	08/09/12 12:18	MT2-12-0809A
S53401.07	Zinc	SW6020	08/09/12 12:18	MT2-12-0809A
S53401.08	Arsenic	SW6020	08/09/12 12:21	MT2-12-0809A
S53401.08	Barium	SW6020	08/09/12 12:21	MT2-12-0809A
S53401.08	Cadmium	SW6020	08/09/12 12:21	MT2-12-0809A
S53401.08	Chromium	SW6020	08/09/12 12:21	MT2-12-0809A
S53401.08	Copper	SW6020	08/09/12 12:21	MT2-12-0809A

Metals, Prep Batch ID: MTD-080812-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.08	Lead	SW6020	08/09/12 12:21	MT2-12-0809A
S53401.08	Selenium	SW6020	08/09/12 12:21	MT2-12-0809A
S53401.08	Silver	SW6020	08/09/12 12:21	MT2-12-0809A
S53401.08	Zinc	SW6020	08/09/12 12:21	MT2-12-0809A
S53401.09	Arsenic	SW6020	08/09/12 12:35	MT2-12-0809A
S53401.09	Barium	SW6020	08/09/12 12:35	MT2-12-0809A
S53401.09	Cadmium	SW6020	08/09/12 12:35	MT2-12-0809A
S53401.09	Chromium	SW6020	08/09/12 12:35	MT2-12-0809A
S53401.09	Copper	SW6020	08/09/12 12:35	MT2-12-0809A
S53401.09	Lead	SW6020	08/09/12 12:35	MT2-12-0809A
S53401.09	Selenium	SW6020	08/09/12 12:35	MT2-12-0809A
S53401.09	Silver	SW6020	08/09/12 12:35	MT2-12-0809A
S53401.09	Zinc	SW6020	08/09/12 12:35	MT2-12-0809A
S53401.10	Arsenic	SW6020	08/09/12 12:37	MT2-12-0809A
S53401.10	Barium	SW6020	08/09/12 12:37	MT2-12-0809A
S53401.10	Cadmium	SW6020	08/09/12 12:37	MT2-12-0809A
S53401.10	Chromium	SW6020	08/09/12 12:37	MT2-12-0809A
S53401.10	Copper	SW6020	08/09/12 12:37	MT2-12-0809A
S53401.10	Lead	SW6020	08/09/12 12:37	MT2-12-0809A
S53401.10	Selenium	SW6020	08/09/12 12:37	MT2-12-0809A
S53401.10	Silver	SW6020	08/09/12 12:37	MT2-12-0809A
S53401.10	Zinc	SW6020	08/09/12 12:37	MT2-12-0809A
S53401.11	Arsenic	SW6020	08/09/12 12:40	MT2-12-0809A
S53401.11	Barium	SW6020	08/09/12 12:40	MT2-12-0809A
S53401.11	Cadmium	SW6020	08/09/12 12:40	MT2-12-0809A
S53401.11	Chromium	SW6020	08/09/12 12:40	MT2-12-0809A
S53401.11	Copper	SW6020	08/09/12 12:40	MT2-12-0809A
S53401.11	Lead	SW6020	08/09/12 12:40	MT2-12-0809A
S53401.11	Selenium	SW6020	08/09/12 12:40	MT2-12-0809A
S53401.11	Silver	SW6020	08/09/12 12:40	MT2-12-0809A
S53401.11	Zinc	SW6020	08/09/12 12:40	MT2-12-0809A
S53401.12	Arsenic	SW6020	08/09/12 12:42	MT2-12-0809A
S53401.12	Barium	SW6020	08/09/12 12:42	MT2-12-0809A
S53401.12	Cadmium	SW6020	08/09/12 12:42	MT2-12-0809A
S53401.12	Chromium	SW6020	08/09/12 12:42	MT2-12-0809A
S53401.12	Copper	SW6020	08/09/12 12:42	MT2-12-0809A
S53401.12	Lead	SW6020	08/09/12 12:42	MT2-12-0809A
S53401.12	Selenium	SW6020	08/09/12 12:42	MT2-12-0809A
S53401.12	Silver	SW6020	08/09/12 12:42	MT2-12-0809A
S53401.12	Zinc	SW6020	08/09/12 12:42	MT2-12-0809A
S53401.13	Arsenic	SW6020	08/09/12 12:47	MT2-12-0809A
S53401.13	Barium	SW6020	08/09/12 12:47	MT2-12-0809A
S53401.13	Cadmium	SW6020	08/09/12 12:47	MT2-12-0809A
S53401.13	Chromium	SW6020	08/09/12 12:47	MT2-12-0809A
S53401.13	Copper	SW6020	08/09/12 12:47	MT2-12-0809A
S53401.13	Lead	SW6020	08/09/12 12:47	MT2-12-0809A
S53401.13	Selenium	SW6020	08/09/12 12:47	MT2-12-0809A
S53401.13	Silver	SW6020	08/09/12 12:47	MT2-12-0809A
S53401.13	Zinc	SW6020	08/09/12 12:47	MT2-12-0809A

Metals, Prep Batch ID: MTD-080812-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.14	Arsenic	SW6020	08/09/12 12:50	MT2-12-0809A
S53401.14	Barium	SW6020	08/09/12 12:50	MT2-12-0809A
S53401.14	Cadmium	SW6020	08/09/12 12:50	MT2-12-0809A
S53401.14	Chromium	SW6020	08/09/12 12:50	MT2-12-0809A
S53401.14	Copper	SW6020	08/09/12 12:50	MT2-12-0809A
S53401.14	Lead	SW6020	08/09/12 12:50	MT2-12-0809A
S53401.14	Selenium	SW6020	08/09/12 12:50	MT2-12-0809A
S53401.14	Silver	SW6020	08/09/12 12:50	MT2-12-0809A
S53401.14	Zinc	SW6020	08/09/12 12:50	MT2-12-0809A
S53401.15	Arsenic	SW6020	08/09/12 12:52	MT2-12-0809A
S53401.15	Barium	SW6020	08/09/12 12:52	MT2-12-0809A
S53401.15	Cadmium	SW6020	08/09/12 12:52	MT2-12-0809A
S53401.15	Chromium	SW6020	08/09/12 12:52	MT2-12-0809A
S53401.15	Copper	SW6020	08/09/12 12:52	MT2-12-0809A
S53401.15	Lead	SW6020	08/09/12 12:52	MT2-12-0809A
S53401.15	Selenium	SW6020	08/09/12 12:52	MT2-12-0809A
S53401.15	Silver	SW6020	08/09/12 12:52	MT2-12-0809A
S53401.15	Zinc	SW6020	08/09/12 12:52	MT2-12-0809A

Organics - PCBs/Pesticides, Prep Batch ID: PA120803S01

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.02	TCL PCB List (Column 1)	SW8082A	08/03/12 17:08	A120803
S53401.02	TCL PCB List (Column 2)	SW8082A	08/03/12 17:08	A120803
S53401.03	TCL PCB List (Column 1)	SW8082A	08/03/12 15:12	A120803
S53401.03	TCL PCB List (Column 2)	SW8082A	08/03/12 15:12	A120803
S53401.04	TCL PCB List (Column 1)	SW8082A	08/03/12 15:23	A120803
S53401.04	TCL PCB List (Column 2)	SW8082A	08/03/12 15:23	A120803
S53401.05	TCL PCB List (Column 1)	SW8082A	08/03/12 15:44	A120803
S53401.05	TCL PCB List (Column 2)	SW8082A	08/03/12 15:44	A120803
S53401.06	TCL PCB List (Column 1)	SW8082A	08/03/12 17:18	A120803
S53401.06	TCL PCB List (Column 2)	SW8082A	08/03/12 17:18	A120803
S53401.07	TCL PCB List (Column 1)	SW8082A	08/03/12 17:29	A120803
S53401.07	TCL PCB List (Column 2)	SW8082A	08/03/12 17:29	A120803
S53401.08	TCL PCB List (Column 1)	SW8082A	08/03/12 15:54	A120803
S53401.08	TCL PCB List (Column 2)	SW8082A	08/03/12 15:54	A120803
S53401.09	TCL PCB List (Column 1)	SW8082A	08/03/12 16:15	A120803
S53401.09	TCL PCB List (Column 2)	SW8082A	08/03/12 16:15	A120803
S53401.10	TCL PCB List (Column 1)	SW8082A	08/03/12 16:26	A120803
S53401.10	TCL PCB List (Column 2)	SW8082A	08/03/12 16:26	A120803
S53401.11	TCL PCB List (Column 1)	SW8082A	08/03/12 16:47	A120803
S53401.11	TCL PCB List (Column 2)	SW8082A	08/03/12 16:47	A120803
S53401.12	TCL PCB List (Column 1)	SW8082A	08/03/12 16:57	A120803
S53401.12	TCL PCB List (Column 2)	SW8082A	08/03/12 16:57	A120803
S53401.13	TCL PCB List (Column 1)	SW8082A	08/03/12 14:14	A120803
S53401.13	TCL PCB List (Column 2)	SW8082A	08/03/12 14:14	A120803
S53401.14	TCL PCB List (Column 1)	SW8082A	08/03/12 14:34	A120803
S53401.14	TCL PCB List (Column 2)	SW8082A	08/03/12 14:35	A120803
S53401.15	TCL PCB List (Column 1)	SW8082A	08/03/12 14:47	A120803

Organics - PCBs/Pesticides, Prep Batch ID: PA120803S01 (continued)

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.15	TCL PCB List (Column 2)	SW8082A	08/03/12 14:47	A120803

Organics - Semi-Volatiles, Prep Batch ID: SP120801S02

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.02	Polynuclear Aromatics	SW8270C	08/03/12 20:02	T120803
S53401.03	Polynuclear Aromatics	SW8270C	08/03/12 14:45	T120803
S53401.04	Polynuclear Aromatics	SW8270C	08/03/12 15:08	T120803
S53401.05	Polynuclear Aromatics	SW8270C	08/03/12 15:31	T120803
S53401.06	Polynuclear Aromatics	SW8270C	08/03/12 17:47	T120803
S53401.07	Polynuclear Aromatics	SW8270C	08/03/12 18:09	T120803
S53401.08	Polynuclear Aromatics	SW8270C	08/03/12 15:53	T120803
S53401.09	Polynuclear Aromatics	SW8270C	08/03/12 16:16	T120803
S53401.10	Polynuclear Aromatics	SW8270C	08/03/12 16:39	T120803
S53401.11	Polynuclear Aromatics	SW8270C	08/03/12 17:01	T120803

Organics - Semi-Volatiles, Prep Batch ID: SP120807S01

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.12	Polynuclear Aromatics	SW8270C	08/08/12 13:34	T120808
S53401.13	Polynuclear Aromatics	SW8270C	08/08/12 13:57	T120808
S53401.14	Polynuclear Aromatics	SW8270C	08/08/12 14:19	T120808
S53401.15	Polynuclear Aromatics	SW8270C	08/08/12 14:42	T120808

Organics - Volatiles, Prep Batch ID: VF120803S1

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53401.01	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 15:28	120803A5
S53401.02	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 15:50	120803A5
S53401.03	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 16:09	120803A5
S53401.04	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 16:30	120803A5
S53401.05	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 16:51	120803A5
S53401.06	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 17:11	120803A5
S53401.07	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 17:31	120803A5
S53401.08	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 17:52	120803A5
S53401.09	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 18:13	120803A5
S53401.10	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 18:33	120803A5
S53401.11	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 18:54	120803A5
S53401.12	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 19:14	120803A5
S53401.13	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 19:34	120803A5
S53401.14	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 19:54	120803A5
S53401.15	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	08/03/12 20:15	120803A5

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes

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Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb03a.d	08/03/12 11:21	50ng/bfb 1s0802 [none]	WW	IP	**1**	
spcc03a.d	08/03/12 11:52	spcc/ccc 1s0803 1v0803 [none]	WW	CV	**1**	**4**
lcss03a.d	08/03/12 12:41	blank ms 1s0803 1m0803 vf120803s1	SO	MS	**1**	
lcss03b.d	08/03/12 13:01	blank msd 1s0803 1m0803 vf120803s1	SO	MS	**1**	
blks03a.d	08/03/12 14:22	100ul blank 1s0803 vf120803s1	SO	Bl	**1**	
5340101.d	08/03/12 15:28	100ul 1s0803 vf120803s1	SO		**1**	
5340102.d	08/03/12 15:50	100ul 1s0803 vf120803s1	SO		**1**	
5340103.d	08/03/12 16:09	100ul 1s0803 vf120803s1	SO		**1**	
5340104.d	08/03/12 16:30	100ul 1s0803 vf120803s1	SO		**1**	
5340105.d	08/03/12 16:51	100ul 1s0803 vf120803s1	SO		**1**	
5340106.d	08/03/12 17:11	100ul 1s0803 vf120803s1	SO		**1**	
5340107.d	08/03/12 17:31	100ul 1s0803 vf120803s1	SO		**1**	
5340108.d	08/03/12 17:52	100ul 1s0803 vf120803s1	SO		**1**	
5340109.d	08/03/12 18:13	100ul 1s0803 vf120803s1	SO		**1**	
5340110.d	08/03/12 18:33	100ul 1s0803 vf120803s1	SO		**1**	
5340111.d	08/03/12 18:54	100ul 1s0803 vf120803s1	SO		**1**	
5340112.d	08/03/12 19:14	100ul 1s0803 vf120803s1	SO		**1**	
5340113.d	08/03/12 19:34	100ul 1s0803 vf120803s1	SO		**1**	
5340114m.d	08/03/12 19:54	100ul 1s0803 ms 1m0803 vf120803s1	SO	MS	**1**	
5340115n.d	08/03/12 20:15	100ul 1s0803 msd 1m0803 vf120803s1	SO	MS	**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	15
Water Duplicates:	0	Soil Duplicates:	2
Water Spikes:	0	Soil Spikes:	4
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc03a.d	4-Bromofluorobenzene	50.6/ 50.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	46.3/ 50.0	n/a	77.0/121.0	
	Toluene-D8	50.3/ 50.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcss03a.d	4-Bromofluorobenzene	50.3/ 50.0	100.6	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.6/ 50.0	93.2	71.0/124.0	
	Toluene-D8	50.2/ 50.0	100.4	83.0/120.0	
				Total Outliers: 0	
lcss03b.d	4-Bromofluorobenzene	50.9/ 50.0	101.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.9/ 50.0	93.9	71.0/124.0	
	Toluene-D8	50.2/ 50.0	100.4	83.0/120.0	
				Total Outliers: 0	
blks03a.d	4-Bromofluorobenzene	49.4/ 50.0	98.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	43.6/ 50.0	87.2	71.0/124.0	
	Toluene-D8	49.5/ 50.0	98.9	83.0/120.0	
				Total Outliers: 0	
5340101.d	4-Bromofluorobenzene	51.4/ 50.0	102.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.0/ 50.0	90.0	71.0/124.0	
	Toluene-D8	50.2/ 50.0	100.5	83.0/120.0	
				Total Outliers: 0	
5340102.d	4-Bromofluorobenzene	51.0/ 50.0	101.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.8/ 50.0	91.6	71.0/124.0	
	Toluene-D8	49.4/ 50.0	98.7	83.0/120.0	
				Total Outliers: 0	
5340103.d	4-Bromofluorobenzene	52.0/ 50.0	103.9	81.0/124.0	SO
	1,2-Dichloroethane-D4	45.9/ 50.0	91.9	71.0/124.0	
	Toluene-D8	49.7/ 50.0	99.4	83.0/120.0	
				Total Outliers: 0	
5340104.d	4-Bromofluorobenzene	51.4/ 50.0	102.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.0/ 50.0	93.9	71.0/124.0	
	Toluene-D8	49.6/ 50.0	99.2	83.0/120.0	
				Total Outliers: 0	
5340105.d	4-Bromofluorobenzene	52.9/ 50.0	105.7	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.8/ 50.0	93.7	71.0/124.0	
	Toluene-D8	49.4/ 50.0	98.8	83.0/120.0	
				Total Outliers: 0	
5340106.d	4-Bromofluorobenzene	51.6/ 50.0	103.2	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.5/ 50.0	93.0	71.0/124.0	
	Toluene-D8	50.1/ 50.0	100.2	83.0/120.0	
				Total Outliers: 0	
5340107.d	4-Bromofluorobenzene	50.9/ 50.0	101.8	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.5/ 50.0	93.0	71.0/124.0	
	Toluene-D8	50.1/ 50.0	100.2	83.0/120.0	
				Total Outliers: 0	
5340108.d	4-Bromofluorobenzene	50.5/ 50.0	101.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.9/ 50.0	93.9	71.0/124.0	
	Toluene-D8	50.2/ 50.0	100.3	83.0/120.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5340109.d	4-Bromofluorobenzene	51.6/ 50.0	103.2	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.9/ 50.0	93.8	71.0/124.0	
	Toluene-D8	49.1/ 50.0	98.1	83.0/120.0	
				Total Outliers:	**0**
5340110.d	4-Bromofluorobenzene	51.5/ 50.0	103.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	48.3/ 50.0	96.6	71.0/124.0	
	Toluene-D8	50.0/ 50.0	100.1	83.0/120.0	
				Total Outliers:	**0**
5340111.d	4-Bromofluorobenzene	50.7/ 50.0	101.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	46.5/ 50.0	93.0	71.0/124.0	
	Toluene-D8	49.9/ 50.0	99.8	83.0/120.0	
				Total Outliers:	**0**
5340112.d	4-Bromofluorobenzene	49.5/ 50.0	99.0	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.1/ 50.0	94.3	71.0/124.0	
	Toluene-D8	49.3/ 50.0	98.6	83.0/120.0	
				Total Outliers:	**0**
5340113.d	4-Bromofluorobenzene	51.0/ 50.0	102.1	81.0/124.0	SO
	1,2-Dichloroethane-D4	47.6/ 50.0	95.1	71.0/124.0	
	Toluene-D8	49.5/ 50.0	98.9	83.0/120.0	
				Total Outliers:	**0**
5340114m.d	4-Bromofluorobenzene	50.2/ 50.0	100.4	81.0/124.0	SO
	1,2-Dichloroethane-D4	50.1/ 50.0	100.1	71.0/124.0	
	Toluene-D8	51.0/ 50.0	101.9	83.0/120.0	
				Total Outliers:	**0**
5340115n.d	4-Bromofluorobenzene	51.3/ 50.0	102.6	81.0/124.0	SO
	1,2-Dichloroethane-D4	51.0/ 50.0	101.9	71.0/124.0	
	Toluene-D8	50.4/ 50.0	100.9	83.0/120.0	
				Total Outliers:	**0**

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Dup File : lcss03b.d
Dup ID : LCS1
Prep Batch: vf120803s1
Prep Date : 08/03/12
Parent File: lcss03a.d

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
1,1,2-trichloro-1,2,2-trifluoroethane	53.27/ 49.31	7.7/25.0	SO
diethyl ether (*)	46.02/ 42.38	8.2/25.0	
acetone (*)	47.67/ 41.08	14.9/25.0	
methyl iodide (iodomethane) (*)	48.73/ 45.16	7.6/25.0	
carbon disulfide (*)	46.15/ 42.15	9.1/25.0	
methyl acetate	42.44/ 39.21	7.9/25.0	
tert-methyl butyl ether (mtbe) (*)	49.29/ 44.98	9.1/25.0	
acrylonitrile (*)	47.24/ 41.95	11.9/25.0	
2-butanone (mek) (*)	49.04/ 43.53	11.9/25.0	
dichlorodifluoromethane	59.47/ 51.44	14.5/25.0	
chloromethane (spcc)	49.80/ 46.24	7.4/25.0	
vinyl chloride (ccc)	50.30/ 45.82	9.3/25.0	
bromomethane	50.03/ 46.15	8.1/25.0	
chloroethane	53.81/ 49.55	8.2/25.0	
trichlorofluoromethane	58.51/ 53.25	9.4/25.0	
1,1-dichloroethene (ccc/ms)	47.12/ 45.91	2.6/25.0	
methylene chloride	43.87/ 40.57	7.8/25.0	
trans-1,2-dichloroethene	47.80/ 43.71	8.9/25.0	
1,1-dichloroethane (spcc)	46.39/ 42.58	8.6/25.0	
cis-1,2-dichloroethene	47.45/ 43.32	9.1/25.0	
tetrahydrofuran	40.08/ 37.41	6.9/25.0	
chloroform (ccc)	47.42/ 43.92	7.7/25.0	
bromochloromethane	47.41/ 43.64	8.3/25.0	
1,1,1-trichloroethane	52.51/ 48.16	8.6/25.0	
1,1-dichloropropene	2.43/ 2.26	7.2/25.0	
cyclohexane	41.95/ 39.16	6.9/25.0	
4-methyl-2-pentanone (mibk) (*)	49.35/ 44.65	10.0/25.0	
2-hexanone (*)	54.12/ 48.97	10.0/25.0	
carbon tetrachloride	57.30/ 52.47	8.8/25.0	
benzene (ms)	49.52/ 45.84	7.7/25.0	
1,2-dichloroethane	51.03/ 46.88	8.5/25.0	
trichloroethene (ms)	51.97/ 48.80	6.3/25.0	
1,2-dichloropropane (ccc)	48.31/ 44.93	7.3/25.0	
bromodichloromethane	52.76/ 49.13	7.1/25.0	
methyl cyclohexane	53.97/ 49.92	7.8/25.0	
dibromomethane	52.98/ 49.45	6.9/25.0	
cis-1,3-dichloropropene	52.90/ 48.85	8.0/25.0	
toluene (ccc/ms)	51.41/ 48.02	6.8/25.0	
trans-1,3-dichloropropene	55.83/ 50.81	9.4/25.0	
1,1,2-trichloroethane	50.15/ 46.39	7.8/25.0	
tetrachloroethene	52.93/ 49.18	7.3/25.0	
trans-1,4-dichloro-2-butene	54.66/ 49.99	8.9/25.0	
dibromochloromethane	57.56/ 52.99	8.3/25.0	
1,2-dibromoethane	53.71/ 49.37	8.4/25.0	
chlorobenzene (spcc/ms)	51.53/ 48.02	7.1/25.0	
1,1,1,2-tetrachloroethane	54.74/ 50.55	8.0/25.0	
ethylbenzene (ccc)	53.70/ 49.61	7.9/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
p,m-xylene	107.59/100.00	7.3/25.0	
o-xylene	53.72/ 50.32	6.5/25.0	
styrene	53.20/ 49.27	7.7/25.0	
isopropylbenzene	54.96/ 50.98	7.5/25.0	
bromoform (spcc)	53.89/ 50.40	6.7/25.0	
1,1,2,2-tetrachloroethane (spcc)	52.72/ 48.74	7.8/25.0	
1,2,3-trichloropropane	53.22/ 49.67	6.9/25.0	
n-propylbenzene	55.35/ 51.65	6.9/25.0	
bromobenzene	52.83/ 49.41	6.7/25.0	
1,3,5-trimethylbenzene	54.48/ 50.37	7.8/25.0	
tert-butylbenzene	55.15/ 51.54	6.8/25.0	
1,2,4-trimethylbenzene	55.71/ 51.45	8.0/25.0	
sec-butylbenzene	55.19/ 51.75	6.4/25.0	
p-isopropyltoluene	57.53/ 53.68	6.9/25.0	
1,3-dichlorobenzene	53.28/ 50.13	6.1/25.0	
1,4-dichlorobenzene	52.11/ 49.31	5.5/25.0	
1,2-dichlorobenzene	52.89/ 49.65	6.3/25.0	
1,2,3-trimethylbenzene	52.51/ 49.23	6.4/25.0	
n-butylbenzene	55.36/ 52.22	5.8/25.0	
hexachloroethane	51.74/ 48.56	6.3/25.0	
1,2-dibromo-3-chloropropane	56.81/ 52.38	8.1/25.0	
1,2,4-trichlorobenzene	57.69/ 53.64	7.3/25.0	
1,2,3-trichlorobenzene	57.74/ 53.41	7.8/25.0	
naphthalene	60.15/ 55.04	8.9/25.0	
2-methylnaphthalene	59.31/ 52.89	11.4/25.0	
[end of compound list]			
		Total Outliers: 0	

Dup File : 5340115n.d
Dup ID : S53401.15
Prep Batch: vf120803s1
Prep Date : 08/03/12
Parent File: 5340114m.d

1,1,2-trichloro-1,2,2-trifluoroethane	52.70/ 49.02	7.2/25.0	SO
diethyl ether (*)	47.05/ 45.15	4.1/25.0	
acetone (*)	54.04/ 56.31	4.1/25.0	
methyl iodide (iodomethane) (*)	47.21/ 45.10	4.6/25.0	
carbon disulfide (*)	43.17/ 40.34	6.8/25.0	
methyl acetate	45.45/ 44.58	1.9/25.0	
tert-methyl butyl ether (mtbe) (*)	52.30/ 49.10	6.3/25.0	
acrylonitrile (*)	49.17/ 47.59	3.3/25.0	
2-butanone (mek) (*)	56.01/ 53.60	4.4/25.0	
dichlorodifluoromethane	53.65/ 48.43	10.2/25.0	
chloromethane (spcc)	48.22/ 44.91	7.1/25.0	
vinyl chloride (ccc)	48.62/ 45.31	7.0/25.0	
bromomethane	50.07/ 47.17	6.0/25.0	
chloroethane	52.75/ 50.44	4.5/25.0	
trichlorofluoromethane	55.01/ 53.54	2.7/25.0	
1,1-dichloroethene (ccc/ms)	46.11/ 42.47	8.2/25.0	
methylene chloride	43.14/ 41.67	3.5/25.0	
trans-1,2-dichloroethene	46.02/ 43.72	5.1/25.0	
1,1-dichloroethane (spcc)	45.08/ 43.12	4.4/25.0	
cis-1,2-dichloroethene	45.99/ 43.93	4.6/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
tetrahydrofuran	44.60/ 41.75	6.6/25.0	
chloroform (ccc)	46.97/ 44.24	6.0/25.0	
bromochloromethane	47.57/ 44.62	6.4/25.0	
1,1,1-trichloroethane	51.26/ 48.23	6.1/25.0	
1,1-dichloropropene	2.56/ 2.24	13.3/25.0	
cyclohexane	40.11/ 36.97	8.1/25.0	
4-methyl-2-pentanone (mibk) (*)	51.61/ 50.39	2.4/25.0	
2-hexanone (*)	57.55/ 56.52	1.8/25.0	
carbon tetrachloride	52.72/ 50.61	4.1/25.0	
benzene (ms)	47.10/ 44.92	4.7/25.0	
1,2-dichloroethane	50.10/ 47.98	4.3/25.0	
trichloroethene (ms)	50.39/ 46.94	7.1/25.0	
1,2-dichloropropane (ccc)	47.39/ 44.28	6.8/25.0	
bromodichloromethane	52.15/ 48.62	7.0/25.0	
methyl cyclohexane	49.98/ 48.73	2.5/25.0	
dibromomethane	52.96/ 49.64	6.5/25.0	
cis-1,3-dichloropropene	51.60/ 48.25	6.7/25.0	
toluene (ccc/ms)	49.65/ 47.22	5.0/25.0	
trans-1,3-dichloropropene	53.88/ 51.06	5.4/25.0	
1,1,2-trichloroethane	50.32/ 47.88	5.0/25.0	
tetrachloroethene	49.75/ 46.57	6.6/25.0	
trans-1,4-dichloro-2-butene	53.25/ 50.40	5.5/25.0	
dibromochloromethane	56.09/ 51.42	8.7/25.0	
1,2-dibromoethane	52.87/ 50.25	5.1/25.0	
chlorobenzene (spcc/ms)	49.00/ 45.79	6.8/25.0	
1,1,1,2-tetrachloroethane	53.19/ 49.22	7.8/25.0	
ethylbenzene (ccc)	50.33/ 47.23	6.4/25.0	
p,m-xylene	101.28/ 93.94	7.5/25.0	
o-xylene	51.46/ 48.09	6.8/25.0	
styrene	50.79/ 47.55	6.6/25.0	
isopropylbenzene	52.47/ 48.28	8.3/25.0	
bromoform (spcc)	53.38/ 49.67	7.2/25.0	
1,1,2,2-tetrachloroethane (spcc)	52.46/ 50.00	4.8/25.0	
1,2,3-trichloropropane	54.75/ 51.30	6.5/25.0	
n-propylbenzene	52.21/ 48.04	8.3/25.0	
bromobenzene	51.09/ 46.84	8.7/25.0	
1,3,5-trimethylbenzene	52.25/ 47.34	9.9/25.0	
tert-butylbenzene	53.84/ 48.75	9.9/25.0	
1,2,4-trimethylbenzene	53.37/ 48.28	10.0/25.0	
sec-butylbenzene	52.94/ 50.56	4.6/25.0	
p-isopropyltoluene	54.74/ 51.84	5.4/25.0	
1,3-dichlorobenzene	50.56/ 48.28	4.6/25.0	
1,4-dichlorobenzene	49.24/ 46.44	5.9/25.0	
1,2-dichlorobenzene	51.17/ 48.66	5.0/25.0	
1,2,3-trimethylbenzene	51.46/ 48.61	5.7/25.0	
n-butylbenzene	51.36/ 48.52	5.7/25.0	
hexachloroethane	49.94/ 46.11	8.0/25.0	
1,2-dibromo-3-chloropropane	58.82/ 56.22	4.5/25.0	
1,2,4-trichlorobenzene	55.83/ 49.43	12.2/25.0	
1,2,3-trichlorobenzene	59.42/ 52.19	13.0/25.0	
naphthalene	64.01/ 57.74	10.3/25.0	
2-methylnaphthalene	63.18/ 50.48	22.3/25.0	
[end of compound list]			

Total Outliers: 0

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcss03a.d
Spike ID : LCS1
Prep Batch: vf120803s1
Prep Date : 08/03/12
Parent File: blks03a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	49.31/	0.00	50.00	98.6	56.9/138.1	SO
Diethyl ether	42.38/	0.00	50.00	84.8	51.7/123.0	
Acetone	41.08/	0.00	50.00	82.2	25.3/155.1	
Methyl iodide	45.16/	0.00	50.00	90.3	56.9/110.8	
Carbon disulfide	42.15/	0.00	50.00	84.3	57.0/123.0	
Methyl acetate	39.21/	0.00	50.00	78.4	54.4/133.5	
tert-Methyl butyl ether	44.98/	0.00	50.00	90.0	67.5/123.7	
Acrylonitrile	41.95/	0.00	50.00	83.9	58.7/133.0	
2-Butanone	43.53/	0.00	50.00	87.1	38.7/136.9	
Dichlorodifluoromethane	51.44/	0.00	50.00	102.9	10.0/171.8	
Chloromethane	46.24/	0.00	50.00	92.5	30.2/152.7	
Vinyl Chloride	45.82/	0.00	50.00	91.6	45.3/138.7	
Bromomethane	46.15/	0.00	50.00	92.3	10.0/157.4	
Chloroethane	49.55/	0.00	50.00	99.1	10.0/169.1	
Trichlorofluoromethane	53.25/	0.00	50.00	106.5	25.7/157.8	
1,1-Dichloroethene	45.91/	0.00	50.00	91.8	59.2/137.5	
Methylene Chloride	40.57/	0.00	50.00	81.1	70.5/121.5	
trans-1,2-Dichloroethene	43.71/	0.00	50.00	87.4	72.5/128.8	
1,1-Dichloroethane	42.58/	0.00	50.00	85.2	72.5/123.4	
cis-1,2-Dichloroethene	43.32/	0.00	50.00	86.6	75.0/120.5	
Tetrahydrofuran	37.41/	3.18	50.00	74.8	48.2/125.7	
Chloroform	43.92/	0.00	50.00	87.8	74.6/123.2	
Bromochloromethane	43.64/	0.00	50.00	87.3	72.3/122.8	
1,1,1-Trichloroethane	48.16/	0.00	50.00	96.3	73.8/128.9	
Cyclohexane	39.16/	0.00	50.00	78.3	42.4/147.1	
4-Methyl-2-pentanone	44.65/	0.00	50.00	89.3	60.4/133.8	
2-Hexanone	48.97/	0.00	50.00	97.9	45.7/141.9	
Carbon Tetrachloride	52.47/	0.00	50.00	104.9	70.1/132.7	
Benzene	45.84/	0.00	50.00	91.7	74.6/128.9	
1,2-Dichloroethane	46.88/	0.00	50.00	93.8	73.2/125.4	
Trichloroethene	48.80/	0.00	50.00	97.6	74.1/127.6	
1,2-Dichloropropane	44.93/	0.00	50.00	89.9	77.6/124.4	
Bromodichloromethane	49.13/	0.00	50.00	98.3	76.7/128.4	
Methyl cyclohexane	49.92/	0.00	50.00	99.8	53.7/148.2	
Dibromomethane	49.45/	0.00	50.00	98.9	72.5/127.3	
cis-1,3-Dichloropropene	48.85/	0.00	50.00	97.7	79.3/128.3	
Toluene	48.02/	0.00	50.00	96.0	74.8/129.2	
trans-1,3-Dichloropropene	50.81/	0.00	50.00	101.6	74.5/129.7	
1,1,2-Trichloroethane	46.39/	0.00	50.00	92.8	71.3/125.7	
Tetrachloroethene	49.18/	0.00	50.00	98.4	73.0/124.7	
trans-1,4-Dichloro-2-butene	49.99/	0.00	50.00	100.0	58.3/143.3	
Dibromochloromethane	52.99/	0.00	50.00	106.0	68.9/132.7	
1,2-Dibromoethane	49.37/	0.00	50.00	98.7	71.4/129.3	
Chlorobenzene	48.02/	0.00	50.00	96.0	74.2/128.1	
1,1,1,2-Tetrachloroethane	50.55/	0.00	50.00	101.1	76.6/133.0	
Ethylbenzene	49.61/	0.00	50.00	99.2	77.7/130.4	
p,m-Xylene	100.00/	0.00	100.00	100.0	79.8/132.0	
o-Xylene	50.32/	0.00	50.00	100.6	79.4/132.3	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	49.27/	0.00	50.00	98.5	71.3/119.3	
Isopropylbenzene	50.98/	0.00	50.00	102.0	70.3/128.2	
Bromoform	50.40/	0.00	50.00	100.8	54.7/137.4	
1,1,2,2-Tetrachloroethane	48.74/	0.00	50.00	97.5	65.4/134.9	
1,2,3-Trichloropropane	49.67/	0.00	50.00	99.3	67.2/154.5	
n-Propylbenzene	51.65/	0.00	50.00	103.3	77.3/135.2	
Bromobenzene	49.41/	0.00	50.00	98.8	74.0/132.4	
1,3,5-Trimethylbenzene	50.37/	0.00	50.00	100.7	75.6/137.0	
tert-Butylbenzene	51.54/	0.00	50.00	103.1	75.6/134.6	
1,2,4-Trimethylbenzene	51.45/	0.00	50.00	102.9	76.9/139.1	
sec-Butylbenzene	51.75/	0.00	50.00	103.5	72.7/135.6	
p-Isopropyltoluene	53.68/	0.00	50.00	107.4	77.1/140.9	
1,3-Dichlorobenzene	50.13/	0.00	50.00	100.3	77.3/131.0	
1,4-Dichlorobenzene	49.31/	0.00	50.00	98.6	33.1/125.8	
1,2-Dichlorobenzene	49.65/	0.00	50.00	99.3	73.5/132.7	
1,2,3-Trimethylbenzene	49.23/	0.00	50.00	98.5	70.9/130.2	
n-Butylbenzene	52.22/	0.00	50.00	104.4	75.0/138.6	
Hexachloroethane	48.56/	0.00	50.00	97.1	55.5/129.0	
1,2-Dibromo-3-Chloropropane	52.38/	0.00	50.00	104.8	54.1/156.4	
1,2,4-Trichlorobenzene	53.64/	0.00	50.00	107.3	37.1/131.3	
1,2,3-Trichlorobenzene	53.41/	0.00	50.00	106.8	59.4/157.9	
Naphthalene	55.04/	0.00	50.00	110.1	39.3/129.2	
2-Methylnaphthalene	52.89/	0.00	50.00	105.8	10.0/175.9	
					Total Outliers:	**0**

Spike File : lcss03b.d
Spike ID : LCS1
Prep Batch: vf120803s1
Prep Date : 08/03/12
Parent File: blks03a.d

1,1,2-Trichloro-1,2,2-trifluor	53.27/	0.00	50.00	106.5	56.9/138.1	SO
Diethyl ether	46.02/	0.00	50.00	92.0	51.7/123.0	
Acetone	47.67/	0.00	50.00	95.3	25.3/155.1	
Methyl iodide	48.73/	0.00	50.00	97.5	56.9/110.8	
Carbon disulfide	46.15/	0.00	50.00	92.3	57.0/123.0	
Methyl acetate	42.44/	0.00	50.00	84.9	54.4/133.5	
tert-Methyl butyl ether	49.29/	0.00	50.00	98.6	67.5/123.7	
Acrylonitrile	47.24/	0.00	50.00	94.5	58.7/133.0	
2-Butanone	49.04/	0.00	50.00	98.1	38.7/136.9	
Dichlorodifluoromethane	59.47/	0.00	50.00	118.9	10.0/171.8	
Chloromethane	49.80/	0.00	50.00	99.6	30.2/152.7	
Vinyl Chloride	50.30/	0.00	50.00	100.6	45.3/138.7	
Bromomethane	50.03/	0.00	50.00	100.1	10.0/157.4	
Chloroethane	53.81/	0.00	50.00	107.6	10.0/169.1	
Trichlorofluoromethane	58.51/	0.00	50.00	117.0	25.7/157.8	
1,1-Dichloroethene	47.12/	0.00	50.00	94.2	59.2/137.5	
Methylene Chloride	43.87/	0.00	50.00	87.7	70.5/121.5	
trans-1,2-Dichloroethene	47.80/	0.00	50.00	95.6	72.5/128.8	
1,1-Dichloroethane	46.39/	0.00	50.00	92.8	72.5/123.4	
cis-1,2-Dichloroethene	47.45/	0.00	50.00	94.9	75.0/120.5	
Tetrahydrofuran	40.08/	3.18	50.00	80.2	48.2/125.7	
Chloroform	47.42/	0.00	50.00	94.8	74.6/123.2	
Bromochloromethane	47.41/	0.00	50.00	94.8	72.3/122.8	
1,1,1-Trichloroethane	52.51/	0.00	50.00	105.0	73.8/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	41.95/	0.00	50.00	83.9	42.4/147.1	
4-Methyl-2-pentanone	49.35/	0.00	50.00	98.7	60.4/133.8	
2-Hexanone	54.12/	0.00	50.00	108.2	45.7/141.9	
Carbon Tetrachloride	57.30/	0.00	50.00	114.6	70.1/132.7	
Benzene	49.52/	0.00	50.00	99.0	74.6/128.9	
1,2-Dichloroethane	51.03/	0.00	50.00	102.1	73.2/125.4	
Trichloroethene	51.97/	0.00	50.00	103.9	74.1/127.6	
1,2-Dichloropropane	48.31/	0.00	50.00	96.6	77.6/124.4	
Bromodichloromethane	52.76/	0.00	50.00	105.5	76.7/128.4	
Methyl cyclohexane	53.97/	0.00	50.00	107.9	53.7/148.2	
Dibromomethane	52.98/	0.00	50.00	106.0	72.5/127.3	
cis-1,3-Dichloropropene	52.90/	0.00	50.00	105.8	79.3/128.3	
Toluene	51.41/	0.00	50.00	102.8	74.8/129.2	
trans-1,3-Dichloropropene	55.83/	0.00	50.00	111.7	74.5/129.7	
1,1,2-Trichloroethane	50.15/	0.00	50.00	100.3	71.3/125.7	
Tetrachloroethene	52.93/	0.00	50.00	105.9	73.0/124.7	
trans-1,4-Dichloro-2-butene	54.66/	0.00	50.00	109.3	58.3/143.3	
Dibromochloromethane	57.56/	0.00	50.00	115.1	68.9/132.7	
1,2-Dibromoethane	53.71/	0.00	50.00	107.4	71.4/129.3	
Chlorobenzene	51.53/	0.00	50.00	103.1	74.2/128.1	
1,1,1,2-Tetrachloroethane	54.74/	0.00	50.00	109.5	76.6/133.0	
Ethylbenzene	53.70/	0.00	50.00	107.4	77.7/130.4	
p,m-Xylene	107.59/	0.00	100.00	107.6	79.8/132.0	
o-Xylene	53.72/	0.00	50.00	107.4	79.4/132.3	
Styrene	53.20/	0.00	50.00	106.4	71.3/119.3	
Isopropylbenzene	54.96/	0.00	50.00	109.9	70.3/128.2	
Bromoform	53.89/	0.00	50.00	107.8	54.7/137.4	
1,1,2,2-Tetrachloroethane	52.72/	0.00	50.00	105.4	65.4/134.9	
1,2,3-Trichloropropane	53.22/	0.00	50.00	106.4	67.2/154.5	
n-Propylbenzene	55.35/	0.00	50.00	110.7	77.3/135.2	
Bromobenzene	52.83/	0.00	50.00	105.7	74.0/132.4	
1,3,5-Trimethylbenzene	54.48/	0.00	50.00	109.0	75.6/137.0	
tert-Butylbenzene	55.15/	0.00	50.00	110.3	75.6/134.6	
1,2,4-Trimethylbenzene	55.71/	0.00	50.00	111.4	76.9/139.1	
sec-Butylbenzene	55.19/	0.00	50.00	110.4	72.7/135.6	
p-Isopropyltoluene	57.53/	0.00	50.00	115.1	77.1/140.9	
1,3-Dichlorobenzene	53.28/	0.00	50.00	106.6	77.3/131.0	
1,4-Dichlorobenzene	52.11/	0.00	50.00	104.2	33.1/125.8	
1,2-Dichlorobenzene	52.89/	0.00	50.00	105.8	73.5/132.7	
1,2,3-Trimethylbenzene	52.51/	0.00	50.00	105.0	70.9/130.2	
n-Butylbenzene	55.36/	0.00	50.00	110.7	75.0/138.6	
Hexachloroethane	51.74/	0.00	50.00	103.5	55.5/129.0	
1,2-Dibromo-3-Chloropropane	56.81/	0.00	50.00	113.6	54.1/156.4	
1,2,4-Trichlorobenzene	57.69/	0.00	50.00	115.4	37.1/131.3	
1,2,3-Trichlorobenzene	57.74/	0.00	50.00	115.5	59.4/157.9	
Naphthalene	60.15/	0.00	50.00	120.3	39.3/129.2	
2-Methylnaphthalene	59.31/	0.00	50.00	118.6	10.0/175.9	

Total Outliers: 0

Spike File : 5340114m.d
Spike ID : S53401.14
Prep Batch: vf120803s1
Prep Date : 08/03/12
Parent File: 5340113.d

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	49.02/	0.00	50.00	98.0	56.9/138.1	SO
Diethyl ether	45.15/	0.00	50.00	90.3	51.7/123.0	
Acetone	56.31/	2.01	50.00	108.6	25.3/155.1	
Methyl iodide	45.10/	0.00	50.00	90.2	56.9/110.8	
Carbon disulfide	40.34/	0.00	50.00	80.7	57.0/123.0	
Methyl acetate	44.58/	1.22	50.00	86.7	54.4/133.5	
tert-Methyl butyl ether	49.10/	0.00	50.00	98.2	67.5/123.7	
Acrylonitrile	47.59/	0.00	50.00	95.2	58.7/133.0	
2-Butanone	53.60/	0.00	50.00	107.2	38.7/136.9	
Dichlorodifluoromethane	48.43/	0.00	50.00	96.9	10.0/171.8	
Chloromethane	44.91/	0.00	50.00	89.8	30.2/152.7	
Vinyl Chloride	45.31/	0.00	50.00	90.6	45.3/138.7	
Bromomethane	47.17/	0.00	50.00	94.3	10.0/157.4	
Chloroethane	50.44/	0.00	50.00	100.9	10.0/169.1	
Trichlorofluoromethane	53.54/	0.00	50.00	107.1	25.7/157.8	
1,1-Dichloroethene	42.47/	0.00	50.00	84.9	59.2/137.5	
Methylene Chloride	41.67/	0.00	50.00	83.3	70.5/121.5	
trans-1,2-Dichloroethene	43.72/	0.00	50.00	87.4	72.5/128.8	
1,1-Dichloroethane	43.12/	0.00	50.00	86.2	72.5/123.4	
cis-1,2-Dichloroethene	43.93/	0.00	50.00	87.9	75.0/120.5	
Tetrahydrofuran	41.75/	3.31	50.00	76.9	48.2/125.7	
Chloroform	44.24/	0.00	50.00	88.5	74.6/123.2	
Bromochloromethane	44.62/	0.00	50.00	89.2	72.3/122.8	
1,1,1-Trichloroethane	48.23/	0.00	50.00	96.5	73.8/128.9	
Cyclohexane	36.97/	0.00	50.00	73.9	42.4/147.1	
4-Methyl-2-pentanone	50.39/	0.00	50.00	100.8	60.4/133.8	
2-Hexanone	56.52/	0.00	50.00	113.0	45.7/141.9	
Carbon Tetrachloride	50.61/	0.00	50.00	101.2	70.1/132.7	
Benzene	44.92/	0.00	50.00	89.8	74.6/128.9	
1,2-Dichloroethane	47.98/	0.00	50.00	96.0	73.2/125.4	
Trichloroethene	46.94/	0.00	50.00	93.9	74.1/127.6	
1,2-Dichloropropane	44.28/	0.00	50.00	88.6	77.6/124.4	
Bromodichloromethane	48.62/	0.00	50.00	97.2	76.7/128.4	
Methyl cyclohexane	48.73/	0.00	50.00	97.5	53.7/148.2	
Dibromomethane	49.64/	0.00	50.00	99.3	72.5/127.3	
cis-1,3-Dichloropropene	48.25/	0.00	50.00	96.5	79.3/128.3	
Toluene	47.22/	0.00	50.00	94.4	74.8/129.2	
trans-1,3-Dichloropropene	51.06/	0.00	50.00	102.1	74.5/129.7	
1,1,2-Trichloroethane	47.88/	0.00	50.00	95.8	71.3/125.7	
Tetrachloroethene	46.57/	0.00	50.00	93.1	73.0/124.7	
trans-1,4-Dichloro-2-butene	50.40/	0.00	50.00	100.8	58.3/143.3	
Dibromochloromethane	51.42/	0.00	50.00	102.8	68.9/132.7	
1,2-Dibromoethane	50.25/	0.00	50.00	100.5	71.4/129.3	
Chlorobenzene	45.79/	0.00	50.00	91.6	74.2/128.1	
1,1,1,2-Tetrachloroethane	49.22/	0.00	50.00	98.4	76.6/133.0	
Ethylbenzene	47.23/	0.00	50.00	94.5	77.7/130.4	
p,m-Xylene	93.94/	0.00	100.00	93.9	79.8/132.0	
o-Xylene	48.09/	0.00	50.00	96.2	79.4/132.3	
Styrene	47.55/	0.00	50.00	95.1	71.3/119.3	
Isopropylbenzene	48.28/	0.00	50.00	96.6	70.3/128.2	
Bromoform	49.67/	0.00	50.00	99.3	54.7/137.4	
1,1,2,2-Tetrachloroethane	50.00/	0.00	50.00	100.0	65.4/134.9	
1,2,3-Trichloropropane	51.30/	0.00	50.00	102.6	67.2/154.5	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
n-Propylbenzene	48.04/	0.00	50.00	96.1	77.3/135.2	
Bromobenzene	46.84/	0.00	50.00	93.7	74.0/132.4	
1,3,5-Trimethylbenzene	47.34/	0.00	50.00	94.7	75.6/137.0	
tert-Butylbenzene	48.75/	0.00	50.00	97.5	75.6/134.6	
1,2,4-Trimethylbenzene	48.28/	0.00	50.00	96.6	76.9/139.1	
sec-Butylbenzene	50.56/	0.00	50.00	101.1	72.7/135.6	
p-Isopropyltoluene	51.84/	0.00	50.00	103.7	77.1/140.9	
1,3-Dichlorobenzene	48.28/	0.00	50.00	96.6	77.3/131.0	
1,4-Dichlorobenzene	46.44/	0.00	50.00	92.9	33.1/125.8	
1,2-Dichlorobenzene	48.66/	0.00	50.00	97.3	73.5/132.7	
1,2,3-Trimethylbenzene	48.61/	0.00	50.00	97.2	70.9/130.2	
n-Butylbenzene	48.52/	0.00	50.00	97.0	75.0/138.6	
Hexachloroethane	46.11/	0.00	50.00	92.2	55.5/129.0	
1,2-Dibromo-3-Chloropropane	56.22/	0.00	50.00	112.4	54.1/156.4	
1,2,4-Trichlorobenzene	49.43/	0.00	50.00	98.9	37.1/131.3	
1,2,3-Trichlorobenzene	52.19/	0.00	50.00	104.4	59.4/157.9	
Naphthalene	57.74/	0.00	50.00	115.5	39.3/129.2	
2-Methylnaphthalene	50.48/	0.00	50.00	101.0	10.0/175.9	
					Total Outliers:	**0**

Spike File : 5340115n.d
Spike ID : S53401.15
Prep Batch: vf120803s1
Prep Date : 08/03/12
Parent File: 5340113.d

1,1,2-Trichloro-1,2,2-trifluor	52.70/	0.00	50.00	105.4	56.9/138.1	SO
Diethyl ether	47.05/	0.00	50.00	94.1	51.7/123.0	
Acetone	54.04/	2.01	50.00	104.1	25.3/155.1	
Methyl iodide	47.21/	0.00	50.00	94.4	56.9/110.8	
Carbon disulfide	43.17/	0.00	50.00	86.3	57.0/123.0	
Methyl acetate	45.45/	1.22	50.00	88.5	54.4/133.5	
tert-Methyl butyl ether	52.30/	0.00	50.00	104.6	67.5/123.7	
Acrylonitrile	49.17/	0.00	50.00	98.3	58.7/133.0	
2-Butanone	56.01/	0.00	50.00	112.0	38.7/136.9	
Dichlorodifluoromethane	53.65/	0.00	50.00	107.3	10.0/171.8	
Chloromethane	48.22/	0.00	50.00	96.4	30.2/152.7	
Vinyl Chloride	48.62/	0.00	50.00	97.2	45.3/138.7	
Bromomethane	50.07/	0.00	50.00	100.1	10.0/157.4	
Chloroethane	52.75/	0.00	50.00	105.5	10.0/169.1	
Trichlorofluoromethane	55.01/	0.00	50.00	110.0	25.7/157.8	
1,1-Dichloroethene	46.11/	0.00	50.00	92.2	59.2/137.5	
Methylene Chloride	43.14/	0.00	50.00	86.3	70.5/121.5	
trans-1,2-Dichloroethene	46.02/	0.00	50.00	92.0	72.5/128.8	
1,1-Dichloroethane	45.08/	0.00	50.00	90.2	72.5/123.4	
cis-1,2-Dichloroethene	45.99/	0.00	50.00	92.0	75.0/120.5	
Tetrahydrofuran	44.60/	3.31	50.00	82.6	48.2/125.7	
Chloroform	46.97/	0.00	50.00	93.9	74.6/123.2	
Bromochloromethane	47.57/	0.00	50.00	95.1	72.3/122.8	
1,1,1-Trichloroethane	51.26/	0.00	50.00	102.5	73.8/128.9	
Cyclohexane	40.11/	0.00	50.00	80.2	42.4/147.1	
4-Methyl-2-pentanone	51.61/	0.00	50.00	103.2	60.4/133.8	
2-Hexanone	57.55/	0.00	50.00	115.1	45.7/141.9	
Carbon Tetrachloride	52.72/	0.00	50.00	105.4	70.1/132.7	
Benzene	47.10/	0.00	50.00	94.2	74.6/128.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,2-Dichloroethane	50.10/	0.00	50.00	100.2	73.2/125.4	
Trichloroethene	50.39/	0.00	50.00	100.8	74.1/127.6	
1,2-Dichloropropane	47.39/	0.00	50.00	94.8	77.6/124.4	
Bromodichloromethane	52.15/	0.00	50.00	104.3	76.7/128.4	
Methyl cyclohexane	49.98/	0.00	50.00	100.0	53.7/148.2	
Dibromomethane	52.96/	0.00	50.00	105.9	72.5/127.3	
cis-1,3-Dichloropropene	51.60/	0.00	50.00	103.2	79.3/128.3	
Toluene	49.65/	0.00	50.00	99.3	74.8/129.2	
trans-1,3-Dichloropropene	53.88/	0.00	50.00	107.8	74.5/129.7	
1,1,2-Trichloroethane	50.32/	0.00	50.00	100.6	71.3/125.7	
Tetrachloroethene	49.75/	0.00	50.00	99.5	73.0/124.7	
trans-1,4-Dichloro-2-butene	53.25/	0.00	50.00	106.5	58.3/143.3	
Dibromochloromethane	56.09/	0.00	50.00	112.2	68.9/132.7	
1,2-Dibromoethane	52.87/	0.00	50.00	105.7	71.4/129.3	
Chlorobenzene	49.00/	0.00	50.00	98.0	74.2/128.1	
1,1,1,2-Tetrachloroethane	53.19/	0.00	50.00	106.4	76.6/133.0	
Ethylbenzene	50.33/	0.00	50.00	100.7	77.7/130.4	
p,m-Xylene	101.28/	0.00	100.00	101.3	79.8/132.0	
o-Xylene	51.46/	0.00	50.00	102.9	79.4/132.3	
Styrene	50.79/	0.00	50.00	101.6	71.3/119.3	
Isopropylbenzene	52.47/	0.00	50.00	104.9	70.3/128.2	
Bromoform	53.38/	0.00	50.00	106.8	54.7/137.4	
1,1,2,2-Tetrachloroethane	52.46/	0.00	50.00	104.9	65.4/134.9	
1,2,3-Trichloropropane	54.75/	0.00	50.00	109.5	67.2/154.5	
n-Propylbenzene	52.21/	0.00	50.00	104.4	77.3/135.2	
Bromobenzene	51.09/	0.00	50.00	102.2	74.0/132.4	
1,3,5-Trimethylbenzene	52.25/	0.00	50.00	104.5	75.6/137.0	
tert-Butylbenzene	53.84/	0.00	50.00	107.7	75.6/134.6	
1,2,4-Trimethylbenzene	53.37/	0.00	50.00	106.7	76.9/139.1	
sec-Butylbenzene	52.94/	0.00	50.00	105.9	72.7/135.6	
p-Isopropyltoluene	54.74/	0.00	50.00	109.5	77.1/140.9	
1,3-Dichlorobenzene	50.56/	0.00	50.00	101.1	77.3/131.0	
1,4-Dichlorobenzene	49.24/	0.00	50.00	98.5	33.1/125.8	
1,2-Dichlorobenzene	51.17/	0.00	50.00	102.3	73.5/132.7	
1,2,3-Trimethylbenzene	51.46/	0.00	50.00	102.9	70.9/130.2	
n-Butylbenzene	51.36/	0.00	50.00	102.7	75.0/138.6	
Hexachloroethane	49.94/	0.00	50.00	99.9	55.5/129.0	
1,2-Dibromo-3-Chloropropane	58.82/	0.00	50.00	117.6	54.1/156.4	
1,2,4-Trichlorobenzene	55.83/	0.00	50.00	111.7	37.1/131.3	
1,2,3-Trichlorobenzene	59.42/	0.00	50.00	118.8	59.4/157.9	
Naphthalene	64.01/	0.00	50.00	128.0	39.3/129.2	
2-Methylnaphthalene	63.18/	0.00	50.00	126.4	10.0/175.9	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks03a.d (100ul blank 1s0803)
Blank ID : BLANK1
Prep Batch: vf120803s1
Prep Date : 08/03/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		11	50
Diethyl ether (*)	Not detected		16	50
Acetone (*)	Not detected		340	500
Methyl iodide (iodomethane) (*	Not detected		5.4	50
Carbon disulfide (*)	Not detected		6.9	50
Methyl Acetate	Not detected		20	50
tert-Methyl butyl ether (MTBE)	Not detected		9.2	50
Acrylonitrile (*)	Not detected		37	50
2-Butanone (MEK) (*)	Not detected		25	500
Dichlorodifluoromethane	Not detected		11	50
Chloromethane (SPCC)	Not detected		9.9	50
Vinyl Chloride (CCC)	Not detected		10.0	50
Bromomethane	Not detected		11	50
Chloroethane	Not detected		11	50
Acrolein	Not detected		200	10000
Trichlorofluoromethane	Not detected		7.8	50
1,1-Dichloroethene (CCC/MS)	Not detected		11	50
Methylene Chloride	Not detected		11	50
trans-1,2-Dichloroethene	Not detected		8.5	50
1,1-Dichloroethane (SPCC)	Not detected		8.5	50
cis-1,2-Dichloroethene	Not detected		7.9	50
Tetrahydrofuran	3.18	159.0	83	500
Chloroform (CCC)	Not detected		7.8	50
Bromochloromethane	Not detected		11	50
1,1,1-Trichloroethane	Not detected		6.4	50
1,1-Dichloropropene	Not detected		8.2	50
Cyclohexane	Not detected		18	50
4-Methyl-2-pentanone (MIBK) (*	Not detected		22	50
2-Hexanone (*)	Not detected		13	50
2-chloroethylvinyl ether	Not detected		15	10000
Carbon Tetrachloride	Not detected		7.3	50
Benzene (MS)	Not detected		9.2	50
1,2-Dichloroethane	Not detected		11	50
Trichloroethene (MS)	Not detected		9.4	50
1,2-Dichloropropane (CCC)	Not detected		6.5	50
Bromodichloromethane	Not detected		7.4	50
Methyl Cyclohexane	Not detected		9.6	50
Dibromomethane	Not detected		7.7	50
cis-1,3-Dichloropropene	Not detected		7.3	50
Toluene (CCC/MS)	Not detected		8.4	50
trans-1,3-Dichloropropene	Not detected		6.4	50
1,1,2-Trichloroethane	Not detected		9.2	50
Tetrachloroethene	Not detected		9.0	50
trans-1,4-Dichloro-2-butene	Not detected		18	50
Dibromochloromethane	Not detected		6.1	50
1,2-Dibromoethane	Not detected		6.2	50
Chlorobenzene (SPCC/MS)	Not detected		8.1	50
1,1,1,2-Tetrachloroethane	Not detected		6.1	50
Ethylbenzene (CCC)	Not detected		9.6	50
p,m-Xylene	Not detected		18	50
o-Xylene	Not detected		9.1	50
Styrene	Not detected		9.6	50
Isopropylbenzene	Not detected		8.6	50

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blks03a.d (100ul blank 1s0803)
Blank ID : BLANK1
Prep Batch: vf120803s1
Prep Date : 08/03/12
Matrix : SO
Dilution : 50.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Bromoform (SPCC)	Not detected		9.9	50
1,1,2,2-Tetrachloroethane (SPC	Not detected		7.2	50
1,2,3-Trichloropropane	Not detected		18	50
n-Propylbenzene	Not detected		8.8	50
Bromobenzene	Not detected		9.5	50
1,3,5-Trimethylbenzene	Not detected		8.8	50
tert-Butylbenzene	Not detected		10	50
1,2,4-Trimethylbenzene	Not detected		9.9	50
sec-Butylbenzene	Not detected		10	50
p-Isopropyltoluene	Not detected		10	50
1,3-Dichlorobenzene	Not detected		10	50
1,4-Dichlorobenzene	Not detected		8.5	50
1,2-Dichlorobenzene	Not detected		11	50
1,2,3-Trimethylbenzene	Not detected		6.7	50
n-Butylbenzene	Not detected		4.1	50
Hexachloroethane	Not detected		6.5	50
1,2-Dibromo-3-Chloropropane	Not detected		11	50
1,2,4-Trichlorobenzene	Not detected		6.6	50
Hexachlorobutadiene	Not detected		11	50
1,2,3-Trichlorobenzene	Not detected		7.6	50
Naphthalene	Not detected		6.7	50
2-Methylnaphthalene	Not detected		7.8	50

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Level: N/A

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blks03a.d
Method Blank Prep Date: 08/03/12
Blank/LCS Preparation Batch: vf120803s1

LCS Data File: lcss03a.d
LCS Prep Date: 08/03/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53389.01	120803A5	VF120803S1	08/03/12	Volatile Organics 5035	$58260
S53389.02	120803A5	VF120803S1	08/03/12	Volatile Organics 5035	$58260
S53401.01	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.02	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.03	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.04	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.05	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.06	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.07	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.08	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.09	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.10	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.11	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.12	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.13	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.14	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL
S53401.15	120803A5	VF120803S1	08/03/12	TCL Volatile Organics HighLevl 5035/8260	$58260TCL

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb03a.d	08/03/12 11:21	50	95	8.0	40.0	11.7	3568	PASS
		75	95	30.0	66.0	39.4	12064	PASS
		95	95	100.0	100.0	100.0	30592	PASS
		96	95	5.0	9.0	6.9	2110	PASS
		173	174	0.0	2.0	0.6	211	PASS
		174	95	50.0	120.0	113.6	34752	PASS
		175	174	4.0	9.0	7.6	2624	PASS
		176	174	93.0	101.0	98.0	34056	PASS
		177	176	5.0	9.0	6.7	2283	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spcc03a.d	08/03/12 11:52	Pentafluorobenzene	504682/ 3.96	252341- 1009364	3.46- 4.46
		1,4-Difluorobenzene	563843/ 4.32	281922- 1127686	3.82- 4.82
		Chlorobenzene-D5	200643/ 5.68	100322- 401286	5.18- 6.18
		1,4-Dichlorobenzene-D4	273737/ 6.77	136869- 547474	6.27- 7.27
					Total Outliers: N/A
lcss03a.d	08/03/12 12:41	Pentafluorobenzene	577942/ 3.96	Ratio: 1.145	Diff.: 0.00
		1,4-Difluorobenzene	646100/ 4.32	Ratio: 1.146	Diff.: 0.00
		Chlorobenzene-D5	229901/ 5.69	Ratio: 1.146	Diff.: 0.01
		1,4-Dichlorobenzene-D4	305759/ 6.78	Ratio: 1.117	Diff.: 0.01
					Total Outliers: 0
lcss03b.d	08/03/12 13:01	Pentafluorobenzene	519610/ 3.96	Ratio: 1.030	Diff.: 0.00
		1,4-Difluorobenzene	581521/ 4.32	Ratio: 1.031	Diff.: 0.00
		Chlorobenzene-D5	208249/ 5.69	Ratio: 1.038	Diff.: 0.01
		1,4-Dichlorobenzene-D4	281200/ 6.77	Ratio: 1.027	Diff.: 0.00
					Total Outliers: 0
blks03a.d	08/03/12 14:22	Pentafluorobenzene	542117/ 3.96	Ratio: 1.074	Diff.: 0.00
		1,4-Difluorobenzene	603651/ 4.32	Ratio: 1.071	Diff.: 0.00
		Chlorobenzene-D5	209663/ 5.68	Ratio: 1.045	Diff.: 0.00
		1,4-Dichlorobenzene-D4	284228/ 6.77	Ratio: 1.038	Diff.: 0.00
					Total Outliers: 0
5340101.d	08/03/12 15:28	Pentafluorobenzene	546305/ 3.96	Ratio: 1.082	Diff.: 0.00
		1,4-Difluorobenzene	595663/ 4.32	Ratio: 1.056	Diff.: 0.00
		Chlorobenzene-D5	217433/ 5.68	Ratio: 1.084	Diff.: 0.00
		1,4-Dichlorobenzene-D4	311424/ 6.77	Ratio: 1.138	Diff.: 0.00
					Total Outliers: 0
5340102.d	08/03/12 15:50	Pentafluorobenzene	535628/ 3.96	Ratio: 1.061	Diff.: 0.00
		1,4-Difluorobenzene	591703/ 4.32	Ratio: 1.049	Diff.: 0.00
		Chlorobenzene-D5	208292/ 5.68	Ratio: 1.038	Diff.: 0.00
		1,4-Dichlorobenzene-D4	289550/ 6.77	Ratio: 1.058	Diff.: 0.00
					Total Outliers: 0
5340103.d	08/03/12 16:09	Pentafluorobenzene	519423/ 3.96	Ratio: 1.029	Diff.: 0.00
		1,4-Difluorobenzene	575020/ 4.32	Ratio: 1.020	Diff.: 0.00
		Chlorobenzene-D5	206874/ 5.68	Ratio: 1.031	Diff.: 0.00
		1,4-Dichlorobenzene-D4	300880/ 6.77	Ratio: 1.099	Diff.: 0.00
					Total Outliers: 0
5340104.d	08/03/12 16:30	Pentafluorobenzene	568391/ 3.96	Ratio: 1.126	Diff.: 0.00
		1,4-Difluorobenzene	637899/ 4.32	Ratio: 1.131	Diff.: 0.00
		Chlorobenzene-D5	225380/ 5.68	Ratio: 1.123	Diff.: 0.00
		1,4-Dichlorobenzene-D4	316478/ 6.77	Ratio: 1.156	Diff.: 0.00
					Total Outliers: 0
5340105.d	08/03/12 16:51	Pentafluorobenzene	517174/ 3.96	Ratio: 1.025	Diff.: 0.00
		1,4-Difluorobenzene	575570/ 4.32	Ratio: 1.021	Diff.: 0.00
		Chlorobenzene-D5	207651/ 5.68	Ratio: 1.035	Diff.: 0.00
		1,4-Dichlorobenzene-D4	305657/ 6.77	Ratio: 1.117	Diff.: 0.00
					Total Outliers: 0
5340106.d	08/03/12 17:11	Pentafluorobenzene	529330/ 3.96	Ratio: 1.049	Diff.: 0.00
		1,4-Difluorobenzene	583195/ 4.32	Ratio: 1.034	Diff.: 0.00
		Chlorobenzene-D5	213141/ 5.68	Ratio: 1.062	Diff.: 0.00
		1,4-Dichlorobenzene-D4	304521/ 6.77	Ratio: 1.112	Diff.: 0.00
					Total Outliers: 0
5340107.d	08/03/12 17:31	Pentafluorobenzene	510347/ 3.96	Ratio: 1.011	Diff.: 0.00
		1,4-Difluorobenzene	564463/ 4.32	Ratio: 1.001	Diff.: 0.00
		Chlorobenzene-D5	208024/ 5.68	Ratio: 1.037	Diff.: 0.00
		1,4-Dichlorobenzene-D4	289506/ 6.77	Ratio: 1.058	Diff.: 0.00
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5340108.d	08/03/12 17:52	Pentafluorobenzene	541578/ 3.96	Ratio: 1.073	Diff.: 0.00
		1,4-Difluorobenzene	607378/ 4.32	Ratio: 1.077	Diff.: 0.00
		Chlorobenzene-D5	220056/ 5.68	Ratio: 1.097	Diff.: 0.00
		1,4-Dichlorobenzene-D4	306296/ 6.77	Ratio: 1.119	Diff.: 0.00
					Total Outliers: 0
5340109.d	08/03/12 18:13	Pentafluorobenzene	571693/ 3.96	Ratio: 1.133	Diff.: 0.00
		1,4-Difluorobenzene	635580/ 4.32	Ratio: 1.127	Diff.: 0.00
		Chlorobenzene-D5	229274/ 5.68	Ratio: 1.143	Diff.: 0.00
		1,4-Dichlorobenzene-D4	330502/ 6.77	Ratio: 1.207	Diff.: 0.00
					Total Outliers: 0
5340110.d	08/03/12 18:33	Pentafluorobenzene	506487/ 3.96	Ratio: 1.004	Diff.: 0.00
		1,4-Difluorobenzene	574020/ 4.32	Ratio: 1.018	Diff.: 0.00
		Chlorobenzene-D5	210103/ 5.68	Ratio: 1.047	Diff.: 0.00
		1,4-Dichlorobenzene-D4	302845/ 6.77	Ratio: 1.106	Diff.: 0.00
					Total Outliers: 0
5340111.d	08/03/12 18:54	Pentafluorobenzene	540239/ 3.96	Ratio: 1.070	Diff.: 0.00
		1,4-Difluorobenzene	600801/ 4.32	Ratio: 1.066	Diff.: 0.00
		Chlorobenzene-D5	218978/ 5.68	Ratio: 1.091	Diff.: 0.00
		1,4-Dichlorobenzene-D4	306520/ 6.77	Ratio: 1.120	Diff.: 0.00
					Total Outliers: 0
5340112.d	08/03/12 19:14	Pentafluorobenzene	545500/ 3.96	Ratio: 1.081	Diff.: 0.00
		1,4-Difluorobenzene	618100/ 4.32	Ratio: 1.096	Diff.: 0.00
		Chlorobenzene-D5	218017/ 5.68	Ratio: 1.087	Diff.: 0.00
		1,4-Dichlorobenzene-D4	298257/ 6.77	Ratio: 1.090	Diff.: 0.00
					Total Outliers: 0
5340113.d	08/03/12 19:34	Pentafluorobenzene	518223/ 3.96	Ratio: 1.027	Diff.: 0.00
		1,4-Difluorobenzene	594839/ 4.32	Ratio: 1.055	Diff.: 0.00
		Chlorobenzene-D5	210445/ 5.68	Ratio: 1.049	Diff.: 0.00
		1,4-Dichlorobenzene-D4	299111/ 6.77	Ratio: 1.093	Diff.: 0.00
					Total Outliers: 0
5340114m.d	08/03/12 19:54	Pentafluorobenzene	517483/ 3.96	Ratio: 1.025	Diff.: 0.00
		1,4-Difluorobenzene	585362/ 4.32	Ratio: 1.038	Diff.: 0.00
		Chlorobenzene-D5	216235/ 5.68	Ratio: 1.078	Diff.: 0.00
		1,4-Dichlorobenzene-D4	280540/ 6.77	Ratio: 1.025	Diff.: 0.00
					Total Outliers: 0
5340115n.d	08/03/12 20:15	Pentafluorobenzene	504700/ 3.96	Ratio: 1.000	Diff.: 0.00
		1,4-Difluorobenzene	587403/ 4.32	Ratio: 1.042	Diff.: 0.00
		Chlorobenzene-D5	214346/ 5.68	Ratio: 1.068	Diff.: 0.00
		1,4-Dichlorobenzene-D4	290210/ 6.77	Ratio: 1.060	Diff.: 0.00
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.01
Data File: 5340101.d
Date Received: 08/01/12

Tag: 0908-073012-0001
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	11	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	750	340	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	6.9	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	20	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	9.2	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	750	25	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	50	11	ug/kg		
74-87-3	Chloromethane	Not detected	300	9.9	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	10.0	ug/kg		
74-83-9	Bromomethane	Not detected	300	11	ug/kg		
75-00-3	Chloroethane	Not detected	300	11	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	7.8	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	50	11	ug/kg		
75-09-2	Methylene chloride	Not detected	300	11	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	50	8.5	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	50	8.5	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	50	7.9	ug/kg		
67-66-3	Chloroform	Not detected	50	7.8	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	50	6.4	ug/kg		
110-82-7	Cyclohexane	Not detected	50	18	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	22	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	13	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	50	7.3	ug/kg		
71-43-2	Benzene	Not detected	50	9.2	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	50	11	ug/kg		
79-01-6	Trichloroethene	Not detected	50	9.4	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	50	6.5	ug/kg		
75-27-4	Bromodichloromethane	Not detected	50	7.4	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	50	9.6	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	7.3	ug/kg		
108-88-3	Toluene	Not detected	50	8.4	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	6.4	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	50	9.2	ug/kg		
127-18-4	Tetrachloroethene	Not detected	50	9.0	ug/kg		
124-48-1	Dibromochloromethane	Not detected	50	6.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	50	6.2	ug/kg		
108-90-7	Chlorobenzene	Not detected	50	8.1	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	7.2	ug/kg		
100-41-4	Ethylbenzene	Not detected	50	9.6	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	50	18	ug/kg		
95-47-6	o-Xylene	Not detected	50	9.1	ug/kg		
100-42-5	Styrene	Not detected	50	9.6	ug/kg		
98-82-8	Isopropylbenzene	Not detected	50	8.6	ug/kg		
75-25-2	Bromoform	Not detected	50	9.9	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	50	10	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	50	8.5	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	50	11	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	50	11	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	6.6	ug/kg		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (90%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (101%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.02
Data File: 5340102.d
Date Received: 08/01/12

Tag: SB105 (07-30-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 60.7

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	910	410	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.4	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	25	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	910	30	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.5	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	10	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.6	ug/kg		
67-66-3	Chloroform	Not detected	60	9.4	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.8	ug/kg		
110-82-7	Cyclohexane	Not detected	60	22	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	26	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.8	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.8	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.0	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.8	ug/kg		
108-88-3	Toluene	Not detected	60	10	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.7	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.5	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.8	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.7	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	22	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	10	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.0	ug/kg		
Total Solids							
TSOLIDS	Total Solids	91	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (102%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.02
Data File: 5340102.d
Date Received: 08/01/12

Tag: SB105 (07-30-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.03
Data File: 5340103.d
Date Received: 08/01/12

Tag: SB104 (07-30-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 64.8

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	970	440	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.9	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	26	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	970	32	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	10	ug/kg		
67-66-3	Chloroform	Not detected	60	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	8.3	ug/kg		
110-82-7	Cyclohexane	Not detected	60	24	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	28	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	9.4	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	15	ug/kg		
79-01-6	Trichloroethene	Not detected	60	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	8.4	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.6	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.4	ug/kg		
108-88-3	Toluene	Not detected	60	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	8.2	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.8	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	8.0	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	10	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	9.3	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	23	ug/kg		
95-47-6	o-Xylene	Not detected	60	12	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	11	ug/kg		
75-25-2	Bromoform	Not detected	60	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.6	ug/kg		
Total Solids							
TSOLIDS	Total Solids	88	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (104%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.03
Data File: 5340103.d
Date Received: 08/01/12

Tag: SB104 (07-30-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.04
Data File: 5340104.d
Date Received: 08/01/12

Tag: SB103 (07-30-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 58.7

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	12	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	880	400	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.1	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	24	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	880	29	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	13	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	12	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.2	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	9.9	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	10.0	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.3	ug/kg		
67-66-3	Chloroform	Not detected	60	9.1	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	7.5	ug/kg		
110-82-7	Cyclohexane	Not detected	60	22	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	25	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	15	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	8.5	ug/kg		
71-43-2	Benzene	Not detected	60	11	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	13	ug/kg		
79-01-6	Trichloroethene	Not detected	60	11	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	7.6	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	8.7	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	11	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	8.5	ug/kg		
108-88-3	Toluene	Not detected	60	9.9	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	7.5	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.1	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.3	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	9.5	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	8.5	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	11	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	21	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	11	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	10	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	60	12	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	60	10.0	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.7	ug/kg		
Total Solids							
TSOLIDS	Total Solids	91	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (94%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.04
Data File: 5340104.d
Date Received: 08/01/12

Tag: SB103 (07-30-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.05
Data File: 5340105.d
Date Received: 08/01/12

Tag: SB102 (07-31-12) (2-4)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 69.8

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	1000	470	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.6	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	34	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	16	ug/kg		
74-87-3	Chloromethane	Not detected	300	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	300	15	ug/kg		
75-00-3	Chloroethane	Not detected	300	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	300	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.9	ug/kg		
110-82-7	Cyclohexane	Not detected	70	26	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	30	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	18	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	10	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.0	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	10	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.9	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.4	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.7	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	10	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	25	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.2	ug/kg		
Total Solids							
TSOLIDS	Total Solids	83	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (94%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (106%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.05
Data File: 5340105.d
Date Received: 08/01/12

Tag: SB102 (07-31-12) (2-4)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.06
Data File: 5340106.d
Date Received: 08/01/12

Tag: SB112 (07-31-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 73.1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	1100	490	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	10	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	30	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	36	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	16	ug/kg		
74-87-3	Chloromethane	Not detected	400	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	15	ug/kg		
74-83-9	Bromomethane	Not detected	400	15	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	16	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	12	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	9.4	ug/kg		
110-82-7	Cyclohexane	Not detected	70	27	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	32	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	18	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	11	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.4	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	11	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	9.3	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.8	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	9.1	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	26	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	13	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	180	70	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	230	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	16	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	600	100	9.6	ug/kg		
Total Solids							
TSOLIDS	Total Solids	81	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (100%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.06
Data File: 5340106.d
Date Received: 08/01/12

Tag: SB112 (07-31-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.07
Data File: 5340107.d
Date Received: 08/01/12

Tag: DUP 4 (07-31-12)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 62.6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	13	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	940	420	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	8.6	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	26	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	11	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	940	31	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	60	14	ug/kg		
74-87-3	Chloromethane	Not detected	300	12	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	12	ug/kg		
74-83-9	Bromomethane	Not detected	300	13	ug/kg		
75-00-3	Chloroethane	Not detected	300	13	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	9.8	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	60	13	ug/kg		
75-09-2	Methylene chloride	Not detected	300	13	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	60	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	60	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	60	9.9	ug/kg		
67-66-3	Chloroform	Not detected	60	9.7	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	60	8.0	ug/kg		
110-82-7	Cyclohexane	Not detected	60	23	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	27	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	60	9.1	ug/kg		
71-43-2	Benzene	Not detected	60	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	60	14	ug/kg		
79-01-6	Trichloroethene	Not detected	60	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	60	8.1	ug/kg		
75-27-4	Bromodichloromethane	Not detected	60	9.3	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	60	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	60	9.1	ug/kg		
108-88-3	Toluene	Not detected	60	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	60	8.0	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	60	11	ug/kg		
127-18-4	Tetrachloroethene	Not detected	60	11	ug/kg		
124-48-1	Dibromochloromethane	Not detected	60	7.6	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	60	7.8	ug/kg		
108-90-7	Chlorobenzene	Not detected	60	10	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	60	9.0	ug/kg		
100-41-4	Ethylbenzene	Not detected	60	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	60	23	ug/kg		
95-47-6	o-Xylene	Not detected	60	11	ug/kg		
100-42-5	Styrene	Not detected	60	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	60	11	ug/kg		
75-25-2	Bromoform	Not detected	60	12	ug/kg		
541-73-1	1,3-Dichlorobenzene	120	60	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	150	60	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	60	13	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	60	13	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	400	100	8.3	ug/kg		
Total Solids							
TSOLIDS	Total Solids	88	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (102%)					
2037-26-5	Toluene-D8	Pass (100%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.07
Data File: 5340107.d
Date Received: 08/01/12

Tag: DUP 4 (07-31-12)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.08
Data File: 5340108.d
Date Received: 08/01/12

Tag: SB114 (07-31-12) (2-4)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 65

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	14	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	980	440	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.0	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	27	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	12	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	980	32	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	13	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	13	ug/kg		
74-83-9	Bromomethane	Not detected	300	14	ug/kg		
75-00-3	Chloroethane	Not detected	300	14	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	10	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	14	ug/kg		
75-09-2	Methylene chloride	Not detected	300	14	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	11	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	11	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	10	ug/kg		
67-66-3	Chloroform	Not detected	70	10	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.3	ug/kg		
110-82-7	Cyclohexane	Not detected	70	24	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	28	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	16	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	9.4	ug/kg		
71-43-2	Benzene	Not detected	70	12	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	15	ug/kg		
79-01-6	Trichloroethene	Not detected	70	12	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.4	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	9.6	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	12	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	9.4	ug/kg		
108-88-3	Toluene	Not detected	70	11	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.3	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	12	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	7.9	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.1	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.4	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	12	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	24	ug/kg		
95-47-6	o-Xylene	Not detected	70	12	ug/kg		
100-42-5	Styrene	Not detected	70	12	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	11	ug/kg		
75-25-2	Bromoform	Not detected	70	13	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	13	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	11	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	14	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	14	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	8.6	ug/kg		
Total Solids							
TSOLIDS	Total Solids	87	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (94%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (100%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.08
Data File: 5340108.d
Date Received: 08/01/12

Tag: SB114 (07-31-12) (2-4)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.09
Data File: 5340109.d
Date Received: 08/01/12

Tag: SB113 (07-31-12) 3-5)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 73.5

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	16	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	1100	500	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	10	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	30	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	36	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	16	ug/kg		
74-87-3	Chloromethane	Not detected	400	15	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	15	ug/kg		
74-83-9	Bromomethane	Not detected	400	16	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	16	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	12	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	9.4	ug/kg		
110-82-7	Cyclohexane	Not detected	70	27	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	32	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	18	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	11	ug/kg		
71-43-2	Benzene	Not detected	70	14	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	17	ug/kg		
79-01-6	Trichloroethene	Not detected	70	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.5	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	11	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	9.3	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.9	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	9.1	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	11	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	27	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	13	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	16	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.7	ug/kg		
Total Solids							
TSOLIDS	Total Solids	81	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (94%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (98%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.09
Data File: 5340109.d
Date Received: 08/01/12

Tag: SB113 (07-31-12) 3-5)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.10
Data File: 5340110.d
Date Received: 08/01/12

Tag: SB109 (07-31-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 54

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	11	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	810	360	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	7.5	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	22	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	9.9	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	810	27	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	50	12	ug/kg		
74-87-3	Chloromethane	Not detected	300	11	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	11	ug/kg		
74-83-9	Bromomethane	Not detected	300	11	ug/kg		
75-00-3	Chloroethane	Not detected	300	12	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	8.4	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	50	12	ug/kg		
75-09-2	Methylene chloride	Not detected	300	12	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	50	9.1	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	50	9.2	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	50	8.5	ug/kg		
67-66-3	Chloroform	Not detected	50	8.4	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	50	6.9	ug/kg		
110-82-7	Cyclohexane	Not detected	50	20	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	23	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	14	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	50	7.8	ug/kg		
71-43-2	Benzene	Not detected	50	9.9	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	50	12	ug/kg		
79-01-6	Trichloroethene	Not detected	50	10	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	50	7.0	ug/kg		
75-27-4	Bromodichloromethane	Not detected	50	8.0	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	50	10	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	7.8	ug/kg		
108-88-3	Toluene	Not detected	50	9.1	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	6.9	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	50	9.9	ug/kg		
127-18-4	Tetrachloroethene	Not detected	50	9.7	ug/kg		
124-48-1	Dibromochloromethane	Not detected	50	6.5	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	50	6.7	ug/kg		
108-90-7	Chlorobenzene	Not detected	50	8.7	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	7.8	ug/kg		
100-41-4	Ethylbenzene	Not detected	50	10	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	50	20	ug/kg		
95-47-6	o-Xylene	Not detected	50	9.8	ug/kg		
100-42-5	Styrene	Not detected	50	10	ug/kg		
98-82-8	Isopropylbenzene	Not detected	50	9.2	ug/kg		
75-25-2	Bromoform	Not detected	50	11	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	50	11	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	50	9.2	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	50	12	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	50	12	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	7.1	ug/kg		
Total Solids							
TSOLIDS	Total Solids	97	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (97%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (100%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.10
Data File: 5340110.d
Date Received: 08/01/12

Tag: SB109 (07-31-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.11
Data File: 5340111.d
Date Received: 08/01/12

Tag: SB165 (07-31-12) (8-10)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 72.2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	1100	490	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	10.0	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	29	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	36	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	16	ug/kg		
74-87-3	Chloromethane	Not detected	400	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	400	15	ug/kg		
75-00-3	Chloroethane	Not detected	400	16	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	16	ug/kg		
75-09-2	Methylene chloride	Not detected	400	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	9.2	ug/kg		
110-82-7	Cyclohexane	Not detected	70	26	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	31	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	18	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	10	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	14	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.3	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	11	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	10	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	9.2	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.7	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	9.0	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	12	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	10	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	14	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	26	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	15	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	16	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.5	ug/kg		
Total Solids							
TSOLIDS	Total Solids	82	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (93%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (100%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.11
Data File: 5340111.d
Date Received: 08/01/12

Tag: SB165 (07-31-12) (8-10)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.12
Data File: 5340112.d
Date Received: 08/01/12

Tag: SB162 (07-31-12) (2-4)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 68.9

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	1000	470	ug/kg		
75-15-0	Carbon disulfide	Not detected	300	9.5	ug/kg		
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1000	34	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	15	ug/kg		
74-87-3	Chloromethane	Not detected	300	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	300	15	ug/kg		
75-00-3	Chloroethane	Not detected	300	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	300	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	8.8	ug/kg		
110-82-7	Cyclohexane	Not detected	70	25	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	3000	30	ug/kg		
591-78-6	2-Hexanone	Not detected	3000	17	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	10.0	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	8.9	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	13	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	10.0	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	8.8	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	12	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.3	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.5	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	9.9	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	25	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	13	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.1	ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (94%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (99%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.12
Data File: 5340112.d
Date Received: 08/01/12

Tag: SB162 (07-31-12) (2-4)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.13
Data File: 5340113.d
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 70.6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	100	15	ug/kg	08/03/12	
67-64-1	Acetone	Not detected	1100	480	ug/kg		
75-15-0	Carbon disulfide	Not detected	400	9.7	ug/kg		
79-20-9	Methyl Acetate	Not detected	4000	29	ug/kg		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	400	13	ug/kg		
78-93-3	2-Butanone (MEK)	Not detected	1100	35	ug/kg		
75-71-8	Dichlorodifluoromethane	Not detected	70	16	ug/kg		
74-87-3	Chloromethane	Not detected	400	14	ug/kg		
75-01-4	Vinyl chloride	Not detected	100	14	ug/kg		
74-83-9	Bromomethane	Not detected	400	15	ug/kg		
75-00-3	Chloroethane	Not detected	400	15	ug/kg		
75-69-4	Trichlorofluoromethane	Not detected	100	11	ug/kg		
75-35-4	1,1-Dichloroethene	Not detected	70	15	ug/kg		
75-09-2	Methylene chloride	Not detected	400	15	ug/kg		
156-60-5	trans-1,2-Dichloroethene	Not detected	70	12	ug/kg		
75-34-3	1,1-Dichloroethane	Not detected	70	12	ug/kg		
156-59-2	cis-1,2-Dichloroethene	Not detected	70	11	ug/kg		
67-66-3	Chloroform	Not detected	70	11	ug/kg		
71-55-6	1,1,1-Trichloroethane	Not detected	70	9.0	ug/kg		
110-82-7	Cyclohexane	Not detected	70	26	ug/kg		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	4000	30	ug/kg		
591-78-6	2-Hexanone	Not detected	4000	18	ug/kg		
56-23-5	Carbon tetrachloride	Not detected	70	10	ug/kg		
71-43-2	Benzene	Not detected	70	13	ug/kg		
107-06-2	1,2-Dichloroethane	Not detected	70	16	ug/kg		
79-01-6	Trichloroethene	Not detected	70	13	ug/kg		
78-87-5	1,2-Dichloropropane	Not detected	70	9.1	ug/kg		
75-27-4	Bromodichloromethane	Not detected	70	10	ug/kg		
108-87-2	Methyl cyclohexane	Not detected	70	14	ug/kg		
10061-01-5	cis-1,3-Dichloropropene	Not detected	70	10	ug/kg		
108-88-3	Toluene	Not detected	70	12	ug/kg		
10061-02-6	trans-1,3-Dichloropropene	Not detected	70	9.0	ug/kg		
79-00-5	1,1,2-Trichloroethane	Not detected	70	13	ug/kg		
127-18-4	Tetrachloroethene	Not detected	70	13	ug/kg		
124-48-1	Dibromochloromethane	Not detected	70	8.5	ug/kg		
106-93-4	1,2-Dibromoethane	Not detected	70	8.8	ug/kg		
108-90-7	Chlorobenzene	Not detected	70	11	ug/kg		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	70	10	ug/kg		
100-41-4	Ethylbenzene	Not detected	70	13	ug/kg		
M/P-XYLENE	p,m-Xylene	Not detected	70	26	ug/kg		
95-47-6	o-Xylene	Not detected	70	13	ug/kg		
100-42-5	Styrene	Not detected	70	14	ug/kg		
98-82-8	Isopropylbenzene	Not detected	70	12	ug/kg		
75-25-2	Bromoform	Not detected	70	14	ug/kg		
541-73-1	1,3-Dichlorobenzene	Not detected	70	14	ug/kg		
106-46-7	1,4-Dichlorobenzene	Not detected	70	12	ug/kg		
95-50-1	1,2-Dichlorobenzene	Not detected	70	15	ug/kg		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	70	15	ug/kg		
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.3	ug/kg		
Total Solids							
TSOLIDS	Total Solids	83	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (95%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (102%)					
2037-26-5	Toluene-D8	Pass (99%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.13
Data File: 5340113.d
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2)
Notes: 100ul 1s0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.14
Data File: 5340114m.d
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2) MS
Notes: 100ul 1s0803 ms 1m0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 67.4

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	3300	100	14	ug/kg	08/03/12	*
67-64-1	Acetone	3800	1000	460	ug/kg		*
75-15-0	Carbon disulfide	2700	300	9.3	ug/kg		*
79-20-9	Methyl Acetate	Not detected	3000	27	ug/kg		*
1634-04-4	tert-Methyl butyl ether (MTBE)	3300	300	12	ug/kg		*
78-93-3	2-Butanone (MEK)	3600	1000	33	ug/kg		*
75-71-8	Dichlorodifluoromethane	3260	70	15	ug/kg		*
74-87-3	Chloromethane	3000	300	13	ug/kg		*
75-01-4	Vinyl chloride	3100	100	13	ug/kg		*
74-83-9	Bromomethane	3200	300	14	ug/kg		*
75-00-3	Chloroethane	3400	300	14	ug/kg		*
75-69-4	Trichlorofluoromethane	3600	100	11	ug/kg		*
75-35-4	1,1-Dichloroethene	2860	70	14	ug/kg		*
75-09-2	Methylene chloride	2800	300	14	ug/kg		*
156-60-5	trans-1,2-Dichloroethene	2950	70	11	ug/kg		*
75-34-3	1,1-Dichloroethane	2910	70	11	ug/kg		*
156-59-2	cis-1,2-Dichloroethene	2960	70	11	ug/kg		*
67-66-3	Chloroform	2980	70	10	ug/kg		*
71-55-6	1,1,1-Trichloroethane	3250	70	8.6	ug/kg		*
110-82-7	Cyclohexane	2490	70	25	ug/kg		*
108-10-1	4-Methyl-2-pentanone (MIBK)	3000	3000	29	ug/kg		*
591-78-6	2-Hexanone	4000	3000	17	ug/kg		*
56-23-5	Carbon tetrachloride	3410	70	9.8	ug/kg		*
71-43-2	Benzene	3030	70	12	ug/kg		*
107-06-2	1,2-Dichloroethane	3230	70	15	ug/kg		*
79-01-6	Trichloroethene	3160	70	13	ug/kg		*
78-87-5	1,2-Dichloropropane	2980	70	8.7	ug/kg		*
75-27-4	Bromodichloromethane	3280	70	10.0	ug/kg		*
108-87-2	Methyl cyclohexane	3280	70	13	ug/kg		*
10061-01-5	cis-1,3-Dichloropropene	3250	70	9.8	ug/kg		*
108-88-3	Toluene	3180	70	11	ug/kg		*
10061-02-6	trans-1,3-Dichloropropene	3440	70	8.6	ug/kg		*
79-00-5	1,1,2-Trichloroethane	3230	70	12	ug/kg		*
127-18-4	Tetrachloroethene	3140	70	12	ug/kg		*
124-48-1	Dibromochloromethane	3470	70	8.2	ug/kg		*
106-93-4	1,2-Dibromoethane	3390	70	8.4	ug/kg		*
108-90-7	Chlorobenzene	3090	70	11	ug/kg		*
79-34-5	1,1,2,2-Tetrachloroethane	3370	70	9.7	ug/kg		*
100-41-4	Ethylbenzene	3180	70	13	ug/kg		*
M/P-XYLENE	p,m-Xylene	6330	70	24	ug/kg		*
95-47-6	o-Xylene	3240	70	12	ug/kg		*
100-42-5	Styrene	3200	70	13	ug/kg		*
98-82-8	Isopropylbenzene	3250	70	12	ug/kg		*
75-25-2	Bromoform	3350	70	13	ug/kg		*
541-73-1	1,3-Dichlorobenzene	3250	70	14	ug/kg		*
106-46-7	1,4-Dichlorobenzene	3130	70	11	ug/kg		*
95-50-1	1,2-Dichlorobenzene	3280	70	14	ug/kg		*
96-12-8	1,2-Dibromo-3-chloropropane	3790	70	14	ug/kg		*
120-82-1	1,2,4-Trichlorobenzene	3300	100	8.9	ug/kg		*
Total Solids							
TSOLIDS	Total Solids	85	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (100%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (102%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.14
Data File: 5340114m.d
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2) MS
Notes: 100ul 1s0803 ms 1m0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.15
Data File: 5340115n.d
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2) MSD
Notes: 100ul 1s0803 msd 1m0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor: 69.1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics HighLevl 5035/8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	3600	100	15	ug/kg	08/03/12	*
67-64-1	Acetone	3700	1000	470	ug/kg		*
75-15-0	Carbon disulfide	3000	300	9.5	ug/kg		*
79-20-9	Methyl Acetate	Not detected	3000	28	ug/kg		*
1634-04-4	tert-Methyl butyl ether (MTBE)	3600	300	13	ug/kg		*
78-93-3	2-Butanone (MEK)	3900	1000	34	ug/kg		*
75-71-8	Dichlorodifluoromethane	3710	70	15	ug/kg		*
74-87-3	Chloromethane	3300	300	14	ug/kg		*
75-01-4	Vinyl chloride	3400	100	14	ug/kg		*
74-83-9	Bromomethane	3500	300	15	ug/kg		*
75-00-3	Chloroethane	3600	300	15	ug/kg		*
75-69-4	Trichlorofluoromethane	3800	100	11	ug/kg		*
75-35-4	1,1-Dichloroethene	3190	70	15	ug/kg		*
75-09-2	Methylene chloride	3000	300	15	ug/kg		*
156-60-5	trans-1,2-Dichloroethene	3180	70	12	ug/kg		*
75-34-3	1,1-Dichloroethane	3120	70	12	ug/kg		*
156-59-2	cis-1,2-Dichloroethene	3180	70	11	ug/kg		*
67-66-3	Chloroform	3250	70	11	ug/kg		*
71-55-6	1,1,1-Trichloroethane	3540	70	8.8	ug/kg		*
110-82-7	Cyclohexane	2770	70	25	ug/kg		*
108-10-1	4-Methyl-2-pentanone (MIBK)	4000	3000	30	ug/kg		*
591-78-6	2-Hexanone	4000	3000	17	ug/kg		*
56-23-5	Carbon tetrachloride	3640	70	10	ug/kg		*
71-43-2	Benzene	3250	70	13	ug/kg		*
107-06-2	1,2-Dichloroethane	3460	70	16	ug/kg		*
79-01-6	Trichloroethene	3480	70	13	ug/kg		*
78-87-5	1,2-Dichloropropane	3270	70	8.9	ug/kg		*
75-27-4	Bromodichloromethane	3600	70	10	ug/kg		*
108-87-2	Methyl cyclohexane	3450	70	13	ug/kg		*
10061-01-5	cis-1,3-Dichloropropene	3570	70	10	ug/kg		*
108-88-3	Toluene	3430	70	12	ug/kg		*
10061-02-6	trans-1,3-Dichloropropene	3720	70	8.8	ug/kg		*
79-00-5	1,1,2-Trichloroethane	3480	70	13	ug/kg		*
127-18-4	Tetrachloroethene	3440	70	12	ug/kg		*
124-48-1	Dibromochloromethane	3880	70	8.4	ug/kg		*
106-93-4	1,2-Dibromoethane	3650	70	8.6	ug/kg		*
108-90-7	Chlorobenzene	3390	70	11	ug/kg		*
79-34-5	1,1,2,2-Tetrachloroethane	3620	70	10.0	ug/kg		*
100-41-4	Ethylbenzene	3480	70	13	ug/kg		*
M/P-XYLENE	p,m-Xylene	7000	70	25	ug/kg		*
95-47-6	o-Xylene	3560	70	13	ug/kg		*
100-42-5	Styrene	3510	70	13	ug/kg		*
98-82-8	Isopropylbenzene	3630	70	12	ug/kg		*
75-25-2	Bromoform	3690	70	14	ug/kg		*
541-73-1	1,3-Dichlorobenzene	3490	70	14	ug/kg		*
106-46-7	1,4-Dichlorobenzene	3400	70	12	ug/kg		*
95-50-1	1,2-Dichlorobenzene	3540	70	15	ug/kg		*
96-12-8	1,2-Dibromo-3-chloropropane	4060	70	15	ug/kg		*
120-82-1	1,2,4-Trichlorobenzene	3900	100	9.1	ug/kg		*
Total Solids							
TSOLIDS	Total Solids	85	1		%	08/06/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (102%)				08/03/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (101%)					

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120803a5.3

LIMS ID: S53401.15
Data File: 5340115n.d
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2) MSD
Notes: 100ul 1s0803 msd 1m0803
s/50 id:vf120803s1

Matrix: SO
Injection Volume: n/a
Dilution Factor:

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.05.Urborg
Analytical Batch: 120803a5.3
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340101.d Vial: 9
Acq On : 3 Aug 12 3:28 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

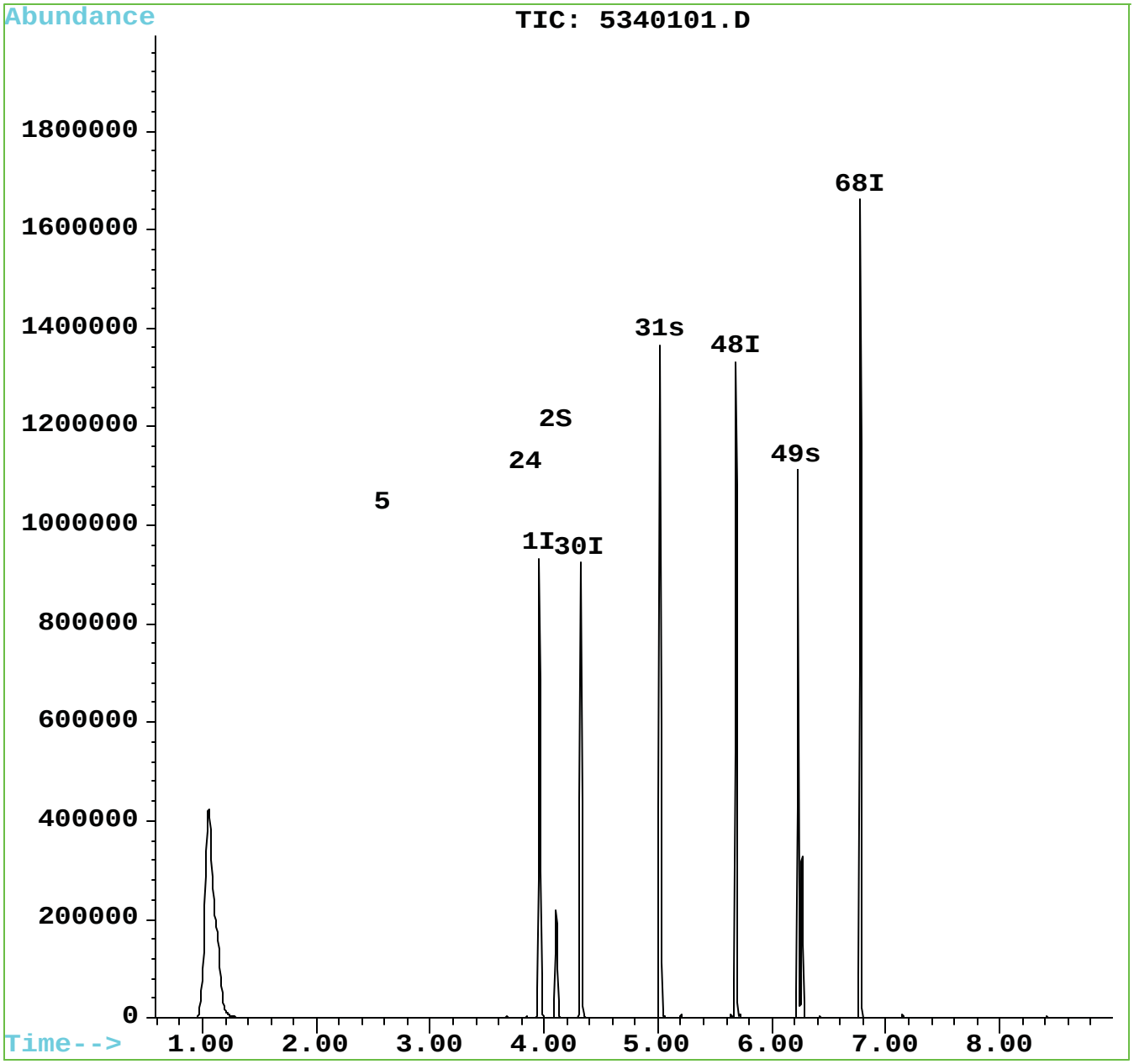
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	546305	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	595663	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	217433	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	311424	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	92916	44.98	ug/l	89.9
31) TOLUENE-D8 (S)	5.02	98	604490	50.23	ug/l	100.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	265531	51.35	ug/l	102.7
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	296	1.46	ug/l #	4
24) Tetrahydrofuran	3.84	42	804	2.67	ug/l #	

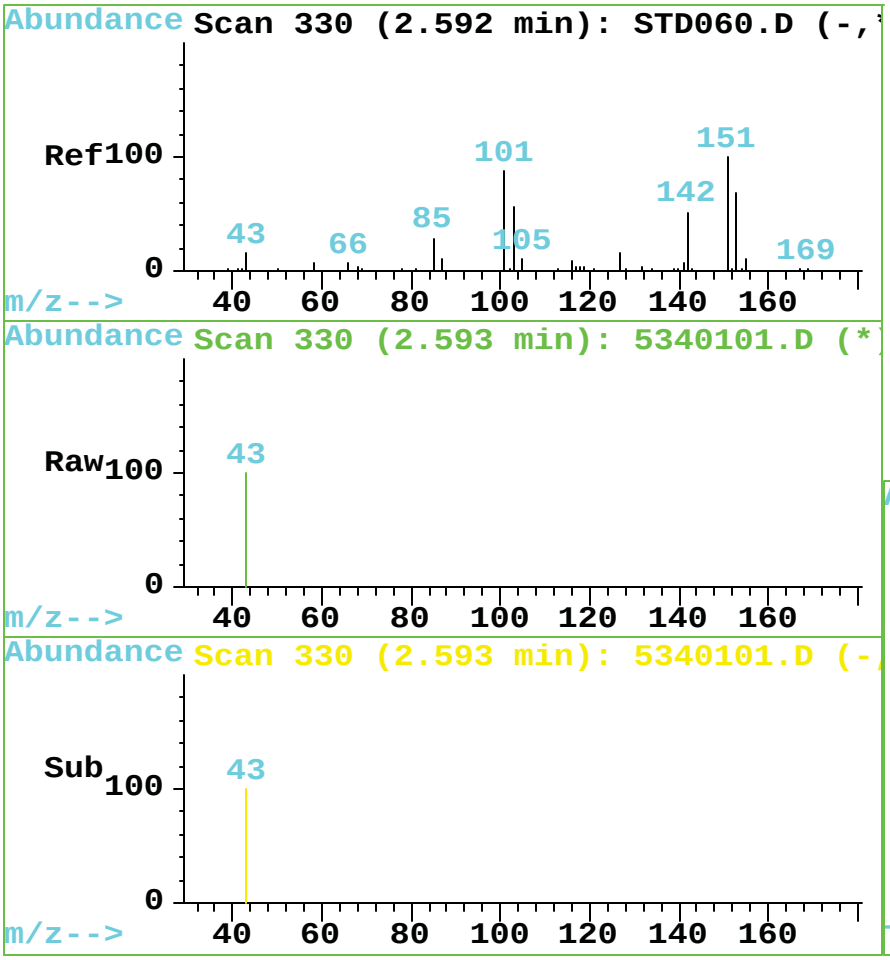
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340101.d Vial: 9
Acq On : 3 Aug 12 3:28 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

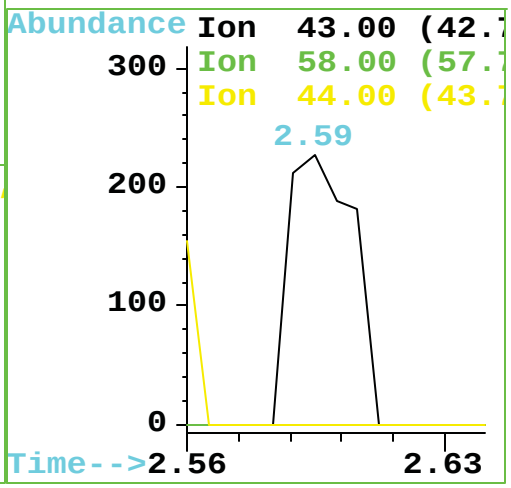


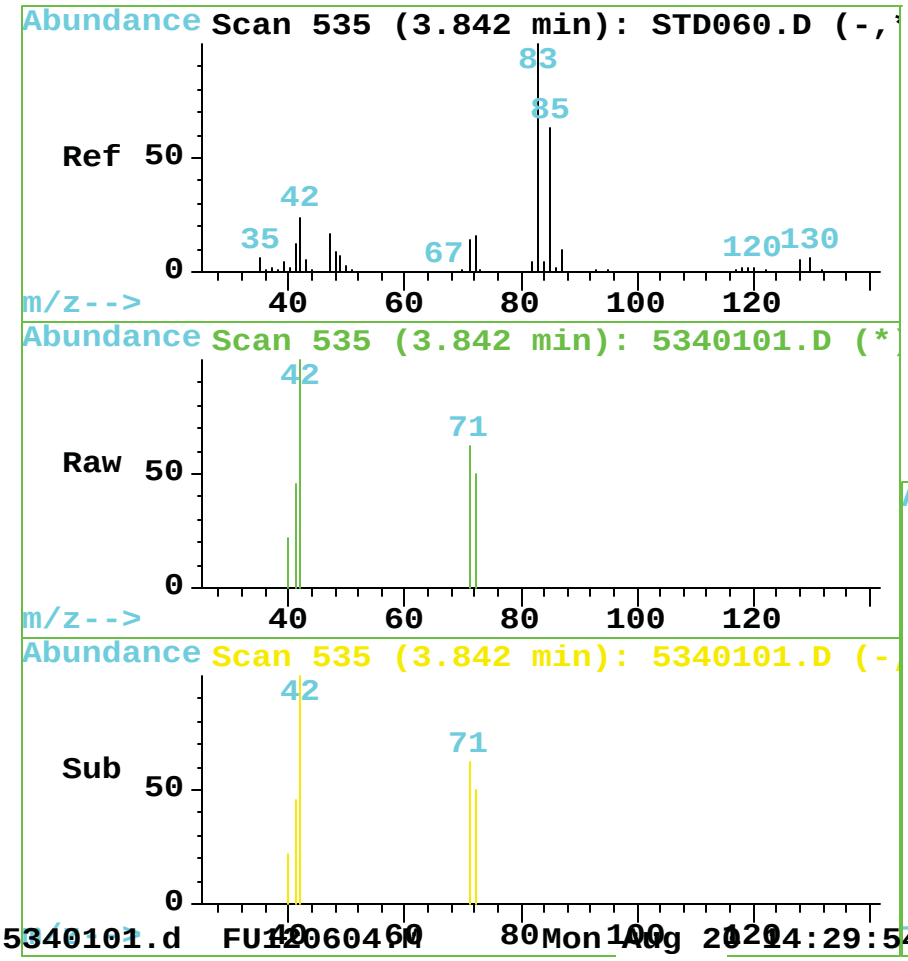


#5
Acetone (*)
Concen: 1.46 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5340101.d
Acq: 3 Aug 12 3:28 pm

Tgt Ion:43 Resp: 296

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	18.9	0.0	32.2
0	0.0	0.0	0.0

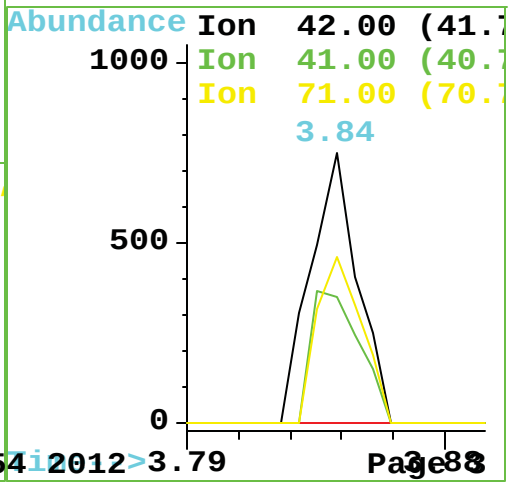




#24
Tetrahydrofuran
Concen: 2.67 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340101.d
Acq: 3 Aug 12 3:28 pm

Tgt Ion:42 Resp: 804

Ion	Ratio	Lower	Upper
42	100		
41	50.4	222.5	282.5#
71	58.8	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340102.d Vial: 10
Acq On : 3 Aug 12 3:50 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

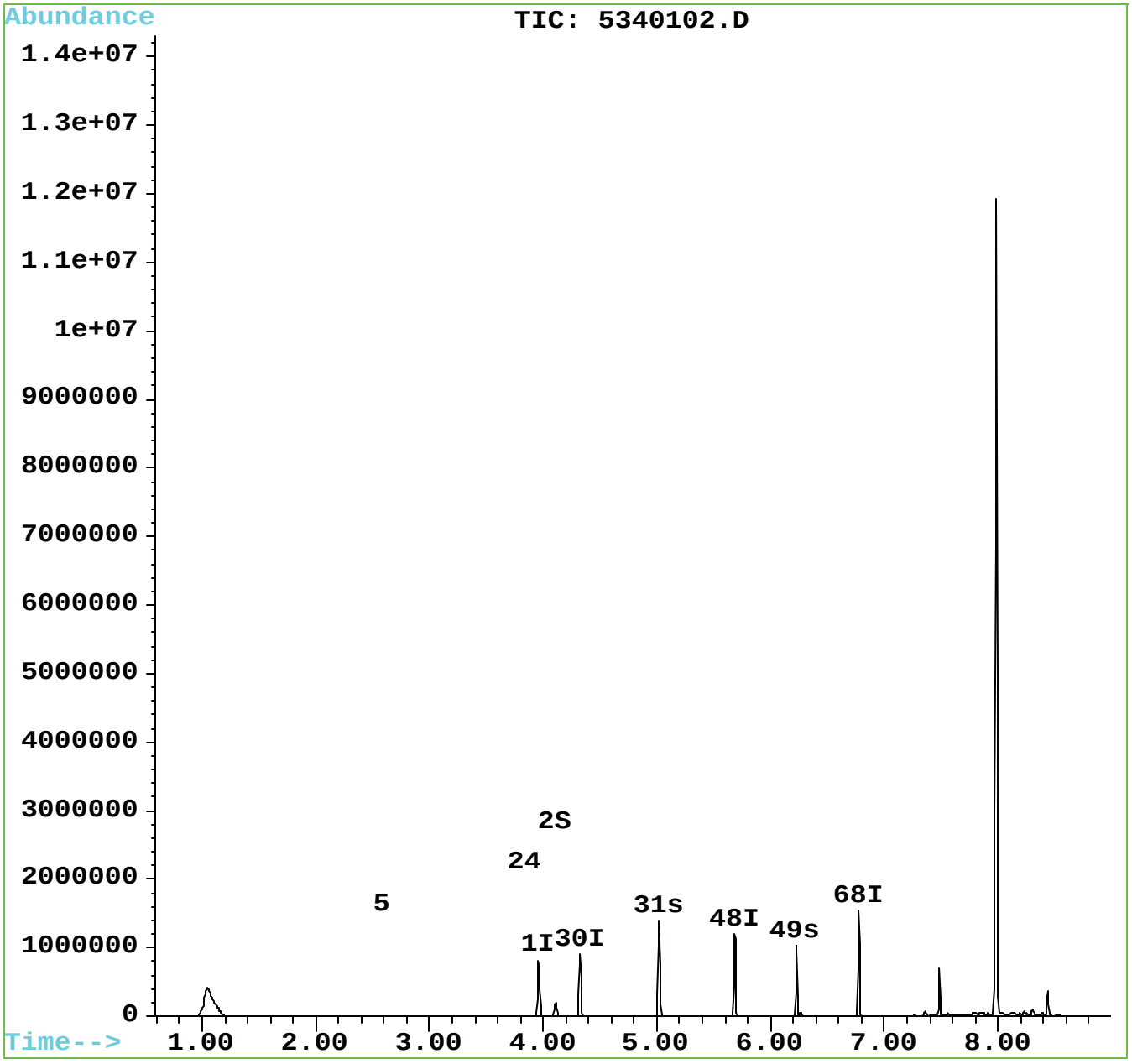
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	535628	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	591703	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	208292	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	289550	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	92772	45.81	ug/l	91.6
31) TOLUENE-D8 (S)	5.02	98	589972	49.35	ug/l	98.6
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	252507	50.97	ug/l	101.9
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	289	1.45	ug/l #	4
24) Tetrahydrofuran	3.84	42	867	2.93	ug/l #	

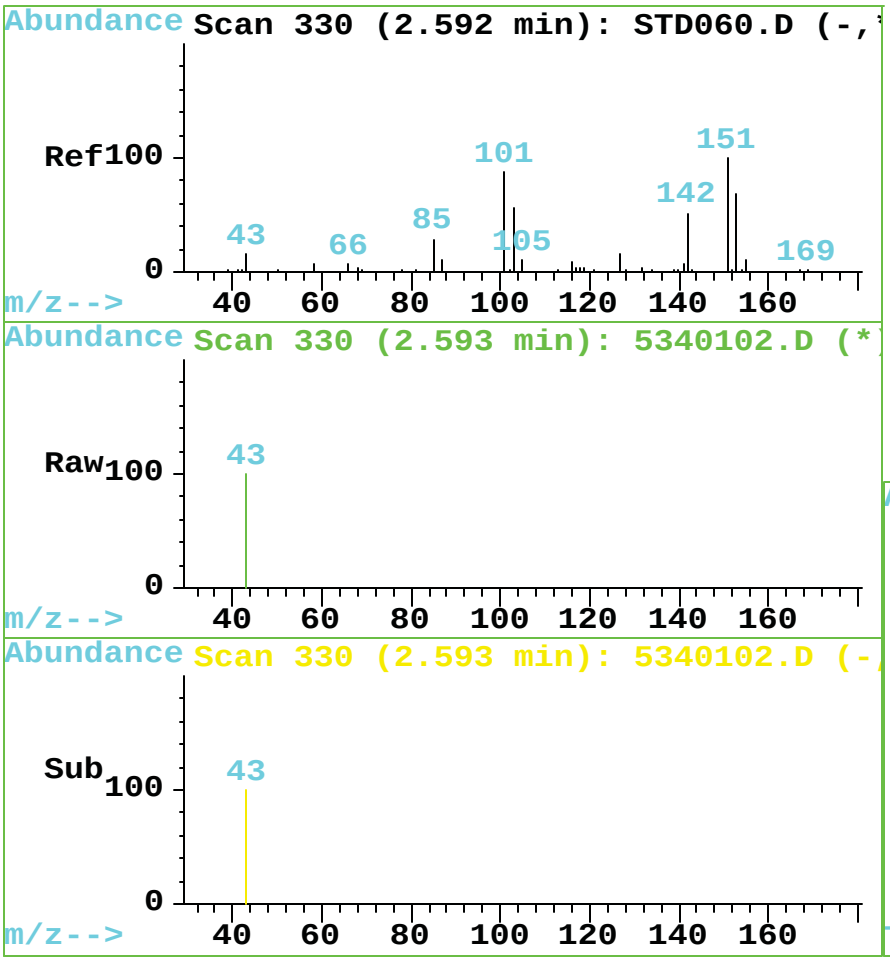
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340102.d Vial: 10
Acq On : 3 Aug 12 3:50 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

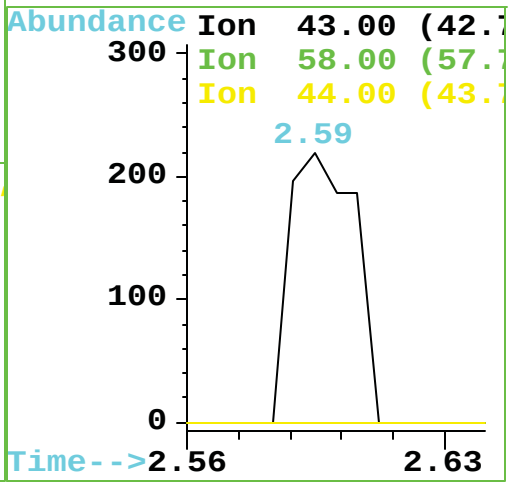


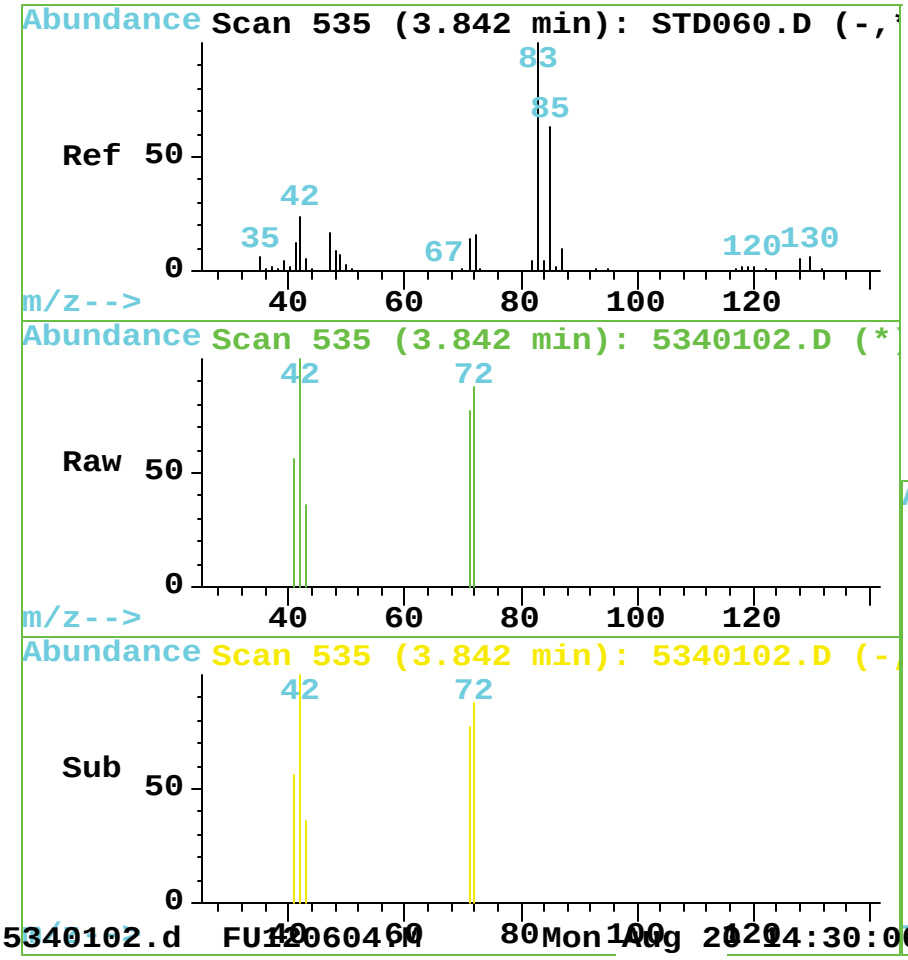


#5
Acetone (*)
Concen: 1.45 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5340102.d
Acq: 3 Aug 12 3:50 pm

Tgt Ion:43 Resp: 289

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	19.4	0.0	32.2
0	0.0	0.0	0.0

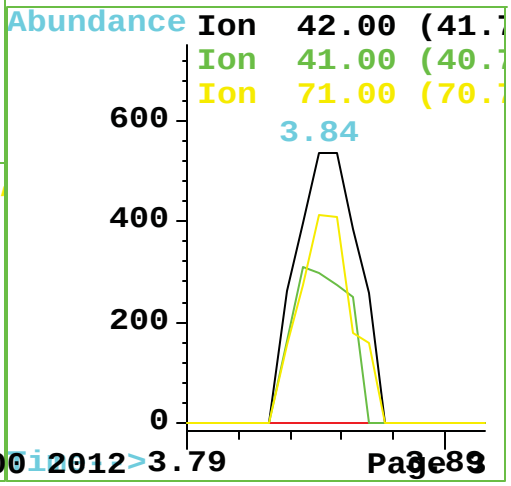




#24
Tetrahydrofuran
Concen: 2.93 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340102.d
Acq: 3 Aug 12 3:50 pm

Tgt Ion:42 Resp: 867

Ion	Ratio	Lower	Upper
42	100		
41	54.6	222.5	282.5#
71	66.8	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340103.d Vial: 11
Acq On : 3 Aug 12 4:09 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

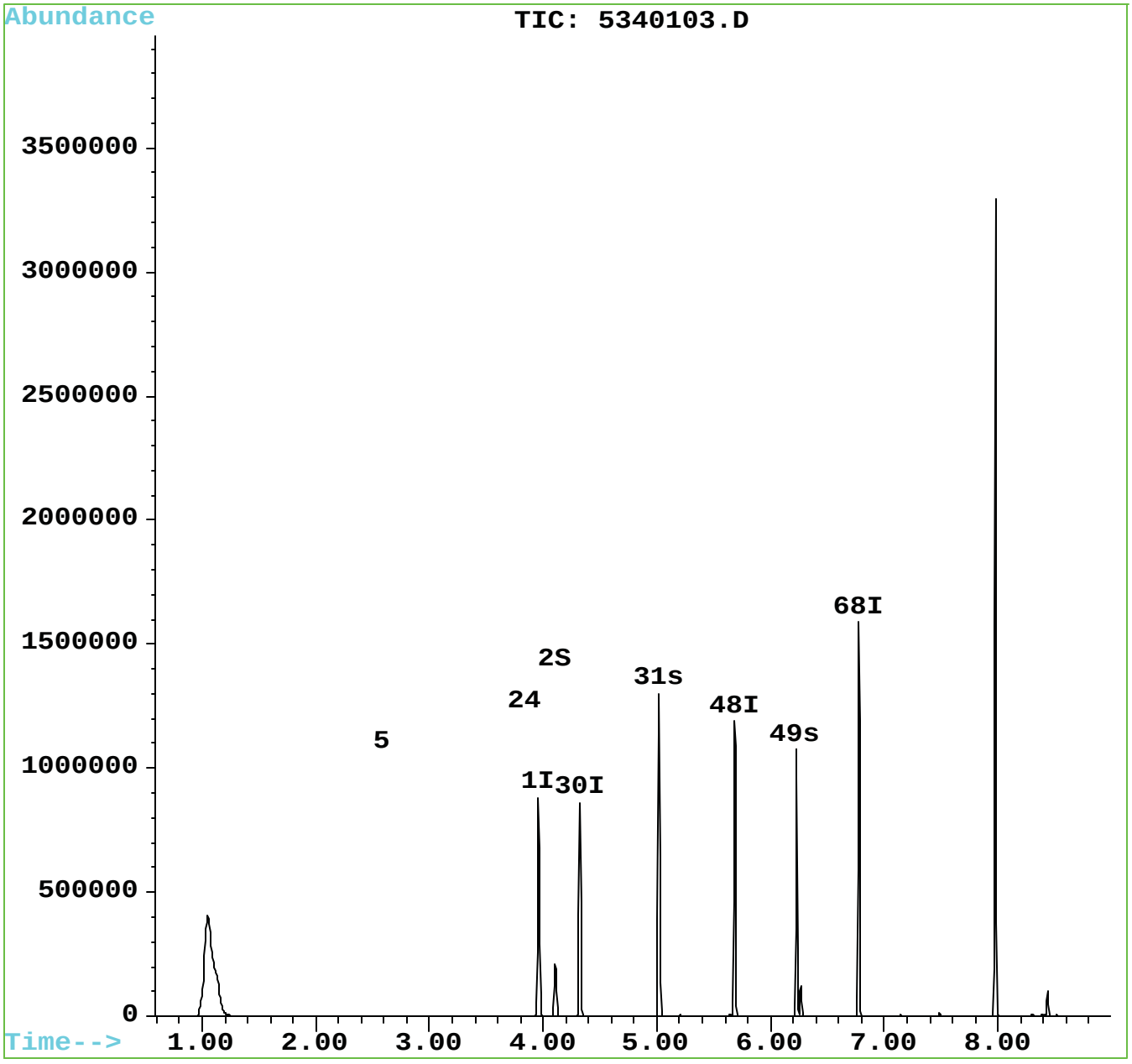
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	519423	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	575020	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	206874	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	300880	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	90197	45.93	ug/l	91.8
31) TOLUENE-D8 (S)	5.02	98	577206	49.68	ug/l	99.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	255625	51.96	ug/l	103.9
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	282	1.46	ug/l #	4
24) Tetrahydrofuran	3.84	42	952	3.32	ug/l #	

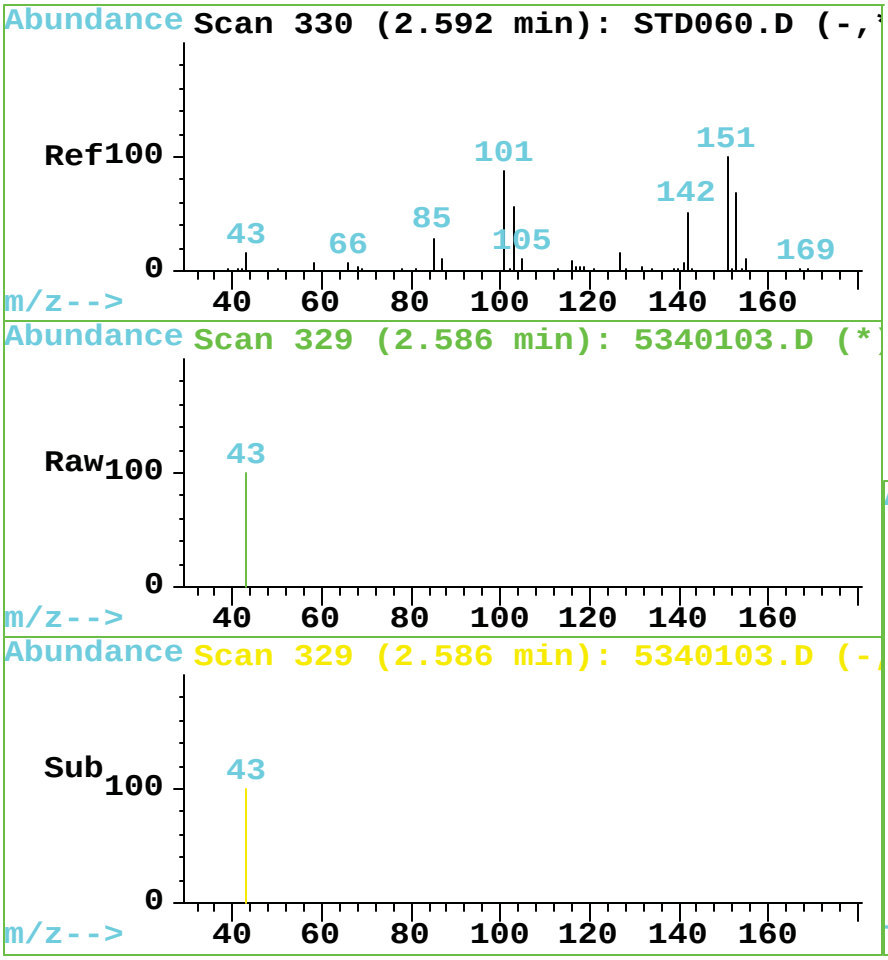
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340103.d Vial: 11
Acq On : 3 Aug 12 4:09 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

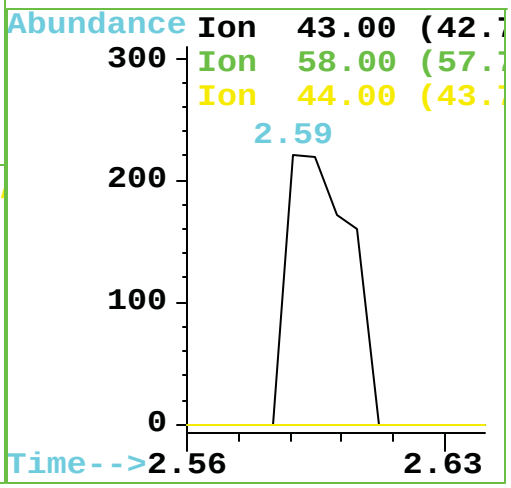


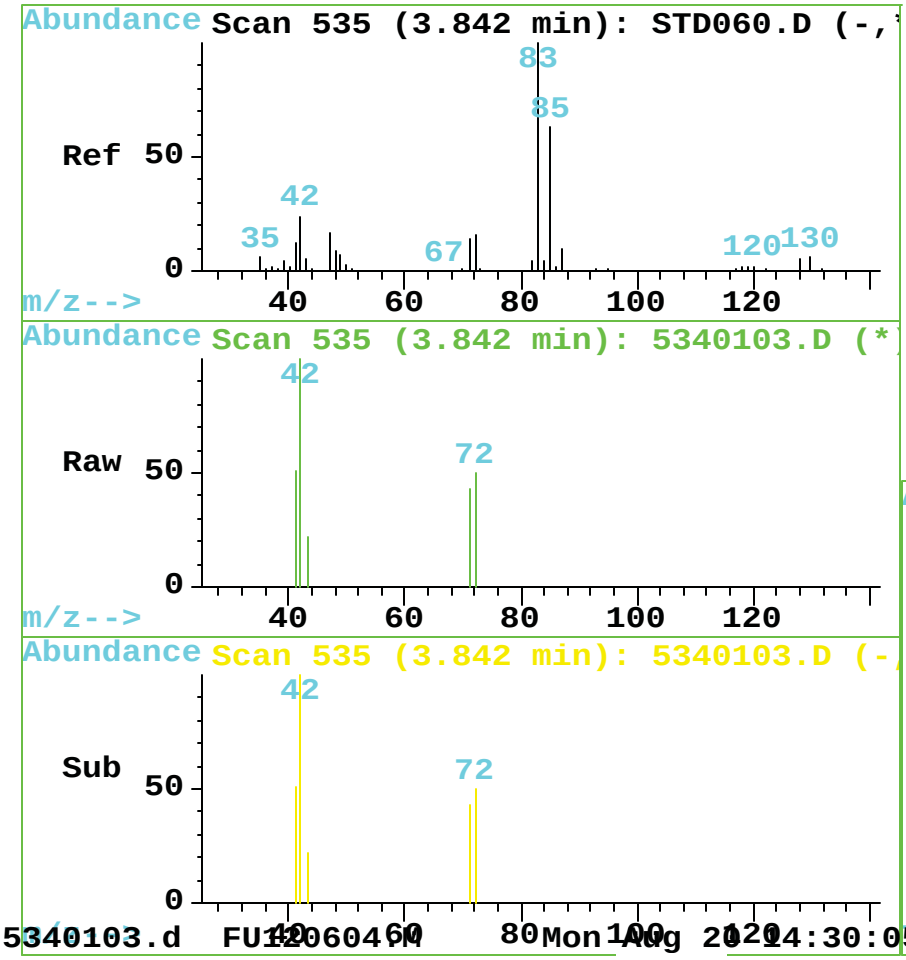


#5
Acetone (*)
Concen: 1.46 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5340103.d
Acq: 3 Aug 12 4:09 pm

Tgt Ion:43 Resp: 282

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

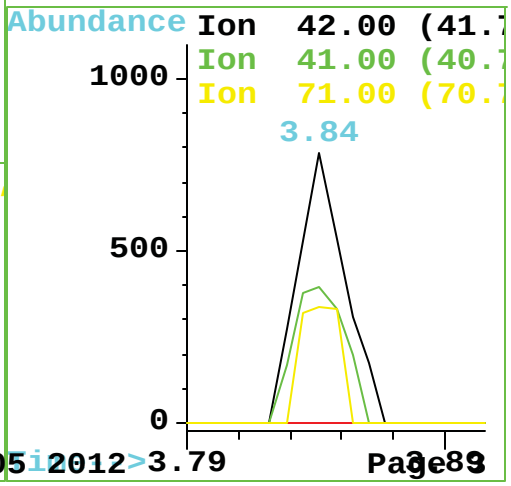




#24
Tetrahydrofuran
Concen: 3.32 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340103.d
Acq: 3 Aug 12 4:09 pm

Tgt Ion:42 Resp: 952

Ion	Ratio	Lower	Upper
42	100		
41	56.5	222.5	282.5#
71	38.1	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340104.d Vial: 12
Acq On : 3 Aug 12 4:30 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

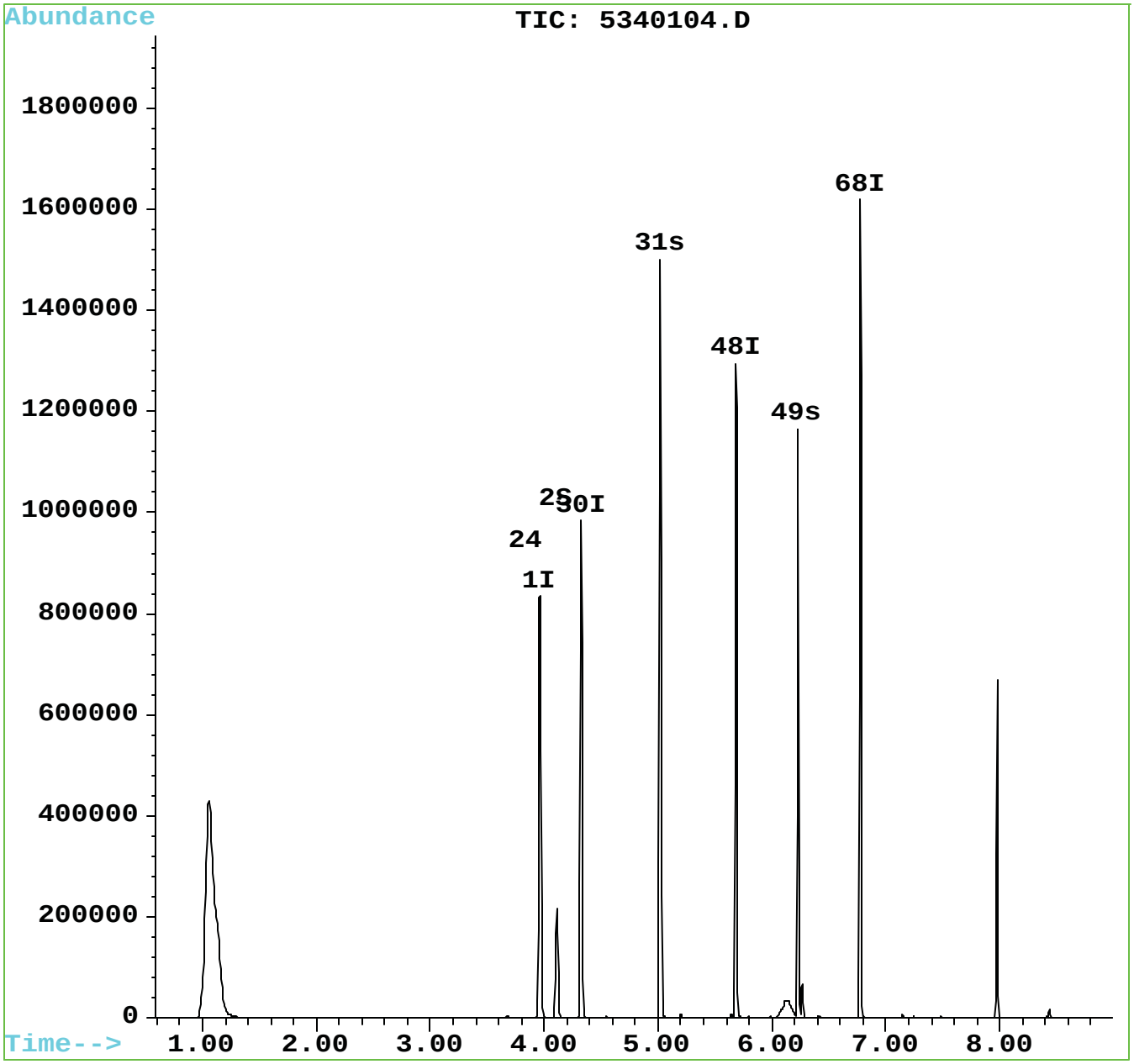
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	568391	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	637899	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	225380	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	316478	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	100942	46.97	ug/l	93.9
31) TOLUENE-D8 (S)	5.02	98	639528	49.62	ug/l	99.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	275455	51.39	ug/l	102.7
Target Compounds						Qvalu
24) Tetrahydrofuran	3.84	42	973	3.10	ug/l	#

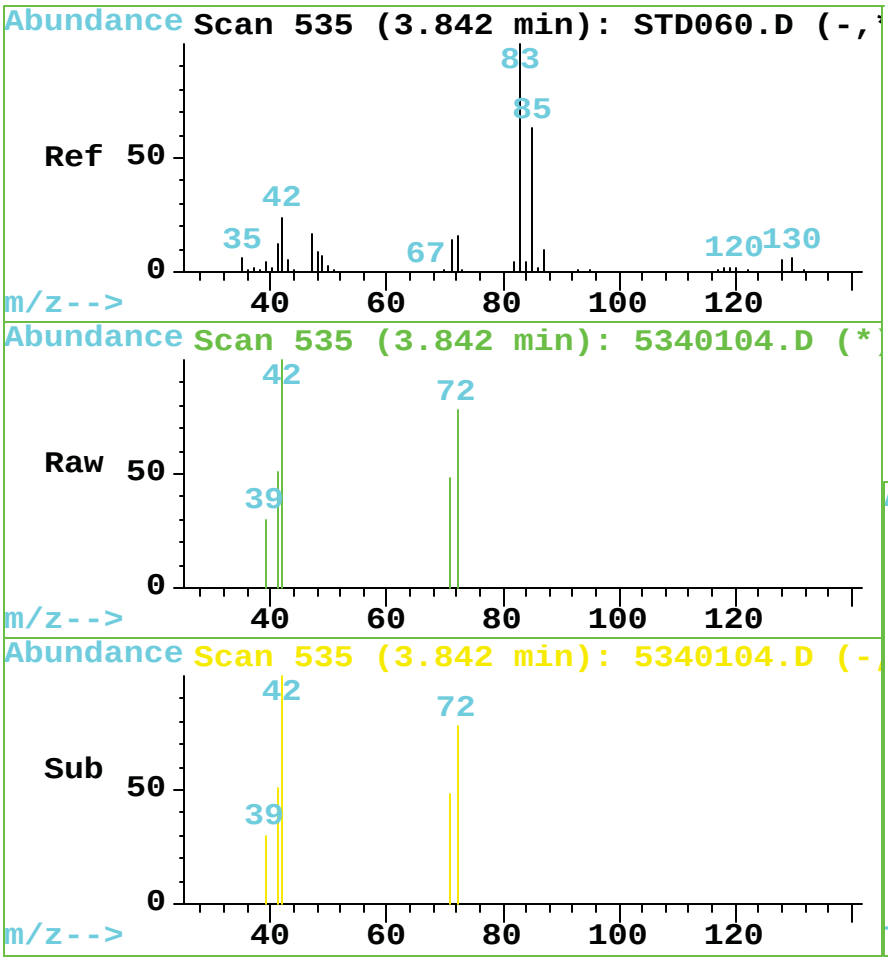
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340104.d Vial: 12
Acq On : 3 Aug 12 4:30 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

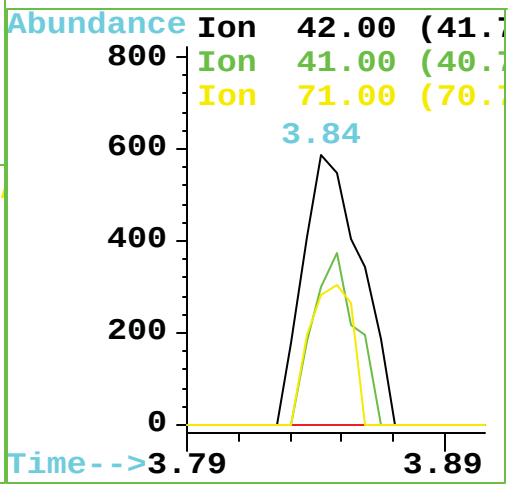




#24
Tetrahydrofuran
Concen: 3.10 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340104.d
Acq: 3 Aug 12 4:30 pm

Tgt Ion:42 Resp: 973

Ion	Ratio	Lower	Upper
42	100		
41	47.8	222.5	282.5#
71	39.4	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340105.d Vial: 13
Acq On : 3 Aug 12 4:51 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

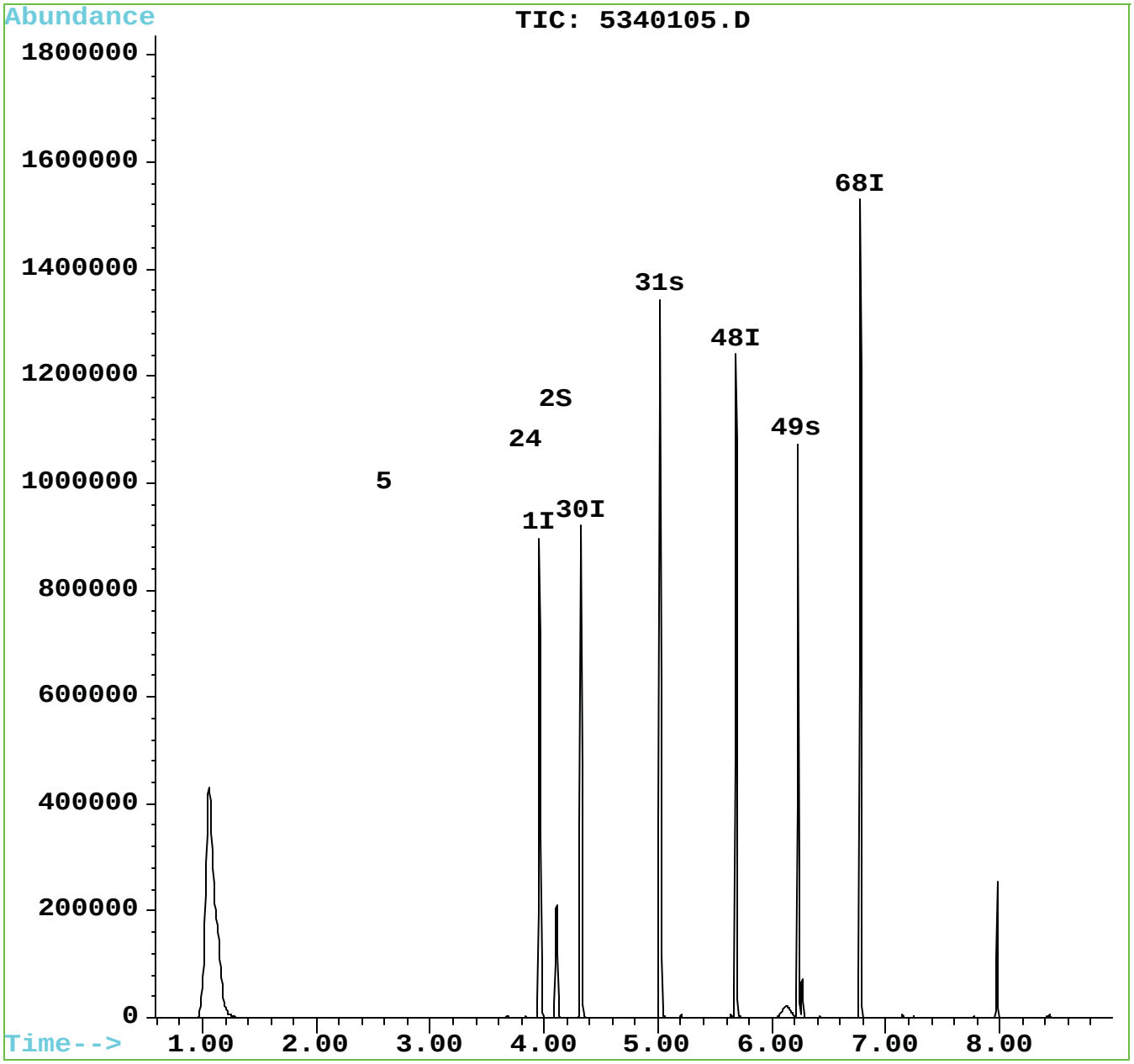
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	517174	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	575570	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	207651	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	305657	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	91587	46.84	ug/l	93.6
31) TOLUENE-D8 (S)	5.02	98	574740	49.42	ug/l	98.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	260980	52.85	ug/l	105.6
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	510	2.65	ug/l #	4
24) Tetrahydrofuran	3.84	42	866	3.03	ug/l #	

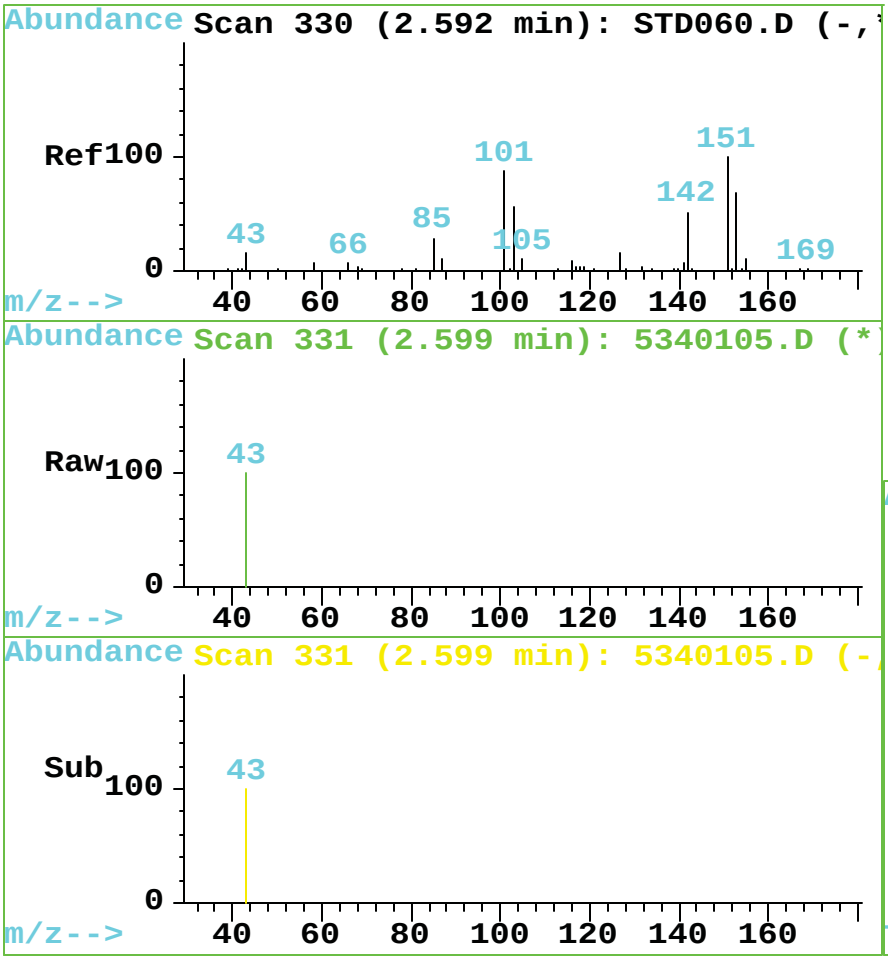
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340105.d Vial: 13
Acq On : 3 Aug 12 4:51 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:09 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

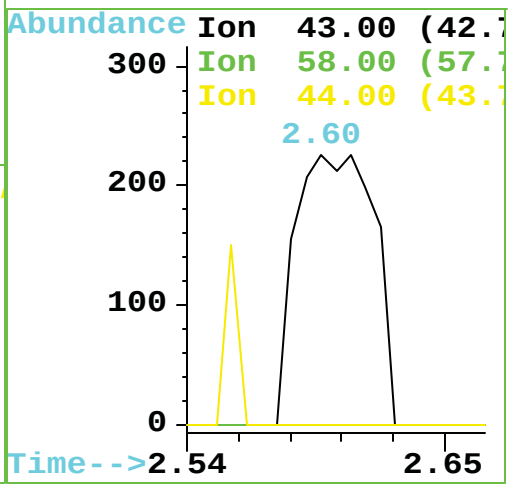


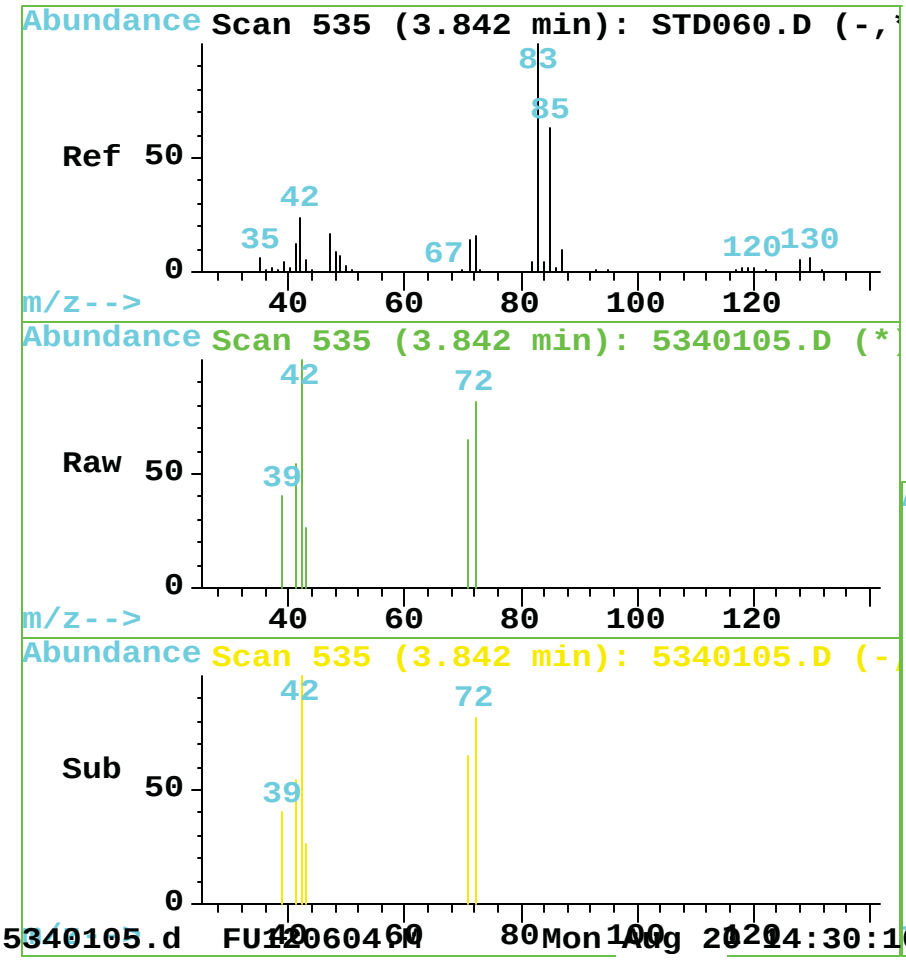


#5
Acetone (*)
Concen: 2.65 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5340105.d
Acq: 3 Aug 12 4:51 pm

Tgt Ion:43 Resp: 510

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	10.8	0.0	32.2
0	0.0	0.0	0.0

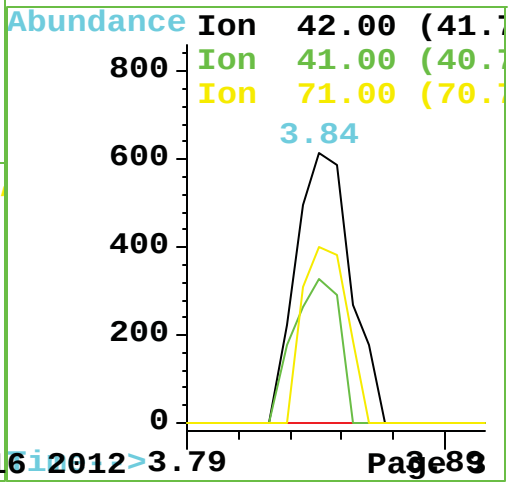




#24
Tetrahydrofuran
Concen: 3.03 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340105.d
Acq: 3 Aug 12 4:51 pm

Tgt Ion:42 Resp: 866

Ion	Ratio	Lower	Upper
42	100		
41	44.7	222.5	282.5#
71	53.9	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340106.d Vial: 14
Acq On : 3 Aug 12 5:11 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

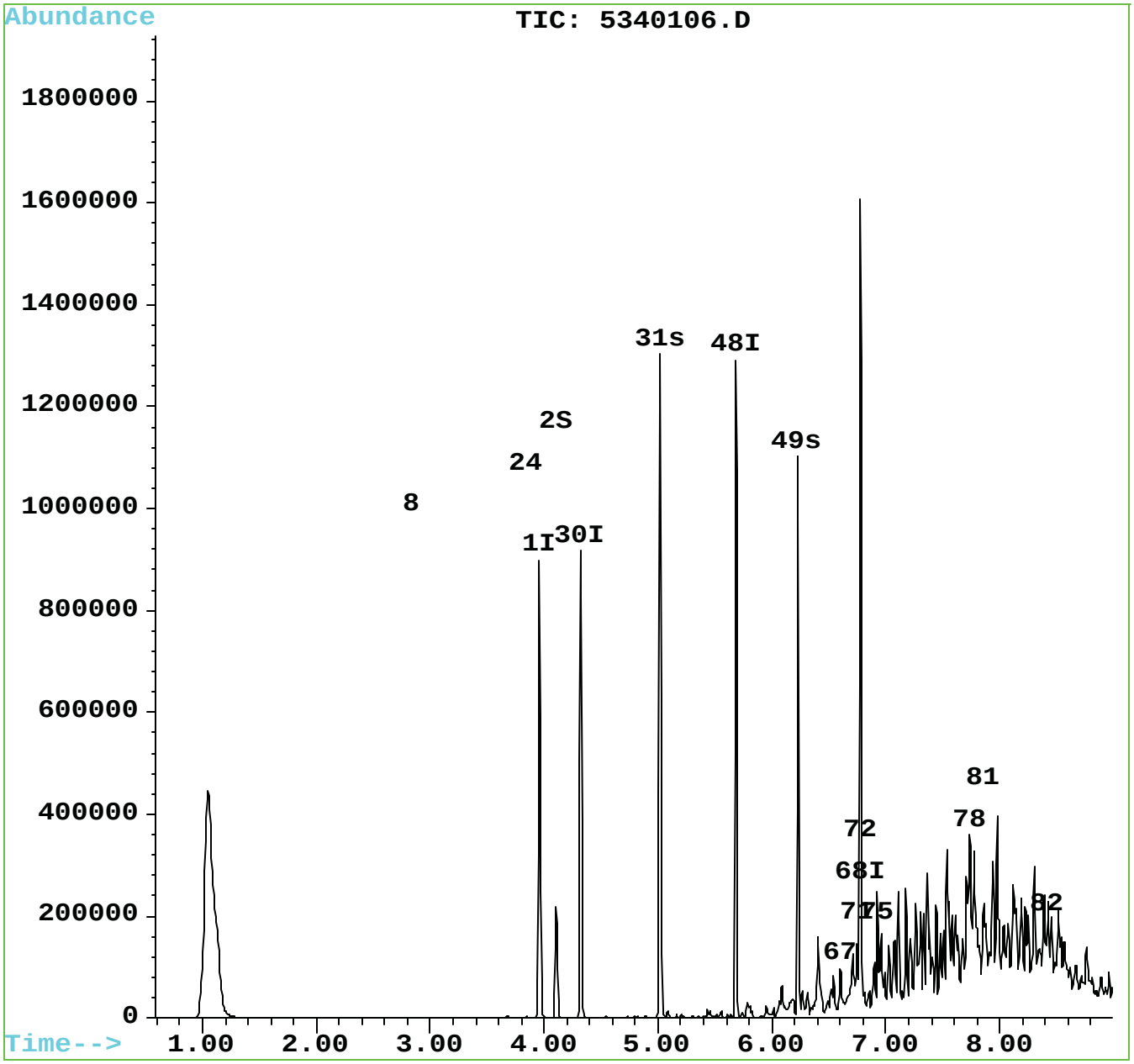
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	529330	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	583195	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	213141	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	304521	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	93038	46.49	ug/l		92.9
31) TOLUENE-D8 (S)	5.02	98	590110	50.08	ug/l		100.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	261439	51.58	ug/l		103.1
Target Compounds							Qvalu
8) Methyl Acetate	2.84	43	990	1.39	ug/l	#	5
24) Tetrahydrofuran	3.84	42	818	2.80	ug/l	#	1
67) 1,2,4-Trimethylbenzene	6.60	120	12643	1.56	ug/l		8
71) 1,3-Dichlorobenzene	6.75	146	22249	2.50	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	28829	3.16	ug/l		9
75) n-Butylbenzene	6.94	91	22160	1.72	ug/l	#	1
78) 1,2,4-Trichlorobenzene	7.74	182	48666	8.61	ug/l	#	6
81) Naphthalene	7.87	128	8010	1.16	ug/l		7
82) 2-Methylnaphthalene	8.41	142	6601	1.89	ug/l	#	6

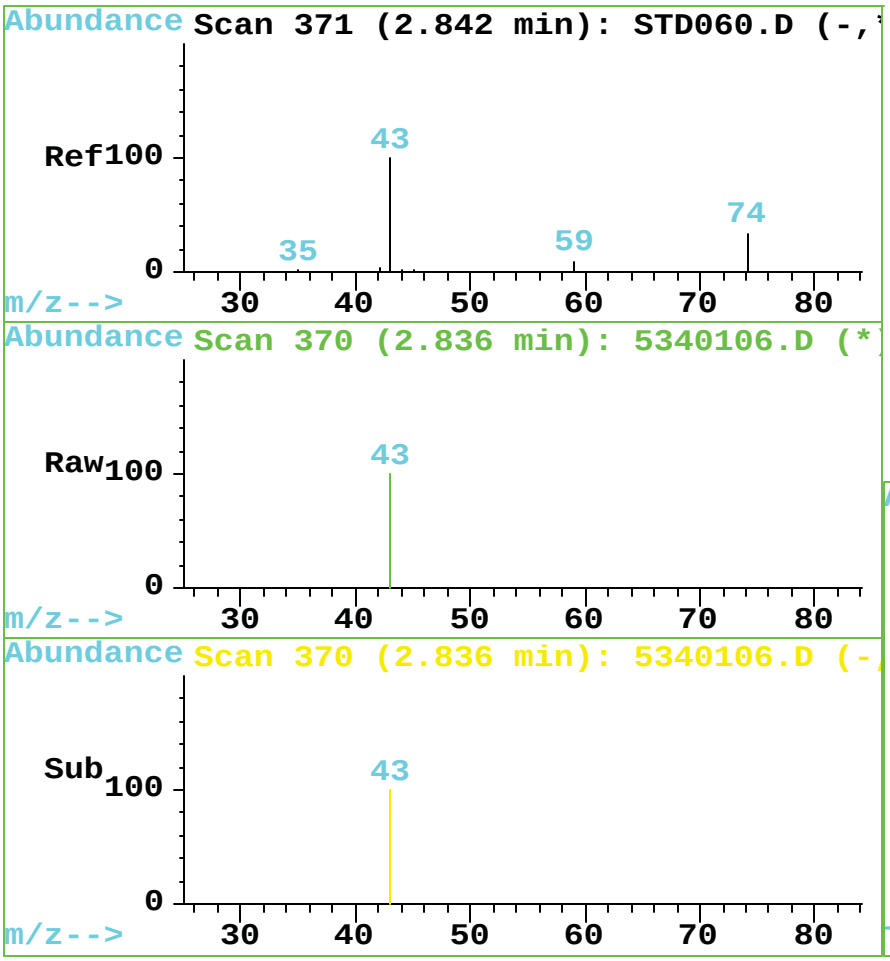
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340106.d Vial: 14
Acq On : 3 Aug 12 5:11 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:48 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

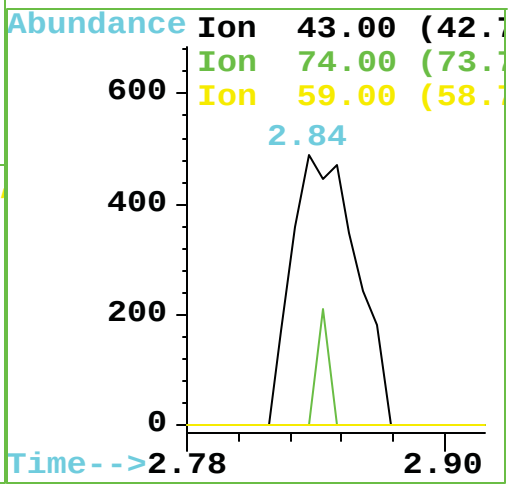


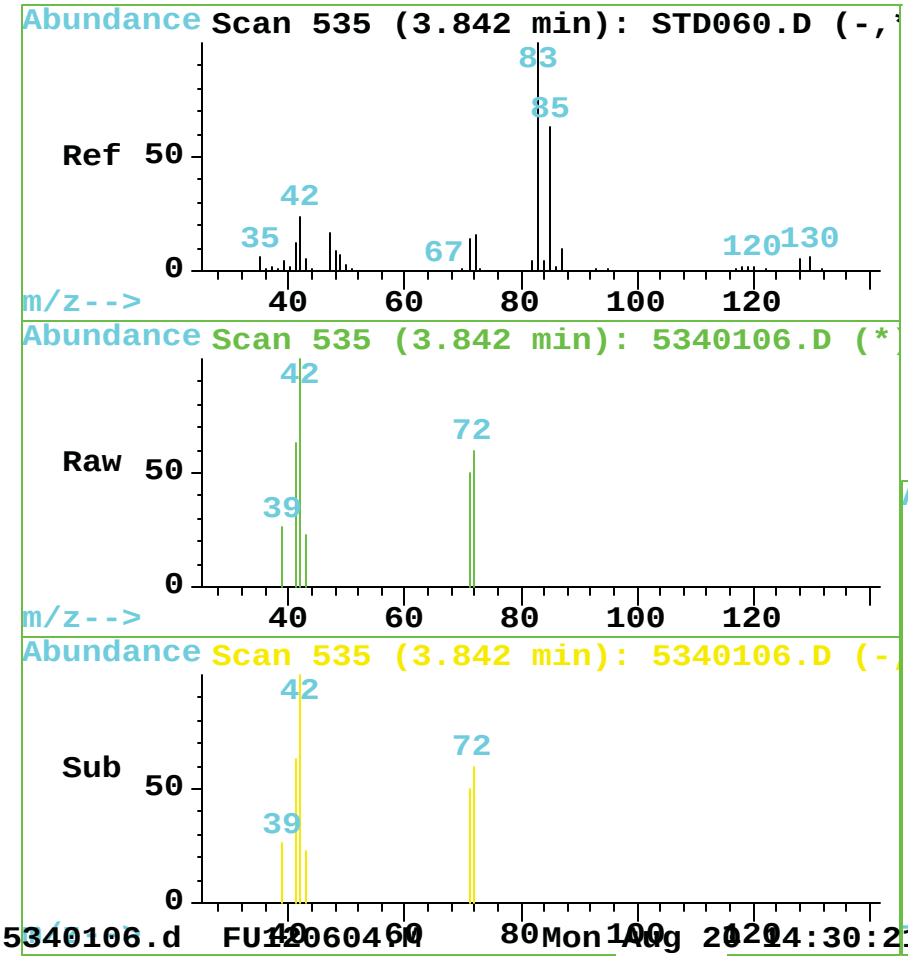


#8
Methyl Acetate
Concen: 1.39 ug/l
RT: 2.84 min Scan# 370
Delta R.T. 0.01 min
Lab File: 5340106.d
Acq: 3 Aug 12 5:11 pm

Tgt Ion:43 Resp: 990

Ion	Ratio	Lower	Upper
43	100		
74	7.8	4.8	64.8
59	0.0	0.0	40.3
0	0.0	0.0	0.0

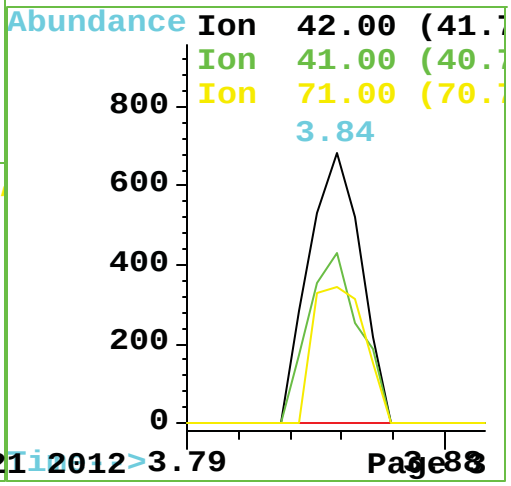


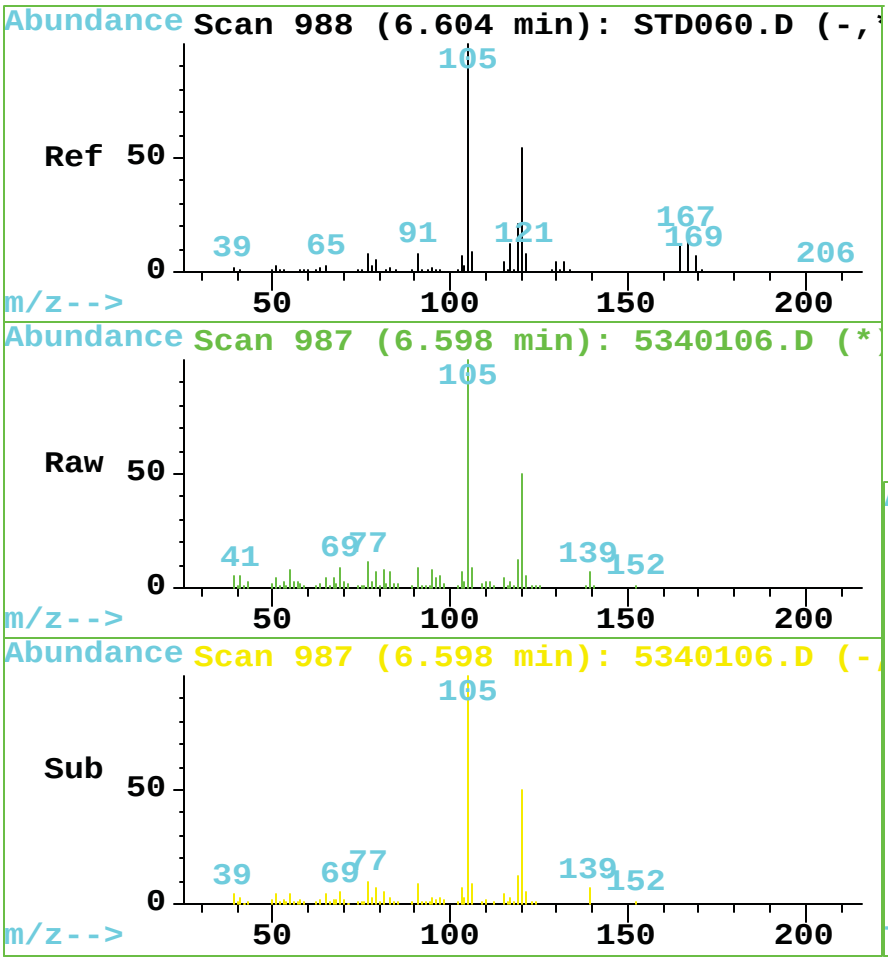


#24
Tetrahydrofuran
Concen: 2.80 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340106.d
Acq: 3 Aug 12 5:11 pm

Tgt Ion:42 Resp: 818

Ion	Ratio	Lower	Upper
42	100		
41	62.3	222.5	282.5#
71	51.0	24.9	84.9
0	0.0	0.0	0.0

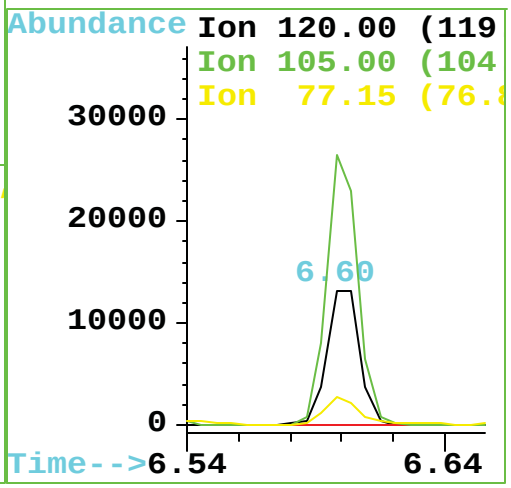


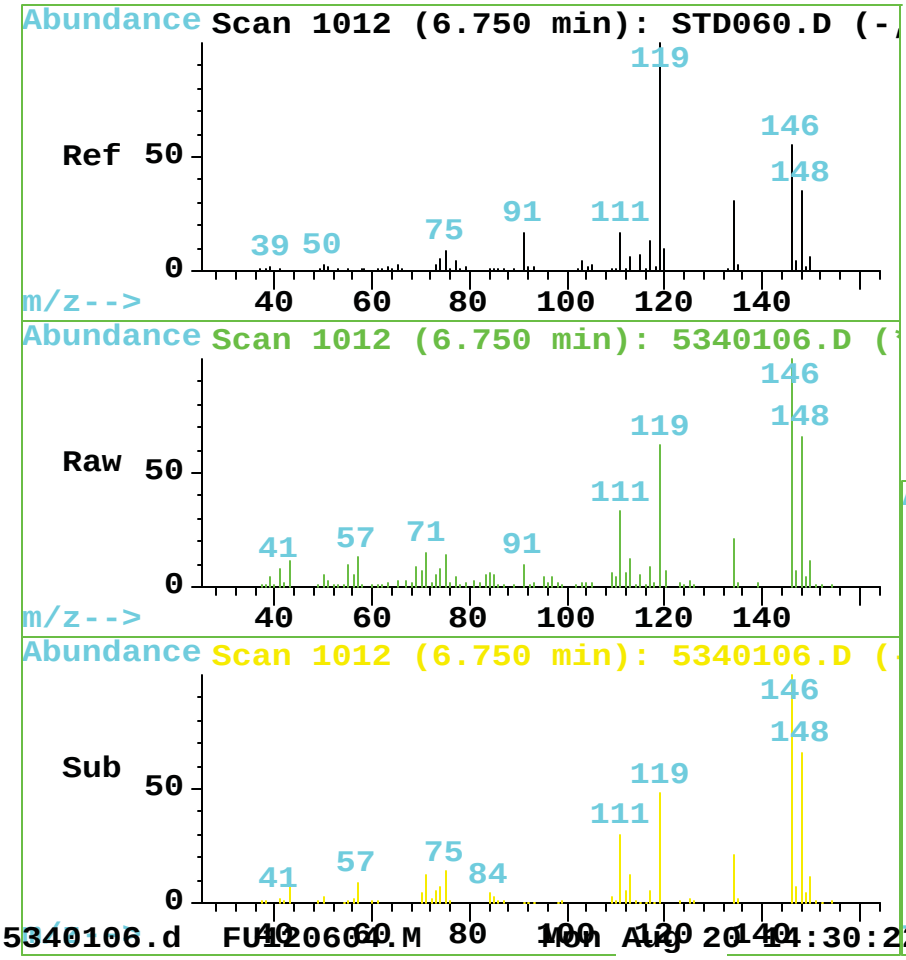


#67
1,2,4-Trimethylbenzene
Concen: 1.56 ug/l
RT: 6.60 min Scan# 987
Delta R.T. -0.01 min
Lab File: 5340106.d
Acq: 3 Aug 12 5:11 pm

Tgt Ion:120 Resp: 12643

Ion	Ratio	Lower	Upper
120	100		
105	190.0	144.1	204.1
77	24.4	0.0	45.7
0	0.0	0.0	0.0

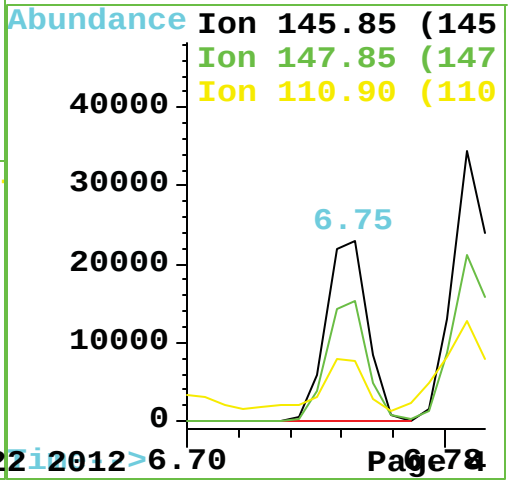


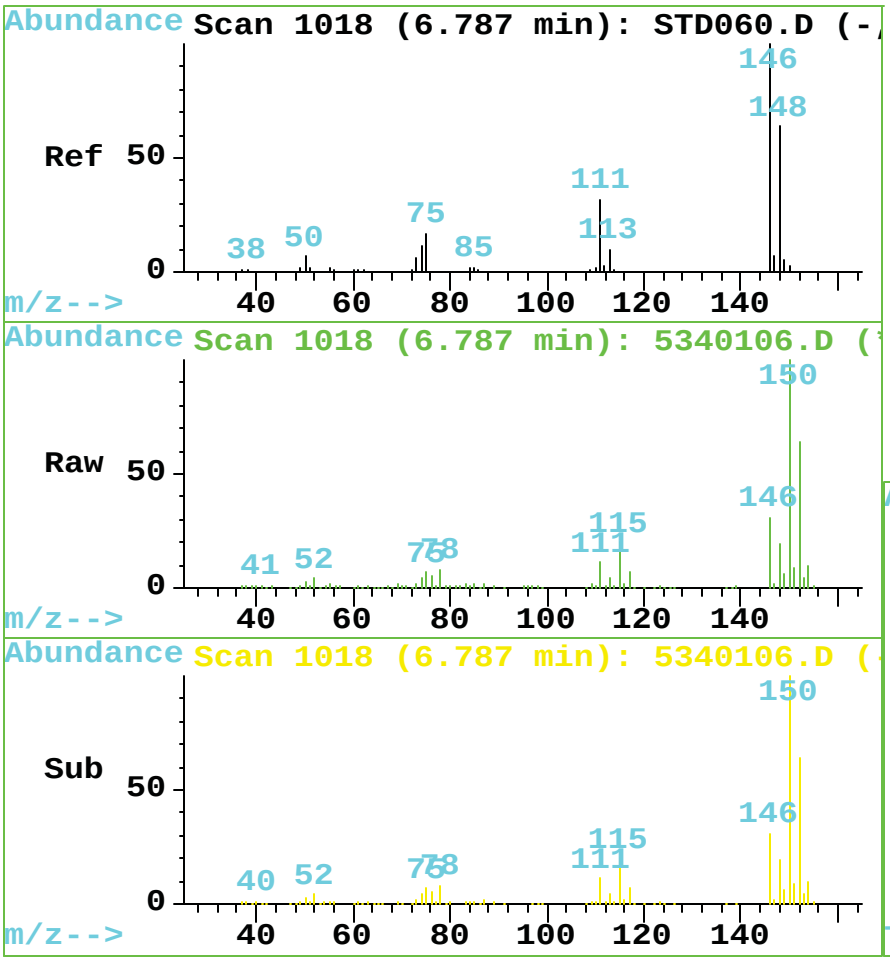


#71
1,3-Dichlorobenzene
Concen: 2.50 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5340106.d
Acq: 3 Aug 12 5:11 pm

Tgt Ion:145.85 Resp: 222

Ion	Ratio	Lower	Upper
146	100		
148	65.1	34.8	94.8
111	35.2	6.2	66.2
0	0.0	0.0	0.0

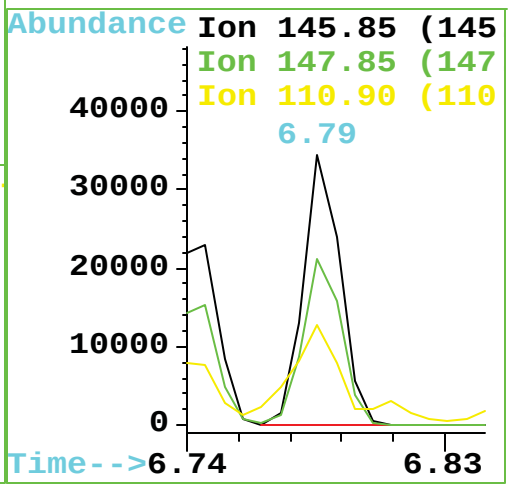


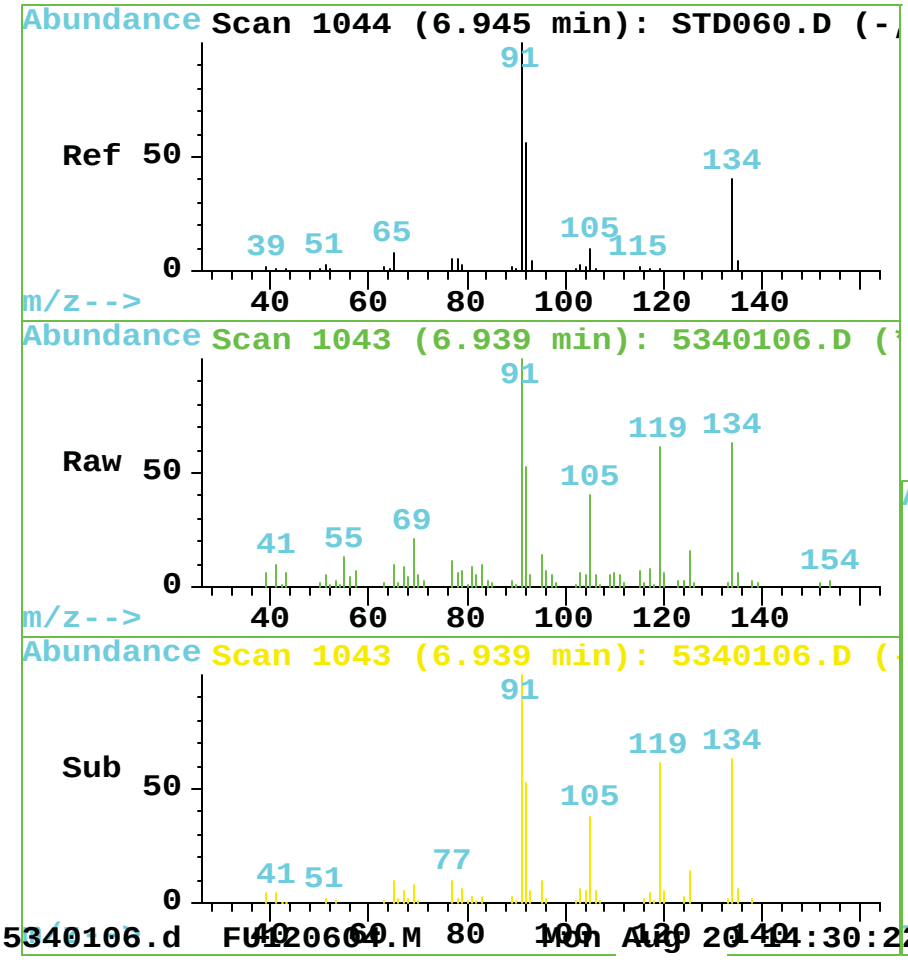


#72
1,4-Dichlorobenzene
Concen: 3.16 ug/l
RT: 6.79 min Scan# 1018
Delta R.T. -0.01 min
Lab File: 5340106.d
Acq: 3 Aug 12 5:11 pm

Tgt Ion:145.85 Resp: 288

Ion	Ratio	Lower	Upper
146	100		
148	64.9	33.9	93.9
111	50.3	5.2	65.2
0	0.0	0.0	0.0

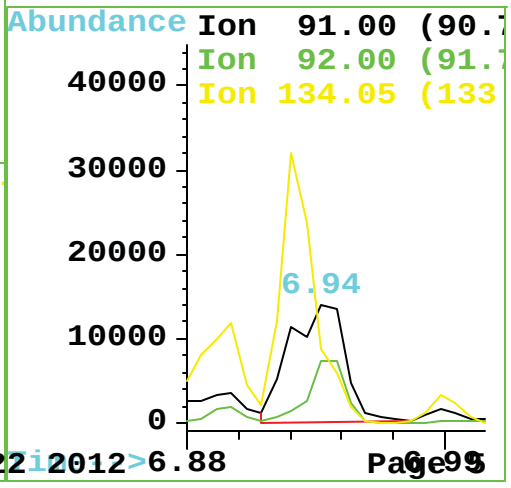


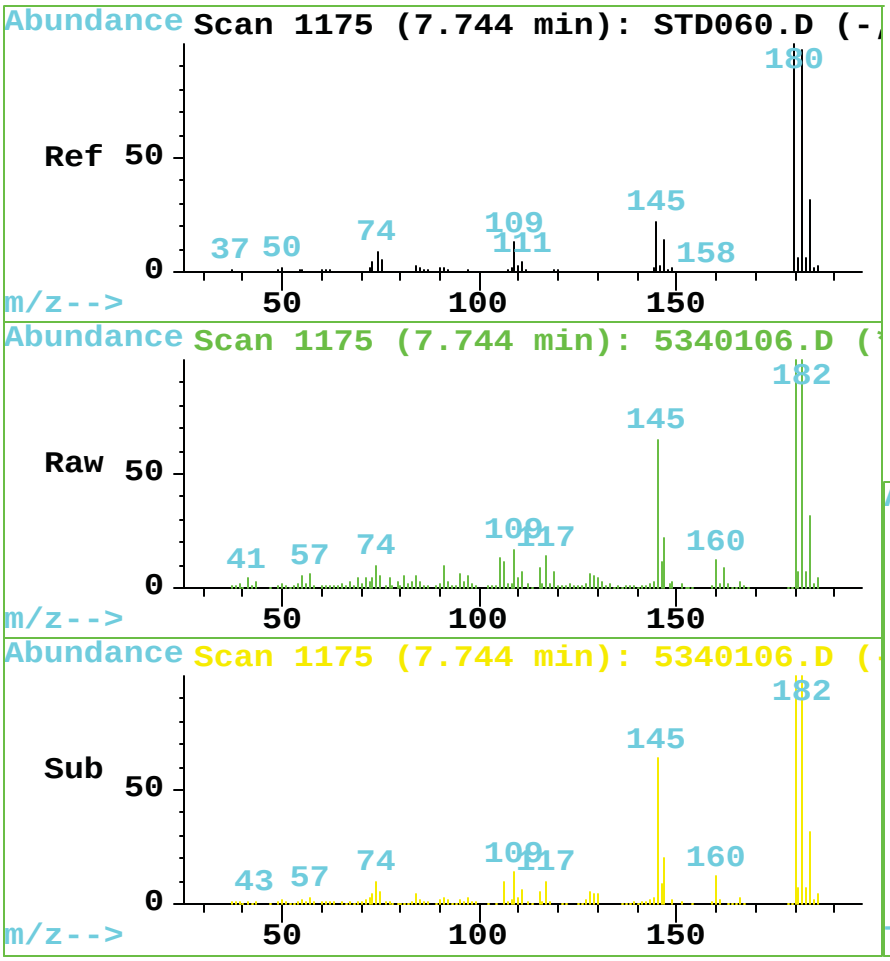


#75
n-Butylbenzene
Concen: 1.72 ug/l
RT: 6.94 min Scan# 1043
Delta R.T. -0.01 min
Lab File: 5340106.d
Acq: 3 Aug 12 5:11 pm

Tgt Ion:91 Resp: 22160

Ion	Ratio	Lower	Upper
91	100		
92	36.5	25.5	85.5
134	139.9	4.2	64.2#
0	0.0	0.0	0.0

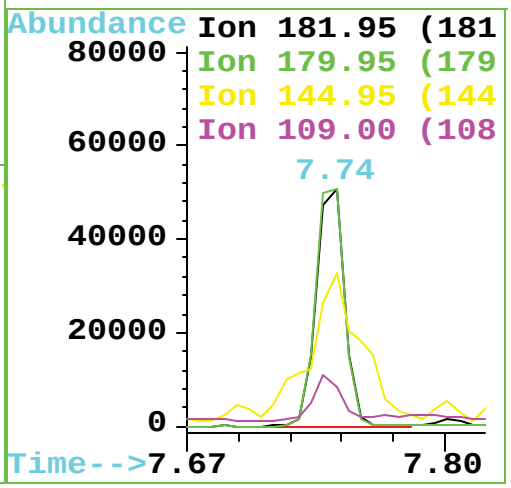


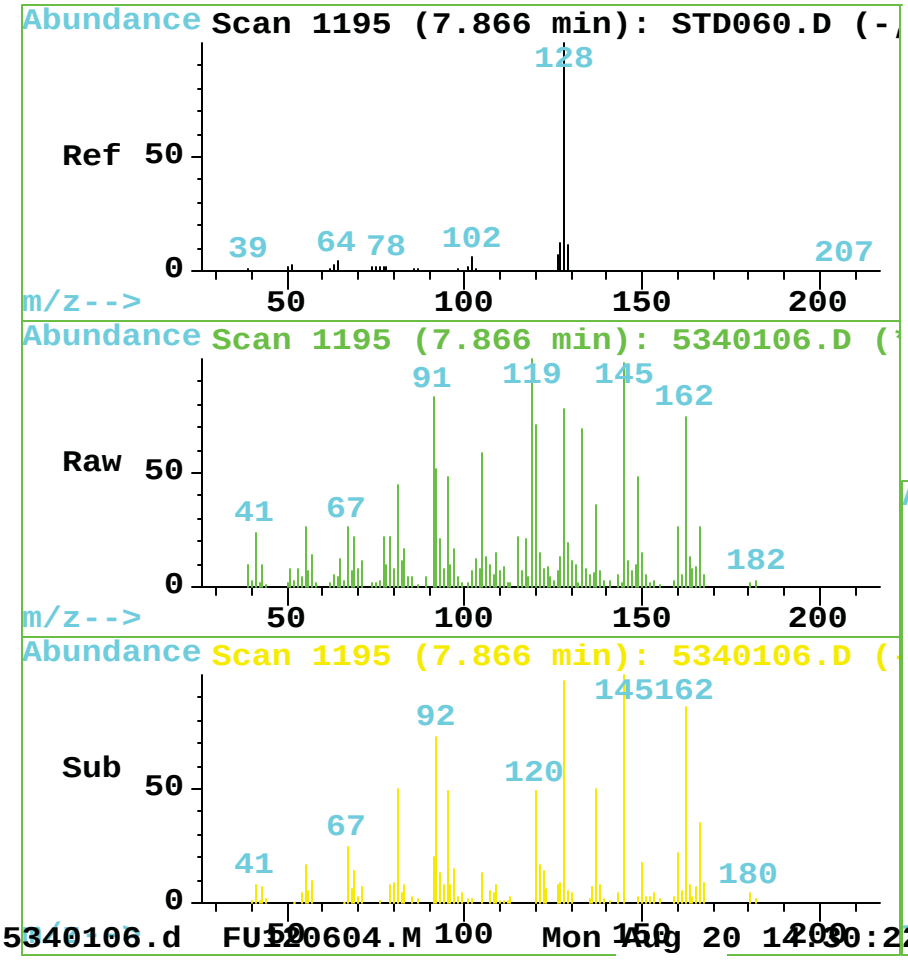


#78
1,2,4-Trichlorobenzene
Concen: 8.61 ug/l
RT: 7.74 min Scan# 1175
Delta R.T. 0.00 min
Lab File: 5340106.d
Acq: 3 Aug 12 5:11 pm

Tgt Ion:181.95 Resp: 486

Ion	Ratio	Lower	Upper
182	100		
180	101.6	74.1	134.1
145	110.2	0.0	57.2#
109	18.9	0.0	48.9

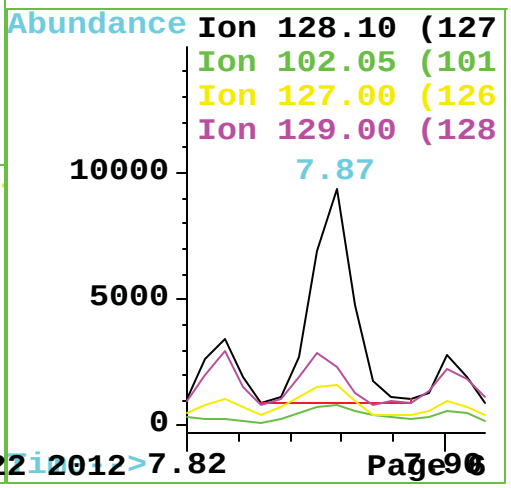


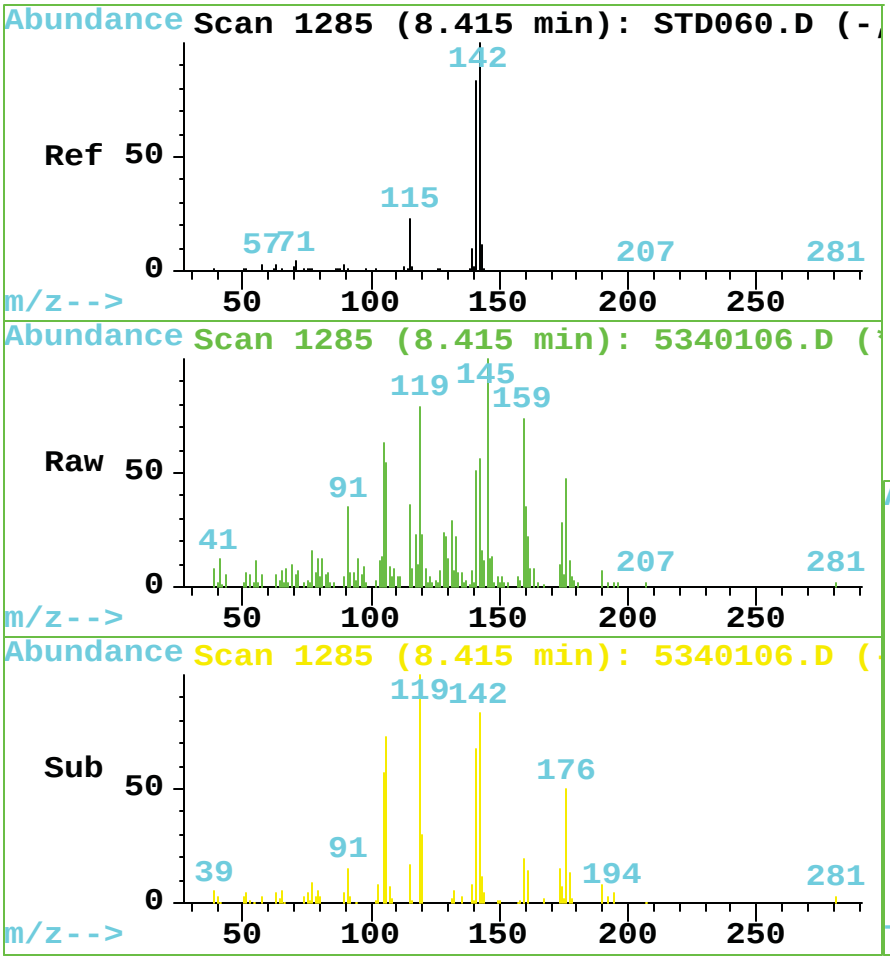


#81
Naphthalene
Concen: 1.16 ug/l
RT: 7.87 min Scan# 1195
Delta R.T. 0.00 min
Lab File: 5340106.d
Acq: 3 Aug 12 5:11 pm

Tgt Ion:128.1 Resp: 801

Ion	Ratio	Lower	Upper
128	100		
102	12.7	0.0	37.4
127	18.7	0.0	42.3
129	26.6	0.0	40.6

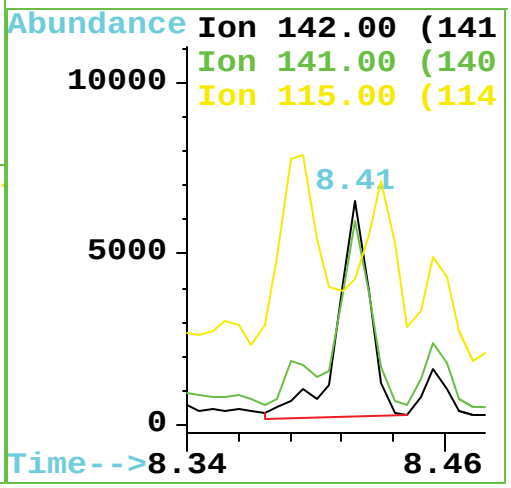




#82
2-Methylnaphthalene
Concen: 1.89 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5340106.d
Acq: 3 Aug 12 5:11 pm

Tgt Ion:142 Resp: 6601

Ion	Ratio	Lower	Upper
142	100		
141	103.7	55.8	115.8
115	62.9	0.0	58.8#
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340107.d Vial: 15
Acq On : 3 Aug 12 5:31 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:49 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

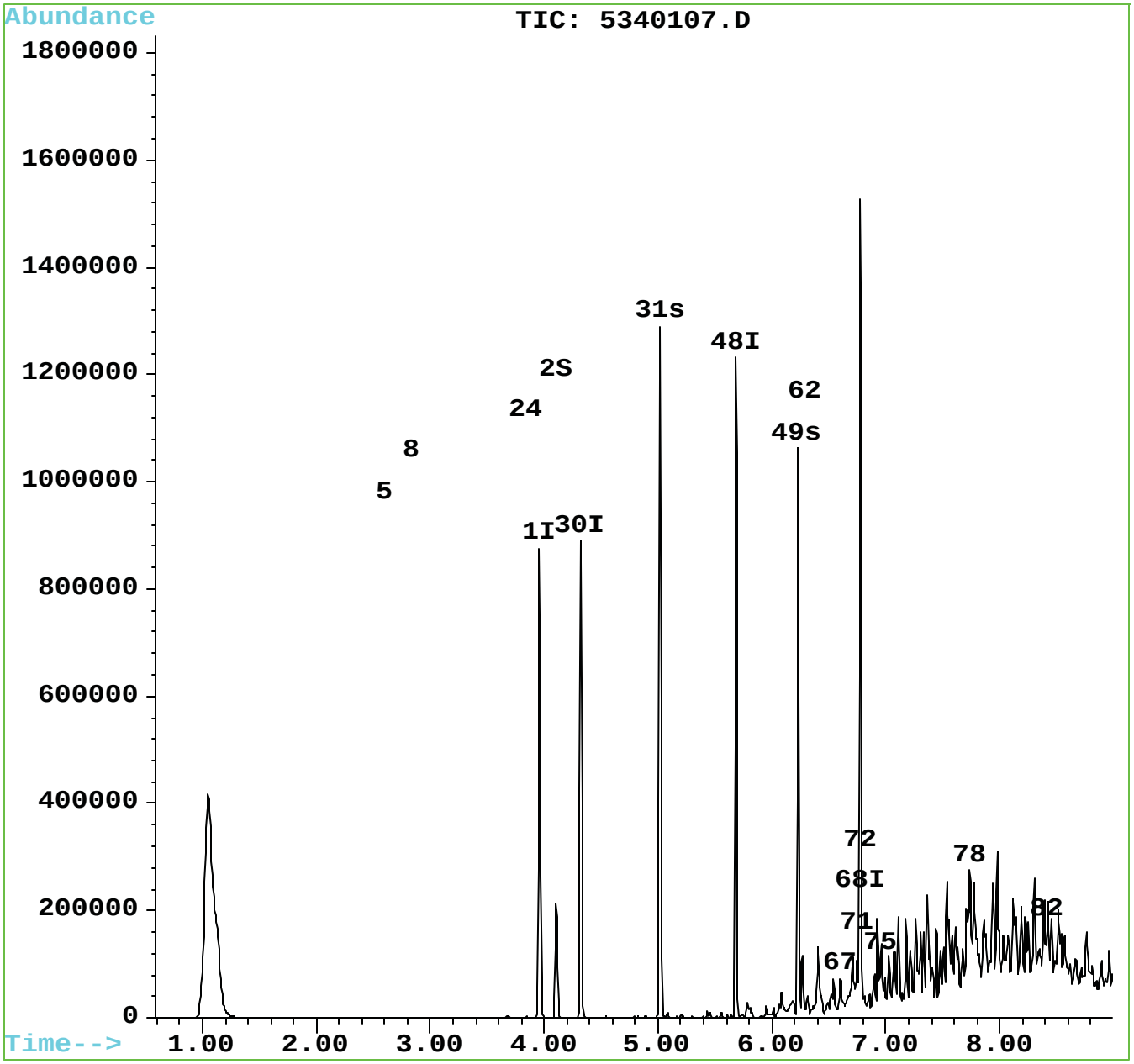
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	510347	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	564463	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	208024	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	289506	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	89769	46.52	ug/l		93.0
31) TOLUENE-D8 (S)	5.02	98	571648	50.12	ug/l		100.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	251938	50.92	ug/l		101.8
Target Compounds							Qvalu
5) Acetone (*)	2.60	43	394	2.07	ug/l	#	4
8) Methyl Acetate	2.84	43	1022	1.48	ug/l	#	6
24) Tetrahydrofuran	3.84	42	892	3.17	ug/l	#	
62) 1,2,3-Trichloropropane	6.29	110	1264	2.16	ug/l	#	
67) 1,2,4-Trimethylbenzene	6.60	120	9112	1.15	ug/l		8
71) 1,3-Dichlorobenzene	6.75	146	16574	1.96	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	21134	2.43	ug/l		8
75) n-Butylbenzene	6.95	91	16341	1.33	ug/l	#	1
78) 1,2,4-Trichlorobenzene	7.74	182	35441	6.60	ug/l	#	7
82) 2-Methylnaphthalene	8.41	142	5667	1.70	ug/l	#	6

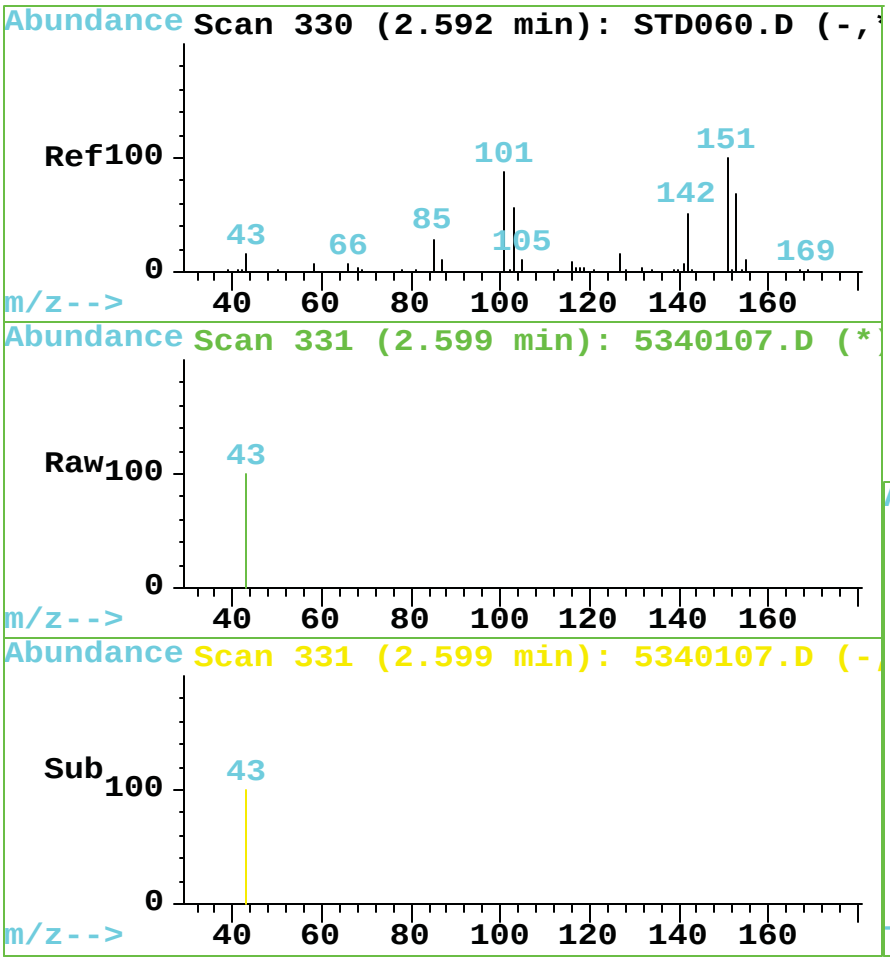
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340107.d Vial: 15
Acq On : 3 Aug 12 5:31 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:49 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

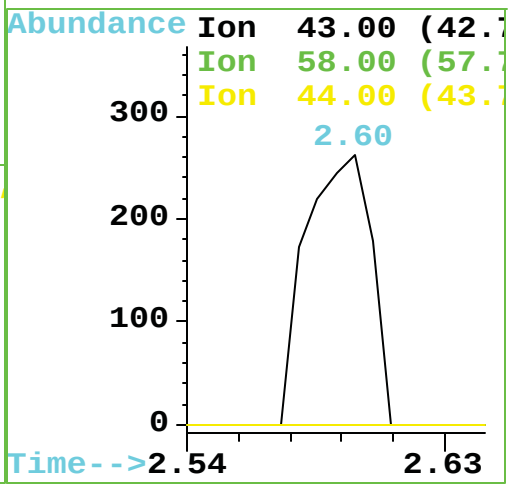


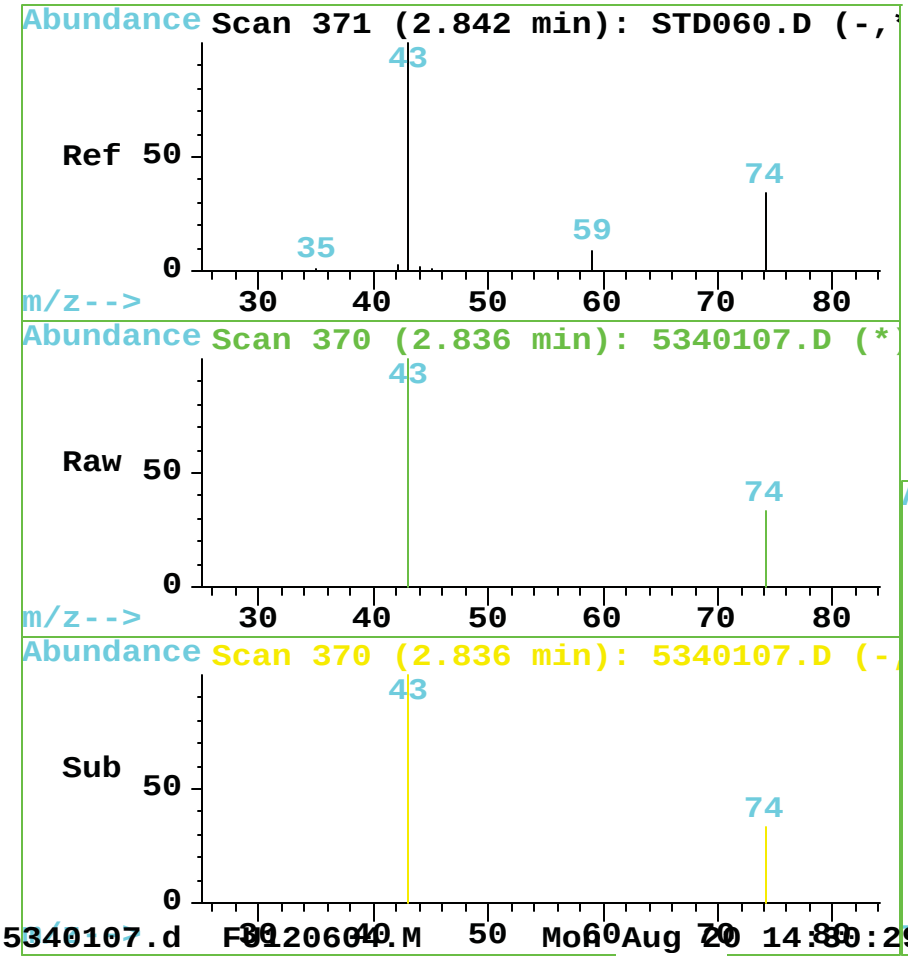


#5
Acetone (*)
Concen: 2.07 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:43 Resp: 394

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

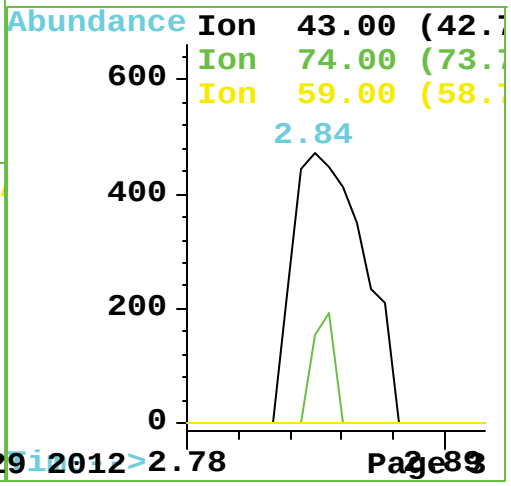


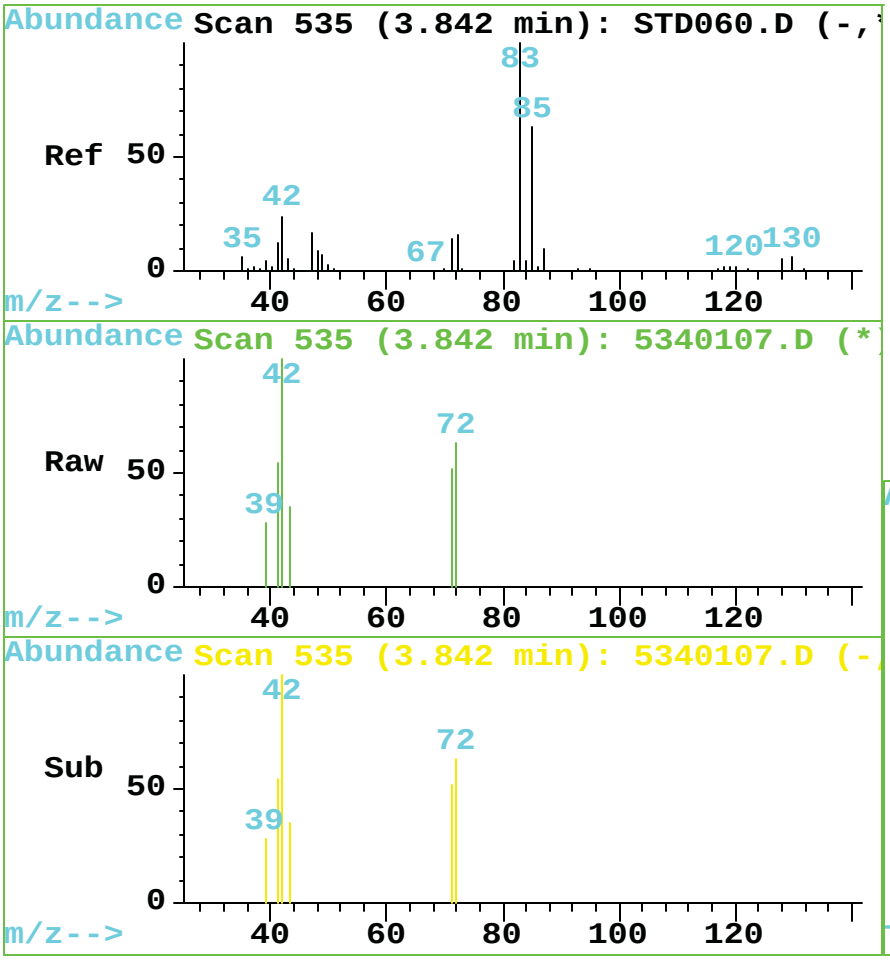


#8
Methyl Acetate
Concen: 1.48 ug/l
RT: 2.84 min Scan# 370
Delta R.T. 0.01 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:43 Resp: 1022

Ion	Ratio	Lower	Upper
43	100		
74	12.4	4.8	64.8
59	0.0	0.0	40.3
0	0.0	0.0	0.0

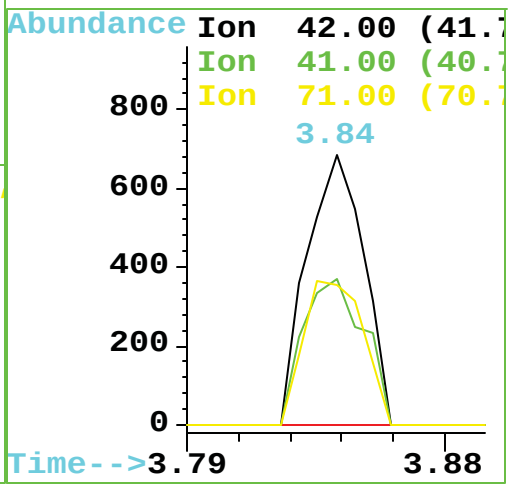


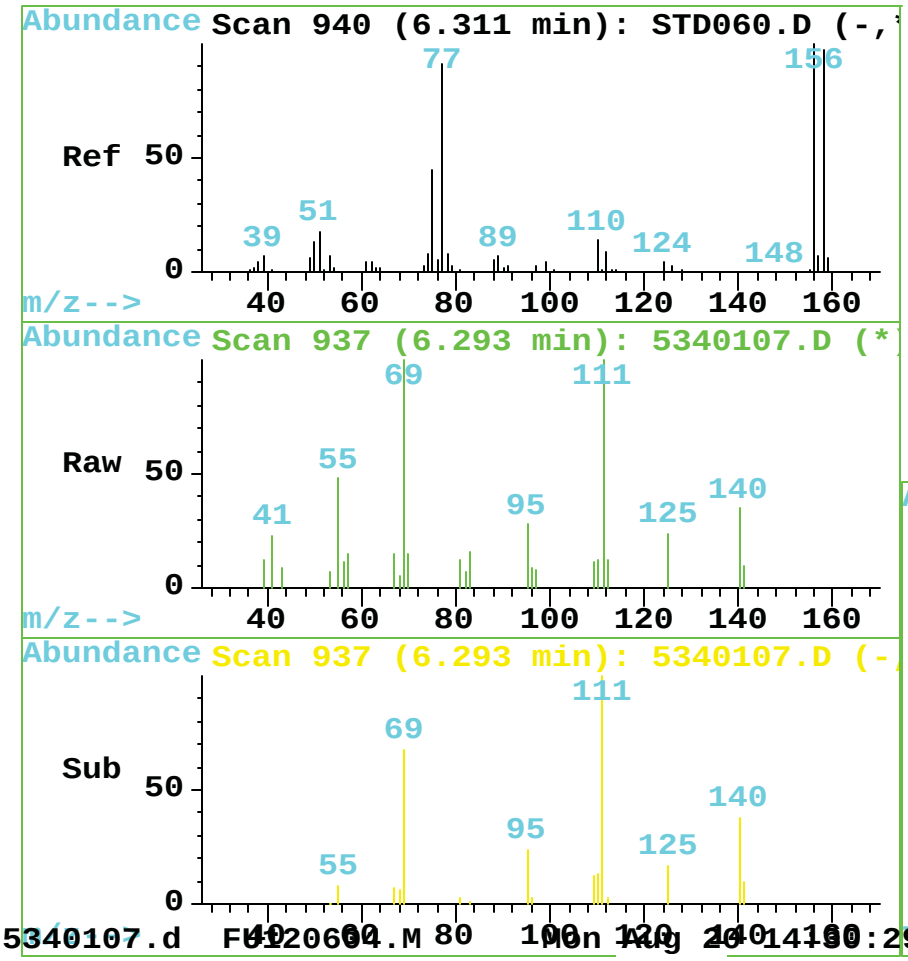


#24
Tetrahydrofuran
Concen: 3.17 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:42 Resp: 892

Ion	Ratio	Lower	Upper
42	100		
41	57.8	222.5	282.5#
71	56.1	24.9	84.9
0	0.0	0.0	0.0

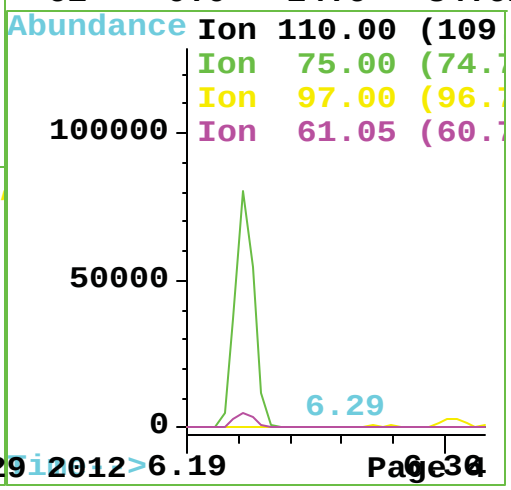


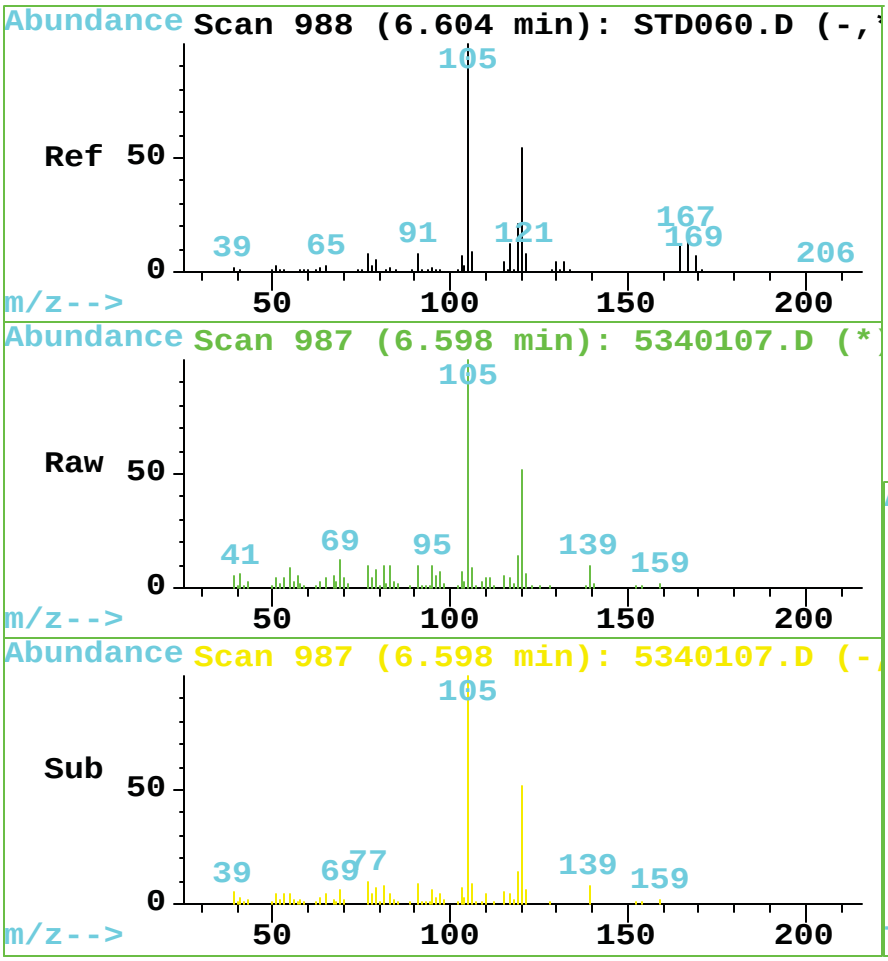


#62
1,2,3-Trichloropropane
Concen: 2.16 ug/l
RT: 6.29 min Scan# 937
Delta R.T. -0.02 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:110 Resp: 1264

Ion	Ratio	Lower	Upper
110	100		
75	0.0	327.3	387.3#
97	73.3	15.8	75.8
61	0.0	24.6	84.6#

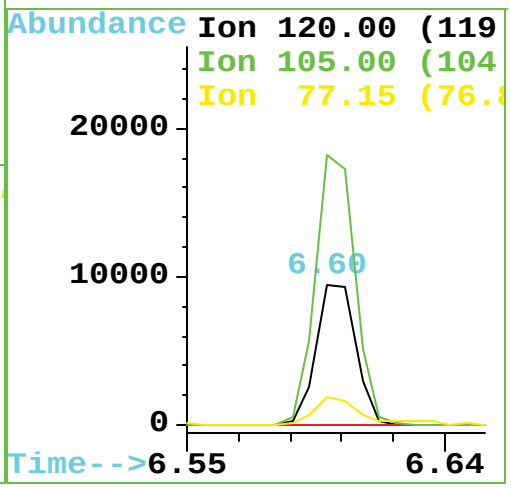


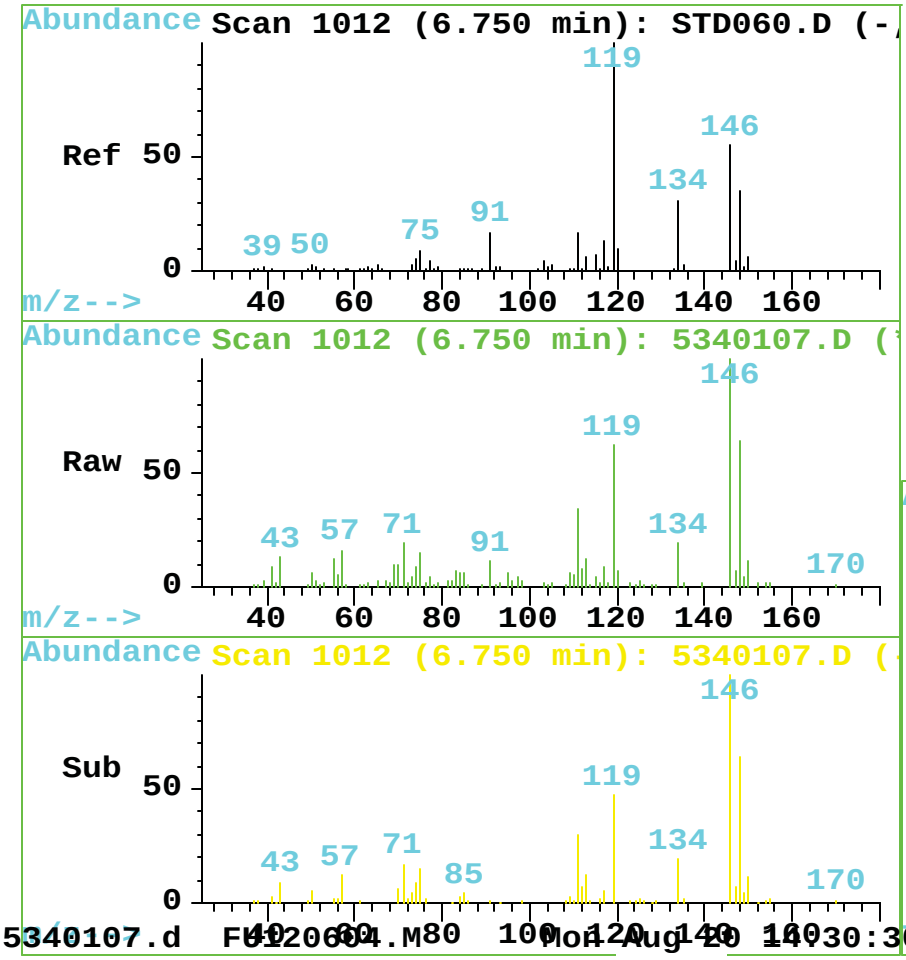


#67
1,2,4-Trimethylbenzene
Concen: 1.15 ug/l
RT: 6.60 min Scan# 987
Delta R.T. -0.01 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:120 Resp: 9112

Ion	Ratio	Lower	Upper
120	100		
105	191.4	144.1	204.1
77	23.8	0.0	45.7
0	0.0	0.0	0.0

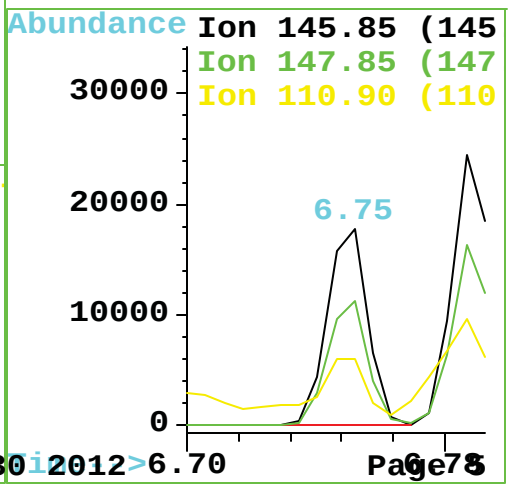


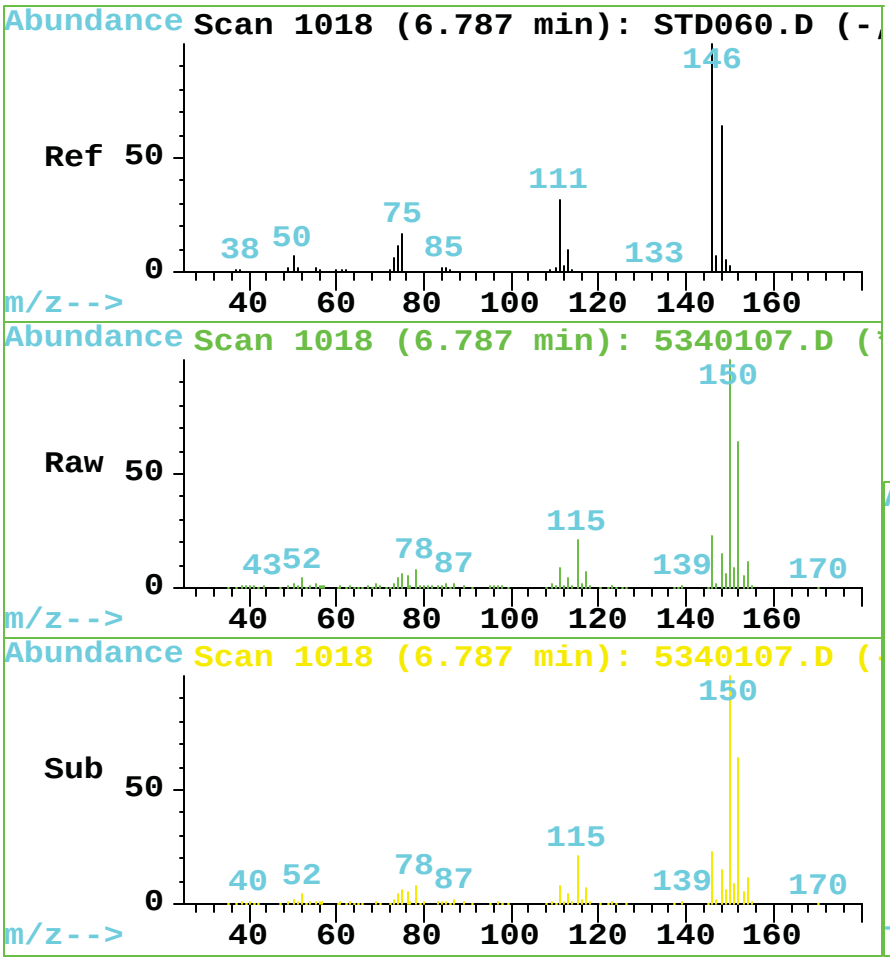


#71
1,3-Dichlorobenzene
Concen: 1.96 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:145.85 Resp: 165

Ion	Ratio	Lower	Upper
146	100		
148	63.8	34.8	94.8
111	36.4	6.2	66.2
0	0.0	0.0	0.0

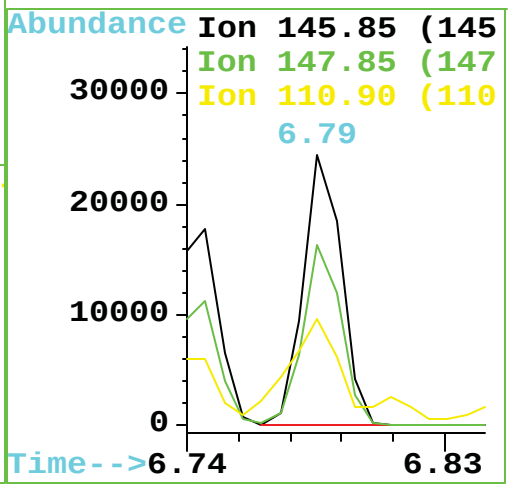


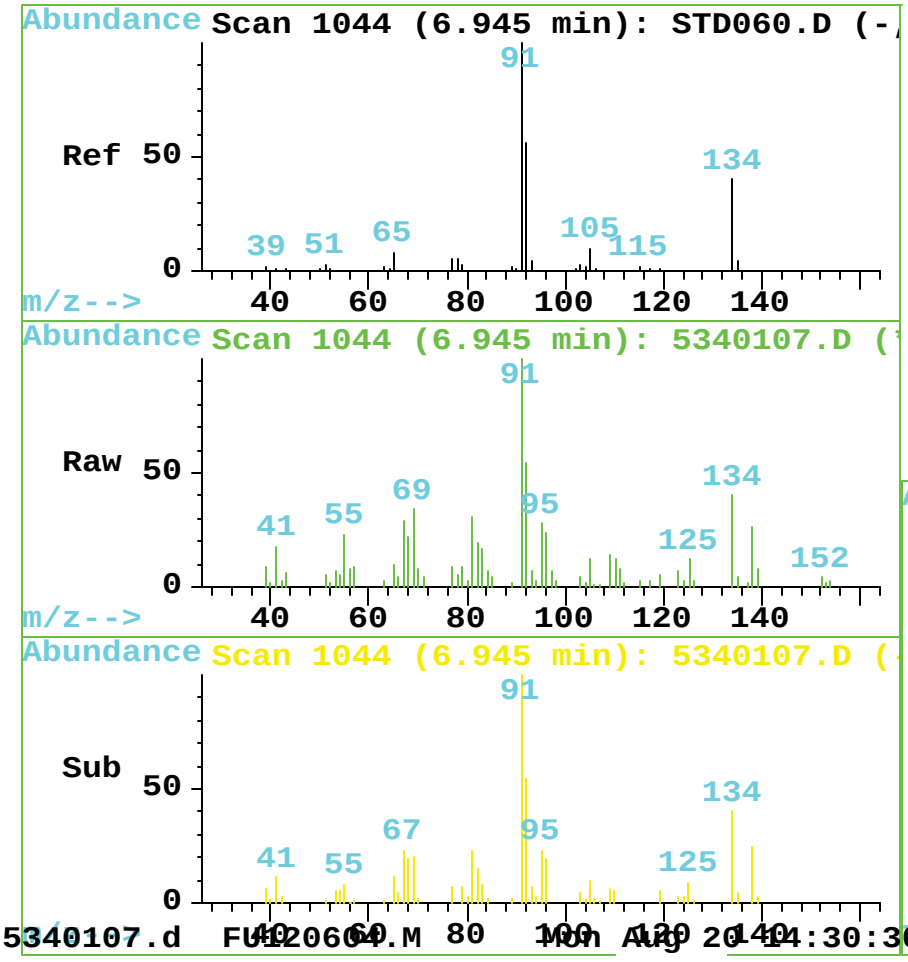


#72
1,4-Dichlorobenzene
Concen: 2.43 ug/l
RT: 6.79 min Scan# 1018
Delta R.T. -0.01 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:145.85 Resp: 211

Ion	Ratio	Lower	Upper
146	100		
148	67.0	33.9	93.9
111	56.1	5.2	65.2
0	0.0	0.0	0.0

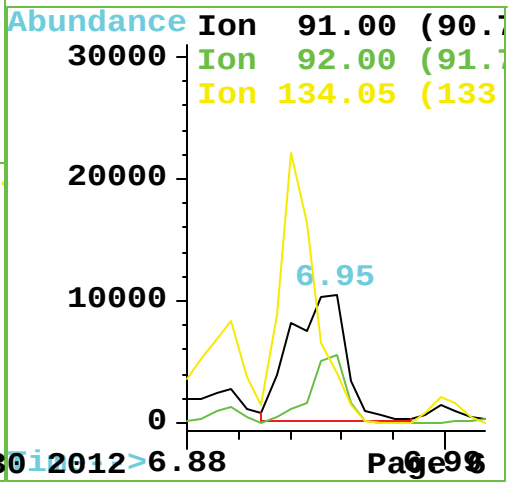


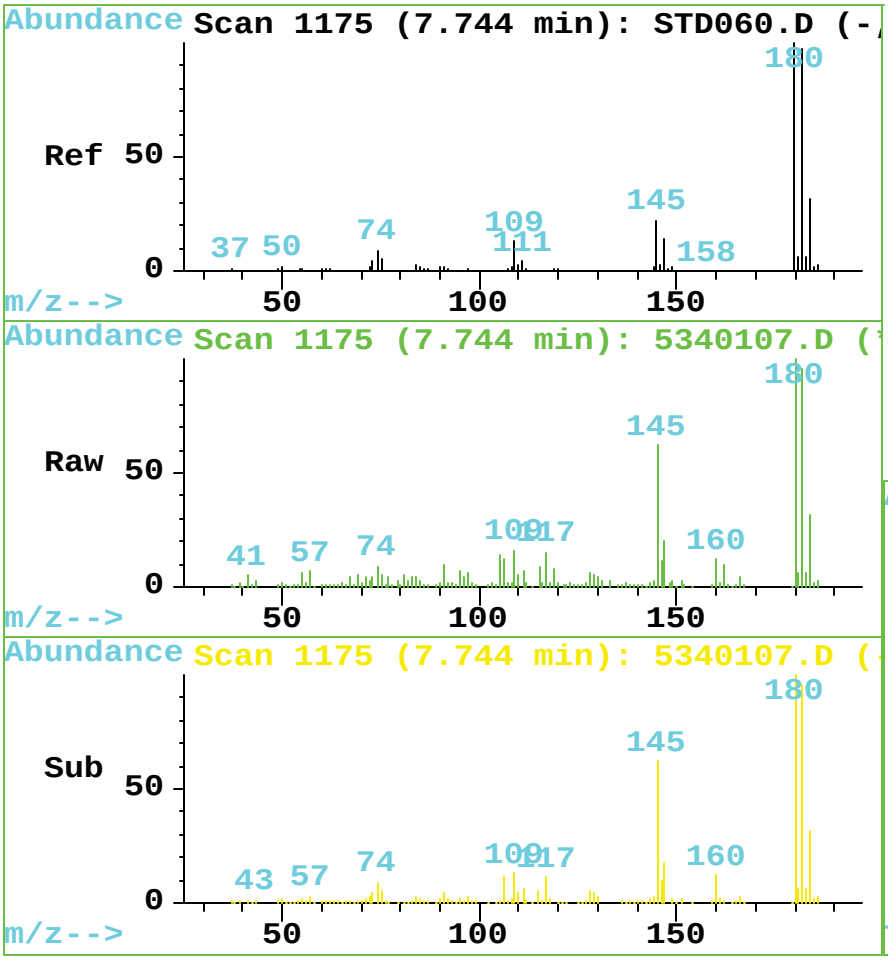


#75
n-Butylbenzene
Concen: 1.33 ug/l
RT: 6.95 min Scan# 1044
Delta R.T. 0.00 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:91 Resp: 16341

Ion	Ratio	Lower	Upper
91	100		
92	35.5	25.5	85.5
134	133.3	4.2	64.2#
0	0.0	0.0	0.0

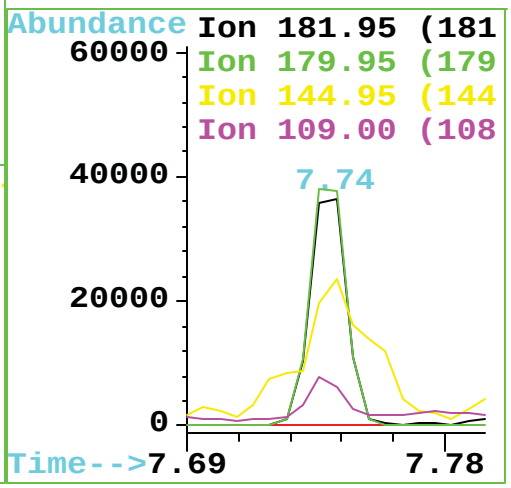


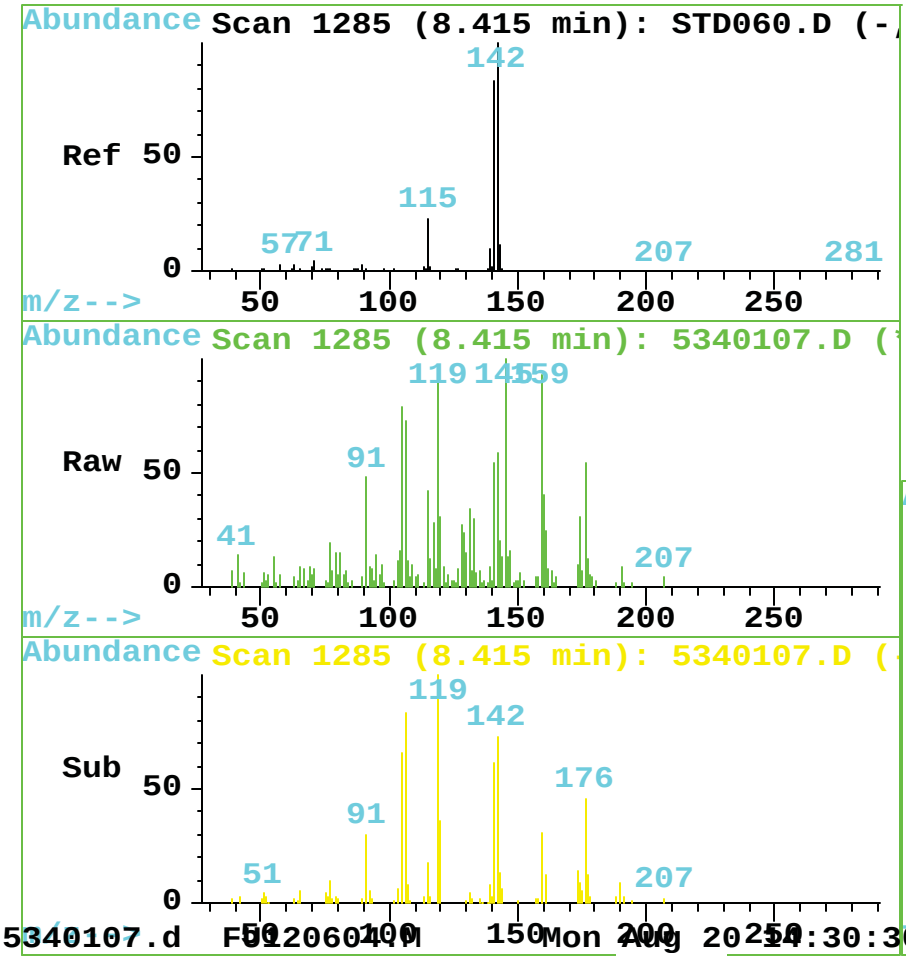


#78
1,2,4-Trichlorobenzene
Concen: 6.60 ug/l
RT: 7.74 min Scan# 1175
Delta R.T. 0.00 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:181.95 Resp: 354

Ion	Ratio	Lower	Upper
182	100		
180	104.0	74.1	134.1
145	113.1	0.0	57.2#
109	20.5	0.0	48.9

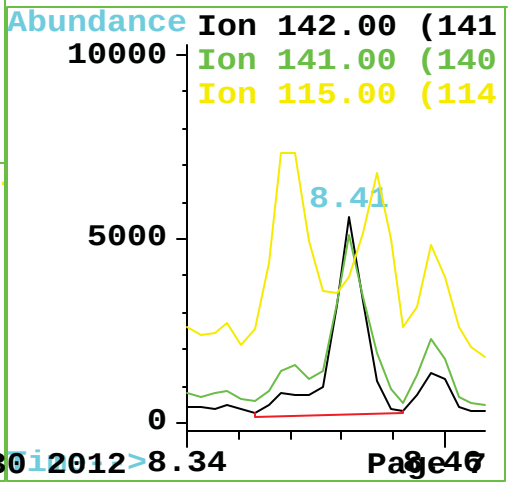




#82
2-Methylnaphthalene
Concen: 1.70 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5340107.d
Acq: 3 Aug 12 5:31 pm

Tgt Ion:142 Resp: 5667

Ion	Ratio	Lower	Upper
142	100		
141	104.0	55.8	115.8
115	72.1	0.0	58.8#
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340108.d Vial: 16
Acq On : 3 Aug 12 5:52 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

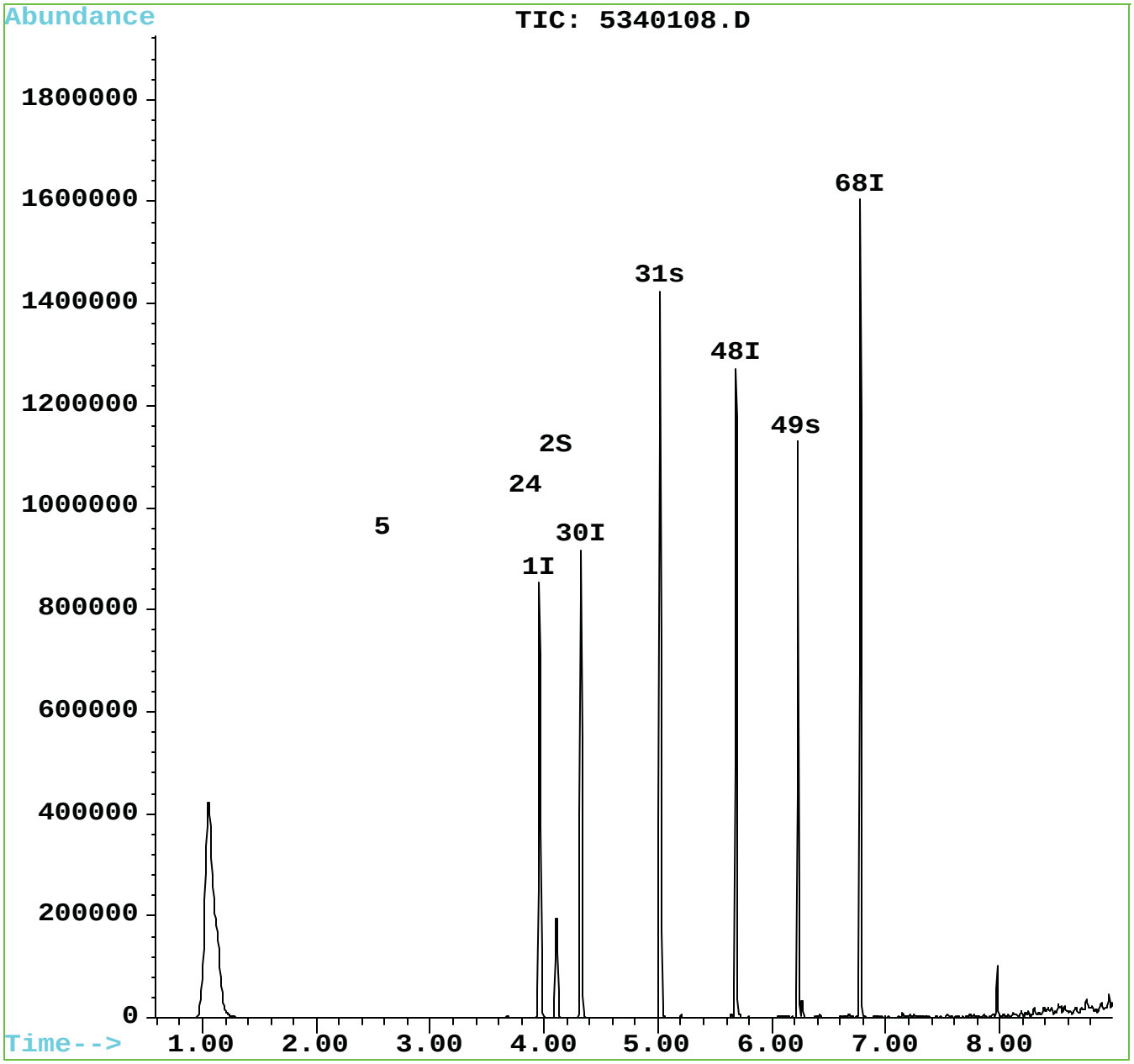
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	541578	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	607378	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	220056	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	306296	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	96119	46.94	ug/l	93.8
31) TOLUENE-D8 (S)	5.02	98	615705	50.17	ug/l	100.3
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	264472	50.53	ug/l	101.0
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	358	1.78	ug/l #	4
24) Tetrahydrofuran	3.84	42	919	3.08	ug/l #	

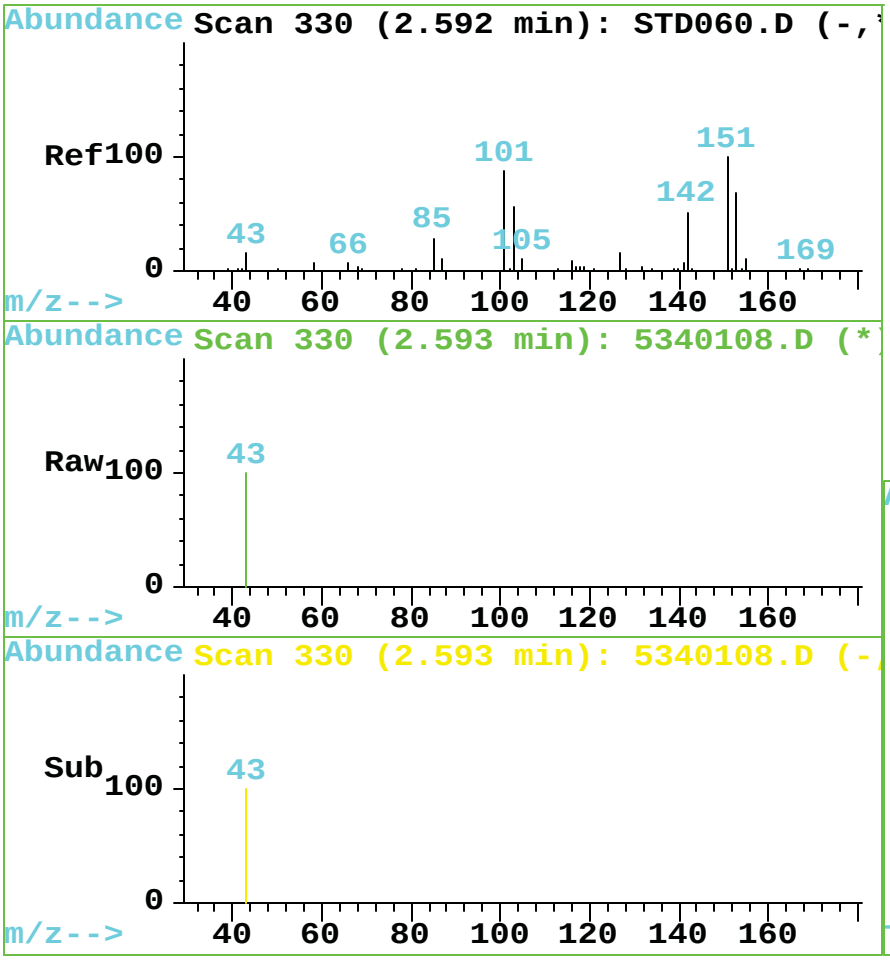
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340108.d Vial: 16
Acq On : 3 Aug 12 5:52 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

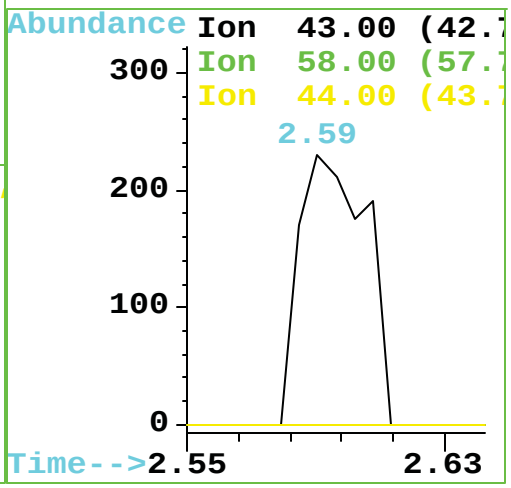


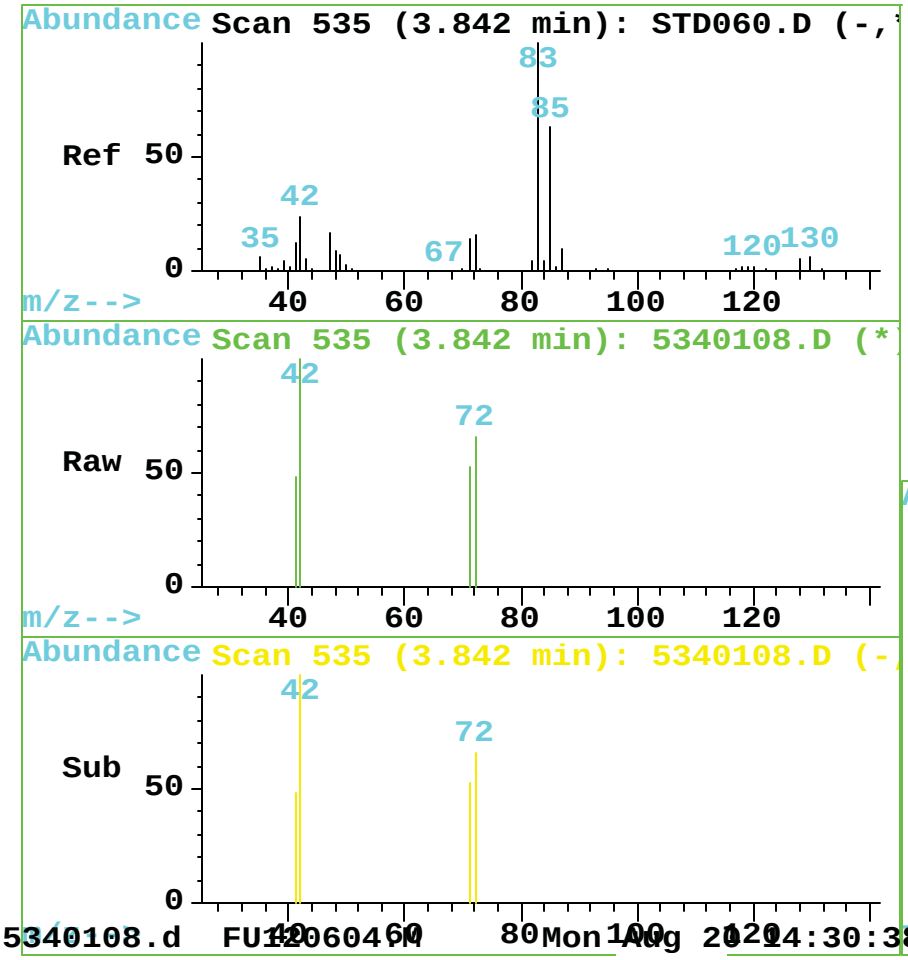


#5
Acetone (*)
Concen: 1.78 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5340108.d
Acq: 3 Aug 12 5:52 pm

Tgt Ion:43 Resp: 358

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

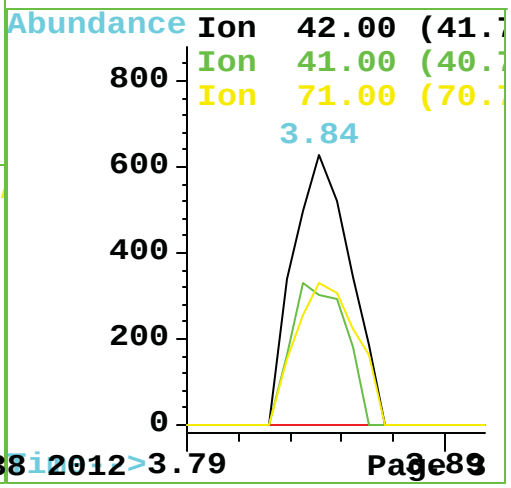




#24
Tetrahydrofuran
Concen: 3.08 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340108.d
Acq: 3 Aug 12 5:52 pm

Tgt Ion:42 Resp: 919

Ion	Ratio	Lower	Upper
42	100		
41	50.4	222.5	282.5#
71	57.0	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340109.d Vial: 17
Acq On : 3 Aug 12 6:13 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:50 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

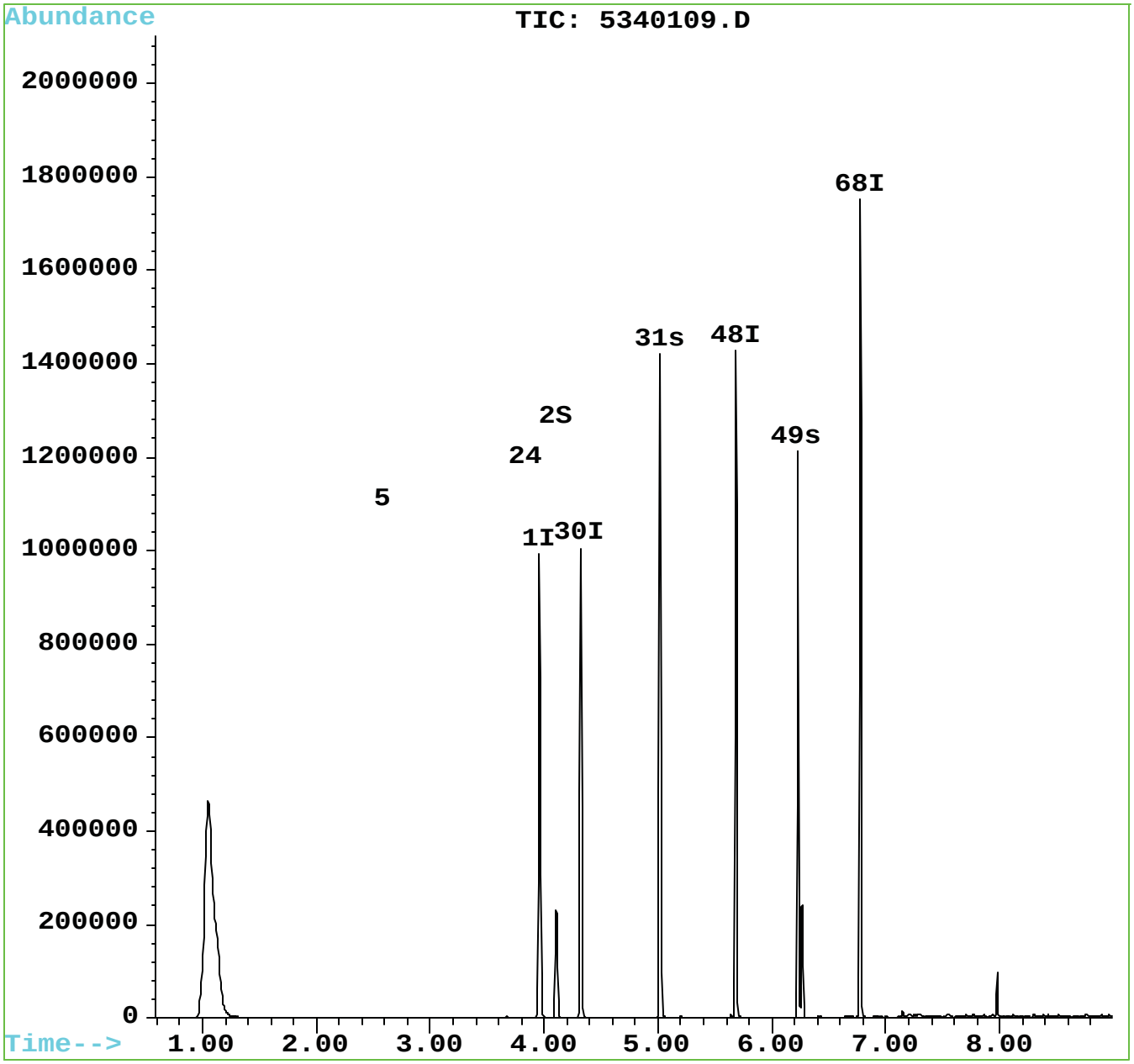
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	571693	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	635580	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	229274	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	330502	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	101327	46.88	ug/l	93.7
31) TOLUENE-D8 (S)	5.02	98	630044	49.06	ug/l	98.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	281403	51.61	ug/l	103.2
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	344	1.62	ug/l #	4
24) Tetrahydrofuran	3.84	42	824	2.61	ug/l #	

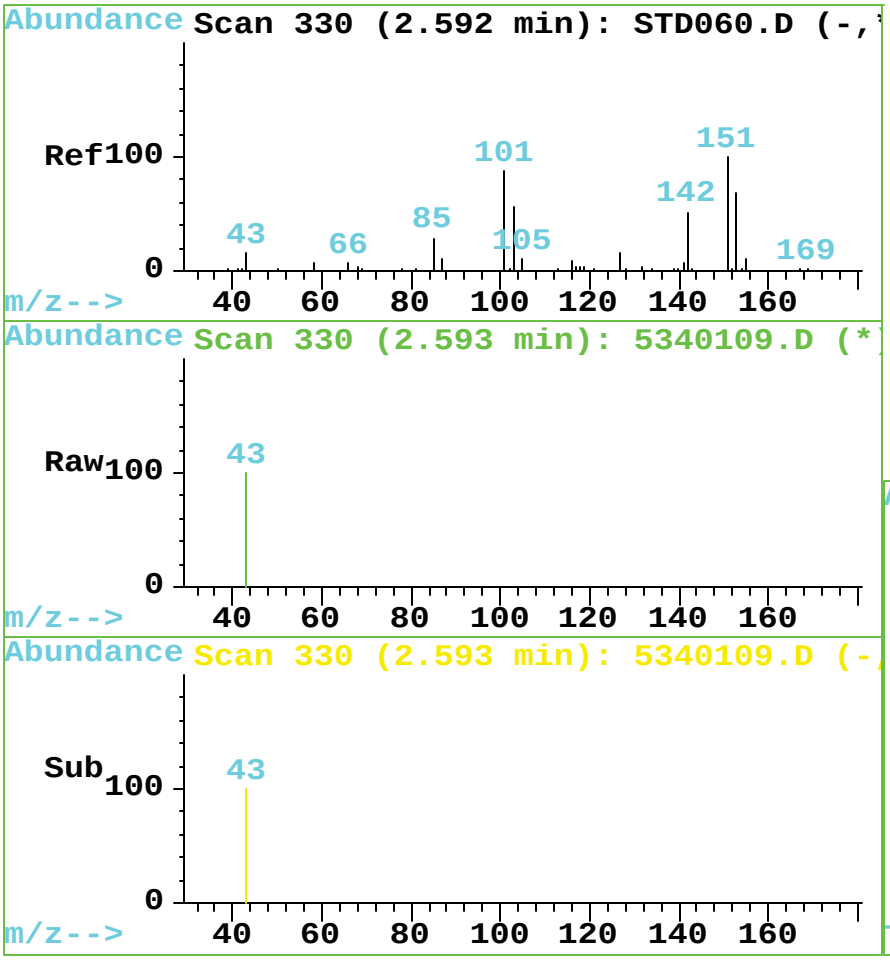
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340109.d Vial: 17
Acq On : 3 Aug 12 6:13 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:50 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

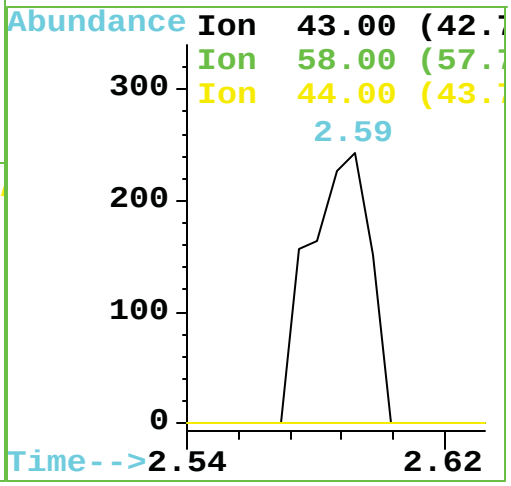


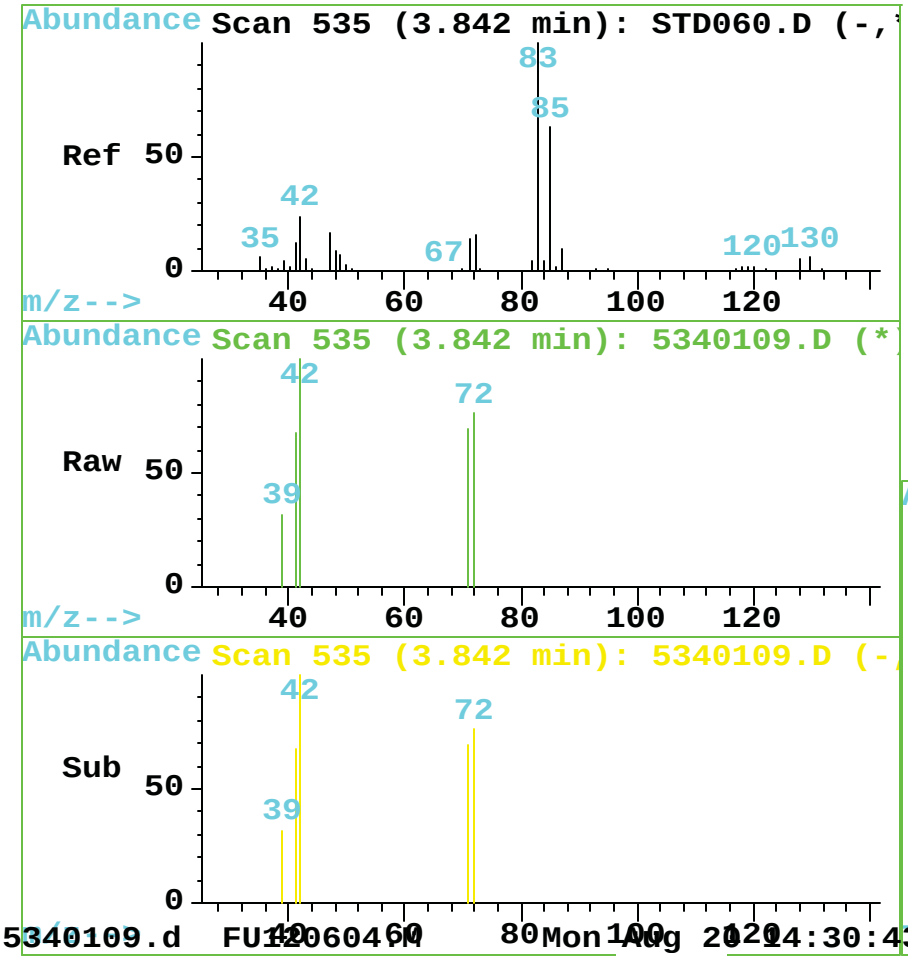


#5
Acetone (*)
Concen: 1.62 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5340109.d
Acq: 3 Aug 12 6:13 pm

Tgt Ion:43 Resp: 344

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

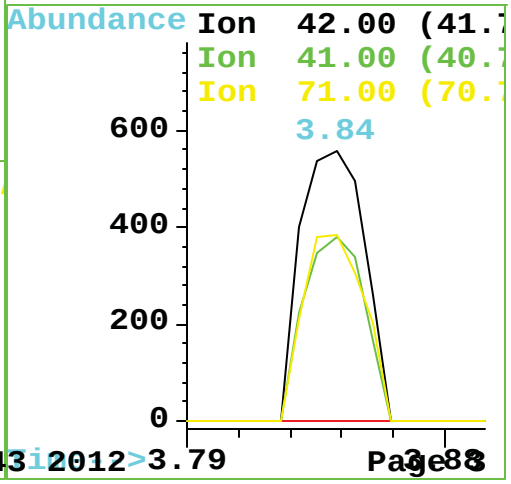




#24
Tetrahydrofuran
Concen: 2.61 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340109.d
Acq: 3 Aug 12 6:13 pm

Tgt Ion:42 Resp: 824

Ion	Ratio	Lower	Upper
42	100		
41	64.4	222.5	282.5#
71	65.8	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340110.d Vial: 18
Acq On : 3 Aug 12 6:33 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

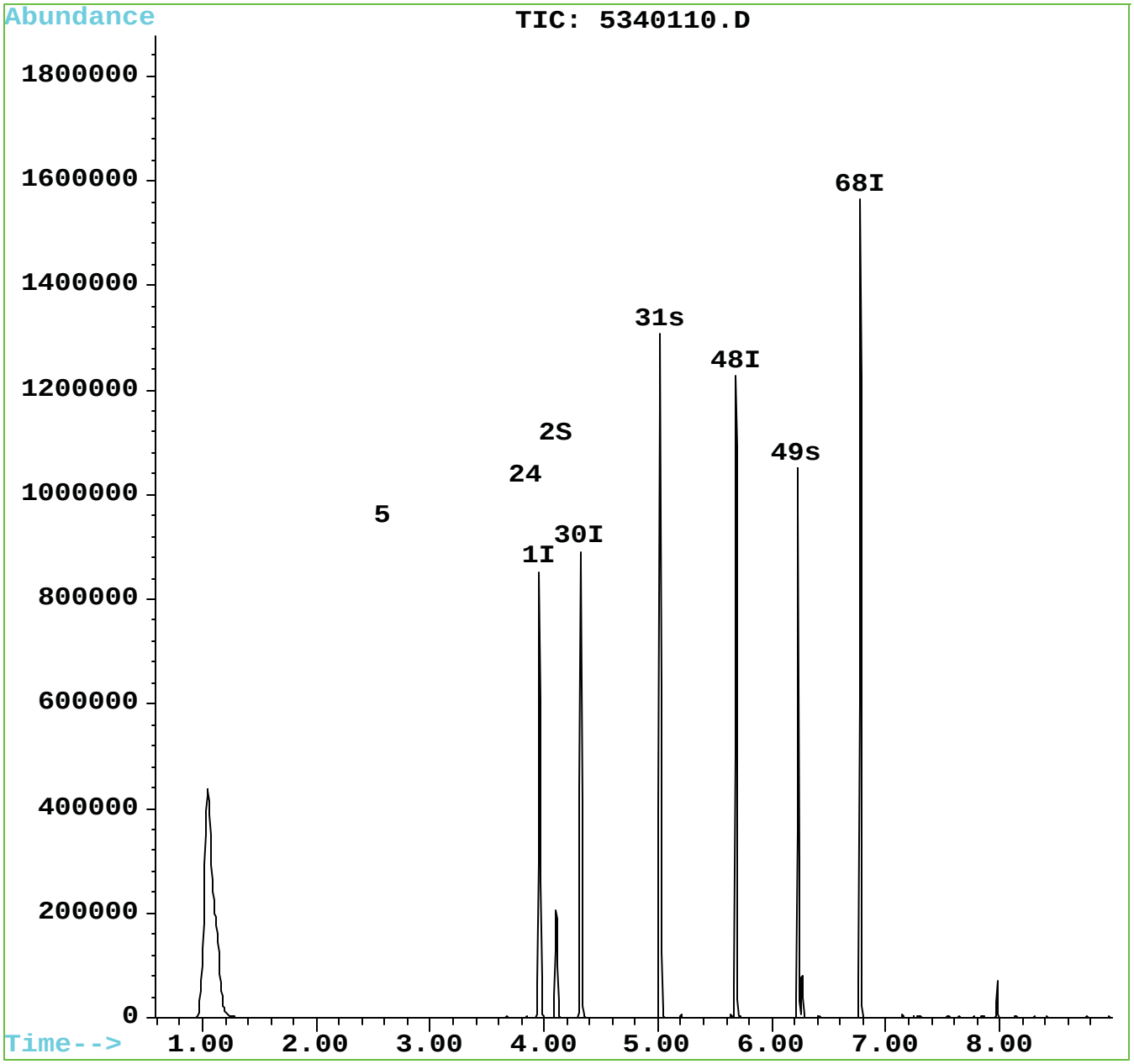
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	506487	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	574020	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	210103	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	302845	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	92476	48.29	ug/l	96.5
31) TOLUENE-D8 (S)	5.02	98	580402	50.04	ug/l	100.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	257424	51.52	ug/l	103.0
Target Compounds						Qvalu
5) Acetone (*)	2.59	43	321	1.70	ug/l #	4
24) Tetrahydrofuran	3.84	42	895	3.20	ug/l #	

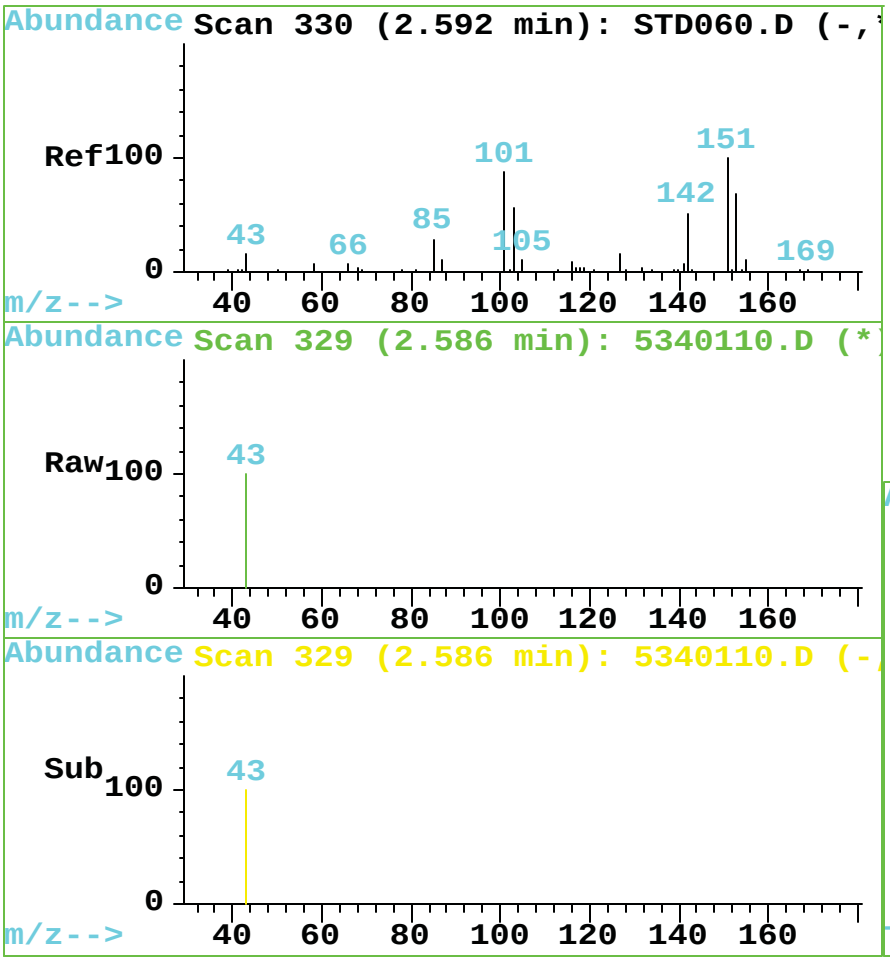
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340110.d Vial: 18
Acq On : 3 Aug 12 6:33 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

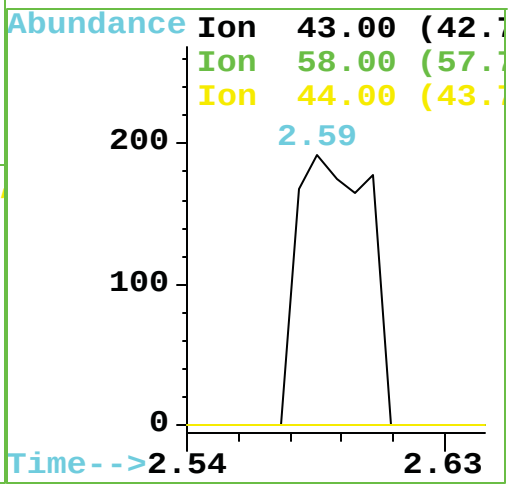


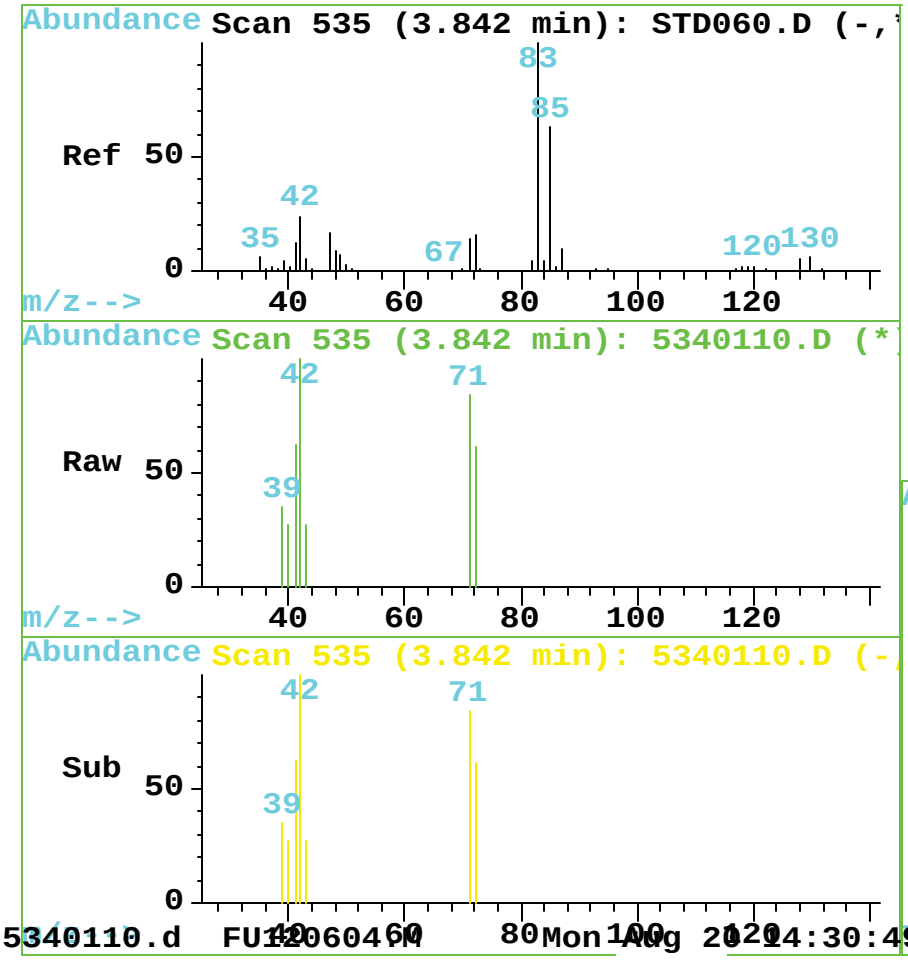


#5
Acetone (*)
Concen: 1.70 ug/l
RT: 2.59 min Scan# 329
Delta R.T. 0.01 min
Lab File: 5340110.d
Acq: 3 Aug 12 6:33 pm

Tgt Ion:43 Resp: 321

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

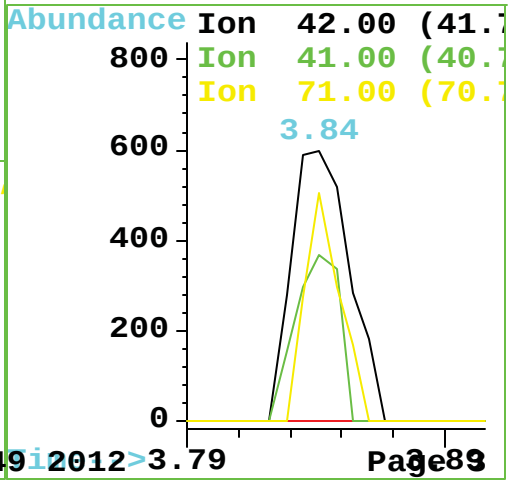




#24
Tetrahydrofuran
Concen: 3.20 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340110.d
Acq: 3 Aug 12 6:33 pm

Tgt Ion:42 Resp: 895

Ion	Ratio	Lower	Upper
42	100		
41	47.3	222.5	282.5#
71	50.7	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340111.d Vial: 19
Acq On : 3 Aug 12 6:54 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

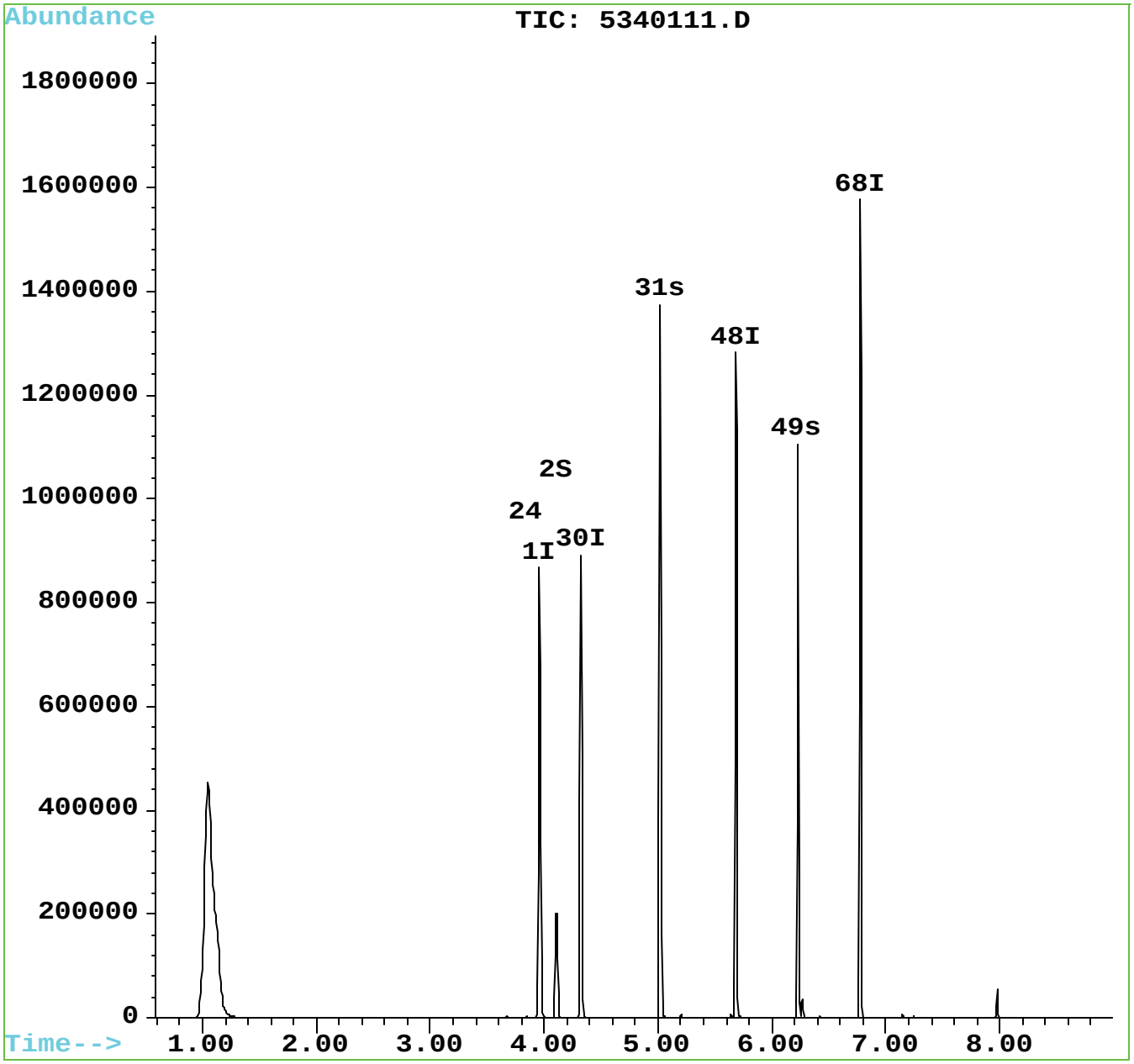
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	540239	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	600801	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	218978	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	306520	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	95023	46.52	ug/l	93.0
31) TOLUENE-D8 (S)	5.02	98	606046	49.92	ug/l	99.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	263960	50.68	ug/l	101.3
Target Compounds						Qvalu
24) Tetrahydrofuran	3.84	42	972	3.26	ug/l	#

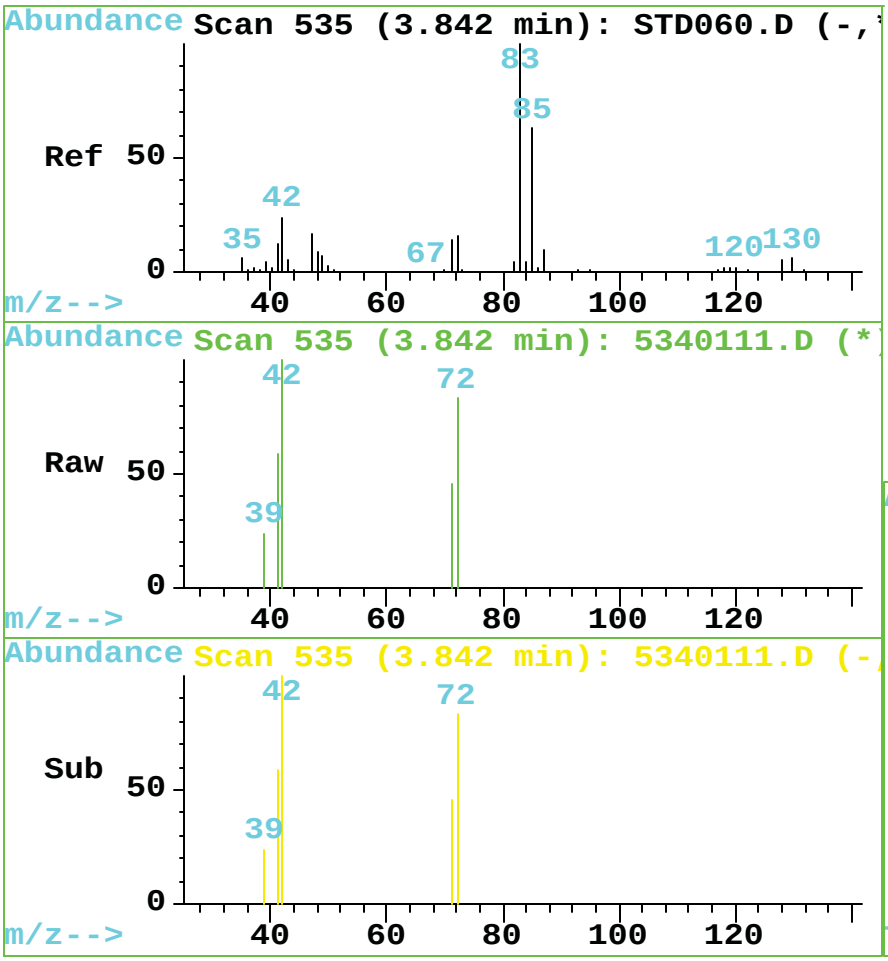
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340111.d Vial: 19
Acq On : 3 Aug 12 6:54 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

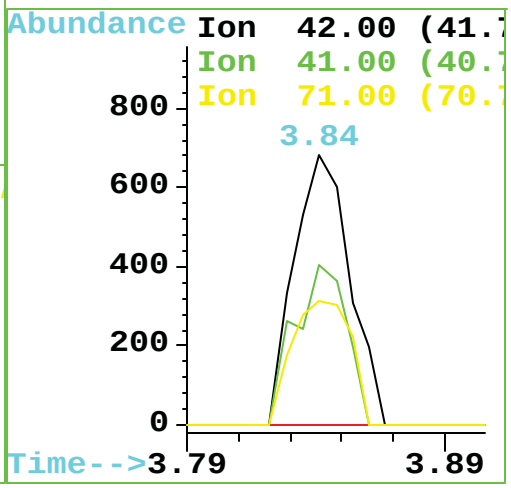




#24
Tetrahydrofuran
Concen: 3.26 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340111.d
Acq: 3 Aug 12 6:54 pm

Tgt Ion:42 Resp: 972

Ion	Ratio	Lower	Upper
42	100		
41	55.5	222.5	282.5#
71	48.8	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340112.d Vial: 20
Acq On : 3 Aug 12 7:14 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

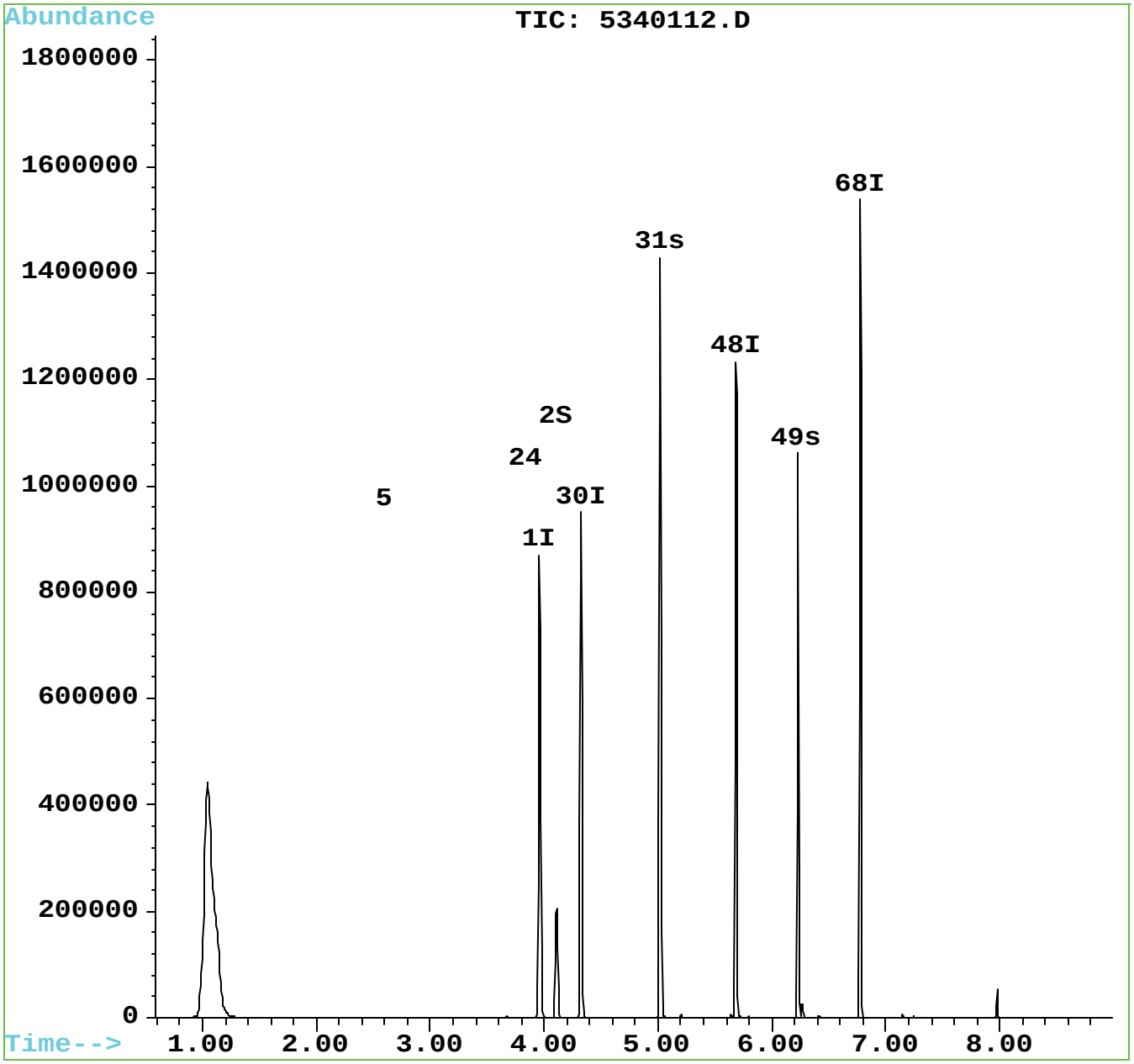
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	545500	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	618100	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	218017	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	298257	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	97212	47.13	ug/l	94.2
31) TOLUENE-D8 (S)	5.02	98	615574	49.29	ug/l	98.5
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	256747	49.52	ug/l	99.0
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	360	1.77	ug/l #	4
24) Tetrahydrofuran	3.84	42	836	2.78	ug/l #	

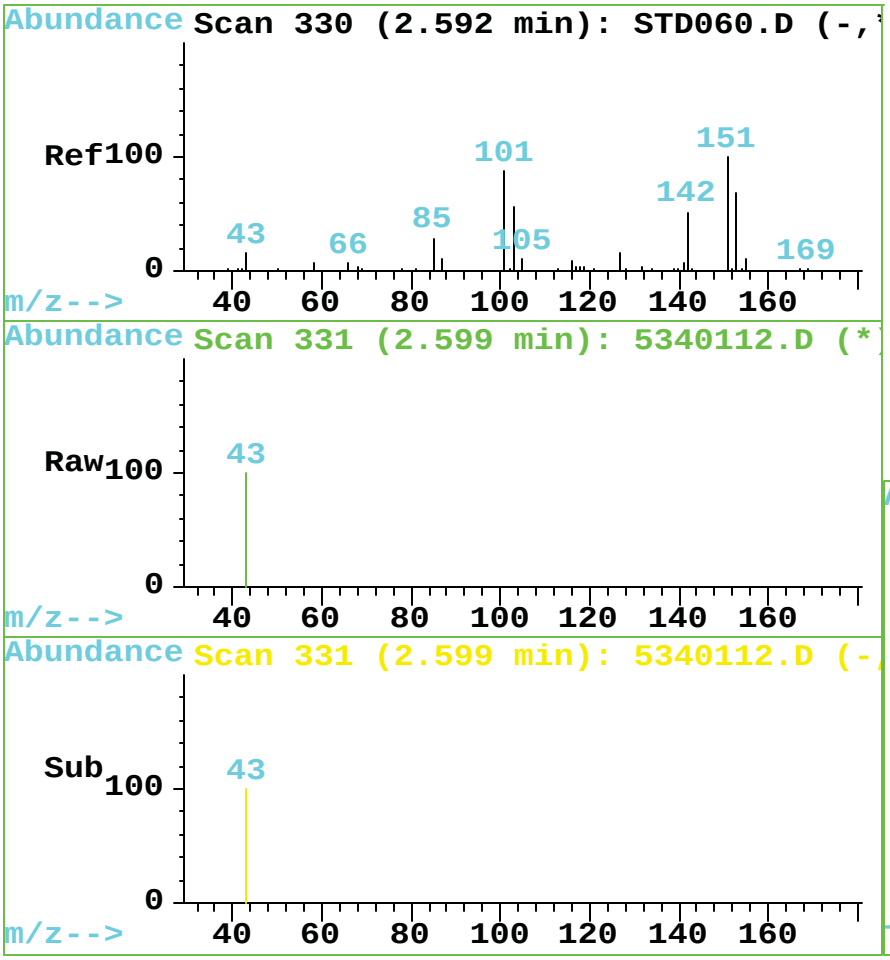
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340112.d Vial: 20
Acq On : 3 Aug 12 7:14 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

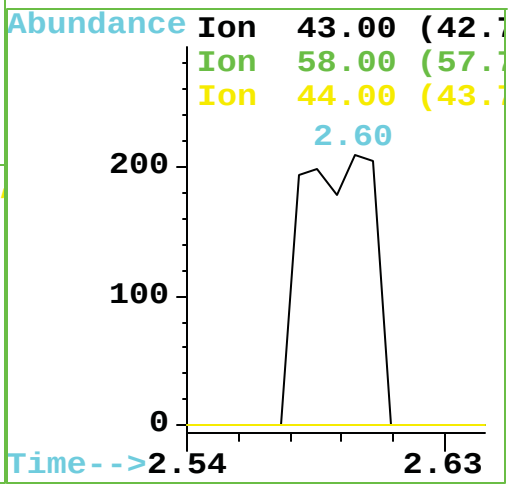


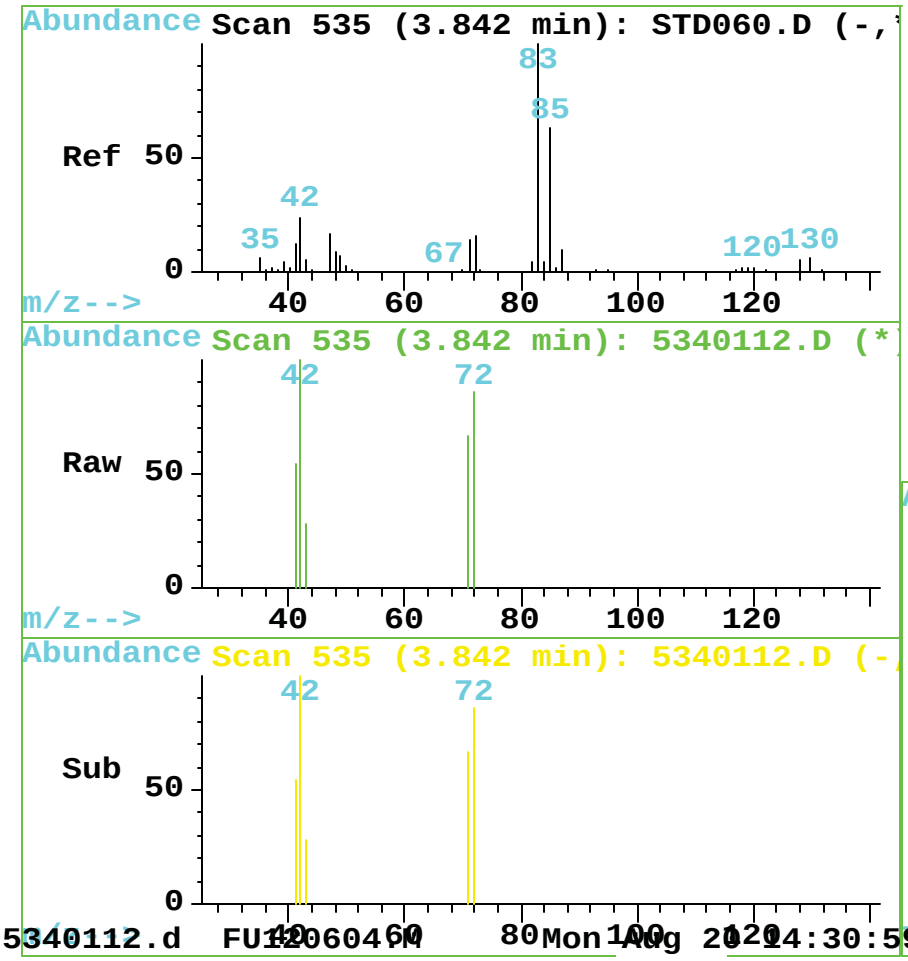


#5
Acetone (*)
Concen: 1.77 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5340112.d
Acq: 3 Aug 12 7:14 pm

Tgt Ion:43 Resp: 360

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

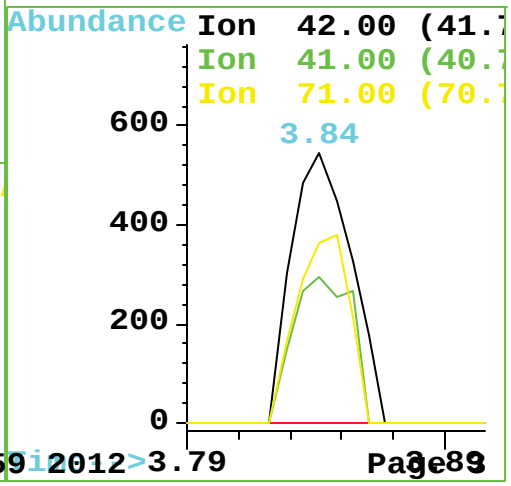




#24
Tetrahydrofuran
Concen: 2.78 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340112.d
Acq: 3 Aug 12 7:14 pm

Tgt Ion:42 Resp: 836

Ion	Ratio	Lower	Upper
42	100		
41	53.9	222.5	282.5#
71	62.0	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340113.d Vial: 21
Acq On : 3 Aug 12 7:34 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

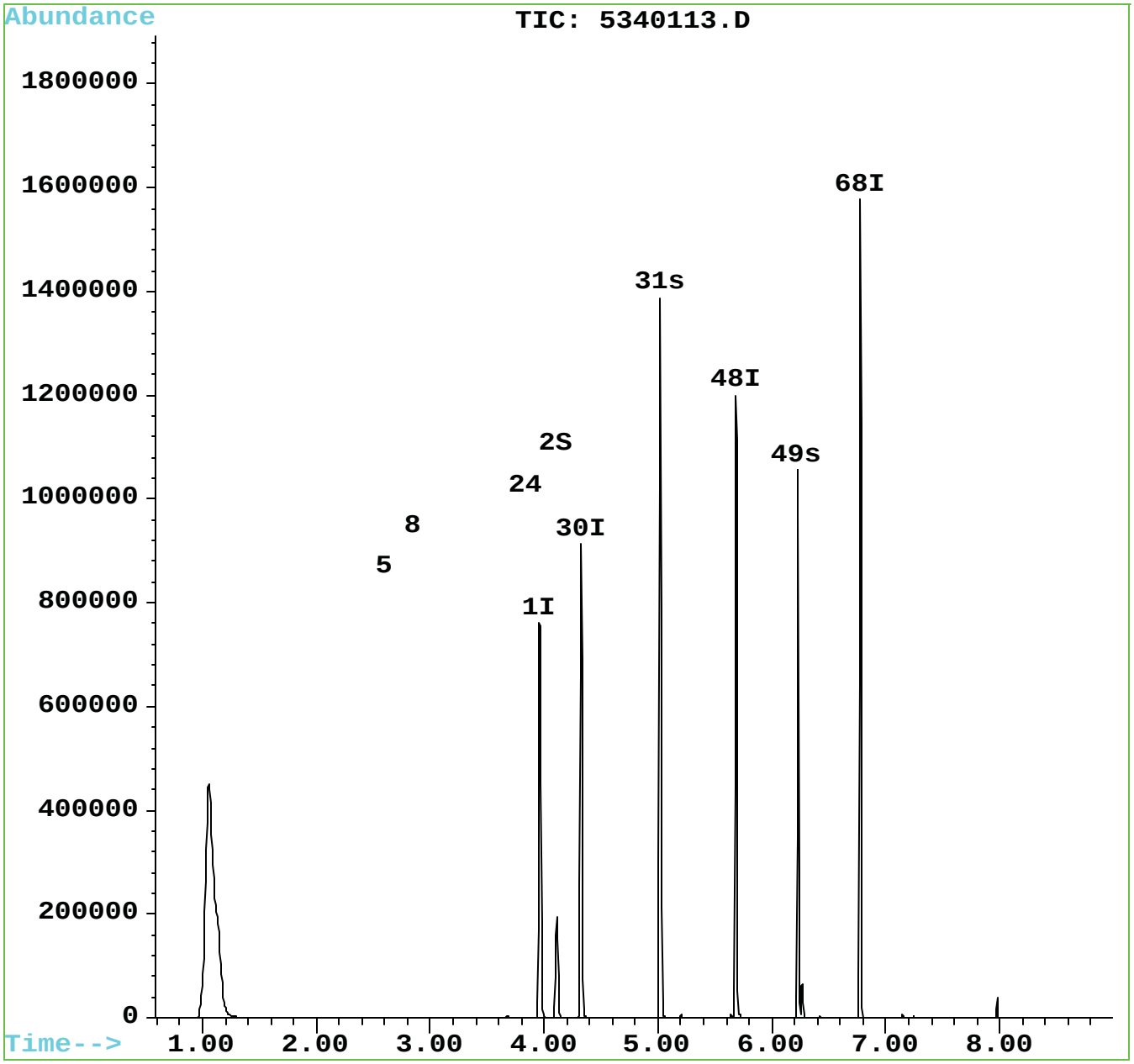
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	518223	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	594839	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	210445	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	299111	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	93215	47.57	ug/l	95.1
31) TOLUENE-D8 (S)	5.02	98	594322	49.45	ug/l	98.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	255421	51.03	ug/l	102.0
Target Compounds						Qvalu
5) Acetone (*)	2.60	43	387	2.01	ug/l #	4
8) Methyl Acetate	2.84	43	853	1.22	ug/l #	5
24) Tetrahydrofuran	3.84	42	947	3.31	ug/l #	

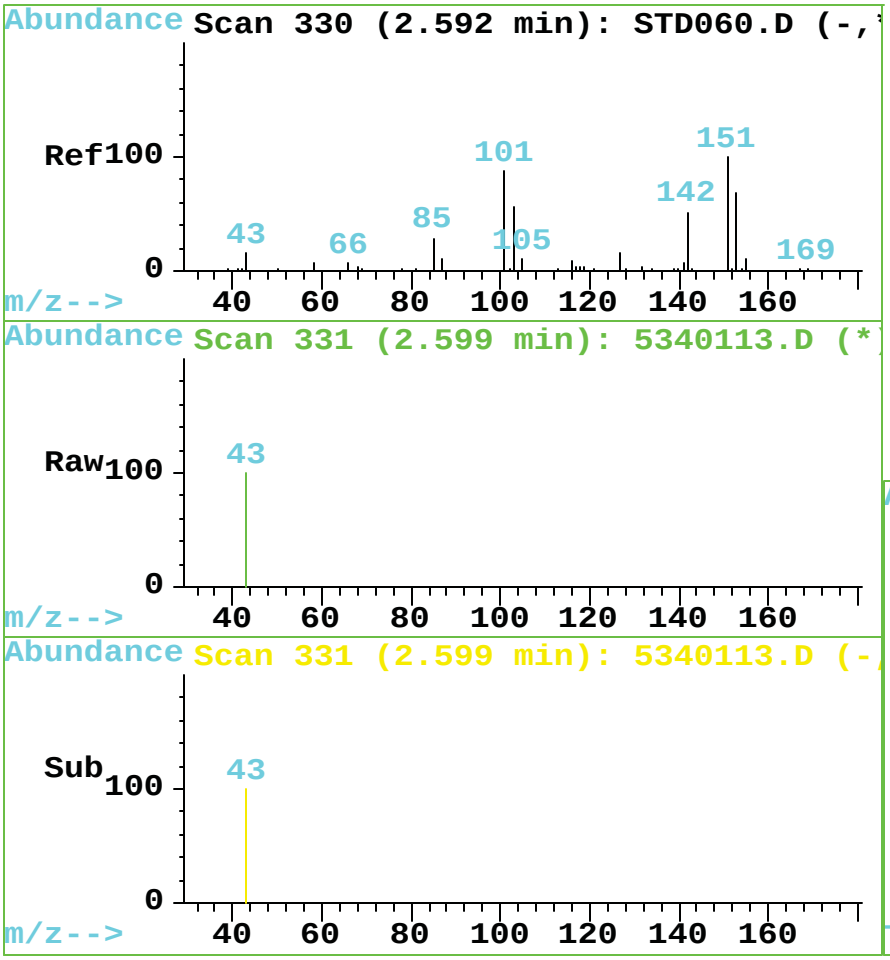
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340113.d Vial: 21
Acq On : 3 Aug 12 7:34 pm Operator: lbr
Sample : 100ul 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

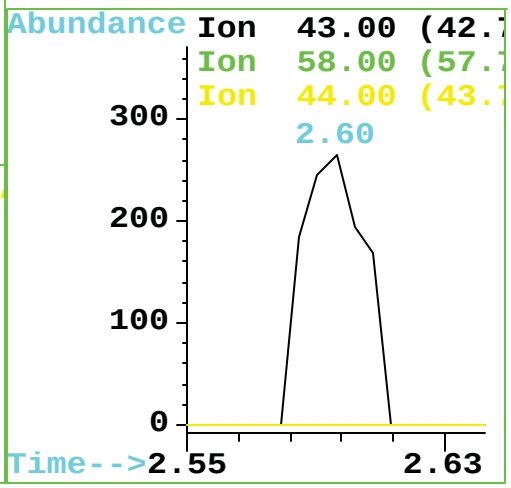


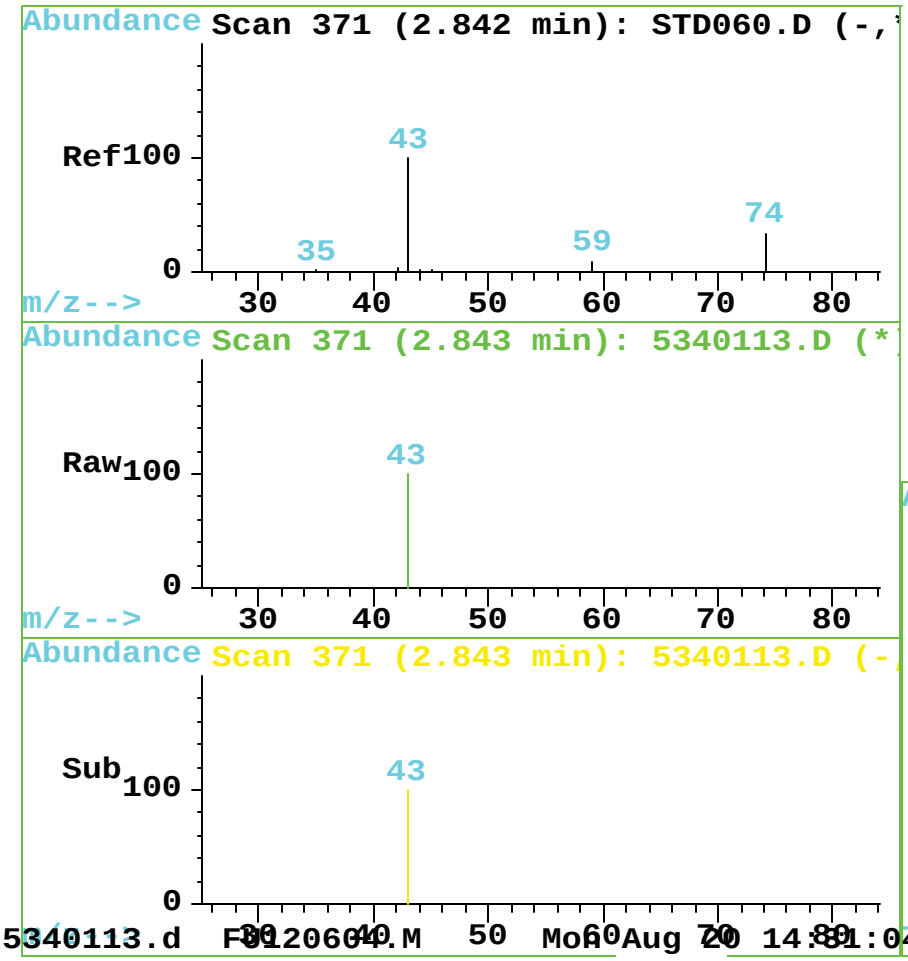


#5
Acetone (*)
Concen: 2.01 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5340113.d
Acq: 3 Aug 12 7:34 pm

Tgt Ion:43 Resp: 387

Ion	Ratio	Lower	Upper
43	100		
58	0.0	2.5	62.5#
44	0.0	0.0	32.2
0	0.0	0.0	0.0

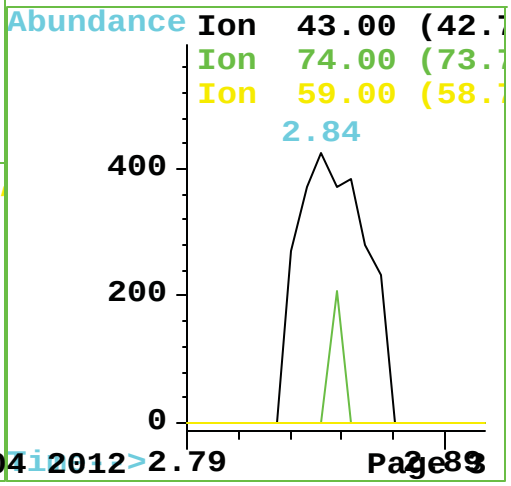


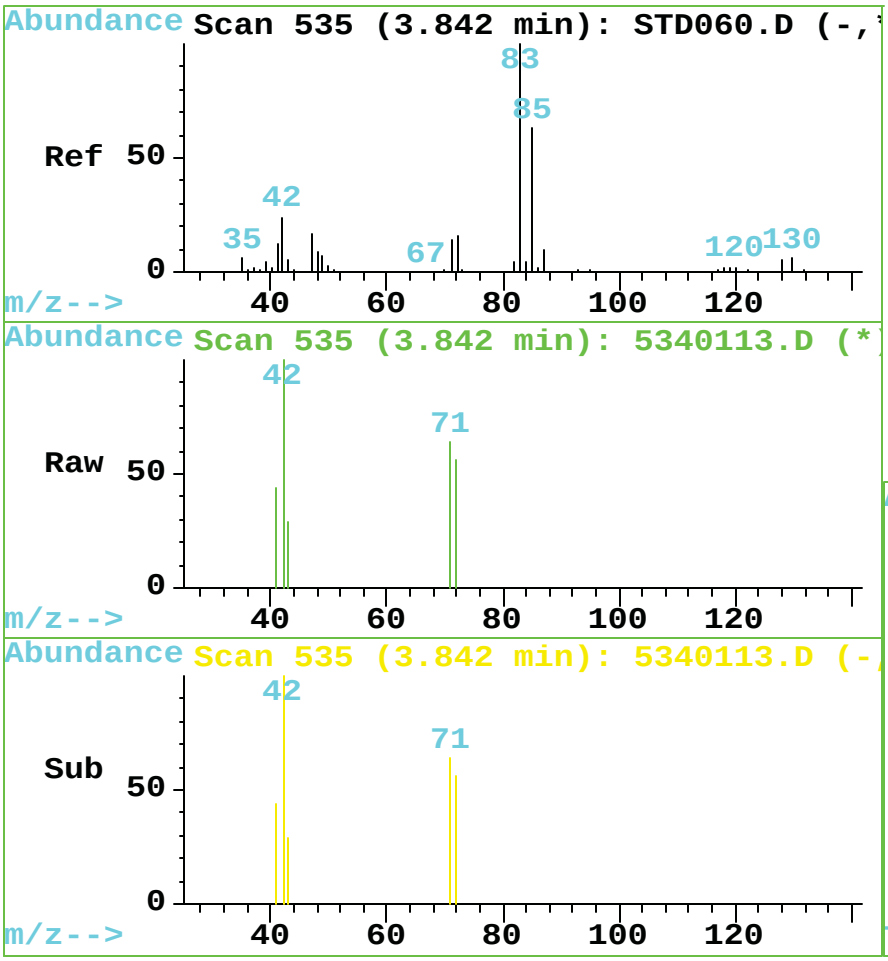


#8
Methyl Acetate
Concen: 1.22 ug/l
RT: 2.84 min Scan# 371
Delta R.T. 0.01 min
Lab File: 5340113.d
Acq: 3 Aug 12 7:34 pm

Tgt Ion:43 Resp: 853

Ion	Ratio	Lower	Upper
43	100		
74	8.9	4.8	64.8
59	0.0	0.0	40.3
0	0.0	0.0	0.0

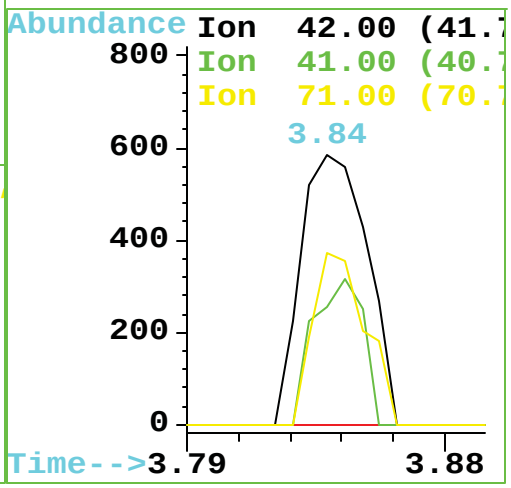




#24
Tetrahydrofuran
Concen: 3.31 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340113.d
Acq: 3 Aug 12 7:34 pm

Tgt Ion:42 Resp: 947

Ion	Ratio	Lower	Upper
42	100		
41	40.5	222.5	282.5#
71	50.5	24.9	84.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340114m.d Vial: 22
Acq On : 3 Aug 12 7:54 pm Operator: lbr
Sample : 100ul 1s0803 ms 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:51 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	517483	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	585362	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	216235	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	280540	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	97971	50.07	ug/l		100.1
31) TOLUENE-D8 (S)	5.02	98	602770	50.96	ug/l		101.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	258156	50.20	ug/l		100.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	163116	49.02	ug/l		9
4) Diethyl ether (*)	2.34	74	43163	45.15	ug/l		9
5) Acetone (*)	2.59	43	10847	56.31	ug/l	#	8
6) Methyl iodide (iodomethane	2.62	142	315125	45.10	ug/l		9
7) Carbon disulfide (*)	2.67	76	398774	40.34	ug/l		9
8) Methyl Acetate	2.84	43	31144	44.58	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	236999	49.10	ug/l		9
10) Acrylonitrile (*)	3.07	53	20190	47.59	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	16018	53.60	ug/l		9
12) Dichlorodifluoromethane	1.23	85	101452	48.43	ug/l		9
13) Chloromethane (SPCC)	1.33	50	106595	44.91	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	121012	45.31	ug/l		9
15) Bromomethane	1.73	94	55952	47.17	ug/l		9
16) Chloroethane	1.82	64	28721	50.44	ug/l		9
18) Trichlorofluoromethane	2.11	101	166622	53.54	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	140391	42.47	ug/l		8
20) Methylene Chloride	2.90	84	133164	41.67	ug/l		9
21) trans-1,2-Dichloroethene	3.07	61	150496	43.72	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.34	63	185860	43.12	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	158235	43.93	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11919	41.75	ug/l	#	
25) Chloroform (CCC)	3.85	83	204999	44.24	ug/l		9
26) Bromochloromethane	3.81	130	102840	44.62	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	218822	48.23	ug/l	#	4
28) 1,1-Dichloropropene	4.14	75	8503	2.24	ug/l	#	
29) Cyclohexane	3.98	42	38751	36.97	ug/l	#	2
32) 4-Methyl-2-pentanone (MIBK	4.96	58	18810	50.39	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	16444	56.52	ug/l		9
35) Carbon Tetrachloride	4.04	117	210069	50.61	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340114m.d Vial: 22
Acq On : 3 Aug 12 7:54 pm Operator: lbr
Sample : 100ul 1s0803 ms 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:51 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.14	78	525556	44.92	ug/l		9
37)	1,2-Dichloroethane	4.15	62	101678	47.98	ug/l		9
38)	Trichloroethene (MS)	4.45	95	149845	46.94	ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	100707	44.28	ug/l		9
40)	Bromodichloromethane	4.68	83	138271	48.62	ug/l		9
41)	Methyl Cyclohexane	4.54	55	161061	48.73	ug/l		8
42)	Dibromomethane	4.62	174	109702	49.64	ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	171129	48.25	ug/l		9
44)	Toluene (CCC/MS)	5.05	91	648272	47.22	ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	136221	51.06	ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	70309	47.88	ug/l		9
47)	Tetrachloroethene	5.31	166	264224	46.57	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	15061	50.40	ug/l	#	7
51)	Dibromochloromethane	5.42	129	126848	51.42	ug/l		9
52)	1,2-Dibromoethane	5.48	107	99689	50.25	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	458536	45.79	ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	164697	49.22	ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	709103	47.23	ug/l		9
56)	p,m-Xylene	5.79	106	602508	93.94	ug/l		9
57)	o-Xylene	5.98	91	550494	48.09	ug/l		9
58)	Styrene	5.99	104	442921	47.55	ug/l		9
59)	Isopropylbenzene	6.15	105	815448	48.28	ug/l		9
60)	Bromoform (SPCC)	6.09	173	85467	49.67	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.28	83	92422	50.00	ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	31265	51.30	ug/l	#	8
63)	n-Propylbenzene	6.34	91	834220	48.04	ug/l		9
64)	Bromobenzene	6.31	156	223121	46.84	ug/l		8
65)	1,3,5-Trimethylbenzene	6.42	120	368802	47.34	ug/l		9
66)	tert-Butylbenzene	6.58	91	388456	48.75	ug/l		9
67)	1,2,4-Trimethylbenzene	6.60	120	397323	48.28	ug/l		9
69)	sec-Butylbenzene	6.68	105	899011	50.56	ug/l		9
70)	p-Isopropyltoluene	6.75	119	778220	51.84	ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	395900	48.28	ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	390941	46.44	ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	370990	48.66	ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	603461	48.61	ug/l		9
75)	n-Butylbenzene	6.95	91	577155	48.52	ug/l		9
76)	Hexachloroethane	7.10	201	164014	46.11	ug/l		9
77)	1,2-Dibromo-3-Chloropropan	7.34	157	23822	56.22	ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	257272	49.43	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340114m.d Vial: 22
Acq On : 3 Aug 12 7:54 pm Operator: lbr
Sample : 100ul 1s0803 ms 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:51 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

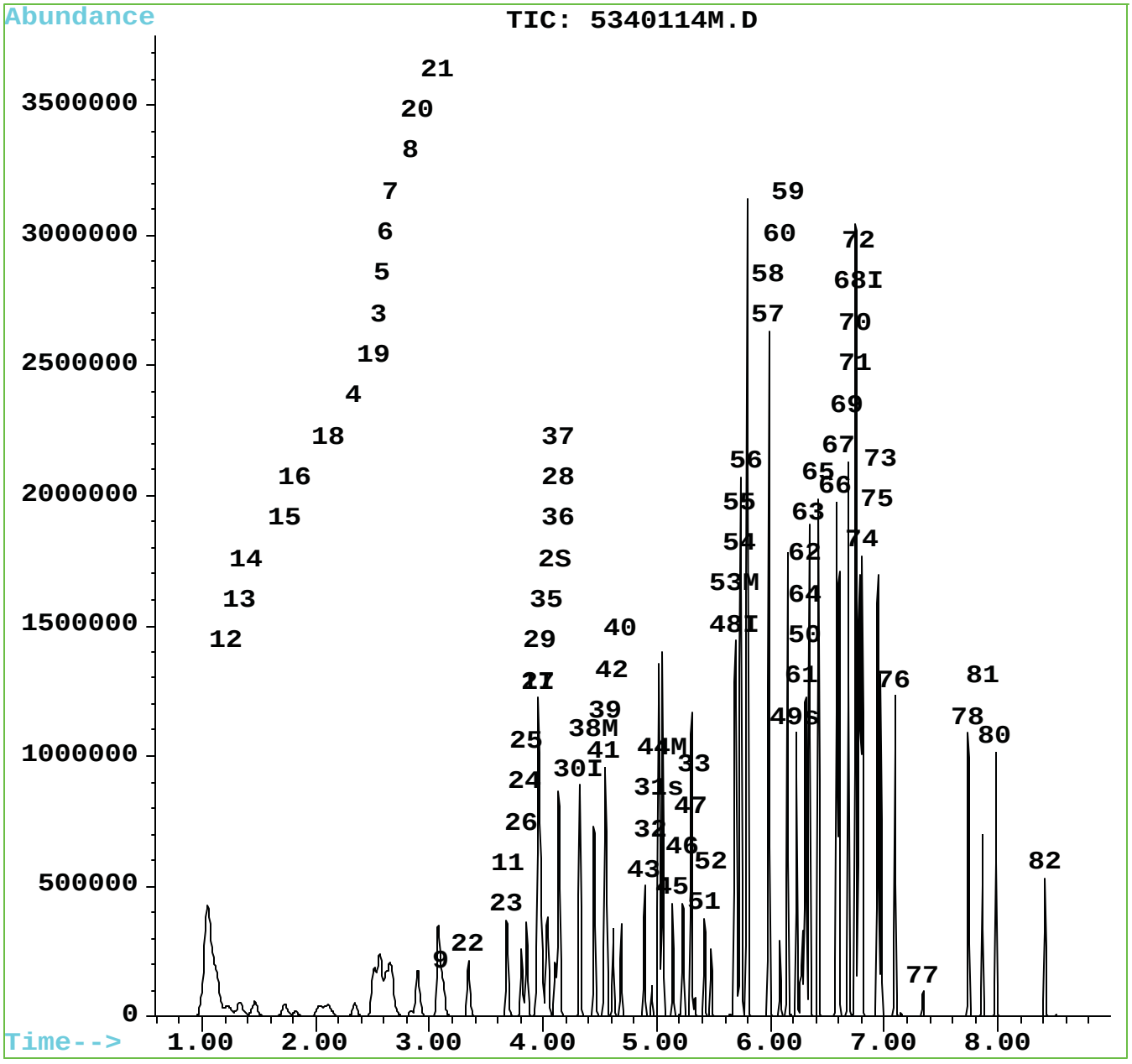
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	222071	52.19 ug/l	9
81)	Naphthalene	7.87	128	367736	57.74 ug/l	9
82)	2-Methylnaphthalene	8.41	142	162831	50.48 ug/l	9

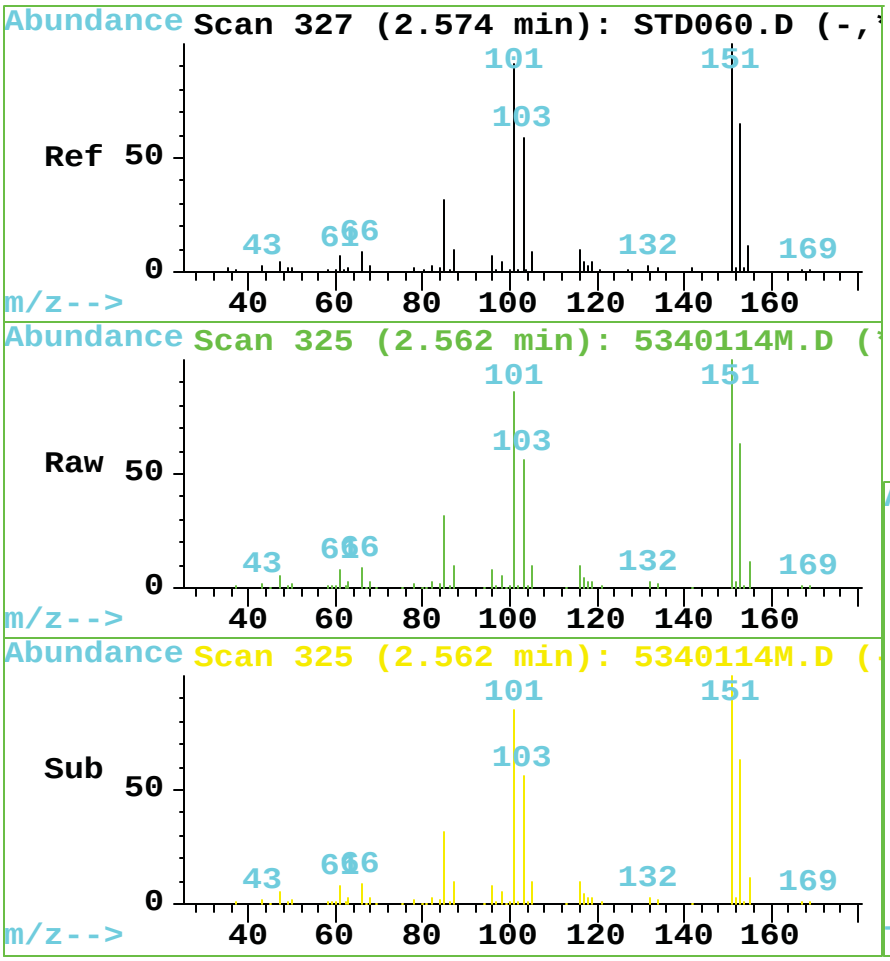
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340114m.d Vial: 22
Acq On : 3 Aug 12 7:54 pm Operator: lbr
Sample : 100ul 1s0803 ms 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:51 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

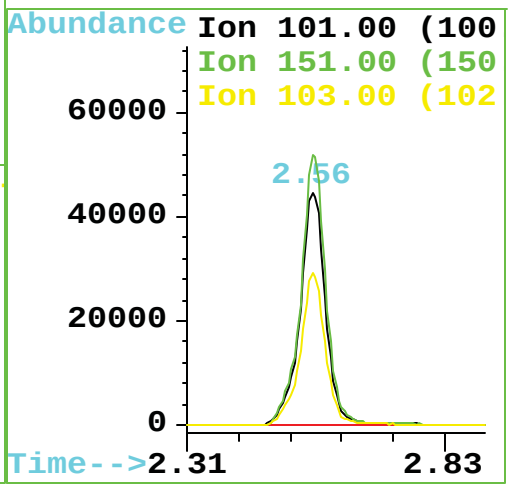


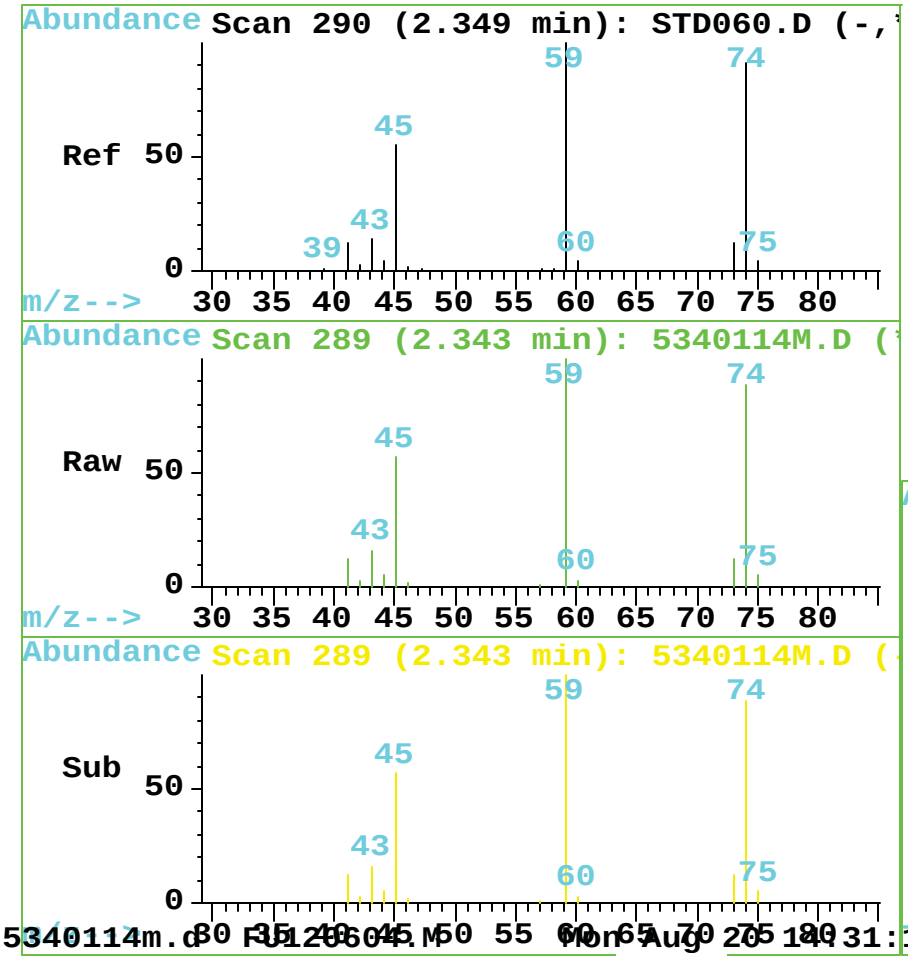


#3
1,1,2-Trichloro-1,2,2-trif
Concen: 49.02 ug/l
RT: 2.56 min Scan# 325
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:101 Resp: 163116

Ion	Ratio	Lower	Upper
101	100		
151	114.6	76.1	136.1
103	64.5	35.2	95.2
0	0.0	0.0	0.0

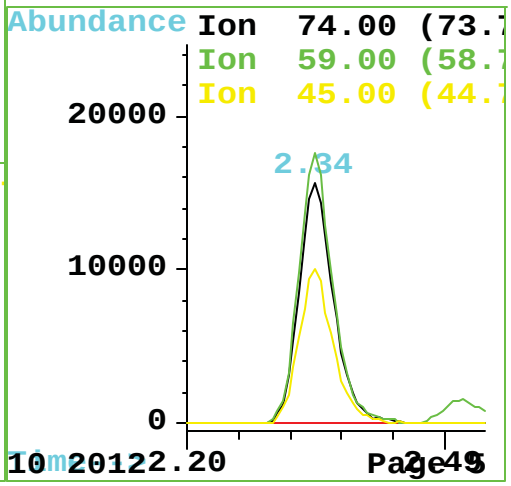


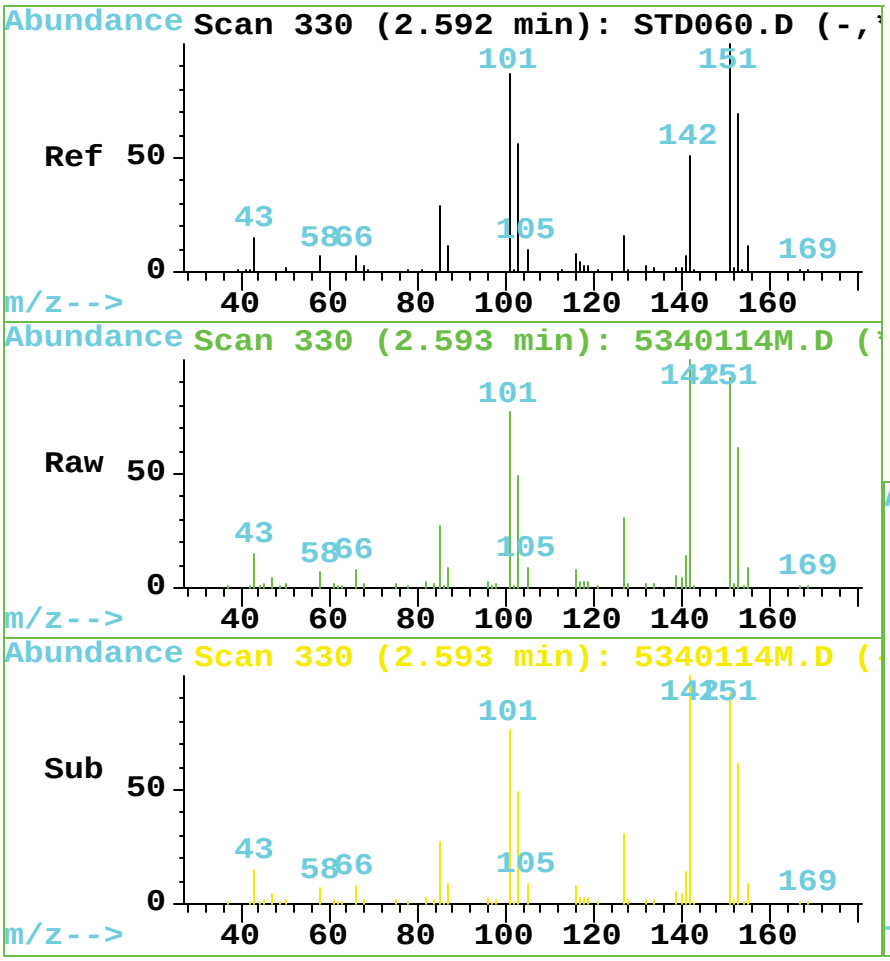


#4
Diethyl ether (*)
Concen: 45.15 ug/l
RT: 2.34 min Scan# 289
Delta R.T. 0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:74 Resp: 43163

Ion	Ratio	Lower	Upper
74	100		
59	110.3	86.2	146.2
45	63.1	37.4	97.4
0	0.0	0.0	0.0

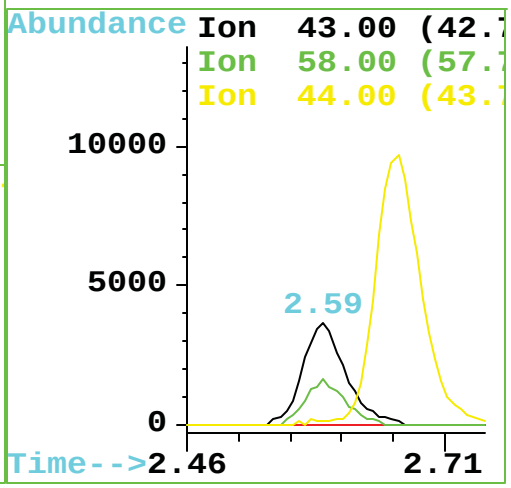


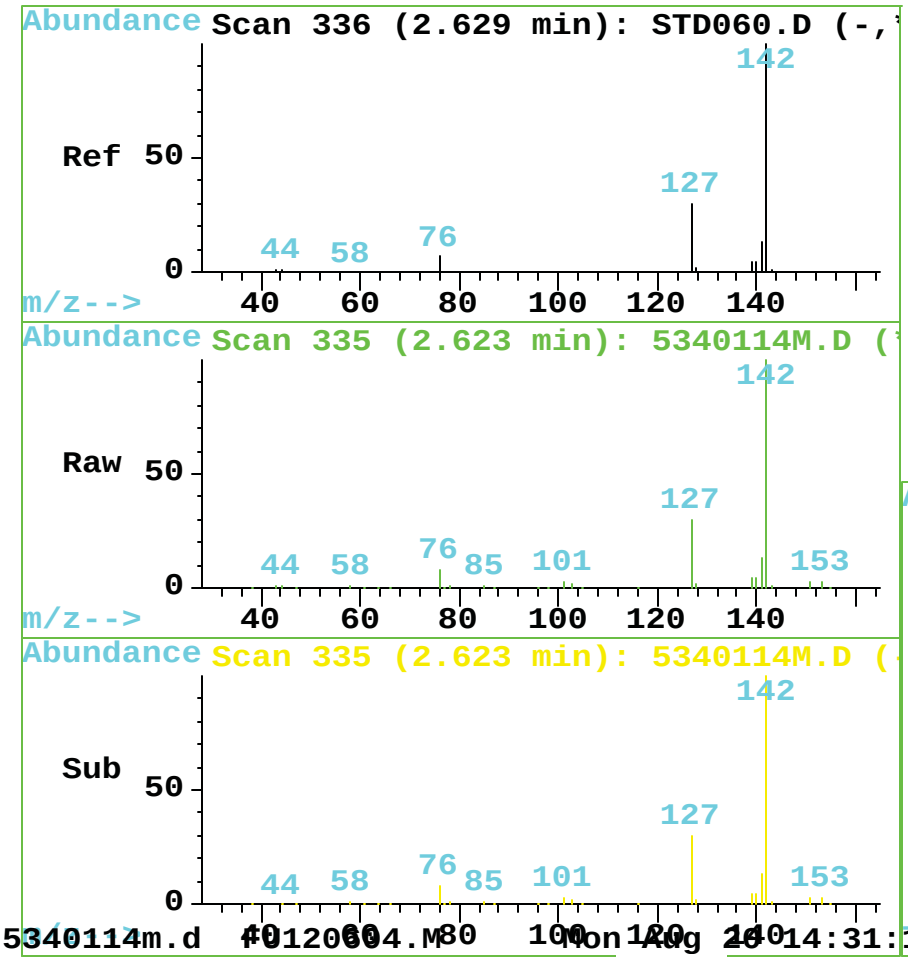


#5
Acetone (*)
Concen: 56.31 ug/l
RT: 2.59 min Scan# 330
Delta R.T. 0.02 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:43 Resp: 10847

Ion	Ratio	Lower	Upper
43	100		
58	40.5	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

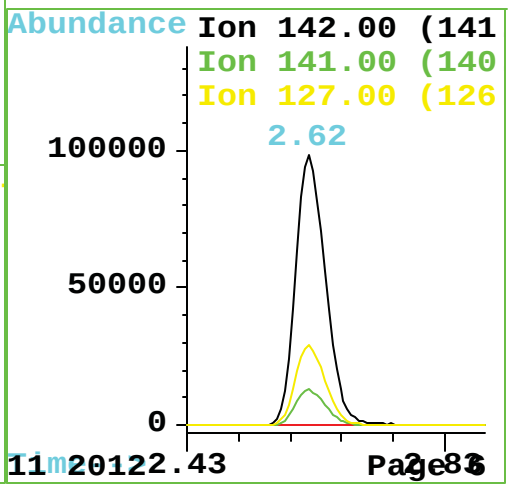


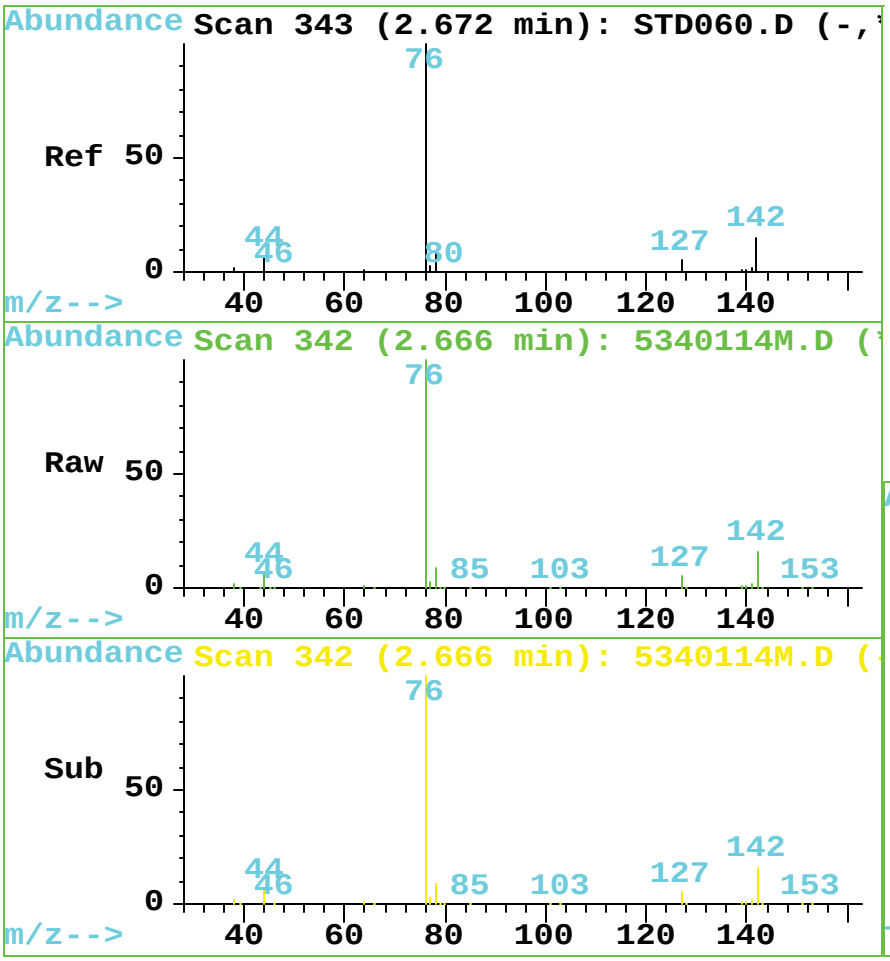


#6
Methyl iodide (iodomethane
Concen: 45.10 ug/l
RT: 2.62 min Scan# 335
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:142 Resp: 315125

Ion	Ratio	Lower	Upper
142	100		
141	13.2	0.0	43.8
127	29.7	5.1	65.1
0	0.0	0.0	0.0

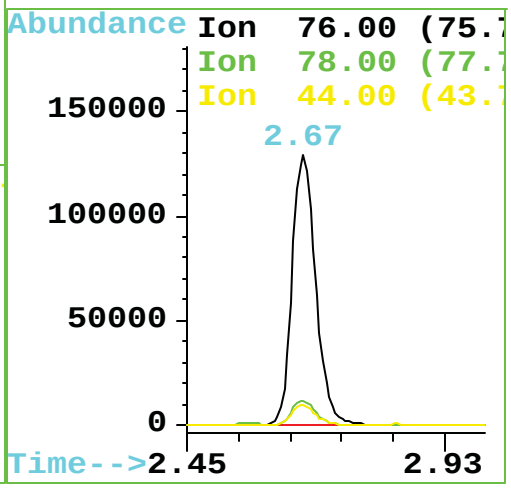


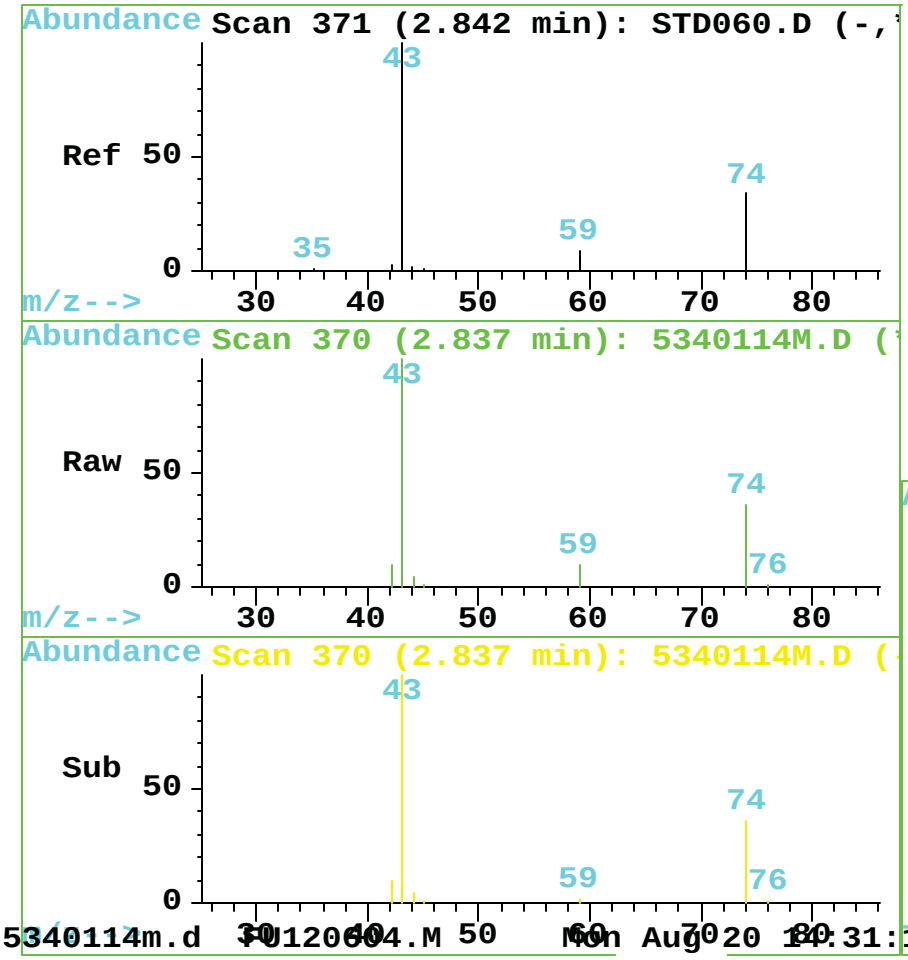


#7
Carbon disulfide (*)
Concen: 40.34 ug/l
RT: 2.67 min Scan# 342
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:76 Resp: 398774

Ion	Ratio	Lower	Upper
76	100		
78	9.2	0.0	39.3
44	7.7	0.0	40.9
0	0.0	0.0	0.0

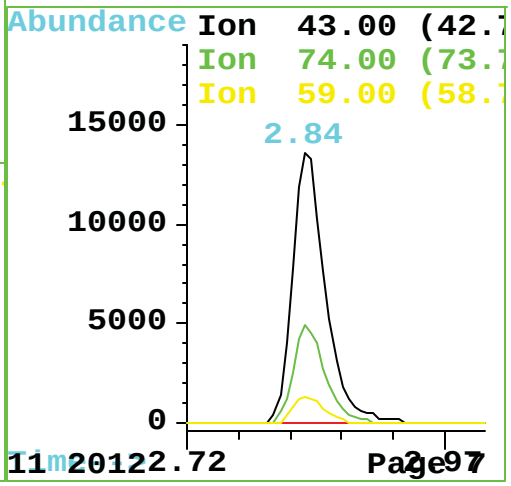


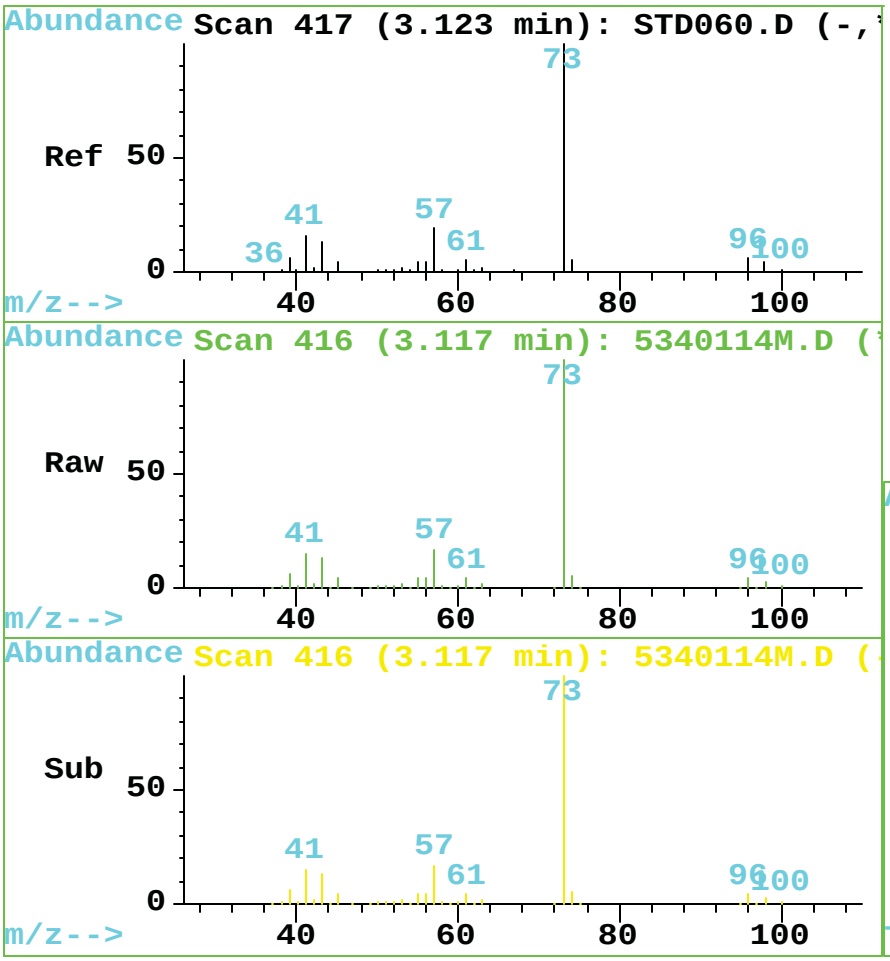


#8
Methyl Acetate
Concen: 44.58 ug/l
RT: 2.84 min Scan# 370
Delta R.T. 0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:43 Resp: 31144

Ion	Ratio	Lower	Upper
43	100		
74	34.7	4.8	64.8
59	9.2	0.0	40.3
0	0.0	0.0	0.0

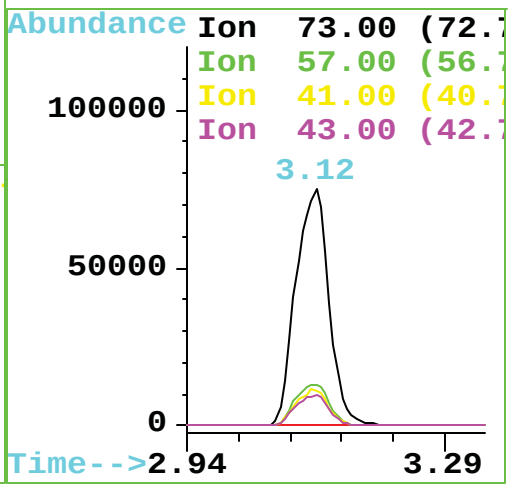


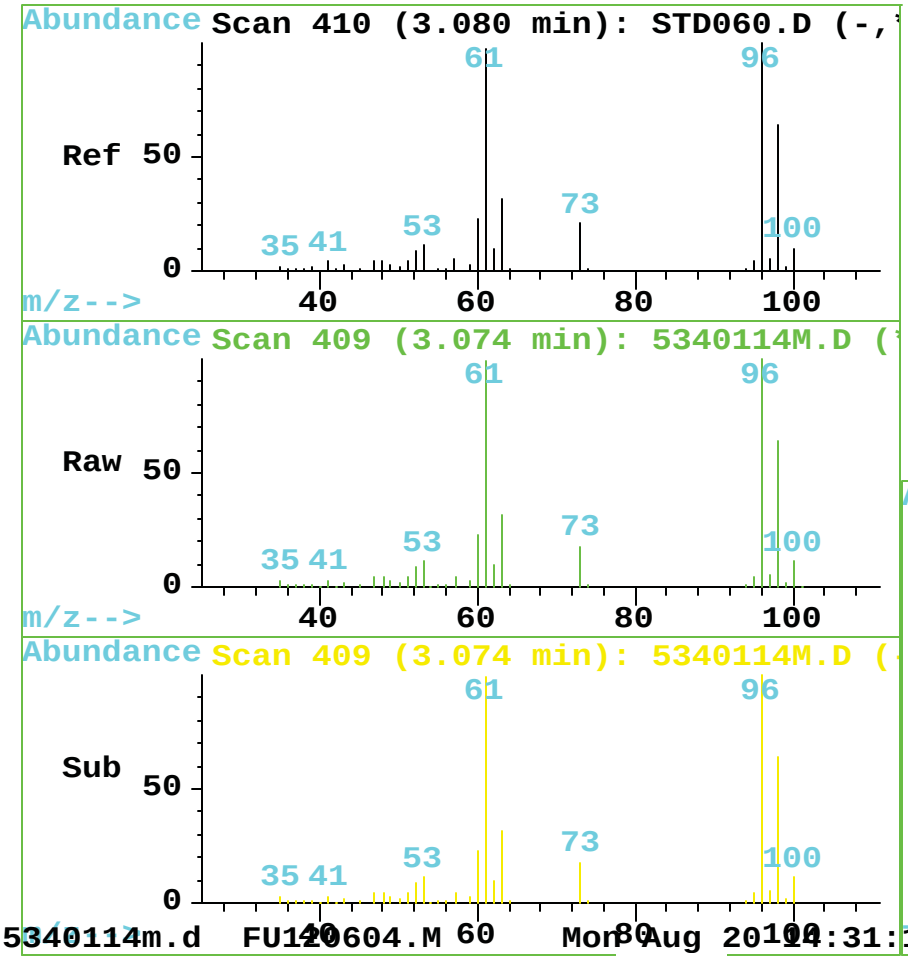


#9
tert-Methyl butyl ether (M
Concen: 49.10 ug/l
RT: 3.12 min Scan# 416
Delta R.T. 0.02 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:73 Resp: 236999

Ion	Ratio	Lower	Upper
73	100		
57	18.3	0.0	48.6
41	15.3	0.0	46.3
43	13.3	0.0	47.6

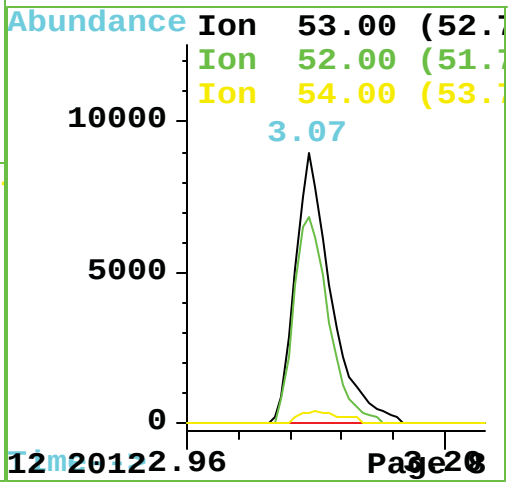


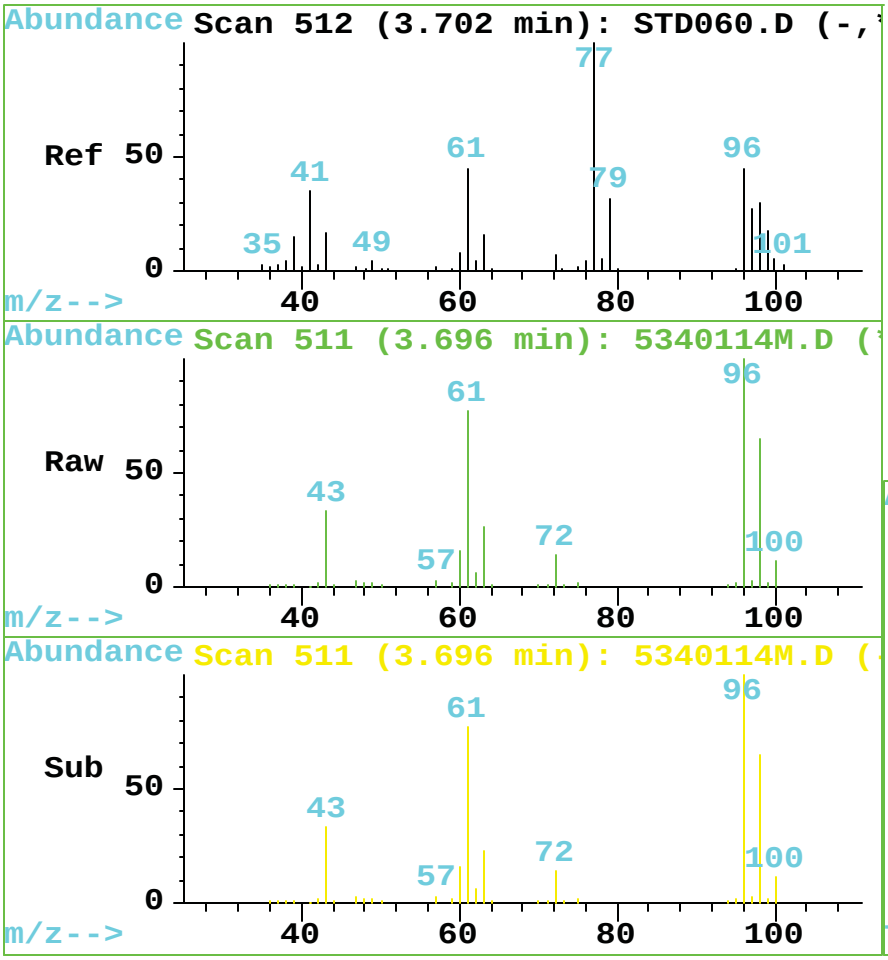


#10
Acrylonitrile (*)
Concen: 47.59 ug/l
RT: 3.07 min Scan# 409
Delta R.T. 0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:53 Resp: 20190

Ion	Ratio	Lower	Upper
53	100		
52	74.1	45.4	105.4
54	5.0	0.0	32.6
0	0.0	0.0	0.0

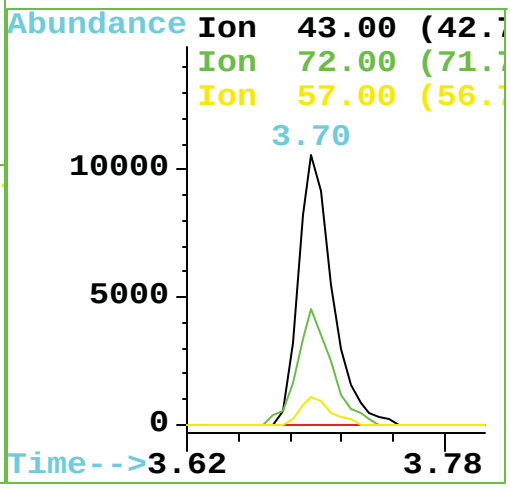


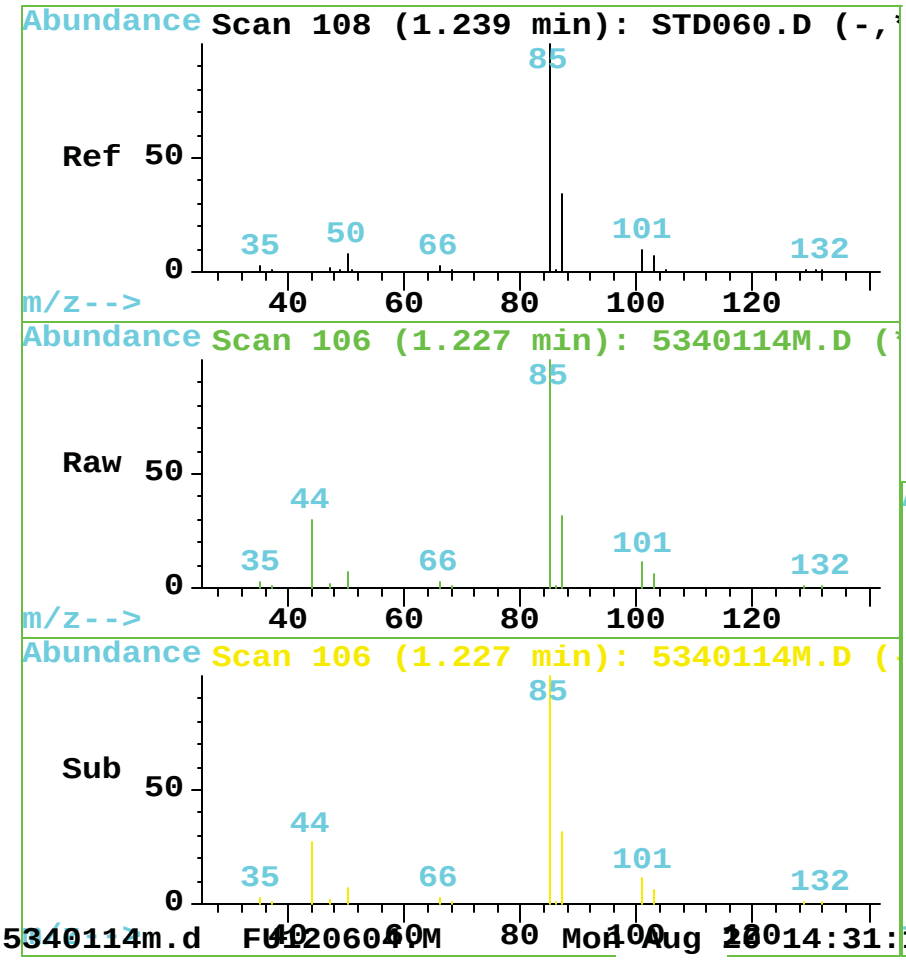


#11
2-Butanone (MEK) (*)
Concen: 53.60 ug/l
RT: 3.70 min Scan# 511
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:43 Resp: 16018

Ion	Ratio	Lower	Upper
43	100		
72	43.6	9.3	69.3
57	9.4	0.0	38.8
0	0.0	0.0	0.0

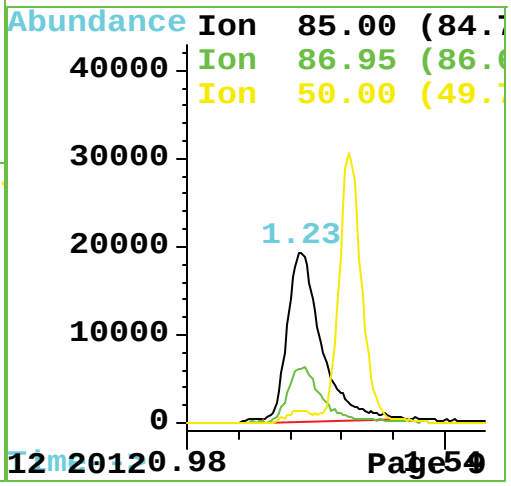


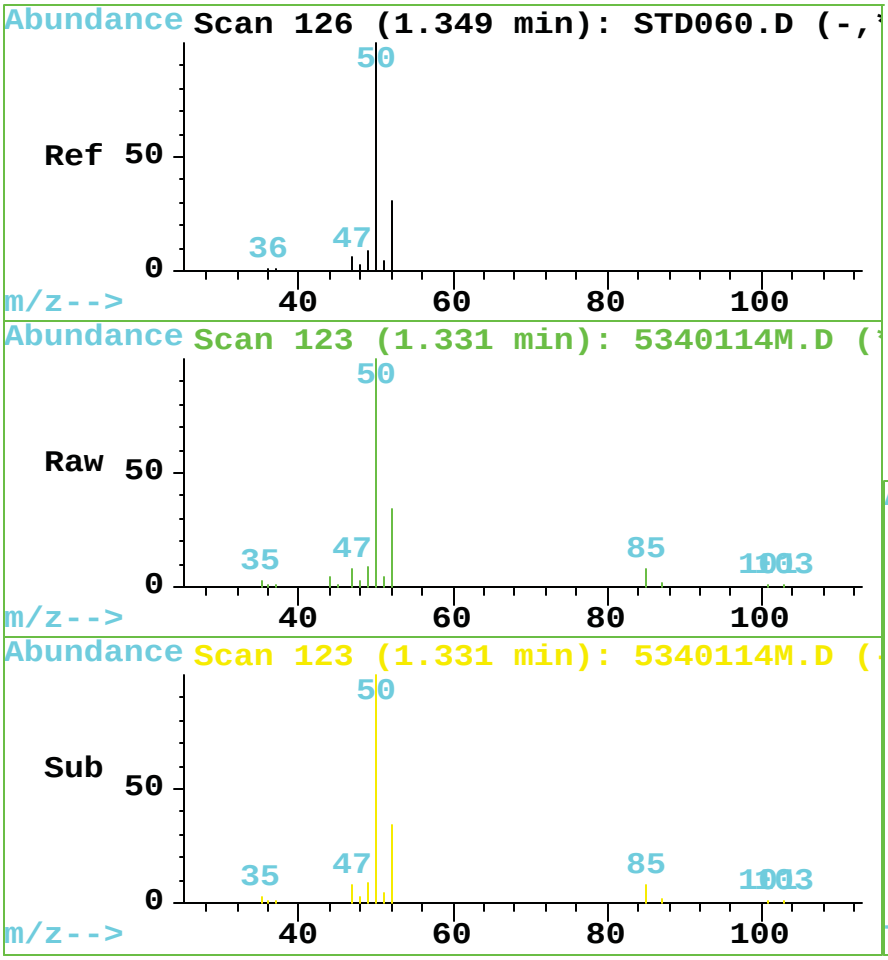


#12
Dichlorodifluoromethane
Concen: 48.43 ug/l
RT: 1.23 min Scan# 106
Delta R.T. -0.02 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:85 Resp: 101452

Ion	Ratio	Lower	Upper
85	100		
87	34.0	2.5	62.5
50	5.8	0.0	36.8
0	0.0	0.0	0.0

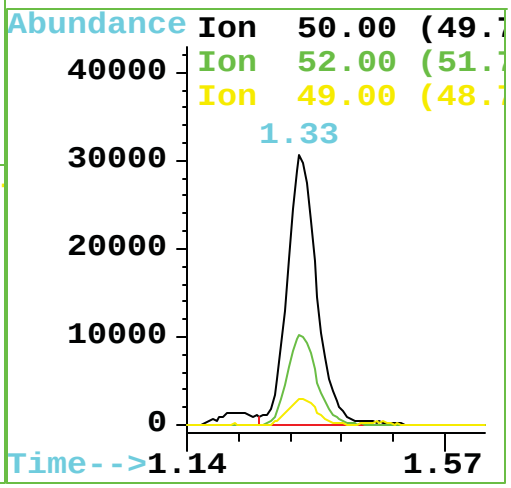


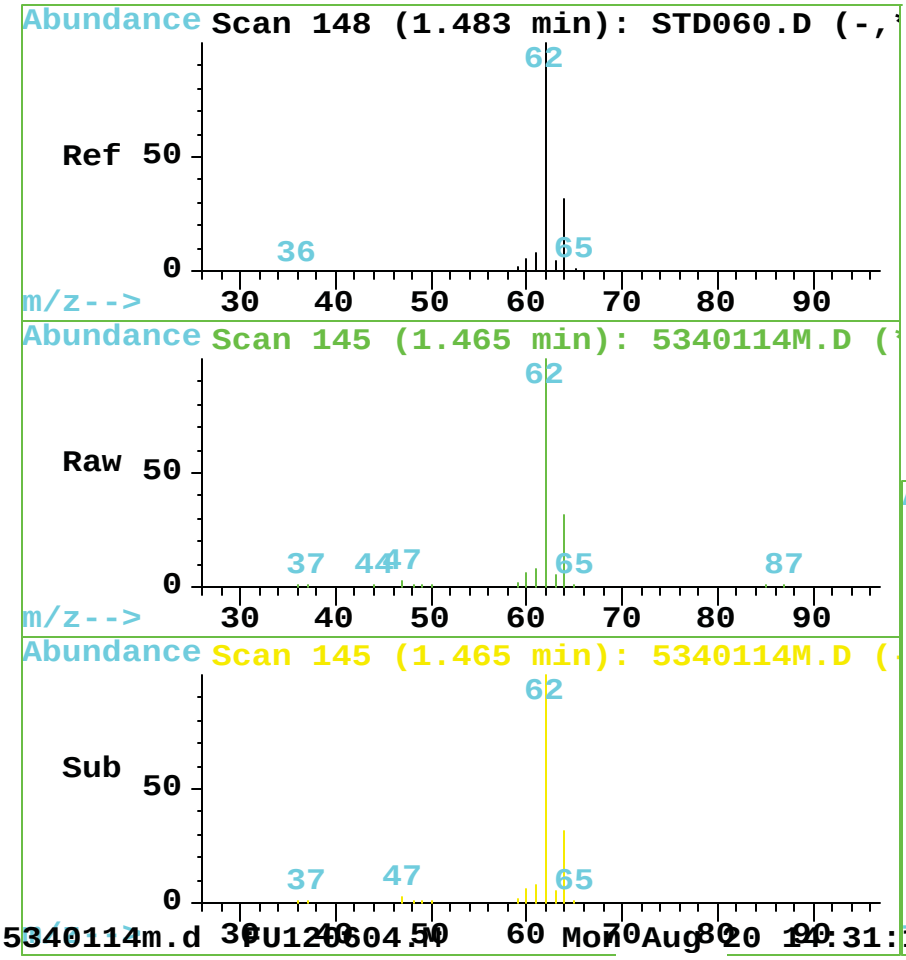


#13
Chloromethane (SPCC)
Concen: 44.91 ug/l
RT: 1.33 min Scan# 123
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:50 Resp: 106595

Ion	Ratio	Lower	Upper
50	100		
52	33.1	2.5	62.5
49	9.5	0.0	41.2
0	0.0	0.0	0.0

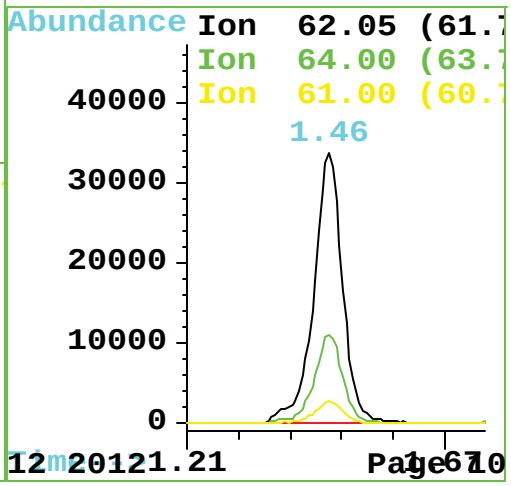


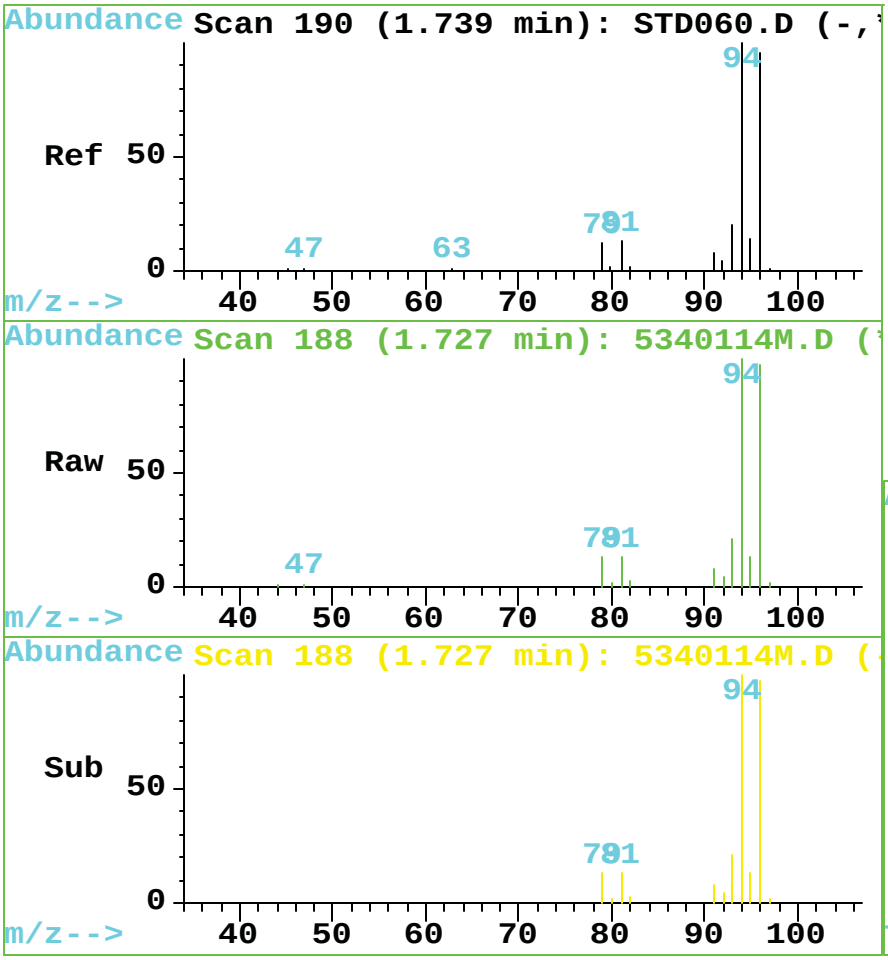


#14
Vinyl Chloride (CCC)
Concen: 45.31 ug/l
RT: 1.46 min Scan# 145
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:62.05 Resp: 12101

Ion	Ratio	Lower	Upper
62	100		
64	32.4	3.8	63.8
61	7.8	0.0	38.3
0	0.0	0.0	0.0

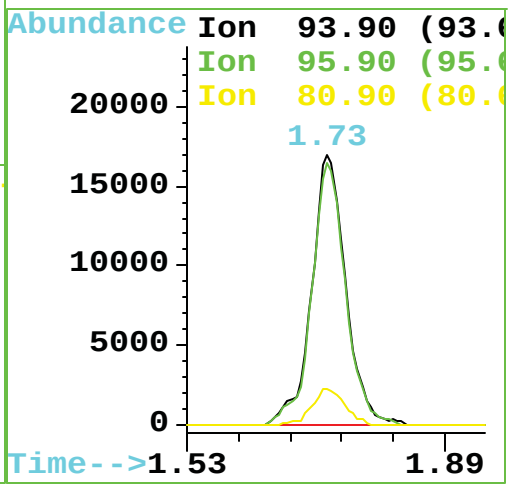


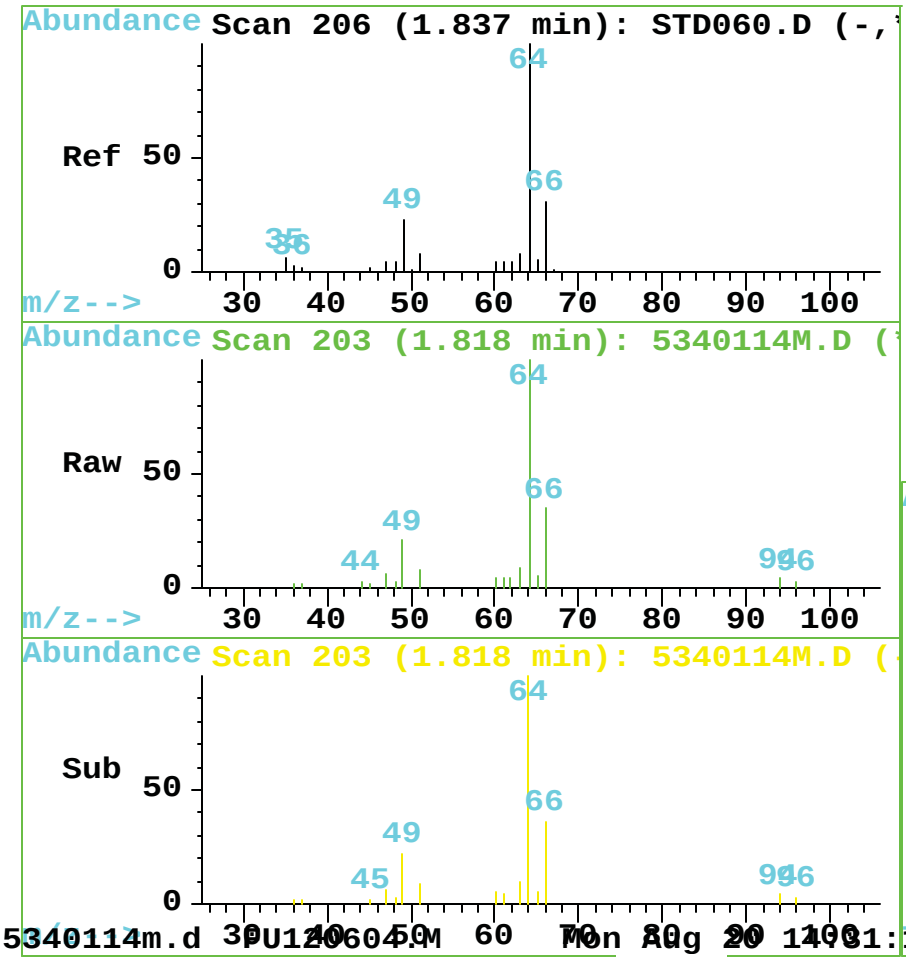


#15
Bromomethane
Concen: 47.17 ug/l
RT: 1.73 min Scan# 188
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:93.9 Resp: 55952

Ion	Ratio	Lower	Upper
94	100		
96	96.7	64.8	124.8
81	13.0	0.0	43.5
0	0.0	0.0	0.0

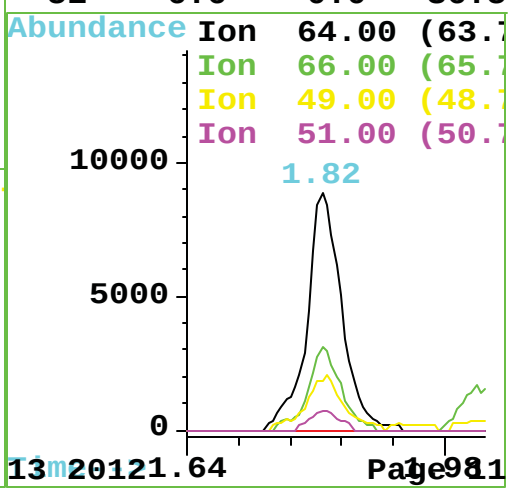


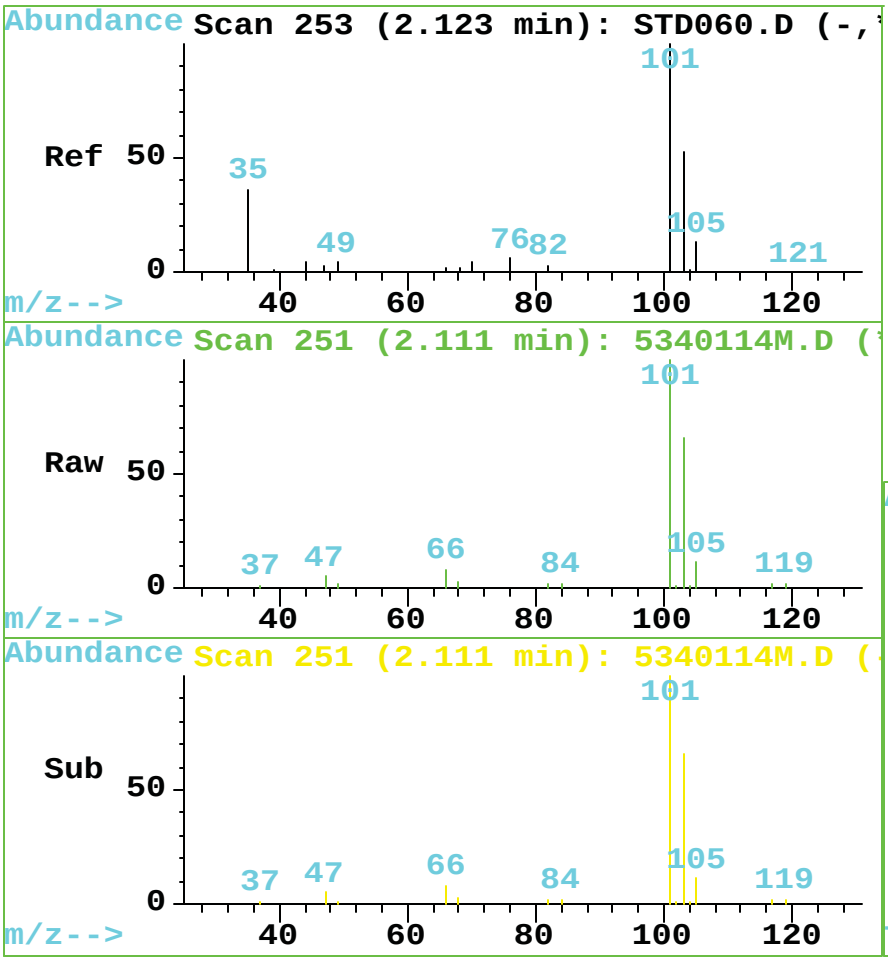


#16
Chloroethane
Concen: 50.44 ug/l
RT: 1.82 min Scan# 203
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:64 Resp: 28721

Ion	Ratio	Lower	Upper
64	100		
66	32.5	2.8	62.8
49	25.1	0.0	54.8
51	6.6	0.0	36.5

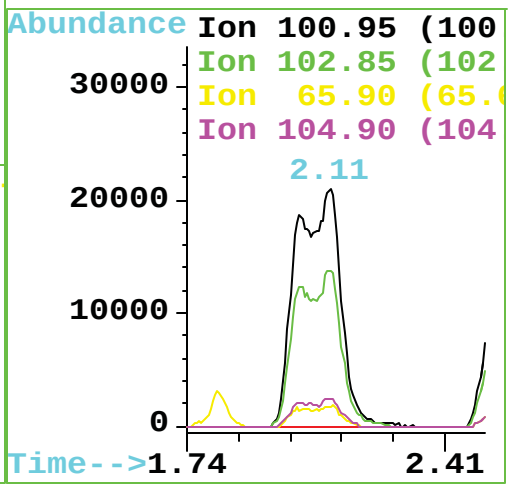


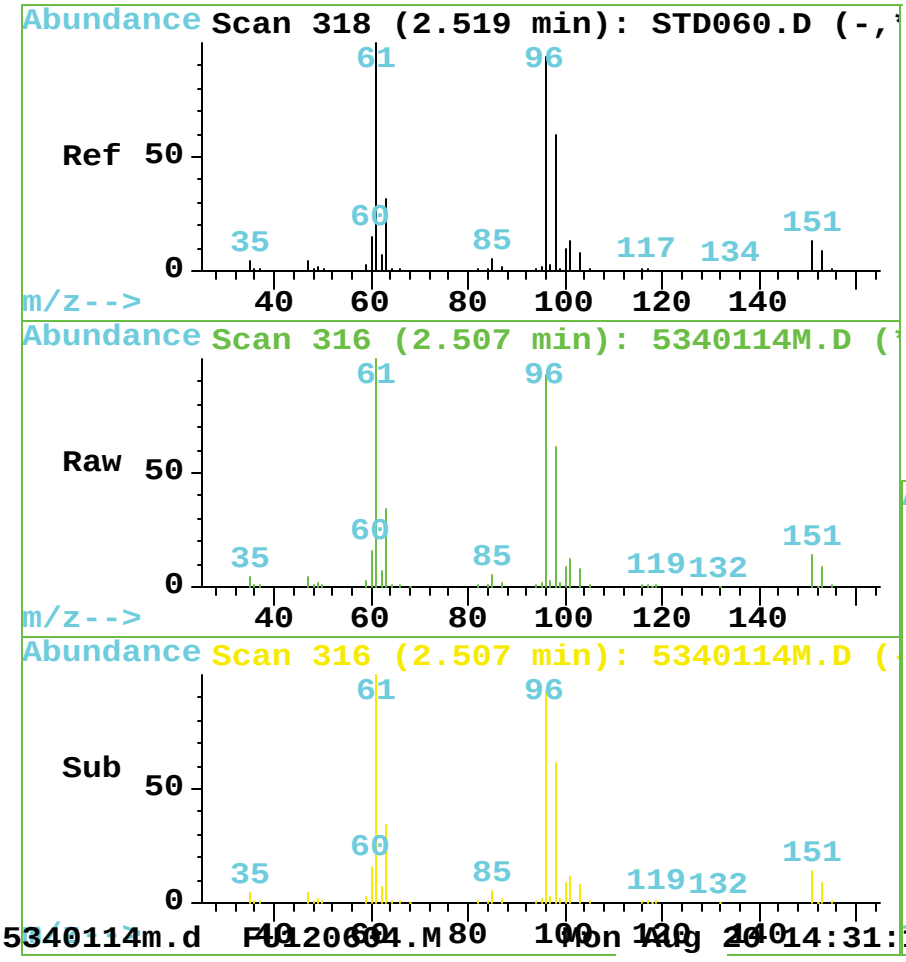


#18
Trichlorofluoromethane
Concen: 53.54 ug/l m
RT: 2.11 min Scan# 251
Delta R.T. 0.06 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:100.95 Resp: 1666

Ion	Ratio	Lower	Upper
101	100		
103	65.8	34.1	94.1
66	8.2	0.0	40.0
105	11.2	0.0	40.1

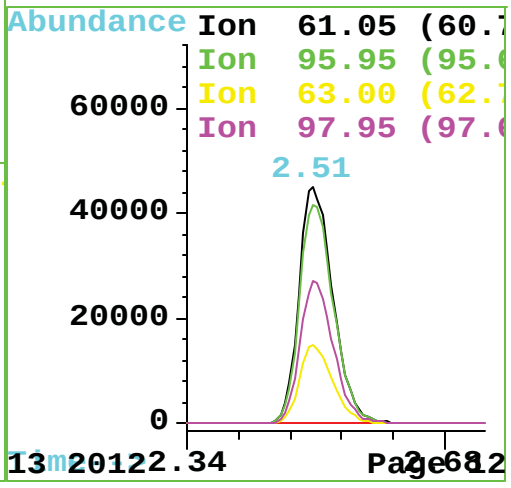


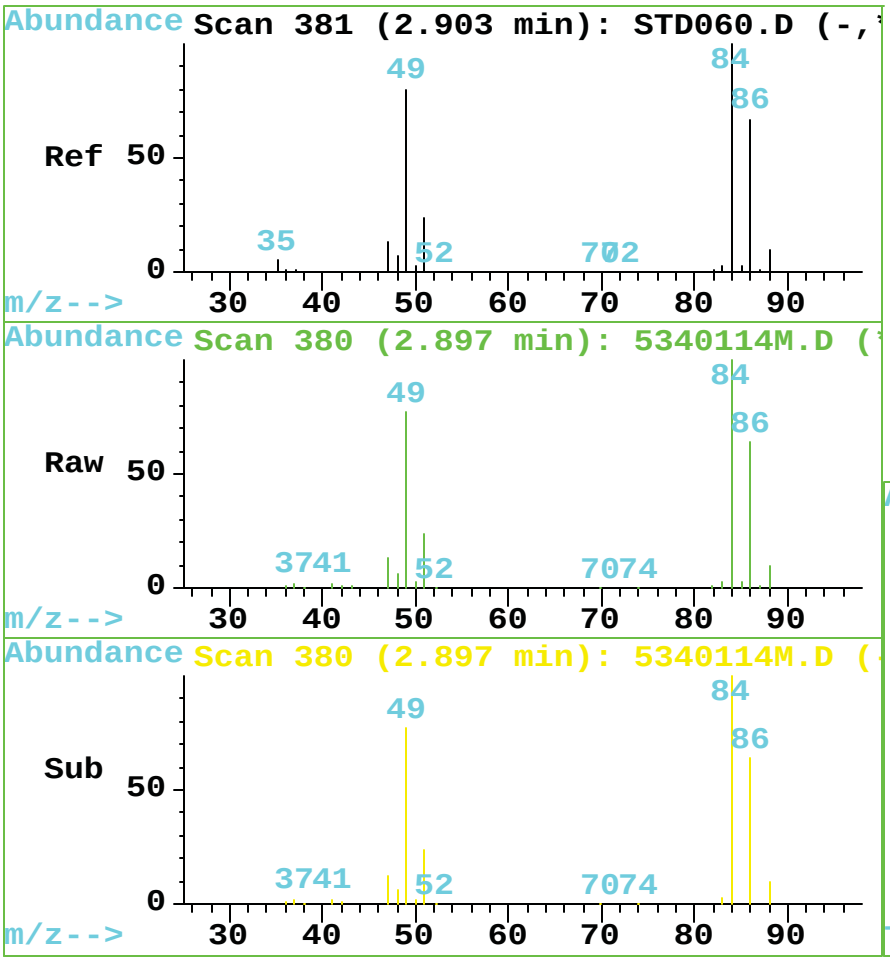


#19
1,1-Dichloroethene (CCC/MS
Concen: 42.47 ug/l
RT: 2.51 min Scan# 316
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:61.05 Resp: 14039

Ion	Ratio	Lower	Upper
61	100		
96	93.7	44.2	104.2
63	32.8	2.8	62.8
98	59.6	18.3	78.3

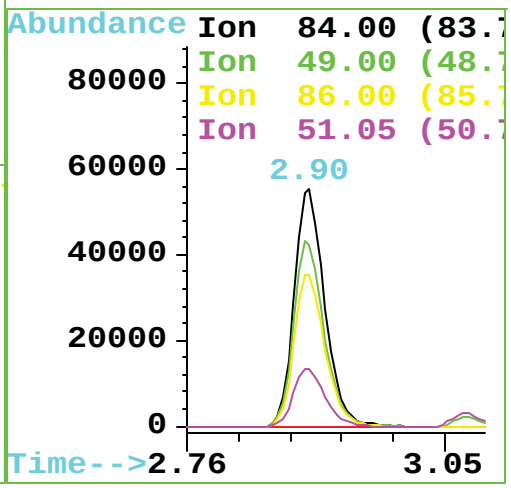


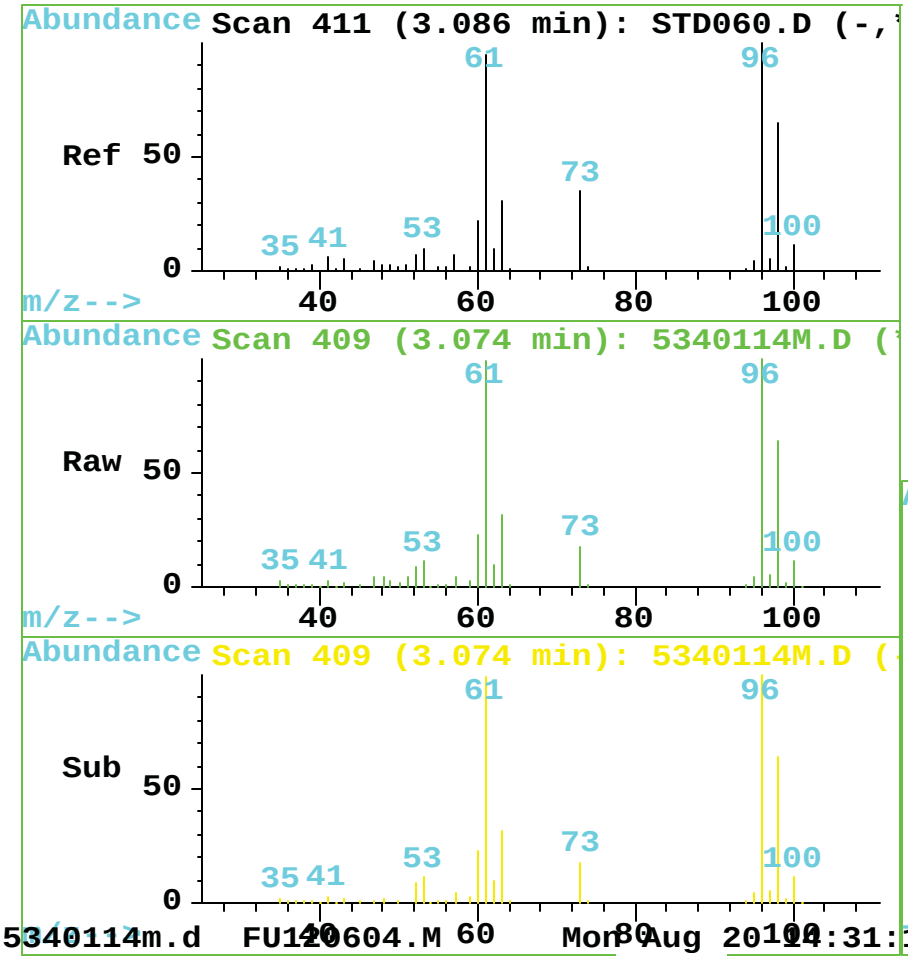


#20
Methylene Chloride
Concen: 41.67 ug/l
RT: 2.90 min Scan# 380
Delta R.T. 0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:84 Resp: 133164

Ion	Ratio	Lower	Upper
84	100		
49	78.2	59.2	119.2
86	64.7	34.7	94.7
51	24.7	0.0	58.1

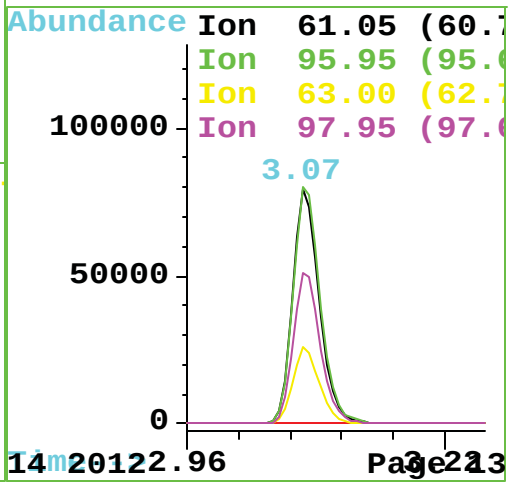


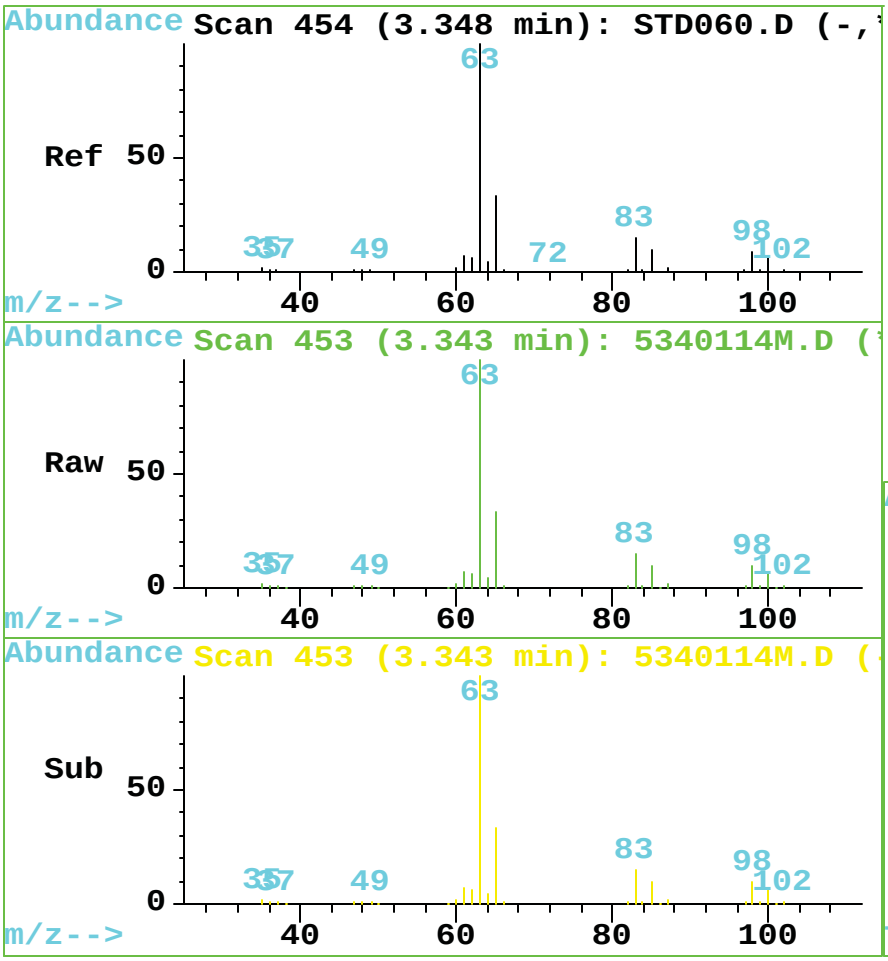


#21
trans-1,2-Dichloroethene
Concen: 43.72 ug/l
RT: 3.07 min Scan# 409
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:61.05 Resp: 15049

Ion	Ratio	Lower	Upper
61	100		
96	103.0	56.7	116.7
63	32.6	2.7	62.7
98	65.9	25.6	85.6

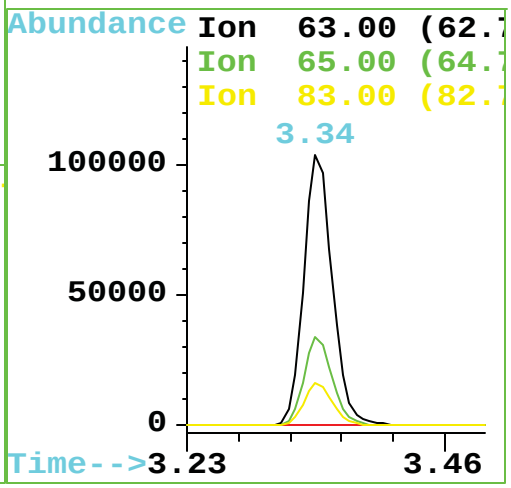


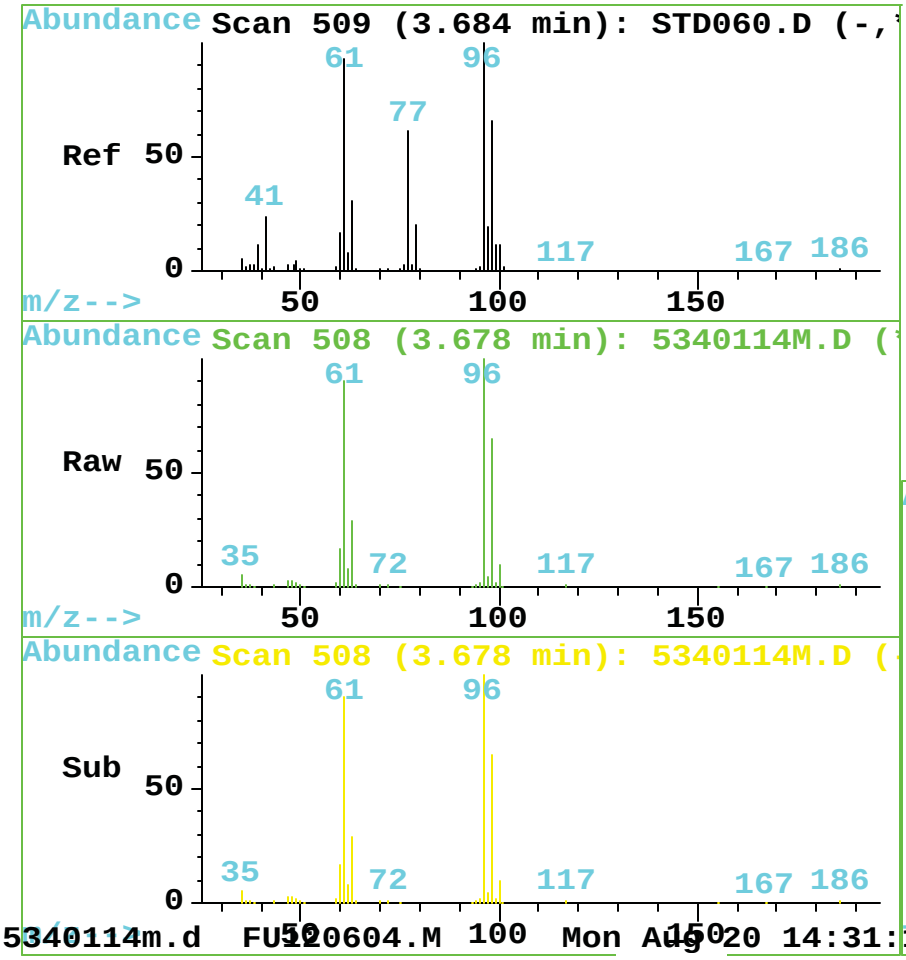


#22
1,1-Dichloroethane (SPCC)
Concen: 43.12 ug/l
RT: 3.34 min Scan# 453
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:63 Resp: 185860

Ion	Ratio	Lower	Upper
63	100		
65	32.2	2.0	62.0
83	15.5	0.0	44.9
0	0.0	0.0	0.0

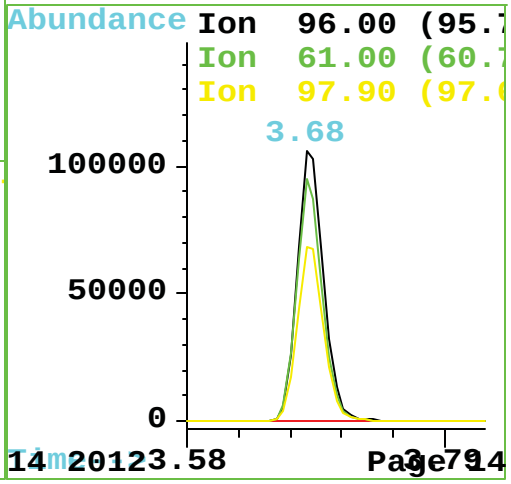


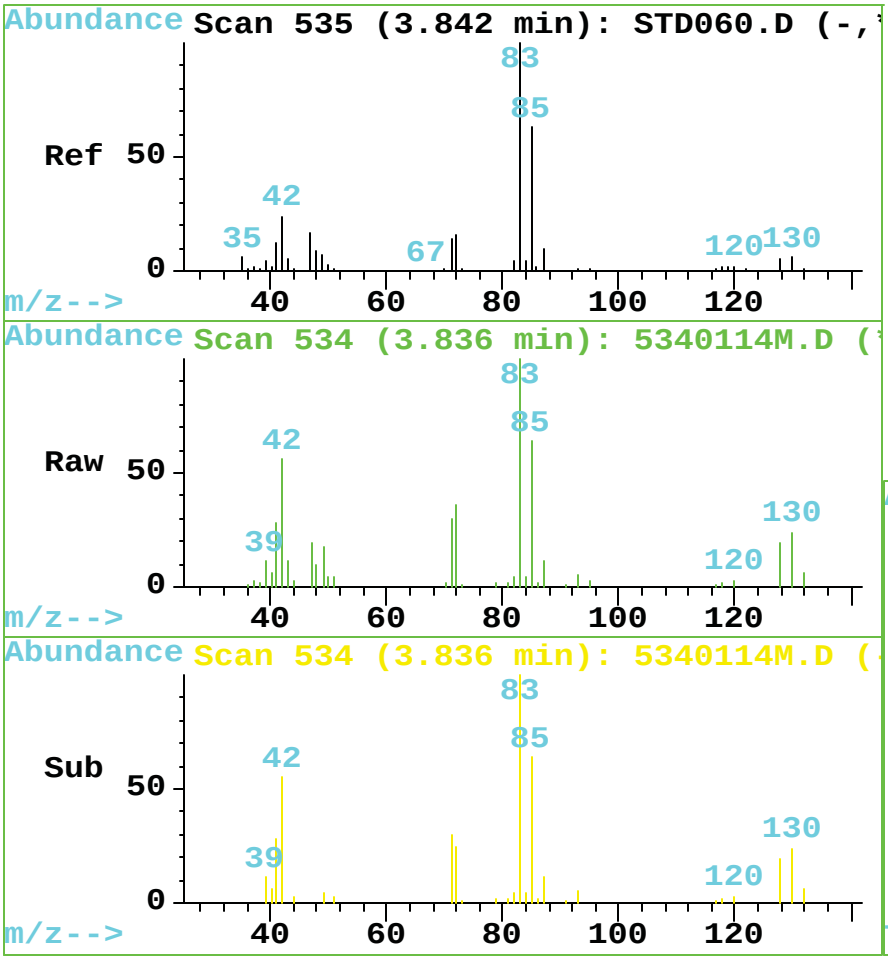


#23
cis-1,2-Dichloroethene
Concen: 43.93 ug/l
RT: 3.68 min Scan# 508
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:96 Resp: 158235

Ion	Ratio	Lower	Upper
96	100		
61	87.3	90.9	150.9#
98	65.0	34.6	94.6
0	0.0	0.0	0.0

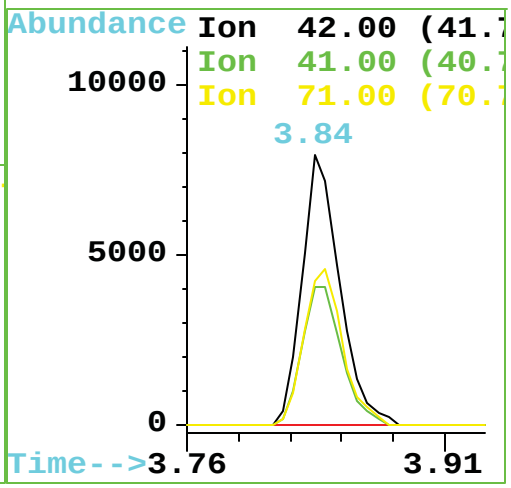


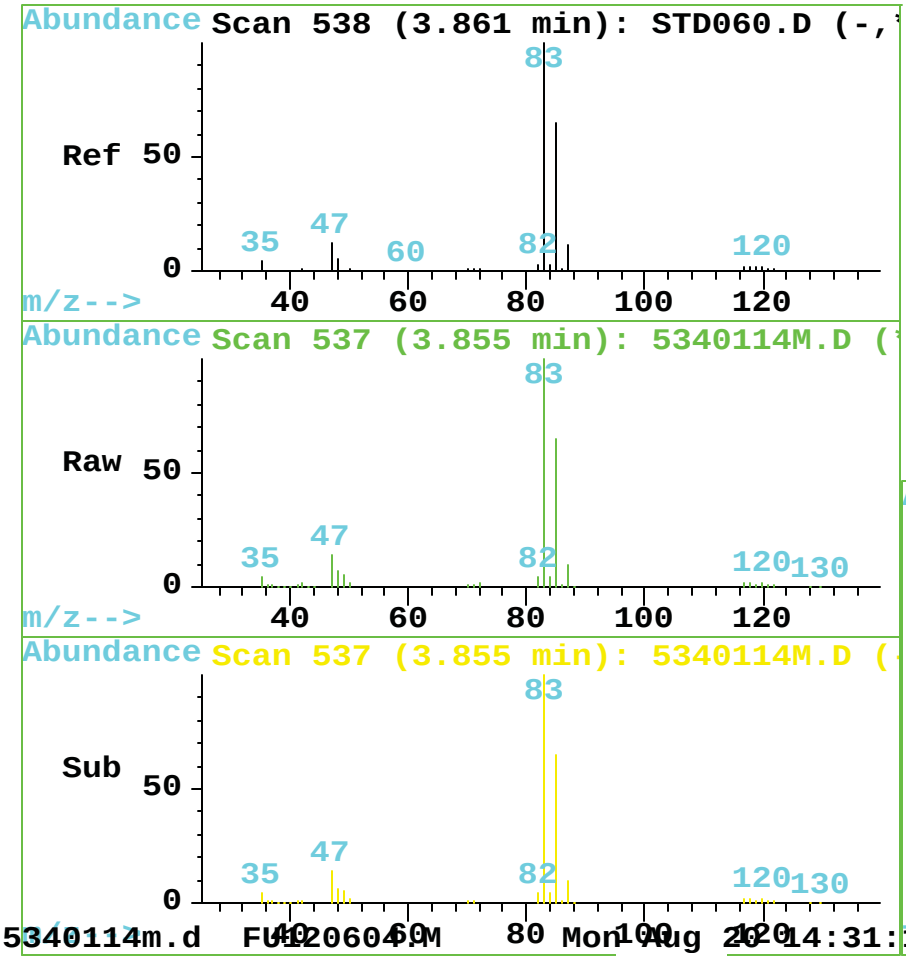


#24
Tetrahydrofuran
Concen: 41.75 ug/l
RT: 3.84 min Scan# 534
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:42 Resp: 11919

Ion	Ratio	Lower	Upper
42	100		
41	53.7	222.5	282.5#
71	58.9	24.9	84.9
0	0.0	0.0	0.0

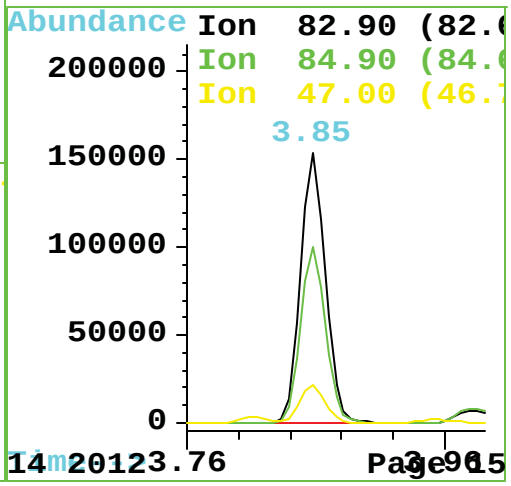


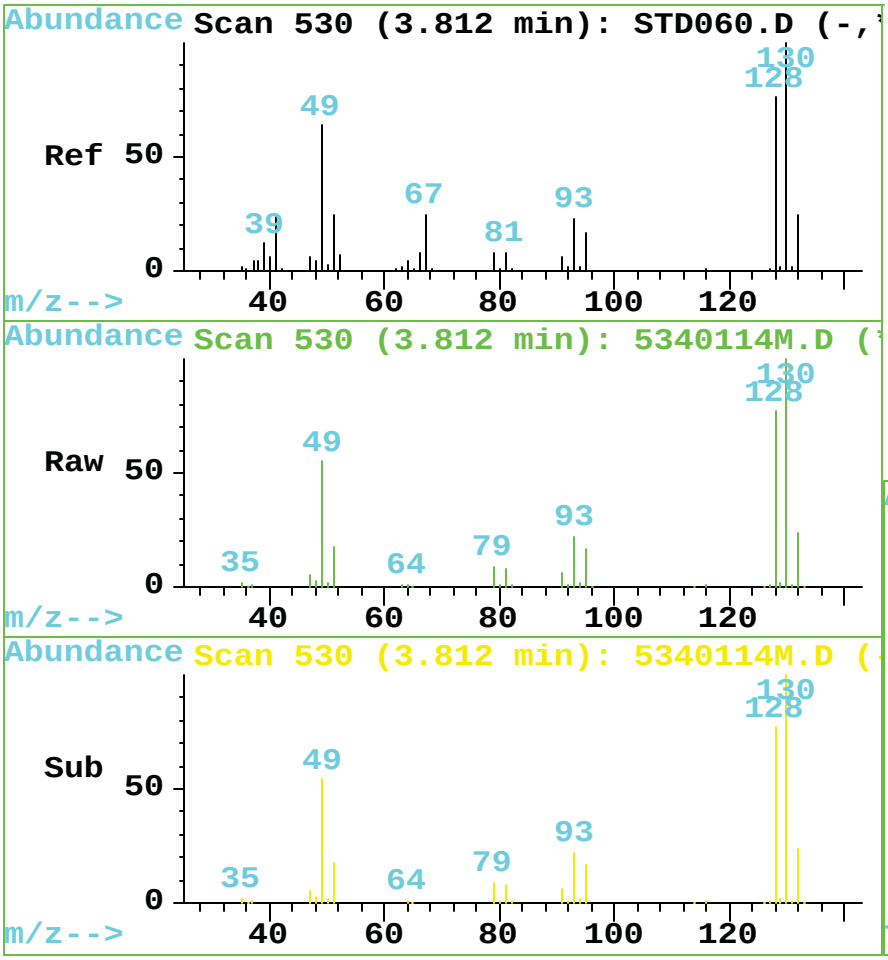


#25
Chloroform (CCC)
Concen: 44.24 ug/l
RT: 3.85 min Scan# 537
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:82.9 Resp: 204999

Ion	Ratio	Lower	Upper
83	100		
85	65.6	35.0	95.0
47	14.3	0.0	48.4
0	0.0	0.0	0.0

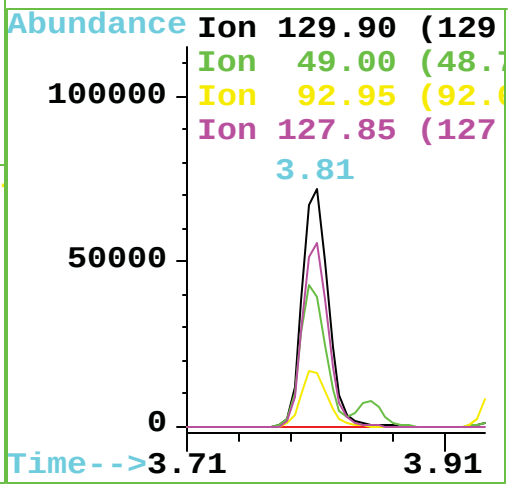


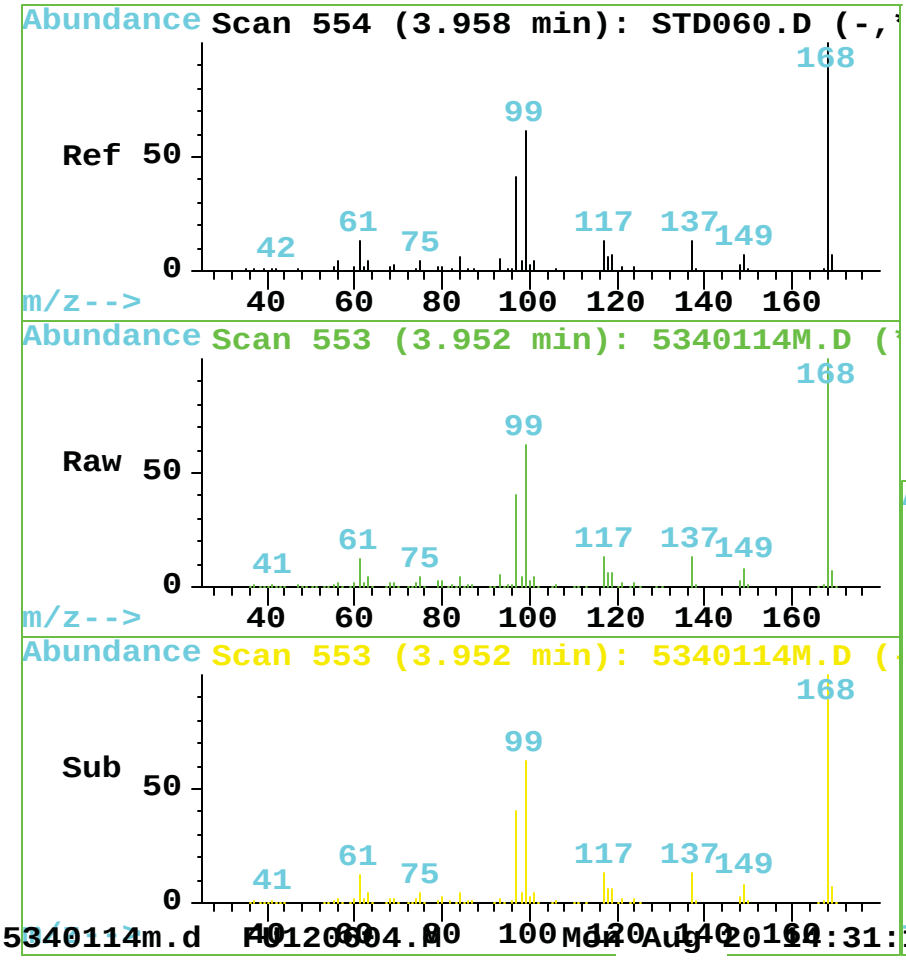


#26
Bromochloromethane
Concen: 44.62 ug/l
RT: 3.81 min Scan# 530
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:129.9 Resp: 10284

Ion	Ratio	Lower	Upper
130	100		
49	58.9	41.7	101.7
93	23.2	0.0	58.1
128	76.3	45.4	105.4

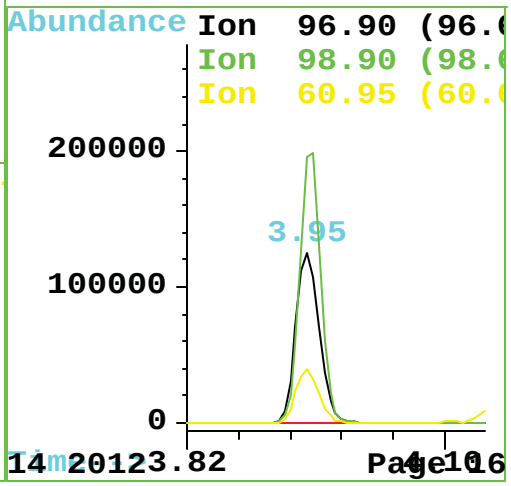


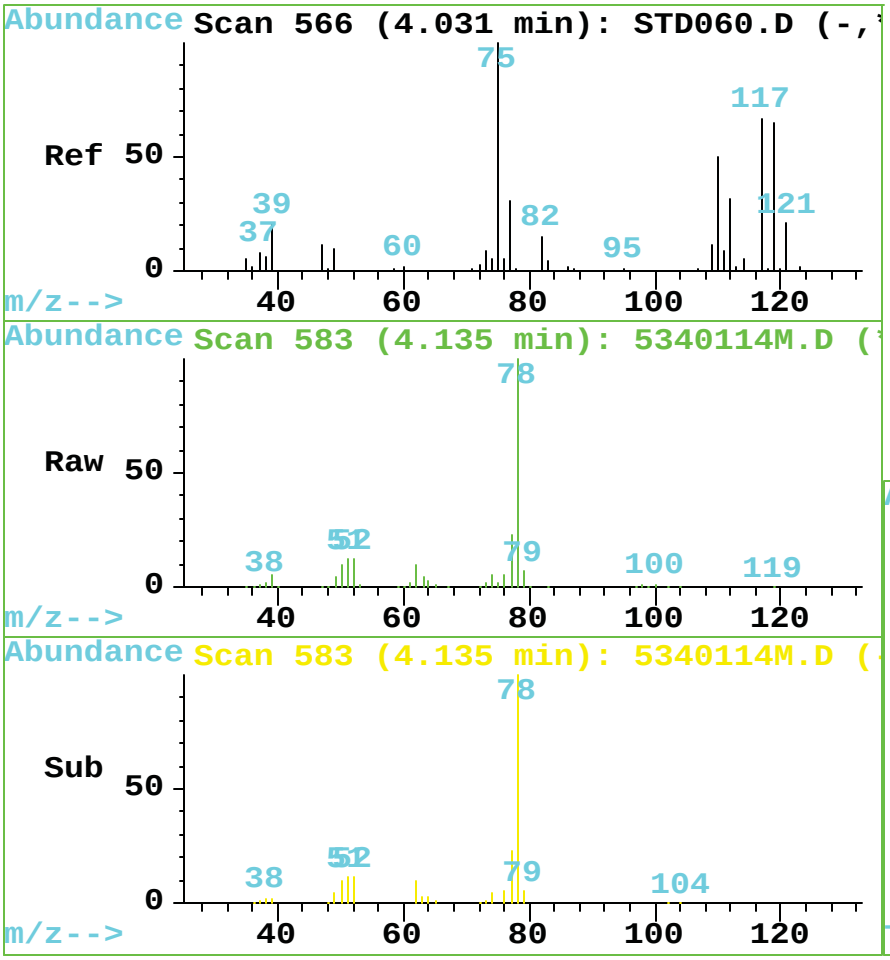


#27
1,1,1-Trichloroethane
Concen: 48.23 ug/l
RT: 3.95 min Scan# 553
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:96.9 Resp: 218822

Ion	Ratio	Lower	Upper
97	100		
99	140.1	214.4	274.4#
61	31.2	12.5	72.5
0	0.0	0.0	0.0

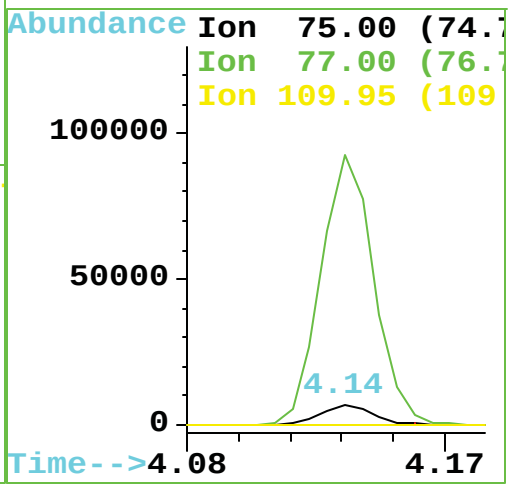


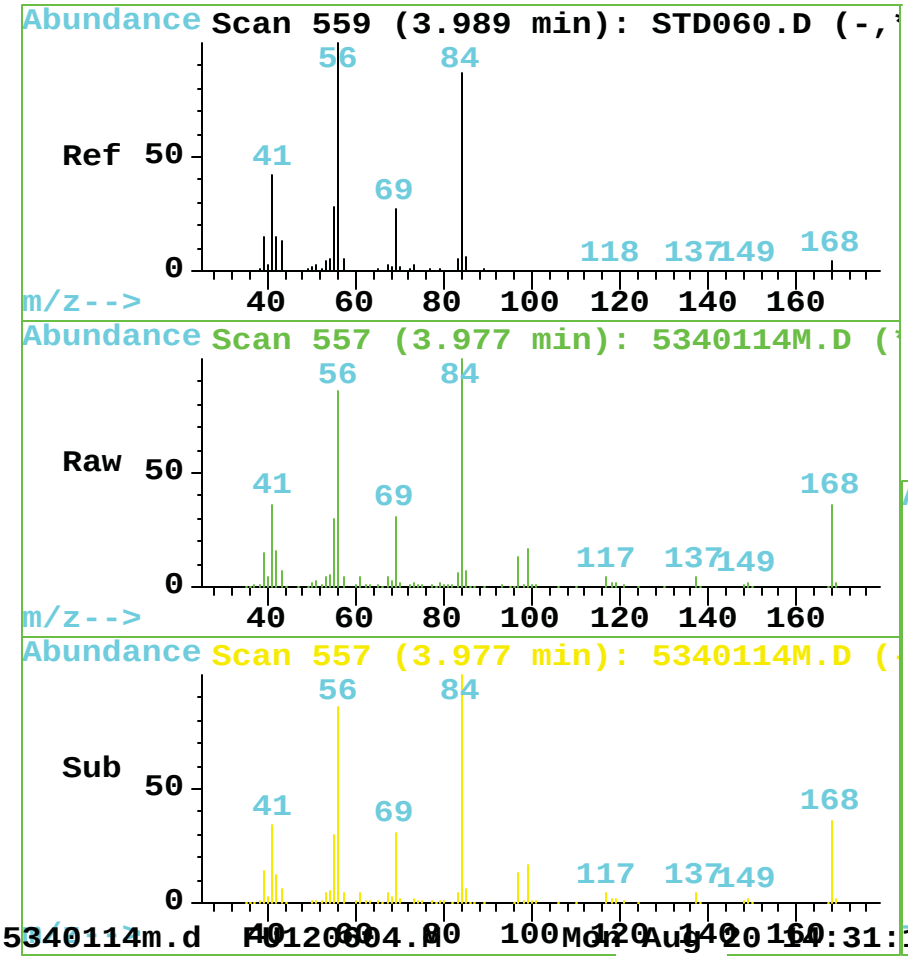


#28
1,1-Dichloropropene
Concen: 2.24 ug/l
RT: 4.14 min Scan# 583
Delta R.T. 0.10 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:75 Resp: 8503

Ion	Ratio	Lower	Upper
75	100		
77	1392.6	0.6	60.6#
110	0.0	11.2	71.2#
0	0.0	0.0	0.0

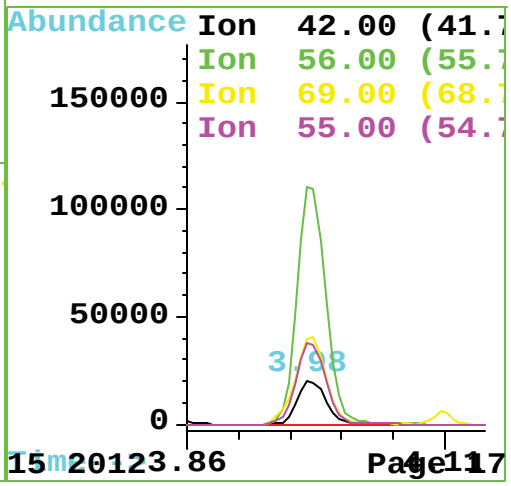


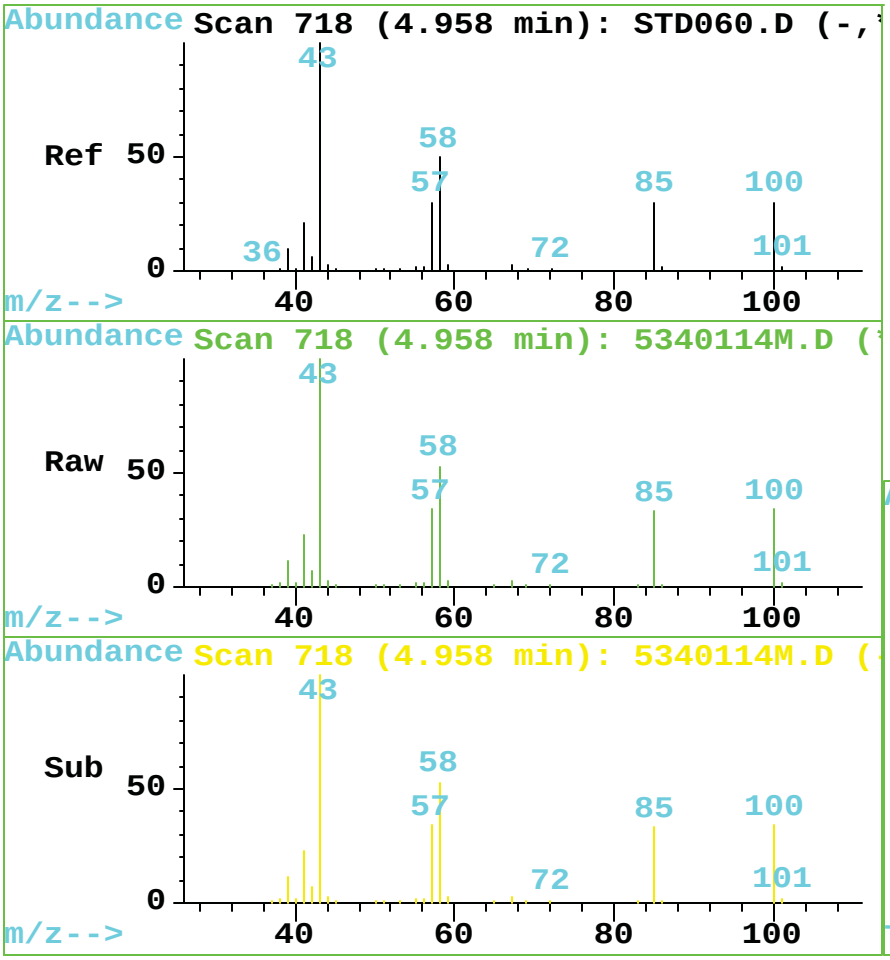


#29
Cyclohexane
Concen: 36.97 ug/l
RT: 3.98 min Scan# 557
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:42 Resp: 38751

Ion	Ratio	Lower	Upper
42	100		
56	550.3	958.1	1018.1#
69	214.2	188.2	248.2
55	194.1	209.1	269.1#

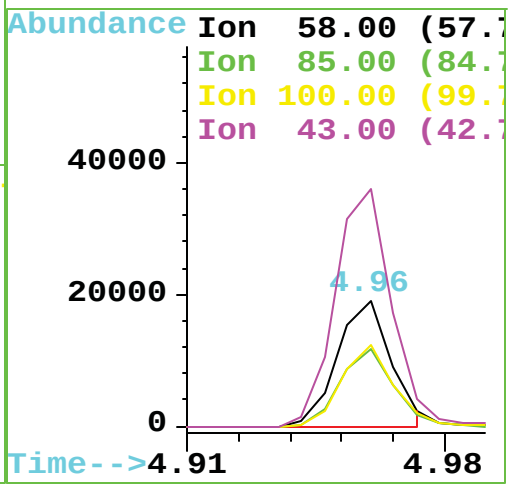


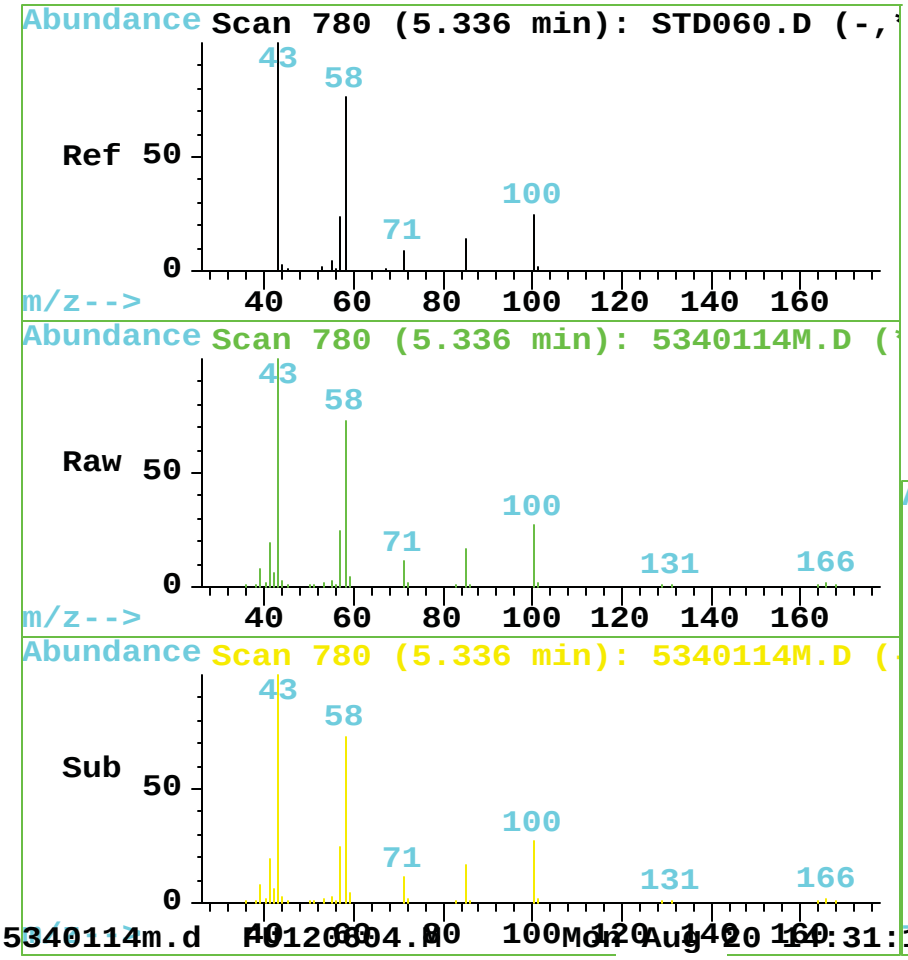


#32
4-Methyl-2-pentanone (MIBK
Concen: 50.39 ug/l
RT: 4.96 min Scan# 718
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:58 Resp: 18810

Ion	Ratio	Lower	Upper
58	100		
85	60.2	33.3	93.3
100	61.5	29.4	89.4
43	195.5	197.3	257.3#

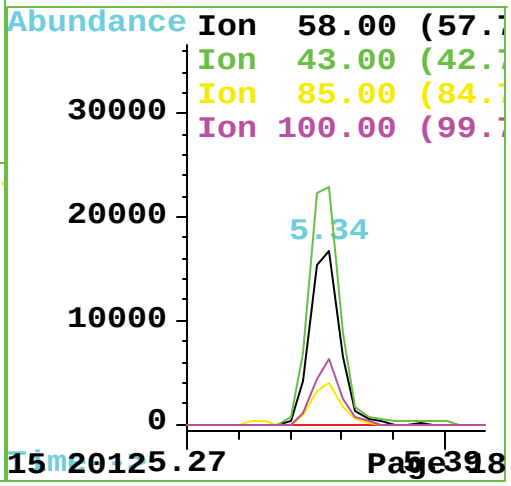


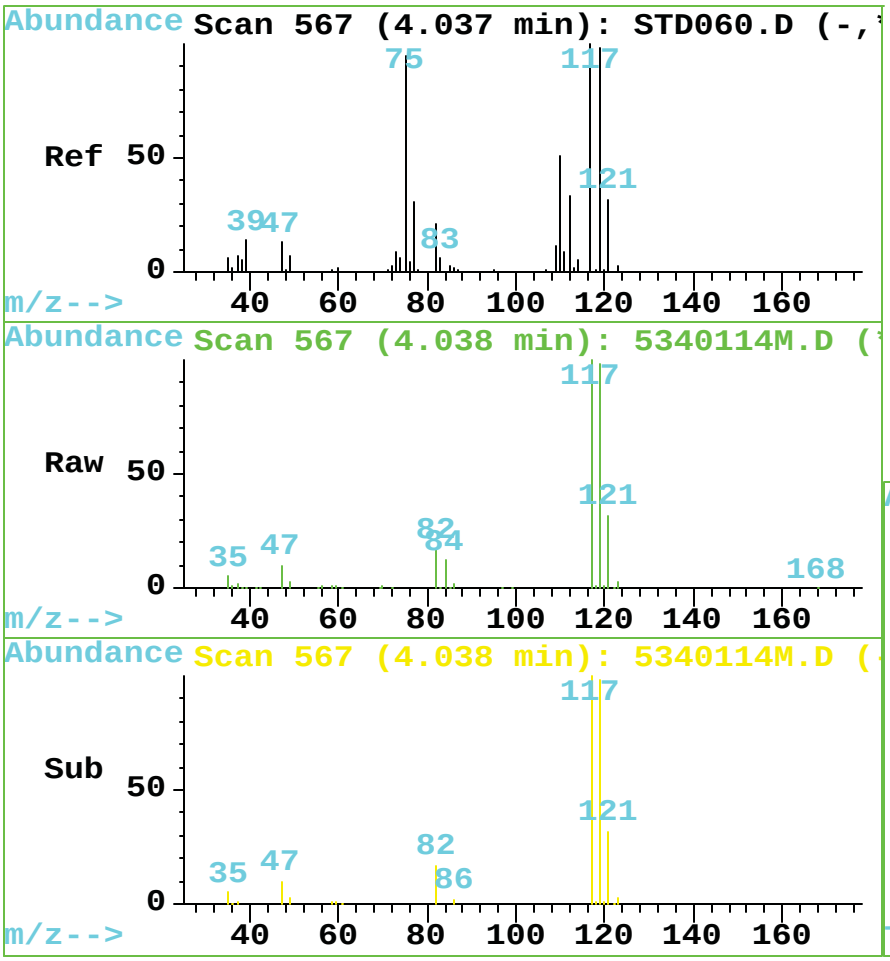


#33
2-Hexanone (*)
Concen: 56.52 ug/l
RT: 5.34 min Scan# 780
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:58 Resp: 16444

Ion	Ratio	Lower	Upper
58	100		
43	146.5	122.2	182.2
85	22.7	0.0	52.9
100	33.1	2.6	62.6

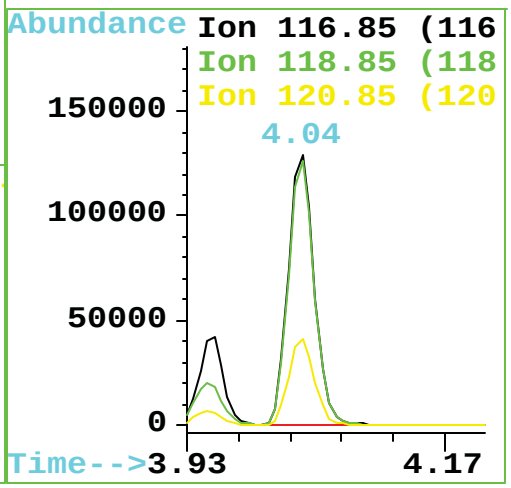


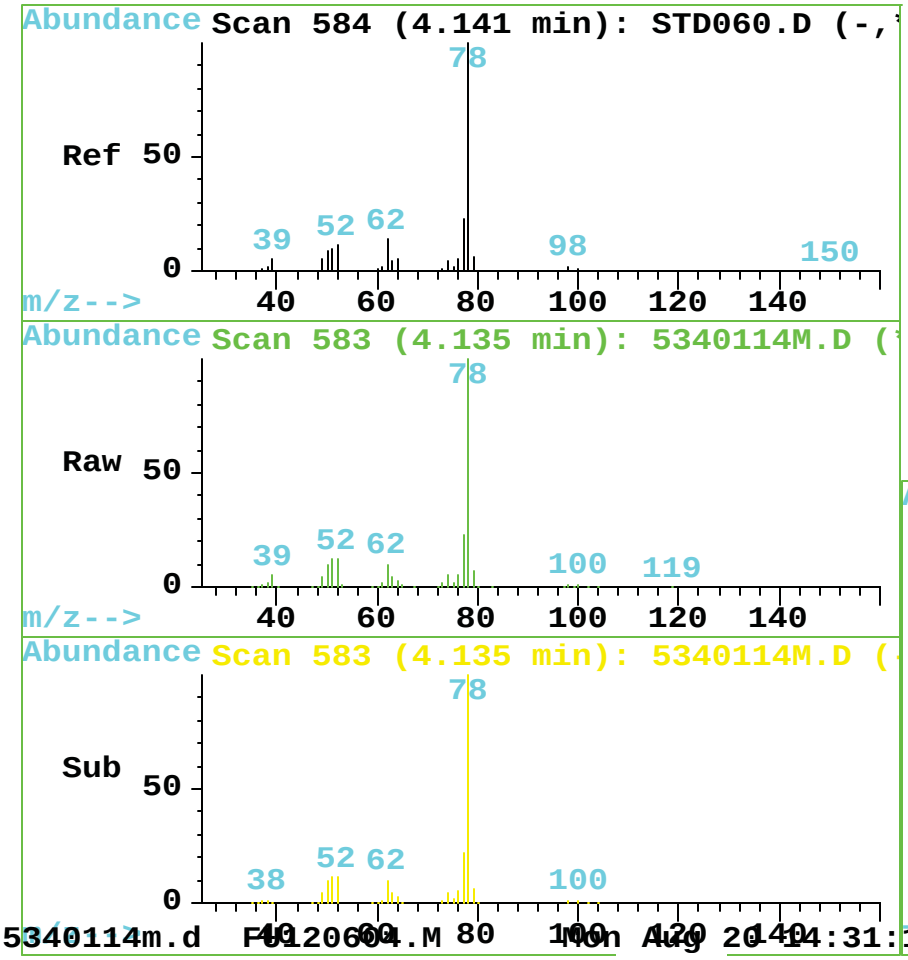


#35
Carbon Tetrachloride
Concen: 50.61 ug/l
RT: 4.04 min Scan# 567
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:116.85 Resp: 2100

Ion	Ratio	Lower	Upper
117	100		
119	97.0	65.5	125.5
121	31.5	0.5	60.5
0	0.0	0.0	0.0

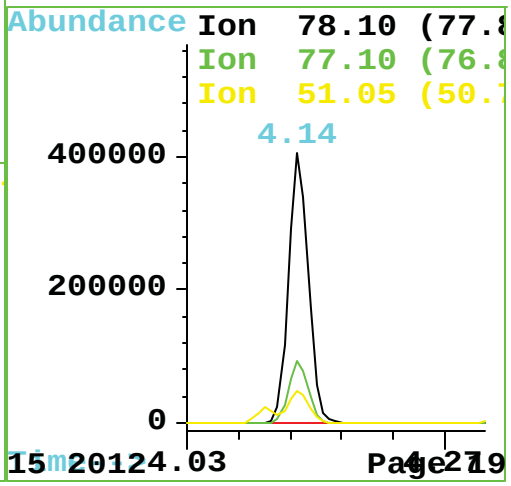


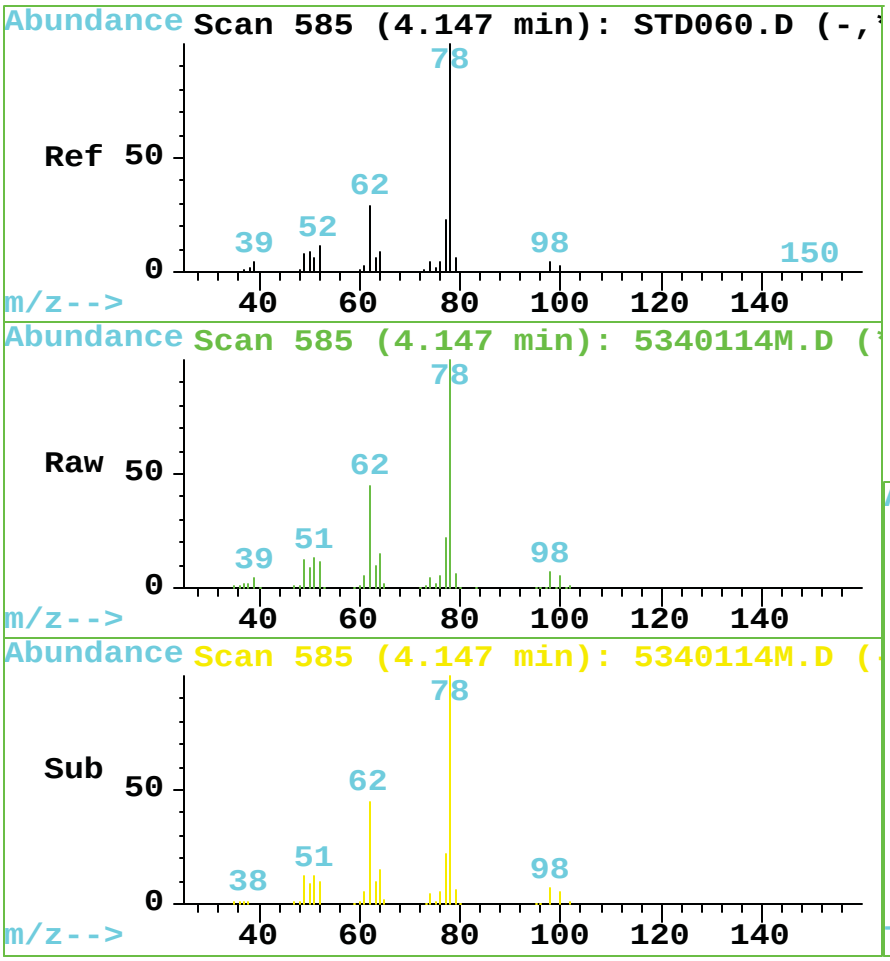


#36
Benzene (MS)
Concen: 44.92 ug/l
RT: 4.14 min Scan# 583
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:78.1 Resp: 525556

Ion	Ratio	Lower	Upper
78	100		
77	22.7	0.0	52.9
51	12.6	0.0	44.8
0	0.0	0.0	0.0

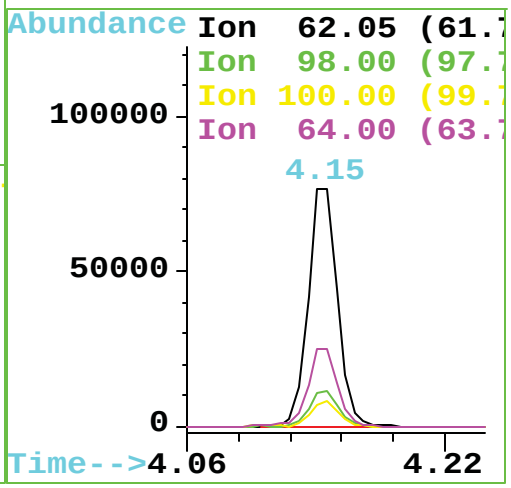


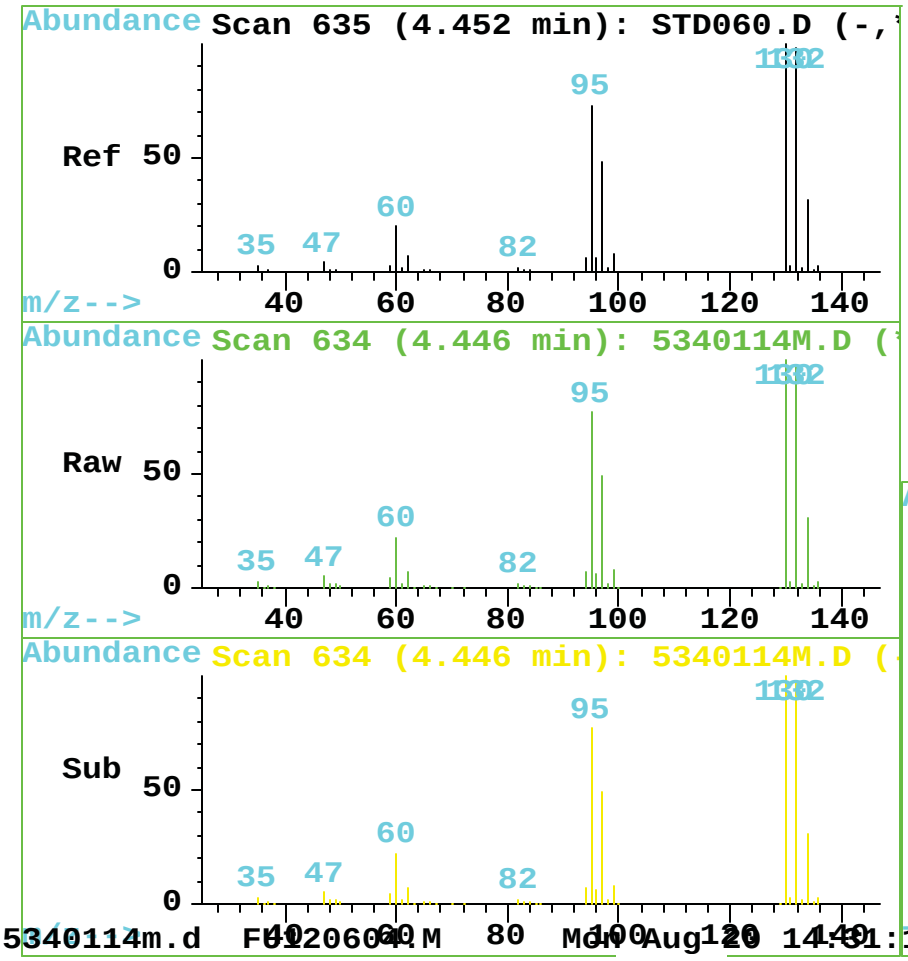


#37
1,2-Dichloroethane
Concen: 47.98 ug/l
RT: 4.15 min Scan# 585
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:62.05 Resp: 10167

Ion	Ratio	Lower	Upper
62	100		
98	14.5	0.0	40.9
100	9.4	0.0	37.0
64	33.7	3.1	63.1

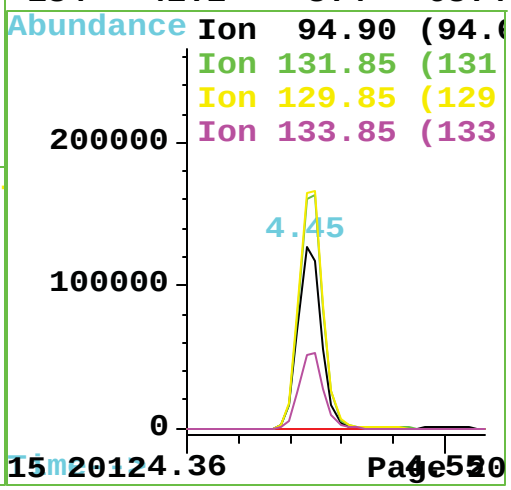


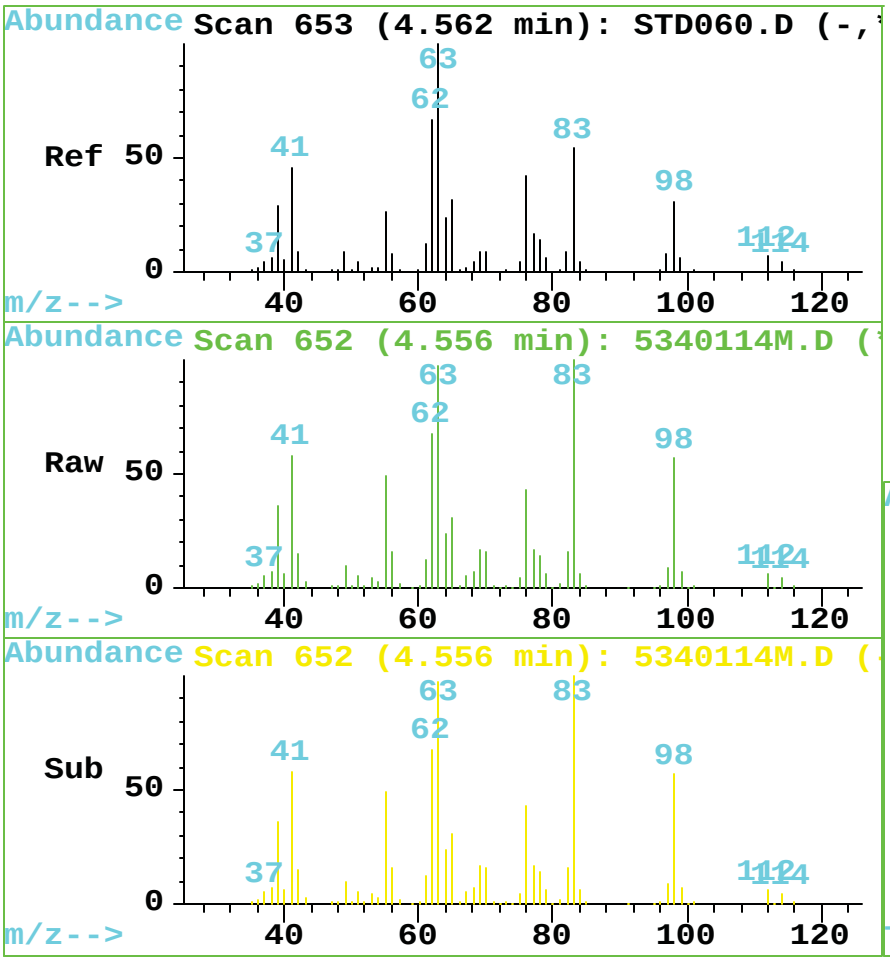


#38
Trichloroethene (MS)
Concen: 46.94 ug/l
RT: 4.45 min Scan# 634
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:94.9 Resp: 149845

Ion	Ratio	Lower	Upper
95	100		
132	131.3	90.7	150.7
130	134.8	93.9	153.9
134	42.2	8.4	68.4

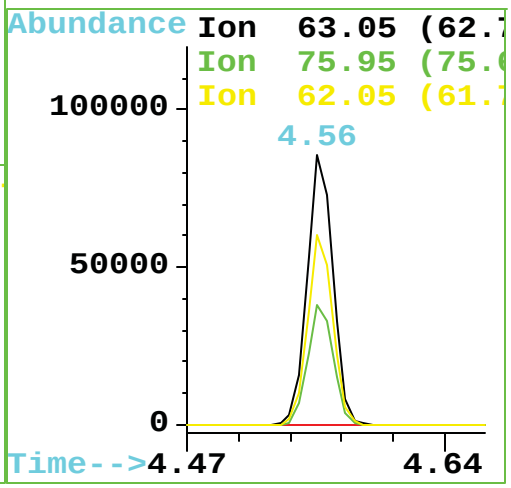


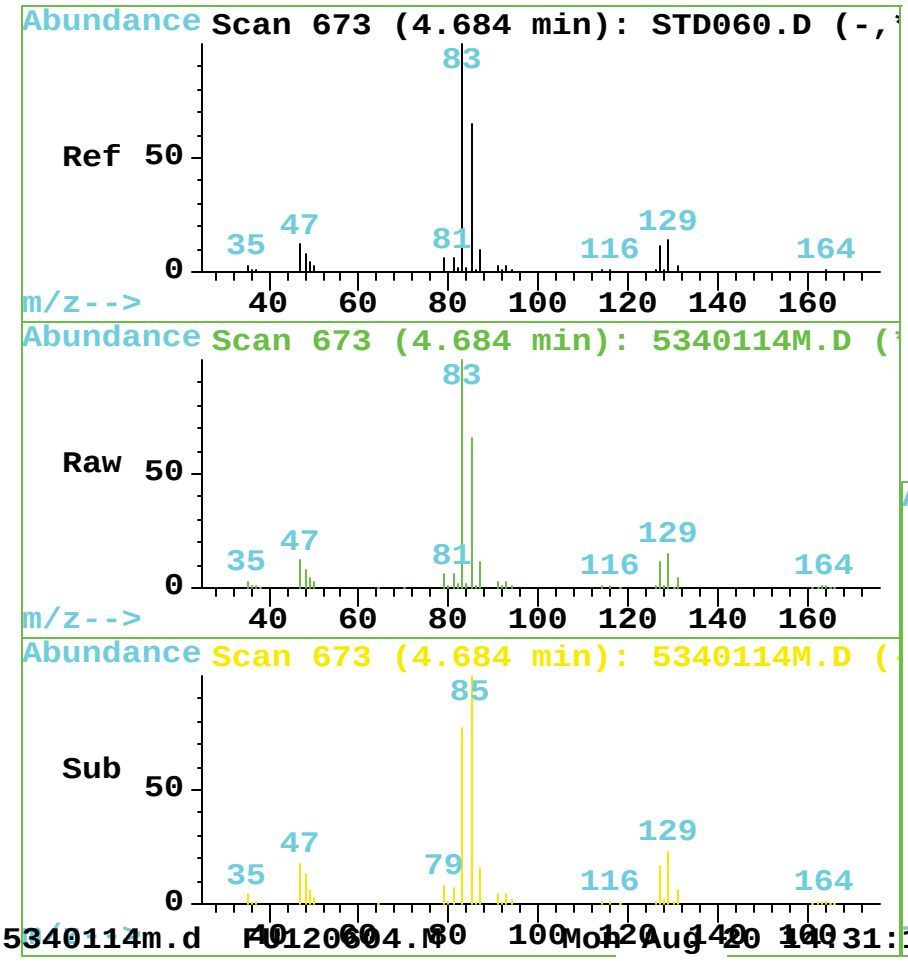


#39
1,2-Dichloropropane (CCC)
Concen: 44.28 ug/l
RT: 4.56 min Scan# 652
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:63.05 Resp: 10070

Ion	Ratio	Lower	Upper
63	100		
76	44.2	23.2	83.2
62	68.6	37.6	97.6
0	0.0	0.0	0.0

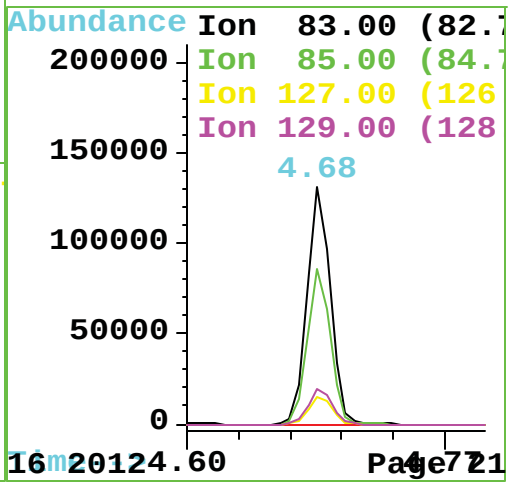


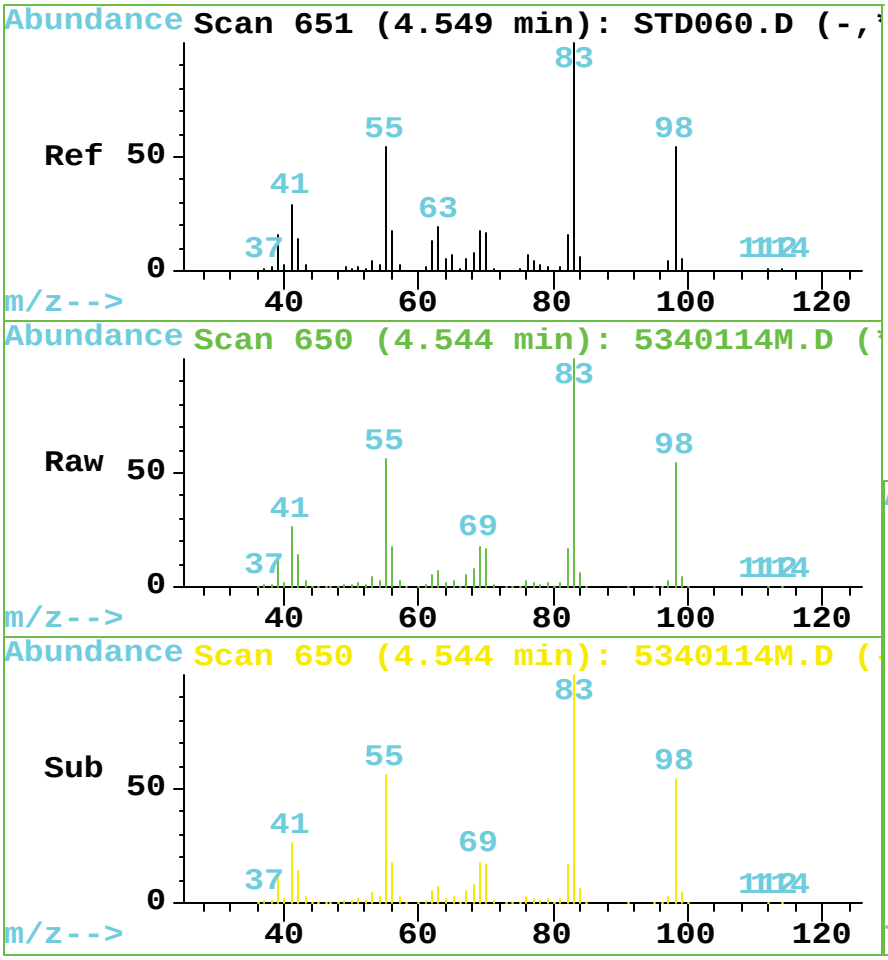


#40
Bromodichloromethane
Concen: 48.62 ug/l
RT: 4.68 min Scan# 673
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:83 Resp: 138271

Ion	Ratio	Lower	Upper
83	100		
85	64.8	33.6	93.6
127	11.6	0.0	40.3
129	15.1	0.0	43.6

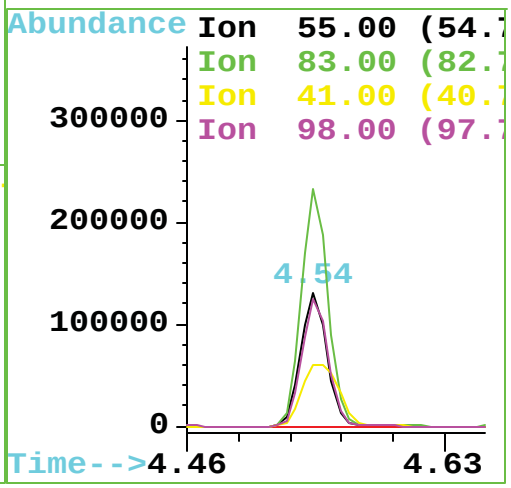


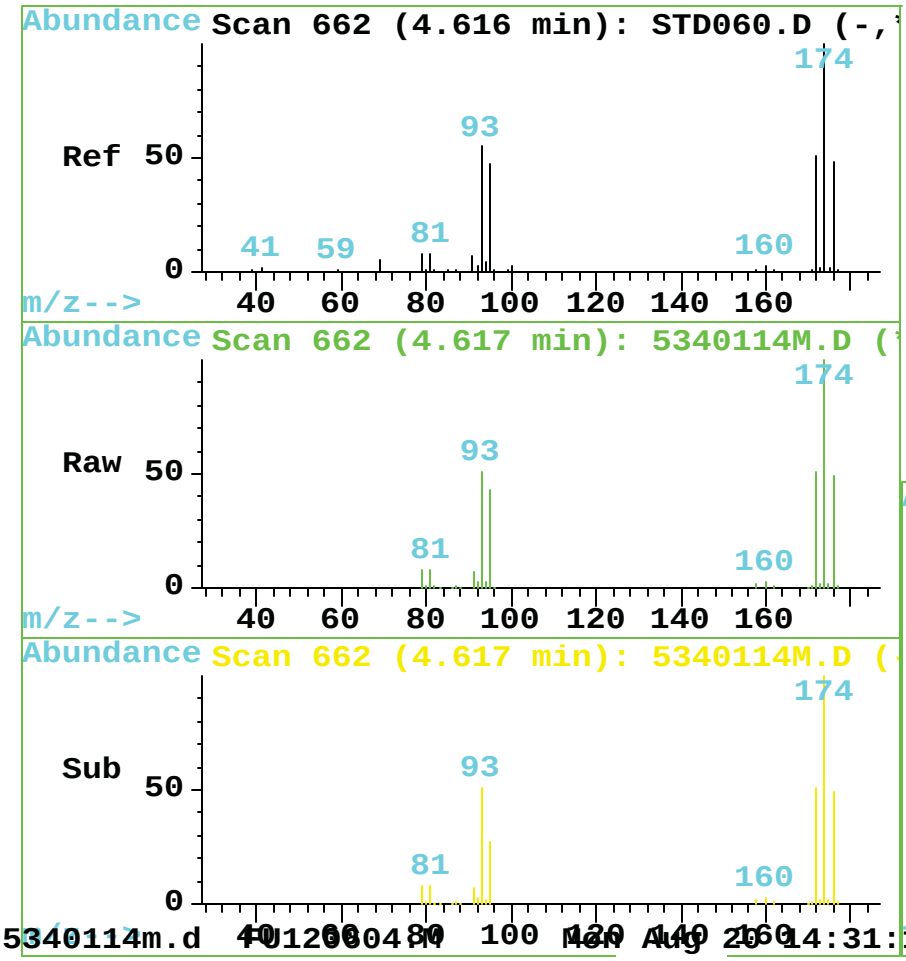


#41
Methyl Cyclohexane
Concen: 48.73 ug/l
RT: 4.54 min Scan# 650
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:55 Resp: 161061

Ion	Ratio	Lower	Upper
55	100		
83	180.0	131.0	191.0
41	65.0	42.0	102.0
98	96.5	55.3	115.3

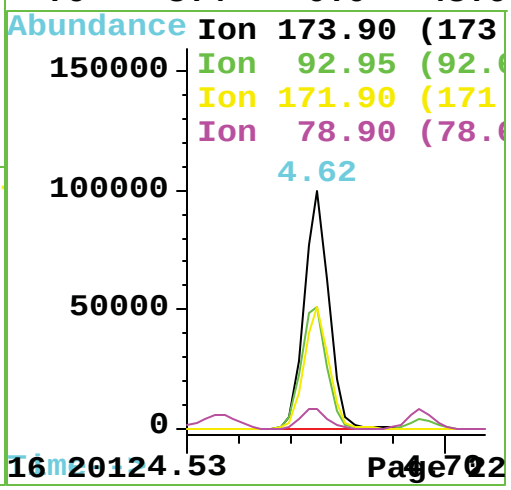


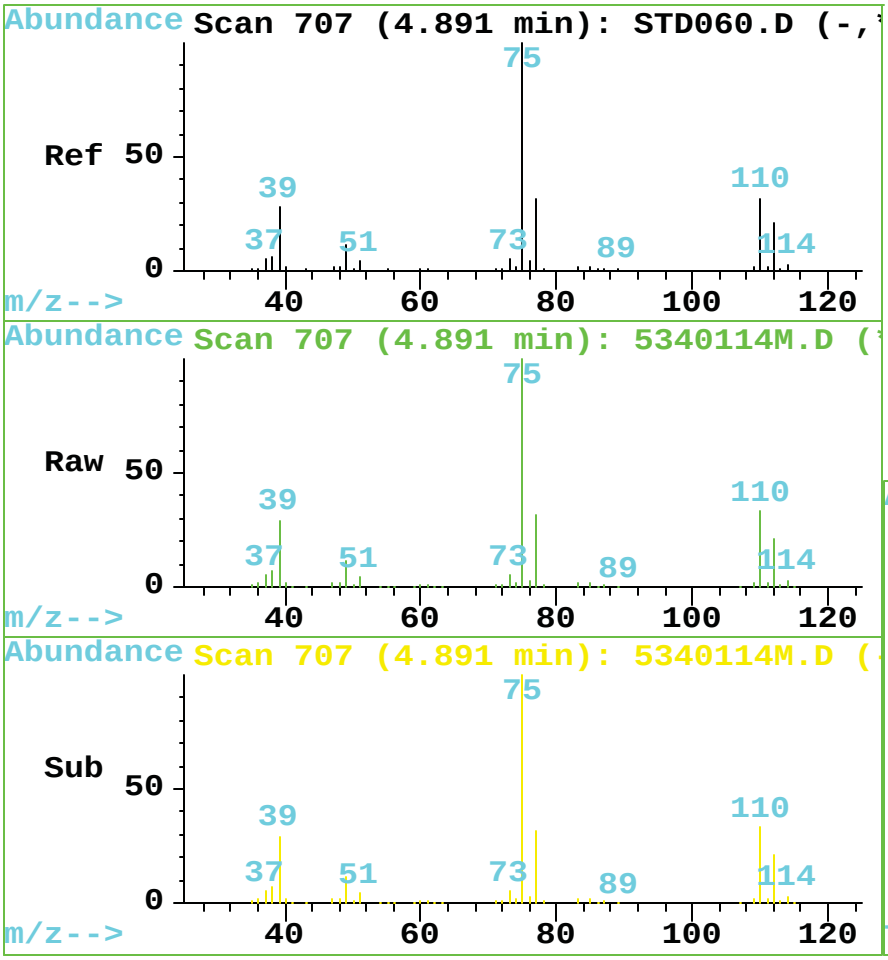


#42
Dibromomethane
Concen: 49.64 ug/l
RT: 4.62 min Scan# 662
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:173.9 Resp: 10970

Ion	Ratio	Lower	Upper
174	100		
93	53.7	32.9	92.9
172	51.4	19.9	79.9
79	8.4	0.0	43.6

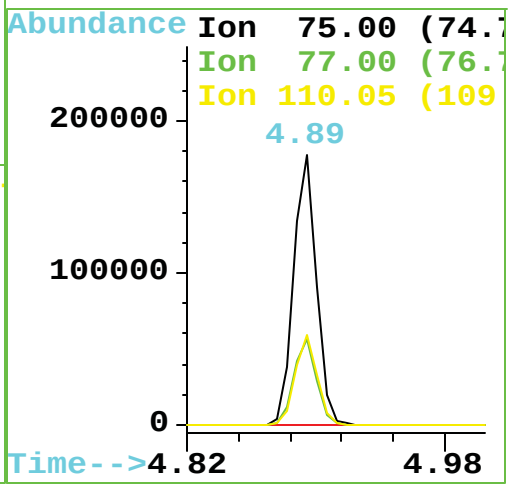


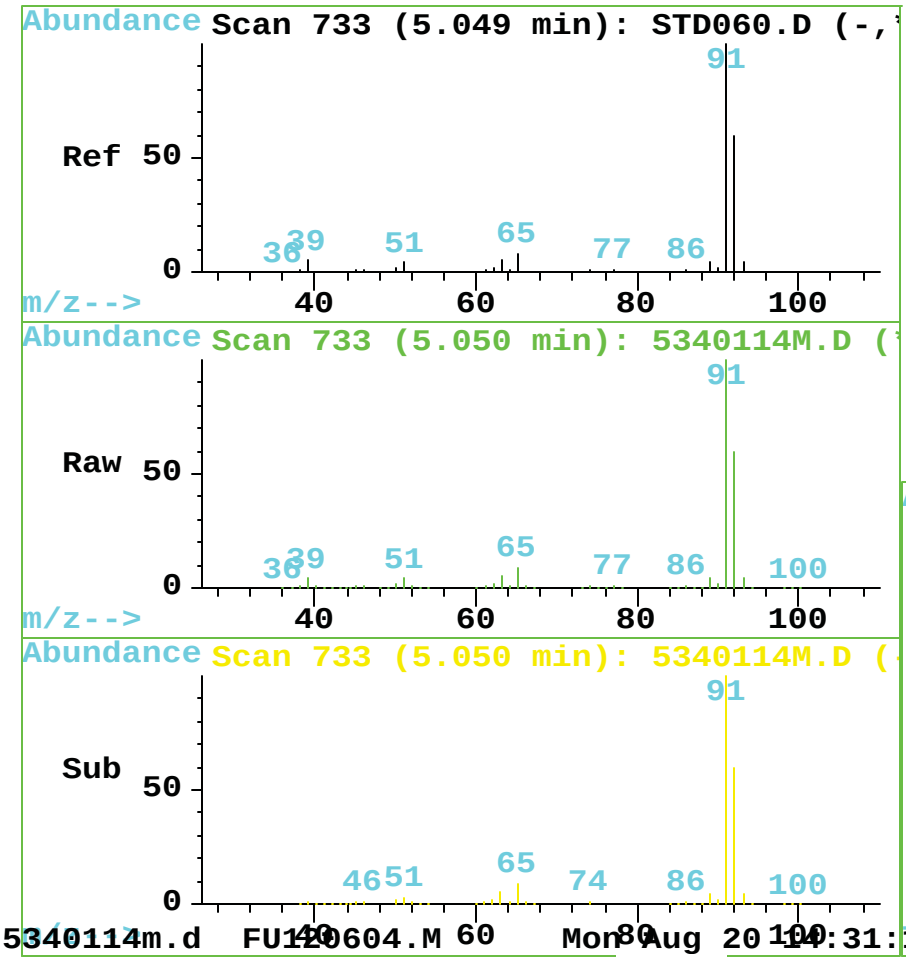


#43
cis-1,3-Dichloropropene
Concen: 48.25 ug/l
RT: 4.89 min Scan# 707
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:75 Resp: 171129

Ion	Ratio	Lower	Upper
75	100		
77	31.8	2.0	62.0
110	32.2	0.0	58.0
0	0.0	0.0	0.0

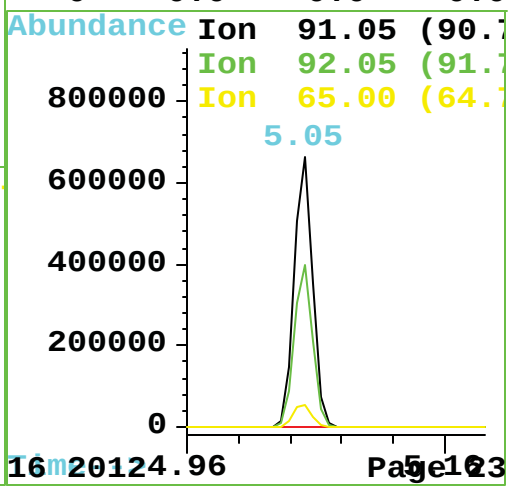


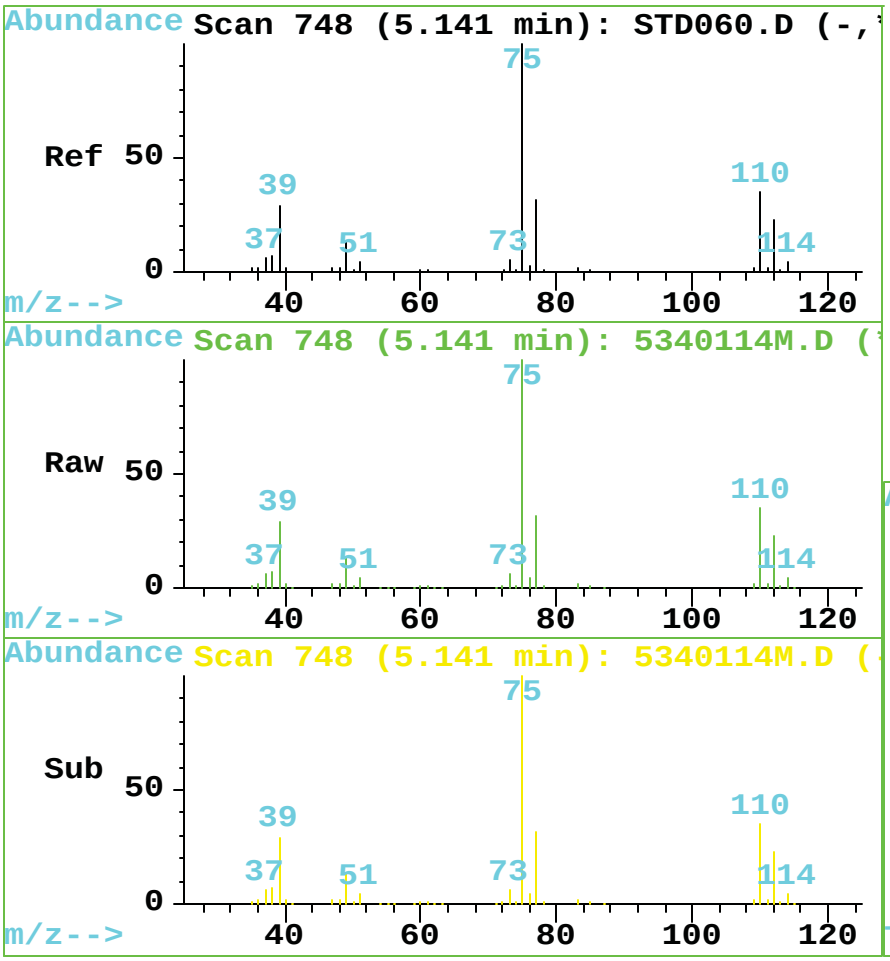


#44
Toluene (CCC/MS)
Concen: 47.22 ug/l
RT: 5.05 min Scan# 733
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:91.05 Resp: 64827

Ion	Ratio	Lower	Upper
91	100		
92	59.9	30.0	90.0
65	8.8	0.0	40.0
0	0.0	0.0	0.0

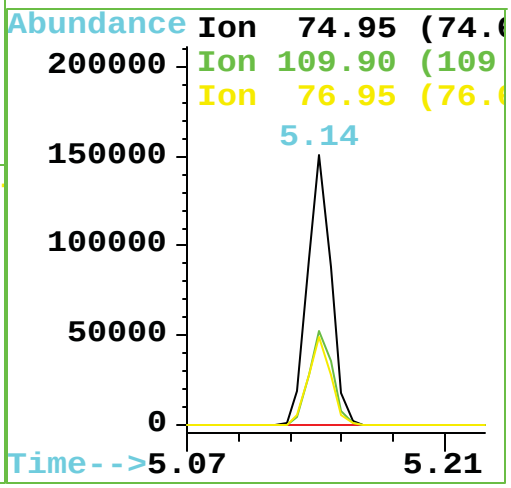


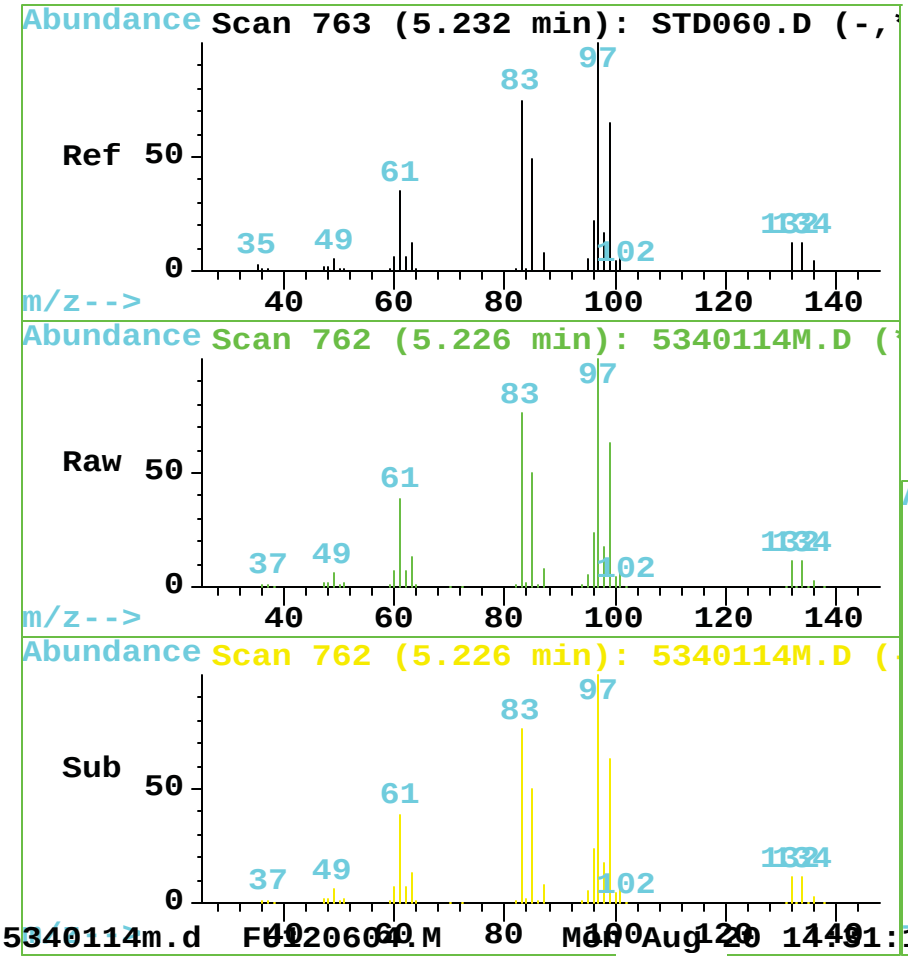


#45
trans-1,3-Dichloropropene
Concen: 51.06 ug/l
RT: 5.14 min Scan# 748
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:74.95 Resp: 13622

Ion	Ratio	Lower	Upper
75	100		
110	35.1	0.0	58.2
77	31.8	1.0	61.0
0	0.0	0.0	0.0

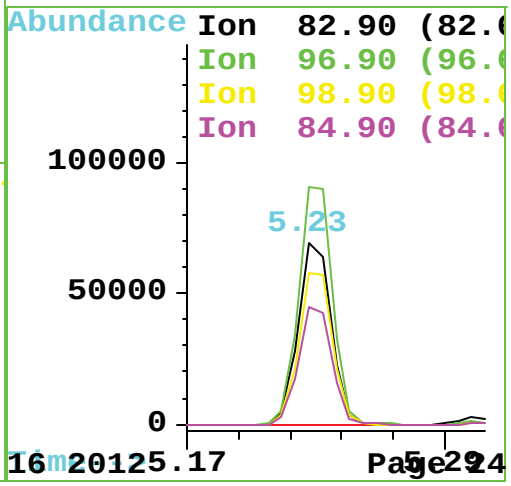


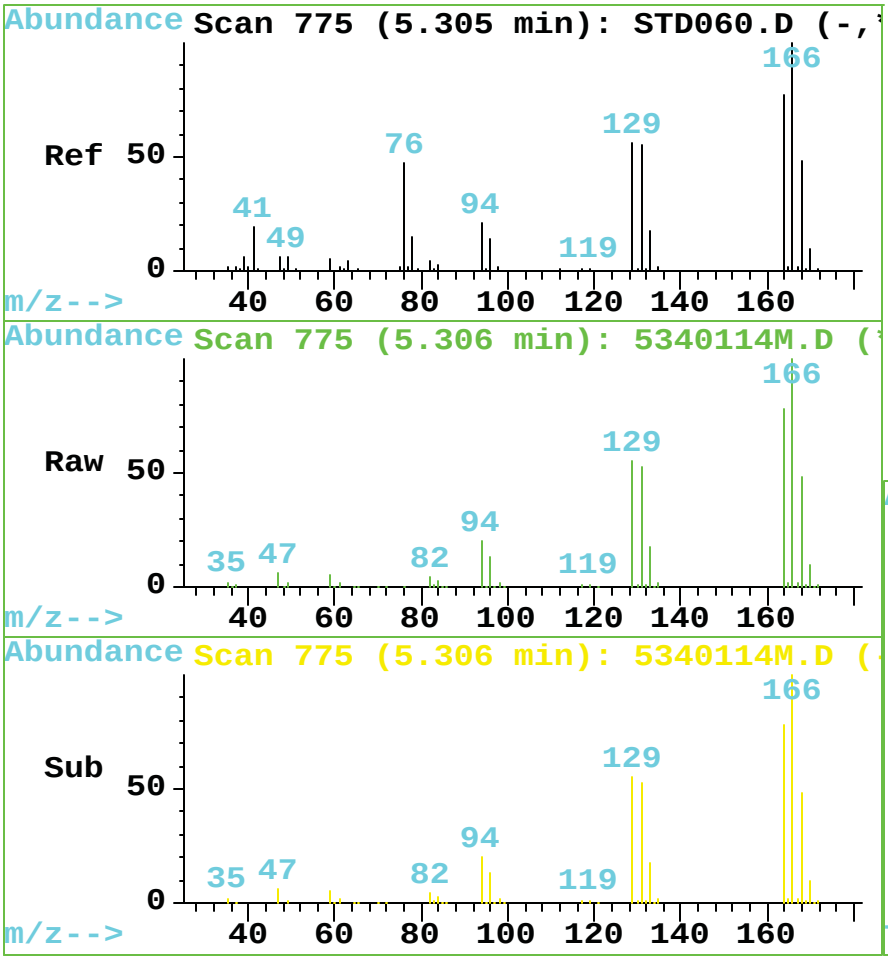


#46
1,1,2-Trichloroethane
Concen: 47.88 ug/l
RT: 5.23 min Scan# 762
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:82.9 Resp: 70309

Ion	Ratio	Lower	Upper
83	100		
97	135.1	104.2	164.2
99	85.6	54.5	114.5
85	65.8	36.7	96.7

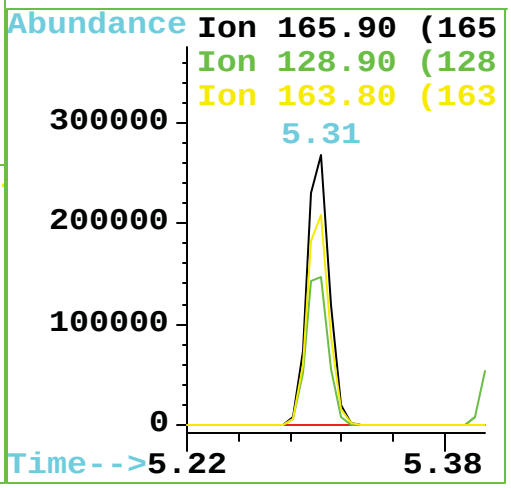


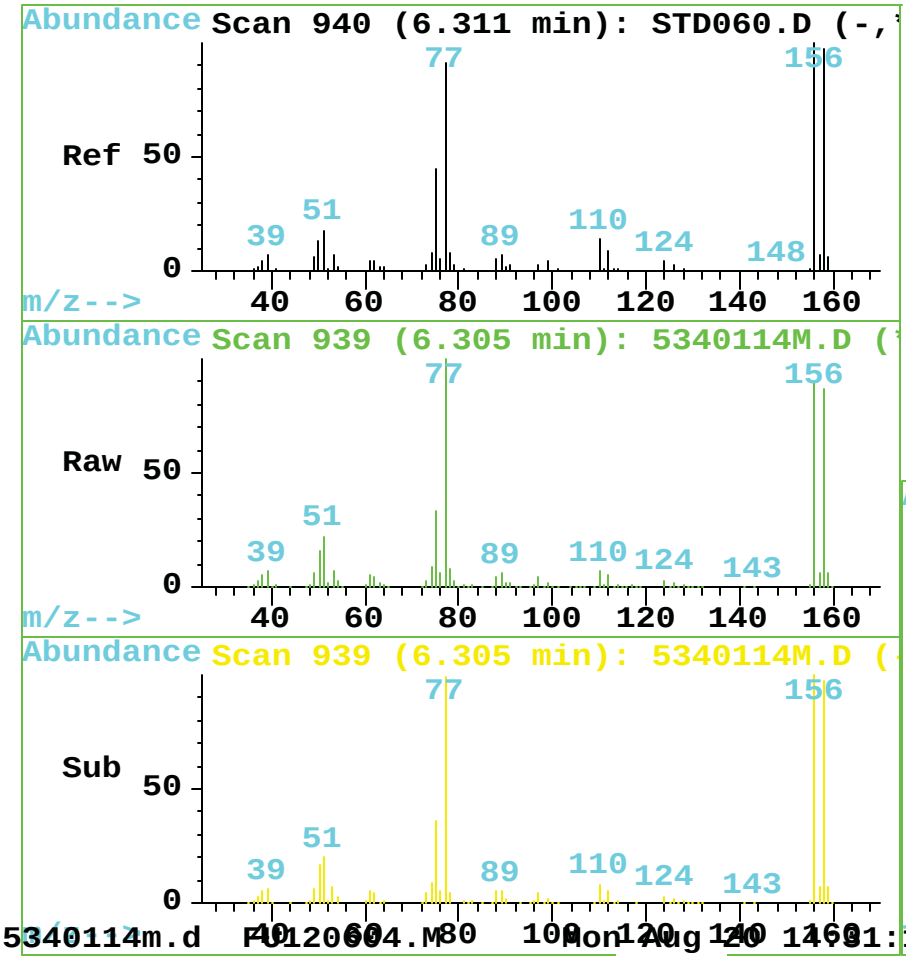


#47
Tetrachloroethene
Concen: 46.57 ug/l
RT: 5.31 min Scan# 775
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:165.9 Resp: 26422

Ion	Ratio	Lower	Upper
166	100		
129	57.3	31.8	91.8
164	78.0	47.4	107.4
0	0.0	0.0	0.0

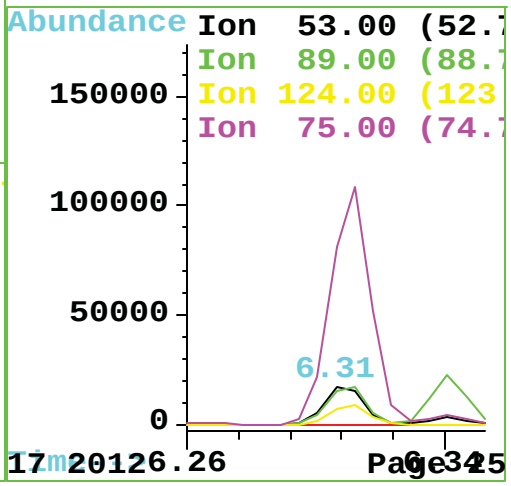


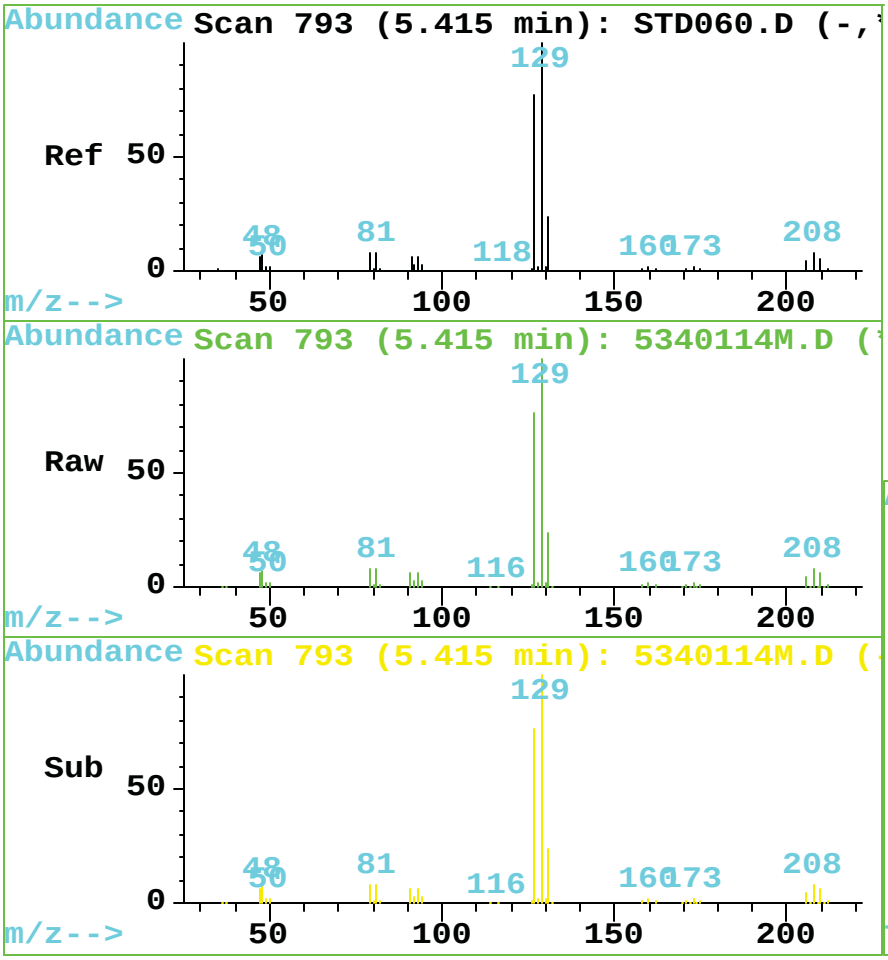


#50
trans-1,4-Dichloro-2-buten
Concen: 50.40 ug/l
RT: 6.31 min Scan# 939
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:53 Resp: 15061

Ion	Ratio	Lower	Upper
53	100		
89	100.0	53.8	113.8
124	49.1	6.0	66.0
75	673.6	570.7	630.7#

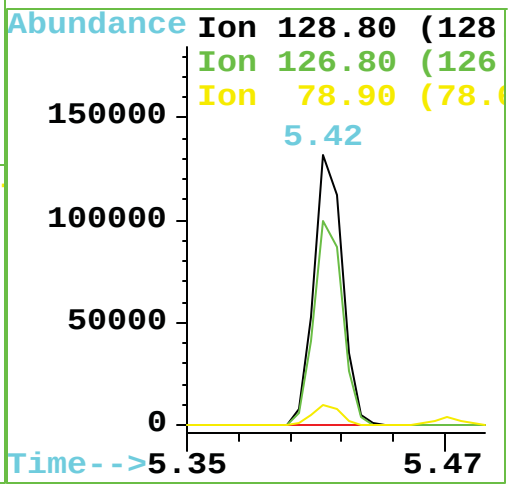


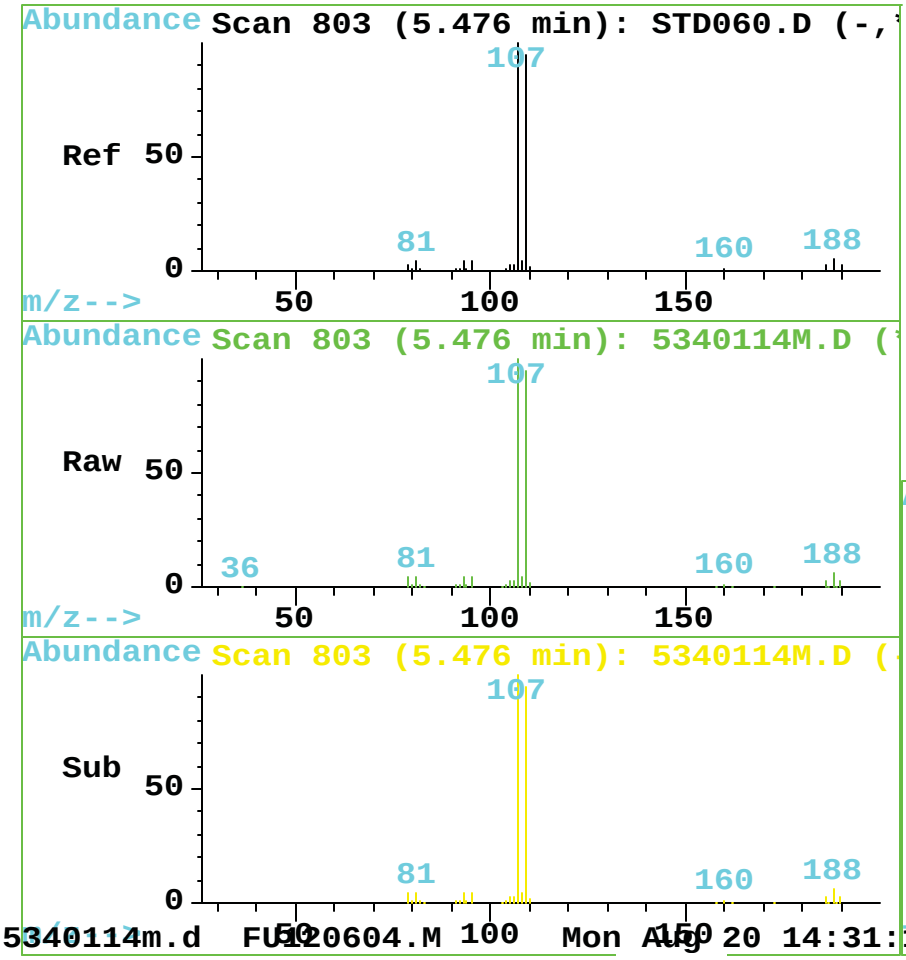


#51
Dibromochloromethane
Concen: 51.42 ug/l
RT: 5.42 min Scan# 793
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:128.8 Resp: 12684

Ion	Ratio	Lower	Upper
129	100		
127	76.6	47.0	107.0
79	7.3	0.0	40.2
0	0.0	0.0	0.0

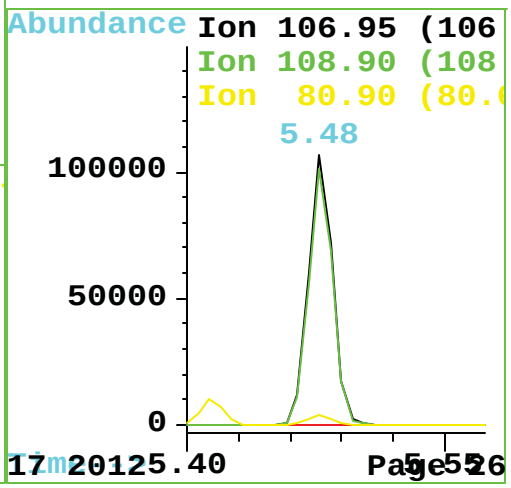


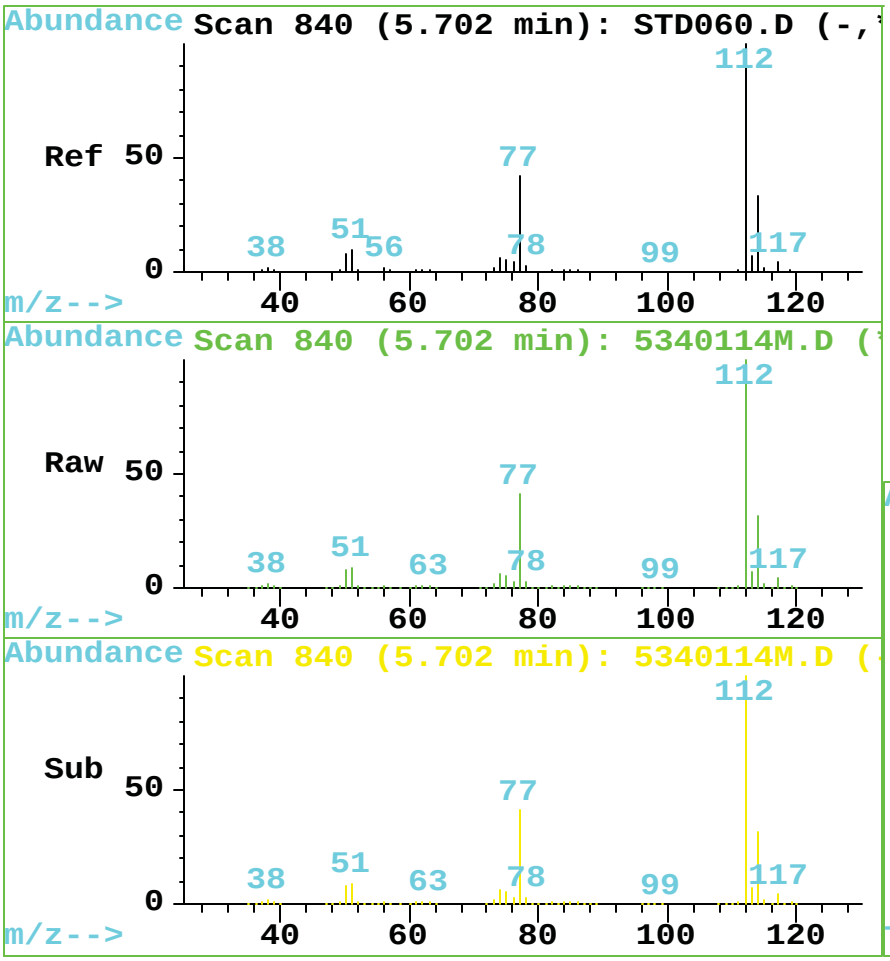


#52
1,2-Dibromoethane
Concen: 50.25 ug/l
RT: 5.48 min Scan# 803
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:106.95 Resp: 996

Ion	Ratio	Lower	Upper
107	100		
109	94.5	64.8	124.8
81	3.7	0.0	35.1
0	0.0	0.0	0.0

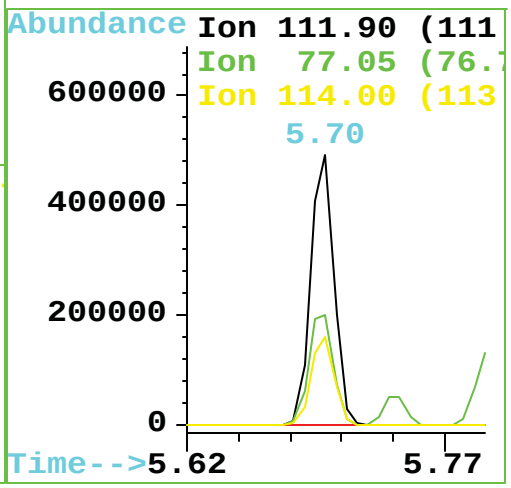


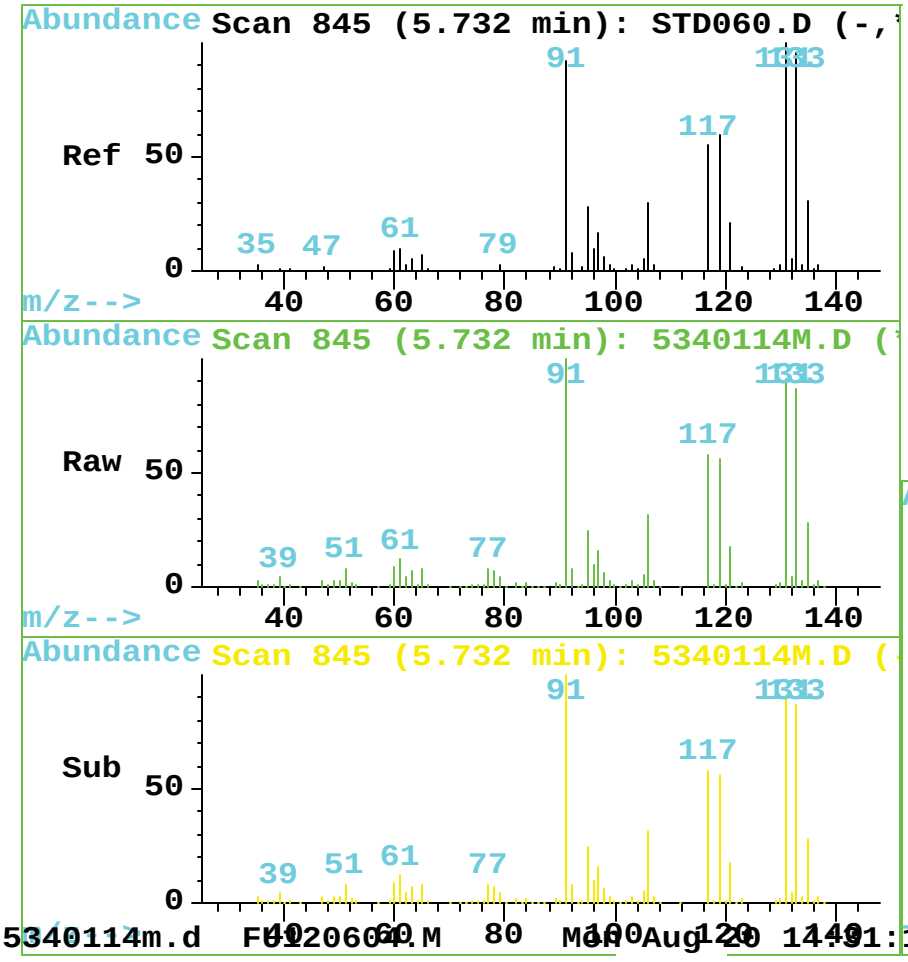


#53
Chlorobenzene (SPCC/MS)
Concen: 45.79 ug/l
RT: 5.70 min Scan# 840
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:111.9 Resp: 45853

Ion	Ratio	Lower	Upper
112	100		
77	43.9	21.6	81.6
114	32.5	2.4	62.4
0	0.0	0.0	0.0

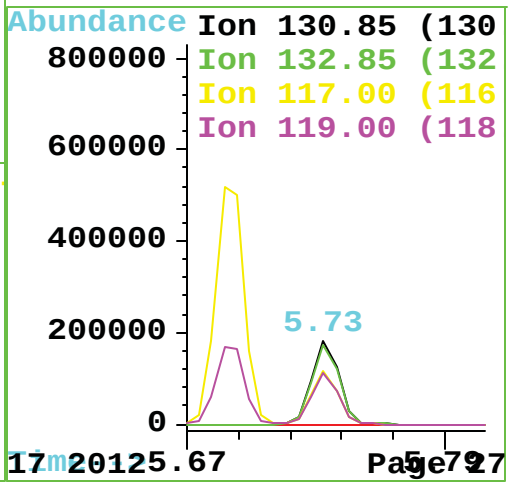


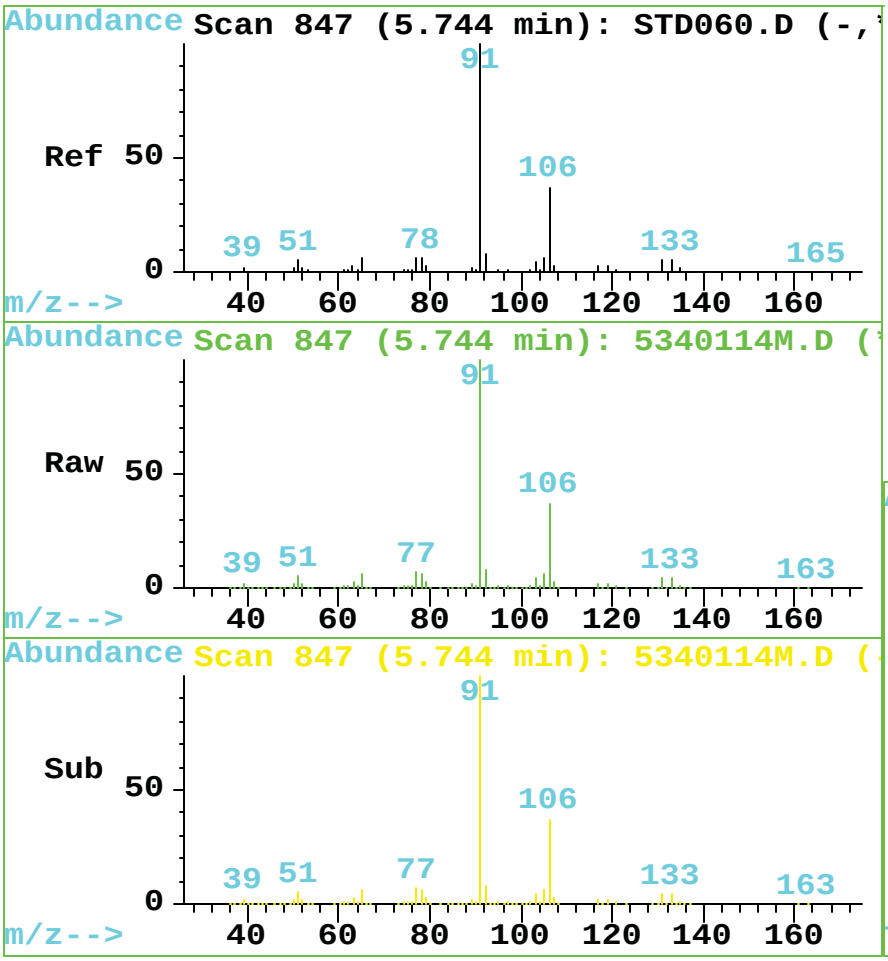


#54
1,1,1,2-Tetrachloroethane
Concen: 49.22 ug/l
RT: 5.73 min Scan# 845
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:130.85 Resp: 1646

Ion	Ratio	Lower	Upper
131	100		
133	95.8	65.8	125.8
117	62.9	30.1	90.1
119	61.4	27.4	87.4

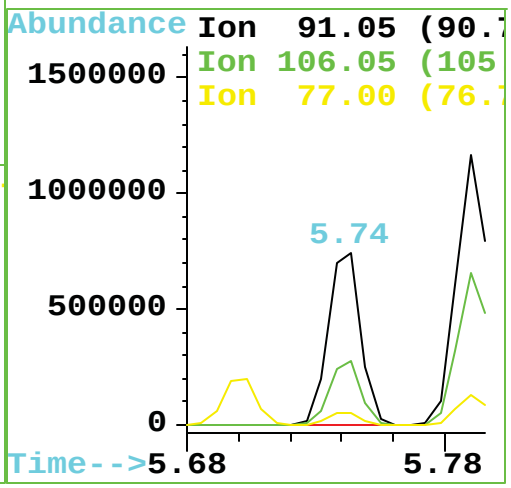


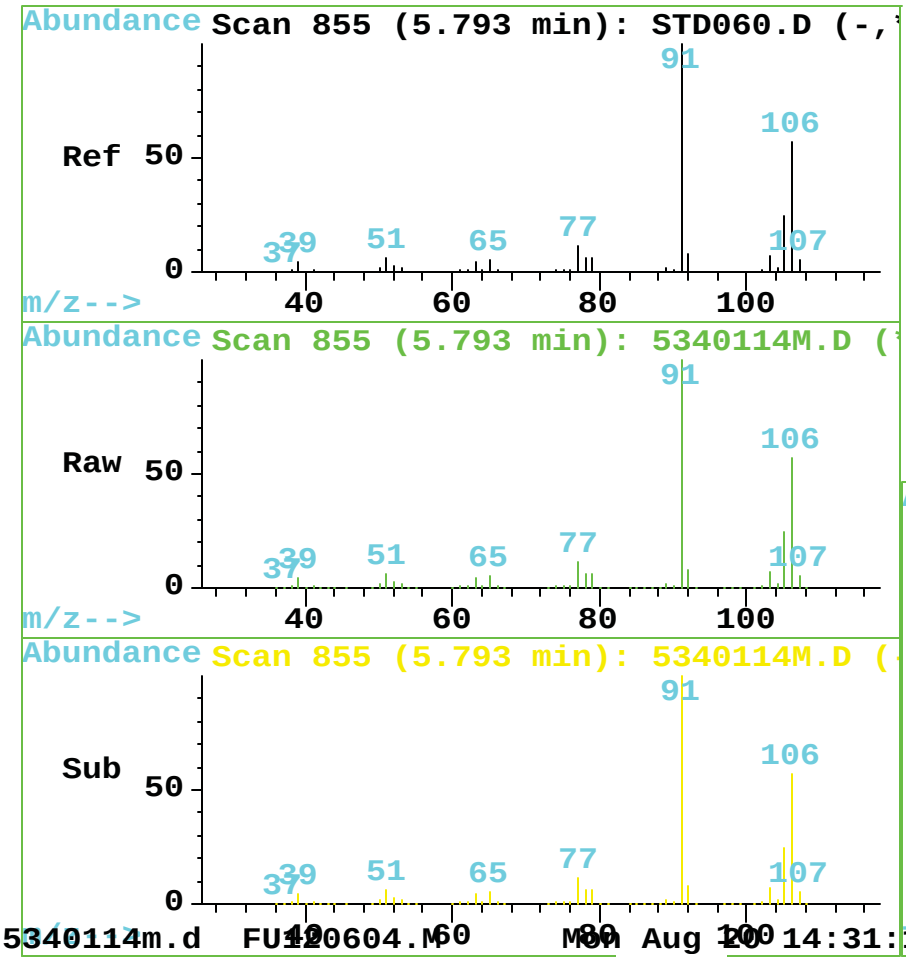


#55
Ethylbenzene (CCC)
Concen: 47.23 ug/l
RT: 5.74 min Scan# 847
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:91.05 Resp: 70910

Ion	Ratio	Lower	Upper
91	100		
106	36.2	3.8	63.8
77	7.1	0.0	37.9
0	0.0	0.0	0.0

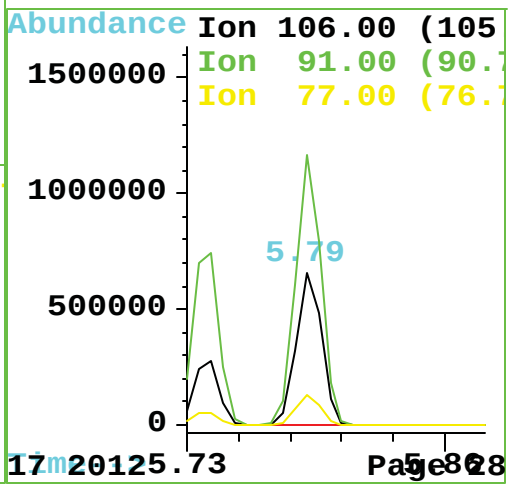


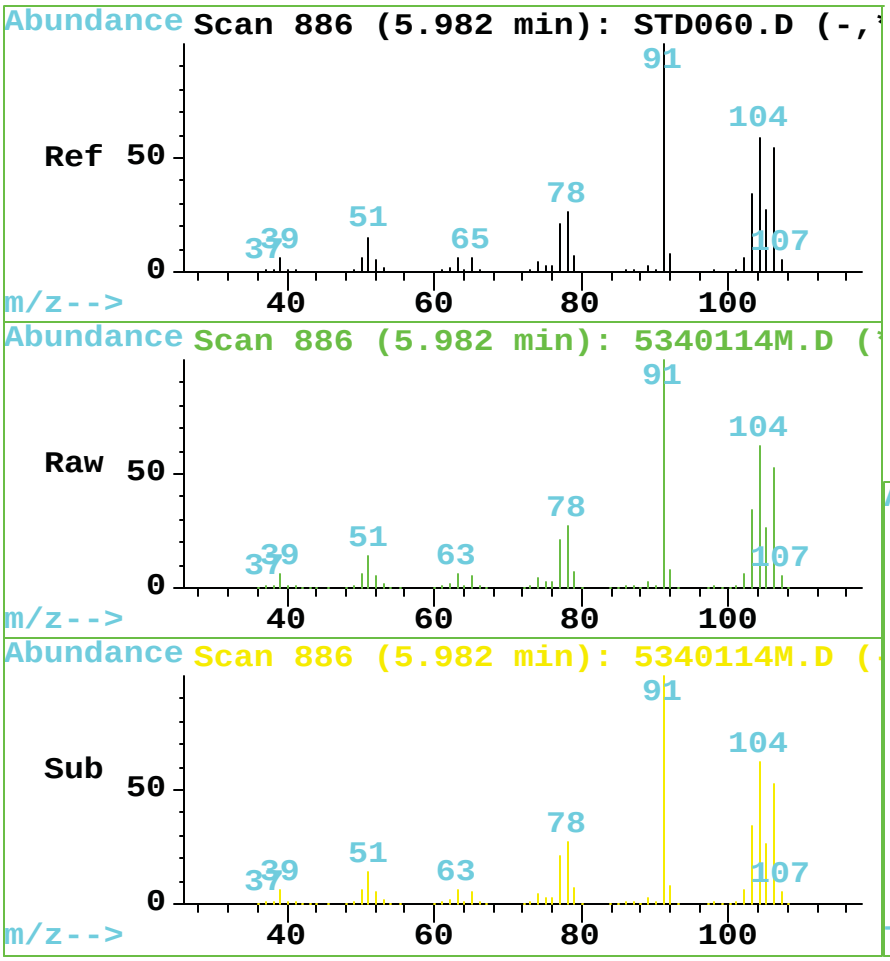


#56
p,m-Xylene
Concen: 93.94 ug/l
RT: 5.79 min Scan# 855
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:106 Resp: 602508

Ion	Ratio	Lower	Upper
106	100		
91	174.4	160.1	220.1
77	19.2	0.0	52.4
0	0.0	0.0	0.0

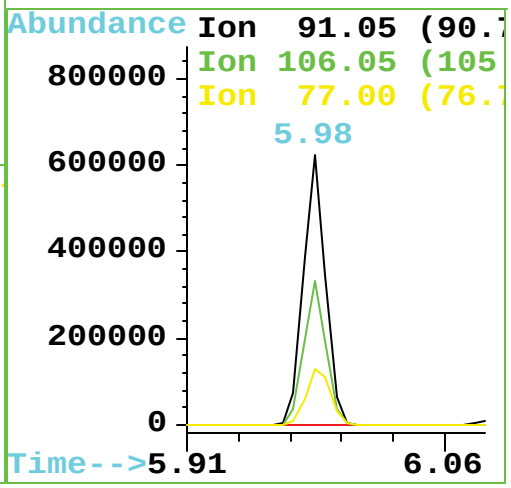


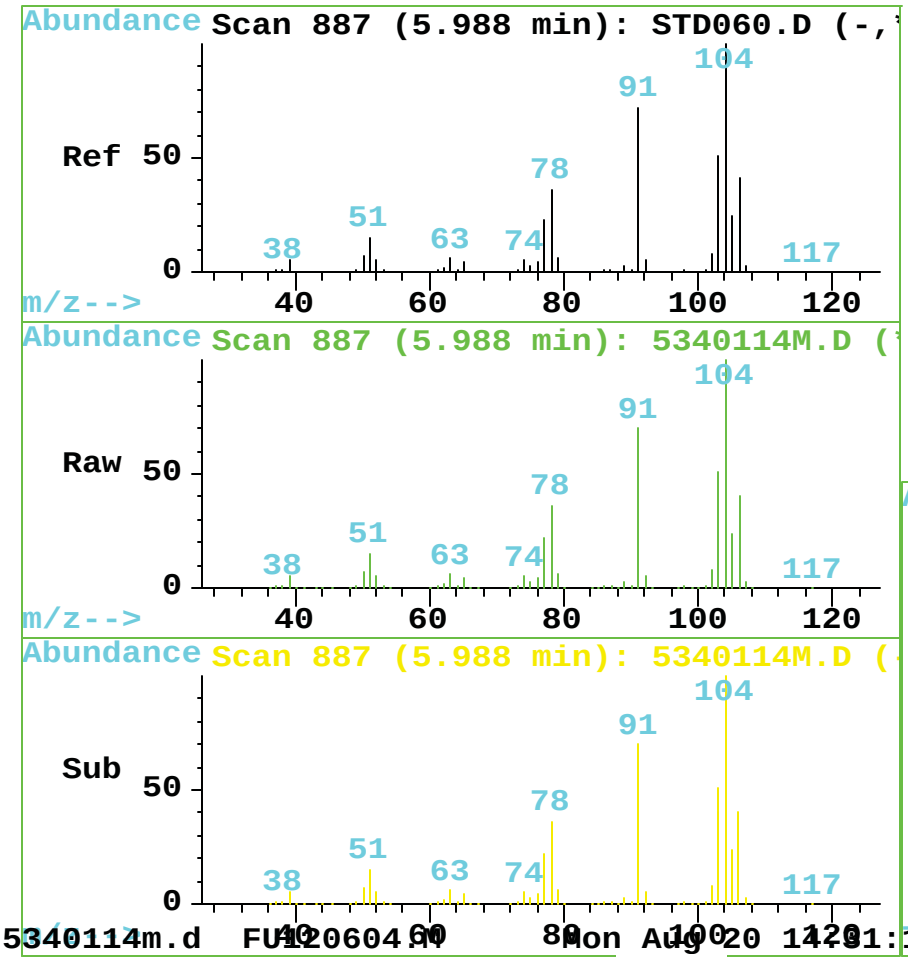


#57
o-Xylene
Concen: 48.09 ug/l
RT: 5.98 min Scan# 886
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:91.05 Resp: 55049

Ion	Ratio	Lower	Upper
91	100		
106	53.6	20.0	80.0
77	23.0	0.0	54.7
0	0.0	0.0	0.0

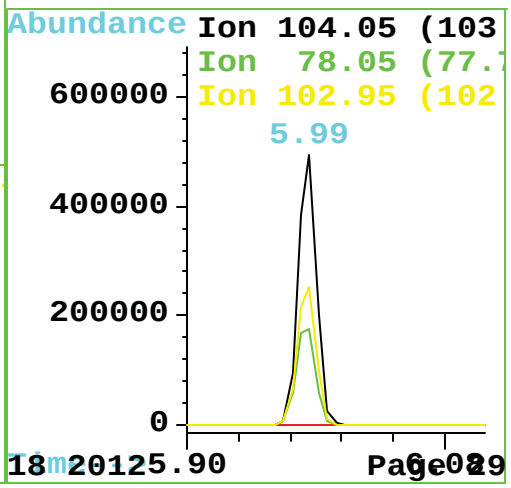


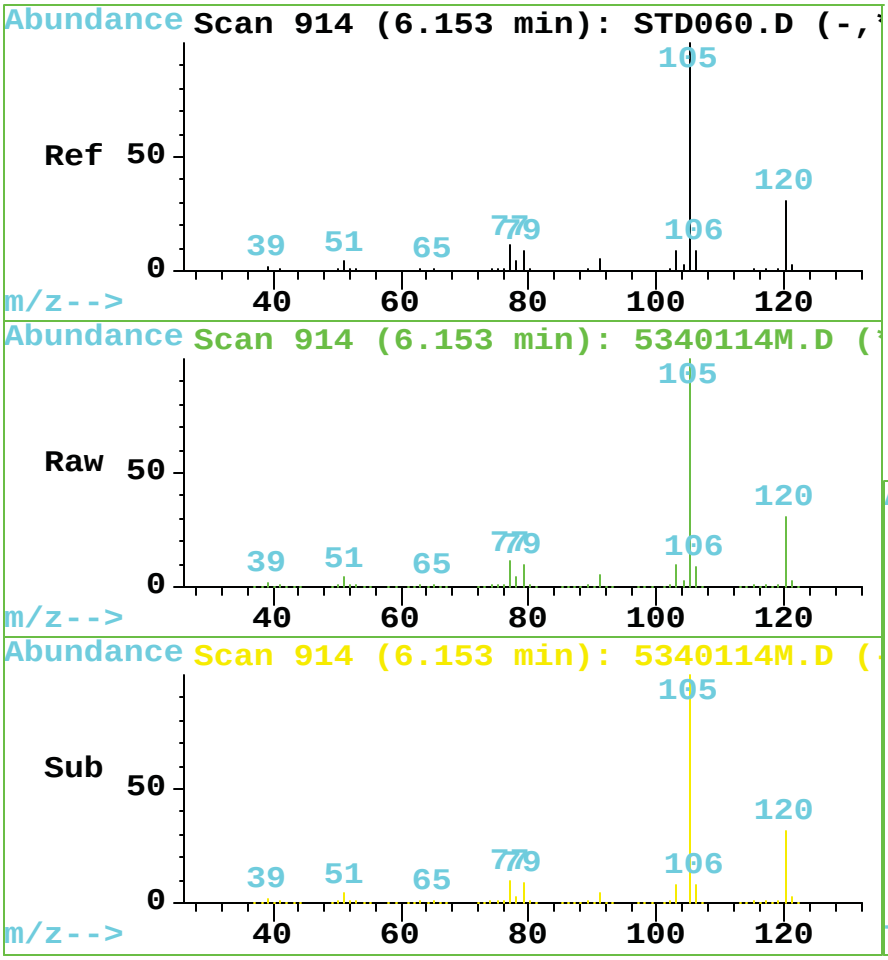


#58
Styrene
Concen: 47.55 ug/l
RT: 5.99 min Scan# 887
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:104.05 Resp: 4429

Ion	Ratio	Lower	Upper
104	100		
78	39.5	15.3	75.3
103	53.8	24.1	84.1
0	0.0	0.0	0.0

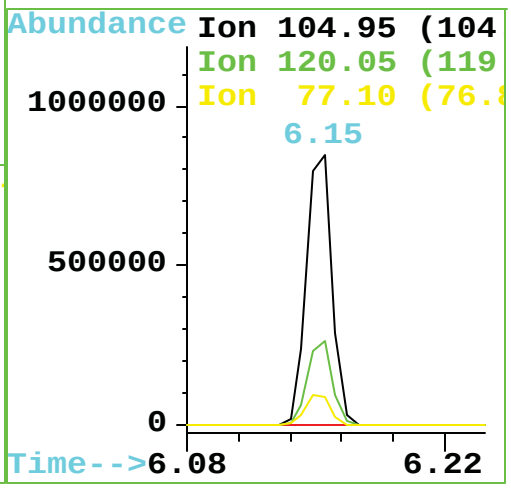


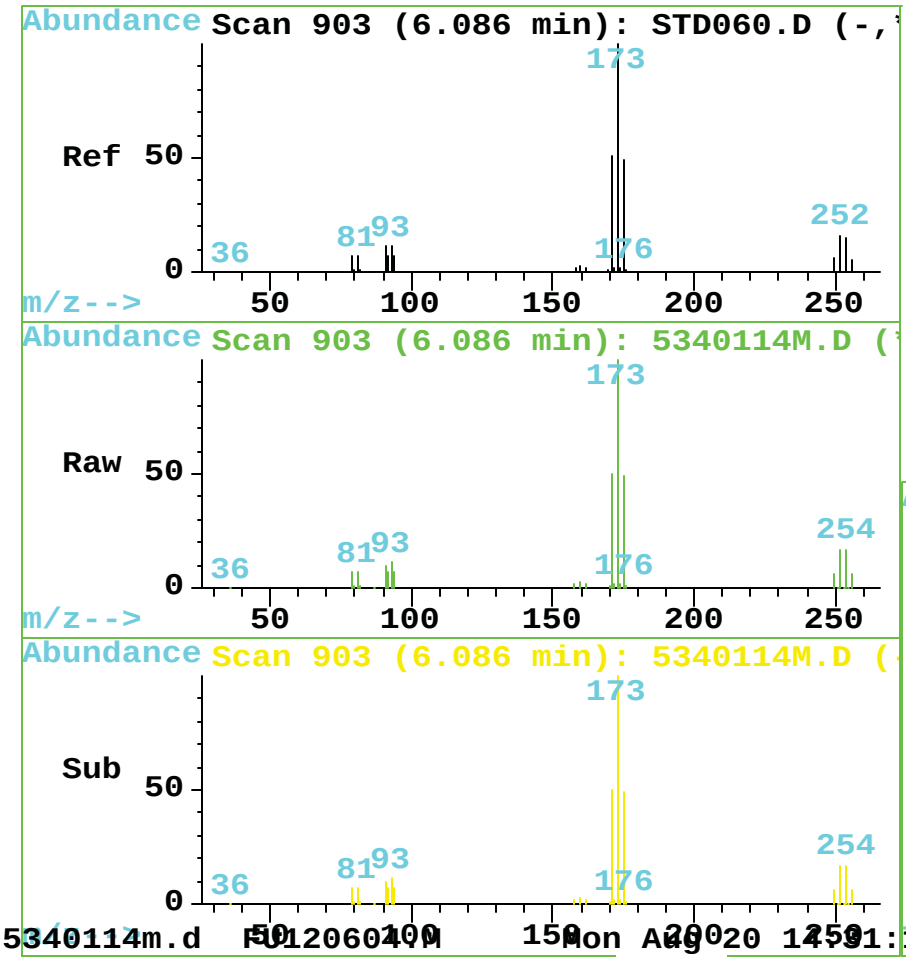


#59
Isopropylbenzene
Concen: 48.28 ug/l
RT: 6.15 min Scan# 914
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:104.95 Resp: 8154

Ion	Ratio	Lower	Upper
105	100		
120	30.4	0.0	58.6
77	11.3	0.0	43.1
0	0.0	0.0	0.0

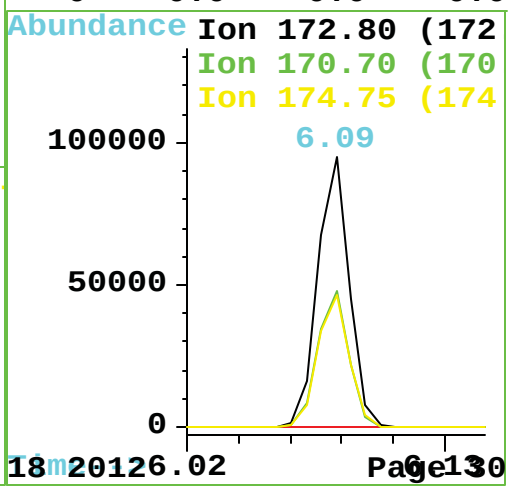


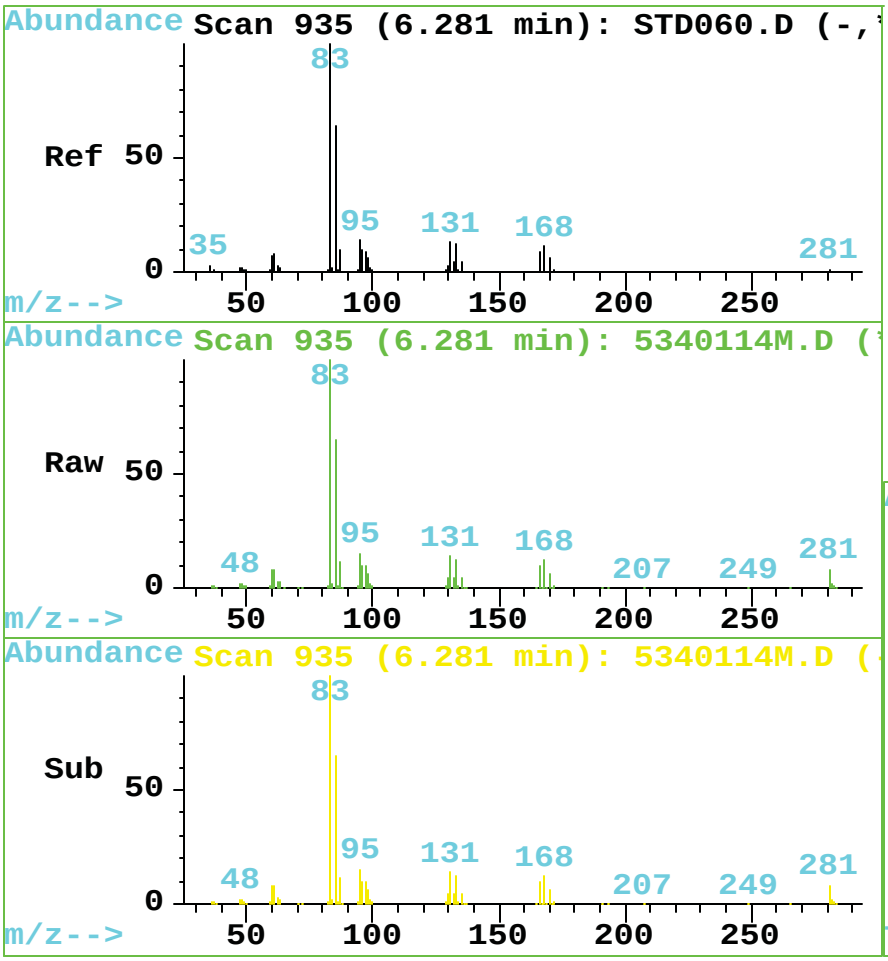


#60
Bromoform (SPCC)
Concen: 49.67 ug/l
RT: 6.09 min Scan# 903
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:172.8 Resp: 8546

Ion	Ratio	Lower	Upper
173	100		
171	50.3	19.9	79.9
175	48.8	17.5	77.5
0	0.0	0.0	0.0

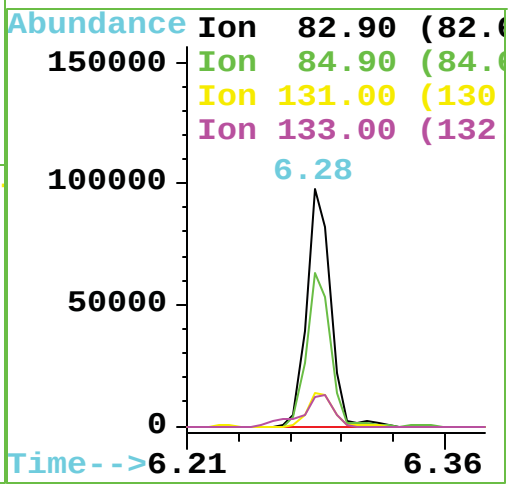


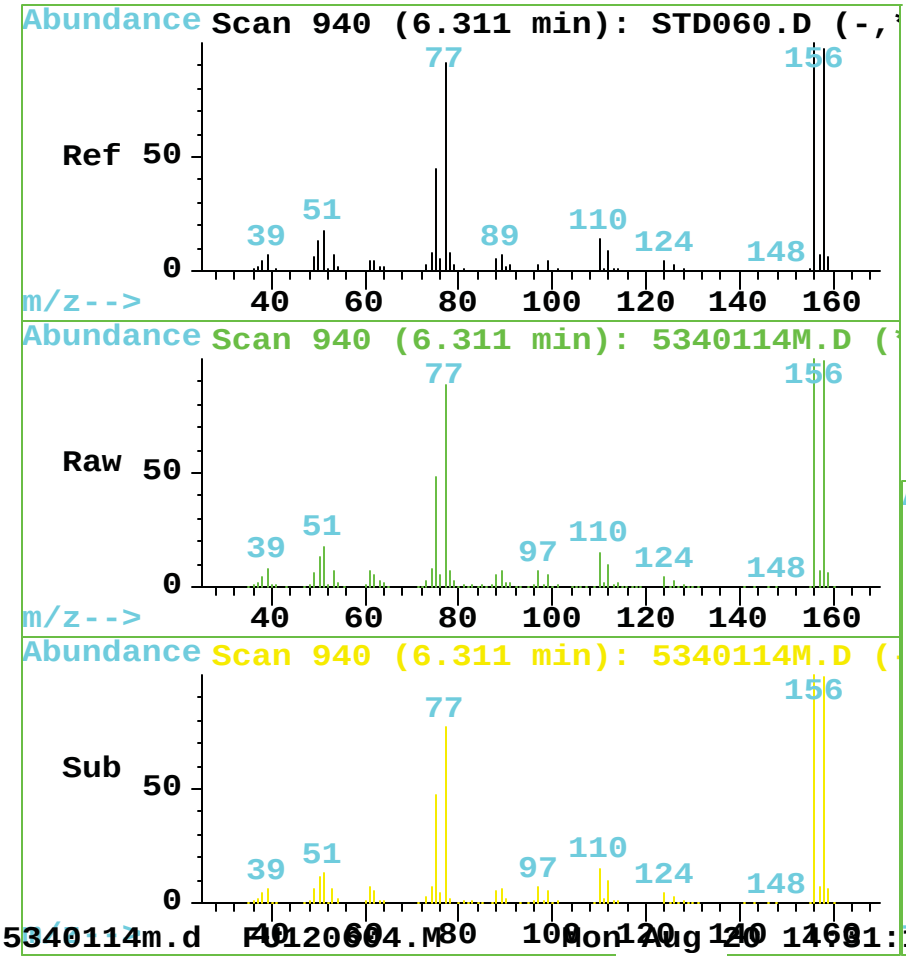


#61
1,1,2,2-Tetrachloroethane
Concen: 50.00 ug/l
RT: 6.28 min Scan# 935
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:82.9 Resp: 92422

Ion	Ratio	Lower	Upper
83	100		
85	64.9	34.6	94.6
131	15.4	0.0	44.8
133	16.5	0.0	45.6

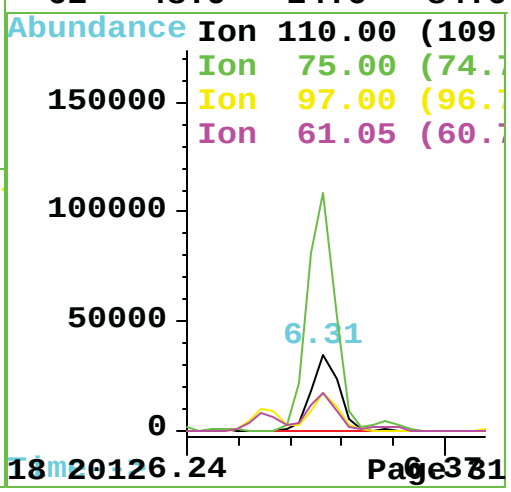


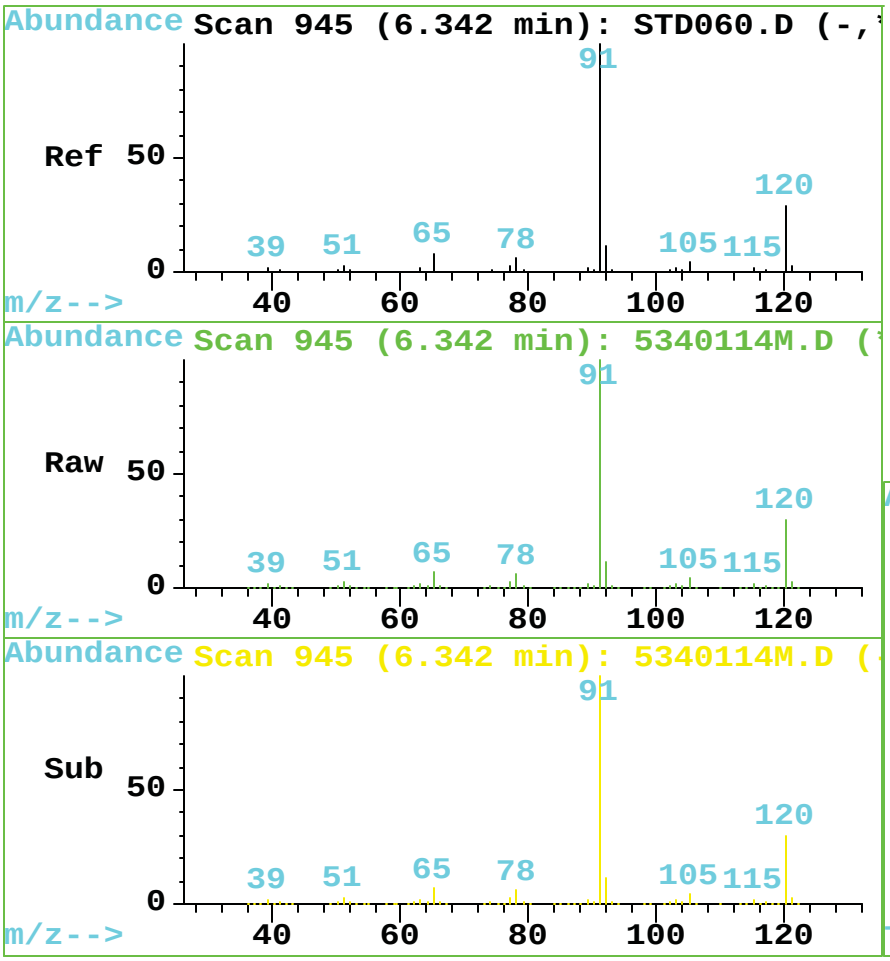


#62
1,2,3-Trichloropropane
Concen: 51.30 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:110 Resp: 31265

Ion	Ratio	Lower	Upper
110	100		
75	324.5	327.3	387.3#
97	45.6	15.8	75.8
61	48.9	24.6	84.6

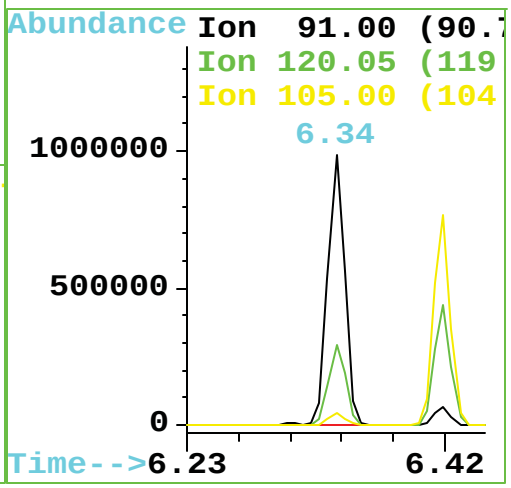


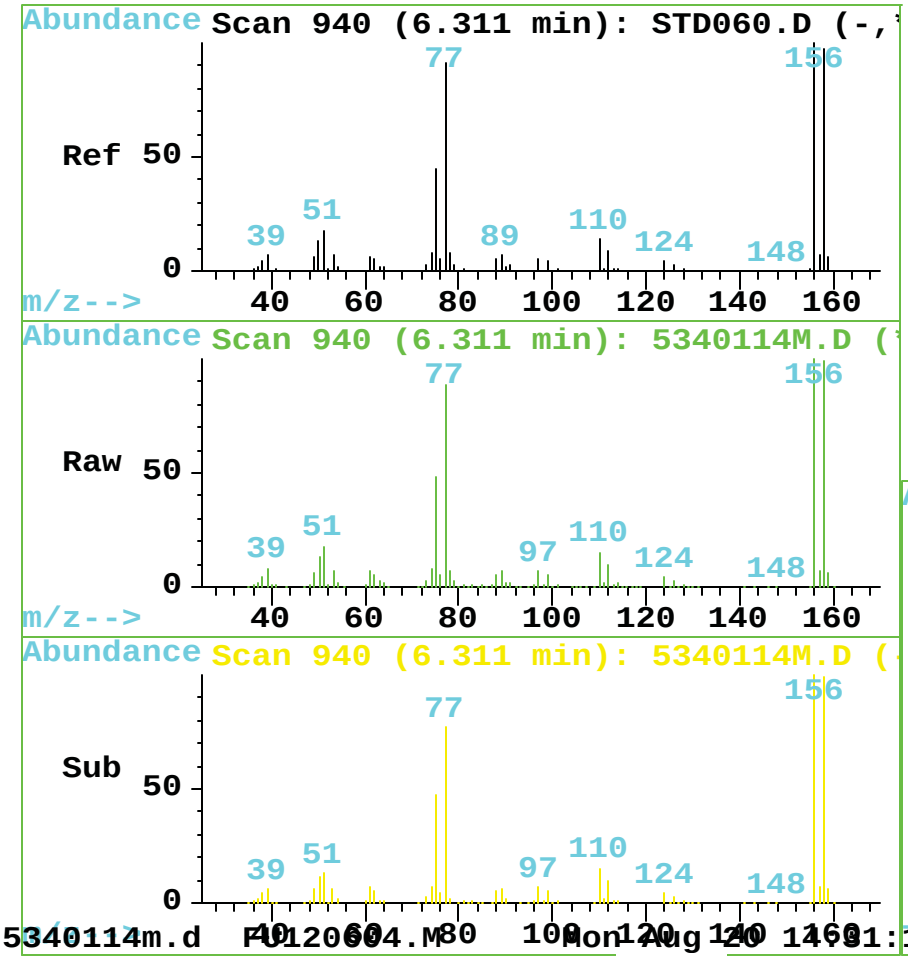


#63
n-Propylbenzene
Concen: 48.04 ug/l
RT: 6.34 min Scan# 945
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:91 Resp: 834220

Ion	Ratio	Lower	Upper
91	100		
120	29.9	0.0	57.3
105	4.2	0.0	34.1
0	0.0	0.0	0.0

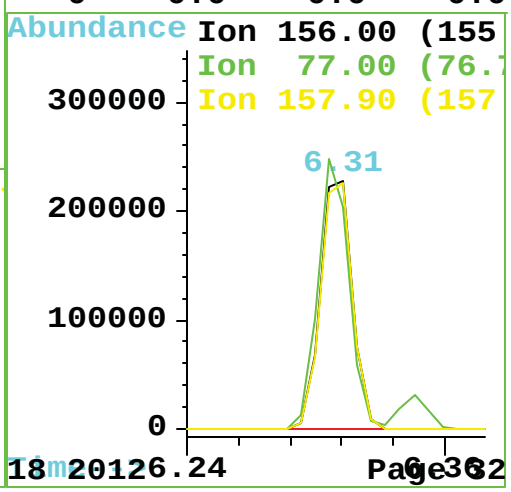


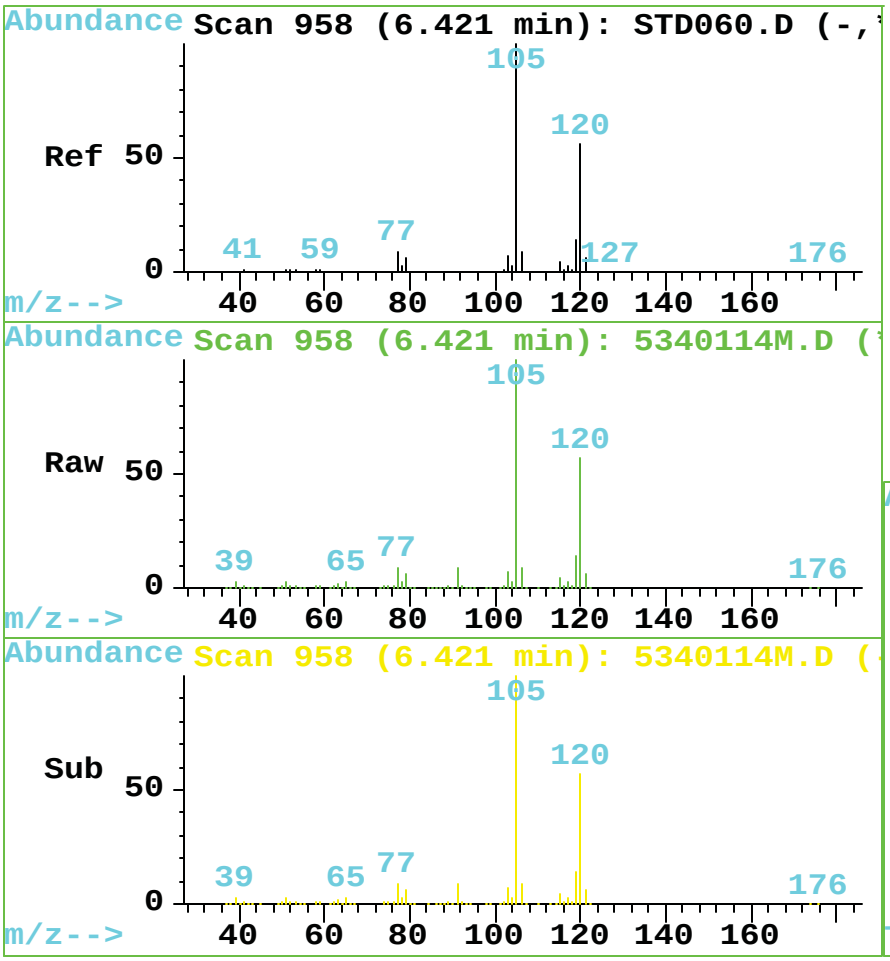


#64
Bromobenzene
Concen: 46.84 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:156 Resp: 223121

Ion	Ratio	Lower	Upper
156	100		
77	104.3	96.5	156.5
158	98.4	68.0	128.0
0	0.0	0.0	0.0

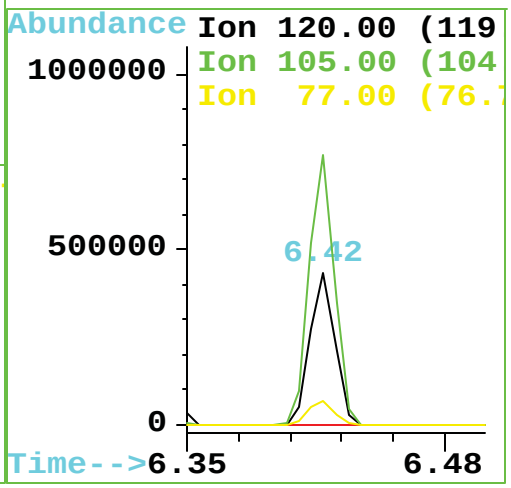


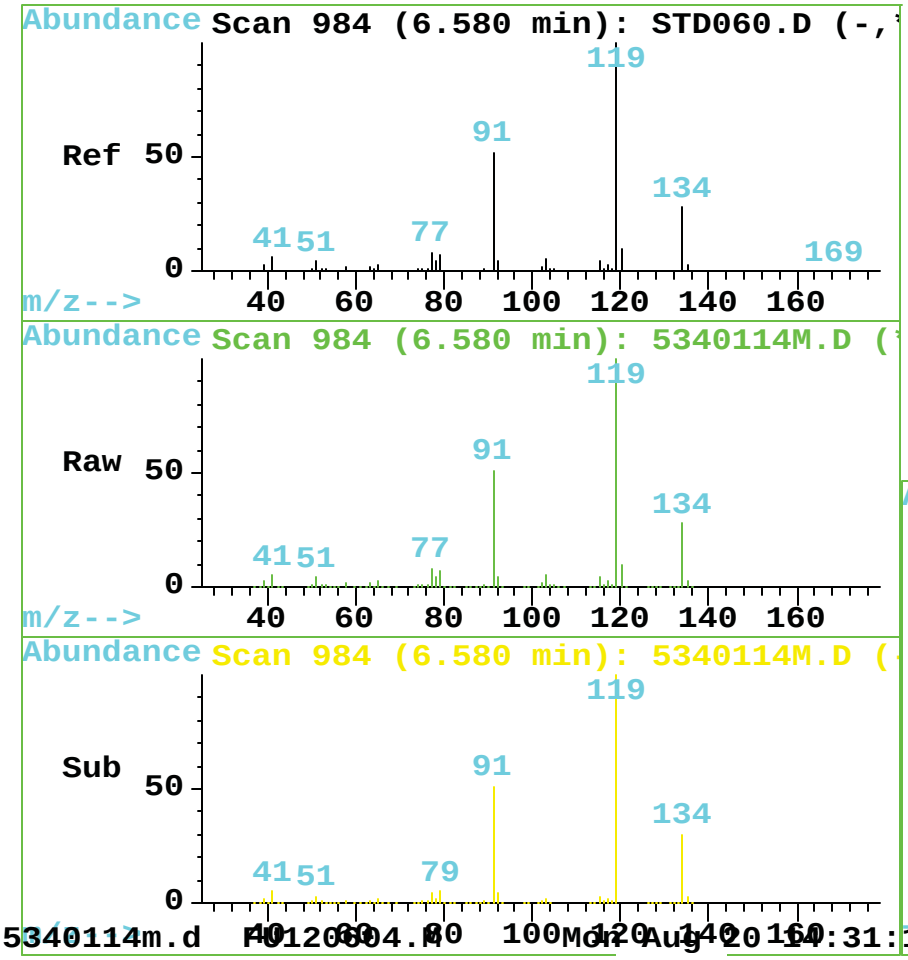


#65
1,3,5-Trimethylbenzene
Concen: 47.34 ug/l
RT: 6.42 min Scan# 958
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:120 Resp: 368802

Ion	Ratio	Lower	Upper
120	100		
105	177.7	162.2	222.2
77	16.4	0.0	51.0
0	0.0	0.0	0.0

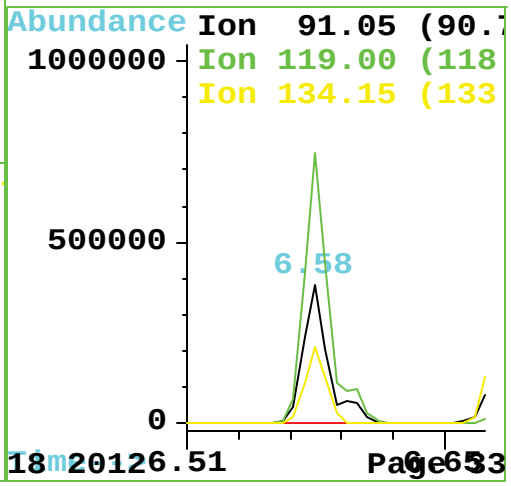


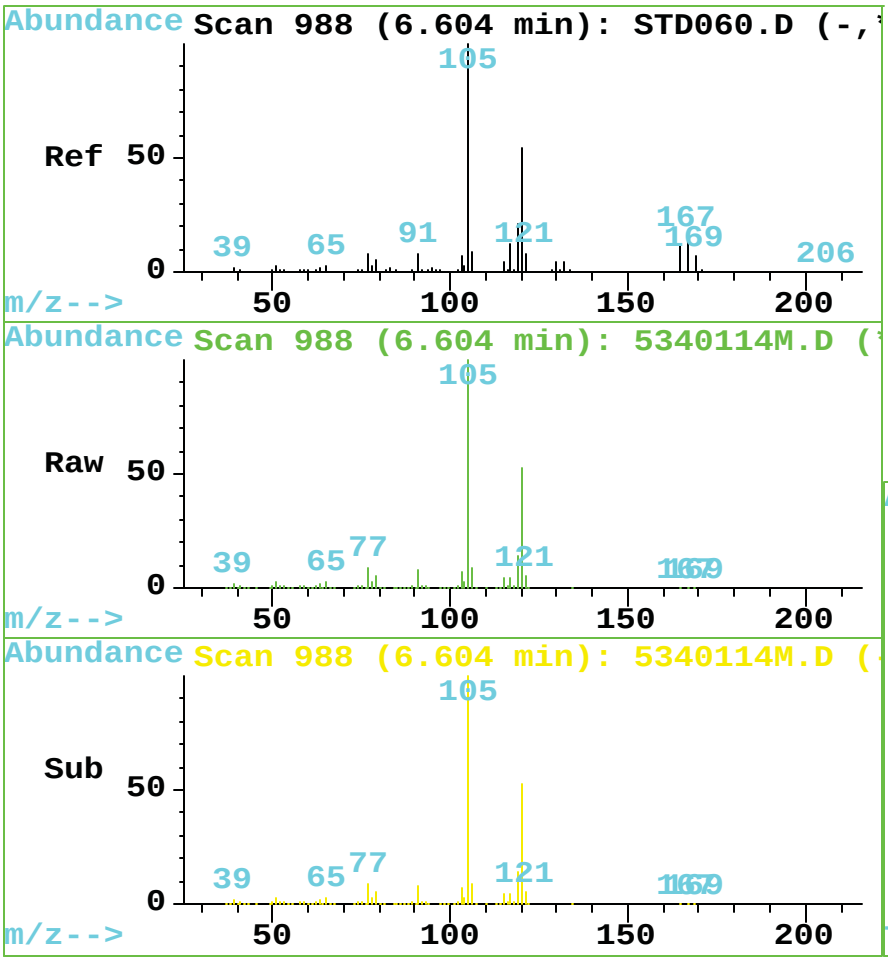


#66
tert-Butylbenzene
Concen: 48.75 ug/l
RT: 6.58 min Scan# 984
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:91.05 Resp: 38845

Ion	Ratio	Lower	Upper
91	100		
119	188.4	148.4	208.4
134	46.5	11.4	71.4
0	0.0	0.0	0.0

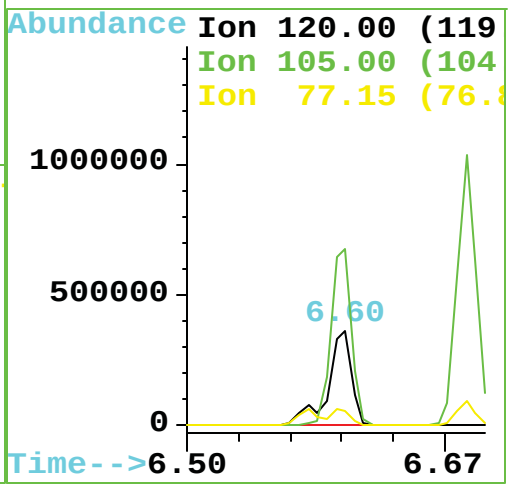


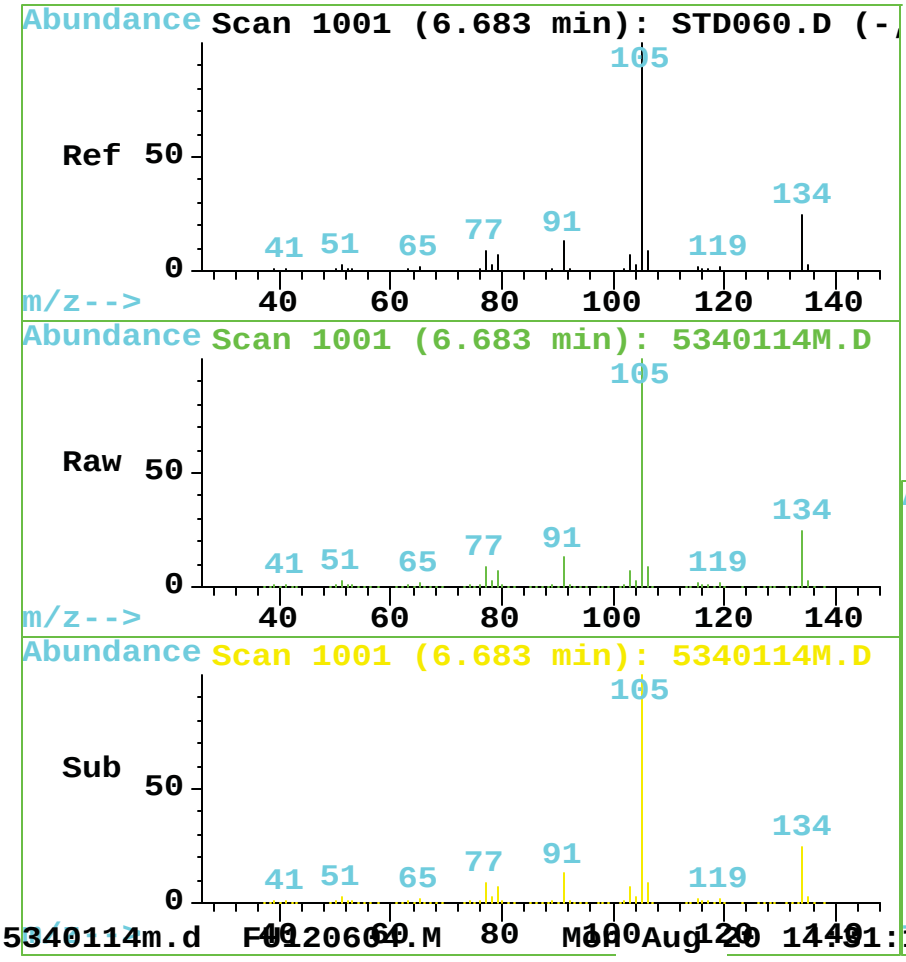


#67
1,2,4-Trimethylbenzene
Concen: 48.28 ug/l
RT: 6.60 min Scan# 988
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:120 Resp: 397323

Ion	Ratio	Lower	Upper
120	100		
105	161.3	144.1	204.1
77	12.4	0.0	45.7
0	0.0	0.0	0.0

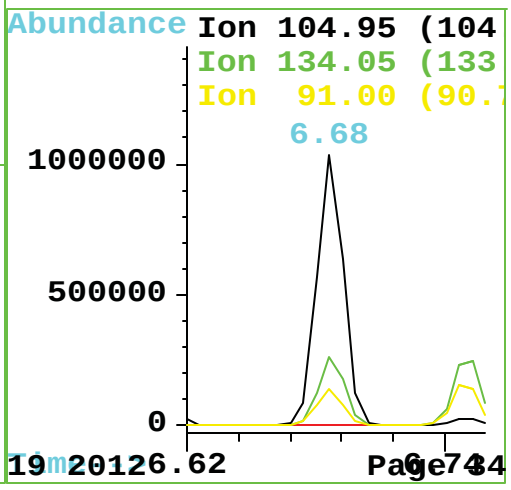


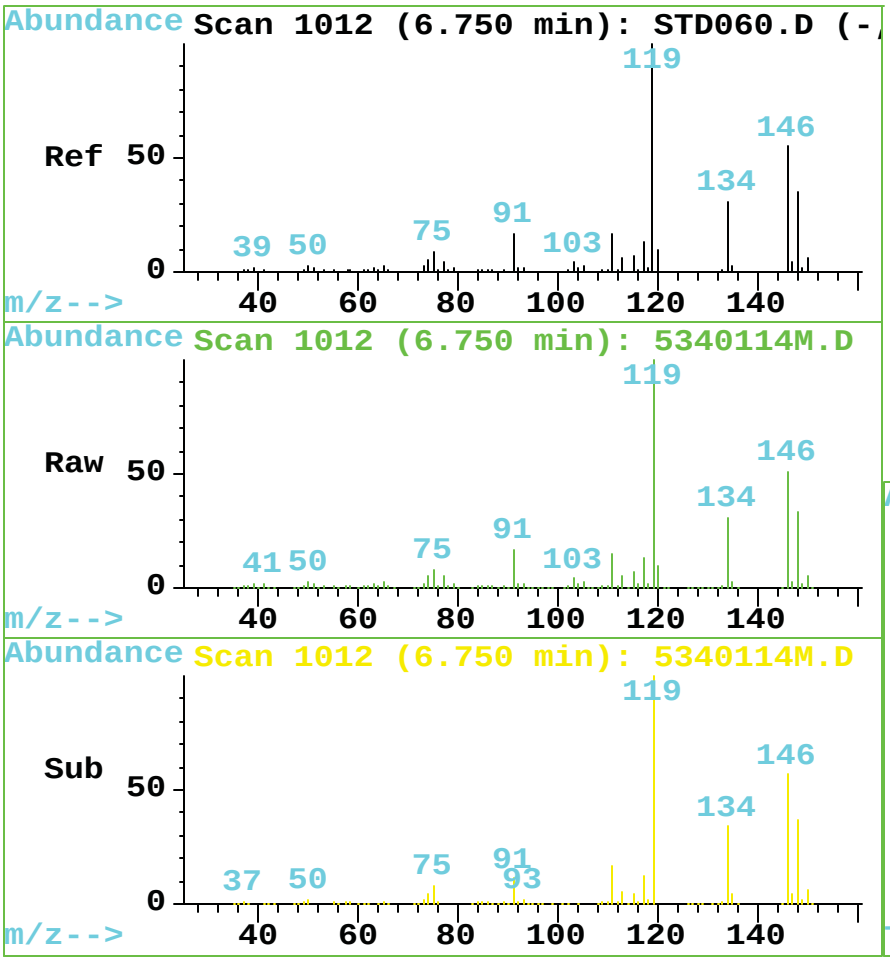


#69
sec-Butylbenzene
Concen: 50.56 ug/l
RT: 6.68 min Scan# 1001
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:104.95 Resp: 8990

Ion	Ratio	Lower	Upper
105	100		
134	25.2	0.0	53.6
91	13.4	0.0	44.8
0	0.0	0.0	0.0

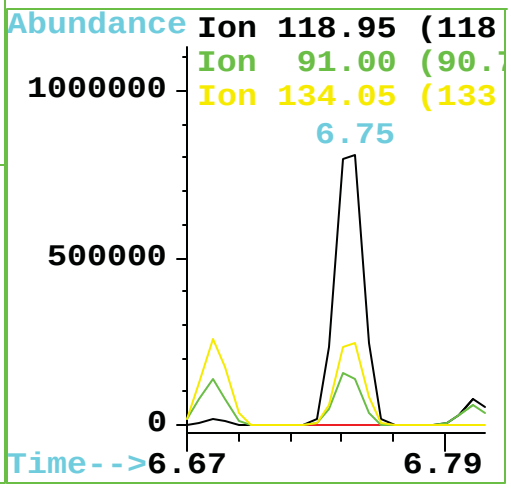


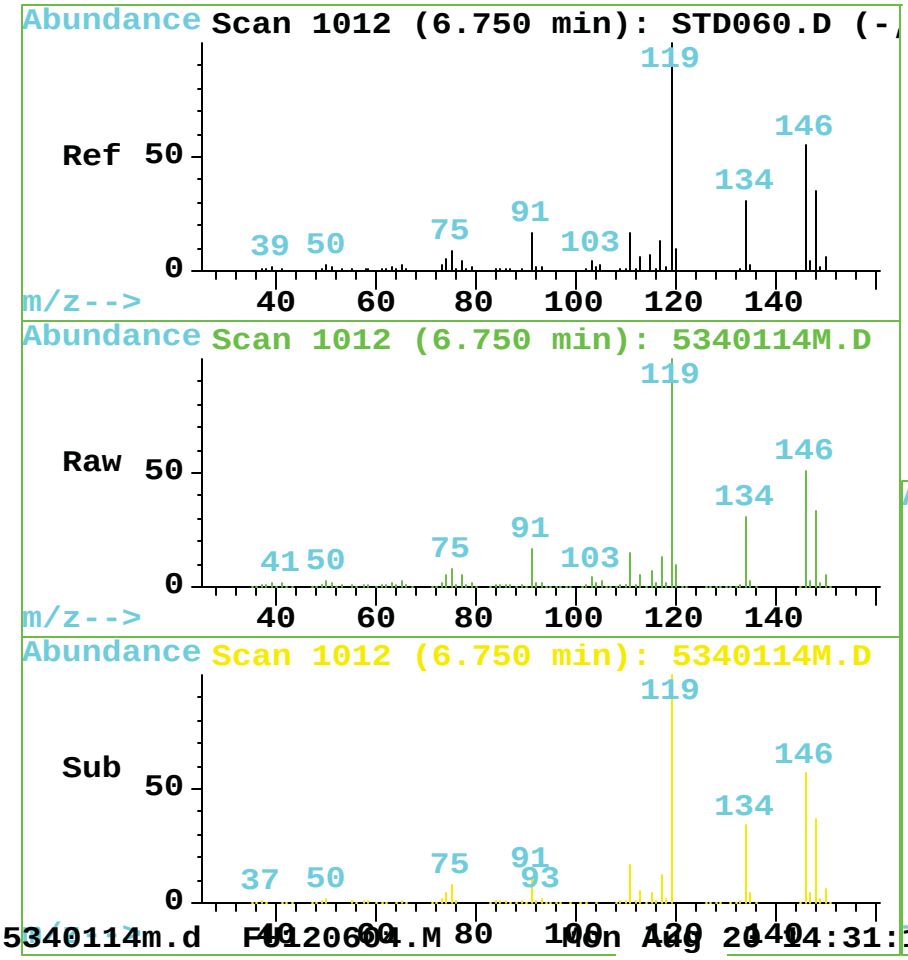


#70
p-Isopropyltoluene
Concen: 51.84 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:118.95 Resp: 7782

Ion	Ratio	Lower	Upper
119	100		
91	18.2	0.0	50.6
134	30.0	0.0	58.1
0	0.0	0.0	0.0

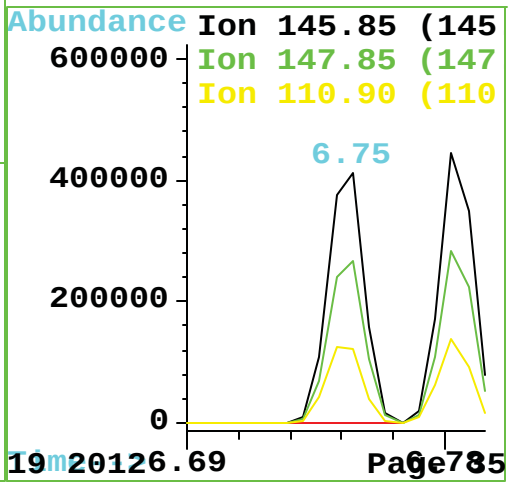


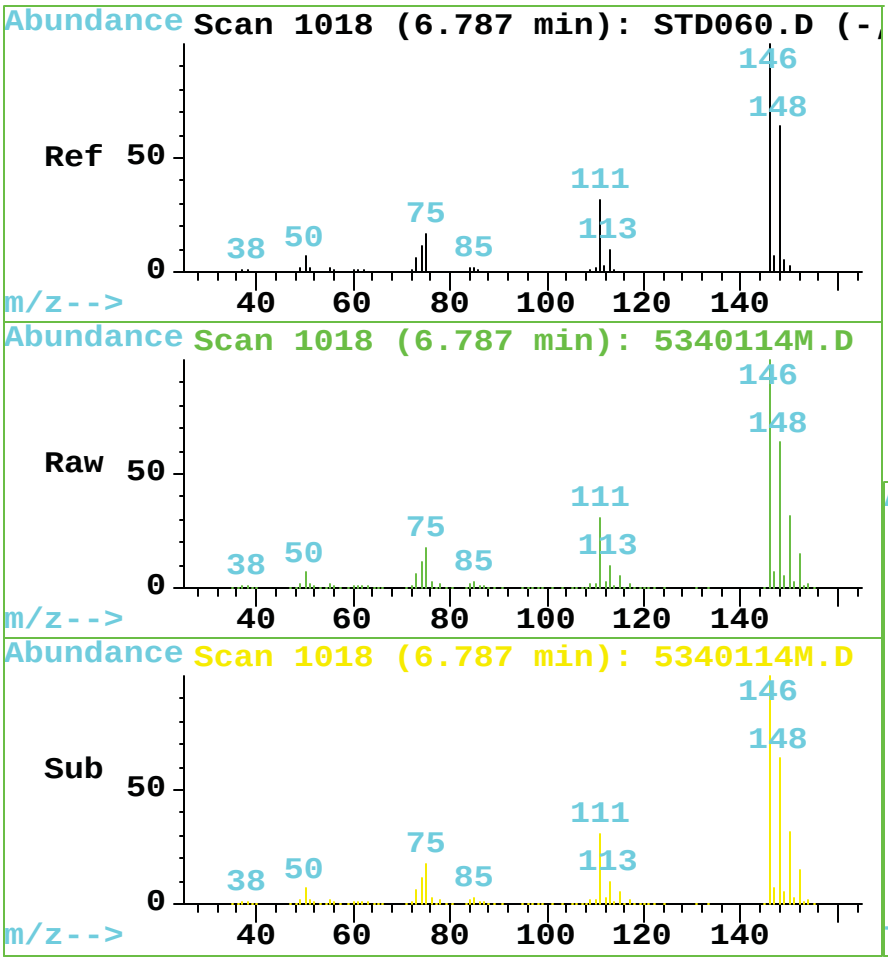


#71
1,3-Dichlorobenzene
Concen: 48.28 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:145.85 Resp: 3959

Ion	Ratio	Lower	Upper
146	100		
148	64.4	34.8	94.8
111	31.5	6.2	66.2
0	0.0	0.0	0.0

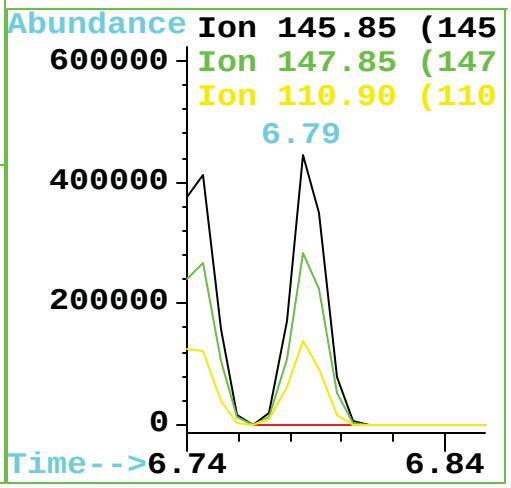


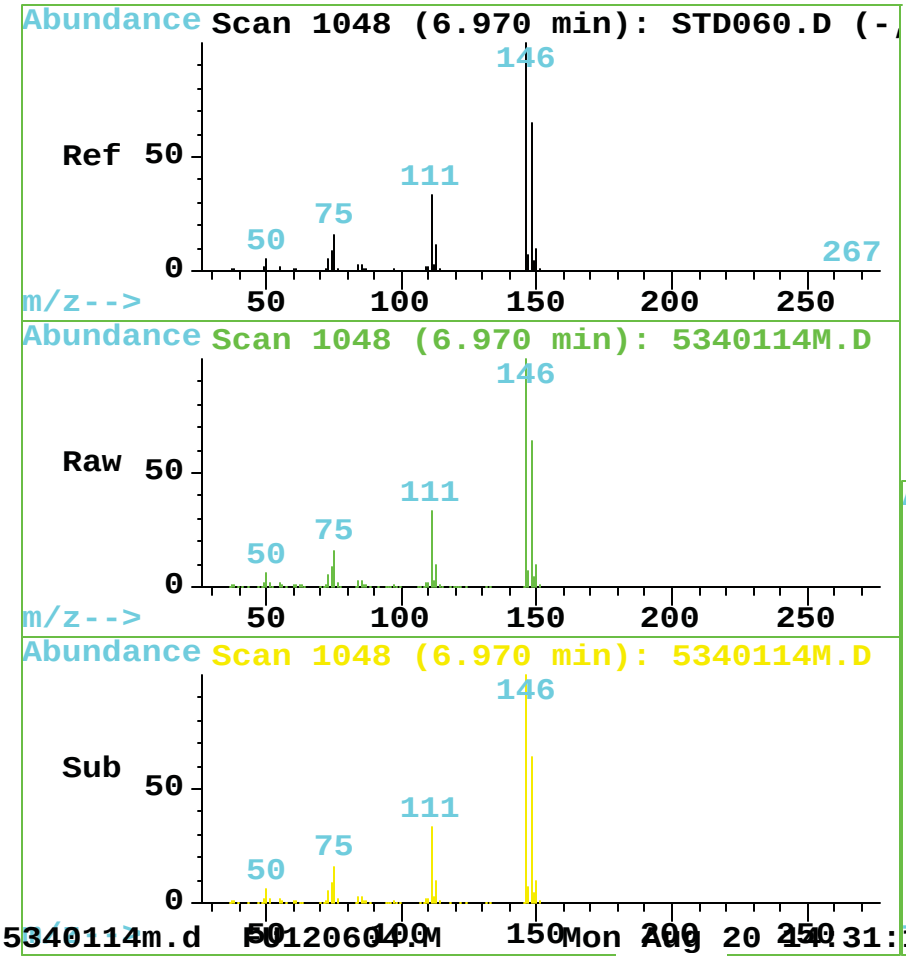


#72
1,4-Dichlorobenzene
Concen: 46.44 ug/l
RT: 6.79 min Scan# 1018
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:145.85 Resp: 3909

Ion	Ratio	Lower	Upper
146	100		
148	64.4	33.9	93.9
111	30.4	5.2	65.2
0	0.0	0.0	0.0

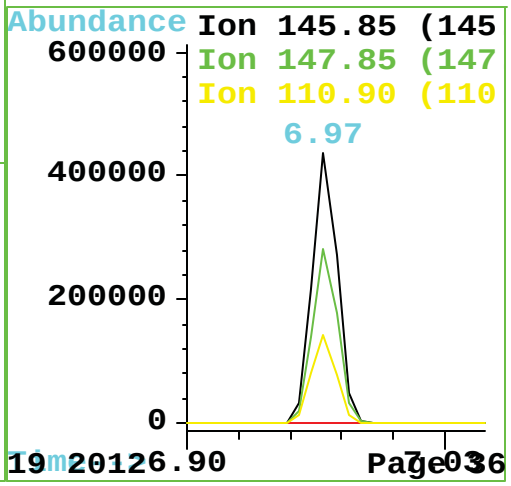


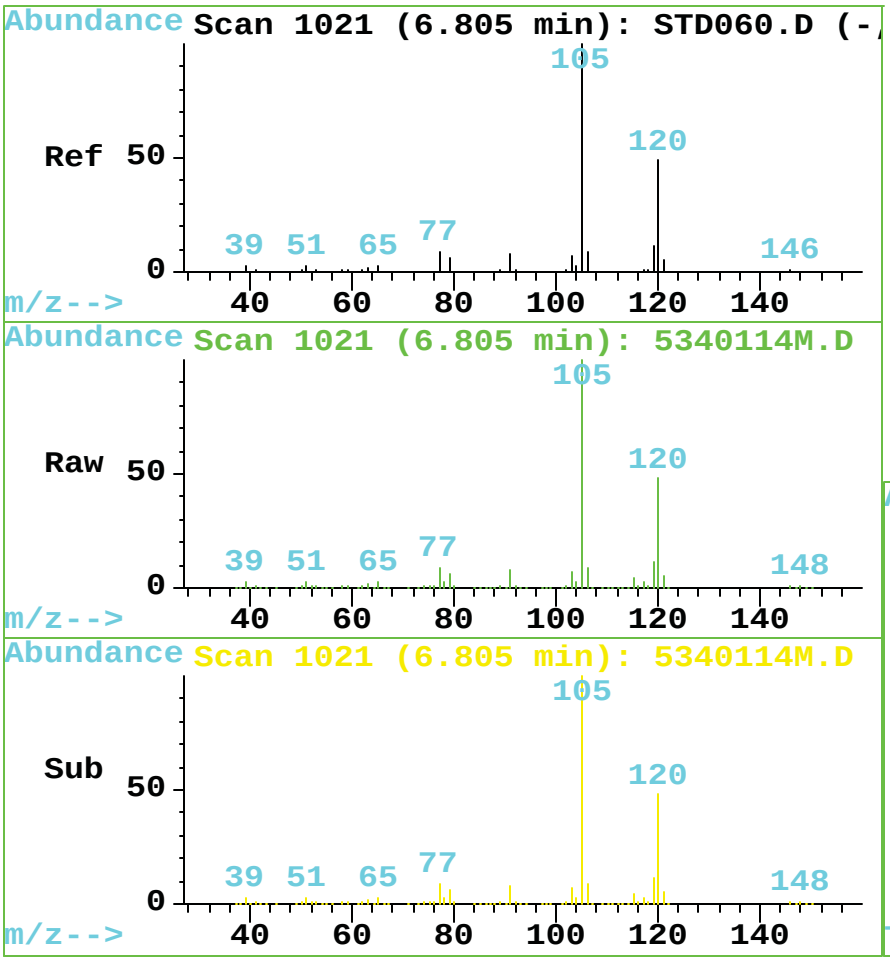


#73
1,2-Dichlorobenzene
Concen: 48.66 ug/l
RT: 6.97 min Scan# 1048
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:145.85 Resp: 3709

Ion	Ratio	Lower	Upper
146	100		
148	64.5	34.1	94.1
111	32.2	6.5	66.5
0	0.0	0.0	0.0

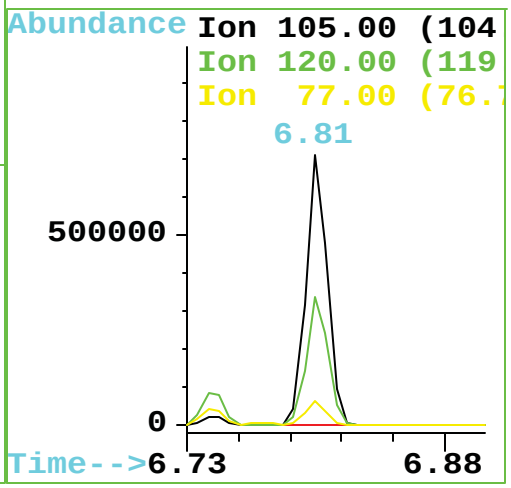


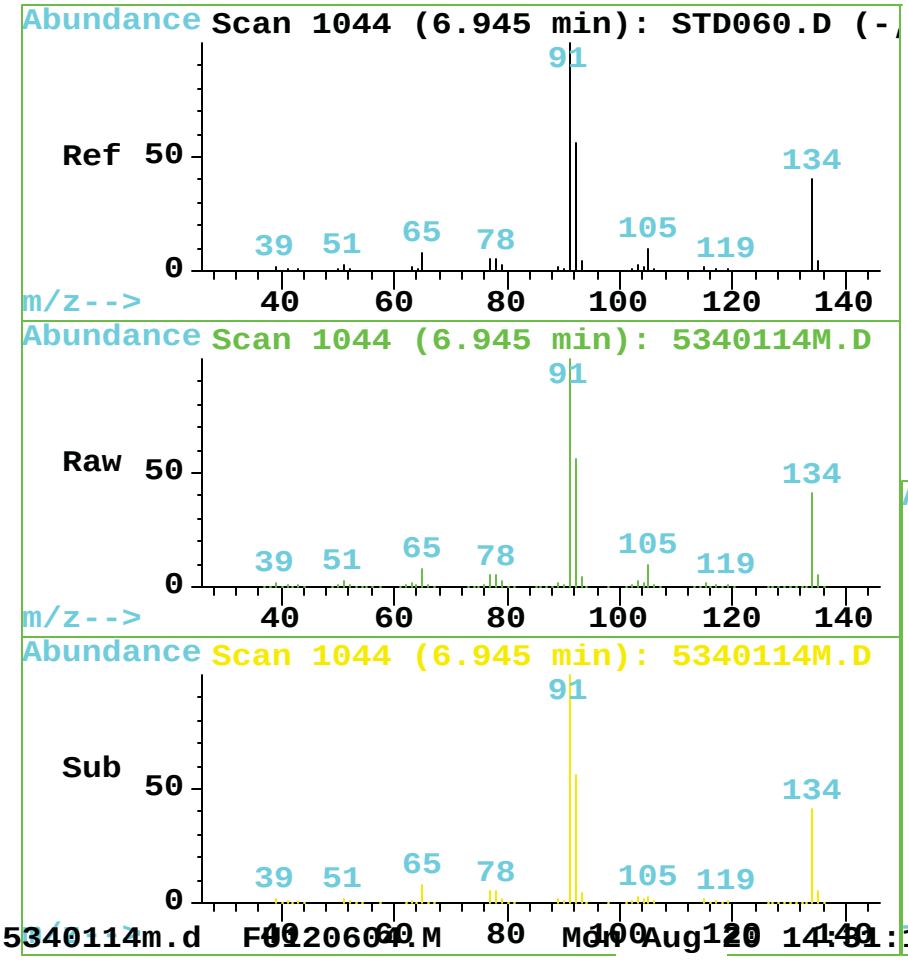


#74
1,2,3-Trimethylbenzene
Concen: 48.61 ug/l
RT: 6.81 min Scan# 1021
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:105 Resp: 603461

Ion	Ratio	Lower	Upper
105	100		
120	48.8	15.1	75.1
77	9.0	0.0	40.2
0	0.0	0.0	0.0

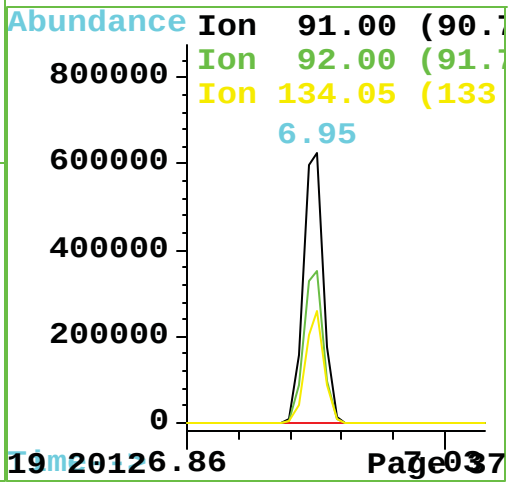


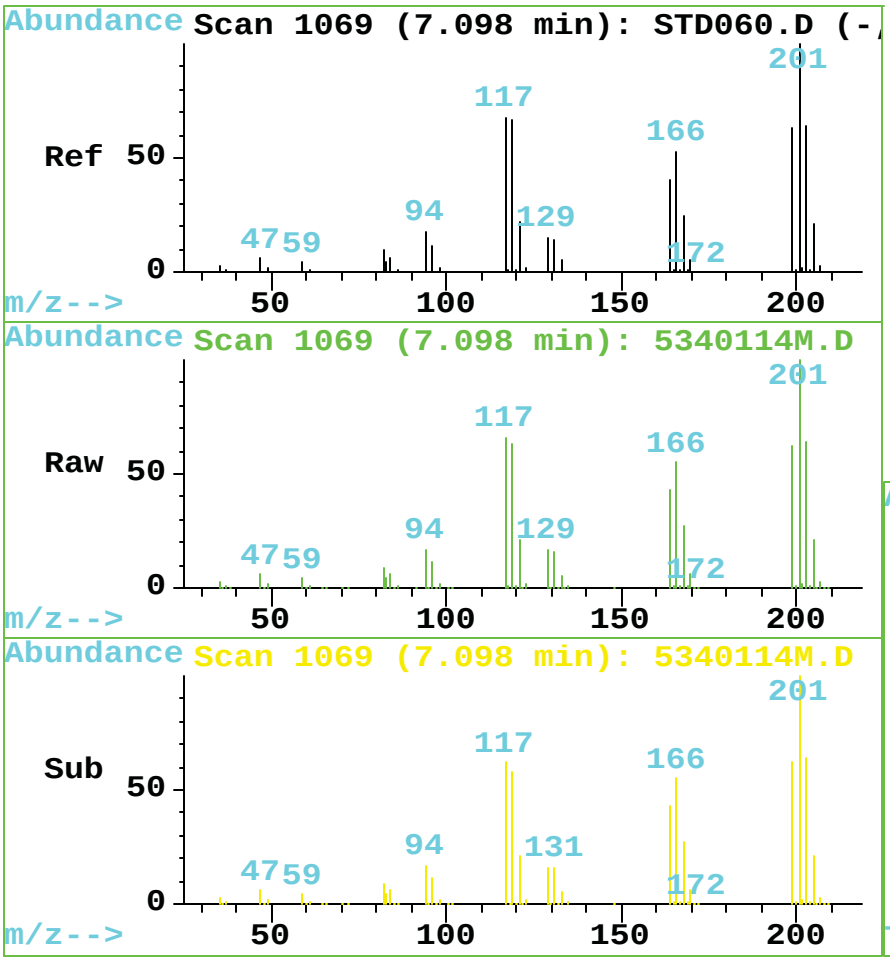


#75
n-Butylbenzene
Concen: 48.52 ug/l
RT: 6.95 min Scan# 1044
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:91 Resp: 577155

Ion	Ratio	Lower	Upper
91	100		
92	55.7	25.5	85.5
134	38.1	4.2	64.2
0	0.0	0.0	0.0

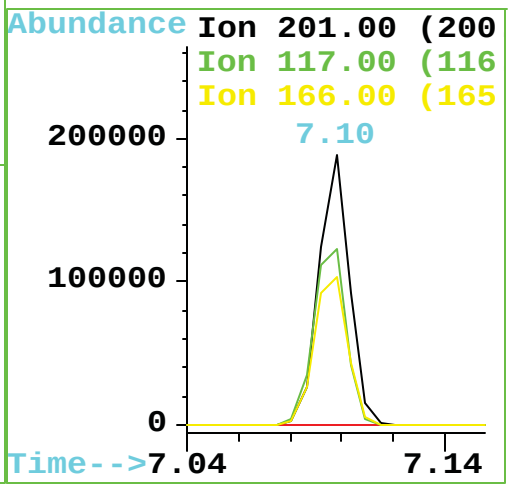


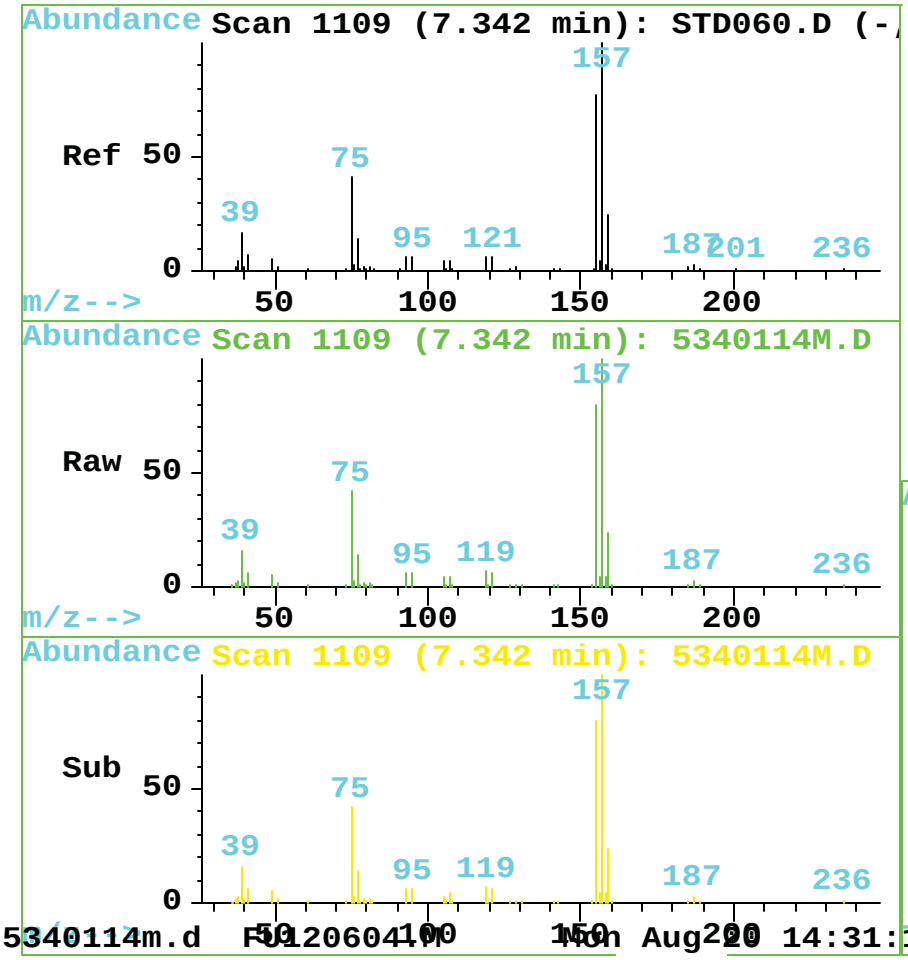


#76
Hexachloroethane
Concen: 46.11 ug/l
RT: 7.10 min Scan# 1069
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:201 Resp: 164014

Ion	Ratio	Lower	Upper
201	100		
117	71.6	50.2	110.2
166	61.4	38.0	98.0
0	0.0	0.0	0.0

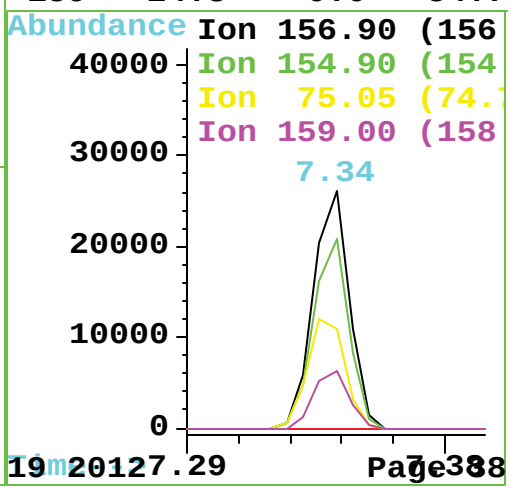


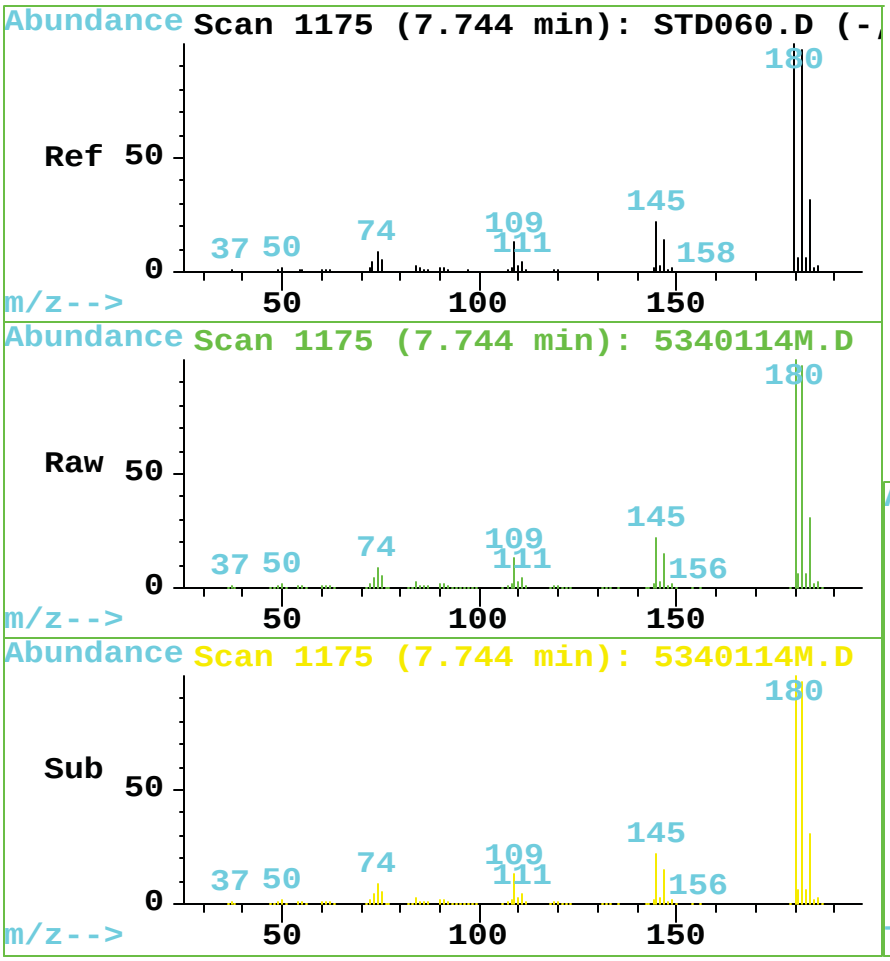


#77
1,2-Dibromo-3-Chloropropan
Concen: 56.22 ug/l
RT: 7.34 min Scan# 1109
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:156.9 Resp: 2382

Ion	Ratio	Lower	Upper
157	100		
155	79.3	46.1	106.1
75	49.0	34.3	94.3
159	24.3	0.0	54.7

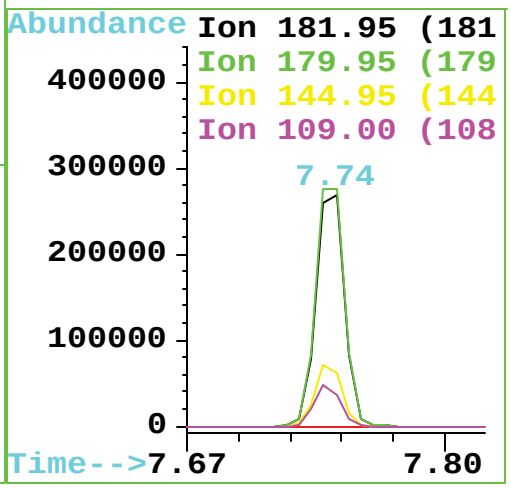


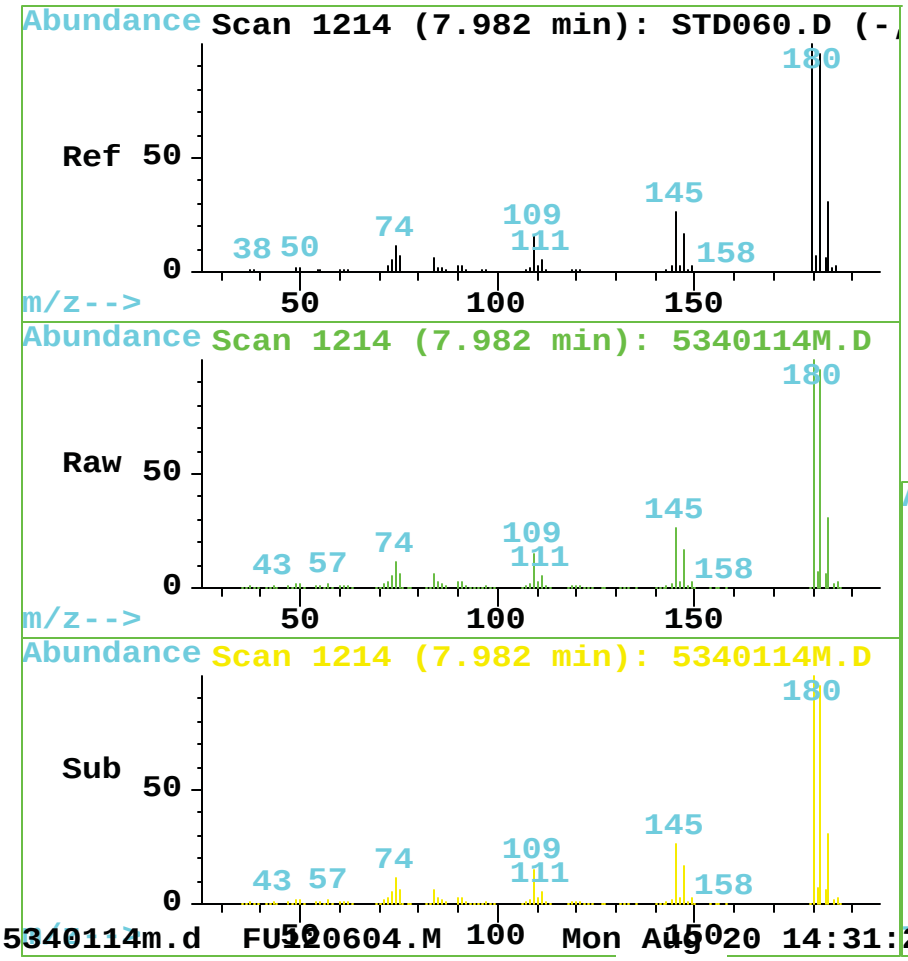


#78
1,2,4-Trichlorobenzene
Concen: 49.43 ug/l
RT: 7.74 min Scan# 1175
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:181.95 Resp: 2572

Ion	Ratio	Lower	Upper
182	100		
180	104.7	74.1	134.1
145	25.3	0.0	57.2
109	16.1	0.0	48.9

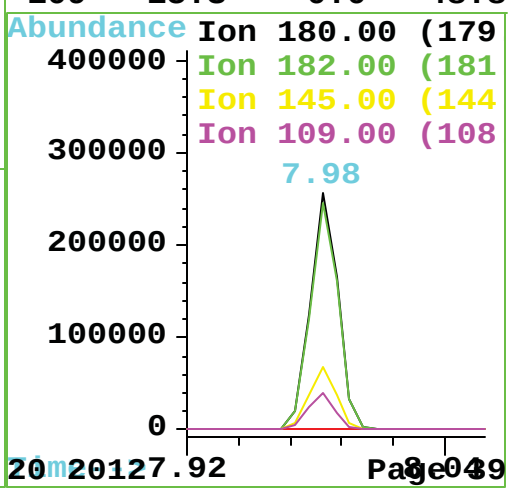


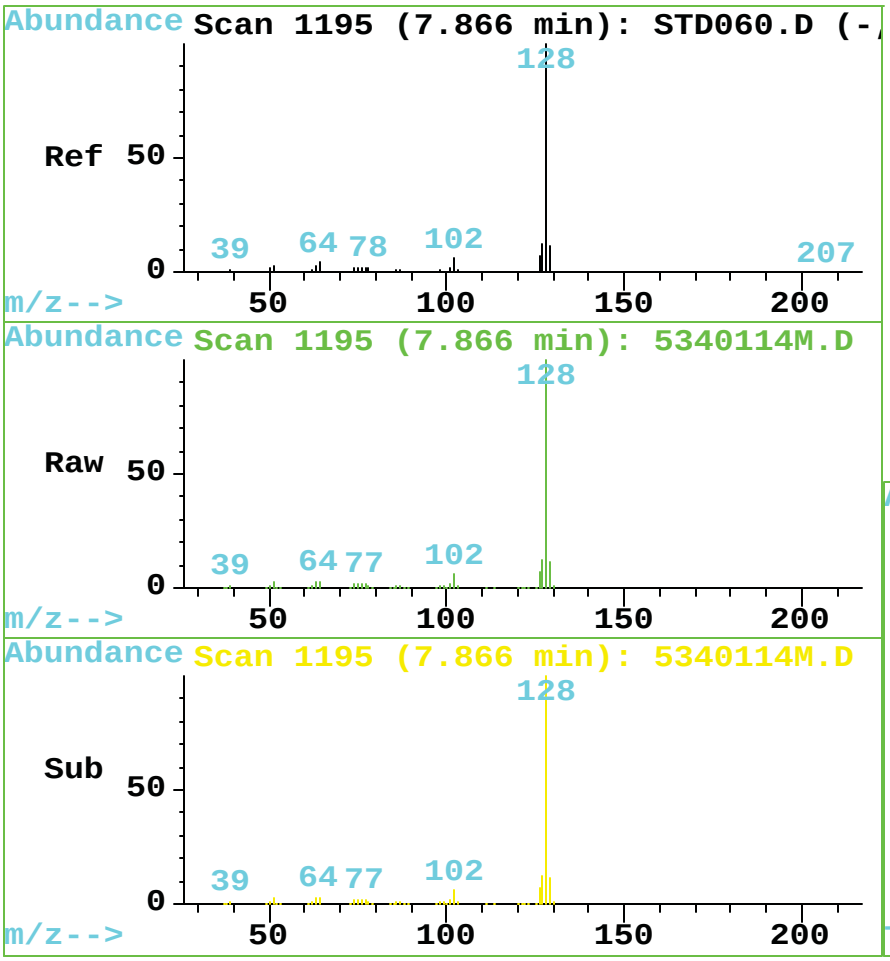


#80
1,2,3-Trichlorobenzene
Concen: 52.19 ug/l
RT: 7.98 min Scan# 1214
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:180 Resp: 222071

Ion	Ratio	Lower	Upper
180	100		
182	96.6	66.9	126.9
145	26.0	0.0	57.7
109	15.3	0.0	48.8

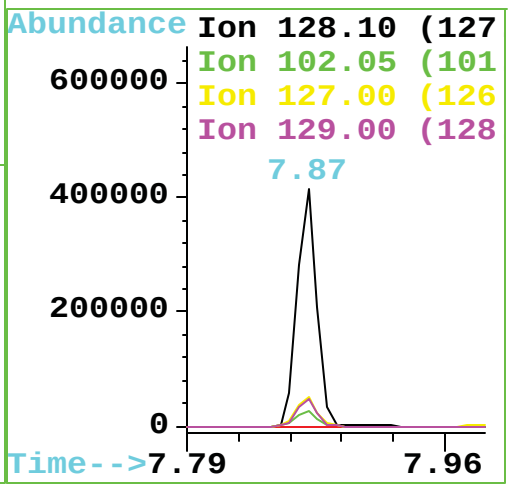


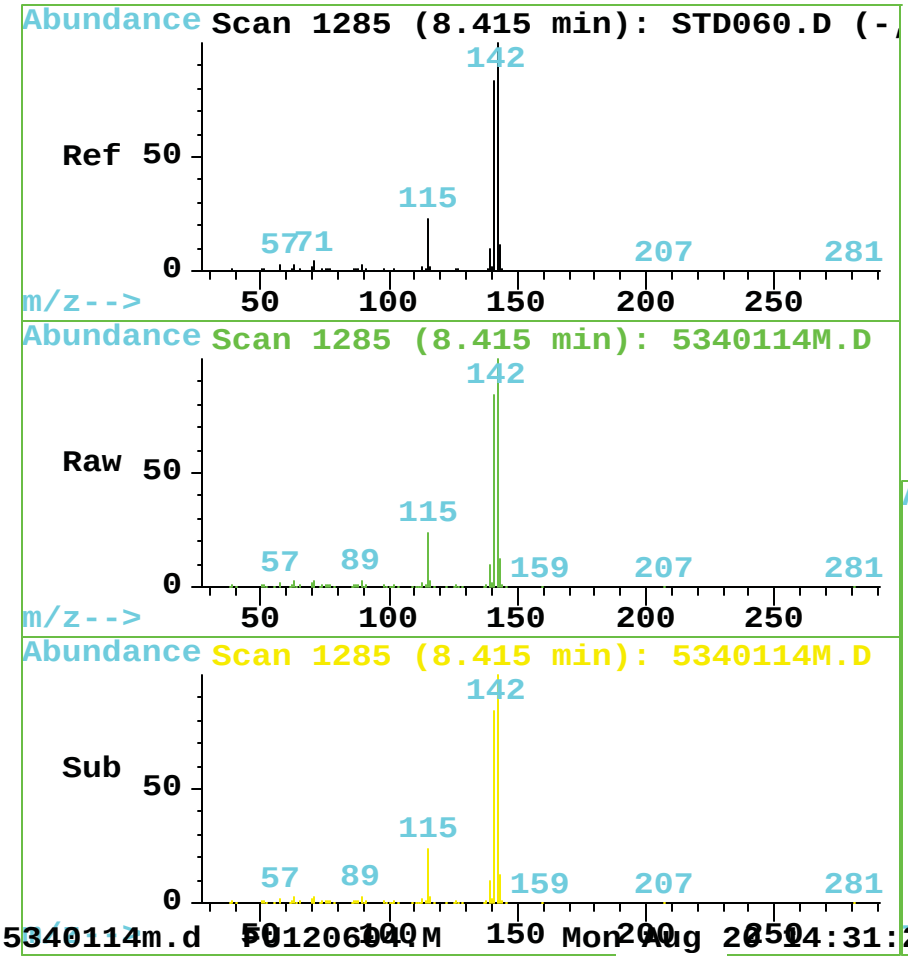


#81
Naphthalene
Concen: 57.74 ug/l
RT: 7.87 min Scan# 1195
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:128.1 Resp: 36773

Ion	Ratio	Lower	Upper
128	100		
102	6.5	0.0	37.4
127	12.1	0.0	42.3
129	10.9	0.0	40.6

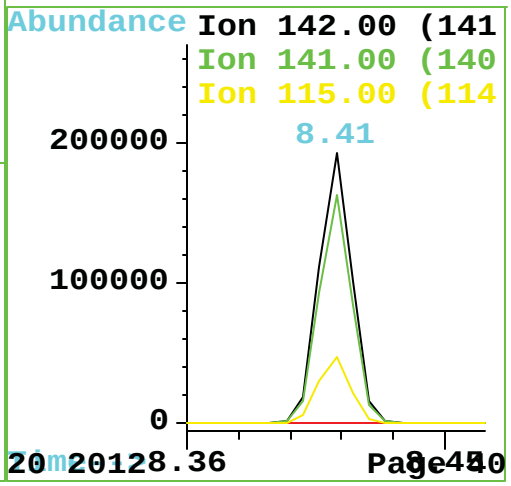




#82
2-Methylnaphthalene
Concen: 50.48 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5340114m.d
Acq: 3 Aug 12 7:54 pm

Tgt Ion:142 Resp: 162831

Ion	Ratio	Lower	Upper
142	100		
141	83.8	55.8	115.8
115	24.6	0.0	58.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340115n.d Vial: 23
Acq On : 3 Aug 12 8:15 pm Operator: lbr
Sample : 100ul 1s0803 msd 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:52 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	504700	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	587403	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	214346	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	290210	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	97246	50.96	ug/l		101.9
31) TOLUENE-D8 (S)	5.02	98	598539	50.43	ug/l		100.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	261635	51.32	ug/l		102.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	171023	52.70	ug/l		9
4) Diethyl ether (*)	2.35	74	43868	47.05	ug/l		9
5) Acetone (*)	2.60	43	10153	54.04	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	321687	47.21	ug/l		9
7) Carbon disulfide (*)	2.67	76	416261	43.17	ug/l		9
8) Methyl Acetate	2.84	43	30969	45.45	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	246217	52.30	ug/l		9
10) Acrylonitrile (*)	3.08	53	20345	49.17	ug/l		10
11) 2-Butanone (MEK) (*)	3.70	43	16326	56.01	ug/l		9
12) Dichlorodifluoromethane	1.23	85	109812	53.65	ug/l		9
13) Chloromethane (SPCC)	1.34	50	111624	48.22	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	126649	48.62	ug/l		9
15) Bromomethane	1.73	94	57932	50.07	ug/l		9
16) Chloroethane	1.82	64	29293	52.75	ug/l		9
18) Trichlorofluoromethane	2.11	101	166954	55.01	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	148657	46.11	ug/l		8
20) Methylene Chloride	2.90	84	134441	43.14	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	154504	46.02	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	189506	45.08	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	161558	45.99	ug/l	#	8
24) Tetrahydrofuran	3.84	42	12420	44.60	ug/l	#	
25) Chloroform (CCC)	3.85	83	212300	46.97	ug/l		9
26) Bromochloromethane	3.81	130	106931	47.57	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	226834	51.26	ug/l	#	4
28) 1,1-Dichloropropene	4.14	75	9476	2.56	ug/l	#	
29) Cyclohexane	3.98	42	41006	40.11	ug/l	#	2
32) 4-Methyl-2-pentanone (MIBK	4.96	58	19331	51.61	ug/l		8
33) 2-Hexanone (*)	5.34	58	16802	57.55	ug/l		9
35) Carbon Tetrachloride	4.04	117	219601	52.72	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340115n.d Vial: 23
Acq On : 3 Aug 12 8:15 pm Operator: lbr
Sample : 100ul 1s0803 msd 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:52 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.14	78	552988	47.10	ug/l		9
37) 1,2-Dichloroethane	4.15	62	106546	50.10	ug/l		9
38) Trichloroethene (MS)	4.45	95	161414	50.39	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	108145	47.39	ug/l		9
40) Bromodichloromethane	4.69	83	148831	52.15	ug/l		9
41) Methyl Cyclohexane	4.54	55	165760	49.98	ug/l		8
42) Dibromomethane	4.62	174	117428	52.96	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	183655	51.60	ug/l		9
44) Toluene (CCC/MS)	5.05	91	683951	49.65	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	144246	53.88	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	74163	50.32	ug/l		9
47) Tetrachloroethene	5.31	166	283232	49.75	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	15773	53.25	ug/l	#	7
51) Dibromochloromethane	5.42	129	137164	56.09	ug/l		9
52) 1,2-Dibromoethane	5.48	107	103971	52.87	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	486375	49.00	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	176433	53.19	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	749032	50.33	ug/l		9
56) p,m-Xylene	5.79	106	643901	101.28	ug/l		9
57) o-Xylene	5.98	91	583930	51.46	ug/l		9
58) Styrene	5.99	104	468968	50.79	ug/l		9
59) Isopropylbenzene	6.15	105	878351	52.47	ug/l		9
60) Bromoform (SPCC)	6.09	173	91318	53.38	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	96121	52.46	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	33076	54.75	ug/l	#	8
63) n-Propylbenzene	6.34	91	898751	52.21	ug/l		9
64) Bromobenzene	6.31	156	241224	51.09	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	403542	52.25	ug/l		9
66) tert-Butylbenzene	6.58	91	425285	53.84	ug/l		9
67) 1,2,4-Trimethylbenzene	6.60	120	435303	53.37	ug/l		9
69) sec-Butylbenzene	6.68	105	973693	52.94	ug/l		9
70) p-Isopropyltoluene	6.75	119	850123	54.74	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	428885	50.56	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	428812	49.24	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	403580	51.17	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	660856	51.46	ug/l		9
75) n-Butylbenzene	6.95	91	631924	51.36	ug/l		9
76) Hexachloroethane	7.10	201	183790	49.94	ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	25846	58.82	ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	300610	55.83	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340115n.d Vial: 23
Acq On : 3 Aug 12 8:15 pm Operator: lbr
Sample : 100ul 1s0803 msd 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:52 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

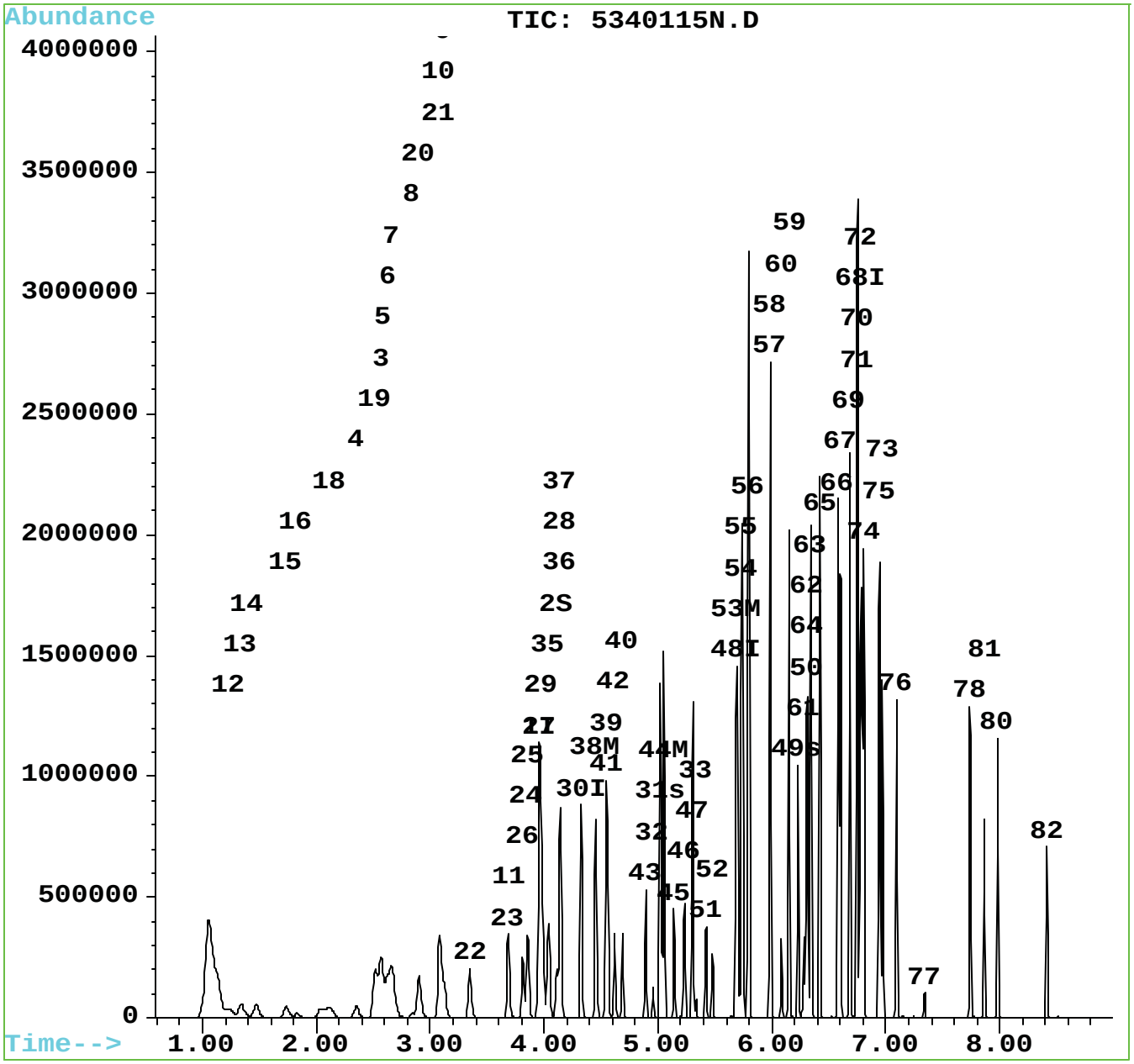
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	261538	59.42 ug/l	9
81)	Naphthalene	7.87	128	421698	64.01 ug/l	9
82)	2-Methylnaphthalene	8.41	142	210833	63.18 ug/l	9

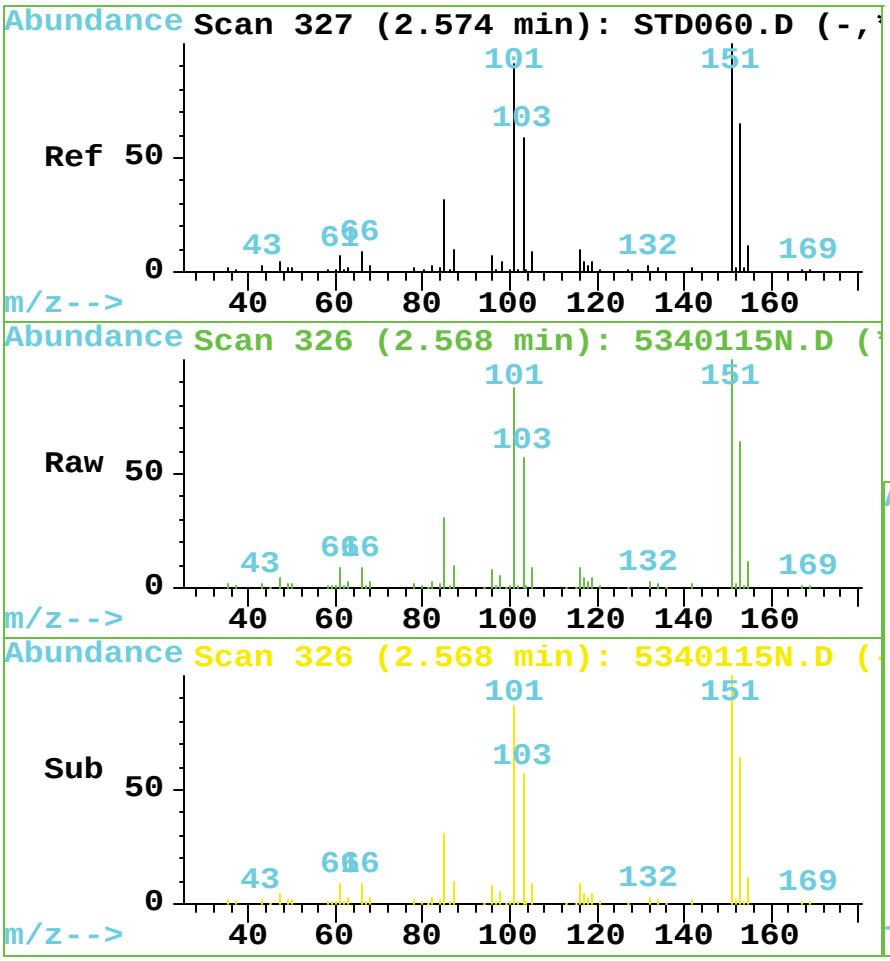
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\5340115n.d Vial: 23
Acq On : 3 Aug 12 8:15 pm Operator: lbr
Sample : 100ul 1s0803 msd 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:52 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

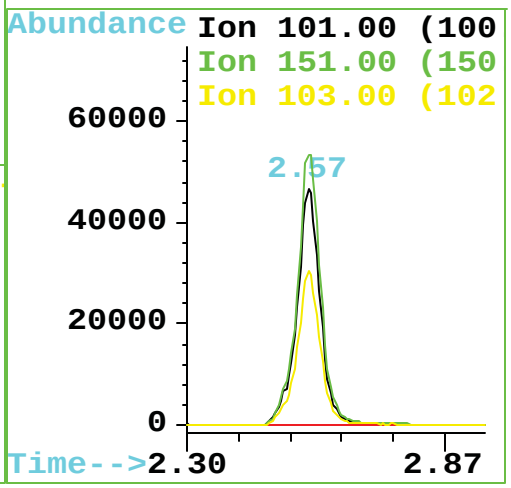


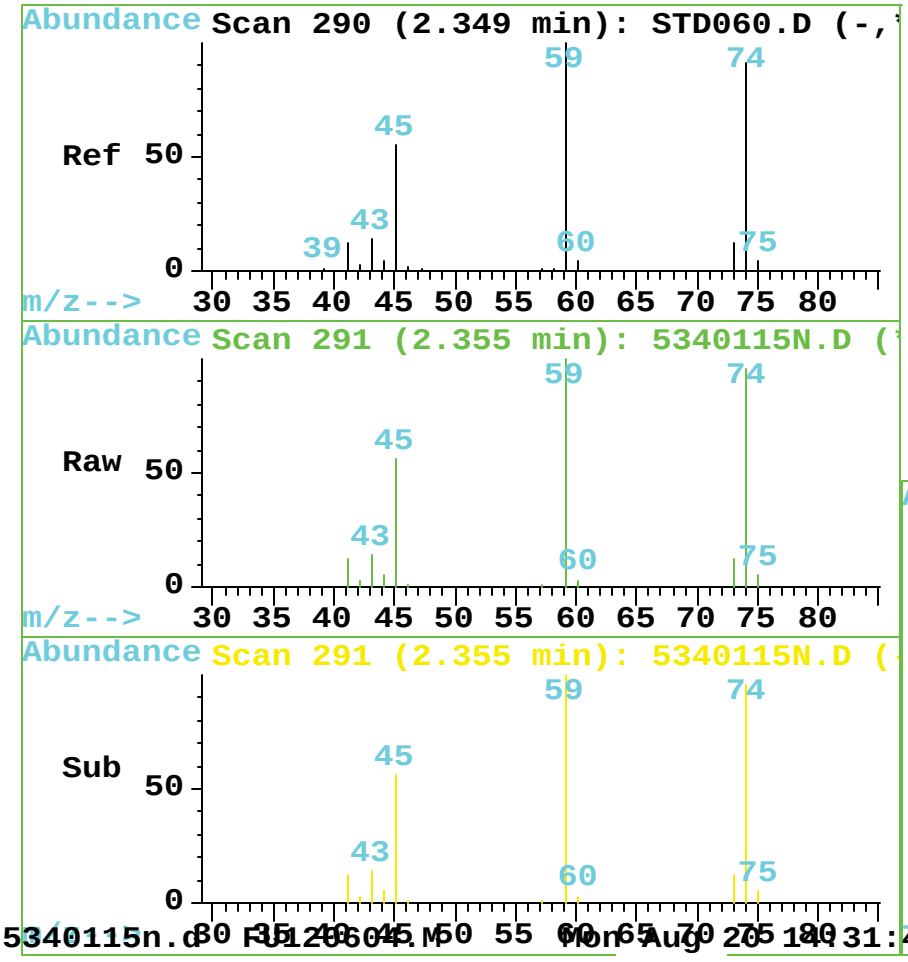


#3
1,1,2-Trichloro-1,2,2-trif
Concen: 52.70 ug/l
RT: 2.57 min Scan# 326
Delta R.T. -0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:101 Resp: 171023

Ion	Ratio	Lower	Upper
101	100		
151	115.7	76.1	136.1
103	64.8	35.2	95.2
0	0.0	0.0	0.0

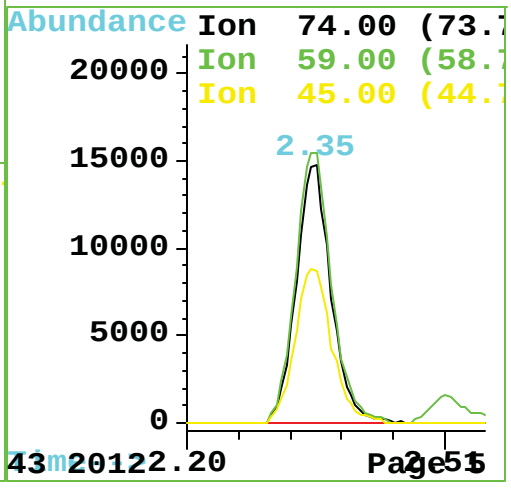


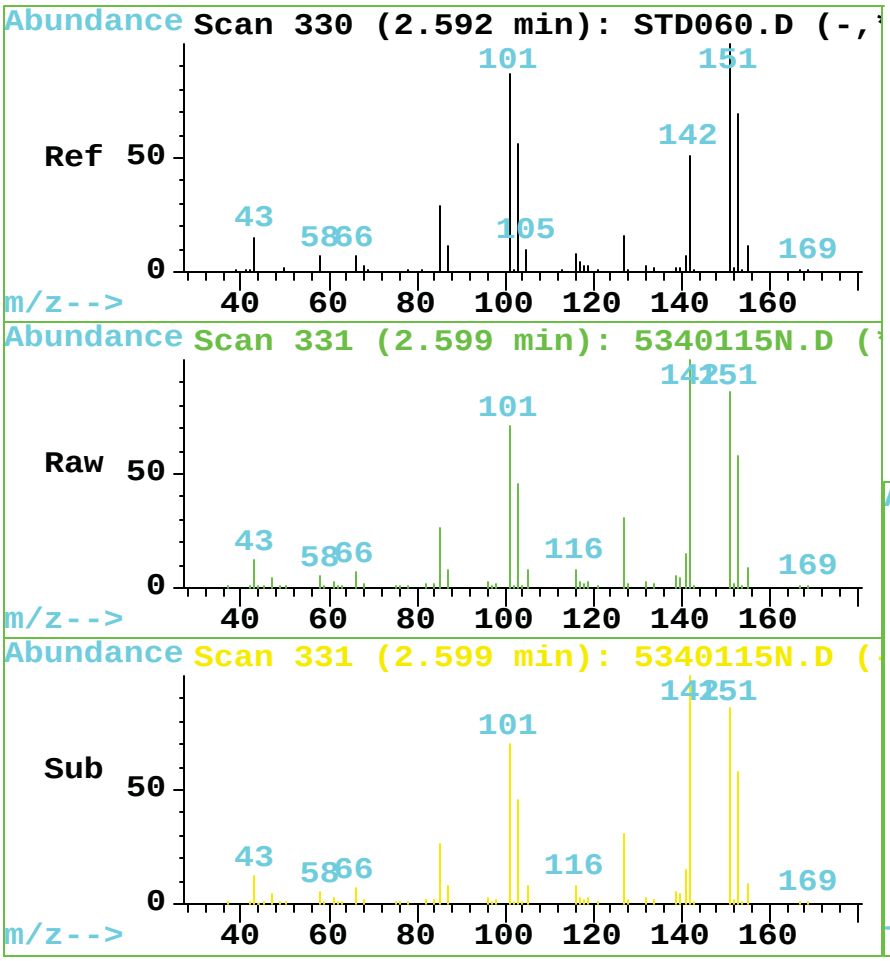


#4
Diethyl ether (*)
Concen: 47.05 ug/l
RT: 2.35 min Scan# 291
Delta R.T. 0.02 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:74 Resp: 43868

Ion	Ratio	Lower	Upper
74	100		
59	108.9	86.2	146.2
45	63.2	37.4	97.4
0	0.0	0.0	0.0

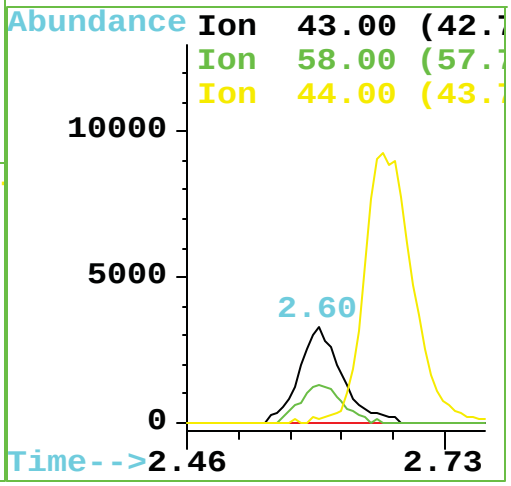


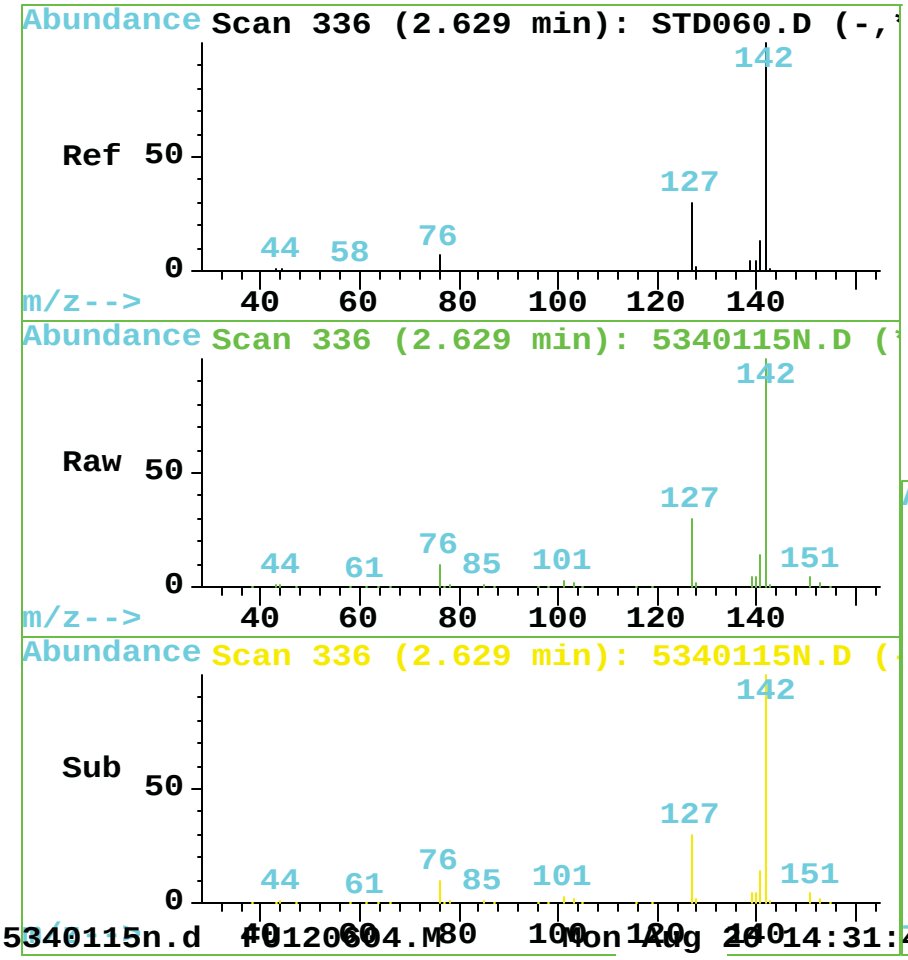


#5
Acetone (*)
Concen: 54.04 ug/l
RT: 2.60 min Scan# 331
Delta R.T. 0.02 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:43 Resp: 10153

Ion	Ratio	Lower	Upper
43	100		
58	40.2	2.5	62.5
44	0.0	0.0	32.2
0	0.0	0.0	0.0

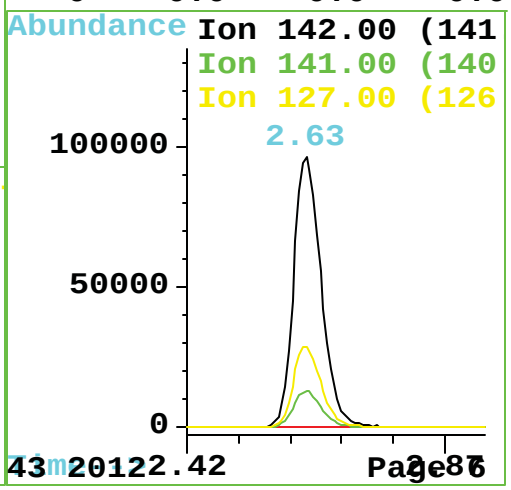


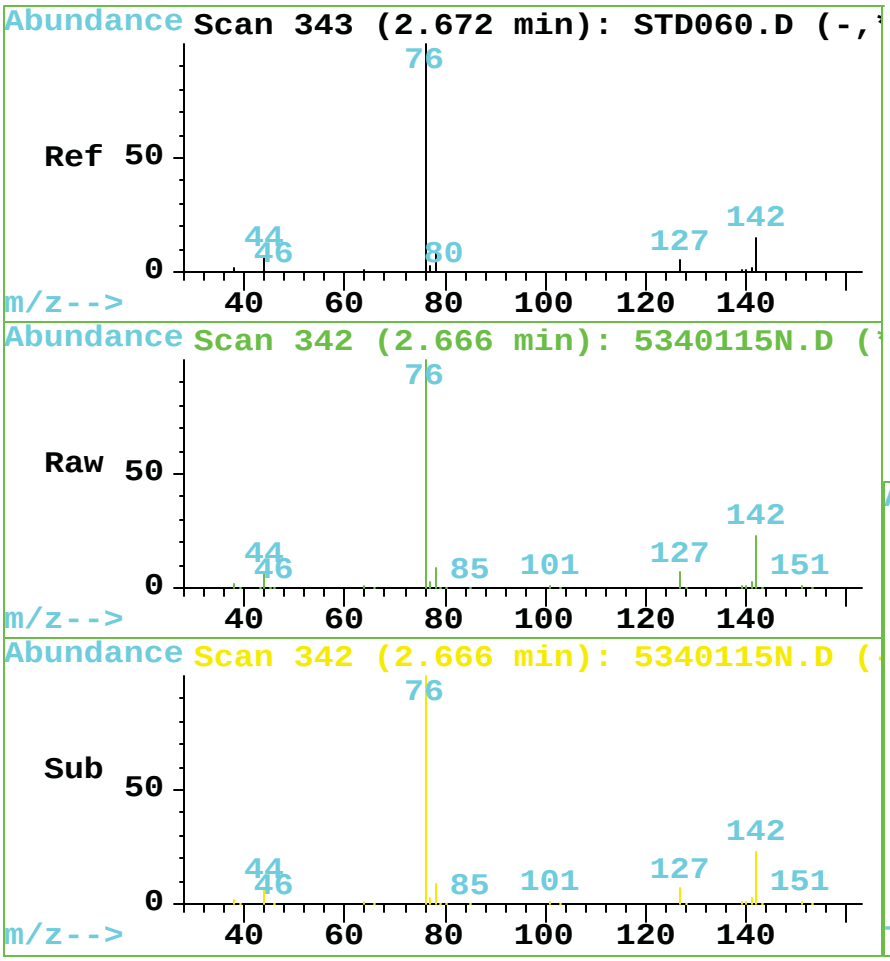


#6
Methyl iodide (iodomethane
Concen: 47.21 ug/l
RT: 2.63 min Scan# 336
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:142 Resp: 321687

Ion	Ratio	Lower	Upper
142	100		
141	13.5	0.0	43.8
127	29.9	5.1	65.1
0	0.0	0.0	0.0

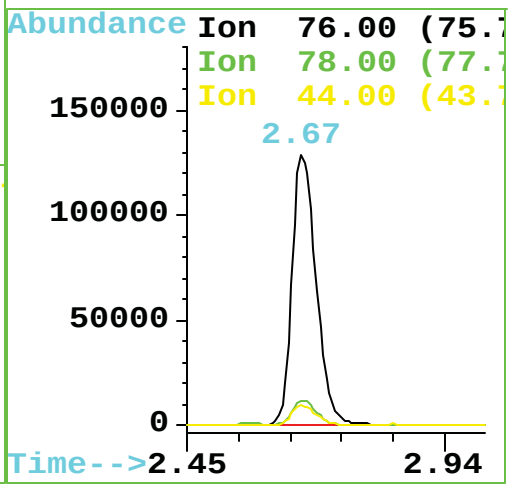


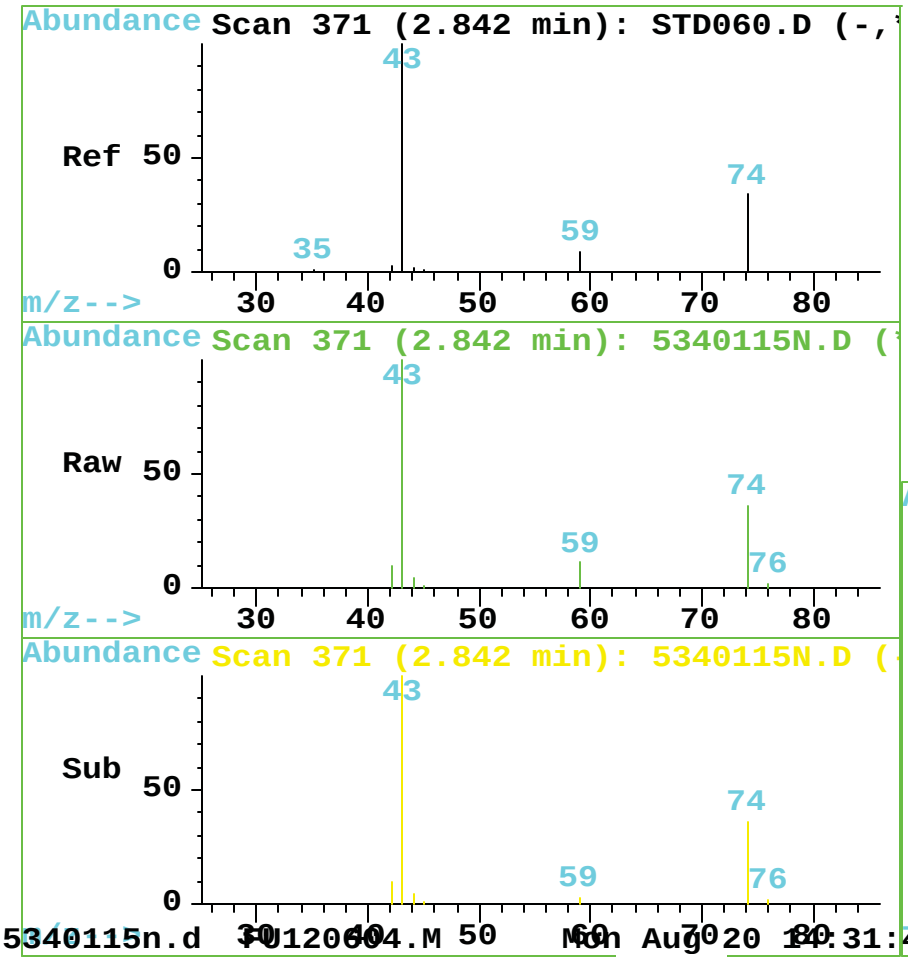


#7
Carbon disulfide (*)
Concen: 43.17 ug/l
RT: 2.67 min Scan# 342
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:76 Resp: 416261

Ion	Ratio	Lower	Upper
76	100		
78	9.1	0.0	39.3
44	7.7	0.0	40.9
0	0.0	0.0	0.0

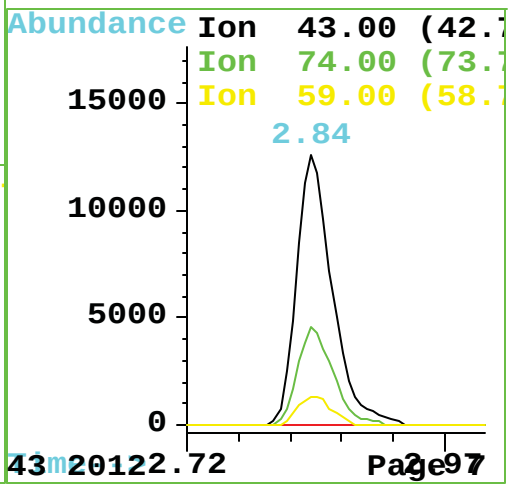


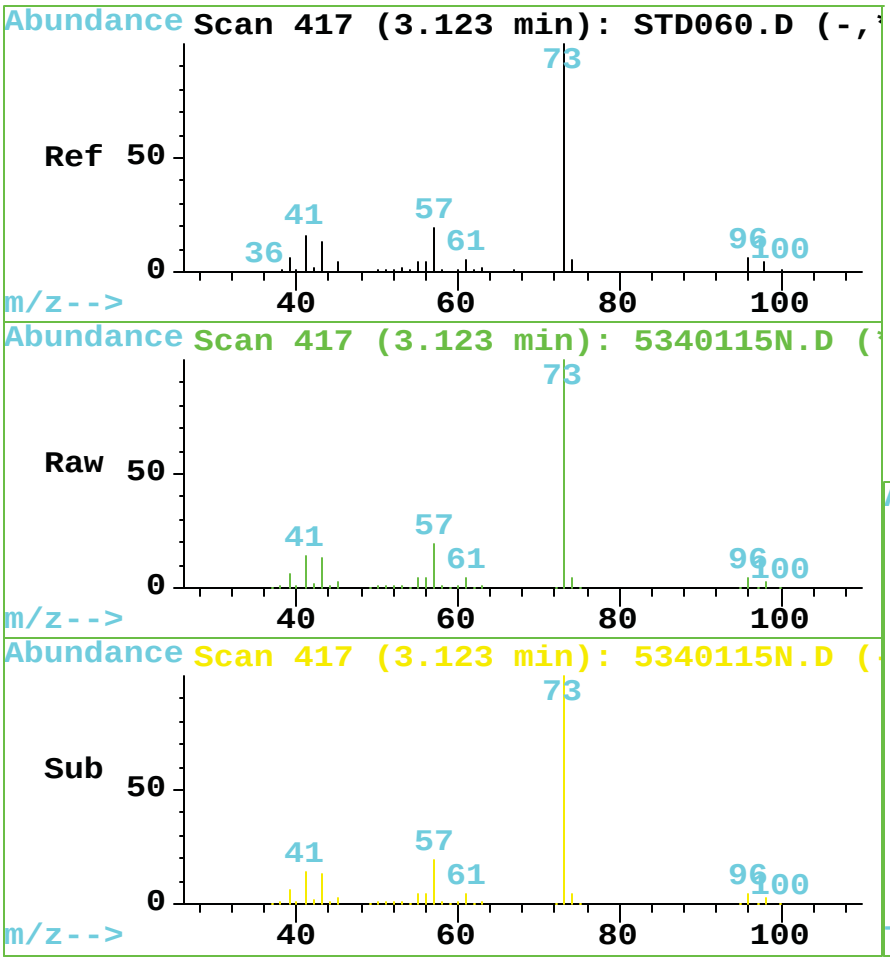


#8
Methyl Acetate
Concen: 45.45 ug/l
RT: 2.84 min Scan# 371
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:43 Resp: 30969

Ion	Ratio	Lower	Upper
43	100		
74	36.0	4.8	64.8
59	10.1	0.0	40.3
0	0.0	0.0	0.0

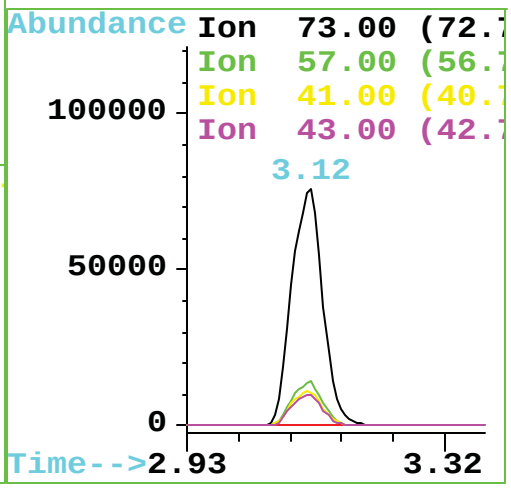


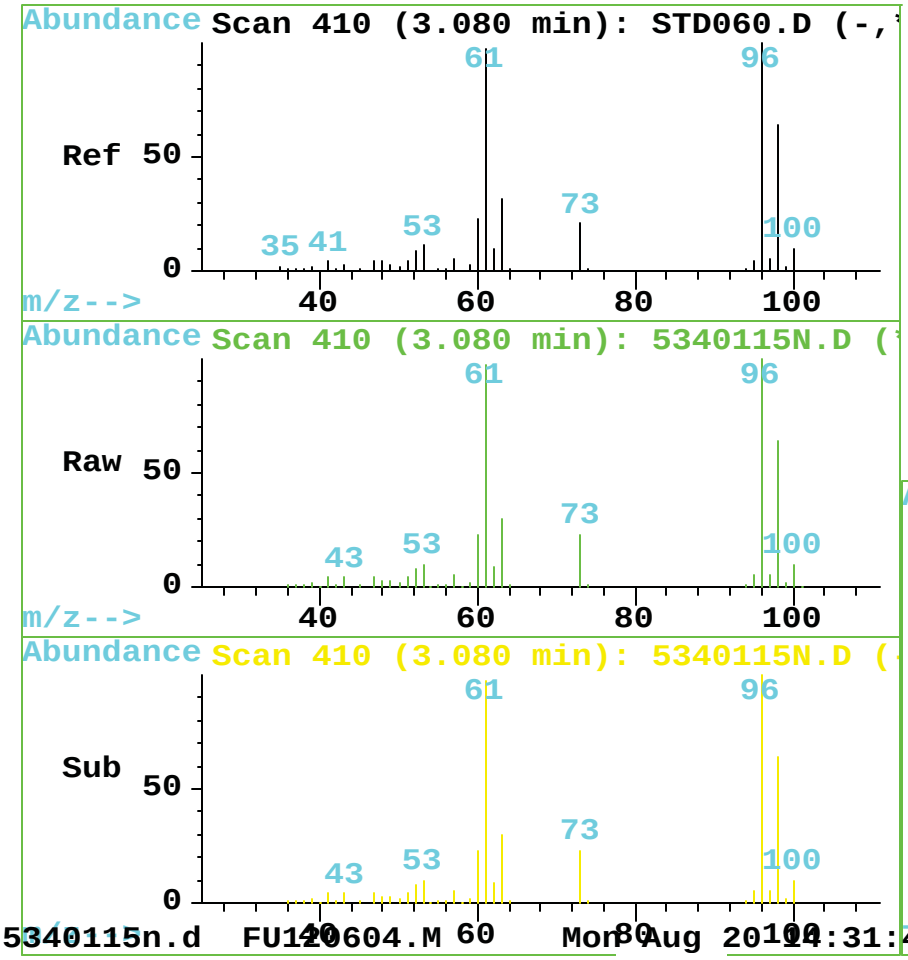


#9
tert-Methyl butyl ether (M
Concen: 52.30 ug/l
RT: 3.12 min Scan# 417
Delta R.T. 0.02 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:73 Resp: 246217

Ion	Ratio	Lower	Upper
73	100		
57	18.5	0.0	48.6
41	15.0	0.0	46.3
43	13.4	0.0	47.6

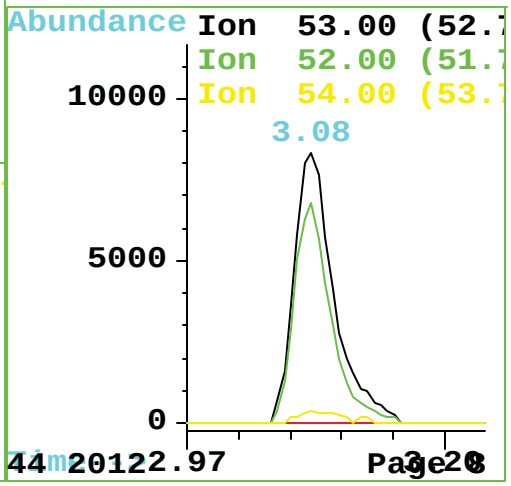


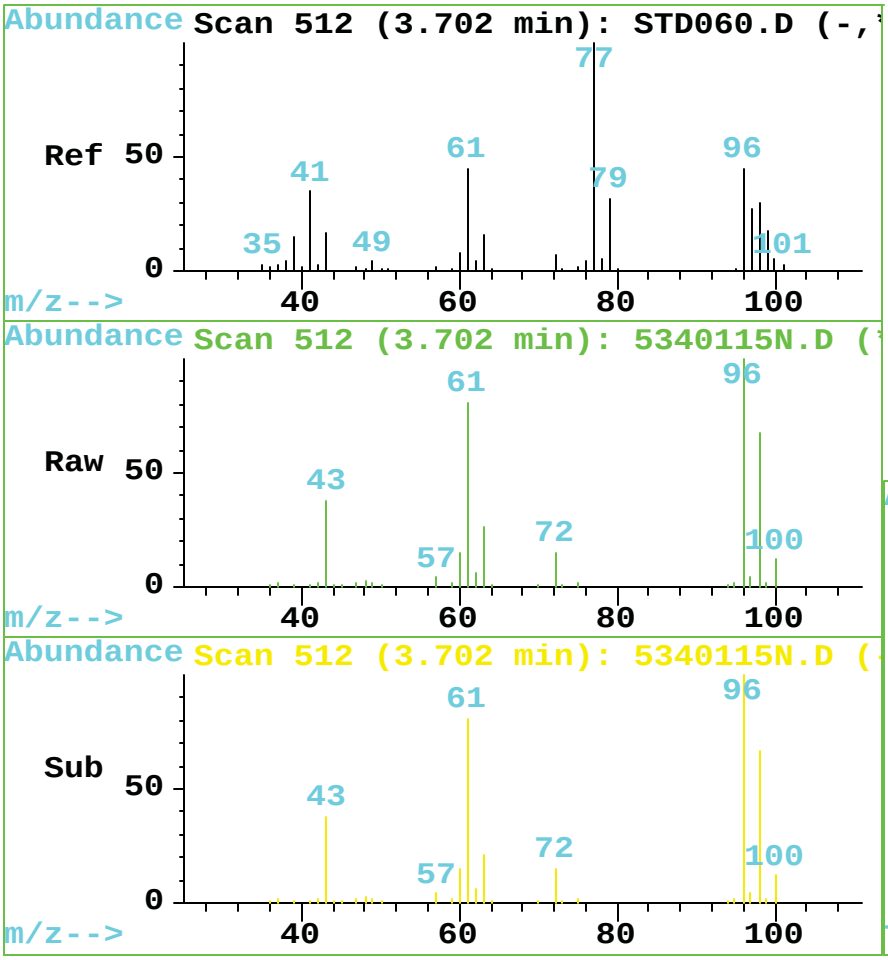


#10
Acrylonitrile (*)
Concen: 49.17 ug/l
RT: 3.08 min Scan# 410
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:53 Resp: 20345

Ion	Ratio	Lower	Upper
53	100		
52	75.1	45.4	105.4
54	4.2	0.0	32.6
0	0.0	0.0	0.0

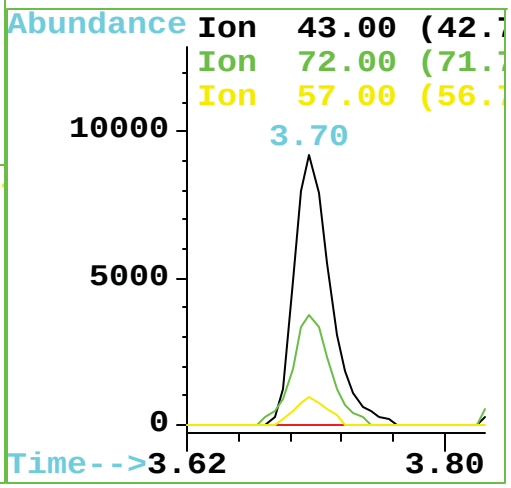


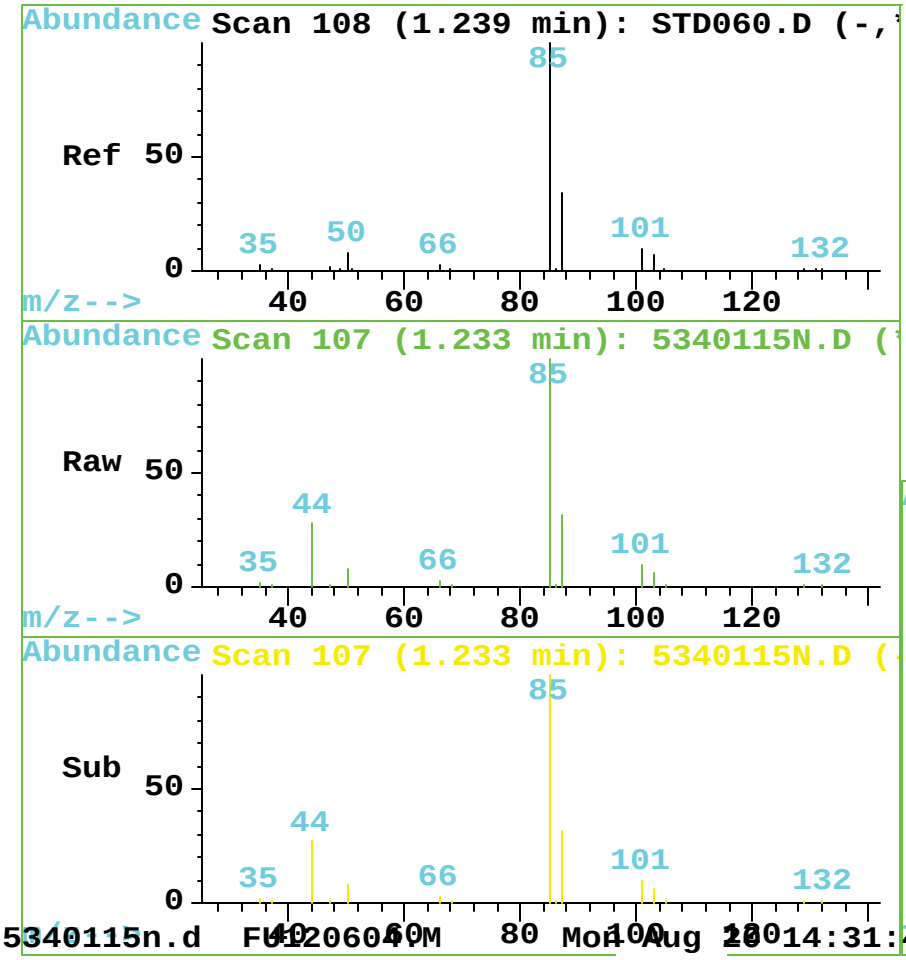


#11
2-Butanone (MEK) (*)
Concen: 56.01 ug/l
RT: 3.70 min Scan# 512
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:43 Resp: 16326

Ion	Ratio	Lower	Upper
43	100		
72	42.3	9.3	69.3
57	8.9	0.0	38.8
0	0.0	0.0	0.0

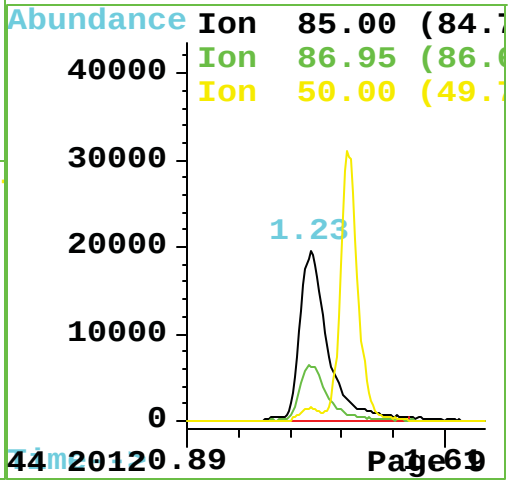


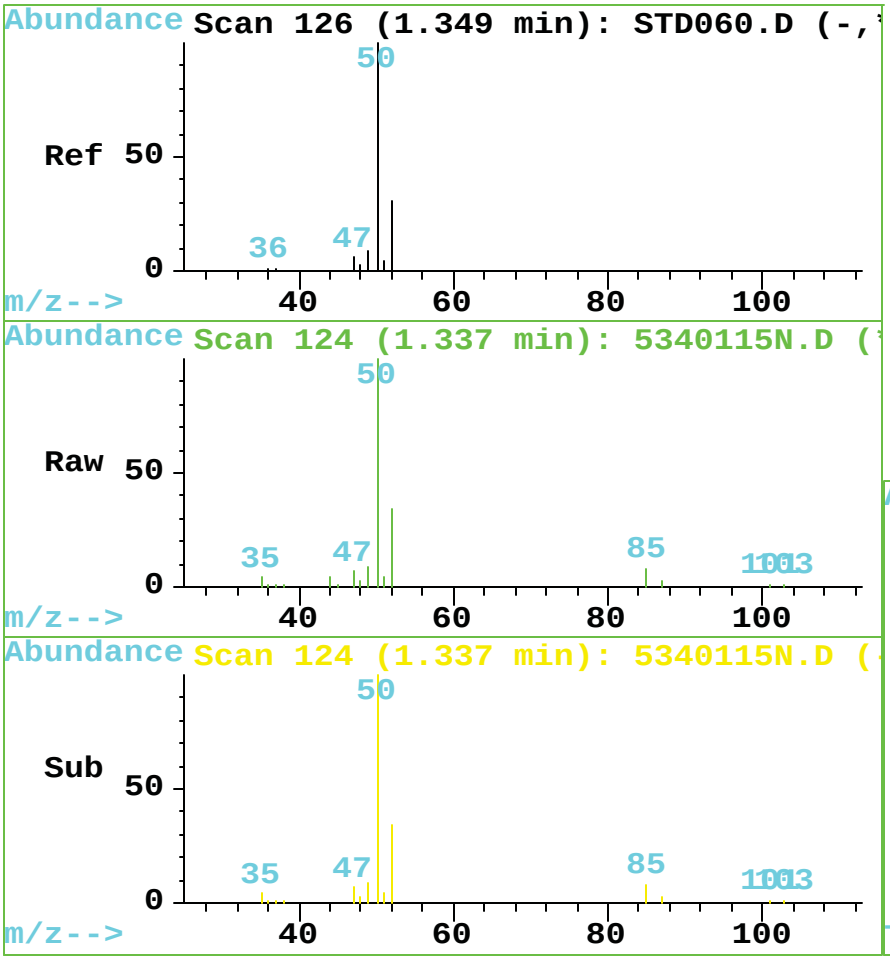


#12
Dichlorodifluoromethane
Concen: 53.65 ug/l
RT: 1.23 min Scan# 107
Delta R.T. -0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:85 Resp: 109812

Ion	Ratio	Lower	Upper
85	100		
87	32.7	2.5	62.5
50	5.3	0.0	36.8
0	0.0	0.0	0.0

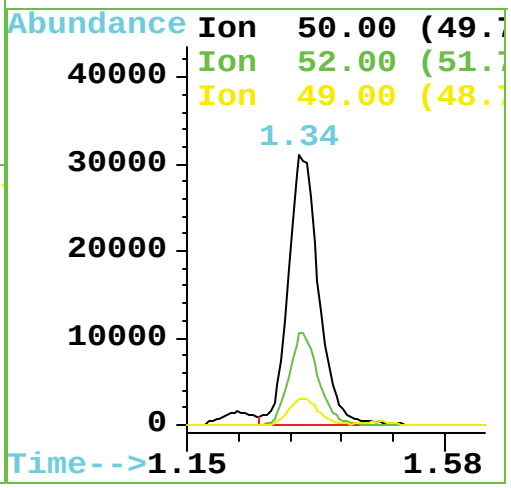


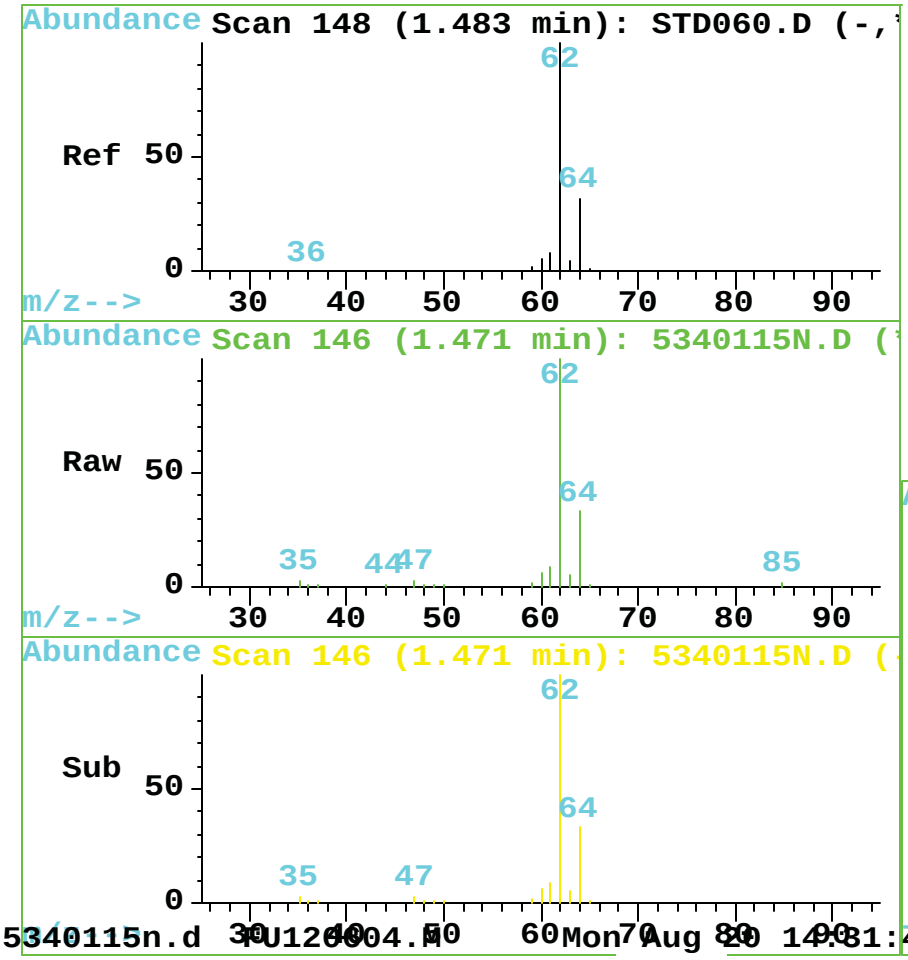


#13
Chloromethane (SPCC)
Concen: 48.22 ug/l
RT: 1.34 min Scan# 124
Delta R.T. -0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:50 Resp: 111624

Ion	Ratio	Lower	Upper
50	100		
52	32.4	2.5	62.5
49	9.5	0.0	41.2
0	0.0	0.0	0.0

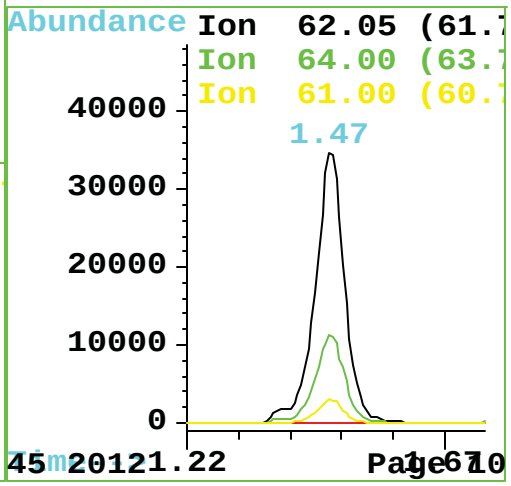


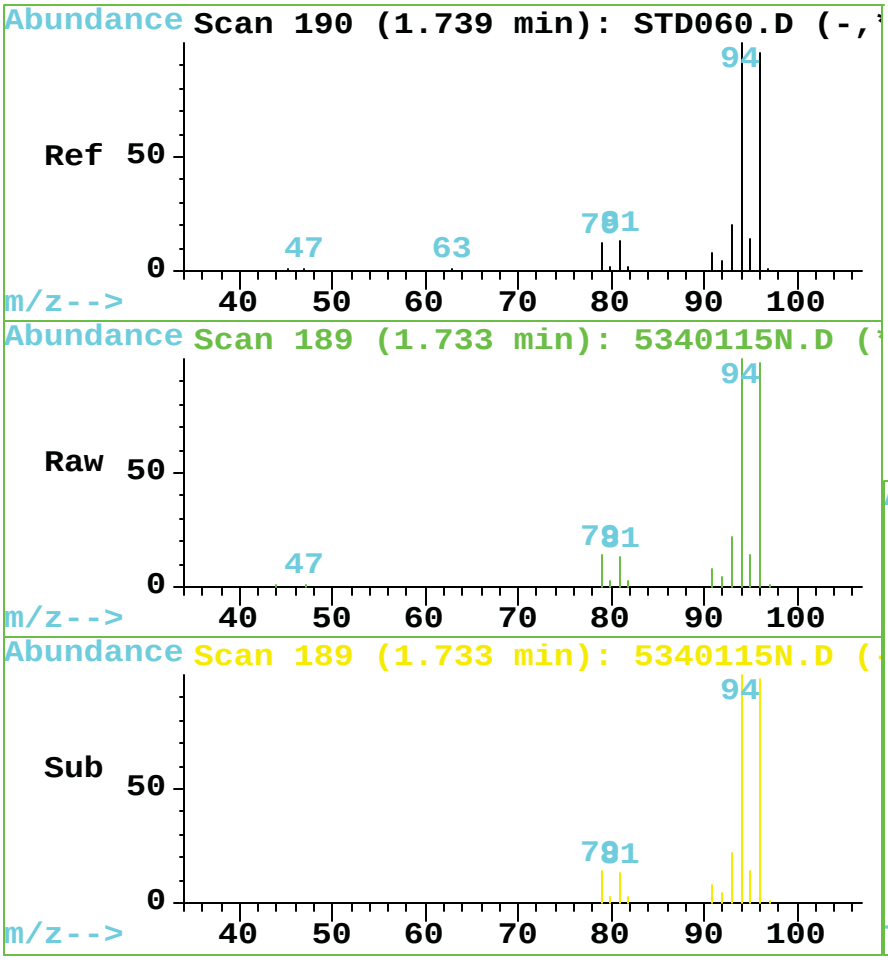


#14
Vinyl Chloride (CCC)
Concen: 48.62 ug/l
RT: 1.47 min Scan# 146
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:62.05 Resp: 12664

Ion	Ratio	Lower	Upper
62	100		
64	32.9	3.8	63.8
61	8.0	0.0	38.3
0	0.0	0.0	0.0

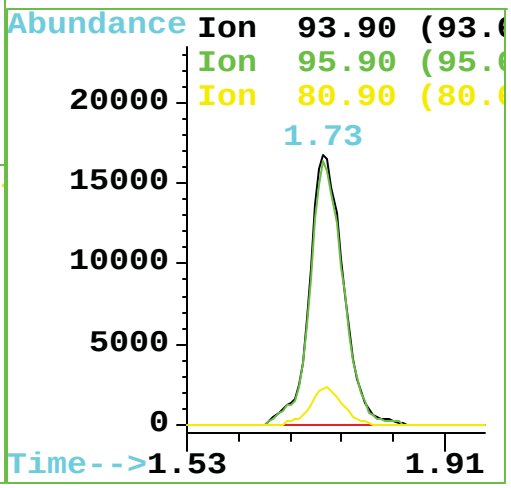


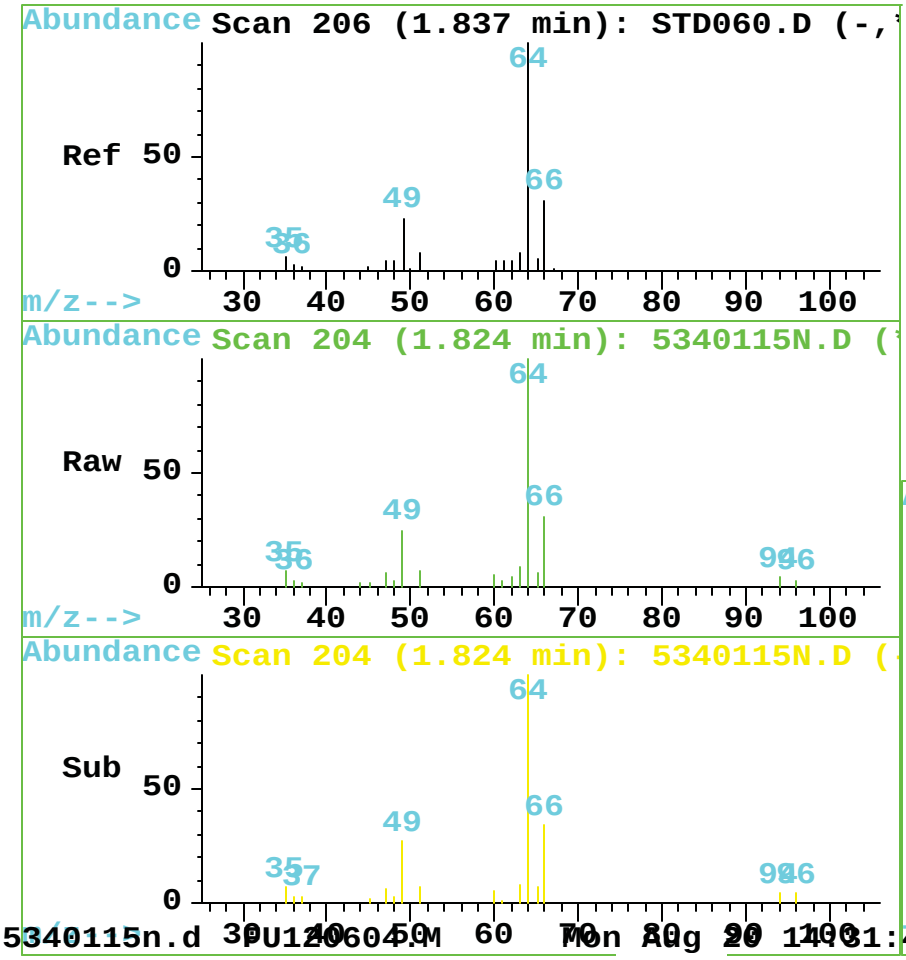


#15
Bromomethane
Concen: 50.07 ug/l
RT: 1.73 min Scan# 189
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:93.9 Resp: 57932

Ion	Ratio	Lower	Upper
94	100		
96	95.8	64.8	124.8
81	13.3	0.0	43.5
0	0.0	0.0	0.0

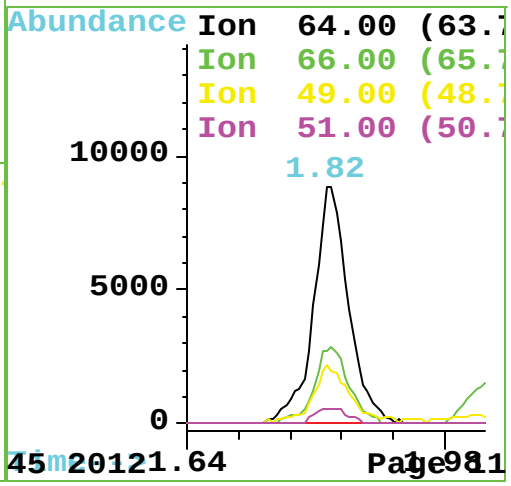


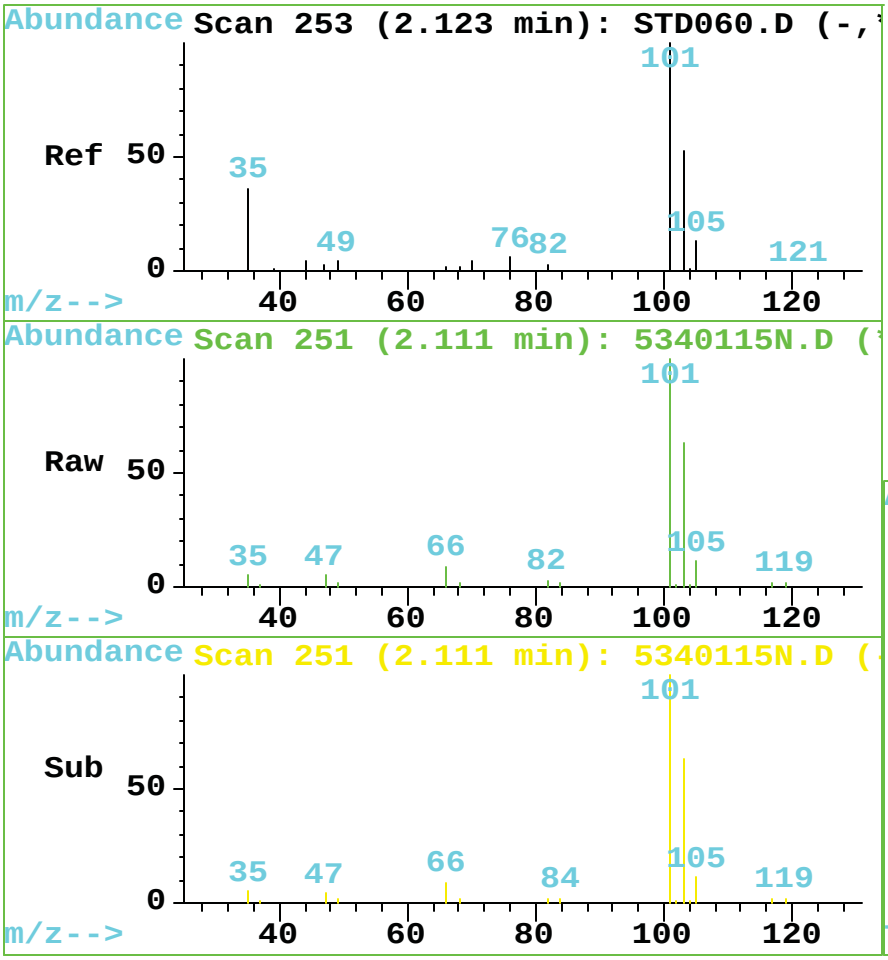


#16
Chloroethane
Concen: 52.75 ug/l
RT: 1.82 min Scan# 204
Delta R.T. -0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:64 Resp: 29293

Ion	Ratio	Lower	Upper
64	100		
66	32.4	2.8	62.8
49	26.7	0.0	54.8
51	6.2	0.0	36.5

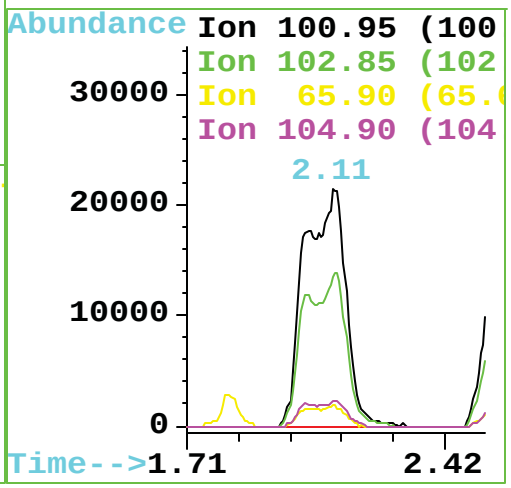


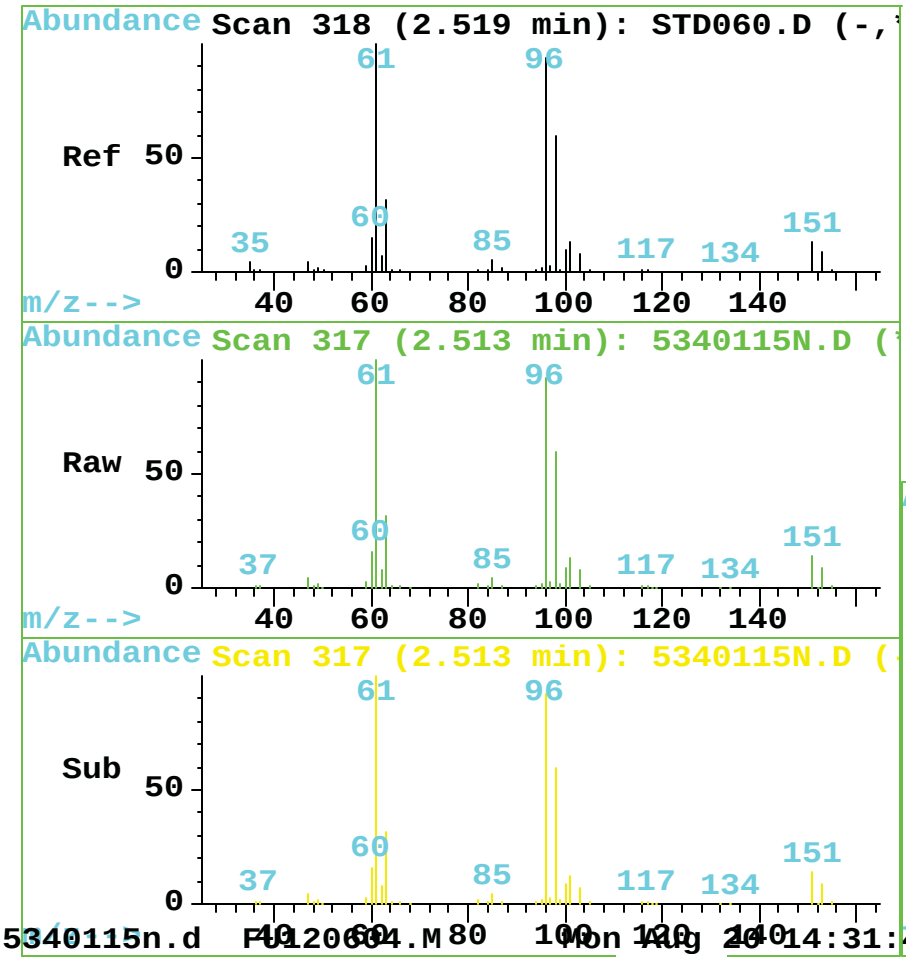


#18
Trichlorofluoromethane
Concen: 55.01 ug/l m
RT: 2.11 min Scan# 251
Delta R.T. 0.06 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:100.95 Resp: 1669

Ion	Ratio	Lower	Upper
101	100		
103	63.2	34.1	94.1
66	8.7	0.0	40.0
105	10.9	0.0	40.1

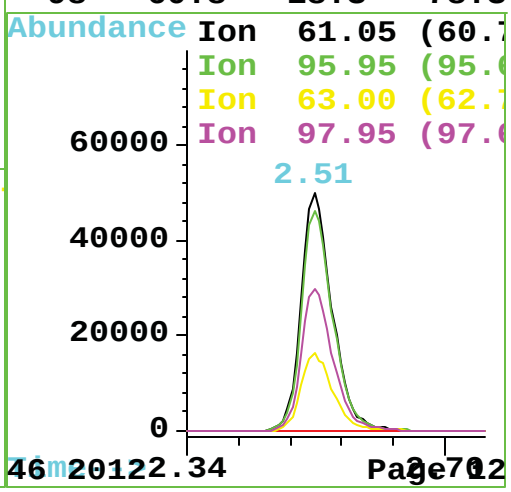


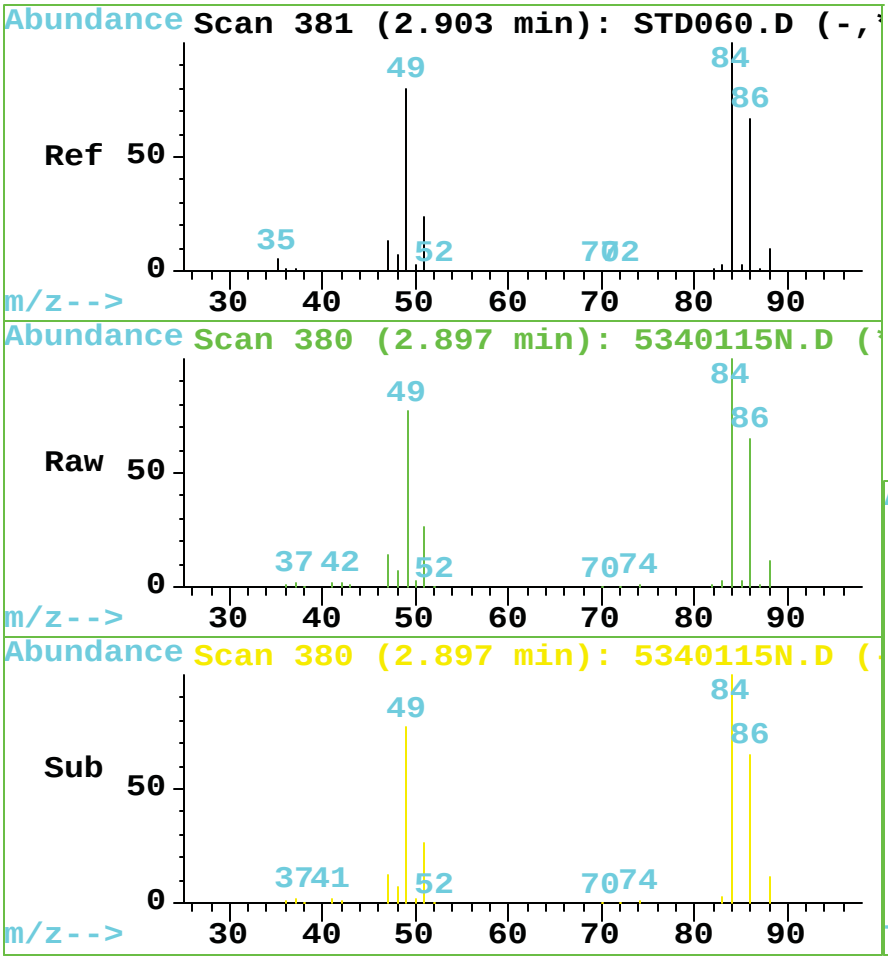


#19
1,1-Dichloroethene (CCC/MS
Concen: 46.11 ug/l
RT: 2.51 min Scan# 317
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:61.05 Resp: 14865

Ion	Ratio	Lower	Upper
61	100		
96	93.8	44.2	104.2
63	33.0	2.8	62.8
98	60.8	18.3	78.3

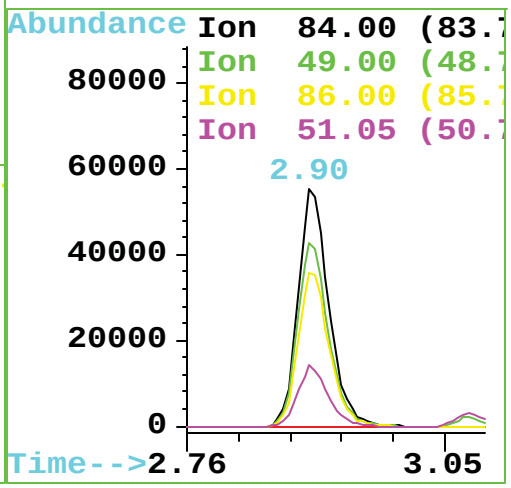


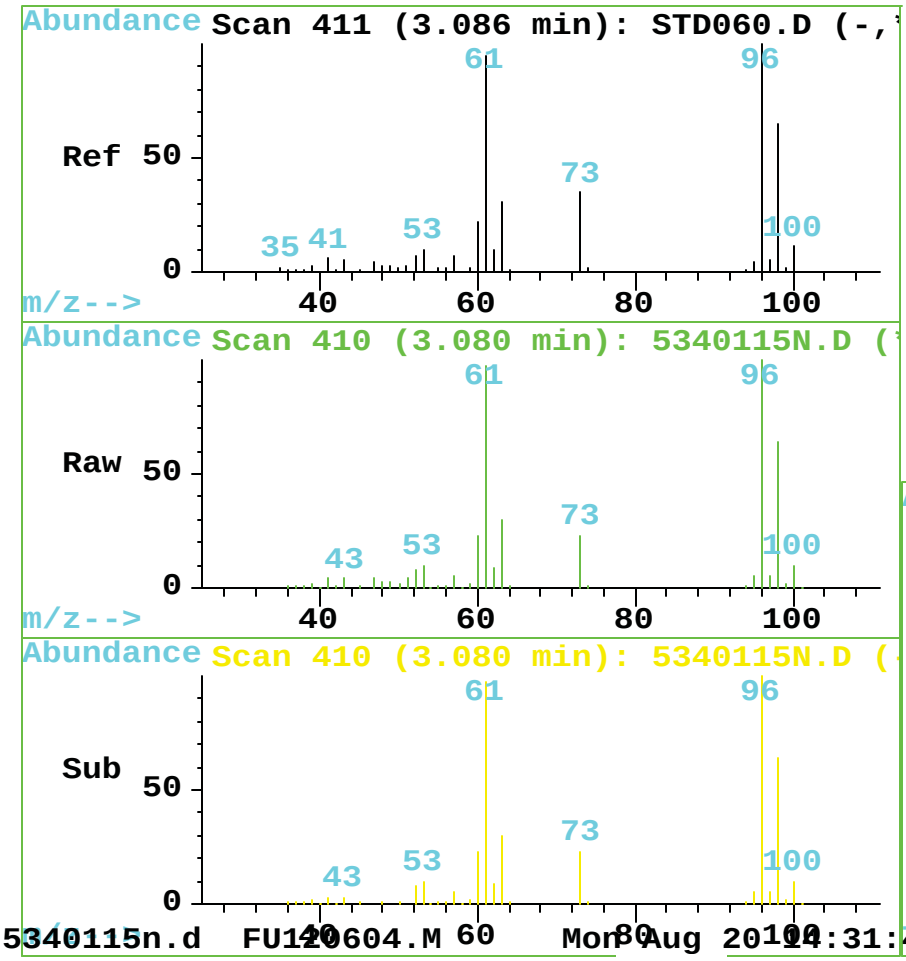


#20
Methylene Chloride
Concen: 43.14 ug/l
RT: 2.90 min Scan# 380
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:84 Resp: 134441

Ion	Ratio	Lower	Upper
84	100		
49	78.3	59.2	119.2
86	65.3	34.7	94.7
51	25.1	0.0	58.1

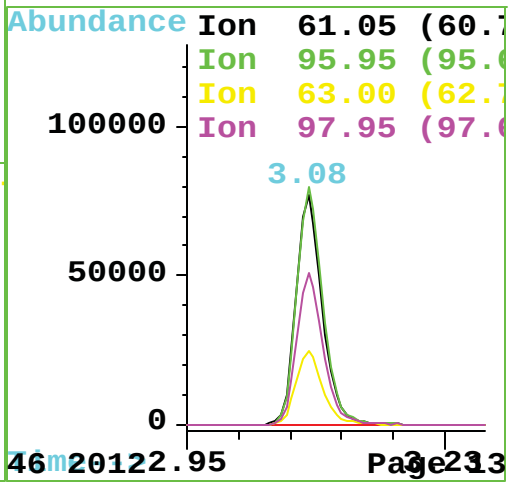


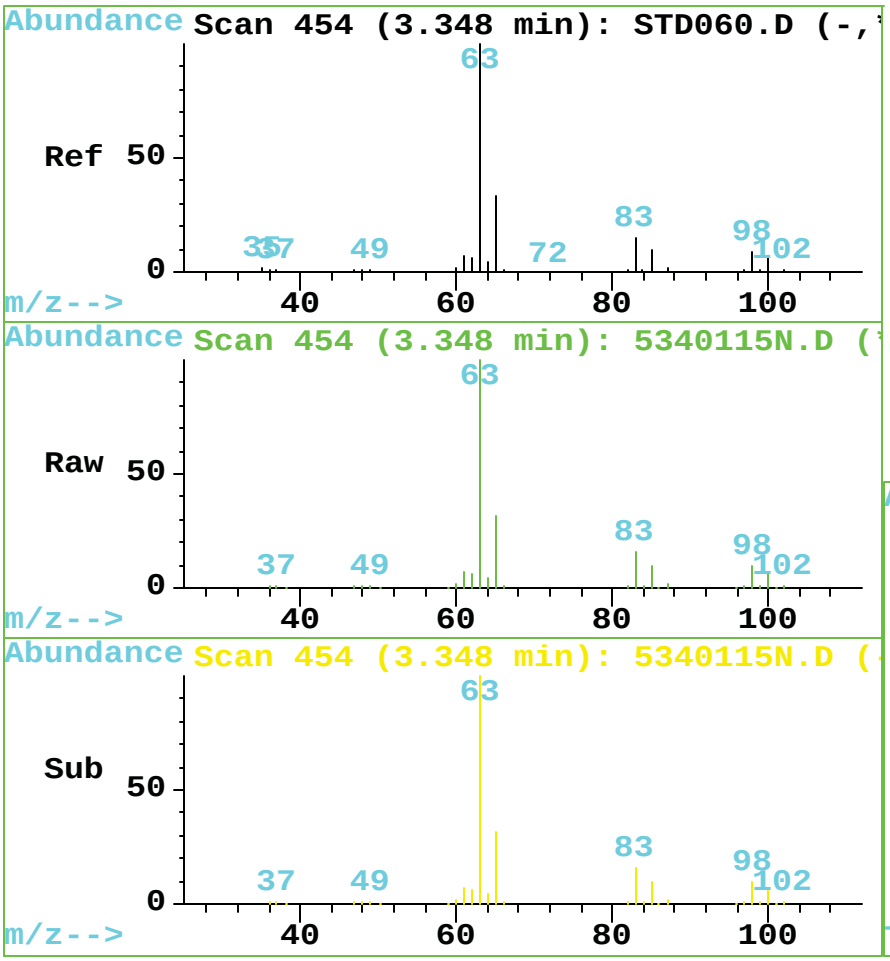


#21
trans-1,2-Dichloroethene
Concen: 46.02 ug/l
RT: 3.08 min Scan# 410
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:61.05 Resp: 15450

Ion	Ratio	Lower	Upper
61	100		
96	103.2	56.7	116.7
63	32.0	2.7	62.7
98	66.0	25.6	85.6

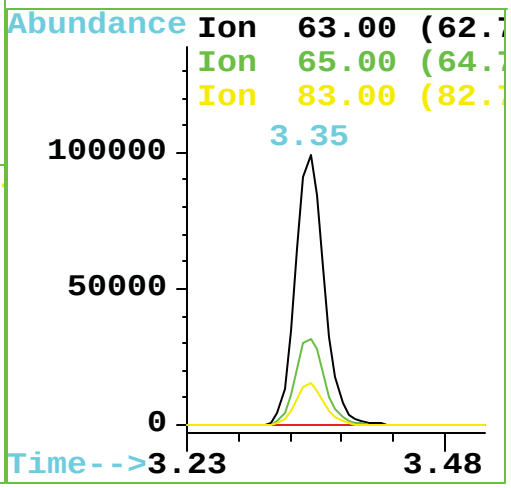


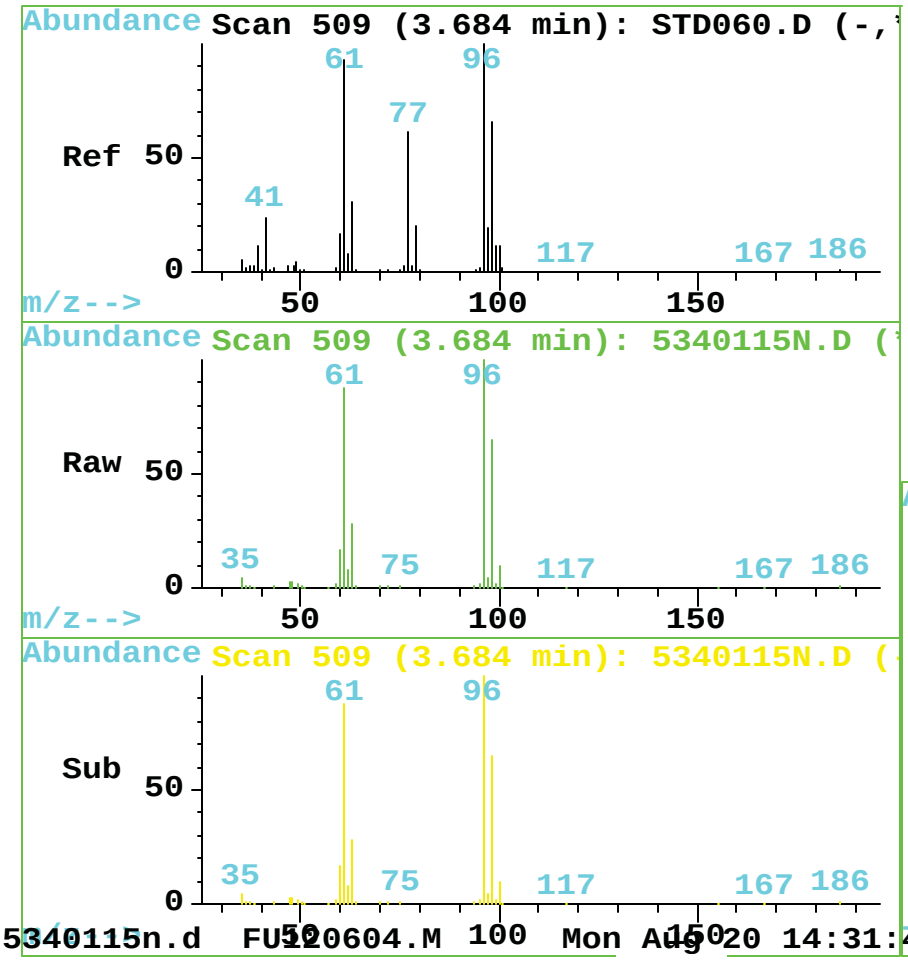


#22
1,1-Dichloroethane (SPCC)
Concen: 45.08 ug/l
RT: 3.35 min Scan# 454
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:63 Resp: 189506

Ion	Ratio	Lower	Upper
63	100		
65	32.3	2.0	62.0
83	15.3	0.0	44.9
0	0.0	0.0	0.0

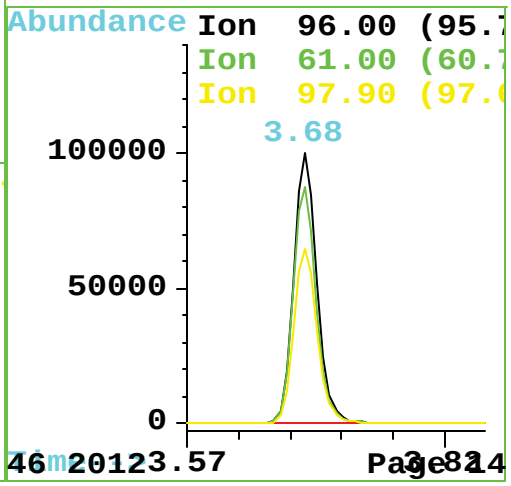


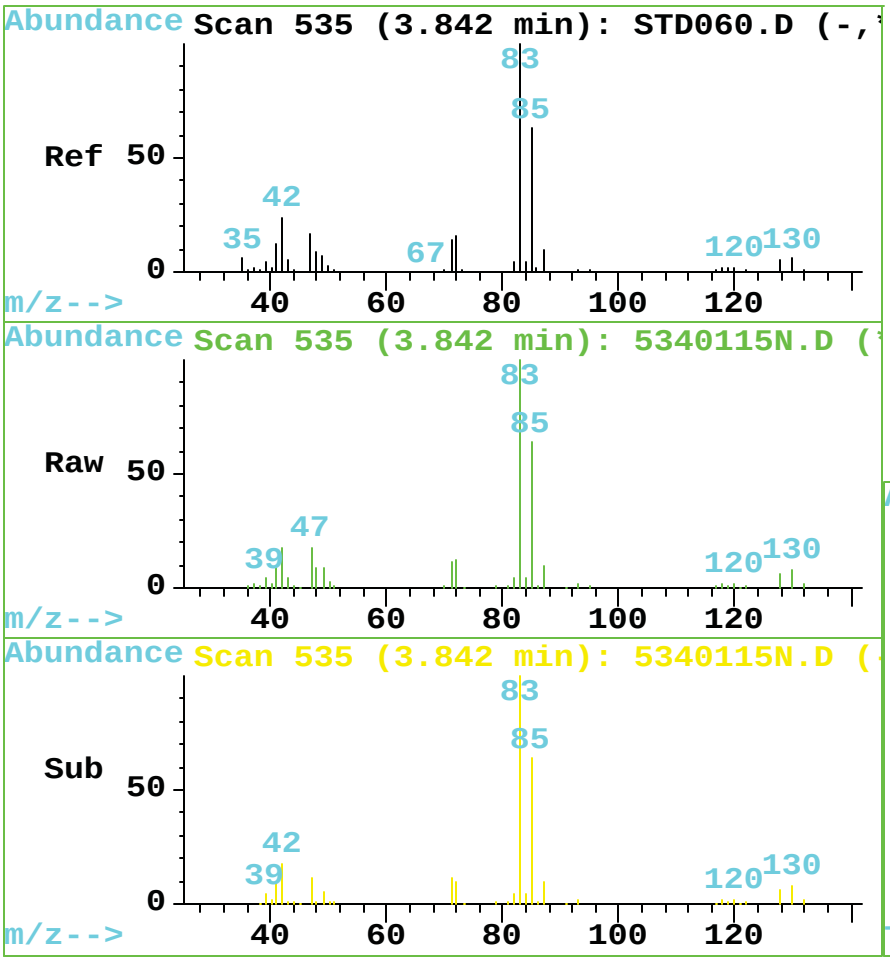


#23
cis-1,2-Dichloroethene
Concen: 45.99 ug/l
RT: 3.68 min Scan# 509
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:96 Resp: 161558

Ion	Ratio	Lower	Upper
96	100		
61	87.2	90.9	150.9#
98	65.1	34.6	94.6
0	0.0	0.0	0.0

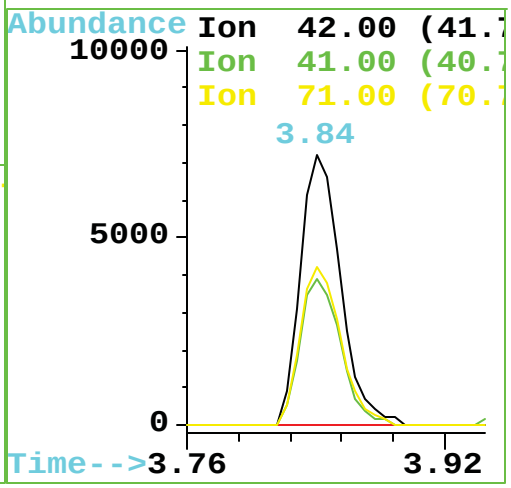


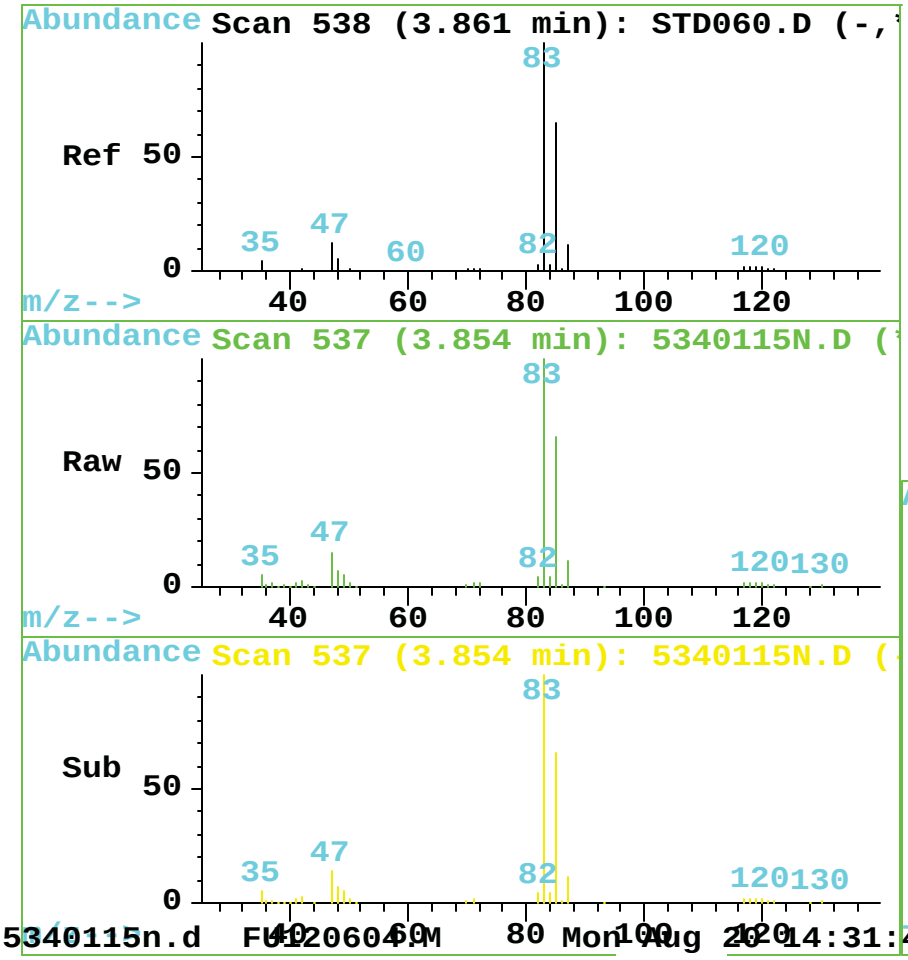


#24
Tetrahydrofuran
Concen: 44.60 ug/l
RT: 3.84 min Scan# 535
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:42 Resp: 12420

Ion	Ratio	Lower	Upper
42	100		
41	54.9	222.5	282.5#
71	59.6	24.9	84.9
0	0.0	0.0	0.0

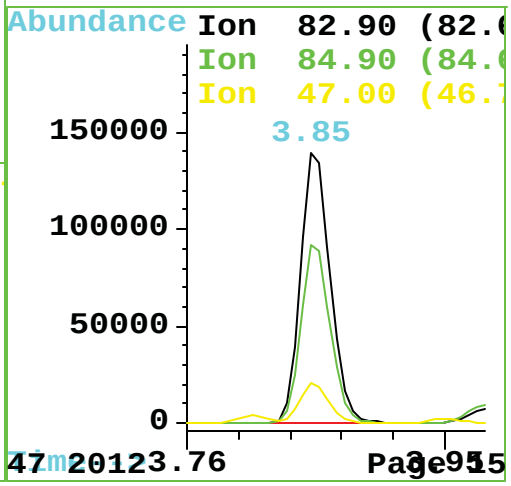


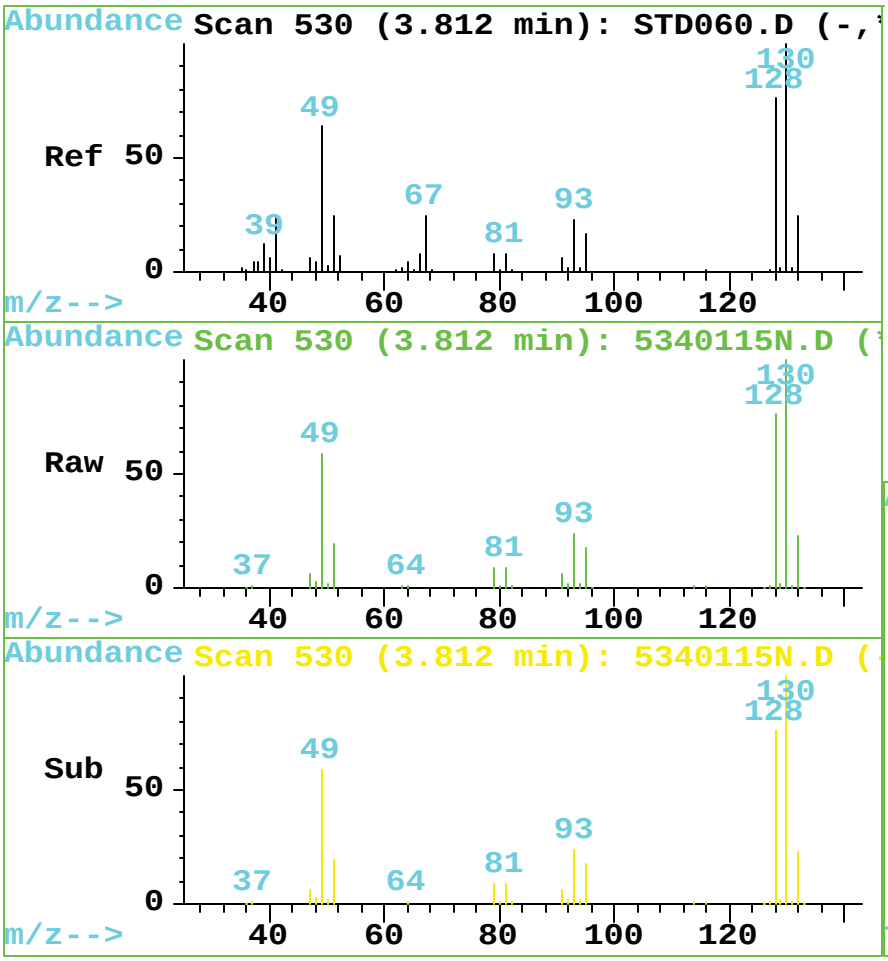


#25
Chloroform (CCC)
Concen: 46.97 ug/l
RT: 3.85 min Scan# 537
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:82.9 Resp: 212300

Ion	Ratio	Lower	Upper
83	100		
85	65.6	35.0	95.0
47	14.4	0.0	48.4
0	0.0	0.0	0.0

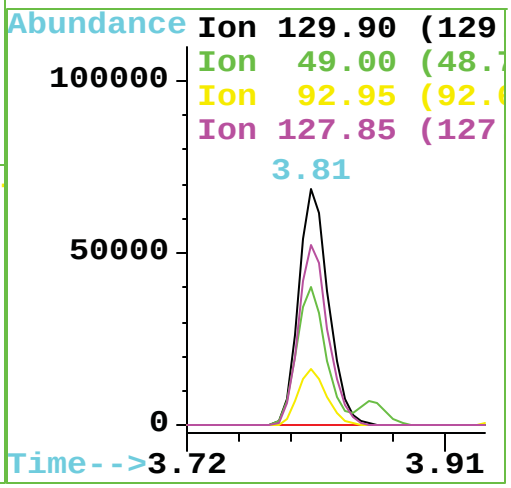


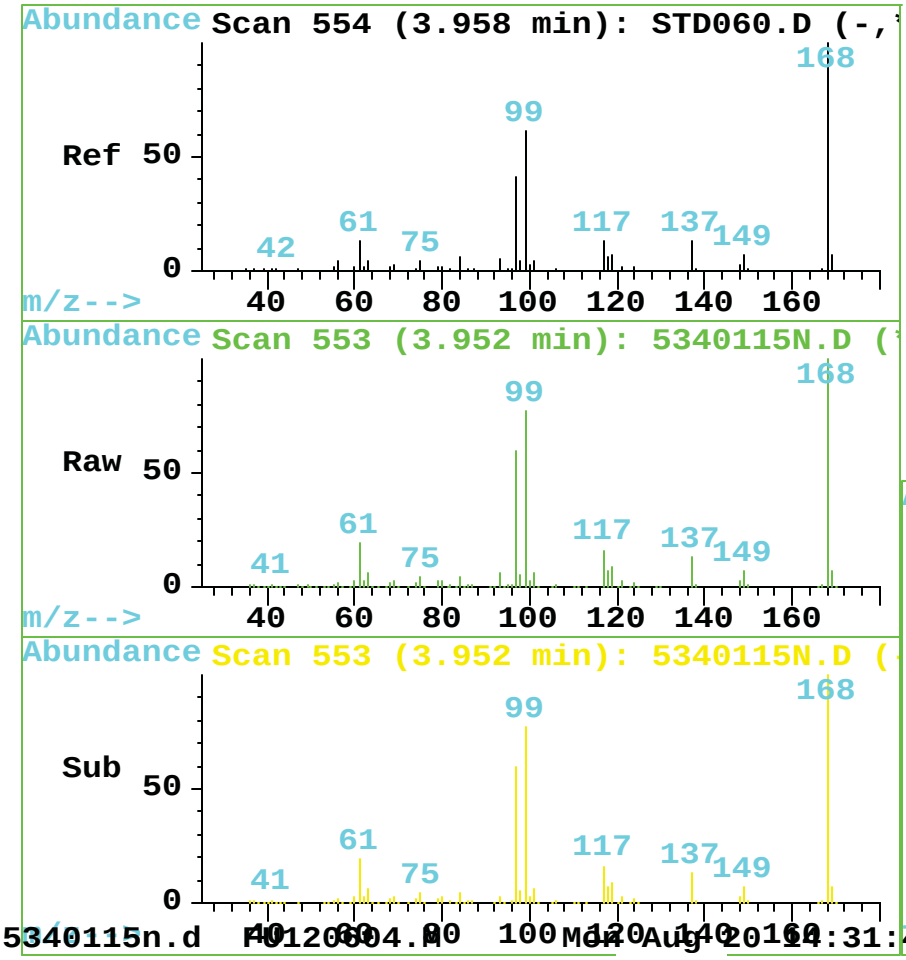


#26
Bromochloromethane
Concen: 47.57 ug/l
RT: 3.81 min Scan# 530
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:129.9 Resp: 10693

Ion	Ratio	Lower	Upper
130	100		
49	58.6	41.7	101.7
93	23.2	0.0	58.1
128	75.7	45.4	105.4

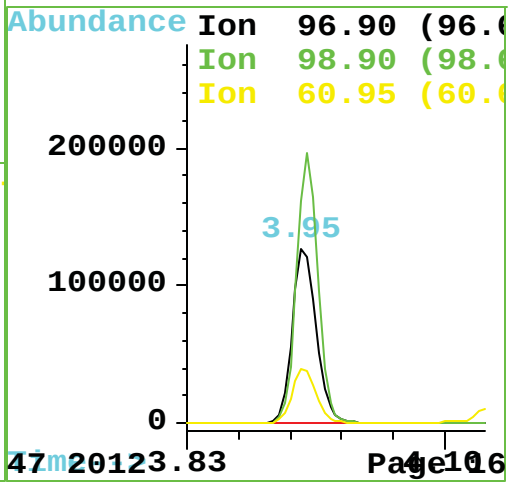


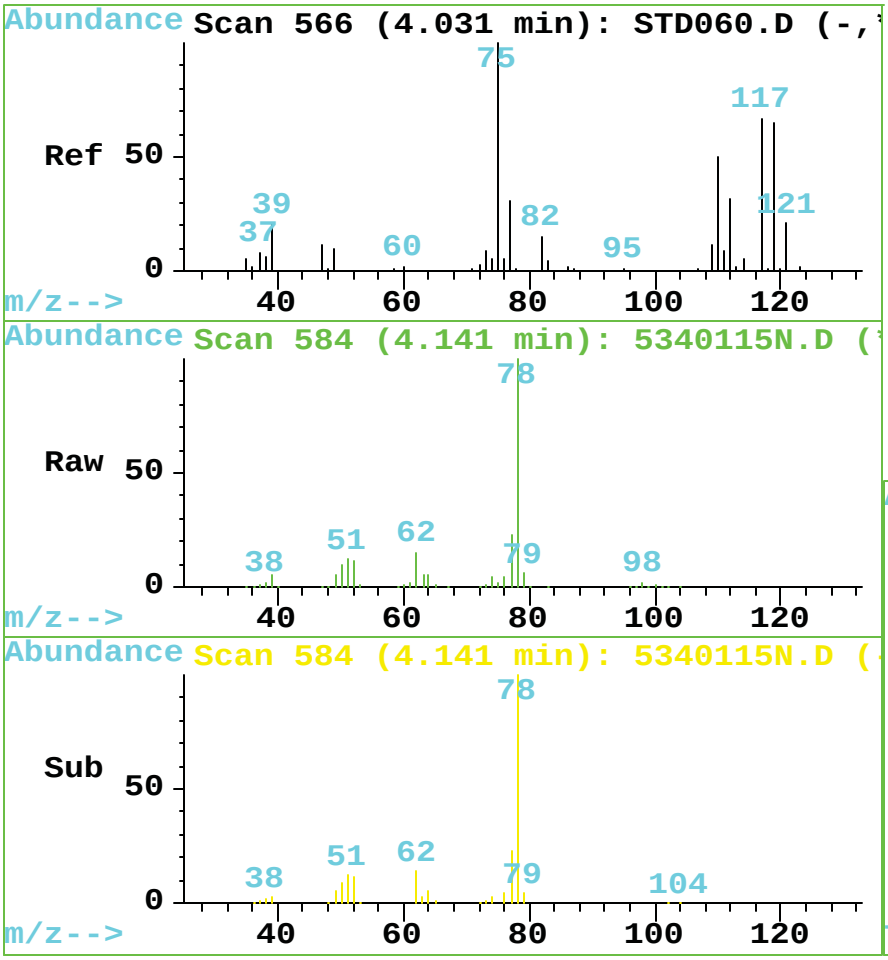


#27
1,1,1-Trichloroethane
Concen: 51.26 ug/l
RT: 3.95 min Scan# 553
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:96.9 Resp: 226834

Ion	Ratio	Lower	Upper
97	100		
99	135.8	214.4	274.4#
61	31.3	12.5	72.5
0	0.0	0.0	0.0

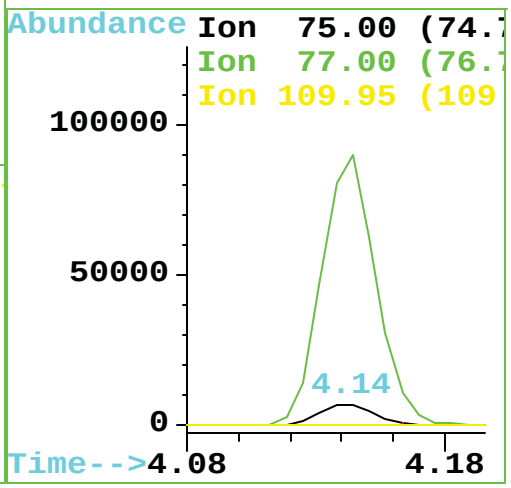


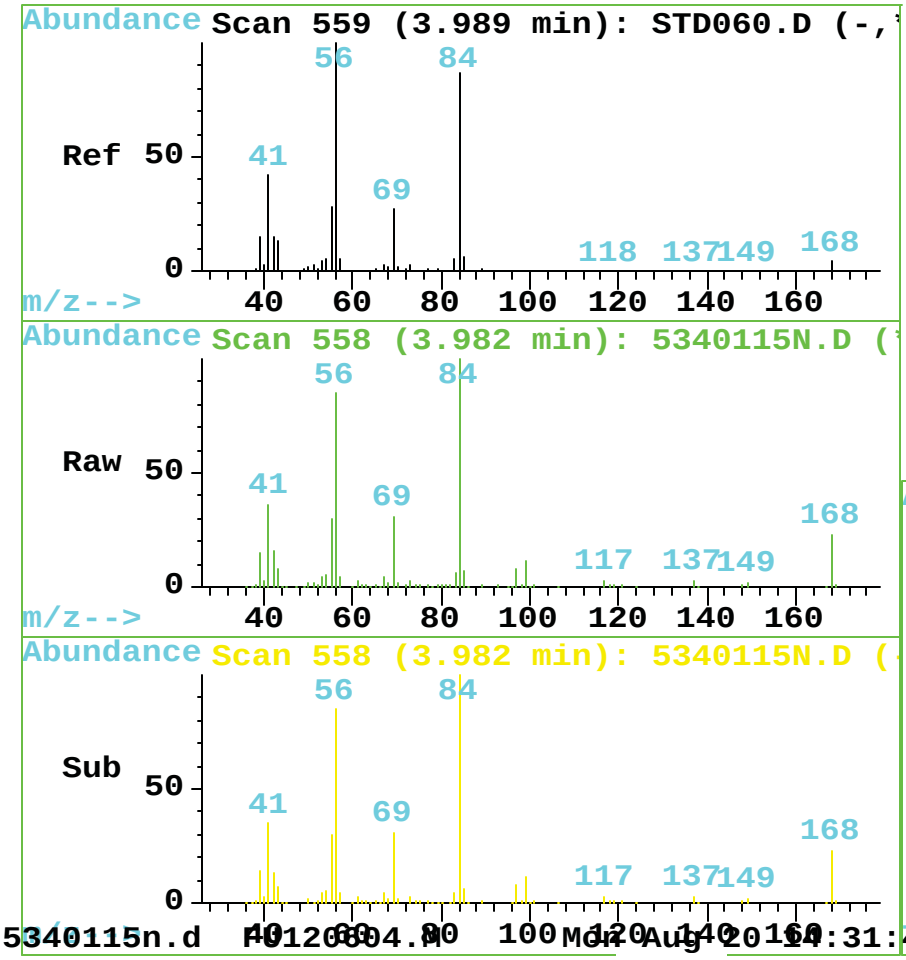


#28
1,1-Dichloropropene
Concen: 2.56 ug/l
RT: 4.14 min Scan# 584
Delta R.T. 0.11 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:75 Resp: 9476

Ion	Ratio	Lower	Upper
75	100		
77	1300.4	0.6	60.6#
110	0.0	11.2	71.2#
0	0.0	0.0	0.0

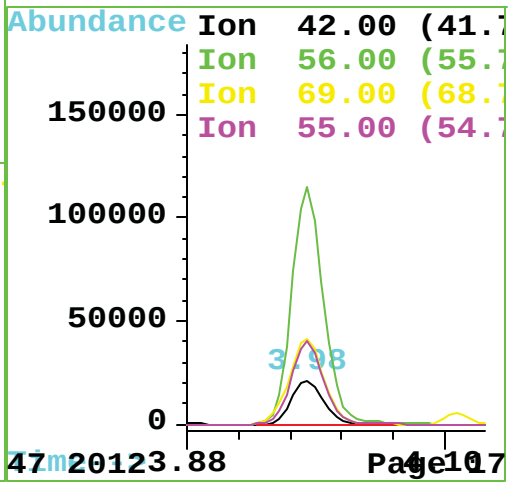


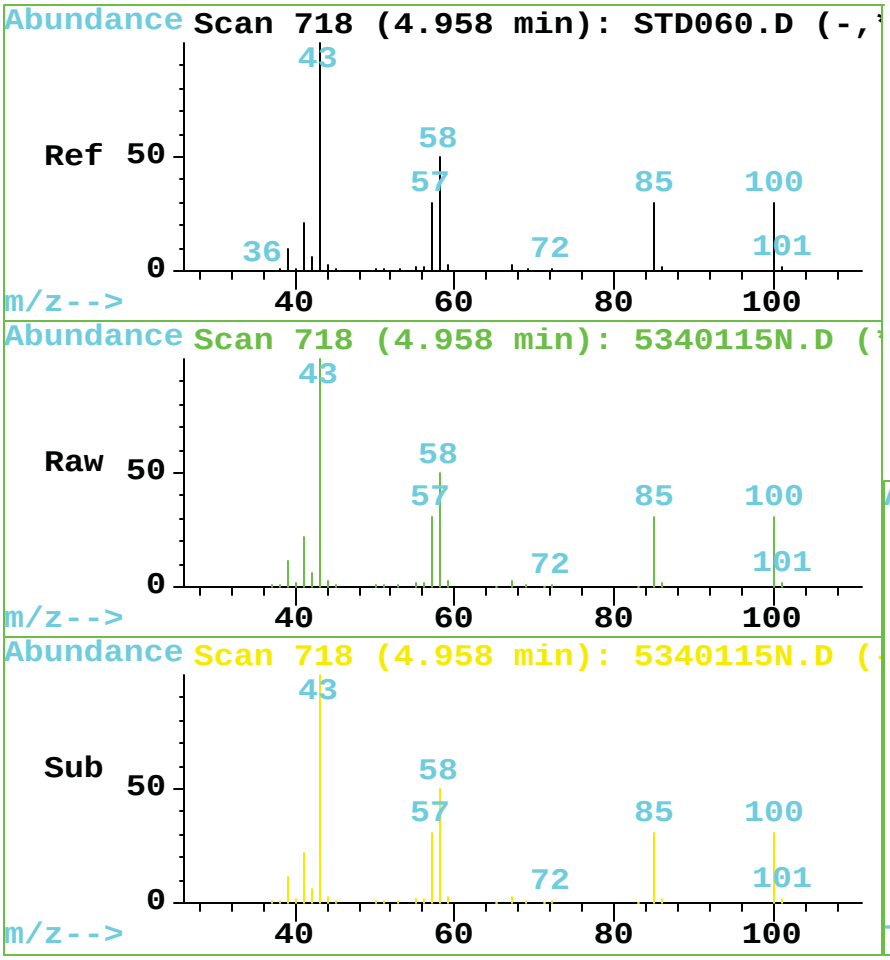


#29
Cyclohexane
Concen: 40.11 ug/l
RT: 3.98 min Scan# 558
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:42 Resp: 41006

Ion	Ratio	Lower	Upper
42	100		
56	534.0	958.1	1018.1#
69	210.1	188.2	248.2
55	191.2	209.1	269.1#

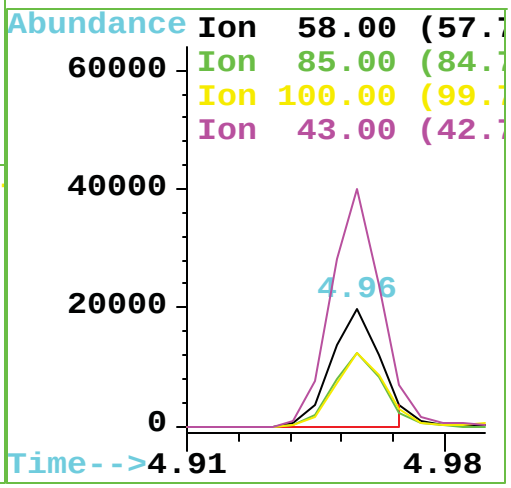


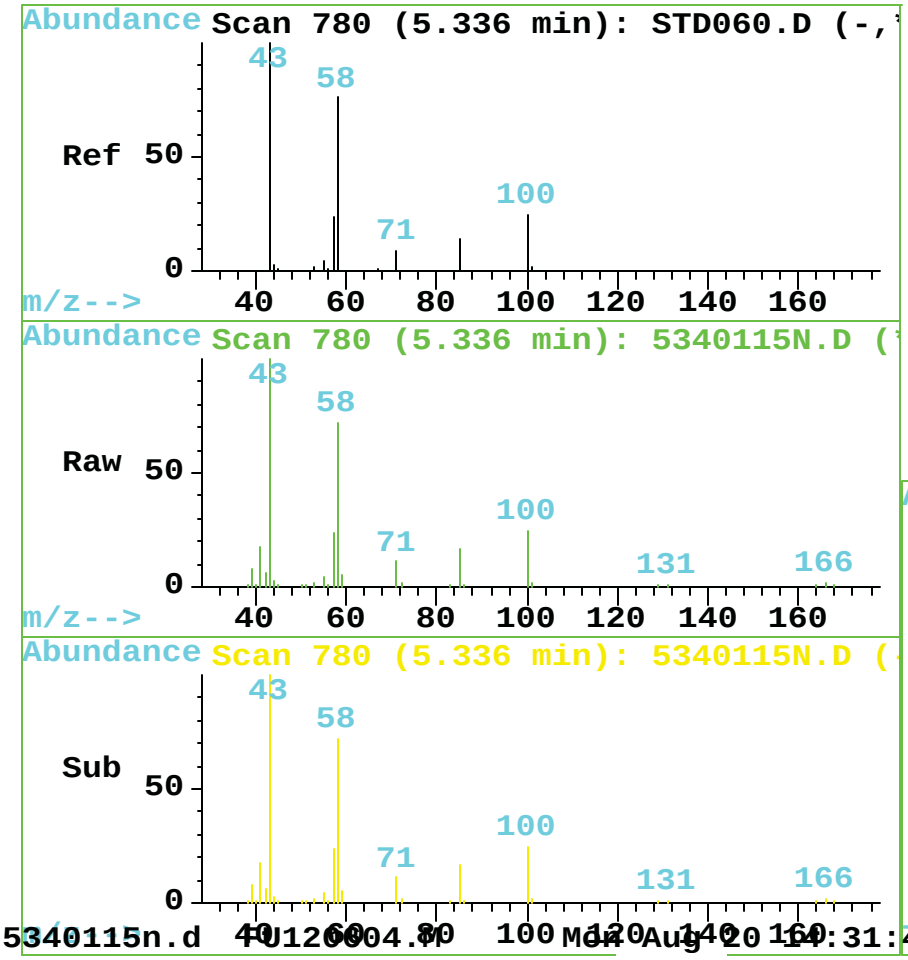


#32
4-Methyl-2-pentanone (MIBK
Concen: 51.61 ug/l
RT: 4.96 min Scan# 718
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:58 Resp: 19331

Ion	Ratio	Lower	Upper
58	100		
85	62.4	33.3	93.3
100	62.7	29.4	89.4
43	203.0	197.3	257.3

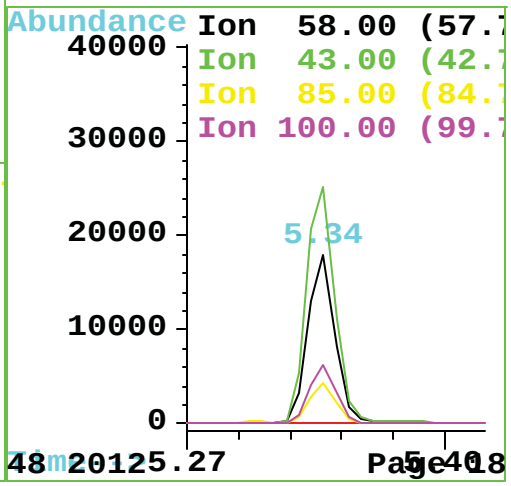


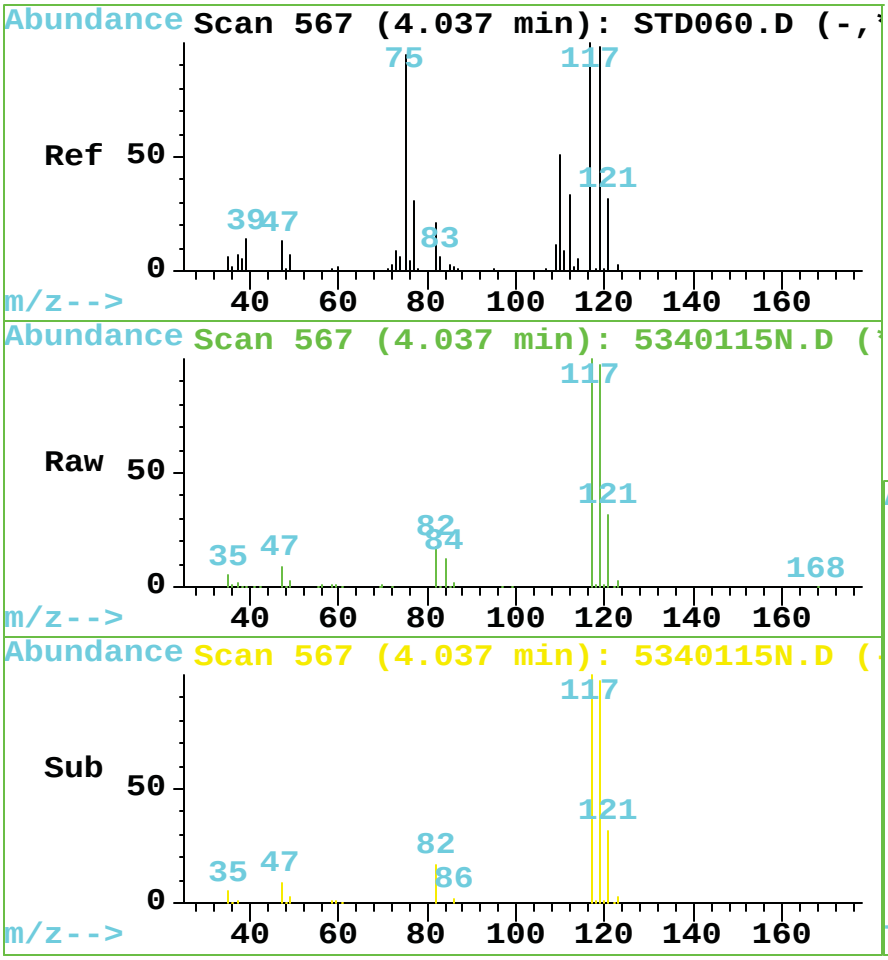


#33
2-Hexanone (*)
Concen: 57.55 ug/l
RT: 5.34 min Scan# 780
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:58 Resp: 16802

Ion	Ratio	Lower	Upper
58	100		
43	147.7	122.2	182.2
85	23.0	0.0	52.9
100	34.3	2.6	62.6

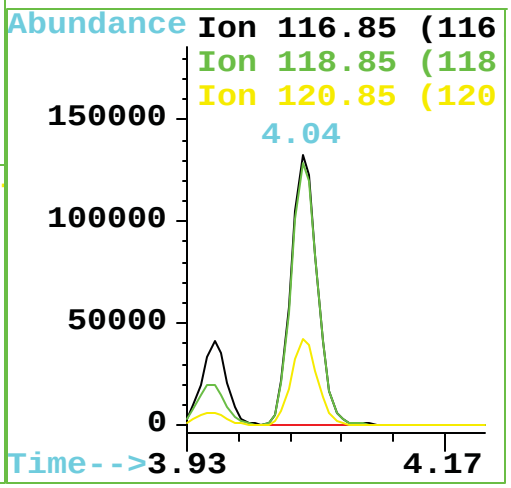


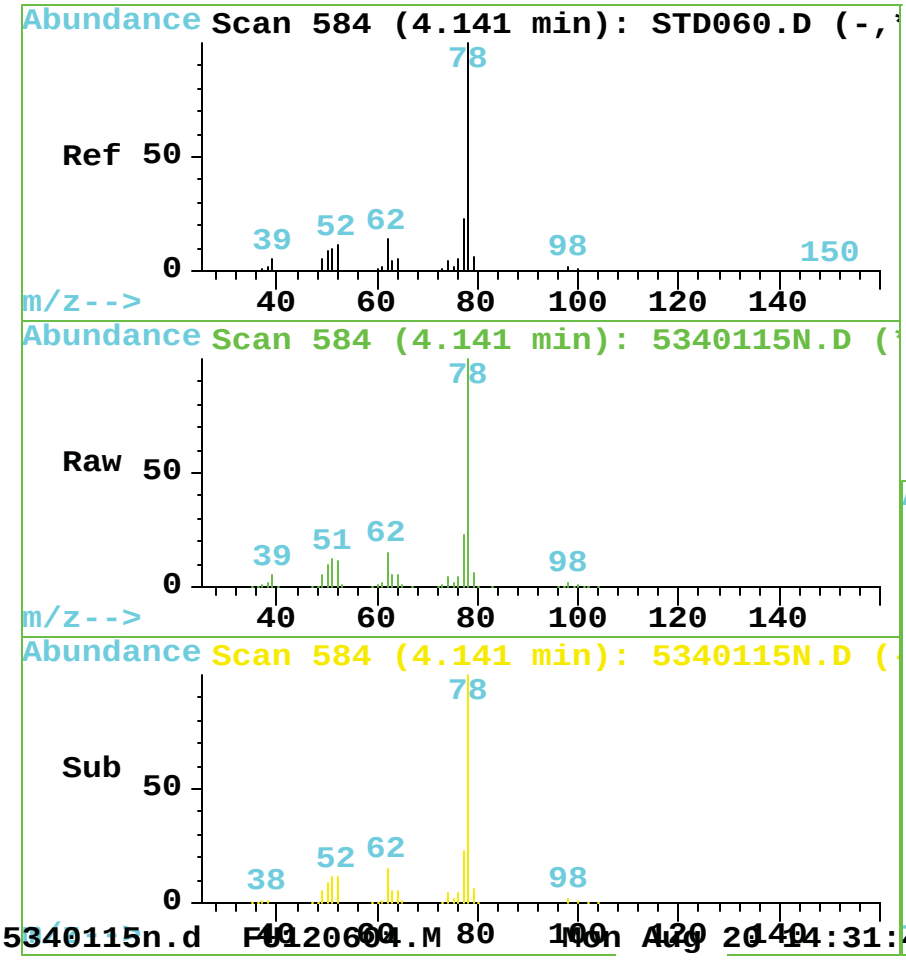


#35
Carbon Tetrachloride
Concen: 52.72 ug/l
RT: 4.04 min Scan# 567
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:116.85 Resp: 2196

Ion	Ratio	Lower	Upper
117	100		
119	97.6	65.5	125.5
121	31.8	0.5	60.5
0	0.0	0.0	0.0

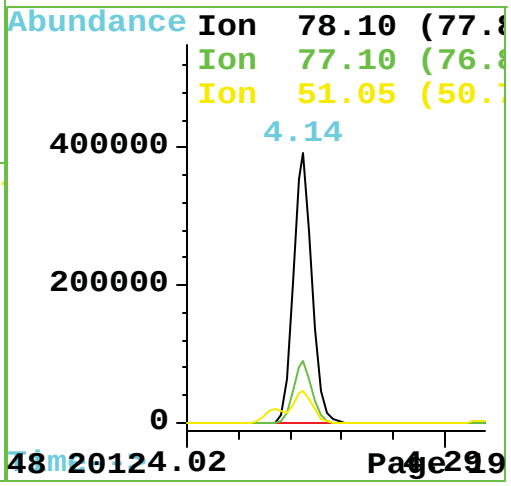


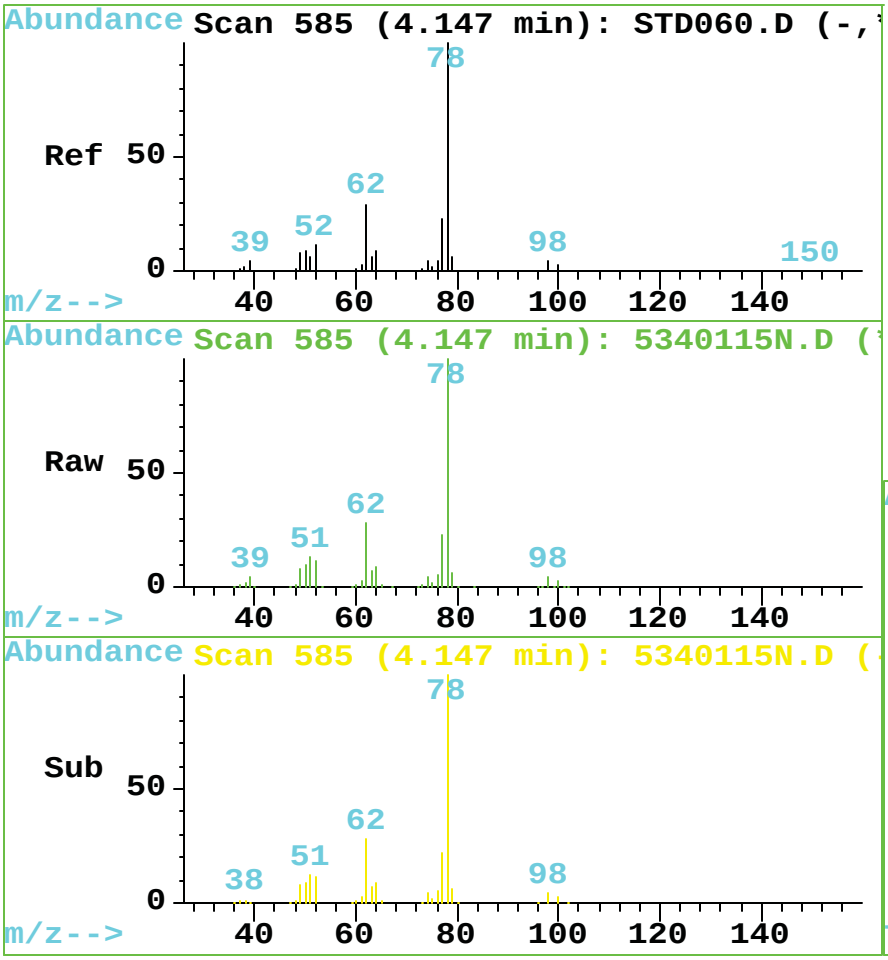


#36
Benzene (MS)
Concen: 47.10 ug/l
RT: 4.14 min Scan# 584
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:78.1 Resp: 552988

Ion	Ratio	Lower	Upper
78	100		
77	22.6	0.0	52.9
51	12.2	0.0	44.8
0	0.0	0.0	0.0

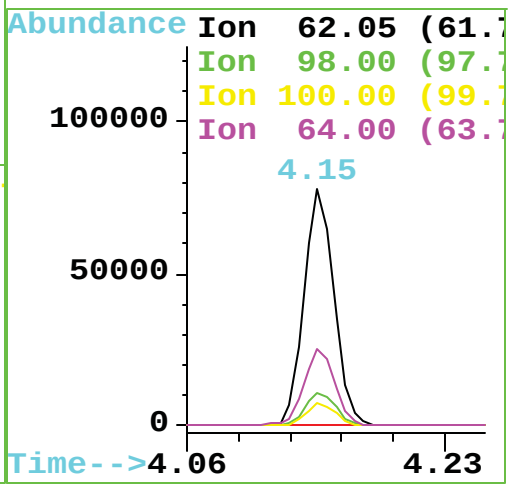


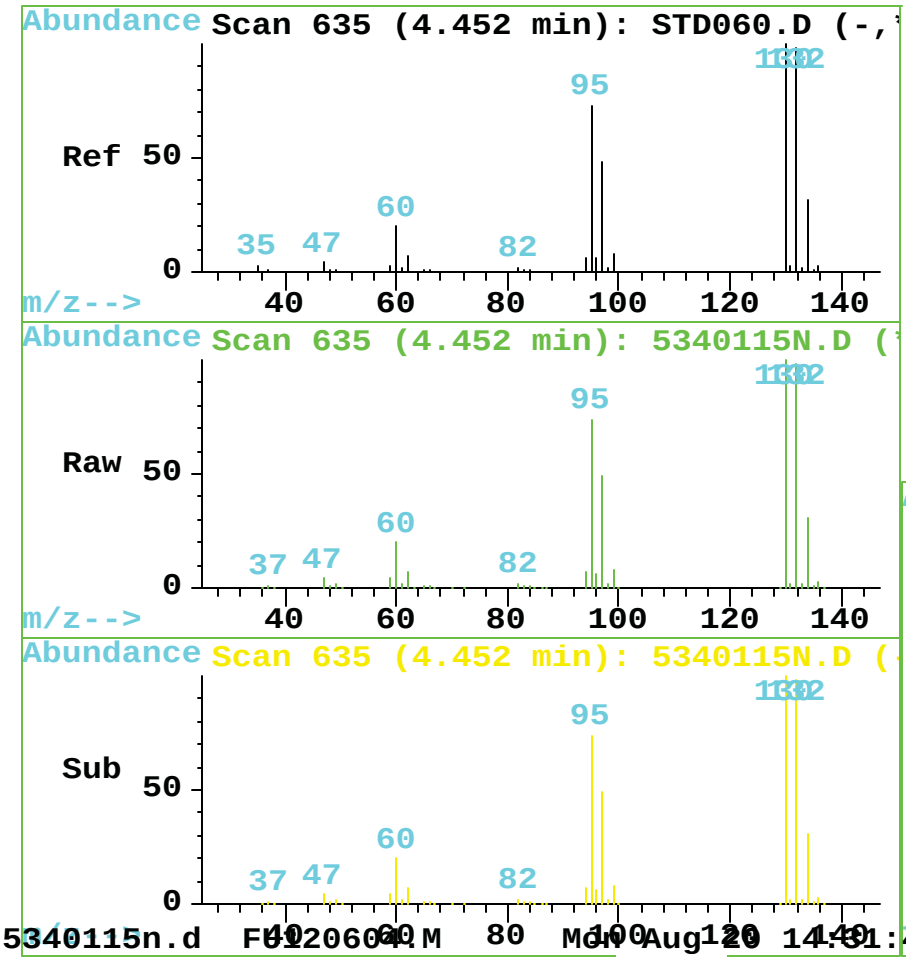


#37
1,2-Dichloroethane
Concen: 50.10 ug/l
RT: 4.15 min Scan# 585
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:62.05 Resp: 10654

Ion	Ratio	Lower	Upper
62	100		
98	14.7	0.0	40.9
100	9.5	0.0	37.0
64	33.7	3.1	63.1

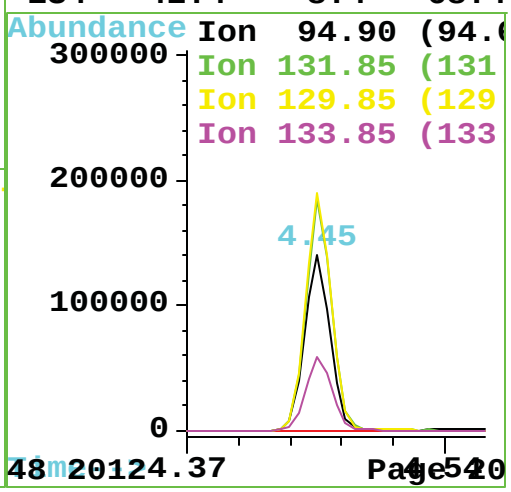


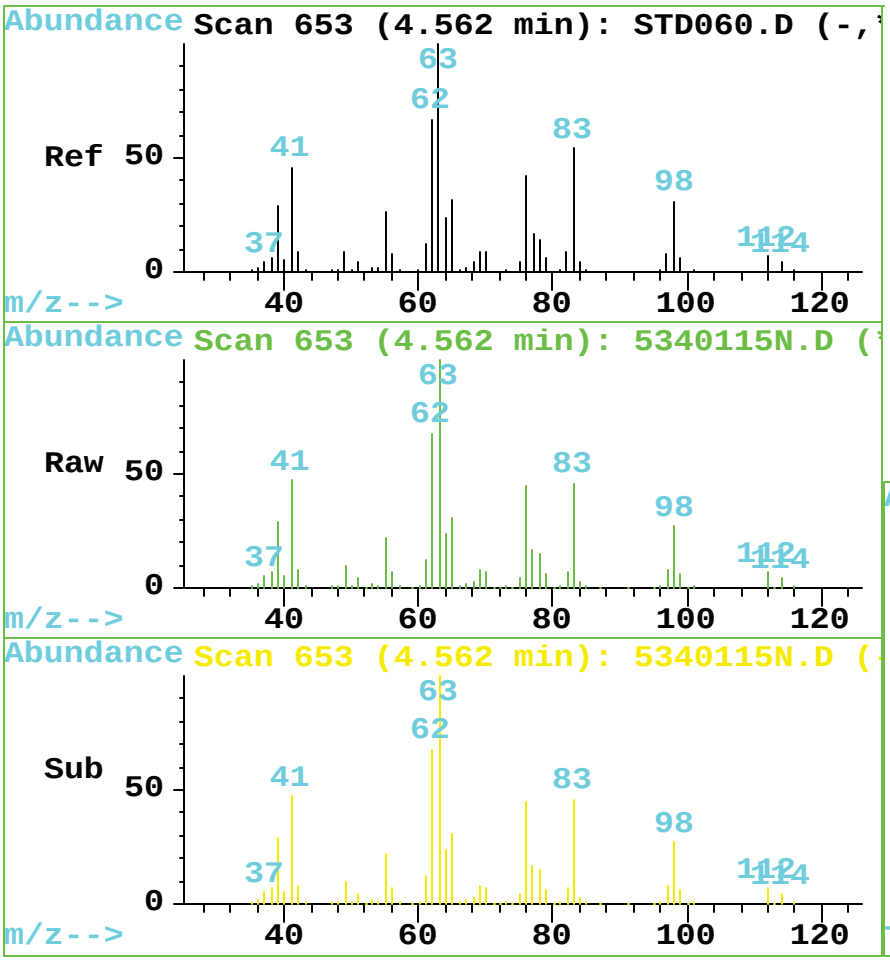


#38
Trichloroethene (MS)
Concen: 50.39 ug/l
RT: 4.45 min Scan# 635
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:94.9 Resp: 161414

Ion	Ratio	Lower	Upper
95	100		
132	131.6	90.7	150.7
130	135.3	93.9	153.9
134	42.4	8.4	68.4

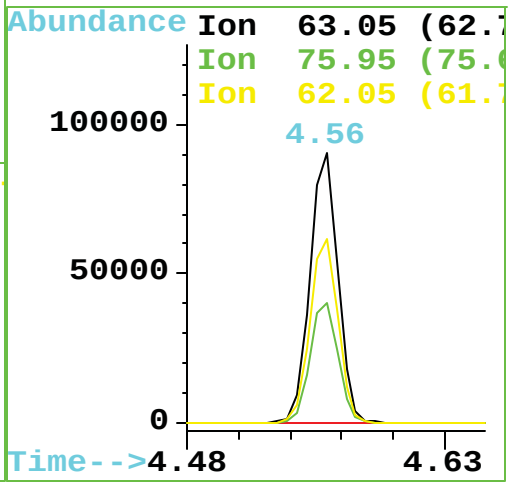


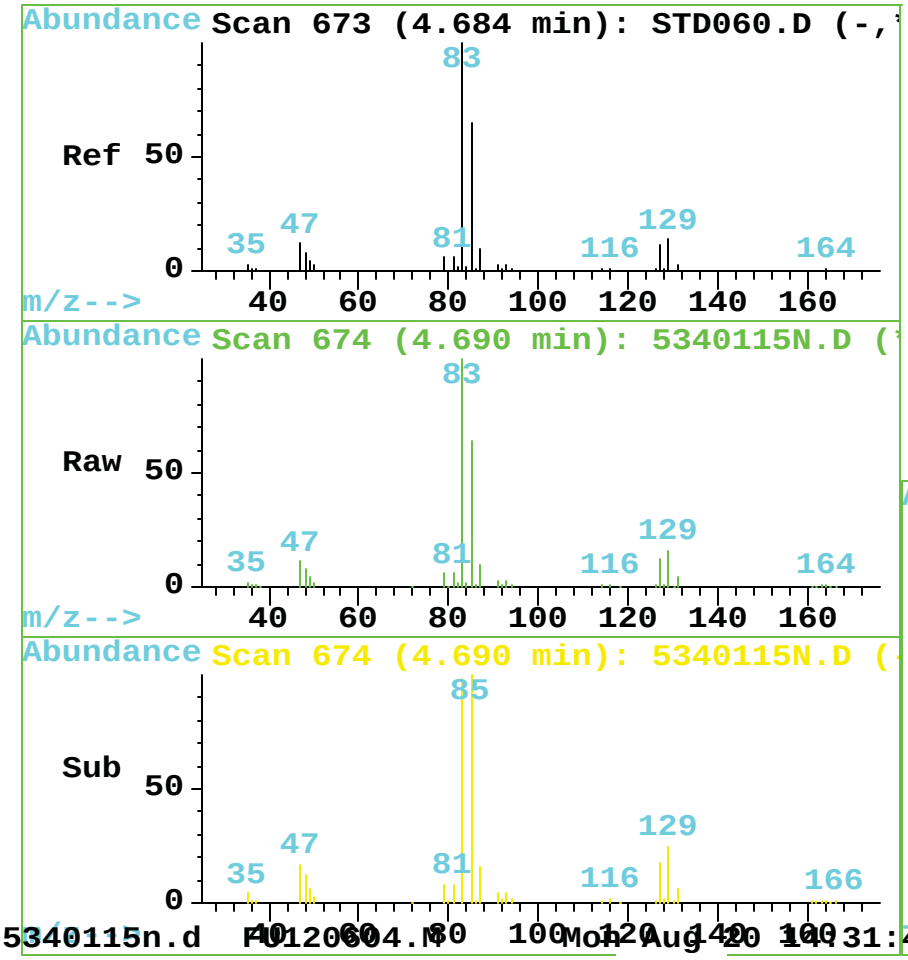


#39
1,2-Dichloropropane (CCC)
Concen: 47.39 ug/l
RT: 4.56 min Scan# 653
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:63.05 Resp: 10814

Ion	Ratio	Lower	Upper
63	100		
76	44.9	23.2	83.2
62	68.4	37.6	97.6
0	0.0	0.0	0.0

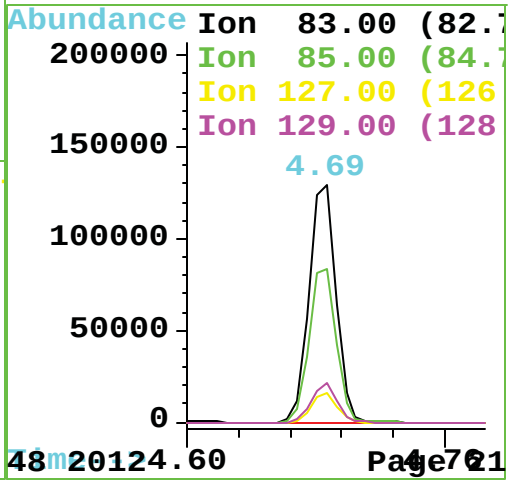


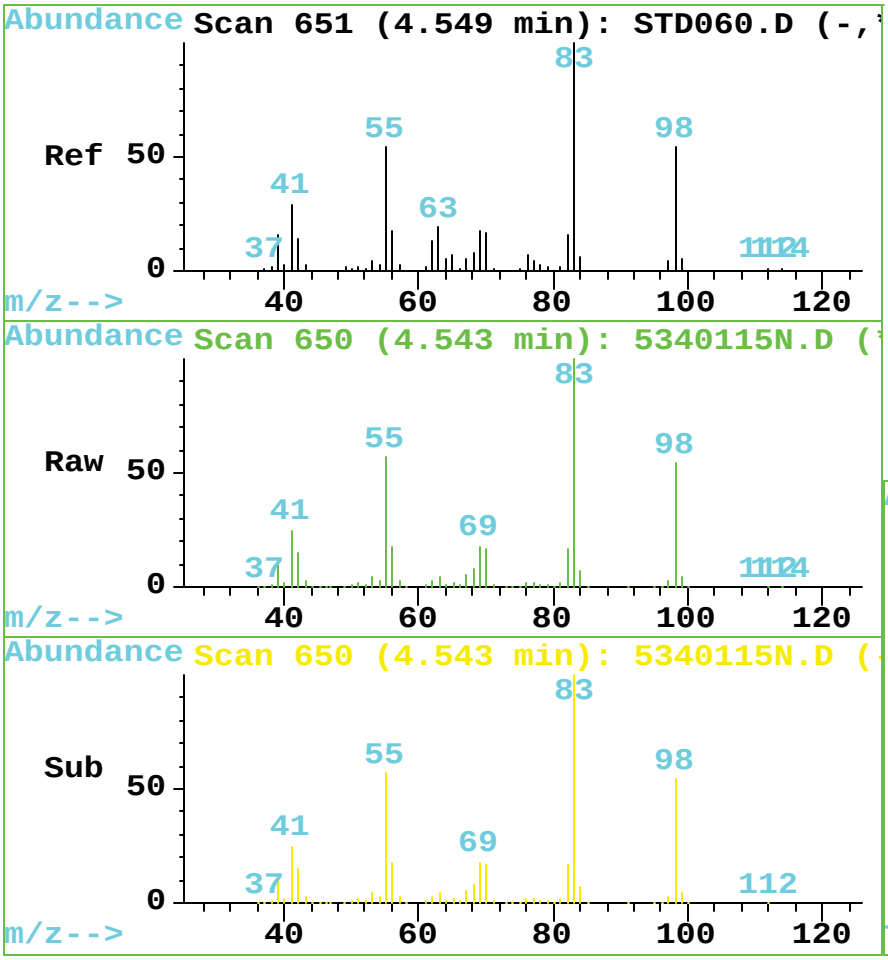


#40
Bromodichloromethane
Concen: 52.15 ug/l
RT: 4.69 min Scan# 674
Delta R.T. 0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:83 Resp: 148831

Ion	Ratio	Lower	Upper
83	100		
85	64.6	33.6	93.6
127	11.4	0.0	40.3
129	15.0	0.0	43.6

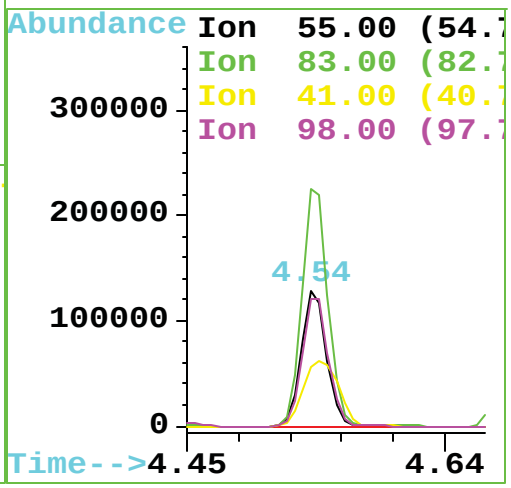


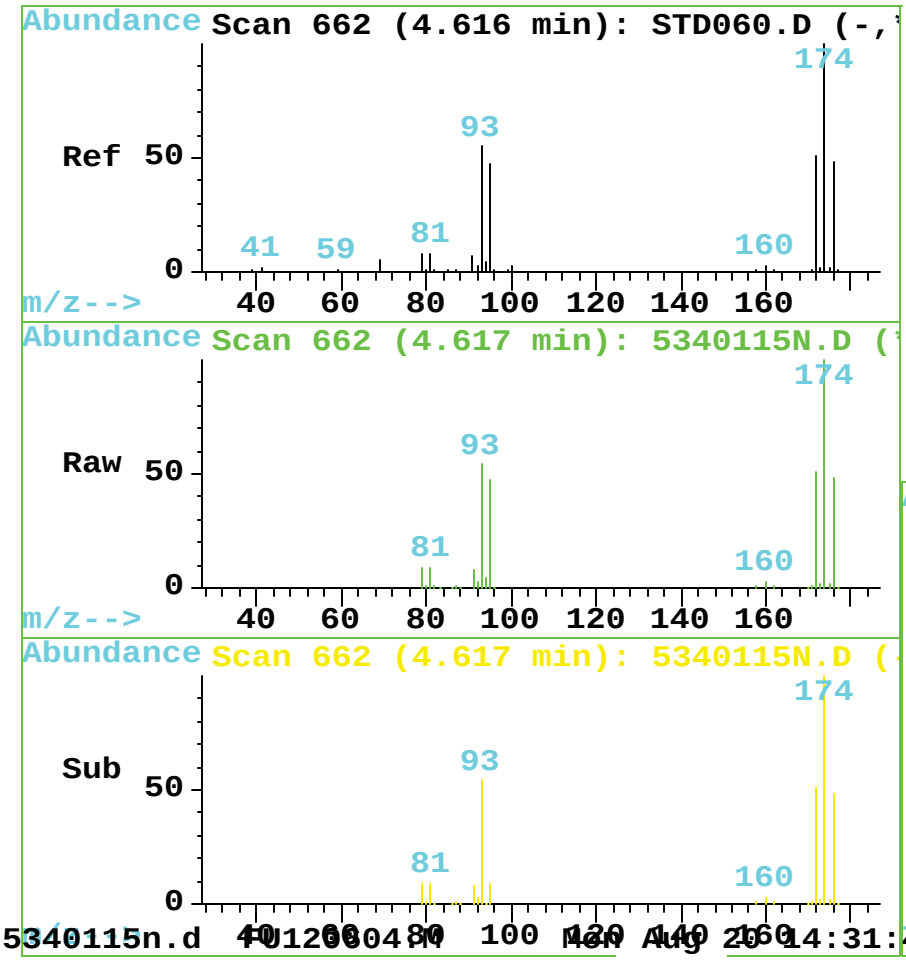


#41
Methyl Cyclohexane
Concen: 49.98 ug/l
RT: 4.54 min Scan# 650
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:55 Resp: 165760

Ion	Ratio	Lower	Upper
55	100		
83	181.3	131.0	191.0
41	66.6	42.0	102.0
98	98.1	55.3	115.3

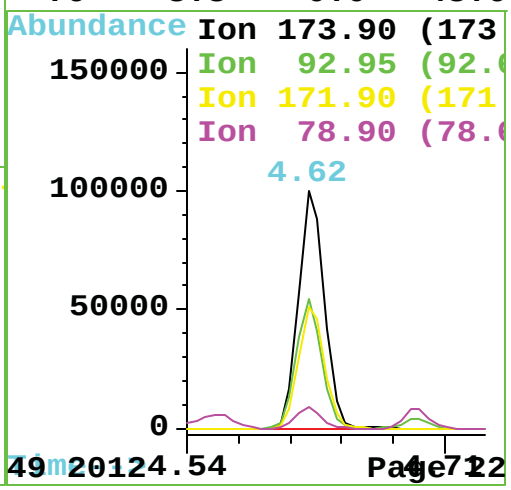


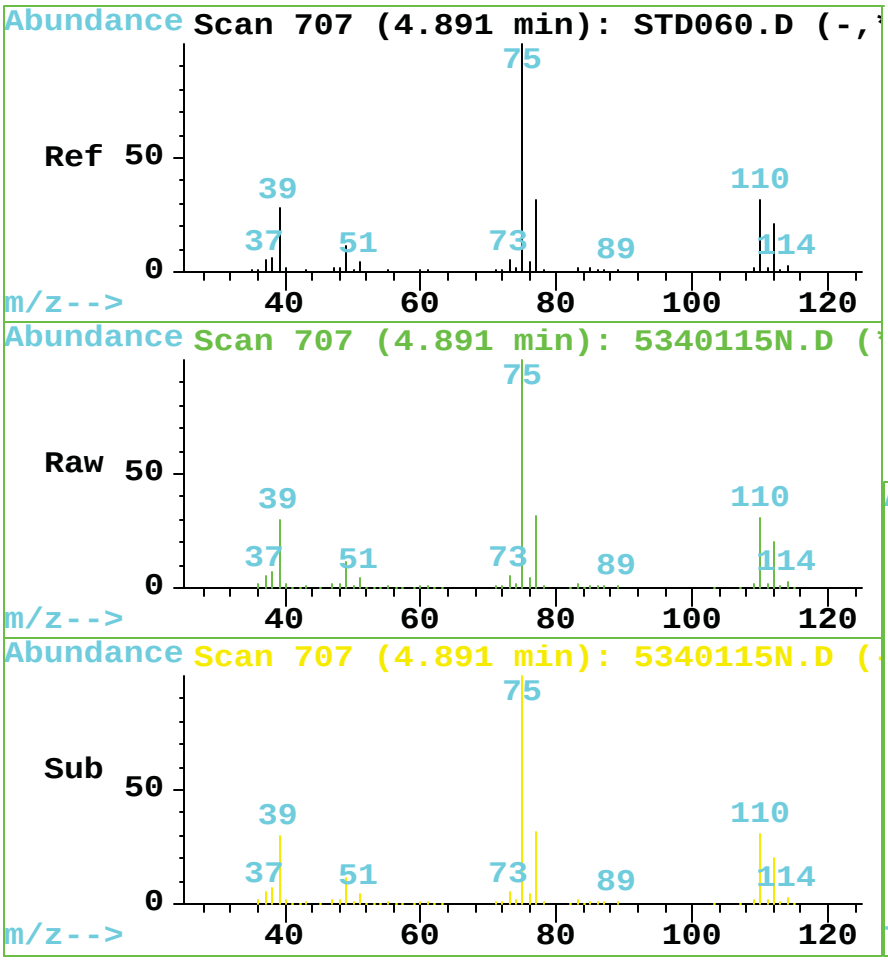


#42
Dibromomethane
Concen: 52.96 ug/l
RT: 4.62 min Scan# 662
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:173.9 Resp: 11742

Ion	Ratio	Lower	Upper
174	100		
93	53.3	32.9	92.9
172	51.8	19.9	79.9
79	8.3	0.0	43.6

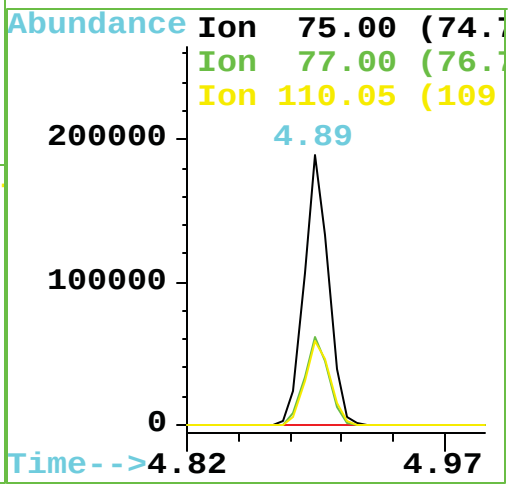


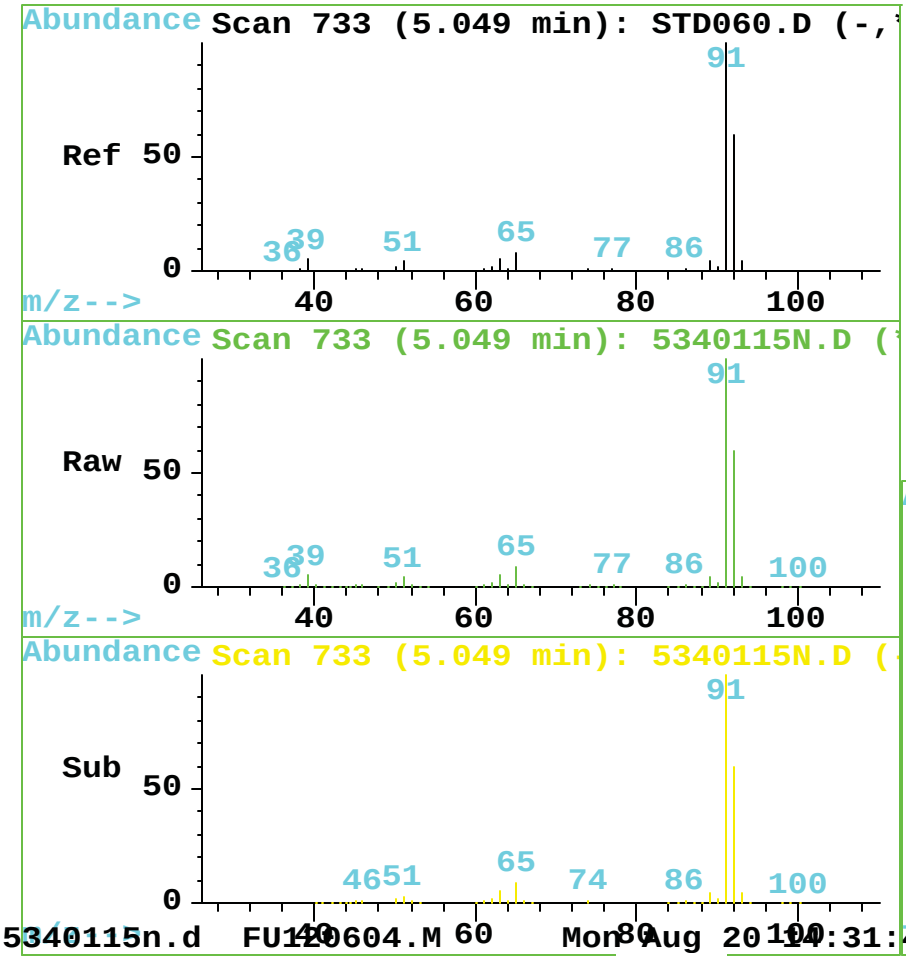


#43
cis-1,3-Dichloropropene
Concen: 51.60 ug/l
RT: 4.89 min Scan# 707
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:75 Resp: 183655

Ion	Ratio	Lower	Upper
75	100		
77	32.5	2.0	62.0
110	32.2	0.0	58.0
0	0.0	0.0	0.0

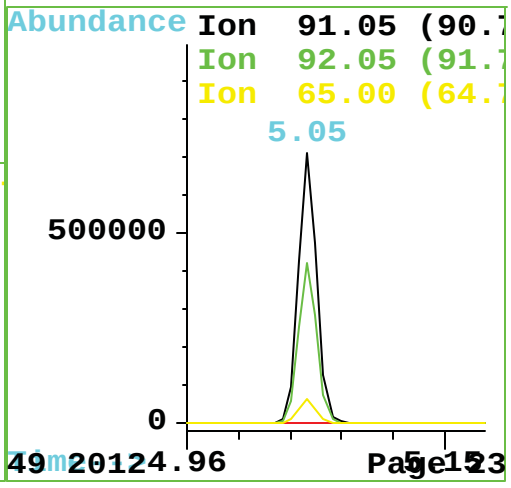


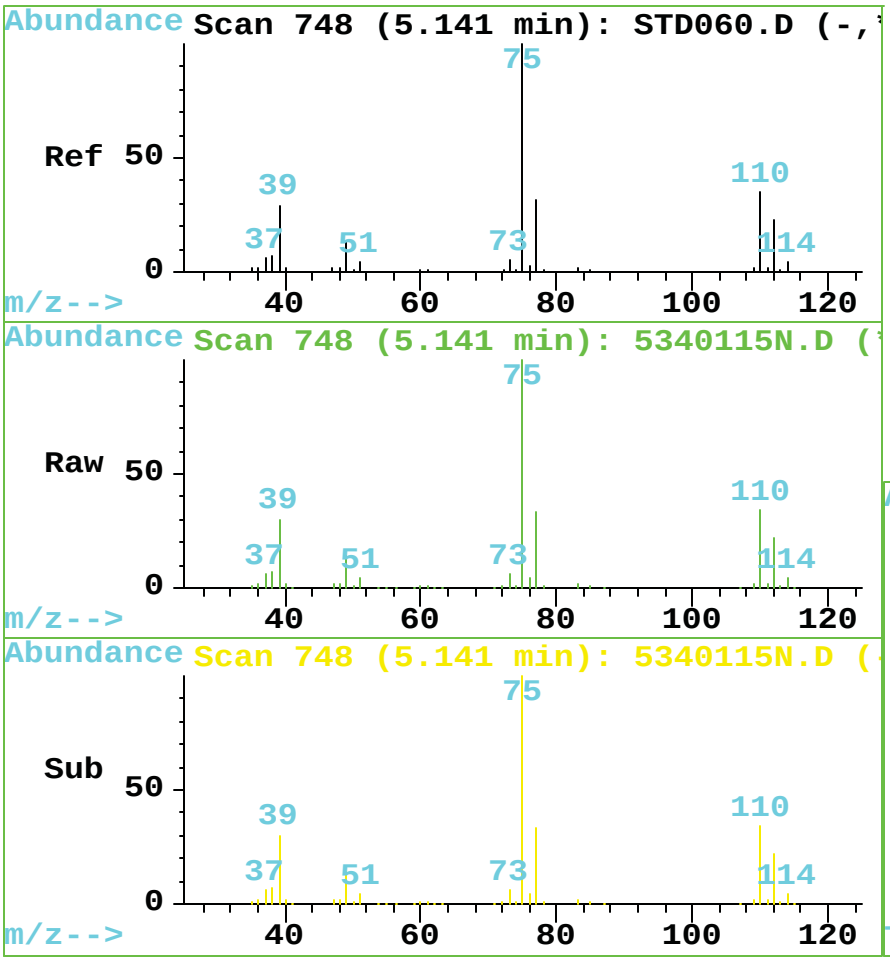


#44
Toluene (CCC/MS)
Concen: 49.65 ug/l
RT: 5.05 min Scan# 733
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:91.05 Resp: 68395

Ion	Ratio	Lower	Upper
91	100		
92	59.9	30.0	90.0
65	8.7	0.0	40.0
0	0.0	0.0	0.0

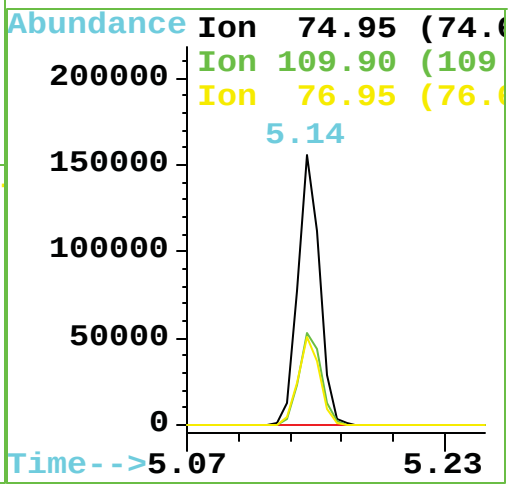


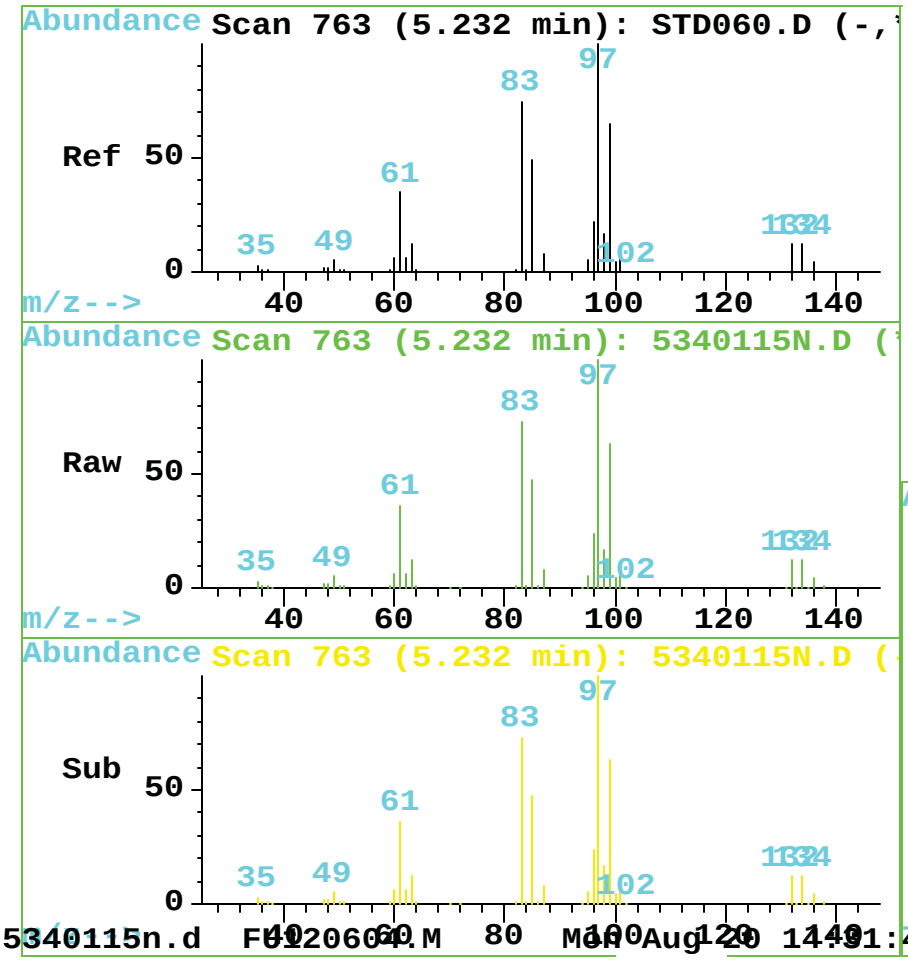


#45
trans-1,3-Dichloropropene
Concen: 53.88 ug/l
RT: 5.14 min Scan# 748
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:74.95 Resp: 14424

Ion	Ratio	Lower	Upper
75	100		
110	35.5	0.0	58.2
77	32.2	1.0	61.0
0	0.0	0.0	0.0

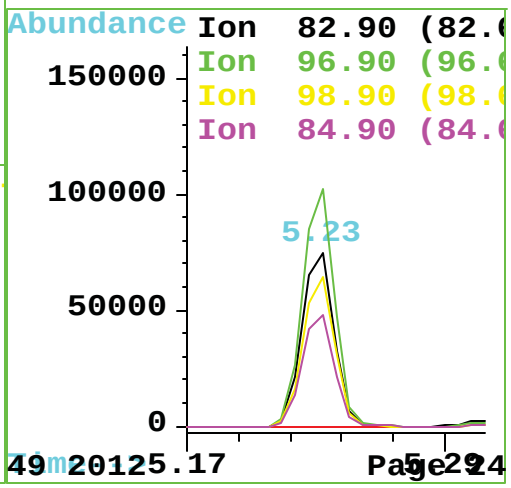


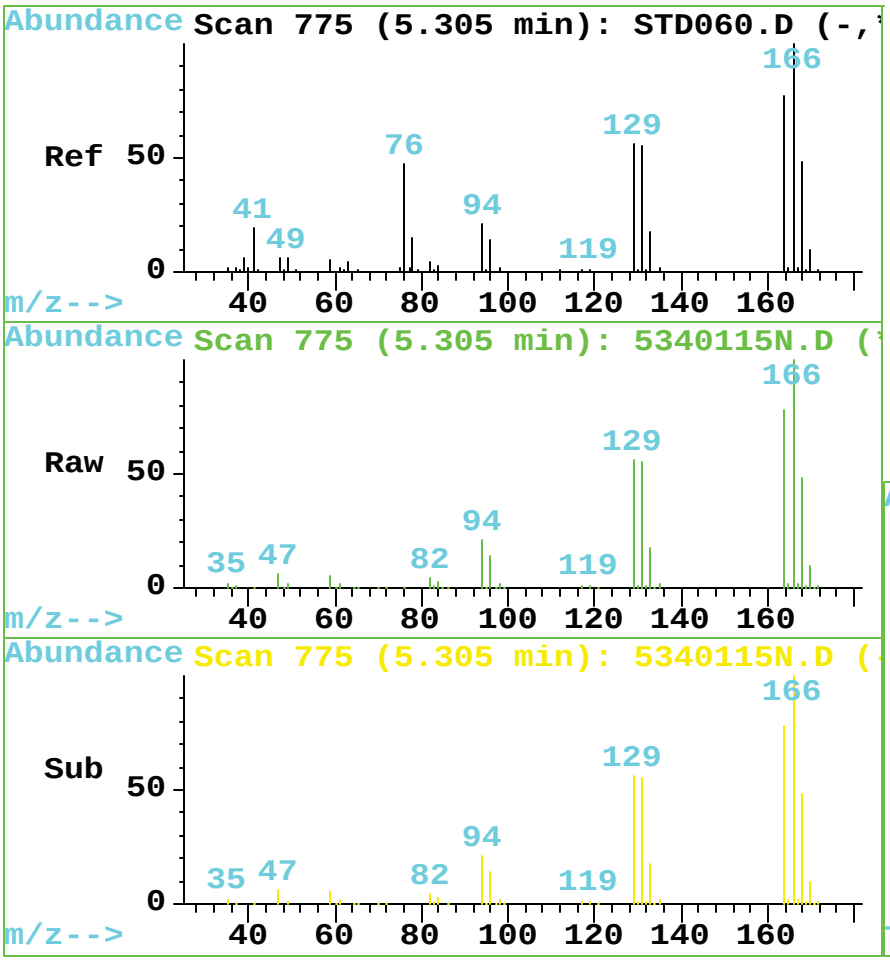


#46
1,1,2-Trichloroethane
Concen: 50.32 ug/l
RT: 5.23 min Scan# 763
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:82.9 Resp: 74163

Ion	Ratio	Lower	Upper
83	100		
97	134.9	104.2	164.2
99	84.8	54.5	114.5
85	64.9	36.7	96.7

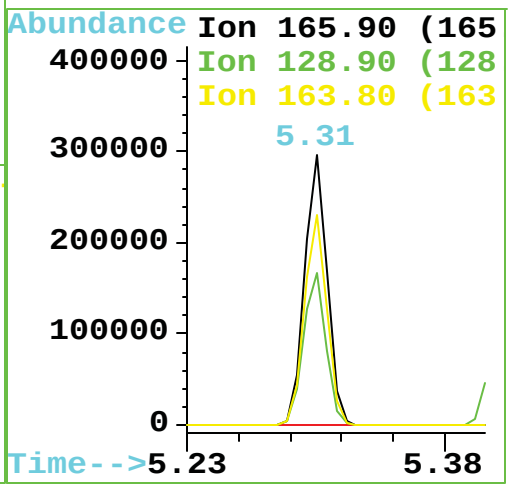


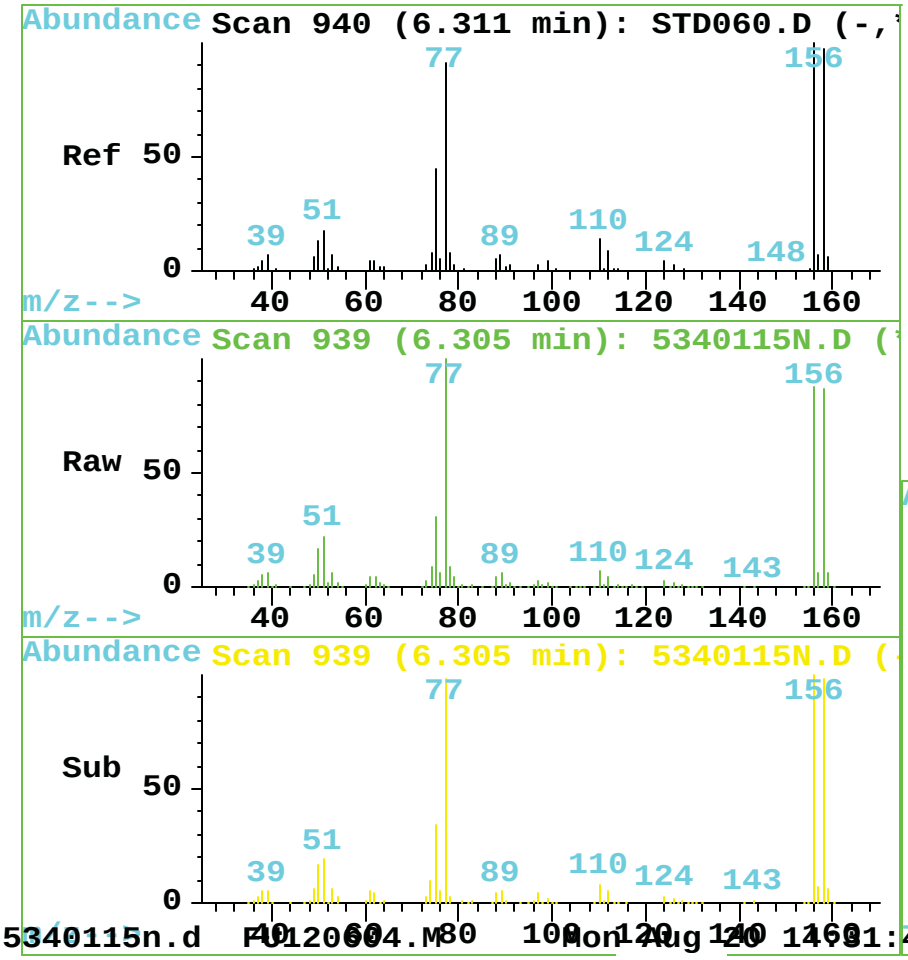


#47
Tetrachloroethene
Concen: 49.75 ug/l
RT: 5.31 min Scan# 775
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:165.9 Resp: 28323

Ion	Ratio	Lower	Upper
166	100		
129	56.7	31.8	91.8
164	77.3	47.4	107.4
0	0.0	0.0	0.0

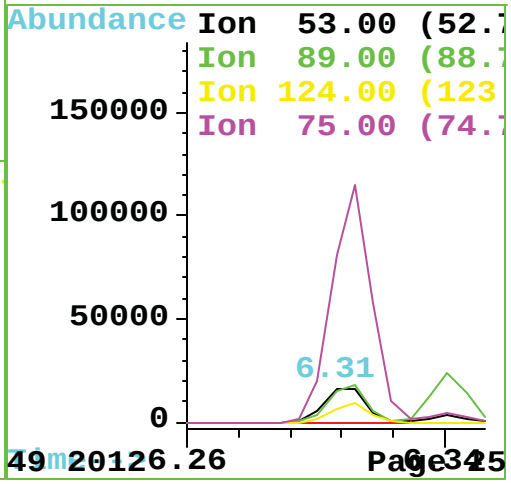


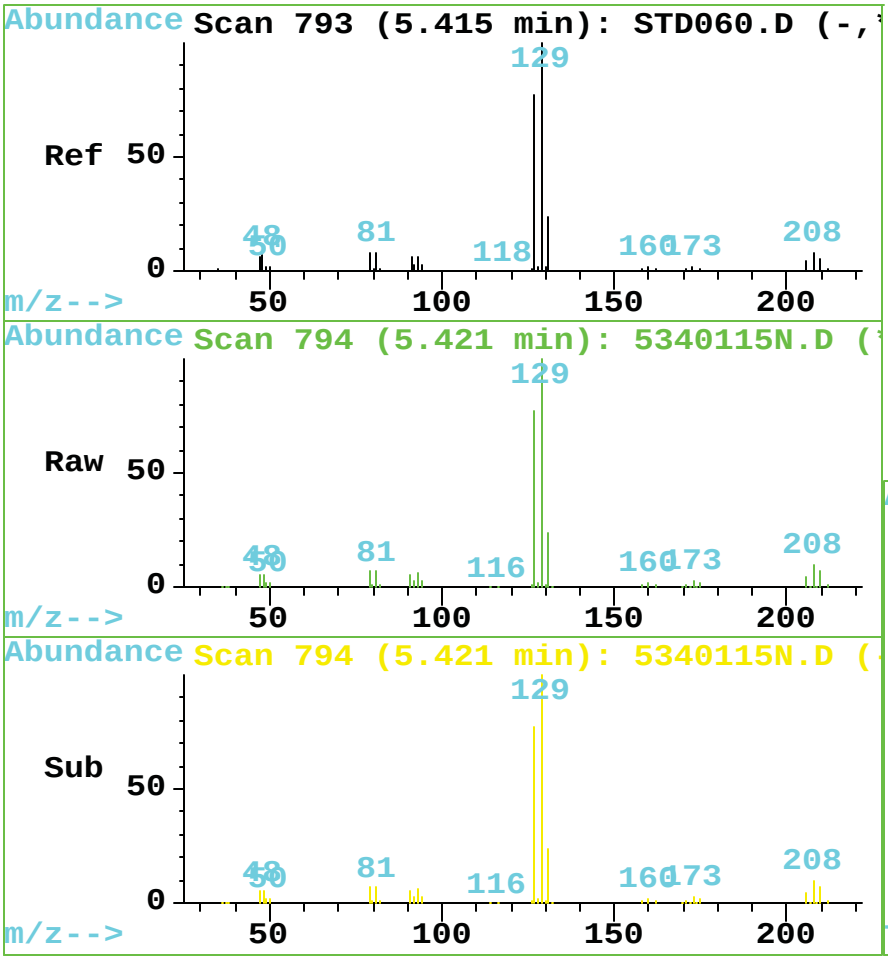


#50
trans-1,4-Dichloro-2-buten
Concen: 53.25 ug/l
RT: 6.31 min Scan# 939
Delta R.T. -0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:53 Resp: 15773

Ion	Ratio	Lower	Upper
53	100		
89	99.0	53.8	113.8
124	48.7	6.0	66.0
75	669.4	570.7	630.7#

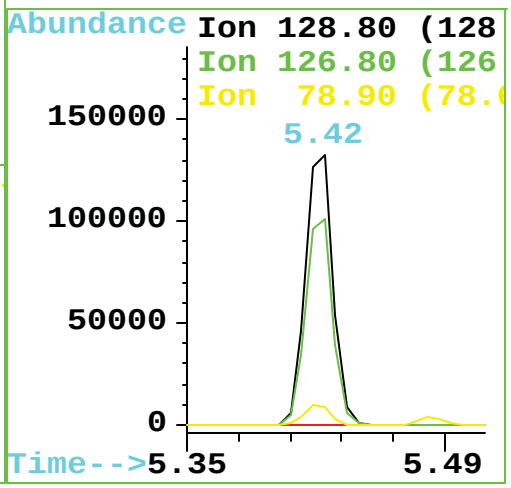


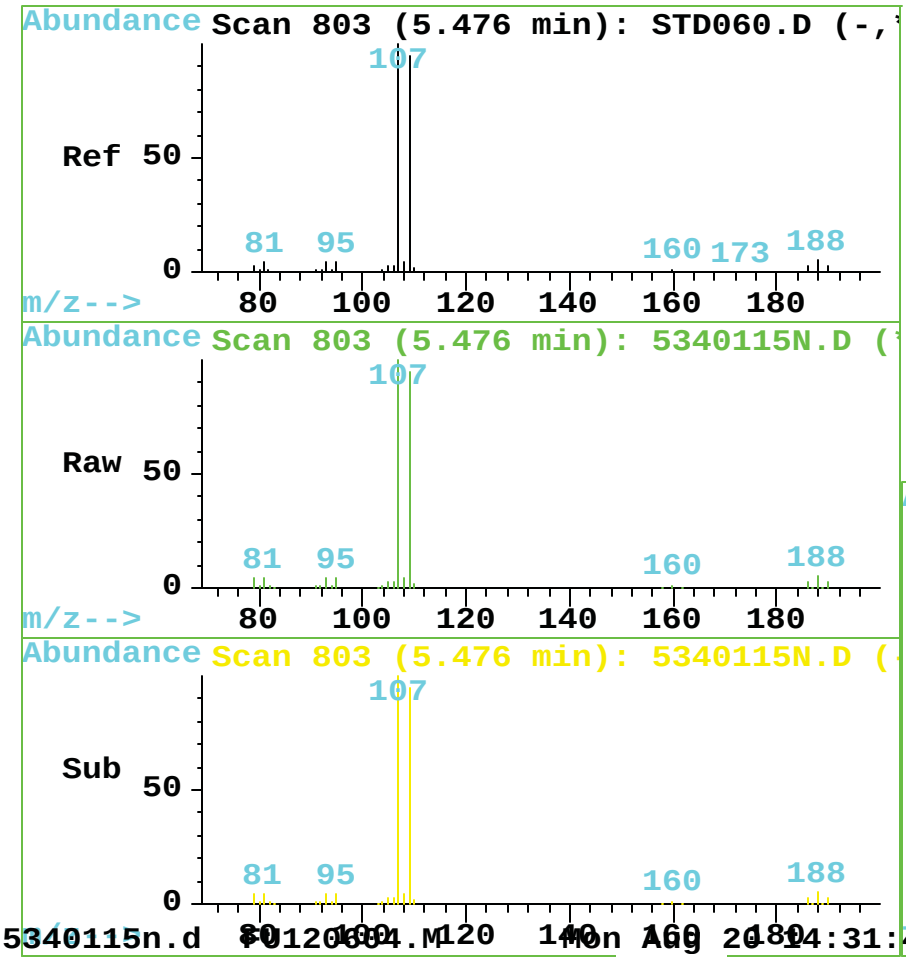


#51
Dibromochloromethane
Concen: 56.09 ug/l
RT: 5.42 min Scan# 794
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:128.8 Resp: 13716

Ion	Ratio	Lower	Upper
129	100		
127	75.6	47.0	107.0
79	7.3	0.0	40.2
0	0.0	0.0	0.0

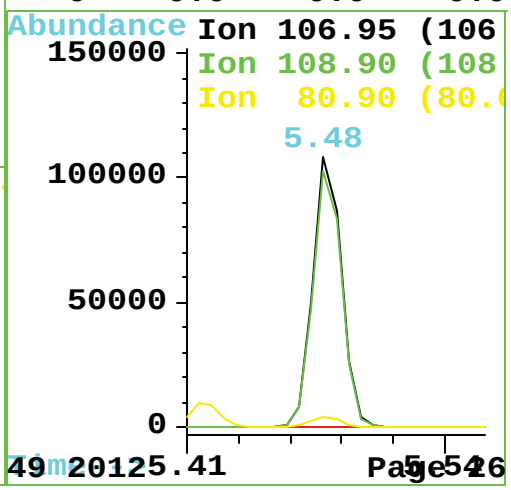


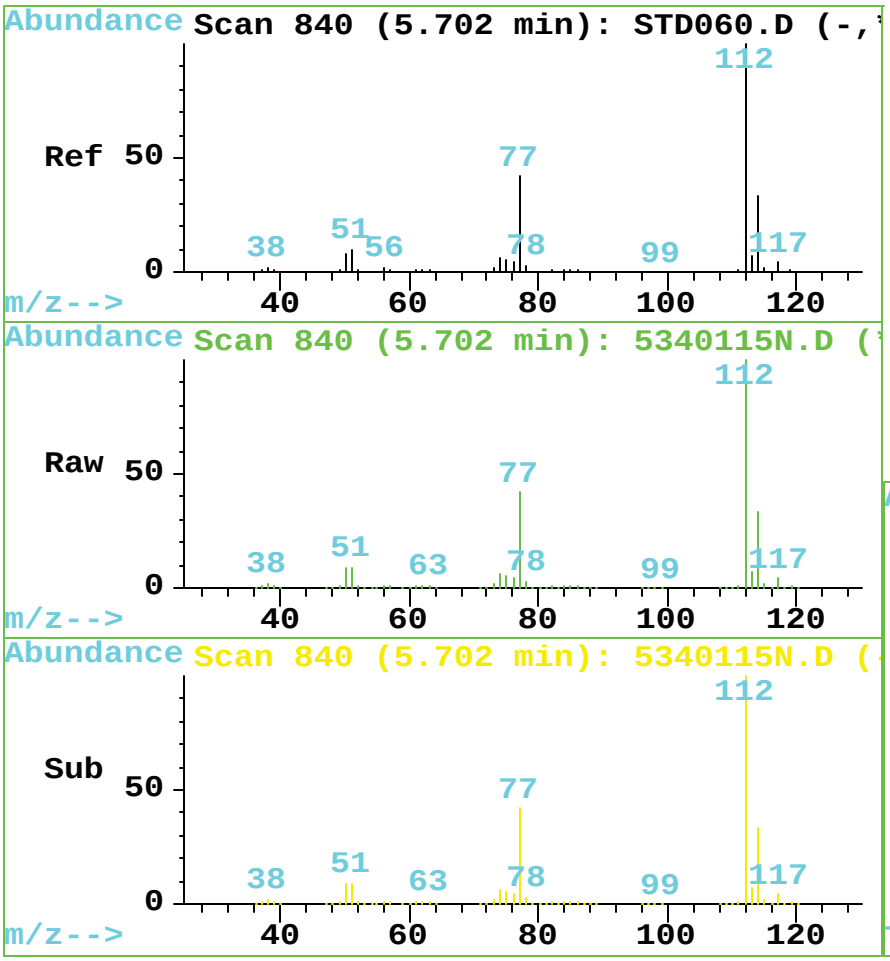


#52
1,2-Dibromoethane
Concen: 52.87 ug/l
RT: 5.48 min Scan# 803
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:106.95 Resp: 1039

Ion	Ratio	Lower	Upper
107	100		
109	95.8	64.8	124.8
81	3.7	0.0	35.1
0	0.0	0.0	0.0

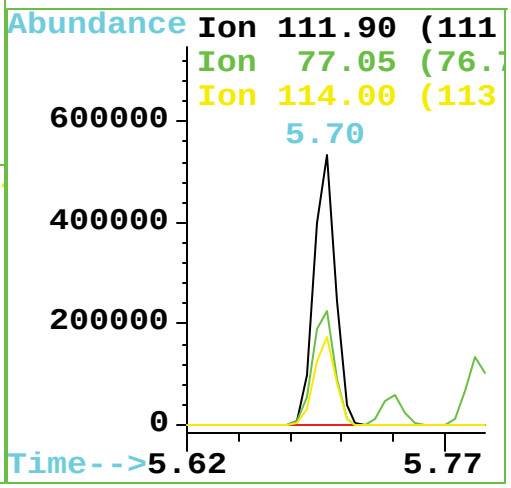


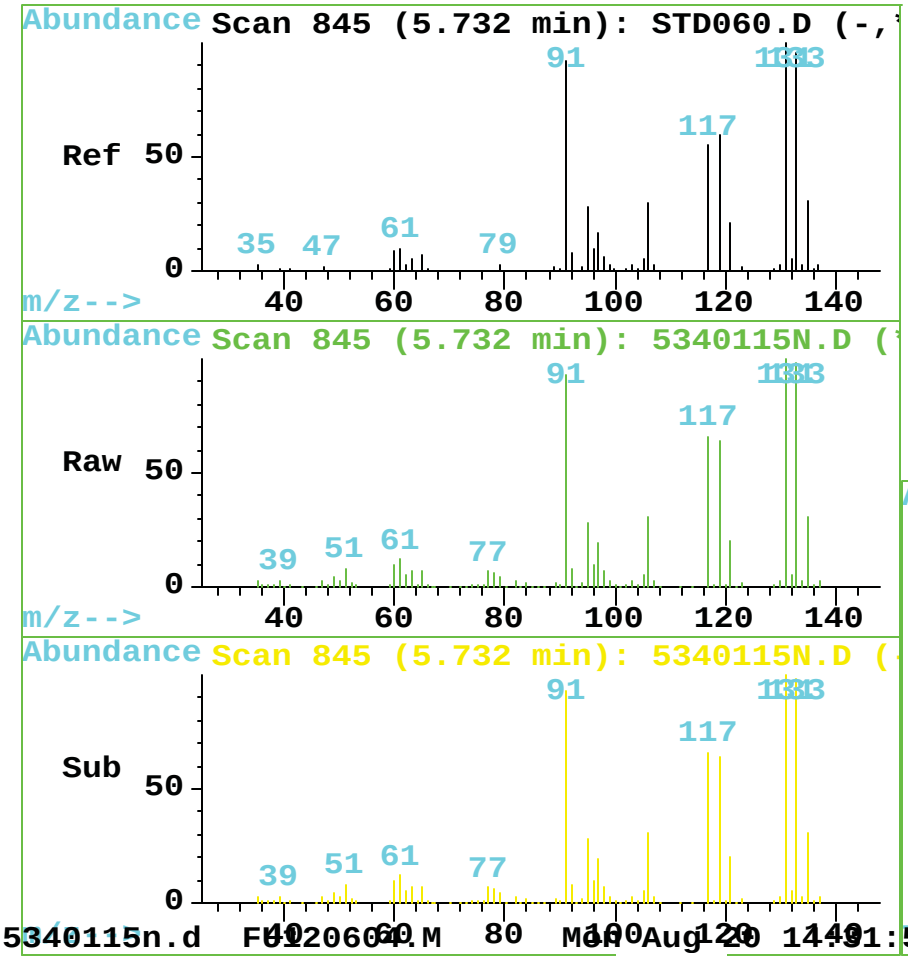


#53
Chlorobenzene (SPCC/MS)
Concen: 49.00 ug/l
RT: 5.70 min Scan# 840
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:111.9 Resp: 48637

Ion	Ratio	Lower	Upper
112	100		
77	44.0	21.6	81.6
114	32.6	2.4	62.4
0	0.0	0.0	0.0

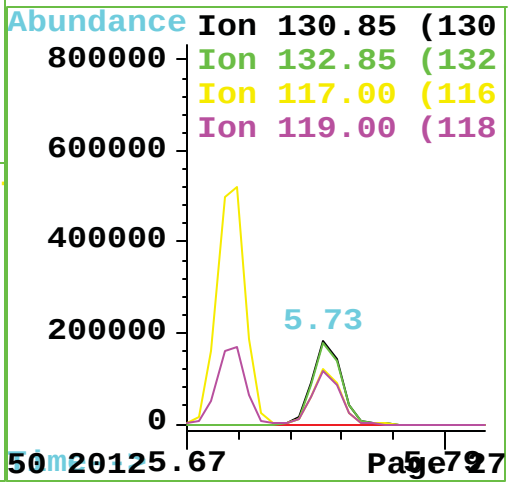


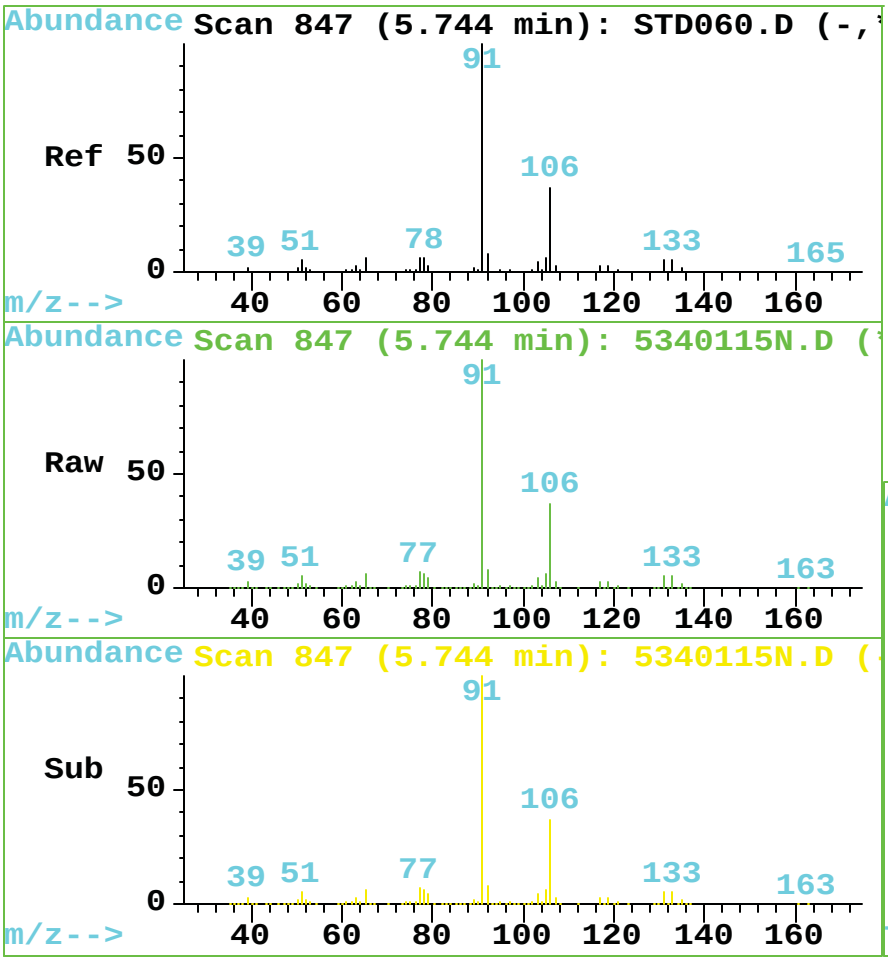


#54
1,1,1,2-Tetrachloroethane
Concen: 53.19 ug/l
RT: 5.73 min Scan# 845
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:130.85 Resp: 1764

Ion	Ratio	Lower	Upper
131	100		
133	96.8	65.8	125.8
117	63.9	30.1	90.1
119	62.4	27.4	87.4

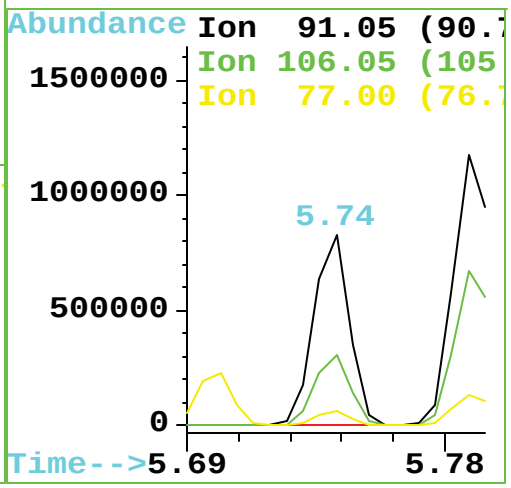


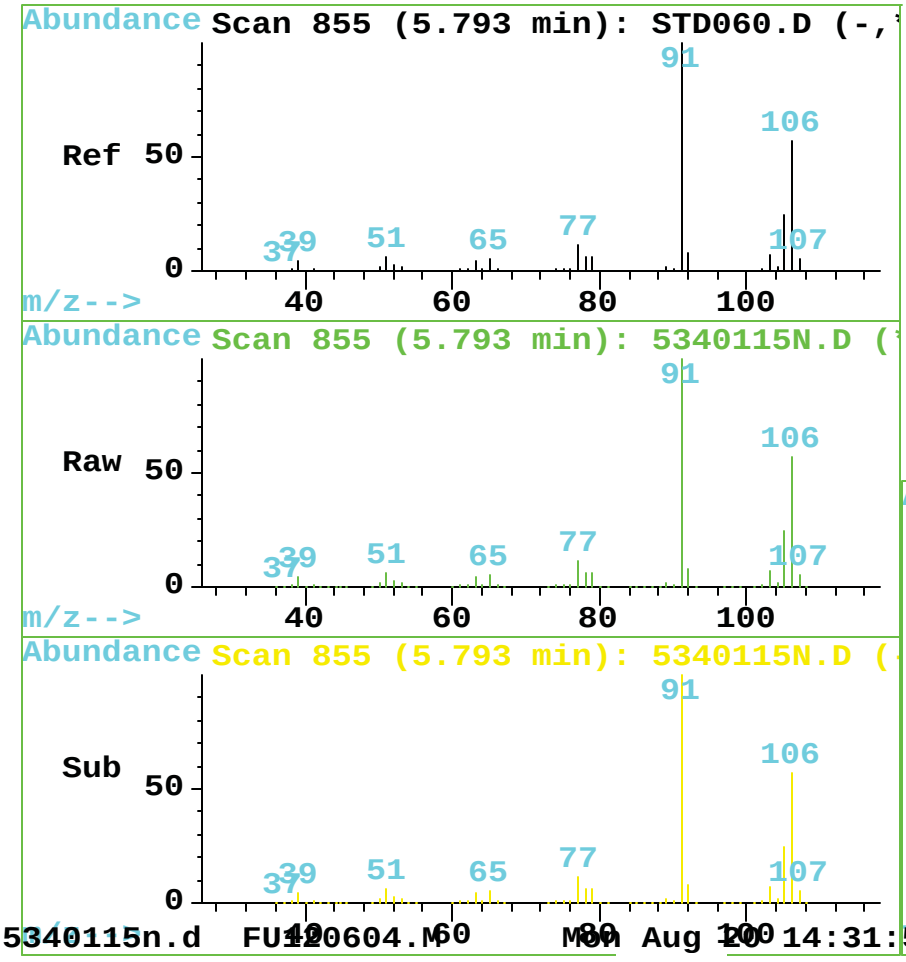


#55
Ethylbenzene (CCC)
Concen: 50.33 ug/l
RT: 5.74 min Scan# 847
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:91.05 Resp: 74903

Ion	Ratio	Lower	Upper
91	100		
106	36.5	3.8	63.8
77	7.2	0.0	37.9
0	0.0	0.0	0.0

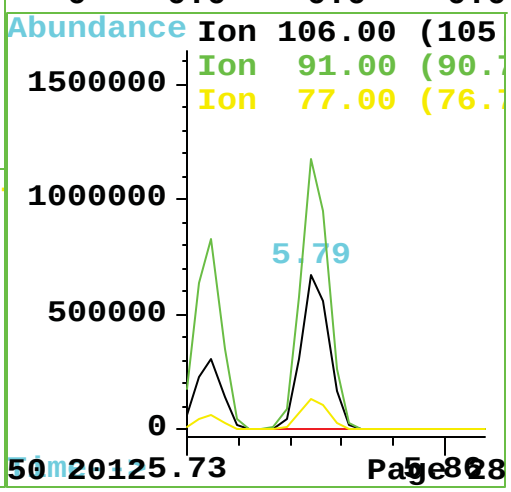


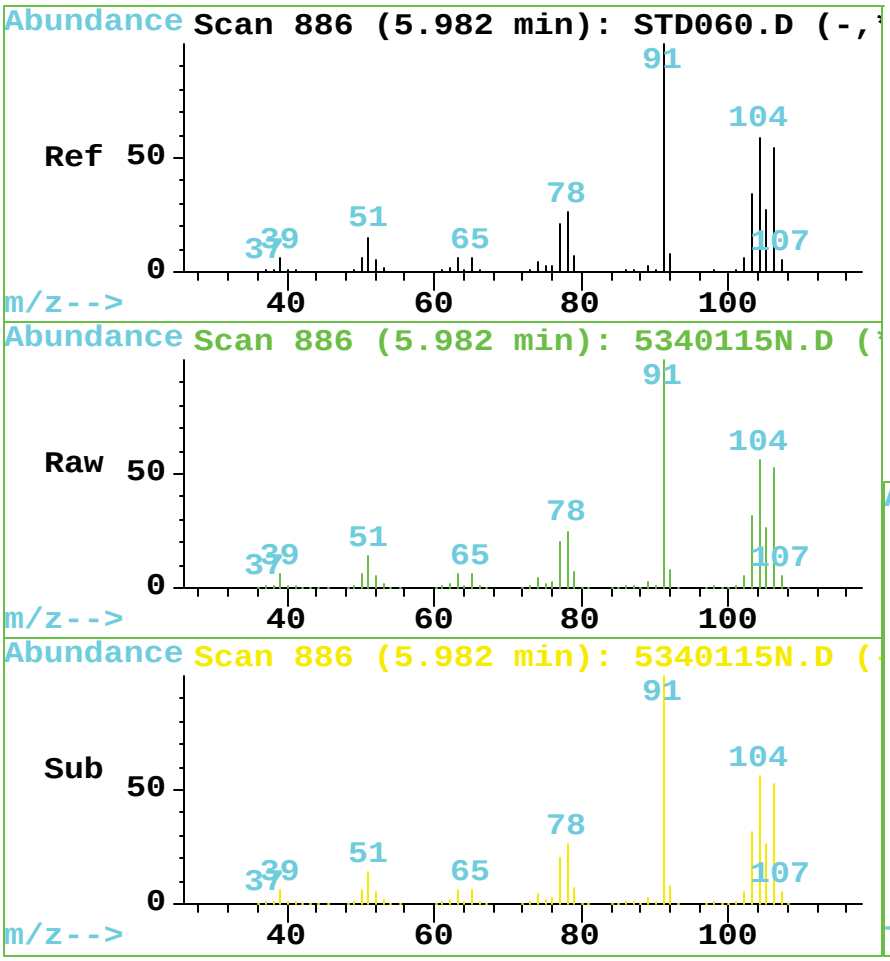


#56
p,m-Xylene
Concen: 101.28 ug/l
RT: 5.79 min Scan# 855
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:106 Resp: 643901

Ion	Ratio	Lower	Upper
106	100		
91	174.8	160.1	220.1
77	19.4	0.0	52.4
0	0.0	0.0	0.0

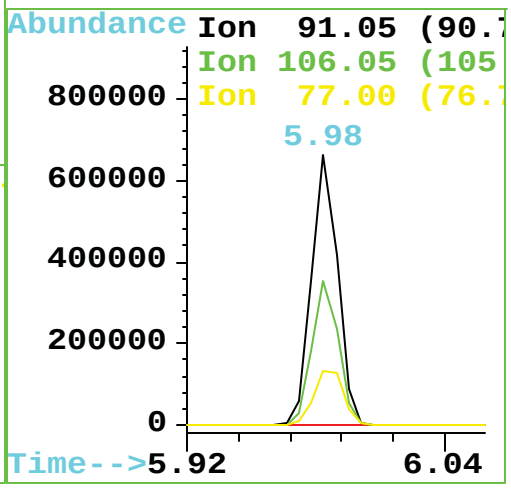


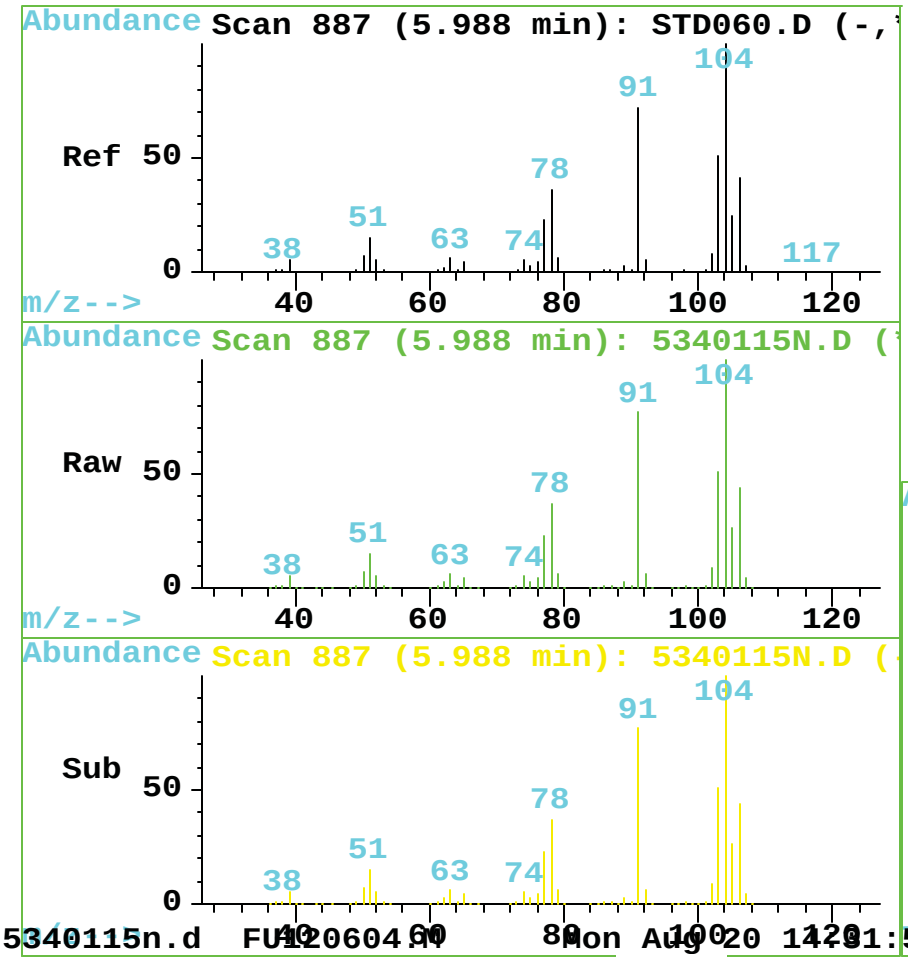


#57
o-Xylene
Concen: 51.46 ug/l
RT: 5.98 min Scan# 886
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:91.05 Resp: 58393

Ion	Ratio	Lower	Upper
91	100		
106	54.0	20.0	80.0
77	23.0	0.0	54.7
0	0.0	0.0	0.0

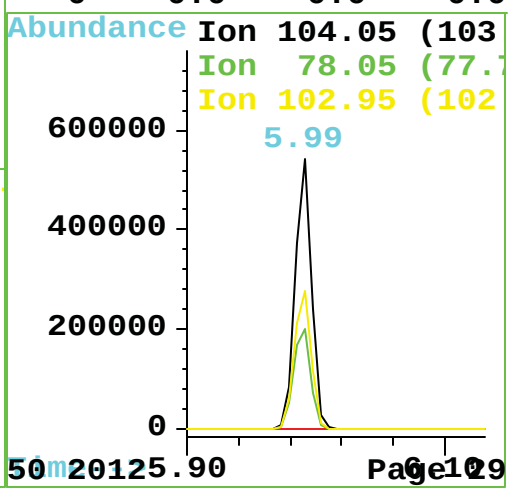


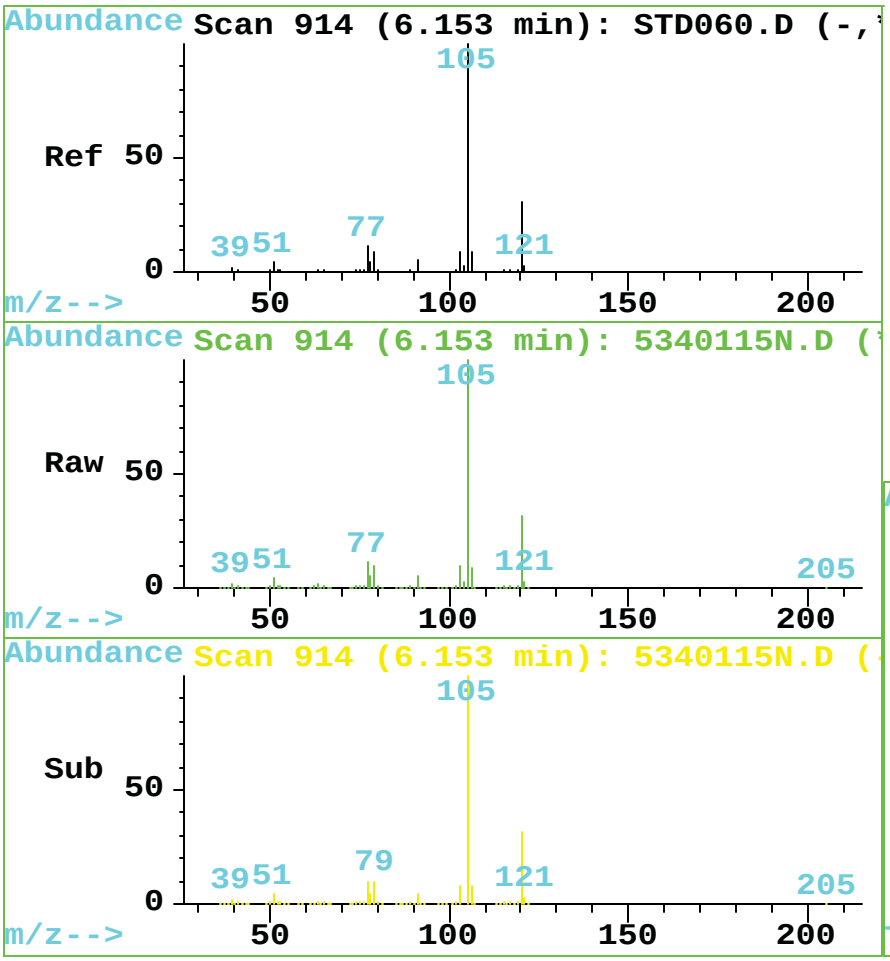


#58
Styrene
Concen: 50.79 ug/l
RT: 5.99 min Scan# 887
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:104.05 Resp: 4689

Ion	Ratio	Lower	Upper
104	100		
78	39.9	15.3	75.3
103	53.9	24.1	84.1
0	0.0	0.0	0.0

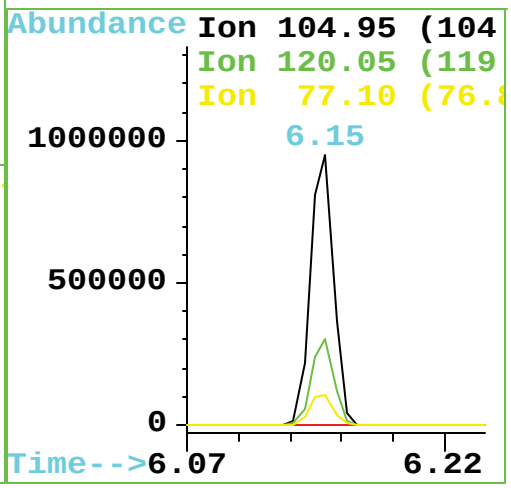


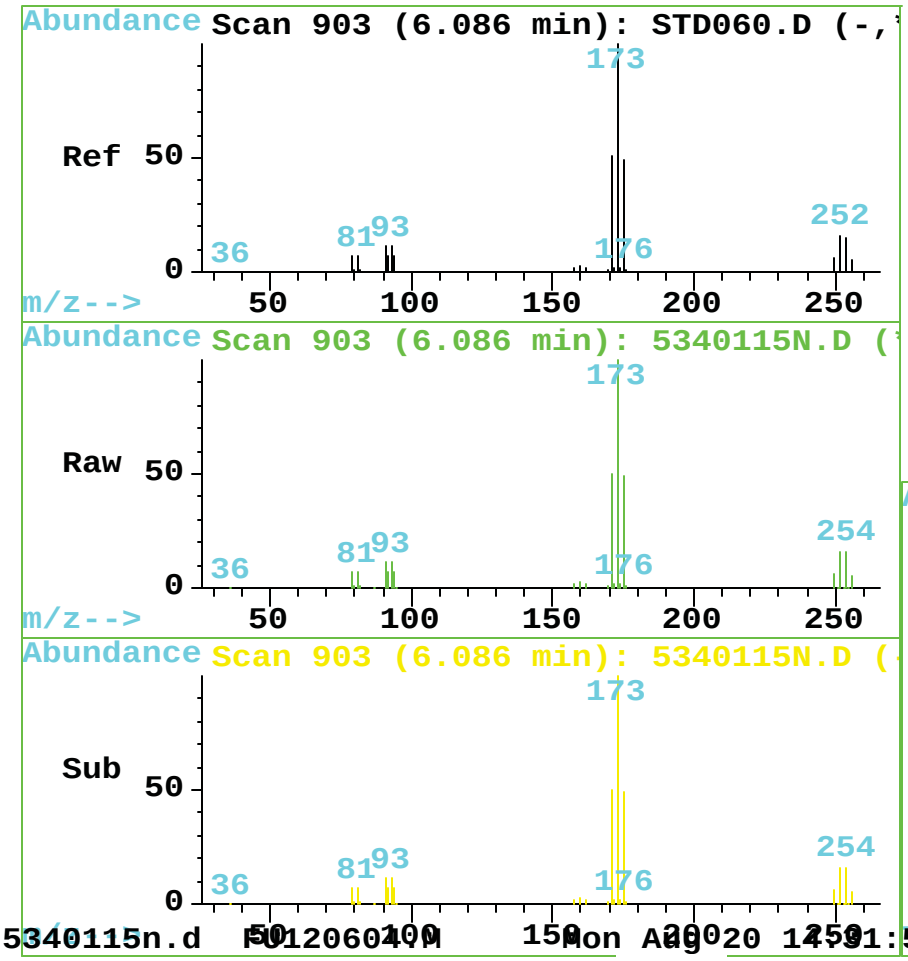


#59
Isopropylbenzene
Concen: 52.47 ug/l
RT: 6.15 min Scan# 914
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:104.95 Resp: 8783

Ion	Ratio	Lower	Upper
105	100		
120	30.7	0.0	58.6
77	11.3	0.0	43.1
0	0.0	0.0	0.0

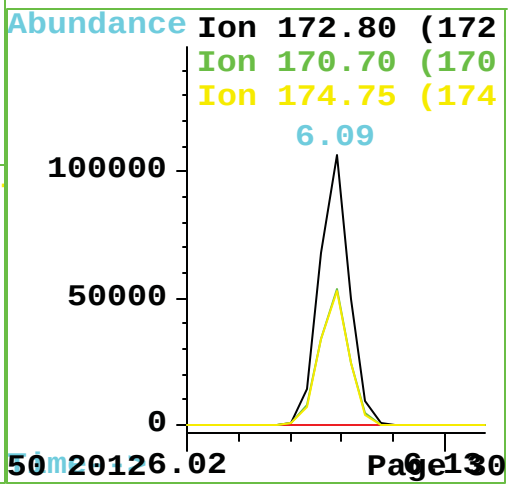


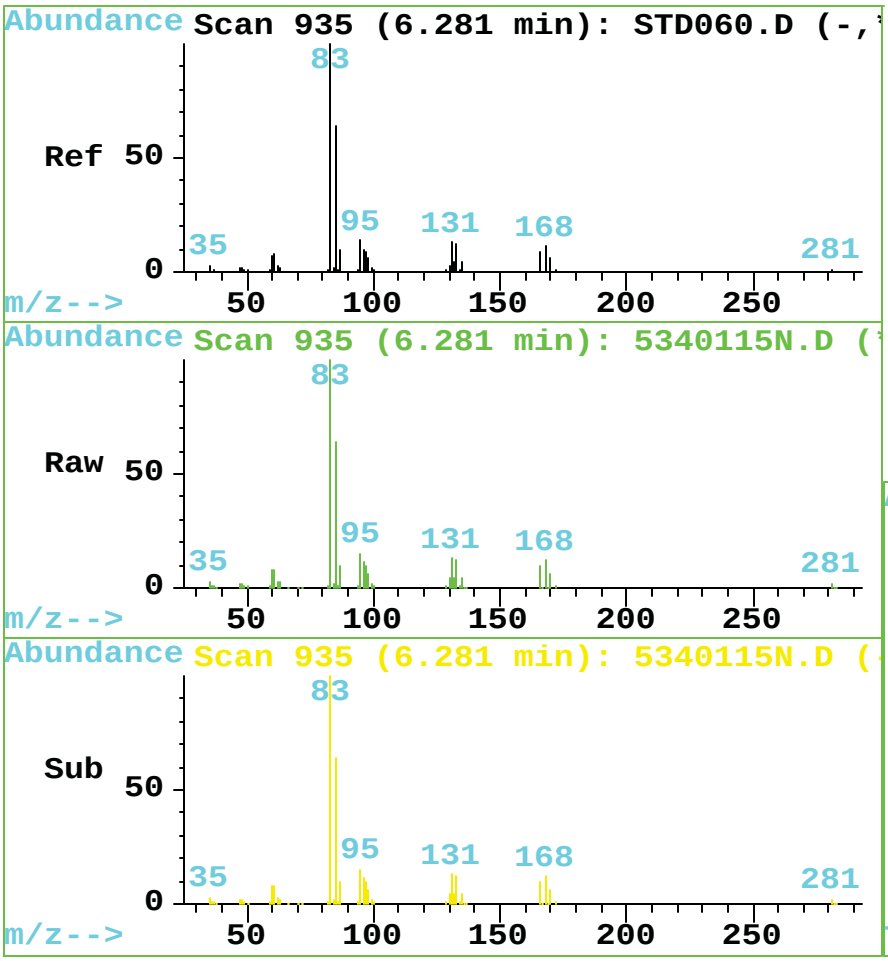


#60
Bromoform (SPCC)
Concen: 53.38 ug/l
RT: 6.09 min Scan# 903
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:172.8 Resp: 9131

Ion	Ratio	Lower	Upper
173	100		
171	50.0	19.9	79.9
175	49.4	17.5	77.5
0	0.0	0.0	0.0

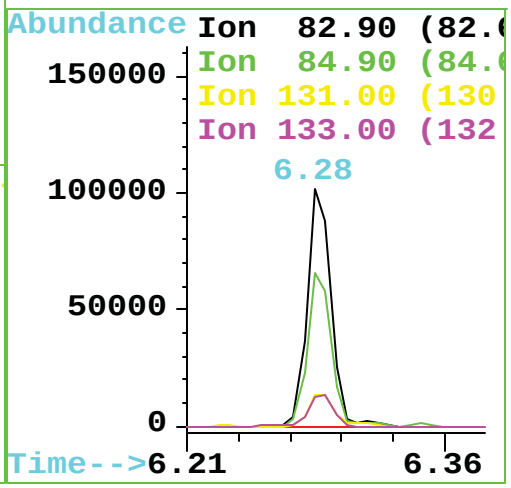


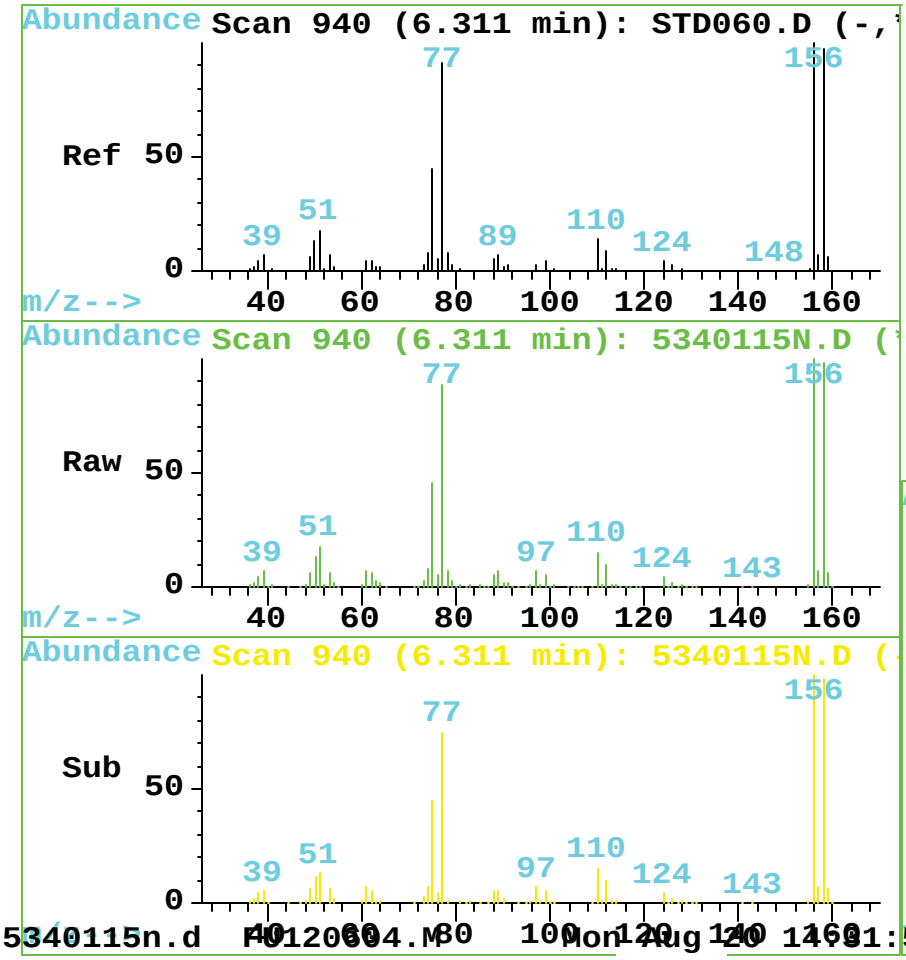


#61
1,1,2,2-Tetrachloroethane
Concen: 52.46 ug/l
RT: 6.28 min Scan# 935
Delta R.T. -0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:82.9 Resp: 96121

Ion	Ratio	Lower	Upper
83	100		
85	65.1	34.6	94.6
131	15.1	0.0	44.8
133	14.0	0.0	45.6

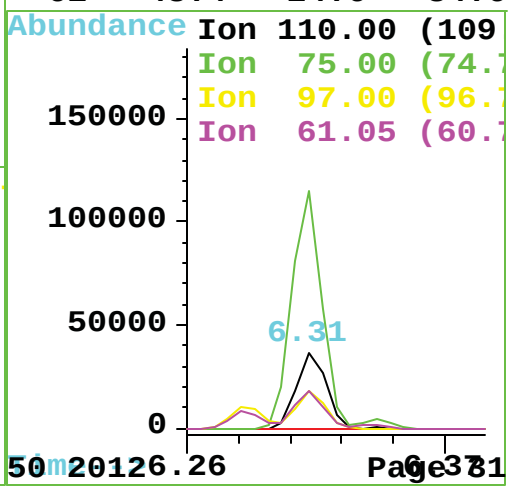


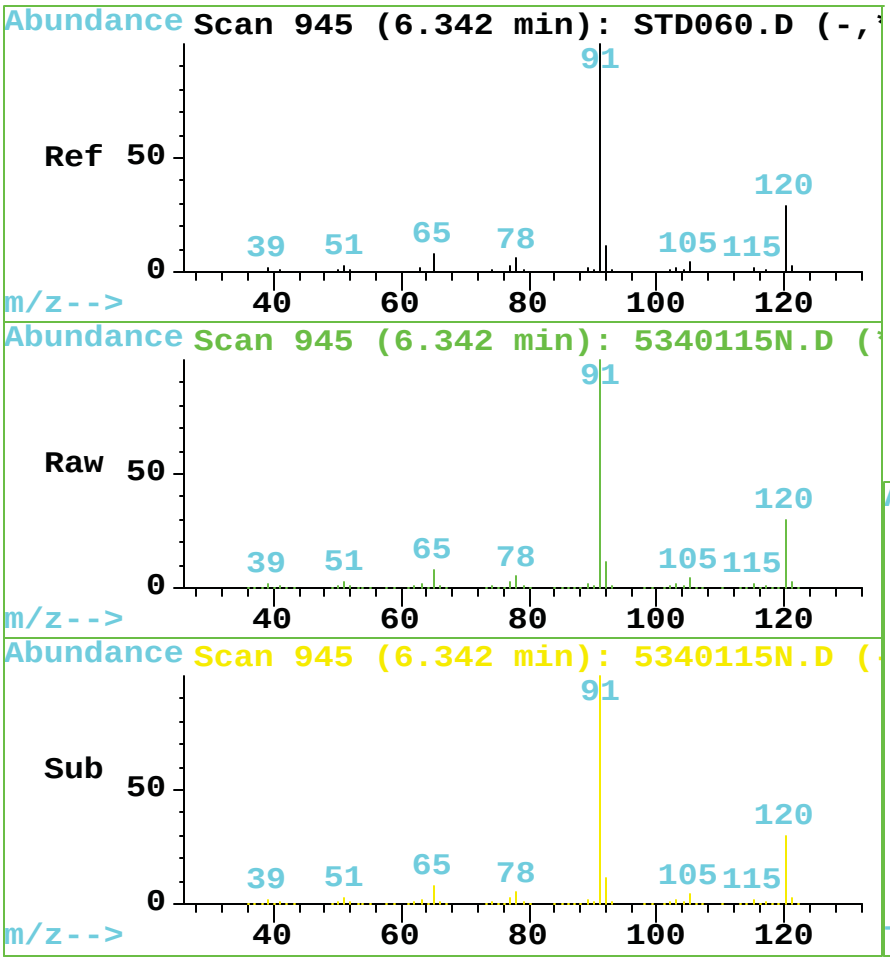


#62
1,2,3-Trichloropropane
Concen: 54.75 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:110 Resp: 33076

Ion	Ratio	Lower	Upper
110	100		
75	319.2	327.3	387.3#
97	44.9	15.8	75.8
61	48.4	24.6	84.6

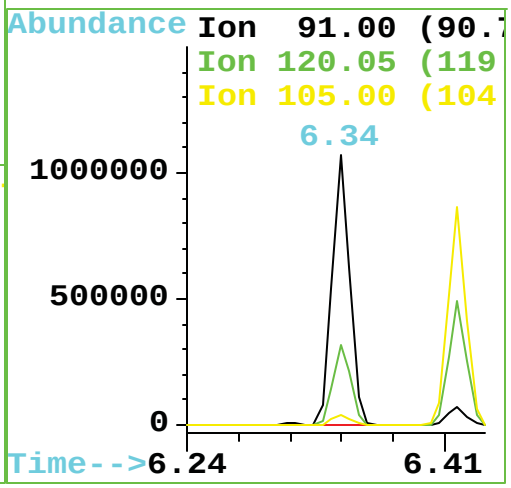


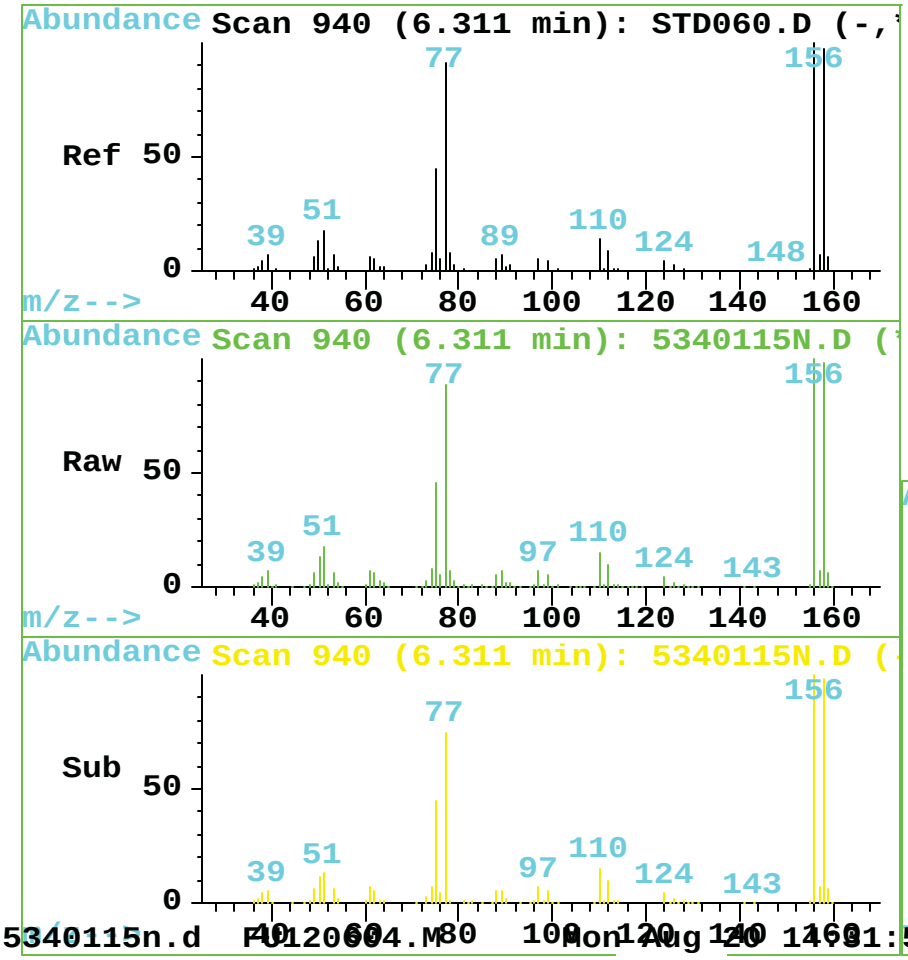


#63
n-Propylbenzene
Concen: 52.21 ug/l
RT: 6.34 min Scan# 945
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:91 Resp: 898751

Ion	Ratio	Lower	Upper
91	100		
120	29.8	0.0	57.3
105	4.1	0.0	34.1
0	0.0	0.0	0.0

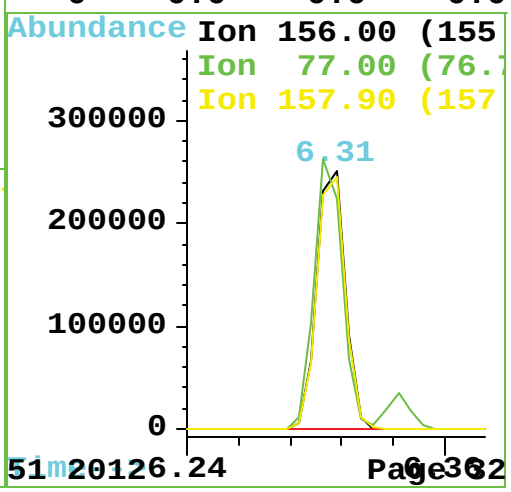


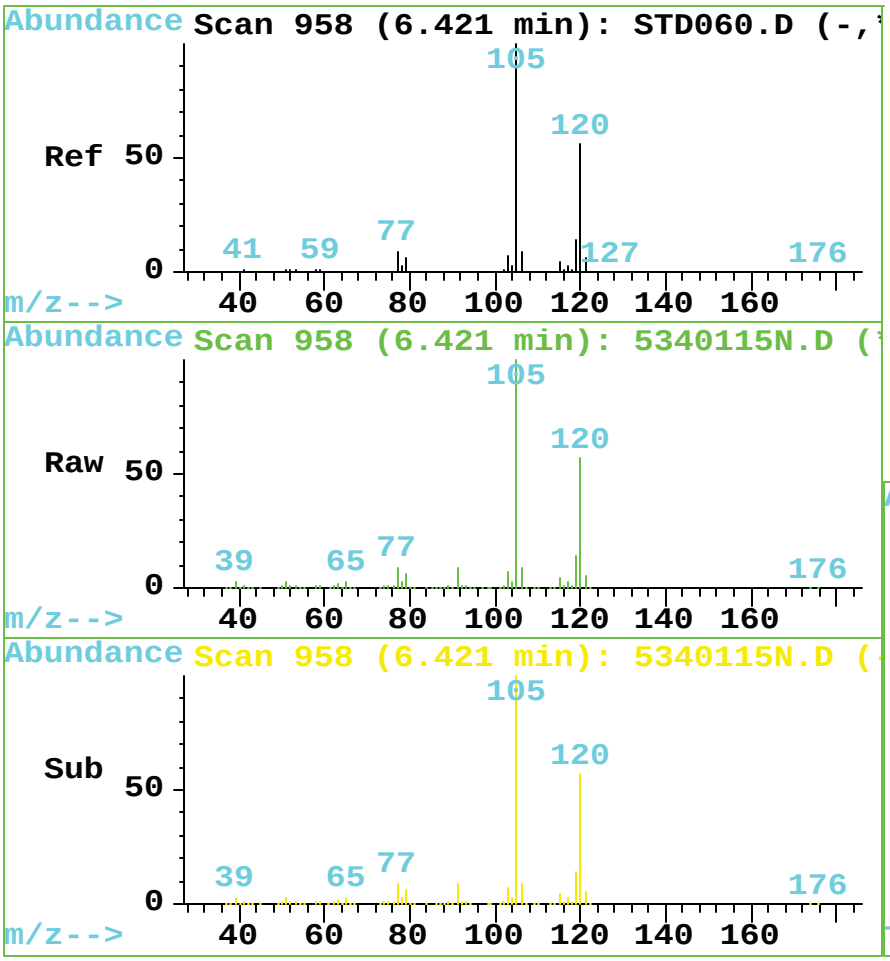


#64
Bromobenzene
Concen: 51.09 ug/l
RT: 6.31 min Scan# 940
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:156 Resp: 241224

Ion	Ratio	Lower	Upper
156	100		
77	103.4	96.5	156.5
158	97.7	68.0	128.0
0	0.0	0.0	0.0

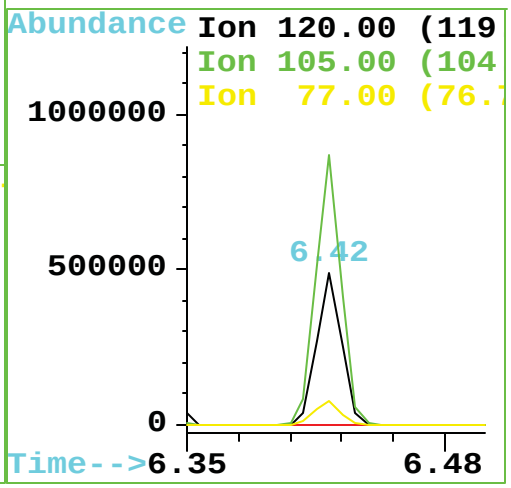


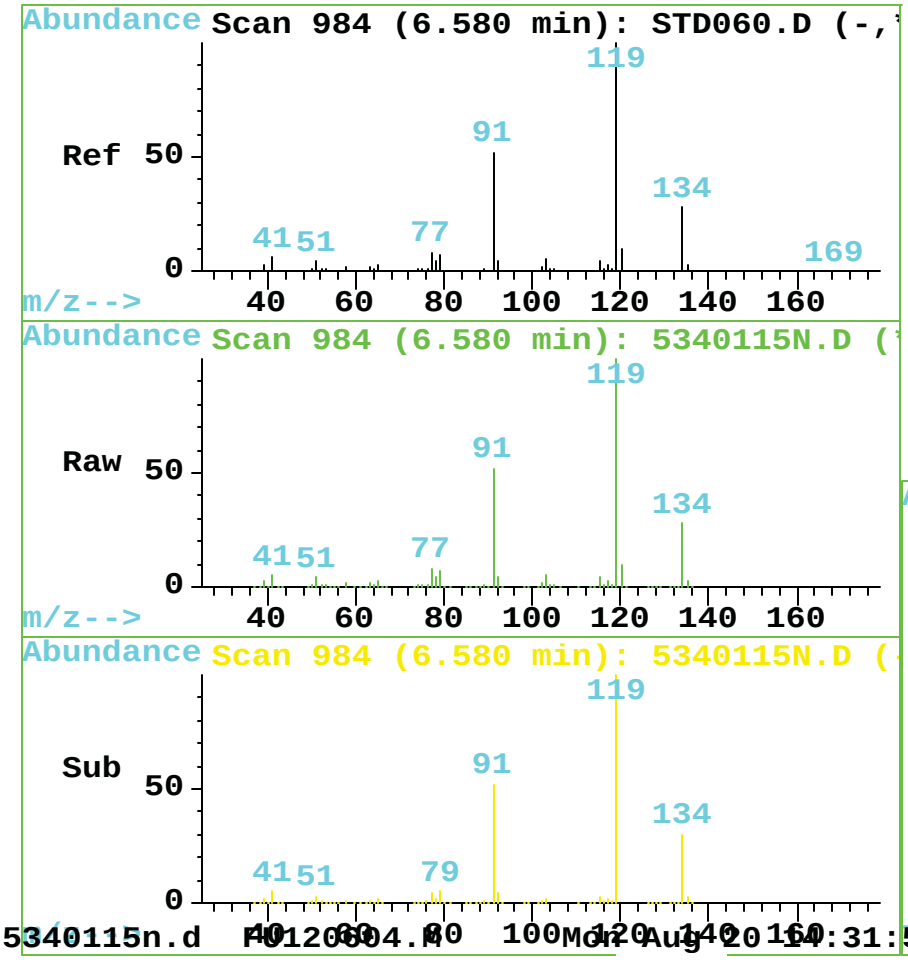


#65
1,3,5-Trimethylbenzene
Concen: 52.25 ug/l
RT: 6.42 min Scan# 958
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:120 Resp: 403542

Ion	Ratio	Lower	Upper
120	100		
105	177.0	162.2	222.2
77	16.3	0.0	51.0
0	0.0	0.0	0.0

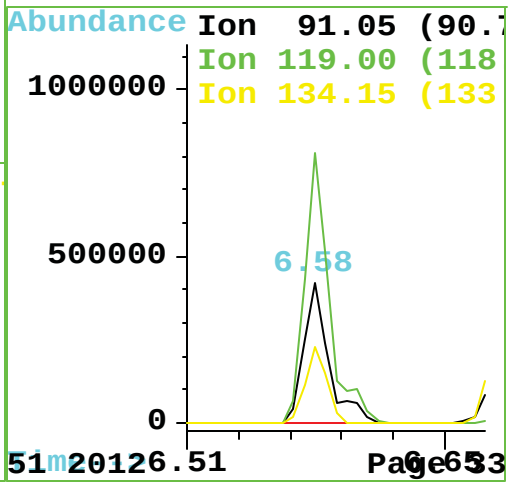


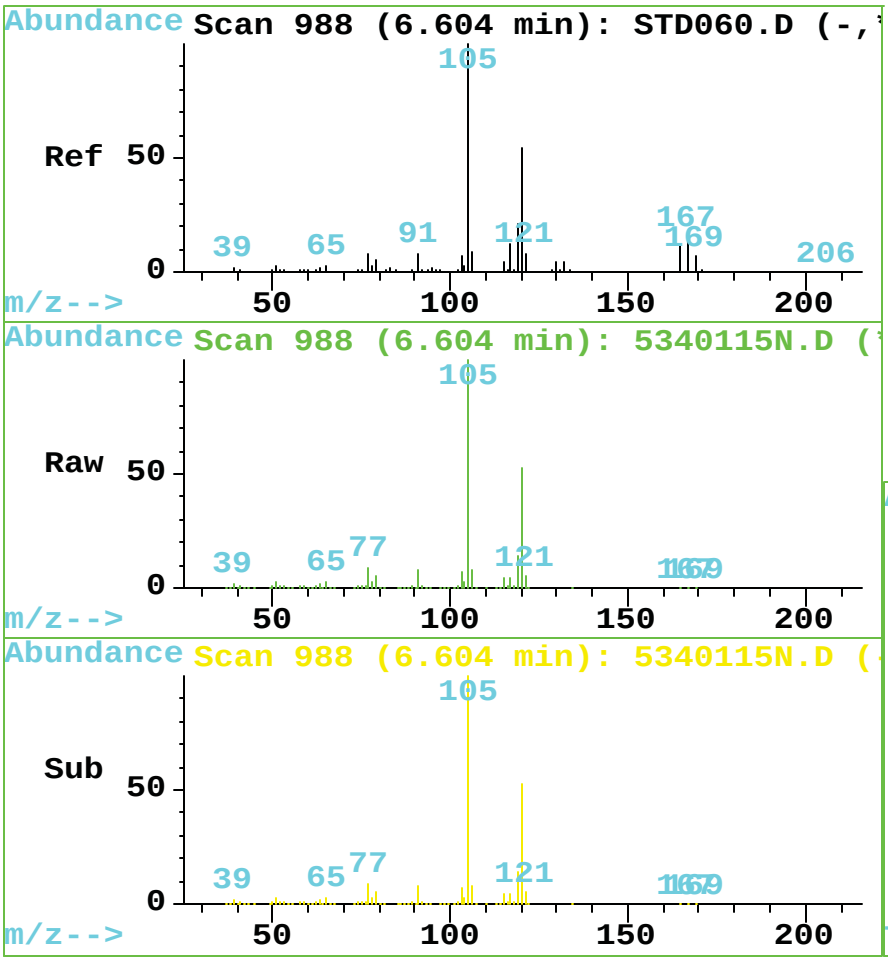


#66
tert-Butylbenzene
Concen: 53.84 ug/l
RT: 6.58 min Scan# 984
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:91.05 Resp: 42528

Ion	Ratio	Lower	Upper
91	100		
119	188.7	148.4	208.4
134	46.7	11.4	71.4
0	0.0	0.0	0.0

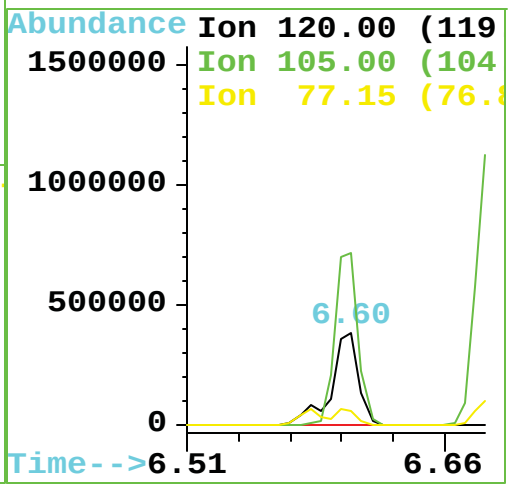


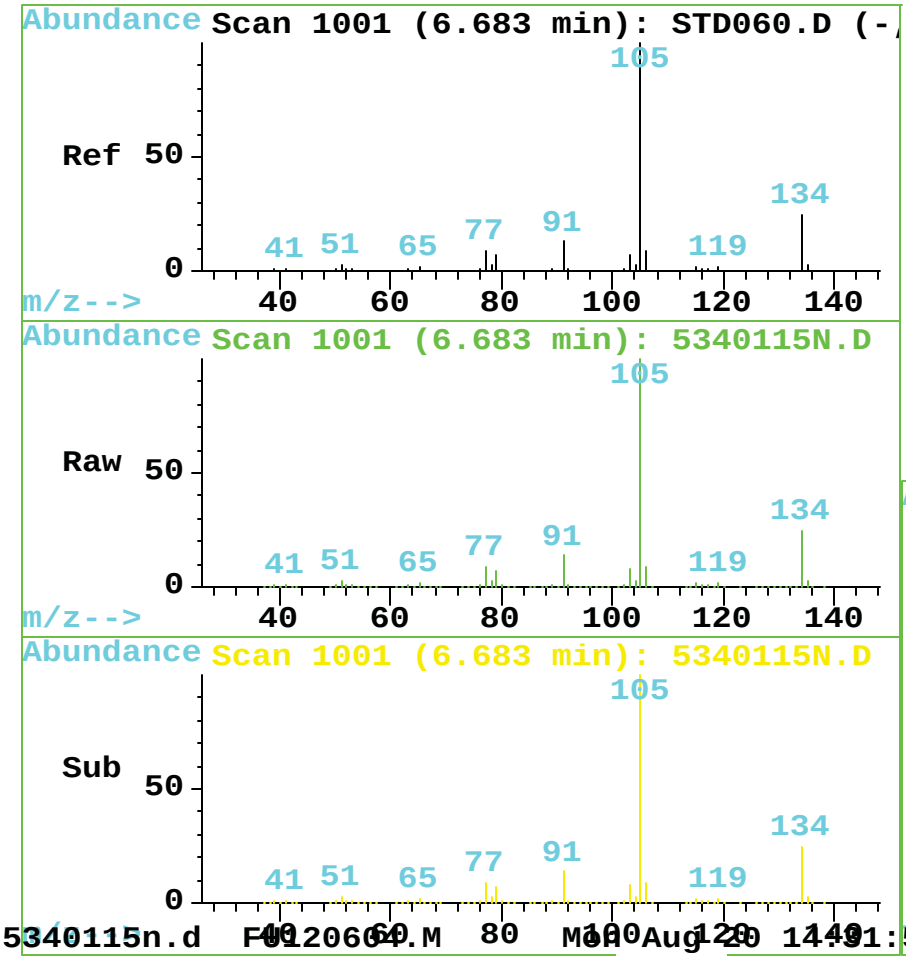


#67
1,2,4-Trimethylbenzene
Concen: 53.37 ug/l
RT: 6.60 min Scan# 988
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:120 Resp: 435303

Ion	Ratio	Lower	Upper
120	100		
105	160.8	144.1	204.1
77	12.3	0.0	45.7
0	0.0	0.0	0.0

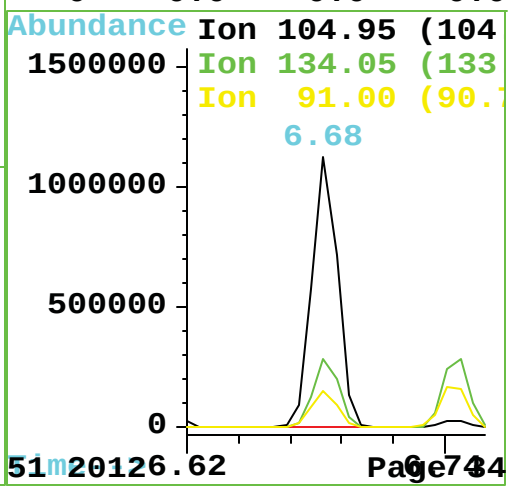


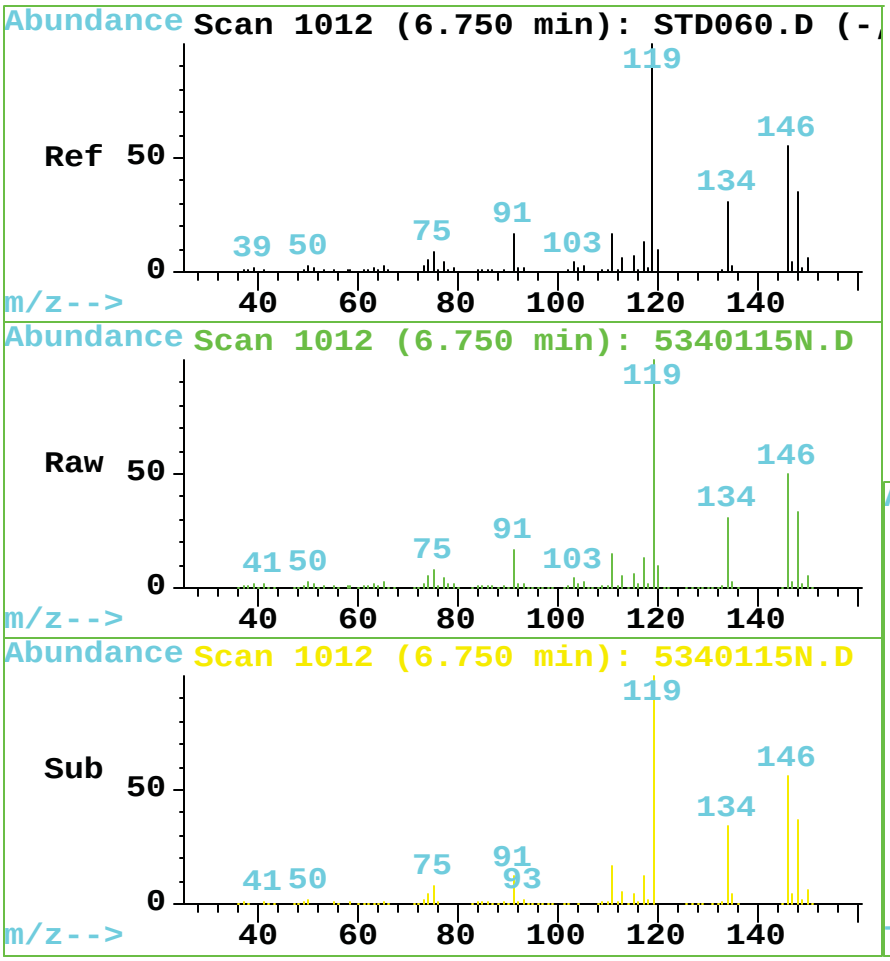


#69
sec-Butylbenzene
Concen: 52.94 ug/l
RT: 6.68 min Scan# 1001
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:104.95 Resp: 9736

Ion	Ratio	Lower	Upper
105	100		
134	25.4	0.0	53.6
91	13.7	0.0	44.8
0	0.0	0.0	0.0

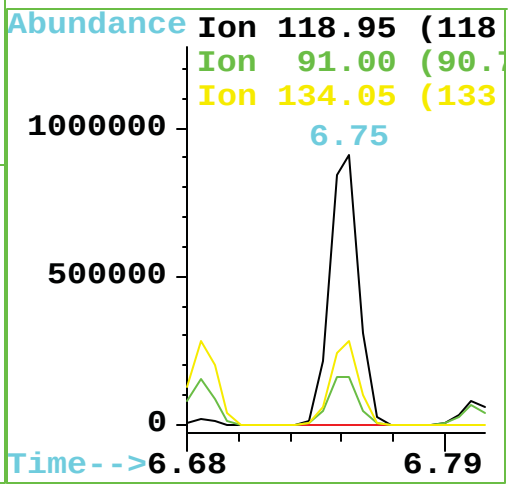


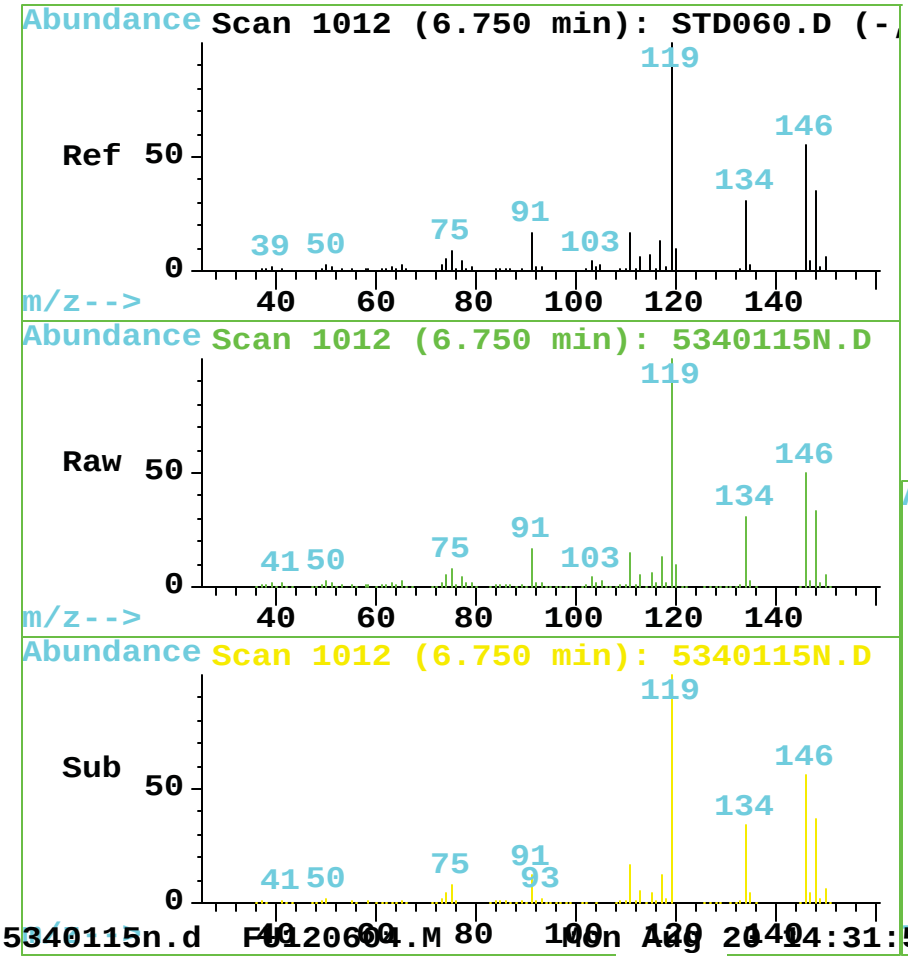


#70
p-Isopropyltoluene
Concen: 54.74 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:118.95 Resp: 8501

Ion	Ratio	Lower	Upper
119	100		
91	18.3	0.0	50.6
134	29.9	0.0	58.1
0	0.0	0.0	0.0

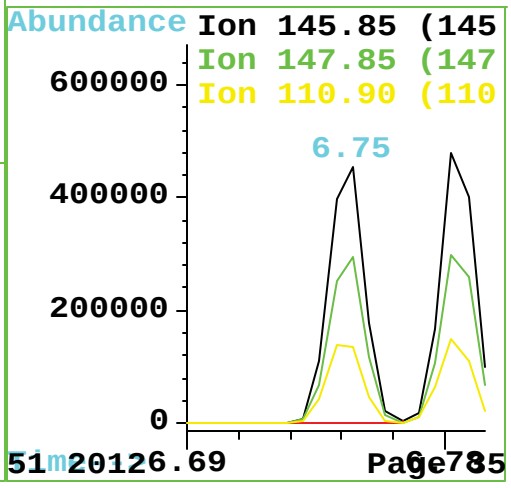


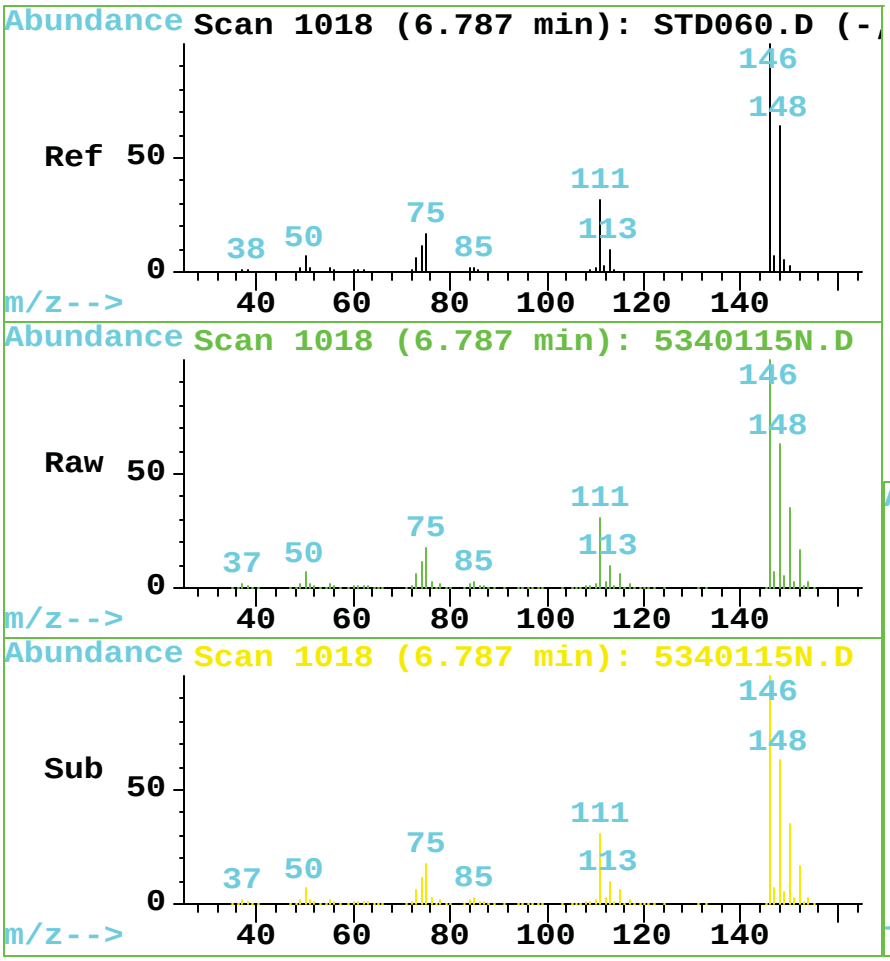


#71
1,3-Dichlorobenzene
Concen: 50.56 ug/l
RT: 6.75 min Scan# 1012
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:145.85 Resp: 4288

Ion	Ratio	Lower	Upper
146	100		
148	64.4	34.8	94.8
111	31.8	6.2	66.2
0	0.0	0.0	0.0

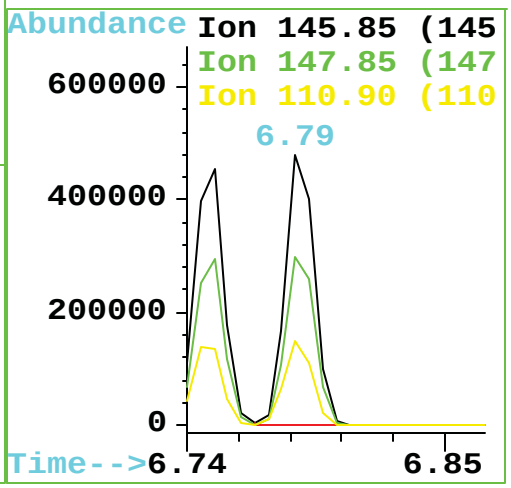


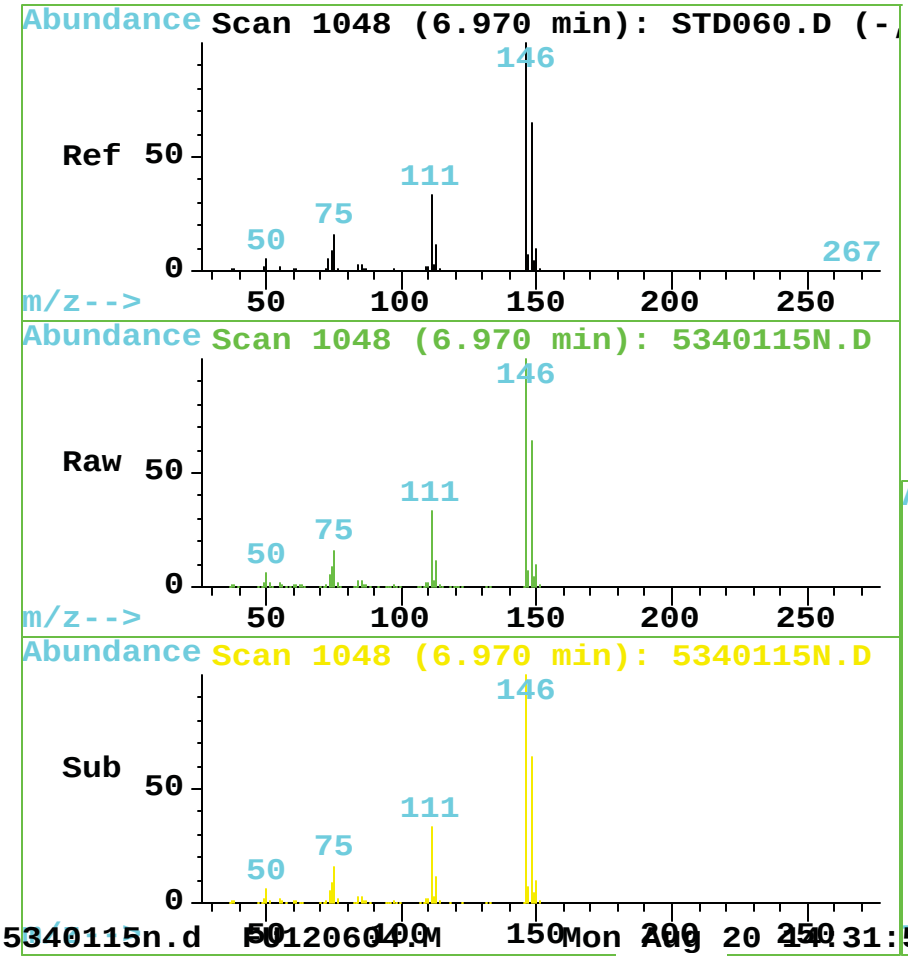


#72
1,4-Dichlorobenzene
Concen: 49.24 ug/l
RT: 6.79 min Scan# 1018
Delta R.T. -0.01 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:145.85 Resp: 4288

Ion	Ratio	Lower	Upper
146	100		
148	63.8	33.9	93.9
111	30.4	5.2	65.2
0	0.0	0.0	0.0

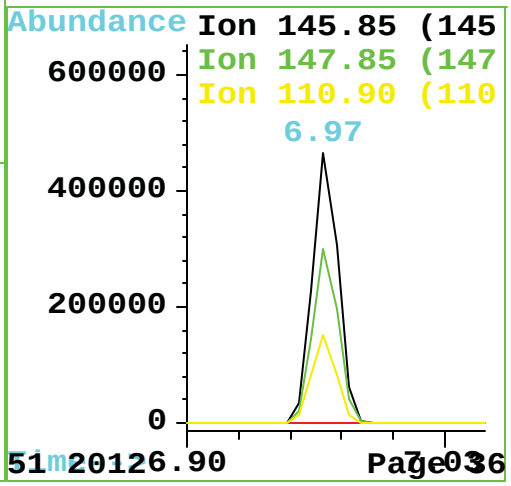


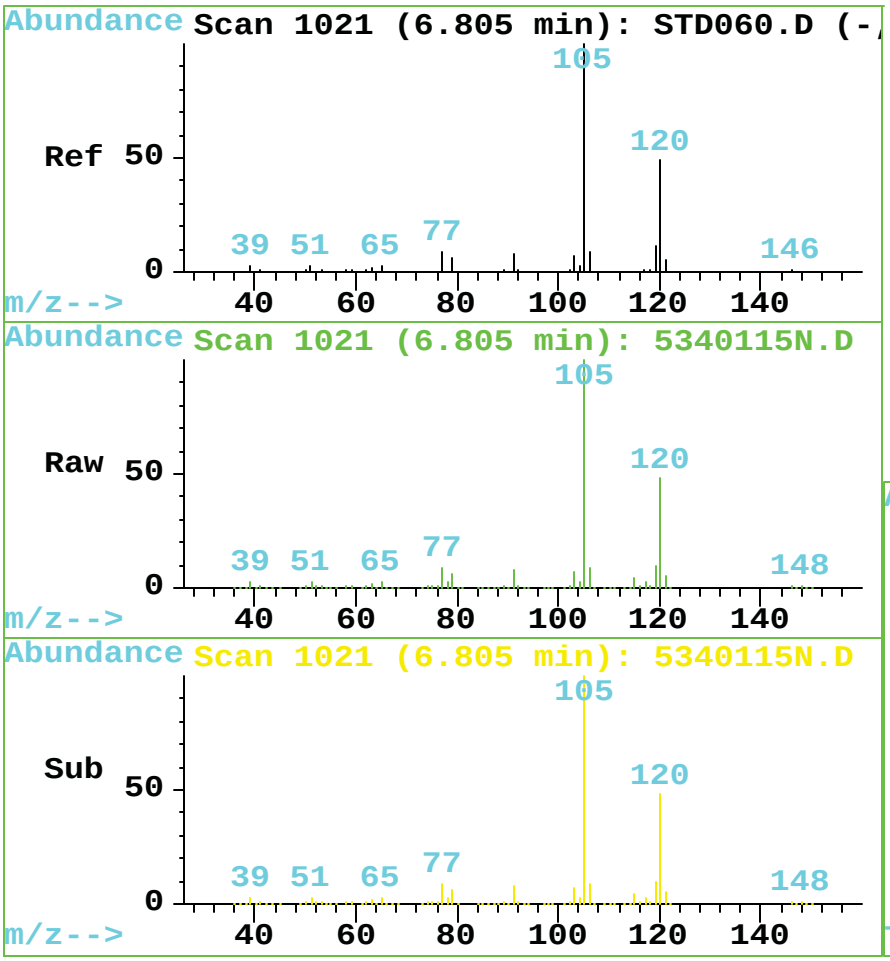


#73
1,2-Dichlorobenzene
Concen: 51.17 ug/l
RT: 6.97 min Scan# 1048
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:145.85 Resp: 4035

Ion	Ratio	Lower	Upper
146	100		
148	64.3	34.1	94.1
111	32.0	6.5	66.5
0	0.0	0.0	0.0

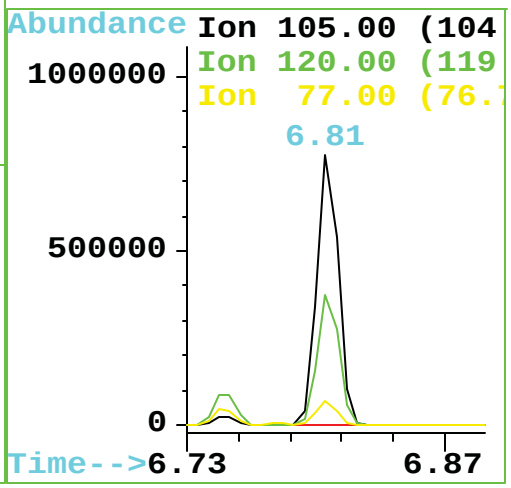


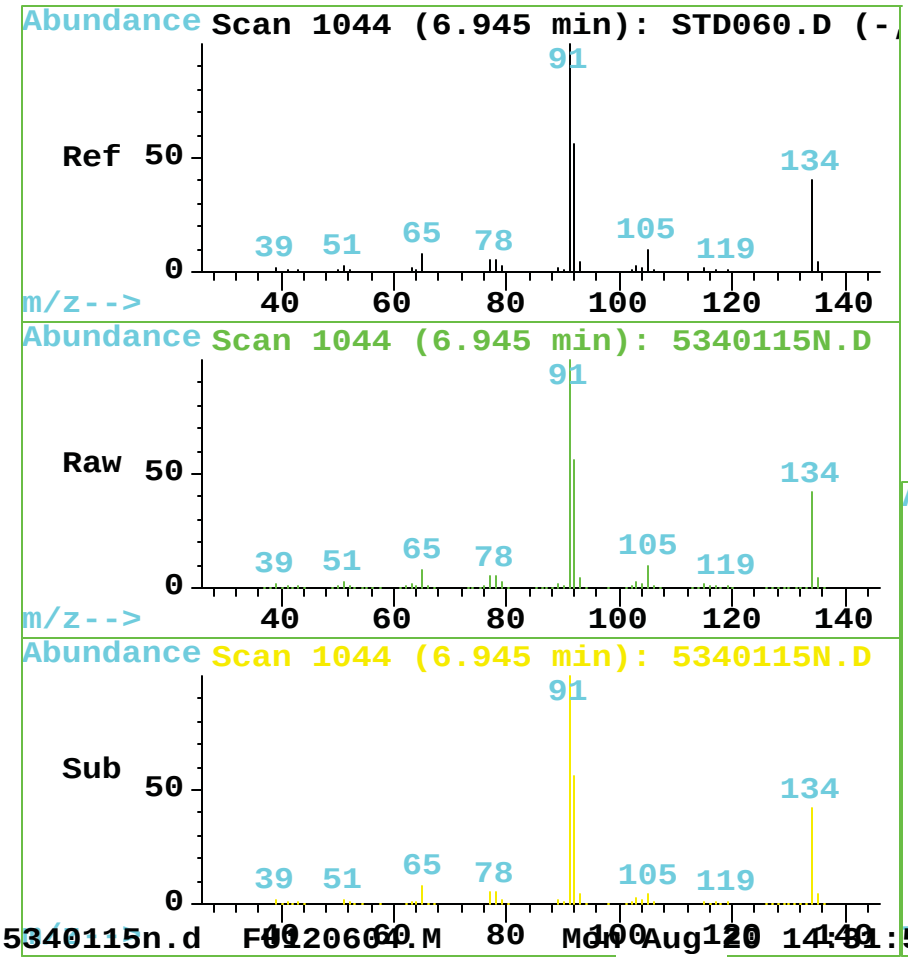


#74
1,2,3-Trimethylbenzene
Concen: 51.46 ug/l
RT: 6.81 min Scan# 1021
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:105 Resp: 660856

Ion	Ratio	Lower	Upper
105	100		
120	48.7	15.1	75.1
77	9.0	0.0	40.2
0	0.0	0.0	0.0

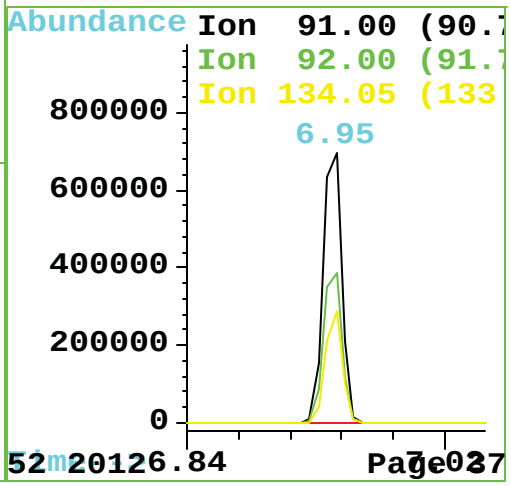


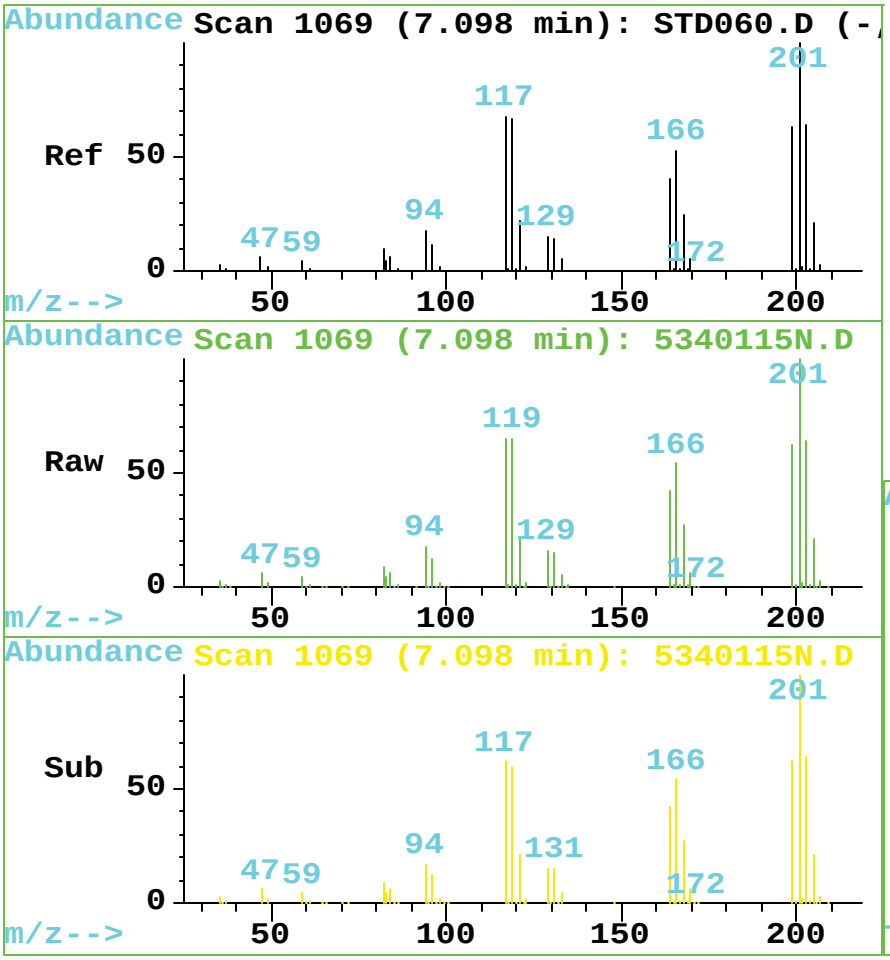


#75
n-Butylbenzene
Concen: 51.36 ug/l
RT: 6.95 min Scan# 1044
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:91 Resp: 631924

Ion	Ratio	Lower	Upper
91	100		
92	55.5	25.5	85.5
134	38.1	4.2	64.2
0	0.0	0.0	0.0

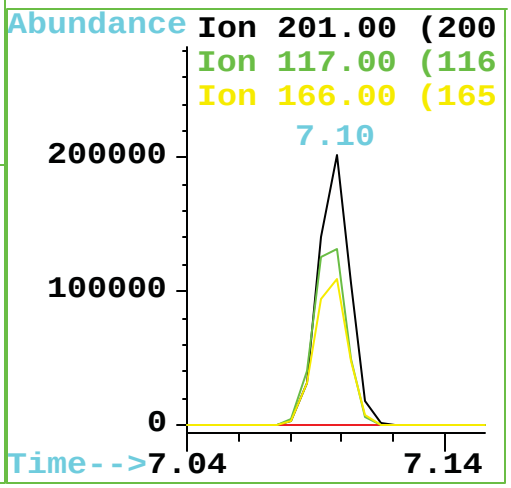


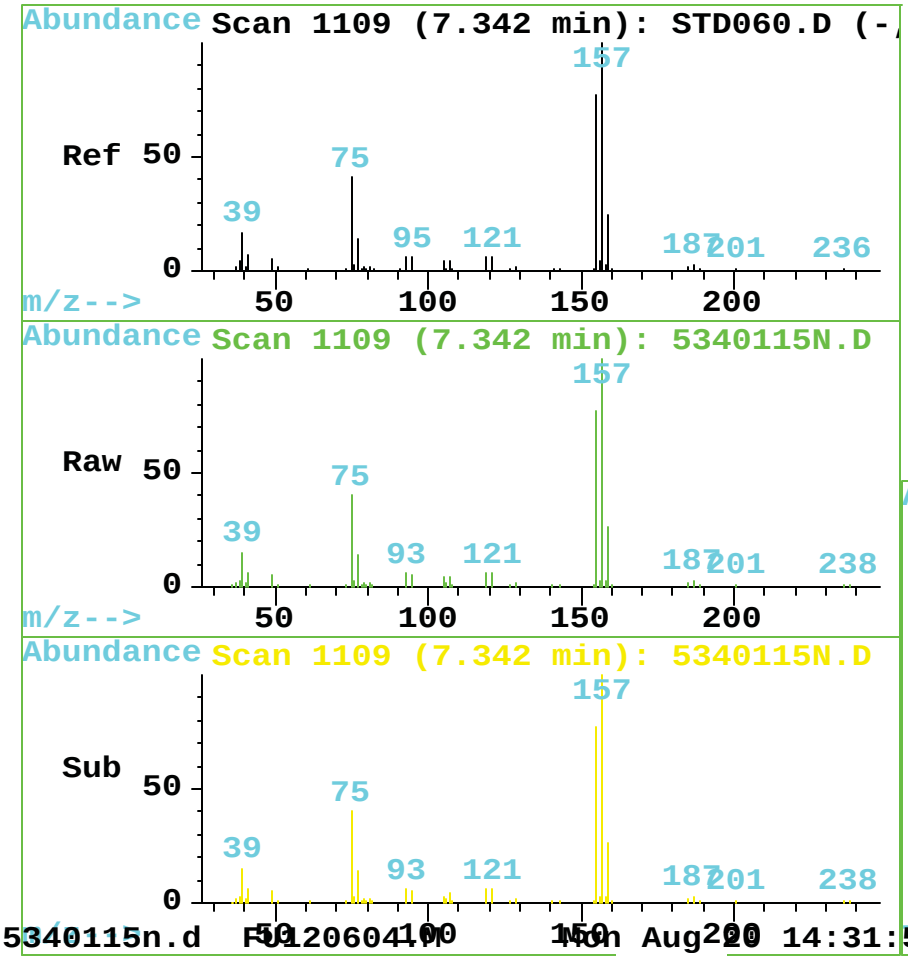


#76
Hexachloroethane
Concen: 49.94 ug/l
RT: 7.10 min Scan# 1069
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:201 Resp: 183790

Ion	Ratio	Lower	Upper
201	100		
117	71.2	50.2	110.2
166	58.7	38.0	98.0
0	0.0	0.0	0.0

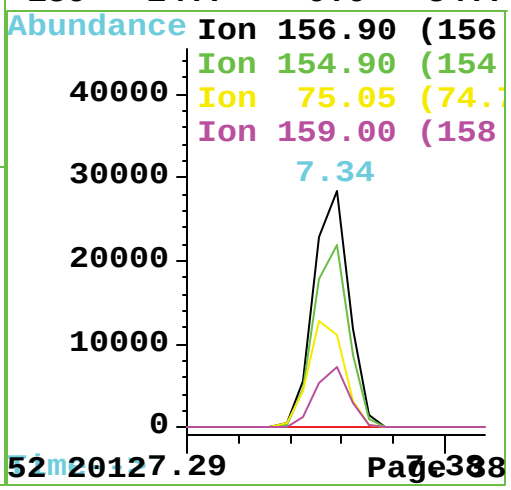


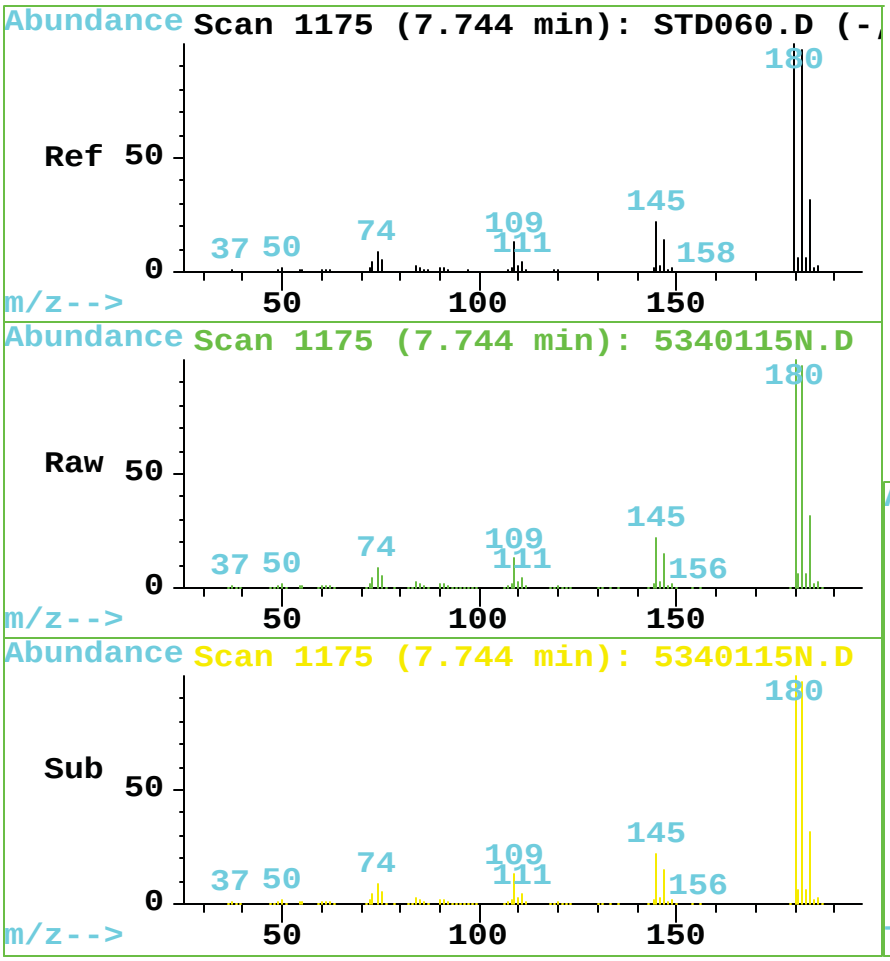


#77
1,2-Dibromo-3-Chloropropan
Concen: 58.82 ug/l
RT: 7.34 min Scan# 1109
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:156.9 Resp: 2584

Ion	Ratio	Lower	Upper
157	100		
155	77.3	46.1	106.1
75	46.6	34.3	94.3
159	24.7	0.0	54.7

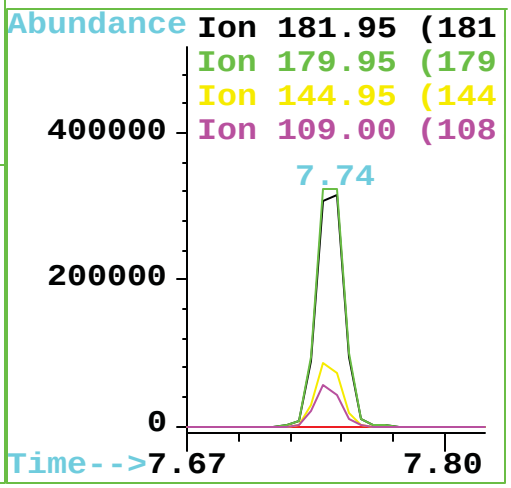


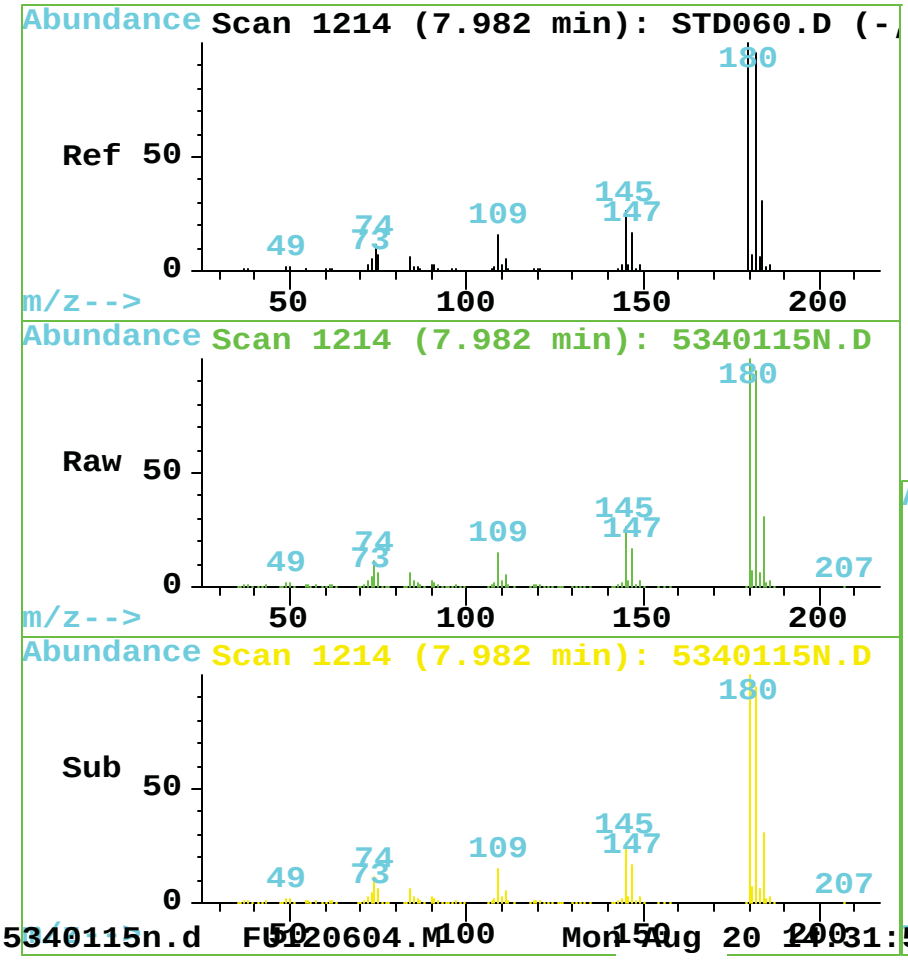


#78
1,2,4-Trichlorobenzene
Concen: 55.83 ug/l
RT: 7.74 min Scan# 1175
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:181.95 Resp: 3006

Ion	Ratio	Lower	Upper
182	100		
180	104.5	74.1	134.1
145	25.6	0.0	57.2
109	15.9	0.0	48.9

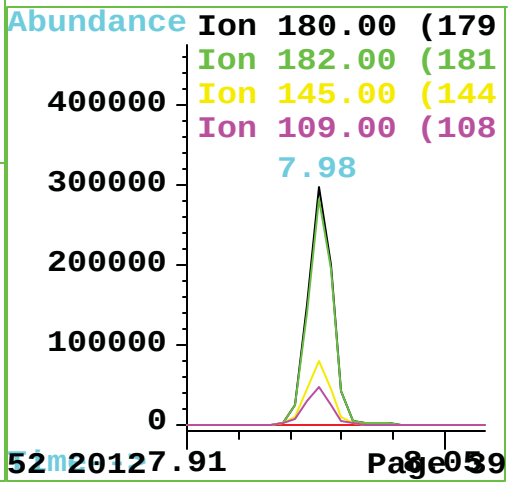


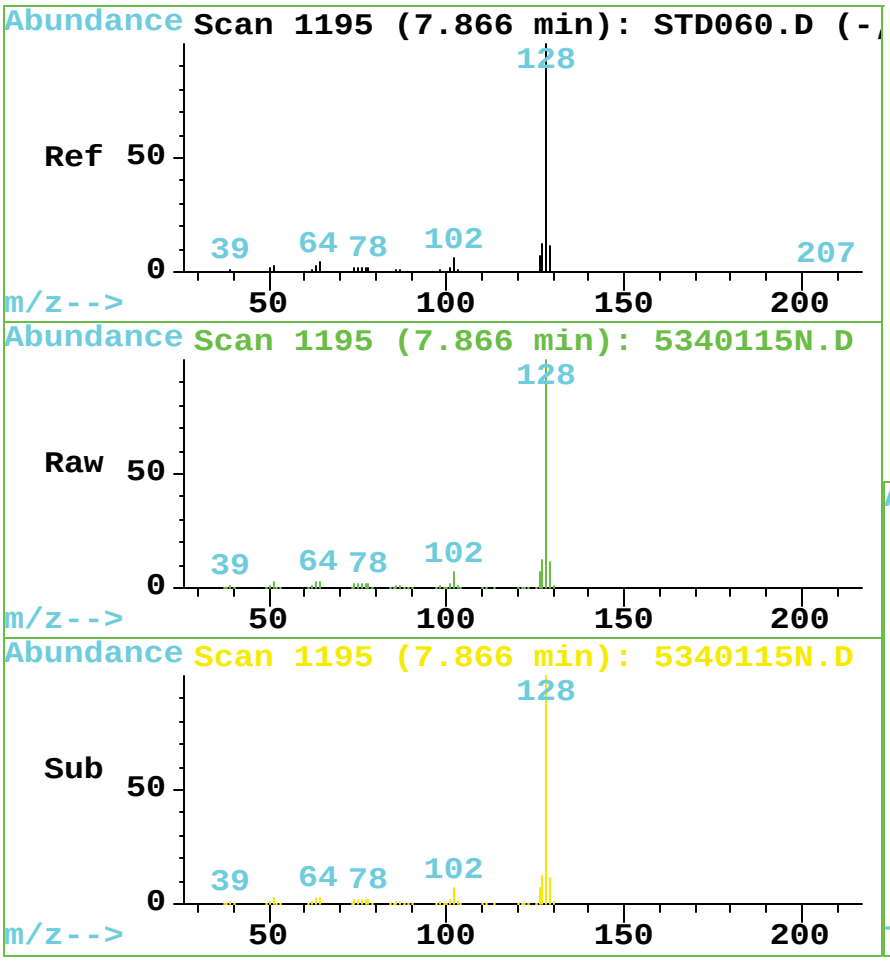


#80
1,2,3-Trichlorobenzene
Concen: 59.42 ug/l
RT: 7.98 min Scan# 1214
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:180 Resp: 261538

Ion	Ratio	Lower	Upper
180	100		
182	95.7	66.9	126.9
145	25.6	0.0	57.7
109	15.2	0.0	48.8

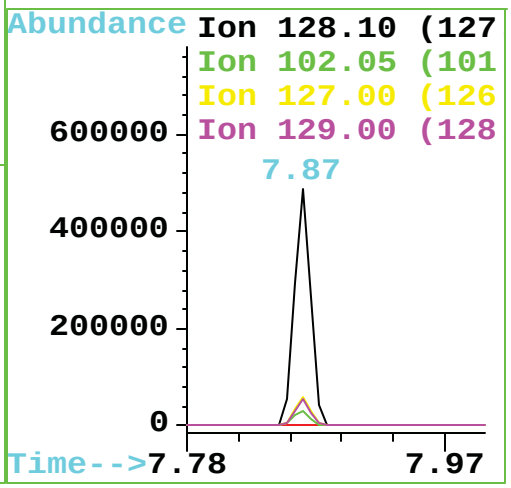


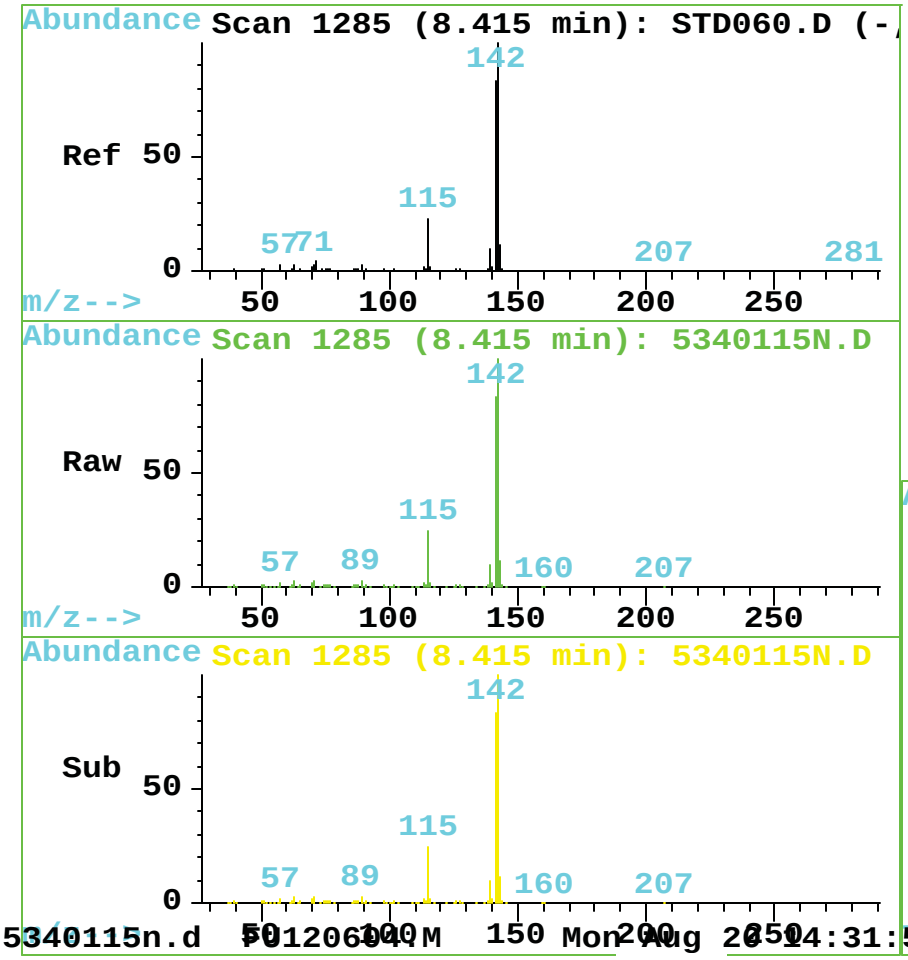


#81
Naphthalene
Concen: 64.01 ug/l
RT: 7.87 min Scan# 1195
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:128.1 Resp: 42169

Ion	Ratio	Lower	Upper
128	100		
102	6.6	0.0	37.4
127	12.1	0.0	42.3
129	10.8	0.0	40.6

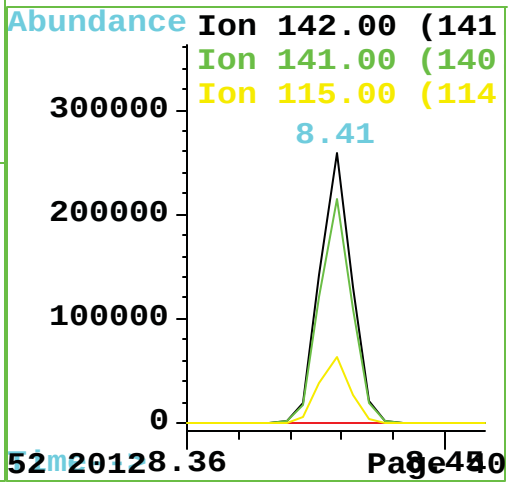




#82
2-Methylnaphthalene
Concen: 63.18 ug/l
RT: 8.41 min Scan# 1285
Delta R.T. 0.00 min
Lab File: 5340115n.d
Acq: 3 Aug 12 8:15 pm

Tgt Ion:142 Resp: 210833

Ion	Ratio	Lower	Upper
142	100		
141	84.0	55.8	115.8
115	24.6	0.0	58.8
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.189	1.69	0.187	0.194	0.190	0.185	0.188	0.191				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.321	2.04	0.310	0.321	0.323	0.320	0.324	0.330				
	Diethyl ether (*)	A	0.093	2.34	0.090	0.096	0.091	0.092	0.092	0.094				
	Acetone (*)	LO	0.020	16.90		0.025	0.017	0.021	0.017	0.019	0.99	0.00	0.019	0.00
	Methyl iodide (iodomethane) (*	A	0.675	1.86	0.663	0.675	0.665	0.669	0.683	0.696				
	Carbon disulfide (*)	LO	0.837	15.25	0.624	0.764	0.829	0.900	0.937	0.966	1.00	0.00	0.955	0.00
	Methyl Acetate	A	0.068	5.50	0.074	0.069	0.067	0.064	0.064	0.068				
	tert-Methyl butyl ether (MTBE)	A	0.467	4.09	0.442	0.460	0.462	0.461	0.475	0.499				
	Acrylonitrile (*)	A	0.041	12.24	0.031	0.045	0.043	0.042	0.042	0.043				
	2-Butanone (MEK) (*)	LO	0.034	21.27		0.046	0.033	0.033	0.028	0.029	1.00	0.00	0.029	0.00
	Dichlorodifluoromethane	QO	0.183	19.21	0.118	0.179	0.178	0.203	0.208	0.213	1.00	0.00	0.199	0.00
	Chloromethane (SPCC)	A	0.230	3.47	0.214	0.234	0.229	0.231	0.236	0.233				
	Vinyl Chloride (CCC)	A	0.258	3.98	0.240	0.262	0.260	0.263	0.270	0.254				
	Bromomethane	A	0.115	5.21	0.104	0.121	0.114	0.114	0.117	0.119				
	Chloroethane	A	0.055	9.88	0.044	0.057	0.056	0.056	0.057	0.059				
	Acrolein	A												
	Trichlorofluoromethane	A	0.301	5.21	0.283	0.308	0.281	0.300	0.315	0.317				
	1,1-Dichloroethene (CCC/MS)	A	0.320	3.94	0.307	0.313	0.333	0.334	0.306	0.324				
	Methylene Chloride	A	0.309	6.48	0.349	0.306	0.299	0.296	0.299	0.304				
	trans-1,2-Dichloroethene	A	0.333	0.80	0.329	0.332	0.336	0.330	0.334	0.334				
	1,1-Dichloroethane (SPCC)	A	0.417	1.85	0.403	0.418	0.419	0.413	0.421	0.425				
	cis-1,2-Dichloroethene	A	0.348	0.98	0.345	0.346	0.354	0.346	0.350	0.347				
	Tetrahydrofuran	A	0.027	13.06		0.033	0.029	0.025	0.025	0.025				
	Chloroform (CCC)	A	0.448	1.09	0.445	0.454	0.451	0.440	0.448	0.449				
	Bromochloromethane	A	0.223	1.41	0.218	0.224	0.223	0.220	0.223	0.227				
	1,1,1-Trichloroethane	A	0.438	6.04	0.388	0.433	0.446	0.446	0.456	0.461				
	1,1-Dichloropropene	A	0.367	3.62	0.365	0.377	0.386	0.365	0.363	0.347				
	Cyclohexane	A	0.101	6.77	0.104	0.107	0.110	0.096	0.099	0.092				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.010	5.44	1.018	1.058	1.063	1.016	0.994	0.912				
	4-Methyl-2-pentanone (MIBK) (*	LO	0.029	17.01	0.019	0.028	0.030	0.031	0.031	0.032	1.00	0.00	0.032	0.00
	2-Hexanone (*)	A	0.025	11.08	0.021	0.023	0.023	0.027	0.026	0.028				
	2-chloroethylvinyl ether	A												
	Carbon Tetrachloride	A	0.355	5.17	0.320	0.350	0.364	0.367	0.369	0.358				
	Benzene (MS)	A	1.000	6.75	1.062	1.044	1.050	0.993	0.962	0.886				
	1,2-Dichloroethane	A	0.181	4.10	0.190	0.184	0.187	0.179	0.176	0.170				
	Trichloroethene (MS)	A	0.273	2.82	0.268	0.278	0.283	0.274	0.272	0.261				
	1,2-Dichloropropane (CCC)	A	0.195	6.61	0.204	0.204	0.203	0.195	0.190	0.171				
	Bromodichloromethane	A	0.243	10.47	0.195	0.234	0.251	0.257	0.262	0.258				
	Methyl Cyclohexane	A	0.283	6.15	0.281	0.296	0.300	0.287	0.280	0.251				
	Dibromomethane	A	0.189	3.98	0.174	0.189	0.194	0.193	0.193	0.189				
	cis-1,3-Dichloropropene	A	0.303	10.83	0.238	0.301	0.318	0.322	0.324	0.314				
	Toluene (CCC/MS)	A	1.173	6.12	1.178	1.235	1.244	1.184	1.149	1.046				
	trans-1,3-Dichloropropene	A	0.228	12.49	0.174	0.218	0.239	0.244	0.248	0.244				
	1,1,2-Trichloroethane	A	0.125	1.47	0.127	0.125	0.127	0.125	0.125	0.122				
	Tetrachloroethene	A	0.485	6.21	0.494	0.491	0.525	0.472	0.491	0.434				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	1.189	4.16	1.270	1.200	1.204	1.160	1.178	1.123				
	trans-1,4-Dichloro-2-butene	A	0.069	6.87	0.061	0.071	0.075	0.070	0.071	0.067				
	Dibromochloromethane	A	0.570	14.80	0.417	0.536	0.580	0.618	0.630	0.641				
	1,2-Dibromoethane	A	0.459	4.13	0.422	0.455	0.470	0.466	0.469	0.471				
	Chlorobenzene (SPCC/MS)	A	2.315	6.75	2.518	2.398	2.396	2.276	2.232	2.072				
	1,1,1,2-Tetrachloroethane	A	0.774	6.88	0.684	0.808	0.821	0.805	0.788	0.735				
	Ethylbenzene (CCC)	A	3.471	8.72	3.621	3.696	3.733	3.487	3.372	2.918				
	p,m-Xylene	A	1.483	14.01	1.631	1.642	1.639	1.488	1.381	1.117				
	o-Xylene	A	2.647	10.04	2.798	2.845	2.865	2.662	2.546	2.164				
	Styrene	A	2.154	10.38	2.010	2.320	2.398	2.251	2.155	1.790				
	Isopropylbenzene	A	3.905	7.55	3.731	4.156	4.257	3.971	3.870	3.445				
	Bromoform (SPCC)	QO	0.364	19.60	0.250	0.320	0.353	0.395	0.420	0.443	1.00	0.00	0.383	0.02
	1,1,2,2-Tetrachloroethane (SPC	A	0.427	4.34	0.390	0.436	0.440	0.432	0.434	0.432				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fu120604.m	1,2,3-Trichloropropane	A	0.141	4.87	0.151	0.143	0.145	0.138	0.136	0.132				
	n-Propylbenzene	A	4.016	7.55	3.862	4.278	4.350	4.072	4.020	3.514				
	Bromobenzene	A	1.102	4.68	1.138	1.138	1.143	1.097	1.084	1.009				
	1,3,5-Trimethylbenzene	A	1.801	8.11	1.769	1.930	1.960	1.819	1.780	1.550				
	tert-Butylbenzene	A	1.843	6.47	1.765	1.943	1.980	1.861	1.852	1.654				
	1,2,4-Trimethylbenzene	A	1.903	10.03	1.881	2.038	2.118	1.941	1.874	1.564				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.169	8.51	2.891	3.389	3.456	3.301	3.179	2.798				
	p-Isopropyltoluene	A	2.676	10.95	2.508	2.945	2.977	2.785	2.639	2.202				
	1,3-Dichlorobenzene	A	1.462	12.17	1.620	1.583	1.585	1.457	1.370	1.154				
	1,4-Dichlorobenzene	A	1.500	5.88	1.605	1.548	1.558	1.471	1.461	1.359				
	1,2-Dichlorobenzene	A	1.359	4.10	1.399	1.411	1.407	1.334	1.329	1.273				
	1,2,3-Trimethylbenzene	A	2.213	5.18	2.172	2.302	2.344	2.247	2.190	2.020				
	n-Butylbenzene	A	2.120	6.98	1.974	2.225	2.296	2.167	2.146	1.912				
	Hexachloroethane	QO	0.565	17.65	0.389	0.514	0.574	0.621	0.650	0.640	1.00	0.00	0.632	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.070	20.12	0.045	0.066	0.068	0.073	0.080	0.085	1.00	0.00	0.071	0.00
	1,2,4-Trichlorobenzene	A	0.928	2.87	0.941	0.913	0.949	0.912	0.961	0.891				
	Hexachlorobutadiene	A	0.882	4.04	0.921	0.886	0.887	0.862	0.912	0.823				
	1,2,3-Trichlorobenzene	A	0.758	4.14	0.807	0.738	0.759	0.732	0.784	0.730				
	Naphthalene	A	1.135	6.37	1.023	1.081	1.148	1.149	1.222	1.187				
	2-Methylnaphthalene	LO	0.504	16.36	0.448	0.392	0.472	0.525	0.615	0.571	1.00	0.00	0.575	0.00

Calibration Date: 06/04/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): fu120604.M (Mean %RSD: 7.41)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\urborg.fft\methods\fu120604.m\

Injection Time	Calibration Data File
06/04/12 15:11	bfb04c.d
06/04/12 17:12	std001.d
06/04/12 17:33	std010.d
06/04/12 17:53	std020.d
06/04/12 18:13	std060.d
06/04/12 18:33	std100.d
06/04/12 18:53	std200.d

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

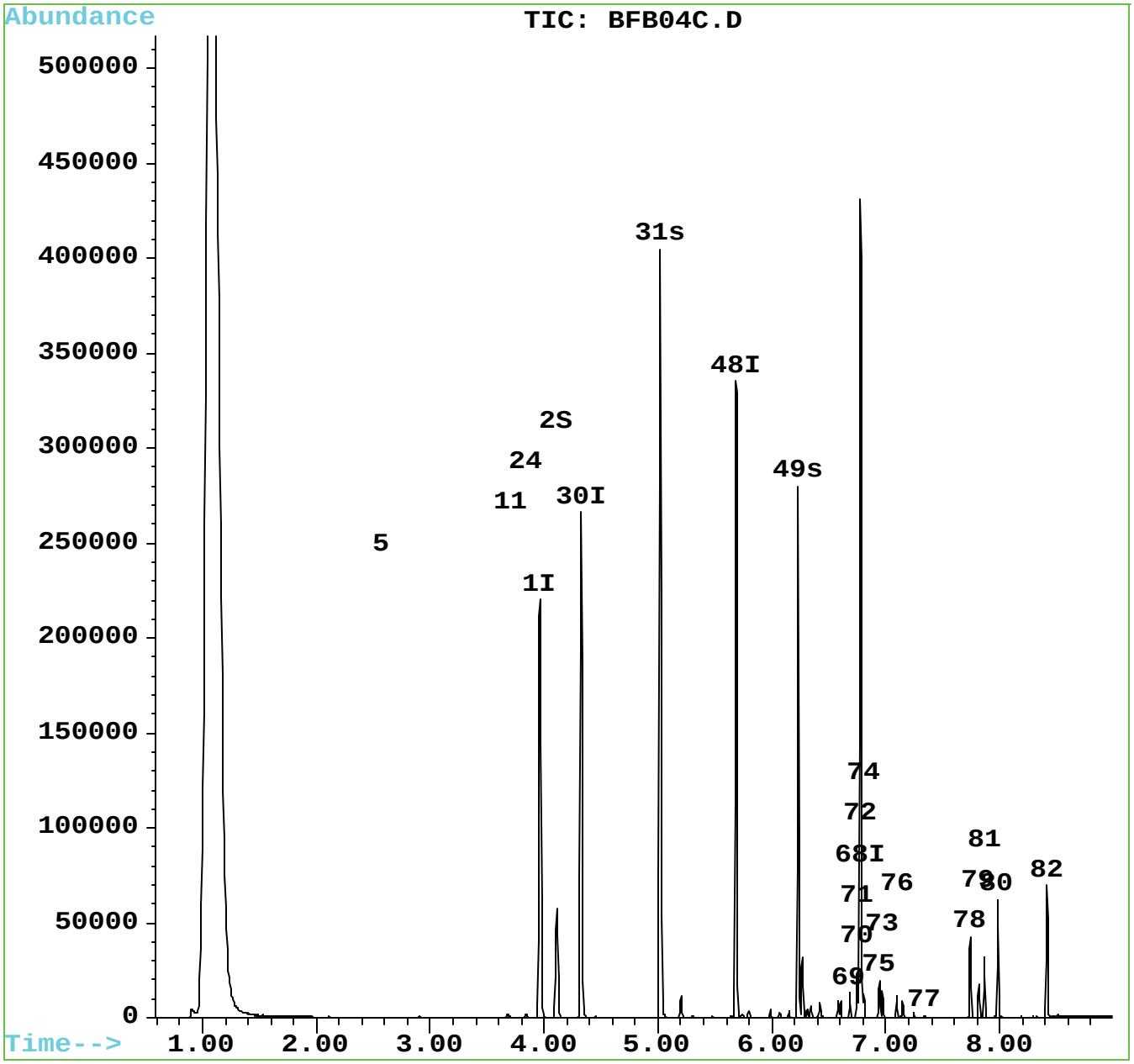
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	149094	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	170397	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	58855	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	89237	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	25625	45.46	ug/l		90.9
31) TOLUENE-D8 (S)	5.02	98	166719	48.42	ug/l		96.8
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	68907	49.23	ug/l		98.4
Target Compounds							Qvalu
5) Acetone (*)	2.57	43	63	1.14	ug/l	#	
11) 2-Butanone (MEK) (*)	3.70	43	336	3.90	ug/l	#	4
24) Tetrahydrofuran	3.84	42	879	10.69	ug/l	#	
69) sec-Butylbenzene	6.68	105	5698	1.01	ug/l		9
70) p-Isopropyltoluene	6.74	119	5654	1.18	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	4460	1.71	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	4908	1.83	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	4574	1.89	ug/l		9
74) 1,2,3-Trimethylbenzene	6.81	105	4618	1.17	ug/l		9
75) n-Butylbenzene	6.95	91	6419	1.70	ug/l		9
76) Hexachloroethane	7.10	201	1448	1.28	ug/l		7
77) 1,2-Dibromo-3-Chloropropan	7.34	157	330	2.57	ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.74	182	10848	6.55	ug/l		9
79) Hexachlorobutadiene	7.82	225	2912	1.85	ug/l		9
80) 1,2,3-Trichlorobenzene	7.98	180	15542	11.48	ug/l		9
81) Naphthalene	7.87	128	17573	8.67	ug/l		9
82) 2-Methylnaphthalene	8.41	142	23182	22.59	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jul 12 16:19 19112

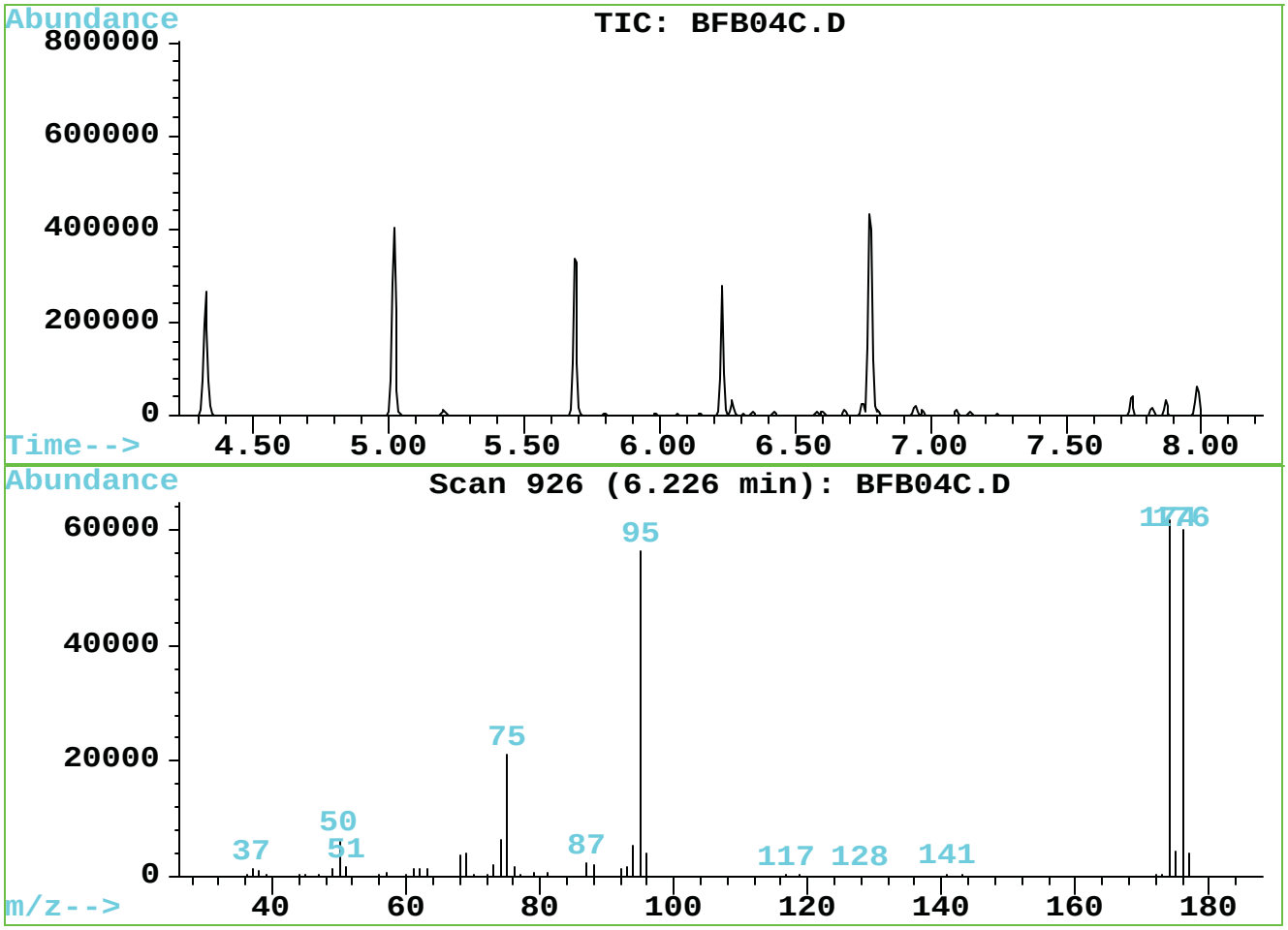
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\BFB04C.D Vial: 1
Acq On : 4 Jun 12 3:11 pm Operator: wat
Sample : 50ng/bfb 1s0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.9	6123	PASS
75	95	30	66	37.5	21088	PASS
95	95	100	100	100.0	56240	PASS
96	95	5	9	7.1	4010	PASS
173	174	0	2	0.5	328	PASS
174	95	50	120	109.6	61664	PASS
175	174	4	9	6.9	4224	PASS
176	174	93	101	97.4	60088	PASS
177	176	5	9	6.5	3929	PASS

BFB04C.D FU120604.M Thu Jul 12 16:20:21 2012 TEST

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	700150	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	808489	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288497	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	414328	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	2614	1.37	ug/l		2.7
31) TOLUENE-D8 (S)	5.02	98	16460	1.01	ug/l		2.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	7329	1.11	ug/l		2.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	4345	0.88	ug/l		9
4) Diethyl ether (*)	2.35	74	1265	1.68	ug/l		8
5) Acetone (*)	2.59	43	1101	2.69	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	9290	1.12	ug/l		9
7) Carbon disulfide (*)	2.68	76	8736	0.59	ug/l		8
8) Methyl Acetate	2.84	43	1042	0.81	ug/l	#	5
9) tert-Methyl butyl ether (M	3.11	73	6186	1.24	ug/l		8
10) Acrylonitrile (*)	3.09	53	434	0.50	ug/l	#	9
11) 2-Butanone (MEK) (*)	3.70	43	2004	3.80	ug/l		9
12) Dichlorodifluoromethane	1.22	85	1656	0.44	ug/l	#	6
13) Chloromethane (SPCC)	1.34	50	2994	0.81	ug/l	#	8
14) Vinyl Chloride (CCC)	1.45	62	3355	0.75	ug/l	#	8
15) Bromomethane	1.73	94	1457	1.03	ug/l	#	9
16) Chloroethane	1.84	64	621	0.74	ug/l	#	2
18) Trichlorofluoromethane	2.12	101	3960	1.12	ug/l	m	6
19) 1,1-Dichloroethene (CCC/MS	2.52	61	4293	0.93	ug/l		8
20) Methylene Chloride	2.90	84	4885	1.44	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	4602	1.00	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	5643	1.09	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	4836	1.18	ug/l		8
24) Tetrahydrofuran	3.84	42	1414	2.47	ug/l	#	
25) Chloroform (CCC)	3.85	83	6228	1.22	ug/l		9
26) Bromochloromethane	3.81	130	3055	1.31	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	5438	0.89	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	5116	0.93	ug/l		9
29) Cyclohexane	3.98	42	1455	0.86	ug/l	#	1
32) 4-Methyl-2-pentanone (MIBK	4.96	58	308	0.50	ug/l	#	8
33) 2-Hexanone (*)	5.34	58	345	0.65	ug/l	#	7
35) Carbon Tetrachloride	4.04	117	5180	0.78	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.13	78	17168	1.05 ug/l	9
37) 1,2-Dichloroethane	4.15	62	3072	1.26 ug/l	9
38) Trichloroethene (MS)	4.45	95	4332	0.89 ug/l	8
39) 1,2-Dichloropropane (CCC)	4.56	63	3296	1.20 ug/l	9
40) Bromodichloromethane	4.68	83	3156	0.99 ug/l	9
41) Methyl Cyclohexane	4.54	55	4537	0.76 ug/l	9
42) Dibromomethane	4.62	174	2816	1.09 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	3853	0.95 ug/l	9
44) Toluene (CCC/MS)	5.05	91	19045	1.00 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	2821	0.93 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	2059	1.20 ug/l	9
47) Tetrachloroethene	5.31	166	7985	0.77 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	354	0.70 ug/l #	6
51) Dibromochloromethane	5.42	129	2406	0.72 ug/l	9
52) 1,2-Dibromoethane	5.48	107	2435	0.94 ug/l #	9
53) Chlorobenzene (SPCC/MS)	5.70	112	14530	1.08 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.73	131	3946	0.98 ug/l #	7
55) Ethylbenzene (CCC)	5.74	91	20894	0.91 ug/l	9
56) p,m-Xylene	5.79	106	18819	1.92 ug/l	8
57) o-Xylene	5.98	91	16146	0.99 ug/l	9
58) Styrene	5.99	104	11598	0.91 ug/l	9
59) Isopropylbenzene	6.15	105	21529	0.80 ug/l	9
60) Bromoform (SPCC)	6.09	173	1444	0.64 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	2250	0.92 ug/l	8
62) 1,2,3-Trichloropropane	6.31	110	873	0.88 ug/l #	7
63) n-Propylbenzene	6.34	91	22281	0.79 ug/l	9
64) Bromobenzene	6.31	156	6565	1.07 ug/l	9
65) 1,3,5-Trimethylbenzene	6.42	120	10207	0.87 ug/l	8
66) tert-Butylbenzene	6.58	91	10186	0.81 ug/l	8
67) 1,2,4-Trimethylbenzene	6.60	120	10851	0.88 ug/l	9
69) sec-Butylbenzene	6.68	105	23956	0.71 ug/l	9
70) p-Isopropyltoluene	6.75	119	20779	0.75 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	13421	1.06 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	13301	1.05 ug/l	8
73) 1,2-Dichlorobenzene	6.97	146	11592	1.05 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	17998	0.98 ug/l	9
75) n-Butylbenzene	6.95	91	16359	0.73 ug/l	9
76) Hexachloroethane	7.10	201	3221	0.57 ug/l #	6
77) 1,2-Dibromo-3-Chloropropan	7.34	157	377	0.43 ug/l #	7
78) 1,2,4-Trichlorobenzene	7.74	182	7794	0.99 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration

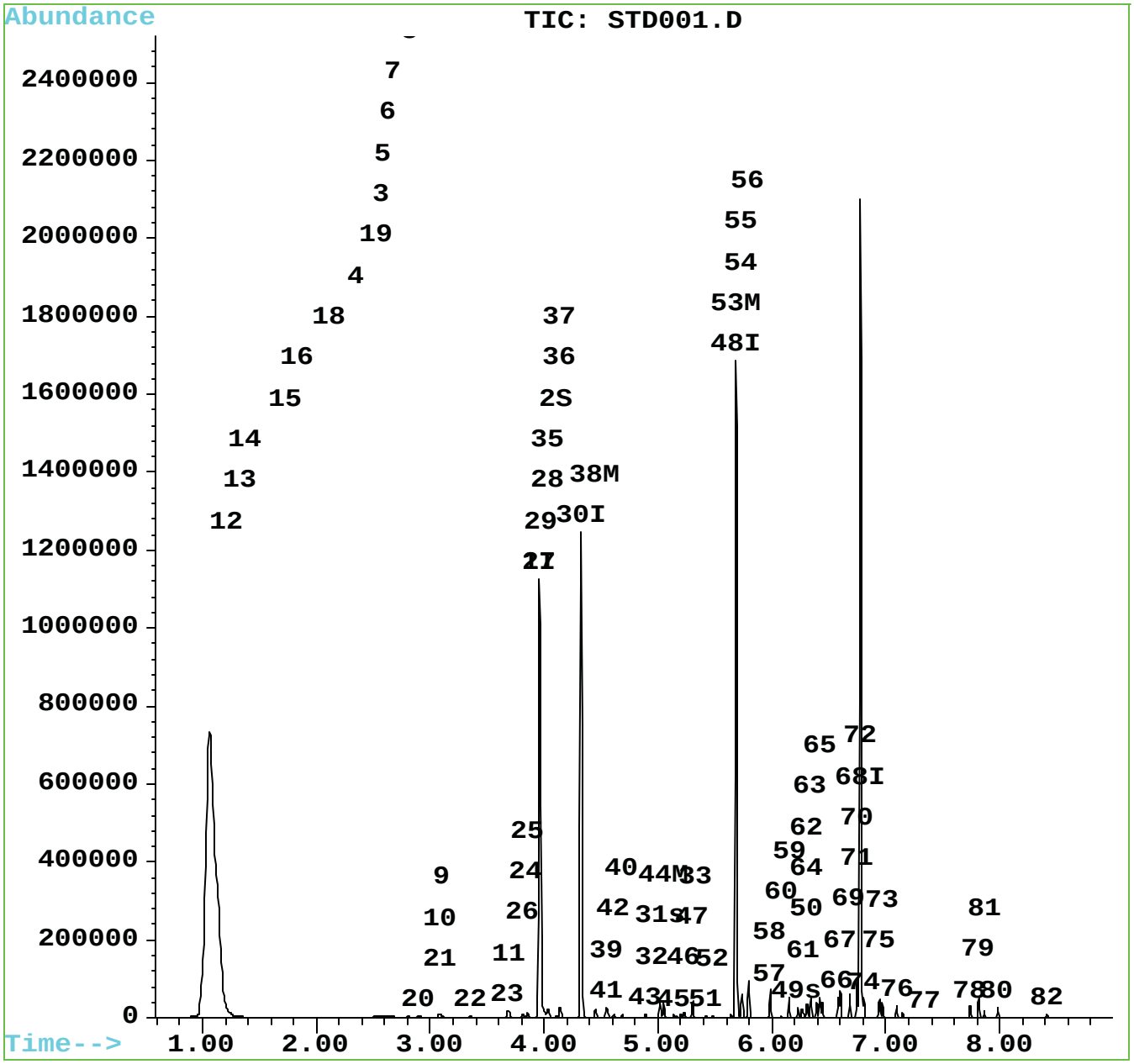
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	7628	0.81	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	6691	1.04	ug/l	9
81)	Naphthalene	7.87	128	8480	0.73	ug/l	9
82)	2-Methylnaphthalene	8.41	142	3709	0.79	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M\STD001.D Vial: 7
Acq On : 4 Jun 12 5:12 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:10 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Jul 09 15:22:59 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	682071	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	801325	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	288586	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	394725	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	26439	14.21	ug/l		28.4
31) TOLUENE-D8 (S)	5.02	98	169634	10.50	ug/l		21.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	69262	10.51	ug/l		21.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	43785	9.08	ug/l		9
4) Diethyl ether (*)	2.35	74	13061	17.75	ug/l		9
5) Acetone (*)	2.59	43	3379	8.48	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	92043	11.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	104193	7.28	ug/l		9
8) Methyl Acetate	2.84	43	9355	7.51	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	62726	12.90	ug/l		9
10) Acrylonitrile (*)	3.08	53	6179	7.36	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	6284	12.23	ug/l		9
12) Dichlorodifluoromethane	1.23	85	24480	6.75	ug/l	#	5
13) Chloromethane (SPCC)	1.34	50	31951	8.92	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	35708	8.22	ug/l		9
15) Bromomethane	1.73	94	16455	11.98	ug/l		9
16) Chloroethane	1.83	64	7811	9.60	ug/l		8
18) Trichlorofluoromethane	2.12	101	42017	12.15	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	42759	9.53	ug/l		8
20) Methylene Chloride	2.90	84	41726	12.59	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	45284	10.11	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	57014	11.28	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	47225	11.79	ug/l		8
24) Tetrahydrofuran	3.84	42	4482	8.04	ug/l		8
25) Chloroform (CCC)	3.85	83	61944	12.44	ug/l		9
26) Bromochloromethane	3.81	130	30607	13.45	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	59062	9.90	ug/l	#	
28) 1,1-Dichloropropene	4.03	75	51446	9.59	ug/l		9
29) Cyclohexane	3.98	42	14529	8.79	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	4526	7.43	ug/l		9
33) 2-Hexanone (*)	5.34	58	3739	7.03	ug/l		9
35) Carbon Tetrachloride	4.04	117	56039	8.46	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	167262	10.36 ug/l	9
37) 1,2-Dichloroethane	4.15	62	29557	12.25 ug/l	9
38) Trichloroethene (MS)	4.45	95	44502	9.19 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	32643	11.98 ug/l	9
40) Bromodichloromethane	4.68	83	37532	11.83 ug/l	9
41) Methyl Cyclohexane	4.54	55	47431	8.07 ug/l	9
42) Dibromomethane	4.62	174	30292	11.86 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	48244	12.06 ug/l	9
44) Toluene (CCC/MS)	5.05	91	197973	10.46 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	34925	11.65 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	20058	11.76 ug/l	9
47) Tetrachloroethene	5.31	166	78758	7.65 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	4076	8.03 ug/l #	8
51) Dibromochloromethane	5.42	129	30965	9.25 ug/l	9
52) 1,2-Dibromoethane	5.48	107	26247	10.12 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	138379	10.24 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	46654	11.55 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	213344	9.25 ug/l	9
56) p,m-Xylene	5.79	106	189596	19.33 ug/l	8
57) o-Xylene	5.98	91	164221	10.10 ug/l	9
58) Styrene	5.99	104	133879	10.53 ug/l	9
59) Isopropylbenzene	6.15	105	239852	8.91 ug/l	9
60) Bromoform (SPCC)	6.09	173	18451	8.11 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	25150	10.29 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	8275	8.34 ug/l	8
63) n-Propylbenzene	6.34	91	246890	8.70 ug/l	9
64) Bromobenzene	6.31	156	65654	10.74 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	111420	9.50 ug/l	8
66) tert-Butylbenzene	6.58	91	112146	8.93 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	117646	9.49 ug/l	9
69) sec-Butylbenzene	6.68	105	267519	8.38 ug/l	9
70) p-Isopropyltoluene	6.75	119	232466	8.82 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	124985	10.32 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	122183	10.08 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	111374	10.57 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	181720	10.42 ug/l	9
75) n-Butylbenzene	6.95	91	175684	8.18 ug/l	9
76) Hexachloroethane	7.10	201	40609	7.46 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	5208	6.12 ug/l	8
78) 1,2,4-Trichlorobenzene	7.74	182	72052	9.63 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

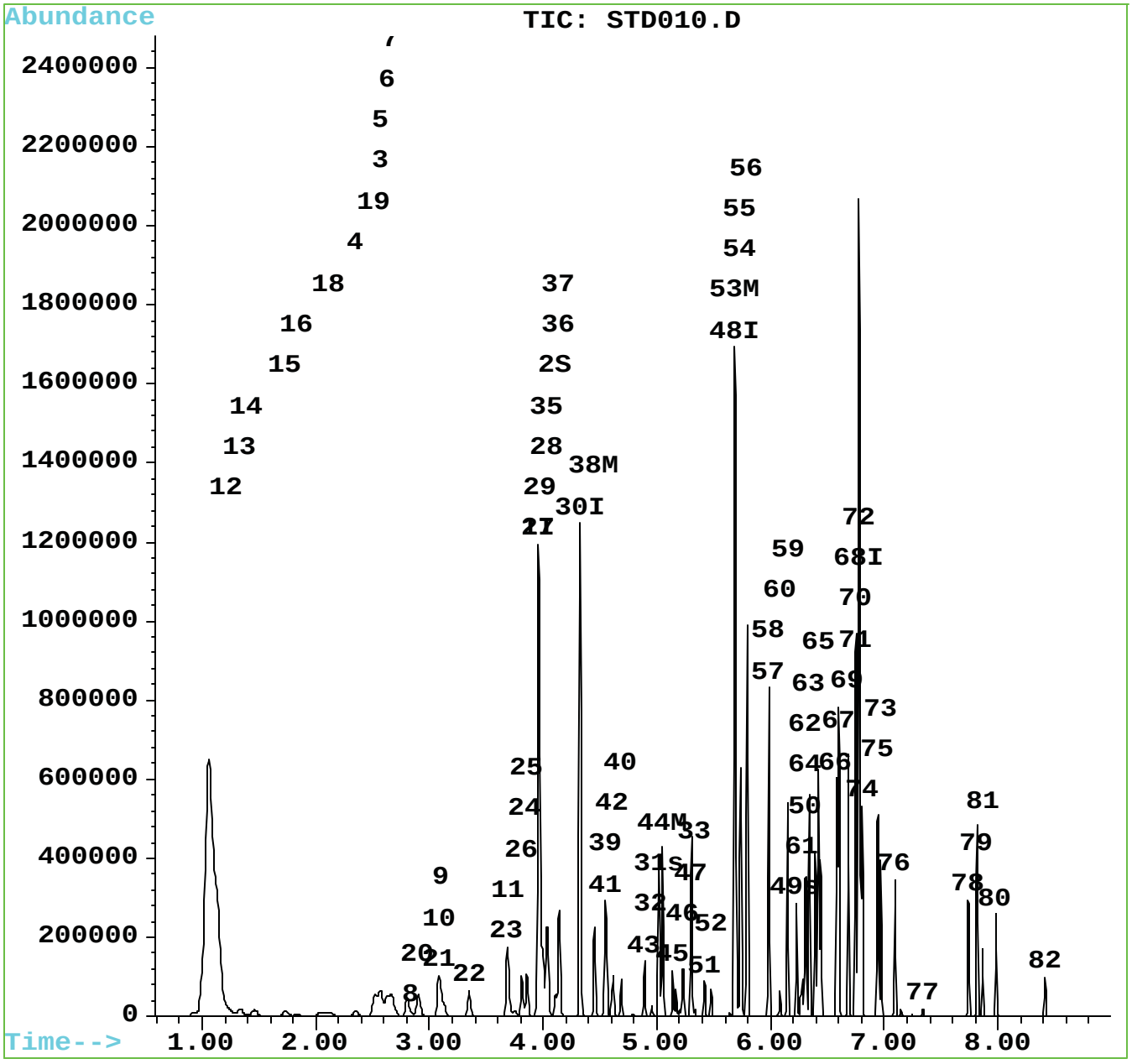
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	69955	7.80	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	58236	9.54	ug/l	9
81)	Naphthalene	7.87	128	85357	7.76	ug/l	9
82)	2-Methylnaphthalene	8.41	142	30930	6.85	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std010.d Vial: 8
Acq On : 4 Jun 12 5:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	709486	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	825373	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	299894	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	409867	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	53897	27.85	ug/l		55.7
31) TOLUENE-D8 (S)	5.02	98	351021	21.10	ug/l		42.1
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	144461	21.10	ug/l		42.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	91781	18.31	ug/l		9
4) Diethyl ether (*)	2.35	74	25711	33.60	ug/l		9
5) Acetone (*)	2.60	43	4942	11.93	ug/l		8
6) Methyl iodide (iodomethane	2.63	142	188646	22.34	ug/l		9
7) Carbon disulfide (*)	2.67	76	235375	15.82	ug/l		9
8) Methyl Acetate	2.85	43	18887	14.57	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	131145	25.92	ug/l		9
10) Acrylonitrile (*)	3.08	53	12124	13.89	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	9327	17.45	ug/l		9
12) Dichlorodifluoromethane	1.23	85	50440	13.36	ug/l		9
13) Chloromethane (SPCC)	1.34	50	64854	17.41	ug/l		9
14) Vinyl Chloride (CCC)	1.46	62	73753	16.33	ug/l		9
15) Bromomethane	1.73	94	32316	22.61	ug/l		9
16) Chloroethane	1.83	64	15915	18.80	ug/l		9
18) Trichlorofluoromethane	2.12	101	79626	22.13	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	94639	20.29	ug/l		8
20) Methylene Chloride	2.90	84	84820	24.61	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	95379	20.46	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	118876	22.61	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	100420	24.10	ug/l		8
24) Tetrahydrofuran	3.84	42	8270	14.27	ug/l		9
25) Chloroform (CCC)	3.86	83	127954	24.71	ug/l		9
26) Bromochloromethane	3.81	130	63310	26.75	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	126518	20.39	ug/l		9
28) 1,1-Dichloropropene	4.03	75	109525	19.62	ug/l		9
29) Cyclohexane	3.98	42	31157	18.13	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.96	58	9937	15.84	ug/l		9
33) 2-Hexanone (*)	5.34	58	7624	13.86	ug/l		9
35) Carbon Tetrachloride	4.04	117	120064	17.61	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	346640	20.85 ug/l	9
37) 1,2-Dichloroethane	4.15	62	61814	24.88 ug/l	9
38) Trichloroethene (MS)	4.45	95	93456	18.74 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	66909	23.84 ug/l	9
40) Bromodichloromethane	4.68	83	83011	25.40 ug/l	9
41) Methyl Cyclohexane	4.54	55	98953	16.34 ug/l	8
42) Dibromomethane	4.62	174	64214	24.41 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	105104	25.51 ug/l	9
44) Toluene (CCC/MS)	5.05	91	410707	21.07 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	79001	25.57 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	42064	23.95 ug/l	9
47) Tetrachloroethene	5.31	166	173216	16.33 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	8960	16.98 ug/l #	8
51) Dibromochloromethane	5.42	129	69610	20.02 ug/l	9
52) 1,2-Dibromoethane	5.48	107	56350	20.90 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	287425	20.47 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	98529	23.48 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	447837	18.69 ug/l	9
56) p,m-Xylene	5.79	106	393276	38.59 ug/l	8
57) o-Xylene	5.98	91	343694	20.34 ug/l	9
58) Styrene	5.99	104	287633	21.77 ug/l	9
59) Isopropylbenzene	6.15	105	510716	18.27 ug/l	9
60) Bromoform (SPCC)	6.09	173	42375	17.80 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	52746	20.76 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	17382	16.87 ug/l	9
63) n-Propylbenzene	6.34	91	521769	17.68 ug/l	9
64) Bromobenzene	6.31	156	137054	21.58 ug/l	9
65) 1,3,5-Trimethylbenzene	6.42	120	235119	19.28 ug/l	8
66) tert-Butylbenzene	6.58	91	237568	18.20 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	254120	19.73 ug/l	8
69) sec-Butylbenzene	6.68	105	566596	17.09 ug/l	9
70) p-Isopropyltoluene	6.74	119	488044	17.83 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	259870	20.67 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	255459	20.30 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	230653	21.09 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	384373	21.22 ug/l	9
75) n-Butylbenzene	6.95	91	376350	16.87 ug/l	9
76) Hexachloroethane	7.10	201	94123	16.60 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	11200	12.58 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	155584	20.02 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

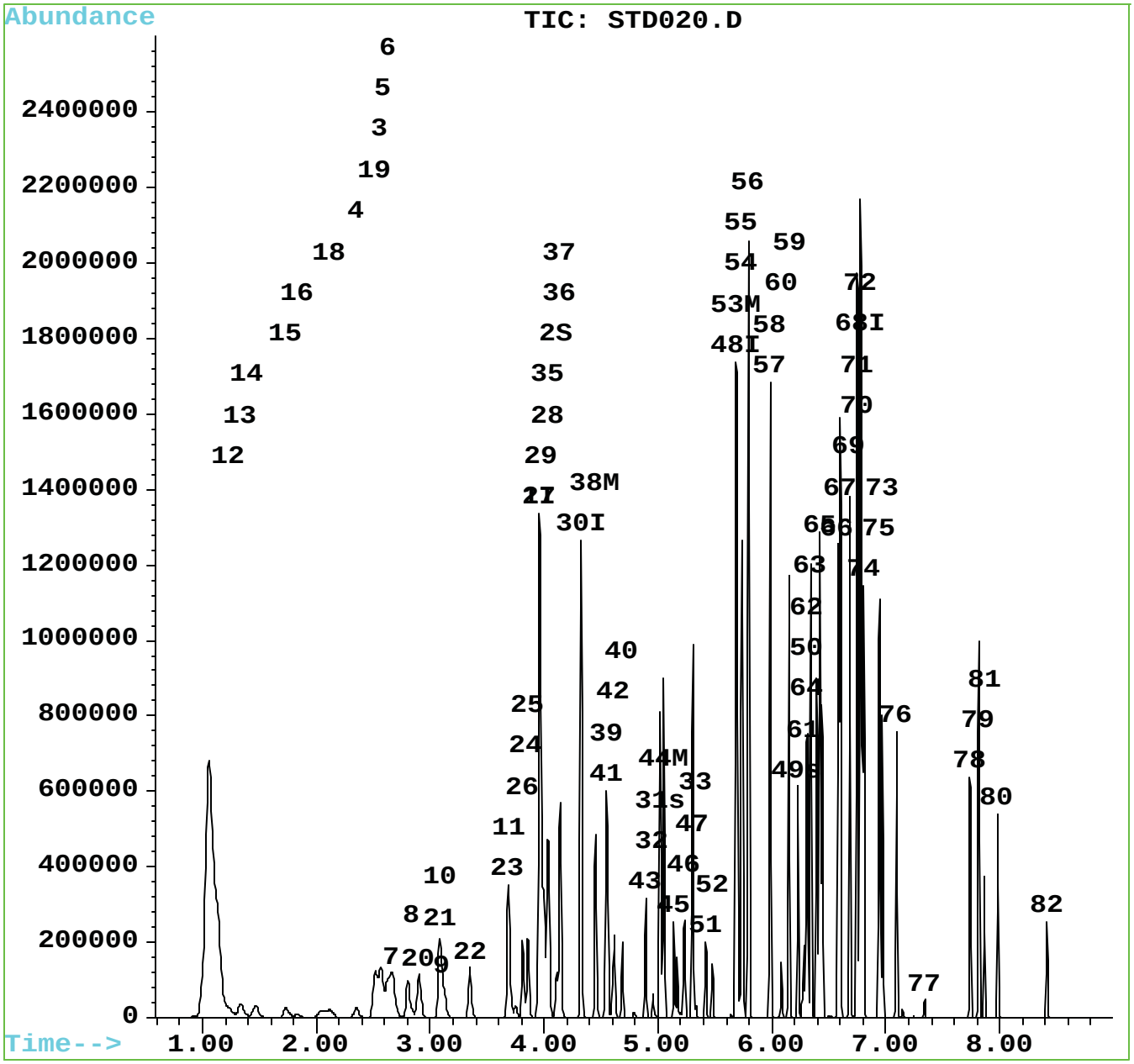
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	145427	15.61 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	124462	19.64 ug/l	9
81)	Naphthalene	7.87	128	188147	16.48 ug/l	9
82)	2-Methylnaphthalene	8.41	142	77365	16.33 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std020.d Vial: 9
Acq On : 4 Jun 12 5:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	718453	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	838217	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	305349	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	406145	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	159458	81.36	ug/l		162.7
31) TOLUENE-D8 (S)	5.02	98	1021635	60.46	ug/l		120.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	425016	60.98	ug/l		121.9
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	275989	54.36	ug/l		9
4) Diethyl ether (*)	2.35	74	79137	102.12	ug/l		9
5) Acetone (*)	2.59	43	17957	42.81	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	576645	67.45	ug/l		9
7) Carbon disulfide (*)	2.67	76	775809	51.48	ug/l		9
8) Methyl Acetate	2.84	43	54937	41.85	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	397720	77.63	ug/l		9
10) Acrylonitrile (*)	3.08	53	36473	41.27	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	28683	53.00	ug/l		9
12) Dichlorodifluoromethane	1.24	85	175155	45.82	ug/l		9
13) Chloromethane (SPCC)	1.35	50	199235	52.82	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	227100	49.64	ug/l		9
15) Bromomethane	1.74	94	97960	67.68	ug/l		9
16) Chloroethane	1.84	64	48474	56.54	ug/l		9
18) Trichlorofluoromethane	2.12	101	258964	71.07	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.52	61	287633	60.89	ug/l		8
20) Methylene Chloride	2.90	84	254920	73.03	ug/l		9
21) trans-1,2-Dichloroethene	3.09	61	284751	60.33	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	356405	66.94	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	298452	70.73	ug/l		8
24) Tetrahydrofuran	3.84	42	21830	37.19	ug/l		9
25) Chloroform (CCC)	3.86	83	379380	72.36	ug/l		9
26) Bromochloromethane	3.81	130	189594	79.11	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	384589	61.20	ug/l	#	3
28) 1,1-Dichloropropene	4.03	75	314724	55.68	ug/l		9
29) Cyclohexane	3.99	42	82335	47.31	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.96	58	31183	48.94	ug/l		9
33) 2-Hexanone (*)	5.34	58	27660	48.50	ug/l		9
35) Carbon Tetrachloride	4.04	117	369330	53.33	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	998814	59.16 ug/l	9
37) 1,2-Dichloroethane	4.15	62	179875	71.29 ug/l	9
38) Trichloroethene (MS)	4.45	95	275694	54.44 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	195965	68.74 ug/l	9
40) Bromodichloromethane	4.68	83	258599	77.91 ug/l	9
41) Methyl Cyclohexane	4.55	55	289075	47.00 ug/l	8
42) Dibromomethane	4.62	174	194155	72.68 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	324088	77.44 ug/l	9
44) Toluene (CCC/MS)	5.05	91	1190657	60.15 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	245175	78.15 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	126122	70.70 ug/l	9
47) Tetrachloroethene	5.31	166	475083	44.11 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	25702	47.84 ug/l #	7
51) Dibromochloromethane	5.42	129	226338	63.93 ug/l	9
52) 1,2-Dibromoethane	5.48	107	170570	62.14 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	834134	58.35 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	295143	69.09 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	1277879	52.37 ug/l	9
56) p,m-Xylene	5.79	106	1090584	105.11 ug/l	8
57) o-Xylene	5.98	91	975511	56.71 ug/l	9
58) Styrene	5.99	104	824730	61.29 ug/l	9
59) Isopropylbenzene	6.15	105	1455204	51.12 ug/l	9
60) Bromoform (SPCC)	6.09	173	144672	58.16 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	158438	61.24 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	50455	48.09 ug/l	9
63) n-Propylbenzene	6.34	91	1492185	49.67 ug/l	9
64) Bromobenzene	6.31	156	402124	62.17 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	666617	53.70 ug/l	9
66) tert-Butylbenzene	6.58	91	681991	51.32 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	711162	54.22 ug/l	9
69) sec-Butylbenzene	6.68	105	1608849	48.98 ug/l	9
70) p-Isopropyltoluene	6.75	119	1357400	50.03 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	709873	56.97 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	716942	57.49 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	650136	59.98 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	1095014	61.02 ug/l	9
75) n-Butylbenzene	6.95	91	1056273	47.79 ug/l	9
76) Hexachloroethane	7.10	201	302724	53.07 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.34	157	35812	39.31 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	444417	57.72 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

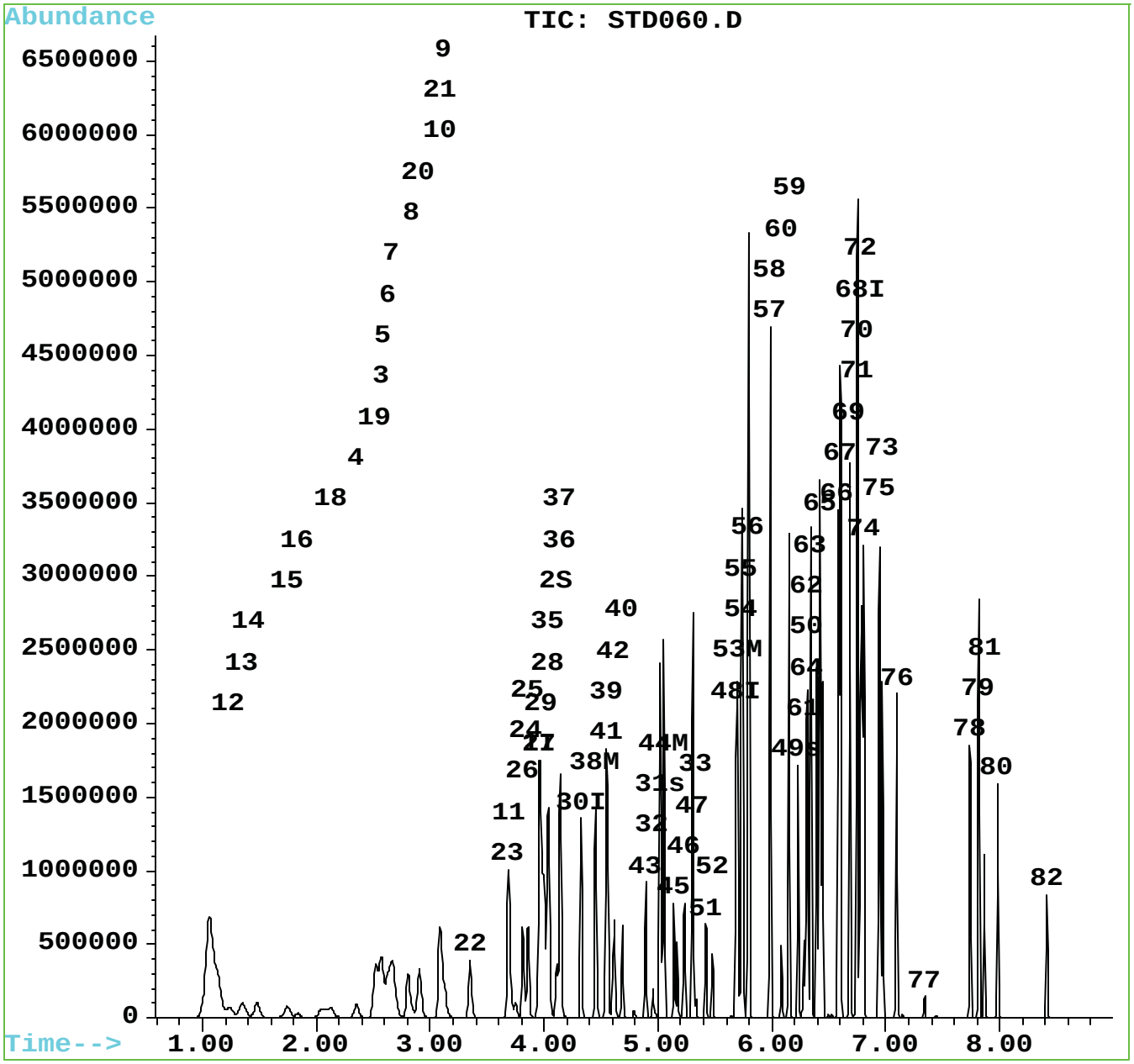
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	420276	45.53 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	356654	56.79 ug/l	9
81)	Naphthalene	7.87	128	559897	49.50 ug/l	9
82)	2-Methylnaphthalene	8.41	142	255721	52.36 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std060.d Vial: 1
Acq On : 4 Jun 12 6:13 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:12 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	708225	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	842056	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	310341	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	420177	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	266464	137.93	ug/l		275.8
31) TOLUENE-D8 (S)	5.02	98	1674468	98.65	ug/l		197.2
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	730962	103.18	ug/l		206.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	458452	91.60	ug/l		9
4) Diethyl ether (*)	2.35	74	130554	170.91	ug/l		9
5) Acetone (*)	2.60	43	24499	59.25	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	967325	114.78	ug/l		9
7) Carbon disulfide (*)	2.67	76	1327315	89.35	ug/l		9
8) Methyl Acetate	2.84	43	90663	70.06	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	672818	133.22	ug/l		9
10) Acrylonitrile (*)	3.08	53	59377	68.16	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	40056	75.08	ug/l		8
12) Dichlorodifluoromethane	1.23	85	294663	78.20	ug/l		9
13) Chloromethane (SPCC)	1.35	50	334048	89.83	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	381940	84.70	ug/l		9
15) Bromomethane	1.75	94	165451	115.97	ug/l		9
16) Chloroethane	1.83	64	81311	96.21	ug/l		9
18) Trichlorofluoromethane	2.13	101	446143	124.21	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	432880	92.96	ug/l		8
20) Methylene Chloride	2.90	84	424114	123.26	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	473743	101.83	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	595985	113.55	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	495434	119.10	ug/l		8
24) Tetrahydrofuran	3.84	42	35840	61.95	ug/l		9
25) Chloroform (CCC)	3.86	83	634132	122.70	ug/l		9
26) Bromochloromethane	3.81	130	316285	133.88	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	646098	104.29	ug/l	#	2
28) 1,1-Dichloropropene	4.03	75	514252	92.29	ug/l		9
29) Cyclohexane	3.99	42	140936	82.15	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	52354	81.80	ug/l		9
33) 2-Hexanone (*)	5.34	58	43937	75.48	ug/l		9
35) Carbon Tetrachloride	4.04	117	620967	89.26	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.14	78	1620241	95.53	ug/l		9
37)	1,2-Dichloroethane	4.15	62	295703	116.66	ug/l		9
38)	Trichloroethene (MS)	4.45	95	458355	90.09	ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	319257	111.48	ug/l		9
40)	Bromodichloromethane	4.68	83	440414	132.08	ug/l		9
41)	Methyl Cyclohexane	4.54	55	470767	76.20	ug/l		8
42)	Dibromomethane	4.62	174	324265	120.84	ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	545507	129.75	ug/l		9
44)	Toluene (CCC/MS)	5.05	91	1935644	97.34	ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	417540	132.49	ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	210750	117.60	ug/l		9
47)	Tetrachloroethene	5.31	166	827035	76.44	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	44222	80.98	ug/l	#	7
51)	Dibromochloromethane	5.42	129	390996	108.67	ug/l		9
52)	1,2-Dibromoethane	5.48	107	291010	104.31	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	1385172	95.34	ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	489204	112.67	ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	2092868	84.40	ug/l		9
56)	p,m-Xylene	5.79	106	1714294	162.56	ug/l		9
57)	o-Xylene	5.98	91	1580494	90.41	ug/l		9
58)	Styrene	5.99	104	1337756	97.82	ug/l		9
59)	Isopropylbenzene	6.15	105	2402114	83.02	ug/l		9
60)	Bromoform (SPCC)	6.09	173	260844	100.47	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.28	83	269439	102.47	ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	84719	79.44	ug/l		9
63)	n-Propylbenzene	6.34	91	2494881	81.71	ug/l		9
64)	Bromobenzene	6.31	156	672863	102.36	ug/l		8
65)	1,3,5-Trimethylbenzene	6.42	120	1105110	87.59	ug/l		9
66)	tert-Butylbenzene	6.58	91	1149321	85.10	ug/l		8
67)	1,2,4-Trimethylbenzene	6.60	120	1163043	87.25	ug/l		9
69)	sec-Butylbenzene	6.68	105	2671833	78.62	ug/l		9
70)	p-Isopropyltoluene	6.75	119	2217346	79.00	ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	1151355	89.31	ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	1227498	95.14	ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	1117041	99.62	ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	1840375	99.13	ug/l		9
75)	n-Butylbenzene	6.95	91	1803285	78.87	ug/l		9
76)	Hexachloroethane	7.10	201	546020	91.11	ug/l		8
77)	1,2-Dibromo-3-Chloropropan	7.34	157	67377	69.05	ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	807872	101.42	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

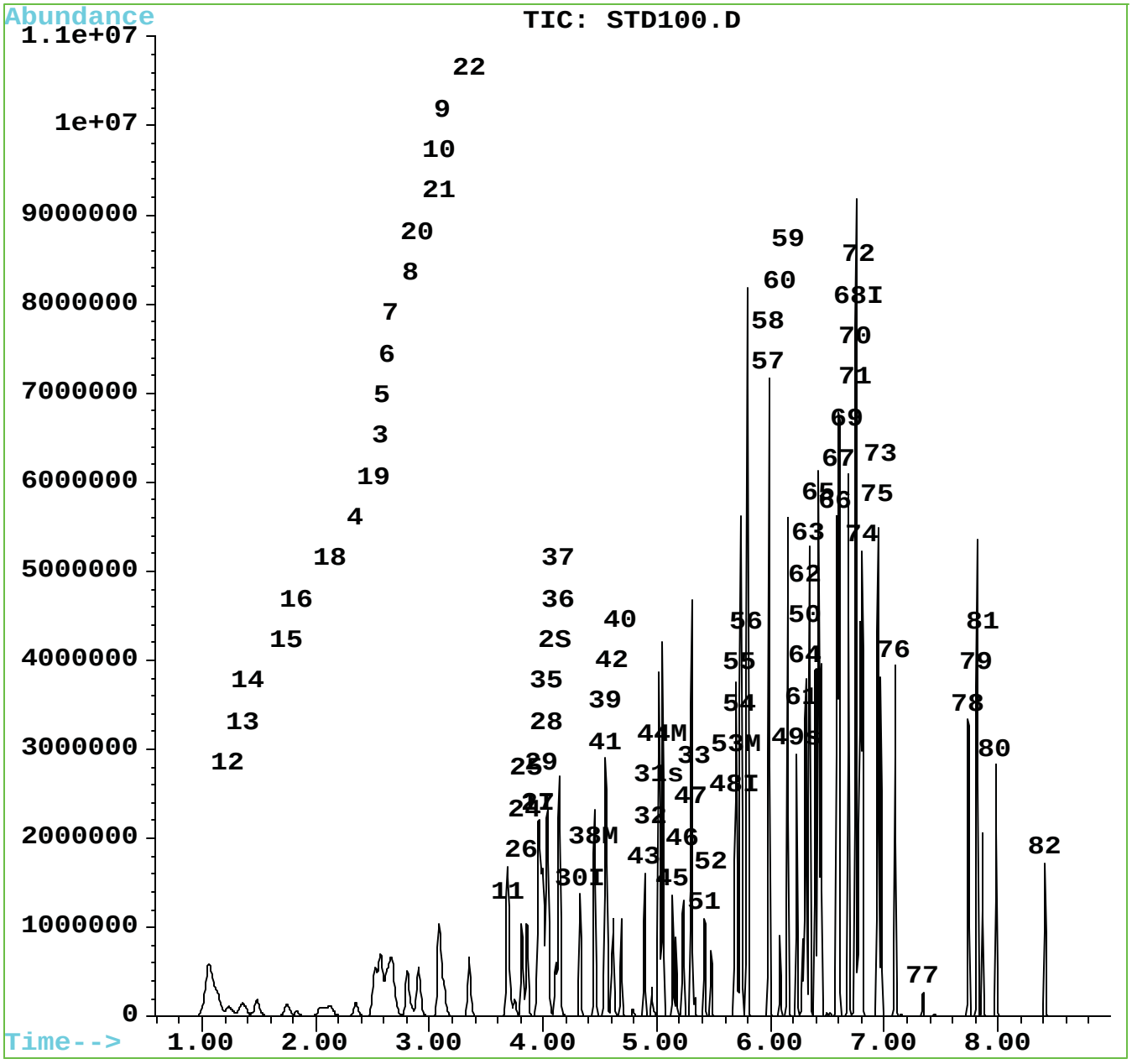
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	766294	80.25	ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	658965	101.43	ug/l	9
81)	Naphthalene	7.87	128	1027251	87.78	ug/l	9
82)	2-Methylnaphthalene	8.41	142	517086	97.58	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std100.d Vial: 1
Acq On : 4 Jun 12 6:33 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	688743	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	845341	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	308126	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	406115	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	525719	279.82	ug/l		559.6
31) TOLUENE-D8 (S)	5.02	98	3083752	180.96	ug/l		361.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	1383700	196.72	ug/l		393.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	910425	187.06	ug/l		9
4) Diethyl ether (*)	2.35	74	257886	347.15	ug/l		9
5) Acetone (*)	2.60	43	51628	128.38	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	1916805	233.87	ug/l		9
7) Carbon disulfide (*)	2.67	76	2662579	184.32	ug/l		9
8) Methyl Acetate	2.84	43	186727	148.37	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	1373395	279.62	ug/l		9
10) Acrylonitrile (*)	3.08	53	117707	138.93	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	78647	151.59	ug/l		8
12) Dichlorodifluoromethane	1.23	85	585957	159.91	ug/l		9
13) Chloromethane (SPCC)	1.37	50	640687	177.17	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	699592	159.53	ug/l		9
15) Bromomethane	1.75	94	327119	235.77	ug/l		9
16) Chloroethane	1.83	64	161920	197.00	ug/l		9
18) Trichlorofluoromethane	2.12	101	874370	250.32	ug/l	m	9
19) 1,1-Dichloroethene (CCC/MS	2.52	61	891921	196.95	ug/l		8
20) Methylene Chloride	2.90	84	837145	250.19	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	920836	203.52	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	1170821	229.39	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	955274	236.15	ug/l		8
24) Tetrahydrofuran	3.84	42	69742	123.96	ug/l		9
25) Chloroform (CCC)	3.85	83	1237261	246.16	ug/l		9
26) Bromochloromethane	3.81	130	626413	272.65	ug/l		9
27) 1,1,1-Trichloroethane	3.96	97	1270184	210.83	ug/l	#	1
28) 1,1-Dichloropropene	4.03	75	955460	176.31	ug/l		9
29) Cyclohexane	3.99	42	254634	152.62	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	108848	169.40	ug/l		9
33) 2-Hexanone (*)	5.34	58	93899	153.65	ug/l		9
35) Carbon Tetrachloride	4.04	117	1209587	173.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36)	Benzene (MS)	4.14	78	2994921	175.89	ug/l		9
37)	1,2-Dichloroethane	4.15	62	574923	225.94	ug/l		9
38)	Trichloroethene (MS)	4.45	95	882992	172.88	ug/l		9
39)	1,2-Dichloropropane (CCC)	4.56	63	577886	201.01	ug/l		9
40)	Bromodichloromethane	4.68	83	872875	260.76	ug/l		9
41)	Methyl Cyclohexane	4.54	55	847603	136.66	ug/l		8
42)	Dibromomethane	4.62	174	640027	237.58	ug/l		9
43)	cis-1,3-Dichloropropene	4.89	75	1061342	251.47	ug/l		9
44)	Toluene (CCC/MS)	5.05	91	3536540	177.16	ug/l		9
45)	trans-1,3-Dichloropropene	5.14	75	824716	260.67	ug/l		9
46)	1,1,2-Trichloroethane	5.23	83	413284	229.72	ug/l		9
47)	Tetrachloroethene	5.31	166	1468387	135.19	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.31	53	81968	151.19	ug/l	#	8
51)	Dibromochloromethane	5.42	129	790200	221.19	ug/l		9
52)	1,2-Dibromoethane	5.48	107	580990	209.74	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.70	112	2554280	177.08	ug/l		9
54)	1,1,1,2-Tetrachloroethane	5.73	131	905805	210.11	ug/l		9
55)	Ethylbenzene (CCC)	5.74	91	3596434	146.07	ug/l		9
56)	p,m-Xylene	5.80	106	2753302	262.96	ug/l		9
57)	o-Xylene	5.98	91	2667192	153.66	ug/l		9
58)	Styrene	5.99	104	2206761	162.53	ug/l		9
59)	Isopropylbenzene	6.15	105	4245829	147.80	ug/l		9
60)	Bromoform (SPCC)	6.09	173	546176	199.61	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.29	83	532985	204.16	ug/l		9
62)	1,2,3-Trichloropropane	6.31	110	162450	153.42	ug/l		8
63)	n-Propylbenzene	6.34	91	4330762	142.86	ug/l		9
64)	Bromobenzene	6.31	156	1243615	190.55	ug/l		8
65)	1,3,5-Trimethylbenzene	6.42	120	1910200	152.49	ug/l		9
66)	tert-Butylbenzene	6.58	91	2038129	152.00	ug/l		8
67)	1,2,4-Trimethylbenzene	6.60	120	1928173	145.69	ug/l		9
69)	sec-Butylbenzene	6.68	105	4544434	138.36	ug/l		9
70)	p-Isopropyltoluene	6.75	119	3576681	131.84	ug/l		9
71)	1,3-Dichlorobenzene	6.75	146	1874024	150.41	ug/l		9
72)	1,4-Dichlorobenzene	6.79	146	2207783	177.05	ug/l		9
73)	1,2-Dichlorobenzene	6.97	146	2067733	190.79	ug/l		9
74)	1,2,3-Trimethylbenzene	6.81	105	3281860	182.89	ug/l		9
75)	n-Butylbenzene	6.95	91	3105508	140.52	ug/l		9
76)	Hexachloroethane	7.10	201	1039766	173.73	ug/l		8
77)	1,2-Dibromo-3-Chloropropan	7.34	157	138631	136.48	ug/l		9
78)	1,2,4-Trichlorobenzene	7.74	182	1446629	187.89	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration

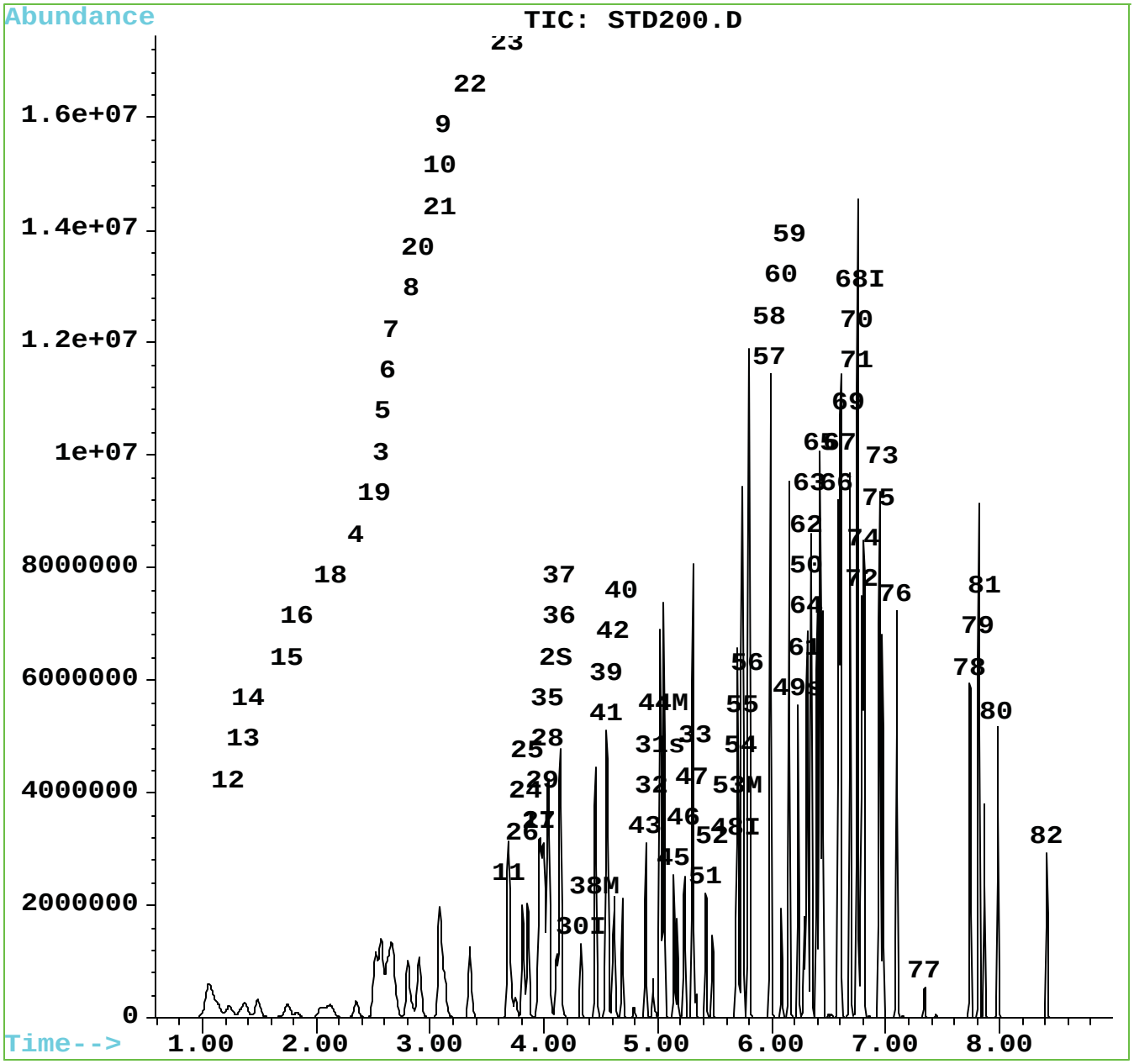
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79) Hexachlorobutadiene	7.82	225	1337439	144.91 ug/l	9
80) 1,2,3-Trichlorobenzene	7.98	180	1185710	188.82 ug/l	9
81) Naphthalene	7.87	128	1928293	170.48 ug/l	9
82) 2-Methylnaphthalene	8.41	142	927349	168.70 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\methods\fu120604.m\std200.d Vial: 1
Acq On : 4 Jun 12 6:53 pm Operator: wat
Sample : 1i0604 1c0604 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 4 19:13 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Jun 07 10:54:54 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120803a5.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc03a.d	08/03/12 11:52	1,1,2-Trichloro-1,2,2-trifluoroethane	0.298	0.05
		Diethyl ether	0.077	0.05
		Acetone	0.015	0.01
		Methyl iodide	0.593	0.05
		Carbon disulfide	0.761	0.05
		Methyl acetate	0.053	0.05
		tert-Methyl butyl ether	0.407	0.05
		Acrylonitrile	0.035	0.01
		2-Butanone	0.024	0.01
		Dichlorodifluoromethane	0.207	0.05
		Chloromethane	0.196	0.10
		Vinyl Chloride	0.241	0.05
		Bromomethane	0.101	0.05
		Chloroethane	0.053	0.05
		Trichlorofluoromethane	0.299	0.05
		1,1-Dichloroethene	0.269	0.05
		Methylene Chloride	0.242	0.05
		trans-1,2-Dichloroethene	0.287	0.05
		1,1-Dichloroethane	0.350	0.10
		cis-1,2-Dichloroethene	0.298	0.05
		Tetrahydrofuran	0.024	0.01
		Chloroform	0.382	0.05
		Bromochloromethane	0.190	0.05
		1,1,1-Trichloroethane	0.415	0.05
		Cyclohexane	0.090	0.05
		4-Methyl-2-pentanone	0.028	0.01
		2-Hexanone	0.023	0.01
		Carbon Tetrachloride	0.363	0.05
		Benzene	0.915	0.05
		1,2-Dichloroethane	0.170	0.05
		Trichloroethene	0.260	0.05
		1,2-Dichloropropane	0.174	0.05
		Bromodichloromethane	0.232	0.05
		Methyl cyclohexane	0.270	0.05
		Dibromomethane	0.183	0.05
		cis-1,3-Dichloropropene	0.294	0.05
		Toluene	1.128	0.05
		trans-1,3-Dichloropropene	0.228	0.05
		1,1,2-Trichloroethane	0.113	0.05
		Tetrachloroethene	0.478	0.05
		trans-1,4-Dichloro-2-butene	0.070	0.05
		Dibromochloromethane	0.596	0.05
		1,2-Dibromoethane	0.454	0.05
		Chlorobenzene	2.185	0.30
		1,1,1,2-Tetrachloroethane	0.765	0.05
		Ethylbenzene	3.464	0.05
		p,m-Xylene	1.485	0.05
		o-Xylene	2.619	0.05
		Styrene	2.185	0.05
		Isopropylbenzene	3.985	0.05
		Bromoform	0.378	0.10
		1,1,2,2-Tetrachloroethane	0.408	0.30
		1,2,3-Trichloropropane	0.138	0.05
		n-Propylbenzene	4.024	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120803a5.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	1.055	0.05
		1,3,5-Trimethylbenzene	1.798	0.05
		tert-Butylbenzene	1.868	0.05
		1,2,4-Trimethylbenzene	1.895	0.05
		sec-Butylbenzene	3.212	0.05
		p-Isopropyltoluene	2.763	0.05
		1,3-Dichlorobenzene	1.403	0.05
		1,4-Dichlorobenzene	1.415	0.05
		1,2-Dichlorobenzene	1.272	0.05
		1,2,3-Trimethylbenzene	2.079	0.05
		n-Butylbenzene	2.107	0.05
		Hexachloroethane	0.589	0.05
		1,2-Dibromo-3-Chloropropane	0.077	0.05
		1,2,4-Trichlorobenzene	0.966	0.05
		1,2,3-Trichlorobenzene	0.754	0.05
		Naphthalene	1.206	0.05
		2-Methylnaphthalene	0.542	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
spcc03a.d	08/03/12 11:52	1,1,2-Trichloro-1,2,2-trifluoroet	46.4/ 50.0		7.2/ 20.0
		Diethyl ether	41.9/ 50.0		16.3/ 20.0
		Acetone	40.3/ 50.0		19.5/ 20.0
		Methyl iodide	43.9/ 50.0		12.2/ 20.0
		Carbon disulfide	39.9/ 50.0	*	20.3/ 20.0
		Methyl acetate	39.2/ 50.0	*	21.6/ 20.0
		tert-Methyl butyl ether	43.6/ 50.0		12.8/ 20.0
		Acrylonitrile	43.1/ 50.0		13.8/ 20.0
		2-Butanone	42.2/ 50.0		15.6/ 20.0
		Dichlorodifluoromethane	51.0/ 50.0		2.0/ 20.0
		Chloromethane	42.8/ 50.0		14.4/ 20.0
		Vinyl Chloride	46.7/ 50.0		6.7/ 20.0
		Bromomethane	43.8/ 50.0		12.4/ 20.0
		Chloroethane	47.8/ 50.0		4.4/ 20.0
		Trichlorofluoromethane	49.6/ 50.0		0.7/ 20.0
		1,1-Dichloroethene	42.2/ 50.0		15.7/ 20.0
		Methylene Chloride	39.2/ 50.0	*	21.6/ 20.0
		trans-1,2-Dichloroethene	43.1/ 50.0		13.8/ 20.0
		1,1-Dichloroethane	42.0/ 50.0		16.1/ 20.0
		cis-1,2-Dichloroethene	42.8/ 50.0		14.3/ 20.0
		Tetrahydrofuran	42.1/ 50.0		15.8/ 20.0
		Chloroform	42.6/ 50.0		14.7/ 20.0
		Bromochloromethane	42.6/ 50.0		14.9/ 20.0
		1,1,1-Trichloroethane	47.4/ 50.0		5.1/ 20.0
		Cyclohexane	44.5/ 50.0		10.9/ 20.0
		4-Methyl-2-pentanone	43.6/ 50.0		12.8/ 20.0
		2-Hexanone	45.4/ 50.0		9.3/ 20.0
		Carbon Tetrachloride	51.1/ 50.0		2.2/ 20.0
		Benzene	45.8/ 50.0		8.4/ 20.0
		1,2-Dichloroethane	46.9/ 50.0		6.3/ 20.0
		Trichloroethene	47.7/ 50.0		4.6/ 20.0
		1,2-Dichloropropane	44.9/ 50.0		10.2/ 20.0
		Bromodichloromethane	47.8/ 50.0		4.5/ 20.0
		Methyl cyclohexane	47.9/ 50.0		4.2/ 20.0
		Dibromomethane	48.5/ 50.0		3.1/ 20.0
		cis-1,3-Dichloropropene	48.5/ 50.0		3.0/ 20.0
		Toluene	48.1/ 50.0		3.8/ 20.0
		trans-1,3-Dichloropropene	50.0/ 50.0		0.1/ 20.0
		1,1,2-Trichloroethane	45.0/ 50.0		10.0/ 20.0
		Tetrachloroethene	49.3/ 50.0		1.4/ 20.0
		trans-1,4-Dichloro-2-butene	50.4/ 50.0		0.7/ 20.0
		Dibromochloromethane	52.3/ 50.0		4.6/ 20.0
		1,2-Dibromoethane	49.4/ 50.0		1.2/ 20.0
		Chlorobenzene	47.2/ 50.0		5.6/ 20.0
		1,1,1,2-Tetrachloroethane	49.4/ 50.0		1.2/ 20.0
		Ethylbenzene	49.9/ 50.0		0.2/ 20.0
		p,m-Xylene	100.2/100.0		0.2/ 20.0
		o-Xylene	49.5/ 50.0		1.1/ 20.0
		Styrene	50.7/ 50.0		1.4/ 20.0
		Isopropylbenzene	51.0/ 50.0		2.1/ 20.0
		Bromoform	47.6/ 50.0		4.9/ 20.0
		1,1,2,2-Tetrachloroethane	47.8/ 50.0		4.4/ 20.0
		1,2,3-Trichloropropane	48.9/ 50.0		2.3/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.05.Urborg
Initial Calibration Date: (see Form 6)

Analytical Batch: 120803a5.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		n-Propylbenzene	50.1/ 50.0	0.2/ 20.0
		Bromobenzene	47.9/ 50.0	4.2/ 20.0
		1,3,5-Trimethylbenzene	49.9/ 50.0	0.2/ 20.0
		tert-Butylbenzene	50.7/ 50.0	1.4/ 20.0
		1,2,4-Trimethylbenzene	49.8/ 50.0	0.4/ 20.0
		sec-Butylbenzene	50.7/ 50.0	1.4/ 20.0
		p-Isopropyltoluene	51.6/ 50.0	3.3/ 20.0
		1,3-Dichlorobenzene	48.0/ 50.0	4.0/ 20.0
		1,4-Dichlorobenzene	47.2/ 50.0	5.6/ 20.0
		1,2-Dichlorobenzene	46.8/ 50.0	6.4/ 20.0
		1,2,3-Trimethylbenzene	47.0/ 50.0	6.0/ 20.0
		n-Butylbenzene	49.7/ 50.0	0.6/ 20.0
		Hexachloroethane	46.5/ 50.0	7.1/ 20.0
		1,2-Dibromo-3-Chloropropane	51.2/ 50.0	2.5/ 20.0
		1,2,4-Trichlorobenzene	52.1/ 50.0	4.1/ 20.0
		1,2,3-Trichlorobenzene	49.7/ 50.0	0.5/ 20.0
		Naphthalene	53.1/ 50.0	6.3/ 20.0
		2-Methylnaphthalene	47.2/ 50.0	5.7/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\spcc03a.d Vial: 2
Acq On : 3 Aug 12 11:52 am Operator: lbr
Sample : spcc/ccc 1s0803 1v0803 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	504682	50.00 ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	563843	50.00 ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	200643	50.00 ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	273737	50.00 ug/l	0.0
System Monitoring Compounds					%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	88340	46.29 ug/l	92.5
31) TOLUENE-D8 (S)	5.02	98	573285	50.32 ug/l	100.6
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	241533	50.62 ug/l	101.2
Target Compounds					Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.56	101	150486	46.38 ug/l	9
4) Diethyl ether (*)	2.34	74	39042	41.87 ug/l	9
5) Acetone (*)	2.59	43	7564	40.26 ug/l #	9
6) Methyl iodide (iodomethane	2.62	142	299057	43.89 ug/l	9
7) Carbon disulfide (*)	2.66	76	384298	39.86 ug/l	9
8) Methyl Acetate	2.84	43	26703	39.19 ug/l	9
9) tert-Methyl butyl ether (M	3.12	73	205358	43.62 ug/l	9
10) Acrylonitrile (*)	3.07	53	17825	43.08 ug/l	9
11) 2-Butanone (MEK) (*)	3.70	43	12294	42.18 ug/l	9
12) Dichlorodifluoromethane	1.22	85	104230	50.98 ug/l	9
13) Chloromethane (SPCC)	1.34	50	99126	42.82 ug/l	9
14) Vinyl Chloride (CCC)	1.46	62	121547	46.67 ug/l	9
15) Bromomethane	1.73	94	50645	43.78 ug/l	10
16) Chloroethane	1.82	64	26538	47.79 ug/l	9
18) Trichlorofluoromethane	2.03	101	150655	49.64 ug/l	9
19) 1,1-Dichloroethene (CCC/MS	2.51	61	135967	42.17 ug/l	8
20) Methylene Chloride	2.89	84	122217	39.22 ug/l	9
21) trans-1,2-Dichloroethene	3.07	61	144764	43.12 ug/l	8
22) 1,1-Dichloroethane (SPCC)	3.34	63	176366	41.95 ug/l	9
23) cis-1,2-Dichloroethene	3.68	96	150439	42.83 ug/l	8
24) Tetrahydrofuran	3.84	42	11720	42.09 ug/l	9
25) Chloroform (CCC)	3.85	83	192668	42.63 ug/l	9
26) Bromochloromethane	3.81	130	95684	42.57 ug/l	9
27) 1,1,1-Trichloroethane	3.95	97	209882	47.43 ug/l #	4
28) 1,1-Dichloropropene	4.03	75	170744	46.06 ug/l	9
29) Cyclohexane	3.98	42	45530	44.54 ug/l #	7
32) 4-Methyl-2-pentanone (MIBK	4.96	58	15670	43.58 ug/l	9
33) 2-Hexanone (*)	5.34	58	12715	45.37 ug/l	9
35) Carbon Tetrachloride	4.04	117	204358	51.11 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\spcc03a.d Vial: 2
Acq On : 3 Aug 12 11:52 am Operator: lbr
Sample : spcc/ccc 1s0803 1v0803 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.13	78	516375	45.82 ug/l	9
37) 1,2-Dichloroethane	4.15	62	95631	46.85 ug/l	9
38) Trichloroethene (MS)	4.45	95	146615	47.68 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	98323	44.89 ug/l	9
40) Bromodichloromethane	4.68	83	130834	47.76 ug/l	9
41) Methyl Cyclohexane	4.54	55	152452	47.89 ug/l	8
42) Dibromomethane	4.62	174	103138	48.46 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	165653	48.49 ug/l	9
44) Toluene (CCC/MS)	5.05	91	635928	48.09 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	128556	50.03 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	63675	45.01 ug/l	9
47) Tetrachloroethene	5.31	166	269378	49.29 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	13965	50.37 ug/l #	8
51) Dibromochloromethane	5.42	129	119737	52.31 ug/l	9
52) 1,2-Dibromoethane	5.48	107	90955	49.41 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.70	112	438527	47.20 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	153417	49.41 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	694893	49.88 ug/l	9
56) p,m-Xylene	5.79	106	596034	100.15 ug/l	9
57) o-Xylene	5.98	91	525456	49.47 ug/l	9
58) Styrene	5.99	104	438353	50.71 ug/l	9
59) Isopropylbenzene	6.15	105	799639	51.03 ug/l	9
60) Bromoform (SPCC)	6.09	173	75837	47.57 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	81980	47.80 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	27632	48.86 ug/l	9
63) n-Propylbenzene	6.34	91	807357	50.10 ug/l	9
64) Bromobenzene	6.31	156	211677	47.89 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	360784	49.91 ug/l	9
66) tert-Butylbenzene	6.58	91	374829	50.69 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.60	120	380076	49.78 ug/l	9
69) sec-Butylbenzene	6.68	105	879232	50.68 ug/l	9
70) p-Isopropyltoluene	6.75	119	756310	51.63 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	384095	48.01 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	387546	47.18 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	348066	46.79 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	569172	46.99 ug/l	9
75) n-Butylbenzene	6.95	91	576858	49.70 ug/l	9
76) Hexachloroethane	7.10	201	161286	46.47 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	21091	51.24 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	264416	52.06 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120803a5\spcc03a.d Vial: 2
Acq On : 3 Aug 12 11:52 am Operator: lbr
Sample : spcc/ccc 1s0803 1v0803 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

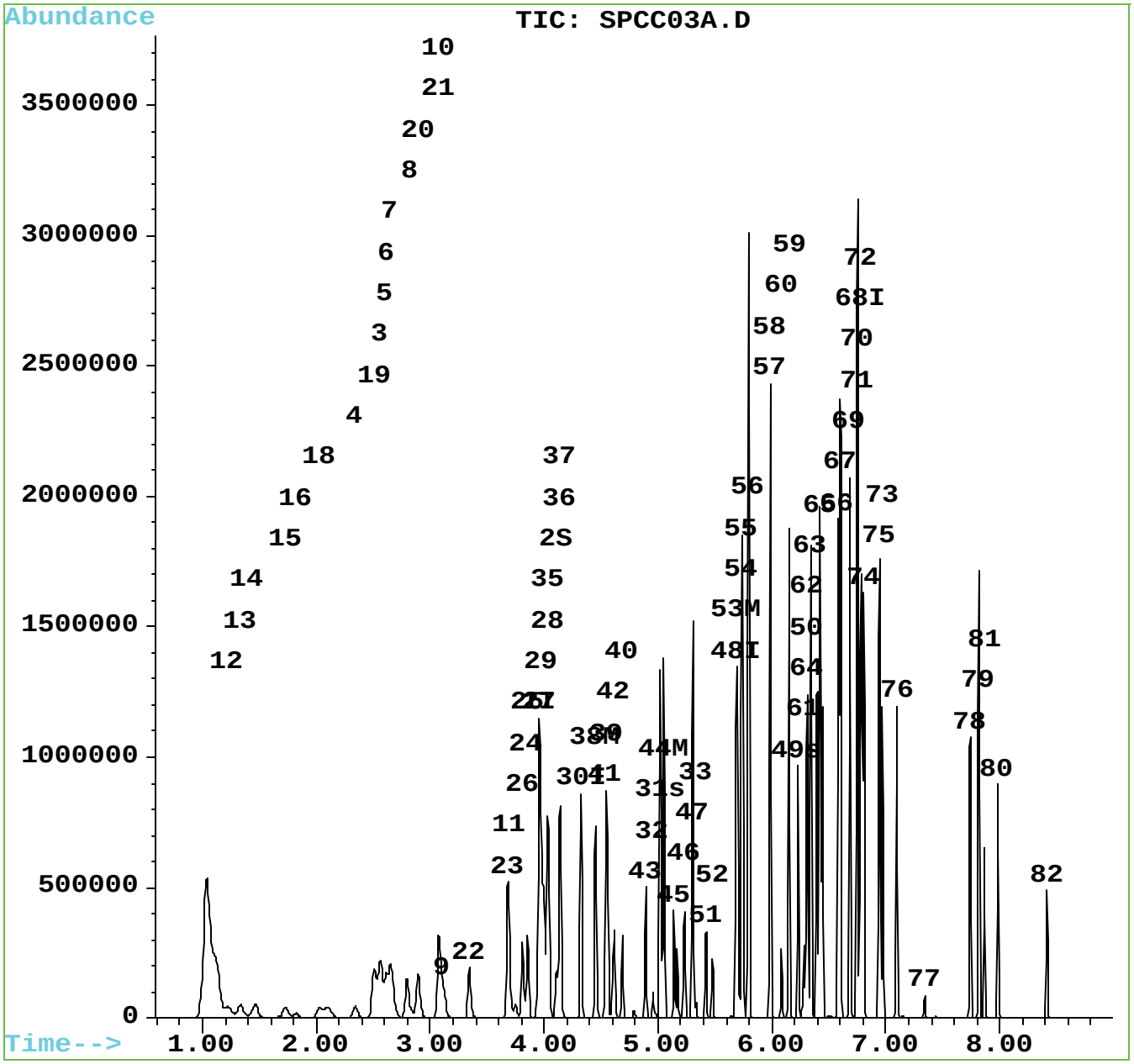
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.82	225	245387	50.83 ug/l	9
80)	1,2,3-Trichlorobenzene	7.98	180	206485	49.73 ug/l	9
81)	Naphthalene	7.87	128	330213	53.14 ug/l	9
82)	2-Methylnaphthalene	8.41	142	148451	47.16 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\spcc03a.d Vial: 2
Acq On : 3 Aug 12 11:52 am Operator: lbr
Sample : spcc/ccc 1s0803 1v0803 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\bfb03a.d Vial: 1
Acq On : 3 Aug 12 11:21 am Operator: lbr
Sample : 50ng/bfb 1s0802 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

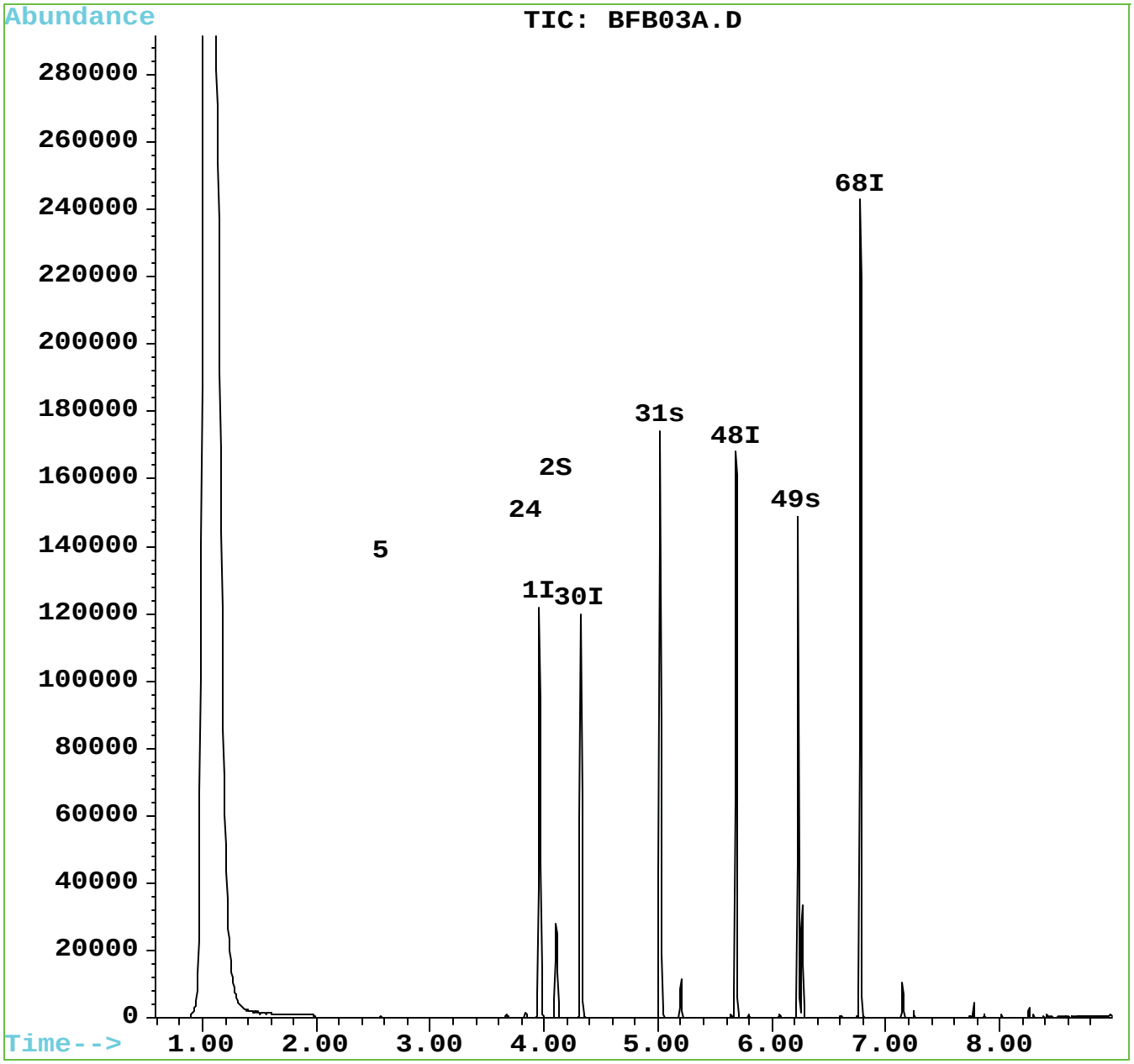
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	75774	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	82824	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	29308	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	50723	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	12556	43.83	ug/l	87.6
31) TOLUENE-D8 (S)	5.02	98	74469	44.50	ug/l	89.0
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	38414	55.11	ug/l	110.2
Target Compounds						Qvalu
5) Acetone (*)	2.56	43	671	23.79	ug/l #	6
24) Tetrahydrofuran	3.84	42	845	20.21	ug/l #	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\bfb03a.d Vial: 1
Acq On : 3 Aug 12 11:21 am Operator: lbr
Sample : 50ng/bfb 1s0802 Inst : Urborg
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

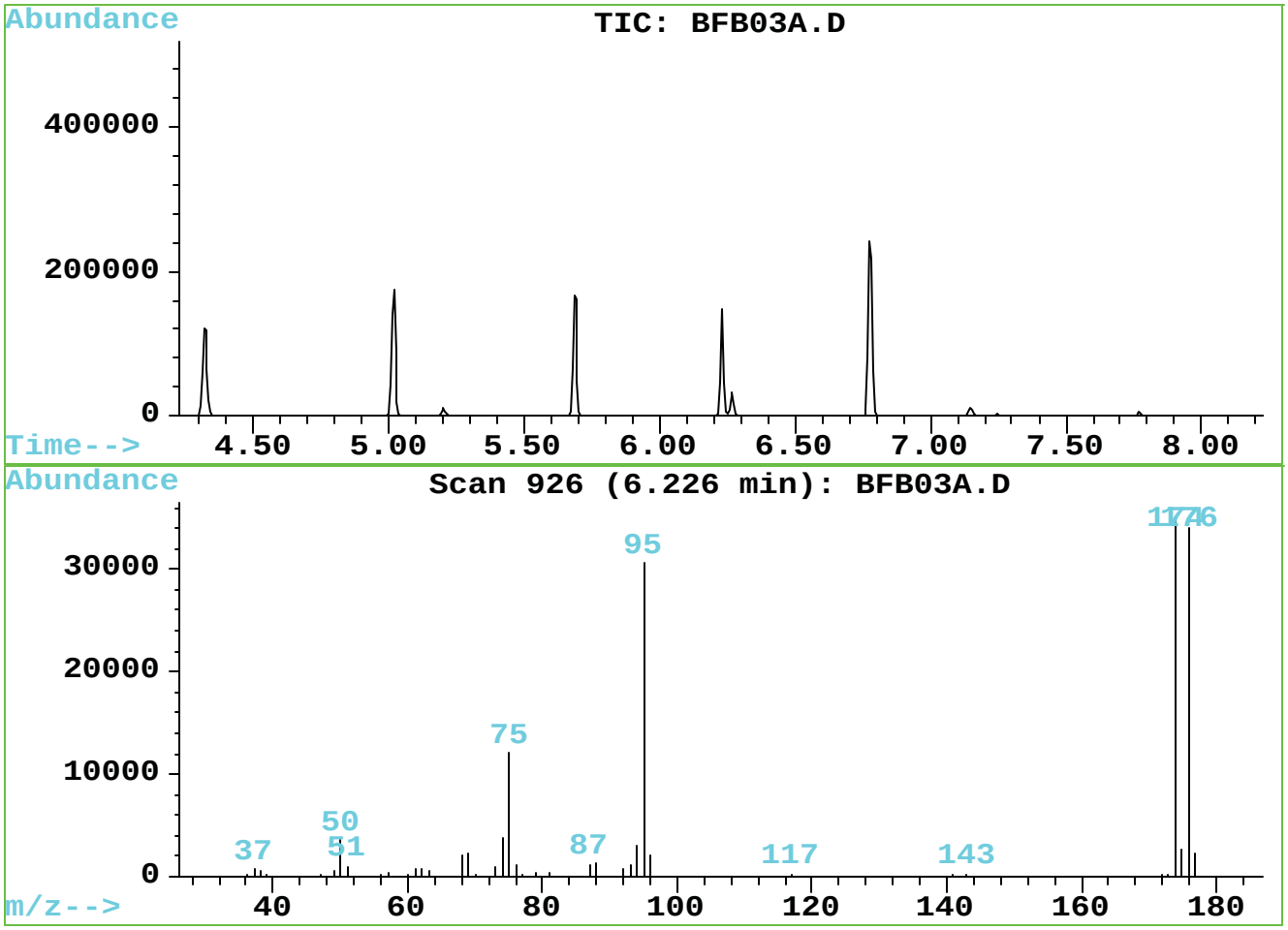
Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\URBORG.FFT\DATA\120803A5\BFB03A.D Vial: 1
Acq On : 3 Aug 12 11:21 am Operator: lbr
Sample : 50ng/bfb 1s0802 Inst : Urborg
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260



Peak Apex is scan: 926

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	11.7	3568	PASS
75	95	30	66	39.4	12064	PASS
95	95	100	100	100.0	30592	PASS
96	95	5	9	6.9	2110	PASS
173	174	0	2	0.6	211	PASS
174	95	50	120	113.6	34752	PASS
175	174	4	9	7.6	2624	PASS
176	174	93	101	98.0	34056	PASS
177	176	5	9	6.7	2283	PASS

BFB03A.D FU120604.M Mon Aug 20 14:41:21 2012

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\blks03a.d Vial: 6
Acq On : 3 Aug 12 2:22 pm Operator: lbr
Sample : 100ul blank 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

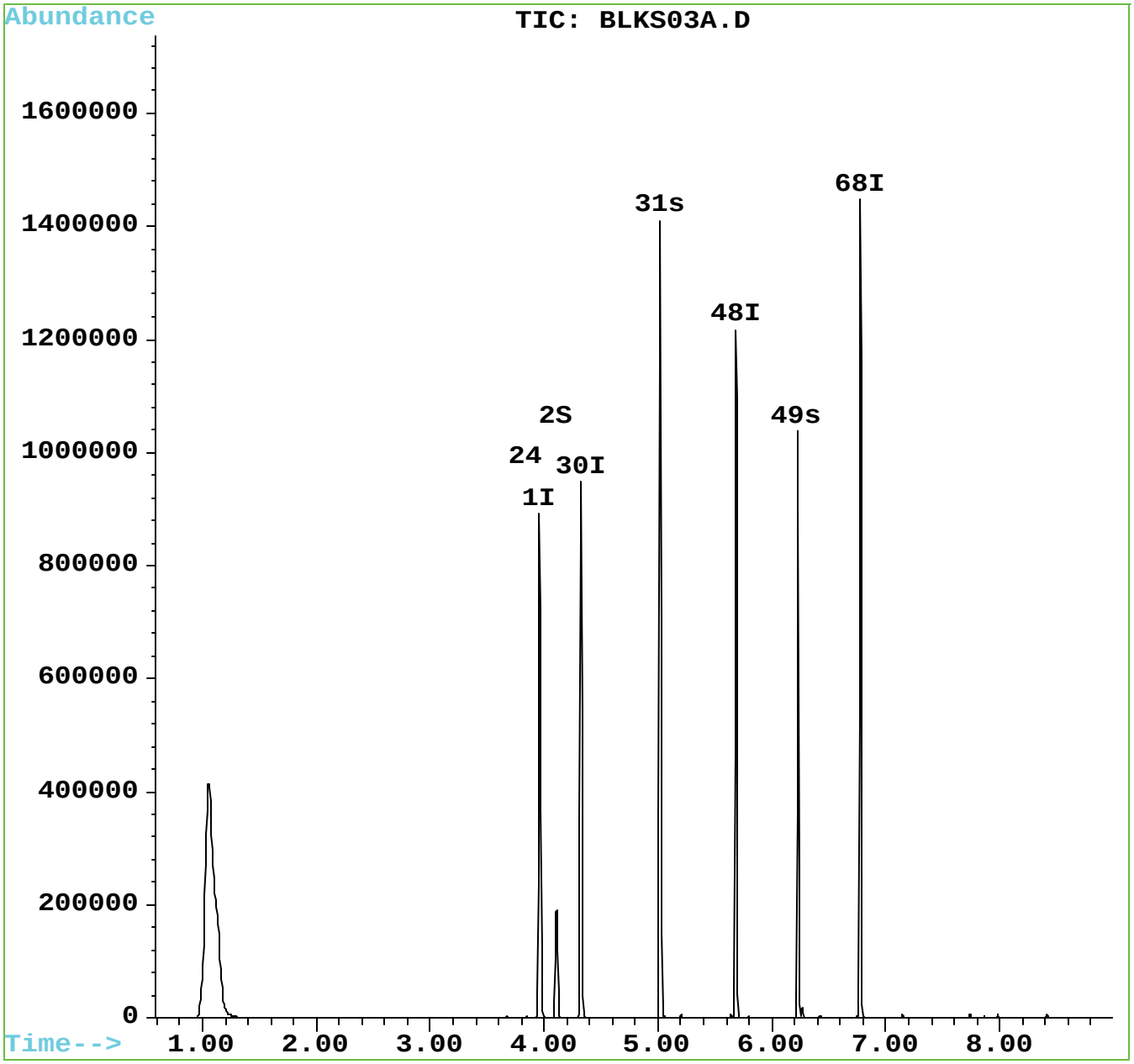
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	542117	50.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	603651	50.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.68	82	209663	50.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	284228	50.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.10	65	89378	43.60	ug/l	87.2
31) TOLUENE-D8 (S)	5.02	98	603220	49.46	ug/l	98.9
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	246463	49.43	ug/l	98.8
Target Compounds						Qvalu
24) Tetrahydrofuran	3.84	42	952	3.18	ug/l	#

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\blks03a.d Vial: 6
Acq On : 3 Aug 12 2:22 pm Operator: lbr
Sample : 100ul blank 1s0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\lcss03a.d Vial: 3
Acq On : 3 Aug 12 12:41 pm Operator: lbr
Sample : blank ms 1s0803 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:45 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	577942	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	646100	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	229901	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.78	152	305759	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	101804	46.59	ug/l		93.1
31) TOLUENE-D8 (S)	5.02	98	655607	50.22	ug/l		100.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	275059	50.31	ug/l		100.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	183221	49.31	ug/l		9
4) Diethyl ether (*)	2.34	74	45248	42.38	ug/l		9
5) Acetone (*)	2.60	43	8838	41.08	ug/l	#	8
6) Methyl iodide (iodomethane	2.62	142	352420	45.16	ug/l		9
7) Carbon disulfide (*)	2.67	76	465378	42.15	ug/l		9
8) Methyl Acetate	2.84	43	30593	39.21	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	242522	44.98	ug/l		9
10) Acrylonitrile (*)	3.08	53	19876	41.95	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	14530	43.53	ug/l		9
12) Dichlorodifluoromethane	1.23	85	120476	51.44	ug/l		9
13) Chloromethane (SPCC)	1.34	50	122568	46.24	ug/l		9
14) Vinyl Chloride (CCC)	1.47	62	136652	45.82	ug/l		9
15) Bromomethane	1.73	94	61137	46.15	ug/l		10
16) Chloroethane	1.82	64	31511	49.55	ug/l		9
18) Trichlorofluoromethane	2.12	101	185068	53.25	ug/l	m	3
19) 1,1-Dichloroethene (CCC/MS	2.51	61	169509	45.91	ug/l		8
20) Methylene Chloride	2.90	84	144791	40.57	ug/l		9
21) trans-1,2-Dichloroethene	3.07	61	168064	43.71	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.34	63	204995	42.58	ug/l		10
23) cis-1,2-Dichloroethene	3.68	96	174258	43.32	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11928	37.41	ug/l	#	
25) Chloroform (CCC)	3.85	83	227320	43.92	ug/l		9
26) Bromochloromethane	3.81	130	112340	43.64	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	244047	48.16	ug/l	#	4
28) 1,1-Dichloropropene	4.13	75	9591	2.26	ug/l	#	
29) Cyclohexane	3.98	42	45836	39.16	ug/l	#	2
32) 4-Methyl-2-pentanone (MIBK	4.96	58	18396	44.65	ug/l		9
33) 2-Hexanone (*)	5.34	58	15727	48.97	ug/l		9
35) Carbon Tetrachloride	4.04	117	240391	52.47	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\lcss03a.d Vial: 3
Acq On : 3 Aug 12 12:41 pm Operator: lbr
Sample : blank ms 1s0803 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:45 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.13	78	591972	45.84	ug/l		9
37) 1,2-Dichloroethane	4.15	62	109648	46.88	ug/l		9
38) Trichloroethene (MS)	4.45	95	171950	48.80	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.56	63	112786	44.93	ug/l		9
40) Bromodichloromethane	4.68	83	154220	49.13	ug/l		9
41) Methyl Cyclohexane	4.54	55	182102	49.92	ug/l		8
42) Dibromomethane	4.62	174	120621	49.45	ug/l		9
43) cis-1,3-Dichloropropene	4.89	75	191249	48.85	ug/l		9
44) Toluene (CCC/MS)	5.05	91	727634	48.02	ug/l		9
45) trans-1,3-Dichloropropene	5.14	75	149606	50.81	ug/l		9
46) 1,1,2-Trichloroethane	5.23	83	75192	46.39	ug/l		9
47) Tetrachloroethene	5.31	166	307935	49.18	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.31	53	15880	49.99	ug/l	#	8
51) Dibromochloromethane	5.42	129	138991	52.99	ug/l		9
52) 1,2-Dibromoethane	5.48	107	104120	49.37	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.70	112	511240	48.02	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.73	131	179837	50.55	ug/l		9
55) Ethylbenzene (CCC)	5.74	91	791856	49.61	ug/l		9
56) p,m-Xylene	5.79	106	681920	100.00	ug/l		9
57) o-Xylene	5.98	91	612425	50.32	ug/l		9
58) Styrene	5.99	104	488010	49.27	ug/l		9
59) Isopropylbenzene	6.15	105	915478	50.98	ug/l		9
60) Bromoform (SPCC)	6.09	173	92255	50.40	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.28	83	95779	48.74	ug/l		9
62) 1,2,3-Trichloropropane	6.31	110	32186	49.67	ug/l	#	8
63) n-Propylbenzene	6.34	91	953647	51.65	ug/l		9
64) Bromobenzene	6.31	156	250223	49.41	ug/l		8
65) 1,3,5-Trimethylbenzene	6.42	120	417211	50.37	ug/l		9
66) tert-Butylbenzene	6.58	91	436670	51.54	ug/l		9
67) 1,2,4-Trimethylbenzene	6.60	120	450133	51.45	ug/l		9
69) sec-Butylbenzene	6.68	105	1002842	51.75	ug/l		9
70) p-Isopropyltoluene	6.75	119	878323	53.68	ug/l		9
71) 1,3-Dichlorobenzene	6.75	146	447956	50.13	ug/l		9
72) 1,4-Dichlorobenzene	6.79	146	452371	49.31	ug/l		9
73) 1,2-Dichlorobenzene	6.97	146	412529	49.65	ug/l		9
74) 1,2,3-Trimethylbenzene	6.80	105	666088	49.23	ug/l		9
75) n-Butylbenzene	6.95	91	676934	52.22	ug/l		9
76) Hexachloroethane	7.10	201	188270	48.56	ug/l		8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	24104	52.38	ug/l		9
78) 1,2,4-Trichlorobenzene	7.74	182	304308	53.64	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\urborg.fft\data\120803a5\lcss03a.d Vial: 3
Acq On : 3 Aug 12 12:41 pm Operator: lbr
Sample : blank ms 1s0803 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:45 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

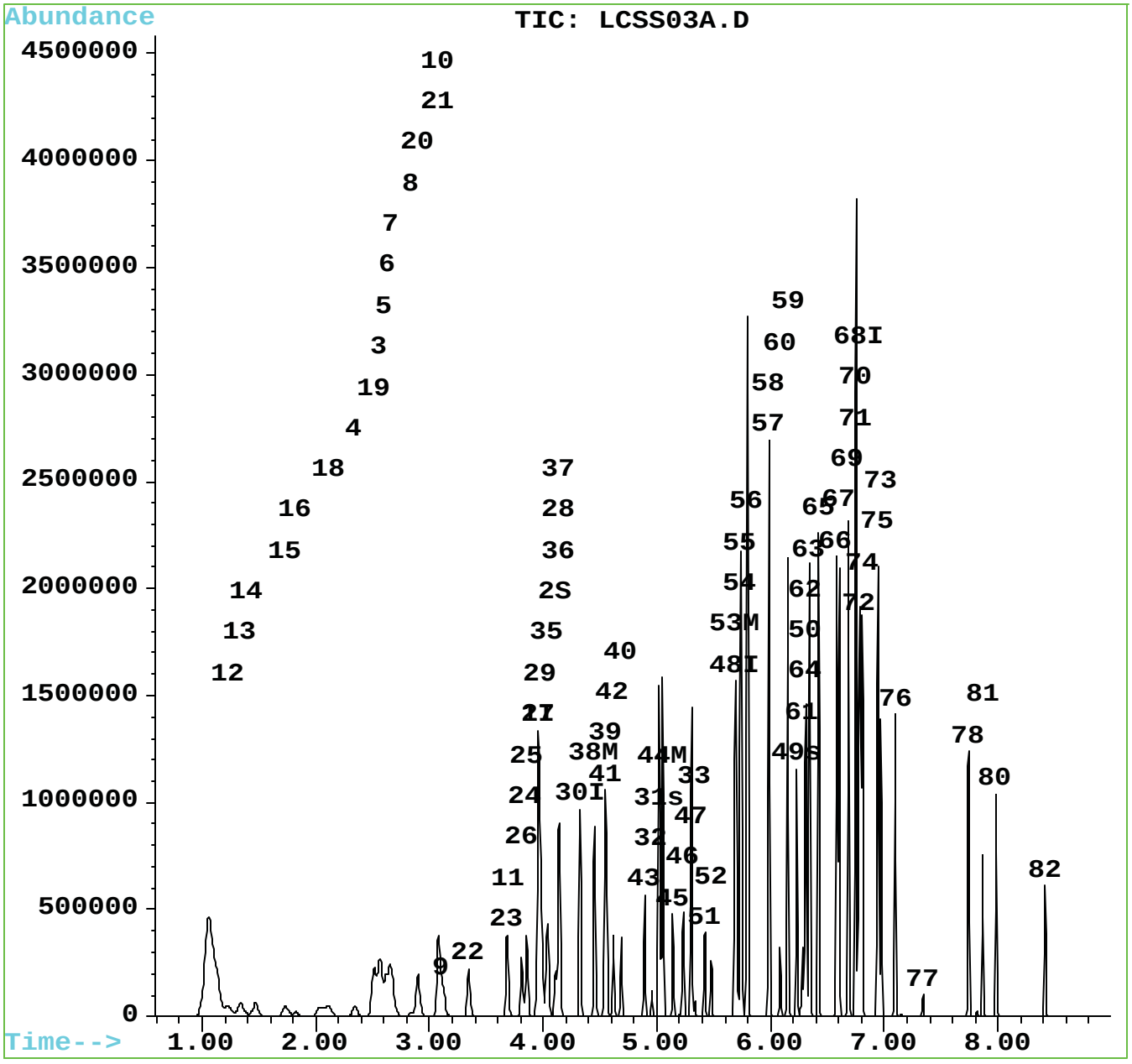
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	247667	53.41 ug/l	9
81)	Naphthalene	7.87	128	382070	55.04 ug/l	9
82)	2-Methylnaphthalene	8.41	142	185943	52.89 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\lcss03a.d Vial: 3
Acq On : 3 Aug 12 12:41 pm Operator: lbr
Sample : blank ms 1s0803 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:45 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\lcss03b.d Vial: 4
Acq On : 3 Aug 12 1:01 pm Operator: lbr
Sample : blank msd 1s0803 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.96	168	519610	50.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.32	114	581521	50.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.69	82	208249	50.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.77	152	281200	50.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.11	65	92205	46.93	ug/l		93.8
31) TOLUENE-D8 (S)	5.02	98	590098	50.22	ug/l		100.4
49) 4-BROMOFLUOROBENZENE (S)	6.23	174	252250	50.93	ug/l		101.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.57	101	177963	53.27	ug/l		9
4) Diethyl ether (*)	2.35	74	44177	46.02	ug/l		9
5) Acetone (*)	2.60	43	9221	47.67	ug/l	#	8
6) Methyl iodide (iodomethane	2.63	142	341884	48.73	ug/l		9
7) Carbon disulfide (*)	2.67	76	458138	46.15	ug/l		9
8) Methyl Acetate	2.84	43	29772	42.44	ug/l		9
9) tert-Methyl butyl ether (M	3.12	73	238898	49.29	ug/l		9
10) Acrylonitrile (*)	3.08	53	20124	47.24	ug/l		9
11) 2-Butanone (MEK) (*)	3.70	43	14717	49.04	ug/l		9
12) Dichlorodifluoromethane	1.23	85	125555	59.47	ug/l		9
13) Chloromethane (SPCC)	1.34	50	118691	49.80	ug/l		9
14) Vinyl Chloride (CCC)	1.48	62	134875	50.30	ug/l		9
15) Bromomethane	1.74	94	59598	50.03	ug/l		9
16) Chloroethane	1.83	64	30762	53.81	ug/l		9
18) Trichlorofluoromethane	2.11	101	182841	58.51	ug/l	#	5
19) 1,1-Dichloroethene (CCC/MS	2.51	61	156404	47.12	ug/l		8
20) Methylene Chloride	2.90	84	140752	43.87	ug/l		9
21) trans-1,2-Dichloroethene	3.08	61	165209	47.80	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.35	63	200776	46.39	ug/l		9
23) cis-1,2-Dichloroethene	3.68	96	171601	47.45	ug/l	#	8
24) Tetrahydrofuran	3.84	42	11490	40.08	ug/l	#	
25) Chloroform (CCC)	3.85	83	220654	47.42	ug/l		9
26) Bromochloromethane	3.81	130	109723	47.41	ug/l		9
27) 1,1,1-Trichloroethane	3.95	97	239231	52.51	ug/l	#	4
28) 1,1-Dichloropropene	4.14	75	9271	2.43	ug/l	#	
29) Cyclohexane	3.98	42	44150	41.95	ug/l	#	2
32) 4-Methyl-2-pentanone (MIBK	4.96	58	18299	49.35	ug/l		8
33) 2-Hexanone (*)	5.34	58	15644	54.12	ug/l		9
35) Carbon Tetrachloride	4.04	117	236267	57.30	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\lcss03b.d Vial: 4
Acq On : 3 Aug 12 1:01 pm Operator: lbr
Sample : blank msd 1s0803 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
36) Benzene (MS)	4.14	78	575612	49.52 ug/l	9
37) 1,2-Dichloroethane	4.15	62	107431	51.03 ug/l	9
38) Trichloroethene (MS)	4.45	95	164817	51.97 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.56	63	109138	48.31 ug/l	9
40) Bromodichloromethane	4.68	83	149061	52.76 ug/l	9
41) Methyl Cyclohexane	4.54	55	177201	53.97 ug/l	8
42) Dibromomethane	4.62	174	116309	52.98 ug/l	9
43) cis-1,3-Dichloropropene	4.89	75	186376	52.90 ug/l	9
44) Toluene (CCC/MS)	5.05	91	701157	51.41 ug/l	9
45) trans-1,3-Dichloropropene	5.14	75	147952	55.83 ug/l	9
46) 1,1,2-Trichloroethane	5.23	83	73159	50.15 ug/l	9
47) Tetrachloroethene	5.31	166	298335	52.93 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.31	53	15729	54.66 ug/l #	8
51) Dibromochloromethane	5.42	129	136760	57.56 ug/l	9
52) 1,2-Dibromoethane	5.48	107	102619	53.71 ug/l	10
53) Chlorobenzene (SPCC/MS)	5.70	112	496969	51.53 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.73	131	176389	54.74 ug/l	9
55) Ethylbenzene (CCC)	5.74	91	776418	53.70 ug/l	9
56) p,m-Xylene	5.79	106	664563	107.59 ug/l	9
57) o-Xylene	5.98	91	592237	53.72 ug/l	9
58) Styrene	5.99	104	477266	53.20 ug/l	9
59) Isopropylbenzene	6.15	105	893922	54.96 ug/l	9
60) Bromoform (SPCC)	6.09	173	89605	53.89 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.28	83	93841	52.72 ug/l	9
62) 1,2,3-Trichloropropane	6.31	110	31237	53.22 ug/l	9
63) n-Propylbenzene	6.34	91	925740	55.35 ug/l	9
64) Bromobenzene	6.31	156	242360	52.83 ug/l	8
65) 1,3,5-Trimethylbenzene	6.42	120	408772	54.48 ug/l	9
66) tert-Butylbenzene	6.58	91	423238	55.15 ug/l	9
67) 1,2,4-Trimethylbenzene	6.60	120	441513	55.71 ug/l	9
69) sec-Butylbenzene	6.68	105	983589	55.19 ug/l	9
70) p-Isopropyltoluene	6.75	119	865675	57.53 ug/l	9
71) 1,3-Dichlorobenzene	6.75	146	437905	53.28 ug/l	9
72) 1,4-Dichlorobenzene	6.79	146	439723	52.11 ug/l	9
73) 1,2-Dichlorobenzene	6.97	146	404180	52.89 ug/l	9
74) 1,2,3-Trimethylbenzene	6.81	105	653415	52.51 ug/l	9
75) n-Butylbenzene	6.95	91	660087	55.36 ug/l	9
76) Hexachloroethane	7.10	201	184521	51.74 ug/l	8
77) 1,2-Dibromo-3-Chloropropan	7.34	157	24140	56.81 ug/l	9
78) 1,2,4-Trichlorobenzene	7.74	182	300988	57.69 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\lcss03b.d Vial: 4
Acq On : 3 Aug 12 1:01 pm Operator: lbr
Sample : blank msd 1s0803 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration

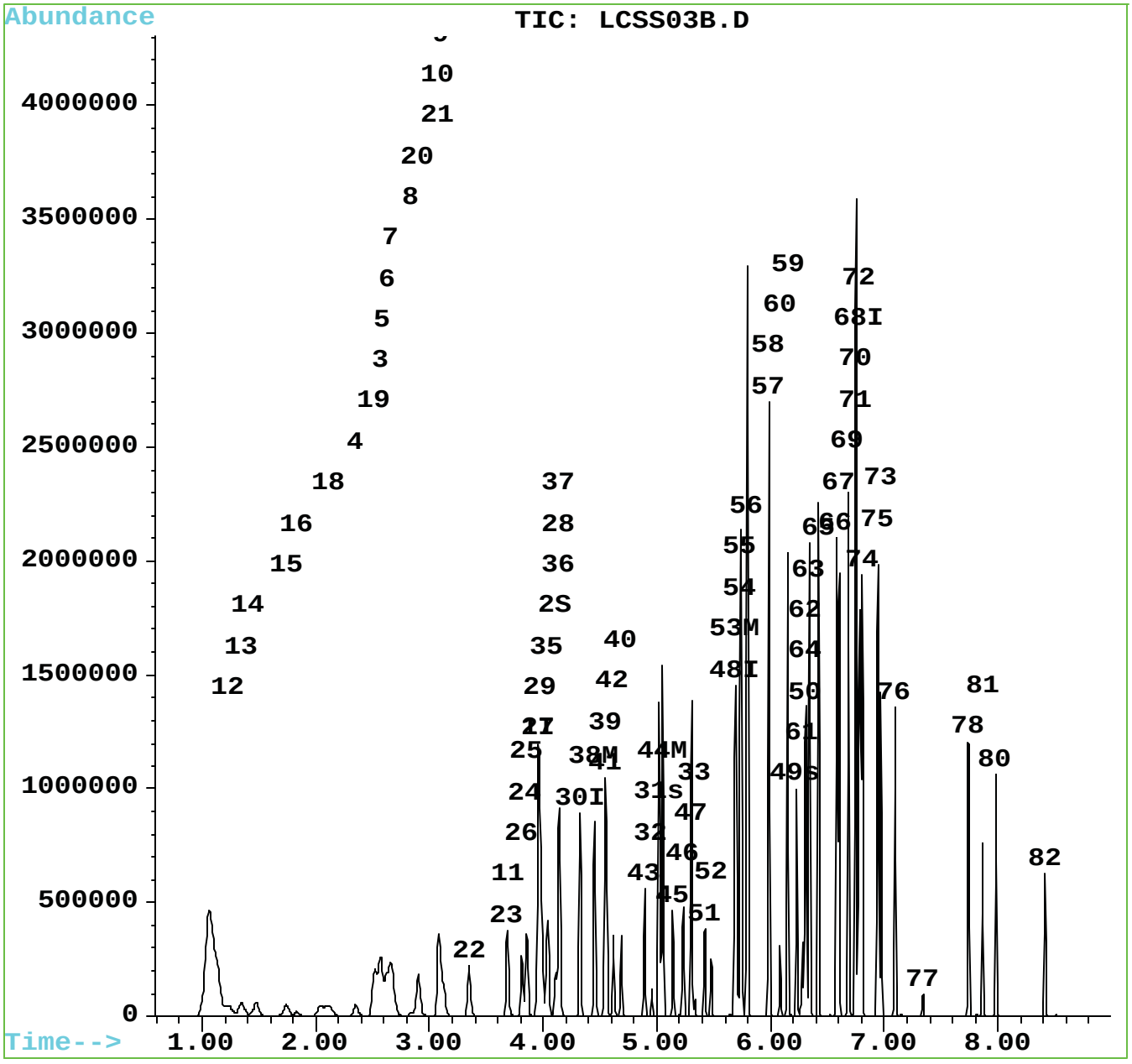
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
80)	1,2,3-Trichlorobenzene	7.98	180	246271	57.74 ug/l	9
81)	Naphthalene	7.87	128	383971	60.15 ug/l	9
82)	2-Methylnaphthalene	8.41	142	191790	59.31 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\urborg.fft\data\120803a5\lcss03b.d Vial: 4
Acq On : 3 Aug 12 1:01 pm Operator: lbr
Sample : blank msd 1s0803 1m0803 Inst : Urborg
Misc : s/50 id:vf120803s1 Multiplr: 1.00
Quant Time: Aug 6 10:11 19112

Method : F:\GCMS.DAT\URBORG.FFT\METHODS\FU120604.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Fri Jun 29 11:20:51 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

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Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d03a.d	08/03/12 10:54	dftpp std (120801) [none]	WW	IP	**1**	
spnn03a.d	08/03/12 11:16	pna std 50 (120314) [none]	WW	CV	**1**	
blks03a.d	08/03/12 11:45	pna-s 30g/1ml df:1 sp120801s02	SO	Bl	**1**	
lcss03a.d	08/03/12 12:07	pna-s 30g/1ml df:1 sp120801s02	SO	MS	**1**	
5336007.d	08/03/12 12:30	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336008.d	08/03/12 12:52	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336009.d	08/03/12 13:15	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336010.d	08/03/12 13:38	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336011.d	08/03/12 14:00	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336013.d	08/03/12 14:23	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340103.d	08/03/12 14:45	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340104.d	08/03/12 15:08	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340105.d	08/03/12 15:31	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340108.d	08/03/12 15:53	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340109.d	08/03/12 16:16	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340110.d	08/03/12 16:39	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5340111.d	08/03/12 17:01	pna-s 30g/1ml df:6 sp120801s02	SO		**1**	
5336002.d	08/03/12 17:24	pna-s 30g/1ml df:15 sp120801s02	SO		**1**	
5340106.d	08/03/12 17:47	pna-s 30g/1ml df:15 sp120801s02	SO		**1**	
5340107.d	08/03/12 18:09	pna-s 30g/1ml df:15 sp120801s02	SO		**1**	
5336003.d	08/03/12 18:32	pna-s 30g/1ml df:20 sp120801s02	SO		**1**	
5336004.d	08/03/12 18:54	pna-s 30g/2ml df:40 sp120801s02	SO		**1**	
5336005m.d	08/03/12 19:17	pna-s 30g/2ml df:40 sp120801s02	SO	MS	**1**	
5336006n.d	08/03/12 19:40	pna-s 30g/2ml df:40 sp120801s02	SO	MS	**1**	
5340102.d	08/03/12 20:02	pna-s 30g/1ml df:100 sp120801s02	SO		**1**	
5336012.d	08/03/12 20:25	pna-s 30g/1ml df:10 sp120801s02	SO		**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	22
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	3
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120808.1
Heated Purge: N/A

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Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d08a.d	08/08/12 11:40	dftpp std (120801) [none]	WW	IP	**1**	
spnn08a.d	08/08/12 12:02	pna std 50 (120314) [none]	WW	CV	**1**	
blks08a.d	08/08/12 12:49	pna-s 30g/1ml df:1 sp120807s01	SO	Bl	**1**	
lcss08a.d	08/08/12 13:12	pna-s 30g/1ml df:1 sp120807s01	SO	MS	**1**	
5340112.d	08/08/12 13:34	pna-s 30g/1ml df:10 sp120807s01	SO		**1**	
5340113.d	08/08/12 13:57	pna-s 30g/1ml df:10 sp120807s01	SO		**1**	
5340114m.d	08/08/12 14:19	pna-s 30g/1ml df:10 sp120807s01	SO	MS	**1**	
5340115n.d	08/08/12 14:42	pna-s 30g/1ml df:10 sp120807s01	SO	MS	**1**	

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	4
Water Duplicates:	0	Soil Duplicates:	1
Water Spikes:	0	Soil Spikes:	3
Water Blanks:	0	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spnn03a.d	2-Fluorobiphenyl	53.7/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	52.1/100.0	n/a	10.0/114.0	
	Terphenyl-D14	55.1/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blks03a.d	2-Fluorobiphenyl	97.9/100.0	97.9	10.0/115.0	SO
	Nitrobenzene-D5	72.8/100.0	72.8	18.5/120.0	
	Terphenyl-D14	113.0/100.0	113.0	10.3/137.0	
				Total Outliers: 0	
lcss03a.d	2-Fluorobiphenyl	84.6/100.0	84.6	10.0/115.0	SO
	Nitrobenzene-D5	62.4/100.0	62.4	18.5/120.0	
	Terphenyl-D14	104.6/100.0	104.6	10.3/137.0	
				Total Outliers: 0	
5336007.d	2-Fluorobiphenyl	63.0/100.0	63.0	10.0/115.0	SO
	Nitrobenzene-D5	72.7/100.0	72.7	18.5/120.0	
	Terphenyl-D14	74.8/100.0	74.8	10.3/137.0	
				Total Outliers: 0	
5336008.d	2-Fluorobiphenyl	54.4/100.0	54.4	10.0/115.0	SO
	Nitrobenzene-D5	59.2/100.0	59.2	18.5/120.0	
	Terphenyl-D14	60.2/100.0	60.2	10.3/137.0	
				Total Outliers: 0	
5336009.d	2-Fluorobiphenyl	60.2/100.0	60.2	10.0/115.0	SO
	Nitrobenzene-D5	67.2/100.0	67.2	18.5/120.0	
	Terphenyl-D14	69.6/100.0	69.6	10.3/137.0	
				Total Outliers: 0	
5336010.d	2-Fluorobiphenyl	53.3/100.0	53.3	10.0/115.0	SO
	Nitrobenzene-D5	53.3/100.0	53.3	18.5/120.0	
	Terphenyl-D14	59.7/100.0	59.7	10.3/137.0	
				Total Outliers: 0	
5336011.d	2-Fluorobiphenyl	72.9/100.0	72.9	10.0/115.0	SO
	Nitrobenzene-D5	77.5/100.0	77.5	18.5/120.0	
	Terphenyl-D14	78.1/100.0	78.1	10.3/137.0	
				Total Outliers: 0	
5336013.d	2-Fluorobiphenyl	59.0/100.0	59.0	10.0/115.0	SO
	Nitrobenzene-D5	63.7/100.0	63.7	18.5/120.0	
	Terphenyl-D14	65.4/100.0	65.4	10.3/137.0	
				Total Outliers: 0	
5340103.d	2-Fluorobiphenyl	68.6/100.0	68.6	10.0/115.0	SO
	Nitrobenzene-D5	68.5/100.0	68.5	18.5/120.0	
	Terphenyl-D14	75.4/100.0	75.4	10.3/137.0	
				Total Outliers: 0	
5340104.d	2-Fluorobiphenyl	66.9/100.0	66.9	10.0/115.0	SO
	Nitrobenzene-D5	65.4/100.0	65.4	18.5/120.0	
	Terphenyl-D14	71.0/100.0	71.0	10.3/137.0	
				Total Outliers: 0	
5340105.d	2-Fluorobiphenyl	68.5/100.0	68.5	10.0/115.0	SO
	Nitrobenzene-D5	67.1/100.0	67.1	18.5/120.0	
	Terphenyl-D14	73.2/100.0	73.2	10.3/137.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
5340108.d	2-Fluorobiphenyl	67.8/100.0	67.8	10.0/115.0	SO
	Nitrobenzene-D5	71.5/100.0	71.5	18.5/120.0	
	Terphenyl-D14	68.2/100.0	68.2	10.3/137.0	
				Total Outliers: 0	
5340109.d	2-Fluorobiphenyl	61.1/100.0	61.1	10.0/115.0	SO
	Nitrobenzene-D5	64.7/100.0	64.7	18.5/120.0	
	Terphenyl-D14	61.1/100.0	61.1	10.3/137.0	
				Total Outliers: 0	
5340110.d	2-Fluorobiphenyl	61.5/100.0	61.5	10.0/115.0	SO
	Nitrobenzene-D5	64.9/100.0	64.9	18.5/120.0	
	Terphenyl-D14	63.8/100.0	63.8	10.3/137.0	
				Total Outliers: 0	
5340111.d	2-Fluorobiphenyl	69.2/100.0	69.2	10.0/115.0	SO
	Nitrobenzene-D5	69.9/100.0	69.9	18.5/120.0	
	Terphenyl-D14	77.8/100.0	77.8	10.3/137.0	
				Total Outliers: 0	
5336002.d	2-Fluorobiphenyl	49.0/100.0	49.0	10.0/115.0	SO
	Nitrobenzene-D5	52.8/100.0	52.8	18.5/120.0	
	Terphenyl-D14	57.3/100.0	57.3	10.3/137.0	
				Total Outliers: 0	
5340106.d	2-Fluorobiphenyl	65.5/100.0	65.5	10.0/115.0	SO
	Nitrobenzene-D5	67.9/100.0	67.9	18.5/120.0	
	Terphenyl-D14	67.4/100.0	67.4	10.3/137.0	
				Total Outliers: 0	
5340107.d	2-Fluorobiphenyl	52.1/100.0	52.1	10.0/115.0	SO
	Nitrobenzene-D5	56.1/100.0	56.1	18.5/120.0	
	Terphenyl-D14	54.5/100.0	54.5	10.3/137.0	
				Total Outliers: 0	
5336003.d	2-Fluorobiphenyl	51.7/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	52.9/100.0	n/a	18.5/120.0	
	Terphenyl-D14	56.1/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5336004.d	2-Fluorobiphenyl	76.2/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	81.0/100.0	n/a	18.5/120.0	
	Terphenyl-D14	92.5/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5336005m.d	2-Fluorobiphenyl	69.6/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	71.4/100.0	n/a	18.5/120.0	
	Terphenyl-D14	79.3/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5336006n.d	2-Fluorobiphenyl	84.9/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	87.1/100.0	n/a	18.5/120.0	
	Terphenyl-D14	94.4/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5340102.d	2-Fluorobiphenyl	112.9/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	103.8/100.0	n/a	18.5/120.0	
	Terphenyl-D14	100.4/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5336012.d	2-Fluorobiphenyl	62.1/100.0	62.1	10.0/115.0	SO
	Nitrobenzene-D5	66.9/100.0	66.9	18.5/120.0	
	Terphenyl-D14	66.2/100.0	66.2	10.3/137.0	
				Total Outliers:	**0**

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120808.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
spnn08a.d	2-Fluorobiphenyl	55.7/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	51.4/100.0	n/a	10.0/114.0	
	Terphenyl-D14	54.8/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blks08a.d	2-Fluorobiphenyl	81.9/100.0	81.9	10.0/115.0	SO
	Nitrobenzene-D5	64.2/100.0	64.2	18.5/120.0	
	Terphenyl-D14	103.0/100.0	103.0	10.3/137.0	
				Total Outliers: 0	
lcss08a.d	2-Fluorobiphenyl	96.2/100.0	96.2	10.0/115.0	SO
	Nitrobenzene-D5	73.1/100.0	73.1	18.5/120.0	
	Terphenyl-D14	120.2/100.0	120.2	10.3/137.0	
				Total Outliers: 0	
5340112.d	2-Fluorobiphenyl	50.7/100.0	50.7	10.0/115.0	SO
	Nitrobenzene-D5	56.8/100.0	56.8	18.5/120.0	
	Terphenyl-D14	54.8/100.0	54.8	10.3/137.0	
				Total Outliers: 0	
5340113.d	2-Fluorobiphenyl	66.4/100.0	66.4	10.0/115.0	SO
	Nitrobenzene-D5	64.7/100.0	64.7	18.5/120.0	
	Terphenyl-D14	71.3/100.0	71.3	10.3/137.0	
				Total Outliers: 0	
5340114m.d	2-Fluorobiphenyl	70.0/100.0	70.0	10.0/115.0	SO
	Nitrobenzene-D5	77.4/100.0	77.4	18.5/120.0	
	Terphenyl-D14	75.6/100.0	75.6	10.3/137.0	
				Total Outliers: 0	
5340115n.d	2-Fluorobiphenyl	68.6/100.0	68.6	10.0/115.0	SO
	Nitrobenzene-D5	71.8/100.0	71.8	18.5/120.0	
	Terphenyl-D14	72.9/100.0	72.9	10.3/137.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : 5336006n.d			
Dup ID : S53360.06			
Prep Batch: sp120801s02			
Prep Date : 08/01/12			
Parent File: 5336005m.d			
naphthalene	42.10/ 36.08	15.4/25.0	SO
2-methylnaphthalene	42.88/ 33.11	25.7/25.0*	
1-methylnaphthalene	39.54/ 32.51	19.5/25.0	
acenaphthylene	41.88/ 32.53	25.1/25.0*	
acenaphthene **	44.80/ 33.30	29.4/25.0*	
fluorene	37.28/ 35.59	4.6/25.0	
phenanthrene	42.91/ 36.67	15.7/25.0	
anthracene	42.50/ 35.60	17.7/25.0	
fluoranthene	49.74/ 38.44	25.6/25.0*	
pyrene **	54.77/ 44.93	19.7/25.0	
benzo(a)anthracene	58.32/ 36.37	46.4/25.0*	
chrysene	48.39/ 37.12	26.4/25.0*	
benzo(b)fluoranthene	63.62/ 57.05	10.9/25.0	
benzo(k)fluoranthene	61.02/ 52.87	14.3/25.0	
benzo(a)pyrene	60.10/ 55.89	7.3/25.0	
indeno(1,2,3-cd)pyrene	35.91/ 31.14	14.2/25.0	
dibenzo(ah)anthracene	35.72/ 31.26	13.3/25.0	
benzo(ghi)perylene	33.58/ 29.89	11.6/25.0	
[end of compound list]			
		Total Outliers: 6	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120808.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : 5340115n.d			
Dup ID : S53401.15			
Prep Batch: sp120807s01			
Prep Date : 08/07/12			
Parent File: 5340114m.d			
naphthalene	32.16/ 35.32	9.4/25.0	SO
2-methylnaphthalene	31.29/ 32.98	5.3/25.0	
1-methylnaphthalene	28.70/ 31.55	9.5/25.0	
acenaphthylene	33.28/ 34.64	4.0/25.0	
acenaphthene **	35.81/ 38.02	6.0/25.0	
fluorene	34.27/ 36.04	5.0/25.0	
phenanthrene	33.31/ 36.31	8.6/25.0	
anthracene	32.99/ 34.56	4.6/25.0	
fluoranthene	35.23/ 35.69	1.3/25.0	
pyrene **	39.34/ 40.30	2.4/25.0	
benzo(a)anthracene	35.97/ 39.50	9.4/25.0	
chrysene	36.61/ 38.33	4.6/25.0	
benzo(b)fluoranthene	41.23/ 39.74	3.7/25.0	
benzo(k)fluoranthene	36.00/ 39.35	8.9/25.0	
benzo(a)pyrene	40.97/ 41.31	0.8/25.0	
indeno(1,2,3-cd)pyrene	36.57/ 37.27	1.9/25.0	
dibenzo(ah)anthracene	35.52/ 36.32	2.2/25.0	
benzo(ghi)perylene	34.85/ 35.37	1.5/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss03a.d						
Spike ID : LCS1						
Prep Batch: sp120801s02						
Prep Date : 08/01/12						
Parent File: blks03a.d						
1-Methylnaphthalene	29.34/	0.00	50.00	58.7	10.0/120.0	SO
2-Methylnaphthalene	31.43/	0.00	50.00	62.9	35.6/120.0	
Acenaphthene	36.65/	0.00	50.00	73.3	10.0/121.0	
Acenaphthylene	36.02/	0.00	50.00	72.0	35.4/127.7	
Anthracene	34.56/	0.00	50.00	69.1	32.3/142.4	
Benzo(a)anthracene	36.07/	0.00	50.00	72.1	36.7/134.7	
Benzo(a)pyrene	38.48/	0.00	50.00	77.0	10.0/140.8	
Benzo(b)fluoranthene	40.31/	0.00	50.00	80.6	29.0/152.7	
Benzo(ghi)perylene	35.25/	0.00	50.00	70.5	45.2/130.7	
Benzo(k)fluoranthene	40.62/	0.00	50.00	81.2	29.8/136.0	
Chrysene	36.77/	0.00	50.00	73.5	38.7/137.1	
Dibenzo(ah)anthracene	38.58/	0.00	50.00	77.2	45.3/130.8	
Fluorene	37.02/	0.00	50.00	74.0	37.8/127.8	
Fluoranthene	35.96/	0.00	50.00	71.9	10.0/145.8	
Indeno(1,2,3-cd)pyrene	38.28/	0.00	50.00	76.6	39.2/137.4	
Naphthalene	31.88/	0.00	50.00	63.8	10.0/110.0	
Phenanthrene	36.02/	0.00	50.00	72.0	36.4/143.0	
Pyrene	37.90/	0.00	50.00	75.8	10.0/135.8	
					Total Outliers:	**0**
Spike File : 5336005m.d						
Spike ID : S53360.05						
Prep Batch: sp120801s02						
Prep Date : 08/01/12						
Parent File: 5336004.d						
1-Methylnaphthalene	32.51/	0.00	50.00	65.0	10.0/120.0	SO
2-Methylnaphthalene	33.11/	0.00	50.00	66.2	35.6/120.0	
Acenaphthene	33.30/	0.00	50.00	66.6	10.0/121.0	
Acenaphthylene	32.53/	0.00	50.00	65.1	35.4/127.7	
Anthracene	35.60/	0.00	50.00	71.2	32.3/142.4	
Benzo(a)anthracene	36.37/	0.00	50.00	72.7	36.7/134.7	
Benzo(a)pyrene	55.89/	0.00	50.00	111.8	10.0/140.8	
Benzo(b)fluoranthene	57.05/	0.00	50.00	114.1	29.0/152.7	
Benzo(ghi)perylene	29.89/	0.00	50.00	59.8	45.2/130.7	
Benzo(k)fluoranthene	52.87/	0.00	50.00	105.7	29.8/136.0	
Chrysene	37.12/	0.00	50.00	74.2	38.7/137.1	
Dibenzo(ah)anthracene	31.26/	0.00	50.00	62.5	45.3/130.8	
Fluorene	35.59/	0.00	50.00	71.2	37.8/127.8	
Fluoranthene	38.44/	0.00	50.00	76.9	10.0/145.8	
Indeno(1,2,3-cd)pyrene	31.14/	0.00	50.00	62.3	39.2/137.4	
Naphthalene	36.08/	0.00	50.00	72.2	10.0/110.0	
Phenanthrene	36.67/	0.00	50.00	73.3	36.4/143.0	
Pyrene	44.93/	0.00	50.00	89.9	10.0/135.8	
					Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : 5336006n.d						
Spike ID : S53360.06						
Prep Batch: sp120801s02						
Prep Date : 08/01/12						
Parent File: 5336004.d						
1-Methylnaphthalene	39.54/	0.00	50.00	79.1	10.0/120.0	SO
2-Methylnaphthalene	42.88/	0.00	50.00	85.8	35.6/120.0	
Acenaphthene	44.80/	0.00	50.00	89.6	10.0/121.0	
Acenaphthylene	41.88/	0.00	50.00	83.8	35.4/127.7	
Anthracene	42.50/	0.00	50.00	85.0	32.3/142.4	
Benzo(a)anthracene	58.32/	0.00	50.00	116.6	36.7/134.7	
Benzo(a)pyrene	60.10/	0.00	50.00	120.2	10.0/140.8	
Benzo(b)fluoranthene	63.62/	0.00	50.00	127.2	29.0/152.7	
Benzo(ghi)perylene	33.58/	0.00	50.00	67.2	45.2/130.7	
Benzo(k)fluoranthene	61.02/	0.00	50.00	122.0	29.8/136.0	
Chrysene	48.39/	0.00	50.00	96.8	38.7/137.1	
Dibenzo(ah)anthracene	35.72/	0.00	50.00	71.4	45.3/130.8	
Fluorene	37.28/	0.00	50.00	74.6	37.8/127.8	
Fluoranthene	49.74/	0.00	50.00	99.5	10.0/145.8	
Indeno(1,2,3-cd)pyrene	35.91/	0.00	50.00	71.8	39.2/137.4	
Naphthalene	42.10/	0.00	50.00	84.2	10.0/110.0	
Phenanthrene	42.91/	0.00	50.00	85.8	36.4/143.0	
Pyrene	54.77/	0.00	50.00	109.5	10.0/135.8	
					Total Outliers:	**0**

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120808.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss08a.d						
Spike ID : LCS1						
Prep Batch: sp120807s01						
Prep Date : 08/07/12						
Parent File: blks08a.d						
1-Methylnaphthalene	31.88/	0.00	50.00	63.8	10.0/120.0	SO
2-Methylnaphthalene	34.63/	0.00	50.00	69.3	35.6/120.0	
Acenaphthene	40.13/	0.00	50.00	80.3	10.0/121.0	
Acenaphthylene	38.68/	0.00	50.00	77.4	35.4/127.7	
Anthracene	38.30/	0.00	50.00	76.6	32.3/142.4	
Benzo(a)anthracene	41.07/	0.00	50.00	82.1	36.7/134.7	
Benzo(a)pyrene	41.70/	0.00	50.00	83.4	10.0/140.8	
Benzo(b)fluoranthene	43.90/	0.00	50.00	87.8	29.0/152.7	
Benzo(ghi)perylene	39.27/	0.00	50.00	78.5	45.2/130.7	
Benzo(k)fluoranthene	37.40/	0.00	50.00	74.8	29.8/136.0	
Chrysene	42.01/	0.00	50.00	84.0	38.7/137.1	
Dibenzo(ah)anthracene	44.14/	0.00	50.00	88.3	45.3/130.8	
Fluorene	41.27/	0.00	50.00	82.5	37.8/127.8	
Fluoranthene	40.86/	0.00	50.00	81.7	10.0/145.8	
Indeno(1,2,3-cd)pyrene	43.10/	0.00	50.00	86.2	39.2/137.4	
Naphthalene	34.53/	0.00	50.00	69.1	10.0/110.0	
Phenanthrene	40.39/	0.00	50.00	80.8	36.4/143.0	
Pyrene	41.70/	0.00	50.00	83.4	10.0/135.8	
					Total Outliers:	**0**
Spike File : 5340114m.d						
Spike ID : S53401.14						
Prep Batch: sp120807s01						
Prep Date : 08/07/12						
Parent File: 5340113.d						
1-Methylnaphthalene	31.55/	0.00	50.00	63.1	10.0/120.0	SO
2-Methylnaphthalene	32.98/	0.00	50.00	66.0	35.6/120.0	
Acenaphthene	38.02/	0.00	50.00	76.0	10.0/121.0	
Acenaphthylene	34.64/	0.00	50.00	69.3	35.4/127.7	
Anthracene	34.56/	0.00	50.00	69.1	32.3/142.4	
Benzo(a)anthracene	39.50/	0.00	50.00	79.0	36.7/134.7	
Benzo(a)pyrene	41.31/	0.00	50.00	82.6	10.0/140.8	
Benzo(b)fluoranthene	39.74/	0.00	50.00	79.5	29.0/152.7	
Benzo(ghi)perylene	35.37/	0.00	50.00	70.7	45.2/130.7	
Benzo(k)fluoranthene	39.35/	0.00	50.00	78.7	29.8/136.0	
Chrysene	38.33/	0.00	50.00	76.7	38.7/137.1	
Dibenzo(ah)anthracene	36.32/	0.00	50.00	72.6	45.3/130.8	
Fluorene	36.04/	0.00	50.00	72.1	37.8/127.8	
Fluoranthene	35.69/	0.00	50.00	71.4	10.0/145.8	
Indeno(1,2,3-cd)pyrene	37.27/	0.00	50.00	74.5	39.2/137.4	
Naphthalene	35.32/	0.00	50.00	70.6	10.0/110.0	
Phenanthrene	36.31/	0.00	50.00	72.6	36.4/143.0	
Pyrene	40.30/	0.00	50.00	80.6	10.0/135.8	
					Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120808.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : 5340115n.d						
Spike ID : S53401.15						
Prep Batch: sp120807s01						
Prep Date : 08/07/12						
Parent File: 5340113.d						
1-Methylnaphthalene	28.70/	0.00	50.00	57.4	10.0/120.0	SO
2-Methylnaphthalene	31.29/	0.00	50.00	62.6	35.6/120.0	
Acenaphthene	35.81/	0.00	50.00	71.6	10.0/121.0	
Acenaphthylene	33.28/	0.00	50.00	66.6	35.4/127.7	
Anthracene	32.99/	0.00	50.00	66.0	32.3/142.4	
Benzo(a)anthracene	35.97/	0.00	50.00	71.9	36.7/134.7	
Benzo(a)pyrene	40.97/	0.00	50.00	81.9	10.0/140.8	
Benzo(b)fluoranthene	41.23/	0.00	50.00	82.5	29.0/152.7	
Benzo(ghi)perylene	34.85/	0.00	50.00	69.7	45.2/130.7	
Benzo(k)fluoranthene	36.00/	0.00	50.00	72.0	29.8/136.0	
Chrysene	36.61/	0.00	50.00	73.2	38.7/137.1	
Dibenzo(ah)anthracene	35.52/	0.00	50.00	71.0	45.3/130.8	
Fluorene	34.27/	0.00	50.00	68.5	37.8/127.8	
Fluoranthene	35.23/	0.00	50.00	70.5	10.0/145.8	
Indeno(1,2,3-cd)pyrene	36.57/	0.00	50.00	73.1	39.2/137.4	
Naphthalene	32.16/	0.00	50.00	64.3	10.0/110.0	
Phenanthrene	33.31/	0.00	50.00	66.6	36.4/143.0	
Pyrene	39.34/	0.00	50.00	78.7	10.0/135.8	
					Total Outliers:	**0**

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blks03a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120801s02
Prep Date : 08/01/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [mg/kg]	RL [mg/kg]
Benzo(b)fluoranthene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Benzo(a)pyrene	Not detected		0.3	20
Benzo(ghi)perylene	Not detected		0.5	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(a)anthracene	Not detected		0.4	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
1-Methylnaphthalene	Not detected		0.4	20
2-Methylnaphthalene	Not detected		0.2	20
Acenaphthylene	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Naphthalene	Not detected		0.1	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120808.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blks08a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120807s01
Prep Date : 08/07/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [ug/kg]	RL [ug/kg]
Naphthalene	Not detected		0.1	20
2-Methylnaphthalene	Not detected		0.2	20
1-Methylnaphthalene	Not detected		0.4	20
Acenaphthylene	Not detected		0.3	20
Acenaphthene **	Not detected		0.3	20
Fluorene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Fluoranthene	Not detected		0.4	20
Pyrene **	Not detected		0.4	20
Benzo(a)anthracene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(b)fluoranthene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Benzo(a)pyrene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(ghi)perylene	Not detected		0.5	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks03a.d
Method Blank Prep Date: 08/01/12
Blank/LCS Preparation Batch: sp120801s02

LCS Data File: lcss03a.d
LCS Prep Date: 08/01/12

Sample ID	Anal. Batch	Prep. Batch	Date	Analysis	Analysis Code
S53360.02	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.03	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.04	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.05	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.06	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.07	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.08	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.09	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.10	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.11	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.12	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53360.13	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.02	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.03	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.04	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.05	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.06	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.07	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.08	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.09	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.10	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270
S53401.11	SP120801S02		08/01/12	Semi Volatile Extraction	PNAEXTS
	T120803	SP120801S02	08/03/12	Polynuclear Aromatics	$PNA8270

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Level: LOW

Analytical Batch: t120808.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks08a.d
Method Blank Prep Date: 08/07/12
Blank/LCS Preparation Batch: sp120807s01

LCS Data File: lcss08a.d
LCS Prep Date: 08/07/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53401.12	SP120807S01		08/07/12	Semi Volatile Extraction	PNAEXTS
	T120808	SP120807S01	08/08/12	Polynuclear Aromatics	$PNA8270
S53401.13	SP120807S01		08/07/12	Semi Volatile Extraction	PNAEXTS
	T120808	SP120807S01	08/08/12	Polynuclear Aromatics	$PNA8270
S53401.14	SP120807S01		08/07/12	Semi Volatile Extraction	PNAEXTS
	T120808	SP120807S01	08/08/12	Polynuclear Aromatics	$PNA8270
S53401.15	SP120807S01		08/07/12	Semi Volatile Extraction	PNAEXTS
	T120808	SP120807S01	08/08/12	Polynuclear Aromatics	$PNA8270

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d03a.d	08/03/12 10:54	51	198	30.0	80.0	65.3	52368	PASS
		68	69	0.0	2.0	1.7	589	PASS
		69	198	0.0	100.0	43.0	34488	PASS
		70	69	0.0	2.0	0.7	235	PASS
		127	198	25.0	75.0	55.6	44592	PASS
		197	198	0.0	1.0	0.8	670	PASS
		198	198	100.0	100.0	100.0	80192	PASS
		199	198	5.0	9.0	6.3	5091	PASS
		275	198	10.0	30.0	24.2	19440	PASS
		365	198	1.0	100.0	3.5	2807	PASS
		441	443	0.0	100.0	70.6	8543	PASS
		442	198	40.0	110.0	67.6	54240	PASS
		443	442	15.0	24.0	22.3	12109	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120808.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d08a.d	08/08/12 11:40	51	198	30.0	80.0	67.8	60888	PASS
		68	69	0.0	2.0	1.7	700	PASS
		69	198	0.0	100.0	45.3	40712	PASS
		70	69	0.0	2.0	0.6	238	PASS
		127	198	25.0	75.0	57.6	51776	PASS
		197	198	0.0	1.0	0.7	666	PASS
		198	198	100.0	100.0	100.0	89848	PASS
		199	198	5.0	9.0	7.2	6502	PASS
		275	198	10.0	30.0	24.1	21688	PASS
		365	198	1.0	100.0	4.0	3626	PASS
		441	443	0.0	100.0	73.0	9504	PASS
		442	198	40.0	110.0	70.4	63256	PASS
		443	442	15.0	24.0	20.6	13021	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn03a.d	08/03/12 11:16	1,4-Dichlorobenzene-D4	55202/ 5.11	27601- 110404	4.61- 5.61
		Naphthalene-D8	254545/ 6.06	127273- 509090	5.56- 6.56
		Acenaphthalene-D10	156382/ 7.44	78191- 312764	6.94- 7.94
		Phenanthrene-D10	266681/ 8.72	133341- 533362	8.22- 9.22
		Chrysene-D12	321204/11.52	160602- 642408	11.02-12.02
		Perylene-D12	261291/13.42	130646- 522582	12.92-13.92
					Total Outliers: N/A
blks03a.d	08/03/12 11:45	1,4-Dichlorobenzene-D4	62790/ 5.11	Ratio: 1.137	Diff.: 0.00
		Naphthalene-D8	294448/ 6.06	Ratio: 1.157	Diff.: 0.00
		Acenaphthalene-D10	175891/ 7.44	Ratio: 1.125	Diff.: 0.00
		Phenanthrene-D10	314359/ 8.72	Ratio: 1.179	Diff.: 0.00
		Chrysene-D12	341070/11.51	Ratio: 1.062	Diff.: -0.01
		Perylene-D12	271926/13.42	Ratio: 1.041	Diff.: 0.00
					Total Outliers: 0
lcss03a.d	08/03/12 12:07	1,4-Dichlorobenzene-D4	57449/ 5.11	Ratio: 1.041	Diff.: 0.00
		Naphthalene-D8	281731/ 6.06	Ratio: 1.107	Diff.: 0.00
		Acenaphthalene-D10	168915/ 7.44	Ratio: 1.080	Diff.: 0.00
		Phenanthrene-D10	307463/ 8.72	Ratio: 1.153	Diff.: 0.00
		Chrysene-D12	368261/11.52	Ratio: 1.147	Diff.: 0.00
		Perylene-D12	291560/13.42	Ratio: 1.116	Diff.: 0.00
					Total Outliers: 0
5336007.d	08/03/12 12:30	1,4-Dichlorobenzene-D4	48895/ 5.11	Ratio: 0.886	Diff.: 0.00
		Naphthalene-D8	229796/ 6.06	Ratio: 0.903	Diff.: 0.00
		Acenaphthalene-D10	139057/ 7.44	Ratio: 0.889	Diff.: 0.00
		Phenanthrene-D10	250283/ 8.72	Ratio: 0.939	Diff.: 0.00
		Chrysene-D12	291558/11.51	Ratio: 0.908	Diff.: -0.01
		Perylene-D12	243724/13.41	Ratio: 0.933	Diff.: -0.01
					Total Outliers: 0
5336008.d	08/03/12 12:52	1,4-Dichlorobenzene-D4	59796/ 5.11	Ratio: 1.083	Diff.: 0.00
		Naphthalene-D8	281906/ 6.06	Ratio: 1.107	Diff.: 0.00
		Acenaphthalene-D10	166266/ 7.44	Ratio: 1.063	Diff.: 0.00
		Phenanthrene-D10	300916/ 8.72	Ratio: 1.128	Diff.: 0.00
		Chrysene-D12	322352/11.51	Ratio: 1.004	Diff.: -0.01
		Perylene-D12	264291/13.41	Ratio: 1.011	Diff.: -0.01
					Total Outliers: 0
5336009.d	08/03/12 13:15	1,4-Dichlorobenzene-D4	57584/ 5.11	Ratio: 1.043	Diff.: 0.00
		Naphthalene-D8	264743/ 6.06	Ratio: 1.040	Diff.: 0.00
		Acenaphthalene-D10	160456/ 7.44	Ratio: 1.026	Diff.: 0.00
		Phenanthrene-D10	287378/ 8.72	Ratio: 1.078	Diff.: 0.00
		Chrysene-D12	307811/11.51	Ratio: 0.958	Diff.: -0.01
		Perylene-D12	254146/13.41	Ratio: 0.973	Diff.: -0.01
					Total Outliers: 0
5336010.d	08/03/12 13:38	1,4-Dichlorobenzene-D4	53694/ 5.11	Ratio: 0.973	Diff.: 0.00
		Naphthalene-D8	250866/ 6.06	Ratio: 0.986	Diff.: 0.00
		Acenaphthalene-D10	155067/ 7.44	Ratio: 0.992	Diff.: 0.00
		Phenanthrene-D10	279219/ 8.72	Ratio: 1.047	Diff.: 0.00
		Chrysene-D12	290556/11.51	Ratio: 0.905	Diff.: -0.01
		Perylene-D12	239771/13.41	Ratio: 0.918	Diff.: -0.01
					Total Outliers: 0
5336011.d	08/03/12 14:00	1,4-Dichlorobenzene-D4	50457/ 5.11	Ratio: 0.914	Diff.: 0.00
		Naphthalene-D8	241097/ 6.06	Ratio: 0.947	Diff.: 0.00
		Acenaphthalene-D10	147122/ 7.44	Ratio: 0.941	Diff.: 0.00
		Phenanthrene-D10	264226/ 8.72	Ratio: 0.991	Diff.: 0.00
		Chrysene-D12	277544/11.51	Ratio: 0.864	Diff.: -0.01
		Perylene-D12	229691/13.41	Ratio: 0.879	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5336013.d	08/03/12 14:23	1,4-Dichlorobenzene-D4	49834/ 5.12	Ratio: 0.903	Diff.: 0.01
		Naphthalene-D8	240242/ 6.07	Ratio: 0.944	Diff.: 0.01
		Acenaphthalene-D10	145923/ 7.45	Ratio: 0.933	Diff.: 0.01
		Phenanthrene-D10	262225/ 8.74	Ratio: 0.983	Diff.: 0.02
		Chrysene-D12	283055/11.52	Ratio: 0.881	Diff.: 0.00
		Perylene-D12	235438/13.43	Ratio: 0.901	Diff.: 0.01
					Total Outliers: 0
5340103.d	08/03/12 14:45	1,4-Dichlorobenzene-D4	50391/ 5.11	Ratio: 0.913	Diff.: 0.00
		Naphthalene-D8	237839/ 6.06	Ratio: 0.934	Diff.: 0.00
		Acenaphthalene-D10	143105/ 7.44	Ratio: 0.915	Diff.: 0.00
		Phenanthrene-D10	251882/ 8.72	Ratio: 0.945	Diff.: 0.00
		Chrysene-D12	265413/11.51	Ratio: 0.826	Diff.: -0.01
		Perylene-D12	223436/13.41	Ratio: 0.855	Diff.: -0.01
					Total Outliers: 0
5340104.d	08/03/12 15:08	1,4-Dichlorobenzene-D4	57078/ 5.11	Ratio: 1.034	Diff.: 0.00
		Naphthalene-D8	267853/ 6.06	Ratio: 1.052	Diff.: 0.00
		Acenaphthalene-D10	162758/ 7.44	Ratio: 1.041	Diff.: 0.00
		Phenanthrene-D10	289925/ 8.72	Ratio: 1.087	Diff.: 0.00
		Chrysene-D12	311459/11.51	Ratio: 0.970	Diff.: -0.01
		Perylene-D12	261057/13.41	Ratio: 0.999	Diff.: -0.01
					Total Outliers: 0
5340105.d	08/03/12 15:31	1,4-Dichlorobenzene-D4	52163/ 5.12	Ratio: 0.945	Diff.: 0.01
		Naphthalene-D8	244990/ 6.07	Ratio: 0.962	Diff.: 0.01
		Acenaphthalene-D10	145426/ 7.45	Ratio: 0.930	Diff.: 0.01
		Phenanthrene-D10	260709/ 8.74	Ratio: 0.978	Diff.: 0.02
		Chrysene-D12	270989/11.52	Ratio: 0.844	Diff.: 0.00
		Perylene-D12	227210/13.43	Ratio: 0.870	Diff.: 0.01
					Total Outliers: 0
5340108.d	08/03/12 15:53	1,4-Dichlorobenzene-D4	49251/ 5.11	Ratio: 0.892	Diff.: 0.00
		Naphthalene-D8	233888/ 6.06	Ratio: 0.919	Diff.: 0.00
		Acenaphthalene-D10	138552/ 7.44	Ratio: 0.886	Diff.: 0.00
		Phenanthrene-D10	245047/ 8.72	Ratio: 0.919	Diff.: 0.00
		Chrysene-D12	259274/11.51	Ratio: 0.807	Diff.: -0.01
		Perylene-D12	213542/13.41	Ratio: 0.817	Diff.: -0.01
					Total Outliers: 0
5340109.d	08/03/12 16:16	1,4-Dichlorobenzene-D4	48625/ 5.11	Ratio: 0.881	Diff.: 0.00
		Naphthalene-D8	229550/ 6.06	Ratio: 0.902	Diff.: 0.00
		Acenaphthalene-D10	137360/ 7.44	Ratio: 0.878	Diff.: 0.00
		Phenanthrene-D10	241324/ 8.72	Ratio: 0.905	Diff.: 0.00
		Chrysene-D12	243995/11.51	Ratio: 0.760	Diff.: -0.01
		Perylene-D12	202744/13.41	Ratio: 0.776	Diff.: -0.01
					Total Outliers: 0
5340110.d	08/03/12 16:39	1,4-Dichlorobenzene-D4	46300/ 5.12	Ratio: 0.839	Diff.: 0.01
		Naphthalene-D8	220955/ 6.07	Ratio: 0.868	Diff.: 0.01
		Acenaphthalene-D10	135454/ 7.44	Ratio: 0.866	Diff.: 0.00
		Phenanthrene-D10	243342/ 8.74	Ratio: 0.912	Diff.: 0.02
		Chrysene-D12	258383/11.52	Ratio: 0.804	Diff.: 0.00
		Perylene-D12	214051/13.43	Ratio: 0.819	Diff.: 0.01
					Total Outliers: 0
5340111.d	08/03/12 17:01	1,4-Dichlorobenzene-D4	49386/ 5.11	Ratio: 0.895	Diff.: 0.00
		Naphthalene-D8	234465/ 6.06	Ratio: 0.921	Diff.: 0.00
		Acenaphthalene-D10	139940/ 7.43	Ratio: 0.895	Diff.: -0.01
		Phenanthrene-D10	250309/ 8.72	Ratio: 0.939	Diff.: 0.00
		Chrysene-D12	260183/11.51	Ratio: 0.810	Diff.: -0.01
		Perylene-D12	217926/13.41	Ratio: 0.834	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5336002.d	08/03/12 17:24	1,4-Dichlorobenzene-D4	53894/ 5.11	Ratio: 0.976	Diff.: 0.00
		Naphthalene-D8	268673/ 6.06	Ratio: 1.056	Diff.: 0.00
		Acenaphthalene-D10	166147/ 7.44	Ratio: 1.062	Diff.: 0.00
		Phenanthrene-D10	314044/ 8.72	Ratio: 1.178	Diff.: 0.00
		Chrysene-D12	348595/11.51	Ratio: 1.085	Diff.: -0.01
		Perylene-D12	277086/13.42	Ratio: 1.060	Diff.: 0.00
					Total Outliers: 0
5340106.d	08/03/12 17:47	1,4-Dichlorobenzene-D4	54997/ 5.11	Ratio: 0.996	Diff.: 0.00
		Naphthalene-D8	266089/ 6.06	Ratio: 1.045	Diff.: 0.00
		Acenaphthalene-D10	161313/ 7.44	Ratio: 1.032	Diff.: 0.00
		Phenanthrene-D10	296570/ 8.72	Ratio: 1.112	Diff.: 0.00
		Chrysene-D12	323202/11.51	Ratio: 1.006	Diff.: -0.01
		Perylene-D12	263082/13.41	Ratio: 1.007	Diff.: -0.01
					Total Outliers: 0
5340107.d	08/03/12 18:09	1,4-Dichlorobenzene-D4	51626/ 5.11	Ratio: 0.935	Diff.: 0.00
		Naphthalene-D8	244009/ 6.06	Ratio: 0.959	Diff.: 0.00
		Acenaphthalene-D10	151167/ 7.43	Ratio: 0.967	Diff.: -0.01
		Phenanthrene-D10	273086/ 8.72	Ratio: 1.024	Diff.: 0.00
		Chrysene-D12	303274/11.51	Ratio: 0.944	Diff.: -0.01
		Perylene-D12	243154/13.42	Ratio: 0.931	Diff.: 0.00
					Total Outliers: 0
5336003.d	08/03/12 18:32	1,4-Dichlorobenzene-D4	63055/ 5.12	Ratio: 1.142	Diff.: 0.01
		Naphthalene-D8	298160/ 6.07	Ratio: 1.171	Diff.: 0.01
		Acenaphthalene-D10	182603/ 7.44	Ratio: 1.168	Diff.: 0.00
		Phenanthrene-D10	329343/ 8.74	Ratio: 1.235	Diff.: 0.02
		Chrysene-D12	376899/11.52	Ratio: 1.173	Diff.: 0.00
		Perylene-D12	295963/13.44	Ratio: 1.133	Diff.: 0.02
					Total Outliers: 0
5336004.d	08/03/12 18:54	1,4-Dichlorobenzene-D4	57144/ 5.11	Ratio: 1.035	Diff.: 0.00
		Naphthalene-D8	274458/ 6.06	Ratio: 1.078	Diff.: 0.00
		Acenaphthalene-D10	170782/ 7.44	Ratio: 1.092	Diff.: 0.00
		Phenanthrene-D10	303214/ 8.72	Ratio: 1.137	Diff.: 0.00
		Chrysene-D12	355559/11.51	Ratio: 1.107	Diff.: -0.01
		Perylene-D12	253322/13.43	Ratio: 0.970	Diff.: 0.01
					Total Outliers: 0
5336005m.d	08/03/12 19:17	1,4-Dichlorobenzene-D4	55550/ 5.11	Ratio: 1.006	Diff.: 0.00
		Naphthalene-D8	264992/ 6.06	Ratio: 1.041	Diff.: 0.00
		Acenaphthalene-D10	166941/ 7.43	Ratio: 1.068	Diff.: -0.01
		Phenanthrene-D10	294351/ 8.72	Ratio: 1.104	Diff.: 0.00
		Chrysene-D12	339720/11.51	Ratio: 1.058	Diff.: -0.01
		Perylene-D12	238032/13.43	Ratio: 0.911	Diff.: 0.01
					Total Outliers: 0
5336006n.d	08/03/12 19:40	1,4-Dichlorobenzene-D4	56326/ 5.11	Ratio: 1.020	Diff.: 0.00
		Naphthalene-D8	271255/ 6.06	Ratio: 1.066	Diff.: 0.00
		Acenaphthalene-D10	167362/ 7.43	Ratio: 1.070	Diff.: -0.01
		Phenanthrene-D10	297098/ 8.72	Ratio: 1.114	Diff.: 0.00
		Chrysene-D12	342420/11.51	Ratio: 1.066	Diff.: -0.01
		Perylene-D12	226713/13.42	Ratio: 0.868	Diff.: 0.00
					Total Outliers: 0
5340102.d	08/03/12 20:02	1,4-Dichlorobenzene-D4	56830/ 5.11	Ratio: 1.029	Diff.: 0.00
		Naphthalene-D8	272099/ 6.06	Ratio: 1.069	Diff.: 0.00
		Acenaphthalene-D10	171387/ 7.43	Ratio: 1.096	Diff.: -0.01
		Phenanthrene-D10	300911/ 8.72	Ratio: 1.128	Diff.: 0.00
		Chrysene-D12	315130/11.51	Ratio: 0.981	Diff.: -0.01
		Perylene-D12	248586/13.41	Ratio: 0.951	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5336012.d	08/03/12 20:25	1,4-Dichlorobenzene-D4	60451/ 5.12	Ratio: 1.095	Diff.: 0.01
		Naphthalene-D8	291243/ 6.07	Ratio: 1.144	Diff.: 0.01
		Acenaphthalene-D10	178812/ 7.45	Ratio: 1.143	Diff.: 0.01
		Phenanthrene-D10	311043/ 8.74	Ratio: 1.166	Diff.: 0.02
		Chrysene-D12	330547/11.52	Ratio: 1.029	Diff.: 0.00
		Perylene-D12	246996/13.43	Ratio: 0.945	Diff.: 0.01
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120808.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*		*RT Range*
spnn08a.d	08/08/12 12:02	1,4-Dichlorobenzene-D4	60345/ 5.11	30173-	120690	4.61- 5.61
		Naphthalene-D8	293930/ 6.06	146965-	587860	5.56- 6.56
		Acenaphthalene-D10	177812/ 7.44	88906-	355624	6.94- 7.94
		Phenanthrene-D10	311110/ 8.72	155555-	622220	8.22- 9.22
		Chrysene-D12	374191/11.52	187096-	748382	11.02-12.02
		Perylene-D12	308493/13.42	154247-	616986	12.92-13.92
					Total Outliers:	**N/A**
blks08a.d	08/08/12 12:49	1,4-Dichlorobenzene-D4	63370/ 5.10	Ratio: 1.050		Diff.: -0.01
		Naphthalene-D8	309447/ 6.06	Ratio: 1.053		Diff.: 0.00
		Acenaphthalene-D10	188930/ 7.44	Ratio: 1.063		Diff.: 0.00
		Phenanthrene-D10	341860/ 8.72	Ratio: 1.099		Diff.: 0.00
		Chrysene-D12	368917/11.51	Ratio: 0.986		Diff.: -0.01
		Perylene-D12	300060/13.42	Ratio: 0.973		Diff.: 0.00
					Total Outliers:	**0**
lcss08a.d	08/08/12 13:12	1,4-Dichlorobenzene-D4	60800/ 5.12	Ratio: 1.008		Diff.: 0.01
		Naphthalene-D8	304054/ 6.07	Ratio: 1.034		Diff.: 0.01
		Acenaphthalene-D10	185428/ 7.45	Ratio: 1.043		Diff.: 0.01
		Phenanthrene-D10	339102/ 8.74	Ratio: 1.090		Diff.: 0.02
		Chrysene-D12	407396/11.53	Ratio: 1.089		Diff.: 0.01
		Perylene-D12	325883/13.44	Ratio: 1.056		Diff.: 0.02
					Total Outliers:	**0**
5340112.d	08/08/12 13:34	1,4-Dichlorobenzene-D4	62003/ 5.11	Ratio: 1.027		Diff.: 0.00
		Naphthalene-D8	301338/ 6.06	Ratio: 1.025		Diff.: 0.00
		Acenaphthalene-D10	188663/ 7.43	Ratio: 1.061		Diff.: -0.01
		Phenanthrene-D10	332392/ 8.72	Ratio: 1.068		Diff.: 0.00
		Chrysene-D12	367025/11.51	Ratio: 0.981		Diff.: -0.01
		Perylene-D12	303058/13.41	Ratio: 0.982		Diff.: -0.01
					Total Outliers:	**0**
5340113.d	08/08/12 13:57	1,4-Dichlorobenzene-D4	52381/ 5.12	Ratio: 0.868		Diff.: 0.01
		Naphthalene-D8	255431/ 6.07	Ratio: 0.869		Diff.: 0.01
		Acenaphthalene-D10	156808/ 7.44	Ratio: 0.882		Diff.: 0.00
		Phenanthrene-D10	276745/ 8.74	Ratio: 0.890		Diff.: 0.02
		Chrysene-D12	304289/11.52	Ratio: 0.813		Diff.: 0.00
		Perylene-D12	250579/13.43	Ratio: 0.812		Diff.: 0.01
					Total Outliers:	**0**
5340114m.d	08/08/12 14:19	1,4-Dichlorobenzene-D4	50073/ 5.12	Ratio: 0.830		Diff.: 0.01
		Naphthalene-D8	244607/ 6.07	Ratio: 0.832		Diff.: 0.01
		Acenaphthalene-D10	149948/ 7.44	Ratio: 0.843		Diff.: 0.00
		Phenanthrene-D10	267653/ 8.74	Ratio: 0.860		Diff.: 0.02
		Chrysene-D12	296102/11.52	Ratio: 0.791		Diff.: 0.00
		Perylene-D12	244100/13.43	Ratio: 0.791		Diff.: 0.01
					Total Outliers:	**0**
5340115n.d	08/08/12 14:42	1,4-Dichlorobenzene-D4	50791/ 5.11	Ratio: 0.842		Diff.: 0.00
		Naphthalene-D8	245545/ 6.06	Ratio: 0.835		Diff.: 0.00
		Acenaphthalene-D10	150272/ 7.43	Ratio: 0.845		Diff.: -0.01
		Phenanthrene-D10	266125/ 8.72	Ratio: 0.855		Diff.: 0.00
		Chrysene-D12	293869/11.51	Ratio: 0.785		Diff.: -0.01
		Perylene-D12	242376/13.41	Ratio: 0.786		Diff.: -0.01
					Total Outliers:	**0**

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Analytical Batch: t120808.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*

KEY:

```
[Area/RT]:    Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]:   +/- 0.5 minutes of relative internal standard RT
[Ratio]:      Ratio of internal standard areas
[Diff]:       Difference in internal standard retention times (minutes)
```

CONTROL LIMITS:

```
Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT
```

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.02
Data File: 5340102.d
Date Received: 08/01/12

Tag: SB105 (07-30-12) (0-2)
Notes: pna-s 30g/1ml df:100
sd/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 100

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	1800		ug/kg	08/03/12	X
208-96-8	Acenaphthylene	Not detected	1800		ug/kg		X
120-12-7	Anthracene	Not detected	1800		ug/kg		X
56-55-3	Benzo(a)anthracene	Not detected	1800		ug/kg		X
50-32-8	Benzo(a)pyrene	Not detected	1800		ug/kg		X
205-99-2	Benzo(b)fluoranthene	Not detected	1800		ug/kg		X
207-08-9	Benzo(k)fluoranthene	Not detected	1800		ug/kg		X
191-24-2	Benzo(ghi)perylene	Not detected	1800		ug/kg		X
218-01-9	Chrysene	Not detected	1800		ug/kg		X
53-70-3	Dibenzo(ah)anthracene	Not detected	1800		ug/kg		X
206-44-0	Fluoranthene	Not detected	1800		ug/kg		X
86-73-7	Fluorene	Not detected	1800		ug/kg		X
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	1800		ug/kg		X
91-20-3	Naphthalene	Not detected	1800		ug/kg		X
85-01-8	Phenanthrene	Not detected	1800		ug/kg		X
129-00-0	Pyrene	Not detected	1800		ug/kg		X
91-57-6	2-Methylnaphthalene	Not detected	1800		ug/kg		X
90-12-0	1-Methylnaphthalene	Not detected	1800		ug/kg		X
Total Solids							
TSOLIDS	Total Solids	91	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (113%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (104%)					
98904-43-9	Terphenyl-D14	Pass (100%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.03
Data File: 5340103.d
Date Received: 08/01/12

Tag: SB104 (07-30-12) (0-2)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	88	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (69%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (69%)					
98904-43-9	Terphenyl-D14	Pass (75%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.04
Data File: 5340104.d
Date Received: 08/01/12

Tag: SB103 (07-30-12) (0-2)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	91	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (67%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (65%)					
98904-43-9	Terphenyl-D14	Pass (71%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.05
Data File: 5340105.d
Date Received: 08/01/12

Tag: SB102 (07-31-12) (2-4)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	83	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (69%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (67%)					
98904-43-9	Terphenyl-D14	Pass (73%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.06
Data File: 5340106.d
Date Received: 08/01/12

Tag: SB112 (07-31-12) (0-2)
Notes: pna-s 30g/1ml df:15
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 15

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	81	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (66%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (68%)					
98904-43-9	Terphenyl-D14	Pass (67%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.07
Data File: 5340107.d
Date Received: 08/01/12

Tag: DUP 4 (07-31-12)
Notes: pna-s 30g/1ml df:15
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 15

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	88	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (52%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (56%)					
98904-43-9	Terphenyl-D14	Pass (55%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.08
Data File: 5340108.d
Date Received: 08/01/12

Tag: SB114 (07-31-12) (2-4)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	87	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (68%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (72%)					
98904-43-9	Terphenyl-D14	Pass (68%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.09
Data File: 5340109.d
Date Received: 08/01/12

Tag: SB113 (07-31-12) 3-5)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	81	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (61%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (65%)					
98904-43-9	Terphenyl-D14	Pass (61%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.10
Data File: 5340110.d
Date Received: 08/01/12

Tag: SB109 (07-31-12) (0-2)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	97	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (62%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (65%)					
98904-43-9	Terphenyl-D14	Pass (64%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120803.2

LIMS ID: S53401.11
Data File: 5340111.d
Date Received: 08/01/12

Tag: SB165 (07-31-12) (8-10)
Notes: pna-s 30g/1ml df:6
s/1; id:sp120801s02

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 6

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/03/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	82	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/01/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/03/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (69%)				08/03/12	
4165-60-0	Nitrobenzene-D5	Pass (70%)					
98904-43-9	Terphenyl-D14	Pass (78%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120808.1

LIMS ID: S53401.12
Data File: 5340112.d
Date Received: 08/01/12

Tag: SB162 (07-31-12) (2-4)
Notes: pna-s 30g/1ml df:10
s/1; id:sp120807s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 10

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/08/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	85	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/07/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/08/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (51%)				08/08/12	
4165-60-0	Nitrobenzene-D5	Pass (57%)					
98904-43-9	Terphenyl-D14	Pass (55%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120808.1

LIMS ID: S53401.13
Data File: 5340113.d
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2)
Notes: pna-s 30g/1ml df:10
s/1; id:sp120807s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 10

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	Not detected	300		ug/kg	08/08/12	
208-96-8	Acenaphthylene	Not detected	300		ug/kg		
120-12-7	Anthracene	Not detected	300		ug/kg		
56-55-3	Benzo(a)anthracene	Not detected	300		ug/kg		
50-32-8	Benzo(a)pyrene	Not detected	300		ug/kg		
205-99-2	Benzo(b)fluoranthene	Not detected	300		ug/kg		
207-08-9	Benzo(k)fluoranthene	Not detected	300		ug/kg		
191-24-2	Benzo(ghi)perylene	Not detected	300		ug/kg		
218-01-9	Chrysene	Not detected	300		ug/kg		
53-70-3	Dibenzo(ah)anthracene	Not detected	300		ug/kg		
206-44-0	Fluoranthene	Not detected	300		ug/kg		
86-73-7	Fluorene	Not detected	300		ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg		
91-20-3	Naphthalene	Not detected	300		ug/kg		
85-01-8	Phenanthrene	Not detected	300		ug/kg		
129-00-0	Pyrene	Not detected	300		ug/kg		
91-57-6	2-Methylnaphthalene	Not detected	300		ug/kg		
90-12-0	1-Methylnaphthalene	Not detected	300		ug/kg		
Total Solids							
TSOLIDS	Total Solids	83	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/07/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/08/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (66%)				08/08/12	
4165-60-0	Nitrobenzene-D5	Pass (65%)					
98904-43-9	Terphenyl-D14	Pass (71%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120808.1

LIMS ID: S53401.14
Data File: 5340114m.d
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2) MS
Notes: pna-s 30g/1ml df:10
s/1; id:sp120807s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 10

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	1500	300		ug/kg	08/08/12	*
208-96-8	Acenaphthylene	1400	300		ug/kg		*
120-12-7	Anthracene	1400	300		ug/kg		*
56-55-3	Benzo(a)anthracene	1500	300		ug/kg		*
50-32-8	Benzo(a)pyrene	1600	300		ug/kg		*
205-99-2	Benzo(b)fluoranthene	1600	300		ug/kg		*
207-08-9	Benzo(k)fluoranthene	1500	300		ug/kg		*
191-24-2	Benzo(ghi)perylene	1400	300		ug/kg		*
218-01-9	Chrysene	1500	300		ug/kg		*
53-70-3	Dibenzo(ah)anthracene	1400	300		ug/kg		*
206-44-0	Fluoranthene	1400	300		ug/kg		*
86-73-7	Fluorene	1400	300		ug/kg		*
193-39-5	Indeno(1,2,3-cd)pyrene	1500	300		ug/kg		*
91-20-3	Naphthalene	1400	300		ug/kg		*
85-01-8	Phenanthrene	1400	300		ug/kg		*
129-00-0	Pyrene	1600	300		ug/kg		*
91-57-6	2-Methylnaphthalene	1300	300		ug/kg		*
90-12-0	1-Methylnaphthalene	1200	300		ug/kg		*
Total Solids							
TSOLIDS	Total Solids	85	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/07/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/08/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (70%)				08/08/12	
4165-60-0	Nitrobenzene-D5	Pass (77%)					
98904-43-9	Terphenyl-D14	Pass (76%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: t120808.1

LIMS ID: S53401.15
Data File: 5340115n.d
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2) MSD
Notes: pna-s 30g/1ml df:10
s/1; id:sp120807s01

Matrix: SO
Injection Volume: 2ul
Dilution Factor: 10

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatics							
83-32-9	Acenaphthene	1400	300		ug/kg	08/08/12	*
208-96-8	Acenaphthylene	1300	300		ug/kg		*
120-12-7	Anthracene	1300	300		ug/kg		*
56-55-3	Benzo(a)anthracene	1400	300		ug/kg		*
50-32-8	Benzo(a)pyrene	1600	300		ug/kg		*
205-99-2	Benzo(b)fluoranthene	1600	300		ug/kg		*
207-08-9	Benzo(k)fluoranthene	1400	300		ug/kg		*
191-24-2	Benzo(ghi)perylene	1400	300		ug/kg		*
218-01-9	Chrysene	1400	300		ug/kg		*
53-70-3	Dibenzo(ah)anthracene	1400	300		ug/kg		*
206-44-0	Fluoranthene	1400	300		ug/kg		*
86-73-7	Fluorene	1300	300		ug/kg		*
193-39-5	Indeno(1,2,3-cd)pyrene	1400	300		ug/kg		*
91-20-3	Naphthalene	1300	300		ug/kg		*
85-01-8	Phenanthrene	1300	300		ug/kg		*
129-00-0	Pyrene	1500	300		ug/kg		*
91-57-6	2-Methylnaphthalene	1200	300		ug/kg		*
90-12-0	1-Methylnaphthalene	1100	300		ug/kg		*
Total Solids							
TSOLIDS	Total Solids	85	1		%	08/06/12	
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/07/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/08/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (69%)				08/08/12	
4165-60-0	Nitrobenzene-D5	Pass (72%)					
98904-43-9	Terphenyl-D14	Pass (73%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.03.Thanatos
Analytical Batch: t120808.1
GC Column: DB-5/L:30m/D:0.25mm

Note/Qualifier Key

A:	TIC is a suspected aldol-condensation product
B:	Compound also found in associated method blank
C:	Analyte presence confirmed by GC/MS
D:	Identified in an analysis at a secondary dilution factor
E:	Concentration exceeds calibration range
J:	Estimated value less than reporting limit, but greater than MDL
N:	Presumptive evidence of TIC
P:	Pesticide/Aroclor 2-column RPD exceeds limit
U:	Analyte not detected above reporting limit
!:	Result is outside of stated limit criteria
F:	Analysis run outside of holding time
G:	Estimated result due to extraction run outside of holding time
H:	Sample submitted and run outside of holding time
I:	Matrix interference with internal standard
K:	Elevated reporting limit due to low total solids
L:	Elevated reporting limit due to low sample amount
M:	Result reported to MDL not RDL
O:	Analysis performed by outside laboratory. See attached report.
Q:	Reported result represents most abundant aroclor
R:	Preliminary result
S:	Surrogate recovery outside of control limits
T:	No correction for total solids
V:	Accurate value not available due to presence of multiple aroclors
W:	Surrogate result not applicable due to sample dilution
X:	Elevated reporting limit due to matrix interference
Y:	Elevated reporting limit due to high target concentration
Z:	Estimated result due to matrix interference
p:	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*:	Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340102.d Vial: 17
Acq On : 3 Aug 12 8:02 pm Operator: PL
Sample : pna-s 30g/1ml df:100 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

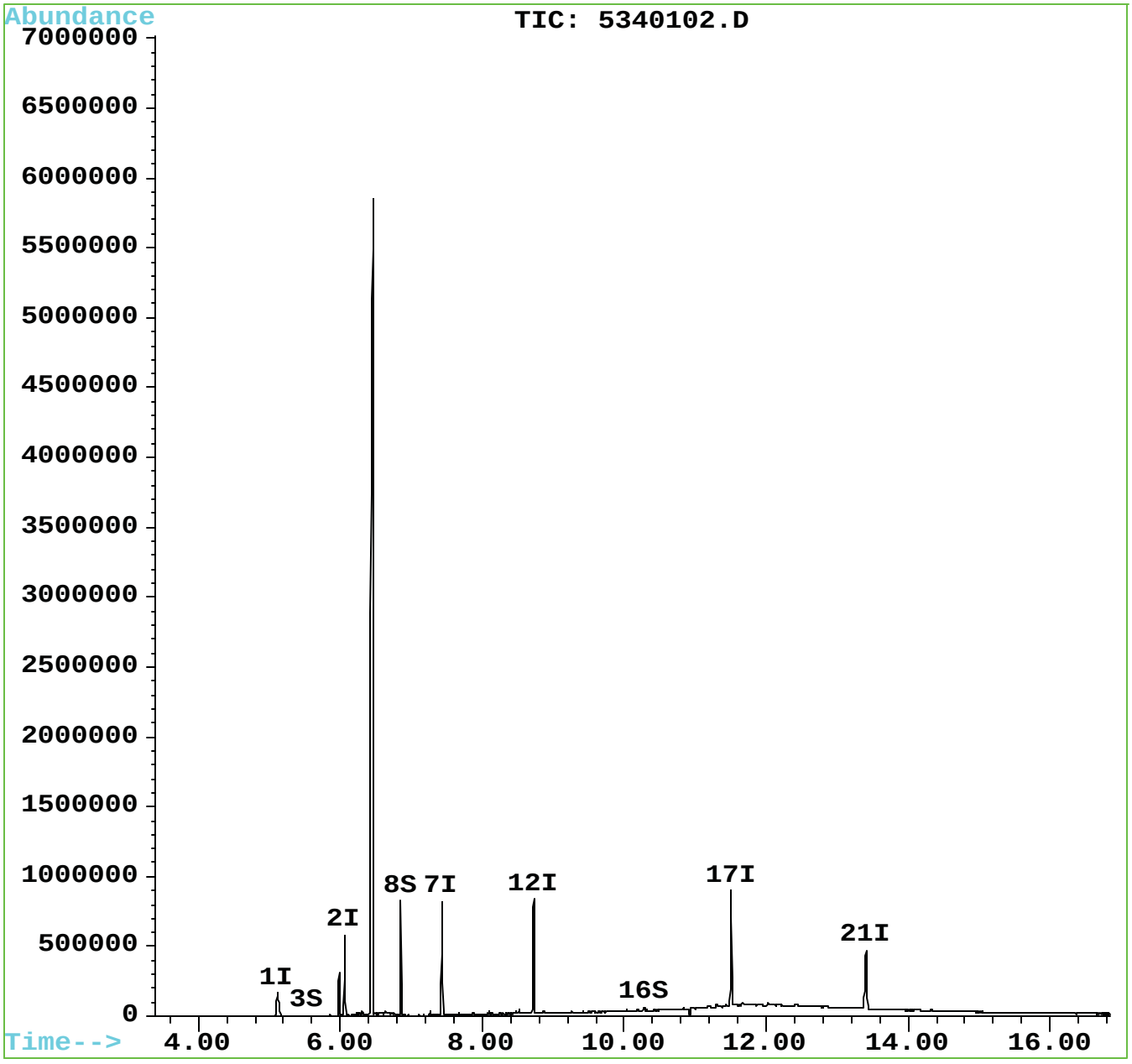
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	56830	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	272099	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.43	164	171387	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	300911	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	315130	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	248586	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	2113	1.04	ng/ul	1.0
8) 2-Fluorobiphenyl	6.86	172	5929	1.13	ng/ul	1.1
16) Terphenyl-D14	10.28	244	6417	1.00	ng/ul	1.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340102.d Vial: 17
Acq On : 3 Aug 12 8:02 pm Operator: PL
Sample : pna-s 30g/1ml df:100 Inst : Tempest
Misc : sd/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340103.d Vial: 18
Acq On : 3 Aug 12 2:45 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

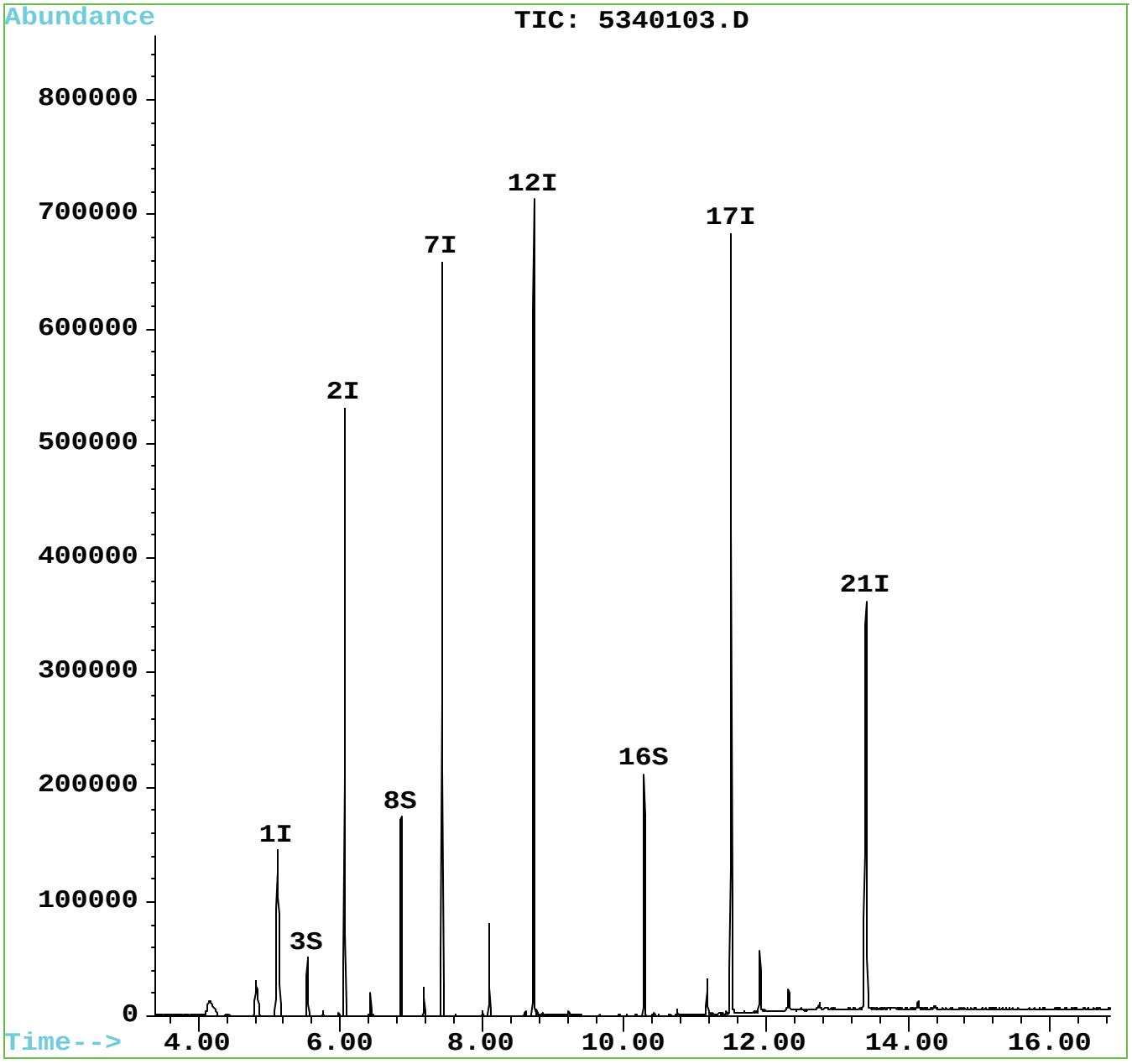
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	50391	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	237839	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	143105	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	251882	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	265413	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	223436	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	20311	11.42	ng/ul	11.4
8) 2-Fluorobiphenyl	6.86	172	50118	11.43	ng/ul	11.4
16) Terphenyl-D14	10.28	244	67212	12.56	ng/ul	12.5
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340103.d Vial: 18
Acq On : 3 Aug 12 2:45 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340104.d Vial: 19
Acq On : 3 Aug 12 3:08 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

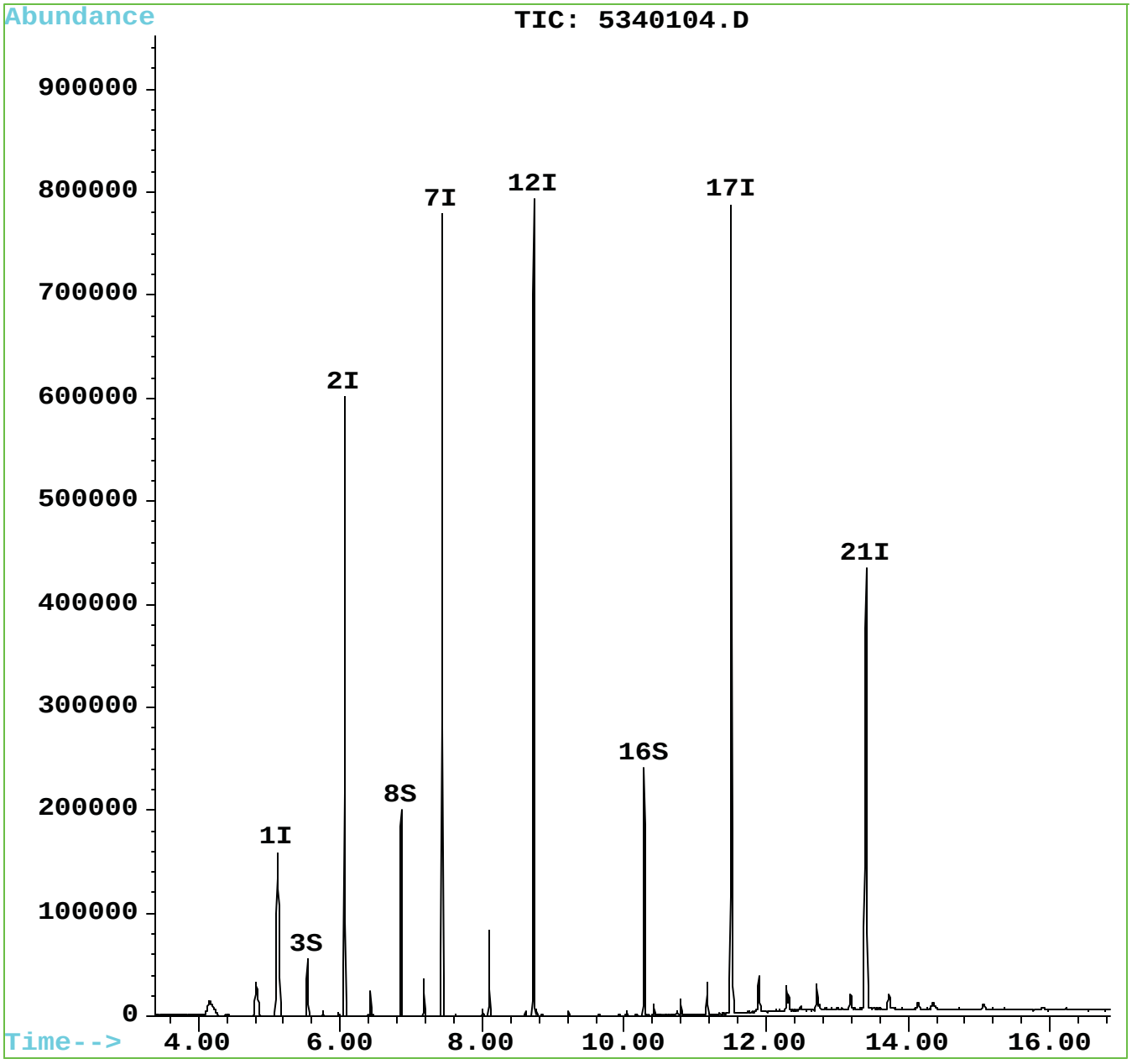
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	57078	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	267853	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	162758	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	289925	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	311459	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	261057	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	21849	10.90	ng/ul	10.9
8) 2-Fluorobiphenyl	6.86	172	55591	11.15	ng/ul	11.1
16) Terphenyl-D14	10.28	244	72897	11.84	ng/ul	11.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340104.d Vial: 19
Acq On : 3 Aug 12 3:08 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340105.d Vial: 20
Acq On : 3 Aug 12 3:31 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

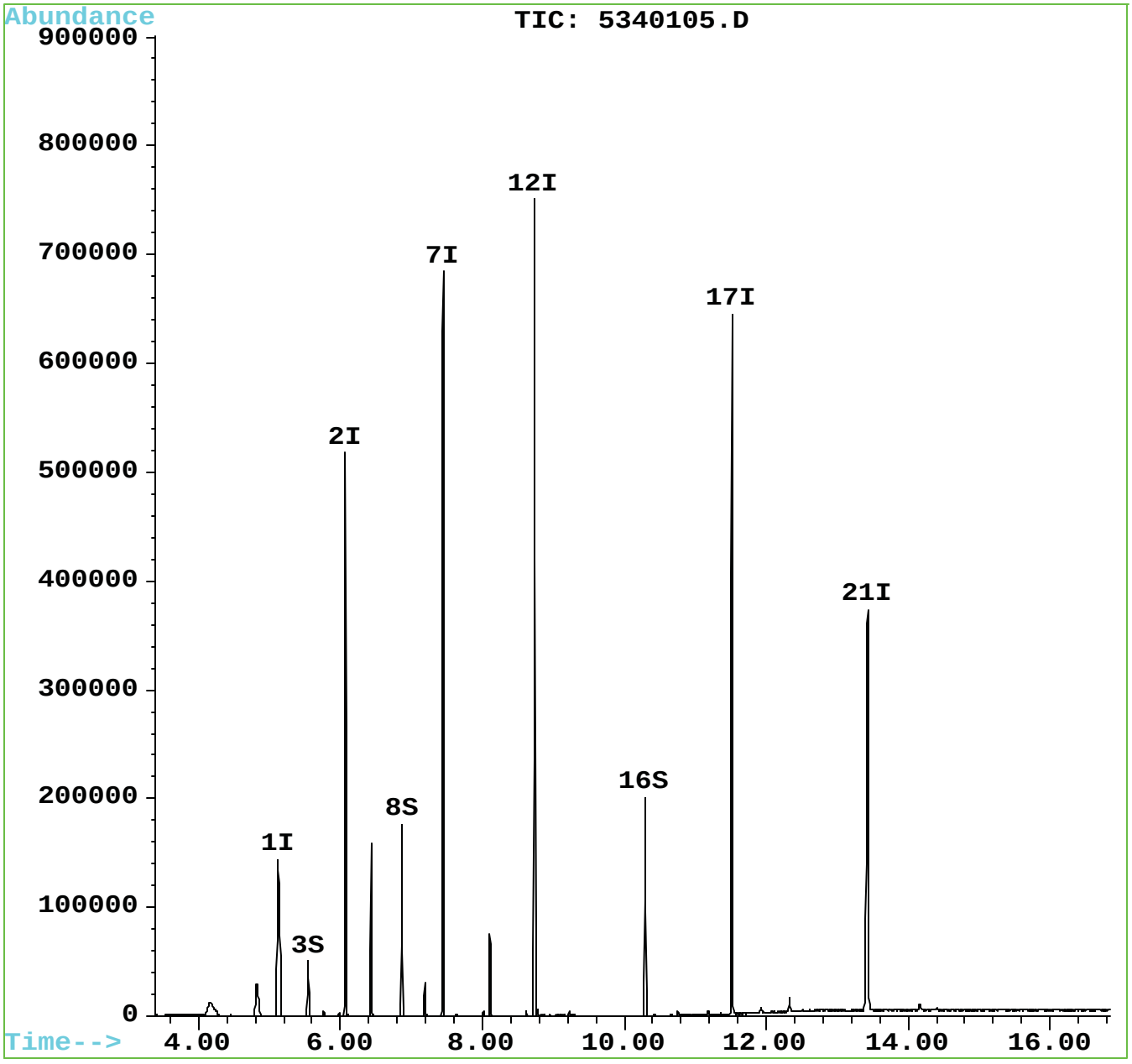
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	52163	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	244990	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	145426	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	260709	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	270989	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	227210	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	20484	11.18	ng/ul	11.1
8) 2-Fluorobiphenyl	6.87	172	50880	11.42	ng/ul	11.4
16) Terphenyl-D14	10.30	244	67564	12.20	ng/ul	12.2
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340105.d Vial: 20
Acq On : 3 Aug 12 3:31 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340106.d Vial: 21
Acq On : 3 Aug 12 5:47 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

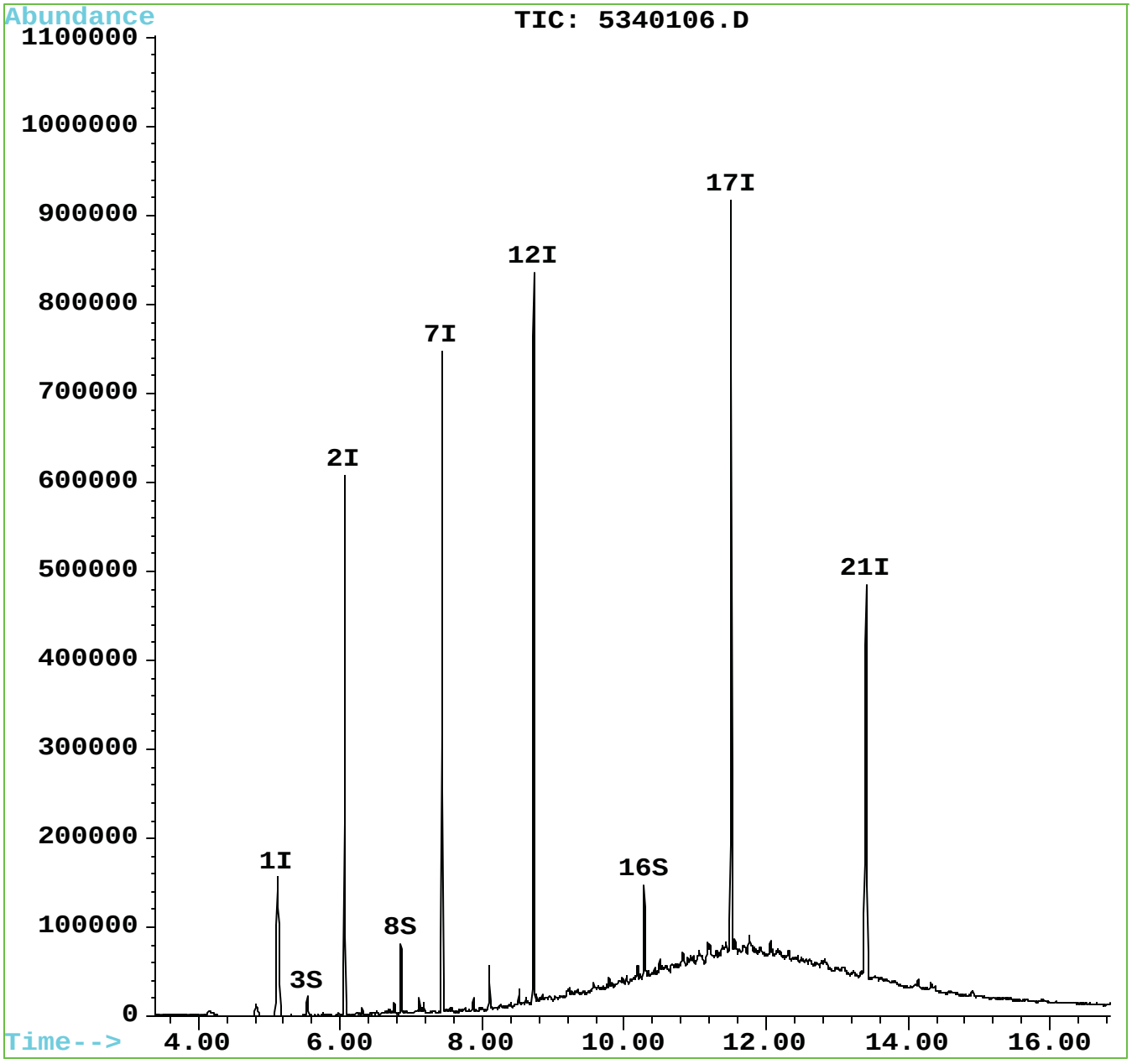
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	54997	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	266089	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	161313	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	296570	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	323202	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	263082	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	9013	4.53	ng/ul	4.5
8) 2-Fluorobiphenyl	6.85	172	21569	4.36	ng/ul	4.3
16) Terphenyl-D14	10.28	244	28310	4.49	ng/ul	4.4
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340106.d Vial: 21
Acq On : 3 Aug 12 5:47 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:16 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340107.d Vial: 22
Acq On : 3 Aug 12 6:09 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:17 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

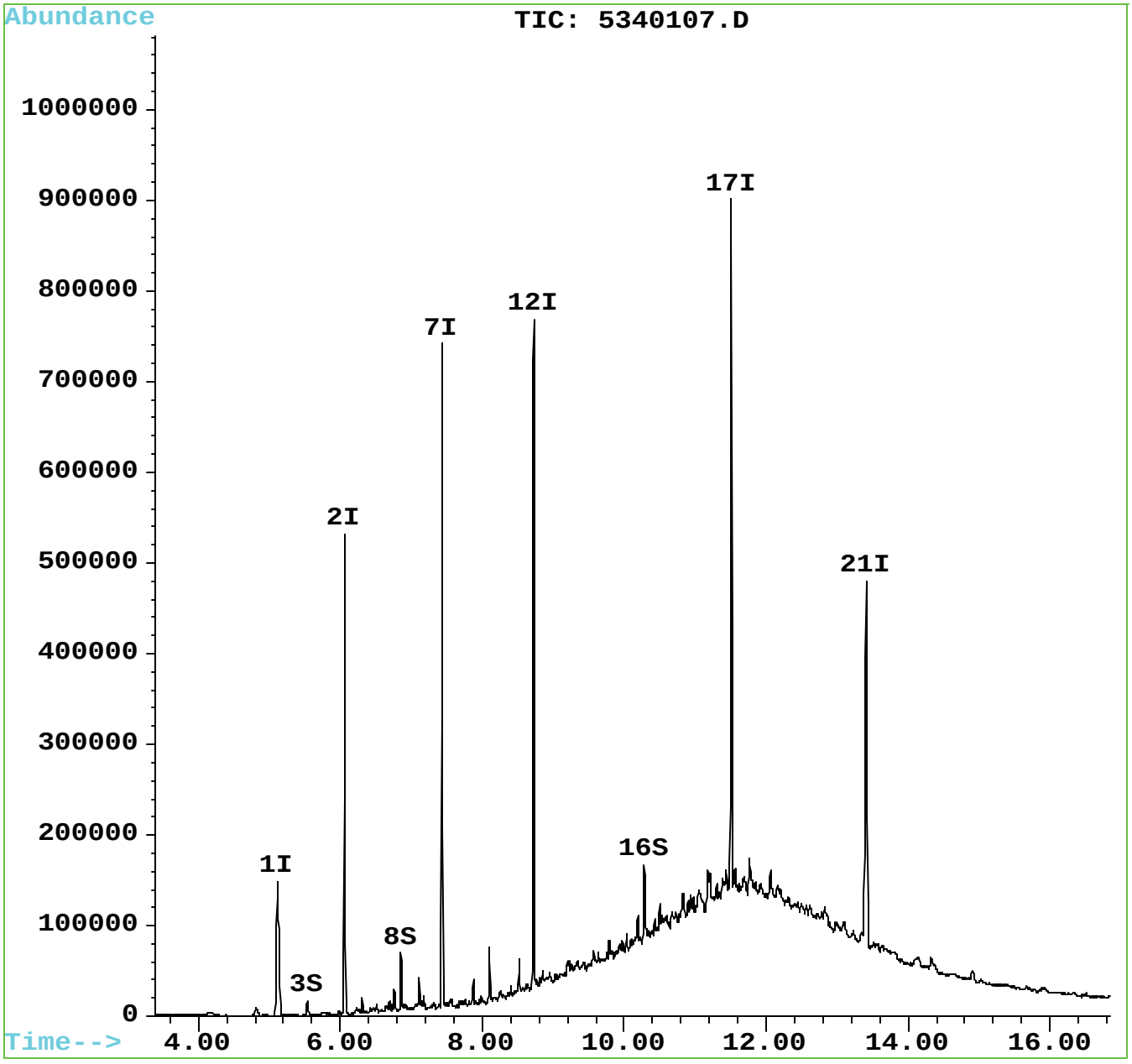
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	51626	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	244009	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.43	164	151167	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	273086	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	303274	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	243154	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	6828	3.74	ng/ul	3.7
8) 2-Fluorobiphenyl	6.85	172	16096	3.47	ng/ul	3.4
16) Terphenyl-D14	10.28	244	21063	3.63	ng/ul	3.6
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340107.d Vial: 22
Acq On : 3 Aug 12 6:09 pm Operator: PL
Sample : pna-s 30g/1ml df:15 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:17 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340108.d Vial: 23
Acq On : 3 Aug 12 3:53 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:19 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

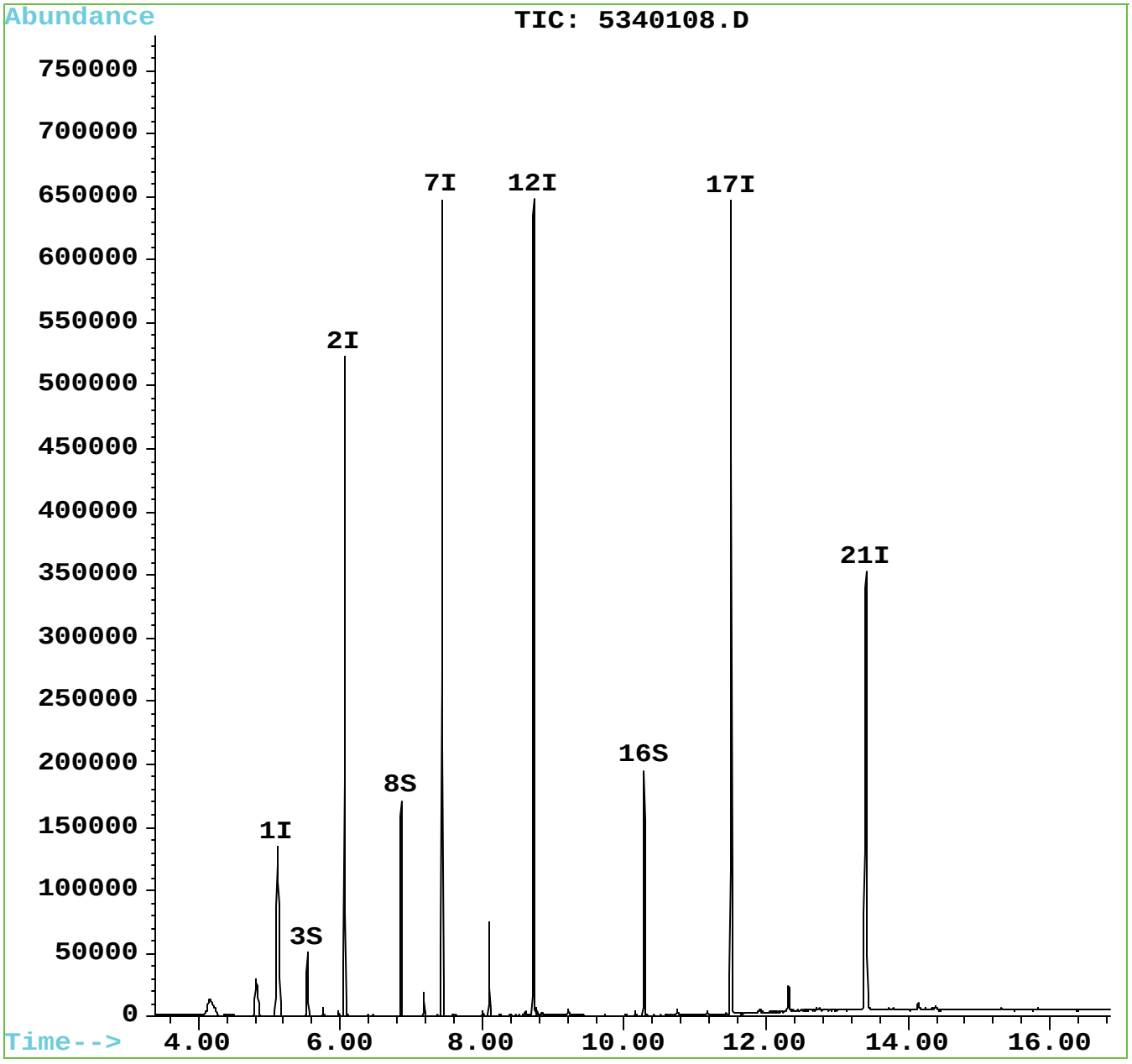
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	49251	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	233888	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	138552	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	245047	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	259274	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	213542	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	20854	11.92	ng/ul	11.9
8) 2-Fluorobiphenyl	6.86	172	47949	11.29	ng/ul	11.2
16) Terphenyl-D14	10.28	244	59140	11.36	ng/ul	11.3
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340108.d Vial: 23
Acq On : 3 Aug 12 3:53 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:19 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340109.d Vial: 24
Acq On : 3 Aug 12 4:16 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:20 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

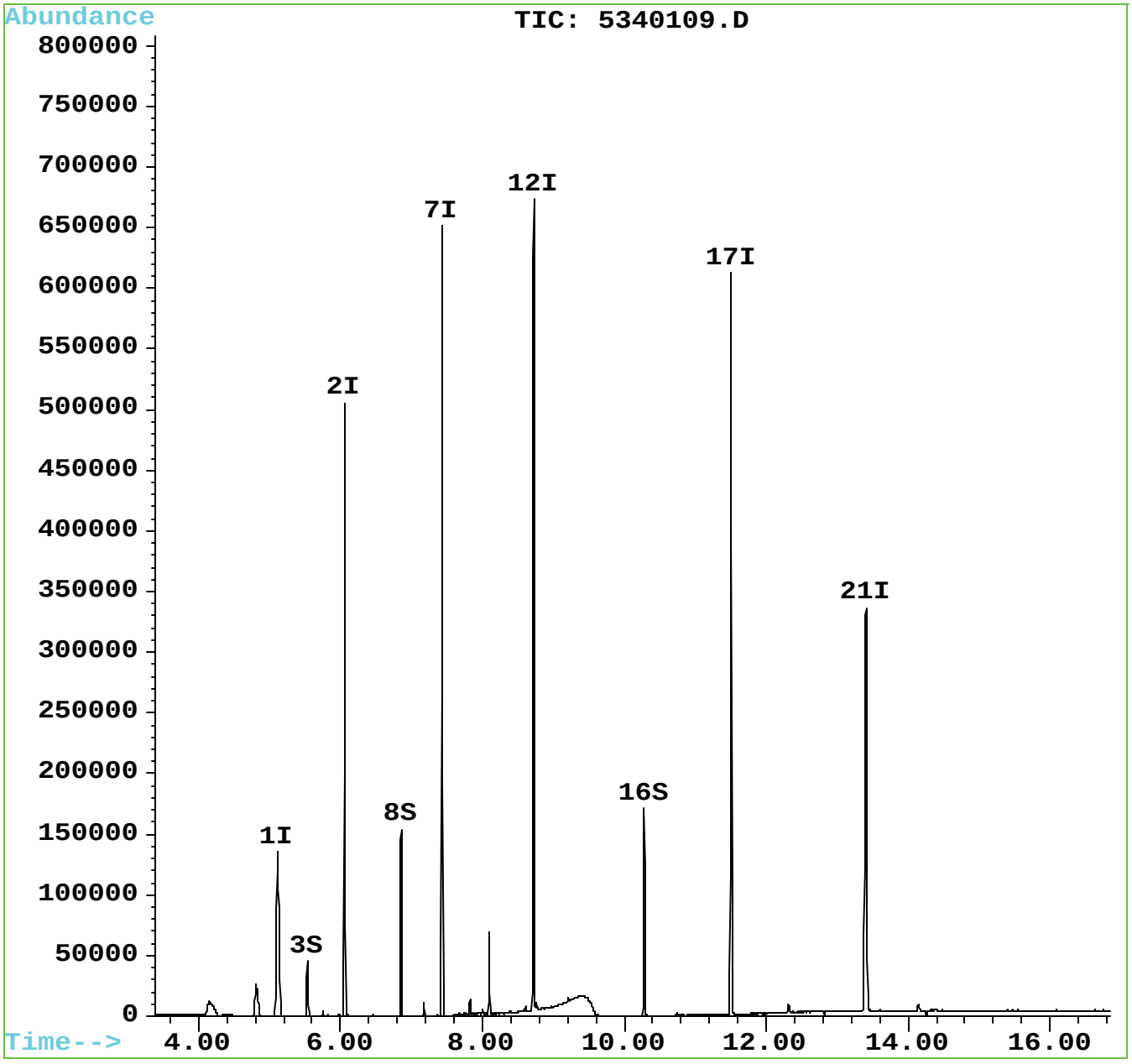
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	48625	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	229550	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	137360	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	241324	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	243995	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	202744	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	18528	10.79	ng/ul	10.7
8) 2-Fluorobiphenyl	6.86	172	42885	10.19	ng/ul	10.1
16) Terphenyl-D14	10.28	244	52188	10.18	ng/ul	10.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340109.d Vial: 24
Acq On : 3 Aug 12 4:16 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:20 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340110.d Vial: 25
Acq On : 3 Aug 12 4:39 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:21 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

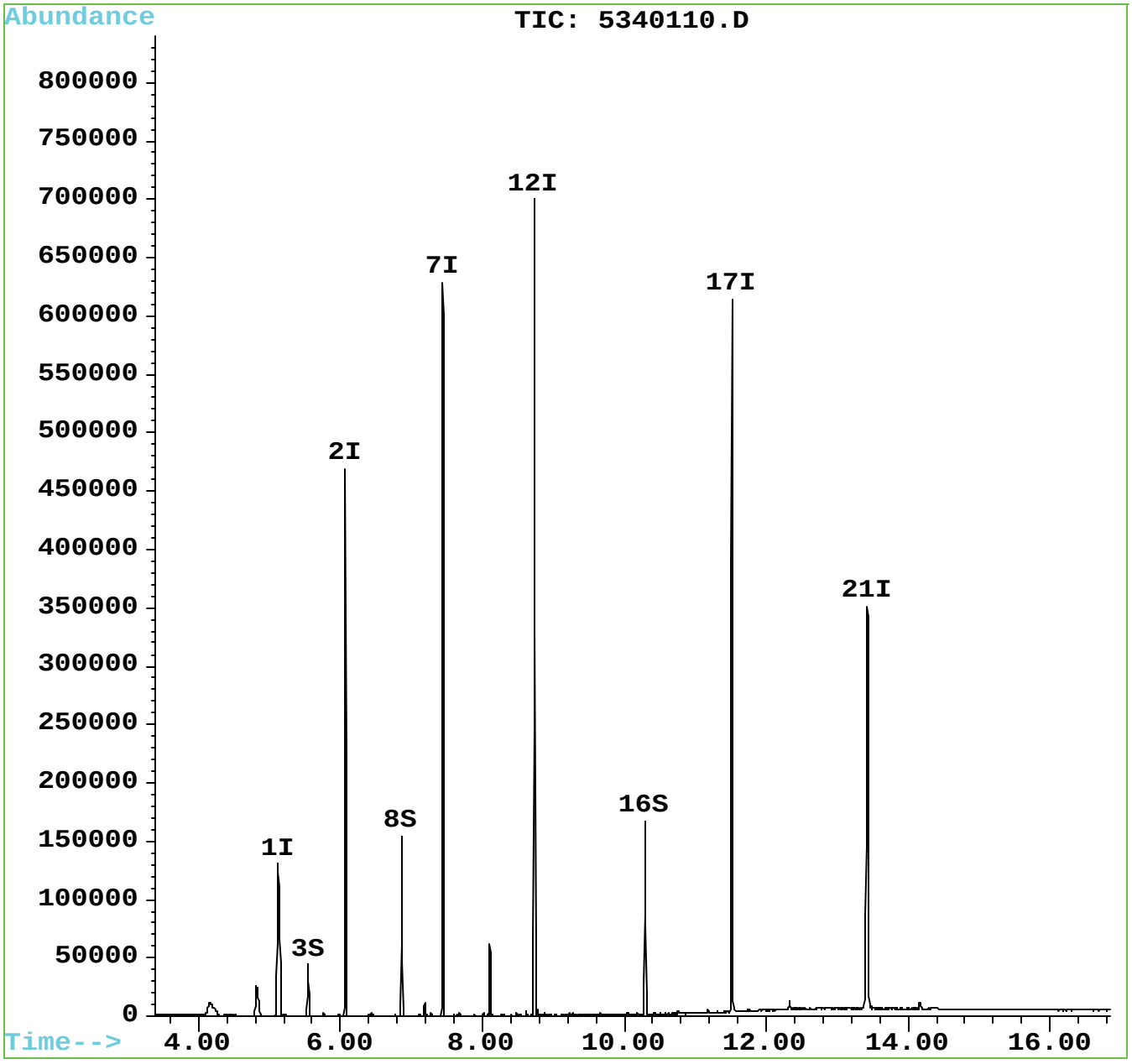
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	46300	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	220955	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.44	164	135454	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.74	188	243342	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	258383	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	214051	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	17873	10.81	ng/ul	10.8
8) 2-Fluorobiphenyl	6.87	172	42536	10.25	ng/ul	10.2
16) Terphenyl-D14	10.30	244	54987	10.64	ng/ul	10.6
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340110.d Vial: 25
Acq On : 3 Aug 12 4:39 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:21 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340111.d Vial: 26
Acq On : 3 Aug 12 5:01 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:21 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

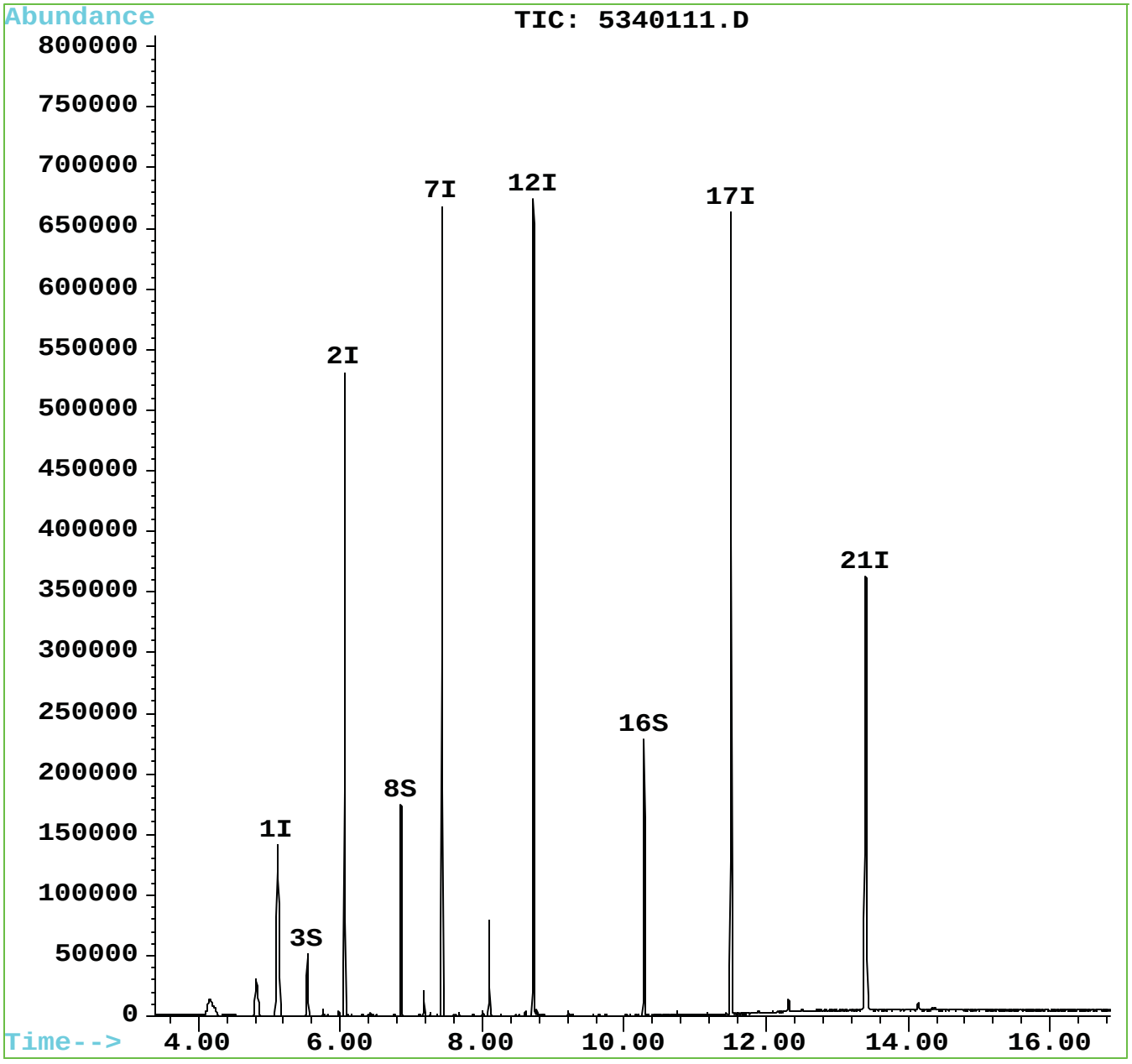
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	49386	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	234465	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.43	164	139940	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	250309	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	260183	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	217926	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	20432	11.65	ng/ul	11.6
8) 2-Fluorobiphenyl	6.86	172	49475	11.54	ng/ul	11.5
16) Terphenyl-D14	10.28	244	68898	12.96	ng/ul	12.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\5340111.d Vial: 26
Acq On : 3 Aug 12 5:01 pm Operator: PL
Sample : pna-s 30g/1ml df:6 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:21 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\5340112.d Vial: 5
Acq On : 8 Aug 12 1:34 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:19 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

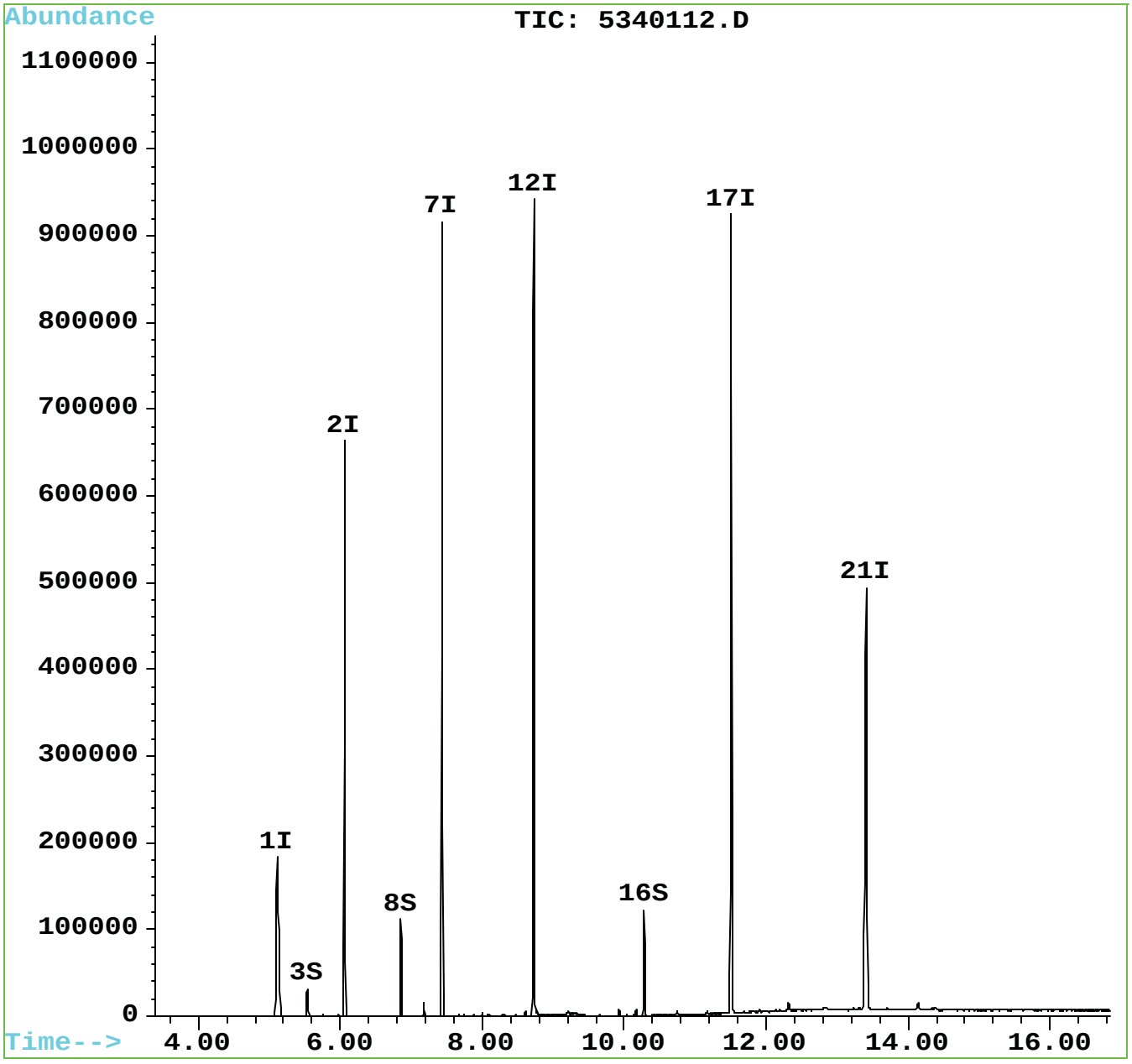
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	62003	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	301338	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.43	164	188663	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	332392	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	367025	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	303058	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	12799	5.68	ng/ul	5.6
8) 2-Fluorobiphenyl	6.85	172	29306	5.07	ng/ul	5.0
16) Terphenyl-D14	10.28	244	38685	5.48	ng/ul	5.4
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\5340112.d Vial: 5
Acq On : 8 Aug 12 1:34 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:19 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\5340113.d Vial: 6
Acq On : 8 Aug 12 1:57 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:19 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

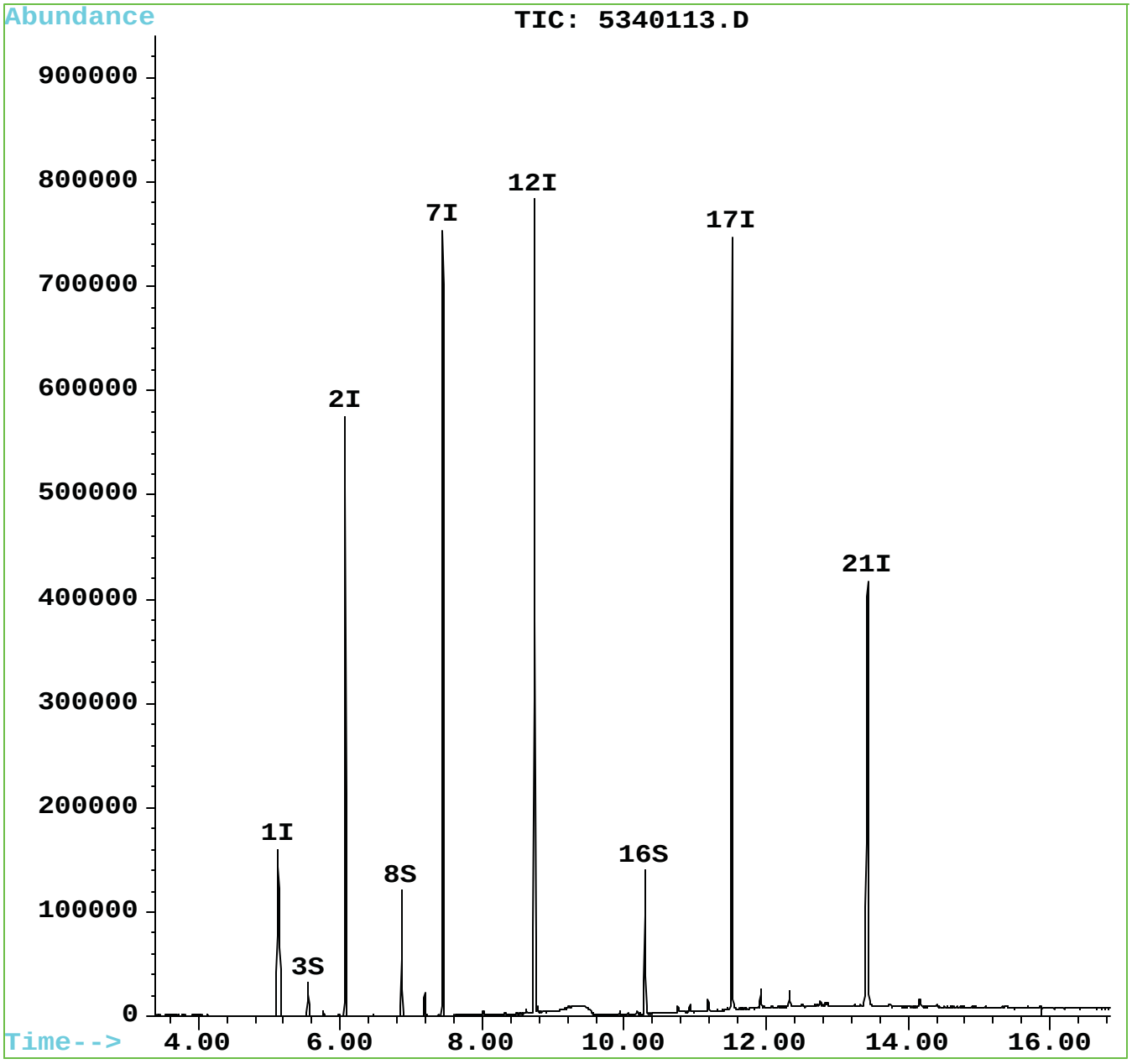
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	52381	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	255431	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.44	164	156808	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.74	188	276745	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	304289	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	250579	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	12360	6.47	ng/ul	6.4
8) 2-Fluorobiphenyl	6.86	172	31912	6.64	ng/ul	6.6
16) Terphenyl-D14	10.29	244	41900	7.13	ng/ul	7.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\5340113.d Vial: 6
Acq On : 8 Aug 12 1:57 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:19 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\5340114m.d Vial: 7
Acq On : 8 Aug 12 2:19 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:24 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

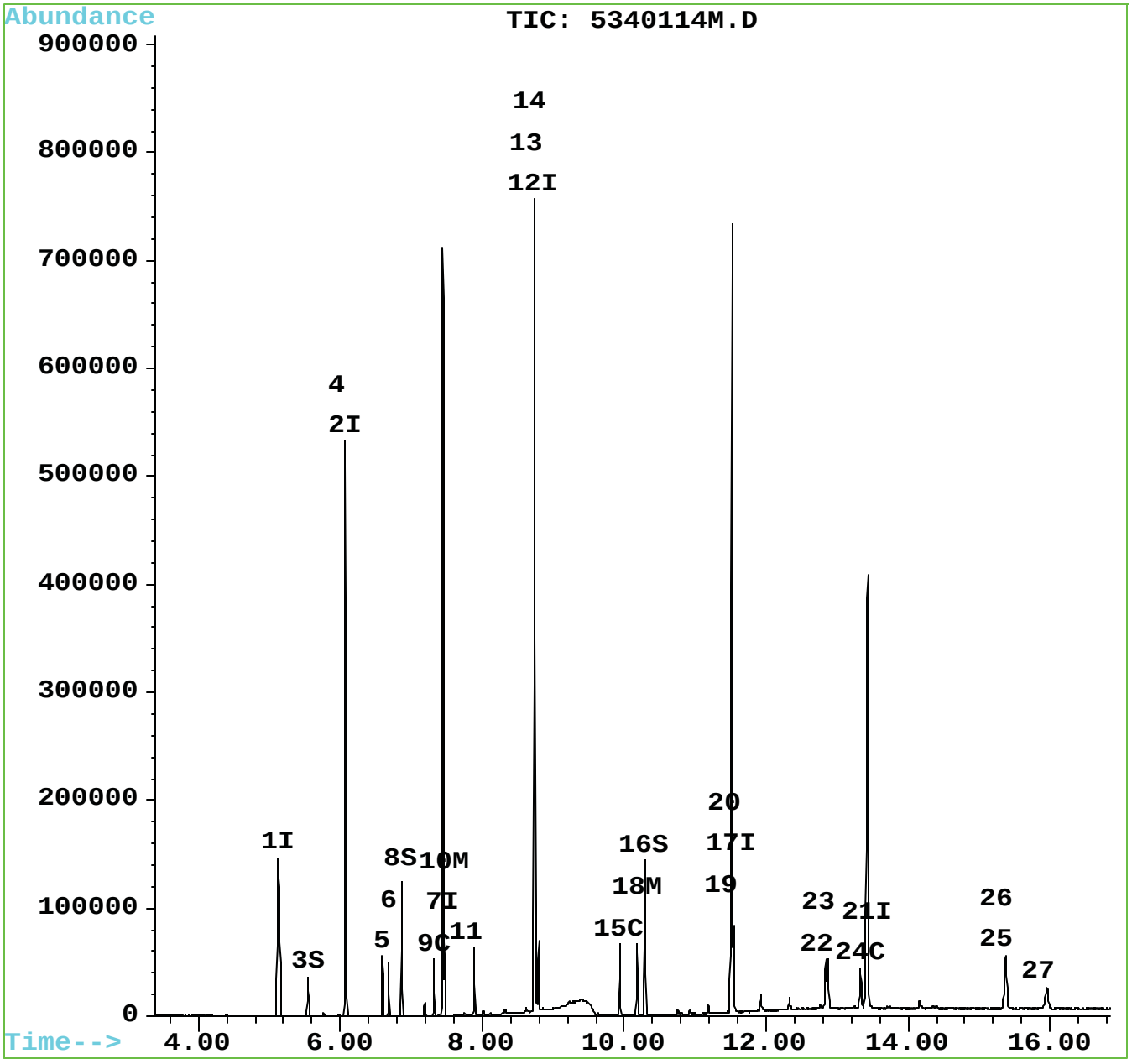
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	50073	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	244607	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.44	164	149948	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.74	188	267653	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.52	240	296102	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.43	264	244100	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	14160	7.74	ng/ul	7.7
8) 2-Fluorobiphenyl	6.86	172	32151	7.00	ng/ul	7.0
16) Terphenyl-D14	10.29	244	42979	7.56	ng/ul	7.5
Target Compounds						Qvalu
4) Naphthalene	6.08	128	21461	3.53	ng/ul	9
5) 2-Methylnaphthalene	6.59	141	11222	3.30	ng/ul	9
6) 1-Methylnaphthalene	6.68	142	12500	3.16	ng/ul	9
9) Acenaphthylene	7.32	152	21283	3.46	ng/ul	9
10) Acenaphthene **	7.47	154	13942	3.80	ng/ul	9
11) Fluorene	7.89	166	17065	3.60	ng/ul	10
13) Phenanthrene	8.75	178	25423	3.63	ng/ul	10
14) Anthracene	8.79	178	24436	3.46	ng/ul	9
15) Fluoranthene	9.94	202	28160	3.57	ng/ul	9
18) Pyrene **	10.18	202	29229	4.03	ng/ul	9
19) Benzo(a)anthracene	11.50	228	28900	3.95	ng/ul	9
20) Chrysene	11.54	228	27550	3.83	ng/ul	10
22) Benzo(b)fluoranthene	12.84	252	25376	3.97	ng/ulm	9
23) Benzo(k)fluoranthene	12.88	252	25763	3.94	ng/ul	9
24) Benzo(a)pyrene	13.33	252	22074	4.13	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.37	276	26728	3.73	ng/ul	9
26) Dibenzo(ah)anthracene	15.37	278	22062	3.63	ng/ul	9
27) Benzo(ghi)perylene	15.96	276	20503	3.54	ng/ul	9

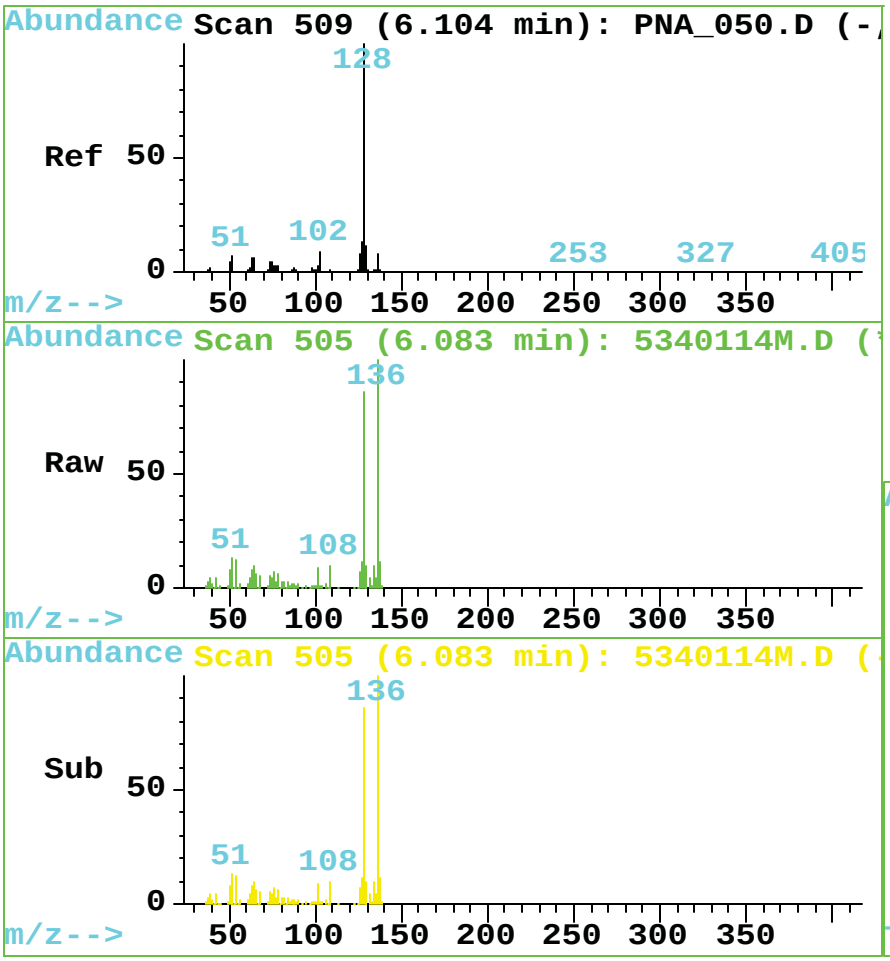
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\5340114m.d Vial: 7
Acq On : 8 Aug 12 2:19 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:24 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

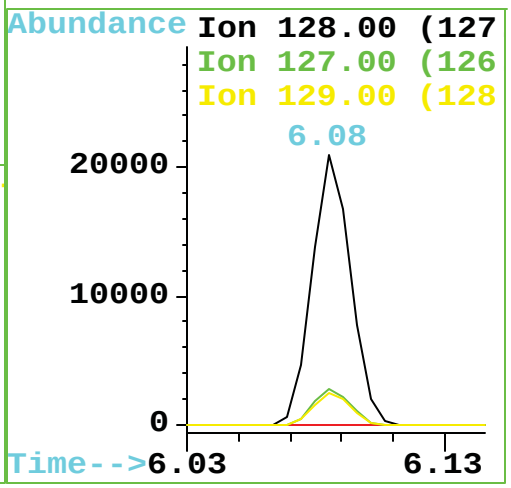


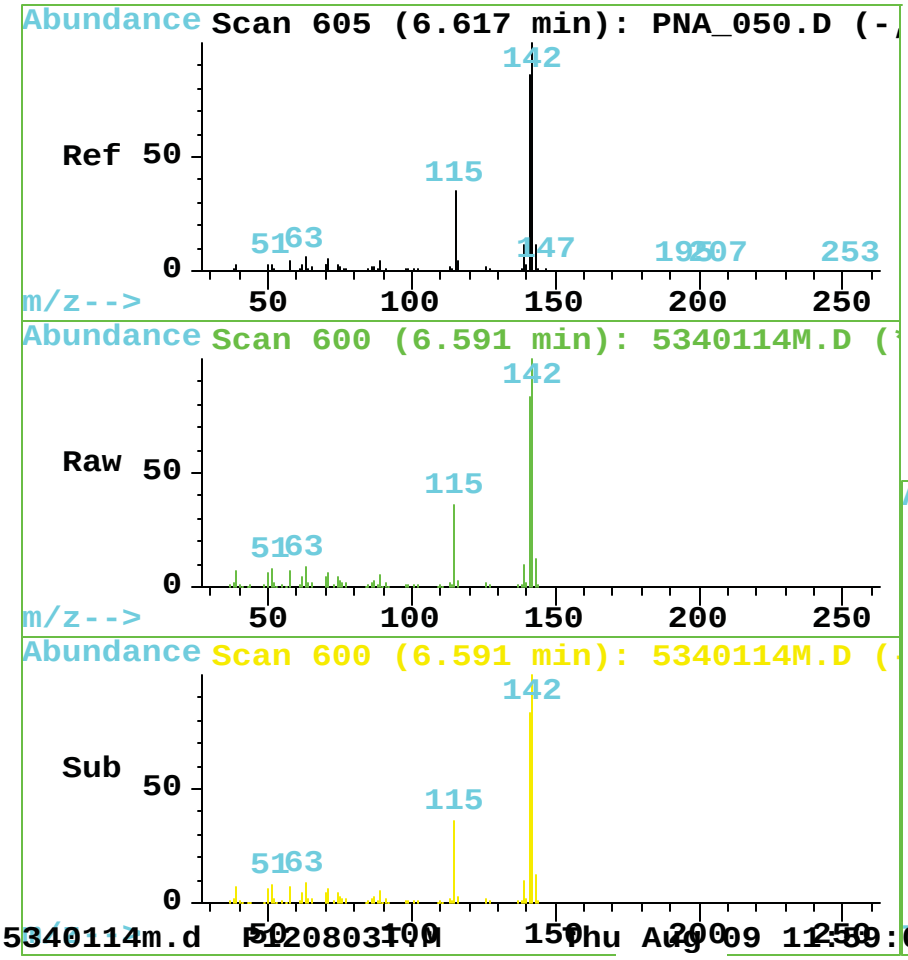


#4
Naphthalene
Concen: 3.53 ng/ul
RT: 6.08 min Scan# 505
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:128 Resp: 21461

Ion	Ratio	Lower	Upper
128	100		
127	12.8	0.0	43.0
129	11.5	0.0	41.1
0	0.0	0.0	0.0

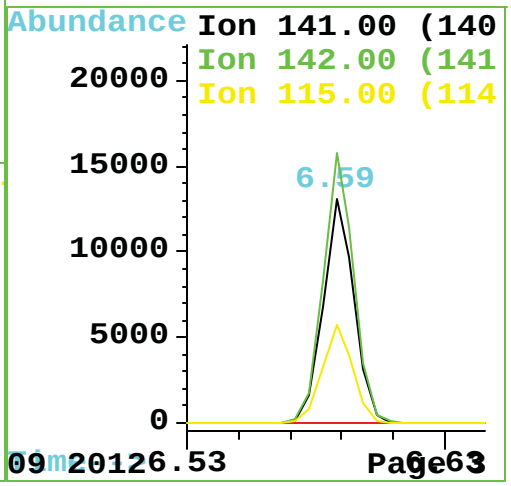


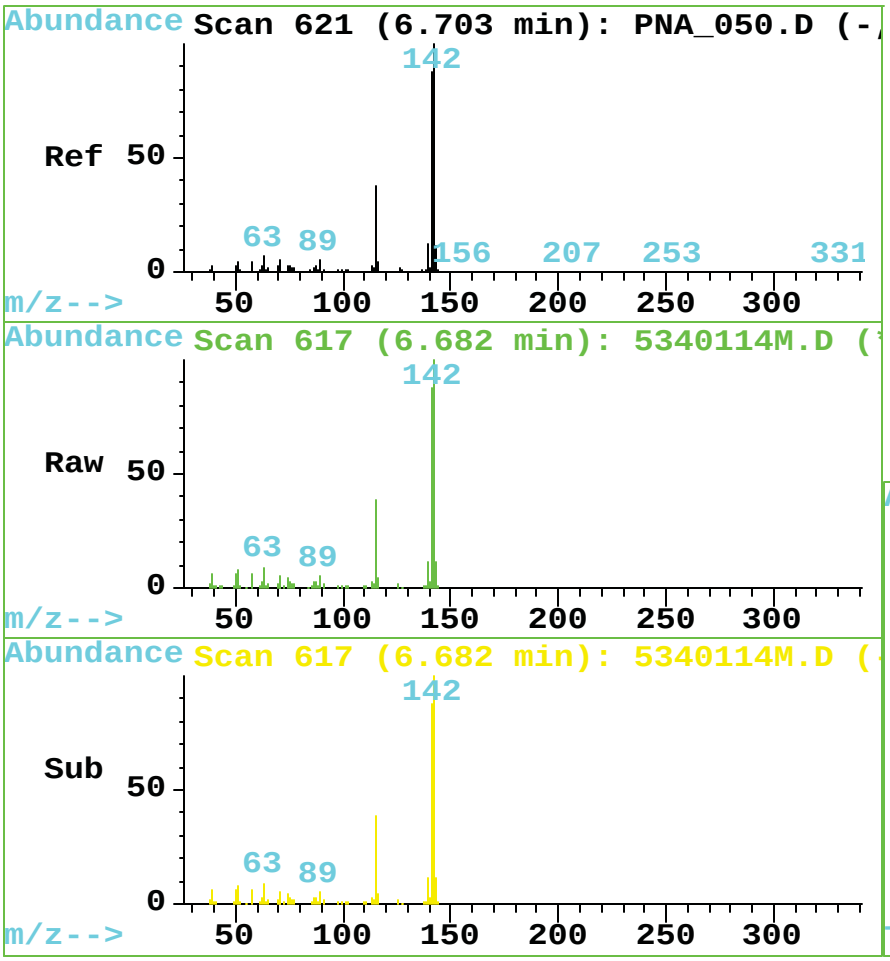


#5
2-Methylnaphthalene
Concen: 3.30 ng/ul
RT: 6.59 min Scan# 600
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:141 Resp: 11222

Ion	Ratio	Lower	Upper
141	100		
142	118.8	82.2	152.5
115	43.7	29.2	54.3
0	0.0	0.0	0.0

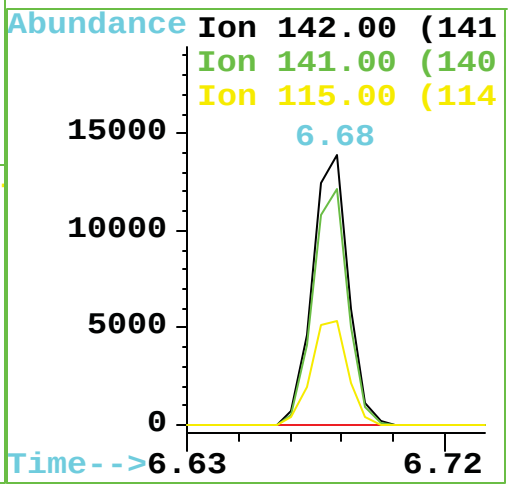


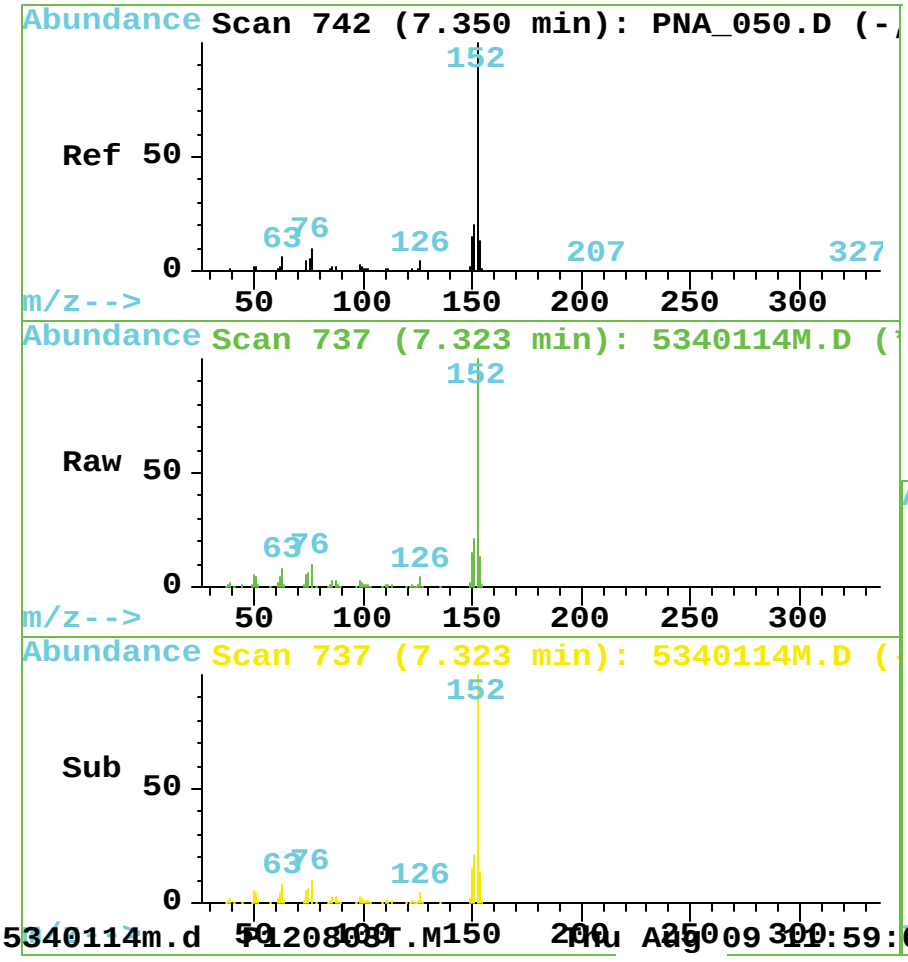


#6
1-Methylnaphthalene
Concen: 3.16 ng/ul
RT: 6.68 min Scan# 617
Delta R.T. -0.00 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:142 Resp: 12500

Ion	Ratio	Lower	Upper
142	100		
141	86.7	70.6	105.9
115	39.5	30.1	45.1
0	0.0	0.0	0.0

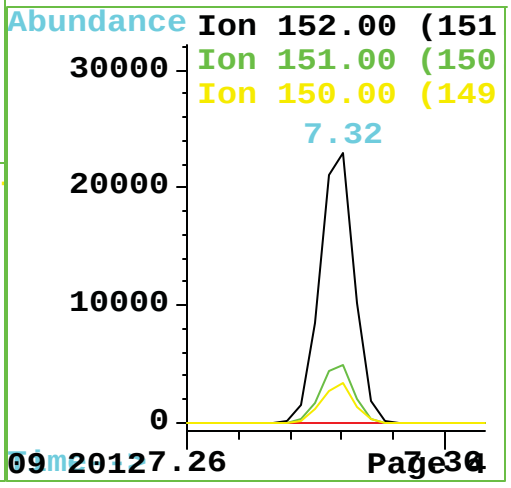


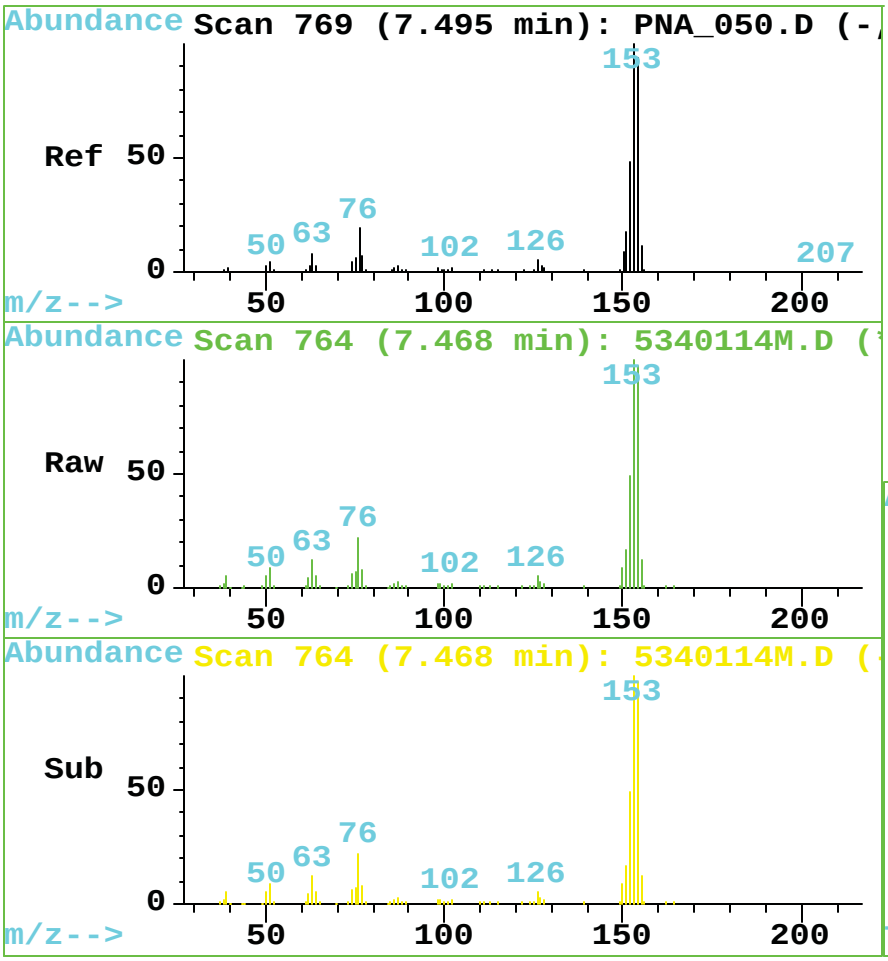


#9
Acenaphthylene
Concen: 3.46 ng/ul
RT: 7.32 min Scan# 737
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:152 Resp: 21283

Ion	Ratio	Lower	Upper
152	100		
151	21.1	0.0	50.1
150	13.8	0.0	44.4
0	0.0	0.0	0.0

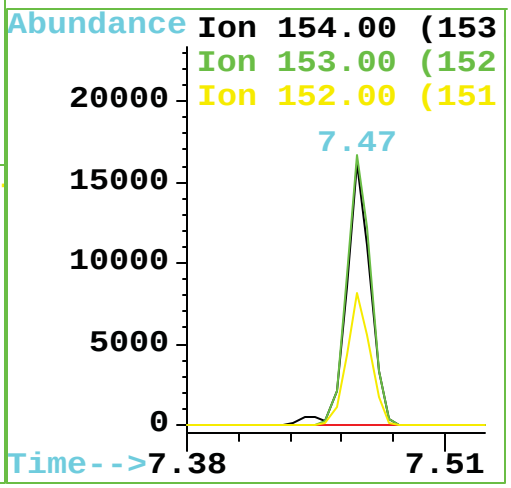


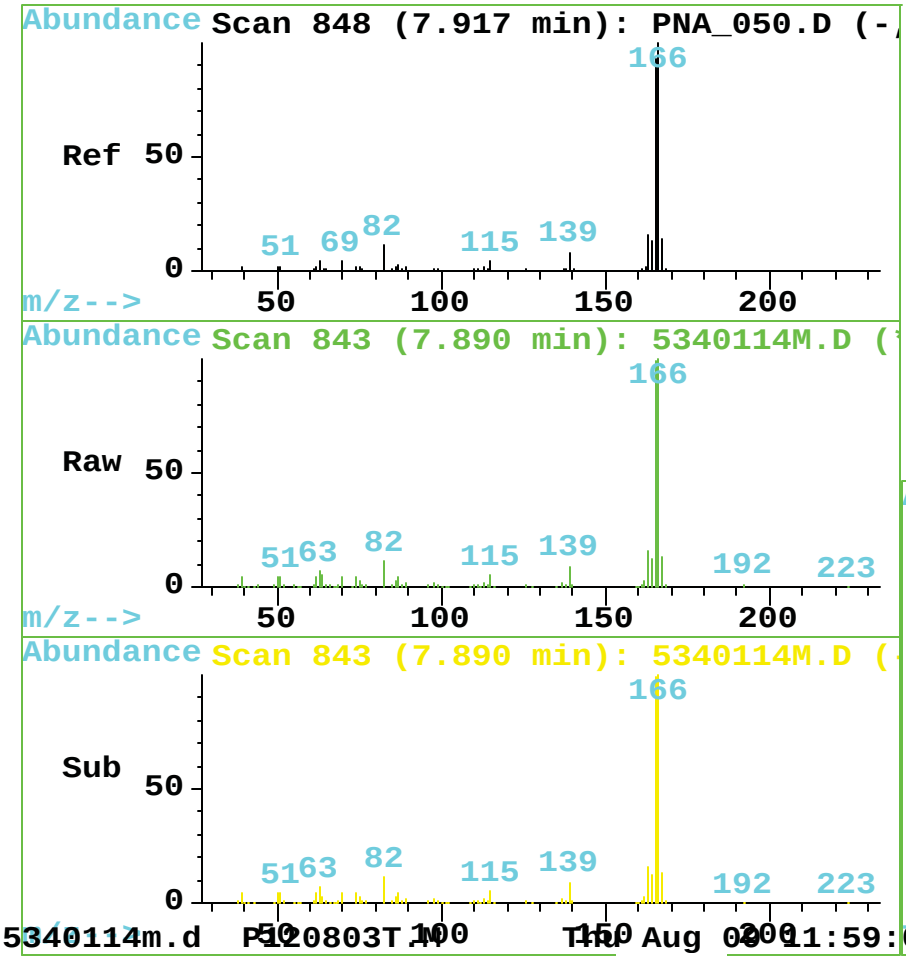


#10
Acenaphthene **
Concen: 3.80 ng/ul
RT: 7.47 min Scan# 764
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:154 Resp: 13942

Ion	Ratio	Lower	Upper
154	100		
153	101.8	76.9	136.9
152	48.7	26.1	76.1
0	0.0	0.0	0.0

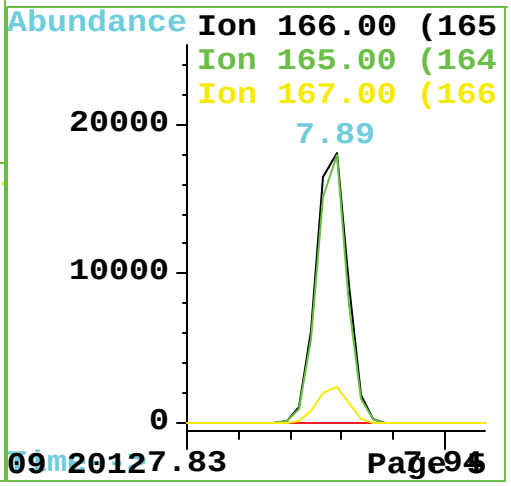


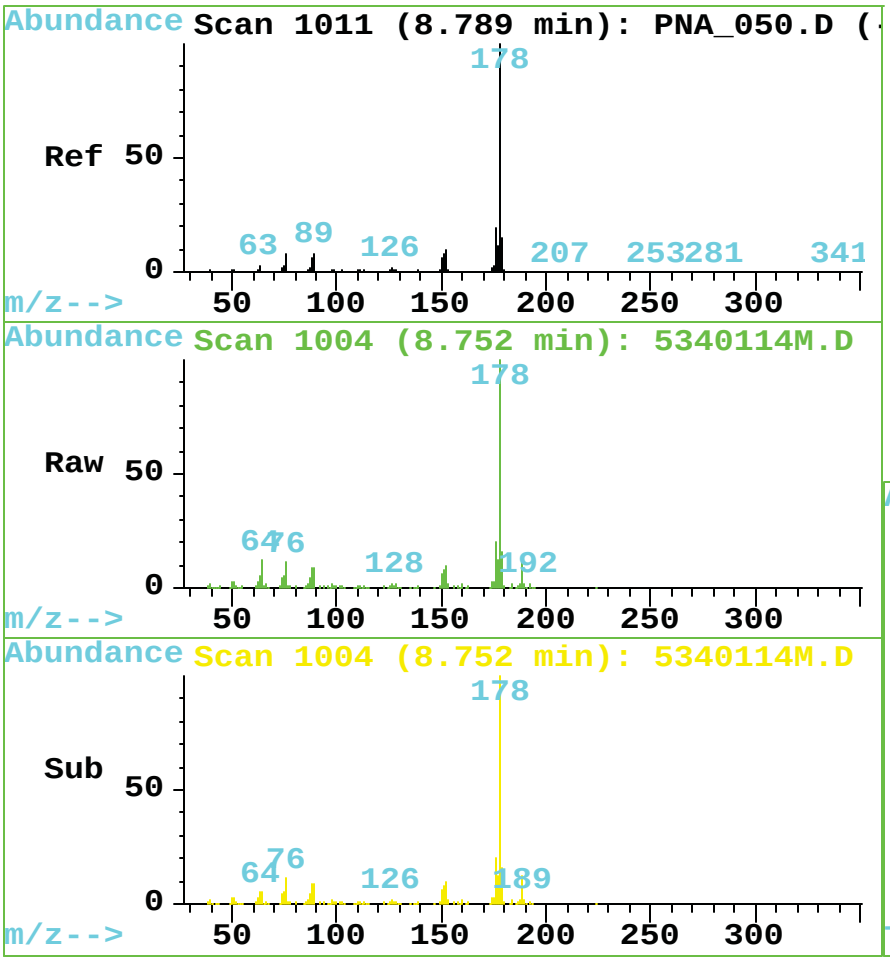


#11
Fluorene
Concen: 3.60 ng/ul
RT: 7.89 min Scan# 843
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:166 Resp: 17065

Ion	Ratio	Lower	Upper
166	100		
165	93.4	63.1	123.1
167	13.1	0.0	43.4
0	0.0	0.0	0.0

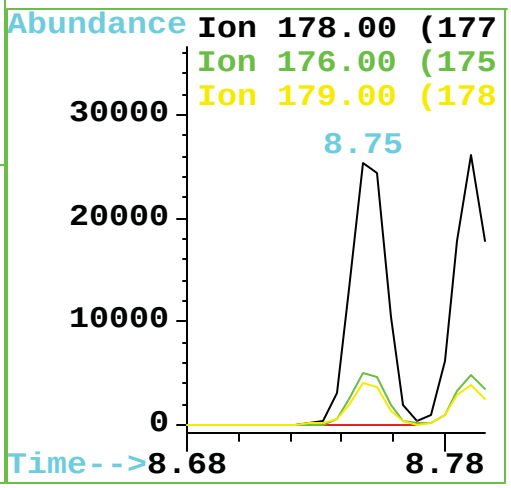


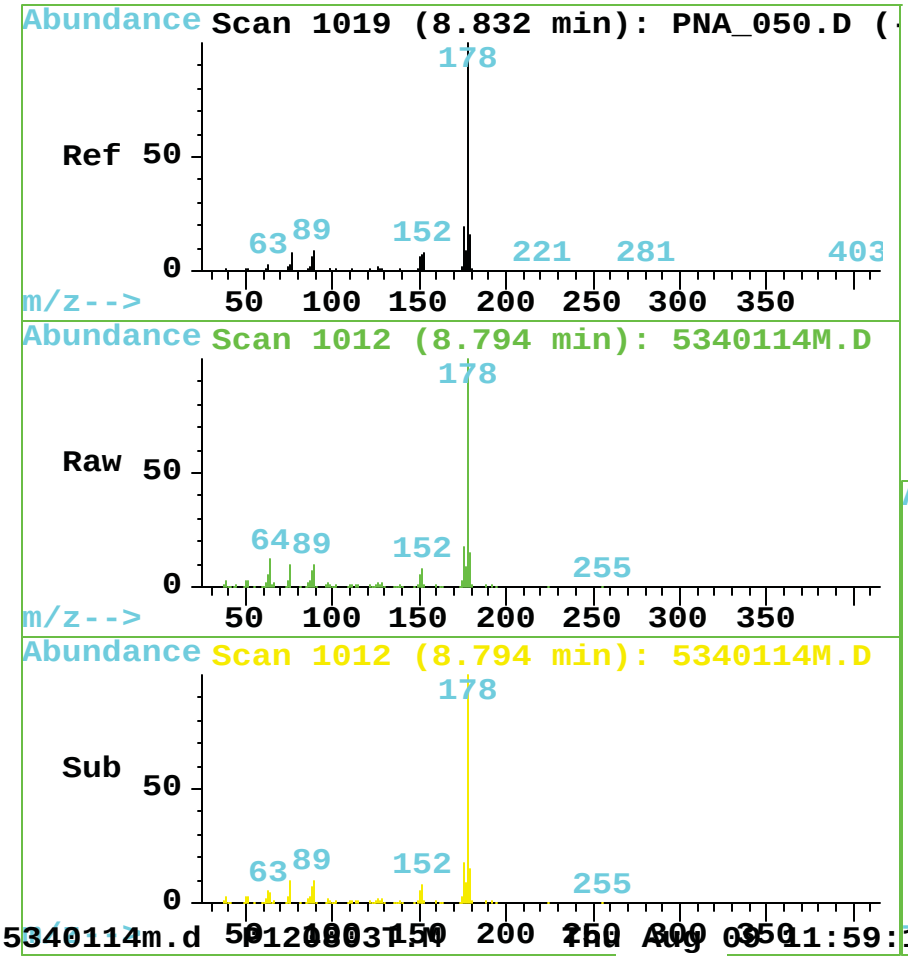


#13
Phenanthrene
Concen: 3.63 ng/ul
RT: 8.75 min Scan# 1004
Delta R.T. -0.02 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:178 Resp: 25423

Ion	Ratio	Lower	Upper
178	100		
176	19.2	0.0	49.3
179	15.4	0.0	45.3
0	0.0	0.0	0.0

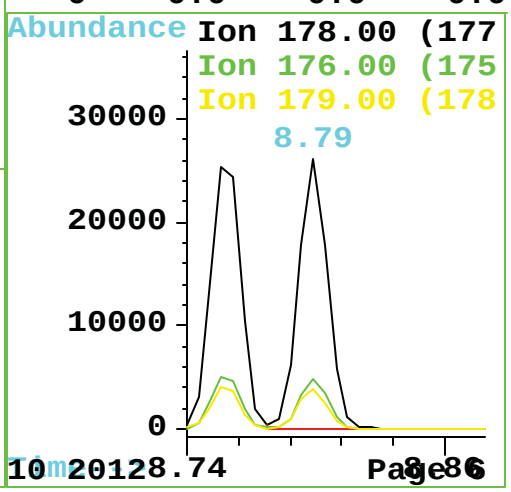


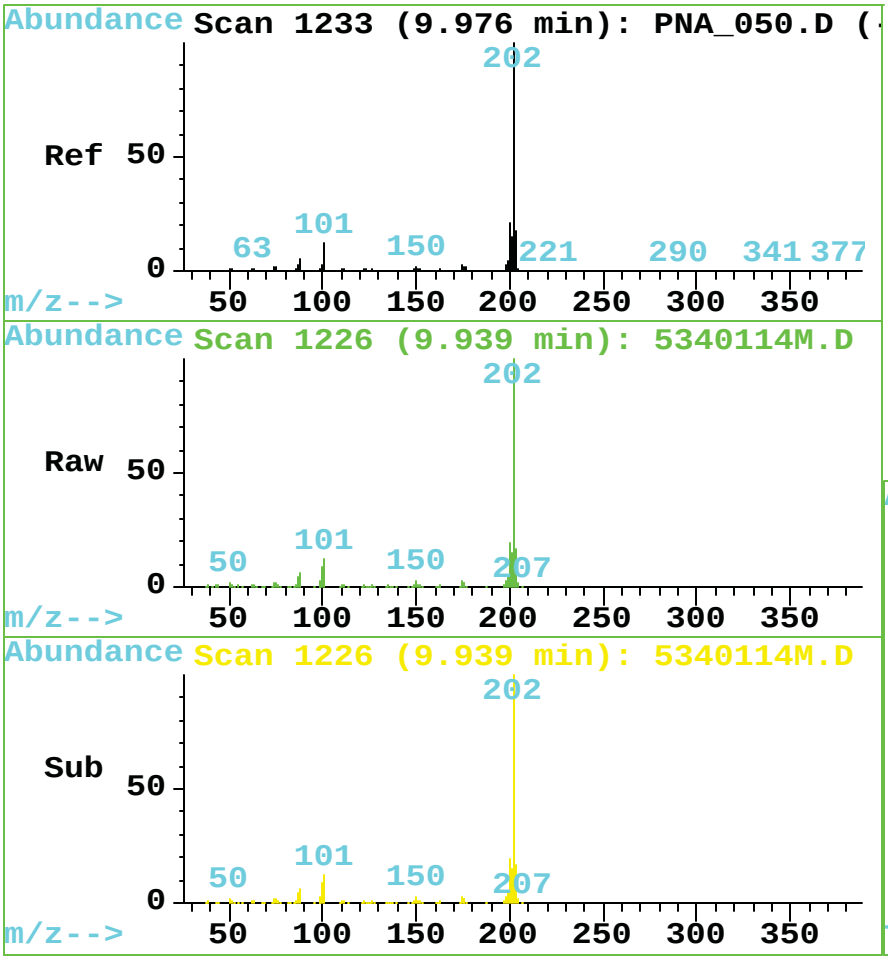


#14
Anthracene
Concen: 3.46 ng/ul
RT: 8.79 min Scan# 1012
Delta R.T. -0.02 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:178 Resp: 24436

Ion	Ratio	Lower	Upper
178	100		
176	18.4	0.0	49.0
179	14.7	0.0	45.6
0	0.0	0.0	0.0

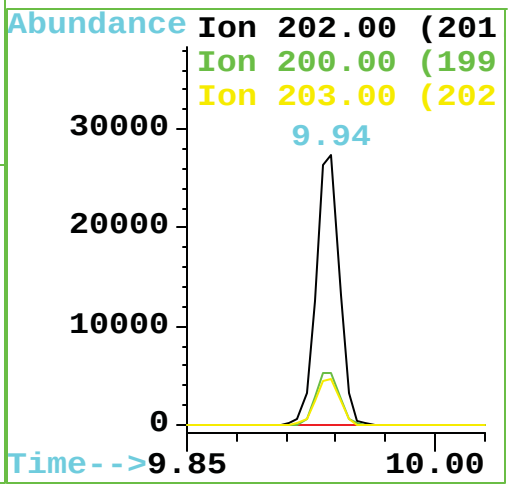


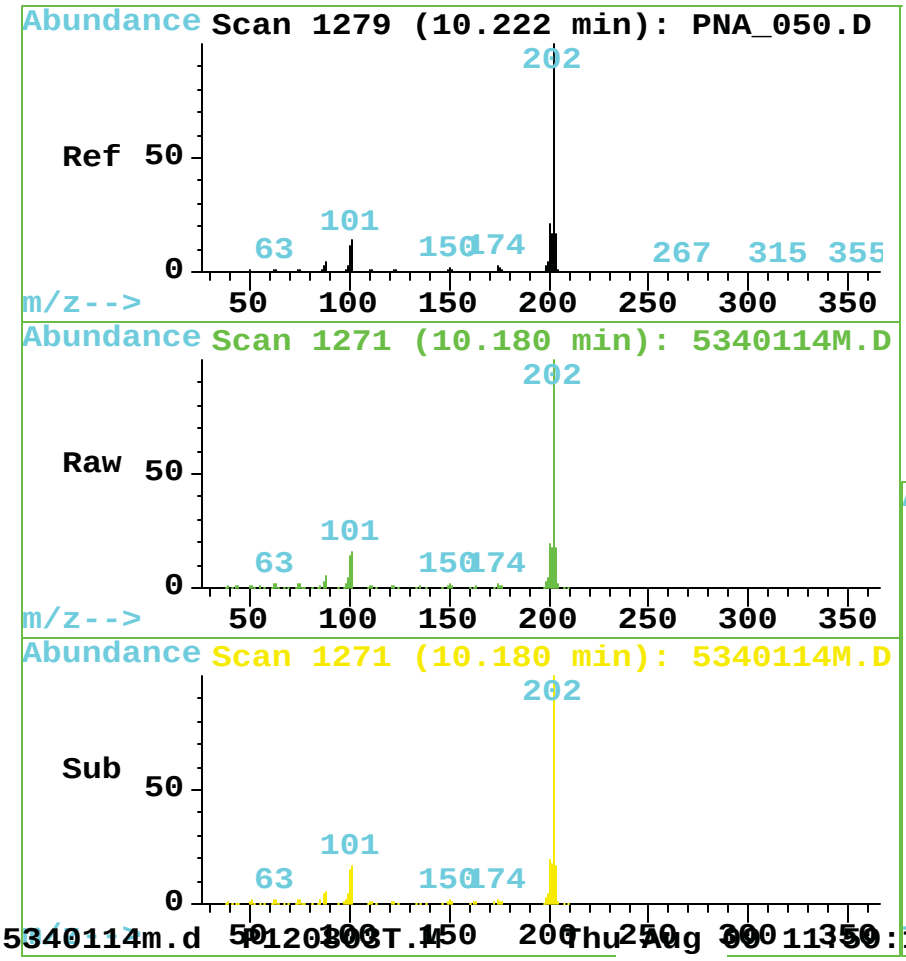


#15
Fluoranthene
Concen: 3.57 ng/ul
RT: 9.94 min Scan# 1226
Delta R.T. -0.01 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:202 Resp: 28160

Ion	Ratio	Lower	Upper
202	100		
200	20.0	0.0	50.9
203	17.9	0.0	47.6
0	0.0	0.0	0.0

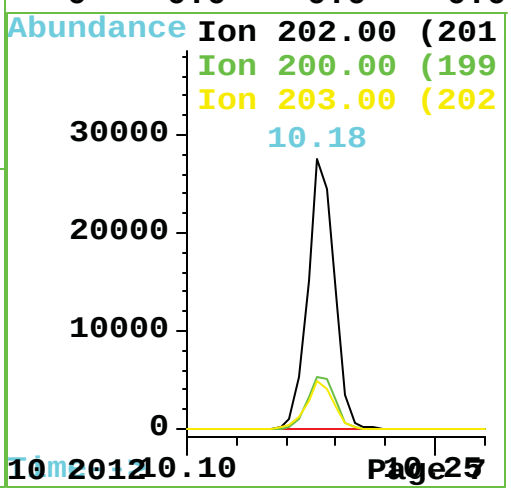


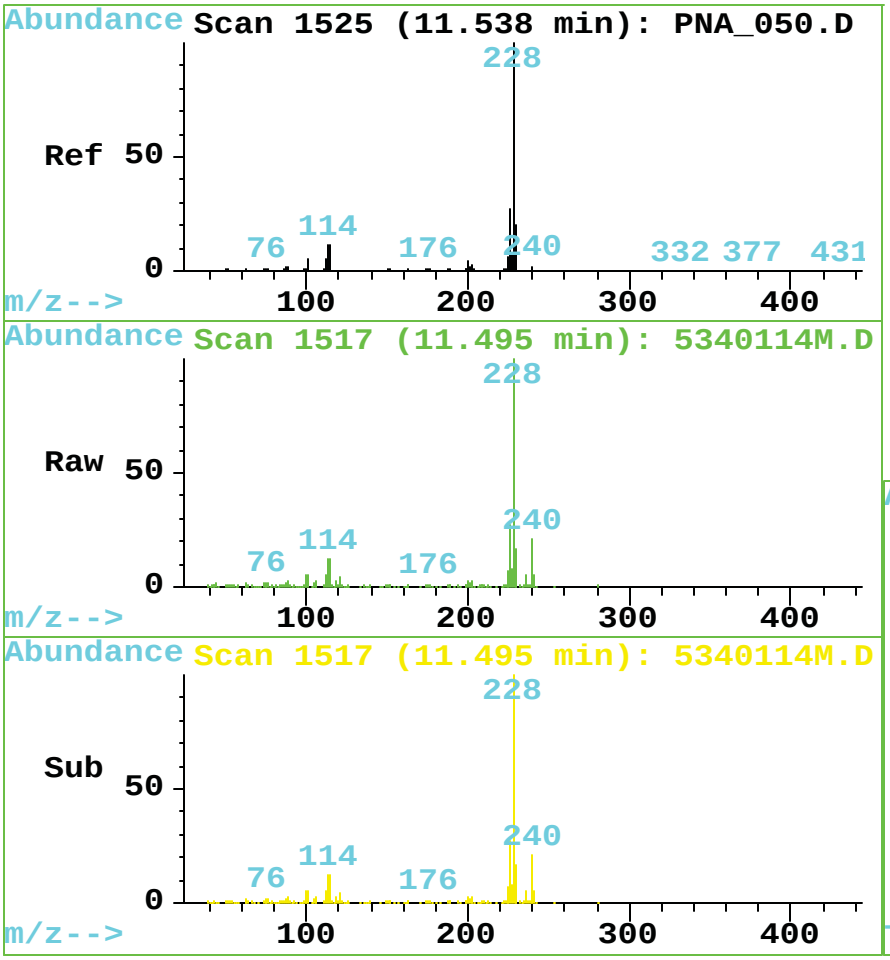


#18
Pyrene **
Concen: 4.03 ng/ul
RT: 10.18 min Scan# 1271
Delta R.T. -0.02 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:202 Resp: 29229

Ion	Ratio	Lower	Upper
202	100		
200	20.1	0.0	51.0
203	17.9	0.0	47.7
0	0.0	0.0	0.0

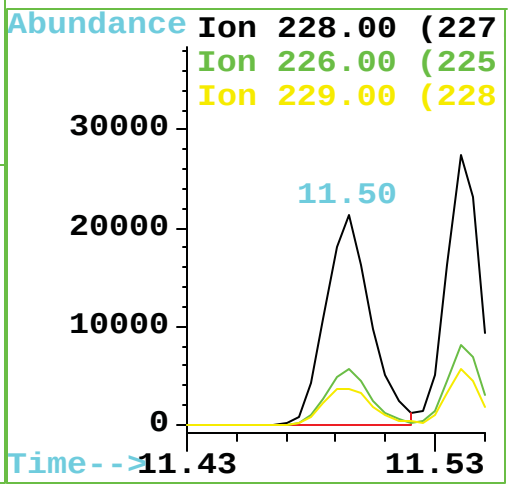


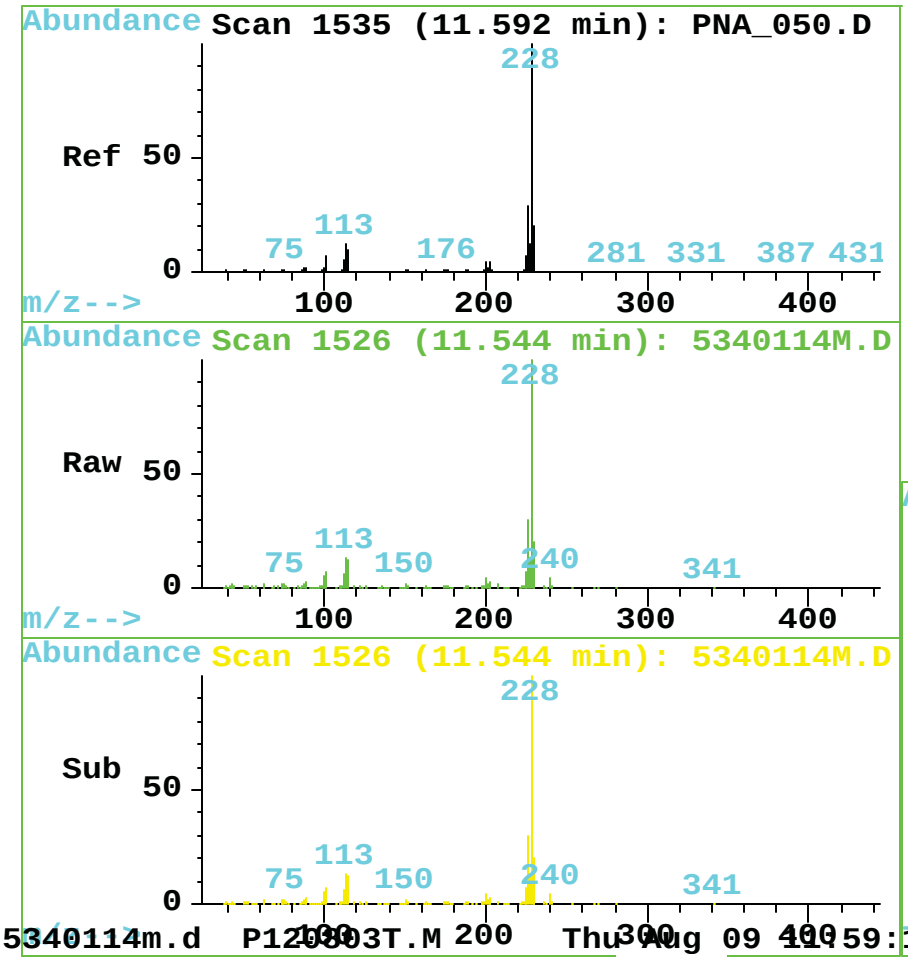


#19
Benzo(a)anthracene
Concen: 3.95 ng/ul
RT: 11.50 min Scan# 1517
Delta R.T. -0.02 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:228 Resp: 28900

Ion	Ratio	Lower	Upper
228	100		
226	26.0	0.0	57.0
229	19.9	0.0	49.7
0	0.0	0.0	0.0

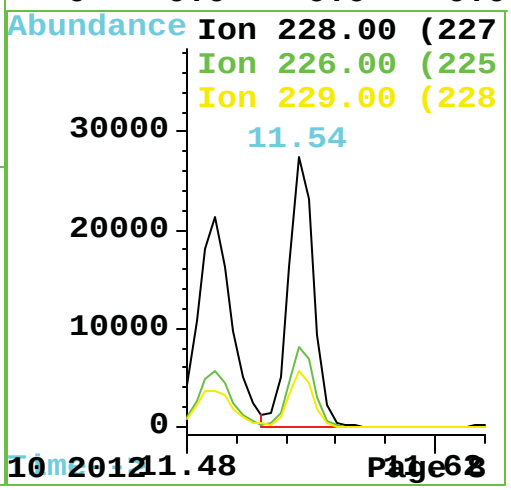


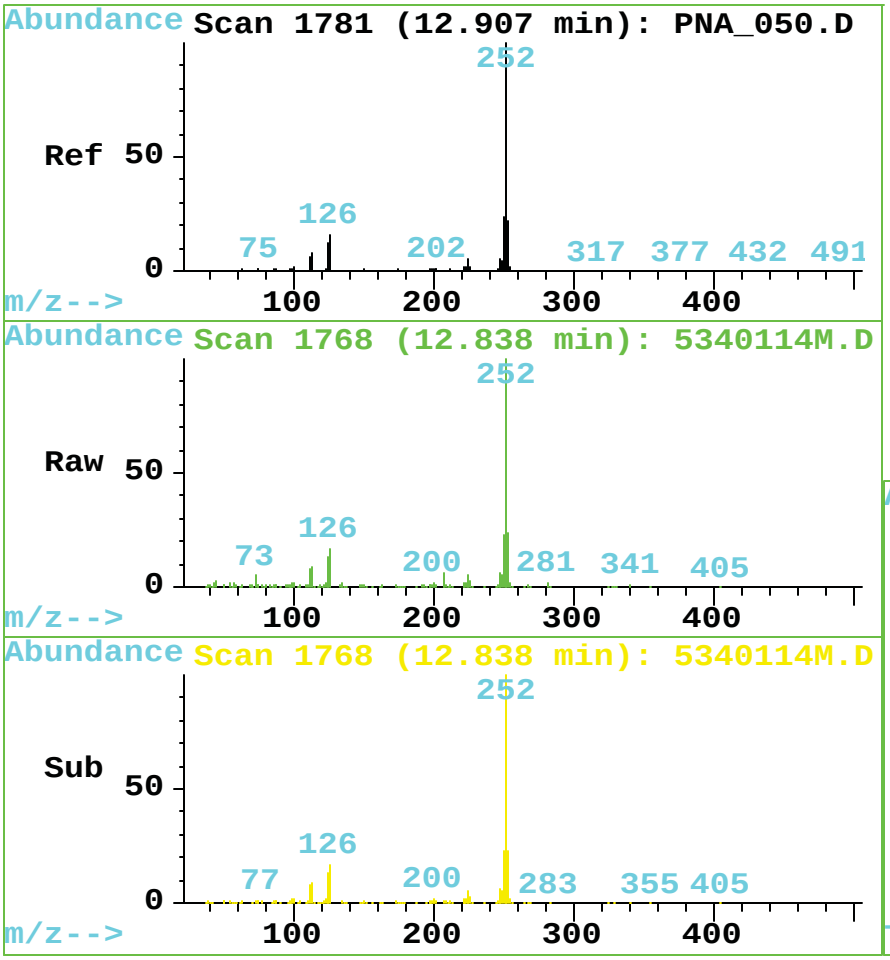


#20
Chrysene
Concen: 3.83 ng/ul
RT: 11.54 min Scan# 1526
Delta R.T. -0.02 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:228 Resp: 27550

Ion	Ratio	Lower	Upper
228	100		
226	29.3	0.0	59.5
229	19.5	0.0	49.6
0	0.0	0.0	0.0

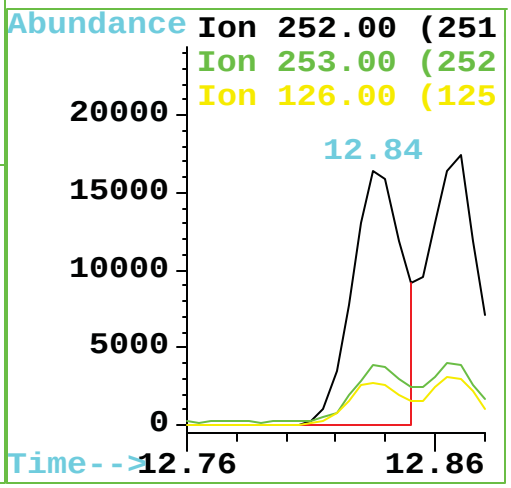


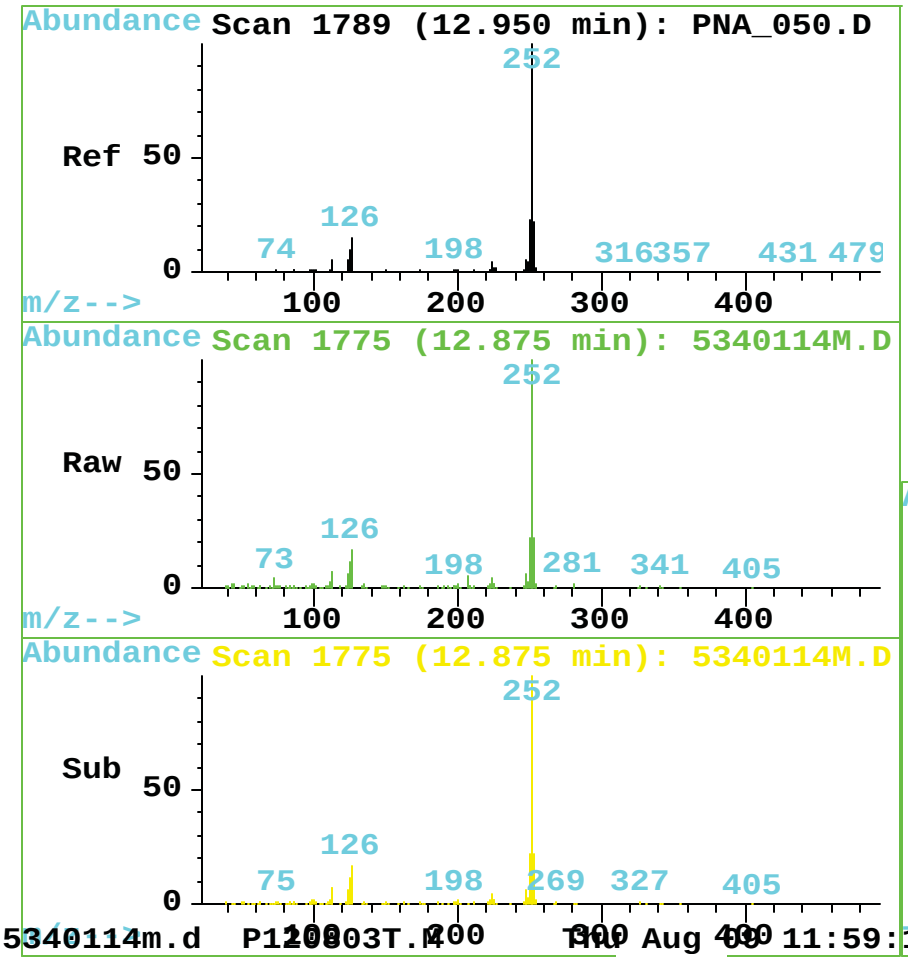


#22
Benzo(b)fluoranthene
Concen: 3.97 ng/ul m
RT: 12.84 min Scan# 1768
Delta R.T. -0.02 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:252 Resp: 25376

Ion	Ratio	Lower	Upper
252	100		
253	23.9	0.0	52.1
126	16.7	0.0	45.1
0	0.0	0.0	0.0

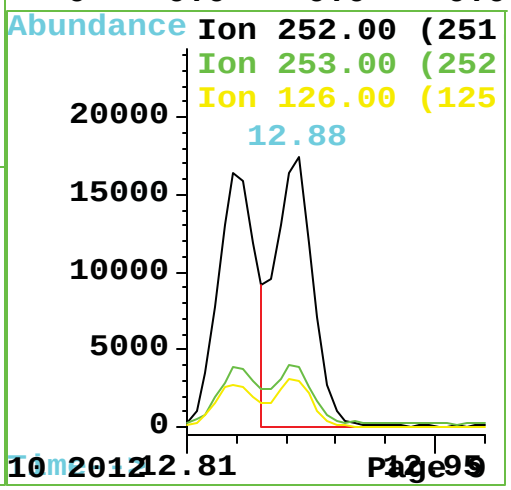


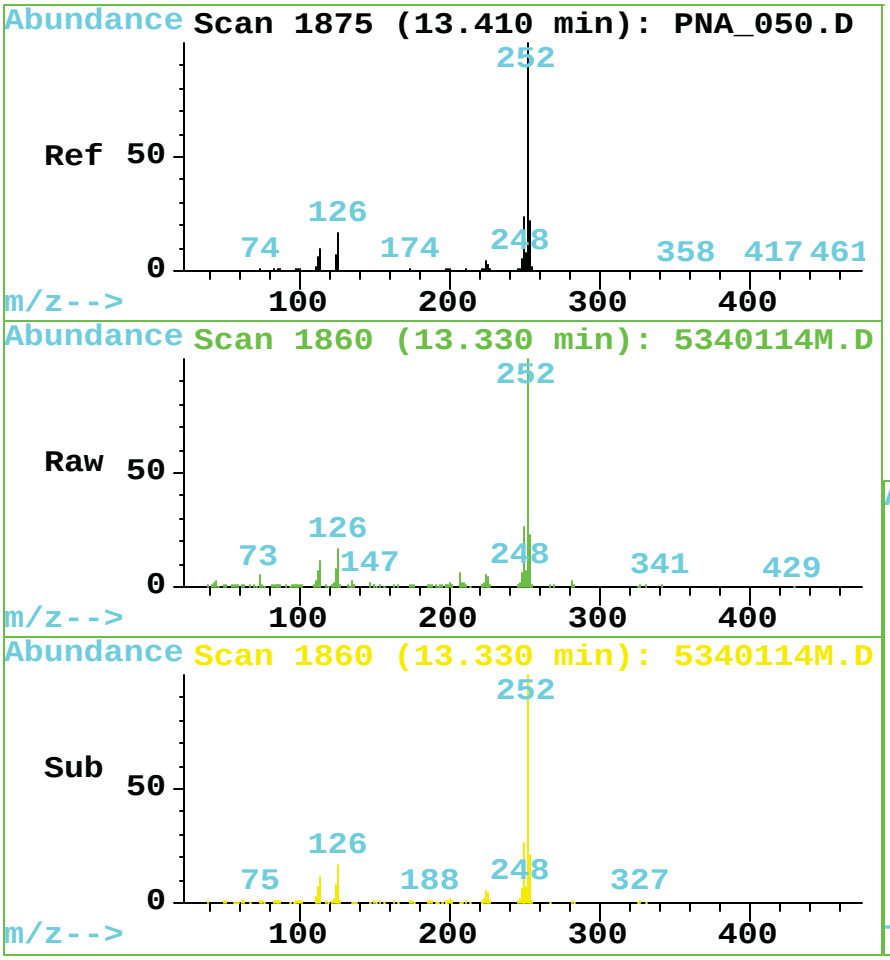


#23
Benzo(k)fluoranthene
Concen: 3.94 ng/ul
RT: 12.88 min Scan# 1775
Delta R.T. -0.03 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:252 Resp: 25763

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.9
126	17.5	0.0	46.4
0	0.0	0.0	0.0

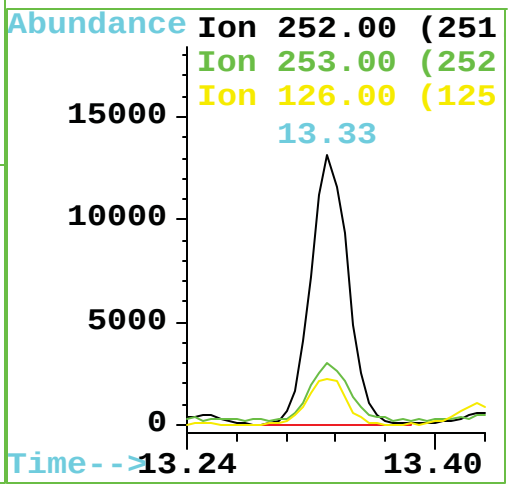


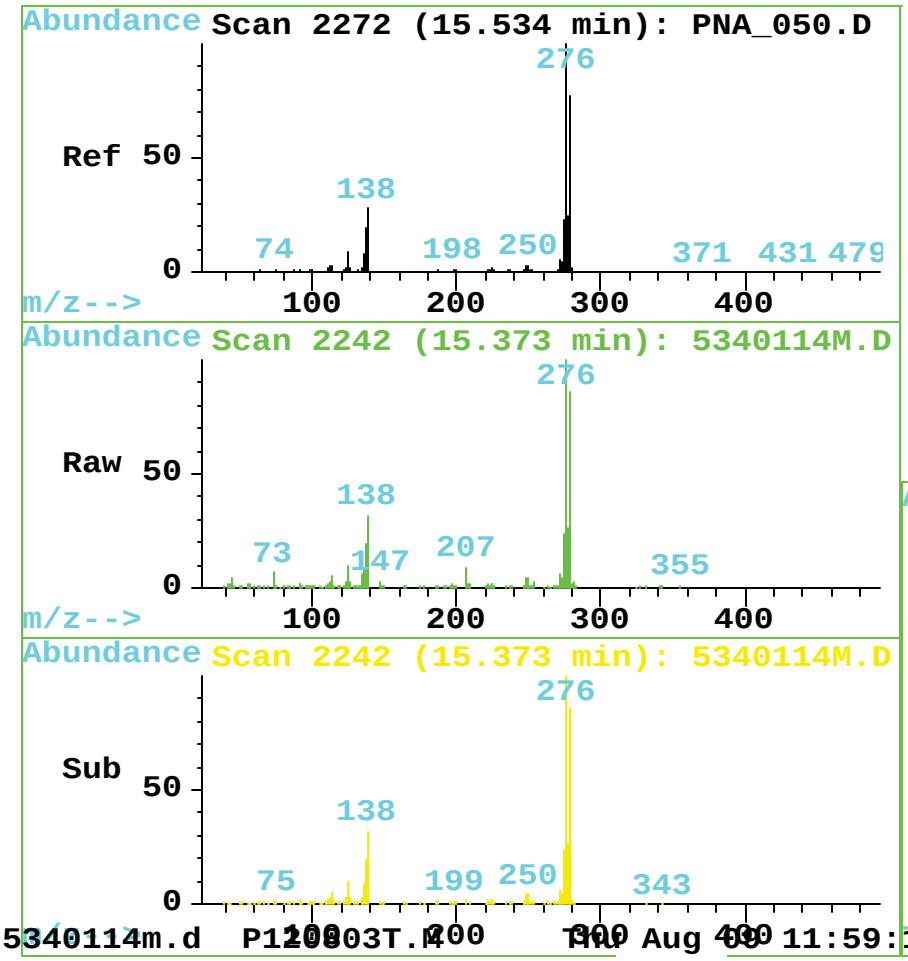


#24
Benzo(a)pyrene
Concen: 4.13 ng/ul
RT: 13.33 min Scan# 1860
Delta R.T. -0.03 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:252 Resp: 22074

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	52.0
126	18.0	0.0	47.3
0	0.0	0.0	0.0

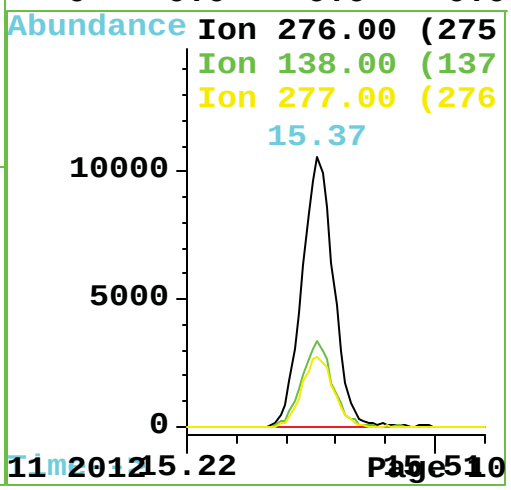


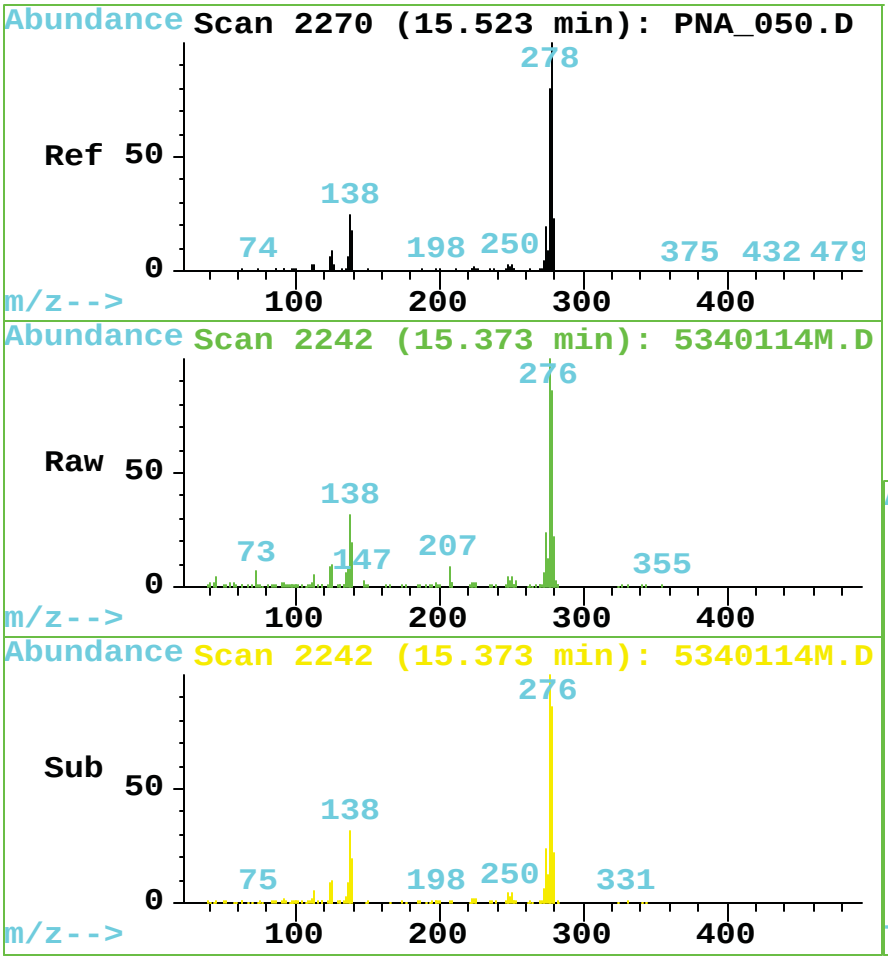


#25
Indeno(1,2,3-cd)pyrene
Concen: 3.73 ng/ul
RT: 15.37 min Scan# 2242
Delta R.T. -0.10 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:276 Resp: 26728

Ion	Ratio	Lower	Upper
276	100		
138	31.0	0.0	57.7
277	25.7	5.1	45.1
0	0.0	0.0	0.0

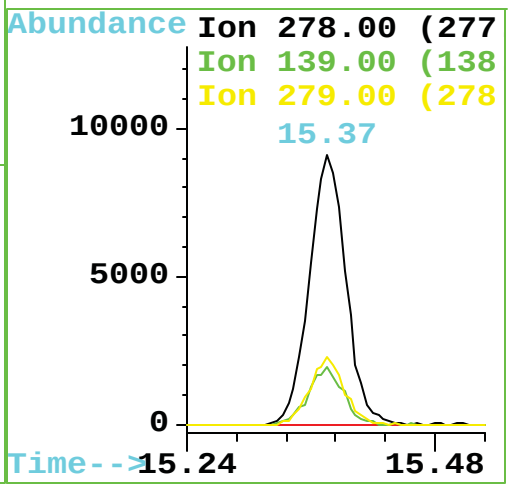


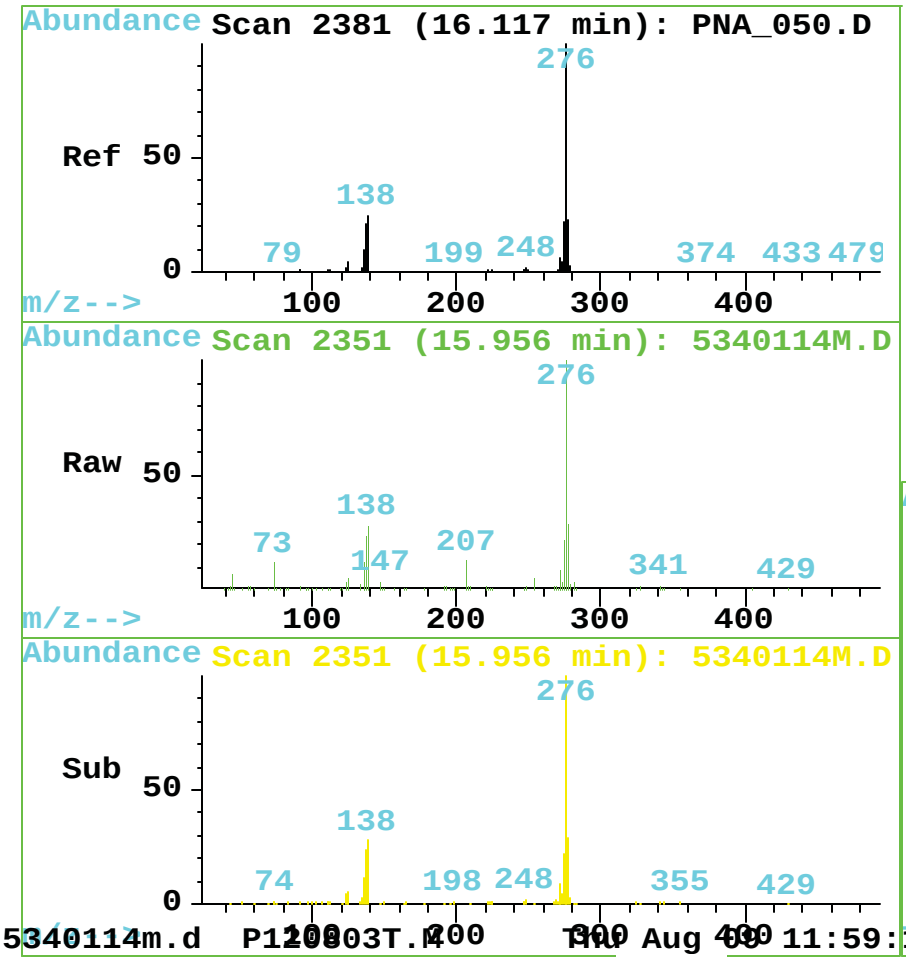


#26
Dibenzo(ah)anthracene
Concen: 3.63 ng/ul
RT: 15.37 min Scan# 2242
Delta R.T. -0.09 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:278 Resp: 22062

Ion	Ratio	Lower	Upper
278	100		
139	20.5	0.0	48.9
279	23.9	8.4	38.4
0	0.0	0.0	0.0

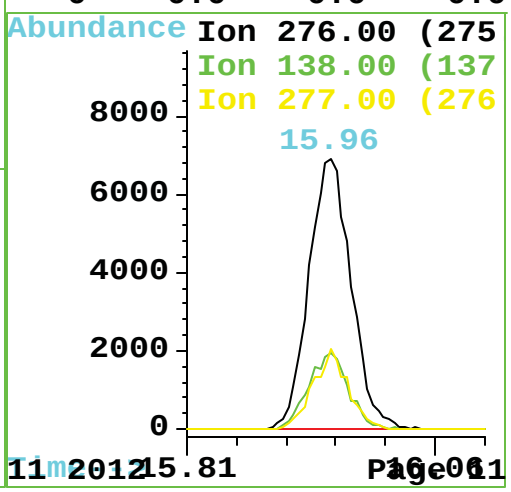




#27
Benzo(ghi)perylene
Concen: 3.54 ng/ul
RT: 15.96 min Scan# 2351
Delta R.T. -0.10 min
Lab File: 5340114m.d
Acq: 8 Aug 12 2:19 pm

Tgt Ion:276 Resp: 20503

Ion	Ratio	Lower	Upper
276	100		
138	26.6	0.0	55.4
277	24.1	3.5	43.5
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\5340115n.d Vial: 8
Acq On : 8 Aug 12 2:42 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:25 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

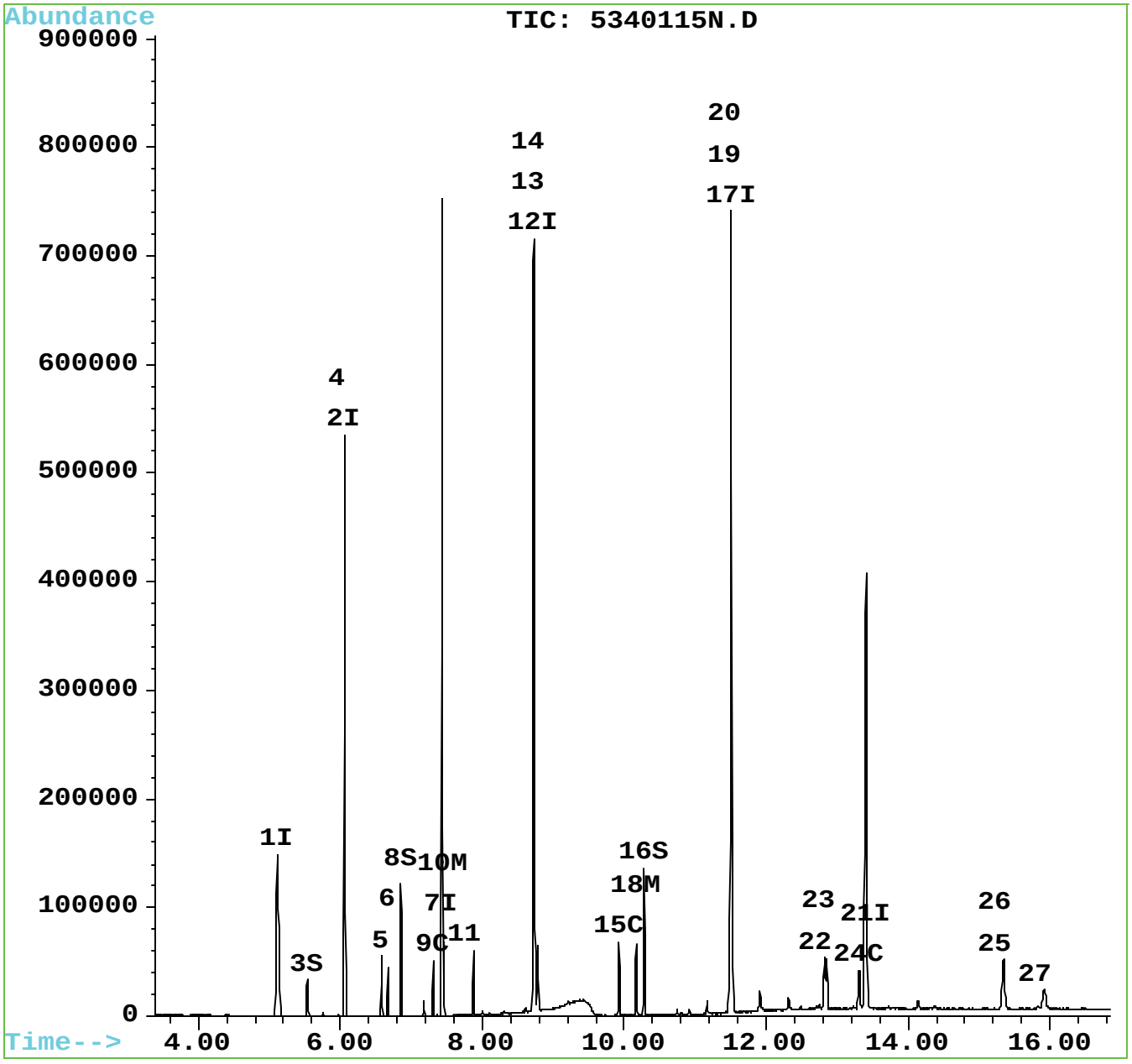
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	50791	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	245545	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.43	164	150272	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	266125	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	293869	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.41	264	242376	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	13191	7.18	ng/ul	7.1
8) 2-Fluorobiphenyl	6.85	172	31566	6.86	ng/ul	6.8
16) Terphenyl-D14	10.28	244	41219	7.29	ng/ul	7.2
Target Compounds						Qvalu
4) Naphthalene	6.07	128	19617	3.22	ng/ul	10
5) 2-Methylnaphthalene	6.58	141	10689	3.13	ng/ul	9
6) 1-Methylnaphthalene	6.67	142	11414	2.87	ng/ul	9
9) Acenaphthylene	7.31	152	20491	3.33	ng/ul	9
10) Acenaphthene **	7.46	154	13158	3.58	ng/ul	9
11) Fluorene	7.87	166	16262	3.43	ng/ul	9
13) Phenanthrene	8.78	178	23191	3.33	ng/ul	10
14) Anthracene	8.78	178	23191	3.30	ng/ul	9
15) Fluoranthene	9.92	202	27637	3.52	ng/ul	9
18) Pyrene **	10.17	202	28320	3.93	ng/ul	9
19) Benzo(a)anthracene	11.53	228	26116	3.60	ng/ul	9
20) Chrysene	11.53	228	26116	3.66	ng/ul	10
22) Benzo(b)fluoranthene	12.82	252	26141	4.12	ng/ulm	9
23) Benzo(k)fluoranthene	12.85	252	23402	3.60	ng/ul	9
24) Benzo(a)pyrene	13.31	252	21736	4.10	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.35	276	26045	3.66	ng/ul	9
26) Dibenzo(ah)anthracene	15.35	278	21429	3.55	ng/ul	9
27) Benzo(ghi)perylene	15.92	276	20064	3.49	ng/ul	9

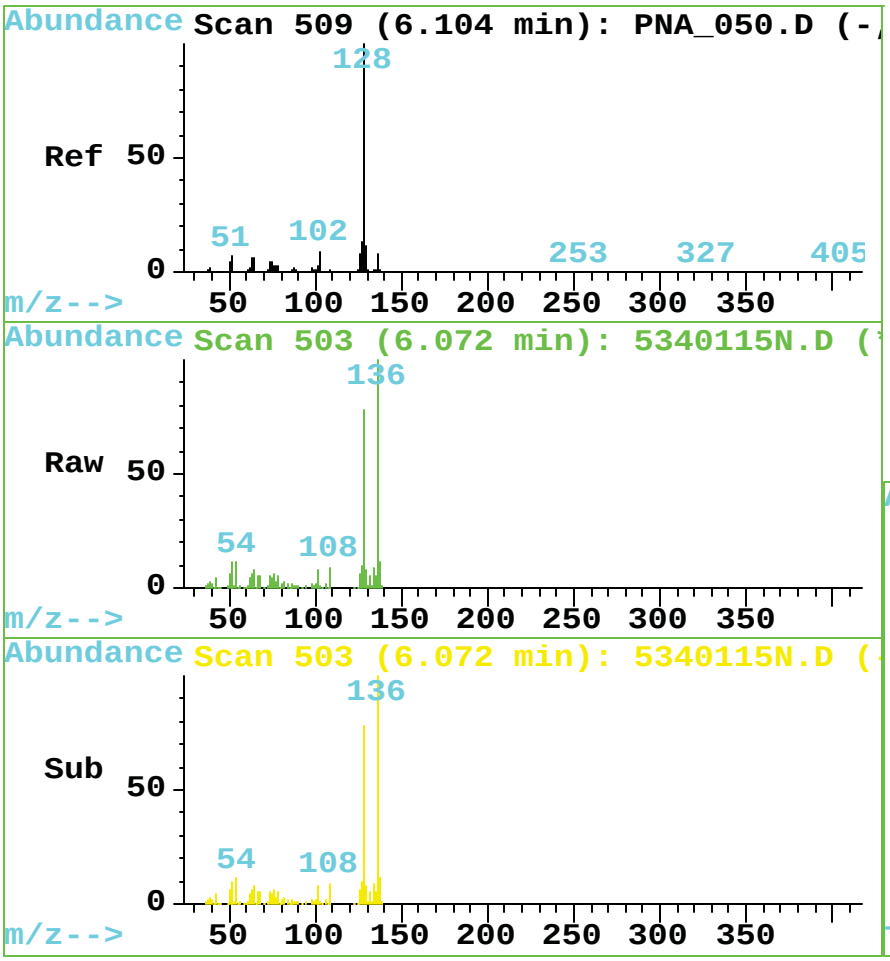
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\5340115n.d Vial: 8
Acq On : 8 Aug 12 2:42 pm Operator: PL
Sample : pna-s 30g/1ml df:10 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:25 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

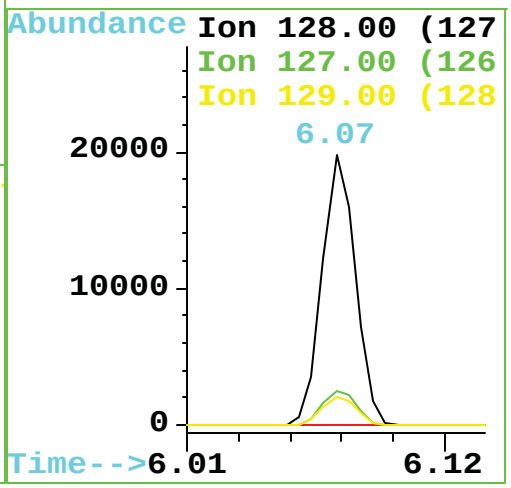


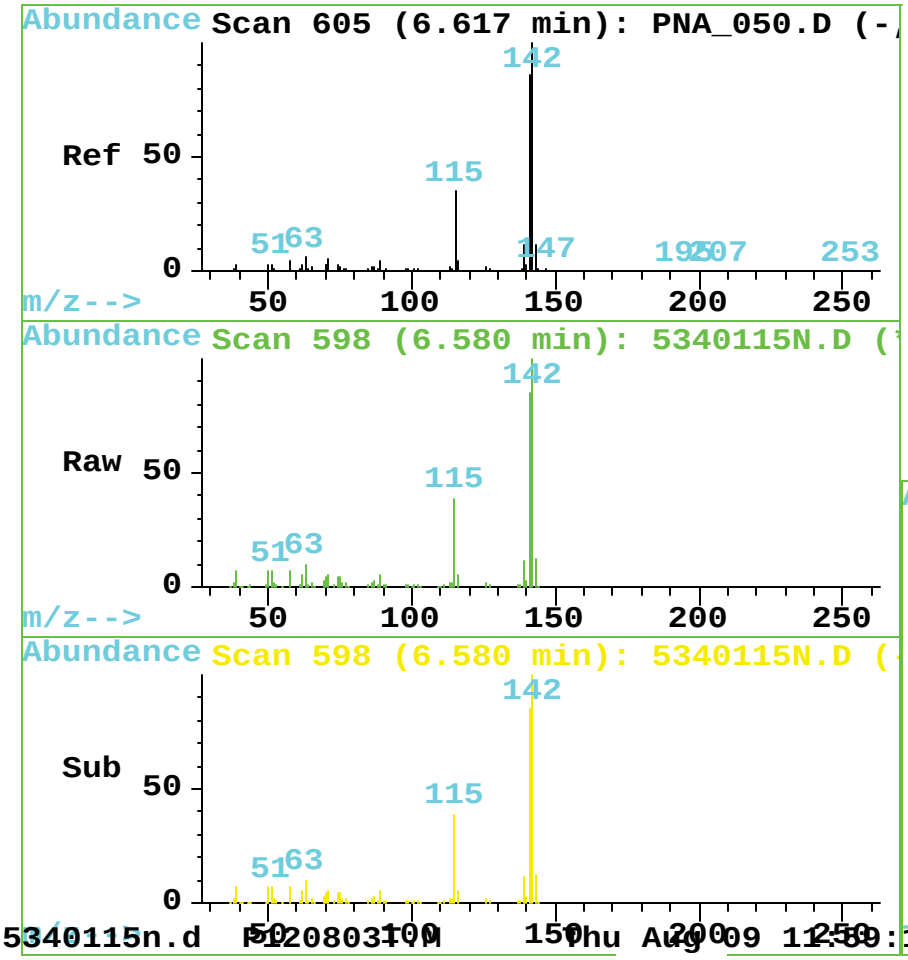


#4
Naphthalene
Concen: 3.22 ng/ul
RT: 6.07 min Scan# 503
Delta R.T. -0.02 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:128 Resp: 19617

Ion	Ratio	Lower	Upper
128	100		
127	13.2	0.0	43.0
129	11.0	0.0	41.1
0	0.0	0.0	0.0

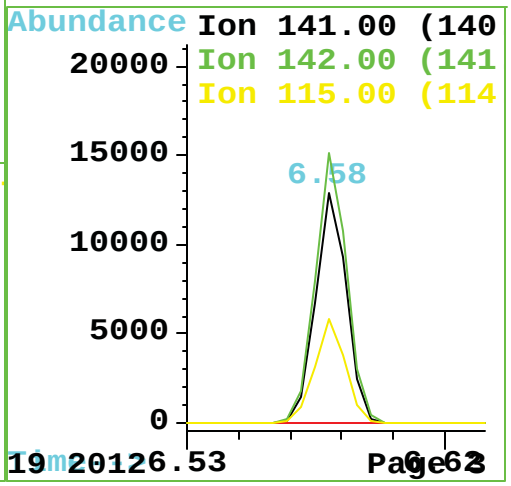


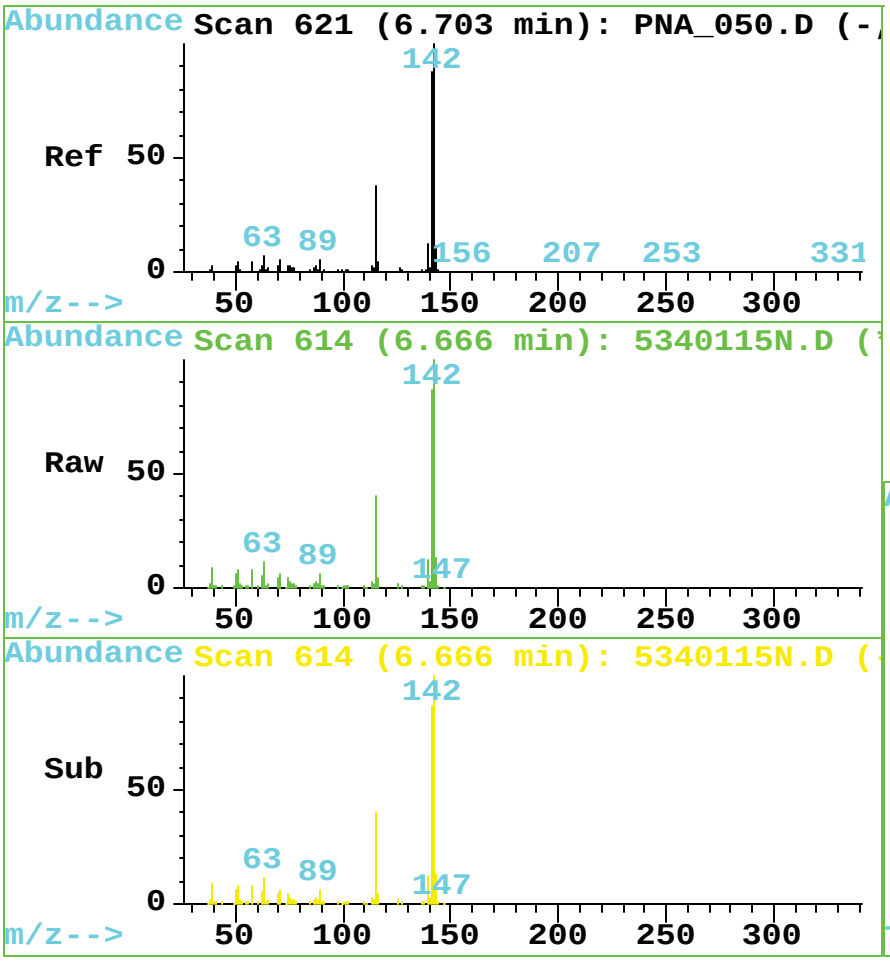


#5
2-Methylnaphthalene
Concen: 3.13 ng/ul
RT: 6.58 min Scan# 598
Delta R.T. -0.02 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:141 Resp: 10689

Ion	Ratio	Lower	Upper
141	100		
142	118.0	82.2	152.5
115	44.8	29.2	54.3
0	0.0	0.0	0.0

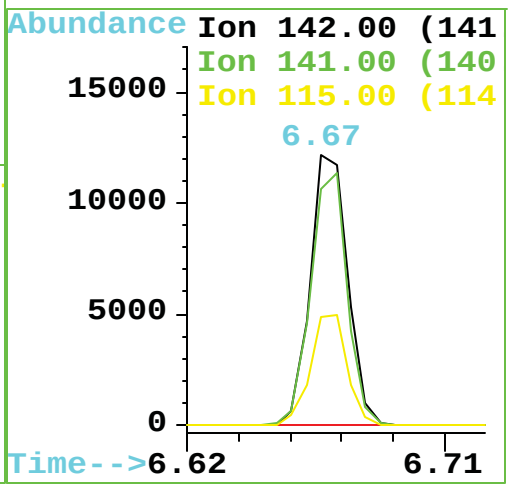


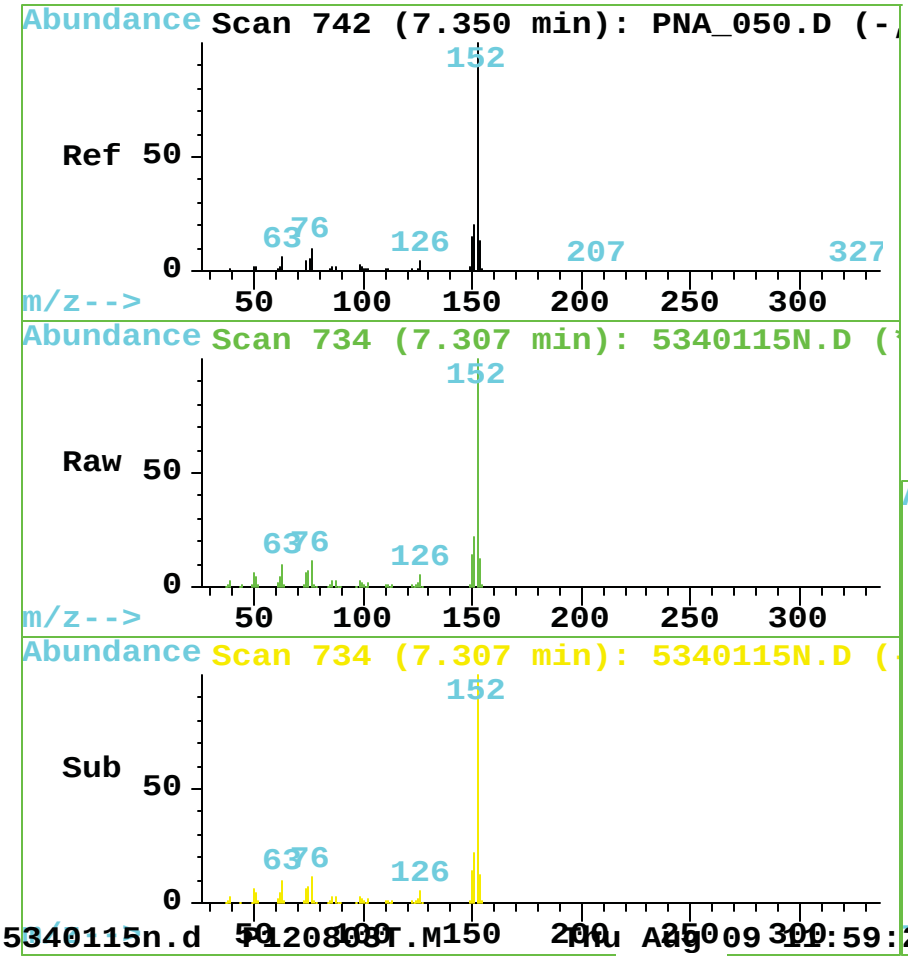


#6
1-Methylnaphthalene
Concen: 2.87 ng/ul
RT: 6.67 min Scan# 614
Delta R.T. -0.02 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:142 Resp: 11414

Ion	Ratio	Lower	Upper
142	100		
141	91.3	70.6	105.9
115	40.1	30.1	45.1
0	0.0	0.0	0.0

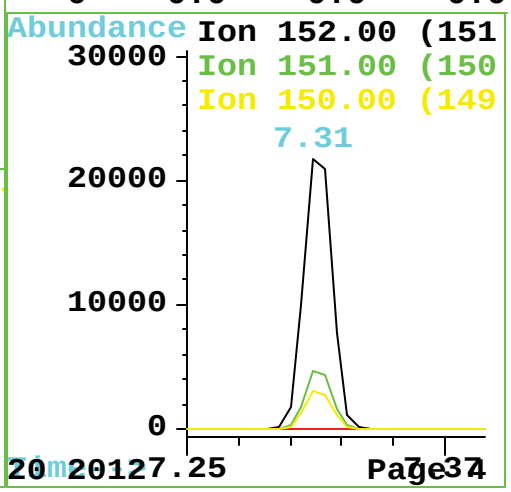


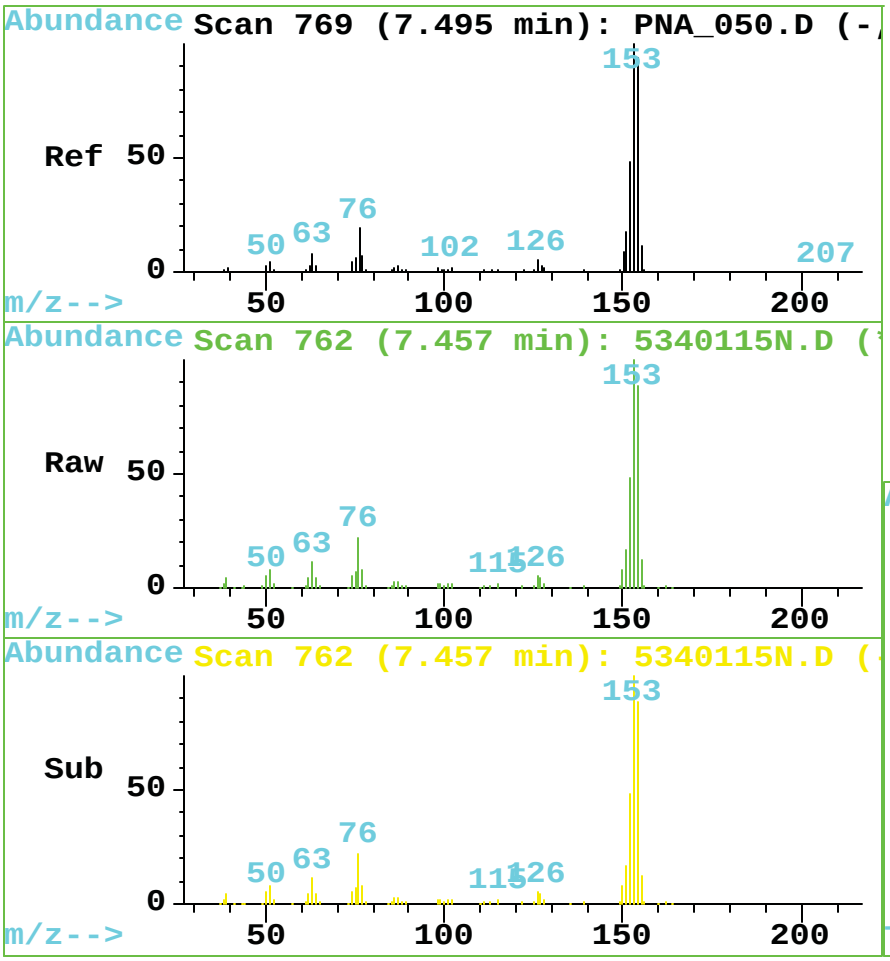


#9
Acenaphthylene
Concen: 3.33 ng/ul
RT: 7.31 min Scan# 734
Delta R.T. -0.03 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:152 Resp: 20491

Ion	Ratio	Lower	Upper
152	100		
151	20.4	0.0	50.1
150	13.7	0.0	44.4
0	0.0	0.0	0.0

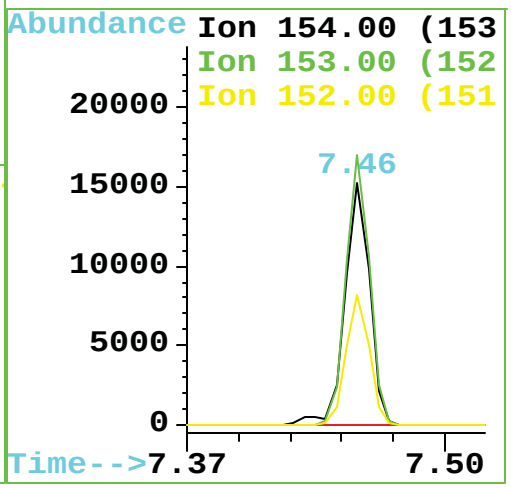


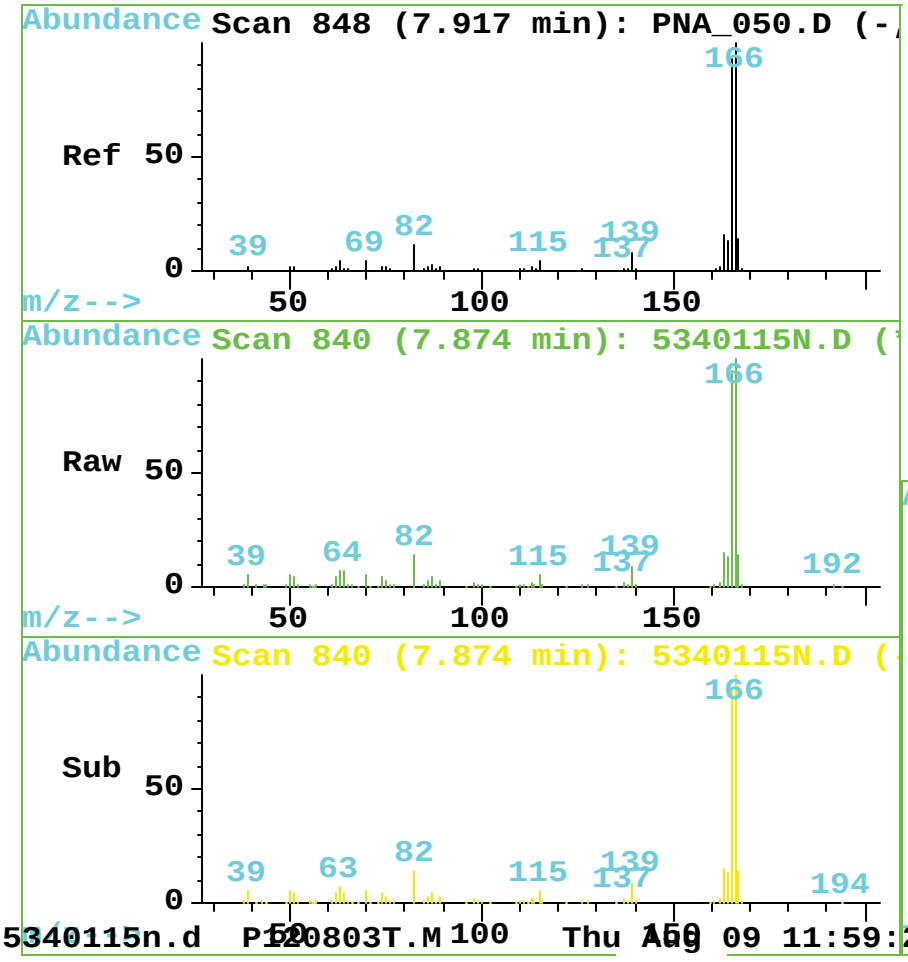


#10
Acenaphthene **
Concen: 3.58 ng/ul
RT: 7.46 min Scan# 762
Delta R.T. -0.02 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:154 Resp: 13158

Ion	Ratio	Lower	Upper
154	100		
153	105.7	76.9	136.9
152	50.7	26.1	76.1
0	0.0	0.0	0.0

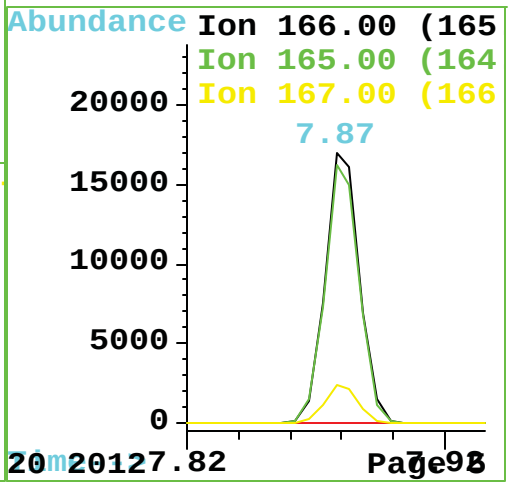


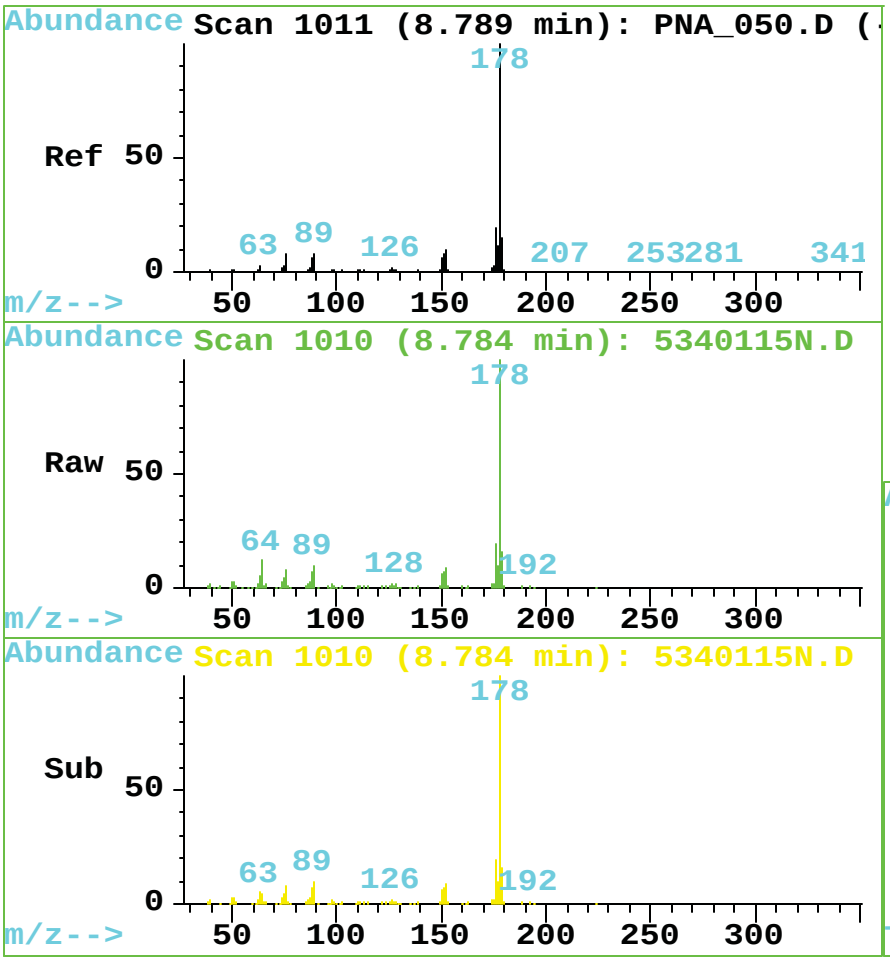


#11
Fluorene
Concen: 3.43 ng/ul
RT: 7.87 min Scan# 840
Delta R.T. -0.03 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:166 Resp: 16262

Ion	Ratio	Lower	Upper
166	100		
165	95.1	63.1	123.1
167	13.5	0.0	43.4
0	0.0	0.0	0.0

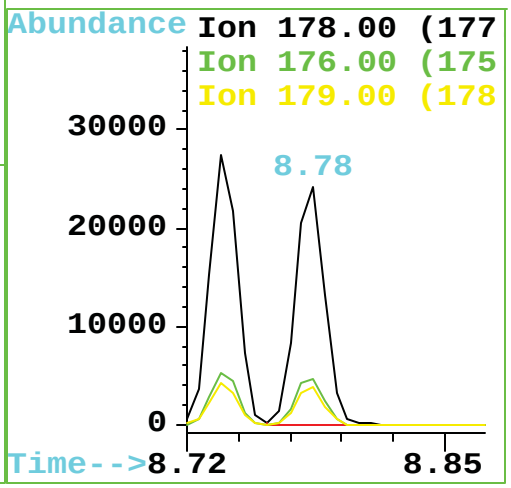


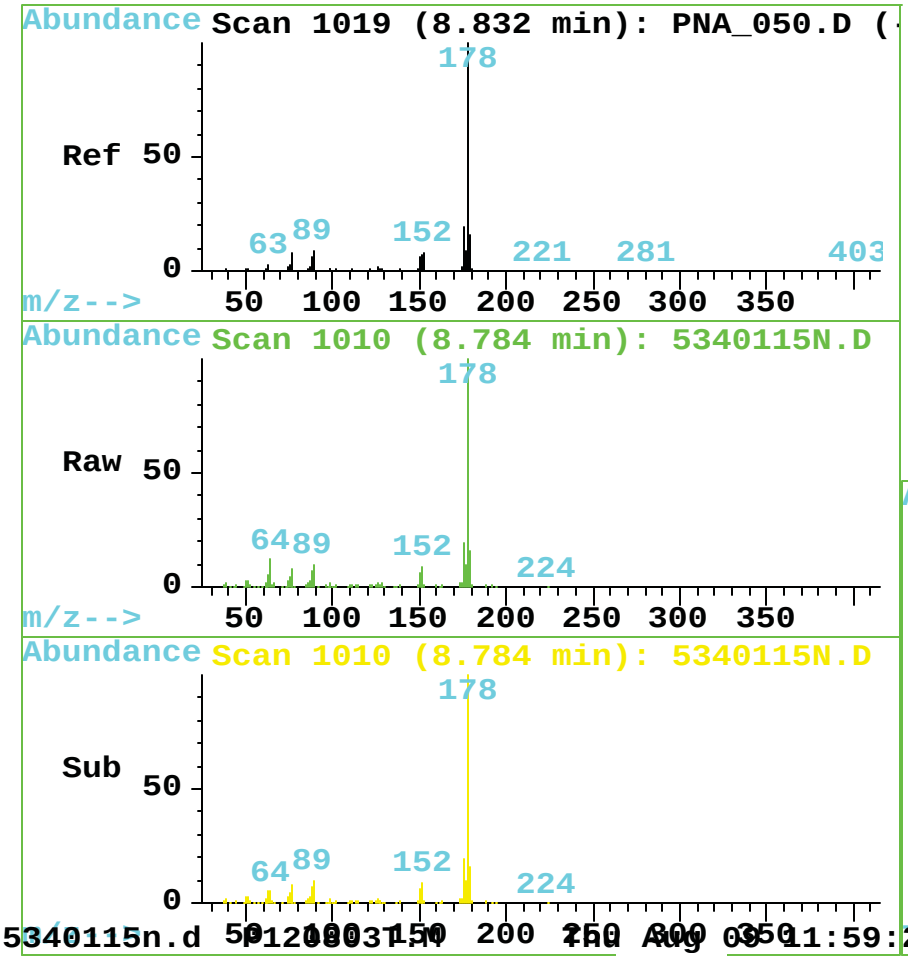


#13
Phenanthrene
Concen: 3.33 ng/ul
RT: 8.78 min Scan# 1010
Delta R.T. 0.02 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:178 Resp: 23191

Ion	Ratio	Lower	Upper
178	100		
176	19.2	0.0	49.3
179	15.2	0.0	45.3
0	0.0	0.0	0.0

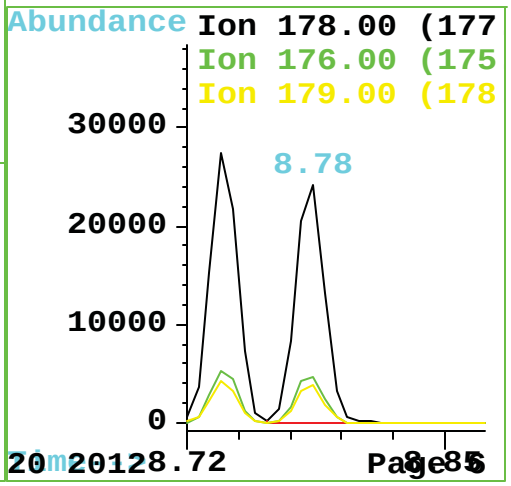


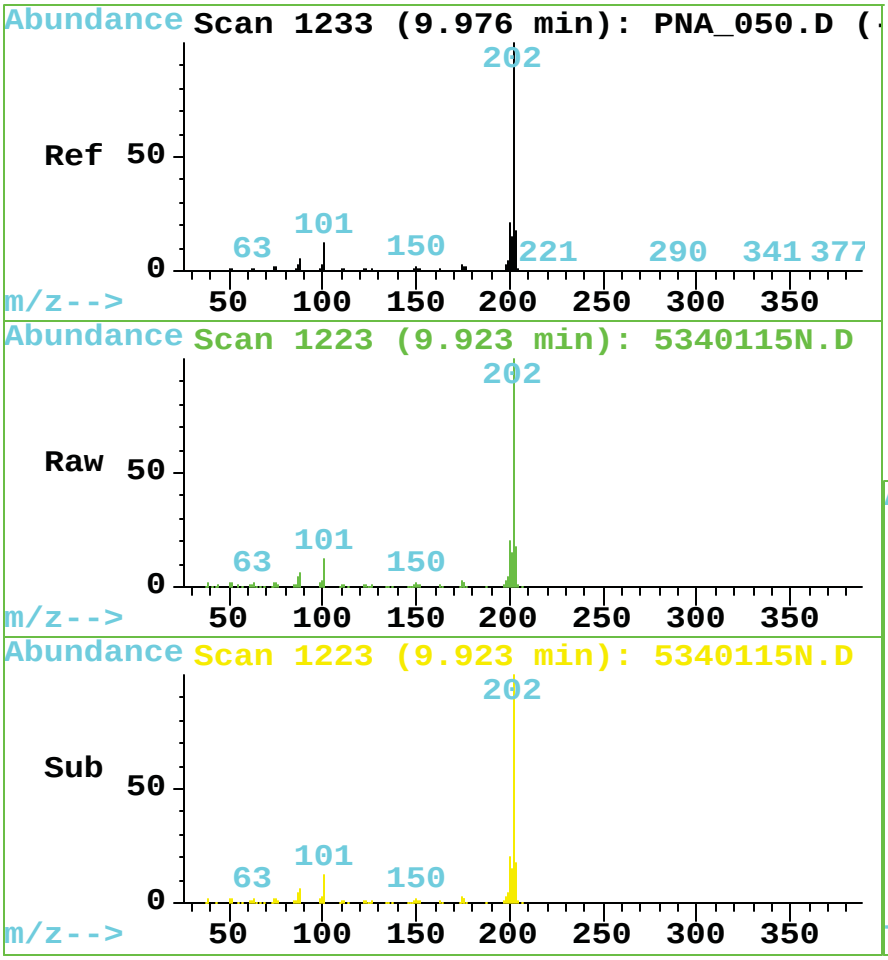


#14
Anthracene
Concen: 3.30 ng/ul
RT: 8.78 min Scan# 1010
Delta R.T. -0.03 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:178 Resp: 23191

Ion	Ratio	Lower	Upper
178	100		
176	19.2	0.0	49.0
179	15.2	0.0	45.6
0	0.0	0.0	0.0

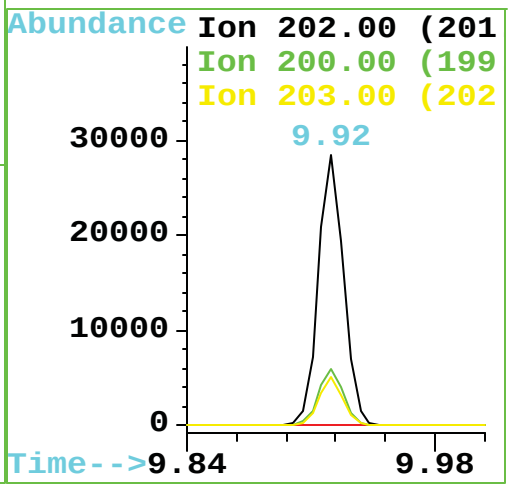


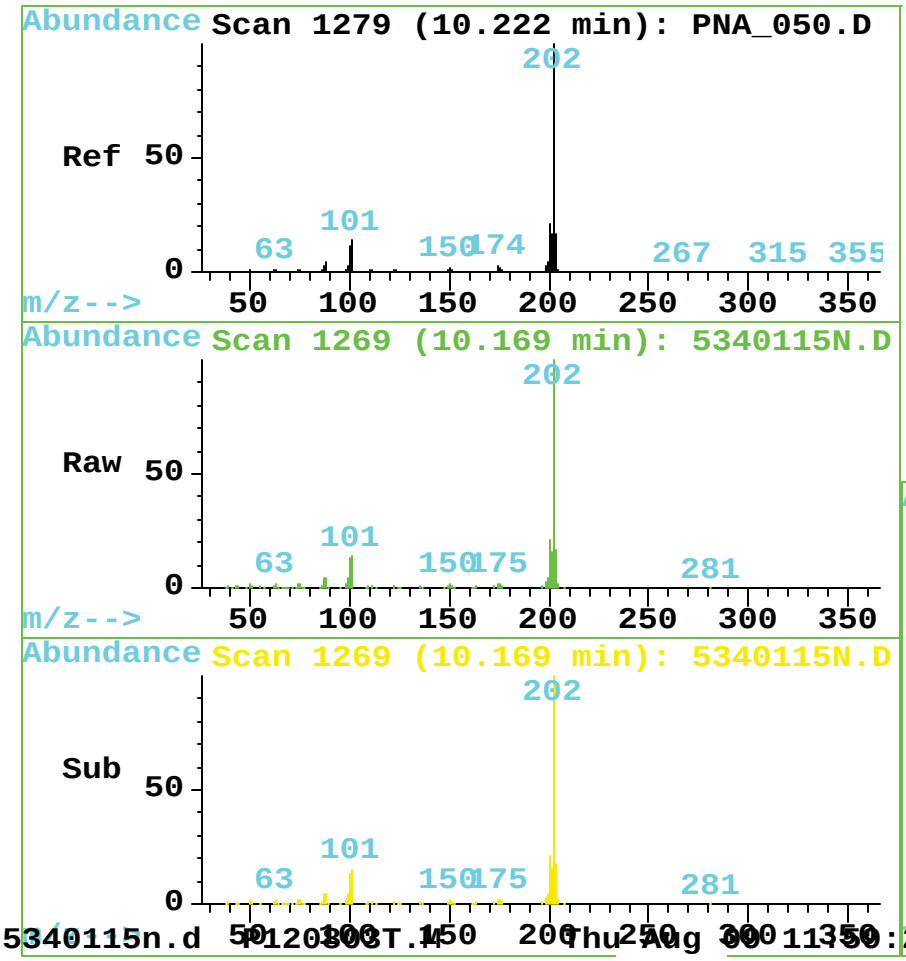


#15
Fluoranthene
Concen: 3.52 ng/ul
RT: 9.92 min Scan# 1223
Delta R.T. -0.03 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:202 Resp: 27637

Ion	Ratio	Lower	Upper
202	100		
200	20.5	0.0	50.9
203	17.1	0.0	47.6
0	0.0	0.0	0.0

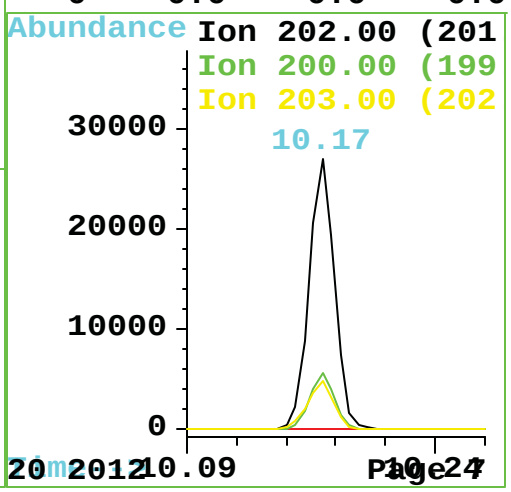


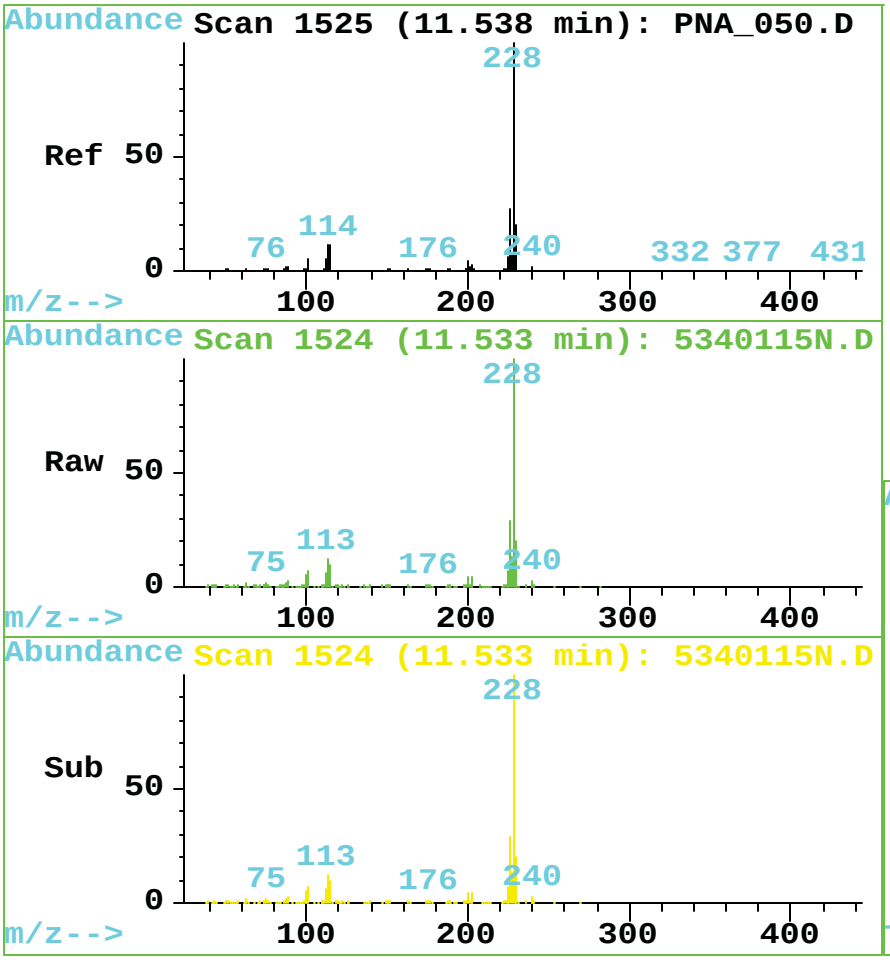


#18
Pyrene **
Concen: 3.93 ng/ul
RT: 10.17 min Scan# 1269
Delta R.T. -0.03 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:202 Resp: 28320

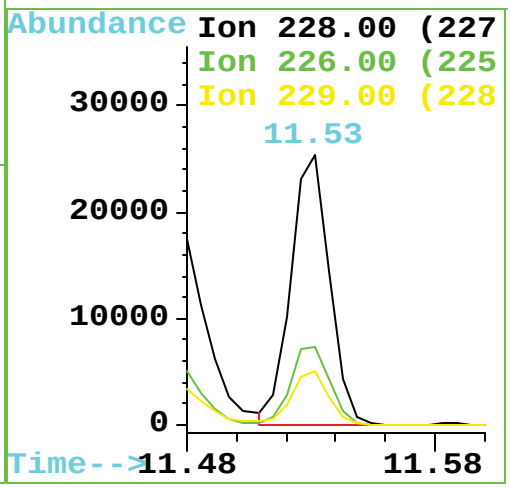
Ion	Ratio	Lower	Upper
202	100		
200	20.2	0.0	51.0
203	18.0	0.0	47.7
0	0.0	0.0	0.0

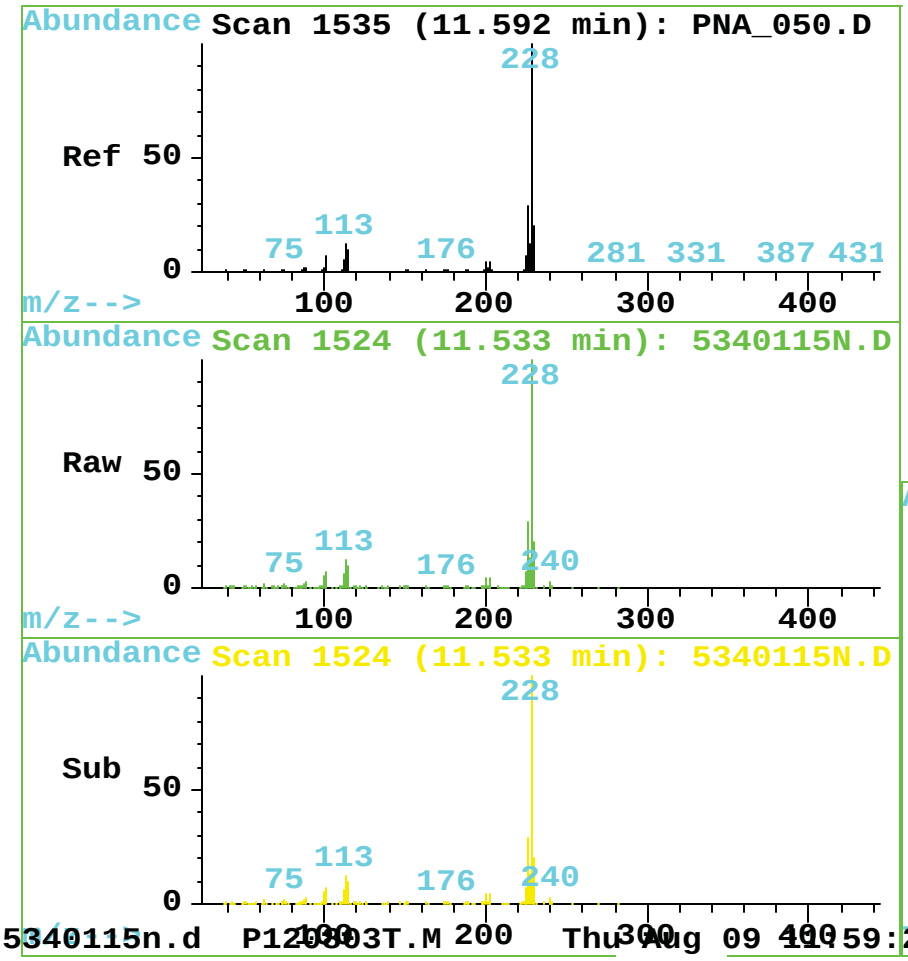




#19
Benzo(a)anthracene
Concen: 3.60 ng/ul
RT: 11.53 min Scan# 1524
Delta R.T. 0.02 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

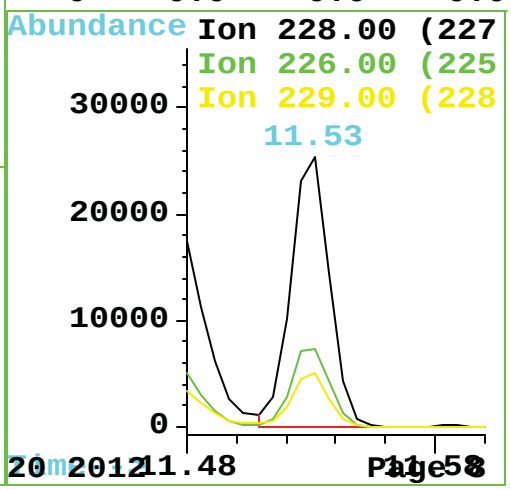
Tgt Ion:228	Resp:	26116	
Ion	Ratio	Lower	Upper
228	100		
226	29.4	0.0	57.0
229	20.0	0.0	49.7
0	0.0	0.0	0.0

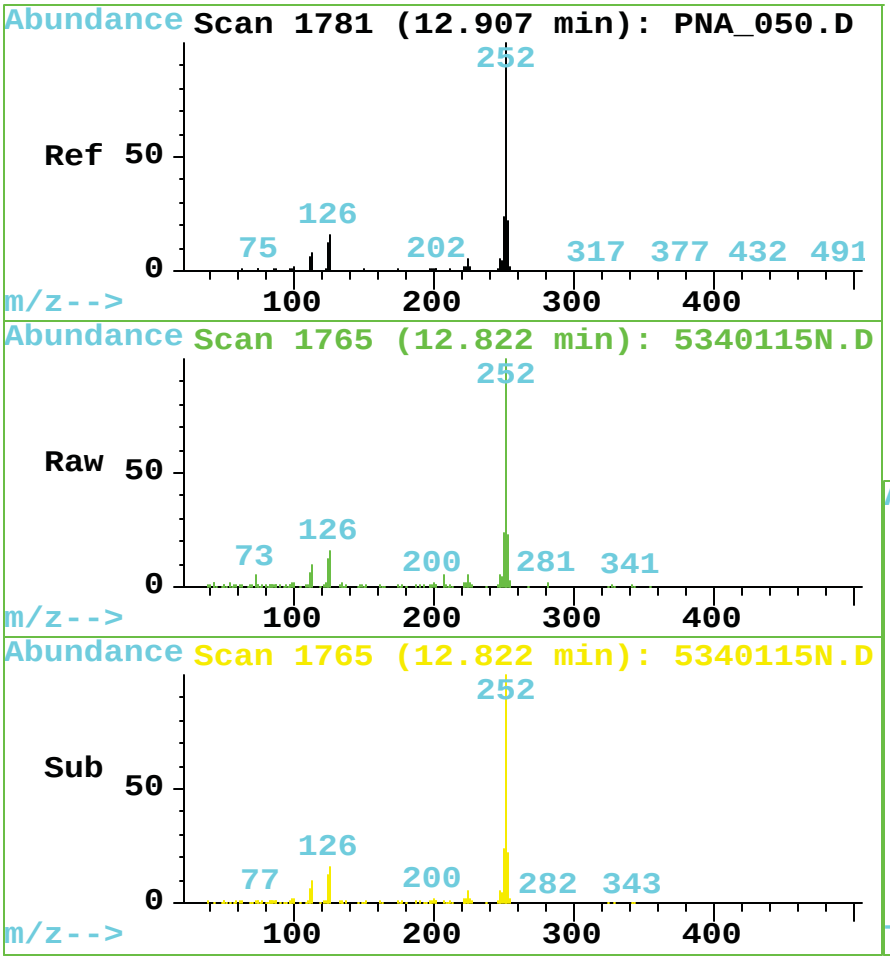




#20
Chrysene
Concen: 3.66 ng/ul
RT: 11.53 min Scan# 1524
Delta R.T. -0.03 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:228	Resp:	26116	
Ion	Ratio	Lower	Upper
228	100		
226	29.4	0.0	59.5
229	20.0	0.0	49.6
0	0.0	0.0	0.0

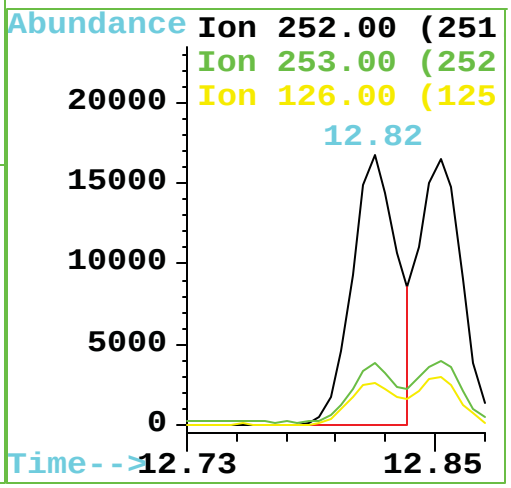


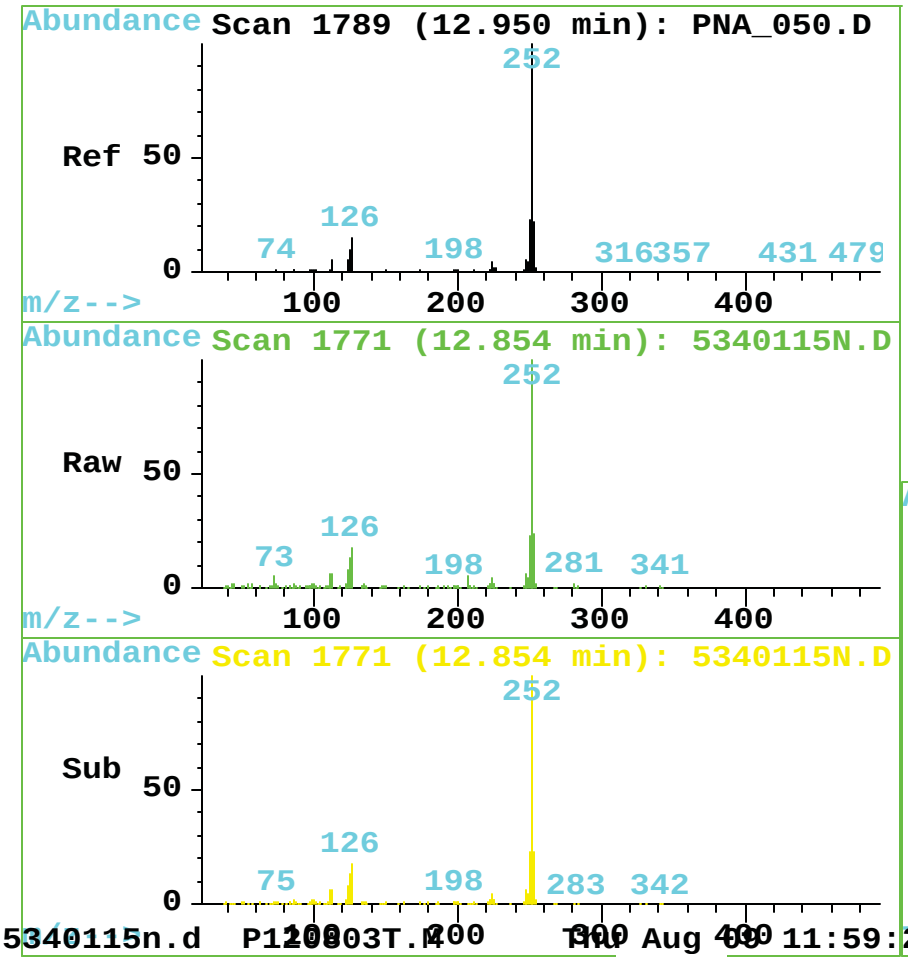


#22
Benzo(b)fluoranthene
Concen: 4.12 ng/ul m
RT: 12.82 min Scan# 1765
Delta R.T. -0.04 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:252 Resp: 26141

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	52.1
126	15.7	0.0	45.1
0	0.0	0.0	0.0

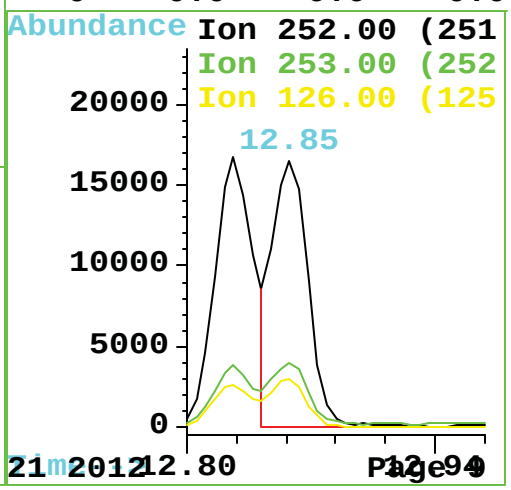


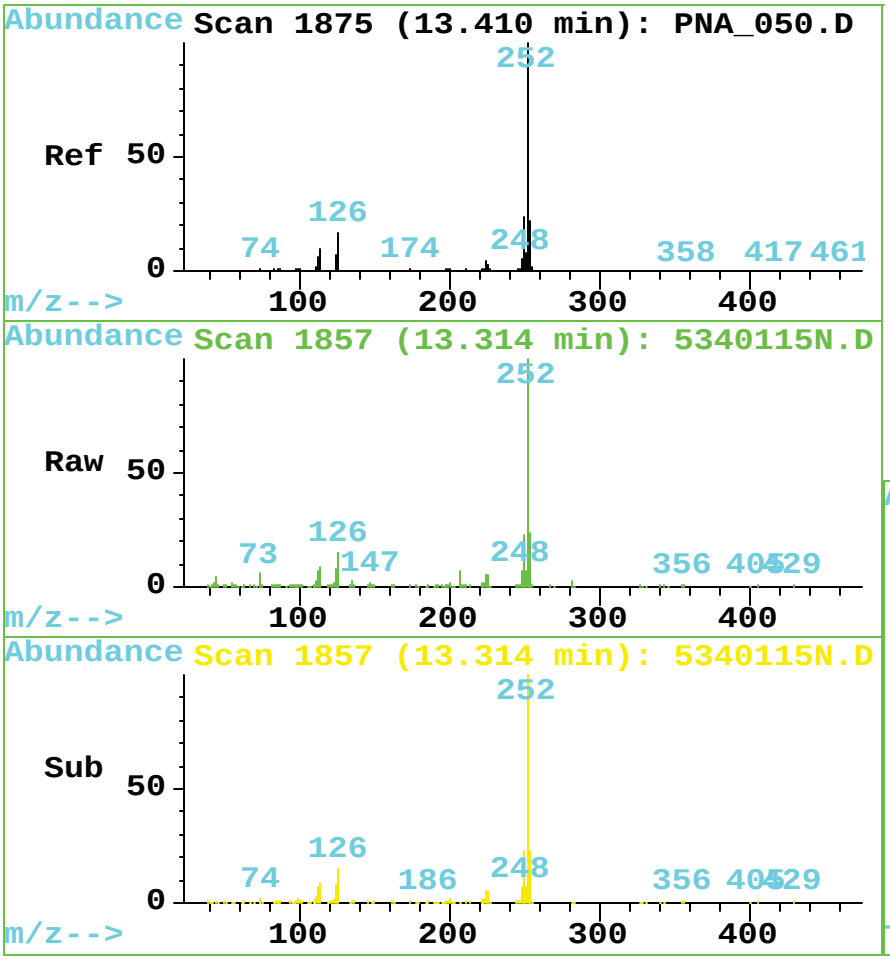


#23
Benzo(k)fluoranthene
Concen: 3.60 ng/ul
RT: 12.85 min Scan# 1771
Delta R.T. -0.05 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:252 Resp: 23402

Ion	Ratio	Lower	Upper
252	100		
253	23.2	0.0	51.9
126	17.4	0.0	46.4
0	0.0	0.0	0.0

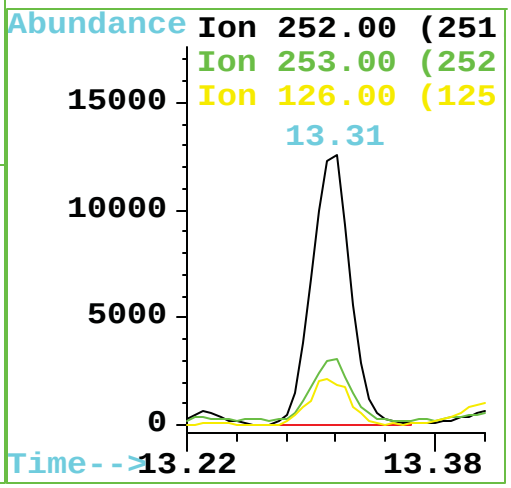


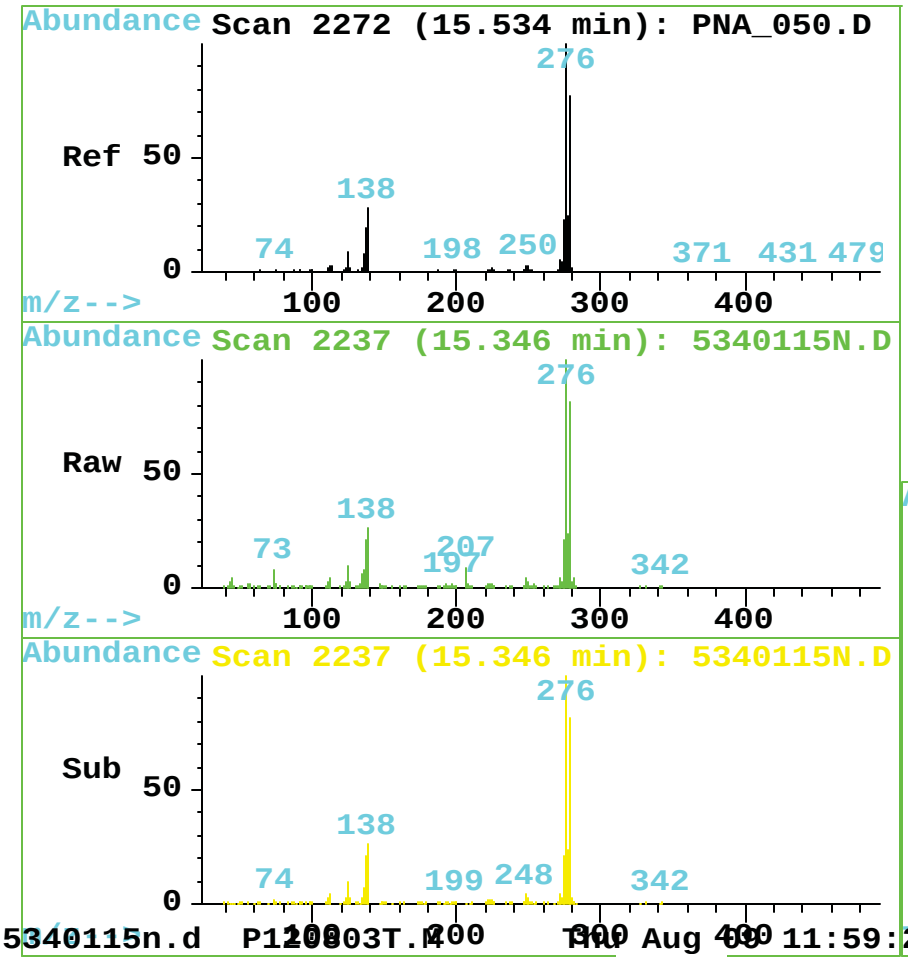


#24
Benzo(a)pyrene
Concen: 4.10 ng/ul
RT: 13.31 min Scan# 1857
Delta R.T. -0.05 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:252 Resp: 21736

Ion	Ratio	Lower	Upper
252	100		
253	23.3	0.0	52.0
126	17.9	0.0	47.3
0	0.0	0.0	0.0

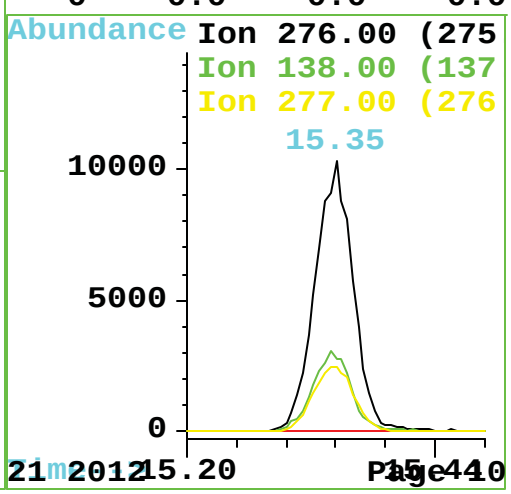


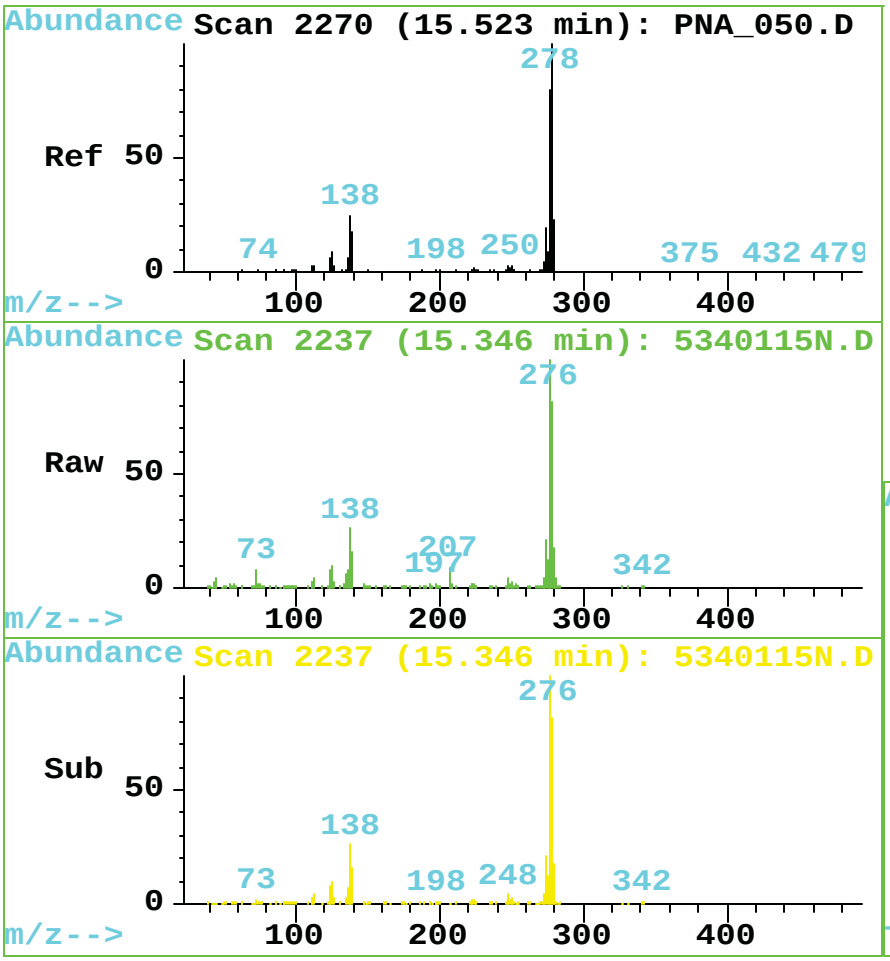


#25
Indeno(1,2,3-cd)pyrene
Concen: 3.66 ng/ul
RT: 15.35 min Scan# 2237
Delta R.T. -0.13 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:276 Resp: 26045

Ion	Ratio	Lower	Upper
276	100		
138	29.8	0.0	57.7
277	25.5	5.1	45.1
0	0.0	0.0	0.0

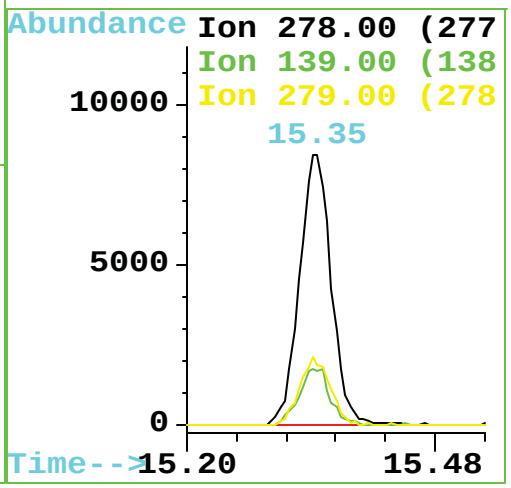


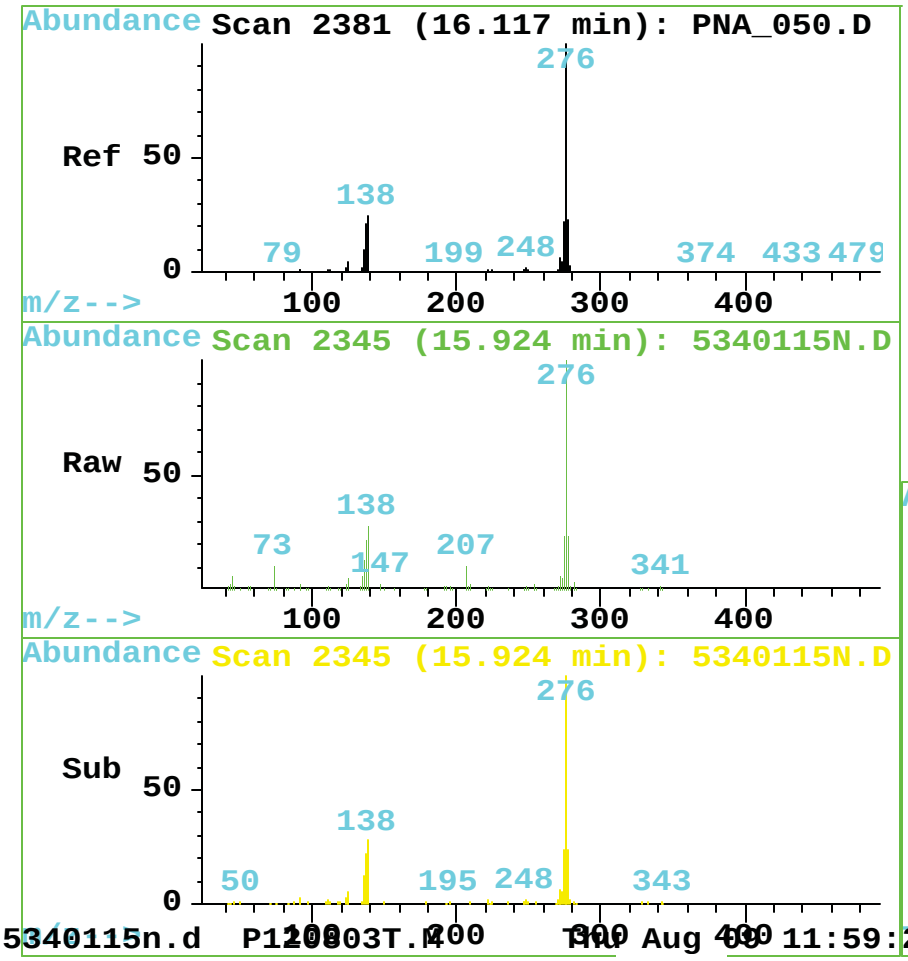


#26
Dibenzo(ah)anthracene
Concen: 3.55 ng/ul
RT: 15.35 min Scan# 2237
Delta R.T. -0.12 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:278 Resp: 21429

Ion	Ratio	Lower	Upper
278	100		
139	20.1	0.0	48.9
279	23.7	8.4	38.4
0	0.0	0.0	0.0

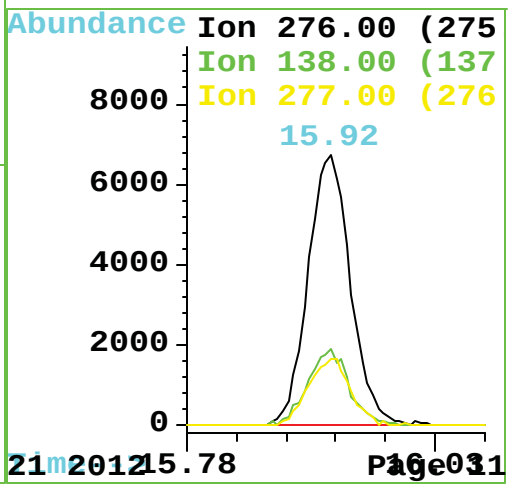




#27
Benzo(ghi)perylene
Concen: 3.49 ng/ul
RT: 15.92 min Scan# 2345
Delta R.T. -0.13 min
Lab File: 5340115n.d
Acq: 8 Aug 12 2:42 pm

Tgt Ion:276 Resp: 20064

Ion	Ratio	Lower	Upper
276	100		
138	27.4	0.0	55.4
277	24.3	3.5	43.5
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120803t.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	A	0.299	3.04	0.288	0.295	0.291	0.306	0.309	0.307				
	Naphthalene	A	0.994	2.36	1.014	0.969	0.959	1.007	1.009	1.004				
	2-Methylnaphthalene	A	0.556	3.05	0.542	0.540	0.541	0.568	0.575	0.572				
	1-Methylnaphthalene	A	0.648	3.33	0.626	0.628	0.632	0.659	0.673	0.669				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.226	4.08	1.179	1.179	1.184	1.265	1.286	1.261				
	Acenaphthylene	A	1.639	7.00	1.432	1.610	1.621	1.711	1.734	1.726				
	Acenaphthene **	A	0.978	3.73	0.937	0.953	0.948	1.007	1.024	1.000				
	Fluorene	A	1.263	4.43	1.187	1.220	1.237	1.304	1.324	1.307				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	A	1.047	3.62	1.100	1.002	1.006	1.047	1.072	1.053				
	Anthracene	A	1.057	3.26	1.024	1.025	1.035	1.065	1.108	1.083				
	Fluoranthene	A	1.179	5.74	1.081	1.132	1.151	1.228	1.243	1.241				
	Terphenyl-D14	A	0.850	7.10	0.811	0.775	0.803	0.887	0.916	0.906				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	0.980	8.44	0.819	0.981	0.985	1.026	1.045	1.024				
	Benzo(a)anthracene	A	0.988	3.92	0.975	0.939	0.956	1.000	1.041	1.019				
	Chrysene	A	0.971	5.16	0.901	0.939	0.945	0.999	1.027	1.016				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	1.046	9.60	0.869	0.990	1.076	1.110	1.140	1.092				
	Benzo(k)fluoranthene	A	0.963	10.65	0.835	0.872	0.916	1.030	1.030	1.092				
	Benzo(a)pyrene	A	0.876	7.14	0.792	0.811	0.867	0.919	0.937	0.927				
	Indeno(1,2,3-cd)pyrene	A	1.175	10.15	0.969	1.106	1.184	1.256	1.267	1.269				
	Dibenzo(ah)anthracene	A	0.996	11.49	0.797	0.924	1.018	1.076	1.082	1.076				
	Benzo(ghi)perylene	A	0.950	4.75	0.889	0.904	0.944	0.986	0.993	0.984				

Calibration Date: 80/3t/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120803t.M (Mean %RSD: 5.81)

Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos

Analytical Batch: t120808.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120803t.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	A	0.299	3.04	0.288	0.295	0.291	0.306	0.309	0.307				
	Naphthalene	A	0.994	2.36	1.014	0.969	0.959	1.007	1.009	1.004				
	2-Methylnaphthalene	A	0.556	3.05	0.542	0.540	0.541	0.568	0.575	0.572				
	1-Methylnaphthalene	A	0.648	3.33	0.626	0.628	0.632	0.659	0.673	0.669				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.226	4.08	1.179	1.179	1.184	1.265	1.286	1.261				
	Acenaphthylene	A	1.639	7.00	1.432	1.610	1.621	1.711	1.734	1.726				
	Acenaphthene **	A	0.978	3.73	0.937	0.953	0.948	1.007	1.024	1.000				
	Fluorene	A	1.263	4.43	1.187	1.220	1.237	1.304	1.324	1.307				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	A	1.047	3.62	1.100	1.002	1.006	1.047	1.072	1.053				
	Anthracene	A	1.057	3.26	1.024	1.025	1.035	1.065	1.108	1.083				
	Fluoranthene	A	1.179	5.74	1.081	1.132	1.151	1.228	1.243	1.241				
	Terphenyl-D14	A	0.850	7.10	0.811	0.775	0.803	0.887	0.916	0.906				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	0.980	8.44	0.819	0.981	0.985	1.026	1.045	1.024				
	Benzo(a)anthracene	A	0.988	3.92	0.975	0.939	0.956	1.000	1.041	1.019				
	Chrysene	A	0.971	5.16	0.901	0.939	0.945	0.999	1.027	1.016				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	1.046	9.60	0.869	0.990	1.076	1.110	1.140	1.092				
	Benzo(k)fluoranthene	A	0.963	10.65	0.835	0.872	0.916	1.030	1.030	1.092				
	Benzo(a)pyrene	A	0.876	7.14	0.792	0.811	0.867	0.919	0.937	0.927				
	Indeno(1,2,3-cd)pyrene	A	1.175	10.15	0.969	1.106	1.184	1.256	1.267	1.269				
	Dibenzo(ah)anthracene	A	0.996	11.49	0.797	0.924	1.018	1.076	1.082	1.076				
	Benzo(ghi)perylene	A	0.950	4.75	0.889	0.904	0.944	0.986	0.993	0.984				

Calibration Date: 80/3t/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120803t.M (Mean %RSD: 5.81)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\thanatos.4\methods\p120803t.m\

Injection Time	Calibration Data File
06/20/12 14:26	d20a.d
06/20/12 14:54	pna0005.d
06/20/12 16:01	pna_020.d
06/20/12 16:23	pna_040.d
06/20/12 16:46	pna_050.d
06/20/12 17:08	pna_060.d
06/20/12 17:31	pna_080.d
06/20/12 17:53	pna_100.d

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

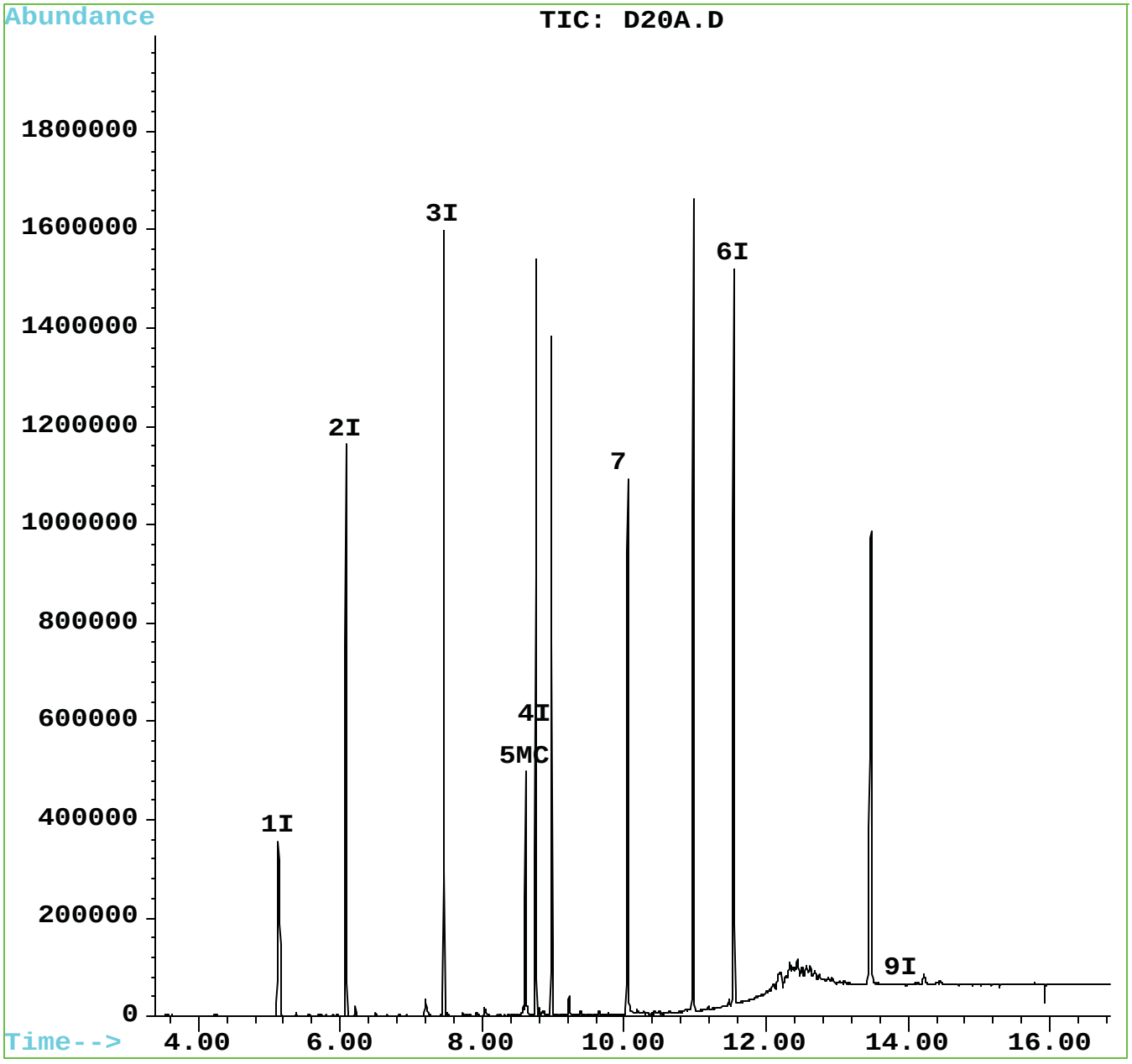
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	132678	40.00	ng/ul	-0.1
2) NAPHTHALENE-D8	6.08	136	569431	40.00	ng/ul	-0.1
3) ACENAPHTHALENE-D10	7.46	160	141248	40.00	ng/ul	-0.1
4) PHENANTHRENE-D10	8.75	188	623392	40.00	ng/ul	-0.1
6) CHRYSENE-D12	11.55	240	698034	40.00	ng/ul	-0.1
9) PERYLENE-D12	13.91	264	138	40.00	ng/ul	0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.61	266	58390	28.87	ng/ul	9
7) Benzidine	10.05	184	503493	85.56	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\d20a.d Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 11:07 19112

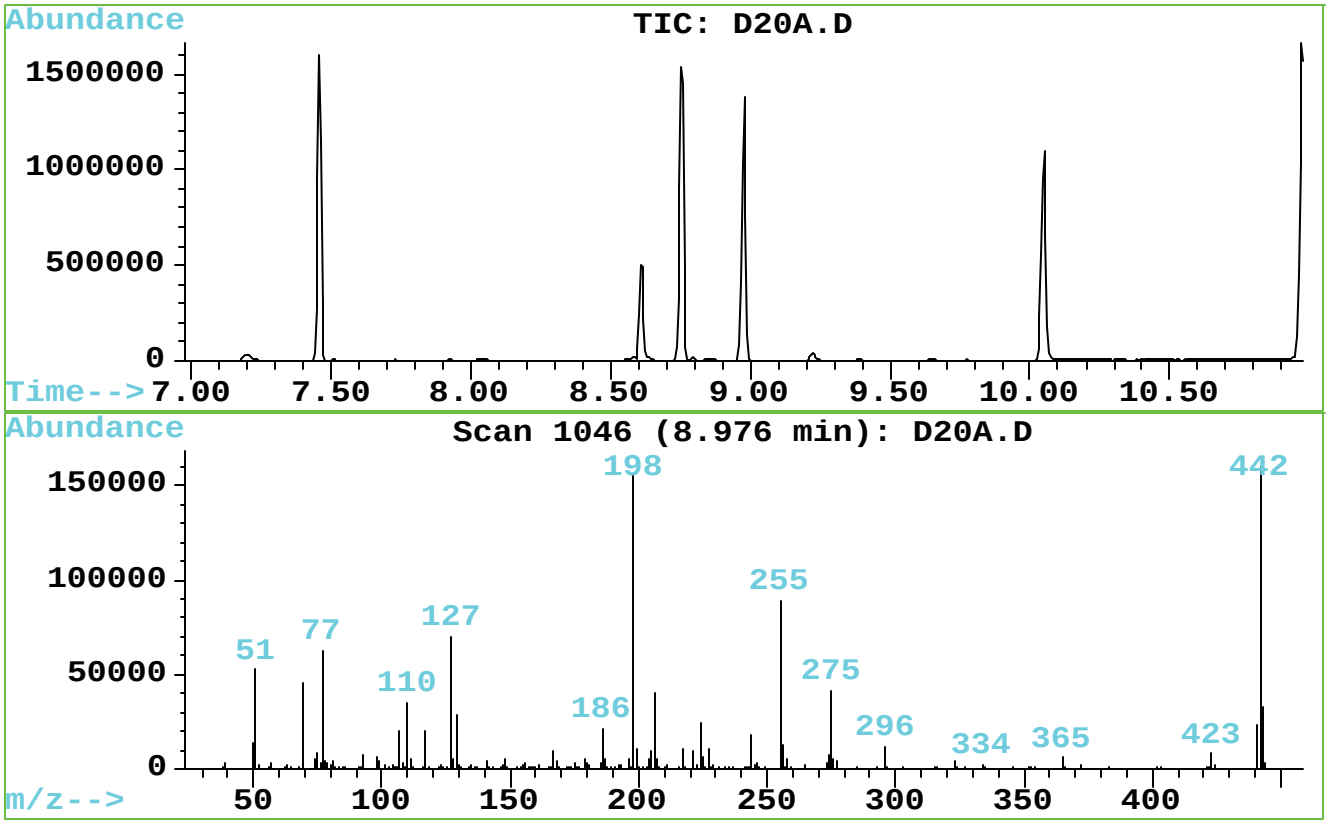
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120620.CAL\D20A.D Vial: 1
Acq On : 20 Jun 12 2:26 pm Operator: PL
Sample : dftpp std (120607) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120620T.M
Title : BNA 8270



Peak Apex is scan: 1046

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	33.7	52576	PASS
68	69	0	2	1.6	727	PASS
69	198	0	100	29.2	45504	PASS
70	69	0	2	0.6	257	PASS
127	198	25	75	45.1	70240	PASS
197	198	0	1	0.7	1032	PASS
198	198	100	100	100.0	155904	PASS
199	198	5	9	6.7	10402	PASS
275	198	10	30	26.5	41352	PASS
365	198	1	100	3.8	5941	PASS
441	443	0	100	71.5	23560	PASS
442	198	40	110	102.8	160256	PASS
443	442	15	24	20.6	32936	PASS

D20A.D P120620T.M Thu Jul 05 13:13:55 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

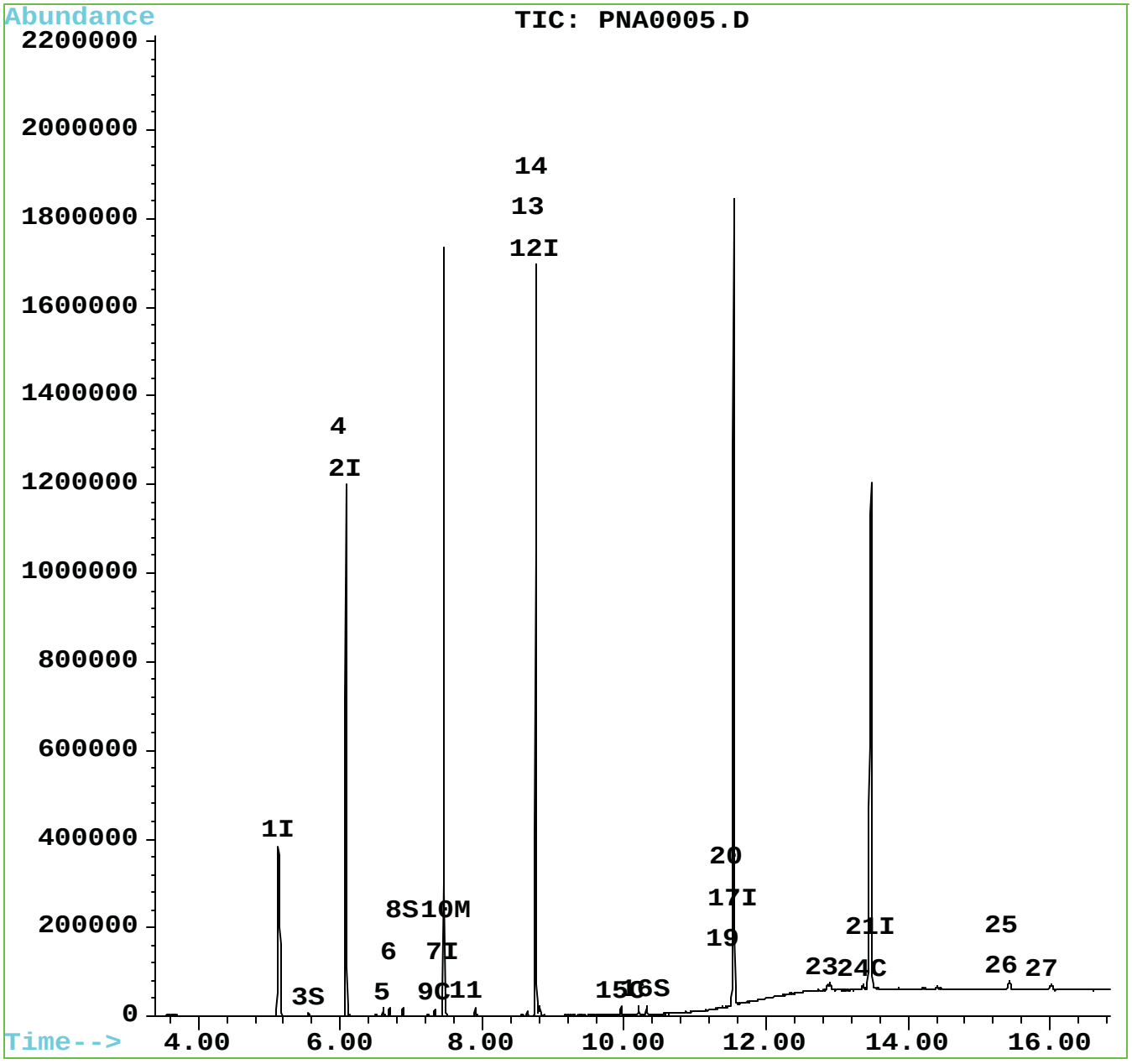
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	143390	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	584359	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	361670	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640265	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	851411	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	810081	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	2104	0.41	ng/ul	0.4
8) 2-Fluorobiphenyl	6.88	172	5332	0.49	ng/ul	0.4
16) Terphenyl-D14	10.31	244	6487	0.47	ng/ul	0.4
Target Compounds						Qvalu
4) Naphthalene	6.09	128	7409	0.50	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	3958	0.49	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	4576	0.49	ng/ul	9
9) Acenaphthylene	7.33	152	6474	0.43	ng/ul	9
10) Acenaphthene **	7.48	154	4235	0.49	ng/ul	10
11) Fluorene	7.90	166	5367	0.48	ng/ul	10
13) Phenanthrene	8.77	178	8800	0.53	ng/ul	9
14) Anthracene	8.81	178	8193	0.48	ng/ul	10
15) Fluoranthene	9.95	202	8650	0.46	ng/ul	9
19) Benzo(a)anthracene	11.52	228	10380	0.49	ng/ulm	9
20) Chrysene	11.57	228	9593	0.45	ng/ul	9
23) Benzo(k)fluoranthene	12.90	252	8460	0.41	ng/ul	9
24) Benzo(a)pyrene	13.37	252	8024	0.44	ng/ul	7
25) Indeno(1,2,3-cd)pyrene	15.43	276	9817	0.47	ng/ul	9
26) Dibenzo(ah)anthracene	15.43	278	8071	2.93	ng/ulm	
27) Benzo(ghi)perylene	16.02	276	9004	0.53	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna0005.d Vial:
Acq On : 20 Jun 12 2:54 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

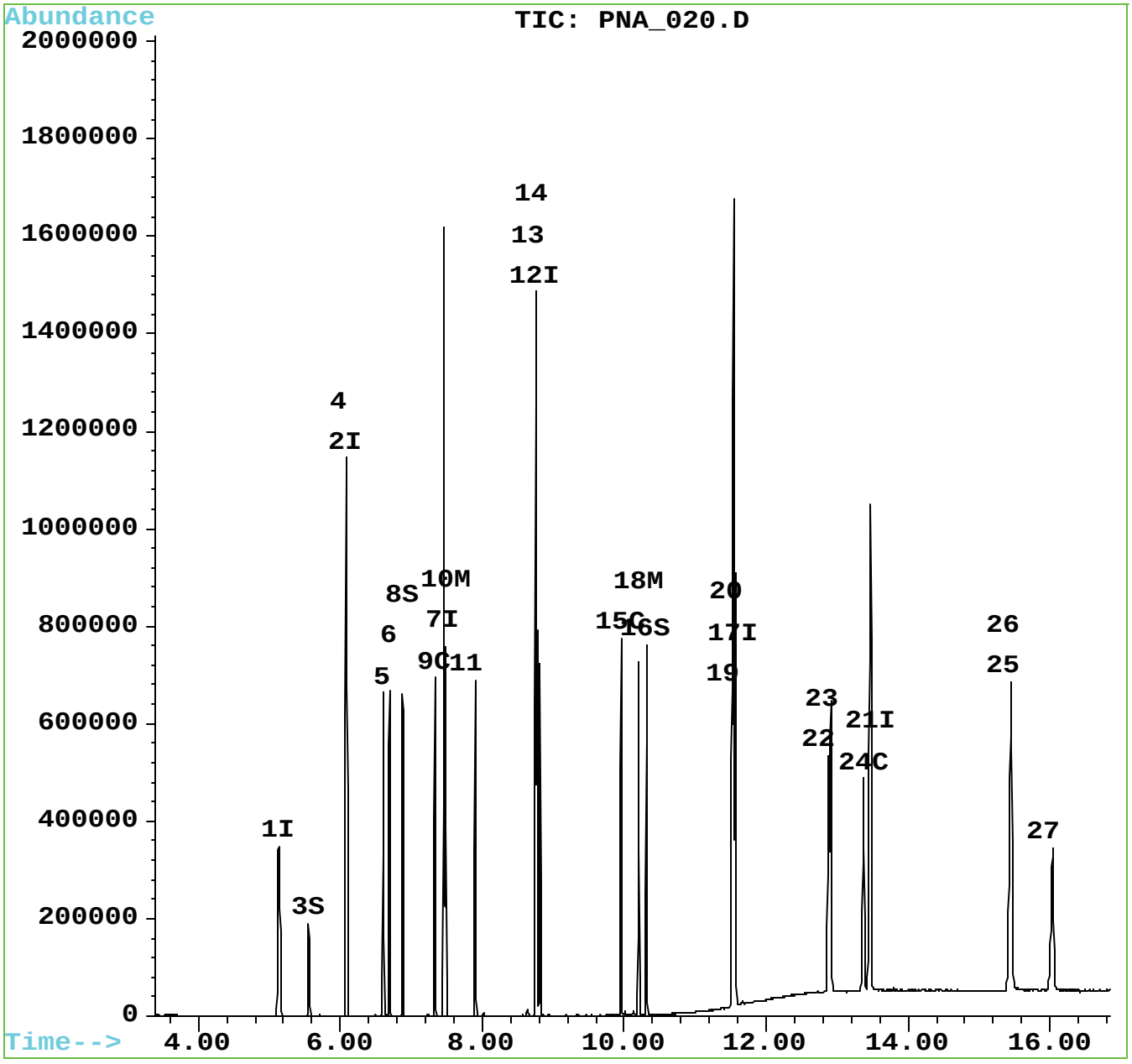
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	135615	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	556039	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	346157	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	598956	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.54	240	709363	40.00	ng/ul	0.0
21) PERYLENE-D12	13.47	264	692857	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	82003	17.37	ng/ul	17.3
8) 2-Fluorobiphenyl	6.88	172	204105	19.88	ng/ul	19.8
16) Terphenyl-D14	10.31	244	231969	19.02	ng/ul	19.0
Target Compounds						Qvalu
4) Naphthalene	6.09	128	269421	19.32	ng/ul	9
5) 2-Methylnaphthalene	6.60	141	150167	19.85	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	174575	20.06	ng/ul	9
9) Acenaphthylene	7.33	152	278716	19.95	ng/ul	9
10) Acenaphthene **	7.48	154	164917	20.36	ng/ul	9
11) Fluorene	7.91	166	211147	19.78	ng/ul	9
13) Phenanthrene	8.77	178	300111	19.28	ng/ul	9
14) Anthracene	8.82	178	306951	19.46	ng/ul	9
15) Fluoranthene	9.95	202	339050	19.64	ng/ul	9
18) Pyrene **	10.21	202	347810	19.42	ng/ul	9
19) Benzo(a)anthracene	11.52	228	333084	19.02	ng/ul	9
20) Chrysene	11.57	228	333074	19.43	ng/ul	9
22) Benzo(b)fluoranthene	12.88	252	343106	19.00	ng/ul	9
23) Benzo(k)fluoranthene	12.91	252	301991	17.52	ng/ul	9
24) Benzo(a)pyrene	13.37	252	280817	18.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.45	276	383241	21.67	ng/ul	9
26) Dibenzo(ah)anthracene	15.45	278	320076	76.29	ng/ul#	
27) Benzo(ghi)perylene	16.04	276	313019	21.38	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_020.d Vial:
Acq On : 20 Jun 12 4:01 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:27 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

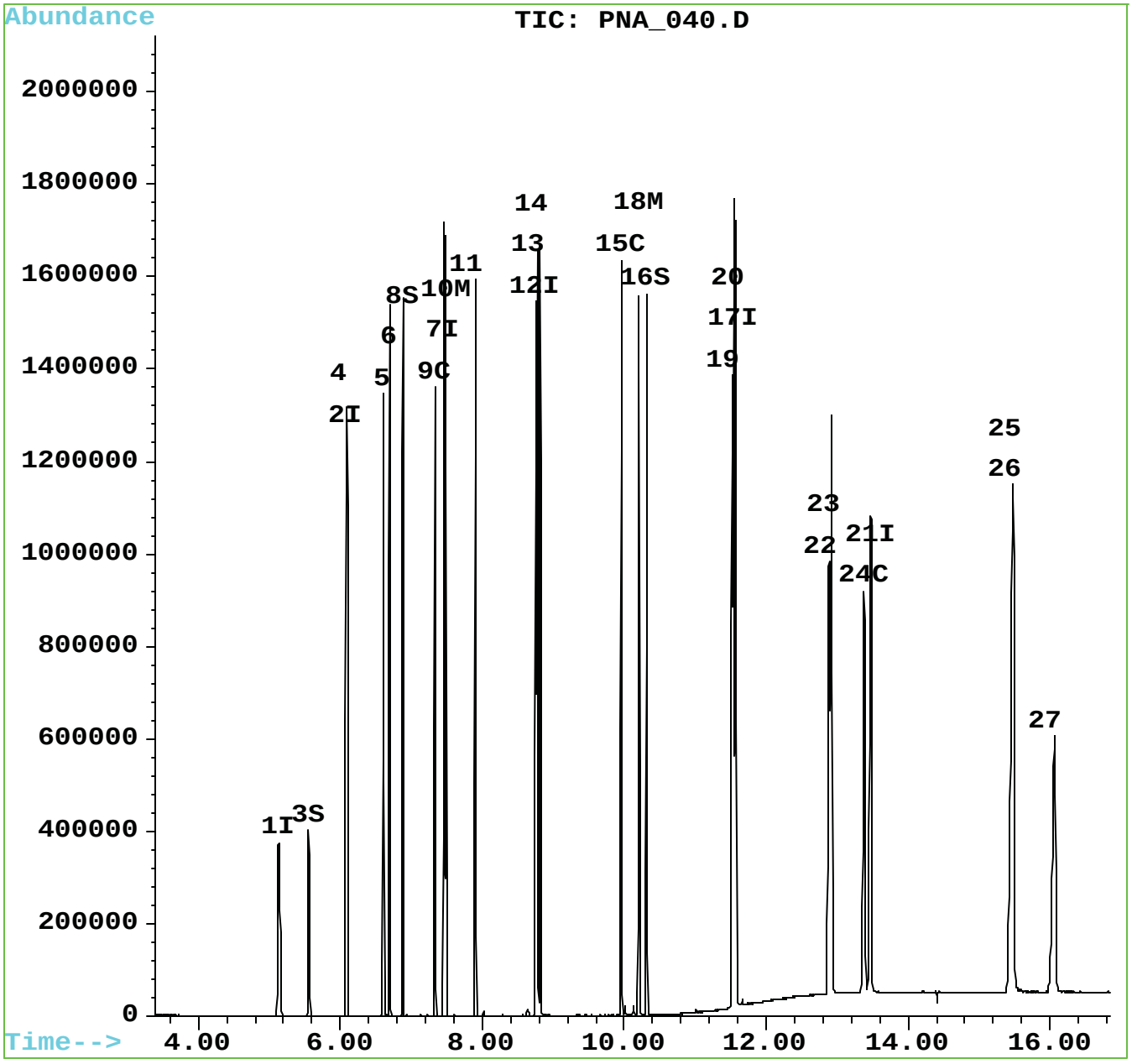
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	145174	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	600445	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	372384	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	640122	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	768198	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	711428	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	174537	35.18	ng/ul	35.1
8) 2-Fluorobiphenyl	6.88	172	440917	40.11	ng/ul	40.1
16) Terphenyl-D14	10.32	244	513941	39.56	ng/ul	39.5
Target Compounds						Qvalu
4) Naphthalene	6.09	128	575604	38.59	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	325059	39.88	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	379358	40.37	ng/ul	9
9) Acenaphthylene	7.34	152	603631	40.34	ng/ul	9
10) Acenaphthene **	7.48	154	353127	40.59	ng/ul	9
11) Fluorene	7.91	166	460460	40.27	ng/ul	9
13) Phenanthrene	8.77	178	643835	38.97	ng/ul	10
14) Anthracene	8.82	178	662219	39.53	ng/ul	10
15) Fluoranthene	9.96	202	736945	40.05	ng/ul	10
18) Pyrene **	10.21	202	756635	39.53	ng/ul	10
19) Benzo(a)anthracene	11.52	228	734403	38.98	ng/ul	9
20) Chrysene	11.58	228	725802	39.40	ng/ul	9
22) Benzo(b)fluoranthene	12.89	252	765726	41.58	ng/ul	9
23) Benzo(k)fluoranthene	12.92	252	651601	37.90	ng/ulm	9
24) Benzo(a)pyrene	13.38	252	616751	39.86	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.49	276	842409	45.64	ng/ul	9
26) Dibenzo(ah)anthracene	15.48	278	724171	108.89	ng/ul#	
27) Benzo(ghi)perylene	16.07	276	671310	44.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_040.d Vial:
Acq On : 20 Jun 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:29 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

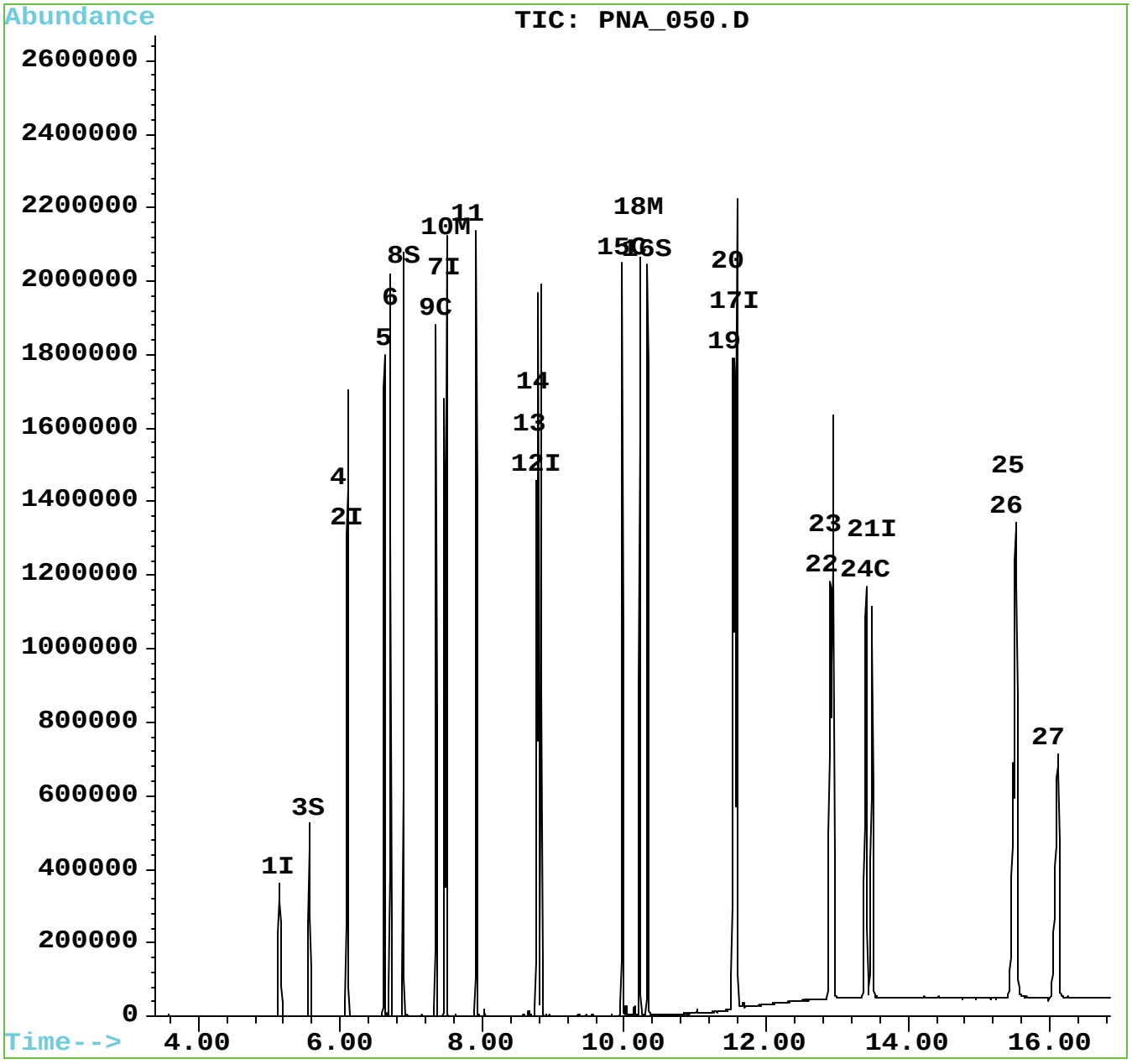
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.14	152	140598	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.09	136	584387	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.47	164	376489	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.76	188	622177	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.56	240	765174	40.00	ng/ul	0.0
21) PERYLENE-D12	13.50	264	703377	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	229947	52.60	ng/ul	52.6
8) 2-Fluorobiphenyl	6.89	172	607779	52.68	ng/ul	52.6
16) Terphenyl-D14	10.33	244	692330	52.39	ng/ul	52.3
Target Compounds						Qvalu
4) Naphthalene	6.10	128	751033	51.74	ng/ul	10
5) 2-Methylnaphthalene	6.62	141	434353	53.42	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	506957	53.57	ng/ul	9
9) Acenaphthylene	7.35	152	823667	53.39	ng/ul	9
10) Acenaphthene **	7.49	154	486187	52.81	ng/ul	9
11) Fluorene	7.92	166	607540	51.10	ng/ul	9
13) Phenanthrene	8.79	178	840726	51.65	ng/ul	10
14) Anthracene	8.83	178	824151	50.15	ng/ulm	10
15) Fluoranthene	9.98	202	961499	52.42	ng/ul	10
18) Pyrene **	10.22	202	986114	52.61	ng/ul	10
19) Benzo(a)anthracene	11.54	228	956291	50.58	ng/ul	9
20) Chrysene	11.59	228	954806	51.40	ng/ul	9
22) Benzo(b)fluoranthene	12.91	252	1007548	54.76	ng/ul	9
23) Benzo(k)fluoranthene	12.95	252	869858	51.39	ng/ulm	9
24) Benzo(a)pyrene	13.41	252	810603	52.65	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1043907	50.51	ng/ulm	8
26) Dibenzo(ah)anthracene	15.52	278	891914	50.95	ng/ul#	
27) Benzo(ghi)perylene	16.12	276	876303	52.46	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_050.d Vial:
Acq On : 20 Jun 12 4:46 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:33 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

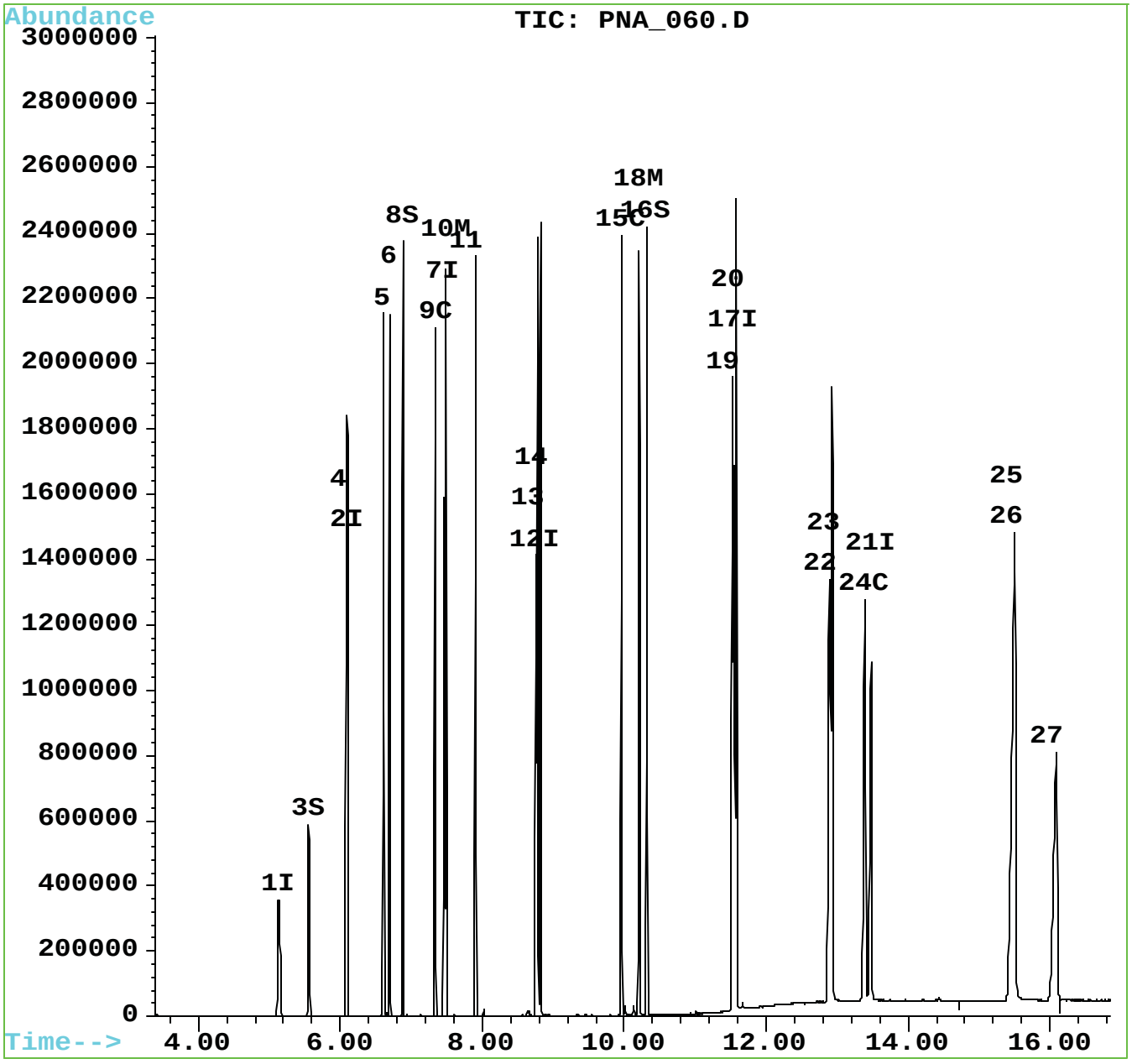
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	139447	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	575362	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	353288	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	616305	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	748003	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	682703	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	264229	57.14	ng/ul	57.1
8) 2-Fluorobiphenyl	6.88	172	670339	64.21	ng/ul	64.2
16) Terphenyl-D14	10.32	244	820095	65.45	ng/ul	65.4
Target Compounds						Qvalu
4) Naphthalene	6.10	128	868848	61.11	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	490465	62.75	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	569018	62.98	ng/ul	9
9) Acenaphthylene	7.34	152	906881	63.94	ng/ul	9
10) Acenaphthene **	7.48	154	533576	64.40	ng/ul	9
11) Fluorene	7.91	166	690907	63.53	ng/ul	9
13) Phenanthrene	8.78	178	967482	60.95	ng/ul	10
14) Anthracene	8.82	178	984460	61.22	ng/ul	10
15) Fluoranthene	9.97	202	1135196	64.07	ng/ul	10
18) Pyrene **	10.21	202	1150667	62.18	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1121641	61.16	ng/ul	9
20) Chrysene	11.59	228	1120370	62.57	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1137138	63.75	ng/ul	9
23) Benzo(k)fluoranthene	12.93	252	1055134	64.94	ng/ulm	9
24) Benzo(a)pyrene	13.39	252	941272	63.36	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.51	276	1286560	70.60	ng/ul	9
26) Dibenzo(ah)anthracene	15.50	278	1101876	123.88	ng/ul#	
27) Benzo(ghi)perylene	16.10	276	1009761	67.42	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_060.d Vial:
Acq On : 20 Jun 12 5:08 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

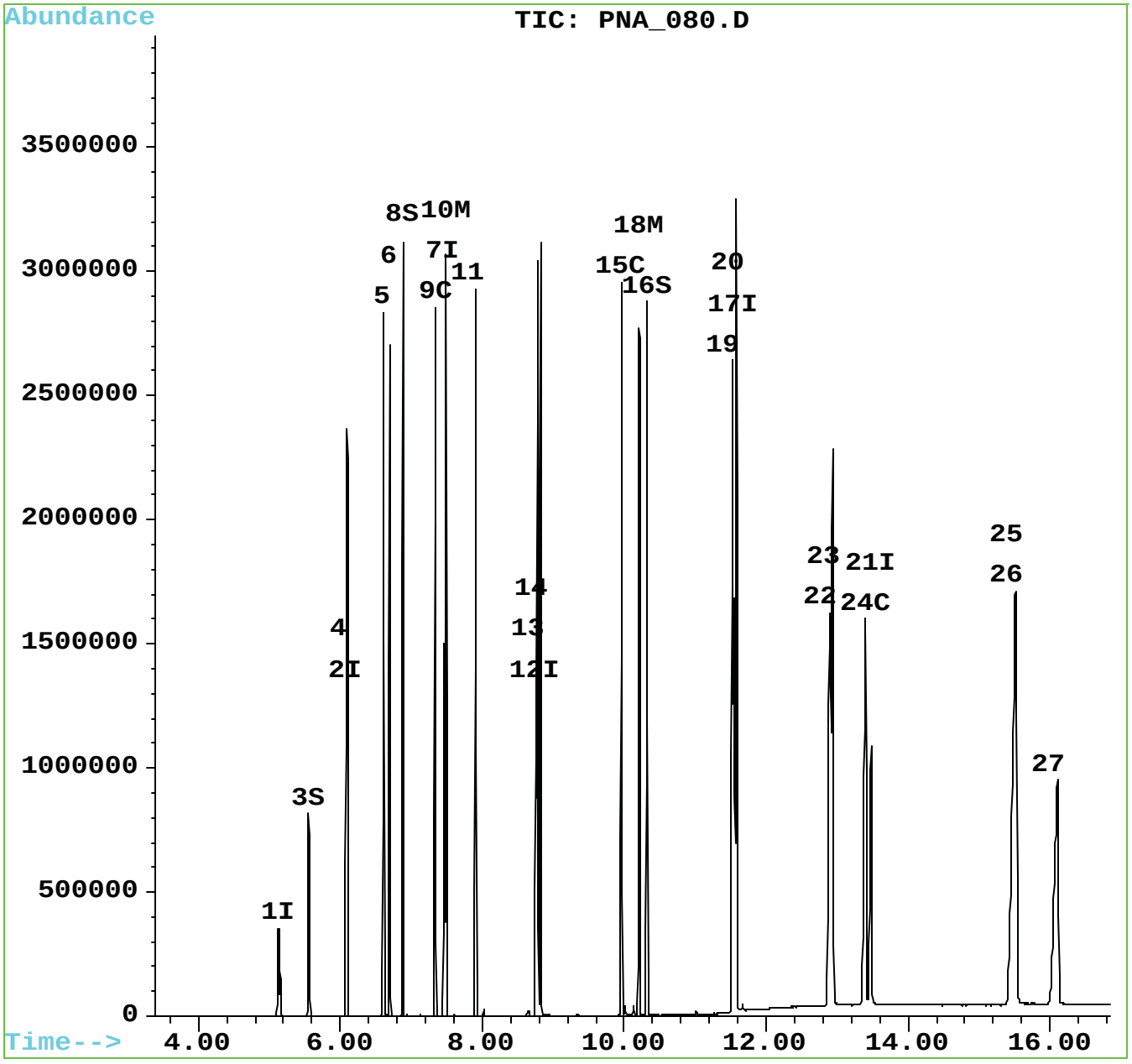
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	84162	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	560653	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	344328	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	593618	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	724268	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	668390	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.55	82	346243	78.73	ng/ul	78.7
8) 2-Fluorobiphenyl	6.88	172	885493	86.15	ng/ul	86.1
16) Terphenyl-D14	10.32	244	1087992	88.89	ng/ul	88.8
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1131267	81.69	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	644735	84.16	ng/ul	9
6) 1-Methylnaphthalene	6.69	142	754321	85.15	ng/ul	9
9) Acenaphthylene	7.34	152	1193934	86.08	ng/ul	9
10) Acenaphthene **	7.49	154	705426	86.33	ng/ul	9
11) Fluorene	7.91	166	911878	85.55	ng/ul	10
13) Phenanthrene	8.78	178	1272975	83.14	ng/ul	9
14) Anthracene	8.82	178	1315513	84.88	ng/ul	10
15) Fluoranthene	9.97	202	1475282	85.92	ng/ul	10
18) Pyrene **	10.22	202	1513446	85.04	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1508631	85.06	ng/ul	9
20) Chrysene	11.59	228	1487020	85.85	ng/ul	9
22) Benzo(b)fluoranthene	12.90	252	1523698	87.00	ng/ul	9
23) Benzo(k)fluoranthene	12.94	252	1376522	86.71	ng/ulm	9
24) Benzo(a)pyrene	13.40	252	1253005	86.05	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.53	276	1693105	91.97	ng/ul	9
26) Dibenzo(ah)anthracene	15.51	278	1446162	127.51	ng/ul#	
27) Benzo(ghi)perylene	16.11	276	1327841	88.30	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_080.d Vial:
Acq On : 20 Jun 12 5:31 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:30 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

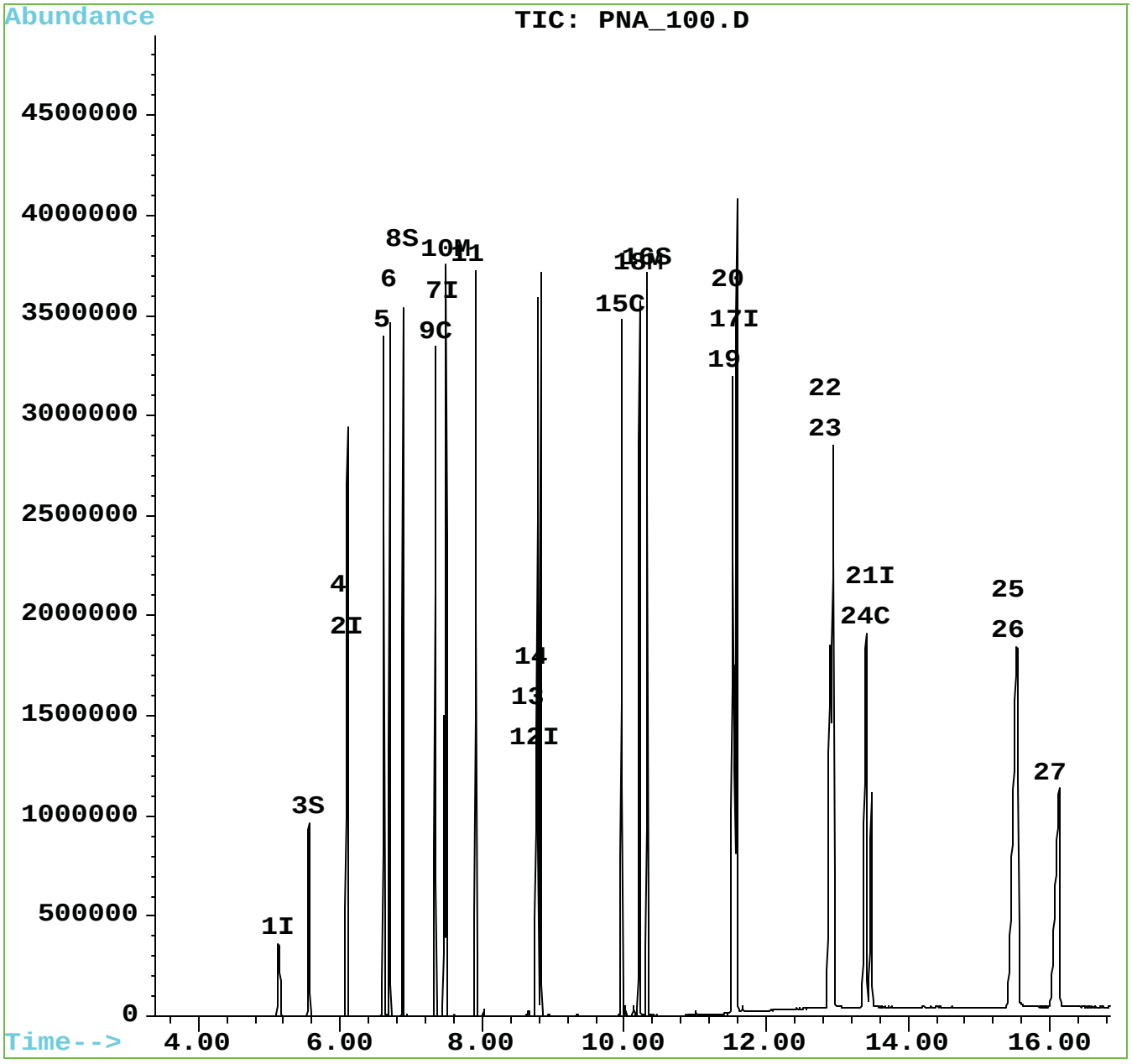
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.13	152	138171	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.08	136	568205	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.46	164	351986	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.75	188	611911	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.55	240	757963	40.00	ng/ul	0.0
21) PERYLENE-D12	13.48	264	692918	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.56	82	435831	100.13	ng/ul	100.1
8) 2-Fluorobiphenyl	6.88	172	1109224	104.17	ng/ul	104.1
16) Terphenyl-D14	10.32	244	1385539	108.11	ng/ul	108.1
Target Compounds						Qvalu
4) Naphthalene	6.10	128	1425996	101.45	ng/ul	10
5) 2-Methylnaphthalene	6.61	141	813163	103.78	ng/ul	9
6) 1-Methylnaphthalene	6.70	142	949708	104.58	ng/ul	9
9) Acenaphthylene	7.34	152	1519026	106.44	ng/ul	9
10) Acenaphthene **	7.49	154	879645	103.79	ng/ul	9
11) Fluorene	7.91	166	1150248	104.66	ng/ul	9
13) Phenanthrene	8.78	178	1610327	101.32	ng/ul	9
14) Anthracene	8.83	178	1657005	103.19	ng/ul	10
15) Fluoranthene	9.97	202	1898025	106.43	ng/ul	9
18) Pyrene **	10.22	202	1939528	104.36	ng/ul	10
19) Benzo(a)anthracene	11.53	228	1930239	103.53	ng/ul	9
20) Chrysene	11.59	228	1924431	105.47	ng/ul	9
22) Benzo(b)fluoranthene	12.95	252	3782432	207.76	ng/ulm	9
23) Benzo(k)fluoranthene	12.95	252	3782795	230.09	ng/ulm	10
24) Benzo(a)pyrene	13.41	252	1605543	106.12	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.55	276	2198376	111.69	ng/ul	10
26) Dibenzo(ah)anthracene	15.53	278	1864392	128.64	ng/ul#	
27) Benzo(ghi)perylene	16.13	276	1705175	106.54	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\methods\p120803t.m\pna_100.d Vial:
Acq On : 20 Jun 12 5:53 pm Operator: PL
Sample : pna std (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Jun 21 10:31 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120803.2
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn03a.d	08/03/12 11:16	Acenaphthylene	1.806	0.30
		Benzo(b)fluoranthene	1.178	0.30
		Naphthalene	1.046	0.30
		Phenanthrene	1.159	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120808.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn08a.d	08/08/12 12:02	Acenaphthylene	1.831	0.30
		Benzo(b)fluoranthene	1.117	0.30
		Naphthalene	1.055	0.30
		Phenanthrene	1.155	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120803.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn03a.d	08/03/12 11:16	1-methylnaphthalene	53.3/ 50.0	6.6/ 20.0
		2-Methylnaphthalene	52.9/ 50.0	5.8/ 20.0
		Acenaphthene	54.8/ 50.0	9.6/ 20.0
		Acenaphthylene	55.1/ 50.0	10.2/ 20.0
		Anthracene	55.4/ 50.0	10.7/ 20.0
		Benzo(a)anthracene	52.6/ 50.0	5.2/ 20.0
		Benzo(a)pyrene	55.1/ 50.0	10.2/ 20.0
		Benzo(b)fluoranthene	56.3/ 50.0	12.7/ 20.0
		Benzo(ghi)perylene	50.0/ 50.0	0.0/ 20.0
		Benzo(k)fluoranthene	54.2/ 50.0	8.4/ 20.0
		Chrysene	54.4/ 50.0	8.9/ 20.0
		Dibenzo(ah)anthracene	55.0/ 50.0	10.1/ 20.0
		Fluorene	55.4/ 50.0	10.8/ 20.0
		Fluoranthene	56.4/ 50.0	12.8/ 20.0
		Indeno(1,2,3-cd)pyrene	54.0/ 50.0	8.0/ 20.0
		Naphthalene	52.6/ 50.0	5.3/ 20.0
		Phenanthrene	55.4/ 50.0	10.8/ 20.0
		Pyrene	57.3/ 50.0	14.6/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.03.Thanatos
Initial Calibration Date: (see Form 6)

Analytical Batch: t120808.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn08a.d	08/08/12 12:02	1-methylnaphthalene	53.9/ 50.0	7.8/ 20.0
		2-Methylnaphthalene	53.6/ 50.0	7.1/ 20.0
		Acenaphthene	56.3/ 50.0	12.6/ 20.0
		Acenaphthylene	55.9/ 50.0	11.7/ 20.0
		Anthracene	54.6/ 50.0	9.2/ 20.0
		Benzo(a)anthracene	53.1/ 50.0	6.1/ 20.0
		Benzo(a)pyrene	54.8/ 50.0	9.6/ 20.0
		Benzo(b)fluoranthene	53.4/ 50.0	6.7/ 20.0
		Benzo(ghi)perylene	49.8/ 50.0	0.4/ 20.0
		Benzo(k)fluoranthene	55.7/ 50.0	11.4/ 20.0
		Chrysene	54.8/ 50.0	9.5/ 20.0
		Dibenzo(ah)anthracene	55.4/ 50.0	10.7/ 20.0
		Fluorene	56.0/ 50.0	12.0/ 20.0
		Fluoranthene	55.0/ 50.0	10.1/ 20.0
		Indeno(1,2,3-cd)pyrene	54.1/ 50.0	8.3/ 20.0
		Naphthalene	53.1/ 50.0	6.1/ 20.0
		Phenanthrene	55.2/ 50.0	10.4/ 20.0
		Pyrene	56.0/ 50.0	12.0/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\spnn03a.d Vial: 2
Acq On : 3 Aug 12 11:16 am Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 11:50 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

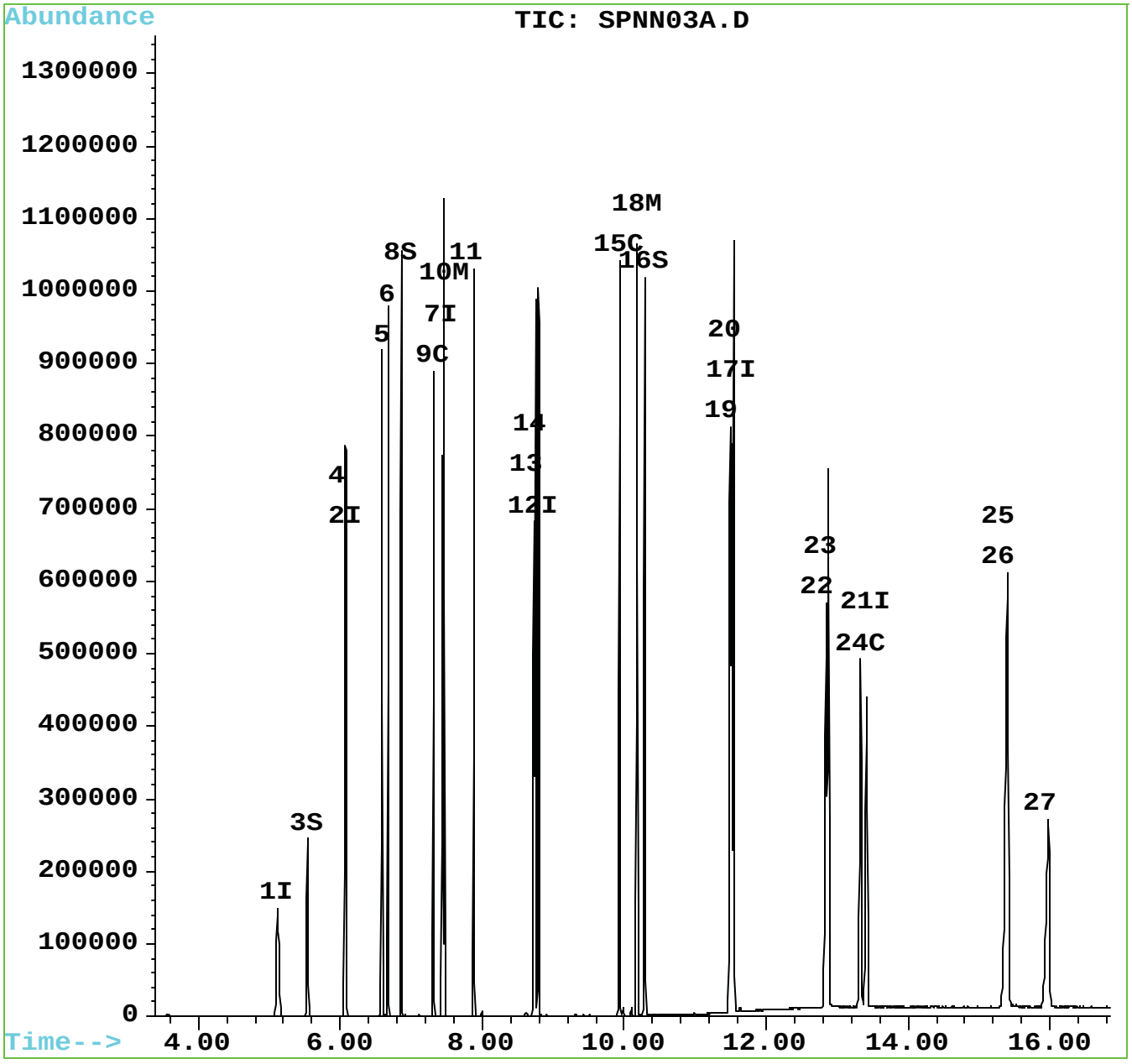
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	55202	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	254545	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	156382	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	266681	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	321204	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	261291	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	99168	52.08	ng/ul	52.0
8) 2-Fluorobiphenyl	6.86	172	257439	53.72	ng/ul	53.7
16) Terphenyl-D14	10.29	244	312226	55.13	ng/ul	55.1
Target Compounds						Qvalu
4) Naphthalene	6.08	128	332760	52.63	ng/ul	10
5) 2-Methylnaphthalene	6.59	141	187281	52.88	ng/ul	9
6) 1-Methylnaphthalene	6.67	142	219817	53.32	ng/ul	9
9) Acenaphthylene	7.31	152	352936	55.08	ng/ul	9
10) Acenaphthene **	7.46	154	209525	54.79	ng/ul	9
11) Fluorene	7.88	166	273492	55.38	ng/ul	10
13) Phenanthrene	8.75	178	386365	55.38	ng/ul	10
14) Anthracene	8.79	178	389939	55.36	ng/ul	9
15) Fluoranthene	9.93	202	443530	56.41	ng/ul	9
18) Pyrene **	10.18	202	450650	57.28	ng/ul	9
19) Benzo(a)anthracene	11.49	228	417405	52.59	ng/ul	10
20) Chrysene	11.55	228	424407	54.43	ng/ul	10
22) Benzo(b)fluoranthene	12.84	252	385021	56.33	ng/ul	9
23) Benzo(k)fluoranthene	12.88	252	379715	54.18	ng/ul	10
24) Benzo(a)pyrene	13.34	252	315020	55.08	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.41	276	414711	54.02	ng/ul	9
26) Dibenzo(ah)anthracene	15.40	278	357901	55.04	ng/ul	9
27) Benzo(ghi)perylene	15.98	276	310243	49.99	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\spnn03a.d Vial: 2
Acq On : 3 Aug 12 11:16 am Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 11:50 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\spnn08a.d Vial: 2
Acq On : 8 Aug 12 12:02 pm Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 8 12:42 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

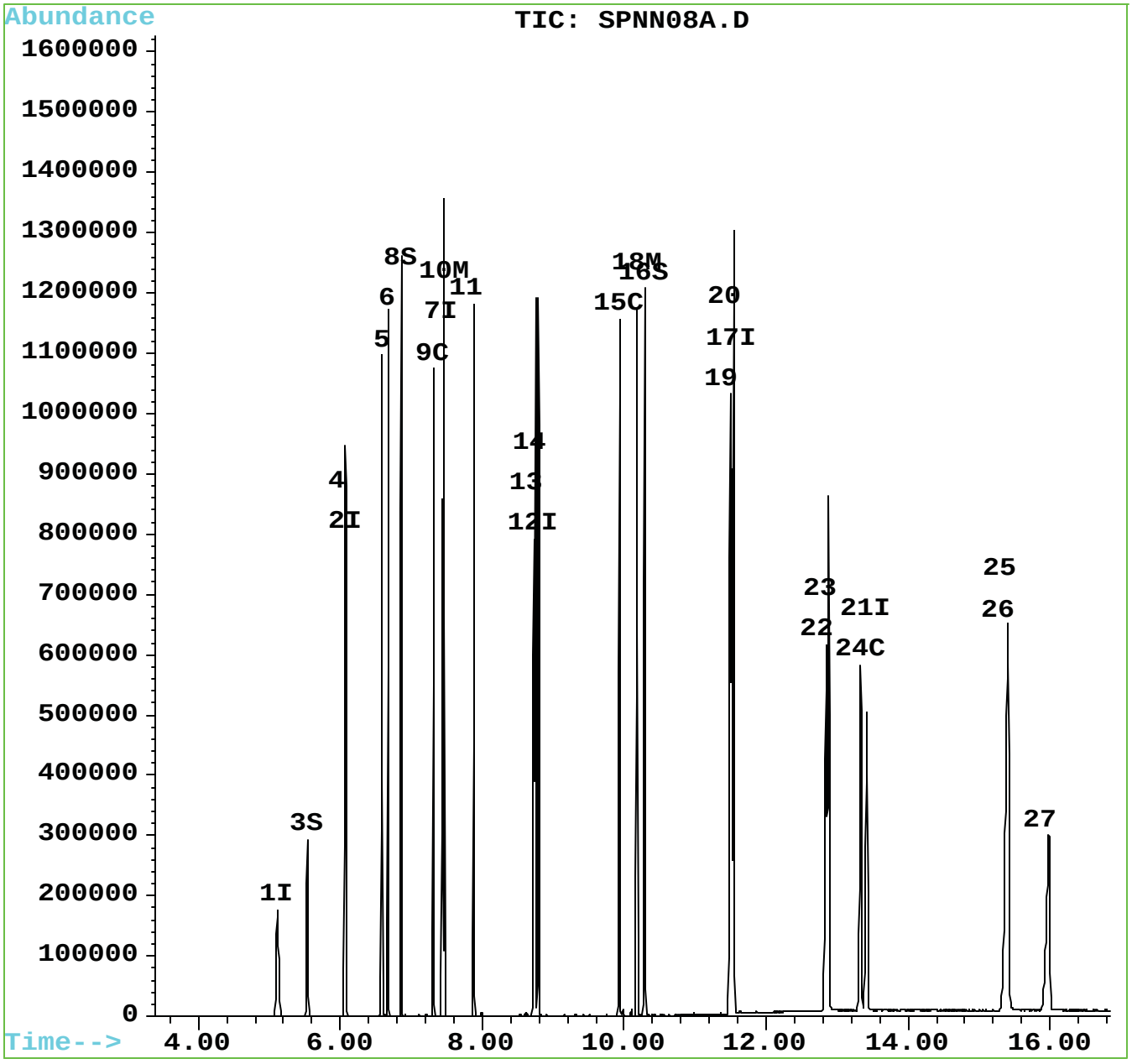
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	60345	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	293930	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	177812	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	311110	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	374191	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	308493	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	112903	51.35	ng/ul	51.3
8) 2-Fluorobiphenyl	6.86	172	303300	55.67	ng/ul	55.6
16) Terphenyl-D14	10.29	244	362049	54.79	ng/ul	54.7
Target Compounds						Qvalu
4) Naphthalene	6.08	128	387373	53.06	ng/ul	10
5) 2-Methylnaphthalene	6.59	141	219002	53.55	ng/ul	9
6) 1-Methylnaphthalene	6.67	142	256606	53.91	ng/ul	9
9) Acenaphthylene	7.31	152	406964	55.85	ng/ul	9
10) Acenaphthene **	7.46	154	244745	56.29	ng/ul	9
11) Fluorene	7.88	166	314431	56.00	ng/ul	9
13) Phenanthrene	8.75	178	449455	55.22	ng/ul	10
14) Anthracene	8.79	178	448538	54.58	ng/ul	9
15) Fluoranthene	9.93	202	504692	55.03	ng/ul	9
18) Pyrene **	10.18	202	513492	56.02	ng/ul	10
19) Benzo(a)anthracene	11.49	228	490640	53.07	ng/ul	9
20) Chrysene	11.55	228	497287	54.75	ng/ul	9
22) Benzo(b)fluoranthene	12.84	252	430690	53.37	ng/ul	9
23) Benzo(k)fluoranthene	12.89	252	460836	55.70	ng/ul	10
24) Benzo(a)pyrene	13.34	252	369962	54.79	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.42	276	490707	54.14	ng/ul	10
26) Dibenzo(ah)anthracene	15.40	278	424976	55.35	ng/ul	9
27) Benzo(ghi)perylene	15.98	276	364692	49.78	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\spnn08a.d Vial: 2
Acq On : 8 Aug 12 12:02 pm Operator: PL
Sample : pna std 50 (120314) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 8 12:42 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\d03a.d Vial: 1
Acq On : 3 Aug 12 10:54 am Operator: PL
Sample : dftpp std (120801) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 11:51 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

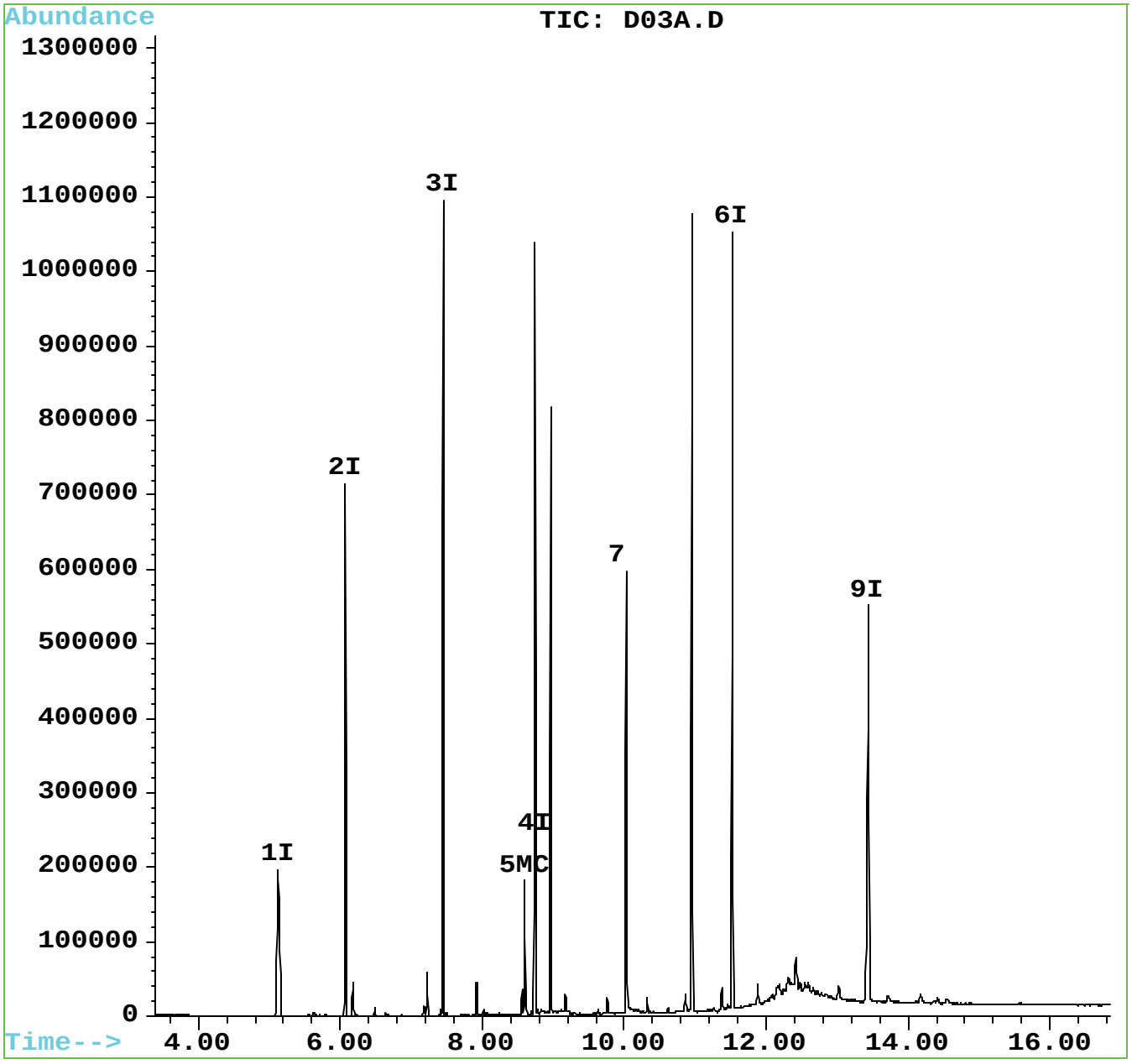
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	72488	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	345624	40.00	ng/ul	0.0
3) ACENAPHTHALENE-D10	7.45	160	87970	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.74	188	376347	40.00	ng/ul	-0.0
6) CHRYSENE-D12	11.53	240	410162	40.00	ng/ul	-0.0
9) PERYLENE-D12	13.44	264	333911	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.60	266	17279	14.15	ng/ul	9
7) Benzidine	10.03	184	235725	68.17	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\d03a.d Vial: 1
Acq On : 3 Aug 12 10:54 am Operator: PL
Sample : dftpp std (120801) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 3 11:51 19112

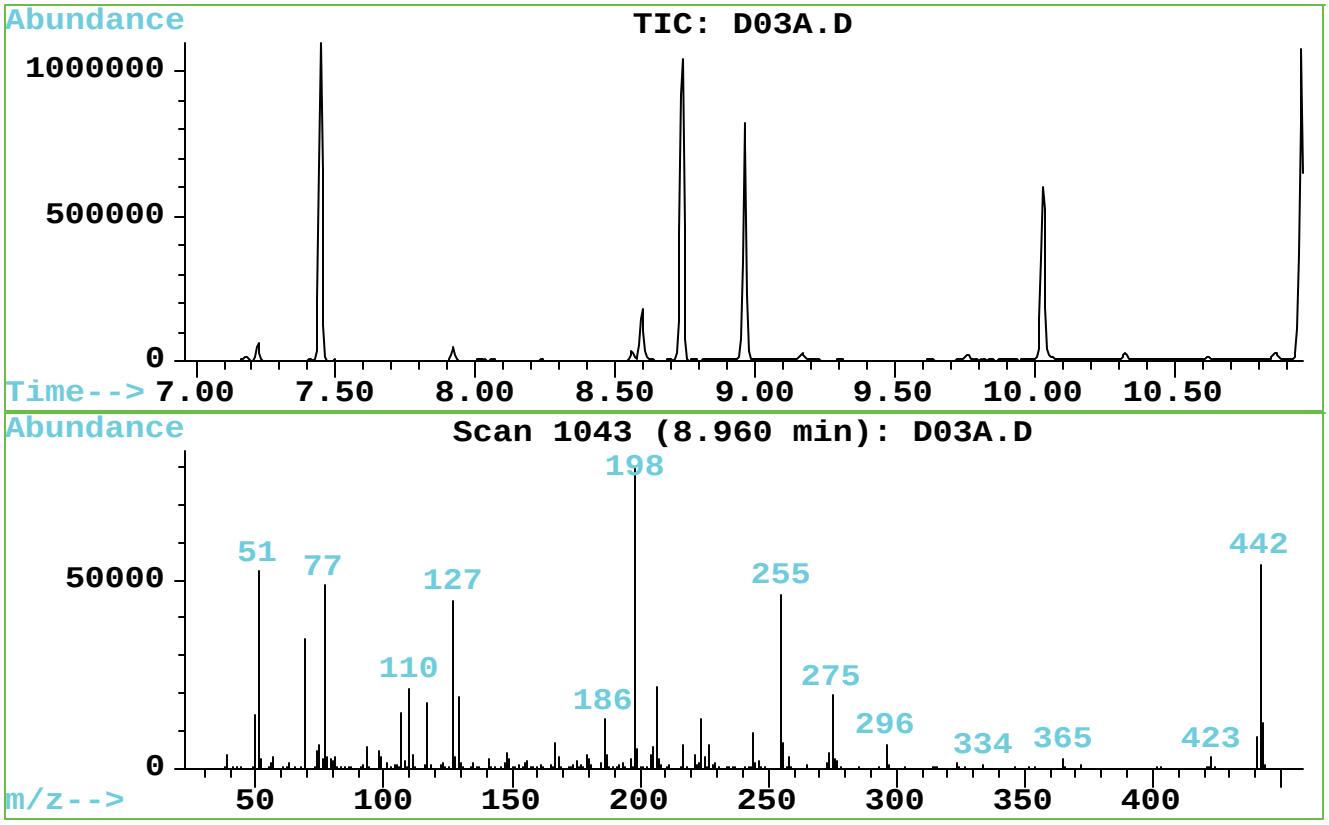
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120803\D03A.D Vial: 1
Acq On : 3 Aug 12 10:54 am Operator: PL
Sample : dftpp std (120801) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270



Peak Apex is scan: 1043

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	65.3	52368	PASS
68	69	0	2	1.7	589	PASS
69	198	0	100	43.0	34488	PASS
70	69	0	2	0.7	235	PASS
127	198	25	75	55.6	44592	PASS
197	198	0	1	0.8	670	PASS
198	198	100	100	100.0	80192	PASS
199	198	5	9	6.3	5091	PASS
275	198	10	30	24.2	19440	PASS
365	198	1	100	3.5	2807	PASS
441	443	0	100	70.6	8543	PASS
442	198	40	110	67.6	54240	PASS
443	442	15	24	22.3	12109	PASS

D03A.D P120803T.M Tue Aug 07 11:40:25 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\d08a.d Vial: 1
Acq On : 8 Aug 12 11:40 am Operator: PL
Sample : dftpp std (120801) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 8 12:43 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

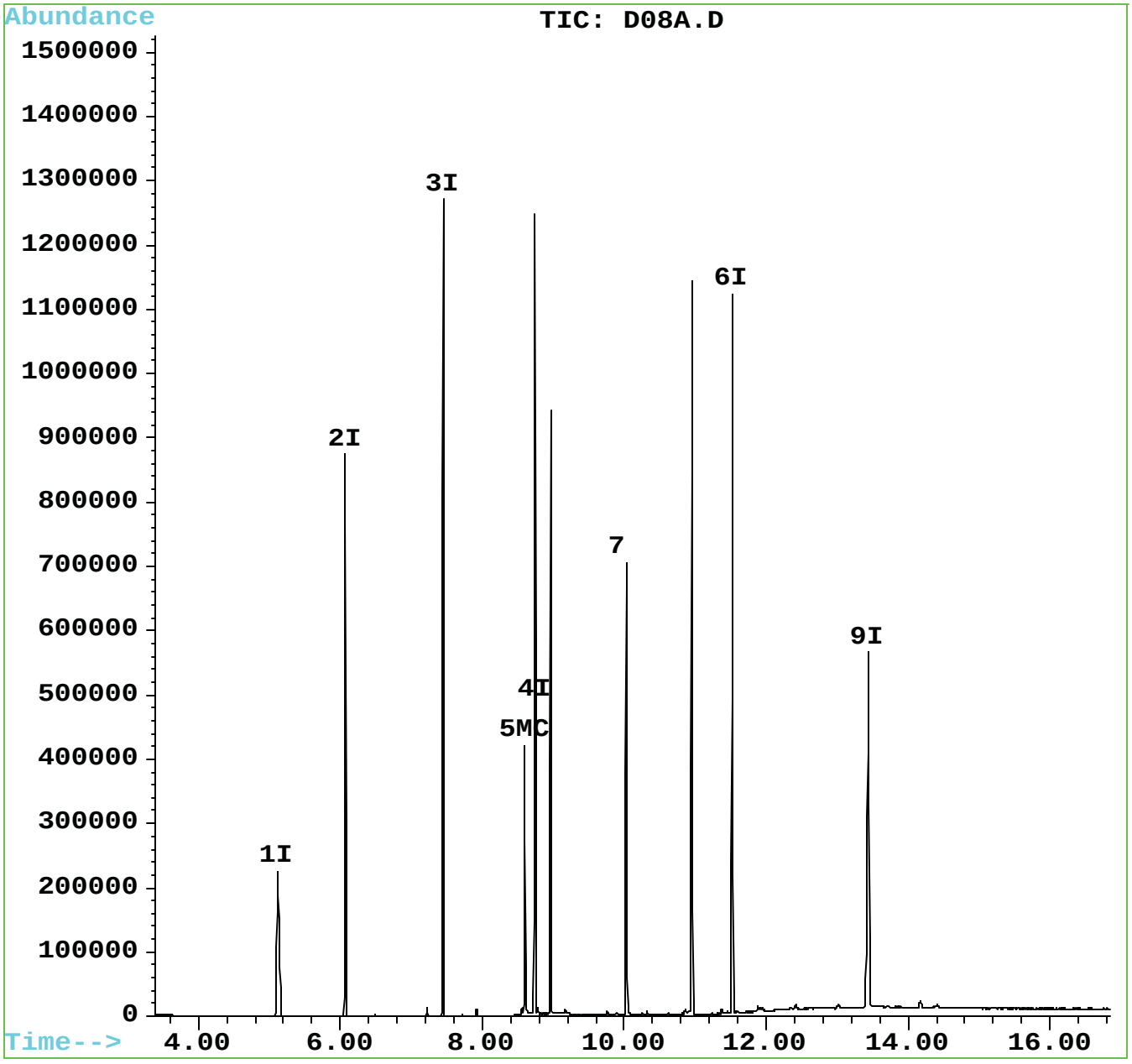
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	78102	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.07	136	393093	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	7.45	160	100002	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.74	188	429630	40.00	ng/ul	-0.0
6) CHRYSENE-D12	11.53	240	466045	40.00	ng/ul	-0.0
9) PERYLENE-D12	13.44	264	376081	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.60	266	36724	26.35	ng/ul	9
7) Benzidine	10.04	184	284959	72.53	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\d08a.d Vial: 1
Acq On : 8 Aug 12 11:40 am Operator: PL
Sample : dftpp std (120801) Inst : Tempest
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 8 12:43 19112

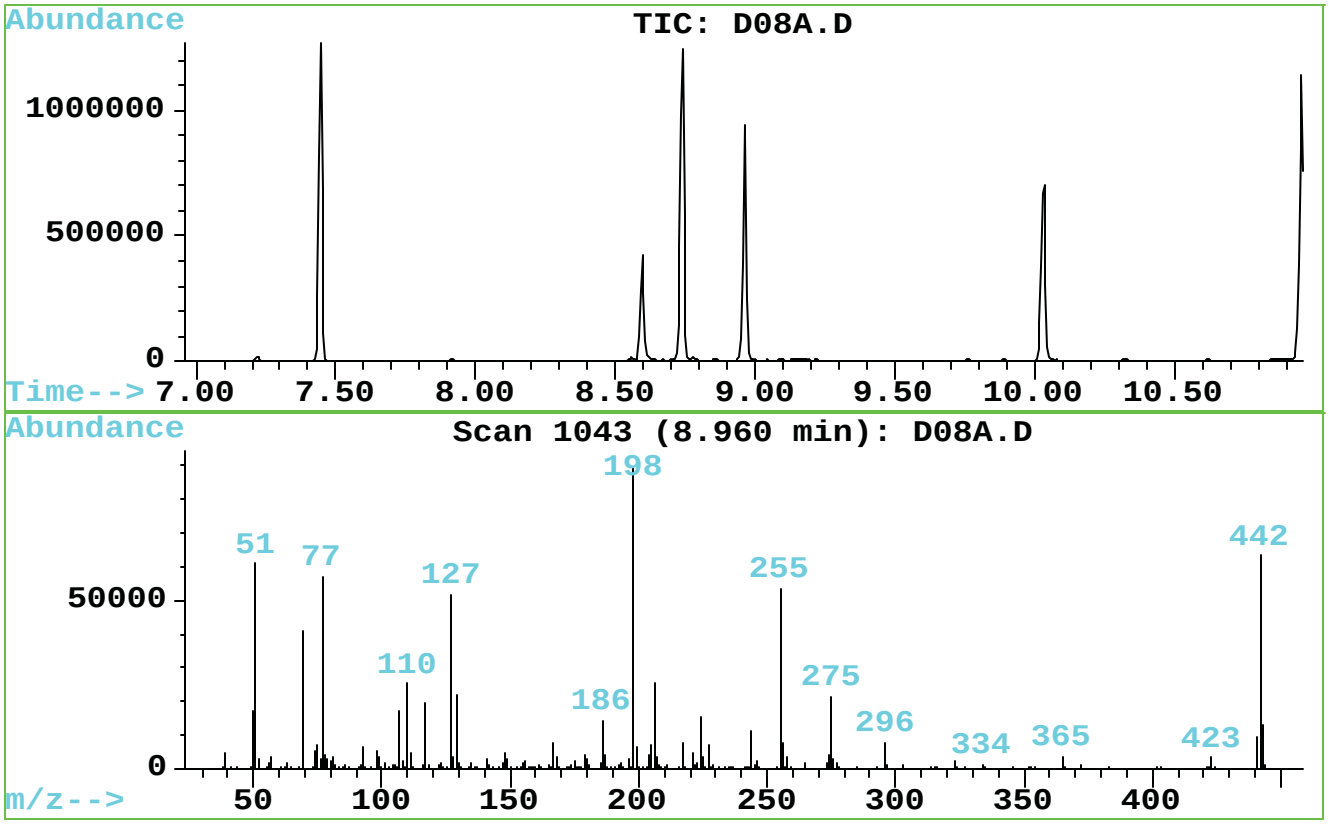
Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\THANATOS.4\DATA\T120808\D08A.D Vial: 1
Acq On : 8 Aug 12 11:40 am Operator: PL
Sample : dftpp std (120801) Inst : Tempest
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270



Peak Apex is scan: 1043

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	67.8	60888	PASS
68	69	0	2	1.7	700	PASS
69	198	0	100	45.3	40712	PASS
70	69	0	2	0.6	238	PASS
127	198	25	75	57.6	51776	PASS
197	198	0	1	0.7	666	PASS
198	198	100	100	100.0	89848	PASS
199	198	5	9	7.2	6502	PASS
275	198	10	30	24.1	21688	PASS
365	198	1	100	4.0	3626	PASS
441	443	0	100	73.0	9504	PASS
442	198	40	110	70.4	63256	PASS
443	442	15	24	20.6	13021	PASS

D08A.D P120803T.M Thu Aug 09 12:01:03 2012

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\blks03a.d Vial: 3
Acq On : 3 Aug 12 11:45 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:08 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

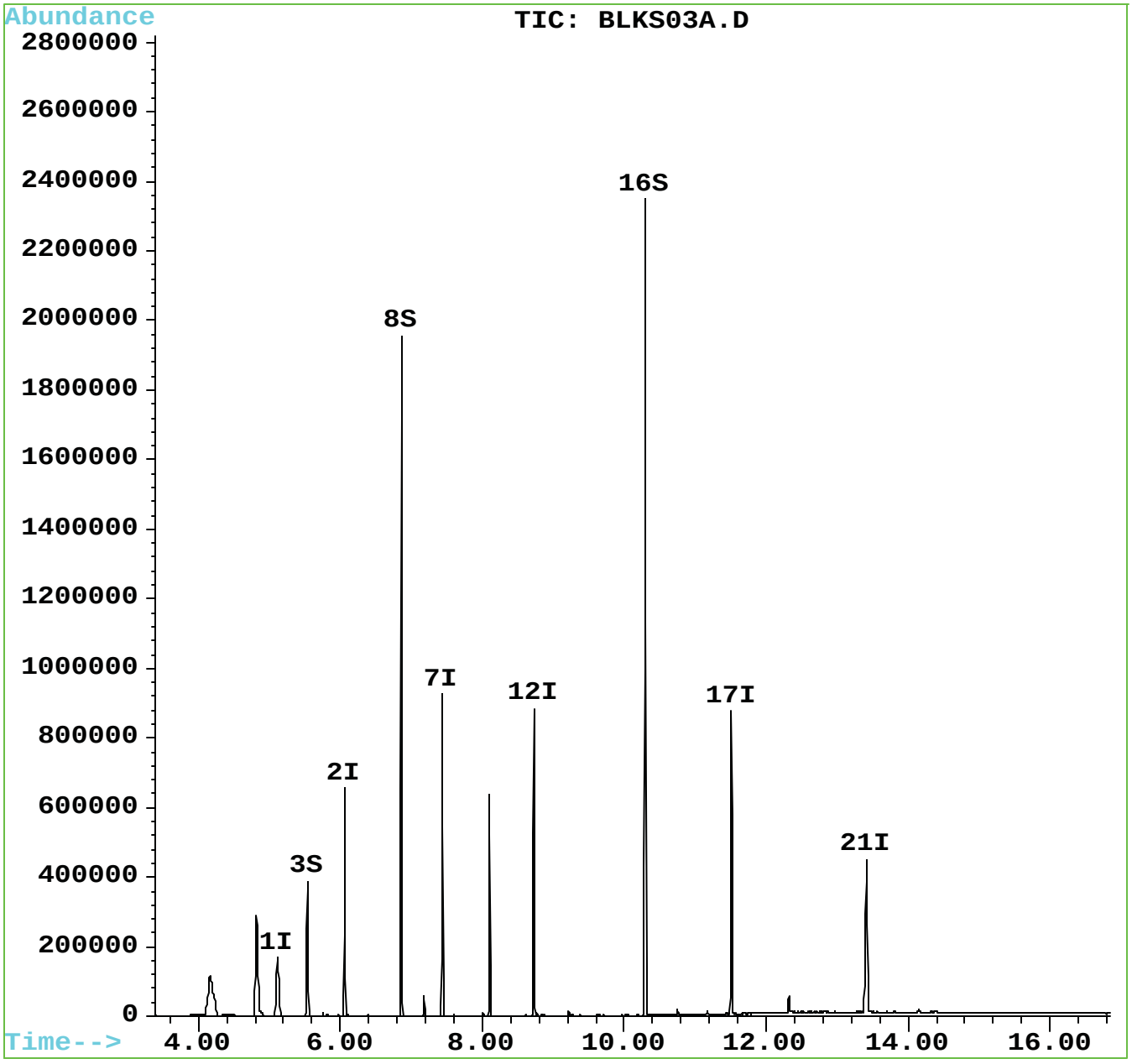
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	62790	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	294448	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	175891	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	314359	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	341070	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	271926	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	160448	72.84	ng/ul	72.8
8) 2-Fluorobiphenyl	6.86	172	527648	97.90	ng/ul	97.9
16) Terphenyl-D14	10.30	244	754358	112.99	ng/ul	112.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\blks03a.d Vial: 3
Acq On : 3 Aug 12 11:45 am Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:08 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\blks08a.d Vial: 3
Acq On : 8 Aug 12 12:49 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:06 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

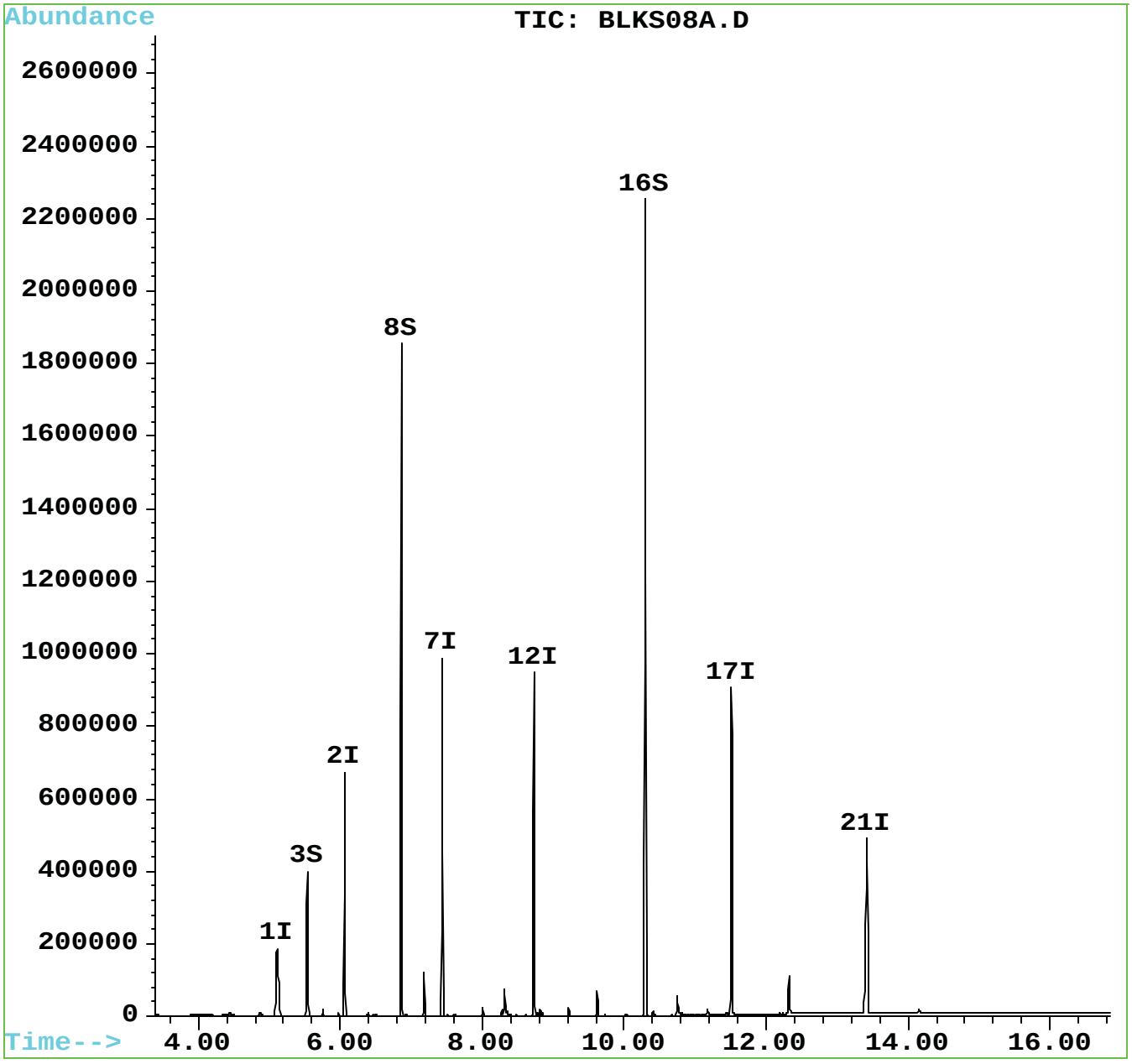
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.10	152	63370	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	309447	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	188930	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	341860	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.51	240	368917	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	300060	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.53	82	148723	64.24	ng/ul	64.2
8) 2-Fluorobiphenyl	6.86	172	474026	81.88	ng/ul	81.8
16) Terphenyl-D14	10.30	244	747799	102.99	ng/ul	102.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\blks08a.d Vial: 3
Acq On : 8 Aug 12 12:49 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:06 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\lcss03a.d Vial: 4
Acq On : 3 Aug 12 12:07 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:08 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration

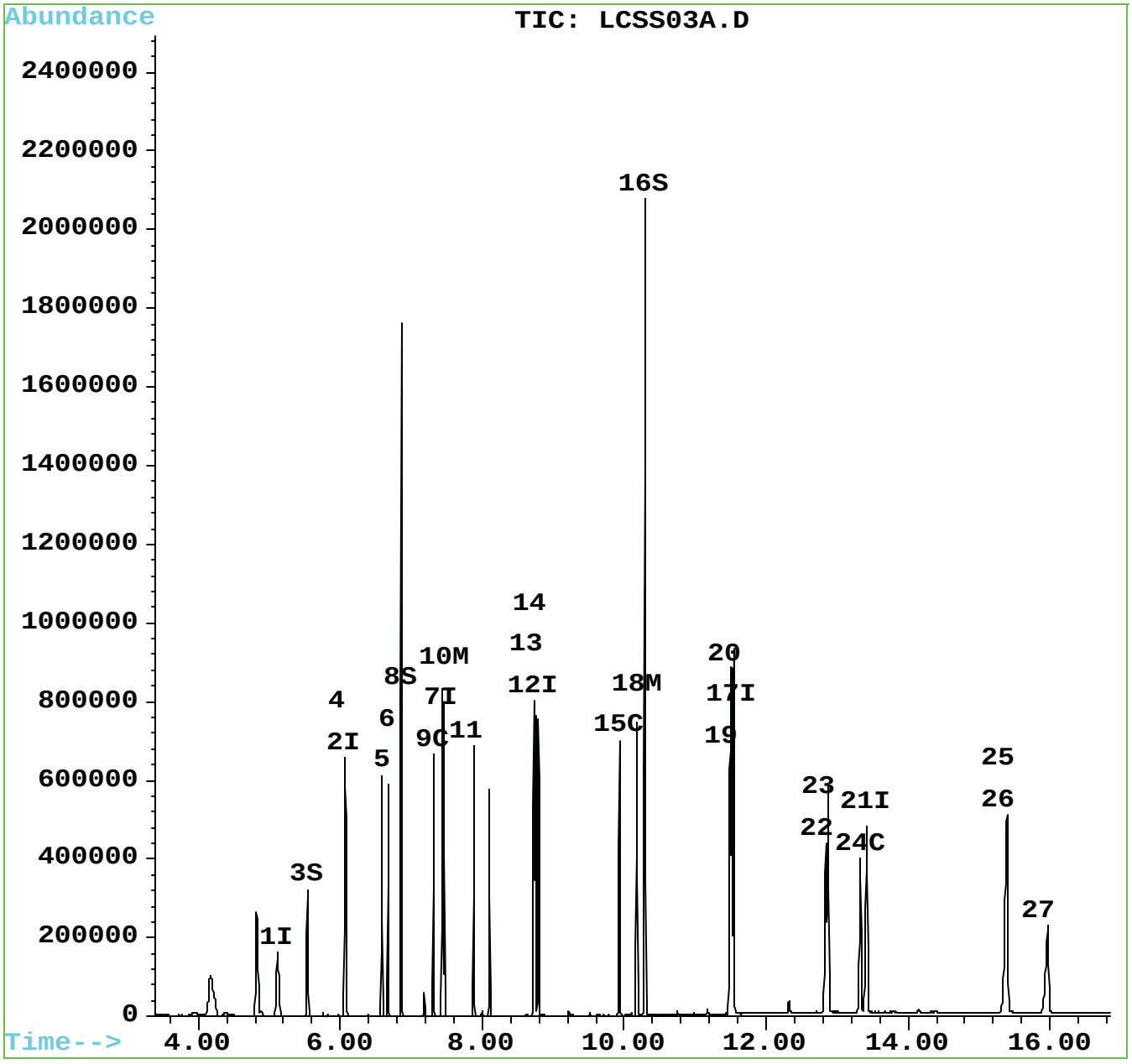
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.11	152	57449	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	6.06	136	281731	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	7.44	164	168915	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.72	188	307463	40.00	ng/ul	-0.0
17) CHRYSENE-D12	11.52	240	368261	40.00	ng/ul	-0.0
21) PERYLENE-D12	13.42	264	291560	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	131607	62.44	ng/ul	62.4
8) 2-Fluorobiphenyl	6.86	172	437651	84.56	ng/ul	84.5
16) Terphenyl-D14	10.29	244	683294	104.64	ng/ul	104.6
Target Compounds						Qvalu
4) Naphthalene	6.08	128	223082	31.88	ng/ul	9
5) 2-Methylnaphthalene	6.59	141	123215	31.43	ng/ul	9
6) 1-Methylnaphthalene	6.67	142	133867	29.34	ng/ul	9
9) Acenaphthylene	7.31	152	249347	36.02	ng/ul	9
10) Acenaphthene **	7.46	154	151379	36.65	ng/ul	10
11) Fluorene	7.89	166	197477	37.02	ng/ul	10
13) Phenanthrene	8.75	178	289745	36.02	ng/ul	10
14) Anthracene	8.79	178	280700	34.56	ng/ul	9
15) Fluoranthene	9.93	202	325928	35.96	ng/ul	9
18) Pyrene **	10.18	202	341847	37.90	ng/ul	10
19) Benzo(a)anthracene	11.49	228	328193	36.07	ng/ul	10
20) Chrysene	11.54	228	328686	36.77	ng/ul	10
22) Benzo(b)fluoranthene	12.84	252	307459	40.31	ng/ulm	9
23) Benzo(k)fluoranthene	12.88	252	284974	40.62	ng/ul	9
24) Benzo(a)pyrene	13.33	252	245603	38.48	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.40	276	327931	38.28	ng/ul	9
26) Dibenzo(ah)anthracene	15.39	278	279922	38.58	ng/ul	9
27) Benzo(ghi)perylene	15.97	276	244100	35.25	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data.prc\t120803\lcss03a.d Vial: 4
Acq On : 3 Aug 12 12:07 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120801s02 Multiplr: 1.00
Quant Time: Aug 6 13:08 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Thu Jun 21 11:08:07 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\lcss08a.d Vial: 4
Acq On : 8 Aug 12 1:12 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:18 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration

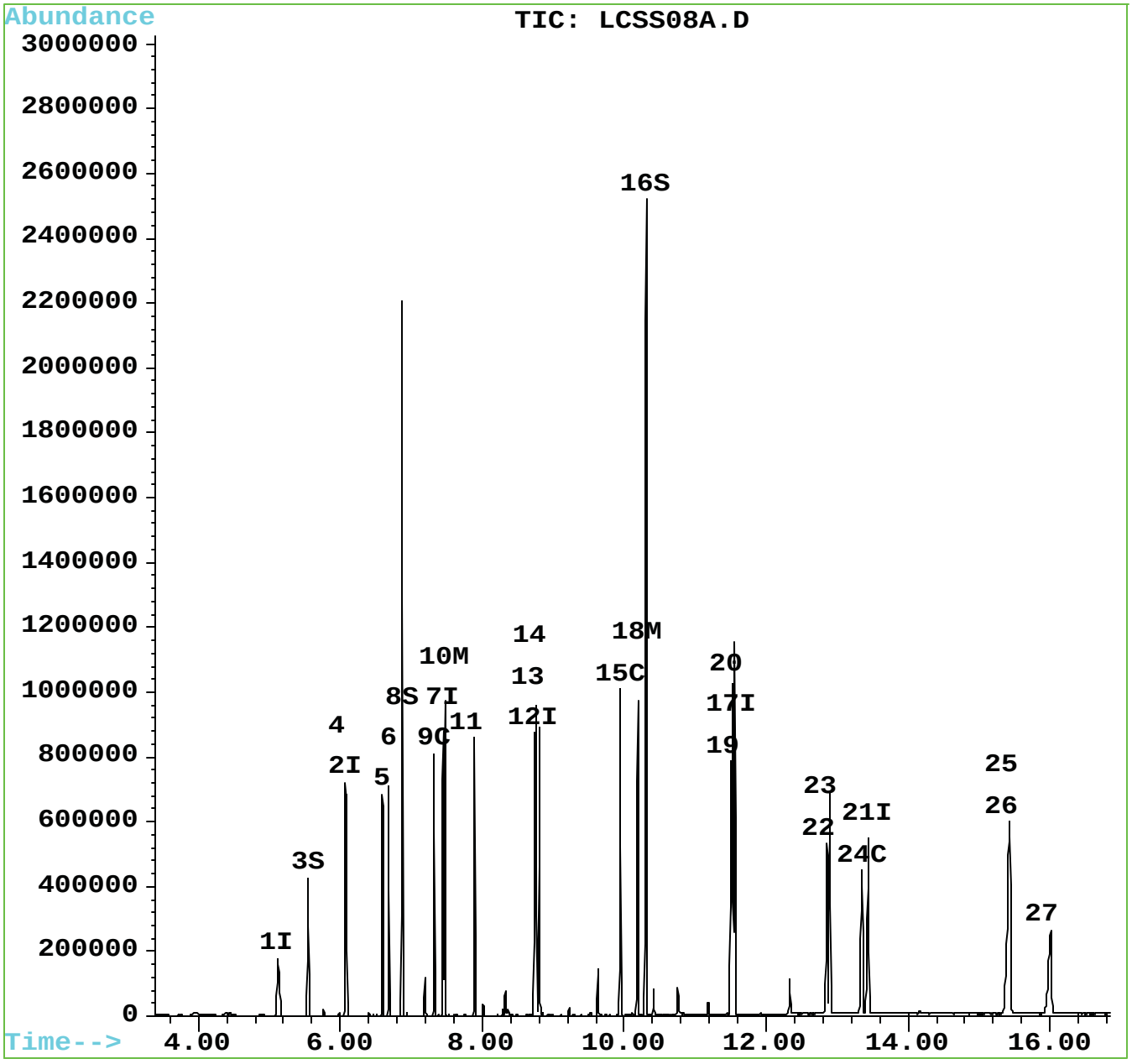
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	5.12	152	60800	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	6.07	136	304054	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	7.45	164	185428	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.74	188	339102	40.00	ng/ul	0.0
17) CHRYSENE-D12	11.53	240	407396	40.00	ng/ul	0.0
21) PERYLENE-D12	13.44	264	325883	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.54	82	166293	73.11	ng/ul	73.1
8) 2-Fluorobiphenyl	6.87	172	546478	96.18	ng/ul	96.1
16) Terphenyl-D14	10.31	244	865828	120.22	ng/ul	120.2
Target Compounds						Qvalu
4) Naphthalene	6.08	128	260788	34.53	ng/ul	9
5) 2-Methylnaphthalene	6.59	141	146482	34.63	ng/ul	9
6) 1-Methylnaphthalene	6.68	142	156994	31.88	ng/ul	9
9) Acenaphthylene	7.32	152	293927	38.68	ng/ul	10
10) Acenaphthene **	7.47	154	181969	40.13	ng/ul	10
11) Fluorene	7.90	166	241670	41.27	ng/ul	10
13) Phenanthrene	8.76	178	358367	40.39	ng/ul	10
14) Anthracene	8.80	178	343069	38.30	ng/ul	9
15) Fluoranthene	9.94	202	408503	40.86	ng/ul	9
18) Pyrene **	10.19	202	416171	41.70	ng/ul	9
19) Benzo(a)anthracene	11.51	228	413401	41.07	ng/ul	10
20) Chrysene	11.56	228	415434	42.01	ng/ul	10
22) Benzo(b)fluoranthene	12.86	252	374259	43.90	ng/ul	9
23) Benzo(k)fluoranthene	12.90	252	326924	37.40	ng/ul	9
24) Benzo(a)pyrene	13.35	252	297453	41.70	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	15.44	276	412668	43.10	ng/ul	9
26) Dibenzo(ah)anthracene	15.43	278	357958	44.14	ng/ul	9
27) Benzo(ghi)perylene	16.01	276	303909	39.27	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\thanatos.4\data\t120808\lcss08a.d Vial: 4
Acq On : 8 Aug 12 1:12 pm Operator: PL
Sample : pna-s 30g/1ml df:1 Inst : Tempest
Misc : s/1; id:sp120807s01 Multiplr: 1.00
Quant Time: Aug 9 11:18 19112

Method : F:\GCMS.DAT\THANATOS.4\METHODS\P120803T.M
Title : BNA 8270
Last Update : Fri Jul 20 12:31:43 2012
Response via : Multiple Level Calibration



Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

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Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120803.01r	sblk-r.01	08/03/12 10:29	SBLK-R.01	WW	Bl	**4**	
a120803.02r	sc1660.01	08/03/12 11:31	SC1660.01 0.5ppm 7/23/12	WW	CV	**4**	
a120803.04r	sblk-s.01	08/03/12 11:56	sBLK-S.01 20.0g s/1 ID:PA120803s01	SO	Bl	**4**	
a120803.05r	slcs-s.01	08/03/12 12:08	sLCS-S.01 20.0g s/1 ID:PA120803s01	SO	MS	**4**	
a120803.06r	s53238.01	08/03/12 13:05	s53238.01 1L w/1 LOD C	WW		**4**	
a120803.07r	s53238.02	08/03/12 13:33	s53238.02 1L w/1 LOQ C	WW		**4**	
a120803.08r	s53238.03	08/03/12 13:50	s53238.03 20.0g s/1 LOD C	SO		**4**	
a120803.09r	s53238.04	08/03/12 14:03	s53238.04 20.0g s/1 LOQ C	SO		**4**	
a120803.10r	s53401.13	08/03/12 14:14	s53401.13 20.1g s/1 ID:PA120803s01	SO		**4**	
a120803.11r	s53401.14	08/03/12 14:34	s53401.14 MS 20.0g s/1 ID:PA120803s01	SO	MS	**4**	
a120803.12r	s53401.15	08/03/12 14:47	s53401.15 MSD 20.0g s/1	SO	MS	**4**	
a120803.14r	s53401.03	08/03/12 15:12	s53401.03 20.1g s/1 ID:PA120803s01	SO		**4**	
a120803.15r	s53401.04	08/03/12 15:23	s53401.04 20.1g s/1 ID:PA120803s01	SO		**4**	
a120803.17r	s53401.05	08/03/12 15:44	s53401.05 20.0g s/1 ID:PA120803s01	SO		**4**	
a120803.18r	s53401.08	08/03/12 15:54	s53401.08 20.2g s/1 ID:PA120803s01	SO		**4**	
a120803.20r	s53401.09	08/03/12 16:15	s53401.09 20.0g s/1 ID:PA120803s01	SO		**4**	
a120803.21r	s53401.10	08/03/12 16:26	s53401.10 20.0g s/1 ID:PA120803s01	SO		**4**	
a120803.23r	s53401.11	08/03/12 16:47	s53401.11 20.3g s/1 ID:PA120803s01	SO		**4**	
a120803.24r	s53401.12	08/03/12 16:57	s53401.12 20.1g s/1 ID:PA120803s01	SO		**4**	
a120803.25r	s53401.02	08/03/12 17:08	s53401.02 20.2g s/1 C ID:PA120803s01	SO		**4**	
a120803.26r	s53401.06	08/03/12 17:18	s53401.06 20.0g s/10 C	SO		**4**	
a120803.27r	s53401.07	08/03/12 17:29	s53401.07 20.1g s/25 C	SO		**4**	
a120803.29r	ss1660.01	08/03/12 17:49	ss1660.01 0.1ppm 7/23/12	WW		**4**	
a120803.30r	sc1660.02	08/03/12 18:00	SC1660.02 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	2	Soil Samples:	16
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	3
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120803.4

Index of Applicable Reporting Forms

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Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
a120803b.01	sblk-r.01	08/03/12 10:29	SBLK-R.01	WW	Bl	**4**	
a120803b.02	sc1660.01	08/03/12 11:31	SC1660.01 0.5ppm 7/23/12	WW	CV	**4**	
a120803b.04	sblk-s.01	08/03/12 11:57	sBLK-S.01 20.0g s/1 ID:PA120803s01	SO	Bl	**4**	
a120803b.05	slcs-s.01	08/03/12 12:08	sLCS-S.01 20.0g s/1 ID:PA120803s01	SO	MS	**4**	
a120803b.06	s53238.01	08/03/12 13:05	s53238.01 1L w/1 LOD C	WW		**4**	
a120803b.07	s53238.02	08/03/12 13:33	s53238.02 1L w/1 LOQ C	WW		**4**	
a120803b.08	s53238.03	08/03/12 13:50	s53238.03 20.0g s/1 LOD C	SO		**4**	
a120803b.09	s53238.04	08/03/12 14:03	s53238.04 20.0g s/1 LOQ C	SO		**4**	
a120803b.10	s53401.13	08/03/12 14:14	s53401.13 20.1g s/1 ID:PA120803s01	SO		**4**	
a120803b.11	s53401.14	08/03/12 14:35	s53401.14 MS 20.0g s/1 ID:PA120803s01	SO	MS	**4**	
a120803b.12	s53401.15	08/03/12 14:47	s53401.15 MSD 20.0g s/1	SO	MS	**4**	
a120803b.14	s53401.03	08/03/12 15:12	s53401.03 20.1g s/1 ID:PA120803s01	SO		**4**	
a120803b.15	s53401.04	08/03/12 15:23	s53401.04 20.1g s/1 ID:PA120803s01	SO		**4**	
a120803b.17	s53401.05	08/03/12 15:44	s53401.05 20.0g s/1 ID:PA120803s01	SO		**4**	
a120803b.18	s53401.08	08/03/12 15:54	s53401.08 20.2g s/1 ID:PA120803s01	SO		**4**	
a120803b.20	s53401.09	08/03/12 16:15	s53401.09 20.0g s/1 ID:PA120803s01	SO		**4**	
a120803b.21	s53401.10	08/03/12 16:26	s53401.10 20.0g s/1 ID:PA120803s01	SO		**4**	
a120803b.23	s53401.11	08/03/12 16:47	s53401.11 20.3g s/1 ID:PA120803s01	SO		**4**	
a120803b.24	s53401.12	08/03/12 16:57	s53401.12 20.1g s/1 ID:PA120803s01	SO		**4**	
a120803b.25	s53401.02	08/03/12 17:08	s53401.02 20.2g s/1 C ID:PA120803s01	SO		**4**	
a120803b.26	s53401.06	08/03/12 17:18	s53401.06 20.0g s/10 C	SO		**4**	
a120803b.27	s53401.07	08/03/12 17:29	s53401.07 20.1g s/25 C	SO		**4**	
a120803b.29	ss1660.01	08/03/12 17:50	ss1660.01 0.1ppm 7/23/12	WW		**4**	
a120803b.30	sc1660.02	08/03/12 18:00	SC1660.02 0.5ppm 7/23/12	WW	CV	**4**	

Matrix (Mtx) Summary

Water Samples:	2	Soil Samples:	16
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	3
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120803.01r	sblk-r.01	TCX	24.74/30.00	82.5	34.1/137.1	WW
		DCBP	25.72/30.00	85.7	30.0/138.6	
a120803.02r	sc1660.01	TCX	16.26/30.00	n/a	34.1/137.1	WW
		DCBP	12.34/30.00	n/a	30.0/138.6	
a120803.04r	sblk-s.01	TCX	20.29/30.00	67.6	33.0/135.3	SO
		DCBP	25.55/30.00	85.2	30.0/137.0	
a120803.05r	slcs-s.01	TCX	22.46/30.00	74.9	33.0/135.3	SO
		DCBP	26.66/30.00	88.9	30.0/137.0	
a120803.06r	s53238.01	TCX	19.52/30.00	65.1	34.1/137.1	WW
		DCBP	26.04/30.00	86.8	30.0/138.6	
a120803.07r	s53238.02	TCX	17.86/30.00	59.5	34.1/137.1	WW
		DCBP	24.82/30.00	82.7	30.0/138.6	
a120803.08r	s53238.03	TCX	19.71/30.00	65.7	33.0/135.3	SO
		DCBP	26.33/30.00	87.8	30.0/137.0	
a120803.09r	s53238.04	TCX	16.41/30.00	54.7	33.0/135.3	SO
		DCBP	22.63/30.00	75.4	30.0/137.0	
a120803.10r	s53401.13	TCX	20.83/30.00	69.4	33.0/135.3	SO
		DCBP	19.91/30.00	66.4	30.0/137.0	
a120803.11r	s53401.14	TCX	18.30/30.00	61.0	33.0/135.3	SO
		DCBP	20.83/30.00	69.4	30.0/137.0	
a120803.12r	s53401.15	TCX	17.23/30.00	57.4	33.0/135.3	SO
		DCBP	18.31/30.00	61.0	30.0/137.0	
a120803.14r	s53401.03	TCX	18.27/30.00	60.9	33.0/135.3	SO
		DCBP	21.09/30.00	70.3	30.0/137.0	
a120803.15r	s53401.04	TCX	17.89/30.00	59.6	33.0/135.3	SO
		DCBP	21.46/30.00	71.5	30.0/137.0	
a120803.17r	s53401.05	TCX	19.34/30.00	64.5	33.0/135.3	SO
		DCBP	23.41/30.00	78.0	30.0/137.0	
a120803.18r	s53401.08	TCX	20.34/30.00	67.8	33.0/135.3	SO
		DCBP	25.32/30.00	84.4	30.0/137.0	
a120803.20r	s53401.09	TCX	20.01/30.00	66.7	33.0/135.3	SO
		DCBP	23.76/30.00	79.2	30.0/137.0	
a120803.21r	s53401.10	TCX	18.73/30.00	62.4	33.0/135.3	SO
		DCBP	23.44/30.00	78.1	30.0/137.0	
a120803.23r	s53401.11	TCX	21.61/30.00	72.0	33.0/135.3	SO
		DCBP	24.97/30.00	83.2	30.0/137.0	
a120803.24r	s53401.12	TCX	17.71/30.00	59.0	33.0/135.3	SO
		DCBP	26.06/30.00	86.9	30.0/137.0	
a120803.25r	s53401.02	TCX	15.71/30.00	52.4	33.0/135.3	SO
		DCBP	30.84/30.00	102.8	30.0/137.0	
a120803.26r	s53401.06	TCX	0.81/30.00	n/a	33.0/135.3	SO
		DCBP	3.55/30.00	n/a	30.0/137.0	
a120803.27r	s53401.07	TCX	0.07/30.00	n/a	33.0/135.3	SO
		DCBP	1.16/30.00	n/a	30.0/137.0	
a120803.29r	ss1660.01	TCX	3.27/30.00	n/a	34.1/137.1	WW
		DCBP	2.40/30.00	n/a	30.0/138.6	
a120803.30r	sc1660.02	TCX	17.34/30.00	n/a	34.1/137.1	WW
		DCBP	13.90/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
a120803b.01	sblk-r.01	TCX	26.06/30.00	86.9	34.1/137.1	WW
		DCBP	27.37/30.00	91.2	30.0/138.6	
a120803b.02	sc1660.01	TCX	16.38/30.00	n/a	34.1/137.1	WW
		DCBP	13.16/30.00	n/a	30.0/138.6	
a120803b.04	sblk-s.01	TCX	20.92/30.00	69.7	33.0/135.3	SO
		DCBP	26.93/30.00	89.8	30.0/137.0	
a120803b.05	slcs-s.01	TCX	23.67/30.00	78.9	33.0/135.3	SO
		DCBP	27.87/30.00	92.9	30.0/137.0	
a120803b.06	s53238.01	TCX	20.25/30.00	67.5	34.1/137.1	WW
		DCBP	27.49/30.00	91.6	30.0/138.6	
a120803b.07	s53238.02	TCX	18.52/30.00	61.7	34.1/137.1	WW
		DCBP	26.28/30.00	87.6	30.0/138.6	
a120803b.08	s53238.03	TCX	20.41/30.00	68.0	33.0/135.3	SO
		DCBP	27.82/30.00	92.7	30.0/137.0	
a120803b.09	s53238.04	TCX	17.01/30.00	56.7	33.0/135.3	SO
		DCBP	24.01/30.00	80.0	30.0/137.0	
a120803b.10	s53401.13	TCX	16.43/30.00	54.8	33.0/135.3	SO
		DCBP	22.75/30.00	75.8	30.0/137.0	
a120803b.11	s53401.14	TCX	18.23/30.00	60.8	33.0/135.3	SO
		DCBP	22.91/30.00	76.4	30.0/137.0	
a120803b.12	s53401.15	TCX	17.60/30.00	58.7	33.0/135.3	SO
		DCBP	20.46/30.00	68.2	30.0/137.0	
a120803b.14	s53401.03	TCX	18.59/30.00	62.0	33.0/135.3	SO
		DCBP	22.65/30.00	75.5	30.0/137.0	
a120803b.15	s53401.04	TCX	18.45/30.00	61.5	33.0/135.3	SO
		DCBP	22.23/30.00	74.1	30.0/137.0	
a120803b.17	s53401.05	TCX	20.10/30.00	67.0	33.0/135.3	SO
		DCBP	24.59/30.00	82.0	30.0/137.0	
a120803b.18	s53401.08	TCX	20.86/30.00	69.5	33.0/135.3	SO
		DCBP	26.19/30.00	87.3	30.0/137.0	
a120803b.20	s53401.09	TCX	20.85/30.00	69.5	33.0/135.3	SO
		DCBP	25.02/30.00	83.4	30.0/137.0	
a120803b.21	s53401.10	TCX	19.16/30.00	63.9	33.0/135.3	SO
		DCBP	24.75/30.00	82.5	30.0/137.0	
a120803b.23	s53401.11	TCX	17.24/30.00	57.5	33.0/135.3	SO
		DCBP	26.09/30.00	87.0	30.0/137.0	
a120803b.24	s53401.12	TCX	17.99/30.00	60.0	33.0/135.3	SO
		DCBP	26.43/30.00	88.1	30.0/137.0	
a120803b.25	s53401.02	TCX	15.27/30.00	50.9	33.0/135.3	SO
		DCBP	31.64/30.00	105.5	30.0/137.0	
a120803b.26	s53401.06	TCX	1.16/30.00	n/a	33.0/135.3	SO
		DCBP	4.45/30.00	n/a	30.0/137.0	
a120803b.27	s53401.07	TCX	0.27/30.00	n/a	33.0/135.3	SO
		DCBP	1.83/30.00	n/a	30.0/137.0	
a120803b.29	ss1660.01	TCX	3.17/30.00	n/a	34.1/137.1	WW
		DCBP	2.63/30.00	n/a	30.0/138.6	
a120803b.30	sc1660.02	TCX	16.98/30.00	n/a	34.1/137.1	WW
		DCBP	14.81/30.00	n/a	30.0/138.6	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
a120803.12r	s53401.15	**a120803.11r**	1016-1	0.353/ 0.378	6.8	SO
			1016-2	0.357/ 0.377	5.4	
			1016-3	0.345/ 0.374	8.1	
			1016-4	0.353/ 0.399	12.2	
			1016-5	0.350/ 0.369	5.3	
			1260-1	0.403/ 0.421	4.4	
			1260-2	0.379/ 0.403	6.1	
			1260-3	0.373/ 0.403	7.7	
			1260-4	0.361/ 0.397	9.5	
			1260-5	0.351/ 0.373	6.1	
			[end of list]			

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120803.4

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
a120803b.12	s53401.15	**a120803b.11**	1016-1	0.375/ 0.372	0.8	SO
			1016-2	0.346/ 0.368	6.2	
			1016-3	0.339/ 0.371	9.0	
			1016-4	0.360/ 0.394	9.0	
			1016-5	0.340/ 0.358	5.2	
			1260-1	0.368/ 0.397	7.6	
			1260-2	0.365/ 0.395	7.9	
			1260-3	0.380/ 0.409	7.4	
			1260-4	0.332/ 0.365	9.5	
			1260-5	0.357/ 0.378	5.7	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120803.05r	slcs-s.01	**a120803.04r**	1016-1	0.695/ 0.000	139.0		SO
			1016-2	0.475/ 0.000	95.0		
			1016-3	0.500/ 0.000	100.0		
			1016-4	0.590/ 0.000	118.0		
			1016-5	0.477/ 0.000	95.4		
			1260-1	0.488/ 0.000	97.6		
			1260-2	0.612/ 0.000	122.4		
			1260-3	0.468/ 0.000	93.6		
			1260-4	0.474/-0.029	100.6		
			1260-5	0.452/ 0.000	90.4		
				Average Recovery	**105.2**	50.0/125.0	
a120803.11r	s53401.14	**a120803.10r**	1016-1	0.378/ 0.000	75.6		SO
			1016-2	0.377/-0.043	84.0		
			1016-3	0.374/-0.036	82.0		
			1016-4	0.399/ 0.000	79.8		
			1016-5	0.369/ 0.000	73.8		
			1260-1	0.421/ 0.001	84.0		
			1260-2	0.403/-0.040	88.6		
			1260-3	0.403/-0.010	82.6		
			1260-4	0.397/ 0.002	79.0		
			1260-5	0.373/-0.016	77.8		
				Average Recovery	**80.7**	50.0/125.0	
a120803.12r	s53401.15	**a120803.10r**	1016-1	0.353/ 0.000	70.6		SO
			1016-2	0.357/-0.043	80.0		
			1016-3	0.345/-0.036	76.2		
			1016-4	0.353/ 0.000	70.6		
			1016-5	0.350/ 0.000	70.0		
			1260-1	0.403/ 0.001	80.4		
			1260-2	0.379/-0.040	83.8		
			1260-3	0.373/-0.010	76.6		
			1260-4	0.361/ 0.002	71.8		
			1260-5	0.351/-0.016	73.4		
				Average Recovery	**75.3**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120803.4

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
a120803b.05	slcs-s.01	**a120803b.04**	1016-1	0.463/ 0.000	92.6		SO
			1016-2	0.468/ 0.000	93.6		
			1016-3	0.488/ 0.000	97.6		
			1016-4	0.544/ 0.000	108.8		
			1016-5	0.521/ 0.000	104.2		
			1260-1	0.468/ 0.000	93.6		
			1260-2	0.484/ 0.000	96.8		
			1260-3	0.448/ 0.000	89.6		
			1260-4	0.423/ 0.000	84.6		
			1260-5	0.430/ 0.000	86.0		
				Average Recovery	**94.7**	50.0/125.0	
a120803b.11	s53401.14	**a120803b.10**	1016-1	0.372/ 0.000	74.4		SO
			1016-2	0.368/-0.048	83.2		
			1016-3	0.371/-0.029	80.0		
			1016-4	0.394/-0.033	85.4		
			1016-5	0.358/ 0.000	71.6		
			1260-1	0.397/-0.002	79.8		
			1260-2	0.395/-0.007	80.4		
			1260-3	0.409/ 0.019	78.0		
			1260-4	0.365/ 0.007	71.6		
			1260-5	0.378/ 0.013	73.0		
				Average Recovery	**77.7**	50.0/125.0	
a120803b.12	s53401.15	**a120803b.10**	1016-1	0.375/ 0.000	75.0		SO
			1016-2	0.346/-0.048	78.8		
			1016-3	0.339/-0.029	73.6		
			1016-4	0.360/-0.033	78.6		
			1016-5	0.340/ 0.000	68.0		
			1260-1	0.368/-0.002	74.0		
			1260-2	0.365/-0.007	74.4		
			1260-3	0.380/ 0.019	72.2		
			1260-4	0.332/ 0.007	65.0		
			1260-5	0.357/ 0.013	68.8		
				Average Recovery	**72.8**	50.0/125.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-5
Level: LOW

Analytical Batch: a120803.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: a120803.04r.bnd
LCS Data File: a120803.05r.bnd

Blank/LCS Preparation Batch: pa120803s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53400.01	PA120803S01		08/03/12	Extraction, PCB	1120S
	F120803	PA120803S01	08/03/12	PCB List	$8080A
S53401.02	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.03	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.04	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.05	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.06	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.07	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.08	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.09	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.10	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.11	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.12	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.13	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.14	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.15	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-5
Level: LOW

Analytical Batch: a120803.3
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	LIMS ID	Run Time	Target Analyte	Conc.	Sample	Matrix
a120803.01r	sblk-r.01	08/03/12 10:29	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
a120803.04r	sblk-s.01	08/03/12 11:56	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-608
Level: LOW

Analytical Batch: a120803.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: a120803b.04r.bnd
LCS Data File: a120803b.05r.bnd

Blank/LCS Preparation Batch: pa120803s01

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53400.01	PA120803S01		08/03/12	Extraction, PCB	1120S
	F120803	PA120803S01	08/03/12	PCB List	$8080A
S53401.02	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.03	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.04	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.05	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.06	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.07	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.08	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.09	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.10	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.11	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.12	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.13	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.14	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2
S53401.15	PA120803S01		08/03/12	Extraction, PCB	1120S
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 1)	$TCL8082C1
	A120803	PA120803S01	08/03/12	TCL PCB List (Column 2)	$TCL8082C2

Form 4: Method Blank Summary

GC Column: DB-608/L:20m/D:0.25mm/F:0.25um
Instrument ID: Varian/3500(A)/DB-608
Level: LOW

Analytical Batch: a120803.4
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	LIMS ID	Run Time	Target Analyte	Conc.	Sample	Matrix
a120803b.01	sblk-r.01	08/03/12 10:29	PCB-1016	< 0.10 mg/L	< 0.10 ug/L	WW
			PCB-1221	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1232	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1242	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1248	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1254	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1260	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1262	< 0.10 mg/L	< 0.10 ug/L	
			PCB-1268	< 0.10 mg/L	< 0.10 ug/L	
a120803b.04	sblk-s.01	08/03/12 11:57	PCB-1016	< 0.10 mg/L	< 5.0 ug/kg	SO
			PCB-1221	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1232	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1242	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1248	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1254	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1260	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1262	< 0.10 mg/L	< 5.0 ug/kg	
			PCB-1268	< 0.10 mg/L	< 5.0 ug/kg	

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
Analytical Batch: a120803.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Note/Qualifier Key

A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.02
Data File: a120803.25r.bnd
Date Received: 08/01/12

Tag: SB105 (07-30-12) (0-2)
Notes: s53401.02 20.2g s/1 C ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.02 **Tag: SB105 (07-30-12) (0-2)** Matrix: SO
Data File: a120803b.25r.bnd Notes: s53401.02 20.2g s/1 C ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.03
Data File: a120803.14r.bnd
Date Received: 08/01/12

Tag: SB104 (07-30-12) (0-2)
Notes: s53401.03 20.1g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		88	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.03 **Tag: SB104 (07-30-12) (0-2)** Matrix: SO
Data File: a120803b.14r.bnd Notes: s53401.03 20.1g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		88	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.04
Data File: a120803.15r.bnd
Date Received: 08/01/12

Tag: SB103 (07-30-12) (0-2)
Notes: s53401.04 20.1g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.04 **Tag: SB103 (07-30-12) (0-2)** Matrix: SO
Data File: a120803b.15r.bnd Notes: s53401.04 20.1g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		91	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.05
Data File: a120803.17r.bnd
Date Received: 08/01/12

Tag: SB102 (07-31-12) (2-4)
Notes: s53401.05 20.0g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		83	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.05 **Tag: SB102 (07-31-12) (2-4)** Matrix: SO
Data File: a120803b.17r.bnd Notes: s53401.05 20.0g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		83	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.06
Data File: a120803.26r.bnd
Date Received: 08/01/12

Tag: SB112 (07-31-12) (0-2)
Notes: s53401.06 20.0g s/10 C ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		400	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		400	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		81	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.06 **Tag: SB112 (07-31-12) (0-2)** Matrix: SO
Data File: a120803b.26r.bnd Notes: s53401.06 20.0g s/10 C ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		400	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		400	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		81	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.07
Data File: a120803.27r.bnd
Date Received: 08/01/12

Tag: DUP 4 (07-31-12)
Notes: s53401.07 20.1g s/25 C ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		1000	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		1000	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		88	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120803.4

LIMS ID: S53401.07
Data File: a120803b.27r.bnd
Date Received: 08/01/12

Tag: DUP 4 (07-31-12)
Notes: s53401.07 20.1g s/25 C ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		1000	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		1000	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		88	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.08
Data File: a120803.18r.bnd
Date Received: 08/01/12

Tag: SB114 (07-31-12) (2-4)
Notes: s53401.08 20.2g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		87	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.08 **Tag: SB114 (07-31-12) (2-4)** Matrix: SO
Data File: a120803b.18r.bnd Notes: s53401.08 20.2g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		87	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.09
Data File: a120803.20r.bnd
Date Received: 08/01/12

Tag: SB113 (07-31-12) 3-5)
Notes: s53401.09 20.0g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		81	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.09 **Tag: SB113 (07-31-12) 3-5)** Matrix: SO
Data File: a120803b.20r.bnd Notes: s53401.09 20.0g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		81	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.10
Data File: a120803.21r.bnd
Date Received: 08/01/12

Tag: SB109 (07-31-12) (0-2)
Notes: s53401.10 20.0g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		97	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.10 **Tag: SB109 (07-31-12) (0-2)** Matrix: SO
Data File: a120803b.21r.bnd Notes: s53401.10 20.0g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		97	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.11
Data File: a120803.23r.bnd
Date Received: 08/01/12

Tag: SB165 (07-31-12) (8-10)
Notes: s53401.11 20.3g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		82	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.11 **Tag: SB165 (07-31-12) (8-10)** Matrix: SO
Data File: a120803b.23r.bnd Notes: s53401.11 20.3g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		82	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.12
Data File: a120803.24r.bnd
Date Received: 08/01/12

Tag: SB162 (07-31-12) (2-4)
Notes: s53401.12 20.1g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.12 **Tag: SB162 (07-31-12) (2-4)** Matrix: SO
Data File: a120803b.24r.bnd Notes: s53401.12 20.1g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.13
Data File: a120803.10r.bnd
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2)
Notes: s53401.13 20.1g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		83	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.13 **Tag: SB142 (08-01-12) (0-2)** Matrix: SO
Data File: a120803b.10r.bnd Notes: s53401.13 20.1g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	Not detected	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		Not detected	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		83	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.14
Data File: a120803.11r.bnd
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2) MS
Notes: s53401.14 MS 20.0g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120803.4

LIMS ID: S53401.14
Data File: a120803b.11r.bnd
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2) MS
Notes: s53401.14 MS 20.0g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

LIMS ID: S53401.15
Data File: a120803.12r.bnd
Date Received: 08/01/12

Tag: SB142 (08-01-12) (0-2) MSD
Notes: s53401.15 MSD 20.0g s/1 ID:PA120803s01

Matrix: SO
Extraction: SONC
Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	08/06/12	

Form 1: GC/ECD Data Sheet - PCB Aroclor Analysis

Instrument ID: Varian/3500(A)/DB-608 Analytical Batch: a120803.4
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

LIMS ID: S53401.15 **Tag: SB142 (08-01-12) (0-2) MSD** Matrix: SO
Data File: a120803b.12r.bnd Notes: s53401.15 MSD 20.0g s/1 ID:PA120803s01 Extraction: SONC
Date Received: 08/01/12 Injection Volume: 1uL (split)

CAS #	Analyte	Col	Result	RDL	Def. RDL	Units	Date	Notes
TCL PCB List (Column 1)								
12674-11-2	PCB-1016	C1	20	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
TCL PCB List (Column 2)								
12674-11-2	PCB-1016	C2	20	330	330	ug/kg	08/03/12	
53469-21-9	PCB-1242		Not detected	330	330	ug/kg		
11104-28-2	PCB-1221		Not detected	330	330	ug/kg		
11141-16-5	PCB-1232		Not detected	330	330	ug/kg		
12672-29-6	PCB-1248		Not detected	330	330	ug/kg		
11097-69-1	PCB-1254		Not detected	330	330	ug/kg		
11096-82-5	PCB-1260		20	330	330	ug/kg		
Extraction, PCB								
N/A	Extraction, PCB		Completed				08/03/12	
Total Solids								
TSOLIDS	Total Solids		85	1	1	%	08/06/12	

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
a66120723.cal	**TCX**	L	2.24	2.29	2.34	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.061
				21.6	1.00	0.11	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.15	3.20	3.25	0.05	0.10	0.30	0.50	0.70	1.00	0.049	0.927
				24.1	1.00	1.72	1.36	1.12	1.06	1.00	0.97		
	1016-2	L	3.41	3.46	3.51	0.05	0.10	0.30	0.50	0.70	1.00	0.156	2.954
				25.0	1.00	5.59	4.34	3.55	3.39	3.15	3.09		
	1016-3	L	3.50	3.55	3.60	0.05	0.10	0.30	0.50	0.70	1.00	0.060	1.236
				23.2	1.00	2.24	1.76	1.47	1.41	1.32	1.29		
	1016-4	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.038	0.909
				20.9	1.00	1.56	1.24	1.05	1.02	0.96	0.94		
	1016-5	L	4.04	4.09	4.14	0.05	0.10	0.30	0.50	0.70	1.00	0.057	1.163
				23.1	1.00	2.11	1.65	1.38	1.32	1.24	1.21		
	1260-1	L	5.09	5.14	5.19	0.05	0.10	0.30	0.50	0.70	1.00	0.096	1.843
				25.0	1.00	3.48	2.70	2.21	2.10	1.96	1.93		
	1260-2	L	5.31	5.36	5.41	0.05	0.10	0.30	0.50	0.70	1.00	0.143	2.727
				25.1	1.00	5.16	4.02	3.27	3.12	2.90	2.86		
	1260-3	L	5.55	5.60	5.65	0.05	0.10	0.30	0.50	0.70	1.00	0.140	2.736
				24.6	1.00	5.12	3.98	3.26	3.13	2.91	2.86		
	1260-4	L	6.15	6.20	6.25	0.05	0.10	0.30	0.50	0.70	1.00	0.092	1.991
				23.6	1.00	3.61	2.84	2.33	2.24	2.09	2.08		
	1260-5	L	6.41	6.46	6.51	0.05	0.10	0.30	0.50	0.70	1.00	0.105	2.032
				24.9	1.00	3.83	2.97	2.43	2.32	2.15	2.13		
	DCBP	L	7.53	7.58	7.63	1.50	3.00	9.00	15.00	21.00	30.00	0.072	0.044
				25.4	1.00	0.08	0.07	0.05	0.05	0.05	0.05		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): a66120723.cal / mean %rsd: 23.9

File Name: F:\gceed.dat\Methods\A66120723.cal
Version: 1

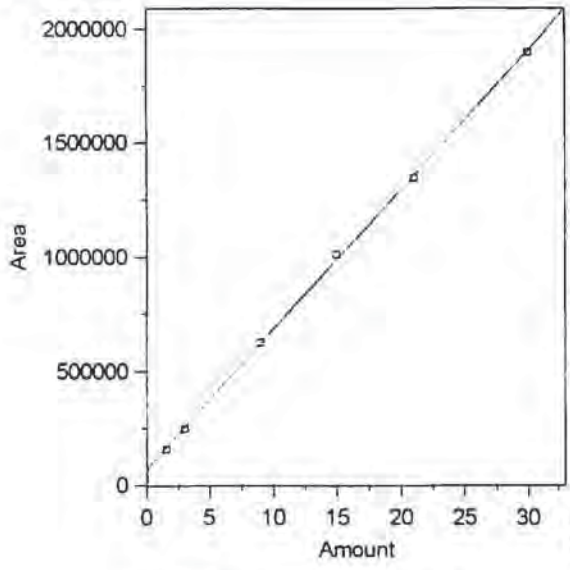
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.288 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

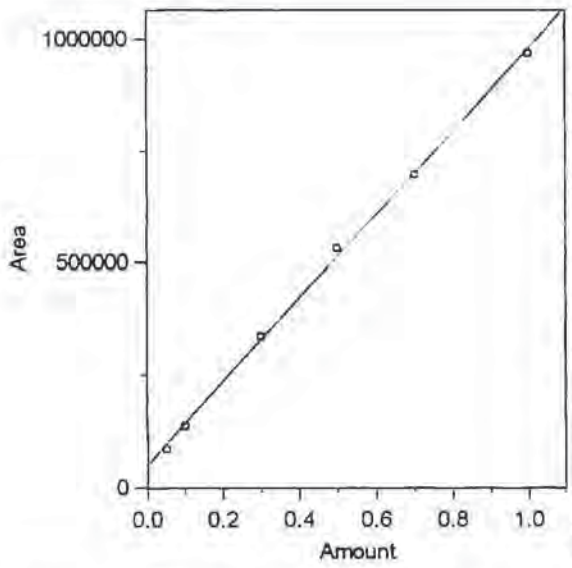
Single peak quantification by area

Y = 61135.64 X + 71564.21

Linear fit with equal weighting
Coefficient of determination: 0.9997023
Average error: 1.671%
Average CF: 75401.86
RSD: 21.587%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	158211.1	105474.1	-3.097	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	3	247381.2	82460.4	-2.977	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	9	627188.6	69687.63	0.869	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	15	1009865	67324.34	2.151	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	21	1346143	64102.05	-0.684	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	30	1900880	63362.67	-0.249	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

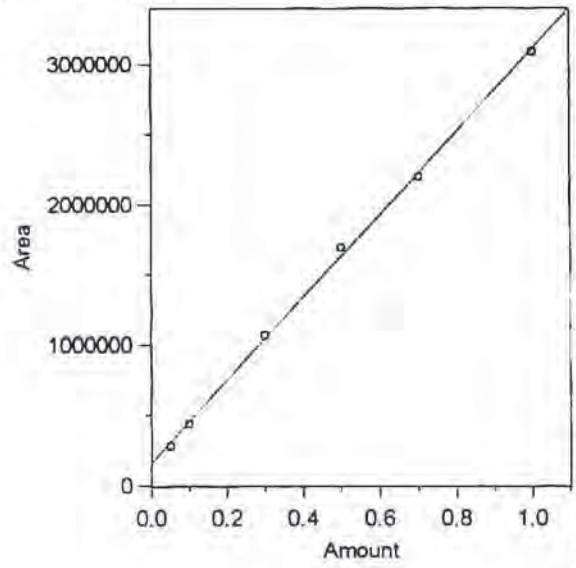
2 1016-1



Expected retention time:	3.204 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 927477.9 X + 49200.14	
Linear fit with equal weighting	
Coefficient of determination:	0.9989657
Average error:	3.530%
Average CF:	1204538
RSD:	24.069%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	86105.43	1722109	-9.907	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	136167.7	1361677	-4.072	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	335690.6	1118969	2.519	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	530850.7	1061701	3.492	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	696663.8	995234.1	-0.254	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	967539.4	967539.4	-0.936	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

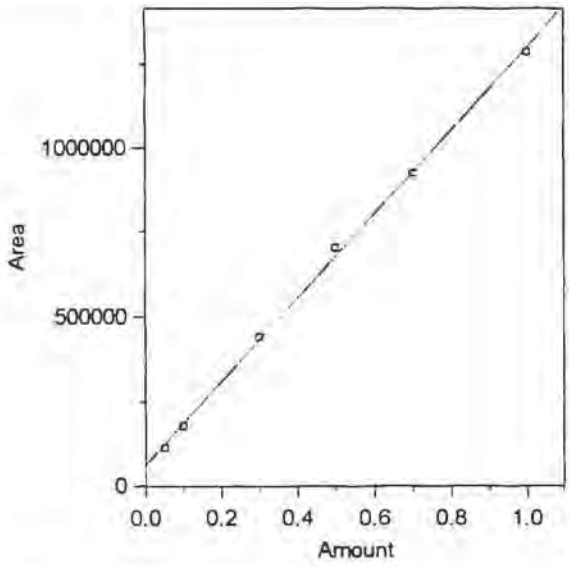
3 1016-2



Expected retention time:	3.458 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2953772 X + 156388.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9989858
Average error:	3.258%
Average CF:	3850246
RSD:	24.990%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	279309.2	5586184	-8.145	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	433994.1	4339941	-3.934	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	1065060	3550200	2.162	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1693959	3387918	3.716	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2202040	3145772	-0.989	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	3091464	3091464	-0.601	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

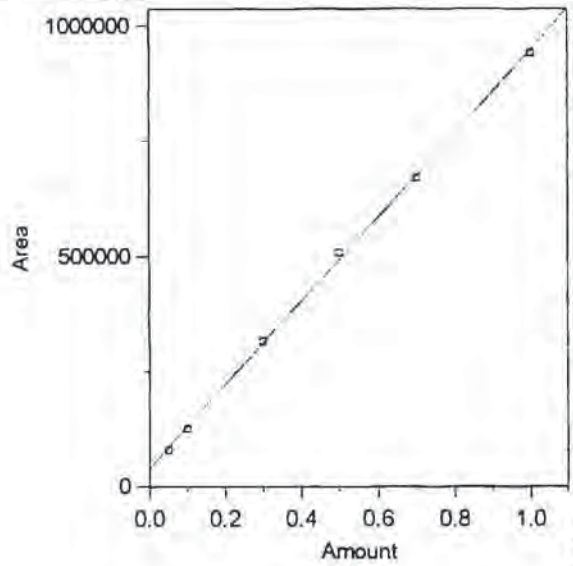
4 1016-3



Expected retention time:	3.55 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1236227 X + 60238.62	
Linear fit with equal weighting	
Coefficient of determination:	0.9991041
Average error:	3.182%
Average CF:	1578939
RSD:	23.167%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	112013.3	2240266	-8.223	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	176181.8	1761818	-4.177	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	439383.1	1464610	1.920	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	702255	1404510	3.524	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	921267.6	1316097	-0.468	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1286331	1286331	-0.782	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

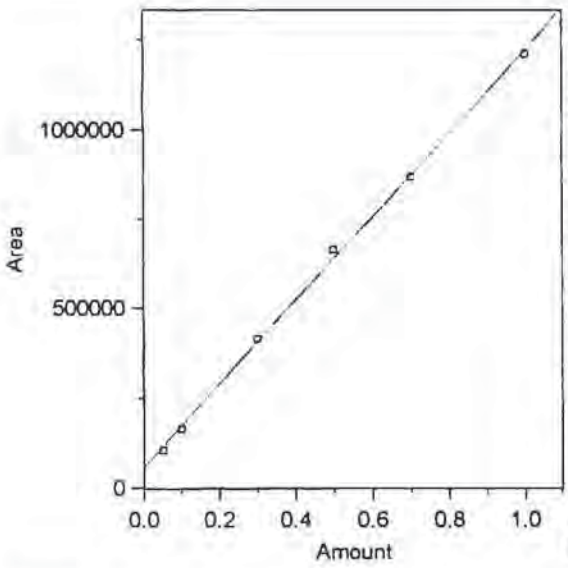
5 1016-4



Expected retention time:	3.62 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 909122.1 X + 38161.76	
Linear fit with equal weighting	
Coefficient of determination:	0.9993291
Average error:	2.779%
Average CF:	1127956
RSD:	20.930%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	77820.7	1556414	-6.933	F:\gceecd.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	124287.9	1242879	-3.708	F:\gceecd.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	315925.3	1053084	1.617	F:\gceecd.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	508258.3	1016517	3.153	F:\gceecd.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	669641.2	956630.3	-0.727	F:\gceecd.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	942210.8	942210.8	-0.536	F:\gceecd.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

6 1016-5



Expected retention time: 4.087 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 3
PCB-1016
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

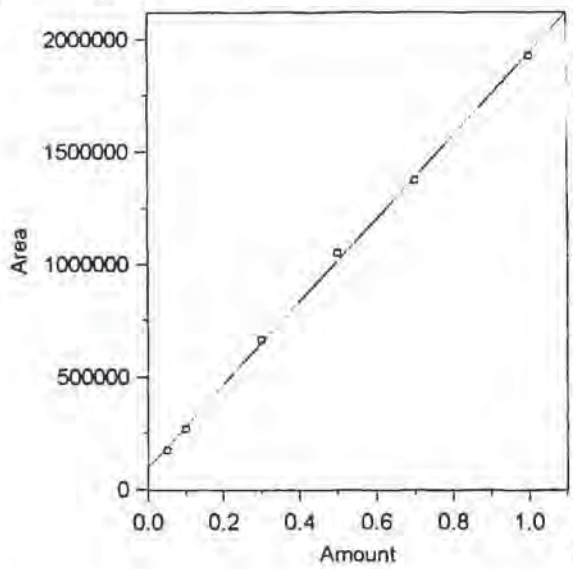
Single peak quantification by area

Y = 1163463 X + 56659.07

Linear fit with equal weighting
Coefficient of determination: 0.999
Average error: 3.367%
Average CF: 1484848
RSD: 23.098%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	105395.8	2107916	-8.218	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	164816.7	1648167	-4.733	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	414433.1	1381444	2.153	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	662075.4	1324151	3.710	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	865673.7	1236677	-0.621	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1210736	1210736	-0.769	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

7 1260-1



Expected retention time: 5.141 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 4
PCB-1260
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

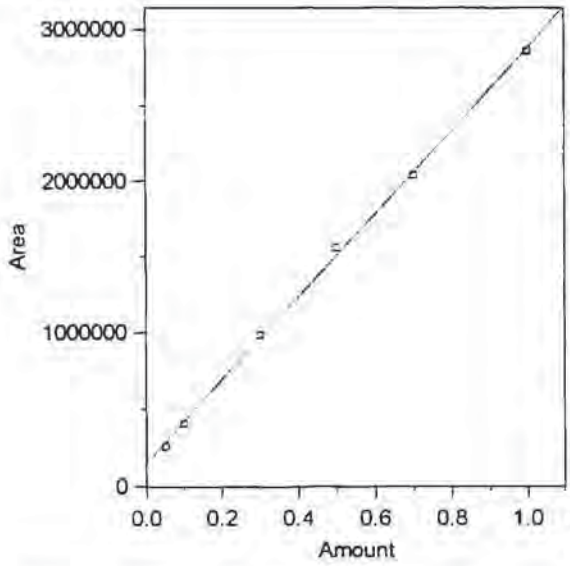
Single peak quantification by area

Y = 1842616 X + 96174.94

Linear fit with equal weighting
Coefficient of determination: 0.9991545
Average error: 3.001%
Average CF: 2397846
RSD: 25.044%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	174105.7	3482114	-7.541	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	270409	2704090	-3.576	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	662251.2	2207504	2.048	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1051767	2103534	3.370	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1372902	1961289	-0.945	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	1928547	1928547	-0.528	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

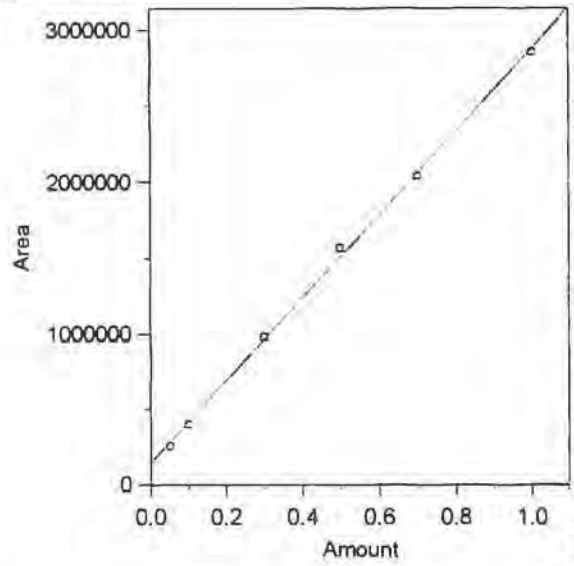
8 1260-2



Expected retention time:	5.36 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2727048 X + 143494.3	
Linear fit with equal weighting	
Coefficient of determination:	0.9991046
Average error:	3.039%
Average CF:	3553938
RSD:	25.062%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	257787.1	5155742	-7.883	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	402170.8	4021708	-3.371	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	980370	3267900	1.951	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1559937	3119874	3.511	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2032394	2903420	-0.976	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2854984	2854984	-0.542	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

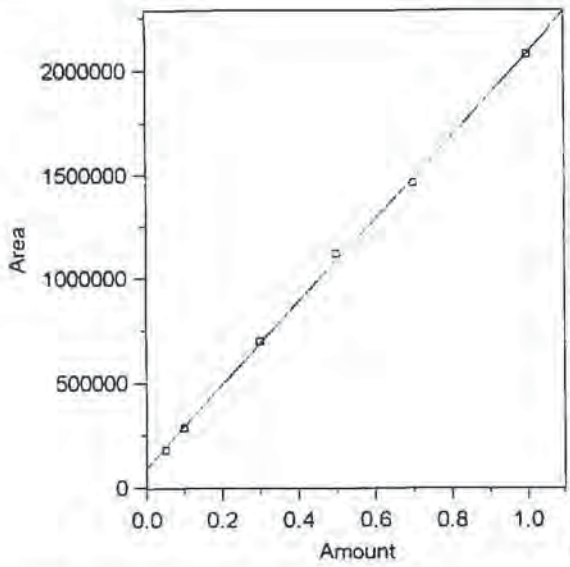
9 1260-3



Expected retention time:	5.603 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2736328 X + 140375.4	
Linear fit with equal weighting	
Coefficient of determination:	0.9990367
Average error:	3.090%
Average CF:	3543684
RSD:	24.588%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	255937.1	5118742	-7.668	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	398342.5	3983425	-3.784	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	978546.4	3261821	1.797	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1564908	3129816	3.737	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	2035858	2908369	-0.970	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2859929	2859929	-0.583	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

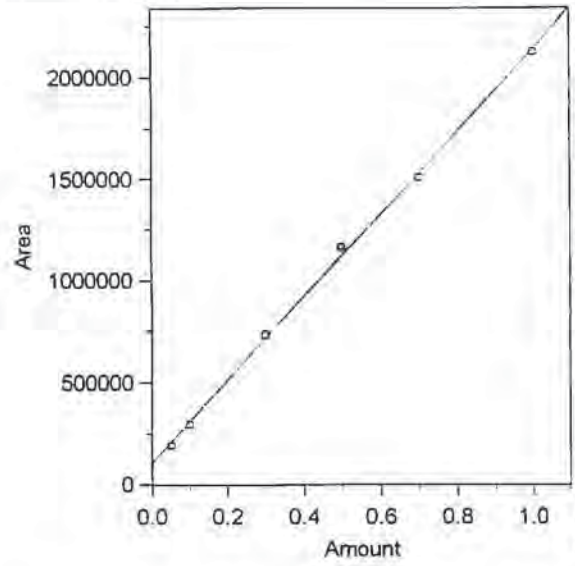
10 1260-4



Expected retention time:	6.203 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1990900 X + 91862.5	
Linear fit with equal weighting	
Coefficient of determination:	0.9993398
Average error:	2.325%
Average CF:	2532612
RSD:	23.638%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	180701	3614020	-5.594	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	284122.4	2841224	-2.347	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	699625.9	2332086	1.523	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1118682	2237364	2.885	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1463119	2090170	-1.506	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2080809	2080809	-0.094	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

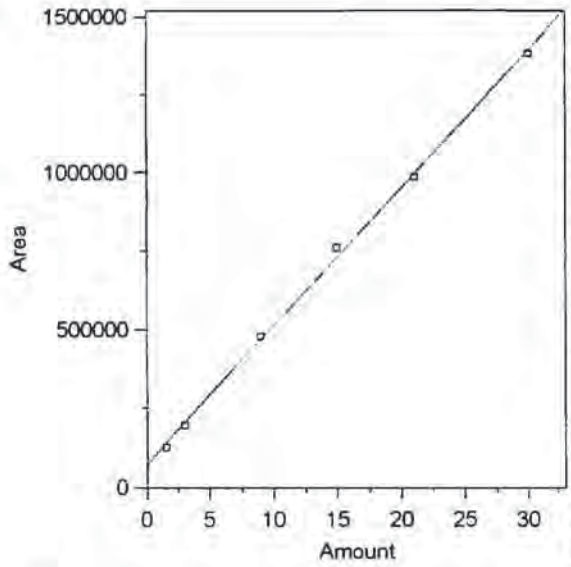
11 1260-5



Expected retention time:	6.46 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2031766 X + 105185.8	
Linear fit with equal weighting	
Coefficient of determination:	0.999006
Average error:	3.100%
Average CF:	2639279
RSD:	24.931%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	191461	3829220	-7.406	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	0.1	296913	2969130	-3.713	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	0.3	729582.5	2431942	2.080	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	0.5	1162112	2324224	3.661	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	0.7	1507168	2153097	-1.326	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	1	2128059	2128059	-0.416	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

12 DCBP



Expected retention time:	7.576 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 43996.59 X + 72227.88	
Linear fit with equal weighting	
Coefficient of determination:	0.9987453
Average error:	3.568%
Average CF:	57719.43
RSD:	25.426%

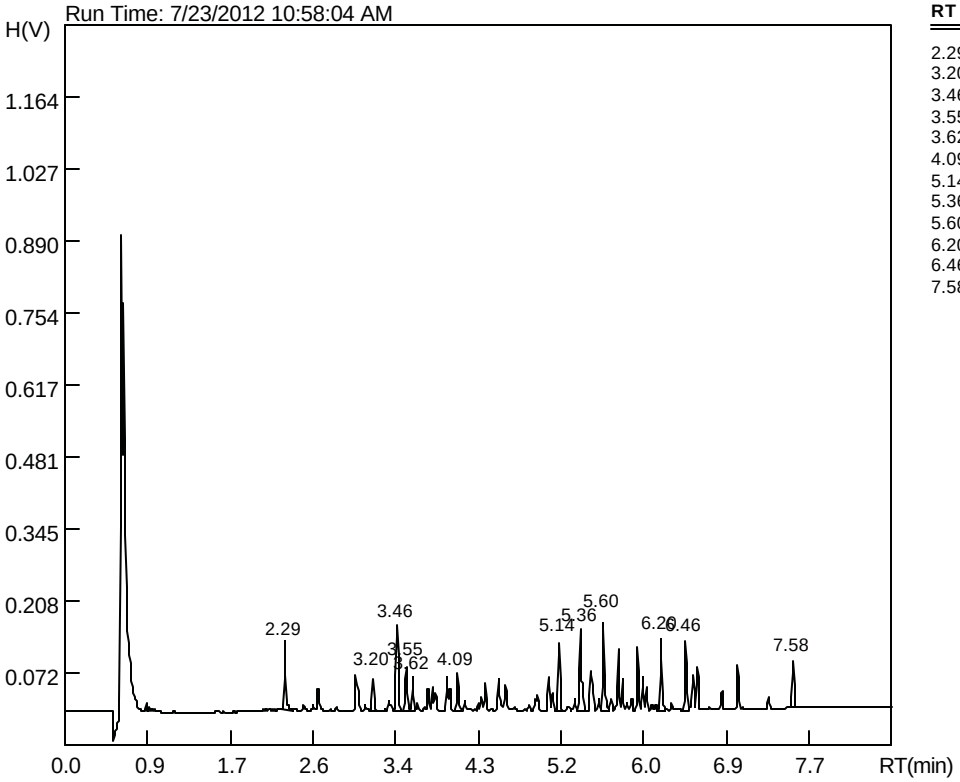
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	126427.5	84285	-8.534	F:\gceed.dat\A120723\A120723.03R.BND	7/23/2012 1:15:03 PM
2	3	194791.2	64930.4	-4.616	F:\gceed.dat\A120723\A120723.04R.BND	7/23/2012 1:09:44 PM
3	9	479314.4	53257.16	2.374	F:\gceed.dat\A120723\A120723.05R.BND	7/23/2012 1:09:56 PM
4	15	762433.2	50828.88	4.132	F:\gceed.dat\A120723\A120723.06R.BND	7/23/2012 1:10:09 PM
5	21	985420.3	46924.78	-1.078	F:\gceed.dat\A120723\A120723.07R.BND	7/23/2012 1:10:18 PM
6	30	1382710	46090.33	-0.676	F:\gceed.dat\A120723\A120723.08R.BND	7/23/2012 1:10:28 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

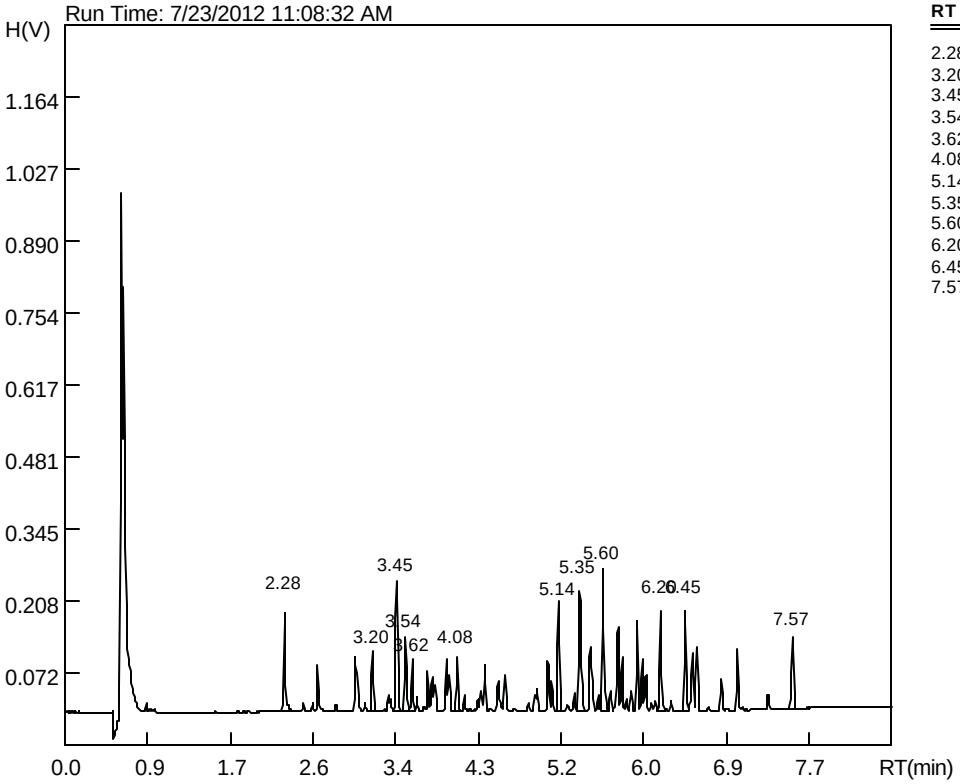
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:04 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	1.962	158211
3.20	0.00	1016-1	0.050	86105
3.46	0.01	1016-2	0.058	279309
3.55	0.00	1016-3	0.053	112013
3.62	0.00	1016-4	0.038	77821
4.09	0.01	1016-5	0.054	105396
5.14	0.00	1260-1	0.055	174106
5.36	0.01	1260-2	0.056	257787
5.60	0.00	1260-3	0.059	255937
6.20	0.00	1260-4	0.066	180701
6.46	0.01	1260-5	0.060	191461
7.58	0.01	DCBP	1.909	126428

File Name: F:\GCECD.DAT\A120723\A120723.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:32 AM



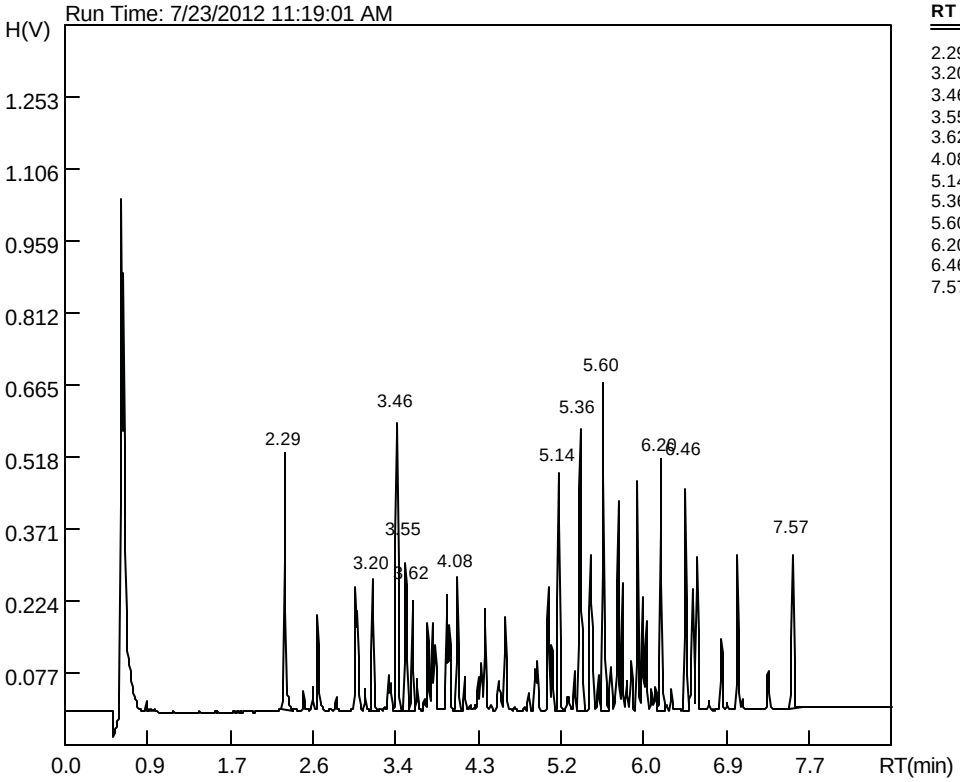
RT	dT	Name	Amt.	Area
2.28	-0.01	TCX	3.894	247381
3.20	0.00	1016-1	0.117	136168
3.45	0.00	1016-2	0.121	433994
3.54	-0.01	1016-3	0.117	176182
3.62	0.00	1016-4	0.102	124288
4.08	0.00	1016-5	0.116	164817
5.14	0.00	1260-1	0.119	270409
5.35	0.00	1260-2	0.122	402171
5.60	0.00	1260-3	0.123	398343
6.20	0.00	1260-4	0.133	284122
6.45	0.00	1260-5	0.126	296913
7.57	0.00	DCBP	4.231	194791

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

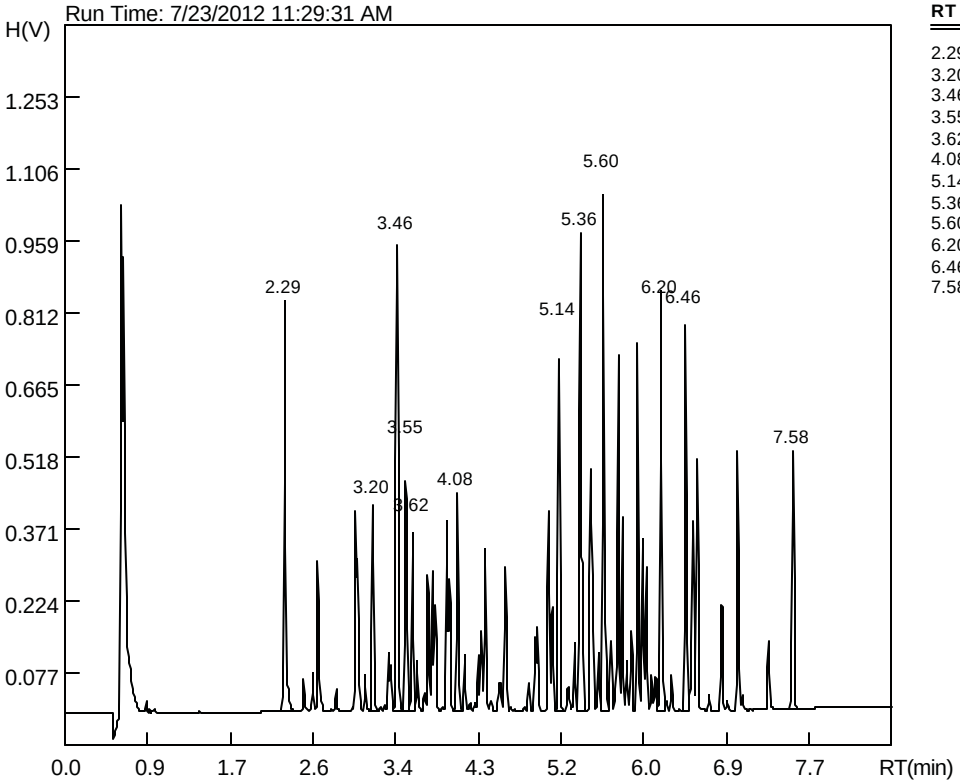
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:01 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	12.123	627189
3.20	0.00	1016-1	0.380	335691
3.46	0.01	1016-2	0.378	1065060
3.55	0.00	1016-3	0.376	439383
3.62	0.00	1016-4	0.368	315925
4.08	0.00	1016-5	0.376	414433
5.14	0.00	1260-1	0.381	662251
5.36	0.01	1260-2	0.385	980370
5.60	0.00	1260-3	0.387	978546
6.20	0.00	1260-4	0.404	699626
6.46	0.01	1260-5	0.397	729583
7.57	0.00	DCBP	13.895	479314

File Name: F:\GCECD.DAT\A120723\A120723.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:31 AM



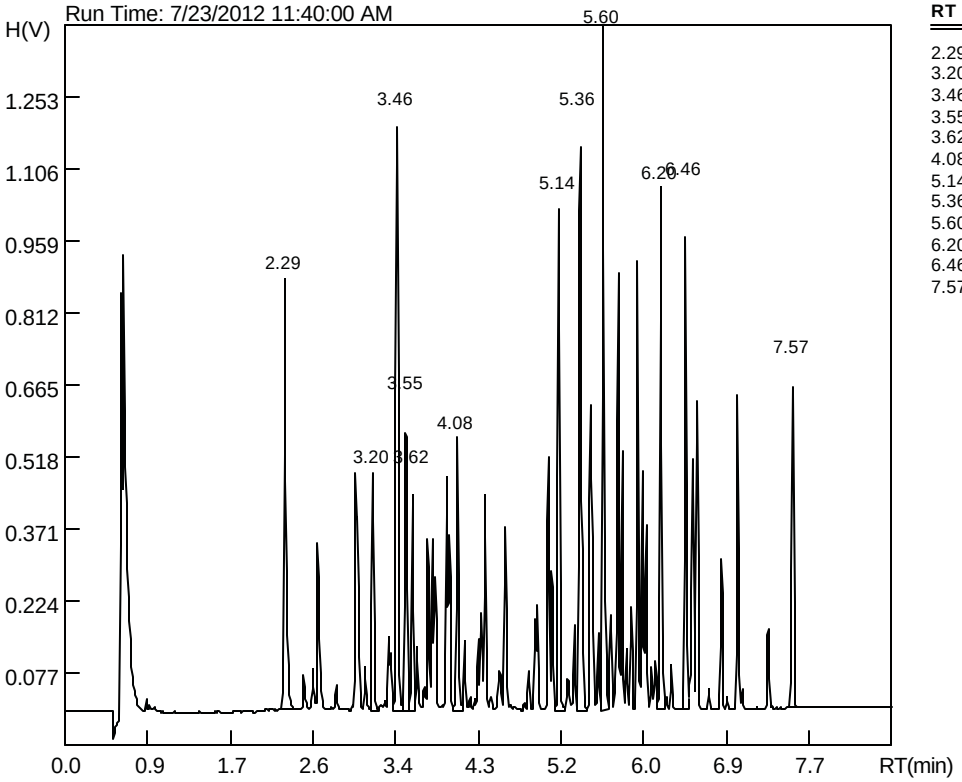
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.415	1009865
3.20	0.00	1016-1	0.638	530851
3.46	0.01	1016-2	0.635	1693959
3.55	0.00	1016-3	0.636	702255
3.62	0.00	1016-4	0.634	508258
4.08	0.00	1016-5	0.634	662075
5.14	0.00	1260-1	0.642	1051767
5.36	0.01	1260-2	0.649	1559937
5.60	0.00	1260-3	0.654	1564908
6.20	0.00	1260-4	0.677	1118682
6.46	0.01	1260-5	0.668	1162112
7.58	0.01	DCBP	23.510	762433

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

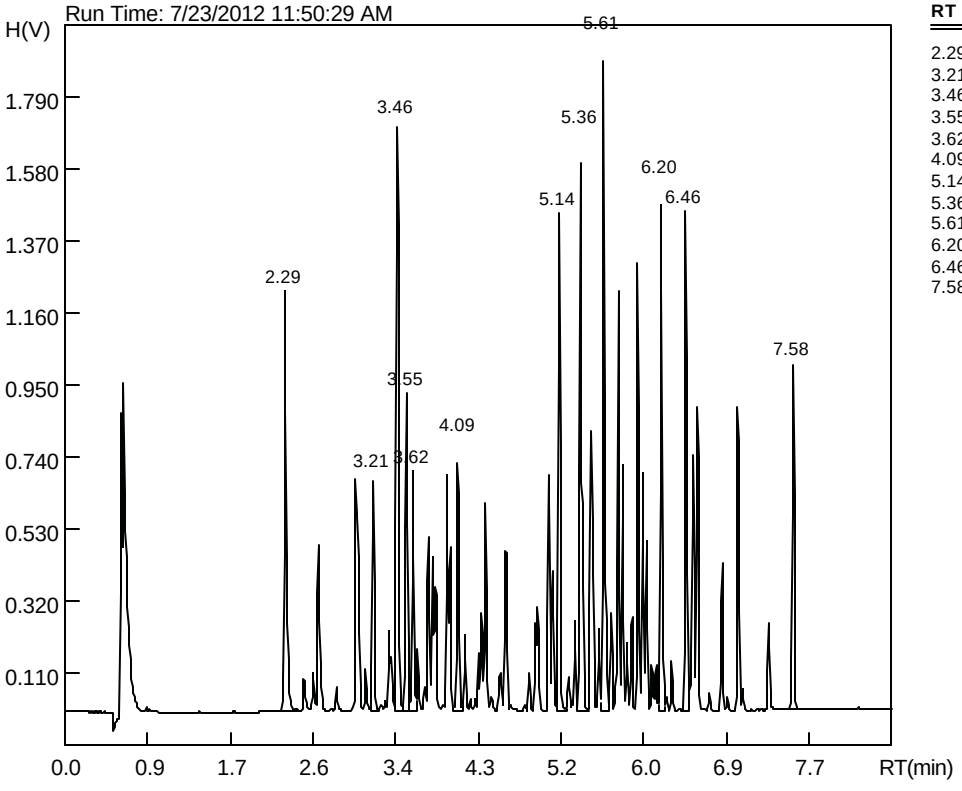
Analytical Batch: a120723.3

File Name: F:\GCECD.DAT\A120723\A120723.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:00 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	27.701	1346143
3.20	0.00	1016-1	0.858	696664
3.46	0.01	1016-2	0.842	2202040
3.55	0.00	1016-3	0.852	921268
3.62	0.00	1016-4	0.858	669641
4.08	0.00	1016-5	0.846	865674
5.14	0.00	1260-1	0.857	1372902
5.36	0.01	1260-2	0.865	2032394
5.60	0.00	1260-3	0.868	2035858
6.20	0.00	1260-4	0.901	1463119
6.46	0.01	1260-5	0.885	1507168
7.57	0.00	DCBP	31.083	985420

File Name: F:\GCECD.DAT\A120723\A120723.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:29 AM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	39.721	1900880
3.21	0.01	1016-1	1.216	967539
3.46	0.01	1016-2	1.204	3091464
3.55	0.00	1016-3	1.213	1286331
3.62	0.00	1016-4	1.235	942211
4.09	0.01	1016-5	1.205	1210736
5.14	0.00	1260-1	1.229	1928547
5.36	0.01	1260-2	1.240	2854984
5.61	0.01	1260-3	1.242	2859929
6.20	0.00	1260-4	1.304	2080809
6.46	0.01	1260-5	1.274	2128059
7.58	0.01	DCBP	44.577	1382710

Form 6: Initial Calibration Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120803.4

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
ab66120723.ca	**TCX**	L	2.42	2.47	2.52	1.50	3.00	9.00	15.00	21.00	30.00	0.062	0.061
				21.6	1.00	0.10	0.08	0.07	0.07	0.06	0.06		
	1016-1	L	3.13	3.18	3.23	0.05	0.10	0.30	0.50	0.70	1.00	0.034	0.692
				22.7	1.00	1.25	0.97	0.83	0.79	0.74	0.72		
	1016-2	L	3.57	3.62	3.67	0.05	0.10	0.30	0.50	0.70	1.00	0.079	1.429
				26.2	1.00	2.78	2.13	1.73	1.65	1.53	1.50		
	1016-3	L	3.94	3.99	4.04	0.05	0.10	0.30	0.50	0.70	1.00	0.118	3.157
				23.5	1.00	5.63	4.28	3.55	3.46	3.24	3.30		
	1016-4	L	4.10	4.15	4.20	0.05	0.10	0.30	0.50	0.70	1.00	0.052	1.162
				23.2	1.00	2.10	1.57	1.36	1.31	1.22	1.21		
	1016-5	L	4.58	4.63	4.68	0.05	0.10	0.30	0.50	0.70	1.00	0.068	1.154
				27.3	1.00	2.31	1.75	1.42	1.34	1.24	1.21		
	1260-1	L	5.69	5.74	5.79	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.005
				26.0	1.00	3.83	2.92	2.35	2.26	2.11	2.10		
	1260-2	L	5.77	5.82	5.87	0.05	0.10	0.30	0.50	0.70	1.00	0.097	2.082
				25.9	1.00	3.95	3.00	2.43	2.33	2.18	2.18		
	1260-3	L	6.18	6.23	6.28	0.05	0.10	0.30	0.50	0.70	1.00	0.100	2.074
				24.7	1.00	3.84	3.03	2.43	2.36	2.17	2.18		
	1260-4	L	6.67	6.72	6.77	0.05	0.10	0.30	0.50	0.70	1.00	0.057	2.106
				21.6	1.00	3.53	2.72	2.24	2.22	2.17	2.18		
	1260-5	L	7.10	7.15	7.20	0.05	0.10	0.30	0.50	0.70	1.00	0.090	1.961
				24.7	1.00	3.63	2.83	2.29	2.20	2.04	2.06		
	DCBP	L	8.28	8.33	8.38	1.50	3.00	9.00	15.00	21.00	30.00	0.064	0.039
				25.5	1.00	0.08	0.06	0.05	0.05	0.04	0.04		

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): ab66120723.cal / mean %rsd: 24.4

File Name: F:\gceed.dat\Methods\Ab66120723.cal
Version: 2

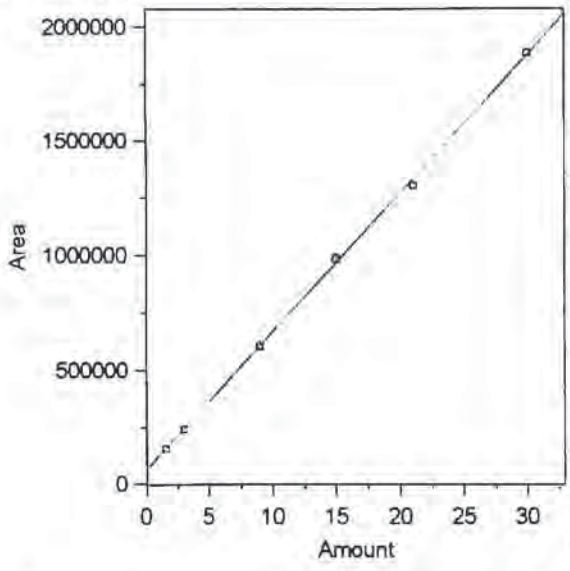
Creator: Janusz
Description: pcb1016/1260

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: mg/l
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 TCX



Expected retention time: 2.473 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 1
TCX (ug/L)
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

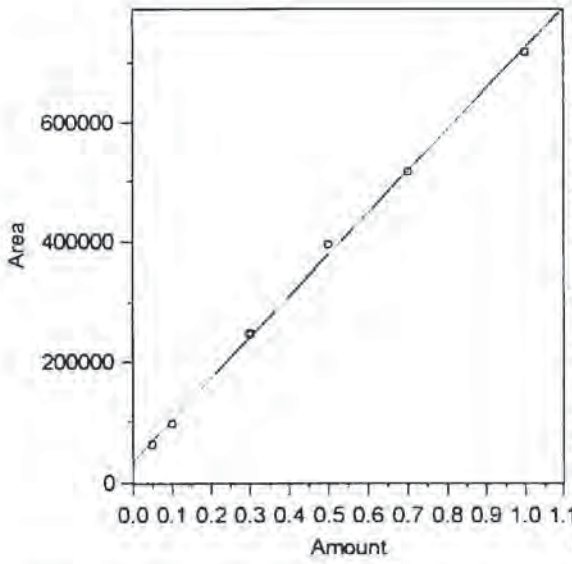
Single peak quantification by area

Y = 60506.64 X + 62130.27

Linear fit with equal weighting
Coefficient of determination: 0.9993865
Average error: 1.127%
Average CF: 73646.06
RSD: 21.557%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	154585.1	103056.7	1.109	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	3	241599.4	80533.13	-0.842	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	9	606330.7	67370.08	-0.059	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	15	988404.6	65893.64	1.926	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	21	1303269	62060.43	-2.213	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	30	1888871	62962.37	0.615	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

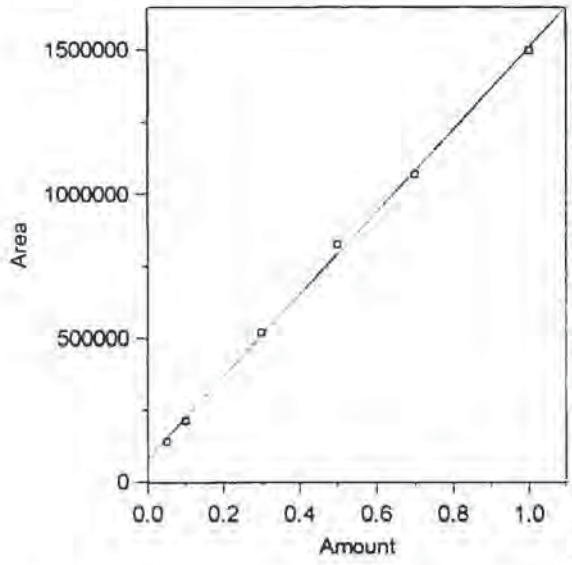
2 1016-1



Expected retention time:	3.181 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 692366 X + 33994.13	
Linear fit with equal weighting	
Coefficient of determination:	0.9987106
Average error:	3.850%
Average CF:	882283.4
RSD:	22.698%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	62399.82	1247996	-9.055	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	97106.09	971060.9	-5.933	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	247847.9	826159.6	2.542	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	395872.5	791745	4.128	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	516202.8	737432.6	-0.472	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	719305.7	719305.7	-0.971	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

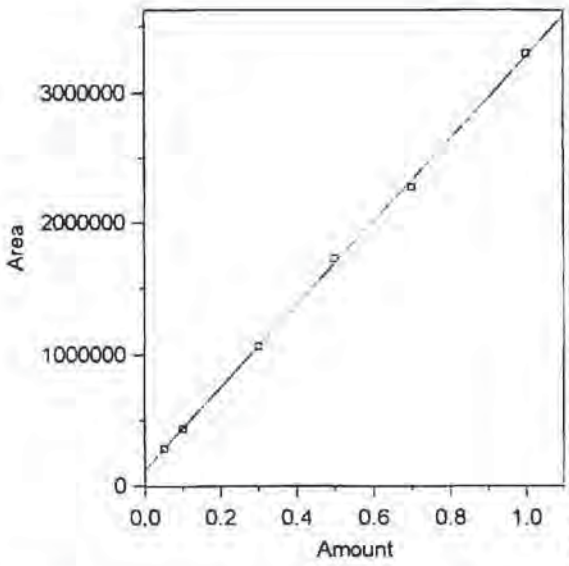
3 1016-2



Expected retention time:	3.617 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1428928 X + 79457.95	
Linear fit with equal weighting	
Coefficient of determination:	0.998931
Average error:	3.280%
Average CF:	1885609
RSD:	26.147%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	138943.8	2778876	-7.926	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	212955.3	2129553	-4.225	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	518948.3	1729828	2.128	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	824309.8	1648620	3.828	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1069894	1528420	-0.909	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1498355	1498355	-0.665	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

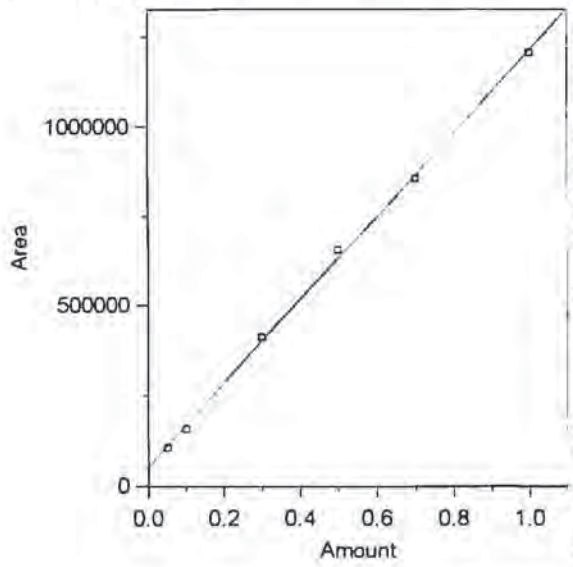
4 1016-3



Expected retention time:	3.988 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 3156785 X + 118310.8	
Linear fit with equal weighting	
Coefficient of determination:	0.9992492
Average error:	1.412%
Average CF:	3911380
RSD:	23.540%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	281423.1	5628462	1.909	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	428290.6	4282906	-1.313	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	1066353	3554510	0.094	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1730023	3460046	1.964	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	2270575	3243679	-2.469	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	3298679	3298679	0.720	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

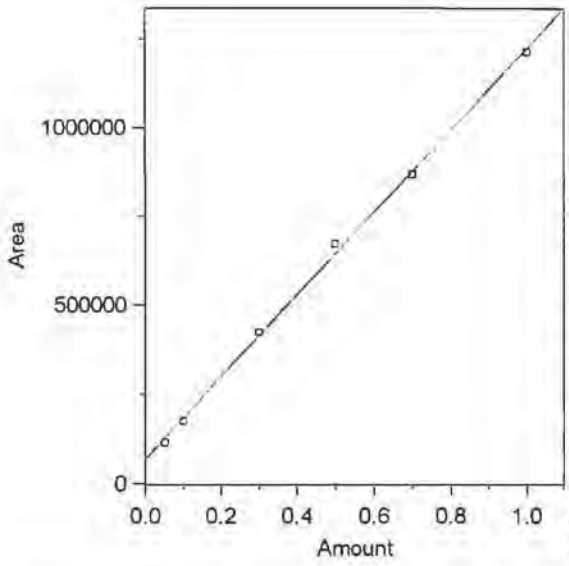
5 1016-4



Expected retention time:	4.149 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1161559 X + 51833.45	
Linear fit with equal weighting	
Coefficient of determination:	0.9989865
Average error:	3.106%
Average CF:	1461707
RSD:	23.149%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	104985.3	2099706	-4.482	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	156684.8	1566848	-6.729	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	408429	1361430	2.030	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	656541.9	1313084	3.783	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	855590.8	1222273	-1.079	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1206900	1206900	-0.535	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

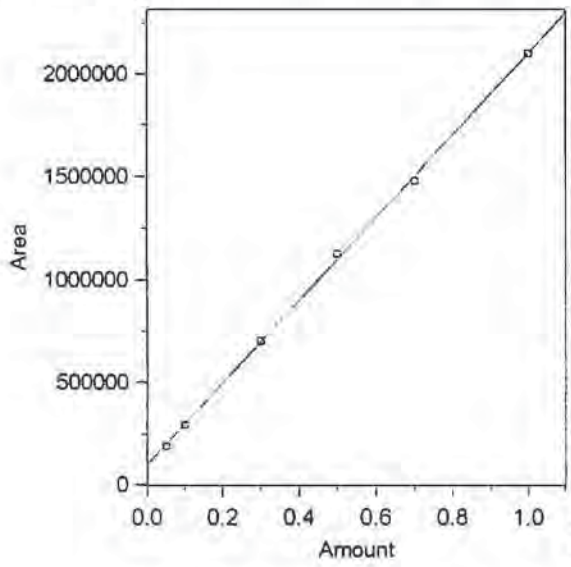
6 1016-5



Expected retention time:	4.629 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	3
PCB-1016	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1154245 X + 67757.28	
Linear fit with equal weighting	
Coefficient of determination:	0.9987983
Average error:	3.468%
Average CF:	1543858
RSD:	27.259%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	115365.6	2307312	-8.053	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	174881.3	1748813	-4.531	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	424610.2	1415367	2.555	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	670161.4	1340323	3.920	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	865803.4	1236862	-1.133	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	1214470	1214470	-0.616	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

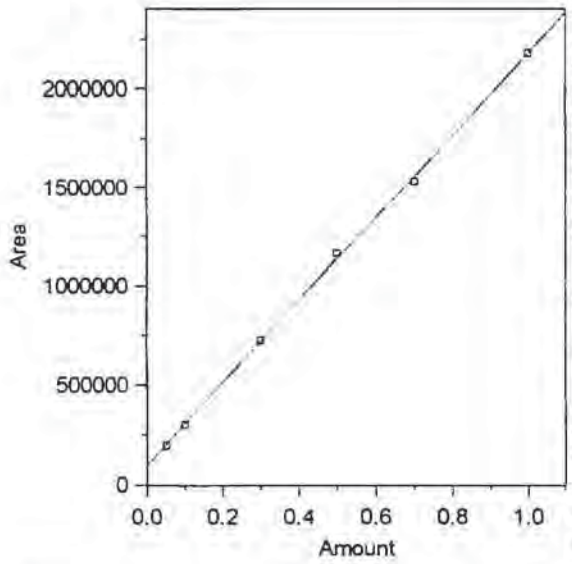
7 1260-1



Expected retention time:	5.743 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2005174 X + 97193.69	
Linear fit with equal weighting	
Coefficient of determination:	0.9994695
Average error:	1.695%
Average CF:	2593997
RSD:	26.000%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	191382.1	3827642	-3.074	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	291676.3	2916763	-2.027	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	705101.4	2350338	0.910	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1127409	2254818	2.512	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1477266	2110380	-1.569	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2104039	2104039	0.079	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

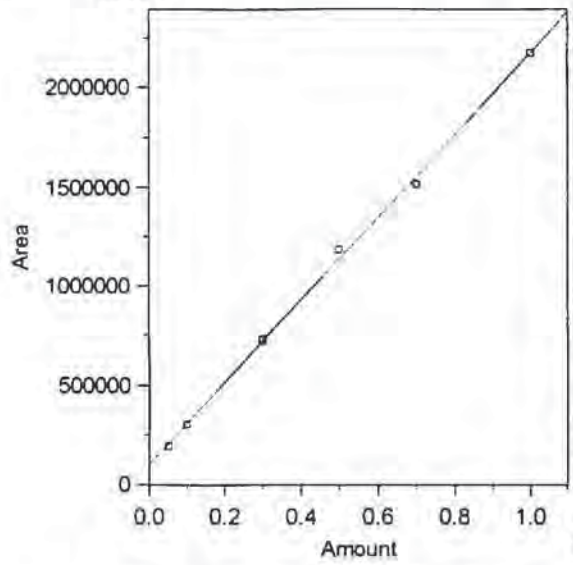
8 1260-2



Expected retention time:	5.822 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2081540 X + 97401.23	
Linear fit with equal weighting	
Coefficient of determination:	0.9995247
Average error:	1.410%
Average CF:	2678917
RSD:	25.897%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	197603.3	3952066	-1.923	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	300385.3	3003853	-1.692	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	727442.8	2424809	0.773	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1162717	2325434	2.157	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1528331	2183330	-1.682	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2184009	2184009	0.233	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

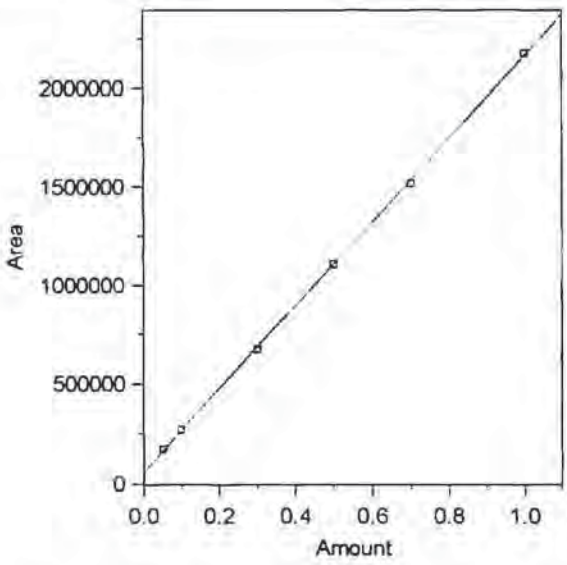
9 1260-3



Expected retention time:	6.23 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2073863 X + 100220.7	
Linear fit with equal weighting	
Coefficient of determination:	0.998819
Average error:	2.366%
Average CF:	2667973
RSD:	24.651%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	192217.1	3844342	-5.736	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	303286.6	3032866	-1.405	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	727830.3	2426101	0.755	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1181106	2362212	3.865	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1515952	2165646	-2.318	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2176670	2176670	0.119	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

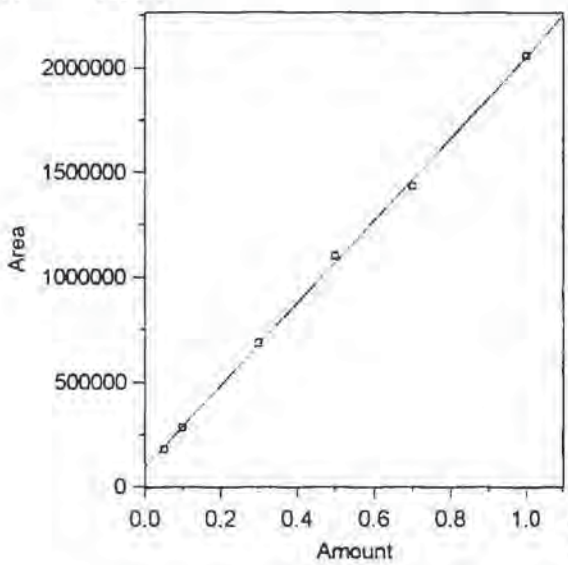
10 1260-4



Expected retention time:	6.722 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 2106471 X + 57440.12	
Linear fit with equal weighting	
Coefficient of determination:	0.9997017
Average error:	2.317%
Average CF:	2509388
RSD:	21.566%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	176450.7	3529014	8.409	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	271829.1	2718291	1.396	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	673277.1	2244257	-2.336	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1109205	2218410	-0.132	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1517431	2167759	-0.949	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2178597	2178597	0.679	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

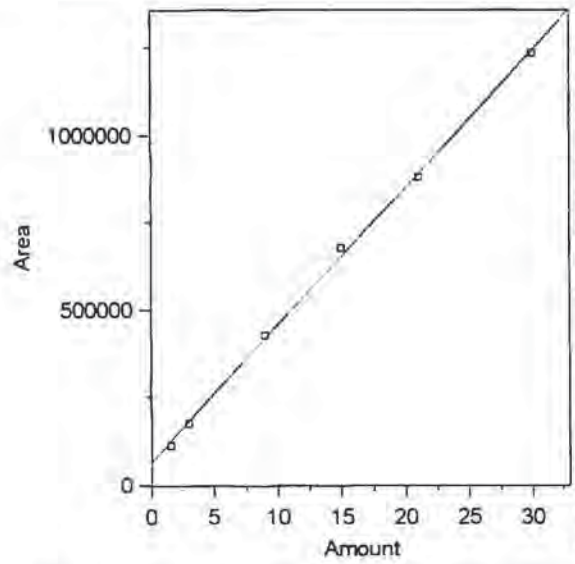
11 1260-5



Expected retention time:	7.147 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	4
PCB-1260	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0
Single peak quantification by area	
Y = 1960779 X + 90247.53	
Linear fit with equal weighting	
Coefficient of determination:	0.9992098
Average error:	1.887%
Average CF:	2506504
RSD:	24.679%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.05	181261.2	3625224	-3.731	F:\gceed.dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	0.1	282723	2827230	-1.258	F:\gceed.dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	0.3	685929.3	2286431	1.098	F:\gceed.dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	0.5	1099473	2198946	2.693	F:\gceed.dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	0.7	1430408	2043440	-2.214	F:\gceed.dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	1	2057755	2057755	0.328	F:\gceed.dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

12 DCBP



Expected retention time:	8.327 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	2
DCBP (ug/L)	
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

Y = 39254.41 X + 64315.68

Linear fit with equal weighting

Coefficient of determination:	0.9989673
Average error:	3.334%
Average CF:	51535.38
RSD:	25.446%

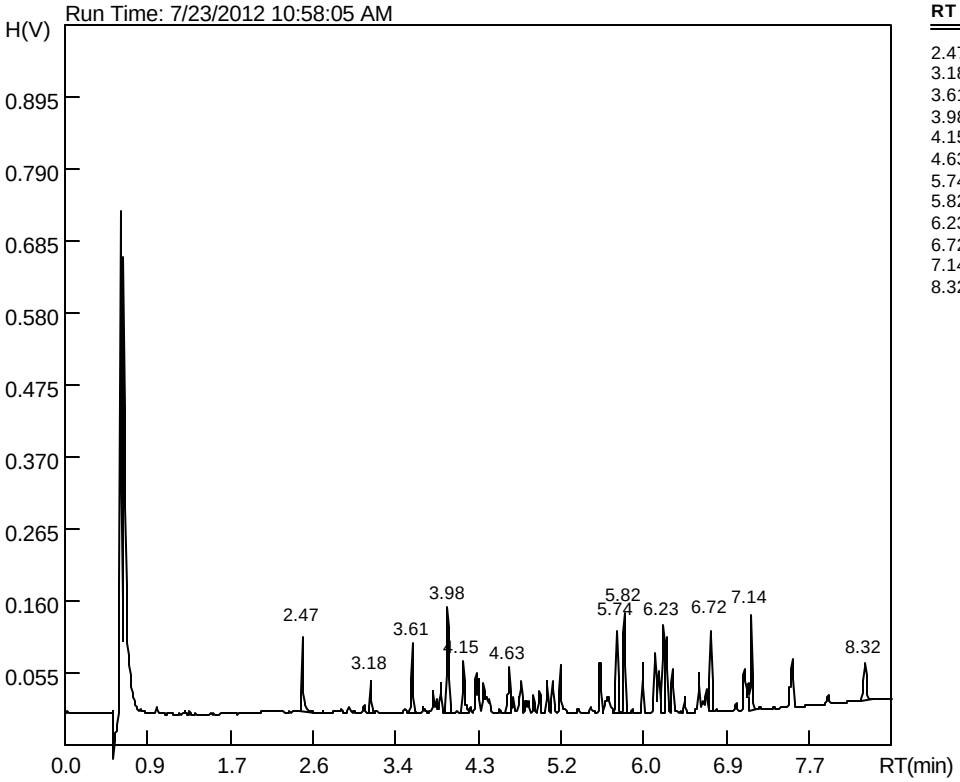
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1.5	112589.1	75059.4	-8.611	F:\gceed dat\A120723\A120723B.03R.BND	7/23/2012 1:50:12 PM
2	3	175413.3	58471.1	-3.661	F:\gceed dat\A120723\A120723B.04R.BND	7/23/2012 1:50:17 PM
3	9	427896.9	47544.1	2.464	F:\gceed dat\A120723\A120723B.05R.BND	7/23/2012 1:50:21 PM
4	15	676751.8	45116.79	3.616	F:\gceed dat\A120723\A120723B.06R.BND	7/23/2012 1:50:26 PM
5	21	878867.2	41850.82	-1.102	F:\gceed dat\A120723\A120723B.07R.BND	7/23/2012 1:50:31 PM
6	30	1235101	41170.04	-0.551	F:\gceed dat\A120723\A120723B.08R.BND	7/23/2012 1:50:36 PM

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

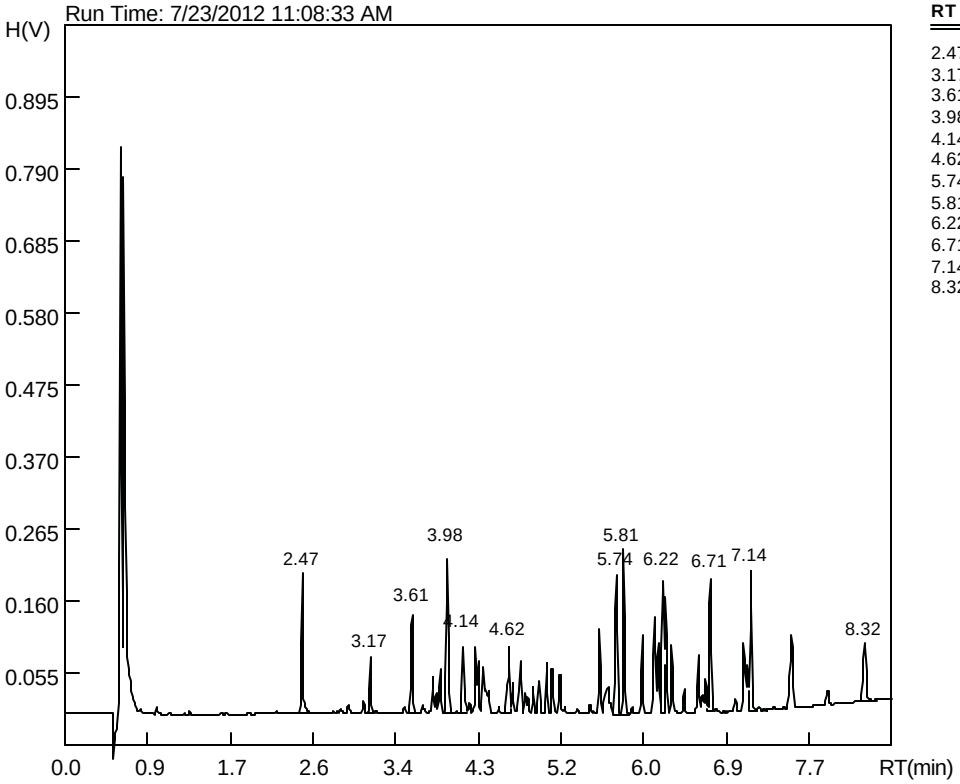
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.03R.BND
Comments: ss1660.01 0.05ppm 7/23/12
Run Time: 7/23/2012 10:58:05 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	1.459	154585
3.18	0.00	1016-1	0.043	62400
3.61	0.00	1016-2	0.041	138944
3.98	0.00	1016-3	0.060	281423
4.15	0.00	1016-4	0.037	104985
4.63	0.01	1016-5	0.042	115366
5.74	0.00	1260-1	0.044	191382
5.82	0.00	1260-2	0.048	197603
6.23	0.00	1260-3	0.051	192217
6.72	0.01	1260-4	0.064	176451
7.14	0.00	1260-5	0.047	181261
8.32	0.00	DCBP	1.459	112589

File Name: F:\GCECD.DAT\A120723\A120723B.04R.BND
Comments: ss1660.02 0.1ppm 7/23/12
Run Time: 7/23/2012 11:08:33 AM



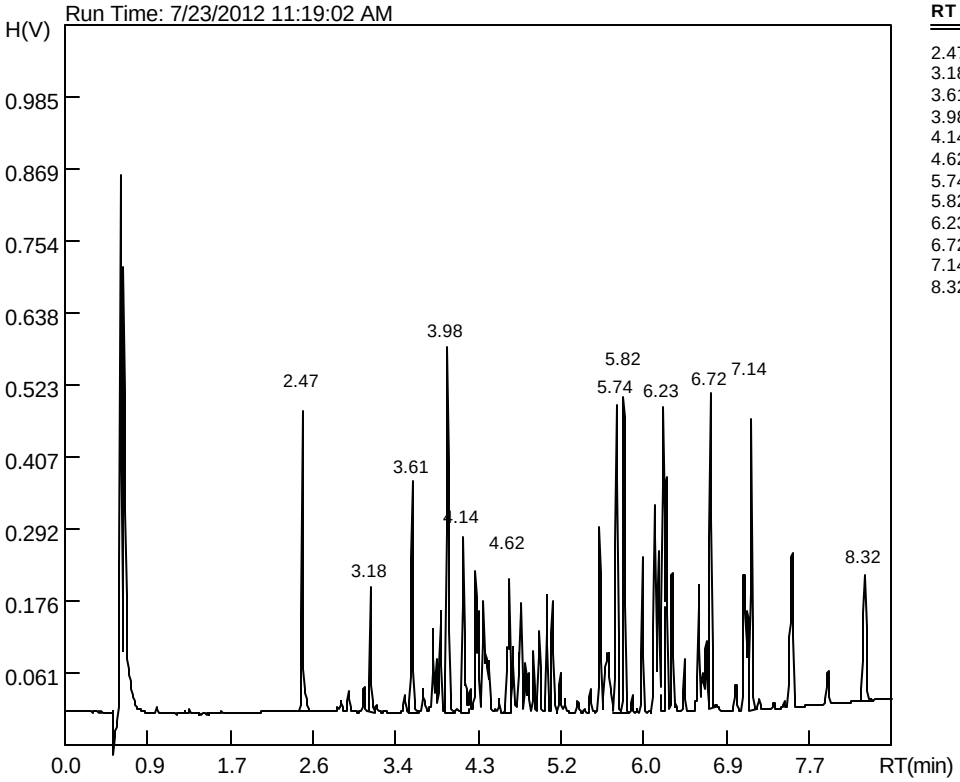
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	2.926	241599
3.17	0.00	1016-1	0.092	97106
3.61	0.00	1016-2	0.091	212955
3.98	0.00	1016-3	0.108	428291
4.14	0.00	1016-4	0.082	156685
4.62	0.00	1016-5	0.094	174881
5.74	0.00	1260-1	0.093	291676
5.81	0.00	1260-2	0.098	300385
6.22	0.00	1260-3	0.106	303287
6.71	0.00	1260-4	0.108	271829
7.14	0.00	1260-5	0.100	282723
8.32	0.00	DCBP	3.389	175413

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

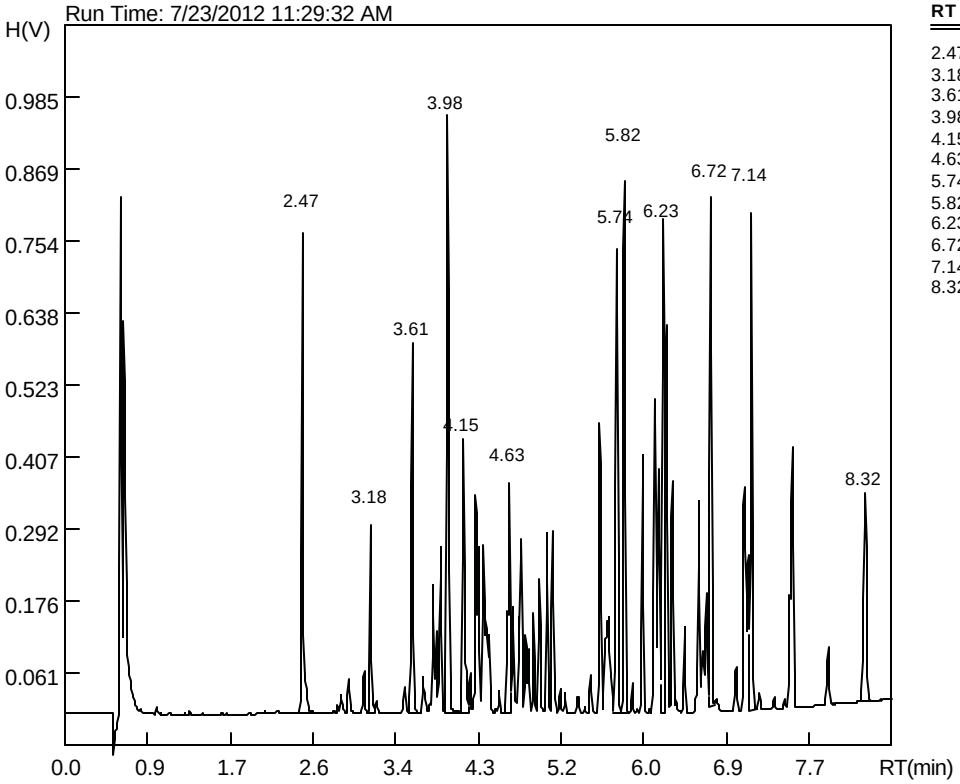
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.05R.BND
Comments: ss1660.03 0.3ppm 7/23/12
Run Time: 7/23/2012 11:19:02 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	9.075	606331
3.18	0.00	1016-1	0.304	247848
3.61	0.00	1016-2	0.301	518948
3.98	0.00	1016-3	0.315	1066353
4.14	0.00	1016-4	0.301	408429
4.62	0.00	1016-5	0.310	424610
5.74	0.00	1260-1	0.294	705101
5.82	0.00	1260-2	0.306	727443
6.23	0.00	1260-3	0.318	727830
6.72	0.00	1260-4	0.293	673277
7.14	0.00	1260-5	0.313	685929
8.32	0.00	DCBP	11.145	427897

File Name: F:\GCECD.DAT\A120723\A120723B.06R.BND
Comments: ss1660.04 0.5ppm 7/23/12
Run Time: 7/23/2012 11:29:32 AM



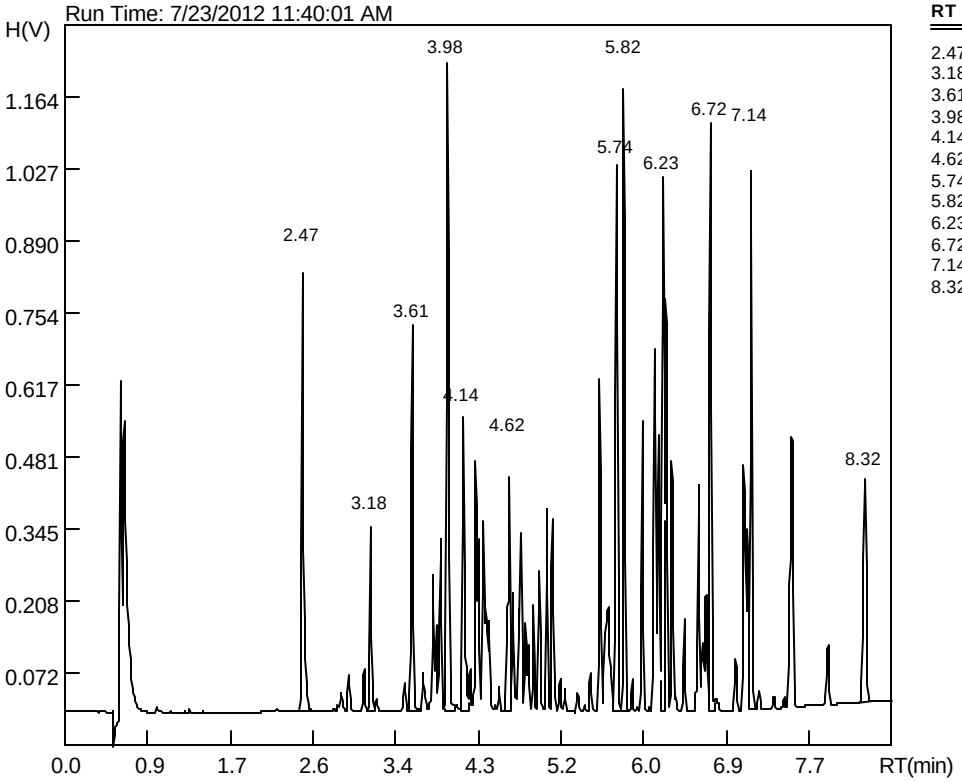
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	15.517	988405
3.18	0.00	1016-1	0.512	395873
3.61	0.00	1016-2	0.509	824310
3.98	0.00	1016-3	0.531	1730023
4.15	0.00	1016-4	0.517	656542
4.63	0.00	1016-5	0.522	670161
5.74	0.00	1260-1	0.500	1127409
5.82	0.00	1260-2	0.517	1162717
6.23	0.00	1260-3	0.543	1181106
6.72	0.00	1260-4	0.494	1109205
7.14	0.00	1260-5	0.532	1099473
8.32	0.00	DCBP	18.789	676752

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3800(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

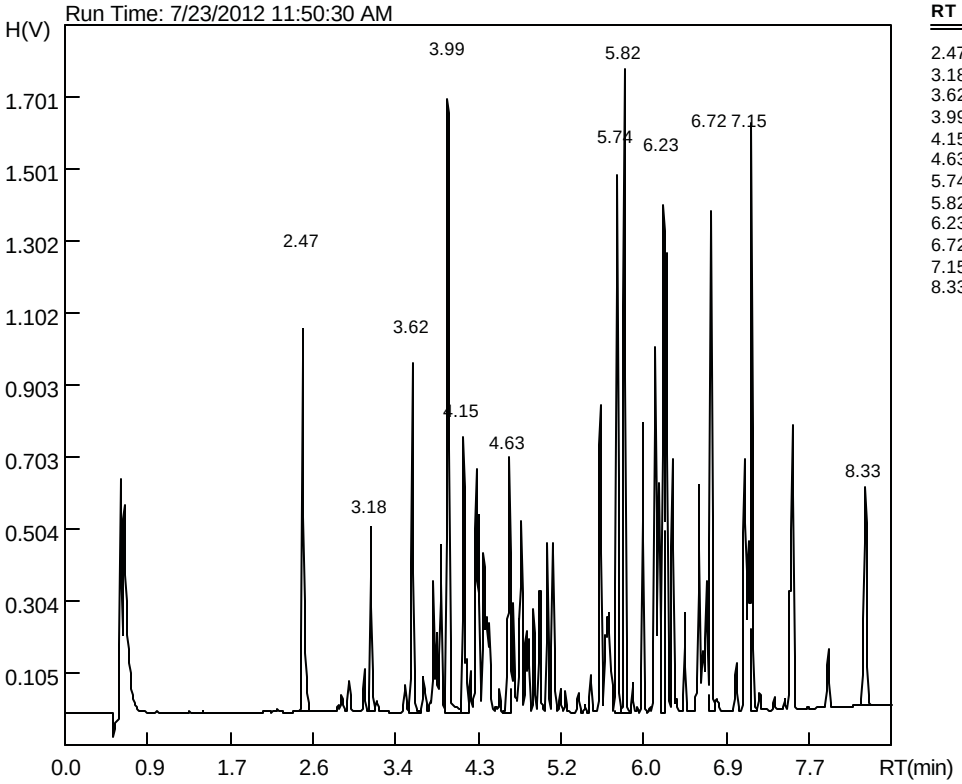
Analytical Batch: a120723.4

File Name: F:\GCECD.DAT\A120723\A120723B.07R.BND
Comments: ss1660.05 0.7ppm 7/23/12
Run Time: 7/23/2012 11:40:01 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.826	1303269
3.18	0.00	1016-1	0.682	516203
3.61	0.00	1016-2	0.677	1069894
3.98	0.00	1016-3	0.707	2270575
4.14	0.00	1016-4	0.691	855591
4.62	0.00	1016-5	0.691	865803
5.74	0.00	1260-1	0.670	1477266
5.82	0.00	1260-2	0.695	1528331
6.23	0.00	1260-3	0.710	1515952
6.72	0.00	1260-4	0.682	1517431
7.14	0.00	1260-5	0.707	1430408
8.32	0.00	DCBP	24.998	878867

File Name: F:\GCECD.DAT\A120723\A120723B.08R.BND
Comments: ss1660.06 1.0ppm 7/23/12
Run Time: 7/23/2012 11:50:30 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	30.699	1888871
3.18	0.01	1016-1	0.968	719306
3.62	0.01	1016-2	0.970	1498355
3.99	0.01	1016-3	1.041	3298679
4.15	0.01	1016-4	0.996	1206900
4.63	0.01	1016-5	0.992	1214470
5.74	0.01	1260-1	0.975	2104039
5.82	0.01	1260-2	1.013	2184009
6.23	0.01	1260-3	1.039	2176670
6.72	0.01	1260-4	0.986	2178597
7.15	0.01	1260-5	1.038	2057755
8.33	0.01	DCBP	35.941	1235101

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: a120803.3

Filename	*LIMS ID*	*Run Time*	*CVM Component*	? *RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
a120803.02r	sc1660.01	08/03/12 11:31	1016-1	0.01/0.05	0.538/0.500	7.6
			1016-2	0.00/0.05	0.541/0.500	8.2
			1016-3	0.01/0.05	0.536/0.500	7.2
			1016-4	0.01/0.05	0.533/0.500	6.6
			1016-5	0.00/0.05	0.527/0.500	5.4
			1260-1	0.00/0.05	0.501/0.500	0.2
			1260-2	0.00/0.05	0.500/0.500	0.0
			1260-3	0.01/0.05	0.484/0.500	3.2
			1260-4	0.01/0.05	0.494/0.500	1.2
			1260-5	0.00/0.05	0.452/0.500	9.6
					Average	**2.1 / 20.0**
a120803.30r	sc1660.02	08/03/12 18:00	1016-1	0.01/0.05	0.573/0.500	14.6
			1016-2	0.00/0.05	0.577/0.500	15.4
			1016-3	0.01/0.05	0.576/0.500	15.2
			1016-4	0.01/0.05	0.572/0.500	14.4
			1016-5	0.00/0.05	0.576/0.500	15.2
			1260-1	0.01/0.05	0.566/0.500	13.2
			1260-2	0.00/0.05	0.561/0.500	12.2
			1260-3	0.01/0.05	0.546/0.500	9.2
			1260-4	0.01/0.05	0.536/0.500	7.2
			1260-5	0.00/0.05	0.511/0.500	2.2
					Average	**11.9 / 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: a120803.4

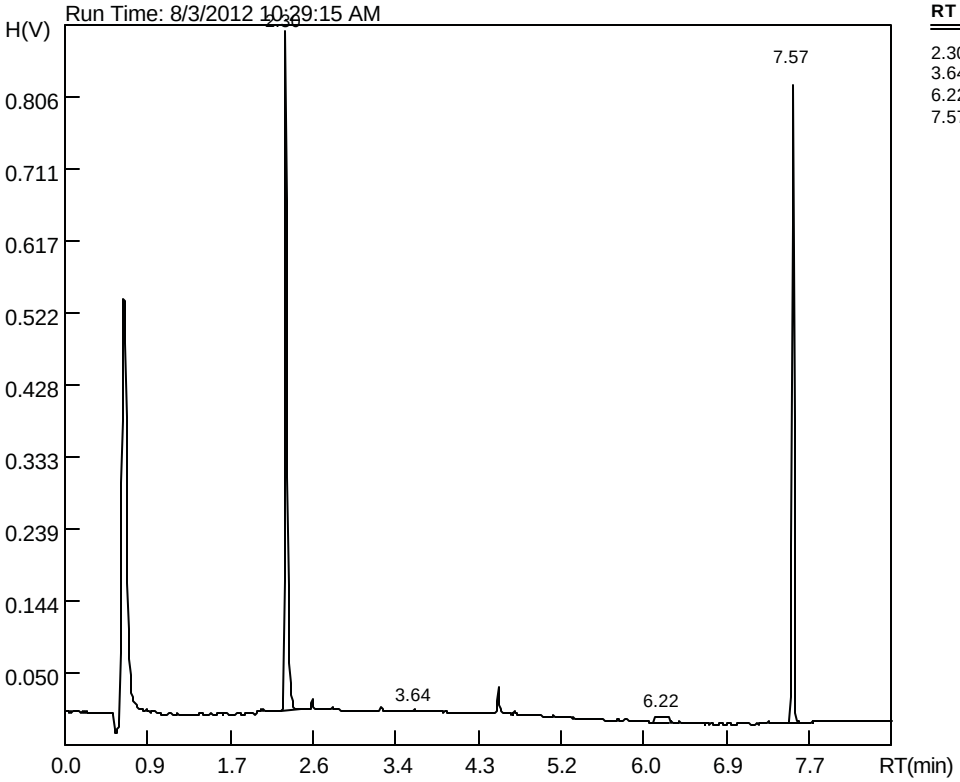
Filename	*LIMS ID*	*Run Time*	*CVM Component*	*? RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
a120803b.02	sc1660.01	08/03/12 11:31	1016-1	0.00/0.05	0.536/0.500	7.2
			1016-2	0.00/0.05	0.555/0.500	11.0
			1016-3	0.00/0.05	0.543/0.500	8.6
			1016-4	0.00/0.05	0.554/0.500	10.8
			1016-5	0.00/0.05	0.542/0.500	8.4
			1260-1	0.00/0.05	0.486/0.500	2.8
			1260-2	0.00/0.05	0.485/0.500	3.0
			1260-3	0.00/0.05	0.464/0.500	7.2
			1260-4	0.00/0.05	0.433/0.500	13.4
			1260-5	0.00/0.05	0.435/0.500	13.0
					Average	**0.7/ 20.0**
a120803b.30	sc1660.02	08/03/12 18:00	1016-1	0.00/0.05	0.578/0.500	15.6
			1016-2	0.00/0.05	0.570/0.500	14.0
			1016-3	0.00/0.05	0.550/0.500	10.0
			1016-4	0.00/0.05	0.575/0.500	15.0
			1016-5	0.00/0.05	0.570/0.500	14.0
			1260-1	0.00/0.05	0.533/0.500	6.6
			1260-2	0.01/0.05	0.533/0.500	6.6
			1260-3	0.00/0.05	0.521/0.500	4.2
			1260-4	0.00/0.05	0.488/0.500	2.4
			1260-5	0.00/0.05	0.493/0.500	1.4
					Average	**8.2/ 20.0**

NOTES
*: Calibration check drift outside of method-established control limits

GC/ECD Analysis: Raw Chromatographic Data

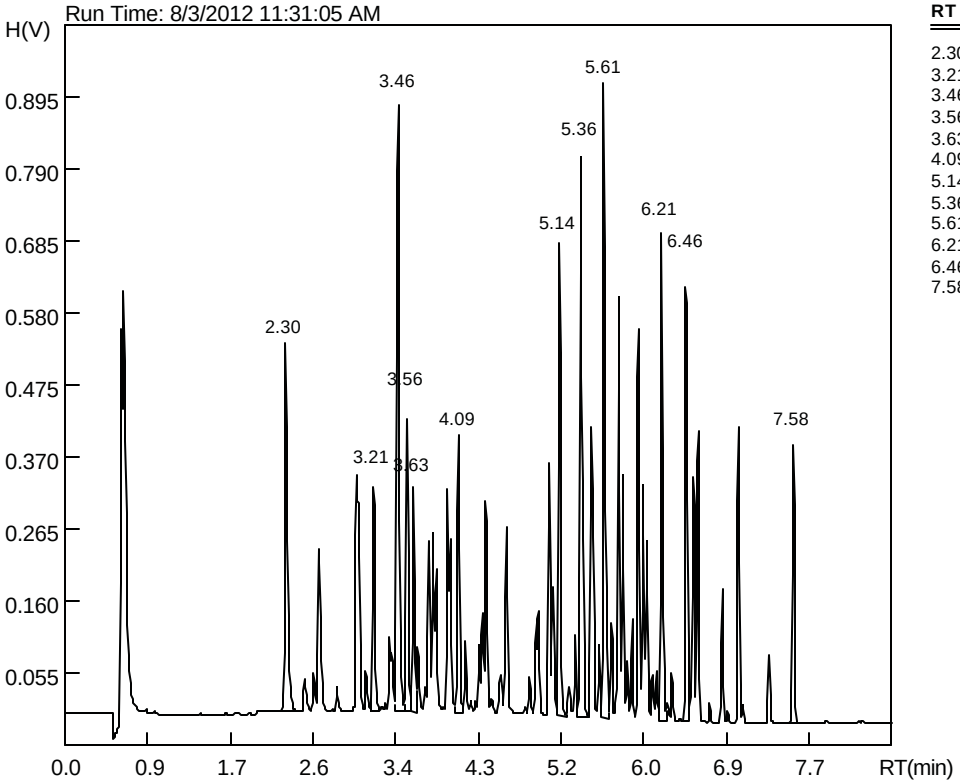
Instrument ID: Varian/3500(A)/DB-5 Analytical Batch: a120803.3
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name: F:\GCECD.DAT\A120803\A120803.01R.BND
Comments: SBLK-R.01
Run Time: 8/3/2012 10:29:15 AM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	24.742	1584157
3.64	0.02	1016-4	-0.039	2809
6.22	0.02	1260-4	-0.010	71344
7.57	0.00	DCBP	25.718	1203732

File Name: F:\GCECD.DAT\A120803\A120803.02R.BND
Comments: SC1660.01 0.5ppm 7/23/12
Run Time: 8/3/2012 11:31:05 AM



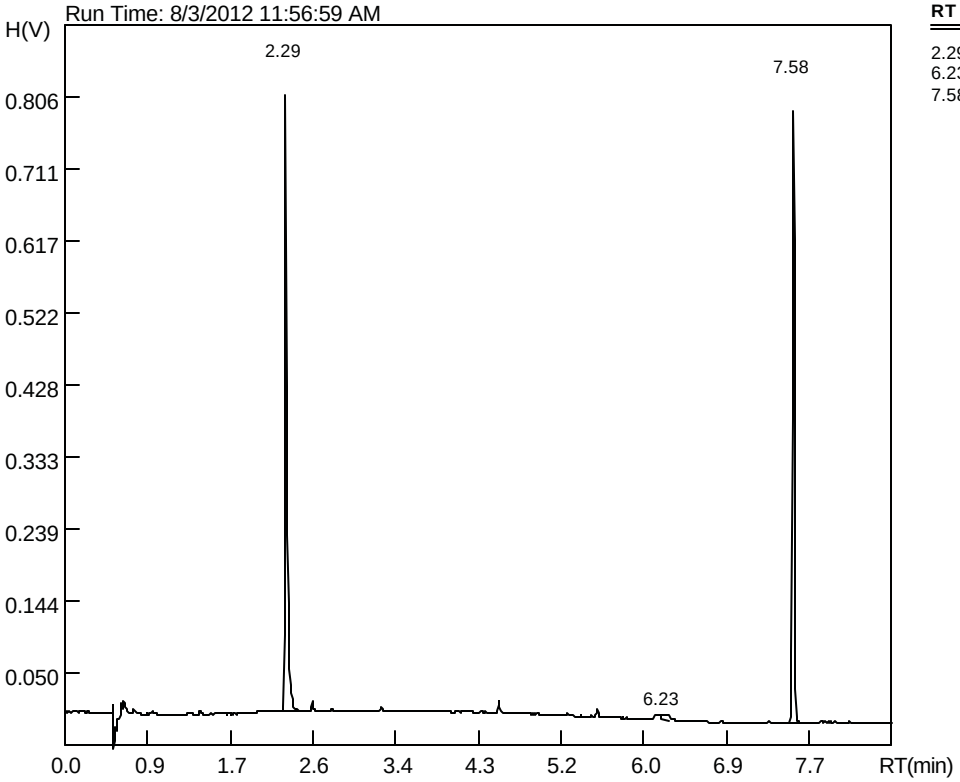
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	16.260	1065620
3.21	0.01	1016-1	0.538	548521
3.46	0.01	1016-2	0.541	1753431
3.56	0.01	1016-3	0.536	723419
3.63	0.01	1016-4	0.533	522340
4.09	0.01	1016-5	0.527	669998
5.14	0.00	1260-1	0.501	1019172
5.36	0.00	1260-2	0.500	1505876
5.61	0.01	1260-3	0.484	1466063
6.21	0.00	1260-4	0.494	1074506
6.46	0.00	1260-5	0.452	1023017
7.58	0.00	DCBP	12.343	615297

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

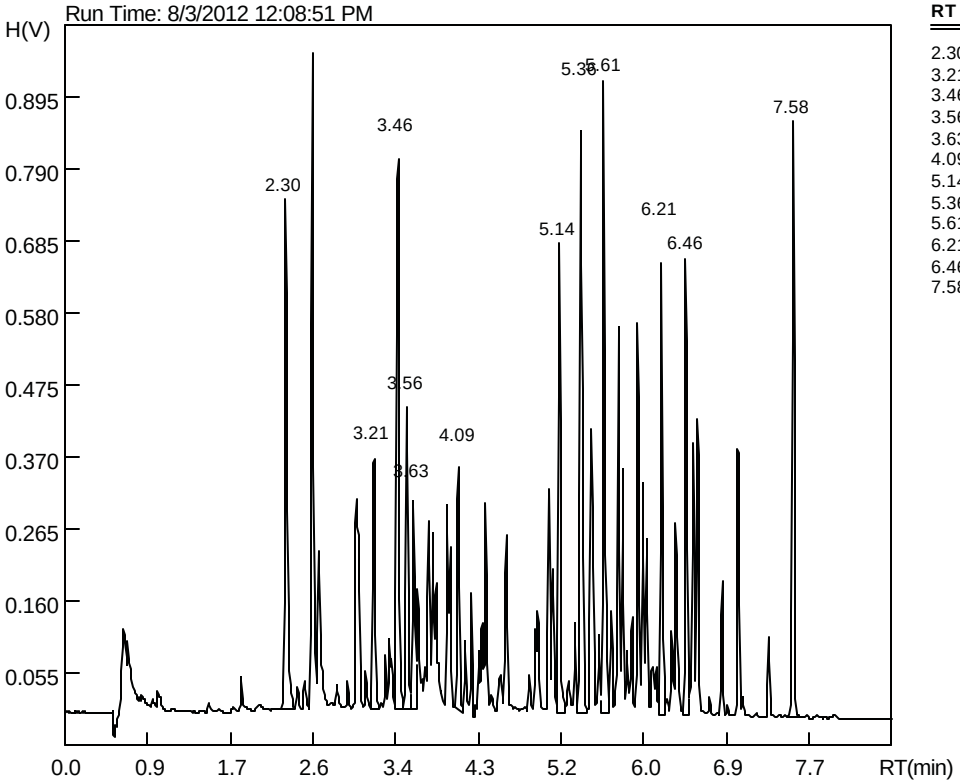
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.04R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 11:56:59 AM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	20.292	1312114
6.23	0.02	1260-4	-0.029	34526
7.58	0.00	DCBP	25.548	1196253

File Name: F:\GCECD.DAT\A120803\A120803.05R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 12:08:51 PM



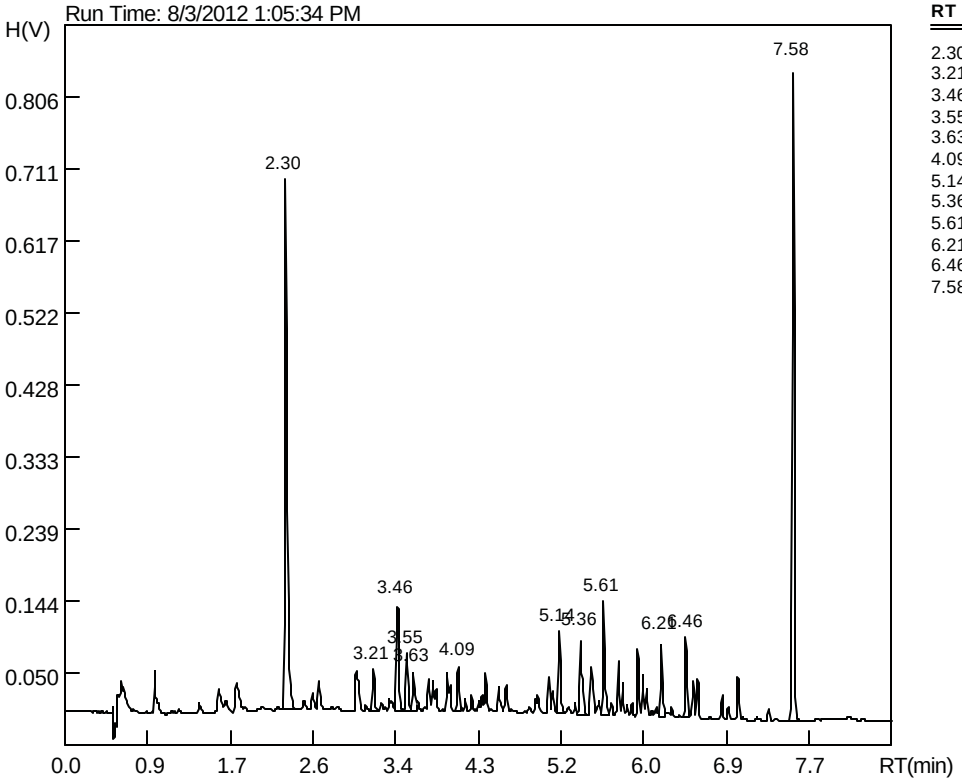
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	22.460	1444645
3.21	0.01	1016-1	0.695	693910
3.46	0.01	1016-2	0.475	1558156
3.56	0.01	1016-3	0.500	678564
3.63	0.01	1016-4	0.590	574479
4.09	0.00	1016-5	0.477	611815
5.14	0.00	1260-1	0.488	995046
5.36	0.00	1260-2	0.612	1813172
5.61	0.00	1260-3	0.468	1421819
6.21	0.00	1260-4	0.474	1036152
6.46	0.00	1260-5	0.452	1022866
7.58	0.00	DCBP	26.658	1245085

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

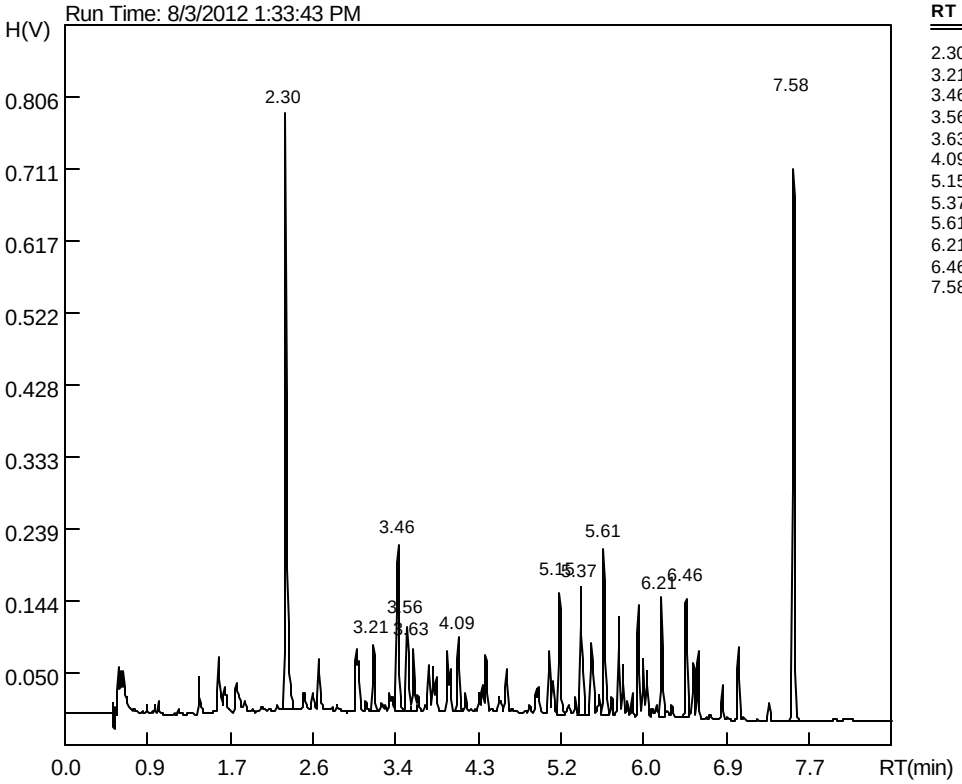
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.06R.BND
Comments: s53238.01 1L w/1 LOD C ID:PA120724w01
Run Time: 8/3/2012 1:05:34 PM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	19.519	1264894
3.21	0.01	1016-1	0.032	78482
3.46	0.00	1016-2	0.036	263042
3.55	0.00	1016-3	0.047	118708
3.63	0.01	1016-4	0.060	92794
4.09	0.00	1016-5	0.033	94599
5.14	0.00	1260-1	0.036	162040
5.36	0.00	1260-2	0.018	193533
5.61	0.00	1260-3	0.032	228013
6.21	0.00	1260-4	0.033	157496
6.46	0.00	1260-5	0.027	161012
7.58	0.00	DCBP	26.036	1217707

File Name: F:\GCECD.DAT\A120803\A120803.07R.BND
Comments: s53238.02 1L w/1 LOQ C ID:PA120724w01
Run Time: 8/3/2012 1:33:43 PM



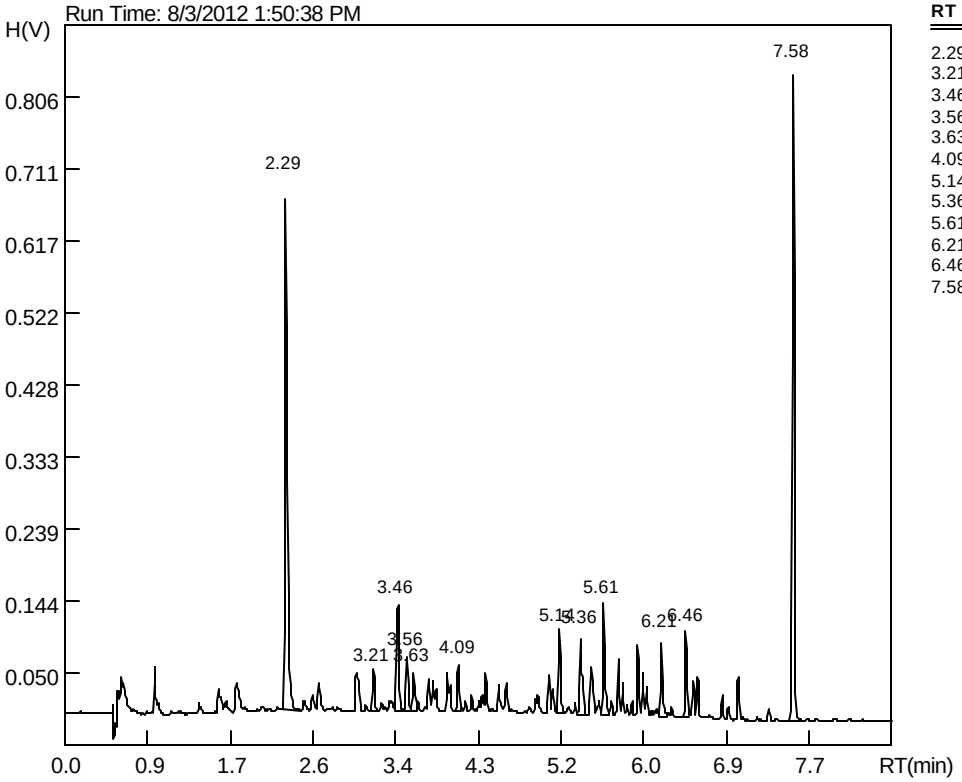
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	17.858	1163324
3.21	0.01	1016-1	0.084	127542
3.46	0.01	1016-2	0.083	401223
3.56	0.01	1016-3	0.129	219871
3.63	0.01	1016-4	0.095	124175
4.09	0.01	1016-5	0.086	156852
5.15	0.01	1260-1	0.079	241278
5.37	0.01	1260-2	0.057	298811
5.61	0.01	1260-3	0.073	338812
6.21	0.01	1260-4	0.072	234603
6.46	0.00	1260-5	0.069	245773
7.58	0.01	DCBP	24.815	1163987

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

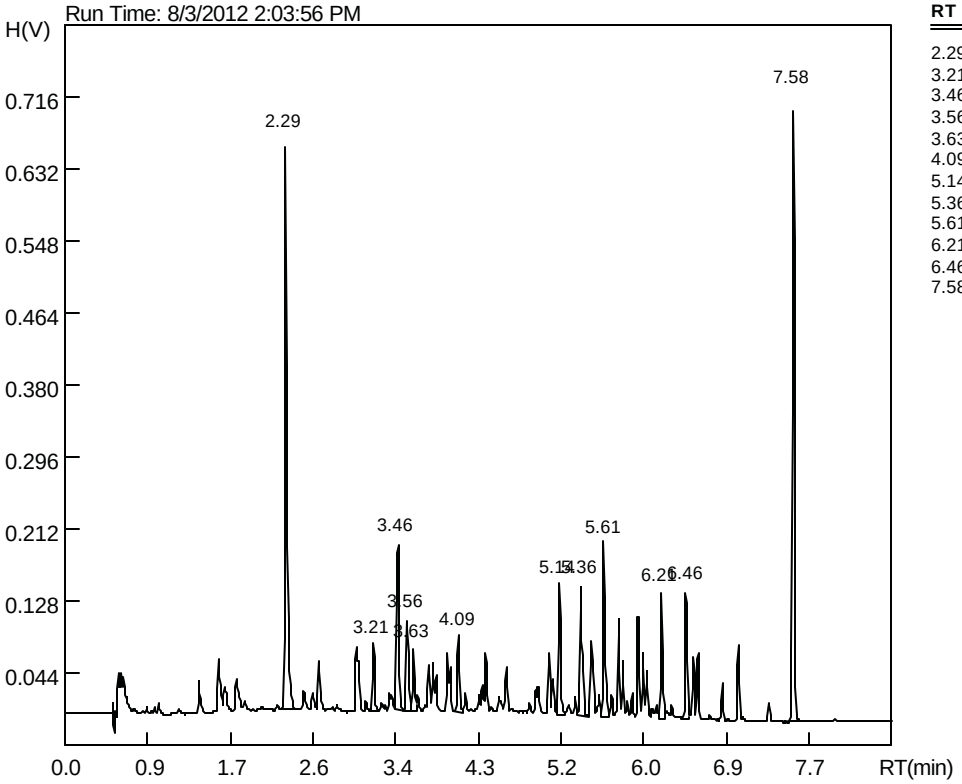
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.08R.BND
Comments: s53238.03 20.0g s/1 LOD C ID:PA120719s01
Run Time: 8/3/2012 1:50:38 PM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	19.707	1276334
3.21	0.01	1016-1	0.034	81146
3.46	0.01	1016-2	0.038	267578
3.56	0.01	1016-3	0.050	121643
3.63	0.01	1016-4	0.063	95564
4.09	0.00	1016-5	0.035	97516
5.14	0.00	1260-1	0.038	166126
5.36	0.00	1260-2	0.018	193542
5.61	0.00	1260-3	0.032	227822
6.21	0.00	1260-4	0.034	158917
6.46	0.00	1260-5	0.029	164746
7.58	0.00	DCBP	26.330	1230656

File Name: F:\GCECD.DAT\A120803\A120803.09R.BND
Comments: s53238.04 20.0g s/1 LOQ C ID:PA120719s01
Run Time: 8/3/2012 2:03:56 PM



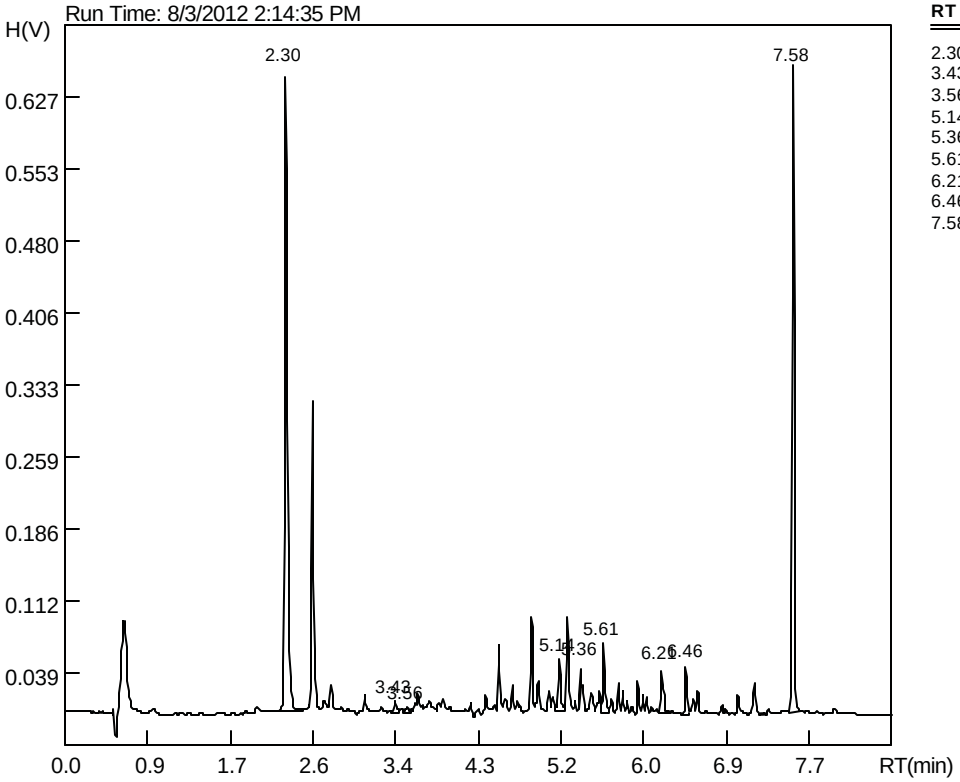
RT	dT	Name	Amt.	Area
2.29	0.01	TCX	16.410	1074795
3.21	0.01	1016-1	0.068	112202
3.46	0.01	1016-2	0.069	359020
3.56	0.01	1016-3	0.112	198791
3.63	0.01	1016-4	0.083	113759
4.09	0.01	1016-5	0.078	146836
5.14	0.00	1260-1	0.073	230364
5.36	0.00	1260-2	0.052	285025
5.61	0.01	1260-3	0.065	316899
6.21	0.01	1260-4	0.066	223693
6.46	0.00	1260-5	0.064	236068
7.58	0.00	DCBP	22.631	1067922

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

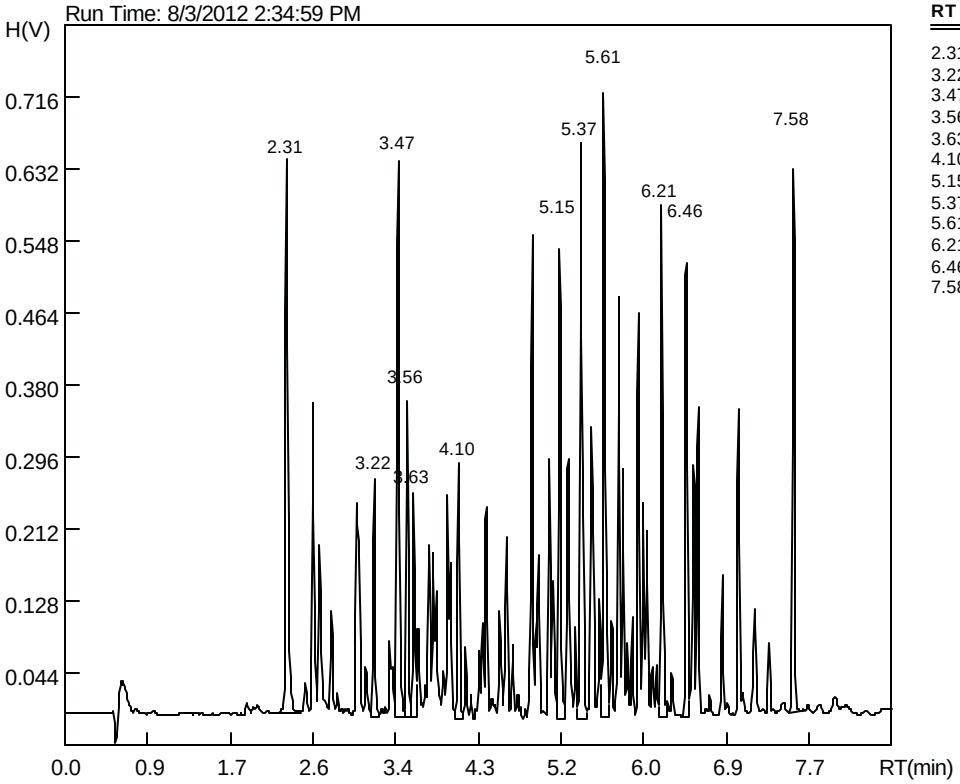
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.10R.BND
Comments: s53401.13 20.1g s/1 ID:PA120803s01
Run Time: 8/3/2012 2:14:35 PM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	20.831	1345066
3.43	-0.03	1016-2	-0.043	29444
3.56	0.01	1016-3	-0.036	15743
5.14	0.00	1260-1	0.001	98550
5.36	0.00	1260-2	-0.040	33877
5.61	0.00	1260-3	-0.010	111940
6.21	0.00	1260-4	0.002	96364
6.46	0.00	1260-5	-0.016	73215
7.58	0.00	DCBP	19.912	948289

File Name: F:\GCECD.DAT\A120803\A120803.11R.BND
Comments: s53401.14 MS 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 2:34:59 PM



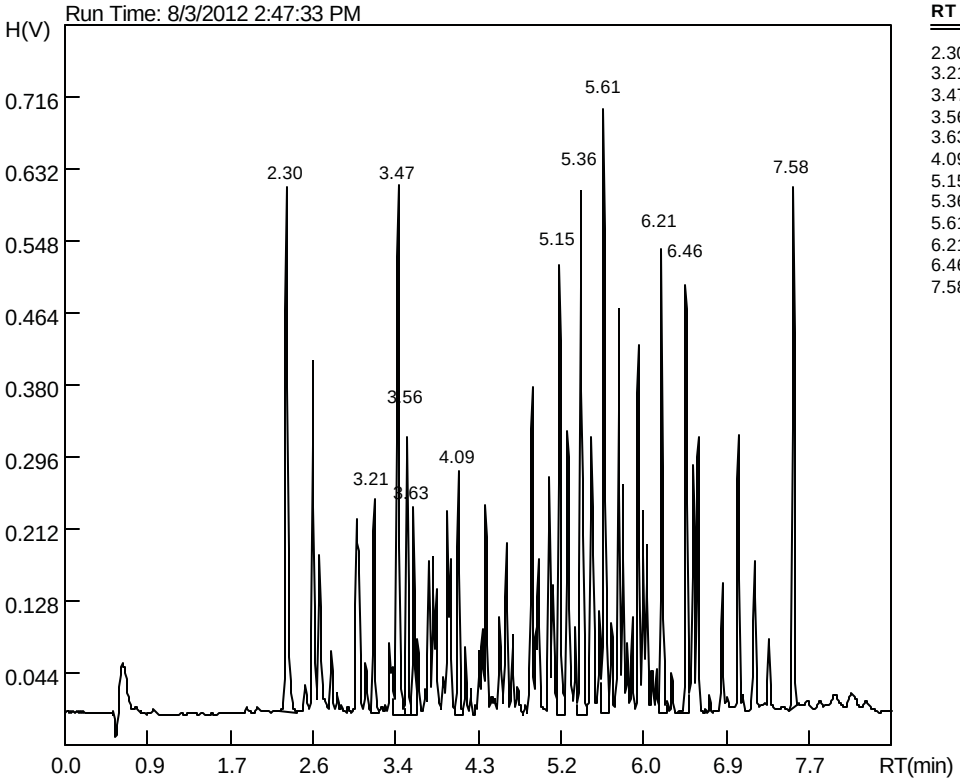
RT	dT	Name	Amt.	Area
2.31	0.02	TCX	18.295	1190056
3.22	0.01	1016-1	0.378	399853
3.47	0.01	1016-2	0.377	1269634
3.56	0.01	1016-3	0.374	523174
3.63	0.01	1016-4	0.399	401111
4.10	0.01	1016-5	0.369	486472
5.15	0.01	1260-1	0.421	871363
5.37	0.01	1260-2	0.403	1241311
5.61	0.01	1260-3	0.403	1244407
6.21	0.01	1260-4	0.397	881694
6.46	0.00	1260-5	0.373	862662
7.58	0.00	DCBP	20.833	988806

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

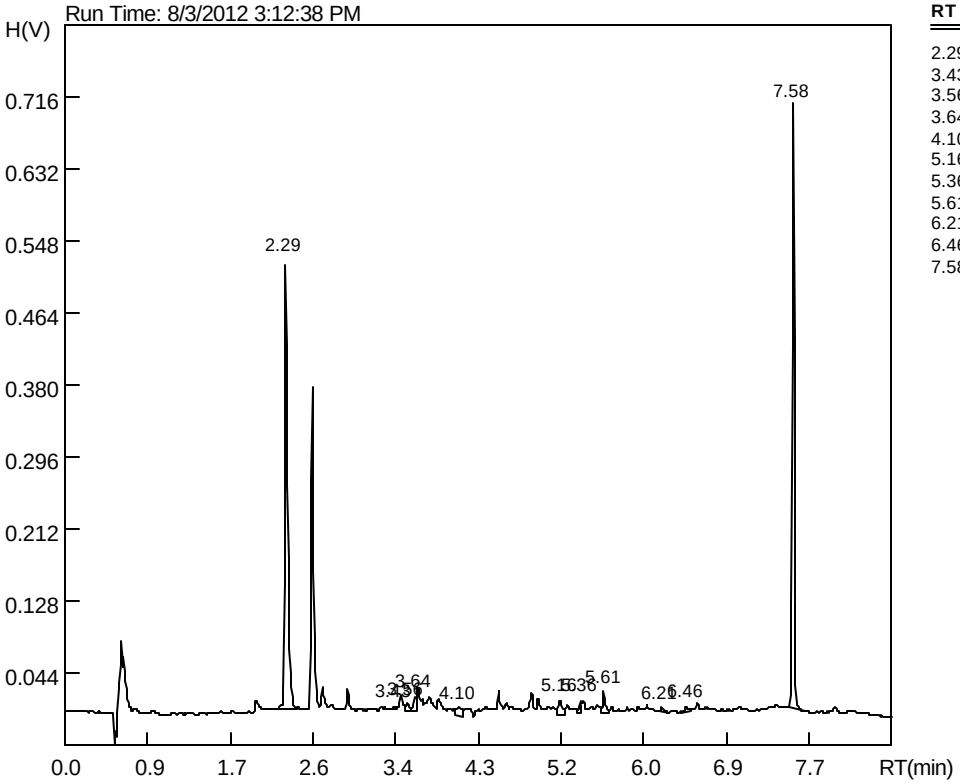
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.12R.BND
Comments: s53401.15 MSD 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 2:47:33 PM



RT	dT	Name	Amt.	Area
2.30	0.02	TCX	17.225	1124596
3.21	0.01	1016-1	0.353	376247
3.47	0.01	1016-2	0.357	1210484
3.56	0.01	1016-3	0.345	486910
3.63	0.01	1016-4	0.353	359511
4.09	0.01	1016-5	0.350	463814
5.15	0.00	1260-1	0.403	839347
5.36	0.00	1260-2	0.379	1178097
5.61	0.01	1260-3	0.373	1161891
6.21	0.01	1260-4	0.361	810077
6.46	0.00	1260-5	0.351	818992
7.58	0.00	DCBP	18.311	877859

File Name: F:\GCECD.DAT\A120803\A120803.14R.BND
Comments: s53401.03 20.1g s/1 ID:PA120803s01
Run Time: 8/3/2012 3:12:38 PM



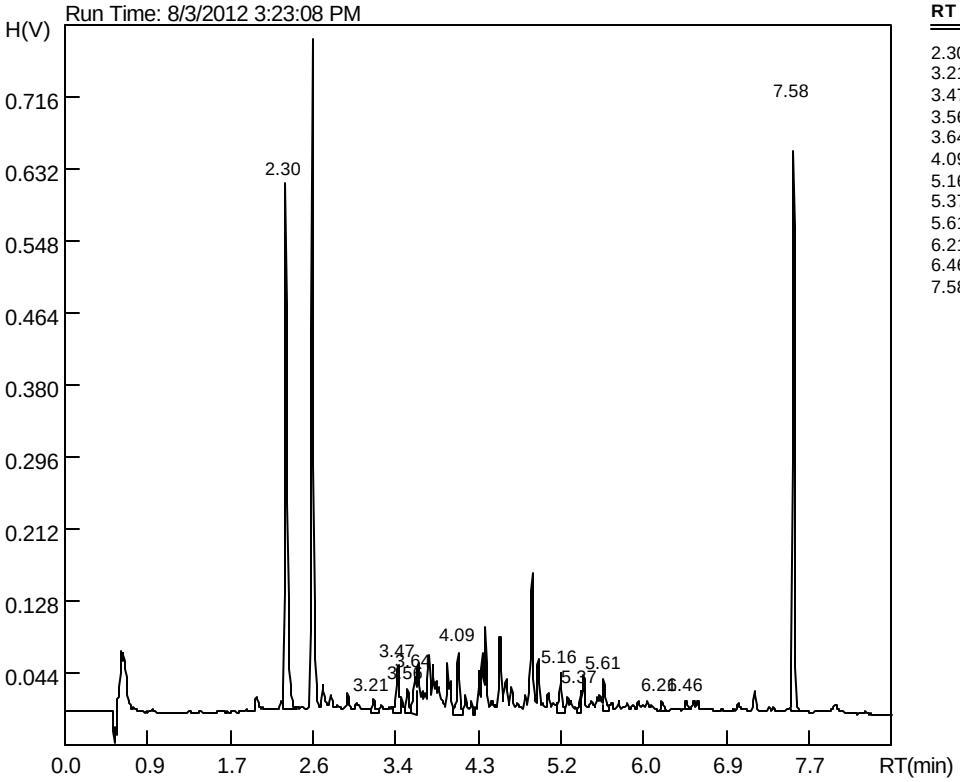
RT	dT	Name	Amt.	Area
2.29	0.01	TCX	18.266	1188296
3.43	-0.03	1016-2	-0.051	6975
3.56	0.01	1016-3	-0.033	19176
3.64	0.02	1016-4	-0.008	30728
4.10	0.01	1016-5	-0.013	41003
5.16	0.01	1260-1	-0.025	50644
5.36	0.00	1260-2	-0.043	26800
5.61	0.00	1260-3	-0.034	46633
6.21	0.00	1260-4	-0.040	12702
6.46	0.00	1260-5	-0.044	14862
7.58	0.00	DCBP	21.094	1000306

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

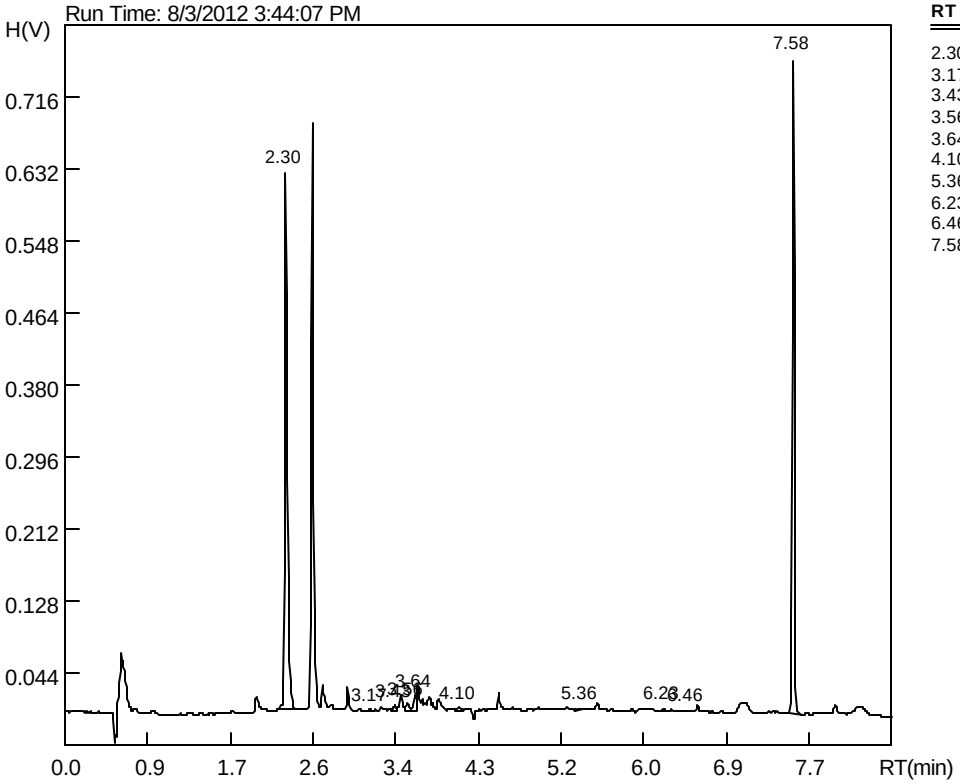
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.15R.BND
Comments: s53401.04 20.1g s/1 ID:PA120803s01
Run Time: 8/3/2012 3:23:08 PM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	17.889	1165208
3.21	0.01	1016-1	-0.016	34030
3.47	0.01	1016-2	-0.013	118203
3.56	0.01	1016-3	-0.002	57706
3.64	0.02	1016-4	0.065	97474
4.09	0.01	1016-5	0.087	158264
5.16	0.02	1260-1	-0.002	93267
5.37	0.01	1260-2	-0.038	38974
5.61	0.01	1260-3	-0.025	70599
6.21	0.01	1260-4	-0.035	22138
6.46	0.00	1260-5	-0.042	19365
7.58	0.00	DCBP	21.457	1016264

File Name: F:\GCECD.DAT\A120803\A120803.17R.BND
Comments: s53401.05 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 3:44:07 PM



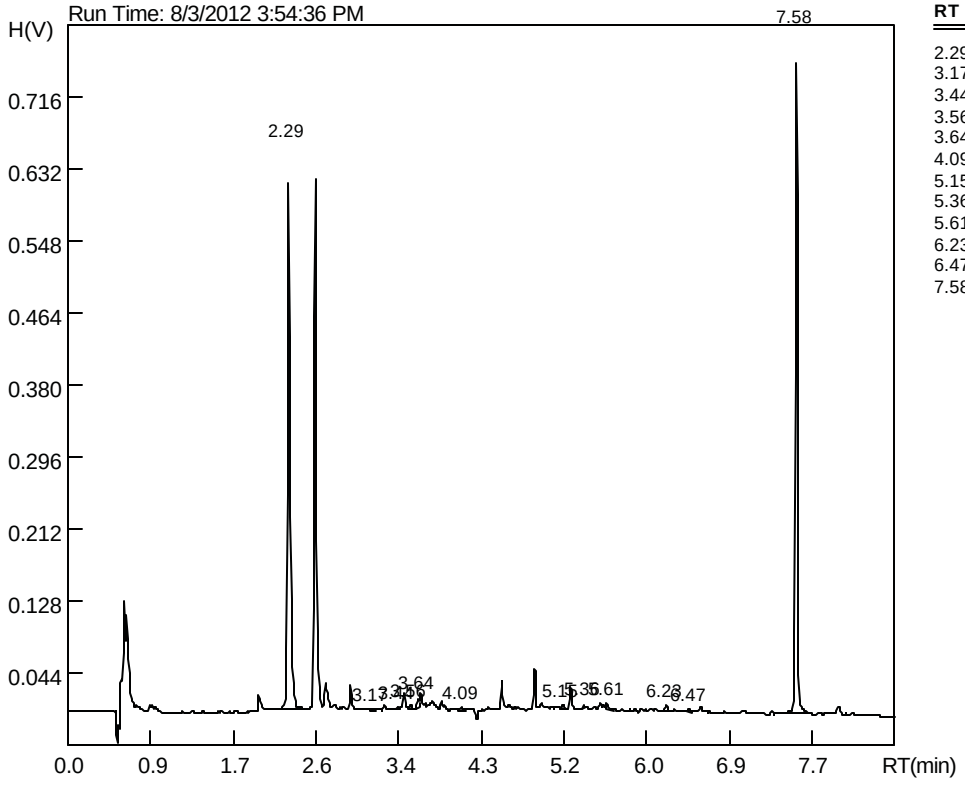
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	19.342	1254042
3.17	-0.03	1016-1	-0.050	3114
3.43	-0.03	1016-2	-0.048	13777
3.56	0.01	1016-3	-0.034	18565
3.64	0.02	1016-4	-0.008	30933
4.10	0.01	1016-5	-0.042	7347
5.36	0.00	1260-2	-0.052	2944
6.23	0.02	1260-4	-0.042	8738
6.46	0.00	1260-5	-0.049	4837
7.58	0.00	DCBP	23.411	1102236

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

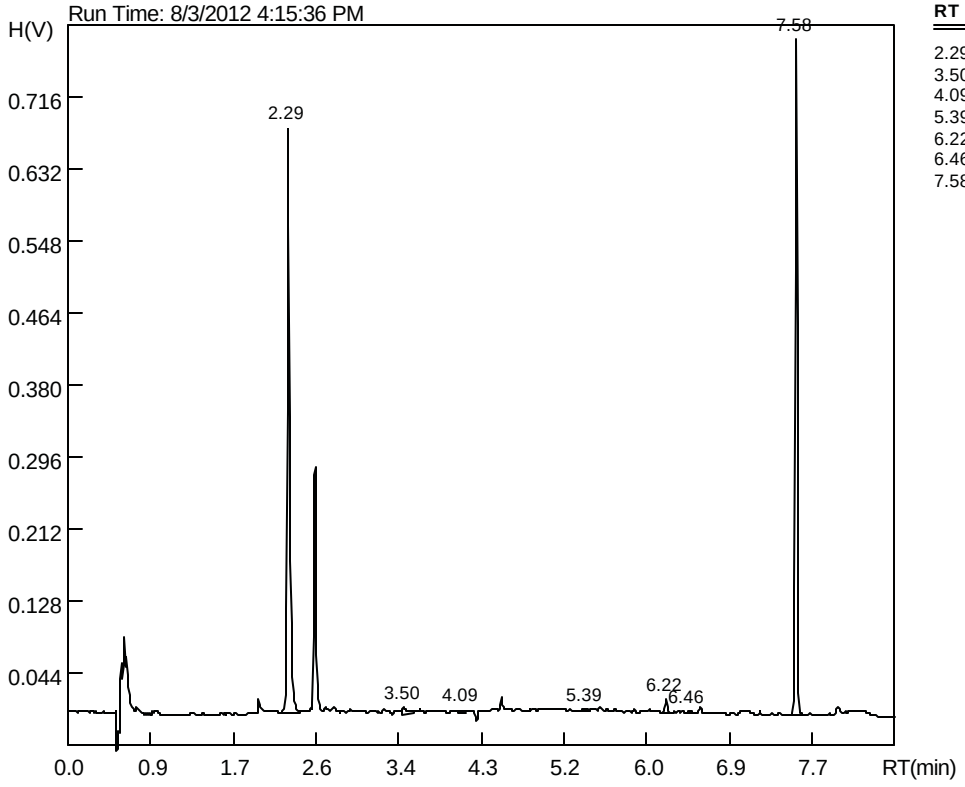
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.18R.BND
Comments: s53401.08 20.2g s/1 ID:PA120803s01
Run Time: 8/3/2012 3:54:36 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.340	1315048
3.17	-0.04	1016-1	-0.049	3523
3.44	-0.02	1016-2	-0.052	3389
3.56	0.01	1016-3	-0.043	6897
3.64	0.02	1016-4	-0.026	14404
4.09	0.01	1016-5	-0.042	7561
5.15	0.01	1260-1	-0.046	12013
5.36	0.00	1260-2	-0.051	4600
5.61	0.01	1260-3	-0.047	12034
6.23	0.03	1260-4	-0.038	15930
6.47	0.01	1260-5	-0.050	4148
7.58	0.00	DCBP	25.319	1186179

File Name: F:\GCECD.DAT\A120803\A120803.20R.BND
Comments: s53401.09 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 4:15:36 PM



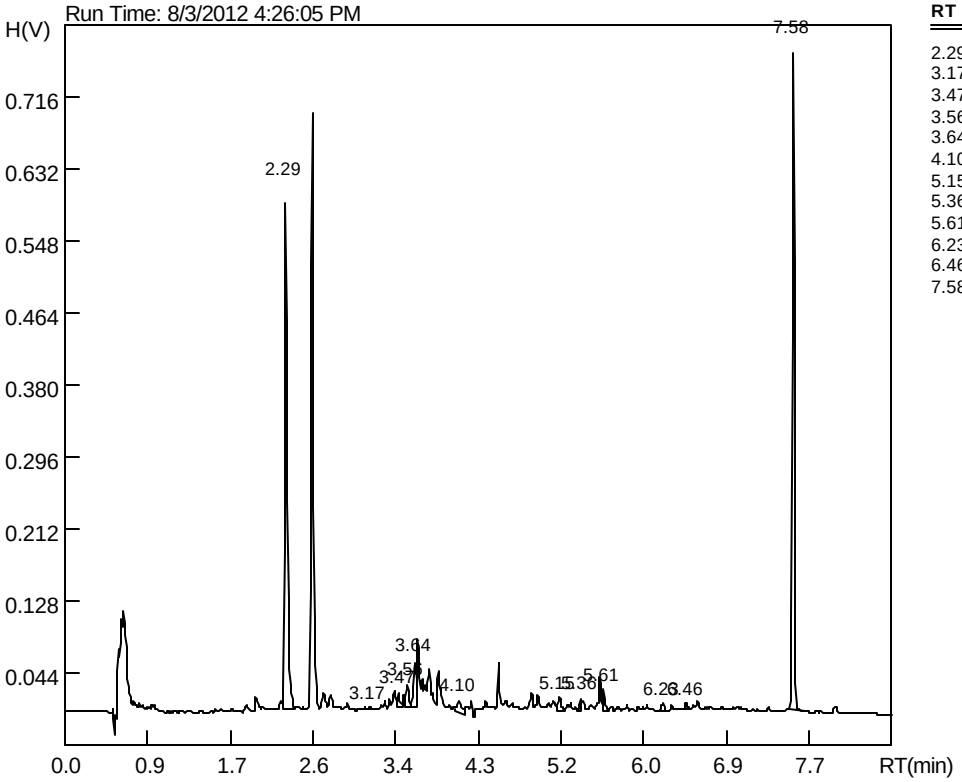
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	20.008	1294794
3.50	0.04	1016-2	-0.042	31275
4.09	0.01	1016-5	-0.043	6176
5.39	0.03	1260-2	-0.050	6550
6.22	0.02	1260-4	-0.035	22584
6.46	0.00	1260-5	-0.049	4906
7.58	0.00	DCBP	23.762	1117694

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

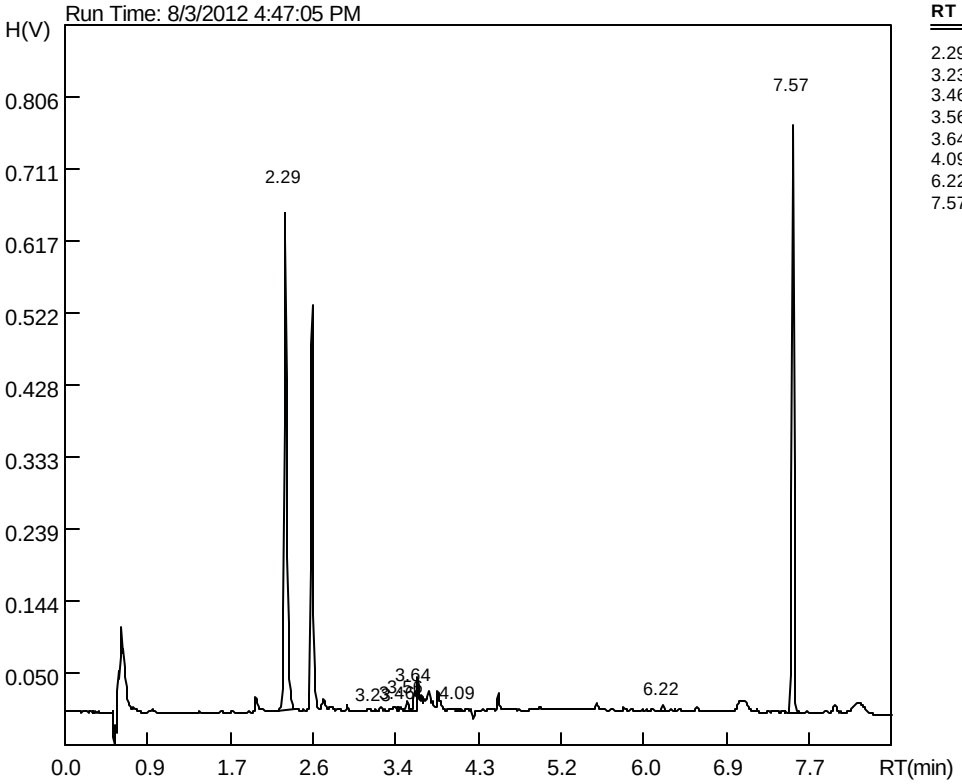
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.21R.BND
Comments: s53401.10 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 4:26:05 PM



RT	dT	Name	Amt.	Area
2.29	0.01	TCX	18.733	1216835
3.17	-0.04	1016-1	-0.048	4749
3.47	0.01	1016-2	-0.042	31562
3.56	0.01	1016-3	-0.011	46310
3.64	0.02	1016-4	0.055	88268
4.10	0.01	1016-5	-0.009	45757
5.15	0.00	1260-1	-0.034	34390
5.36	0.00	1260-2	-0.045	22085
5.61	0.00	1260-3	-0.035	43758
6.23	0.02	1260-4	-0.037	18966
6.46	0.00	1260-5	-0.044	14828
7.58	0.00	DCBP	23.443	1103624

File Name: F:\GCECD.DAT\A120803\A120803.23R.BND
Comments: s53401.11 20.3g s/1 ID:PA120803s01
Run Time: 8/3/2012 4:47:05 PM



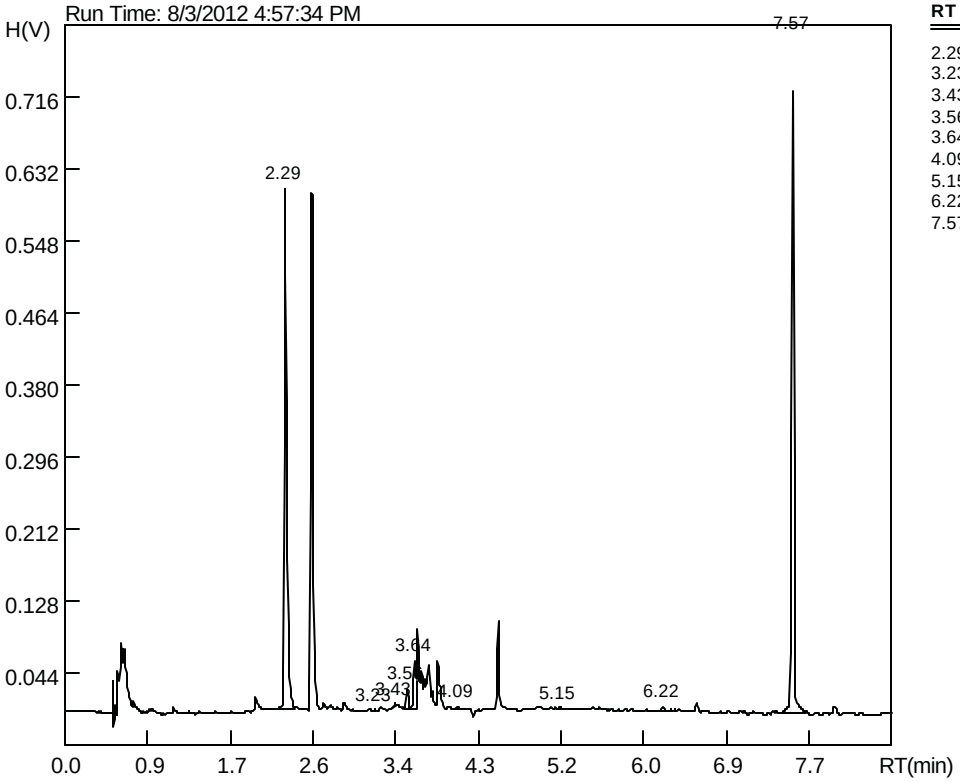
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	21.606	1392441
3.23	0.02	1016-1	-0.050	2492
3.46	0.01	1016-2	-0.050	8413
3.56	0.01	1016-3	-0.026	28395
3.64	0.02	1016-4	0.004	42083
4.09	0.00	1016-5	-0.044	5881
6.22	0.02	1260-4	-0.039	15022
7.57	0.00	DCBP	24.973	1170943

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

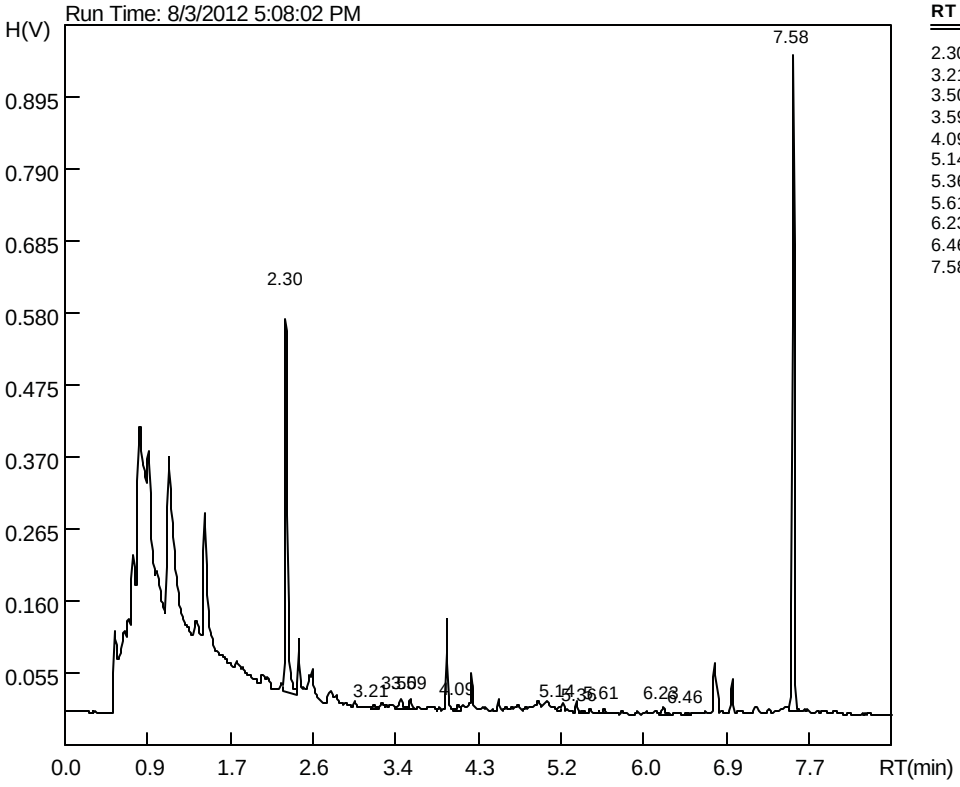
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.24R.BND
Comments: s53401.12 20.1g s/1 ID:PA120803s01
Run Time: 8/3/2012 4:57:34 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	17.709	1154244
3.23	0.02	1016-1	-0.050	2529
3.43	-0.03	1016-2	-0.051	6698
3.56	0.01	1016-3	-0.023	32280
3.64	0.02	1016-4	0.050	83707
4.09	0.00	1016-5	-0.043	6754
5.15	0.00	1260-1	-0.051	2390
6.22	0.02	1260-4	-0.041	9279
7.57	0.00	DCBP	26.057	1218627

File Name: F:\GCECD.DAT\A120803\A120803.25R.BND
Comments: s53401.02 20.2g s/1 C ID:PA120803s01
Run Time: 8/3/2012 5:08:02 PM



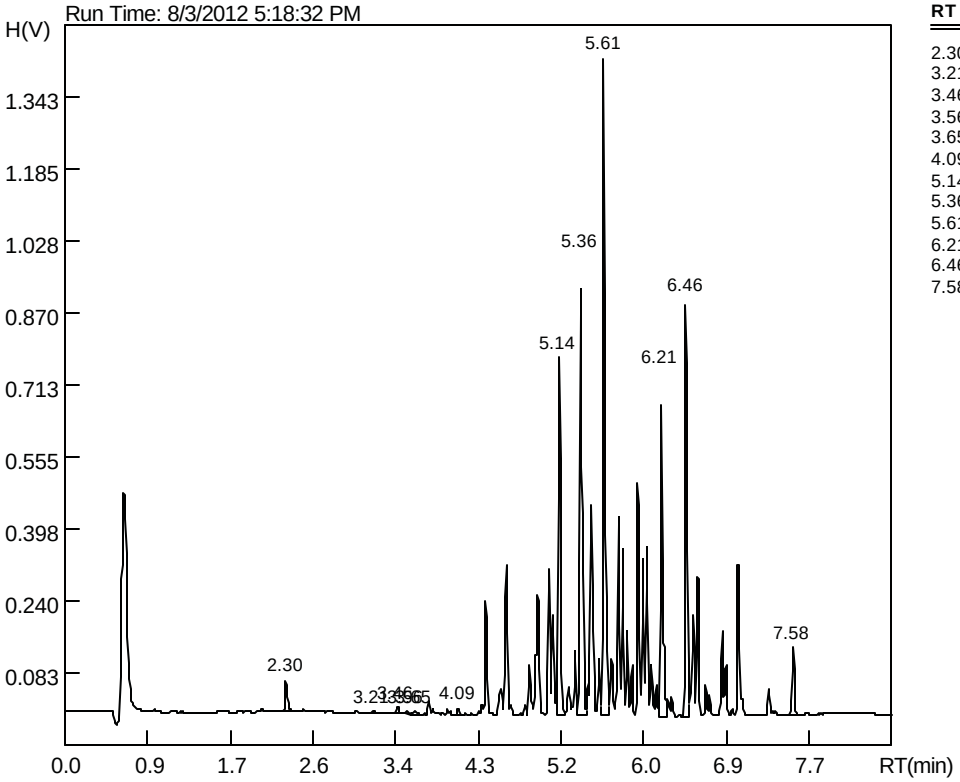
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	15.706	1031789
3.21	0.01	1016-1	-0.040	12264
3.50	0.04	1016-2	-0.036	49917
3.59	-0.03	1016-4	-0.012	27368
4.09	0.00	1016-5	-0.032	19090
5.14	0.00	1260-1	-0.043	16548
5.36	0.00	1260-2	-0.047	14355
5.61	0.00	1260-3	-0.046	14771
6.23	0.02	1260-4	-0.034	24226
6.46	0.00	1260-5	-0.048	6850
7.58	0.00	DCBP	30.837	1428953

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

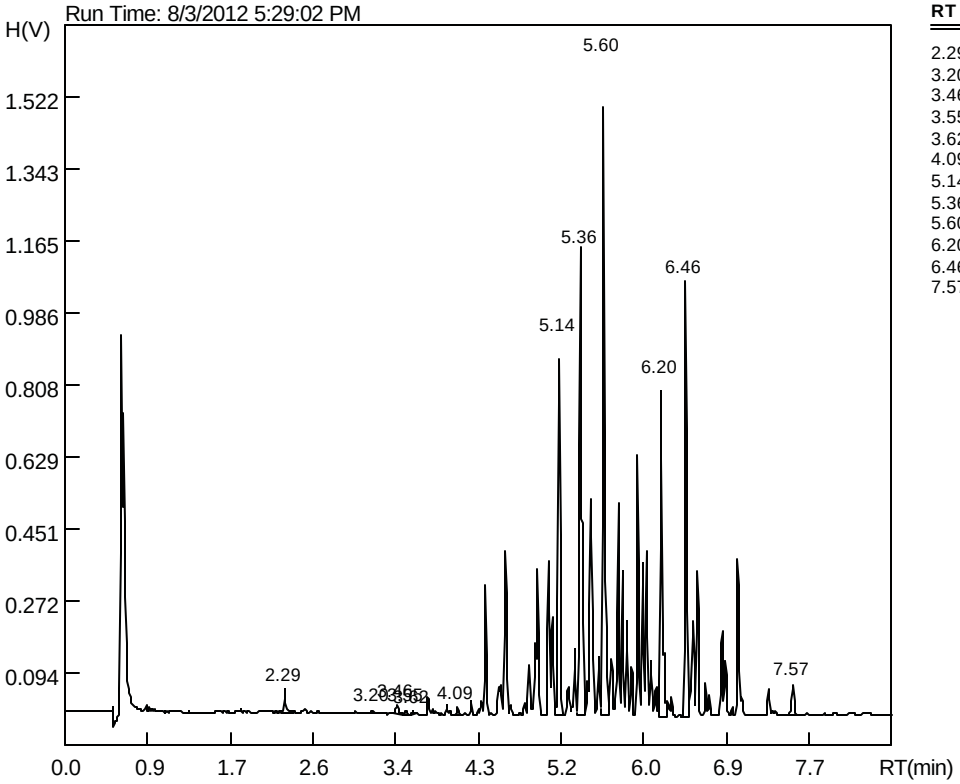
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.26R.BND
Comments: s53401.06 20.0g s/10 C ID:PA120803s01
Run Time: 8/3/2012 5:18:32 PM



RT	dT	Name	Amt.	Area
2.30	0.01	TCX	0.805	120796
3.21	0.00	1016-1	-0.044	8635
3.46	0.01	1016-2	-0.044	27318
3.56	0.01	1016-3	-0.041	9440
3.65	0.03	1016-4	-0.025	15385
4.09	0.00	1016-5	-0.030	22019
5.14	0.00	1260-1	0.605	1210102
5.36	0.00	1260-2	0.635	1874120
5.61	0.00	1260-3	0.759	2217307
6.21	0.00	1260-4	0.558	1202398
6.46	0.00	1260-5	0.633	1391436
7.58	0.00	DCBP	3.547	228301

File Name: F:\GCECD.DAT\A120803\A120803.27R.BND
Comments: s53401.07 20.1g s/25 C ID:PA120803s01
Run Time: 8/3/2012 5:29:02 PM



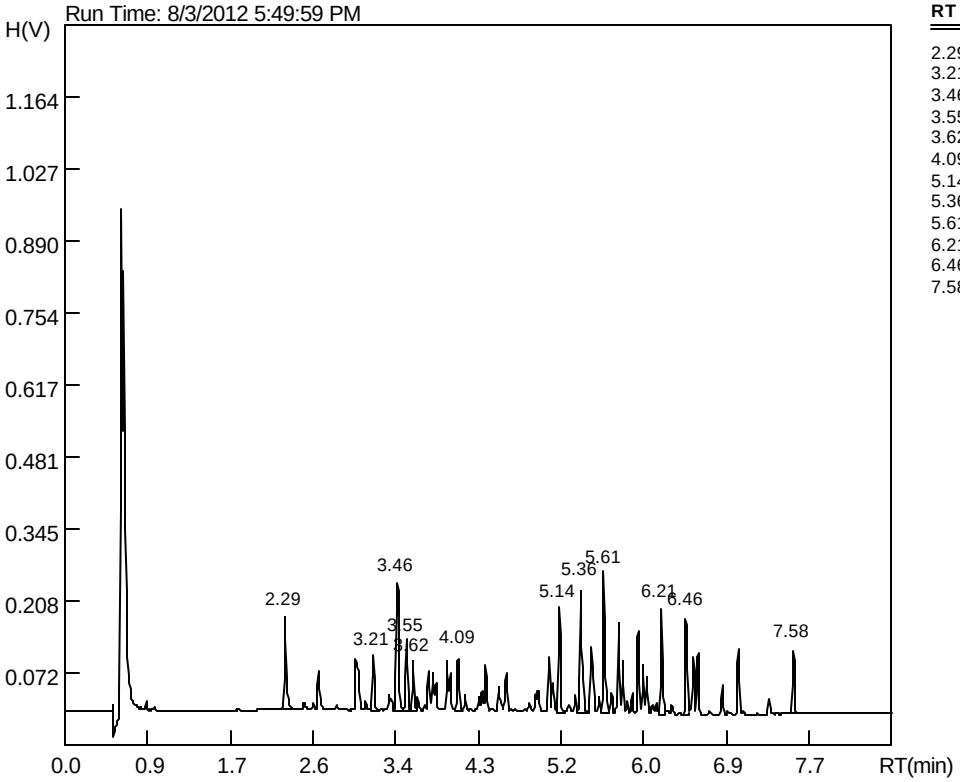
RT	dT	Name	Amt.	Area
2.29	0.00	TCX	0.072	75947
3.20	0.00	1016-1	-0.038	14056
3.46	0.00	1016-2	-0.040	37863
3.55	0.00	1016-3	-0.038	12822
3.62	0.00	1016-4	-0.032	9431
4.09	0.00	1016-5	-0.025	27506
5.14	0.00	1260-1	0.689	1365146
5.36	0.00	1260-2	0.712	2086399
5.60	0.00	1260-3	0.876	2537945
6.20	0.00	1260-4	0.612	1310013
6.46	0.00	1260-5	0.729	1586230
7.57	0.00	DCBP	1.158	123157

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

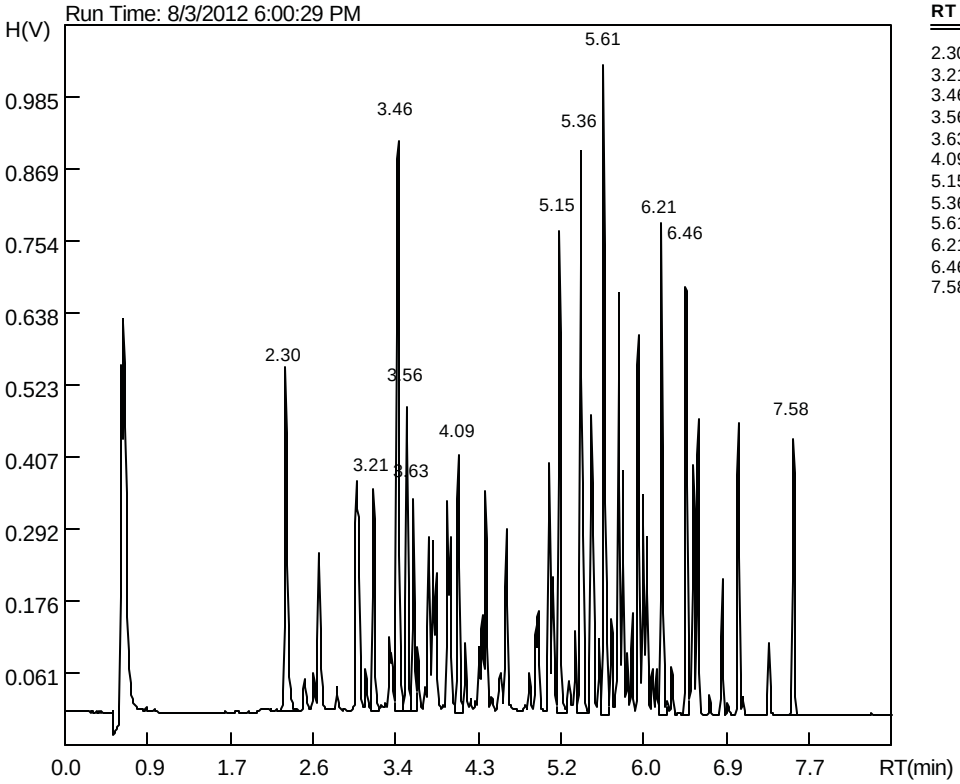
Analytical Batch: a120803.3

File Name: F:\GCECD.DAT\A120803\A120803.29R.BND
Comments: ss1660.01 0.1ppm 7/23/12
Run Time: 8/3/2012 5:49:59 PM



RT	dT	Name	Amt.	Area
2.29	0.00	TCX	3.265	271143
3.21	0.00	1016-1	0.107	148881
3.46	0.00	1016-2	0.105	467594
3.55	0.00	1016-3	0.108	193174
3.62	0.00	1016-4	0.108	136081
4.09	0.00	1016-5	0.109	183433
5.14	0.00	1260-1	0.102	283770
5.36	0.00	1260-2	0.102	421619
5.61	0.01	1260-3	0.093	395955
6.21	0.00	1260-4	0.101	293439
6.46	0.00	1260-5	0.087	281283
7.58	0.00	DCBP	2.396	177643

File Name: F:\GCECD.DAT\A120803\A120803.30R.BND
Comments: SC1660.02 0.5ppm 7/23/12
Run Time: 8/3/2012 6:00:29 PM



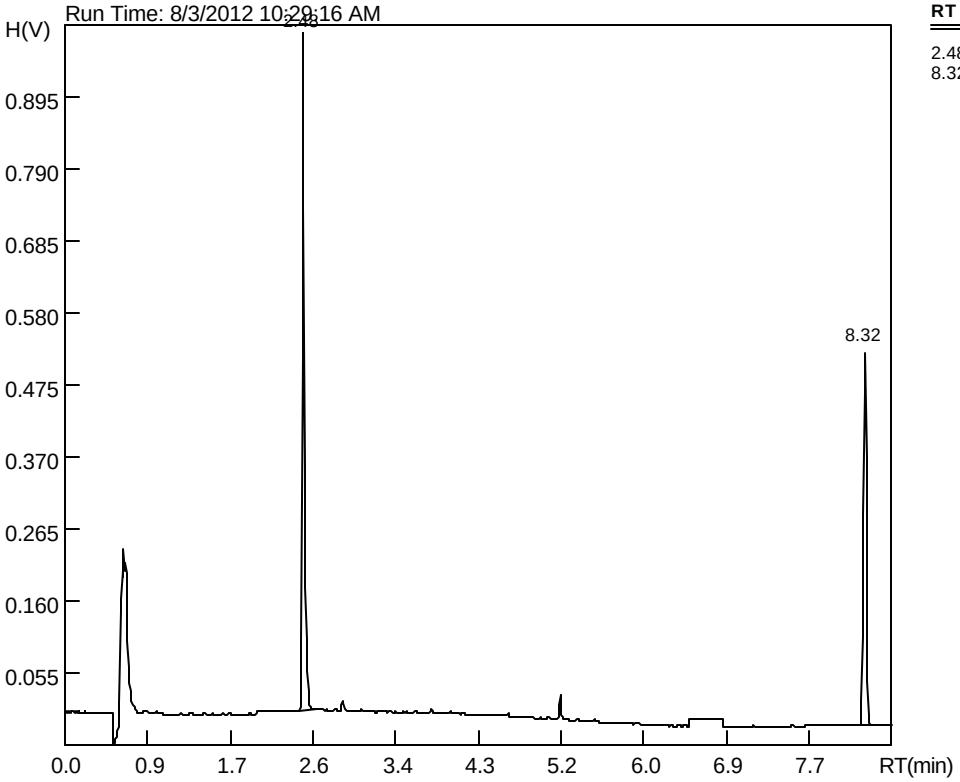
RT	dT	Name	Amt.	Area
2.30	0.01	TCX	17.335	1131331
3.21	0.01	1016-1	0.573	580618
3.46	0.01	1016-2	0.577	1860800
3.56	0.01	1016-3	0.576	772100
3.63	0.01	1016-4	0.572	558626
4.09	0.00	1016-5	0.576	726717
5.15	0.00	1260-1	0.566	1139400
5.36	0.00	1260-2	0.561	1672593
5.61	0.01	1260-3	0.546	1634635
6.21	0.01	1260-4	0.536	1159918
6.46	0.00	1260-5	0.511	1143112
7.58	0.00	DCBP	13.899	683735

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

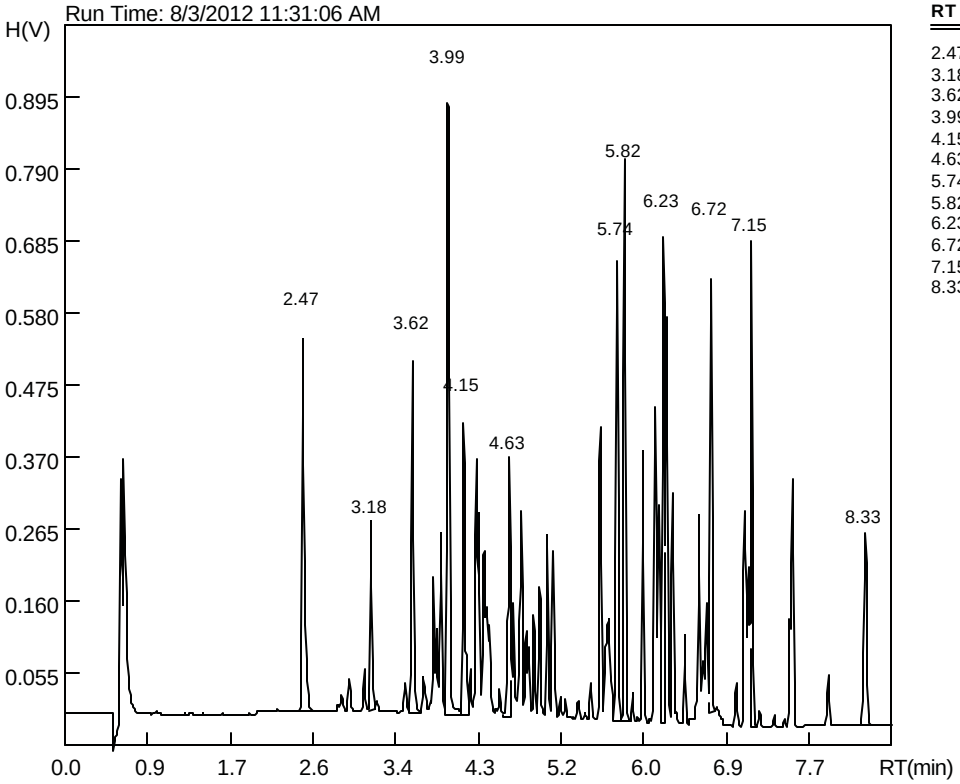
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.01R.BND
Comments: SBLK-R.01
Run Time: 8/3/2012 10:29:16 AM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	26.057	1638739
8.32	0.00	DCBP	27.371	1138733

File Name: F:\GCECD.DAT\A120803\A120803B.02R.BND
Comments: SC1660.01 0.5ppm 7/23/12
Run Time: 8/3/2012 11:31:06 AM



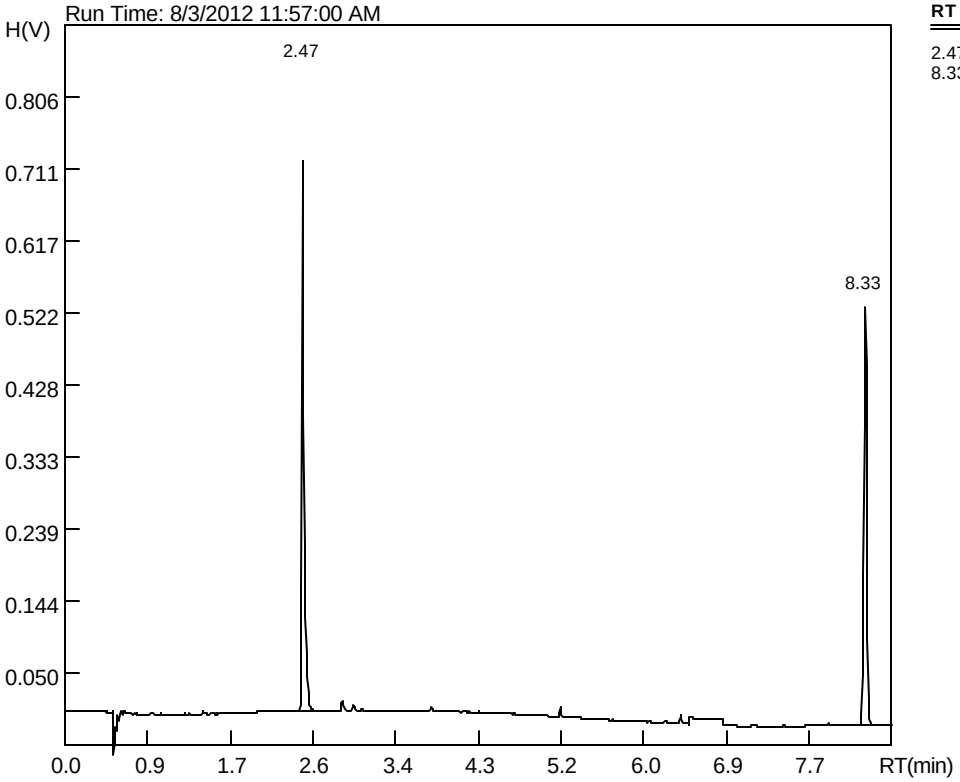
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	16.376	1053013
3.18	0.00	1016-1	0.536	405148
3.62	0.00	1016-2	0.555	871804
3.99	0.00	1016-3	0.543	1832423
4.15	0.00	1016-4	0.554	695915
4.63	0.00	1016-5	0.542	692952
5.74	0.00	1260-1	0.486	1071256
5.82	0.00	1260-2	0.485	1106217
6.23	0.00	1260-3	0.464	1061928
6.72	0.00	1260-4	0.433	970029
7.15	0.00	1260-5	0.435	943700
8.33	0.00	DCBP	13.158	580816

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

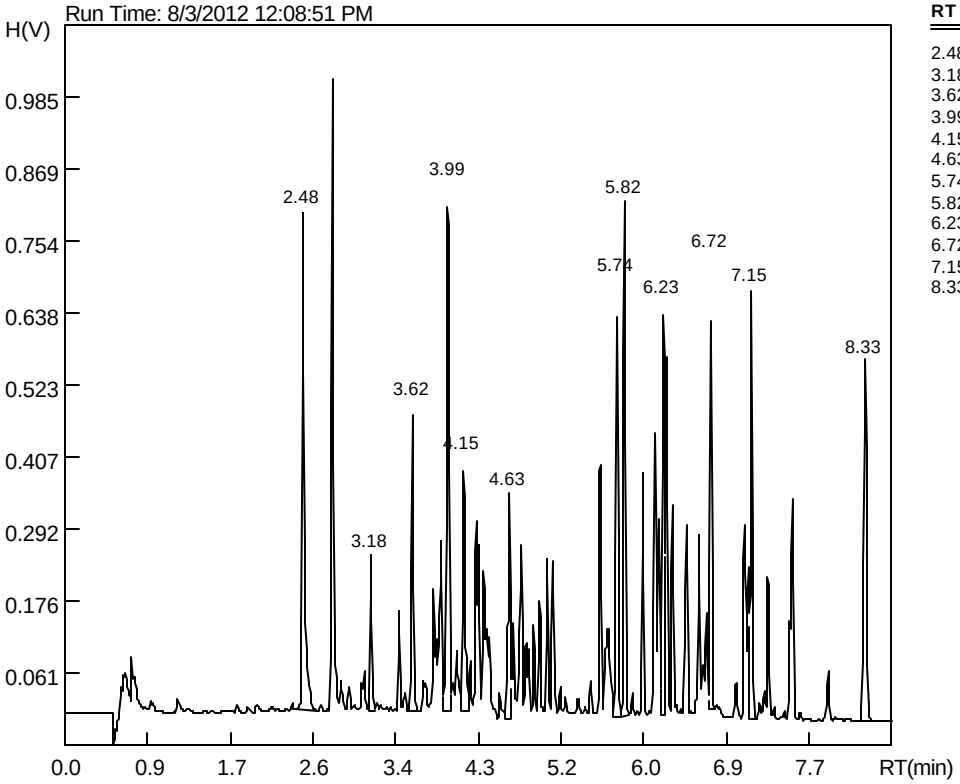
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.04R.BND
Comments: sBLK-S.01 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 11:57:00 AM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.921	1327979
8.33	0.00	DCBP	26.930	1121426

File Name: F:\GCECD.DAT\A120803\A120803B.05R.BND
Comments: sLCS-S.01 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 12:08:51 PM



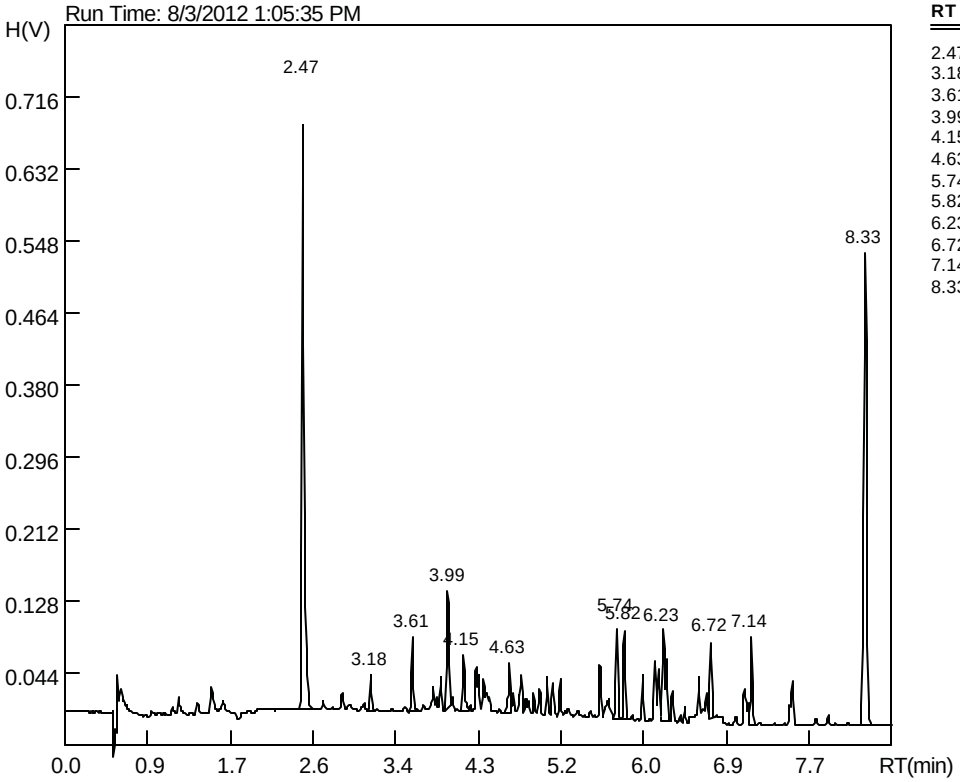
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	23.666	1494087
3.18	0.00	1016-1	0.463	354228
3.62	0.00	1016-2	0.468	747907
3.99	0.00	1016-3	0.488	1657963
4.15	0.00	1016-4	0.544	684122
4.63	0.00	1016-5	0.521	668757
5.74	0.00	1260-1	0.468	1034694
5.82	0.00	1260-2	0.484	1105023
6.23	0.00	1260-3	0.448	1028748
6.72	0.00	1260-4	0.423	948339
7.15	0.00	1260-5	0.430	932495
8.33	0.00	DCBP	27.872	1158402

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

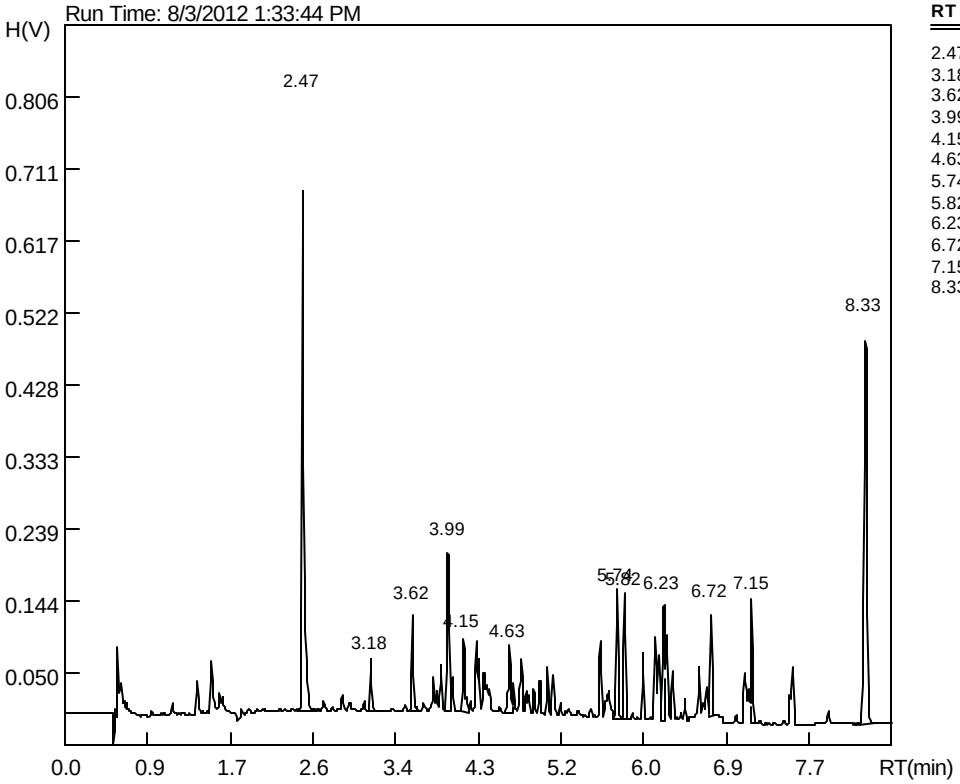
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.06R.BND
Comments: s53238.01 1L w/1 LOD C ID:PA120724w01
Run Time: 8/3/2012 1:05:35 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.248	1287284
3.18	0.00	1016-1	0.038	60387
3.61	0.00	1016-2	0.036	130185
3.99	0.00	1016-3	0.041	248625
4.15	0.00	1016-4	0.042	100310
4.63	0.00	1016-5	0.029	101150
5.74	0.00	1260-1	0.031	158780
5.82	0.00	1260-2	0.021	140734
6.23	0.00	1260-3	0.076	258227
6.72	0.00	1260-4	0.033	126941
7.14	0.00	1260-5	0.030	148365
8.33	0.00	DCBP	27.486	1143246

File Name: F:\GCECD.DAT\A120803\A120803B.07R.BND
Comments: s53238.02 1L w/1 LOQ C ID:PA120724w01
Run Time: 8/3/2012 1:33:44 PM



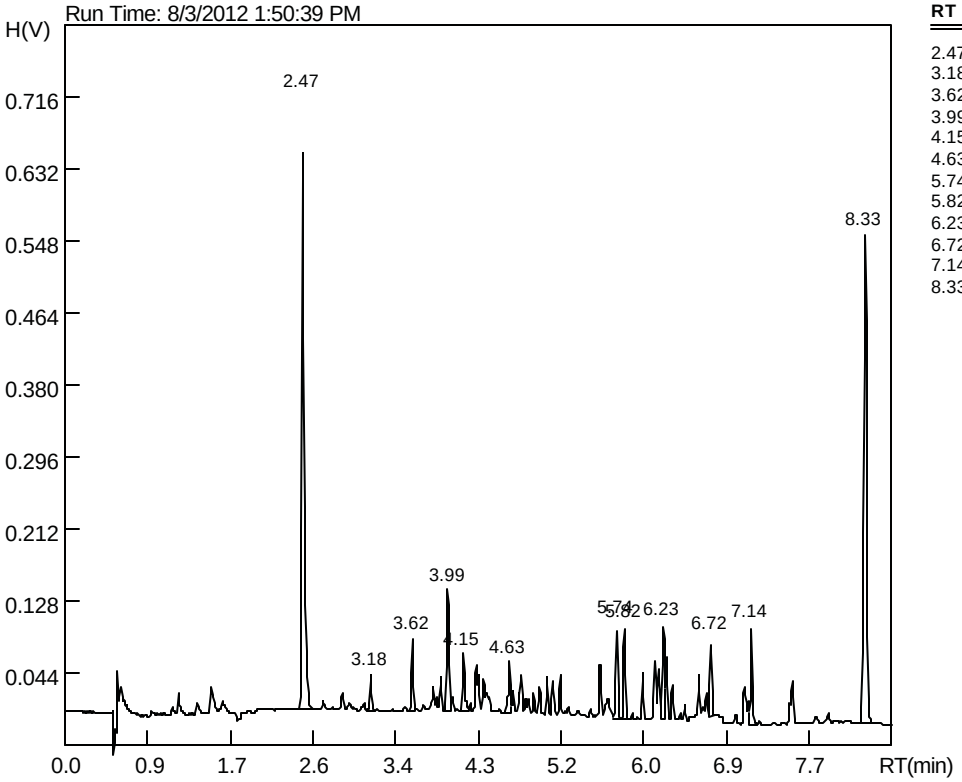
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	18.521	1182766
3.18	0.00	1016-1	0.084	92099
3.62	0.00	1016-2	0.077	190145
3.99	0.00	1016-3	0.088	397187
4.15	0.00	1016-4	0.085	150852
4.63	0.00	1016-5	0.072	150569
5.74	0.00	1260-1	0.068	232610
5.82	0.00	1260-2	0.055	212251
6.23	0.00	1260-3	0.069	243194
6.72	0.00	1260-4	0.064	191986
7.15	0.00	1260-5	0.068	222613
8.33	0.00	DCBP	26.283	1096042

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

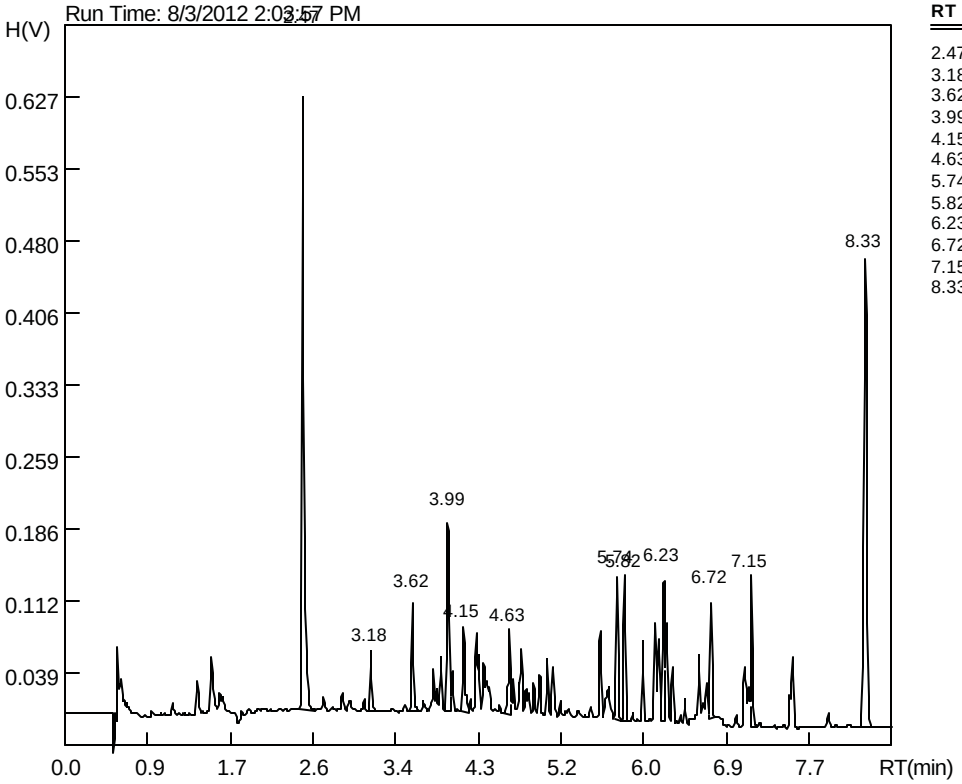
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.08R.BND
Comments: s53238.03 20.0g s/1 LOD C ID:PA120719s01
Run Time: 8/3/2012 1:50:39 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.414	1297319
3.18	0.00	1016-1	0.040	61866
3.62	0.00	1016-2	0.032	125445
3.99	0.00	1016-3	0.046	263473
4.15	0.00	1016-4	0.043	102207
4.63	0.00	1016-5	0.029	101720
5.74	0.00	1260-1	0.030	157915
5.82	0.00	1260-2	0.021	140301
6.23	0.00	1260-3	0.032	166748
6.72	0.00	1260-4	0.034	128242
7.14	0.00	1260-5	0.031	151282
8.33	0.00	DCBP	27.822	1156469

File Name: F:\GCECD.DAT\A120803\A120803B.09R.BND
Comments: s53238.04 20.0g s/1 LOQ C ID:PA120719s01
Run Time: 8/3/2012 2:03:57 PM



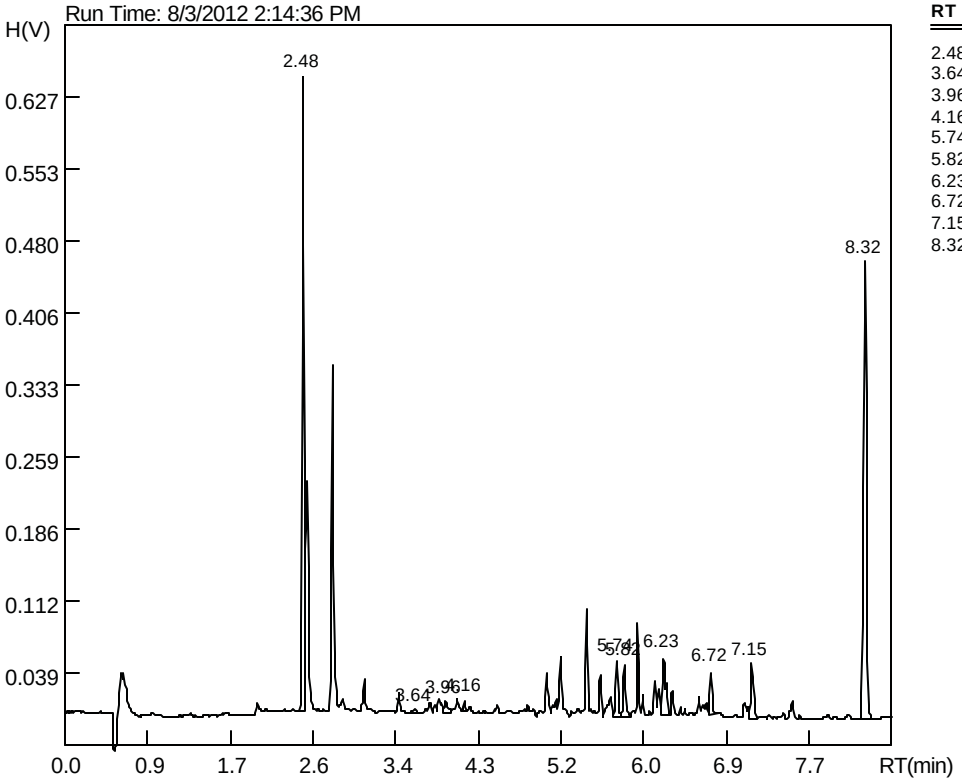
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.009	1091281
3.18	0.00	1016-1	0.074	85408
3.62	0.00	1016-2	0.068	177191
3.99	0.00	1016-3	0.078	366058
4.15	0.00	1016-4	0.076	139636
4.63	0.00	1016-5	0.069	147674
5.74	0.00	1260-1	0.059	216332
5.82	0.00	1260-2	0.047	195761
6.23	0.00	1260-3	0.060	224473
6.72	0.00	1260-4	0.058	179330
7.15	0.00	1260-5	0.059	205964
8.33	0.00	DCBP	24.007	1006686

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

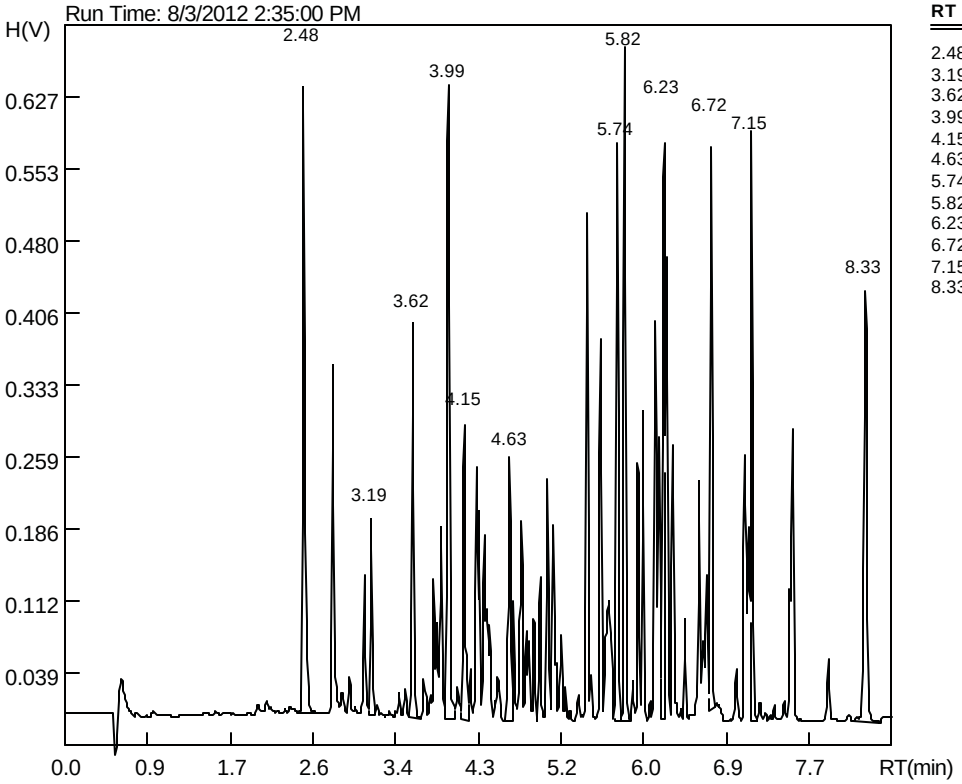
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.10R.BND
Comments: s53401.13 20.1g s/1 ID:PA120803s01
Run Time: 8/3/2012 2:14:36 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	16.426	1055987
3.64	0.03	1016-2	-0.048	10467
3.96	-0.03	1016-3	-0.029	26813
4.16	0.01	1016-4	-0.033	13706
5.74	0.00	1260-1	-0.002	94028
5.82	0.00	1260-2	-0.007	83094
6.23	0.00	1260-3	0.019	138962
6.72	0.00	1260-4	0.007	71821
7.15	0.00	1260-5	0.013	114986
8.32	0.00	DCBP	22.748	957278

File Name: F:\GCECD.DAT\A120803\A120803B.11R.BND
Comments: s53401.14 MS 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 2:35:00 PM



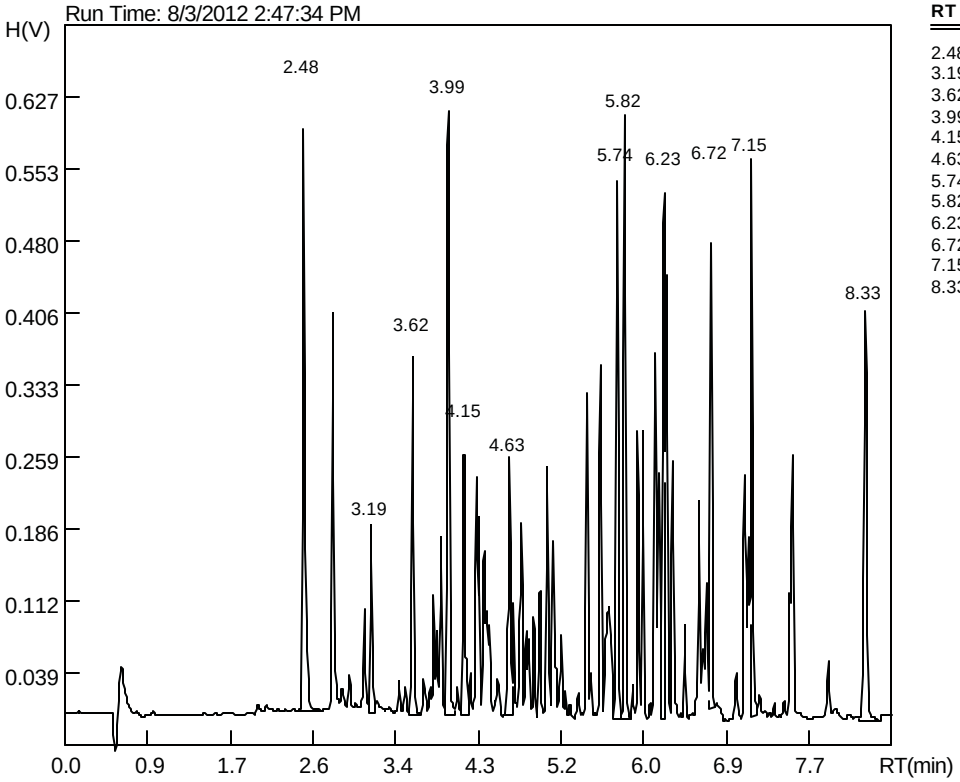
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	18.228	1165026
3.19	0.00	1016-1	0.372	291778
3.62	0.00	1016-2	0.368	605039
3.99	0.00	1016-3	0.371	1290377
4.15	0.00	1016-4	0.394	509202
4.63	0.00	1016-5	0.358	480986
5.74	0.00	1260-1	0.397	893528
5.82	0.00	1260-2	0.395	919268
6.23	0.00	1260-3	0.409	949254
6.72	0.00	1260-4	0.365	826225
7.15	0.00	1260-5	0.378	830914
8.33	0.00	DCBP	22.910	963633

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

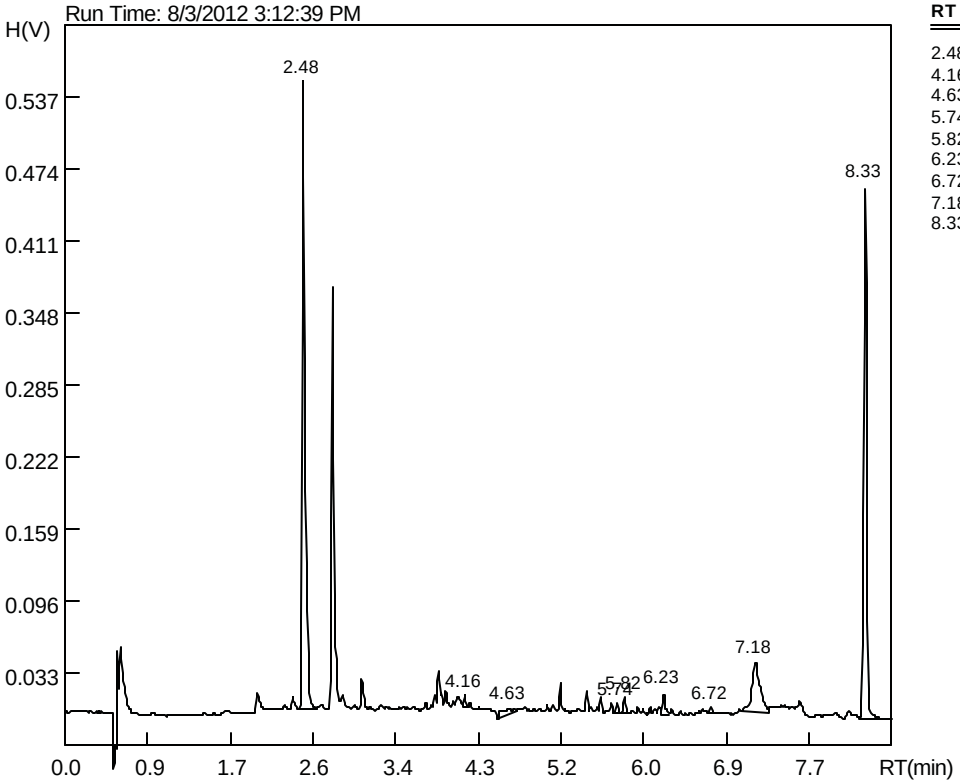
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.12R.BND
Comments: s53401.15 MSD 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 2:47:34 PM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	17.598	1126911
3.19	0.00	1016-1	0.375	293517
3.62	0.00	1016-2	0.346	573440
3.99	0.00	1016-3	0.339	1189353
4.15	0.00	1016-4	0.360	469934
4.63	0.00	1016-5	0.340	460028
5.74	0.00	1260-1	0.368	835633
5.82	0.00	1260-2	0.365	858130
6.23	0.00	1260-3	0.380	887754
6.72	0.00	1260-4	0.332	756425
7.15	0.00	1260-5	0.357	789872
8.33	0.00	DCBP	20.455	867281

File Name: F:\GCECD.DAT\A120803\A120803B.14R.BND
Comments: s53401.03 20.1g s/1 ID:PA120803s01
Run Time: 8/3/2012 3:12:39 PM



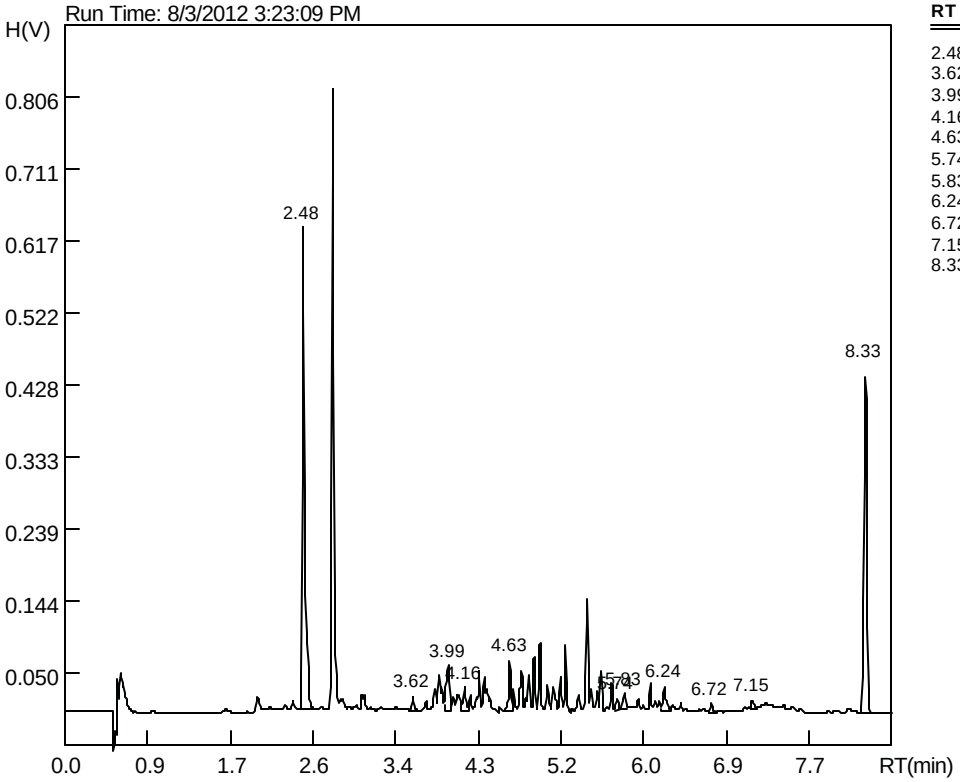
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	18.594	1187168
4.16	0.01	1016-4	-0.032	14462
4.63	0.00	1016-5	-0.019	46097
5.74	0.00	1260-1	-0.042	13045
5.82	0.00	1260-2	-0.037	20854
6.23	0.00	1260-3	-0.031	35815
6.72	0.00	1260-4	-0.024	7753
7.18	0.04	1260-5	0.091	268206
8.33	0.00	DCBP	22.654	953593

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

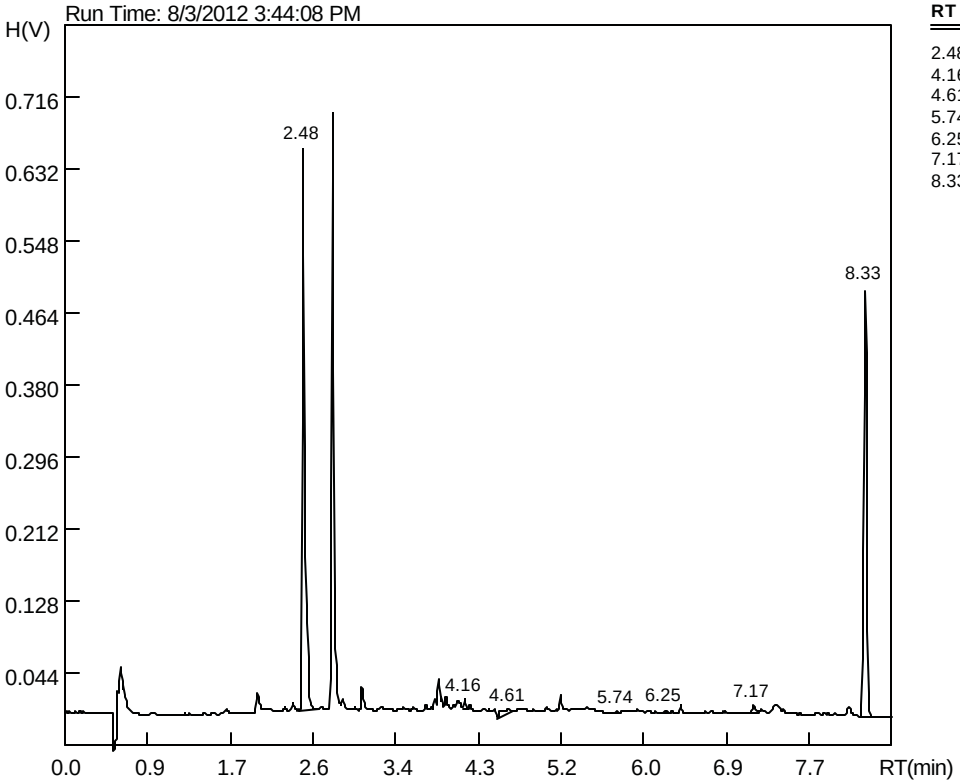
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.15R.BND
Comments: s53401.04 20.1g s/1 ID:PA120803s01
Run Time: 8/3/2012 3:23:09 PM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	18.451	1178559
3.62	0.00	1016-2	-0.034	30259
3.99	0.00	1016-3	0.012	154728
4.16	0.01	1016-4	0.011	64058
4.63	0.00	1016-5	0.036	109177
5.74	0.00	1260-1	-0.036	25994
5.83	0.00	1260-2	-0.026	42450
6.24	0.01	1260-3	-0.016	66536
6.72	0.00	1260-4	-0.019	17536
7.15	0.00	1260-5	-0.034	22977
8.33	0.00	DCBP	22.228	936866

File Name: F:\GCECD.DAT\A120803\A120803B.17R.BND
Comments: s53401.05 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 3:44:08 PM



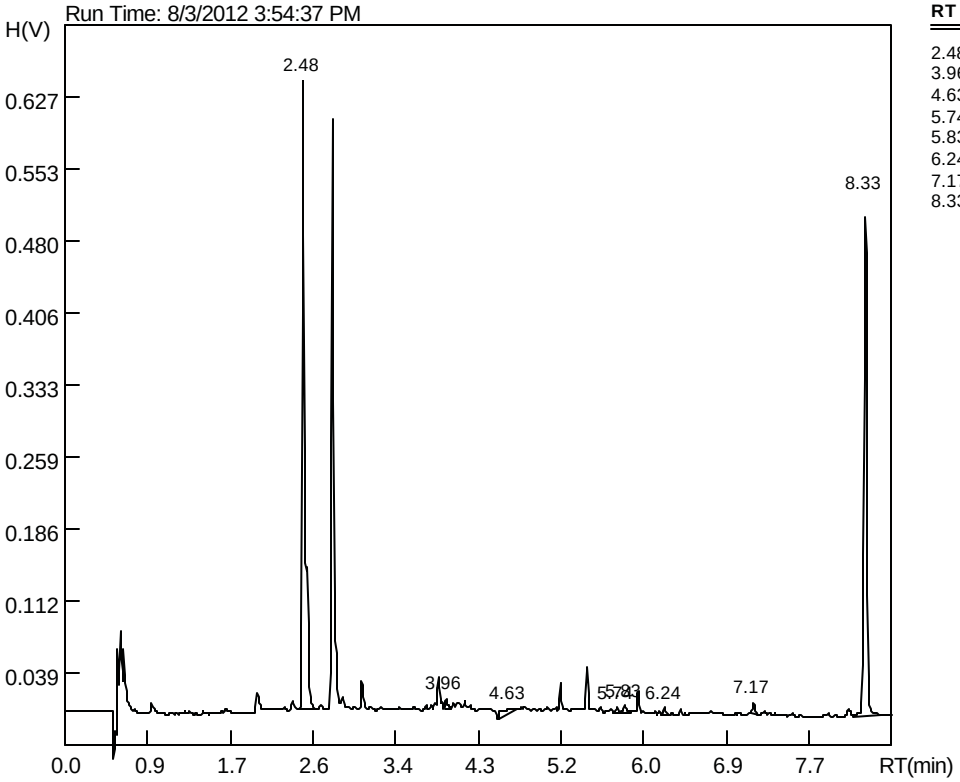
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	20.095	1278027
4.16	0.01	1016-4	-0.032	14732
4.61	-0.02	1016-5	-0.027	37006
5.74	0.00	1260-1	-0.046	4456
6.25	0.02	1260-3	-0.045	6666
7.17	0.02	1260-5	-0.035	21771
8.33	0.00	DCBP	24.591	1029602

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

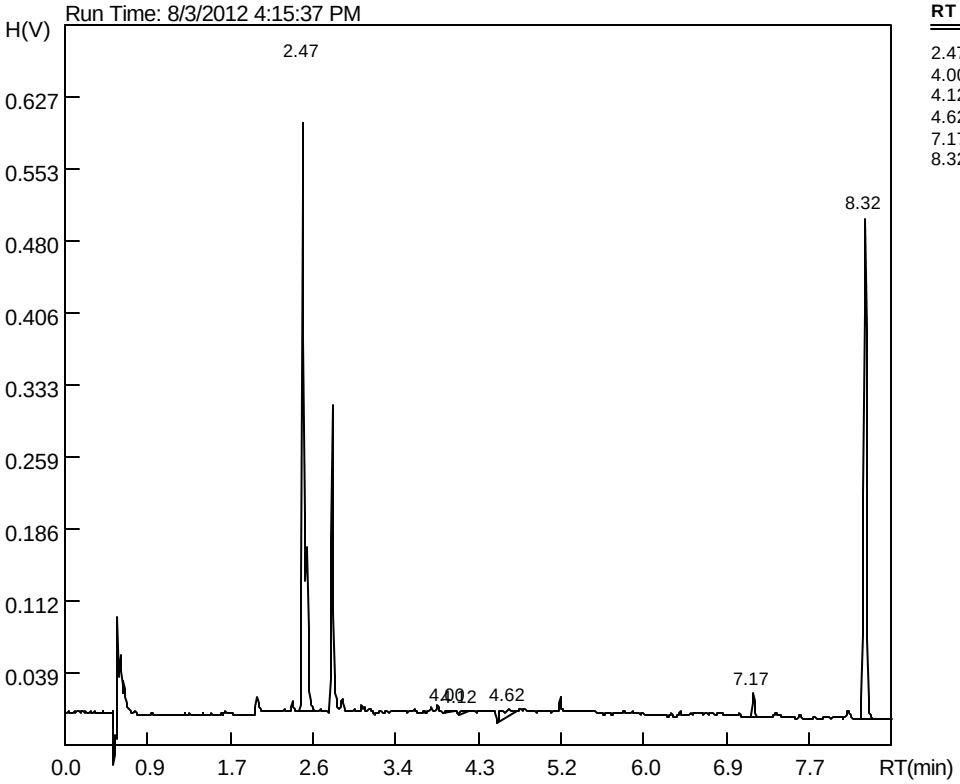
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.18R.BND
Comments: s53401.08 20.2g s/1 ID:PA120803s01
Run Time: 8/3/2012 3:54:37 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	20.863	1324501
3.96	-0.03	1016-3	-0.031	19630
4.63	0.00	1016-5	-0.009	57785
5.74	0.00	1260-1	-0.045	7343
5.83	0.00	1260-2	-0.040	14417
6.24	0.01	1260-3	-0.041	14447
7.17	0.02	1260-5	-0.036	19192
8.33	0.00	DCBP	26.193	1092497

File Name: F:\GCECD.DAT\A120803\A120803B.20R.BND
Comments: s53401.09 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 4:15:37 PM



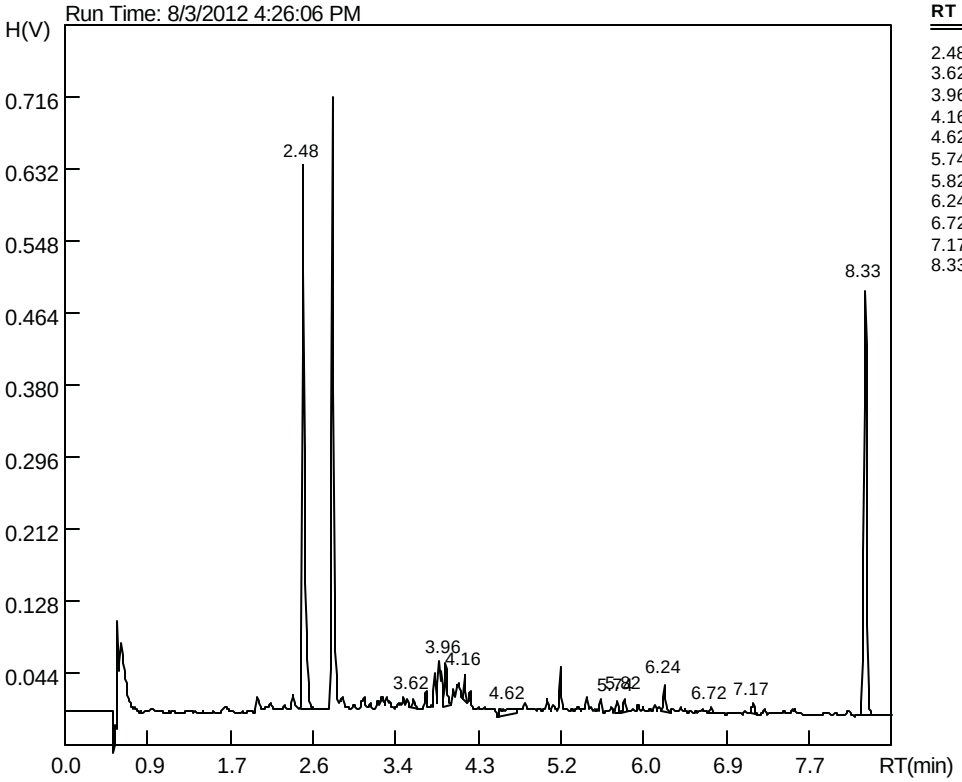
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	20.851	1323759
4.00	0.02	1016-3	-0.036	5142
4.12	-0.02	1016-4	-0.035	10625
4.62	-0.01	1016-5	-0.004	63459
7.17	0.02	1260-5	-0.029	34299
8.32	0.00	DCBP	25.020	1046473

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

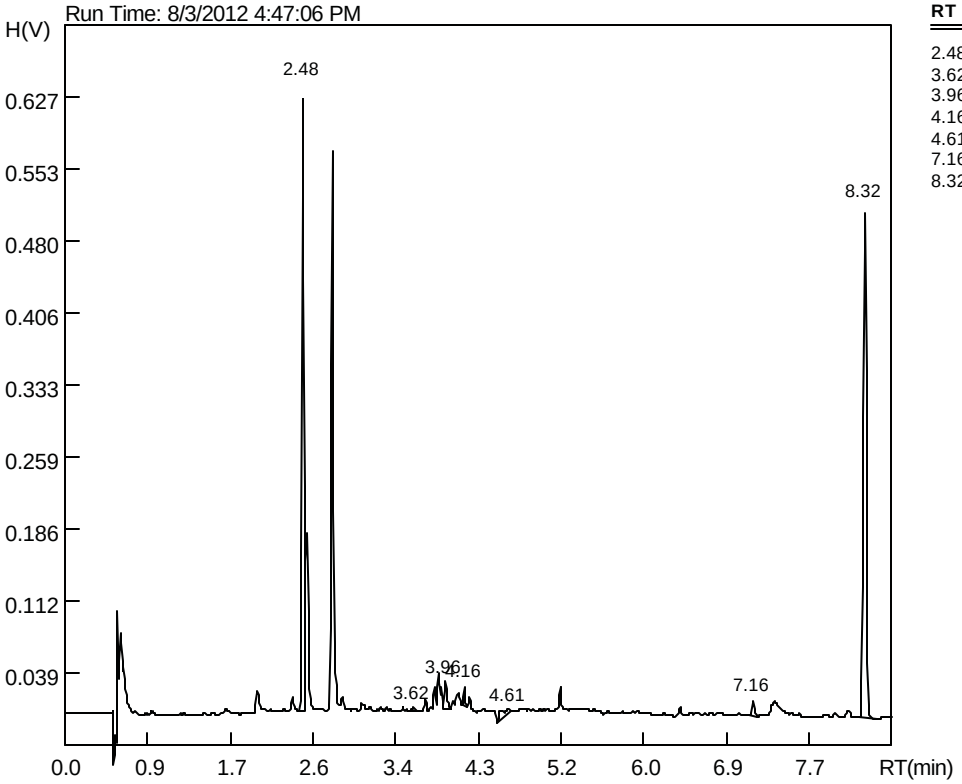
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.21R.BND
Comments: s53401.10 20.0g s/1 ID:PA120803s01
Run Time: 8/3/2012 4:26:06 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	19.157	1221270
3.62	0.01	1016-2	-0.040	21819
3.96	-0.03	1016-3	-0.010	86655
4.16	0.01	1016-4	-0.010	40110
4.62	-0.01	1016-5	-0.001	66606
5.74	0.00	1260-1	-0.038	20761
5.82	0.00	1260-2	-0.034	26669
6.24	0.01	1260-3	-0.018	63284
6.72	0.00	1260-4	-0.023	9661
7.17	0.02	1260-5	-0.035	22546
8.33	0.00	DCBP	24.746	1035702

File Name: F:\GCECD.DAT\A120803\A120803B.23R.BND
Comments: s53401.11 20.3g s/1 ID:PA120803s01
Run Time: 8/3/2012 4:47:06 PM



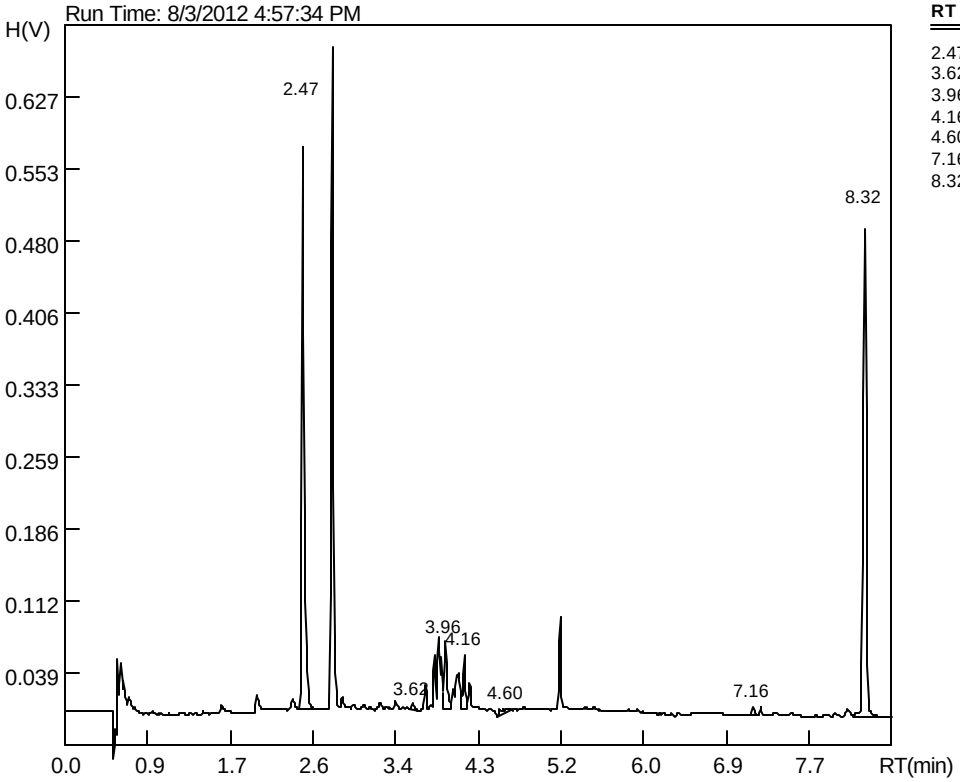
RT	dT	Name	Amt.	Area
2.48	0.00	TCX	17.243	1105437
3.62	0.01	1016-2	-0.048	10403
3.96	-0.03	1016-3	-0.021	52253
4.16	0.01	1016-4	-0.022	25822
4.61	-0.02	1016-5	-0.020	44778
7.16	0.02	1260-5	-0.034	24070
8.32	0.00	DCBP	26.086	1088308

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

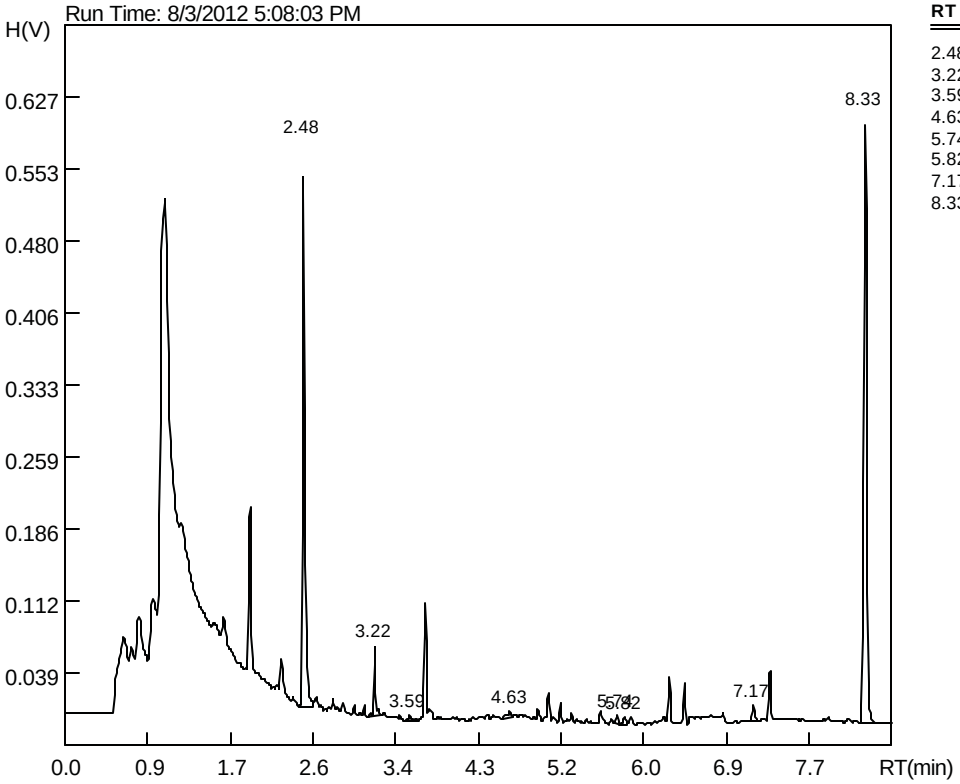
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.24R.BND
Comments: s53401.12 20.1g s/1 ID:PA120803s01
Run Time: 8/3/2012 4:57:34 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	17.985	1150361
3.62	0.00	1016-2	-0.044	16625
3.96	-0.03	1016-3	0.004	131462
4.16	0.01	1016-4	0.040	98414
4.60	-0.02	1016-5	-0.030	32620
7.16	0.02	1260-5	-0.038	15218
8.32	-0.01	DCBP	26.431	1101854

File Name: F:\GCECD.DAT\A120803\A120803B.25R.BND
Comments: s53401.02 20.2g s/1 C ID:PA120803s01
Run Time: 8/3/2012 5:08:03 PM



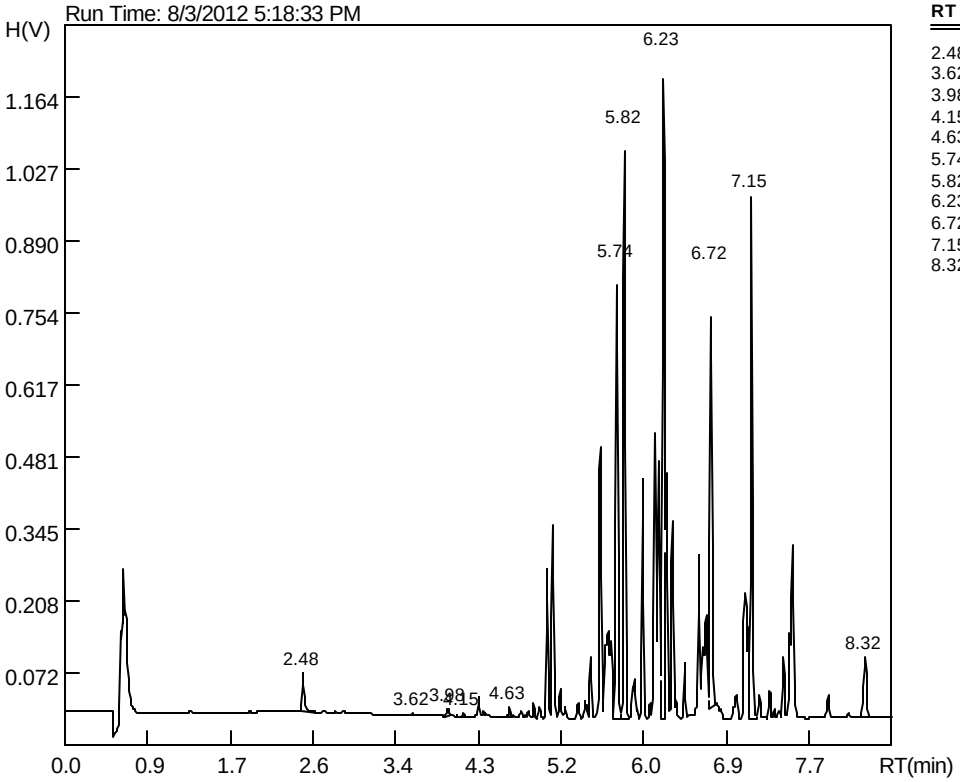
RT	dT	Name	Amt.	Area
2.48	0.01	TCX	15.274	986321
3.22	0.04	1016-1	0.104	105679
3.59	-0.03	1016-2	-0.047	12810
4.63	0.00	1016-5	-0.040	21838
5.74	0.00	1260-1	-0.042	12598
5.82	0.00	1260-2	-0.039	15997
7.17	0.02	1260-5	-0.032	27212
8.33	0.00	DCBP	31.644	1306498

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

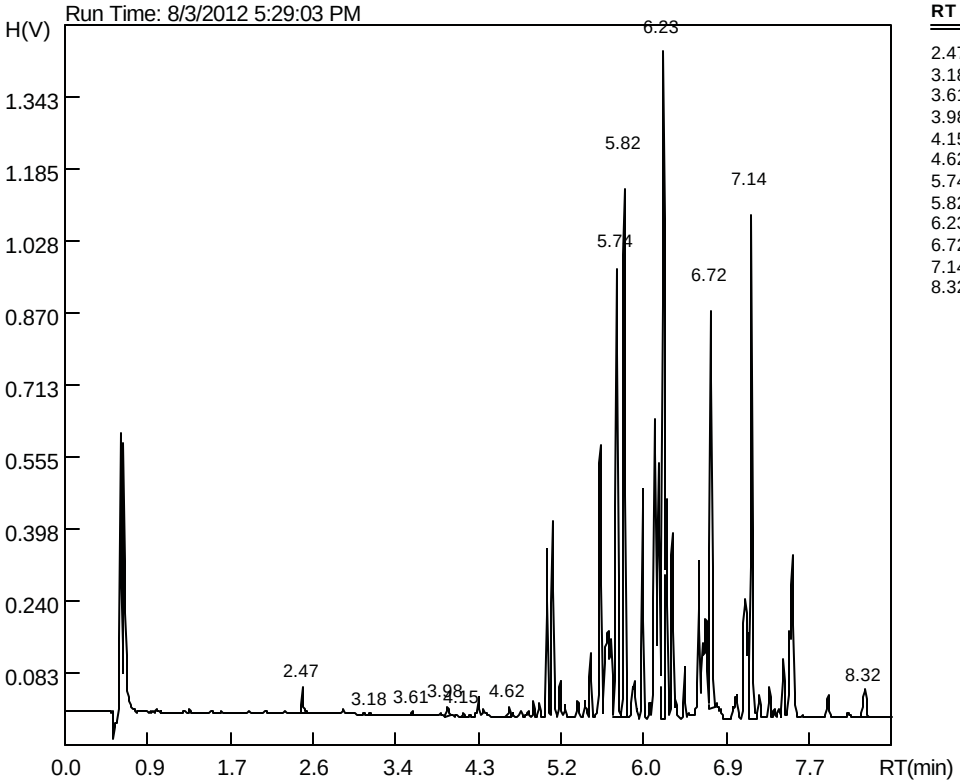
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.26R.BND
Comments: s53401.06 20.0g s/10 C ID:PA120803s01
Run Time: 8/3/2012 5:18:33 PM



RT	dT	Name	Amt.	Area
2.48	0.00	TCX	1.156	132080
3.62	0.00	1016-2	-0.050	7954
3.98	0.00	1016-3	-0.030	24065
4.15	0.00	1016-4	-0.037	9115
4.63	0.00	1016-5	-0.033	29529
5.74	0.00	1260-1	0.586	1271283
5.82	0.00	1260-2	0.662	1476401
6.23	0.00	1260-3	0.850	1862403
6.72	0.00	1260-4	0.560	1236244
7.15	0.00	1260-5	0.647	1358950
8.32	0.00	DCBP	4.448	238919

File Name: F:\GCECD.DAT\A120803\A120803B.27R.BND
Comments: s53401.07 20.1g s/25 C ID:PA120803s01
Run Time: 8/3/2012 5:29:03 PM



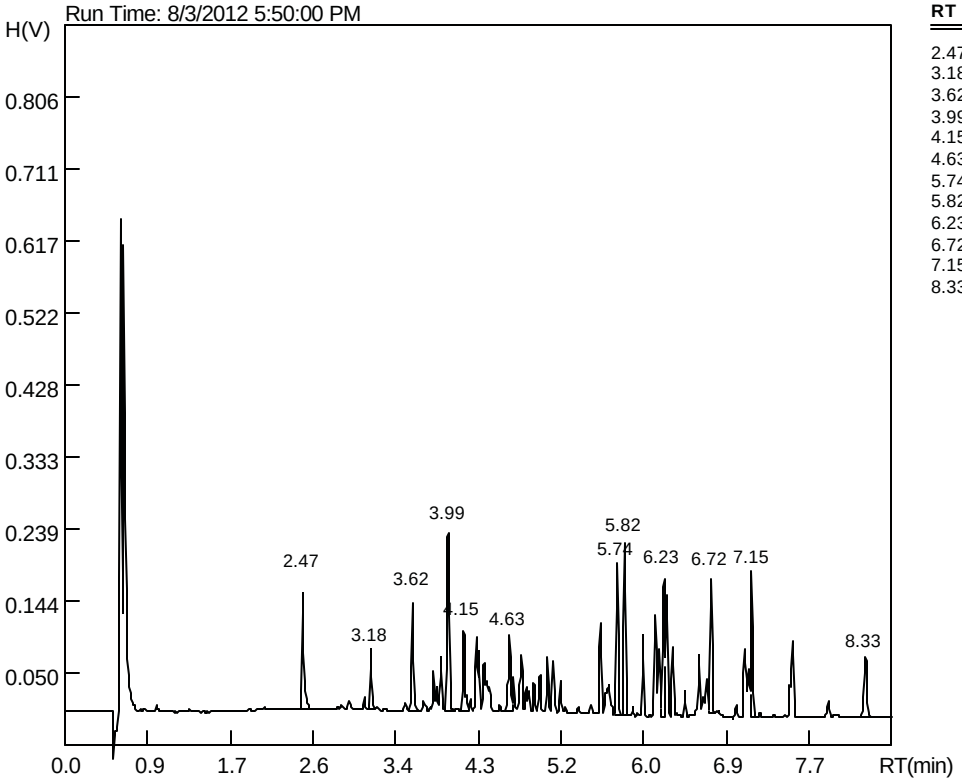
RT	dT	Name	Amt.	Area
2.47	0.00	TCX	0.268	78356
3.18	0.00	1016-1	-0.040	5987
3.61	0.00	1016-2	-0.047	12967
3.98	-0.01	1016-3	-0.025	39997
4.15	0.00	1016-4	-0.033	13333
4.62	-0.01	1016-5	-0.023	41198
5.74	0.00	1260-1	0.663	1425962
5.82	0.00	1260-2	0.718	1591146
6.23	0.00	1260-3	0.981	2135311
6.72	0.00	1260-4	0.617	1358074
7.14	0.00	1260-5	0.743	1546358
8.32	-0.01	DCBP	1.829	136112

GC/ECD Analysis: Raw Chromatographic Data

Instrument ID: Varian/3500(A)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

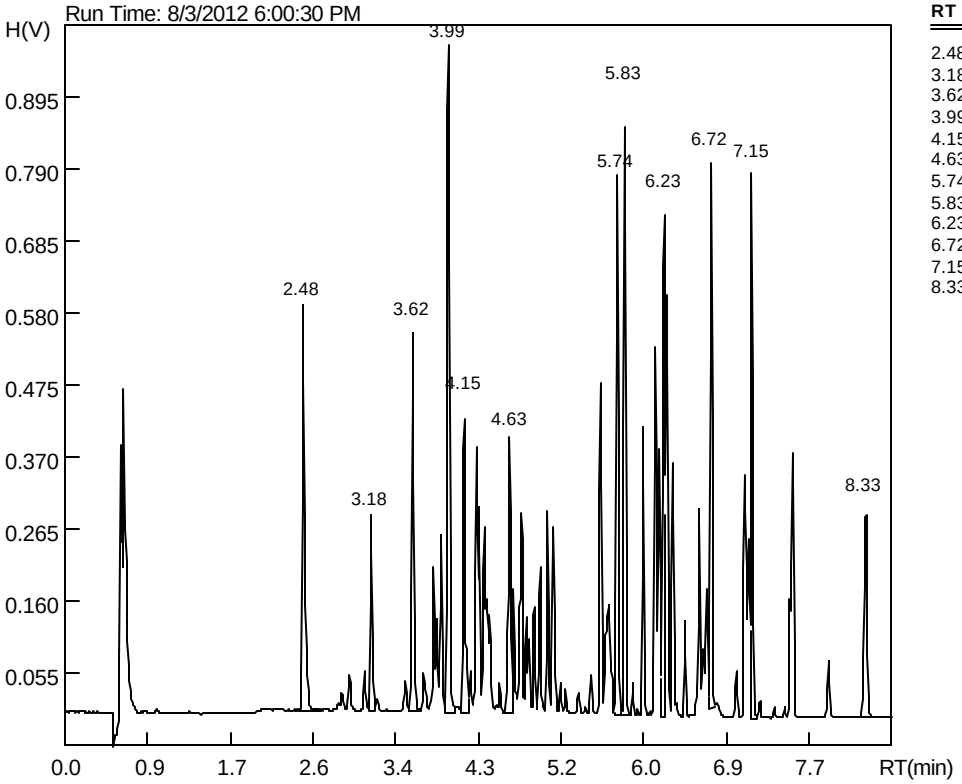
Analytical Batch: a120803.4

File Name: F:\GCECD.DAT\A120803\A120803B.29R.BND
Comments: ss1660.01 0.1ppm 7/23/12
Run Time: 8/3/2012 5:50:00 PM



RT	dT	Name	Amt.	Area
2.47	0.00	TCX	3.172	254076
3.18	0.00	1016-1	0.103	104972
3.62	0.00	1016-2	0.101	223763
3.99	0.00	1016-3	0.104	446122
4.15	0.00	1016-4	0.100	168331
4.63	0.00	1016-5	0.094	175946
5.74	0.00	1260-1	0.093	284245
5.82	0.00	1260-2	0.095	295203
6.23	0.00	1260-3	0.088	281876
6.72	0.00	1260-4	0.095	257210
7.15	0.00	1260-5	0.088	262179
8.33	0.00	DCBP	2.632	167628

File Name: F:\GCECD.DAT\A120803\A120803B.30R.BND
Comments: SC1660.02 0.5ppm 7/23/12
Run Time: 8/3/2012 6:00:30 PM



RT	dT	Name	Amt.	Area
2.48	0.01	TCX	16.975	1089237
3.18	0.00	1016-1	0.578	433862
3.62	0.00	1016-2	0.570	894227
3.99	0.00	1016-3	0.550	1854156
4.15	0.00	1016-4	0.575	719703
4.63	0.00	1016-5	0.570	726136
5.74	0.00	1260-1	0.533	1166385
5.83	0.00	1260-2	0.533	1206805
6.23	0.00	1260-3	0.521	1181367
6.72	0.00	1260-4	0.488	1085157
7.15	0.00	1260-5	0.493	1057677
8.33	0.00	DCBP	14.808	645593

Form 0: Sequence Log

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	11:02:40 Thu 09-Aug-12	Blank	Liquid	
002	11:04:38 Thu 09-Aug-12	std-0.000	Liquid	
003	11:06:36 Thu 09-Aug-12	std-0.0001	Liquid	
004	11:08:40 Thu 09-Aug-12	std-0.001	Liquid	
005	11:10:42 Thu 09-Aug-12	std-0.005	Liquid	
006	11:12:48 Thu 09-Aug-12	std-0.02	Liquid	
007	11:14:58 Thu 09-Aug-12	std-0.05	Liquid	
008	11:17:16 Thu 09-Aug-12	std-0.20	Liquid	
009	11:19:52 Thu 09-Aug-12	ICV-0.10	Liquid	ICV
010	11:24:10 Thu 09-Aug-12	ICB	Liquid	ICB
011	11:27:56 Thu 09-Aug-12	CCV1-0.10	Liquid	CCV
012	11:31:35 Thu 09-Aug-12	CCB1	Liquid	CCB
013	11:34:18 Thu 09-Aug-12	BS-0.0005	Liquid	BS
014	11:36:19 Thu 09-Aug-12	BS-0.001	Liquid	BS
015	11:38:44 Thu 09-Aug-12	BS-0.002	Liquid	BS
016	11:40:45 Thu 09-Aug-12	ERA-8121-04	Liquid	ERA
017	11:50:26 Thu 09-Aug-12	Solu-AB	Liquid	AB
018	11:53:25 Thu 09-Aug-12	Solu-AA	Liquid	AA
019	11:55:39 Thu 09-Aug-12	0808_2 LCS-0.05	Liquid	LCS
020	12:01:33 Thu 09-Aug-12	LRB_2	Liquid	LRB
021	12:03:33 Thu 09-Aug-12	53401.02s	Soil	S
022	12:06:23 Thu 09-Aug-12	53401.02 dil	Soil	DIL
023	12:08:50 Thu 09-Aug-12	53401.03s	Soil	S
024	12:11:18 Thu 09-Aug-12	53401.04s	Soil	S
025	12:13:46 Thu 09-Aug-12	53401.05s	Soil	S
026	12:16:15 Thu 09-Aug-12	53401.06s	Soil	S
027	12:18:45 Thu 09-Aug-12	53401.07s	Soil	S
028	12:21:13 Thu 09-Aug-12	53401.08s	Soil	S
029	12:26:12 Thu 09-Aug-12	CCV2-0.10	Liquid	CCV
030	12:33:15 Thu 09-Aug-12	CCB2	Liquid	CCB
031	12:35:24 Thu 09-Aug-12	53401.09s	Soil	S
032	12:37:59 Thu 09-Aug-12	53401.10s	Soil	S
033	12:40:22 Thu 09-Aug-12	53401.11s	Soil	S
034	12:42:46 Thu 09-Aug-12	53401.12s	Soil	S
035	12:47:35 Thu 09-Aug-12	53401.13s	Soil	S
036	12:50:00 Thu 09-Aug-12	53401.14s MS-0.10	Soil	MS
037	12:52:24 Thu 09-Aug-12	53401.15s MSD	Soil	MSD
038	12:57:54 Thu 09-Aug-12	CCV3-0.10	Liquid	CCV
039	13:03:46 Thu 09-Aug-12	CCB3	Liquid	CCB
040	13:57:27 Thu 09-Aug-12	0809_4 LCS-0.05	Liquid	LCS
041	14:03:23 Thu 09-Aug-12	LRB_4	Liquid	LRB
042	14:05:23 Thu 09-Aug-12	53477.01s	Liquid	S
043	14:07:44 Thu 09-Aug-12	53477.01 dil	Liquid	DIL
044	14:10:09 Thu 09-Aug-12	53477.02s	Liquid	S
045	14:12:32 Thu 09-Aug-12	53477.03s	Liquid	S
046	14:14:55 Thu 09-Aug-12	53477.04s	Liquid	S
047	14:17:18 Thu 09-Aug-12	53477.05s	Liquid	S
048	14:23:39 Thu 09-Aug-12	53482.01s	Liquid	S
049	14:26:02 Thu 09-Aug-12	53482.02s	Liquid	S
050	14:28:51 Thu 09-Aug-12	53482.03s	Liquid	S
051	14:31:09 Thu 09-Aug-12	53482.04s	Liquid	S
052	14:33:27 Thu 09-Aug-12	53482.05s	Liquid	S
053	14:35:46 Thu 09-Aug-12	53482.05 MS-0.05	Liquid	MS

Form 0: Sequence Log

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	14:38:05 Thu 09-Aug-12	53482.05 MSD	Liquid	MSD
055	14:40:24 Thu 09-Aug-12	CCV4-0.10	Liquid	CCV
056	14:44:04 Thu 09-Aug-12	CCB4	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.02
Sample Tag: SB105 (07-30-12) (0-2)
Date Collected: 07/30/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.43	0.20		mg/kg	211	08/09/2012	
7440-39-3	Barium	10.1	1.0		mg/kg	211	08/09/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	211	08/09/2012	
7440-47-3	Chromium	2.44	0.50		mg/kg	211	08/09/2012	
7440-50-8	Copper	5.73	0.50		mg/kg	211	08/09/2012	
7439-92-1	Lead	3.07	0.30		mg/kg	211	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	211	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	211	08/09/2012	
7440-66-6	Zinc	13.4	1.0		mg/kg	211	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.03
Sample Tag: SB104 (07-30-12) (0-2)
Date Collected: 07/30/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.40	0.20		mg/kg	212	08/09/2012	
7440-39-3	Barium	7.97	1.0		mg/kg	212	08/09/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	212	08/09/2012	
7440-47-3	Chromium	2.17	0.50		mg/kg	212	08/09/2012	
7440-50-8	Copper	2.44	0.50		mg/kg	212	08/09/2012	
7439-92-1	Lead	2.36	0.30		mg/kg	212	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	212	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	212	08/09/2012	
7440-66-6	Zinc	3.62	1.0		mg/kg	212	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.04
Sample Tag: SB103 (07-30-12) (0-2)
Date Collected: 07/30/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.47	0.20		mg/kg	213	08/09/2012	
7440-39-3	Barium	12.7	1.0		mg/kg	213	08/09/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	213	08/09/2012	
7440-47-3	Chromium	1.20	0.50		mg/kg	213	08/09/2012	
7440-50-8	Copper	3.64	0.50		mg/kg	213	08/09/2012	
7439-92-1	Lead	4.87	0.30		mg/kg	213	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	213	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	213	08/09/2012	
7440-66-6	Zinc	5.70	1.0		mg/kg	213	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.05
Sample Tag: SB102 (07-31-12) (2-4)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.60	0.20		mg/kg	226	08/09/2012	
7440-39-3	Barium	50.1	1.0		mg/kg	226	08/09/2012	
7440-43-9	Cadmium	0.35	0.20		mg/kg	226	08/09/2012	
7440-47-3	Chromium	3.75	0.50		mg/kg	226	08/09/2012	
7440-50-8	Copper	6.97	0.50		mg/kg	226	08/09/2012	
7439-92-1	Lead	18.8	0.30		mg/kg	226	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	226	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	226	08/09/2012	
7440-66-6	Zinc	25.1	1.0		mg/kg	226	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.06
Sample Tag: SB112 (07-31-12) (0-2)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.47	0.20		mg/kg	206	08/09/2012	
7440-39-3	Barium	38.4	1.0		mg/kg	206	08/09/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	206	08/09/2012	
7440-47-3	Chromium	4.29	0.50		mg/kg	206	08/09/2012	
7440-50-8	Copper	6.76	0.50		mg/kg	206	08/09/2012	
7439-92-1	Lead	43.8	0.30		mg/kg	206	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	206	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	206	08/09/2012	
7440-66-6	Zinc	24.9	1.0		mg/kg	206	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.07
Sample Tag: DUP 4 (07-31-12)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.02	0.20		mg/kg	210	08/09/2012	
7440-39-3	Barium	36.4	1.0		mg/kg	210	08/09/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	210	08/09/2012	
7440-47-3	Chromium	4.17	0.50		mg/kg	210	08/09/2012	
7440-50-8	Copper	5.90	0.50		mg/kg	210	08/09/2012	
7439-92-1	Lead	22.1	0.30		mg/kg	210	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	210	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	210	08/09/2012	
7440-66-6	Zinc	28.6	1.0		mg/kg	210	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.08
Sample Tag: SB114 (07-31-12) (2-4)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.44	0.20		mg/kg	215	08/09/2012	
7440-39-3	Barium	26.8	1.0		mg/kg	215	08/09/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	215	08/09/2012	
7440-47-3	Chromium	3.11	0.50		mg/kg	215	08/09/2012	
7440-50-8	Copper	7.91	0.50		mg/kg	215	08/09/2012	
7439-92-1	Lead	5.45	0.30		mg/kg	215	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	215	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	215	08/09/2012	
7440-66-6	Zinc	12.7	1.0		mg/kg	215	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.09
Sample Tag: SB113 (07-31-12) 3-5)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.41	0.20		mg/kg	221	08/09/2012	
7440-39-3	Barium	12.8	1.0		mg/kg	221	08/09/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	221	08/09/2012	
7440-47-3	Chromium	3.64	0.50		mg/kg	221	08/09/2012	
7440-50-8	Copper	3.96	0.50		mg/kg	221	08/09/2012	
7439-92-1	Lead	2.56	0.30		mg/kg	221	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	221	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	221	08/09/2012	
7440-66-6	Zinc	9.52	1.0		mg/kg	221	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.10
Sample Tag: SB109 (07-31-12) (0-2)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.34	0.20		mg/kg	198	08/09/2012	
7440-39-3	Barium	6.65	1.0		mg/kg	198	08/09/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	198	08/09/2012	
7440-47-3	Chromium	2.26	0.50		mg/kg	198	08/09/2012	
7440-50-8	Copper	3.78	0.50		mg/kg	198	08/09/2012	
7439-92-1	Lead	2.57	0.30		mg/kg	198	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	198	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	198	08/09/2012	
7440-66-6	Zinc	9.07	1.0		mg/kg	198	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.11
Sample Tag: SB165 (07-31-12) (8-10)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	4.59	0.20		mg/kg	226	08/09/2012	
7440-39-3	Barium	72.2	1.0		mg/kg	226	08/09/2012	
7440-43-9	Cadmium	Not detected	0.20		mg/kg	226	08/09/2012	
7440-47-3	Chromium	15.3	0.50		mg/kg	226	08/09/2012	
7440-50-8	Copper	19.1	0.50		mg/kg	226	08/09/2012	
7439-92-1	Lead	9.05	0.30		mg/kg	226	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	226	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	226	08/09/2012	
7440-66-6	Zinc	42.1	1.0		mg/kg	226	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.12
Sample Tag: SB162 (07-31-12) (2-4)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.98	0.20		mg/kg	212	08/09/2012	
7440-39-3	Barium	64.7	1.0		mg/kg	212	08/09/2012	
7440-43-9	Cadmium	0.82	0.20		mg/kg	212	08/09/2012	
7440-47-3	Chromium	7.31	0.50		mg/kg	212	08/09/2012	
7440-50-8	Copper	31.6	0.50		mg/kg	212	08/09/2012	
7439-92-1	Lead	35.9	0.30		mg/kg	212	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	212	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	212	08/09/2012	
7440-66-6	Zinc	62.7	1.0		mg/kg	212	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.13
Sample Tag: SB142 (08-01-12) (0-2)
Date Collected: 08/01/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	1.55	0.20		mg/kg	211	08/09/2012	
7440-39-3	Barium	25.1	1.0		mg/kg	211	08/09/2012	
7440-43-9	Cadmium	0.23	0.20		mg/kg	211	08/09/2012	
7440-47-3	Chromium	4.45	0.50		mg/kg	211	08/09/2012	
7440-50-8	Copper	5.90	0.50		mg/kg	211	08/09/2012	
7439-92-1	Lead	12.9	0.30		mg/kg	211	08/09/2012	
7782-49-2	Selenium	Not detected	0.50		mg/kg	211	08/09/2012	
7440-22-4	Silver	Not detected	0.10		mg/kg	211	08/09/2012	
7440-66-6	Zinc	19.5	1.0		mg/kg	211	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.14
Sample Tag: SB142 (08-01-12) (0-2) MS
Date Collected: 08/01/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	24.0	0.20		mg/kg	211	08/09/2012	
7440-39-3	Barium	46.0	1.0		mg/kg	211	08/09/2012	
7440-43-9	Cadmium	21.4	0.20		mg/kg	211	08/09/2012	
7440-47-3	Chromium	26.1	0.50		mg/kg	211	08/09/2012	
7440-50-8	Copper	26.6	0.50		mg/kg	211	08/09/2012	
7439-92-1	Lead	33.8	0.30		mg/kg	211	08/09/2012	
7782-49-2	Selenium	19.8	0.50		mg/kg	211	08/09/2012	
7440-22-4	Silver	19.7	0.10		mg/kg	211	08/09/2012	
7440-66-6	Zinc	39.7	1.0		mg/kg	211	08/09/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Lab Sample ID: S53401.15
Sample Tag: SB142 (08-01-12) (0-2) MSD
Date Collected: 08/01/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	24.2	0.20		mg/kg	211	08/09/2012	
7440-39-3	Barium	46.0	1.0		mg/kg	211	08/09/2012	
7440-43-9	Cadmium	21.5	0.20		mg/kg	211	08/09/2012	
7440-47-3	Chromium	26.3	0.50		mg/kg	211	08/09/2012	
7440-50-8	Copper	26.2	0.50		mg/kg	211	08/09/2012	
7439-92-1	Lead	32.9	0.30		mg/kg	211	08/09/2012	
7782-49-2	Selenium	19.8	0.50		mg/kg	211	08/09/2012	
7440-22-4	Silver	19.6	0.10		mg/kg	211	08/09/2012	
7440-66-6	Zinc	38.3	1.0		mg/kg	211	08/09/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
009 ICV-0.10	ICV	1	Cr	0.100	0.10	100	90/110	mg/L	Liquid
			Ni	0.100	0.10	100	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.0979	0.10	98	90/110		
			As	0.101	0.10	101	90/110		
			Se	0.0993	0.10	99	90/110		
			Ag	0.0984	0.10	98	90/110		
			Cd	0.100	0.10	100	90/110		
			Ba	0.0992	0.10	99	90/110		
			Pb	0.100	0.10	100	90/110		
011 CCV1-0.10	CCV	1	Cr	0.0996	0.10	100	90/110	mg/L	Liquid
			Ni	0.100	0.10	100	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.0996	0.10	100	90/110		
			As	0.100	0.10	100	90/110		
			Se	0.101	0.10	101	90/110		
			Ag	0.0989	0.10	99	90/110		
			Cd	0.0989	0.10	99	90/110		
			Ba	0.0969	0.10	97	90/110		
			Pb	0.100	0.10	100	90/110		
029 CCV2-0.10	CCV	1	Cr	0.0982	0.10	98	90/110	mg/L	Liquid
			Ni	0.102	0.10	102	90/110		
			Cu	0.102	0.10	102	90/110		
			Zn	0.0992	0.10	99	90/110		
			As	0.102	0.10	102	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.0999	0.10	100	90/110		
			Cd	0.0999	0.10	100	90/110		
			Ba	0.0986	0.10	99	90/110		
			Pb	0.0995	0.10	100	90/110		
038 CCV3-0.10	CCV	1	Cr	0.101	0.10	101	90/110	mg/L	Liquid
			Ni	0.103	0.10	103	90/110		
			Cu	0.104	0.10	104	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.104	0.10	104	90/110		
			Se	0.0998	0.10	100	90/110		
			Ag	0.0995	0.10	100	90/110		
			Cd	0.0999	0.10	100	90/110		
			Ba	0.100	0.10	100	90/110		
			Pb	0.100	0.10	100	90/110		
055 CCV4-0.10	CCV	1	Cr	0.104	0.10	104	90/110	mg/L	Liquid
			Ni	0.102	0.10	102	90/110		
			Cu	0.105	0.10	105	90/110		
			Zn	0.102	0.10	102	90/110		
			As	0.109	0.10	109	90/110		
			Se	0.102	0.10	102	90/110		
			Ag	0.0999	0.10	100	90/110		
			Cd	0.0994	0.10	99	90/110		
			Ba	0.100	0.10	100	90/110		
			Pb	0.0996	0.10	100	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: W-8121-0

Data Set ID: MT2-12-0809A

Instrument ID: PE ELAN

Analysis Date: 08/09/12

Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
016 ERA-8121-04	5	Cr	0.621	0.623	100	0.542	0.704	mg/L	Liquid
		Ni	2.07	2.040	102	1.840	2.270		
		Cu	0.860	0.835	103	0.751	0.918		
		Zn	0.410	0.412	100	0.352	0.476		
		As	0.885	0.877	101	0.738	1.030		
		Se	1.02	1.030	99	0.815	1.190		
		Ag	0.184	0.186	99	0.159	0.213		
		Cd	0.117	0.118	99	0.0998	0.135		
		Ba	0.699	0.716	98	0.621	0.807		
		Pb	1.74	1.760	99	1.550	1.970		

Form 3: Blanks

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Sample Name	QC Type	Dilute	Element	Sample Conc	Raw Conc	Units	Matrix
010 ICB	ICB	1	Cr	<0.001	0.000041	mg/L	Liquid
			Ni	<0.001	0.000010		
			Cu	<0.001	0.000000		
			Zn	<0.001	0.000076		
			As	<0.0004	0.000087		
			Se	<0.001	0.000424		
			Ag	<0.0005	0.000053		
			Cd	<0.0001	-0.000017		
			Ba	<0.001	0.000011		
			Pb	<0.0006	0.000009		
012 CCB1	CCB	1	Cr	<0.001	0.000062	mg/L	Liquid
			Ni	<0.001	-0.000014		
			Cu	<0.001	0.000029		
			Zn	<0.001	0.000058		
			As	<0.0004	0.000037		
			Se	<0.001	-0.000067		
			Ag	<0.0005	0.000072		
			Cd	<0.0001	-0.000006		
			Ba	<0.001	0.000041		
			Pb	<0.0006	0.000016		
020 LRB_2	LRB	1	Cr	<0.001	0.000005	mg/L	Liquid
			Ni	<0.001	-0.000099		
			Cu	<0.001	-0.000158		
			Zn	<0.001	-0.000404		
			As	<0.0004	-0.000085		
			Se	<0.001	0.000262		
			Ag	<0.0005	-0.000013		
			Cd	<0.0001	-0.000045		
			Ba	<0.001	-0.000061		
			Pb	<0.0006	-0.000069		
030 CCB2	CCB	1	Cr	<0.001	0.000054	mg/L	Liquid
			Ni	<0.001	-0.000045		
			Cu	<0.001	-0.000012		
			Zn	<0.001	0.000059		
			As	<0.0004	0.000153		
			Se	<0.001	0.000391		
			Ag	<0.0005	0.000076		
			Cd	<0.0001	-0.000006		
			Ba	<0.001	0.000019		
			Pb	<0.0006	0.000000		
039 CCB3	CCB	1	Cr	<0.001	0.000092	mg/L	Liquid
			Ni	<0.001	-0.000029		
			Cu	<0.001	-0.000019		
			Zn	<0.001	0.000107		
			As	<0.0004	0.000063		
			Se	<0.001	0.000107		
			Ag	<0.0005	0.000064		
			Cd	<0.0001	-0.000007		
			Ba	<0.001	0.000016		
			Pb	<0.0006	-0.000005		
041 LRB_4	LRB	1	Cr	<0.001	0.000066	mg/L	Liquid
			Ni	<0.001	-0.000146		
			Cu	<0.001	-0.000159		

Form 3: Blanks

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
041 LRB_4	LRB	1	Zn	<0.001	-0.000150	mg/L	Liquid
			As	<0.0004	0.000214		
			Se	<0.001	0.000005		
			Ag	<0.0005	-0.000006		
			Cd	<0.0001	-0.000041		
			Ba	<0.001	-0.000052		
			Pb	<0.0006	-0.000079		
056 CCB4	CCB	1	Cr	<0.001	0.000171	mg/L	Liquid
			Ni	<0.001	-0.000034		
			Cu	<0.001	-0.000101		
			Zn	<0.001	-0.000134		
			As	<0.0004	0.000079		
			Se	<0.001	-0.000204		
			Ag	<0.0005	0.000024		
			Cd	<0.0001	-0.000027		
			Ba	<0.001	-0.000046		
			Pb	<0.0006	-0.000031		

Form 4B: ICP Interference Check Sample

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
017 Solu-AB	AB	1	Cr	0.0243	0.020	122	70/135	mg/L	Liquid
			Ni	0.0244	0.020	122	70/135		
			Cu	0.0220	0.020	110	70/135		
			Zn	0.0214	0.020	107	70/135		
			As	0.0240	0.020	120	70/135		
			Ag	0.0179	0.020	90	70/135		
			Cd	0.0195	0.020	98	70/135		
018 Solu-AA	AA	1	Cr	<0.005	0.0	N/A	N/A	mg/L	Liquid
			Ni	<0.005	0.0	N/A	N/A		
			Cu	<0.004	0.0	N/A	N/A		
			Zn	<0.005	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.0005	0.0	N/A	N/A		
			Cd	<0.001	0.0	N/A	N/A		
			Ba	<0.005	0.0	N/A	N/A		
			Pb	<0.003	0.0	N/A	N/A		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
013 BS-0.0005		1	Cr	0.00051	ND	0.0005	102	70/130	mg/L	Liquid
			Ni	0.00051	ND	0.0005	102	70/130		
			Cu	0.00049	ND	0.0005	98	70/130		
			As	0.00049	ND	0.0005	98	70/130		
			Se	0.00051	ND	0.0005	102	70/130		
			Ag	0.00047	ND	0.0005	94	70/130		
			Cd	0.00045	ND	0.0005	90	70/130		
			Ba	0.00044	ND	0.0005	88	70/130		
			Pb	0.00057	ND	0.0005	114	70/130		
014 BS-0.001		1	Cr	0.00100	ND	0.001	100	70/130	mg/L	Liquid
			Ni	0.00105	ND	0.001	105	70/130		
			Cu	0.00095	ND	0.001	95	70/130		
			Zn	0.00104	ND	0.001	104	70/130		
			As	0.00104	ND	0.001	104	70/130		
			Se	0.00080	ND	0.001	80	70/130		
			Ag	0.00097	ND	0.001	97	70/130		
			Cd	0.00098	ND	0.001	98	70/130		
			Ba	0.00090	ND	0.001	90	70/130		
			Pb	0.00103	ND	0.001	103	70/130		
015 BS-0.002		1	Cr	0.00198	ND	0.002	99	70/130	mg/L	Liquid
			Ni	0.00197	ND	0.002	99	70/130		
			Cu	0.00184	ND	0.002	92	70/130		
			Zn	0.00181	ND	0.002	91	70/130		
			As	0.00201	ND	0.002	101	70/130		
			Se	0.00168	ND	0.002	84	70/130		
			Ag	0.00190	ND	0.002	95	70/130		
			Cd	0.00195	ND	0.002	98	70/130		
			Ba	0.00187	ND	0.002	94	70/130		
			Pb	0.00208	ND	0.002	104	70/130		
036 53401.14s	**035 53401.13s**	211	Cr	26.1	4.45	21.10	103	75/125	mg/kg	Soil
			Ni	25.5	4.00	21.10	102	75/125		
			Cu	26.6	5.90	21.10	98	75/125		
			Zn	39.7	19.5	21.10	96	75/125		
			As	24.0	1.55	21.10	106	75/125		
			Se	19.8	<0.50	21.10	94	75/125		
			Ag	19.7	<0.10	21.10	93	75/125		
			Cd	21.4	0.23	21.10	100	75/125		
			Ba	46.0	25.1	21.10	99	75/125		
			Pb	33.8	12.9	21.10	99	75/125		
053 53482.05	**052 53482.05s**	5	Cr	0.266	<0.005	0.25	106	75/125	mg/L	Liquid
			Ni	0.258	<0.005	0.25	103	75/125		
			Cu	0.290	0.033	0.25	103	75/125		
			Zn	0.296	0.040	0.25	102	75/125		
			As	0.274	<0.002	0.25	110	75/125		
			Se	0.273	<0.005	0.25	109	75/125		
			Ag	0.243	<0.0005	0.25	97	75/125		
			Cd	0.256	<0.0005	0.25	102	75/125		
			Ba	0.271	0.029	0.25	97	75/125		
			Pb	0.243	<0.003	0.25	97	75/125		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
037 53401.15s MSD	**036 53401.14s MS-0.10**	211	Cr	26.3	26.1	1	0/20	mg/kg	Soil
			Ni	25.1	25.5	2	0/20		
			Cu	26.2	26.6	2	0/20		
			Zn	38.3	39.7	4	0/20		
			As	24.2	24.0	1	0/20		
			Se	19.8	19.8	0	0/20		
			Ag	19.6	19.7	1	0/20		
			Cd	21.5	21.4	0	0/20		
			Ba	46.0	46.0	0	0/20		
			Pb	32.9	33.8	3	0/20		
054 53482.05 MSD	**053 53482.05 MS-0.05**	5	Cr	0.262	0.266	2	0/20	mg/L	Liquid
			Ni	0.260	0.258	1	0/20		
			Cu	0.282	0.290	3	0/20		
			Zn	0.291	0.296	2	0/20		
			As	0.276	0.274	1	0/20		
			Se	0.269	0.273	1	0/20		
			Ag	0.240	0.243	1	0/20		
			Cd	0.249	0.256	3	0/20		
			Ba	0.270	0.271	0	0/20		
			Pb	0.242	0.243	0	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
019 0808_2 LCS-0.05	1	Cr	0.0496	0.05	99	85/115	mg/L	Liquid
		Ni	0.0509	0.05	102	85/115		
		Cu	0.0509	0.05	102	85/115		
		Zn	0.0489	0.05	98	85/115		
		As	0.0489	0.05	98	85/115		
		Se	0.0480	0.05	96	85/115		
		Ag	0.0490	0.05	98	85/115		
		Cd	0.0500	0.05	100	85/115		
		Ba	0.0483	0.05	97	85/115		
		Pb	0.0499	0.05	100	85/115		
040 0809_4 LCS-0.05	1	Cr	0.0511	0.05	102	85/115	mg/L	Liquid
		Ni	0.0506	0.05	101	85/115		
		Cu	0.0520	0.05	104	85/115		
		Zn	0.0503	0.05	101	85/115		
		As	0.0517	0.05	103	85/115		
		Se	0.0512	0.05	102	85/115		
		Ag	0.0484	0.05	97	85/115		
		Cd	0.0490	0.05	98	85/115		
		Ba	0.0484	0.05	97	85/115		
		Pb	0.0497	0.05	99	85/115		

Form 8: Serial Dilutions

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
022 53401.02 dil	**021 53401.02s**	1055	Cr	2.54	2.44	4	0/10	mg/kg	Soil
			Ni	5.34	5.45	2	0/10		
			Cu	5.78	5.73	1	0/10		
			Zn	13.6	13.4	1	0/10		
			As	1.51	1.43	5	0/10		
			Se	<0.50	<0.50	NC	0/10		
			Ag	<0.10	<0.10	NC	0/10		
			Cd	<0.20	<0.20	NC	0/10		
			Ba	11.1	10.1	9	0/10		
			Pb	3.18	3.07	4	0/10		
043 53477.01 dil	**042 53477.01s**	25	Cr	0.007	<0.005	200*	0/10	mg/L	Liquid
			Ni	<0.005	<0.005	NC	0/10		
			Cu	0.108	0.107	1	0/10		
			Zn	0.058	0.062	7	0/10		
			As	0.005	<0.002	200*	0/10		
			Se	<0.005	<0.005	NC	0/10		
			Ag	0.0161	0.0177	9	0/10		
			Cd	<0.0005	<0.0005	NC	0/10		
			Pb	<0.003	<0.003	NC	0/10		

Form 13: Analysis Run Log

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
001 Blank	11:02:40 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
002 std-0.000	11:04:38 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
003 std-0.0001	11:06:36 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
004 std-0.001	11:08:40 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
005 std-0.005	11:10:42 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
006 std-0.02	11:12:48 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
007 std-0.05	11:14:58 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
008 std-0.20	11:17:16 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
009 ICV-0.10	11:19:52 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
010 ICB	11:24:10 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
011 CCV1-0.10	11:27:56 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
012 CCB1	11:31:35 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
013 BS-0.0005	11:34:18 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se
014 BS-0.001	11:36:19 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
015 BS-0.002	11:38:44 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
016 ERA-8121-04	11:40:45 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
017 Solu-AB	11:50:26 Thu	Liquid	Ag,As,Cd,Cr,Cu,Ni,Zn
018 Solu-AA	11:53:25 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
019 0808_2 LCS-0.05	11:55:39 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
020 LRB_2	12:01:33 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
021 53401.02s	12:03:33 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
022 53401.02 dil	12:06:23 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
023 53401.03s	12:08:50 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
024 53401.04s	12:11:18 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
025 53401.05s	12:13:46 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
026 53401.06s	12:16:15 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
027 53401.07s	12:18:45 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
028 53401.08s	12:21:13 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
029 CCV2-0.10	12:26:12 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
030 CCB2	12:33:15 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
031 53401.09s	12:35:24 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
032 53401.10s	12:37:59 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
033 53401.11s	12:40:22 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
034 53401.12s	12:42:46 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
035 53401.13s	12:47:35 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
036 53401.14s MS-0.10	12:50:00 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
037 53401.15s MSD	12:52:24 Thu	Soil	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
038 CCV3-0.10	12:57:54 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
039 CCB3	13:03:46 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
040 0809_4 LCS-0.05	13:57:27 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
041 LRB_4	14:03:23 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
042 53477.01s	14:05:23 Thu	Liquid	Ag,As,Cd,Cr,Cu,Ni,Pb,Se,Zn
043 53477.01 dil	14:07:44 Thu	Liquid	Ag,As,Cd,Cr,Cu,Ni,Pb,Se,Zn
044 53477.02s	14:10:09 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
045 53477.03s	14:12:32 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
046 53477.04s	14:14:55 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
047 53477.05s	14:17:18 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
048 53482.01s	14:23:39 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
049 53482.02s	14:26:02 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
050 53482.03s	14:28:51 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
051 53482.04s	14:31:09 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
052 53482.05s	14:33:27 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
053 53482.05 MS-0.05	14:35:46 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn

Form 13: Analysis Run Log

Data Set ID: MT2-12-0809A
Instrument ID: PE ELAN
Analysis Date: 08/09/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
054 53482.05 MSD	14:38:05 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
055 CCV4-0.10	14:40:24 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
056 CCB4	14:44:04 Thu	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, August 09, 2012 10:52:59
Sample Description:
Method File: C:\Elandata\Method\Daily-All.mth
Dataset File: C:\Elandata\DataSet\6020-200.8.tun\Daily Performance Check.2579
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Optimization File: C:\Elandata\Optimize\6020-200.8.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Li	7.0	18060.7	18060.677	326.589	1.8
	Be	9.0	4918.1	4918.080	85.717	1.7
	Mg	24.0	51394.7	51394.713	2315.895	4.5
	Co	58.9	86792.4	86792.446	2370.390	2.7
	In	114.9	206694.4	206694.404	3796.143	1.8
	Tl	205.0	146471.7	146471.691	837.351	0.6
	Pb	208.0	95800.0	95800.024	779.008	0.8
⌈>	Ce	139.9	217666.2	217666.182	4829.632	2.2
⌊	Ce++	70.0	1375.7	0.006	0.000	3.9
⌈>	Ce-1	139.9	217666.2	217666.182	4829.632	2.2
⌊	CeO	155.9	6182.5	0.028	0.000	0.9
	Bkgd	220.0	15.3	15.250	3.379	22.2

Current Optimization File Data

Current Value	Description
0.76	Nebulizer Gas Flow
10.00	Lens Voltage
1100.00	ICP RF Power
-1985.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	14.5	6350.2
Co	59	33	15.0	133264.7
In	115	33	15.0	202118.5

SmartTune Wizard - Summary

Optimization Summary

Wizard file: C:\Elandata\Wizard\SmartTune\12-0808A.swz

Start Time: 8/9/2012 10:48:49 AM
End Time: 8/9/2012 10:54:38 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
- Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.694)
- Target/Obtained mass (9.0122/8.979), Target/Obtained resolution (0.7/0.708)
- Target/Obtained mass (23.985/23.978), Target/Obtained resolution (0.7/0.716)
- Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.699)
- Target/Obtained mass (114.904/114.929), Target/Obtained resolution (0.7/0.712)
- Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.700)
- Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.697)

Daily Performance Check - [Passed] Optimum value(s): N/A
- Obtained Intensity (Be 9.0122): 4918
- Obtained Intensity (Bkgd 220): 15
- Obtained Intensity (Co 58.9332): 86792
- Obtained Intensity (In 114.904): 206694
- Obtained Intensity (Li 7.016): 18061
- Obtained Intensity (Mg 23.985): 51395
- Obtained Intensity (Pb 207.977): 95800
- Obtained Intensity (Tl 204.975): 146472
- Obtained Formula (CeO 155.9 / Ce 139.905): 0.028 (=6182 / 217666)
- Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.006 (=1376 / 217666)

SmartTune Wizard - Details

Optimization Details

Wizard file: C:\Elandata\Wizard\SmartTune\12-0808A.swz

Optimization Status

Start Time: 8/9/2012 10:48:49 AM

Mass Calibration and Resolution
Optimization Settings:
Method: C:\Elandata\Method\Tuning-All.mth.
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Iterations: 4
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 5
Optimization Results:
First Pass
Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.694)
Target/Obtained mass (9.0122/8.979), Target/Obtained resolution (0.7/0.708)
Target/Obtained mass (23.985/23.978), Target/Obtained resolution (0.7/0.716)
Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.699)
Target/Obtained mass (114.904/114.929), Target/Obtained resolution (0.7/0.712)
Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.697)
[Passed] Optimum value(s): N/A

Daily Performance Check
Optimization Settings:
Method: C:\Elandata\Method\Daily-All.mth.
Intensity Criterion: Be 9.0122 > 1000
Intensity Criterion: Bkgd 220 <= 50
Intensity Criterion: Co 58.9332 > 10000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: Li 7.016 > 2500
Intensity Criterion: Mg 23.985 > 7000
Intensity Criterion: Pb 207.977 > 20000
Intensity Criterion: Tl 204.975 > 40000
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.05
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03
Optimization Results:
First Pass
Obtained Intensity (Be 9.0122): 4918
Obtained Intensity (Bkgd 220): 15
Obtained Intensity (Co 58.9332): 86792
Obtained Intensity (In 114.904): 206694
Obtained Intensity (Li 7.016): 18061
Obtained Intensity (Mg 23.985): 51395
Obtained Intensity (Pb 207.977): 95800
Obtained Intensity (Tl 204.975): 146472
Obtained Formula (CeO 155.9 / Ce 139.905): 0.028 (=6182 / 217666)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.006 (=1376 / 217666)
assed] Optimum value(s): N/A

id Time: 8/9/2012 10:54:38 AM

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0809A

Instrument ID: PE ELAN

Analysis Date: 08/09/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	258955	70-125	181269-323694	80-120	207164-310746	0
Re	233441	70-125	163409-291801	80-120	186753-280129	0

Seq ID	QC Type	Rh	Re
001		100	100
002		102	100
003		104	102
004		102	102
005		102	101
006		104	101
007		102	101
008		102	102
009	ICV	103	102
010	ICB	102	99
011	CCV	103	100
012	CCB	103	100
013	BS	104	102
014	BS	105	101
015	BS	107	102
016	ERA	105	104
017	AB	106	93
018	AA	116	110
019	LCS	112	107
020	LRB	111	107
021	S	100	102
022	DIL	102	102
023	S	106	105
024	S	109	108
025	S	108	108
026	S	105	106
027	S	105	106
028	S	111	110
029	CCV	111	106
030	CCB	107	104
031	S	109	105
032	S	101	97
033	S	102	96
034	S	106	101
035	S	105	101
036	MS	103	100
037	MSD	103	101

Form 15: Internal Standards Summary

IS Check Reference Sample: 001 Blank

Data Set ID: MT2-12-0809A

Instrument ID: PE ELAN

Analysis Date: 08/09/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh	258955	70-125	181269-323694	80-120	207164-310746	0
Re	233441	70-125	163409-291801	80-120	186753-280129	0

Seq ID	QC Type	Rh	Re
038	CCV	104	99
039	CCB	107	100
040	LCS	105	97
041	LRB	104	95
042	S	101	96
043	DIL	103	97
044	S	103	97
045	S	102	95
046	S	97	93
047	S	101	96
048	S	102	97
049	S	99	95
050	S	101	97
051	S	97	93
052	S	99	97
053	MS	99	96
054	MSD	100	96
055	CCV	101	97
056	CCB	101	97

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	Spike (ug/l)	MDL (ug/l)	Prep Batch
Al-27	4/9/2012	0.50	0.189	MTD-040212-1
Sb-121	3/20/2012	1.00	0.105	MTD-032012-3
As-75	3/20/2012	0.05	0.032	MTD-032012-2
Ba-137	3/20/2012	0.50	0.202	MTD-032012-2
Be-9	4/10/2012	0.10	0.079	MTD-041012-1
B-10	3/20/2012	1.00	0.589	MTD-032012-3
B-11	3/20/2012	1.00	0.277	MTD-032012-3
Cd-111	3/20/2012	0.05	0.038	MTD-032012-2
Cd-114	3/20/2012	0.10	0.030	MTD-032012-2
Cr-52	3/20/2012	0.10	0.023	MTD-032012-2
Cr-53	3/20/2012	0.10	0.054	MTD-032012-2
Co-59	3/20/2012	0.10	0.035	MTD-032012-2
Cu-65	3/20/2012	0.50	0.068	MTD-032012-2
Fe-56	4/9/2012	2.00	0.470	MTD-040912-1
Fe-57	4/9/2012	2.00	0.824	MTD-040912-1
Pb-208	3/20/2012	0.10	0.052	MTD-032012-2
Li-7	3/20/2012	1.00	0.166	MTD-032012-3
Mn-55	3/20/2012	0.10	0.187	MTD-032012-2
Mo-95	4/9/2012	0.50	0.442	MTD-040212-1
Ni-60	4/13/2012	0.10	0.035	MTD-041012-1
Se-78	3/20/2012	0.10	0.058	MTD-032012-2
Se-82	3/20/2012	0.50	0.475	MTD-032012-2
Ag-107	3/20/2012	0.10	0.025	MTD-032012-2
Sr-88	3/20/2012	0.10	0.016	MTD-032012-2
Tl-205	4/9/2012	0.50	0.089	MTD-040212-1
Sn-118	3/20/2012	0.10	0.079	MTD-032012-2
Ti-47	3/20/2012	0.50	0.124	MTD-032012-2
V-51	3/20/2012	0.05	0.018	MTD-032012-2
Zn-66	4/9/2012	2.00	0.366	MTD-040912-1

Element/Mass	Date	Spike (mg/l)	MDL (mg/l)	Prep Batch
Ca-43	4/16/2012	0.01	0.0101	MTD-041012-4
Ca-44	4/16/2012	0.01	0.0041	MTD-041012-4
Mg-24	4/16/2012	0.01	0.0006	MTD-041012-4
K-39	4/16/2012	0.01	0.0030	MTD-041012-4
Na-23	4/16/2012	0.10	0.0101	MTD-041012-4

Linear Range June 2012

		Prep Batch	Run Batch
Aluminum	5.0ppm	MTD-061912-5	MT3-12-0619C
Antimony	5.0ppm	MTD-061912-5	MT3-12-0619C
Arsenic	1.0ppm	MTD-061912-5	MT3-12-0619C
Barium	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-10	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-11	5.0ppm	MTD-061912-5	MT3-12-0619C
Beryllium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-111	5.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-114	5.0ppm	MTD-061912-5	MT3-12-0619C
Chromium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cobalt	2.0ppm	MTD-061912-5	MT3-12-0619C
Copper	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-56	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-57	2.0ppm	MTD-061912-5	MT3-12-0619C
Lead	5.0ppm	MTD-061912-5	MT3-12-0619C
Lithium	2.0ppm	MTD-061912-5	MT3-12-0619C
Manganese	1.0ppm	MTD-061912-5	MT3-12-0619C
Molybdenum	1.0ppm	MTD-061912-5	MT3-12-0619C
Nickel	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-78	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-82	5.0ppm	MTD-061912-5	MT3-12-0619C
Silver	1.0ppm	MTD-061912-5	MT3-12-0619C
Strontium-86	5.0ppm	MTD-061912-5	MT3-12-0619C
Thallium	5.0ppm	MTD-061912-5	MT3-12-0619C
Tin	1.0ppm	MTD-061912-5	MT3-12-0619C
Titanium	1.0ppm	MTD-061912-5	MT3-12-0619C
Vanadium	1.0ppm	MTD-061912-5	MT3-12-0619C
Zinc	2.0ppm	MTD-061912-5	MT3-12-0619C

Sodium-23	50ppm	MTD-061912-5	MT3-12-0619B
Magnesium-24	50ppm	MTD-061912-5	MT3-12-0619B
Potassium-39	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-43	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-44	50ppm	MTD-061912-5	MT3-12-0619B

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 001
Method: 10-mich-2is.mth
Acq Time: 11:02:40 Thu 09-Aug-12
Sample Name: Blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	948.383	0	mg/L		3
Ni	60	161.668	0	mg/L		3
Cu	65	135.834	0	mg/L		3
Zn	66	322.506	0	mg/L		3
As	75	203.280	0	mg/L		3
Se	82	-8.333	0	mg/L		3
Ag	107	95.001	0	mg/L		3
Cd	111	36.667	0	mg/L		3
Ba	137	89.167	0	mg/L		3
Pb	208	375.841	0	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 002
Method: 10-mich-2is.mth
Acq Time: 11:04:38 Thu 09-Aug-12
Sample Name: std-0.000
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1025.058	0.000023	mg/L		3
Ni	60	153.335	-0.000017	mg/L		3
Cu	65	126.668	-0.000016	mg/L		3
Zn	66	355.840	0.000062	mg/L		3
As	75	195.351	-0.000022	mg/L		3
Se	82	-7.667	0.000028	mg/L		3
Ag	107	113.334	0.000007	mg/L		3
Cd	111	34.167	-0.000005	mg/L		3
Ba	137	85.000	-0.000006	mg/L		3
Pb	208	395.842	0.000005	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 003
Method: 10-mich-2is.mth
Acq Time: 11:06:36 Thu 09-Aug-12
Sample Name: std-0.0001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1155.074	0.000068	mg/L		3
Ni	60	310.005	0.000208	mg/L		3
Cu	65	161.668	0.000027	mg/L		3
Zn	66	394.175	0.000138	mg/L		3
As	75	227.404	0.000035	mg/L		3
Se	82	-13.667	-0.000109	mg/L		3
Ag	107	210.002	0.000047	mg/L		3
Cd	111	72.500	0.000056	mg/L		3
Ba	137	142.501	0.000052	mg/L		3
Pb	208	906.712	0.000138	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 004
Method: 10-mich-2is.mth
Acq Time: 11:08:40 Thu 09-Aug-12
Sample Name: std-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3453.156	0.000981	mg/L		3
Ni	60	902.545	0.001091	mg/L		3
Cu	65	813.370	0.000903	mg/L		3
Zn	66	754.198	0.000998	mg/L		3
As	75	556.231	0.000758	mg/L		3
Se	82	34.334	0.000963	mg/L		3
Ag	107	2157.756	0.000878	mg/L		3
Cd	111	600.020	0.000929	mg/L		3
Ba	137	1024.224	0.000999	mg/L		3
Pb	208	4415.240	0.001072	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 005
Method: 10-mich-2is.mth
Acq Time: 11:10:42 Thu 09-Aug-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	13653.590	0.004985	mg/L		3
Ni	60	3719.095	0.005251	mg/L		3
Cu	65	3953.359	0.005084	mg/L		3
Zn	66	2437.827	0.004921	mg/L		3
As	75	2493.680	0.004949	mg/L		3
Se	82	209.672	0.004850	mg/L		3
Ag	107	11261.151	0.004737	mg/L		3
Cd	111	3133.874	0.005085	mg/L		3
Ba	137	4786.261	0.005008	mg/L		3
Pb	208	19490.881	0.005094	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 006
Method: 10-mich-2is.mth
Acq Time: 11:12:48 Thu 09-Aug-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	52632.007	0.019952	mg/L		3
Ni	60	14458.181	0.020761	mg/L		3
Cu	65	15851.318	0.020575	mg/L		3
Zn	66	9094.548	0.020101	mg/L		3
As	75	9458.441	0.019670	mg/L		3
Se	82	886.054	0.019576	mg/L		3
Ag	107	47376.531	0.019720	mg/L		3
Cd	111	12399.287	0.019941	mg/L		3
Ba	137	18657.477	0.019442	mg/L		3
Pb	208	76246.049	0.020249	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 007
Method: 10-mich-2is.mth
Acq Time: 11:14:58 Thu 09-Aug-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	127988.155	0.050107	mg/L		3
Ni	60	34610.841	0.051059	mg/L		3
Cu	65	38788.462	0.051677	mg/L		3
Zn	66	22212.952	0.051244	mg/L		3
As	75	23411.831	0.050412	mg/L		3
Se	82	2212.299	0.049483	mg/L		3
Ag	107	116043.763	0.049368	mg/L		3
Cd	111	30362.311	0.049941	mg/L		3
Ba	137	46300.999	0.049409	mg/L		3
Pb	208	187572.365	0.050203	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 008
Method: 10-mich-2is.mth
Acq Time: 11:17:16 Thu 09-Aug-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	507348.092	0.199979	mg/L		3
Ni	60	134717.679	0.199652	mg/L		3
Cu	65	149170.677	0.199522	mg/L		3
Zn	66	85485.698	0.199681	mg/L		3
As	75	92085.419	0.199932	mg/L		3
Se	82	8953.526	0.200176	mg/L		3
Ag	107	469214.492	0.200193	mg/L		3
Cd	111	121204.188	0.200019	mg/L		3
Ba	137	187023.638	0.200203	mg/L		3
Pb	208	752240.485	0.199922	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 009
Method: 10-mich-2is.mth
Acq Time: 11:19:52 Thu 09-Aug-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 07/24/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	257978.567	0.100547	mg/L		3
Ni	60	68620.993	0.100605	mg/L		3
Cu	65	75786.459	0.100328	mg/L		3
Zn	66	42463.180	0.097908	mg/L		3
As	75	47335.556	0.101599	mg/L		3
Se	82	4481.500	0.099329	mg/L		3
Ag	107	233012.142	0.098470	mg/L		3
Cd	111	61296.890	0.100143	mg/L		3
Ba	137	93615.846	0.099205	mg/L		3
Pb	208	380254.589	0.100772	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 010
Method: 10-mich-2is.mth
Acq Time: 11:24:10 Thu 09-Aug-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1069.230	0.000041	mg/L		3
Ni	60	171.668	0.000010	mg/L		3
Cu	65	138.334	0.000000	mg/L		3
Zn	66	360.841	0.000076	mg/L		3
As	75	246.579	0.000087	mg/L		3
Se	82	10.667	0.000424	mg/L		3
Ag	107	219.169	0.000053	mg/L		3
Cd	111	27.500	-0.000017	mg/L		3
Ba	137	101.667	0.000011	mg/L		3
Pb	208	405.842	0.000009	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 011
Method: 10-mich-2is.mth
Acq Time: 11:27:56 Thu 09-Aug-12
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	257187.090	0.099677	mg/L		3
Ni	60	68976.259	0.100613	mg/L		3
Cu	65	76051.245	0.100047	mg/L		3
Zn	66	43479.735	0.099672	mg/L		3
As	75	46989.336	0.100281	mg/L		3
Se	82	4608.223	0.101585	mg/L		3
Ag	107	235500.976	0.098963	mg/L		3
Cd	111	60896.770	0.098949	mg/L		3
Ba	137	92012.704	0.096989	mg/L		3
Pb	208	370305.699	0.100237	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 012
Method: 10-mich-2is.mth
Acq Time: 11:31:35 Thu 09-Aug-12
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1129.237	0.000062	mg/L		3
Ni	60	155.835	-0.000014	mg/L		3
Cu	65	160.835	0.000029	mg/L		3
Zn	66	355.840	0.000058	mg/L		3
As	75	225.609	0.000037	mg/L		3
Se	82	-11.333	-0.000067	mg/L		3
Ag	107	265.837	0.000072	mg/L		3
Cd	111	34.167	-0.000006	mg/L		3
Ba	137	129.168	0.000041	mg/L		3
Pb	208	436.677	0.000016	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 013
Method: 10-mich-2is.mth
Acq Time: 11:34:18 Thu 09-Aug-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	2298.625	0.000508	mg/L		3
Ni	60	518.348	0.000510	mg/L		3
Cu	65	511.681	0.000486	mg/L		3
As	75	441.784	0.000492	mg/L		3
Se	82	14.667	0.000508	mg/L		3
Ag	107	1226.750	0.000471	mg/L		3
Cd	111	316.672	0.000450	mg/L		3
Ba	137	510.848	0.000439	mg/L		3
Pb	208	2523.684	0.000570	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 014
Method: 10-mich-2is.mth
Acq Time: 11:36:19 Thu 09-Aug-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	3598.214	0.001003	mg/L		3
Ni	60	898.378	0.001054	mg/L		3
Cu	65	870.042	0.000947	mg/L		3
Zn	66	796.702	0.001049	mg/L		3
As	75	706.299	0.001045	mg/L		3
Se	77	61.667	0.000797	mg/L		3
Ag	107	2434.493	0.000970	mg/L		3
Cd	111	647.523	0.000978	mg/L		3
Ba	137	958.384	0.000903	mg/L		3
Pb	208	4241.823	0.001037	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 015
Method: 10-mich-2is.mth
Acq Time: 11:38:44 Thu 09-Aug-12
Sample Name: BS-0.002
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	6269.667	0.001988	mg/L		3
Ni	60	1565.970	0.001978	mg/L		3
Cu	65	1587.639	0.001845	mg/L		3
Zn	66	1151.740	0.001813	mg/L		3
As	75	1184.721	0.002014	mg/L		3
Se	82	70.001	0.001683	mg/L		3
Ag	107	4782.926	0.001909	mg/L		3
Cd	111	1275.923	0.001951	mg/L		3
Ba	137	1931.039	0.001877	mg/L		3
Pb	208	8273.766	0.002080	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 016
Method: 10-mich-2is.mth
Acq Time: 11:40:45 Thu 09-Aug-12
Sample Name: ERA-8121-04
Sample Type: Sample
Matrix: Liquid
Comments: dil 5/1
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	326385.152	0.621687	mg/L		3
Ni	60	289466.871	2.076101	mg/L		3
Cu	65	132955.484	0.860071	mg/L		3
Zn	66	36499.027	0.410281	mg/L		3
As	75	84344.274	0.885602	mg/L		3
Se	82	9471.731	1.024388	mg/L		3
Ag	107	89737.074	0.184985	mg/L		3
Cd	111	14798.714	0.117823	mg/L		3
Ba	137	135180.152	0.699902	mg/L		3
Pb	208	1341646.057	1.749161	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 017
Method: 10-mich-2is.mth
Acq Time: 11:50:26 Thu 09-Aug-12
Sample Name: Solu-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	65092.402	0.024332	mg/L		3
Ni	60	17324.841	0.024468	mg/L		3
Cu	63	36442.135	0.022067	mg/L		3
Zn	68	7031.886	0.021405	mg/L		3
As	75	11699.881	0.024016	mg/L		3
Ag	107	43895.793	0.017962	mg/L		3
Cd	114	29031.457	0.019527	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 018
Method: 10-mich-2is.mth
Acq Time: 11:53:25 Thu 09-Aug-12
Sample Name: Solu-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1220.082	0.000043	mg/L		3
Ni	60	153.335	-0.000043	mg/L		3
Cu	65	225.003	0.000081	mg/L		3
Zn	66	569.185	0.000406	mg/L		3
As	75	206.625	-0.000055	mg/L		3
Se	82	9.333	0.000374	mg/L		3
Ag	107	83.334	-0.000010	mg/L		3
Cd	111	21.667	-0.000030	mg/L		3
Ba	137	107.501	0.000004	mg/L		3
Pb	208	399.175	-0.000003	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 019
Method: 10-mich-2is.mth
Acq Time: 11:55:39 Thu 09-Aug-12
Sample Name: 0808_2 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	139068.053	0.049613	mg/L		3
Ni	60	37922.394	0.050982	mg/L		3
Cu	65	41950.777	0.050901	mg/L		3
Zn	66	23307.368	0.048947	mg/L		3
As	75	24964.179	0.048937	mg/L		3
Se	82	2357.338	0.048060	mg/L		3
Ag	107	126641.303	0.049069	mg/L		3
Cd	111	33363.679	0.050002	mg/L		3
Ba	137	49698.908	0.048335	mg/L		3
Pb	208	197371.373	0.049902	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 020
Method: 10-mich-2is.mth
Acq Time: 12:01:33 Thu 09-Aug-12
Sample Name: LRB_2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1060.062	0.000005	mg/L		3
Ni	60	106.667	-0.000099	mg/L		3
Cu	65	22.500	-0.000158	mg/L		3
Zn	66	170.002	-0.000404	mg/L		3
As	75	183.868	-0.000085	mg/L		3
Se	82	4.000	0.000262	mg/L		3
Ag	107	71.667	-0.000013	mg/L		3
Cd	111	10.833	-0.000045	mg/L		3
Ba	137	37.500	-0.000061	mg/L		3
Pb	208	130.001	-0.000069	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 021
Method: 10-mich-2is.mth
Acq Time: 12:03:33 Thu 09-Aug-12
Sample Name: 53401.02s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 211

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	29639.983	2.445833	mg/kg		3
Ni	60	17217.966	5.459209	mg/kg		3
Cu	65	20016.195	5.738469	mg/kg		3
Zn	66	26985.854	13.486482	mg/kg		3
As	75	3264.501	1.436338	mg/kg		3
Se	82	20.000	0.136718	mg/kg		3
Ag	107	440.844	0.031843	mg/kg		3
Cd	111	255.004	0.077881	mg/kg		3
Ba	137	43868.956	10.113326	mg/kg		3
Pb	208	55404.212	3.076915	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 022
Method: 10-mich-2is.mth
Acq Time: 12:06:23 Thu 09-Aug-12
Sample Name: 53401.02 dil
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 1055

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	7056.906	2.540034	mg/kg		3
Ni	60	3572.369	5.340302	mg/kg		3
Cu	65	4231.820	5.784433	mg/kg		3
Zn	66	5852.719	13.679863	mg/kg		3
As	75	866.861	1.516453	mg/kg		3
Se	82	4.333	0.303018	mg/kg		3
Ag	107	121.667	0.011241	mg/kg		3
Cd	111	49.167	0.020567	mg/kg		3
Ba	137	9955.450	11.157291	mg/kg		3
Pb	208	11815.174	3.184427	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 023
Method: 10-mich-2is.mth
Acq Time: 12:08:50 Thu 09-Aug-12
Sample Name: 53401.03s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 212

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	27870.173	2.172838	mg/kg		3
Ni	60	6273.833	1.852840	mg/kg		3
Cu	65	9079.548	2.449834	mg/kg		3
Zn	66	7888.426	3.624067	mg/kg		3
As	75	1102.534	0.396141	mg/kg		3
Se	82	18.000	0.121909	mg/kg		3
Ag	107	324.173	0.019485	mg/kg		3
Cd	111	218.336	0.060849	mg/kg		3
Ba	137	36472.237	7.976219	mg/kg		3
Pb	208	43913.336	2.365344	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 024
Method: 10-mich-2is.mth
Acq Time: 12:11:18 Thu 09-Aug-12
Sample Name: 53401.04s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 213

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	16420.668	1.207586	mg/kg		3
Ni	60	3348.950	0.935844	mg/kg		3
Cu	65	13853.884	3.646525	mg/kg		3
Zn	66	12603.746	5.709917	mg/kg		3
As	75	1311.599	0.471138	mg/kg		3
Se	82	14.000	0.102465	mg/kg		3
Ag	107	205.002	0.008577	mg/kg		3
Cd	111	328.339	0.094448	mg/kg		3
Ba	137	60034.339	12.755770	mg/kg		3
Pb	208	91588.319	4.871467	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 025
Method: 10-mich-2is.mth
Acq Time: 12:13:46 Thu 09-Aug-12
Sample Name: 53401.05s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 226

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	45710.550	3.757556	mg/kg		3
Ni	60	9821.982	3.047888	mg/kg		3
Cu	65	24635.838	6.978781	mg/kg		3
Zn	66	50801.589	25.188303	mg/kg		3
As	75	1509.517	0.597530	mg/kg		3
Se	82	51.001	0.286464	mg/kg		3
Ag	107	479.179	0.034310	mg/kg		3
Cd	111	1031.726	0.349226	mg/kg		3
Ba	137	220009.740	50.146658	mg/kg		3
Pb	208	333144.852	18.864759	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 026
Method: 10-mich-2is.mth
Acq Time: 12:16:15 Thu 09-Aug-12
Sample Name: 53401.06s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 206

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	55241.794	4.298649	mg/kg		3
Ni	60	18013.671	5.310361	mg/kg		3
Cu	65	25332.792	6.760239	mg/kg		3
Zn	66	53499.753	24.982579	mg/kg		3
As	75	3592.344	1.474124	mg/kg		3
Se	82	5.333	0.063611	mg/kg		3
Ag	107	366.674	0.022754	mg/kg		3
Cd	111	542.516	0.166694	mg/kg		3
Ba	137	179126.716	38.430133	mg/kg		3
Pb	208	839782.704	43.866427	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 027
Method: 10-mich-2is.mth
Acq Time: 12:18:45 Thu 09-Aug-12
Sample Name: 53401.07s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 210

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	52982.798	4.177513	mg/kg		3
Ni	60	12384.275	3.686527	mg/kg		3
Cu	65	21847.089	5.908061	mg/kg		3
Zn	66	60353.152	28.608241	mg/kg		3
As	75	2523.773	1.022877	mg/kg		3
Se	82	29.000	0.170349	mg/kg		3
Ag	107	324.172	0.019420	mg/kg		3
Cd	111	538.349	0.167651	mg/kg		3
Ba	137	167484.870	36.443860	mg/kg		3
Pb	208	414706.672	22.160901	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 028
Method: 10-mich-2is.mth
Acq Time: 12:21:13 Thu 09-Aug-12
Sample Name: 53401.08s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 215

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	40844.157	3.110705	mg/kg		3
Ni	60	9660.141	2.785323	mg/kg		3
Cu	65	30020.356	7.913201	mg/kg		3
Zn	66	27896.096	12.781134	mg/kg		3
As	75	1256.360	0.443610	mg/kg		3
Se	82	22.334	0.137618	mg/kg		3
Ag	107	193.335	0.007467	mg/kg		3
Cd	111	598.353	0.182051	mg/kg		3
Ba	137	126951.528	26.891595	mg/kg		3
Pb	208	103543.393	5.459318	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 029
Method: 10-mich-2is.mth
Acq Time: 12:26:12 Thu 09-Aug-12
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	270991.138	0.098227	mg/L		3
Ni	60	74818.694	0.102052	mg/L		3
Cu	65	83167.357	0.102385	mg/L		3
Zn	66	46291.180	0.099222	mg/L		3
As	75	51473.631	0.102722	mg/L		3
Se	82	4855.026	0.100058	mg/L		3
Ag	107	254497.150	0.099959	mg/L		3
Cd	111	65785.630	0.099913	mg/L		3
Ba	137	100086.629	0.098626	mg/L		3
Pb	208	391618.442	0.099539	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 030
Method: 10-mich-2is.mth
Acq Time: 12:33:15 Thu 09-Aug-12
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1162.574	0.000054	mg/L		3
Ni	60	141.668	-0.000045	mg/L		3
Cu	65	136.668	-0.000012	mg/L		3
Zn	66	371.674	0.000059	mg/L		3
As	75	293.109	0.000153	mg/L		3
Se	82	9.333	0.000391	mg/L		3
Ag	107	290.005	0.000076	mg/L		3
Cd	111	35.000	-0.000006	mg/L		3
Ba	137	114.167	0.000019	mg/L		3
Pb	208	393.342	0.000000	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 031
Method: 10-mich-2is.mth
Acq Time: 12:35:24 Thu 09-Aug-12
Sample Name: 53401.09s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 221

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	45517.132	3.642291	mg/kg		3
Ni	60	17110.271	5.209105	mg/kg		3
Cu	65	14450.649	3.969341	mg/kg		3
Zn	66	19941.022	9.529053	mg/kg		3
As	75	1132.405	0.410776	mg/kg		3
Se	82	5.667	0.068352	mg/kg		3
Ag	107	565.018	0.040765	mg/kg		3
Cd	111	150.835	0.037905	mg/kg		3
Ba	137	57911.397	12.837464	mg/kg		3
Pb	208	45697.080	2.566654	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 032
Method: 10-mich-2is.mth
Acq Time: 12:37:59 Thu 09-Aug-12
Sample Name: 53401.10s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 198

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	29662.506	2.266876	mg/kg		3
Ni	60	14666.002	4.304506	mg/kg		3
Cu	65	14264.525	3.781200	mg/kg		3
Zn	66	19664.588	9.072057	mg/kg		3
As	75	3296.586	1.344825	mg/kg		3
Se	82	-8.000	0.001740	mg/kg		3
Ag	107	182.502	0.007418	mg/kg		3
Cd	111	284.171	0.081624	mg/kg		3
Ba	137	31196.828	6.658962	mg/kg		3
Pb	208	47049.953	2.576821	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 033
Method: 10-mich-2is.mth
Acq Time: 12:40:22 Thu 09-Aug-12
Sample Name: 53401.11s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 226

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	171814.346	15.314398	mg/kg		3
Ni	60	78677.593	26.446562	mg/kg		3
Cu	65	63223.365	19.173488	mg/kg		3
Zn	66	79494.795	42.157263	mg/kg		3
As	75	9519.014	4.599272	mg/kg		3
Se	82	4.333	0.063992	mg/kg		3
Ag	107	810.869	0.069174	mg/kg		3
Cd	111	493.347	0.170581	mg/kg		3
Ba	137	297327.858	72.280392	mg/kg		3
Pb	208	142173.238	9.050334	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 034
Method: 10-mich-2is.mth
Acq Time: 12:42:46 Thu 09-Aug-12
Sample Name: 53401.12s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 212

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	91947.520	7.313760	mg/kg		3
Ni	60	25206.597	7.559056	mg/kg		3
Cu	65	116178.003	31.607423	mg/kg		3
Zn	66	131748.360	62.701843	mg/kg		3
As	75	4691.798	1.983300	mg/kg		3
Se	82	62.335	0.324841	mg/kg		3
Ag	107	495.847	0.034281	mg/kg		3
Cd	111	2476.171	0.818967	mg/kg		3
Ba	137	297373.336	64.783941	mg/kg		3
Pb	208	634992.284	35.905326	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 035
Method: 10-mich-2is.mth
Acq Time: 12:47:35 Thu 09-Aug-12
Sample Name: 53401.13s
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 211

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	55803.333	4.454789	mg/kg		3
Ni	60	13279.694	4.003705	mg/kg		3
Cu	65	21599.821	5.906923	mg/kg		3
Zn	66	40889.287	19.569332	mg/kg		3
As	75	3694.041	1.559440	mg/kg		3
Se	82	16.667	0.117493	mg/kg		3
Ag	107	337.506	0.020945	mg/kg		3
Cd	111	705.861	0.226775	mg/kg		3
Ba	137	114254.434	25.153918	mg/kg		3
Pb	208	229477.014	12.939843	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 036
Method: 10-mich-2is.mth
Acq Time: 12:50:00 Thu 09-Aug-12
Sample Name: 53401.14s MS-0.10
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 211

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	316967.150	26.181975	mg/kg		3
Ni	60	82293.722	25.573531	mg/kg		3
Cu	65	95070.588	26.648163	mg/kg		3
Zn	66	81125.402	39.751332	mg/kg		3
As	75	52945.213	24.079176	mg/kg		3
Se	82	4217.713	19.803833	mg/kg		3
Ag	107	220942.650	19.756723	mg/kg		3
Cd	111	62066.583	21.478766	mg/kg		3
Ba	137	204974.347	46.004439	mg/kg		3
Pb	208	591321.494	33.802807	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 037
Method: 10-mich-2is.mth
Acq Time: 12:52:24 Thu 09-Aug-12
Sample Name: 53401.15s MSD
Sample Type: Sample
Matrix: Soil
Comments:
Dilution: 211

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	319646.751	26.309506	mg/kg		3
Ni	60	81142.736	25.120257	mg/kg		3
Cu	65	94086.176	26.280040	mg/kg		3
Zn	66	78558.361	38.345184	mg/kg		3
As	75	53446.924	24.204651	mg/kg		3
Se	82	4240.388	19.834087	mg/kg		3
Ag	107	220895.477	19.679406	mg/kg		3
Cd	111	62511.868	21.540035	mg/kg		3
Ba	137	205721.640	46.029832	mg/kg		3
Pb	208	583500.802	32.990755	mg/kg		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 038
Method: 10-mich-2is.mth
Acq Time: 12:57:54 Thu 09-Aug-12
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	264405.575	0.101789	mg/L		3
Ni	60	71390.217	0.103425	mg/L		3
Cu	65	79710.515	0.104112	mg/L		3
Zn	66	44025.712	0.100200	mg/L		3
As	75	49138.449	0.104069	mg/L		3
Se	82	4559.208	0.099830	mg/L		3
Ag	107	238825.935	0.099555	mg/L		3
Cd	111	61984.289	0.099982	mg/L		3
Ba	137	95527.850	0.100018	mg/L		3
Pb	208	371195.672	0.100738	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 039
Method: 10-mich-2is.mth
Acq Time: 13:03:46 Thu 09-Aug-12
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080812-2
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1252.586	0.000092	mg/L		3
Ni	60	151.668	-0.000029	mg/L		3
Cu	65	130.001	-0.000019	mg/L		3
Zn	66	390.842	0.000107	mg/L		3
As	75	247.669	0.000063	mg/L		3
Se	82	-3.667	0.000107	mg/L		3
Ag	107	257.504	0.000064	mg/L		3
Cd	111	34.167	-0.000007	mg/L		3
Ba	137	110.834	0.000016	mg/L		3
Pb	208	355.007	-0.000005	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 040
Method: 10-mich-2is.mth
Acq Time: 13:57:27 Thu 09-Aug-12
Sample Name: 0809_4 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080912-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	134248.893	0.051128	mg/L		3
Ni	60	35289.358	0.050643	mg/L		3
Cu	65	40225.654	0.052088	mg/L		3
Zn	66	22444.363	0.050369	mg/L		3
As	75	24725.019	0.051772	mg/L		3
Se	82	2351.340	0.051202	mg/L		3
Ag	107	116972.073	0.048426	mg/L		3
Cd	111	30651.626	0.049079	mg/L		3
Ba	137	46680.435	0.048464	mg/L		3
Pb	208	178314.140	0.049782	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 041
Method: 10-mich-2is.mth
Acq Time: 14:03:23 Thu 09-Aug-12
Sample Name: LRB_4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080912-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1154.240	0.000066	mg/L		3
Ni	60	67.500	-0.000146	mg/L		3
Cu	65	20.000	-0.000159	mg/L		3
Zn	66	270.004	-0.000150	mg/L		3
As	75	311.613	0.000214	mg/L		3
Se	82	-8.000	0.000005	mg/L		3
Ag	107	85.000	-0.000006	mg/L		3
Cd	111	12.500	-0.000041	mg/L		3
Ba	137	42.500	-0.000052	mg/L		3
Pb	208	78.334	-0.000079	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 055
Method: 10-mich-2is.mth
Acq Time: 14:40:24 Thu 09-Aug-12
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080912-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	262621.548	0.104755	mg/L		3
Ni	60	68221.659	0.102318	mg/L		3
Cu	65	77686.196	0.105135	mg/L		3
Zn	66	43253.561	0.102024	mg/L		3
As	75	49904.578	0.109595	mg/L		3
Se	82	4534.859	0.102904	mg/L		3
Ag	107	231210.855	0.099969	mg/L		3
Cd	111	59454.122	0.099446	mg/L		3
Ba	137	92472.205	0.100248	mg/L		3
Pb	208	357264.636	0.099657	mg/L		3

Data Set: MT2-12-0809A
Run Date: 08/09/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 056
Method: 10-mich-2is.mth
Acq Time: 14:44:04 Thu 09-Aug-12
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-0809A.cal
Cal Type: External Calibration
Last Calib: mtd-080912-4
Bkg File:
Int Correct:
Blank File: Blank.001

Element	Mass		Concentration	Units	RSD %	Rep
Cr	52	1386.772	0.000171	mg/L		3
Ni	60	140.001	-0.000034	mg/L		3
Cu	65	62.500	-0.000101	mg/L		3
Zn	66	270.004	-0.000134	mg/L		3
As	75	239.724	0.000079	mg/L		3
Se	82	-17.334	-0.000204	mg/L		3
Ag	107	150.835	0.000024	mg/L		3
Cd	111	20.833	-0.000027	mg/L		3
Ba	137	47.500	-0.000046	mg/L		3
Pb	208	253.337	-0.000031	mg/L		3

Metals Digestion

3015A (3050B)

DATE 08/08/12

TIME START 09:30

ANALYST RR

TIME FINISH 09:45

PREP BATCH MTD- 080812-2

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS- 2	----	50	50		—	1
LRB- 2	----	50	50		—	1
53401.02		0.260		dil 5/1 = 1055	91	211
03		0.268			88	212
04		0.258			91	213
05		0.267			83	226
06		0.299			81	206
07		0.271			88	210
08		0.267			87	215
09		0.279			81	221
10		0.260			97	198
11		0.270			82	226
12		0.278			85	212
13		0.286			83	211
14 MS		0.279		TO #13	85	211
15 MSD		0.279			85	211

NOTES: *1) Spike values (unless otherwise stated):*

LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution

Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution

Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution

Spiking Solution - Lot # E2-MEB379078 + D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)

LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution

Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution

High Purity Stock Solution (HM)- Lot # 112533

3) HNO_3 Lot # 51332-OmniTrace

4) Centrifuge Tube Lot # 120201-960-1

5) Balance ID: M1

Reviewed by SA *On* 08/08/12

Form 0: Sequence Log

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	8/7/2012 3:14:20 PM	Calibration Blank	Liquid	
002	8/7/2012 3:16:35 PM	Standard #1	Liquid	
003	8/7/2012 3:18:49 PM	Standard #2	Liquid	
004	8/7/2012 3:21:03 PM	Standard #3	Liquid	
005	8/7/2012 3:23:16 PM	Standard #4	Liquid	
006	8/7/2012 3:28:07 PM	Standard #5	Liquid	
007	8/7/2012 3:30:19 PM	Standard #6	Liquid	
008	8/7/2012 3:33:52 PM	Standard #7	Liquid	
009	8/7/2012 3:37:01 PM	CCV1-2.0 ppb	Liquid	CCV
010	8/7/2012 3:39:20 PM	CCB1	Liquid	CCB
011	8/7/2012 3:41:38 PM	ICV-5.0	Liquid	ICV
012	8/7/2012 3:45:09 PM	ICB	Liquid	ICB
013	8/7/2012 3:47:26 PM	ERA 8121-05 TV=15.9	Liquid	ERA
014	8/7/2012 3:50:32 PM	BS-0.10	Liquid	BS
015	8/7/2012 3:52:52 PM	08/07 LCS1-2.0 ppb	Soil	LCS
016	8/7/2012 3:56:57 PM	08/07 LRB1	Soil	LRB
017	8/7/2012 3:59:08 PM	53368.01s	Soil	S
018	8/7/2012 4:01:20 PM	53368.02s	Soil	S
019	8/7/2012 4:03:32 PM	53368.03s	Soil	S
020	8/7/2012 4:05:45 PM	53386.05s	Soil	S
021	8/7/2012 4:07:58 PM	53389.01s	Soil	S
022	8/7/2012 4:10:12 PM	53389.02s	Soil	S
023	8/7/2012 4:12:27 PM	53389.03s	Soil	S
024	8/7/2012 4:14:39 PM	53400.01s	Soil	S
025	8/7/2012 4:16:51 PM	53401.02s	Soil	S
026	8/7/2012 4:19:04 PM	53401.13s	Soil	S
027	8/7/2012 4:21:17 PM	53401.14s MS-2.0 ppb	Soil	MS
028	8/7/2012 4:23:31 PM	53401.15s MSD	Soil	MSD
029	8/7/2012 4:25:50 PM	CCV2-2.0 ppb	Liquid	CCV
030	8/7/2012 4:28:09 PM	CCB2	Liquid	CCB
031	8/7/2012 4:30:24 PM	53401.03s	Soil	S
032	8/7/2012 4:32:39 PM	53401.04s	Soil	S
033	8/7/2012 4:34:51 PM	53401.05s	Soil	S
034	8/7/2012 4:37:04 PM	53401.06s	Soil	S
035	8/7/2012 4:39:18 PM	53401.07s	Soil	S
036	8/7/2012 4:41:32 PM	53401.08s	Soil	S
037	8/7/2012 4:43:47 PM	53401.09s	Soil	S
038	8/7/2012 4:46:02 PM	53401.10s	Soil	S
039	8/7/2012 4:48:18 PM	53401.11s	Soil	S
040	8/7/2012 4:50:31 PM	53401.12s	Soil	S
041	8/7/2012 4:52:50 PM	CCV3-2.0 ppb	Liquid	CCV
042	8/7/2012 4:55:09 PM	CCB3	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.02
Sample Tag: SB105 (07-30-12) (0-2)
Date Collected: 07/30/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	55	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.03
Sample Tag: SB104 (07-30-12) (0-2)
Date Collected: 07/30/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	57	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.04
Sample Tag: SB103 (07-30-12) (0-2)
Date Collected: 07/30/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	54	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.05
Sample Tag: SB102 (07-31-12) (2-4)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	59	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.06
Sample Tag: SB112 (07-31-12) (0-2)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	60	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.07
Sample Tag: DUP 4 (07-31-12)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	56	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.08
Sample Tag: SB114 (07-31-12) (2-4)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	57	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.09
Sample Tag: SB113 (07-31-12) 3-5)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	61	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.10
Sample Tag: SB109 (07-31-12) (0-2)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	52	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.11
Sample Tag: SB165 (07-31-12) (8-10)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	61	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.12
Sample Tag: SB162 (07-31-12) (2-4)
Date Collected: 07/31/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.100	0.050		mg/kg	58	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.13
Sample Tag: SB142 (08-01-12) (0-2)
Date Collected: 08/01/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.050		mg/kg	60	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.14
Sample Tag: SB142 (08-01-12) (0-2) MS
Date Collected: 08/01/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.168	0.050		mg/kg	59	08/07/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Lab Sample ID: S53401.15
Sample Tag: SB142 (08-01-12) (0-2) MSD
Date Collected: 08/01/2012
Matrix: Soil

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.164	0.050		mg/kg	59	08/07/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 CCV1-2.0 ppb	CCV	1.0	Hg	1.994	2.0	100	90/110	ug/L	Liquid
011 ICV-5.0	ICV	1.0	Hg	5.127	5.0	103	90/110	ug/L	Liquid
029 CCV2-2.0 ppb	CCV	1.0	Hg	1.992	2.0	100	90/110	ug/L	Liquid
041 CCV3-2.0 ppb	CCV	1.0	Hg	2.001	2.0	100	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: 8121-05

Data Set ID: HG2-12-0807A

Instrument ID: HG QuickTrace

Analysis Date: 08/07/12

Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
013 ERA 8121-05 TV=15.9	2.0	Hg	16.36	15.9	103	9.76	21.5	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0541	ug/L	Liquid
012 ICB	ICB	1.0	Hg	<0.03	-0.0539	ug/L	Liquid
016 08/07 LRB1	LRB	50.0	Hg	<0.03	-1.5850	ug/kg	Soil
030 CCB2	CCB	1.0	Hg	<0.03	-0.0548	ug/L	Liquid
042 CCB3	CCB	1.0	Hg	<0.03	-0.0534	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
014 BS-0.10		1.0	Hg	0.103	ND	0.10	103	70/130	ug/L	Liquid
027 53401.14s	**026 53401.13s**	59.1	Hg	167.9	45.61	118.2	104	80/120	ug/kg	Soil

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
028 53401.15s MSD	**027 53401.14s MS-2.0**	59.0	Hg	163.8	167.9	2	0/20	ug/kg	Soil

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 08/07 LCS1-2.0 ppb	50.0	Hg	99.05	100	99	85/115	ug/kg	Soil

Form 13: Analysis Run Log

Data Set ID: HG2-12-0807A
Instrument ID: HG QuickTrace
Analysis Date: 08/07/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	8/7/2012 3:14:20 PM	Liquid	Hg
002 Standard #1	8/7/2012 3:16:35 PM	Liquid	Hg
003 Standard #2	8/7/2012 3:18:49 PM	Liquid	Hg
004 Standard #3	8/7/2012 3:21:03 PM	Liquid	Hg
005 Standard #4	8/7/2012 3:23:16 PM	Liquid	Hg
006 Standard #5	8/7/2012 3:28:07 PM	Liquid	Hg
007 Standard #6	8/7/2012 3:30:19 PM	Liquid	Hg
008 Standard #7	8/7/2012 3:33:52 PM	Liquid	Hg
009 CCV1-2.0 ppb	8/7/2012 3:37:01 PM	Liquid	Hg
010 CCB1	8/7/2012 3:39:20 PM	Liquid	Hg
011 ICV-5.0	8/7/2012 3:41:38 PM	Liquid	Hg
012 ICB	8/7/2012 3:45:09 PM	Liquid	Hg
013 ERA 8121-05 TV=15.9	8/7/2012 3:47:26 PM	Liquid	Hg
014 BS-0.10	8/7/2012 3:50:32 PM	Liquid	Hg
015 08/07 LCS1-2.0 ppb	8/7/2012 3:52:52 PM	Soil	Hg
016 08/07 LRB1	8/7/2012 3:56:57 PM	Soil	Hg
017 53368.01s	8/7/2012 3:59:08 PM	Soil	Hg
018 53368.02s	8/7/2012 4:01:20 PM	Soil	Hg
019 53368.03s	8/7/2012 4:03:32 PM	Soil	Hg
020 53386.05s	8/7/2012 4:05:45 PM	Soil	Hg
021 53389.01s	8/7/2012 4:07:58 PM	Soil	Hg
022 53389.02s	8/7/2012 4:10:12 PM	Soil	Hg
023 53389.03s	8/7/2012 4:12:27 PM	Soil	Hg
024 53400.01s	8/7/2012 4:14:39 PM	Soil	Hg
025 53401.02s	8/7/2012 4:16:51 PM	Soil	Hg
026 53401.13s	8/7/2012 4:19:04 PM	Soil	Hg
027 53401.14s MS-2.0 ppb	8/7/2012 4:21:17 PM	Soil	Hg
028 53401.15s MSD	8/7/2012 4:23:31 PM	Soil	Hg
029 CCV2-2.0 ppb	8/7/2012 4:25:50 PM	Liquid	Hg
030 CCB2	8/7/2012 4:28:09 PM	Liquid	Hg
031 53401.03s	8/7/2012 4:30:24 PM	Soil	Hg
032 53401.04s	8/7/2012 4:32:39 PM	Soil	Hg
033 53401.05s	8/7/2012 4:34:51 PM	Soil	Hg
034 53401.06s	8/7/2012 4:37:04 PM	Soil	Hg
035 53401.07s	8/7/2012 4:39:18 PM	Soil	Hg
036 53401.08s	8/7/2012 4:41:32 PM	Soil	Hg
037 53401.09s	8/7/2012 4:43:47 PM	Soil	Hg
038 53401.10s	8/7/2012 4:46:02 PM	Soil	Hg
039 53401.11s	8/7/2012 4:48:18 PM	Soil	Hg
040 53401.12s	8/7/2012 4:50:31 PM	Soil	Hg
041 CCV3-2.0 ppb	8/7/2012 4:52:50 PM	Liquid	Hg
042 CCB3	8/7/2012 4:55:09 PM	Liquid	Hg

Data Set: HG2-12-0807A
Run Date: 08/07/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	8/7/2012 3:14:20 PM	Calibration Blank	715.9000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	8/7/2012 3:16:35 PM	Standard #1	2494.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	8/7/2012 3:18:49 PM	Standard #2	3591.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	8/7/2012 3:21:03 PM	Standard #3	7024.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	8/7/2012 3:23:16 PM	Standard #4	12830.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	8/7/2012 3:28:07 PM	Standard #5	24160.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	8/7/2012 3:30:19 PM	Standard #6	69380.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	8/7/2012 3:33:52 PM	Standard #7	115000.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	8/7/2012 3:37:01 PM	CCV1-2.0 ppb	23930.0000	1.9940	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	8/7/2012 3:39:20 PM	CCB1	632.7000	-0.0541	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	8/7/2012 3:41:38 PM	ICV-5.0	59560.0000	5.1270	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	8/7/2012 3:45:09 PM	ICB	635.8000	-0.0539	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	8/7/2012 3:47:26 PM	ERA 8121-05 TV=15.9	94340.0000	16.3680	ug/L	Liquid	2.0	1.0000	2.0000
Hg	014	8/7/2012 3:50:32 PM	BS-0.10	2420.0000	0.1030	ug/L	Liquid	1.0	1.0000	1.0000
Hg	015	8/7/2012 3:52:52 PM	08/07 LCS1-2.0 ppb	23780.0000	99.0500	ug/kg	Soil	50.0	0.5000	25.0000
Hg	016	8/7/2012 3:56:57 PM	08/07 LRB1	887.9000	-1.5850	ug/kg	Soil	50.0	0.5000	25.0000
Hg	025	8/7/2012 4:16:51 PM	53401.02s	2406.0000	5.6092	ug/kg	Soil	55.1	0.4540	25.0000
Hg	026	8/7/2012 4:19:04 PM	53401.13s	9940.0000	45.6168	ug/kg	Soil	59.7	0.4190	25.0000
Hg	027	8/7/2012 4:21:17 PM	53401.14s MS-2.0 ppb	33560.0000	167.9031	ug/kg	Soil	59.1	0.4230	25.0000
Hg	028	8/7/2012 4:23:31 PM	53401.15s MSD	32830.0000	163.8430	ug/kg	Soil	59.0	0.4240	25.0000
Hg	029	8/7/2012 4:25:50 PM	CCV2-2.0 ppb	23910.0000	1.9920	ug/L	Liquid	1.0	1.0000	1.0000
Hg	030	8/7/2012 4:28:09 PM	CCB2	625.6000	-0.0548	ug/L	Liquid	1.0	1.0000	1.0000
Hg	031	8/7/2012 4:30:24 PM	53401.03s	6268.0000	25.0217	ug/kg	Soil	56.7	0.4410	25.0000
Hg	032	8/7/2012 4:32:39 PM	53401.04s	3676.0000	11.5023	ug/kg	Soil	53.9	0.4640	25.0000
Hg	033	8/7/2012 4:34:51 PM	53401.05s	8912.0000	39.4173	ug/kg	Soil	58.5	0.4270	25.0000
Hg	034	8/7/2012 4:37:04 PM	53401.06s	5125.0000	20.2776	ug/kg	Soil	59.5	0.4200	25.0000
Hg	035	8/7/2012 4:39:18 PM	53401.07s	5582.0000	21.1836	ug/kg	Soil	55.6	0.4500	25.0000
Hg	036	8/7/2012 4:41:32 PM	53401.08s	6314.0000	25.4323	ug/kg	Soil	57.1	0.4380	25.0000
Hg	037	8/7/2012 4:43:47 PM	53401.09s	2329.0000	5.7760	ug/kg	Soil	60.8	0.4110	25.0000
Hg	038	8/7/2012 4:46:02 PM	53401.10s	2410.0000	5.2888	ug/kg	Soil	51.8	0.4830	25.0000
Hg	039	8/7/2012 4:48:18 PM	53401.11s	3613.0000	12.6403	ug/kg	Soil	60.8	0.4110	25.0000
Hg	040	8/7/2012 4:50:31 PM	53401.12s	20800.0000	100.3896	ug/kg	Soil	58.4	0.4280	25.0000
Hg	041	8/7/2012 4:52:50 PM	CCV3-2.0 ppb	24000.0000	2.0010	ug/L	Liquid	1.0	1.0000	1.0000
Hg	042	8/7/2012 4:55:09 PM	CCB3	640.7000	-0.0534	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 12:30 | Beginning | End | DATE 08/07/12
TIME FINISH: 14:35 | TEMP: block #1 95 °C | block #1 95 °C | ANALYST [illegible]
PREP BATCH: HGD-080712-1 | block #2 95 °C | block #2 95 °C | REVIEWED BY JR
BALANCE ID: M1 | block #3 95 °C | block #3 95 °C | REVIEW DATE 08/07/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 1	-----	0.5	-------	----------	50	25g	
LRB- 1	-----	0.5	-------	----------	50	25g	
53368.01	1	0.504	91	0.459	54		
02		0.501	94	0.471	53		
03		0.513	94	0.482	52		
53386.05		1.022	2.0	0.020	1,250		
53389.01		0.505	92	0.465	54		
02		0.499	91	0.454	55		
03		0.499	91	0.454	55		
53400.01		0.486			51		
53401.02	2	0.499	91	0.454	55		
03		0.501	88	0.441	57		
04		0.510	91	0.464	54		
05		0.514	83	0.427	58		
06		0.518	81	0.420	60		
07		0.511	88	0.450	56		
08		0.504	87	0.438	57		
09		0.507	81	0.411	61		
10		0.498	97	0.483	52		
11		0.501	82	0.411	61		
12		0.504	85	0.428	58		
13		0.505	83	0.419	60		
14MS		0.498	85	0.423	59		
15MSD		0.499	85	0.424	59		

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 113201) Exp 12/29/12
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 113201) Exp. 12/29/12
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 113201) Exp. 12/29/12
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)
Sand lot # TH121ZEMS

Effective Date 7/10/12

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 08/03/12 Date Finished: 08/06/12 Date Checked: 8/14/12

Time Started: 11:00 Time Finished: 11:00 Checked By: BB

Analyst: Ann Temperature: 103°C Batch: TS120803A

Time in Oven: 72:00 Balance ID: 51 Oven ID: OV1

Merit #	Dish #	Dish Wt. (g)	Wet Sample + Dish Wt. (g)	Dry Sample + Dish Wt. (g)	Reweigh Dry Sample + Dish Wt. (g)	Ash Sample + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	1	1.38	1.38	1.38			—		
LCS	2	1.36	9.5	9.5			100		
53398.03	3	1.35	12.43	11.64			93		
Dup 1 .03	4	1.32	9.99	9.37			93		
.04	5	1.32	10.62	9.22			85		
.05	6	1.33	9.78	8.61			86		
.06	7	1.26	13.31	10.46			76		
.67	8	1.33	12.91	10.87			82		
.68	9	1.36	12.27	10.27			82		
.69	10	1.38	10.42	9.91			94		
.70	11	1.38	11.15	9.82			86		
53399.41	12	1.39	12.20	10.51			84		
53401.02	13	1.39	20.18	19.24			91		
.03	14	1.34	11.01	9.88			88		
Dup 2 .03	15	1.36	10.32	9.32			89		
.04	16	1.33	10.07	9.32			91		
.05	17	1.38	13.86	11.76			83		
.06	18	1.35	11.36	9.44			81		
.07	19	1.37	12.43	11.07			88		
.08	20	1.36	11.26	9.78			87		
.09	21	1.32	13.39	11.15			81		
.10	22	1.37	19.91	19.34			97		
.11	23	1.37	10.67	9.00			82		
.12	24	1.34	11.20	9.75			85		

% LCS Recovery: 108 Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 0 Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): 1

Total Solids and Total Volatile Solids

TS: Standard Method 2540B TVS: EPA 160.4

Date Run: 08/03/12 Date Finished: 08/06/12 Date Checked: 8/14/12

Time Started: 11:00 Time Finished: 11:00 Checked By: BB

Analyst: Ann Temperature: 103°C Batch: TS/120803B

Time in Oven: 72:00 Balance ID: 57 Oven ID: 97

Merit #	Dish #	Dish Wt. (g)	Wet Sample + Dish Wt. (g)	Dry Sample + Dish Wt. (g)	Reweigh Dry Sample + Dish Wt. (g)	Ash Sample + Dish Wt. (g)	% Total Solids	% Total Volatile Solids	% Ash
Blank	25	1.24	1.24	1.24			—		
LCS	26	1.34	9.95	9.95			100		
53401.13	27	1.38	10.70	9.16			83		
Dup 1 .13	28	1.36	10.59	9.15			84		
.14	29	1.35	10.29	8.73			85		
Same Sample .15	30	1.36					—		
~~53408.01~~	~~31~~	~~1.33~~							
Not Sample for total Solids									
53413.01	32	1.34	19.13	17.92			93		
.02	33	1.35	11.97	10.66			88		
.03	34	1.35	10.71	9.66			89		
.04	35	1.37	14.44	13.33			88		
.05	36	1.36	14.42	12.34			84		
.06	37	1.36	12.02	10.78			88		
.07	38	1.38	14.30	12.65			87		
Dup 2 .07	39	1.35	10.49	9.32			87		
.08	40	1.39	18.12	16.95			93		
.09	41	1.27	13.05	11.49			87		
.10	42	1.35	15.31	13.96			90		

% LCS Recovery: 100 Acceptance Criteria: ± 10%

% RPD (Duplicate 1): 1 Acceptance Criteria: ± 5% of average

% RPD (Duplicate 2): 0

Method 5035A (High Level)
Extraction Sheet

Analyst: LBR
Date: 8-2-12
Batch QC ID#: _____

Merit Number	Tare wt (g)	Vial wt (g)	Sample wt.(g)	Methanol (mL)	Sonicate (min)	Time Start / End	Notes
53401.01	30.917	31.295	–	10	✓	12:09	
02	30.802	47.548	16.746	17	✓		
03	30.799	48.438	17.629	18	✓		
04	30.832	47.193	16.361	16	✓		
05	30.884	51.089	20.245	20	✓		
06	30.929	48.037	17.100	17	✓		
07	30.973	47.281	16.308	16	✓		
08	30.857	49.833	18.976	19	✓		
09	Tare off	48.484	?	10	✓		
10	30.908	46.634	15.726	16	✓		
11	30.686	49.623	18.937	19	✓		
12	30.896	50.463	19.567	20	✓		
13	30.791	47.751	16.960	17	✓		
14	30.828	46.907	16.079	16	✓		
15	30.480	46.088	15.608	16	✓	12:18	

Balance ID: V1
Methanol Lot: DE695 / 50349

Reviewed By: WAT
Date: 8-2-12

5035A High Level

Prepared by Merit Laboratories, Inc.

Effective Date 6/14/12

Solvent Lot #: 52069
Na2SO4 Lot #: 2351C512
SSD #: AR120730
MS/LCS #: PP120723

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 8-1-2012
Time Started: 8:30
Time Ended: 10:30
Batch ID#: SP120801S03

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	RW		
	LCS	Sand	30.0 g	"	"	"	"	1	"	EVS	BNAs only
	LCSD	Sand	30.0 g	"	"	"	"	1	"	"	[ ]
	53360.05 MS	Soil	30.0	"	"	2ml	"	1	"	"	(Parent sample 53360.04) [X]
	.06 MSD	"	30.0	"	"	2ml	"	1	"	"	
1	53360.02	"	30.2	"	"	1ml	"		"	"	
2	.03	"	30.0	"	"	1	"		"	"	
3	.04	"	30.3	"	"	2ml	"		"	"	
4	.07	"	30.0	"	"	1ml	"		"	"	
5	.08	"	30.0	"	"	1	"		"	"	
6	.09	"	30.0	"	"	"	"		"	"	
7	.10	"	30.2	"	"	"	"		"	"	
8	.11	"	30.0	"	"	"	"		"	"	
9	.12	"	30.0	"	"	"	"		"	"	
10	.13	"	30.2	"	"	"	"		"	"	
11	53401.02	"	30.0	"	"	"	"		"	"	
12	.03	"	30.0	"	"	"	"		"	"	
13	.04	"	30.0	"	"	"	"		"	"	
14	.05	"	30.4	"	"	"	"		"	"	
15	.06	"	30.1	"	"	"	"		"	"	
16	.07	"	30.0	"	"	"	"		"	"	
17	.08	"	30.4	"	"	"	"		"	"	
18	.09	"	30.0	"	"	"	"		"	"	
19	.10	"	30.0	"	"	"	"		"	"	
20	.11	"	30.0	"	"	"	"		"	"	

Reviewed by: [illegible] On: 8/2 Balance ID: e2

Prepared by: Merit Laboratories, Inc.

Solvent Lot #: 52069
Na2SO4 Lot #: 235105I2
SSD #: PI20207
MS/LCS #: PI20807

PNA/DRO Solid Extraction Log
Method 3550 B

Date: 8-7-2012
Time Started: 1005
Time Ended: 1115
Batch ID#: SPI2080751

#	Merit #	Matrix	Sample Weight (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Turbo VAP ID	Notes	
Initial Q.C.	BLANK	Sand	30.0 g	CH_2Cl_2	180	1	1	---	ew			
	LCS	Sand	30.0 g	"	"	"	"	1	"	ew3		
	LCSD	Sand	30.0 g					1				[ ]
	53401.14 MS	Soil	30.0	CH_2Cl_2	180	1	1	1	ew	ew3	(Parent Sample)	[X]
	.15 MSD	"	30.0	"	"	"	"	1	"	"	53401.13	
1	53401.12	"	30.0	"	"	"	"		"	"		
2	.13	"	30.0	"	"	"	"		"	"		
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

Reviewed by: [signature] On: 8/9 Balance ID: 22

Prepared by: Merit Laboratories, Inc.

Hexane 51223
Ether/Hexane 51108129/51223
Na_2SO_4 2351C512
H_2SO_4 50328
SSD# 175510
PCB MS ID# 11MS04 Pest MS ID#

PCB/Pesticide Extraction
Method 3550B

Date 8-3-12
Time Started 9:45
Time Ended 14:00
Prep Batch ID# PA120803501
Balance ID# E2

#	Merit #	Matrix	Sample Wt. (g)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Analyst	Alumina Cleanup	Dioxin Cleanup	Turbo Vap	Notes
Initial Q.C.	BLANK		20.0	Hexane	180	1	1		CM			ev2	
	LCS		20.0	↓	↓	↓	↓	1	↓			↓	
	LCSD							1					
	MS 53401.14	soil	20.0					1				ev1	
	MSD 53401.15	↓	20.0	↓	↓	↓	↓	1	↓			↓	
1	53401.02	soil	20.2	Hexane	180	1	1		CM	X		ev1	
2	.03		20.1										
3	.04		20.1										
4	.05		20.0										
5	.06		20.0							X			
6	.07		20.1							X			
7	.08		20.2										
8	.09		20.0										
9	.10		20.0										
10	.11		20.3										
11	.12		20.1										
12	.13		20.1										
13	.14		20.0										
14	.15	↓	20.0										
15	53400.01	conc	10.2	↓	↓	↓	↓		↓			↓	
16													
17													
18													
19													
20													

Reviewed by: [signature] On: 8-3

Merit Laboratories, Inc.

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C.O.C. PAGE # 1 OF 2

69774

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Susan Hoertz
COMPANY: H:A
ADDRESS: 8899 Gander Creek Dr
CITY: Miamisburg STATE: OH ZIP CODE: 45342
PHONE NO.: 937.530.1408 FAX NO.: 937.530.1458 P.O. NO.: —
E-MAIL ADDRESS: Shoertz@haleyaldrich.com QUOTE NO.: —

INVOICE TO

CONTACT NAME: Melwie Satanek ☐ SAME
COMPANY: N:A
ADDRESS: 5755 Granger Rd Ste 320
CITY: Cleveland STATE: OH ZIP CODE: 44131
PHONE NO.: 216.706.1330 E-MAIL ADDRESS: Msatanek@haleyaldrich.com

PROJECT NO./NAME: 126EL - GMPT - LIVONIA
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Coley Barnett / C. Barnett

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☑ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☑ LEVEL IV ☑ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TCL VOC	TCL PCB	PAH's	MI 10 METALS
53401.01	07/30/12	0100	0908-073012-0001	TB	1						X		X			
.02		1120	SB105 (07-30-12) (0-2)	S	2	1					1		X	X	X	X
.03		1340	SB104 (07-30-12) (0-2)		2	1					1		X			
.04		1400	SB103 (07-30-12) (0-2)		2	1					1		X			
.05	07/31/12	0735	SB102 (07-31-12) (2-4)		2	1					1		X			
.06		0825	SB112 (07-31-12) (0-2)		2	1					1		X			
.07		~~0830~~	DUP4 (07-31-12)		2	1					1		X			
.08		0930	SB114 (07-31-12) (2-4)		2	1					1		X			
.09		1045	SB113 (07-31-12) (3-5)		2	1					1		X			
.10		1250	SB109 (07-31-12) (0-2)		2	1					1		X			
.11		1445	SB165 (07-31-12) (8-10)		2	1					1		X			
.12		1600	SB162 (07-31-12) (2-4)		2	1					1		X			

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
C. Barnett ☑ Sampler	08/01/12	12
	8/1/12	12

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
Tabatha Fennell	8/1/12	1430

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 5.3

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev 1.15.12

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C.O.C. PAGE # 2 OF 2

69775

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME
COMPANY
ADDRESS SEE PAGE 1 COC #69774
CITY STATE ZIP CODE
PHONE NO. FAX NO. P.O. NO.
E-MAIL ADDRESS QUOTE NO.

INVOICE TO

CONTACT NAME ☐ SAME
COMPANY
ADDRESS
CITY STATE ZIP CODE
PHONE NO. E-MAIL ADDRESS

PROJECT NO./NAME SAMPLER(S) - PLEASE PRINT/SIGN NAME

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☑ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☑ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TCL VOC	TCL PCB	PAH's	MI 10 METALS	Special Instructions
53401 .13.14.15	08/01/12	0830	SB142(08-01-12)(0.2)	S	5	2					3		X	X	X	X	ADD'L VOL. FOR MS/MSD

RELINQUISHED BY: SIGNATURE/ORGANIZATION C. Brandt ☑ Sampler DATE 08/01/12 TIME 0-
RELINQUISHED BY: SIGNATURE/ORGANIZATION Mat DATE 8-1-12 TIME 12-
RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION Tabetha Fast DATE 8/1/12 TIME 1430

SEAL NO. SEAL INTACT YES☐ NO☐ INITIALS
SEAL NO. SEAL INTACT YES☐ NO☐ INITIALS

NOTES: TEMP. ON ARRIVAL 5.3

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev 11512

Merit Laboratories Login Checklist

Lab Set ID: S53401
Client: HALEYALDRICH (Haley & Aldrich)
Project: RACER GMPT Livonia
Submitted: 08/01/2012 14:30 Login User: TSF

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.3
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Monica Wallingford

Address: Racer Trust
2930 Ecorse Road
Ypsilanti, MI 48198

Phone: 313-486-2928 FAX: 248-594-4829

Email: mwallingford@racertrust.org

Set ID: S53401 Location: HALEYALDRICH (Haley & Aldrich)

Project: RACER GMPT Livonia PO #: Site: Site# 1195

Submitted: 08/01/2012 14:30 Due Date: 08/15/2012 Collected by: Corey Barnett Login by: TSF

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S53401.01	0908-073012-0001	Methanol	07/30/2012 01:00	69774
S53401.02	SB105 (07-30-12) (0-2)	Soil	07/30/2012 11:20	69774
S53401.03	SB104 (07-30-12) (0-2)	Soil	07/30/2012 13:40	69774
S53401.04	SB103 (07-30-12) (0-2)	Soil	07/30/2012 16:00	69774
S53401.05	SB102 (07-31-12) (2-4)	Soil	07/31/2012 07:35	69774
S53401.06	SB112 (07-31-12) (0-2)	Soil	07/31/2012 08:25	69774
S53401.07	DUP 4 (07-31-12)	Soil	07/31/2012 00:01	69774
S53401.08	SB114 (07-31-12) (2-4)	Soil	07/31/2012 09:30	69774
S53401.09	SB113 (07-31-12) 3-5)	Soil	07/31/2012 10:45	69774
S53401.10	SB109 (07-31-12) (0-2)	Soil	07/31/2012 12:50	69774
S53401.11	SB165 (07-31-12) (8-10)	Soil	07/31/2012 14:45	69774
S53401.12	SB162 (07-31-12) (2-4)	Soil	07/31/2012 16:00	69774
S53401.13	SB142 (08-01-12) (0-2)	Soil	08/01/2012 08:30	69775
S53401.14	SB142 (08-01-12) (0-2) MS	Soil	08/01/2012 08:30	69775
S53401.15	SB142 (08-01-12) (0-2) MSD	Soil	08/01/2012 08:30	69775

Samples: S53401.01

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260TCL	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	mg/kg	08/13/2012
METHEXT	5035 Methanol Extraction	5035		04/25/2015

Samples: S53401.02-15

Analysis Code	Analysis Title	Method	Units	Holding Date
$58260TCL	TCL Volatile Organics HighLevl 5035/8260	5035/8260B	mg/kg	08/13/2012
METHEXT	5035 Methanol Extraction	5035		04/25/2015
1605S	Metal Digestion	3050B		01/26/2013
PNAEXTS	Semi Volatile Extraction	3550B		08/13/2012
1120S	Extraction, PCB	3550B		08/13/2012
4605	Total Solids	Std M 2540 B	%	08/27/2012
$PNA8270	Polynuclear Aromatics	SW8270C	mg/kg	09/08/2012
2115SMS	Arsenic	SW6020	mg/kg	01/26/2013
2120SMS	Barium	SW6020	mg/kg	01/26/2013
2135SMS	Cadmium	SW6020	mg/kg	01/26/2013
2145SMS	Chromium	SW6020	mg/kg	01/26/2013
2155SMS	Copper	SW6020	mg/kg	01/26/2013
2165SMS	Lead	SW6020	mg/kg	01/26/2013
2185S	Mercury	SW7471A	mg/kg	08/27/2012
2205SMS	Selenium	SW6020	mg/kg	01/26/2013
2215SMS	Silver	SW6020	mg/kg	01/26/2013
2245SMS	Zinc	SW6020	mg/kg	01/26/2013
1605HGS	Mercury Digestion	SW7471A		08/27/2012
$TCL8082C1	TCL PCB List (Column 1)	SW8082A	mg/kg	09/08/2012
$TCL8082C2	TCL PCB List (Column 2)	SW8082A	mg/kg	09/08/2012

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HALEY & ALDRICH
11950 LIVONIA PLANT

SDG Batch:
53508

Pages 1 - 443

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HALEY & ALDRICH

PROJECT:
11950 LIVONIA PLANT

SDG Batch:
53508.01

Prepared by:
Merit Laboratories, Inc.

August 24, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53508.01 - .10

Deliverable	References		Pages		Checklist	
	Merit	CLP	From	To	Lab	Audit
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	47	☑	☐
4. **Volatiles Data**			48	235		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			236	326		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
8. **Miscellaneous Data**			439	439		
Preparation / Extraction logbooks					☑	☐
9. **Shipping / Receiving Documents**			440	443		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53508.01 - .10

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	47	☑	☐
6. **ICP/MS Metals Data**			327	419		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
7. **Mercury Data**			420	438		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
9. **Shipping / Receiving Documents**			440	443		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: 11950 LIVONIA PLANT
Merit IDs: S53508.01-S53508.10

Field Sampling: M. Castles Humphrey performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (08/09/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met.

Notes: Dilution test not applicable if measured concentration is less than 100 times MDL.

Outliers: The MS/MSD had high RPD for total Silver.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Sample S53508.03 had the surrogates 2-Fluorobiphenyl and Nitrobenzene-D5. Sample was flagged appropriately.

Outliers:
Prep Batch SP120809W01

- The MS/MSD had high RPDs for the compounds Naphthalene, 2-Methylnaphthalene, 1-Methylnaphthalene, Acenaphthene, Acenaphthylene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)anthracene, and Benzo(ghi)perylene.

- The MS had low recoveries for the compounds Naphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)anthracene, and Benzo(ghi)perylene.
- The MSD had low recoveries for the compounds Naphthalene, 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(ah)anthracene, and Benzo(ghi)perylene.

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120816A3:

- The LCS/LCSD had high RPDs for the compounds Acetone and 2-Butanone (MEK).
- The MS/MSD had high RPDs for the compound Styrene.
- The MSD had low recovery for the compound Styrene.
- The CCC had the compound Acetone outside of control limits.

Total Solids: All total solids QC requirements were met according to the specifications in Method 2540B. *Outliers*: None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barbara Ball

Barb Ball
QA Officer

08/24/12
Date

Analytical Laboratory Report

Report ID: S53508.01(01)
Generated on 08/20/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53508.01-S53508.10
Project: 11950 Livonia Plant
Collected Date: 08/08/2012 - 08/09/2012
Submitted Date/Time: 08/09/2012 14:00
Sampled by: M.CastlesHumphrey
P.O. #: PO127270

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (10 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S53508.01	MW 129 (08-08-2012) (1250)	Groundwater	08/08/2012 12:50
S53508.02	2306-080812-0001	Water Quality	08/08/2012 00:01
S53508.03	MW 105 (08-08-2012) (1445)	Groundwater	08/08/2012 14:45
S53508.04	MW 105 (08-08-2012) (1445) MS	Groundwater	08/08/2012 14:45
S53508.05	MW 105 (08-08-2012) (1445) MSD	Groundwater	08/08/2012 14:45
S53508.06	MW 101 (08-08-2012) (1615)	Groundwater	08/08/2012 16:15
S53508.07	2306-080912-0001	Water Quality	08/09/2012 00:01
S53508.08	MW 165 (08-09-2012) (0825)	Groundwater	08/09/2012 08:25
S53508.09	MW 139 (08-09-2012) (0915)	Groundwater	08/09/2012 09:15
S53508.10	DUP-01 (08-09-12)	Groundwater	08/09/2012 00:01

Analytical Laboratory Report

Lab Sample ID: S53508.01
Sample Tag: MW 129 (08-08-2012) (1250)
Collected Date/Time: 08/08/2012 12:50
Matrix: Groundwater
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	2.9	IR
2	1L Amber	None	Yes	2.9	IR
1	125ml Plastic	None	Yes	2.9	IR
1	125ml Plastic	HNO3	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/09/12 22:00	EMR		
Metals								
Arsenic, Dissolved	0.003	mg/L	0.002	E200.8	08/16/12 15:29	SLS	7440-38-2	
Arsenic	0.004	mg/L	0.002	E200.8	08/16/12 15:26	SLS	7440-38-2	
Barium, Dissolved	0.602	mg/L	0.005	E200.8	08/16/12 15:29	SLS	7440-39-3	
Barium	0.614	mg/L	0.005	E200.8	08/16/12 15:26	SLS	7440-39-3	
Cadmium, Dissolved	Not detected	mg/L	0.0005	E200.8	08/16/12 15:29	SLS	7440-43-9	
Cadmium	0.0005	mg/L	0.0005	E200.8	08/16/12 15:26	SLS	7440-43-9	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 15:29	SLS	7440-47-3	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 15:26	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	08/16/12 15:29	SLS	7440-50-8	
Copper	Not detected	mg/L	0.004	E200.8	08/16/12 15:26	SLS	7440-50-8	
Lead, Dissolved	0.022	mg/L	0.003	E200.8	08/16/12 15:51	SLS	7439-92-1	
Lead	0.005	mg/L	0.003	E200.8	08/16/12 15:26	SLS	7439-92-1	
Mercury, Dissolved	Not detected	mg/L	0.0002	E245.1	08/15/12 14:44	JRT	7439-97-6	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:15	JRT	7439-97-6	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 15:29	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 15:26	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	08/16/12 15:29	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 15:26	SLS	7440-22-4	
Zinc, Dissolved	0.051	mg/L	0.005	E200.8	08/16/12 15:29	SLS	7440-66-6	
Zinc	0.008	mg/L	0.005	E200.8	08/16/12 15:26	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/13/12 15:52	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/13/12 15:52	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/13/12 15:52	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/13/12 15:52	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/13/12 15:52	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 15:52	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 15:52	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/13/12 15:52	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/13/12 15:52	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/13/12 15:52	PL	53-70-3	

Lab Sample ID: S53508.01 (continued)
Sample Tag: MW 129 (08-08-2012) (1250)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 15:52	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/13/12 15:52	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/13/12 15:52	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/13/12 15:52	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/13/12 15:52	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/13/12 15:52	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 15:52	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 15:52	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/16/12 15:29	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/16/12 15:29	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/16/12 15:29	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/16/12 15:29	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/16/12 15:29	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/16/12 15:29	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/16/12 15:29	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/16/12 15:29	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/16/12 15:29	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/16/12 15:29	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/16/12 15:29	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	79-34-5	

Lab Sample ID: S53508.01 (continued)
Sample Tag: MW 129 (08-08-2012) (1250)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/16/12 15:29	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/16/12 15:29	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/16/12 15:29	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53508.02
Sample Tag: 2306-080812-0001
Collected Date/Time: 08/08/2012 00:01
Matrix: Water Quality
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/16/12 15:50	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/16/12 15:50	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/16/12 15:50	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/16/12 15:50	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/16/12 15:50	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/16/12 15:50	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/16/12 15:50	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/16/12 15:50	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/16/12 15:50	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/16/12 15:50	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/16/12 15:50	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/16/12 15:50	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	100-42-5	

Lab Sample ID: S53508.02 (continued)
Sample Tag: 2306-080812-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/16/12 15:50	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/16/12 15:50	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53508.03
Sample Tag: MW 105 (08-08-2012) (1445)
Collected Date/Time: 08/08/2012 14:45
Matrix: Groundwater
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	2.9	IR
2	1L Amber	None	Yes	2.9	IR
1	125ml Plastic	None	Yes	2.9	IR
1	125ml Plastic	HNO3	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/09/12 22:00	EMR		
Metals								
Arsenic, Dissolved	0.008	mg/L	0.002	E200.8	08/16/12 16:42	SLS	7440-38-2	
Arsenic	0.015	mg/L	0.002	E200.8	08/16/12 15:54	SLS	7440-38-2	
Barium, Dissolved	0.030	mg/L	0.005	E200.8	08/16/12 16:42	SLS	7440-39-3	
Barium	0.129	mg/L	0.005	E200.8	08/16/12 15:54	SLS	7440-39-3	
Cadmium, Dissolved	Not detected	mg/L	0.0005	E200.8	08/16/12 16:42	SLS	7440-43-9	
Cadmium	0.0014	mg/L	0.0005	E200.8	08/16/12 15:54	SLS	7440-43-9	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:42	SLS	7440-47-3	
Chromium	0.007	mg/L	0.005	E200.8	08/16/12 15:54	SLS	7440-47-3	
Copper, Dissolved	0.007	mg/L	0.004	E200.8	08/16/12 16:42	SLS	7440-50-8	
Copper	0.048	mg/L	0.004	E200.8	08/16/12 15:54	SLS	7440-50-8	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	08/16/12 16:42	SLS	7439-92-1	
Lead	0.029	mg/L	0.003	E200.8	08/16/12 15:54	SLS	7439-92-1	
Mercury, Dissolved	Not detected	mg/L	0.0002	E245.1	08/15/12 15:04	JRT	7439-97-6	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:35	JRT	7439-97-6	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:42	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 15:54	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	08/16/12 16:42	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 15:54	SLS	7440-22-4	
Zinc, Dissolved	0.022	mg/L	0.005	E200.8	08/16/12 16:42	SLS	7440-66-6	
Zinc	0.044	mg/L	0.005	E200.8	08/16/12 15:54	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/13/12 16:11	PL	83-32-9	S
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/13/12 16:11	PL	208-96-8	S
Anthracene	Not detected	ug/L	5	SW8270C	08/13/12 16:11	PL	120-12-7	S
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/13/12 16:11	PL	56-55-3	S
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/13/12 16:11	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 16:11	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 16:11	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/13/12 16:11	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/13/12 16:11	PL	218-01-9	S

S-Surrogate recovery outside of control limits

Lab Sample ID: S53508.03 (continued)
Sample Tag: MW 105 (08-08-2012) (1445)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/13/12 16:11	PL	53-70-3	
Fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 16:11	PL	206-44-0	S
Fluorene	Not detected	ug/L	5	SW8270C	08/13/12 16:11	PL	86-73-7	S
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/13/12 16:11	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/13/12 16:11	PL	91-20-3	S
Phenanthrene	Not detected	ug/L	2	SW8270C	08/13/12 16:11	PL	85-01-8	S
Pyrene	Not detected	ug/L	5	SW8270C	08/13/12 16:11	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 16:11	PL	91-57-6	S
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 16:11	PL	90-12-0	S
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/16/12 15:09	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/16/12 15:09	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/16/12 15:09	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/16/12 15:09	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/16/12 15:09	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/16/12 15:09	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/16/12 15:09	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/16/12 15:09	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/16/12 15:09	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/16/12 15:09	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/16/12 15:09	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	106-93-4	

S-Surrogate recovery outside of control limits

Lab Sample ID: S53508.03 (continued)
Sample Tag: MW 105 (08-08-2012) (1445)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/16/12 15:09	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/16/12 15:09	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/16/12 15:09	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53508.04
Sample Tag: MW 105 (08-08-2012) (1445) MS
Collected Date/Time: 08/08/2012 14:45
Matrix: Groundwater
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	2.9	IR
2	1L Amber	None	Yes	2.9	IR
1	125ml Plastic	None	Yes	2.9	IR
1	125ml Plastic	HNO3	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/09/12 22:00	EMR		
Metals								
Arsenic, Dissolved	0.265	mg/L	0.002	E200.8	08/16/12 16:45	SLS	7440-38-2	
Arsenic	0.257	mg/L	0.002	E200.8	08/16/12 15:58	SLS	7440-38-2	
Barium, Dissolved	0.283	mg/L	0.005	E200.8	08/16/12 16:45	SLS	7440-39-3	
Barium	0.383	mg/L	0.005	E200.8	08/16/12 15:58	SLS	7440-39-3	
Cadmium, Dissolved	0.2491	mg/L	0.0005	E200.8	08/16/12 16:45	SLS	7440-43-9	
Cadmium	0.2511	mg/L	0.0005	E200.8	08/16/12 15:58	SLS	7440-43-9	
Chromium, Dissolved	0.252	mg/L	0.005	E200.8	08/16/12 16:45	SLS	7440-47-3	
Chromium	0.256	mg/L	0.005	E200.8	08/16/12 15:58	SLS	7440-47-3	
Copper, Dissolved	0.261	mg/L	0.004	E200.8	08/16/12 16:45	SLS	7440-50-8	
Copper	0.300	mg/L	0.004	E200.8	08/16/12 15:58	SLS	7440-50-8	
Lead, Dissolved	0.247	mg/L	0.003	E200.8	08/16/12 16:45	SLS	7439-92-1	
Lead	0.265	mg/L	0.003	E200.8	08/16/12 15:58	SLS	7439-92-1	
Mercury, Dissolved	0.0019	mg/L	0.0002	E245.1	08/15/12 15:06	JRT	7439-97-6	
Mercury	0.0019	mg/L	0.0002	E245.1	08/15/12 15:38	JRT	7439-97-6	
Selenium, Dissolved	0.242	mg/L	0.005	E200.8	08/16/12 16:45	SLS	7782-49-2	
Selenium	0.185	mg/L	0.005	E200.8	08/16/12 15:58	SLS	7782-49-2	
Silver, Dissolved	0.1991	mg/L	0.0002	E200.8	08/16/12 16:45	SLS	7440-22-4	
Silver	0.1985	mg/L	0.0002	E200.8	08/16/12 15:58	SLS	7440-22-4	
Zinc, Dissolved	0.284	mg/L	0.005	E200.8	08/16/12 16:45	SLS	7440-66-6	
Zinc	0.296	mg/L	0.005	E200.8	08/16/12 15:58	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	7	ug/L	5	SW8270C	08/13/12 16:30	PL	83-32-9	1
Acenaphthylene	8	ug/L	5	SW8270C	08/13/12 16:30	PL	208-96-8	1
Anthracene	8	ug/L	5	SW8270C	08/13/12 16:30	PL	120-12-7	1
Benzo(a)anthracene	8	ug/L	1	SW8270C	08/13/12 16:30	PL	56-55-3	1
Benzo(a)pyrene	8	ug/L	1	SW8270C	08/13/12 16:30	PL	50-32-8	1
Benzo(b)fluoranthene	9	ug/L	1	SW8270C	08/13/12 16:30	PL	205-99-2	1
Benzo(k)fluoranthene	7	ug/L	1	SW8270C	08/13/12 16:30	PL	207-08-9	1
Benzo(ghi)perylene	7	ug/L	1	SW8270C	08/13/12 16:30	PL	191-24-2	1
Chrysene	8	ug/L	1	SW8270C	08/13/12 16:30	PL	218-01-9	1

1-Sample spiked at 0.051 mg/l

Lab Sample ID: S53508.04 (continued)
Sample Tag: MW 105 (08-08-2012) (1445) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Dibenzo(ah)anthracene	7	ug/L	2	SW8270C	08/13/12 16:30	PL	53-70-3	1
Fluoranthene	8	ug/L	1	SW8270C	08/13/12 16:30	PL	206-44-0	1
Fluorene	8	ug/L	5	SW8270C	08/13/12 16:30	PL	86-73-7	1
Indeno(1,2,3-cd)pyrene	7	ug/L	2	SW8270C	08/13/12 16:30	PL	193-39-5	1
Naphthalene	7	ug/L	5	SW8270C	08/13/12 16:30	PL	91-20-3	1
Phenanthrene	7	ug/L	2	SW8270C	08/13/12 16:30	PL	85-01-8	1
Pyrene	8	ug/L	5	SW8270C	08/13/12 16:30	PL	129-00-0	1
2-Methylnaphthalene	7	ug/L	5	SW8270C	08/13/12 16:30	PL	91-57-6	1
1-Methylnaphthalene	7	ug/L	5	SW8270C	08/13/12 16:30	PL	90-12-0	1
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	60	ug/L	30	SW8260B	08/16/12 13:06	WAT	76-13-1	2
Acetone	40	ug/L	20	SW8260B	08/16/12 13:06	WAT	67-64-1	2
Carbon disulfide	51	ug/L	5	SW8260B	08/16/12 13:06	WAT	75-15-0	2
Methyl Acetate	50	ug/L	10	SW8260B	08/16/12 13:06	WAT	79-20-9	2
tert-Methyl butyl ether (MTBE)	53	ug/L	5	SW8260B	08/16/12 13:06	WAT	1634-04-4	2
2-Butanone (MEK)	40	ug/L	20	SW8260B	08/16/12 13:06	WAT	78-93-3	2
Dichlorodifluoromethane	49	ug/L	1	SW8260B	08/16/12 13:06	WAT	75-71-8	2
Chloromethane	56	ug/L	1	SW8260B	08/16/12 13:06	WAT	74-87-3	2
Vinyl chloride	45	ug/L	1	SW8260B	08/16/12 13:06	WAT	75-01-4	2
Bromomethane	48	ug/L	2	SW8260B	08/16/12 13:06	WAT	74-83-9	2
Chloroethane	48	ug/L	1	SW8260B	08/16/12 13:06	WAT	75-00-3	2
Trichlorofluoromethane	47	ug/L	1	SW8260B	08/16/12 13:06	WAT	75-69-4	2
1,1-Dichloroethene	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	75-35-4	2
Methylene chloride	51	ug/L	5	SW8260B	08/16/12 13:06	WAT	75-09-2	2
trans-1,2-Dichloroethene	50	ug/L	1	SW8260B	08/16/12 13:06	WAT	156-60-5	2
1,1-Dichloroethane	50	ug/L	1	SW8260B	08/16/12 13:06	WAT	75-34-3	2
cis-1,2-Dichloroethene	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	156-59-2	2
Chloroform	49	ug/L	1	SW8260B	08/16/12 13:06	WAT	67-66-3	2
1,1,1-Trichloroethane	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	71-55-6	2
Cyclohexane	44	ug/L	1	SW8260B	08/16/12 13:06	WAT	110-82-7	2
4-Methyl-2-pentanone (MIBK)	70	ug/L	10	SW8260B	08/16/12 13:06	WAT	108-10-1	2
2-Hexanone	50	ug/L	50	SW8260B	08/16/12 13:06	WAT	591-78-6	2
Carbon tetrachloride	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	56-23-5	2
Benzene	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	71-43-2	2
1,2-Dichloroethane	48	ug/L	1	SW8260B	08/16/12 13:06	WAT	107-06-2	2
Trichloroethene	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	79-01-6	2
1,2-Dichloropropane	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	78-87-5	2
Bromodichloromethane	50	ug/L	1	SW8260B	08/16/12 13:06	WAT	75-27-4	2
Methyl cyclohexane	50	ug/L	20	SW8260B	08/16/12 13:06	WAT	108-87-2	2
cis-1,3-Dichloropropene	47	ug/L	1	SW8260B	08/16/12 13:06	WAT	10061-01-5	2
Toluene	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	108-88-3	2
trans-1,3-Dichloropropene	48	ug/L	1	SW8260B	08/16/12 13:06	WAT	10061-02-6	2
1,1,2-Trichloroethane	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	79-00-5	2
Tetrachloroethene	56	ug/L	1	SW8260B	08/16/12 13:06	WAT	127-18-4	2
Dibromochloromethane	50	ug/L	1	SW8260B	08/16/12 13:06	WAT	124-48-1	2

1-Sample spiked at 0.051 mg/l
2-Spiked at 50ug/l

Lab Sample ID: S53508.04 (continued)
Sample Tag: MW 105 (08-08-2012) (1445) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
1,2-Dibromoethane	54	ug/L	1	SW8260B	08/16/12 13:06	WAT	106-93-4	1
Chlorobenzene	52	ug/L	1	SW8260B	08/16/12 13:06	WAT	108-90-7	1
1,1,2,2-Tetrachloroethane	53	ug/L	1	SW8260B	08/16/12 13:06	WAT	79-34-5	1
Ethylbenzene	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	100-41-4	1
p,m-Xylene	102	ug/L	2	SW8260B	08/16/12 13:06	WAT		1
o-Xylene	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	95-47-6	1
Styrene	37	ug/L	1	SW8260B	08/16/12 13:06	WAT	100-42-5	1
Isopropylbenzene	53	ug/L	1	SW8260B	08/16/12 13:06	WAT	98-82-8	1
Bromoform	45	ug/L	1	SW8260B	08/16/12 13:06	WAT	75-25-2	1
1,3-Dichlorobenzene	50	ug/L	1	SW8260B	08/16/12 13:06	WAT	541-73-1	1
1,4-Dichlorobenzene	51	ug/L	1	SW8260B	08/16/12 13:06	WAT	106-46-7	1
1,2-Dichlorobenzene	50	ug/L	1	SW8260B	08/16/12 13:06	WAT	95-50-1	1
1,2-Dibromo-3-chloropropane	50	ug/L	1	SW8260B	08/16/12 13:06	WAT	96-12-8	1
1,2,4-Trichlorobenzene	48	ug/L	2	SW8260B	08/16/12 13:06	WAT	120-82-1	1

1-Spiked at 50ug/l

Analytical Laboratory Report

Lab Sample ID: S53508.05
Sample Tag: MW 105 (08-08-2012) (1445) MSD
Collected Date/Time: 08/08/2012 14:45
Matrix: Groundwater
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	2.9	IR
2	1L Amber	None	Yes	2.9	IR
1	125ml Plastic	None	Yes	2.9	IR
1	125ml Plastic	HNO3	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/09/12 22:00	EMR		
Metals								
Arsenic, Dissolved	0.262	mg/L	0.002	E200.8	08/16/12 16:48	SLS	7440-38-2	
Arsenic	0.252	mg/L	0.002	E200.8	08/16/12 16:01	SLS	7440-38-2	
Barium, Dissolved	0.282	mg/L	0.005	E200.8	08/16/12 16:48	SLS	7440-39-3	
Barium	0.392	mg/L	0.005	E200.8	08/16/12 16:01	SLS	7440-39-3	
Cadmium, Dissolved	0.2516	mg/L	0.0005	E200.8	08/16/12 16:48	SLS	7440-43-9	
Cadmium	0.2513	mg/L	0.0005	E200.8	08/16/12 16:01	SLS	7440-43-9	
Chromium, Dissolved	0.249	mg/L	0.005	E200.8	08/16/12 16:48	SLS	7440-47-3	
Chromium	0.257	mg/L	0.005	E200.8	08/16/12 16:01	SLS	7440-47-3	
Copper, Dissolved	0.259	mg/L	0.004	E200.8	08/16/12 16:48	SLS	7440-50-8	
Copper	0.301	mg/L	0.004	E200.8	08/16/12 16:01	SLS	7440-50-8	
Lead, Dissolved	0.246	mg/L	0.003	E200.8	08/16/12 16:48	SLS	7439-92-1	
Lead	0.270	mg/L	0.003	E200.8	08/16/12 16:01	SLS	7439-92-1	
Mercury, Dissolved	0.0018	mg/L	0.0002	E245.1	08/15/12 15:08	JRT	7439-97-6	
Mercury	0.0019	mg/L	0.0002	E245.1	08/15/12 15:40	JRT	7439-97-6	
Selenium, Dissolved	0.241	mg/L	0.005	E200.8	08/16/12 16:48	SLS	7782-49-2	
Selenium	0.184	mg/L	0.005	E200.8	08/16/12 16:01	SLS	7782-49-2	
Silver, Dissolved	0.1829	mg/L	0.0002	E200.8	08/16/12 16:48	SLS	7440-22-4	
Silver	0.1088	mg/L	0.0002	E200.8	08/16/12 16:01	SLS	7440-22-4	
Zinc, Dissolved	0.281	mg/L	0.005	E200.8	08/16/12 16:48	SLS	7440-66-6	
Zinc	0.294	mg/L	0.005	E200.8	08/16/12 16:01	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	11	ug/L	5	SW8270C	08/13/12 16:49	PL	83-32-9	1
Acenaphthylene	12	ug/L	5	SW8270C	08/13/12 16:49	PL	208-96-8	1
Anthracene	12	ug/L	5	SW8270C	08/13/12 16:49	PL	120-12-7	1
Benzo(a)anthracene	13	ug/L	1	SW8270C	08/13/12 16:49	PL	56-55-3	1
Benzo(a)pyrene	12	ug/L	1	SW8270C	08/13/12 16:49	PL	50-32-8	1
Benzo(b)fluoranthene	13	ug/L	1	SW8270C	08/13/12 16:49	PL	205-99-2	1
Benzo(k)fluoranthene	11	ug/L	1	SW8270C	08/13/12 16:49	PL	207-08-9	1
Benzo(ghi)perylene	11	ug/L	1	SW8270C	08/13/12 16:49	PL	191-24-2	1
Chrysene	12	ug/L	1	SW8270C	08/13/12 16:49	PL	218-01-9	1

1-Sample spiked at 0.051 mg/l

Lab Sample ID: S53508.05 (continued)
Sample Tag: MW 105 (08-08-2012) (1445) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Dibenzo(ah)anthracene	11	ug/L	2	SW8270C	08/13/12 16:49	PL	53-70-3	1
Fluoranthene	12	ug/L	1	SW8270C	08/13/12 16:49	PL	206-44-0	1
Fluorene	13	ug/L	5	SW8270C	08/13/12 16:49	PL	86-73-7	1
Indeno(1,2,3-cd)pyrene	11	ug/L	2	SW8270C	08/13/12 16:49	PL	193-39-5	1
Naphthalene	11	ug/L	5	SW8270C	08/13/12 16:49	PL	91-20-3	1
Phenanthrene	10	ug/L	2	SW8270C	08/13/12 16:49	PL	85-01-8	1
Pyrene	12	ug/L	5	SW8270C	08/13/12 16:49	PL	129-00-0	1
2-Methylnaphthalene	11	ug/L	5	SW8270C	08/13/12 16:49	PL	91-57-6	1
1-Methylnaphthalene	10	ug/L	5	SW8270C	08/13/12 16:49	PL	90-12-0	1
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	50	ug/L	30	SW8260B	08/16/12 13:27	WAT	76-13-1	2
Acetone	50	ug/L	20	SW8260B	08/16/12 13:27	WAT	67-64-1	2
Carbon disulfide	43	ug/L	5	SW8260B	08/16/12 13:27	WAT	75-15-0	2
Methyl Acetate	50	ug/L	10	SW8260B	08/16/12 13:27	WAT	79-20-9	2
tert-Methyl butyl ether (MTBE)	54	ug/L	5	SW8260B	08/16/12 13:27	WAT	1634-04-4	2
2-Butanone (MEK)	40	ug/L	20	SW8260B	08/16/12 13:27	WAT	78-93-3	2
Dichlorodifluoromethane	46	ug/L	1	SW8260B	08/16/12 13:27	WAT	75-71-8	2
Chloromethane	53	ug/L	1	SW8260B	08/16/12 13:27	WAT	74-87-3	2
Vinyl chloride	43	ug/L	1	SW8260B	08/16/12 13:27	WAT	75-01-4	2
Bromomethane	47	ug/L	2	SW8260B	08/16/12 13:27	WAT	74-83-9	2
Chloroethane	48	ug/L	1	SW8260B	08/16/12 13:27	WAT	75-00-3	2
Trichlorofluoromethane	46	ug/L	1	SW8260B	08/16/12 13:27	WAT	75-69-4	2
1,1-Dichloroethene	48	ug/L	1	SW8260B	08/16/12 13:27	WAT	75-35-4	2
Methylene chloride	51	ug/L	5	SW8260B	08/16/12 13:27	WAT	75-09-2	2
trans-1,2-Dichloroethene	49	ug/L	1	SW8260B	08/16/12 13:27	WAT	156-60-5	2
1,1-Dichloroethane	50	ug/L	1	SW8260B	08/16/12 13:27	WAT	75-34-3	2
cis-1,2-Dichloroethene	52	ug/L	1	SW8260B	08/16/12 13:27	WAT	156-59-2	2
Chloroform	50	ug/L	1	SW8260B	08/16/12 13:27	WAT	67-66-3	2
1,1,1-Trichloroethane	51	ug/L	1	SW8260B	08/16/12 13:27	WAT	71-55-6	2
Cyclohexane	43	ug/L	1	SW8260B	08/16/12 13:27	WAT	110-82-7	2
4-Methyl-2-pentanone (MIBK)	70	ug/L	10	SW8260B	08/16/12 13:27	WAT	108-10-1	2
2-Hexanone	Not detected	ug/L	50	SW8260B	08/16/12 13:27	WAT	591-78-6	2
Carbon tetrachloride	51	ug/L	1	SW8260B	08/16/12 13:27	WAT	56-23-5	2
Benzene	51	ug/L	1	SW8260B	08/16/12 13:27	WAT	71-43-2	2
1,2-Dichloroethane	49	ug/L	1	SW8260B	08/16/12 13:27	WAT	107-06-2	2
Trichloroethene	51	ug/L	1	SW8260B	08/16/12 13:27	WAT	79-01-6	2
1,2-Dichloropropane	52	ug/L	1	SW8260B	08/16/12 13:27	WAT	78-87-5	2
Bromodichloromethane	50	ug/L	1	SW8260B	08/16/12 13:27	WAT	75-27-4	2
Methyl cyclohexane	50	ug/L	20	SW8260B	08/16/12 13:27	WAT	108-87-2	2
cis-1,3-Dichloropropene	46	ug/L	1	SW8260B	08/16/12 13:27	WAT	10061-01-5	2
Toluene	49	ug/L	1	SW8260B	08/16/12 13:27	WAT	108-88-3	2
trans-1,3-Dichloropropene	47	ug/L	1	SW8260B	08/16/12 13:27	WAT	10061-02-6	2
1,1,2-Trichloroethane	51	ug/L	1	SW8260B	08/16/12 13:27	WAT	79-00-5	2
Tetrachloroethene	58	ug/L	1	SW8260B	08/16/12 13:27	WAT	127-18-4	2
Dibromochloromethane	49	ug/L	1	SW8260B	08/16/12 13:27	WAT	124-48-1	2

1-Sample spiked at 0.051 mg/l
2-Spiked at 50ug/l

Lab Sample ID: S53508.05 (continued)
Sample Tag: MW 105 (08-08-2012) (1445) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
1,2-Dibromoethane	53	ug/L	1	SW8260B	08/16/12 13:27	WAT	106-93-4	1
Chlorobenzene	53	ug/L	1	SW8260B	08/16/12 13:27	WAT	108-90-7	1
1,1,2,2-Tetrachloroethane	52	ug/L	1	SW8260B	08/16/12 13:27	WAT	79-34-5	1
Ethylbenzene	49	ug/L	1	SW8260B	08/16/12 13:27	WAT	100-41-4	1
p,m-Xylene	91	ug/L	2	SW8260B	08/16/12 13:27	WAT		1
o-Xylene	47	ug/L	1	SW8260B	08/16/12 13:27	WAT	95-47-6	1
Styrene	6	ug/L	1	SW8260B	08/16/12 13:27	WAT	100-42-5	1
Isopropylbenzene	51	ug/L	1	SW8260B	08/16/12 13:27	WAT	98-82-8	1
Bromoform	43	ug/L	1	SW8260B	08/16/12 13:27	WAT	75-25-2	1
1,3-Dichlorobenzene	51	ug/L	1	SW8260B	08/16/12 13:27	WAT	541-73-1	1
1,4-Dichlorobenzene	51	ug/L	1	SW8260B	08/16/12 13:27	WAT	106-46-7	1
1,2-Dichlorobenzene	51	ug/L	1	SW8260B	08/16/12 13:27	WAT	95-50-1	1
1,2-Dibromo-3-chloropropane	50	ug/L	1	SW8260B	08/16/12 13:27	WAT	96-12-8	1
1,2,4-Trichlorobenzene	50	ug/L	2	SW8260B	08/16/12 13:27	WAT	120-82-1	1

1-Spiked at 50ug/l

Analytical Laboratory Report

Lab Sample ID: S53508.06
Sample Tag: MW 101 (08-08-2012) (1615)
Collected Date/Time: 08/08/2012 16:15
Matrix: Groundwater
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	2.9	IR
2	1L Amber	None	Yes	2.9	IR
1	125ml Plastic	None	Yes	2.9	IR
1	125ml Plastic	HNO3	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/09/12 22:00	EMR		
Metals								
Arsenic, Dissolved	0.005	mg/L	0.002	E200.8	08/16/12 15:39	SLS	7440-38-2	
Arsenic	0.005	mg/L	0.002	E200.8	08/16/12 15:32	SLS	7440-38-2	
Barium, Dissolved	0.046	mg/L	0.005	E200.8	08/16/12 15:39	SLS	7440-39-3	
Barium	0.048	mg/L	0.005	E200.8	08/16/12 15:32	SLS	7440-39-3	
Cadmium, Dissolved	Not detected	mg/L	0.0005	E200.8	08/16/12 15:39	SLS	7440-43-9	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 15:32	SLS	7440-43-9	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 15:39	SLS	7440-47-3	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 15:32	SLS	7440-47-3	
Copper, Dissolved	0.013	mg/L	0.004	E200.8	08/16/12 15:39	SLS	7440-50-8	
Copper	0.013	mg/L	0.004	E200.8	08/16/12 15:32	SLS	7440-50-8	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	08/16/12 15:39	SLS	7439-92-1	
Lead	0.007	mg/L	0.003	E200.8	08/16/12 15:32	SLS	7439-92-1	
Mercury, Dissolved	Not detected	mg/L	0.0002	E245.1	08/15/12 14:46	JRT	7439-97-6	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:18	JRT	7439-97-6	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 15:39	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 15:32	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	08/16/12 15:39	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 15:32	SLS	7440-22-4	
Zinc, Dissolved	0.005	mg/L	0.005	E200.8	08/16/12 15:39	SLS	7440-66-6	
Zinc	Not detected	mg/L	0.005	E200.8	08/16/12 15:32	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/13/12 17:08	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/13/12 17:08	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/13/12 17:08	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/13/12 17:08	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/13/12 17:08	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 17:08	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 17:08	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/13/12 17:08	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/13/12 17:08	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/13/12 17:08	PL	53-70-3	

Lab Sample ID: S53508.06 (continued)
Sample Tag: MW 101 (08-08-2012) (1615)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 17:08	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/13/12 17:08	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/13/12 17:08	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/13/12 17:08	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/13/12 17:08	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/13/12 17:08	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 17:08	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 17:08	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/16/12 16:10	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/16/12 16:10	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/16/12 16:10	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/16/12 16:10	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/16/12 16:10	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/16/12 16:10	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/16/12 16:10	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/16/12 16:10	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/16/12 16:10	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/16/12 16:10	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/16/12 16:10	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	79-34-5	

Lab Sample ID: S53508.06 (continued)
Sample Tag: MW 101 (08-08-2012) (1615)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/16/12 16:10	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/16/12 16:10	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/16/12 16:10	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53508.07
Sample Tag: 2306-080912-0001
Collected Date/Time: 08/09/2012 00:01
Matrix: Water Quality
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/16/12 16:31	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/16/12 16:31	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/16/12 16:31	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/16/12 16:31	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/16/12 16:31	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/16/12 16:31	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/16/12 16:31	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/16/12 16:31	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/16/12 16:31	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/16/12 16:31	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/16/12 16:31	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/16/12 16:31	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	100-42-5	

Lab Sample ID: S53508.07 (continued)
Sample Tag: 2306-080912-0001

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/16/12 16:31	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/16/12 16:31	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53508.08
Sample Tag: MW 165 (08-09-2012) (0825)
Collected Date/Time: 08/09/2012 08:25
Matrix: Groundwater
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	2.9	IR
2	1L Amber	None	Yes	2.9	IR
1	125ml Plastic	HNO3	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/09/12 22:00	EMR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	08/16/12 15:42	SLS	7440-38-2	
Barium	0.266	mg/L	0.005	E200.8	08/16/12 15:42	SLS	7440-39-3	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 15:42	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 15:42	SLS	7440-47-3	
Copper	Not detected	mg/L	0.004	E200.8	08/16/12 15:42	SLS	7440-50-8	
Lead	Not detected	mg/L	0.003	E200.8	08/16/12 15:42	SLS	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:20	JRT	7439-97-6	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 15:42	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 15:42	SLS	7440-22-4	
Zinc	Not detected	mg/L	0.005	E200.8	08/16/12 15:42	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/13/12 17:27	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/13/12 17:27	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/13/12 17:27	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/13/12 17:27	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/13/12 17:27	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 17:27	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 17:27	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/13/12 17:27	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/13/12 17:27	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/13/12 17:27	PL	53-70-3	
Fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 17:27	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/13/12 17:27	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/13/12 17:27	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/13/12 17:27	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/13/12 17:27	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/13/12 17:27	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 17:27	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 17:27	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/16/12 16:51	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/16/12 16:51	WAT	67-64-1	

Lab Sample ID: S53508.08 (continued)
Sample Tag: MW 165 (08-09-2012) (0825)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/16/12 16:51	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/16/12 16:51	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/16/12 16:51	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/16/12 16:51	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/16/12 16:51	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/16/12 16:51	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/16/12 16:51	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/16/12 16:51	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/16/12 16:51	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/16/12 16:51	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/16/12 16:51	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/16/12 16:51	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53508.09
Sample Tag: MW 139 (08-09-2012) (0915)
Collected Date/Time: 08/09/2012 09:15
Matrix: Groundwater
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	2.9	IR
2	1L Amber	None	Yes	2.9	IR
1	125ml Plastic	None	Yes	2.9	IR
1	125ml Plastic	HNO3	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/09/12 22:00	EMR		
Metals								
Arsenic, Dissolved	0.006	mg/L	0.002	E200.8	08/16/12 15:48	SLS	7440-38-2	
Arsenic	0.028	mg/L	0.002	E200.8	08/16/12 15:45	SLS	7440-38-2	
Barium, Dissolved	0.110	mg/L	0.005	E200.8	08/16/12 15:48	SLS	7440-39-3	
Barium	0.154	mg/L	0.005	E200.8	08/16/12 15:45	SLS	7440-39-3	
Cadmium, Dissolved	Not detected	mg/L	0.0005	E200.8	08/16/12 15:48	SLS	7440-43-9	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 15:45	SLS	7440-43-9	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 15:48	SLS	7440-47-3	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 15:45	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	08/16/12 15:48	SLS	7440-50-8	
Copper	Not detected	mg/L	0.004	E200.8	08/16/12 15:45	SLS	7440-50-8	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	08/16/12 15:48	SLS	7439-92-1	
Lead	Not detected	mg/L	0.003	E200.8	08/16/12 15:45	SLS	7439-92-1	
Mercury, Dissolved	Not detected	mg/L	0.0002	E245.1	08/15/12 14:48	JRT	7439-97-6	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:22	JRT	7439-97-6	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 15:48	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 15:45	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	08/16/12 15:48	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 15:45	SLS	7440-22-4	
Zinc, Dissolved	0.036	mg/L	0.005	E200.8	08/16/12 15:48	SLS	7440-66-6	
Zinc	0.005	mg/L	0.005	E200.8	08/16/12 15:45	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/13/12 17:47	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/13/12 17:47	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/13/12 17:47	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/13/12 17:47	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/13/12 17:47	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 17:47	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 17:47	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/13/12 17:47	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/13/12 17:47	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/13/12 17:47	PL	53-70-3	

Lab Sample ID: S53508.09 (continued)
Sample Tag: MW 139 (08-09-2012) (0915)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 17:47	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/13/12 17:47	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/13/12 17:47	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/13/12 17:47	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/13/12 17:47	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/13/12 17:47	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 17:47	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 17:47	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/16/12 17:11	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/16/12 17:11	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/16/12 17:11	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/16/12 17:11	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/16/12 17:11	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/16/12 17:11	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/16/12 17:11	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/16/12 17:11	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/16/12 17:11	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/16/12 17:11	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/16/12 17:11	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	79-34-5	

Lab Sample ID: S53508.09 (continued)
Sample Tag: MW 139 (08-09-2012) (0915)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/16/12 17:11	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/16/12 17:11	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/16/12 17:11	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53508.10
Sample Tag: DUP-01 (08-09-12)
Collected Date/Time: 08/09/2012 00:01
Matrix: Groundwater
COC Reference: 68127

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	2.9	IR
2	1L Amber	None	Yes	2.9	IR
1	125ml Plastic	None	Yes	2.9	IR
1	125ml Plastic	HNO3	Yes	2.9	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/09/12 22:00	EMR		
Metals								
Arsenic, Dissolved	0.011	mg/L	0.002	E200.8	08/16/12 16:17	SLS	7440-38-2	
Arsenic	0.037	mg/L	0.002	E200.8	08/16/12 16:14	SLS	7440-38-2	
Barium, Dissolved	0.110	mg/L	0.005	E200.8	08/16/12 16:17	SLS	7440-39-3	
Barium	0.154	mg/L	0.005	E200.8	08/16/12 16:14	SLS	7440-39-3	
Cadmium, Dissolved	Not detected	mg/L	0.0005	E200.8	08/16/12 16:17	SLS	7440-43-9	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 16:14	SLS	7440-43-9	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:17	SLS	7440-47-3	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 16:14	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	08/16/12 16:17	SLS	7440-50-8	
Copper	Not detected	mg/L	0.004	E200.8	08/16/12 16:14	SLS	7440-50-8	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	08/16/12 16:17	SLS	7439-92-1	
Lead	Not detected	mg/L	0.003	E200.8	08/16/12 16:14	SLS	7439-92-1	
Mercury, Dissolved	Not detected	mg/L	0.0002	E245.1	08/15/12 14:51	JRT	7439-97-6	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:24	JRT	7439-97-6	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:17	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 16:14	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	08/16/12 16:17	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 16:14	SLS	7440-22-4	
Zinc, Dissolved	0.029	mg/L	0.005	E200.8	08/16/12 16:17	SLS	7440-66-6	
Zinc	Not detected	mg/L	0.005	E200.8	08/16/12 16:14	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/13/12 18:06	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/13/12 18:06	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/13/12 18:06	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/13/12 18:06	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/13/12 18:06	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 18:06	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 18:06	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/13/12 18:06	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/13/12 18:06	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/13/12 18:06	PL	53-70-3	

Lab Sample ID: S53508.10 (continued)
Sample Tag: DUP-01 (08-09-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Fluoranthene	Not detected	ug/L	1	SW8270C	08/13/12 18:06	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/13/12 18:06	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/13/12 18:06	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/13/12 18:06	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/13/12 18:06	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/13/12 18:06	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 18:06	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/13/12 18:06	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/16/12 17:32	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/16/12 17:32	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/16/12 17:32	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/16/12 17:32	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/16/12 17:32	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/16/12 17:32	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/16/12 17:32	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/16/12 17:32	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/16/12 17:32	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/16/12 17:32	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/16/12 17:32	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	79-34-5	

Lab Sample ID: S53508.10 (continued)
Sample Tag: DUP-01 (08-09-12)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/16/12 17:32	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/16/12 17:32	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/16/12 17:32	WAT	120-82-1	

Quality Control Cover Page

Report ID: S53508.01(01)
Report Date: 08/20/2012
Project: 11950 Livonia Plant
Lab Sample ID(s): S53508.01-S53508.10

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S53508.01	MW 129 (08-08-2012) (1250)	08/08/2012 12:50	Groundwater	Extraction / Prep., Metals, Organics
S53508.02	2306-080812-0001	08/08/2012 00:01	Water Quality	Organics
S53508.03	MW 105 (08-08-2012) (1445)	08/08/2012 14:45	Groundwater	Extraction / Prep., Metals, Organics
S53508.04	MW 105 (08-08-2012) (1445) MS	08/08/2012 14:45	Groundwater	Extraction / Prep., Metals, Organics
S53508.05	MW 105 (08-08-2012) (1445) MSD	08/08/2012 14:45	Groundwater	Extraction / Prep., Metals, Organics
S53508.06	MW 101 (08-08-2012) (1615)	08/08/2012 16:15	Groundwater	Extraction / Prep., Metals, Organics
S53508.07	2306-080912-0001	08/09/2012 00:01	Water Quality	Organics
S53508.08	MW 165 (08-09-2012) (0825)	08/09/2012 08:25	Groundwater	Extraction / Prep., Metals, Organics
S53508.09	MW 139 (08-09-2012) (0915)	08/09/2012 09:15	Groundwater	Extraction / Prep., Metals, Organics
S53508.10	DUP-01 (08-09-12)	08/09/2012 00:01	Groundwater	Extraction / Prep., Metals, Organics

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S53508.01(01)
Generated on 08/21/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53508.01-S53508.10
Project: 11950 Livonia Plant
Submitted Date/Time: 08/09/2012 14:00
Sampled by: M.CastlesHumphrey
P.O. #: PO127270

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-11)
Prep Batch Summary (Pages 12-15)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S53508.01
Sample Tag: MW 129 (08-08-2012) (1250)
Collected Date/Time: 08/08/2012 12:50
Matrix: Groundwater
COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 15:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 15:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 15:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 15:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 15:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 15:51	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 15:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 14:44	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:15	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 15:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 15:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 15:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 15:52	H120813	SP120809W01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 15:29	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53508.02
Sample Tag: 2306-080812-0001
Collected Date/Time: 08/08/2012 00:01
Matrix: Water Quality
COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 15:50	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53508.03
Sample Tag: MW 105 (08-08-2012) (1445)
Collected Date/Time: 08/08/2012 14:45
Matrix: Groundwater
COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 15:54	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 15:54	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 15:54	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 15:54	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 15:54	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 15:54	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 15:04	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:35	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 15:54	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 15:54	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 15:54	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 16:11	H120813	SP120809W01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 15:09	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53508.04
Sample Tag: MW 105 (08-08-2012) (1445) MS
Collected Date/Time: 08/08/2012 14:45
Matrix: Groundwater
COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 15:58	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 15:58	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 15:58	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 15:58	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 15:58	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 15:58	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 15:06	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:38	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 15:58	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 15:58	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 15:58	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 16:30	H120813	SP120809W01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 13:06	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

Lab Sample ID: S53508.05

Sample Tag: MW 105 (08-08-2012) (1445) MSD

Collected Date/Time: 08/08/2012 14:45

Matrix: Groundwater

COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 16:01	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 16:01	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 16:01	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 16:01	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 16:01	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 16:01	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 15:08	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:40	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 16:01	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 16:01	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 16:01	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 16:49	H120813	SP120809W01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 13:27	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53508.06
Sample Tag: MW 101 (08-08-2012) (1615)
Collected Date/Time: 08/08/2012 16:15
Matrix: Groundwater
COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 15:32	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 15:32	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 15:32	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 15:32	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 15:32	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 15:32	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 14:46	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:18	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 15:32	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 15:32	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 15:32	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 17:08	H120813	SP120809W01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 16:10	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53508.07
Sample Tag: 2306-080912-0001
Collected Date/Time: 08/09/2012 00:01
Matrix: Water Quality
COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 16:31	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53508.08
Sample Tag: MW 165 (08-09-2012) (0825)
Collected Date/Time: 08/09/2012 08:25
Matrix: Groundwater
COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic	E200.8	08/16/12 15:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 15:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 15:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 15:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 15:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 15:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:20	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 15:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 15:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 15:42	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 17:27	H120813	SP120809W01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 16:51	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53508.09
Sample Tag: MW 139 (08-09-2012) (0915)
Collected Date/Time: 08/09/2012 09:15
Matrix: Groundwater
COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 15:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 15:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 15:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 15:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 15:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 15:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 14:48	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:22	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 15:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 15:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 15:45	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 17:47	H120813	SP120809W01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 17:11	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

Lab Sample ID: S53508.10
Sample Tag: DUP-01 (08-09-12)
Collected Date/Time: 08/09/2012 00:01
Matrix: Groundwater
COC Reference: 68127

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 16:14	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 16:14	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 16:14	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 16:14	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 16:14	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 16:14	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 14:51	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:24	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 16:14	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 16:14	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 16:14	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 18:06	H120813	SP120809W01	Yes	LCS/BLK/MS/MSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/16/12 17:32	120816A3	VF120816W1	Yes	LCS/BLK/LCSD

QC Report - Prep Batch Summary

Metals, Prep Batch ID: HGD-081512-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53508.01	Mercury, Dissolved	E245.1	08/15/12 14:44	HG2-12-0815A
S53508.01	Mercury	E245.1	08/15/12 15:15	HG2-12-0815A
S53508.03	Mercury, Dissolved	E245.1	08/15/12 15:04	HG2-12-0815A
S53508.03	Mercury	E245.1	08/15/12 15:35	HG2-12-0815A
S53508.04	Mercury, Dissolved	E245.1	08/15/12 15:06	HG2-12-0815A
S53508.04	Mercury	E245.1	08/15/12 15:38	HG2-12-0815A
S53508.05	Mercury, Dissolved	E245.1	08/15/12 15:08	HG2-12-0815A
S53508.05	Mercury	E245.1	08/15/12 15:40	HG2-12-0815A
S53508.06	Mercury, Dissolved	E245.1	08/15/12 14:46	HG2-12-0815A
S53508.06	Mercury	E245.1	08/15/12 15:18	HG2-12-0815A
S53508.08	Mercury	E245.1	08/15/12 15:20	HG2-12-0815A
S53508.09	Mercury, Dissolved	E245.1	08/15/12 14:48	HG2-12-0815A
S53508.09	Mercury	E245.1	08/15/12 15:22	HG2-12-0815A
S53508.10	Mercury, Dissolved	E245.1	08/15/12 14:51	HG2-12-0815A
S53508.10	Mercury	E245.1	08/15/12 15:24	HG2-12-0815A

Metals, Prep Batch ID: MTD-081612-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53508.01	Arsenic, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A
S53508.01	Arsenic	E200.8	08/16/12 15:26	MT3-12-0816A
S53508.01	Barium, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A
S53508.01	Barium	E200.8	08/16/12 15:26	MT3-12-0816A
S53508.01	Cadmium, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A
S53508.01	Cadmium	E200.8	08/16/12 15:26	MT3-12-0816A
S53508.01	Chromium, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A
S53508.01	Chromium	E200.8	08/16/12 15:26	MT3-12-0816A
S53508.01	Copper, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A
S53508.01	Copper	E200.8	08/16/12 15:26	MT3-12-0816A
S53508.01	Lead, Dissolved	E200.8	08/16/12 15:51	MT3-12-0816A
S53508.01	Lead	E200.8	08/16/12 15:26	MT3-12-0816A
S53508.01	Selenium, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A
S53508.01	Selenium	E200.8	08/16/12 15:26	MT3-12-0816A
S53508.01	Silver, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A
S53508.01	Silver	E200.8	08/16/12 15:26	MT3-12-0816A
S53508.01	Zinc, Dissolved	E200.8	08/16/12 15:29	MT3-12-0816A
S53508.01	Zinc	E200.8	08/16/12 15:26	MT3-12-0816A
S53508.03	Arsenic, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A
S53508.03	Arsenic	E200.8	08/16/12 15:54	MT3-12-0816A
S53508.03	Barium, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A
S53508.03	Barium	E200.8	08/16/12 15:54	MT3-12-0816A
S53508.03	Cadmium, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A
S53508.03	Cadmium	E200.8	08/16/12 15:54	MT3-12-0816A
S53508.03	Chromium, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A
S53508.03	Chromium	E200.8	08/16/12 15:54	MT3-12-0816A
S53508.03	Copper, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A
S53508.03	Copper	E200.8	08/16/12 15:54	MT3-12-0816A
S53508.03	Lead, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A
S53508.03	Lead	E200.8	08/16/12 15:54	MT3-12-0816A
S53508.03	Selenium, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A

Metals, Prep Batch ID: MTD-081612-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53508.03	Selenium	E200.8	08/16/12 15:54	MT3-12-0816A
S53508.03	Silver, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A
S53508.03	Silver	E200.8	08/16/12 15:54	MT3-12-0816A
S53508.03	Zinc, Dissolved	E200.8	08/16/12 16:42	MT3-12-0816A
S53508.03	Zinc	E200.8	08/16/12 15:54	MT3-12-0816A
S53508.04	Arsenic, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A
S53508.04	Arsenic	E200.8	08/16/12 15:58	MT3-12-0816A
S53508.04	Barium, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A
S53508.04	Barium	E200.8	08/16/12 15:58	MT3-12-0816A
S53508.04	Cadmium, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A
S53508.04	Cadmium	E200.8	08/16/12 15:58	MT3-12-0816A
S53508.04	Chromium, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A
S53508.04	Chromium	E200.8	08/16/12 15:58	MT3-12-0816A
S53508.04	Copper, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A
S53508.04	Copper	E200.8	08/16/12 15:58	MT3-12-0816A
S53508.04	Lead, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A
S53508.04	Lead	E200.8	08/16/12 15:58	MT3-12-0816A
S53508.04	Selenium, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A
S53508.04	Selenium	E200.8	08/16/12 15:58	MT3-12-0816A
S53508.04	Silver, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A
S53508.04	Silver	E200.8	08/16/12 15:58	MT3-12-0816A
S53508.04	Zinc, Dissolved	E200.8	08/16/12 16:45	MT3-12-0816A
S53508.04	Zinc	E200.8	08/16/12 15:58	MT3-12-0816A
S53508.05	Arsenic, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A
S53508.05	Arsenic	E200.8	08/16/12 16:01	MT3-12-0816A
S53508.05	Barium, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A
S53508.05	Barium	E200.8	08/16/12 16:01	MT3-12-0816A
S53508.05	Cadmium, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A
S53508.05	Cadmium	E200.8	08/16/12 16:01	MT3-12-0816A
S53508.05	Chromium, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A
S53508.05	Chromium	E200.8	08/16/12 16:01	MT3-12-0816A
S53508.05	Copper, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A
S53508.05	Copper	E200.8	08/16/12 16:01	MT3-12-0816A
S53508.05	Lead, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A
S53508.05	Lead	E200.8	08/16/12 16:01	MT3-12-0816A
S53508.05	Selenium, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A
S53508.05	Selenium	E200.8	08/16/12 16:01	MT3-12-0816A
S53508.05	Silver, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A
S53508.05	Silver	E200.8	08/16/12 16:01	MT3-12-0816A
S53508.05	Zinc, Dissolved	E200.8	08/16/12 16:48	MT3-12-0816A
S53508.05	Zinc	E200.8	08/16/12 16:01	MT3-12-0816A
S53508.06	Arsenic, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A
S53508.06	Arsenic	E200.8	08/16/12 15:32	MT3-12-0816A
S53508.06	Barium, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A
S53508.06	Barium	E200.8	08/16/12 15:32	MT3-12-0816A
S53508.06	Cadmium, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A
S53508.06	Cadmium	E200.8	08/16/12 15:32	MT3-12-0816A
S53508.06	Chromium, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A
S53508.06	Chromium	E200.8	08/16/12 15:32	MT3-12-0816A

Metals, Prep Batch ID: MTD-081612-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53508.06	Copper, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A
S53508.06	Copper	E200.8	08/16/12 15:32	MT3-12-0816A
S53508.06	Lead, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A
S53508.06	Lead	E200.8	08/16/12 15:32	MT3-12-0816A
S53508.06	Selenium, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A
S53508.06	Selenium	E200.8	08/16/12 15:32	MT3-12-0816A
S53508.06	Silver, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A
S53508.06	Silver	E200.8	08/16/12 15:32	MT3-12-0816A
S53508.06	Zinc, Dissolved	E200.8	08/16/12 15:39	MT3-12-0816A
S53508.06	Zinc	E200.8	08/16/12 15:32	MT3-12-0816A
S53508.08	Arsenic	E200.8	08/16/12 15:42	MT3-12-0816A
S53508.08	Barium	E200.8	08/16/12 15:42	MT3-12-0816A
S53508.08	Cadmium	E200.8	08/16/12 15:42	MT3-12-0816A
S53508.08	Chromium	E200.8	08/16/12 15:42	MT3-12-0816A
S53508.08	Copper	E200.8	08/16/12 15:42	MT3-12-0816A
S53508.08	Lead	E200.8	08/16/12 15:42	MT3-12-0816A
S53508.08	Selenium	E200.8	08/16/12 15:42	MT3-12-0816A
S53508.08	Silver	E200.8	08/16/12 15:42	MT3-12-0816A
S53508.08	Zinc	E200.8	08/16/12 15:42	MT3-12-0816A
S53508.09	Arsenic, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A
S53508.09	Arsenic	E200.8	08/16/12 15:45	MT3-12-0816A
S53508.09	Barium, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A
S53508.09	Barium	E200.8	08/16/12 15:45	MT3-12-0816A
S53508.09	Cadmium, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A
S53508.09	Cadmium	E200.8	08/16/12 15:45	MT3-12-0816A
S53508.09	Chromium, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A
S53508.09	Chromium	E200.8	08/16/12 15:45	MT3-12-0816A
S53508.09	Copper, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A
S53508.09	Copper	E200.8	08/16/12 15:45	MT3-12-0816A
S53508.09	Lead, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A
S53508.09	Lead	E200.8	08/16/12 15:45	MT3-12-0816A
S53508.09	Selenium, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A
S53508.09	Selenium	E200.8	08/16/12 15:45	MT3-12-0816A
S53508.09	Silver, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A
S53508.09	Silver	E200.8	08/16/12 15:45	MT3-12-0816A
S53508.09	Zinc, Dissolved	E200.8	08/16/12 15:48	MT3-12-0816A
S53508.09	Zinc	E200.8	08/16/12 15:45	MT3-12-0816A
S53508.10	Arsenic, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A
S53508.10	Arsenic	E200.8	08/16/12 16:14	MT3-12-0816A
S53508.10	Barium, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A
S53508.10	Barium	E200.8	08/16/12 16:14	MT3-12-0816A
S53508.10	Cadmium, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A
S53508.10	Cadmium	E200.8	08/16/12 16:14	MT3-12-0816A
S53508.10	Chromium, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A
S53508.10	Chromium	E200.8	08/16/12 16:14	MT3-12-0816A
S53508.10	Copper, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A
S53508.10	Copper	E200.8	08/16/12 16:14	MT3-12-0816A
S53508.10	Lead, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A
S53508.10	Lead	E200.8	08/16/12 16:14	MT3-12-0816A

Metals, Prep Batch ID: MTD-081612-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53508.10	Selenium, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A
S53508.10	Selenium	E200.8	08/16/12 16:14	MT3-12-0816A
S53508.10	Silver, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A
S53508.10	Silver	E200.8	08/16/12 16:14	MT3-12-0816A
S53508.10	Zinc, Dissolved	E200.8	08/16/12 16:17	MT3-12-0816A
S53508.10	Zinc	E200.8	08/16/12 16:14	MT3-12-0816A

Organics - Semi-Volatiles, Prep Batch ID: SP120809W01

Surrogates: Yes, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53508.01	Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 15:52	H120813
S53508.03	Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 16:11	H120813
S53508.04	Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 16:30	H120813
S53508.05	Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 16:49	H120813
S53508.06	Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 17:08	H120813
S53508.08	Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 17:27	H120813
S53508.09	Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 17:47	H120813
S53508.10	Polynuclear Aromatic Hydrocarbon	SW8270C	08/13/12 18:06	H120813

Organics - Volatiles, Prep Batch ID: VF120816W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53508.01	TCL Volatile Organics 8260	SW8260B	08/16/12 15:29	120816A3
S53508.02	TCL Volatile Organics 8260	SW8260B	08/16/12 15:50	120816A3
S53508.03	TCL Volatile Organics 8260	SW8260B	08/16/12 15:09	120816A3
S53508.04	TCL Volatile Organics 8260	SW8260B	08/16/12 13:06	120816A3
S53508.05	TCL Volatile Organics 8260	SW8260B	08/16/12 13:27	120816A3
S53508.06	TCL Volatile Organics 8260	SW8260B	08/16/12 16:10	120816A3
S53508.07	TCL Volatile Organics 8260	SW8260B	08/16/12 16:31	120816A3
S53508.08	TCL Volatile Organics 8260	SW8260B	08/16/12 16:51	120816A3
S53508.09	TCL Volatile Organics 8260	SW8260B	08/16/12 17:11	120816A3
S53508.10	TCL Volatile Organics 8260	SW8260B	08/16/12 17:32	120816A3

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb16a.d	08/16/12 11:24	25ng/bfb 1dr0814 [none]	WW	IP	**1**	
spcc16a.d	08/16/12 11:50	spcc/ccc 1dr0814 1v0816 [none]	WW	CV	**1** **4**	
lcsw16a.d	08/16/12 12:25	blank ms 1dr0814 vf120816w1	WW	MS	**1**	
lcsw16b.d	08/16/12 12:46	blank msd 1dr0814 vf120816w1	WW	MS	**1**	
5350804m.d	08/16/12 13:06	5ml ms 1dr0814 1m0816 vf120816w1	WW	MS	**1**	
5350805n.d	08/16/12 13:27	5ml msd 1dr0814 1m0816 vf120816w1	WW	MS	**1** **3**	
blkw16a.d	08/16/12 14:49	5ml blank 1dr0814 vf120816w1	WW	Bl	**1**	
5350803.d	08/16/12 15:09	5ml 1dr0814 vf120816w1	WW		**1**	
5350801.d	08/16/12 15:29	5ml 1dr0814 vf120816w1	WW		**1**	
5350802.d	08/16/12 15:50	5ml 1dr0814 vf120816w1	WW		**1**	
5350806.d	08/16/12 16:10	5ml 1dr0814 vf120816w1	WW		**1**	
5350807.d	08/16/12 16:31	5ml 1dr0814 vf120816w1	WW		**1**	
5350808.d	08/16/12 16:51	5ml 1dr0814 vf120816w1	WW		**1**	
5350809.d	08/16/12 17:11	5ml 1dr0814 vf120816w1	WW		**1**	
5350810.d	08/16/12 17:32	5ml 1dr0814 vf120816w1	WW		**1**	

Matrix (Mtx) Summary

Water Samples:	10	Soil Samples:	0
Water Duplicates:	2	Soil Duplicates:	0
Water Spikes:	4	Soil Spikes:	0
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 1
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc16a.d	4-Bromofluorobenzene	5.5/ 5.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	n/a	77.0/121.0	
	Toluene-D8	4.8/ 5.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcsw16a.d	4-Bromofluorobenzene	5.4/ 5.0	107.2	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.2/ 5.0	84.4	77.0/121.0	
	Toluene-D8	4.9/ 5.0	97.2	86.0/118.0	
				Total Outliers: 0	
lcsw16b.d	4-Bromofluorobenzene	5.4/ 5.0	107.8	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.2/ 5.0	83.8	77.0/121.0	
	Toluene-D8	5.0/ 5.0	100.0	86.0/118.0	
				Total Outliers: 0	
5350804m.d	4-Bromofluorobenzene	5.4/ 5.0	107.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.2/ 5.0	84.6	77.0/121.0	
	Toluene-D8	4.9/ 5.0	98.8	86.0/118.0	
				Total Outliers: 0	
5350805n.d	4-Bromofluorobenzene	5.4/ 5.0	107.4	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.5/ 5.0	89.0	77.0/121.0	
	Toluene-D8	4.9/ 5.0	97.0	86.0/118.0	
				Total Outliers: 0	
blkw16a.d	4-Bromofluorobenzene	5.1/ 5.0	101.2	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.3/ 5.0	85.0	77.0/121.0	
	Toluene-D8	4.8/ 5.0	95.6	86.0/118.0	
				Total Outliers: 0	
5350803.d	4-Bromofluorobenzene	5.1/ 5.0	102.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.3/ 5.0	86.2	77.0/121.0	
	Toluene-D8	4.8/ 5.0	96.8	86.0/118.0	
				Total Outliers: 0	
5350801.d	4-Bromofluorobenzene	5.1/ 5.0	102.8	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.5/ 5.0	90.8	77.0/121.0	
	Toluene-D8	4.9/ 5.0	97.4	86.0/118.0	
				Total Outliers: 0	
5350802.d	4-Bromofluorobenzene	5.3/ 5.0	105.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	87.8	77.0/121.0	
	Toluene-D8	4.7/ 5.0	94.0	86.0/118.0	
				Total Outliers: 0	
5350806.d	4-Bromofluorobenzene	5.2/ 5.0	103.8	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	88.2	77.0/121.0	
	Toluene-D8	4.7/ 5.0	93.6	86.0/118.0	
				Total Outliers: 0	
5350807.d	4-Bromofluorobenzene	5.1/ 5.0	102.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	87.0	77.0/121.0	
	Toluene-D8	4.6/ 5.0	92.8	86.0/118.0	
				Total Outliers: 0	
5350808.d	4-Bromofluorobenzene	5.2/ 5.0	104.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.3/ 5.0	86.0	77.0/121.0	
	Toluene-D8	4.8/ 5.0	96.4	86.0/118.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5350809.d	4-Bromofluorobenzene	5.2/ 5.0	104.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.6/ 5.0	91.0	77.0/121.0	
	Toluene-D8	4.7/ 5.0	94.2	86.0/118.0	
				Total Outliers:	**0**
5350810.d	4-Bromofluorobenzene	5.0/ 5.0	100.8	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	88.0	77.0/121.0	
	Toluene-D8	4.7/ 5.0	93.8	86.0/118.0	
				Total Outliers:	**0**

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsw16b.d			
Dup ID : LCS1			
Prep Batch: vf120816w1			
Prep Date : 08/16/12			
Parent File: lcsw16a.d			
1,1,2-trichloro-1,2,2-trifluoroethane	51.86/ 51.32	1.0/25.0	WW
diethyl ether (*)	47.37/ 46.02	2.9/25.0	
acetone (*)	59.31/ 37.33	45.5/25.0*	
methyl iodide (iodomethane) (*)	51.10/ 51.05	0.1/25.0	
carbon disulfide (*)	48.49/ 47.98	1.1/25.0	
methyl acetate	49.77/ 45.85	8.2/25.0	
tert-methyl butyl ether (mtbe) (*)	51.51/ 48.48	6.1/25.0	
acrylonitrile (*)	53.19/ 49.77	6.6/25.0	
2-butanone (mek) (*)	52.41/ 39.51	28.1/25.0*	
dichlorodifluoromethane	48.81/ 50.15	2.7/25.0	
chloromethane (spcc)	53.00/ 53.48	0.9/25.0	
vinyl chloride (ccc)	43.92/ 44.14	0.5/25.0	
bromomethane	45.27/ 45.94	1.5/25.0	
chloroethane	47.06/ 48.58	3.2/25.0	
trichlorofluoromethane	45.29/ 44.62	1.5/25.0	
1,1-dichloroethene (ccc/ms)	49.26/ 48.87	0.8/25.0	
methylene chloride	49.06/ 48.93	0.3/25.0	
trans-1,2-dichloroethene	48.27/ 47.88	0.8/25.0	
1,1-dichloroethane (spcc)	48.75/ 48.19	1.2/25.0	
cis-1,2-dichloroethene	49.27/ 49.27	0.0/25.0	
tetrahydrofuran	47.12/ 42.67	9.9/25.0	
chloroform (ccc)	48.26/ 47.54	1.5/25.0	
bromochloromethane	51.59/ 49.95	3.2/25.0	
1,1,1-trichloroethane	48.50/ 48.38	0.2/25.0	
1,1-dichloropropene	2.38/ 0.00	200.0/25.0*	
cyclohexane	41.86/ 41.55	0.7/25.0	
4-methyl-2-pentanone (mibk) (*)	57.13/ 51.21	10.9/25.0	
2-hexanone (*)	53.24/ 42.02	23.6/25.0	
carbon tetrachloride	50.45/ 48.97	3.0/25.0	
benzene (ms)	50.78/ 49.49	2.6/25.0	
1,2-dichloroethane	49.30/ 46.71	5.4/25.0	
trichloroethene (ms)	51.11/ 49.83	2.5/25.0	
1,2-dichloropropane (ccc)	51.28/ 49.92	2.7/25.0	
bromodichloromethane	50.90/ 48.64	4.5/25.0	
methyl cyclohexane	55.74/ 54.41	2.4/25.0	
dibromomethane	54.76/ 51.99	5.2/25.0	
cis-1,3-dichloropropene	48.11/ 45.62	5.3/25.0	
toluene (ccc/ms)	50.55/ 49.06	3.0/25.0	
trans-1,3-dichloropropene	48.18/ 46.30	4.0/25.0	
1,1,2-trichloroethane	52.48/ 49.53	5.8/25.0	
tetrachloroethene	56.43/ 55.53	1.6/25.0	
trans-1,4-dichloro-2-butene	49.06/ 47.81	2.6/25.0	
dibromochloromethane	51.08/ 50.84	0.5/25.0	
1,2-dibromoethane	53.30/ 51.43	3.6/25.0	
chlorobenzene (spcc/ms)	51.61/ 52.39	1.5/25.0	
1,1,1,2-tetrachloroethane	53.25/ 53.20	0.1/25.0	
ethylbenzene (ccc)	51.18/ 52.26	2.1/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
p,m-xylene	102.30/103.53	1.2/25.0	
o-xylene	50.98/ 51.65	1.3/25.0	
styrene	51.78/ 52.53	1.4/25.0	
isopropylbenzene	52.71/ 53.16	0.9/25.0	
bromoform (spcc)	45.82/ 43.94	4.2/25.0	
1,1,2,2-tetrachloroethane (spcc)	51.10/ 47.96	6.3/25.0	
1,2,3-trichloropropane	52.92/ 50.86	4.0/25.0	
n-propylbenzene	53.77/ 54.15	0.7/25.0	
bromobenzene	55.56/ 54.91	1.2/25.0	
1,3,5-trimethylbenzene	52.91/ 53.35	0.8/25.0	
tert-butylbenzene	51.40/ 51.73	0.6/25.0	
1,2,4-trimethylbenzene	54.65/ 55.71	1.9/25.0	
sec-butylbenzene	49.66/ 50.06	0.8/25.0	
p-isopropyltoluene	49.84/ 49.99	0.3/25.0	
1,3-dichlorobenzene	50.17/ 49.52	1.3/25.0	
1,4-dichlorobenzene	49.84/ 49.20	1.3/25.0	
1,2-dichlorobenzene	49.19/ 49.15	0.1/25.0	
1,2,3-trimethylbenzene	49.69/ 48.86	1.7/25.0	
n-butylbenzene	50.17/ 49.68	1.0/25.0	
hexachloroethane	37.51/ 36.62	2.4/25.0	
1,2-dibromo-3-chloropropane	48.39/ 41.90	14.4/25.0	
1,2,4-trichlorobenzene	50.12/ 48.36	3.6/25.0	
1,2,3-trichlorobenzene	50.40/ 47.68	5.5/25.0	
naphthalene	51.59/ 47.00	9.3/25.0	
2-methylnaphthalene	44.88/ 38.89	14.3/25.0	
[end of compound list]			
		Total Outliers: 3	

Dup File : 5350805n.d
Dup ID : S53508.05
Prep Batch: vf120816w1
Prep Date : 08/16/12
Parent File: 5350804m.d

1,1,2-trichloro-1,2,2-trifluoroethane	53.84/ 55.43	2.9/25.0	WW
diethyl ether (*)	49.39/ 48.67	1.5/25.0	
acetone (*)	46.07/ 44.10	4.4/25.0	
methyl iodide (iodomethane) (*)	52.95/ 53.58	1.2/25.0	
carbon disulfide (*)	43.27/ 50.70	15.8/25.0	
methyl acetate	49.64/ 51.13	3.0/25.0	
tert-methyl butyl ether (mtbe) (*)	53.60/ 53.26	0.6/25.0	
acrylonitrile (*)	50.93/ 51.92	1.9/25.0	
2-butanone (mek) (*)	42.31/ 42.59	0.7/25.0	
dichlorodifluoromethane	45.78/ 49.18	7.2/25.0	
chloromethane (spcc)	53.36/ 55.60	4.1/25.0	
vinyl chloride (ccc)	43.00/ 45.43	5.5/25.0	
bromomethane	46.85/ 48.11	2.7/25.0	
chloroethane	47.96/ 47.69	0.6/25.0	
trichlorofluoromethane	46.37/ 47.41	2.2/25.0	
1,1-dichloroethene (ccc/ms)	47.84/ 50.65	5.7/25.0	
methylene chloride	50.78/ 50.84	0.1/25.0	
trans-1,2-dichloroethene	49.19/ 49.65	0.9/25.0	
1,1-dichloroethane (spcc)	50.39/ 50.08	0.6/25.0	
cis-1,2-dichloroethene	51.84/ 50.93	1.8/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
tetrahydrofuran	44.49/ 45.27	1.7/25.0	
chloroform (ccc)	49.99/ 49.40	1.2/25.0	
bromochloromethane	53.00/ 52.95	0.1/25.0	
1,1,1-trichloroethane	51.17/ 50.97	0.4/25.0	
cyclohexane	43.33/ 44.34	2.3/25.0	
4-methyl-2-pentanone (mibk) (*)	66.76/ 65.98	1.2/25.0	
2-hexanone (*)	49.16/ 50.17	2.0/25.0	
carbon tetrachloride	51.11/ 51.30	0.4/25.0	
benzene (ms)	51.21/ 50.80	0.8/25.0	
1,2-dichloroethane	48.80/ 48.29	1.1/25.0	
trichloroethene (ms)	51.31/ 50.65	1.3/25.0	
1,2-dichloropropane (ccc)	51.83/ 50.62	2.4/25.0	
bromodichloromethane	49.81/ 49.89	0.2/25.0	
methyl cyclohexane	54.15/ 54.74	1.1/25.0	
dibromomethane	55.09/ 54.93	0.3/25.0	
cis-1,3-dichloropropene	46.49/ 47.37	1.9/25.0	
toluene (ccc/ms)	49.20/ 50.82	3.2/25.0	
trans-1,3-dichloropropene	46.52/ 48.36	3.9/25.0	
1,1,2-trichloroethane	50.98/ 51.23	0.5/25.0	
tetrachloroethene	57.67/ 56.17	2.6/25.0	
trans-1,4-dichloro-2-butene	38.22/ 47.69	22.0/25.0	
dibromochloromethane	48.97/ 50.28	2.6/25.0	
1,2-dibromoethane	52.72/ 53.71	1.9/25.0	
chlorobenzene (spcc/ms)	52.77/ 52.45	0.6/25.0	
1,1,1,2-tetrachloroethane	53.04/ 54.10	2.0/25.0	
ethylbenzene (ccc)	49.07/ 51.27	4.4/25.0	
p,m-xylene	91.26/102.40	11.5/25.0	
o-xylene	46.90/ 51.00	8.4/25.0	
styrene	6.14/ 36.68	142.6/25.0*	
isopropylbenzene	50.77/ 52.71	3.7/25.0	
bromoform (spcc)	43.15/ 45.04	4.3/25.0	
1,1,2,2-tetrachloroethane (spcc)	52.19/ 53.04	1.6/25.0	
1,2,3-trichloropropane	54.89/ 53.47	2.6/25.0	
n-propylbenzene	51.45/ 53.53	4.0/25.0	
bromobenzene	55.05/ 56.50	2.6/25.0	
1,3,5-trimethylbenzene	36.91/ 51.54	33.1/25.0*	
tert-butylbenzene	48.08/ 51.08	6.1/25.0	
1,2,4-trimethylbenzene	41.35/ 53.02	24.7/25.0	
sec-butylbenzene	48.83/ 49.07	0.5/25.0	
p-isopropyltoluene	46.66/ 48.86	4.6/25.0	
1,3-dichlorobenzene	51.27/ 50.38	1.8/25.0	
1,4-dichlorobenzene	51.33/ 51.00	0.6/25.0	
1,2-dichlorobenzene	50.90/ 50.21	1.4/25.0	
1,2,3-trimethylbenzene	37.22/ 47.72	24.7/25.0	
n-butylbenzene	47.55/ 48.11	1.2/25.0	
hexachloroethane	37.53/ 38.05	1.4/25.0	
1,2-dibromo-3-chloropropane	50.23/ 50.08	0.3/25.0	
1,2,4-trichlorobenzene	50.33/ 48.47	3.8/25.0	
1,2,3-trichlorobenzene	52.11/ 49.11	5.9/25.0	
naphthalene	55.90/ 54.53	2.5/25.0	
2-methylnaphthalene	52.79/ 51.46	2.6/25.0	
[end of compound list]			
		Total Outliers: 2	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcsw16a.d
Spike ID : LCS1
Prep Batch: vf120816w1
Prep Date : 08/16/12
Parent File: blkw16a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	51.32/	0.00	50.00	102.6	75.1/135.9	WW
Diethyl ether	46.02/	0.00	50.00	92.0	67.4/121.2	
Acetone	37.33/	0.00	50.00	74.7	29.9/161.5	
Methyl iodide	51.05/	0.00	50.00	102.1	68.8/116.4	
Carbon disulfide	47.98/	0.00	50.00	96.0	63.8/137.4	
Methyl acetate	45.85/	0.00	50.00	91.7	64.7/125.4	
tert-Methyl butyl ether	48.48/	0.00	50.00	97.0	73.2/122.4	
Acrylonitrile	49.77/	0.00	50.00	99.5	69.9/128.9	
2-Butanone	39.51/	0.00	50.00	79.0	44.0/134.4	
Dichlorodifluoromethane	50.15/	0.00	50.00	100.3	10.0/222.8	
Chloromethane	53.48/	0.00	50.00	107.0	23.8/166.5	
Vinyl Chloride	44.14/	0.00	50.00	88.3	43.5/149.1	
Bromomethane	45.94/	0.00	50.00	91.9	56.8/151.3	
Chloroethane	48.58/	0.00	50.00	97.2	53.4/149.4	
Trichlorofluoromethane	44.62/	0.00	50.00	89.2	59.7/151.8	
1,1-Dichloroethene	48.87/	0.00	50.00	97.7	69.6/139.4	
Methylene Chloride	48.93/	0.00	50.00	97.9	73.3/121.1	
trans-1,2-Dichloroethene	47.88/	0.00	50.00	95.8	73.6/129.3	
1,1-Dichloroethane	48.19/	0.00	50.00	96.4	71.5/126.2	
cis-1,2-Dichloroethene	49.27/	0.00	50.00	98.5	76.6/122.1	
Tetrahydrofuran	42.67/	2.31	50.00	85.3	59.0/117.9	
Chloroform	47.54/	0.00	50.00	95.1	78.4/124.0	
Bromochloromethane	49.95/	0.00	50.00	99.9	78.2/120.8	
1,1,1-Trichloroethane	48.38/	0.00	50.00	96.8	79.4/130.9	
Cyclohexane	41.55/	0.00	50.00	83.1	10.0/169.1	
4-Methyl-2-pentanone	51.21/	0.00	50.00	102.4	71.6/125.2	
2-Hexanone	42.02/	0.00	50.00	84.0	55.4/136.9	
Carbon Tetrachloride	48.97/	0.00	50.00	97.9	72.6/133.0	
Benzene	49.49/	0.00	50.00	99.0	79.9/124.9	
1,2-Dichloroethane	46.71/	0.00	50.00	93.4	76.0/126.3	
Trichloroethene	49.83/	0.00	50.00	99.7	79.7/124.2	
1,2-Dichloropropane	49.92/	0.00	50.00	99.8	78.6/126.4	
Bromodichloromethane	48.64/	0.00	50.00	97.3	80.4/128.2	
Methyl cyclohexane	54.41/	0.00	50.00	108.8	76.6/131.3	
Dibromomethane	51.99/	0.00	50.00	104.0	76.9/122.1	
cis-1,3-Dichloropropene	45.62/	0.00	50.00	91.2	79.8/129.9	
Toluene	49.06/	0.00	50.00	98.1	79.8/124.5	
trans-1,3-Dichloropropene	46.30/	0.00	50.00	92.6	74.0/131.3	
1,1,2-Trichloroethane	49.53/	0.00	50.00	99.1	78.7/123.1	
Tetrachloroethene	55.53/	0.00	50.00	111.1	74.5/124.5	
trans-1,4-Dichloro-2-butene	47.81/	0.00	50.00	95.6	68.6/135.4	
Dibromochloromethane	50.84/	0.00	50.00	101.7	74.6/127.2	
1,2-Dibromoethane	51.43/	0.00	50.00	102.9	70.3/133.7	
Chlorobenzene	52.39/	0.00	50.00	104.8	79.2/122.7	
1,1,1,2-Tetrachloroethane	53.20/	0.00	50.00	106.4	80.3/128.2	
Ethylbenzene	52.26/	0.00	50.00	104.5	79.5/129.1	
p,m-Xylene	103.53/	0.00	100.00	103.5	79.4/132.2	
o-Xylene	51.65/	0.00	50.00	103.3	80.2/131.0	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	52.53/	0.00	50.00	105.1	69.5/126.7	
Isopropylbenzene	53.16/	0.00	50.00	106.3	74.4/121.5	
Bromoform	43.94/	0.00	50.00	87.9	69.4/128.0	
1,1,2,2-Tetrachloroethane	47.96/	0.00	50.00	95.9	79.8/126.3	
1,2,3-Trichloropropane	50.86/	0.00	50.00	101.7	78.3/138.8	
n-Propylbenzene	54.15/	0.00	50.00	108.3	82.0/130.7	
Bromobenzene	54.91/	0.00	50.00	109.8	78.7/124.6	
1,3,5-Trimethylbenzene	53.35/	0.00	50.00	106.7	81.3/128.9	
tert-Butylbenzene	51.73/	0.00	50.00	103.5	80.7/128.9	
1,2,4-Trimethylbenzene	55.71/	0.00	50.00	111.4	81.4/130.8	
sec-Butylbenzene	50.06/	0.00	50.00	100.1	77.4/129.8	
p-Isopropyltoluene	49.99/	0.00	50.00	100.0	79.8/137.5	
1,3-Dichlorobenzene	49.52/	0.00	50.00	99.0	77.0/131.3	
1,4-Dichlorobenzene	49.20/	0.00	50.00	98.4	20.7/137.7	
1,2-Dichlorobenzene	49.15/	0.00	50.00	98.3	10.0/166.2	
1,2,3-Trimethylbenzene	48.86/	0.00	50.00	97.7	76.3/124.2	
n-Butylbenzene	49.68/	0.00	50.00	99.4	80.0/133.3	
Hexachloroethane	36.62/	0.00	50.00	73.2	23.8/138.1	
1,2-Dibromo-3-Chloropropane	41.90/	0.00	50.00	83.8	21.2/189.4	
1,2,4-Trichlorobenzene	48.36/	0.00	50.00	96.7	27.4/143.4	
1,2,3-Trichlorobenzene	47.68/	0.00	50.00	95.4	75.4/131.4	
Naphthalene	47.00/	0.00	50.00	94.0	32.9/135.8	
2-Methylnaphthalene	38.89/	0.00	50.00	77.8	25.5/165.5	
					Total Outliers:	**0**

Spike File : lcsw16b.d
Spike ID : LCS1
Prep Batch: vf120816w1
Prep Date : 08/16/12
Parent File: blkw16a.d

1,1,2-Trichloro-1,2,2-trifluor	51.86/	0.00	50.00	103.7	75.1/135.9	WW
Diethyl ether	47.37/	0.00	50.00	94.7	67.4/121.2	
Acetone	59.31/	0.00	50.00	118.6	29.9/161.5	
Methyl iodide	51.10/	0.00	50.00	102.2	68.8/116.4	
Carbon disulfide	48.49/	0.00	50.00	97.0	63.8/137.4	
Methyl acetate	49.77/	0.00	50.00	99.5	64.7/125.4	
tert-Methyl butyl ether	51.51/	0.00	50.00	103.0	73.2/122.4	
Acrylonitrile	53.19/	0.00	50.00	106.4	69.9/128.9	
2-Butanone	52.41/	0.00	50.00	104.8	44.0/134.4	
Dichlorodifluoromethane	48.81/	0.00	50.00	97.6	10.0/222.8	
Chloromethane	53.00/	0.00	50.00	106.0	23.8/166.5	
Vinyl Chloride	43.92/	0.00	50.00	87.8	43.5/149.1	
Bromomethane	45.27/	0.00	50.00	90.5	56.8/151.3	
Chloroethane	47.06/	0.00	50.00	94.1	53.4/149.4	
Trichlorofluoromethane	45.29/	0.00	50.00	90.6	59.7/151.8	
1,1-Dichloroethene	49.26/	0.00	50.00	98.5	69.6/139.4	
Methylene Chloride	49.06/	0.00	50.00	98.1	73.3/121.1	
trans-1,2-Dichloroethene	48.27/	0.00	50.00	96.5	73.6/129.3	
1,1-Dichloroethane	48.75/	0.00	50.00	97.5	71.5/126.2	
cis-1,2-Dichloroethene	49.27/	0.00	50.00	98.5	76.6/122.1	
Tetrahydrofuran	47.12/	2.31	50.00	94.2	59.0/117.9	
Chloroform	48.26/	0.00	50.00	96.5	78.4/124.0	
Bromochloromethane	51.59/	0.00	50.00	103.2	78.2/120.8	
1,1,1-Trichloroethane	48.50/	0.00	50.00	97.0	79.4/130.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	41.86/	0.00	50.00	83.7	10.0/169.1	
4-Methyl-2-pentanone	57.13/	0.00	50.00	114.3	71.6/125.2	
2-Hexanone	53.24/	0.00	50.00	106.5	55.4/136.9	
Carbon Tetrachloride	50.45/	0.00	50.00	100.9	72.6/133.0	
Benzene	50.78/	0.00	50.00	101.6	79.9/124.9	
1,2-Dichloroethane	49.30/	0.00	50.00	98.6	76.0/126.3	
Trichloroethene	51.11/	0.00	50.00	102.2	79.7/124.2	
1,2-Dichloropropane	51.28/	0.00	50.00	102.6	78.6/126.4	
Bromodichloromethane	50.90/	0.00	50.00	101.8	80.4/128.2	
Methyl cyclohexane	55.74/	0.00	50.00	111.5	76.6/131.3	
Dibromomethane	54.76/	0.00	50.00	109.5	76.9/122.1	
cis-1,3-Dichloropropene	48.11/	0.00	50.00	96.2	79.8/129.9	
Toluene	50.55/	0.00	50.00	101.1	79.8/124.5	
trans-1,3-Dichloropropene	48.18/	0.00	50.00	96.4	74.0/131.3	
1,1,2-Trichloroethane	52.48/	0.00	50.00	105.0	78.7/123.1	
Tetrachloroethene	56.43/	0.00	50.00	112.9	74.5/124.5	
trans-1,4-Dichloro-2-butene	49.06/	0.00	50.00	98.1	68.6/135.4	
Dibromochloromethane	51.08/	0.00	50.00	102.2	74.6/127.2	
1,2-Dibromoethane	53.30/	0.00	50.00	106.6	70.3/133.7	
Chlorobenzene	51.61/	0.00	50.00	103.2	79.2/122.7	
1,1,1,2-Tetrachloroethane	53.25/	0.00	50.00	106.5	80.3/128.2	
Ethylbenzene	51.18/	0.00	50.00	102.4	79.5/129.1	
p,m-Xylene	102.30/	0.00	100.00	102.3	79.4/132.2	
o-Xylene	50.98/	0.00	50.00	102.0	80.2/131.0	
Styrene	51.78/	0.00	50.00	103.6	69.5/126.7	
Isopropylbenzene	52.71/	0.00	50.00	105.4	74.4/121.5	
Bromoform	45.82/	0.00	50.00	91.6	69.4/128.0	
1,1,2,2-Tetrachloroethane	51.10/	0.00	50.00	102.2	79.8/126.3	
1,2,3-Trichloropropane	52.92/	0.00	50.00	105.8	78.3/138.8	
n-Propylbenzene	53.77/	0.00	50.00	107.5	82.0/130.7	
Bromobenzene	55.56/	0.00	50.00	111.1	78.7/124.6	
1,3,5-Trimethylbenzene	52.91/	0.00	50.00	105.8	81.3/128.9	
tert-Butylbenzene	51.40/	0.00	50.00	102.8	80.7/128.9	
1,2,4-Trimethylbenzene	54.65/	0.00	50.00	109.3	81.4/130.8	
sec-Butylbenzene	49.66/	0.00	50.00	99.3	77.4/129.8	
p-Isopropyltoluene	49.84/	0.00	50.00	99.7	79.8/137.5	
1,3-Dichlorobenzene	50.17/	0.00	50.00	100.3	77.0/131.3	
1,4-Dichlorobenzene	49.84/	0.00	50.00	99.7	20.7/137.7	
1,2-Dichlorobenzene	49.19/	0.00	50.00	98.4	10.0/166.2	
1,2,3-Trimethylbenzene	49.69/	0.00	50.00	99.4	76.3/124.2	
n-Butylbenzene	50.17/	0.00	50.00	100.3	80.0/133.3	
Hexachloroethane	37.51/	0.00	50.00	75.0	23.8/138.1	
1,2-Dibromo-3-Chloropropane	48.39/	0.00	50.00	96.8	21.2/189.4	
1,2,4-Trichlorobenzene	50.12/	0.00	50.00	100.2	27.4/143.4	
1,2,3-Trichlorobenzene	50.40/	0.00	50.00	100.8	75.4/131.4	
Naphthalene	51.59/	0.00	50.00	103.2	32.9/135.8	
2-Methylnaphthalene	44.88/	0.00	50.00	89.8	25.5/165.5	

Total Outliers: 0

Spike File : 5350804m.d
Spike ID : S53508.04
Prep Batch: vf120816w1
Prep Date : 08/16/12
Parent File: 5350803.d

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	55.43/	0.00	50.00	110.9	75.1/135.9	WW
Diethyl ether	48.67/	0.00	50.00	97.3	67.4/121.2	
Acetone	44.10/	8.34	50.00	71.5	29.9/161.5	
Methyl iodide	53.58/	0.00	50.00	107.2	68.8/116.4	
Carbon disulfide	50.70/	0.00	50.00	101.4	63.8/137.4	
Methyl acetate	51.13/	0.00	50.00	102.3	64.7/125.4	
tert-Methyl butyl ether	53.26/	0.00	50.00	106.5	73.2/122.4	
Acrylonitrile	51.92/	0.00	50.00	103.8	69.9/128.9	
2-Butanone	42.59/	0.00	50.00	85.2	44.0/134.4	
Dichlorodifluoromethane	49.18/	0.00	50.00	98.4	10.0/222.8	
Chloromethane	55.60/	0.00	50.00	111.2	23.8/166.5	
Vinyl Chloride	45.43/	0.00	50.00	90.9	43.5/149.1	
Bromomethane	48.11/	0.00	50.00	96.2	56.8/151.3	
Chloroethane	47.69/	0.00	50.00	95.4	53.4/149.4	
Trichlorofluoromethane	47.41/	0.00	50.00	94.8	59.7/151.8	
1,1-Dichloroethene	50.65/	0.00	50.00	101.3	69.6/139.4	
Methylene Chloride	50.84/	0.00	50.00	101.7	73.3/121.1	
trans-1,2-Dichloroethene	49.65/	0.00	50.00	99.3	73.6/129.3	
1,1-Dichloroethane	50.08/	0.00	50.00	100.2	71.5/126.2	
cis-1,2-Dichloroethene	50.93/	0.00	50.00	101.9	76.6/122.1	
Tetrahydrofuran	45.27/	0.00	50.00	90.5	59.0/117.9	
Chloroform	49.40/	0.00	50.00	98.8	78.4/124.0	
Bromochloromethane	52.95/	0.00	50.00	105.9	78.2/120.8	
1,1,1-Trichloroethane	50.97/	0.00	50.00	101.9	79.4/130.9	
Cyclohexane	44.34/	0.00	50.00	88.7	10.0/169.1	
4-Methyl-2-pentanone	65.98/	7.50	50.00	117.0	71.6/125.2	
2-Hexanone	50.17/	0.00	50.00	100.3	55.4/136.9	
Carbon Tetrachloride	51.30/	0.00	50.00	102.6	72.6/133.0	
Benzene	50.80/	0.00	50.00	101.6	79.9/124.9	
1,2-Dichloroethane	48.29/	0.00	50.00	96.6	76.0/126.3	
Trichloroethene	50.65/	0.00	50.00	101.3	79.7/124.2	
1,2-Dichloropropane	50.62/	0.00	50.00	101.2	78.6/126.4	
Bromodichloromethane	49.89/	0.00	50.00	99.8	80.4/128.2	
Methyl cyclohexane	54.74/	0.00	50.00	109.5	76.6/131.3	
Dibromomethane	54.93/	0.00	50.00	109.9	76.9/122.1	
cis-1,3-Dichloropropene	47.37/	0.00	50.00	94.7	79.8/129.9	
Toluene	50.82/	0.00	50.00	101.6	79.8/124.5	
trans-1,3-Dichloropropene	48.36/	0.00	50.00	96.7	74.0/131.3	
1,1,2-Trichloroethane	51.23/	0.00	50.00	102.5	78.7/123.1	
Tetrachloroethene	56.17/	0.00	50.00	112.3	74.5/124.5	
trans-1,4-Dichloro-2-butene	47.69/	0.00	50.00	95.4	68.6/135.4	
Dibromochloromethane	50.28/	0.00	50.00	100.6	74.6/127.2	
1,2-Dibromoethane	53.71/	0.00	50.00	107.4	70.3/133.7	
Chlorobenzene	52.45/	0.00	50.00	104.9	79.2/122.7	
1,1,1,2-Tetrachloroethane	54.10/	0.00	50.00	108.2	80.3/128.2	
Ethylbenzene	51.27/	0.00	50.00	102.5	79.5/129.1	
p,m-Xylene	102.40/	0.00	100.00	102.4	79.4/132.2	
o-Xylene	51.00/	0.00	50.00	102.0	80.2/131.0	
Styrene	36.68/	0.00	50.00	73.4	69.5/126.7	
Isopropylbenzene	52.71/	0.00	50.00	105.4	74.4/121.5	
Bromoform	45.04/	0.00	50.00	90.1	69.4/128.0	
1,1,2,2-Tetrachloroethane	53.04/	0.00	50.00	106.1	79.8/126.3	
1,2,3-Trichloropropane	53.47/	0.00	50.00	106.9	78.3/138.8	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
n-Propylbenzene	53.53/	0.00	50.00	107.1	82.0/130.7	
Bromobenzene	56.50/	0.00	50.00	113.0	78.7/124.6	
1,3,5-Trimethylbenzene	51.54/	0.00	50.00	103.1	81.3/128.9	
tert-Butylbenzene	51.08/	0.00	50.00	102.2	80.7/128.9	
1,2,4-Trimethylbenzene	53.02/	0.00	50.00	106.0	81.4/130.8	
sec-Butylbenzene	49.07/	0.00	50.00	98.1	77.4/129.8	
p-Isopropyltoluene	48.86/	0.00	50.00	97.7	79.8/137.5	
1,3-Dichlorobenzene	50.38/	0.00	50.00	100.8	77.0/131.3	
1,4-Dichlorobenzene	51.00/	0.00	50.00	102.0	20.7/137.7	
1,2-Dichlorobenzene	50.21/	0.00	50.00	100.4	10.0/166.2	
1,2,3-Trimethylbenzene	47.72/	0.00	50.00	95.4	76.3/124.2	
n-Butylbenzene	48.11/	0.00	50.00	96.2	80.0/133.3	
Hexachloroethane	38.05/	0.00	50.00	76.1	23.8/138.1	
1,2-Dibromo-3-Chloropropane	50.08/	0.00	50.00	100.2	21.2/189.4	
1,2,4-Trichlorobenzene	48.47/	0.00	50.00	96.9	27.4/143.4	
1,2,3-Trichlorobenzene	49.11/	0.00	50.00	98.2	75.4/131.4	
Naphthalene	54.53/	0.00	50.00	109.1	32.9/135.8	
2-Methylnaphthalene	51.46/	0.00	50.00	102.9	25.5/165.5	
					Total Outliers:	**0**

Spike File : 5350805n.d
Spike ID : S53508.05
Prep Batch: vf120816w1
Prep Date : 08/16/12
Parent File: 5350803.d

1,1,2-Trichloro-1,2,2-trifluor	53.84/	0.00	50.00	107.7	75.1/135.9	WW
Diethyl ether	49.39/	0.00	50.00	98.8	67.4/121.2	
Acetone	46.07/	8.34	50.00	75.5	29.9/161.5	
Methyl iodide	52.95/	0.00	50.00	105.9	68.8/116.4	
Carbon disulfide	43.27/	0.00	50.00	86.5	63.8/137.4	
Methyl acetate	49.64/	0.00	50.00	99.3	64.7/125.4	
tert-Methyl butyl ether	53.60/	0.00	50.00	107.2	73.2/122.4	
Acrylonitrile	50.93/	0.00	50.00	101.9	69.9/128.9	
2-Butanone	42.31/	0.00	50.00	84.6	44.0/134.4	
Dichlorodifluoromethane	45.78/	0.00	50.00	91.6	10.0/222.8	
Chloromethane	53.36/	0.00	50.00	106.7	23.8/166.5	
Vinyl Chloride	43.00/	0.00	50.00	86.0	43.5/149.1	
Bromomethane	46.85/	0.00	50.00	93.7	56.8/151.3	
Chloroethane	47.96/	0.00	50.00	95.9	53.4/149.4	
Trichlorofluoromethane	46.37/	0.00	50.00	92.7	59.7/151.8	
1,1-Dichloroethene	47.84/	0.00	50.00	95.7	69.6/139.4	
Methylene Chloride	50.78/	0.00	50.00	101.6	73.3/121.1	
trans-1,2-Dichloroethene	49.19/	0.00	50.00	98.4	73.6/129.3	
1,1-Dichloroethane	50.39/	0.00	50.00	100.8	71.5/126.2	
cis-1,2-Dichloroethene	51.84/	0.00	50.00	103.7	76.6/122.1	
Tetrahydrofuran	44.49/	0.00	50.00	89.0	59.0/117.9	
Chloroform	49.99/	0.00	50.00	100.0	78.4/124.0	
Bromochloromethane	53.00/	0.00	50.00	106.0	78.2/120.8	
1,1,1-Trichloroethane	51.17/	0.00	50.00	102.3	79.4/130.9	
Cyclohexane	43.33/	0.00	50.00	86.7	10.0/169.1	
4-Methyl-2-pentanone	66.76/	7.50	50.00	118.5	71.6/125.2	
2-Hexanone	49.16/	0.00	50.00	98.3	55.4/136.9	
Carbon Tetrachloride	51.11/	0.00	50.00	102.2	72.6/133.0	
Benzene	51.21/	0.00	50.00	102.4	79.9/124.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,2-Dichloroethane	48.80/	0.00	50.00	97.6	76.0/126.3	
Trichloroethene	51.31/	0.00	50.00	102.6	79.7/124.2	
1,2-Dichloropropane	51.83/	0.00	50.00	103.7	78.6/126.4	
Bromodichloromethane	49.81/	0.00	50.00	99.6	80.4/128.2	
Methyl cyclohexane	54.15/	0.00	50.00	108.3	76.6/131.3	
Dibromomethane	55.09/	0.00	50.00	110.2	76.9/122.1	
cis-1,3-Dichloropropene	46.49/	0.00	50.00	93.0	79.8/129.9	
Toluene	49.20/	0.00	50.00	98.4	79.8/124.5	
trans-1,3-Dichloropropene	46.52/	0.00	50.00	93.0	74.0/131.3	
1,1,2-Trichloroethane	50.98/	0.00	50.00	102.0	78.7/123.1	
Tetrachloroethene	57.67/	0.00	50.00	115.3	74.5/124.5	
trans-1,4-Dichloro-2-butene	38.22/	0.00	50.00	76.4	68.6/135.4	
Dibromochloromethane	48.97/	0.00	50.00	97.9	74.6/127.2	
1,2-Dibromoethane	52.72/	0.00	50.00	105.4	70.3/133.7	
Chlorobenzene	52.77/	0.00	50.00	105.5	79.2/122.7	
1,1,1,2-Tetrachloroethane	53.04/	0.00	50.00	106.1	80.3/128.2	
Ethylbenzene	49.07/	0.00	50.00	98.1	79.5/129.1	
p,m-Xylene	91.26/	0.00	100.00	91.3	79.4/132.2	
o-Xylene	46.90/	0.00	50.00	93.8	80.2/131.0	
Styrene	6.14/	0.00	50.00	12.3*	69.5/126.7	
Isopropylbenzene	50.77/	0.00	50.00	101.5	74.4/121.5	
Bromoform	43.15/	0.00	50.00	86.3	69.4/128.0	
1,1,2,2-Tetrachloroethane	52.19/	0.00	50.00	104.4	79.8/126.3	
1,2,3-Trichloropropane	54.89/	0.00	50.00	109.8	78.3/138.8	
n-Propylbenzene	51.45/	0.00	50.00	102.9	82.0/130.7	
Bromobenzene	55.05/	0.00	50.00	110.1	78.7/124.6	
1,3,5-Trimethylbenzene	36.91/	0.00	50.00	73.8*	81.3/128.9	
tert-Butylbenzene	48.08/	0.00	50.00	96.2	80.7/128.9	
1,2,4-Trimethylbenzene	41.35/	0.00	50.00	82.7	81.4/130.8	
sec-Butylbenzene	48.83/	0.00	50.00	97.7	77.4/129.8	
p-Isopropyltoluene	46.66/	0.00	50.00	93.3	79.8/137.5	
1,3-Dichlorobenzene	51.27/	0.00	50.00	102.5	77.0/131.3	
1,4-Dichlorobenzene	51.33/	0.00	50.00	102.7	20.7/137.7	
1,2-Dichlorobenzene	50.90/	0.00	50.00	101.8	10.0/166.2	
1,2,3-Trimethylbenzene	37.22/	0.00	50.00	74.4*	76.3/124.2	
n-Butylbenzene	47.55/	0.00	50.00	95.1	80.0/133.3	
Hexachloroethane	37.53/	0.00	50.00	75.1	23.8/138.1	
1,2-Dibromo-3-Chloropropane	50.23/	0.00	50.00	100.5	21.2/189.4	
1,2,4-Trichlorobenzene	50.33/	0.00	50.00	100.7	27.4/143.4	
1,2,3-Trichlorobenzene	52.11/	0.00	50.00	104.2	75.4/131.4	
Naphthalene	55.90/	0.00	50.00	111.8	32.9/135.8	
2-Methylnaphthalene	52.79/	0.00	50.00	105.6	25.5/165.5	
					Total Outliers:	**3**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw16a.d (5ml blank 1dr0814)
Blank ID : BLANK1
Prep Batch: vf120816w1
Prep Date : 08/16/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		0.17	1
Diethyl ether (*)	Not detected		0.19	1
Acetone (*)	Not detected		4.0	10
Methyl iodide (iodomethane) (*	Not detected		0.14	1
Carbon disulfide (*)	Not detected		0.15	1
Methyl Acetate	Not detected		0.20	1
tert-Methyl butyl ether (MTBE)	Not detected		0.13	1
Acrylonitrile (*)	Not detected		0.35	1
2-Butanone (MEK) (*)	Not detected		3.3	10
Dichlorodifluoromethane	Not detected		0.093	1
Chloromethane (SPCC)	Not detected		0.14	1
Vinyl Chloride (CCC)	Not detected		0.10	1
Bromomethane	Not detected		0.16	1
Chloroethane	Not detected		0.23	1
Acrolein	Not detected		1.8	10
Trichlorofluoromethane	Not detected		0.16	1
1,1-Dichloroethene (CCC/MS)	Not detected		0.20	1
Methylene Chloride	Not detected		0.17	1
trans-1,2-Dichloroethene	Not detected		0.088	1
1,1-Dichloroethane (SPCC)	Not detected		0.14	1
cis-1,2-Dichloroethene	Not detected		0.18	1
Tetrahydrofuran	2.31	2.3	1.2	10
Chloroform (CCC)	Not detected		0.15	1
Bromochloromethane	Not detected		0.13	1
1,1,1-Trichloroethane	Not detected		0.13	1
1,1-Dichloropropene	Not detected		0.17	1
Cyclohexane	Not detected		0.20	1
4-Methyl-2-pentanone (MIBK) (*	Not detected		0.31	1
2-Hexanone (*)	Not detected		0.24	1
2-chloroethylvinyl ether	Not detected		0.29	1
Carbon Tetrachloride	Not detected		0.16	1
Benzene (MS)	Not detected		0.11	1
1,2-Dichloroethane	Not detected		0.13	1
Trichloroethene (MS)	Not detected		0.19	1
1,2-Dichloropropane (CCC)	Not detected		0.11	1
Bromodichloromethane	Not detected		0.054	1
Methyl Cyclohexane	Not detected		0.13	1
Dibromomethane	Not detected		0.14	1
cis-1,3-Dichloropropene	Not detected		0.20	1
Toluene (CCC/MS)	Not detected		0.16	1
trans-1,3-Dichloropropene	Not detected		0.12	1
1,1,2-Trichloroethane	Not detected		0.19	1
Tetrachloroethene	Not detected		0.27	1
trans-1,4-Dichloro-2-butene	Not detected		0.22	1
Dibromochloromethane	Not detected		0.18	1
1,2-Dibromoethane	Not detected		0.10	1
Chlorobenzene (SPCC/MS)	Not detected		0.14	1
1,1,1,2-Tetrachloroethane	Not detected		0.26	1
Ethylbenzene (CCC)	Not detected		0.12	1
p,m-Xylene	Not detected		0.14	1
o-Xylene	Not detected		0.14	1
Styrene	Not detected		0.12	1
Isopropylbenzene	Not detected		0.13	1

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw16a.d (5ml blank 1dr0814)
Blank ID : BLANK1
Prep Batch: vf120816w1
Prep Date : 08/16/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
Bromoform (SPCC)	Not detected		0.076	1
1,1,2,2-Tetrachloroethane (SPC	Not detected		0.18	1
1,2,3-Trichloropropane	Not detected		0.20	1
n-Propylbenzene	Not detected		0.11	1
Bromobenzene	Not detected		0.12	1
1,3,5-Trimethylbenzene	Not detected		0.15	1
tert-Butylbenzene	Not detected		0.088	1
1,2,4-Trimethylbenzene	Not detected		0.096	1
sec-Butylbenzene	Not detected		0.14	1
p-Isopropyltoluene	Not detected		0.12	1
1,3-Dichlorobenzene	Not detected		0.11	1
1,4-Dichlorobenzene	Not detected		0.073	1
1,2-Dichlorobenzene	Not detected		0.13	1
1,2,3-Trimethylbenzene	Not detected		0.14	1
n-Butylbenzene	Not detected		0.12	1
Hexachloroethane	Not detected		0.15	1
1,2-Dibromo-3-Chloropropane	Not detected		0.20	1
1,2,4-Trichlorobenzene	Not detected		0.15	1
Hexachlorobutadiene	Not detected		0.12	1
1,2,3-Trichlorobenzene	Not detected		0.092	1
Naphthalene	Not detected		0.16	1
2-Methylnaphthalene	Not detected		0.14	1

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blkw16a.d
Method Blank Prep Date: 08/16/12
Blank/LCS Preparation Batch: vf120816w1

LCS Data File: lcsw16a.d
LCS Prep Date: 08/16/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53502.04	120816A3	VF120816W1	08/16/12	Volatile Organics - DEQ List	$8260W
S53502.05	120816A3	VF120816W1	08/16/12	Volatile Organics - DEQ List	$8260W
S53502.06	120816A3	VF120816W1	08/16/12	Volatile Organics - DEQ List	$8260W
S53502.07	120816A3	VF120816W1	08/16/12	Volatile Organics - DEQ List	$8260W
S53508.01	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53508.02	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53508.03	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53508.04	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53508.05	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53508.06	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53508.07	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53508.08	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53508.09	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53508.10	120816A3	VF120816W1	08/16/12	TCL Volatile Organics 8260	$8260TCL
S53546.07	120816A3	VF120816W1	08/16/12	Volatile Organics - DEQ List	$8260W
S53563.02	120816A3	VF120816W1	08/16/12	Volatile Organics - DEQ List	$8260W
S53563.03	120816A3	VF120816W1	08/16/12	Volatile Organics - DEQ List	$8260W
S53566.06	120816A3	VF120816W1	08/16/12	Volatile Organics - DEQ List	$8260W

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb16a.d	08/16/12 11:24	50	95	15.0	40.0	21.0	4984	PASS
		75	95	30.0	60.0	48.7	11538	PASS
		95	95	100.0	100.0	100.0	23696	PASS
		96	95	5.0	9.0	7.8	1850	PASS
		173	174	0.0	2.0	0.0	0	PASS
		174	95	50.0	120.0	53.4	12643	PASS
		175	174	5.0	9.0	7.4	931	PASS
		176	174	95.0	101.0	99.6	12593	PASS
		177	176	5.0	9.0	8.2	1027	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*		*RT Range*
spcc16a.d	08/16/12 11:50	Pentafluorobenzene	31151/ 3.99	15576-	62302	3.49- 4.49
		1,4-Difluorobenzene	56260/ 4.35	28130-	112520	3.85- 4.85
		Chlorobenzene-D5	30835/ 5.72	15418-	61670	5.22- 6.22
		1,4-Dichlorobenzene-D4	24268/ 6.81	12134-	48536	6.31- 7.31
					Total Outliers:	**N/A**
lcsw16a.d	08/16/12 12:25	Pentafluorobenzene	32003/ 3.99	Ratio: 1.027		Diff.: 0.00
		1,4-Difluorobenzene	56266/ 4.35	Ratio: 1.000		Diff.: 0.00
		Chlorobenzene-D5	30341/ 5.72	Ratio: 0.984		Diff.: 0.00
		1,4-Dichlorobenzene-D4	25264/ 6.81	Ratio: 1.041		Diff.: 0.00
					Total Outliers:	**0**
lcsw16b.d	08/16/12 12:46	Pentafluorobenzene	31868/ 3.99	Ratio: 1.023		Diff.: 0.00
		1,4-Difluorobenzene	55104/ 4.35	Ratio: 0.979		Diff.: 0.00
		Chlorobenzene-D5	30938/ 5.72	Ratio: 1.003		Diff.: 0.00
		1,4-Dichlorobenzene-D4	25356/ 6.81	Ratio: 1.045		Diff.: 0.00
					Total Outliers:	**0**
5350804m.d	08/16/12 13:06	Pentafluorobenzene	31089/ 3.99	Ratio: 0.998		Diff.: 0.00
		1,4-Difluorobenzene	55631/ 4.35	Ratio: 0.989		Diff.: 0.00
		Chlorobenzene-D5	30632/ 5.72	Ratio: 0.993		Diff.: 0.00
		1,4-Dichlorobenzene-D4	25044/ 6.80	Ratio: 1.032		Diff.: -0.01
					Total Outliers:	**0**
5350805n.d	08/16/12 13:27	Pentafluorobenzene	31584/ 3.99	Ratio: 1.014		Diff.: 0.00
		1,4-Difluorobenzene	56165/ 4.35	Ratio: 0.998		Diff.: 0.00
		Chlorobenzene-D5	31303/ 5.72	Ratio: 1.015		Diff.: 0.00
		1,4-Dichlorobenzene-D4	24780/ 6.81	Ratio: 1.021		Diff.: 0.00
					Total Outliers:	**0**
blkw16a.d	08/16/12 14:49	Pentafluorobenzene	31631/ 3.99	Ratio: 1.015		Diff.: 0.00
		1,4-Difluorobenzene	55088/ 4.35	Ratio: 0.979		Diff.: 0.00
		Chlorobenzene-D5	30404/ 5.72	Ratio: 0.986		Diff.: 0.00
		1,4-Dichlorobenzene-D4	22895/ 6.81	Ratio: 0.943		Diff.: 0.00
					Total Outliers:	**0**
5350803.d	08/16/12 15:09	Pentafluorobenzene	30509/ 3.99	Ratio: 0.979		Diff.: 0.00
		1,4-Difluorobenzene	53905/ 4.35	Ratio: 0.958		Diff.: 0.00
		Chlorobenzene-D5	29671/ 5.72	Ratio: 0.962		Diff.: 0.00
		1,4-Dichlorobenzene-D4	24367/ 6.81	Ratio: 1.004		Diff.: 0.00
					Total Outliers:	**0**
5350801.d	08/16/12 15:29	Pentafluorobenzene	30787/ 3.99	Ratio: 0.988		Diff.: 0.00
		1,4-Difluorobenzene	54717/ 4.35	Ratio: 0.973		Diff.: 0.00
		Chlorobenzene-D5	30052/ 5.72	Ratio: 0.975		Diff.: 0.00
		1,4-Dichlorobenzene-D4	23355/ 6.81	Ratio: 0.962		Diff.: 0.00
					Total Outliers:	**0**
5350802.d	08/16/12 15:50	Pentafluorobenzene	30520/ 3.99	Ratio: 0.980		Diff.: 0.00
		1,4-Difluorobenzene	55625/ 4.35	Ratio: 0.989		Diff.: 0.00
		Chlorobenzene-D5	29308/ 5.72	Ratio: 0.950		Diff.: 0.00
		1,4-Dichlorobenzene-D4	23615/ 6.81	Ratio: 0.973		Diff.: 0.00
					Total Outliers:	**0**
5350806.d	08/16/12 16:10	Pentafluorobenzene	30793/ 3.99	Ratio: 0.989		Diff.: 0.00
		1,4-Difluorobenzene	53684/ 4.35	Ratio: 0.954		Diff.: 0.00
		Chlorobenzene-D5	29147/ 5.72	Ratio: 0.945		Diff.: 0.00
		1,4-Dichlorobenzene-D4	22506/ 6.81	Ratio: 0.927		Diff.: 0.00
					Total Outliers:	**0**
5350807.d	08/16/12 16:31	Pentafluorobenzene	30565/ 3.99	Ratio: 0.981		Diff.: 0.00
		1,4-Difluorobenzene	54540/ 4.35	Ratio: 0.969		Diff.: 0.00
		Chlorobenzene-D5	30150/ 5.72	Ratio: 0.978		Diff.: 0.00
		1,4-Dichlorobenzene-D4	23716/ 6.81	Ratio: 0.977		Diff.: 0.00
					Total Outliers:	**0**

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5350808.d	08/16/12 16:51	Pentafluorobenzene	30698/ 3.99	Ratio: 0.985	Diff.: 0.00
		1,4-Difluorobenzene	52125/ 4.35	Ratio: 0.927	Diff.: 0.00
		Chlorobenzene-D5	28683/ 5.72	Ratio: 0.930	Diff.: 0.00
		1,4-Dichlorobenzene-D4	23432/ 6.81	Ratio: 0.966	Diff.: 0.00
					Total Outliers: 0
5350809.d	08/16/12 17:11	Pentafluorobenzene	29166/ 3.99	Ratio: 0.936	Diff.: 0.00
		1,4-Difluorobenzene	52176/ 4.35	Ratio: 0.927	Diff.: 0.00
		Chlorobenzene-D5	28482/ 5.72	Ratio: 0.924	Diff.: 0.00
		1,4-Dichlorobenzene-D4	23457/ 6.81	Ratio: 0.967	Diff.: 0.00
					Total Outliers: 0
5350810.d	08/16/12 17:32	Pentafluorobenzene	29349/ 3.99	Ratio: 0.942	Diff.: 0.00
		1,4-Difluorobenzene	51853/ 4.35	Ratio: 0.922	Diff.: 0.00
		Chlorobenzene-D5	29082/ 5.72	Ratio: 0.943	Diff.: 0.00
		1,4-Dichlorobenzene-D4	22453/ 6.81	Ratio: 0.925	Diff.: 0.00
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.01
Data File: 5350801.d
Date Received: 08/09/12

Tag: MW 129 (08-08-2012) (1250)
Notes: 5ml 1dr0814
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/16/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (91%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (97%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.02
Data File: 5350802.d
Date Received: 08/09/12

Tag: 2306-080812-0001
Notes: 5ml 1dr0814
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/16/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (88%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (105%)					
2037-26-5	Toluene-D8	Pass (94%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.03
Data File: 5350803.d
Date Received: 08/09/12

Tag: MW 105 (08-08-2012) (1445)
Notes: 5ml 1dr0814
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/16/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (86%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (102%)					
2037-26-5	Toluene-D8	Pass (97%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.04
Data File: 5350804m.d
Date Received: 08/09/12

Tag: MW 105 (08-08-2012) (1445) MS
Notes: 5ml ms 1dr0814 1m0816
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	60	30	0.17	ug/l	08/16/12	*
67-64-1	Acetone	40	20	4.0	ug/l		*
75-15-0	Carbon disulfide	51	5	0.15	ug/l		*
79-20-9	Methyl Acetate	50	10	0.20	ug/l		*
1634-04-4	tert-Methyl butyl ether (MTBE)	53	5	0.13	ug/l		*
78-93-3	2-Butanone (MEK)	40	20	3.3	ug/l		*
75-71-8	Dichlorodifluoromethane	49	1	0.093	ug/l		*
74-87-3	Chloromethane	56	1	0.14	ug/l		*
75-01-4	Vinyl chloride	45	1	0.10	ug/l		*
74-83-9	Bromomethane	48	2	0.16	ug/l		*
75-00-3	Chloroethane	48	1	0.23	ug/l		*
75-69-4	Trichlorofluoromethane	47	1	0.16	ug/l		*
75-35-4	1,1-Dichloroethene	51	1	0.20	ug/l		*
75-09-2	Methylene chloride	51	5	0.17	ug/l		*
156-60-5	trans-1,2-Dichloroethene	50	1	0.088	ug/l		*
75-34-3	1,1-Dichloroethane	50	1	0.14	ug/l		*
156-59-2	cis-1,2-Dichloroethene	51	1	0.18	ug/l		*
67-66-3	Chloroform	49	1	0.15	ug/l		*
71-55-6	1,1,1-Trichloroethane	51	1	0.13	ug/l		*
110-82-7	Cyclohexane	44	1	0.20	ug/l		*
108-10-1	4-Methyl-2-pentanone (MIBK)	70	10	0.31	ug/l		*
591-78-6	2-Hexanone	50	50	0.24	ug/l		*
56-23-5	Carbon tetrachloride	51	1	0.16	ug/l		*
71-43-2	Benzene	51	1	0.11	ug/l		*
107-06-2	1,2-Dichloroethane	48	1	0.13	ug/l		*
79-01-6	Trichloroethene	51	1	0.19	ug/l		*
78-87-5	1,2-Dichloropropane	51	1	0.11	ug/l		*
75-27-4	Bromodichloromethane	50	1	0.054	ug/l		*
108-87-2	Methyl cyclohexane	50	20	0.13	ug/l		*
10061-01-5	cis-1,3-Dichloropropene	47	1	0.20	ug/l		*
108-88-3	Toluene	51	1	0.16	ug/l		*
10061-02-6	trans-1,3-Dichloropropene	48	1	0.12	ug/l		*
79-00-5	1,1,2-Trichloroethane	51	1	0.19	ug/l		*
127-18-4	Tetrachloroethene	56	1	0.27	ug/l		*
124-48-1	Dibromochloromethane	50	1	0.18	ug/l		*
106-93-4	1,2-Dibromoethane	54	1	0.10	ug/l		*
108-90-7	Chlorobenzene	52	1	0.14	ug/l		*
79-34-5	1,1,2,2-Tetrachloroethane	53	1	0.18	ug/l		*
100-41-4	Ethylbenzene	51	1	0.12	ug/l		*
M/P-XYLENE	p,m-Xylene	102	2	0.14	ug/l		*
95-47-6	o-Xylene	51	1	0.14	ug/l		*
100-42-5	Styrene	37	1	0.12	ug/l		*
98-82-8	Isopropylbenzene	53	1	0.13	ug/l		*
75-25-2	Bromoform	45	1	0.076	ug/l		*
541-73-1	1,3-Dichlorobenzene	50	1	0.11	ug/l		*
106-46-7	1,4-Dichlorobenzene	51	1	0.073	ug/l		*
95-50-1	1,2-Dichlorobenzene	50	1	0.13	ug/l		*
96-12-8	1,2-Dibromo-3-chloropropane	50	1	0.20	ug/l		*
120-82-1	1,2,4-Trichlorobenzene	48	2	0.15	ug/l		*
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (85%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (108%)					
2037-26-5	Toluene-D8	Pass (99%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.05
Data File: 5350805n.d
Date Received: 08/09/12

Tag: MW 105 (08-08-2012) (1445) MSD
Notes: 5ml msd 1dr0814 1m0816
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	50	30	0.17	ug/l	08/16/12	*
67-64-1	Acetone	50	20	4.0	ug/l		*
75-15-0	Carbon disulfide	43	5	0.15	ug/l		*
79-20-9	Methyl Acetate	50	10	0.20	ug/l		*
1634-04-4	tert-Methyl butyl ether (MTBE)	54	5	0.13	ug/l		*
78-93-3	2-Butanone (MEK)	40	20	3.3	ug/l		*
75-71-8	Dichlorodifluoromethane	46	1	0.093	ug/l		*
74-87-3	Chloromethane	53	1	0.14	ug/l		*
75-01-4	Vinyl chloride	43	1	0.10	ug/l		*
74-83-9	Bromomethane	47	2	0.16	ug/l		*
75-00-3	Chloroethane	48	1	0.23	ug/l		*
75-69-4	Trichlorofluoromethane	46	1	0.16	ug/l		*
75-35-4	1,1-Dichloroethene	48	1	0.20	ug/l		*
75-09-2	Methylene chloride	51	5	0.17	ug/l		*
156-60-5	trans-1,2-Dichloroethene	49	1	0.088	ug/l		*
75-34-3	1,1-Dichloroethane	50	1	0.14	ug/l		*
156-59-2	cis-1,2-Dichloroethene	52	1	0.18	ug/l		*
67-66-3	Chloroform	50	1	0.15	ug/l		*
71-55-6	1,1,1-Trichloroethane	51	1	0.13	ug/l		*
110-82-7	Cyclohexane	43	1	0.20	ug/l		*
108-10-1	4-Methyl-2-pentanone (MIBK)	70	10	0.31	ug/l		*
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		*
56-23-5	Carbon tetrachloride	51	1	0.16	ug/l		*
71-43-2	Benzene	51	1	0.11	ug/l		*
107-06-2	1,2-Dichloroethane	49	1	0.13	ug/l		*
79-01-6	Trichloroethene	51	1	0.19	ug/l		*
78-87-5	1,2-Dichloropropane	52	1	0.11	ug/l		*
75-27-4	Bromodichloromethane	50	1	0.054	ug/l		*
108-87-2	Methyl cyclohexane	50	20	0.13	ug/l		*
10061-01-5	cis-1,3-Dichloropropene	46	1	0.20	ug/l		*
108-88-3	Toluene	49	1	0.16	ug/l		*
10061-02-6	trans-1,3-Dichloropropene	47	1	0.12	ug/l		*
79-00-5	1,1,2-Trichloroethane	51	1	0.19	ug/l		*
127-18-4	Tetrachloroethene	58	1	0.27	ug/l		*
124-48-1	Dibromochloromethane	49	1	0.18	ug/l		*
106-93-4	1,2-Dibromoethane	53	1	0.10	ug/l		*
108-90-7	Chlorobenzene	53	1	0.14	ug/l		*
79-34-5	1,1,2,2-Tetrachloroethane	52	1	0.18	ug/l		*
100-41-4	Ethylbenzene	49	1	0.12	ug/l		*
M/P-XYLENE	p,m-Xylene	91	2	0.14	ug/l		*
95-47-6	o-Xylene	47	1	0.14	ug/l		*
100-42-5	Styrene	6	1	0.12	ug/l		*
98-82-8	Isopropylbenzene	51	1	0.13	ug/l		*
75-25-2	Bromoform	43	1	0.076	ug/l		*
541-73-1	1,3-Dichlorobenzene	51	1	0.11	ug/l		*
106-46-7	1,4-Dichlorobenzene	51	1	0.073	ug/l		*
95-50-1	1,2-Dichlorobenzene	51	1	0.13	ug/l		*
96-12-8	1,2-Dibromo-3-chloropropane	50	1	0.20	ug/l		*
120-82-1	1,2,4-Trichlorobenzene	50	2	0.15	ug/l		*
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (89%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (107%)					
2037-26-5	Toluene-D8	Pass (97%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.06
Data File: 5350806.d
Date Received: 08/09/12

Tag: MW 101 (08-08-2012) (1615)
Notes: 5ml 1dr0814
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/16/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (88%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (104%)					
2037-26-5	Toluene-D8	Pass (94%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.07
Data File: 5350807.d
Date Received: 08/09/12

Tag: 2306-080912-0001
Notes: 5ml 1dr0814
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/16/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (87%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (102%)					
2037-26-5	Toluene-D8	Pass (93%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.08
Data File: 5350808.d
Date Received: 08/09/12

Tag: MW 165 (08-09-2012) (0825)
Notes: 5ml 1dr0814
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/16/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (86%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (105%)					
2037-26-5	Toluene-D8	Pass (96%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.09
Data File: 5350809.d
Date Received: 08/09/12

Tag: MW 139 (08-09-2012) (0915)
Notes: 5ml 1dr0814
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/16/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (91%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (104%)					
2037-26-5	Toluene-D8	Pass (94%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120816a3.3

LIMS ID: S53508.10
Data File: 5350810.d
Date Received: 08/09/12

Tag: DUP-01 (08-09-12)
Notes: 5ml 1dr0814
w/1 id:vf120816w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/16/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/16/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (88%)				08/16/12	
460-00-4	4-Bromofluorobenzene	Pass (101%)					
2037-26-5	Toluene-D8	Pass (94%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
Analytical Batch: 120816a3.3
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350801.d Vial: 8
Acq On : 16 Aug 12 3:29 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:48 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

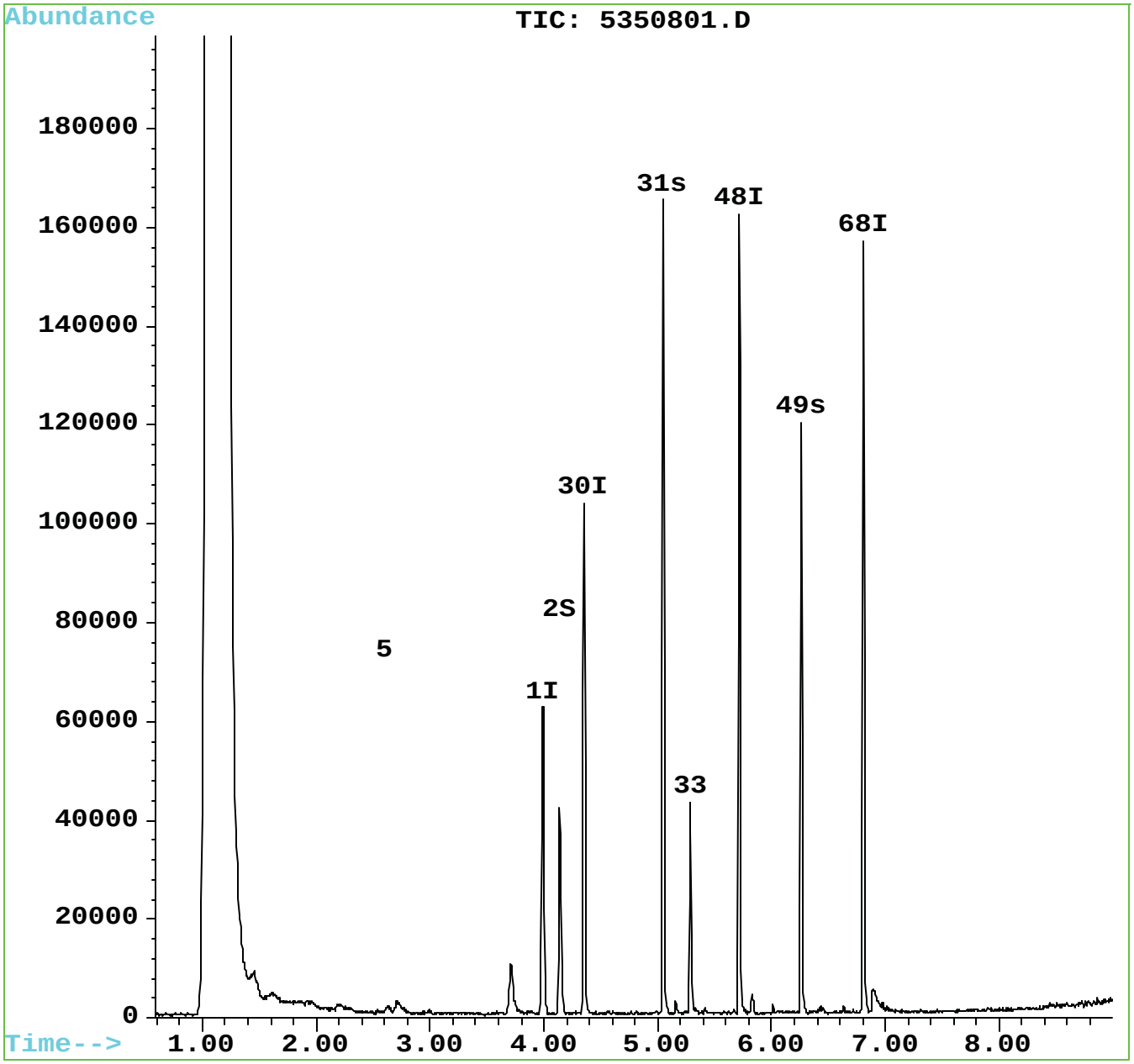
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30787	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54717	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30052	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23355	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	20284	4.54	ug/l	90.7
31) TOLUENE-D8 (S)	5.05	98	65897	4.87	ug/l	97.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16335	5.14	ug/l	102.7
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	2479	1.59	ug/l	7
33) 2-Hexanone (*)	5.29	58	6574	4.31	ug/l #	

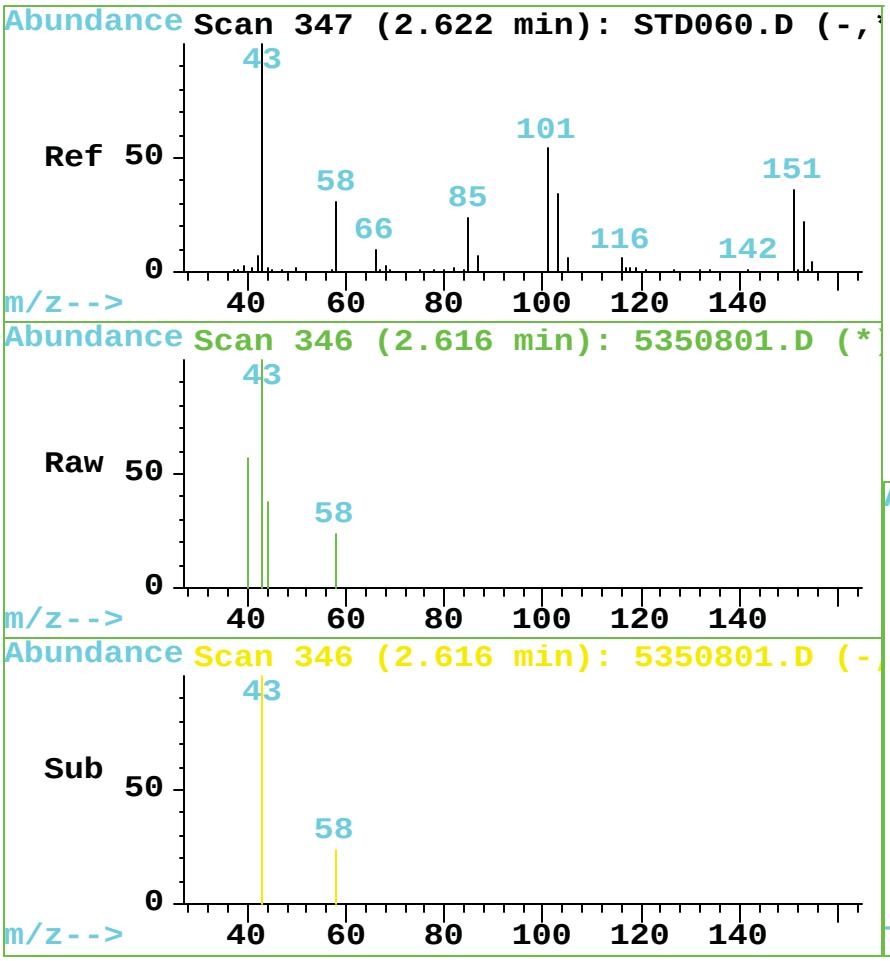
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350801.d Vial: 8
Acq On : 16 Aug 12 3:29 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:48 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

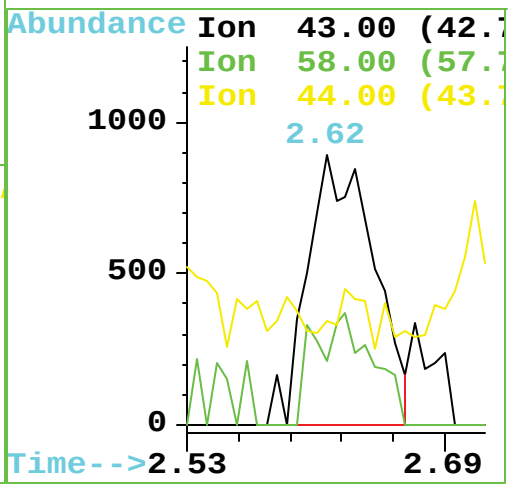


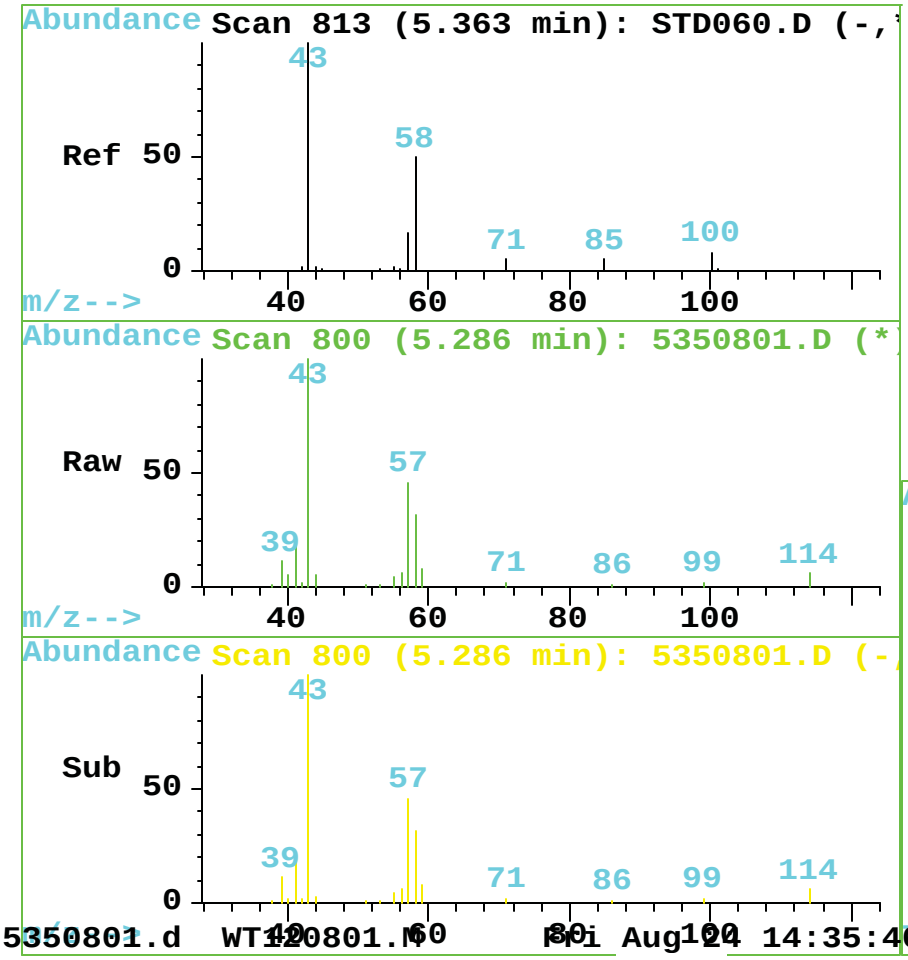


#5
Acetone (*)
Concen: 1.59 ug/l
RT: 2.62 min Scan# 346
Delta R.T. 0.01 min
Lab File: 5350801.d
Acq: 16 Aug 12 3:29 pm

Tgt Ion:43 Resp: 2479

Ion	Ratio	Lower	Upper
43	100		
58	25.0	11.0	71.0
44	9.8	0.0	33.9
0	0.0	0.0	0.0

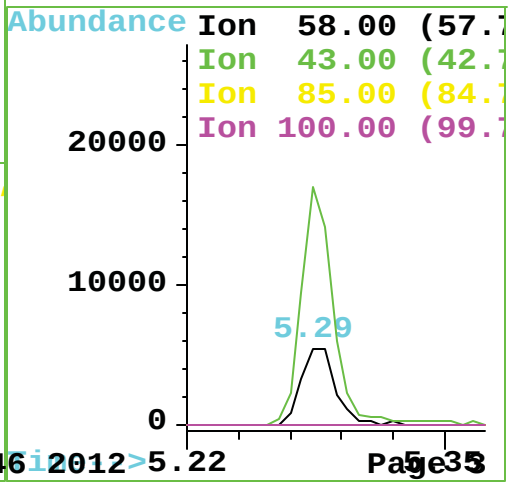




#33
2-Hexanone (*)
Concen: 4.31 ug/l
RT: 5.29 min Scan# 800
Delta R.T. -0.08 min
Lab File: 5350801.d
Acq: 16 Aug 12 3:29 pm

Tgt Ion:58 Resp: 6574

Ion	Ratio	Lower	Upper
58	100		
43	285.1	120.9	180.9#
85	0.0	0.0	48.4
100	0.0	0.5	60.5#



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350802.d Vial: 9
Acq On : 16 Aug 12 3:50 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:48 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

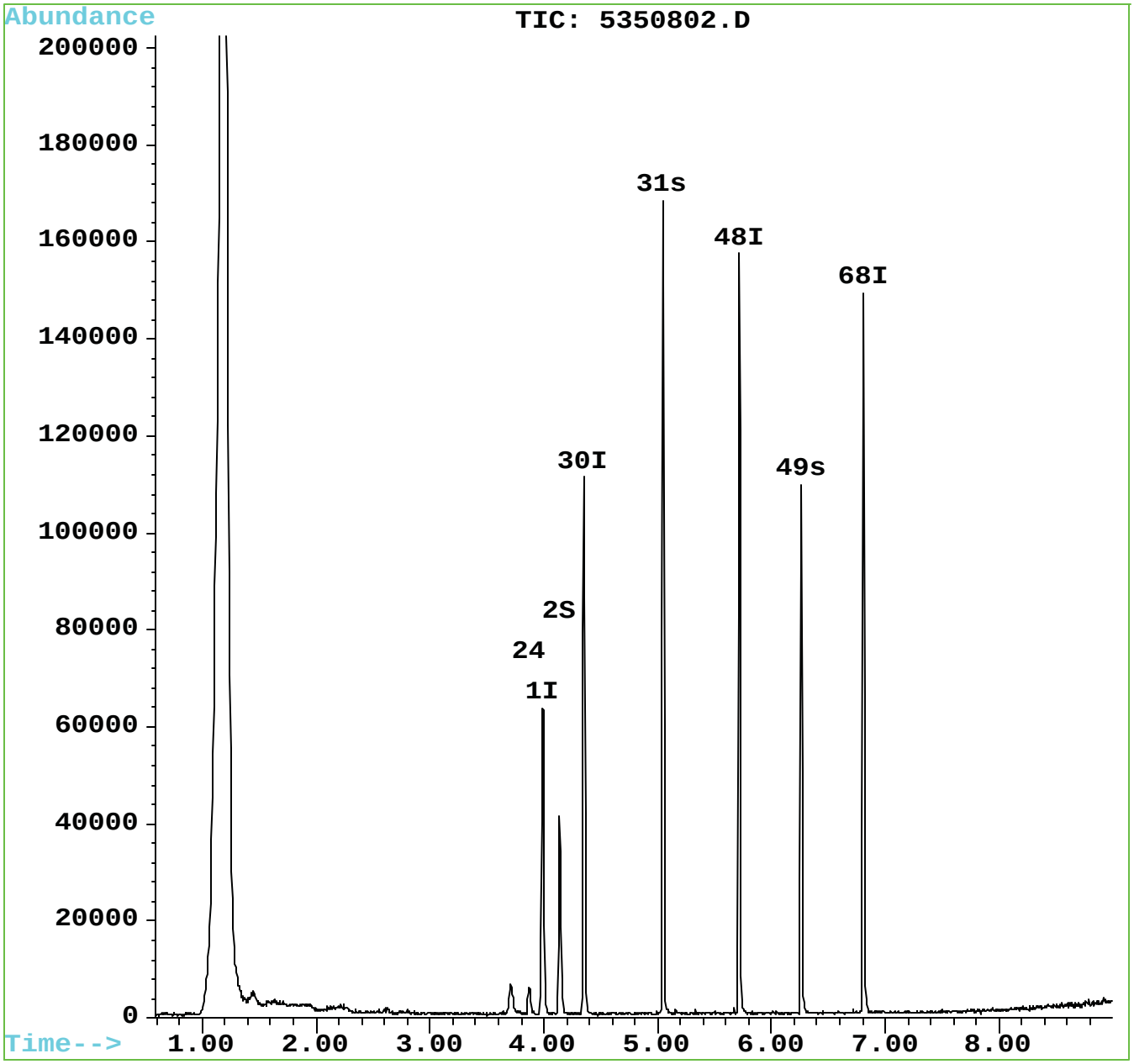
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30520	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	55625	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29308	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23615	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19462	4.39	ug/l	87.8
31) TOLUENE-D8 (S)	5.05	98	64711	4.70	ug/l	94.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16285	5.25	ug/l	105.0
Target Compounds						Qvalu
24) Tetrahydrofuran	3.87	42	3495	2.40	ug/l #	1

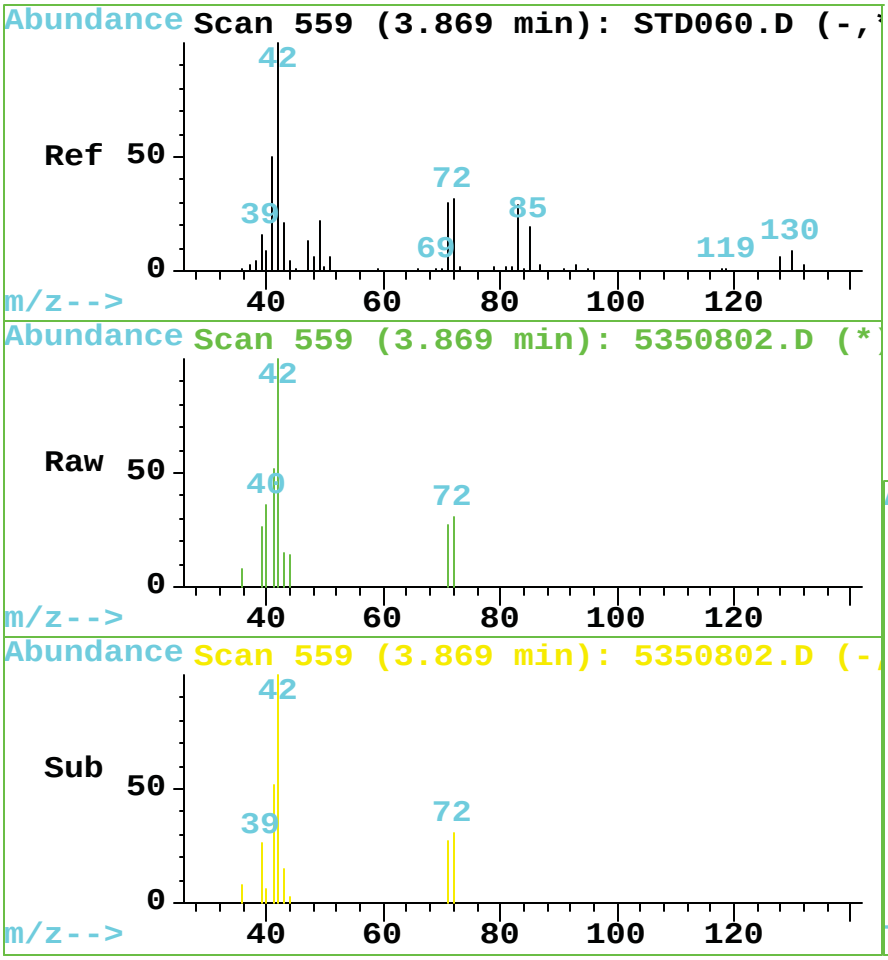
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350802.d Vial: 9
Acq On : 16 Aug 12 3:50 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:48 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

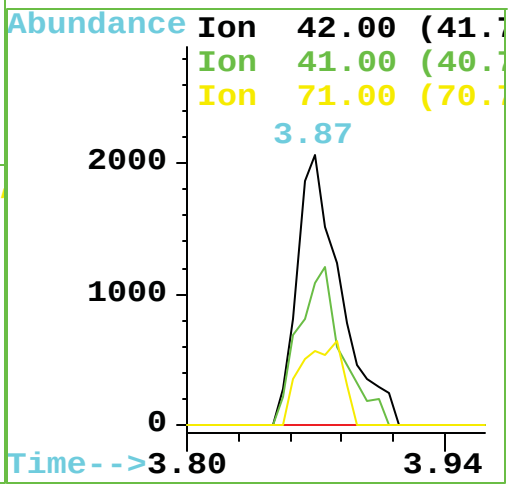




#24
Tetrahydrofuran
Concen: 2.40 ug/l
RT: 3.87 min Scan# 559
Delta R.T. 0.00 min
Lab File: 5350802.d
Acq: 16 Aug 12 3:50 pm

Tgt Ion:42 Resp: 3495

Ion	Ratio	Lower	Upper
42	100		
41	58.2	179.3	239.3#
71	29.3	14.9	74.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350803.d Vial: 7
Acq On : 16 Aug 12 3:09 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

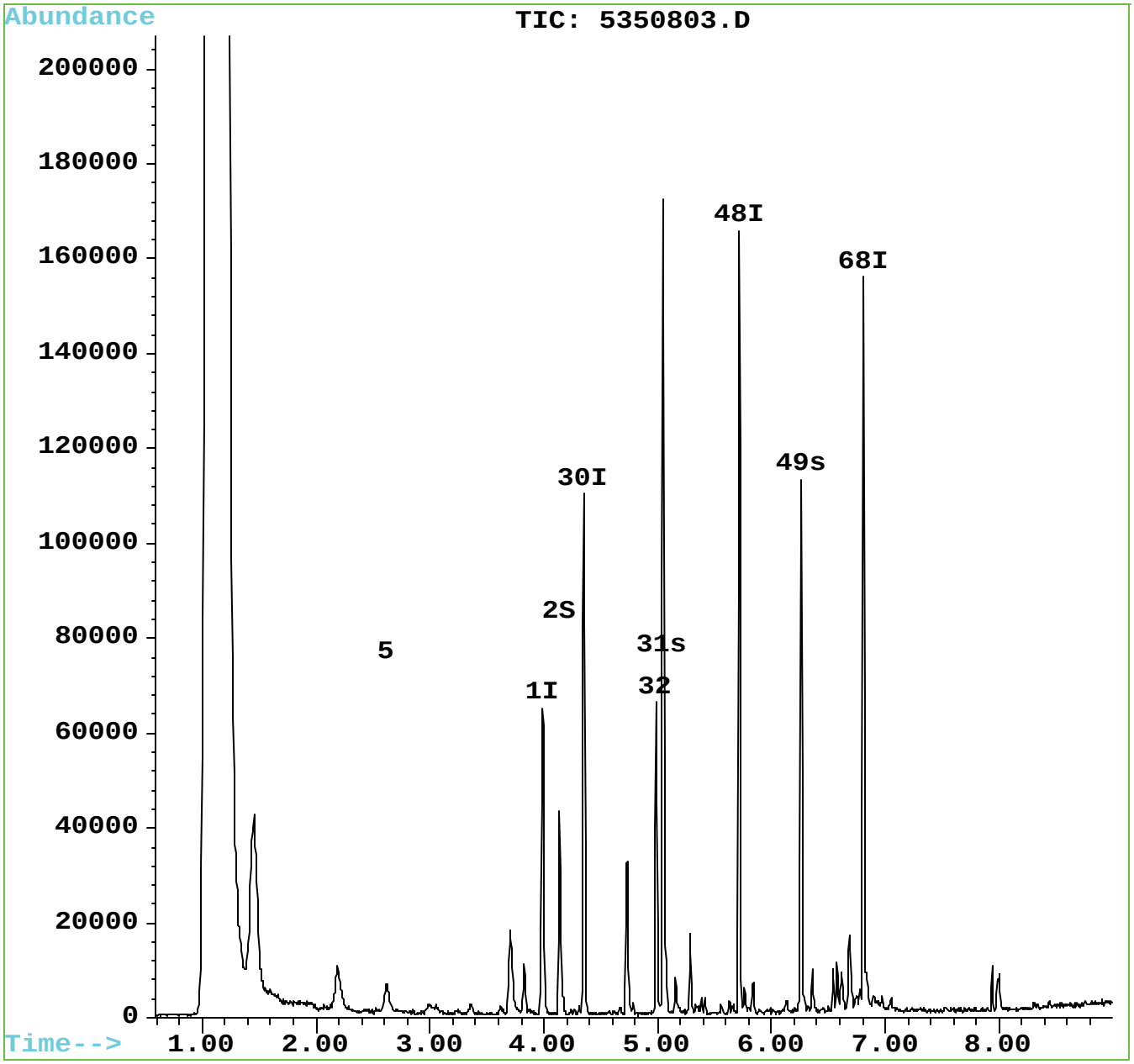
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30509	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	53905	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29671	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	24367	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19112	4.31	ug/l	86.2
31) TOLUENE-D8 (S)	5.05	98	64551	4.84	ug/l	96.8
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16004	5.10	ug/l	101.9
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	12860	8.34	ug/l	9
32) 4-Methyl-2-pentanone (MIBK	4.99	58	9708	7.50	ug/l #	7

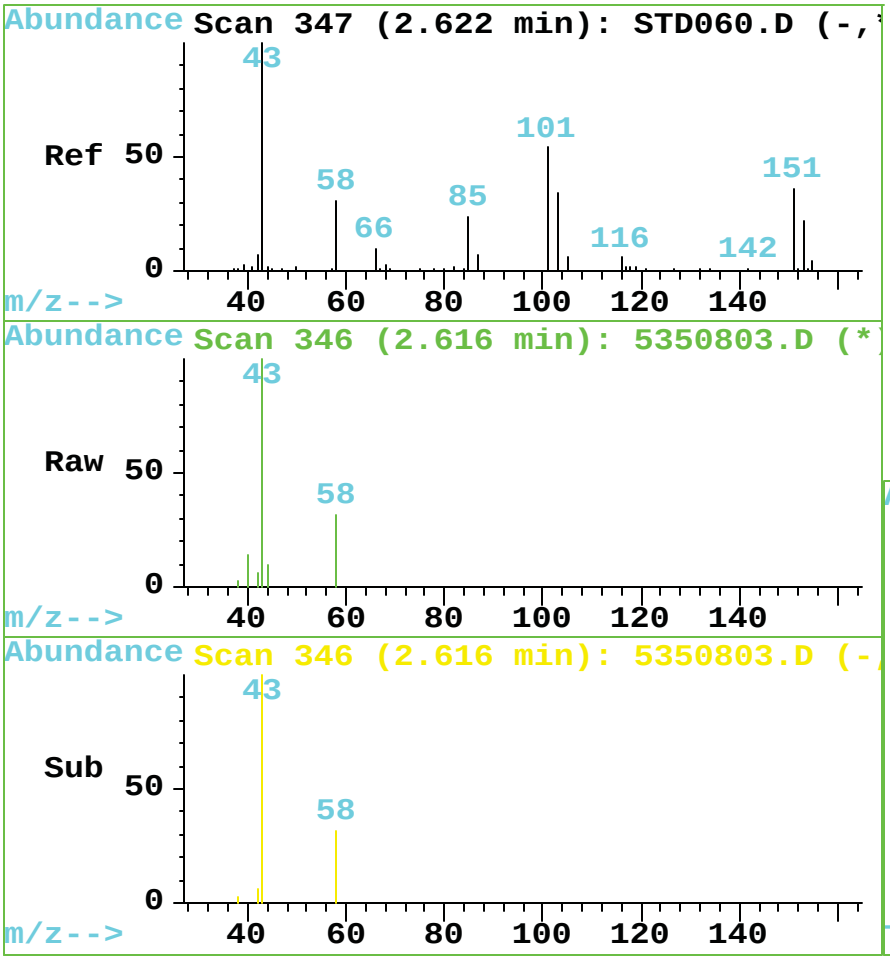
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350803.d Vial: 7
Acq On : 16 Aug 12 3:09 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

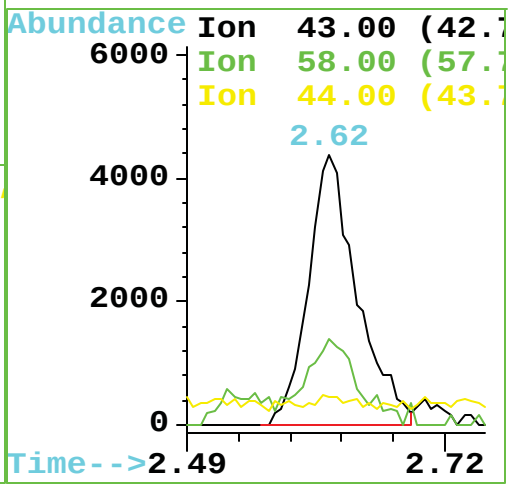


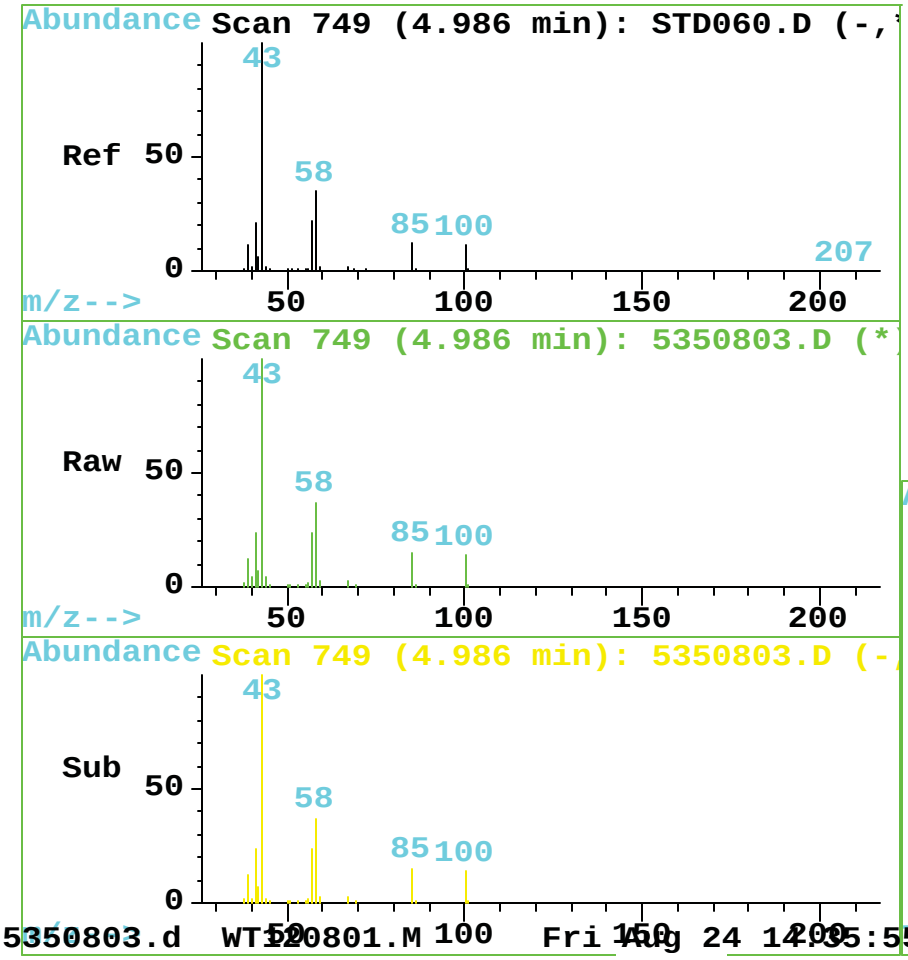


#5
Acetone (*)
Concen: 8.34 ug/l
RT: 2.62 min Scan# 346
Delta R.T. 0.01 min
Lab File: 5350803.d
Acq: 16 Aug 12 3:09 pm

Tgt Ion:43 Resp: 12860

Ion	Ratio	Lower	Upper
43	100		
58	34.8	11.0	71.0
44	3.6	0.0	33.9
0	0.0	0.0	0.0

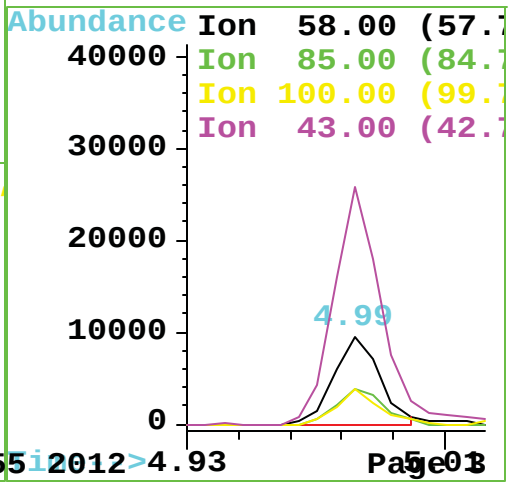




#32
4-Methyl-2-pentanone (MIBK
Concen: 7.50 ug/l
RT: 4.99 min Scan# 749
Delta R.T. 0.00 min
Lab File: 5350803.d
Acq: 16 Aug 12 3:09 pm

Tgt Ion:58 Resp: 9708

Ion	Ratio	Lower	Upper
58	100		
85	40.4	21.9	81.9
100	35.8	27.6	87.6
43	270.8	199.0	259.0#



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350804m.d Vial: 5
Acq On : 16 Aug 12 1:06 pm Operator: lbr
Sample : 5ml ms 1dr0814 1m0816 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31089	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	55631	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30632	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.80	152	25044	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	19116	4.23	ug/l		84.6
31) TOLUENE-D8 (S)	5.05	98	67920	4.94	ug/l		98.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17431	5.38	ug/l		107.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	166742	55.43	ug/l		8
4) Diethyl ether (*)	2.37	74	112995	48.67	ug/l	#	5
5) Acetone (*)	2.61	43	69265	44.10	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	217336	53.58	ug/l		8
7) Carbon disulfide (*)	2.70	76	537656	50.70	ug/l		9
8) Methyl Acetate	2.86	43	164188	51.13	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	515630	53.26	ug/l		8
10) Acrylonitrile (*)	3.10	53	85846	51.92	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	98614	42.59	ug/l		7
12) Dichlorodifluoromethane	1.25	85	154927	49.18	ug/l		9
13) Chloromethane (SPCC)	1.41	50	288686	55.60	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	212085	45.43	ug/l		9
15) Bromomethane	1.79	94	102274	48.11	ug/l		9
16) Chloroethane	1.87	64	119541	47.69	ug/l		8
18) Trichlorofluoromethane	2.13	101	223113	47.41	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	297953	50.65	ug/l		7
20) Methylene Chloride	2.93	84	182742	50.84	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	284424	49.65	ug/l		7
22) 1,1-Dichloroethane (SPCC)	3.37	63	344463	50.08	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	189056	50.93	ug/l	#	7
24) Tetrahydrofuran	3.86	42	67138	45.27	ug/l	#	1
25) Chloroform (CCC)	3.89	83	291996	49.40	ug/l		9
26) Bromochloromethane	3.84	130	103304	52.95	ug/l	#	4
27) 1,1,1-Trichloroethane	3.99	97	260743	50.97	ug/l	#	
29) Cyclohexane	4.01	42	103082	44.34	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	88194	65.98	ug/l	#	7
33) 2-Hexanone (*)	5.36	58	77866	50.17	ug/l	#	7
35) Carbon Tetrachloride	4.07	117	203989	51.30	ug/l		9
36) Benzene (MS)	4.16	78	742763	50.80	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350804m.d Vial: 5
Acq On : 16 Aug 12 1:06 pm Operator: lbr
Sample : 5ml ms 1dr0814 1m0816 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
37) 1,2-Dichloroethane	4.17	62	254239	48.29 ug/l		9
38) Trichloroethene (MS)	4.48	95	170765	50.65 ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	196596	50.62 ug/l		9
40) Bromodichloromethane	4.72	83	204792	49.89 ug/l		9
41) Methyl Cyclohexane	4.57	55	291842	54.74 ug/l	#	5
42) Dibromomethane	4.65	174	89663	54.93 ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	289691	47.37 ug/l		9
44) Toluene (CCC/MS)	5.08	91	776669	50.82 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	257563	48.36 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	128082	51.23 ug/l		9
47) Tetrachloroethene	5.33	166	160614	56.17 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.34	53	38951	47.69 ug/l		9
51) Dibromochloromethane	5.45	129	126636	50.28 ug/l		9
52) 1,2-Dibromoethane	5.51	107	149138	53.71 ug/l		10
53) Chlorobenzene (SPCC/MS)	5.73	112	466110	52.45 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	143201	54.10 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	844163	51.27 ug/l		9
56) p,m-Xylene	5.83	106	623899	102.40 ug/l		8
57) o-Xylene	6.02	91	672731	51.00 ug/l		9
58) Styrene	6.02	104	373637	36.68 ug/l		8
59) Isopropylbenzene	6.18	105	818769	52.71 ug/l		9
60) Bromoform (SPCC)	6.12	173	65706	45.04 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	208022	53.04 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	59721	53.47 ug/l	#	7
63) n-Propylbenzene	6.37	91	985506	53.53 ug/l		9
64) Bromobenzene	6.34	156	173635	56.50 ug/l	#	5
65) 1,3,5-Trimethylbenzene	6.45	120	310680	51.54 ug/l		8
66) tert-Butylbenzene	6.61	91	446044	51.08 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	349412	53.02 ug/l		7
69) sec-Butylbenzene	6.72	105	796424	49.07 ug/l		9
70) p-Isopropyltoluene	6.77	119	618626	48.86 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	308572	50.38 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	335086	51.00 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	312963	50.21 ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	659230	47.72 ug/l		9
75) n-Butylbenzene	6.97	91	604759	48.11 ug/l		9
76) Hexachloroethane	7.13	201	50395	38.05 ug/l	#	5
77) 1,2-Dibromo-3-Chloropropan	7.37	157	29015	50.08 ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	160958	48.47 ug/l		9
80) 1,2,3-Trichlorobenzene	8.01	180	147894	49.11 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350804m.d Vial: 5
Acq On : 16 Aug 12 1:06 pm Operator: lbr
Sample : 5ml ms 1dr0814 1m0816 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

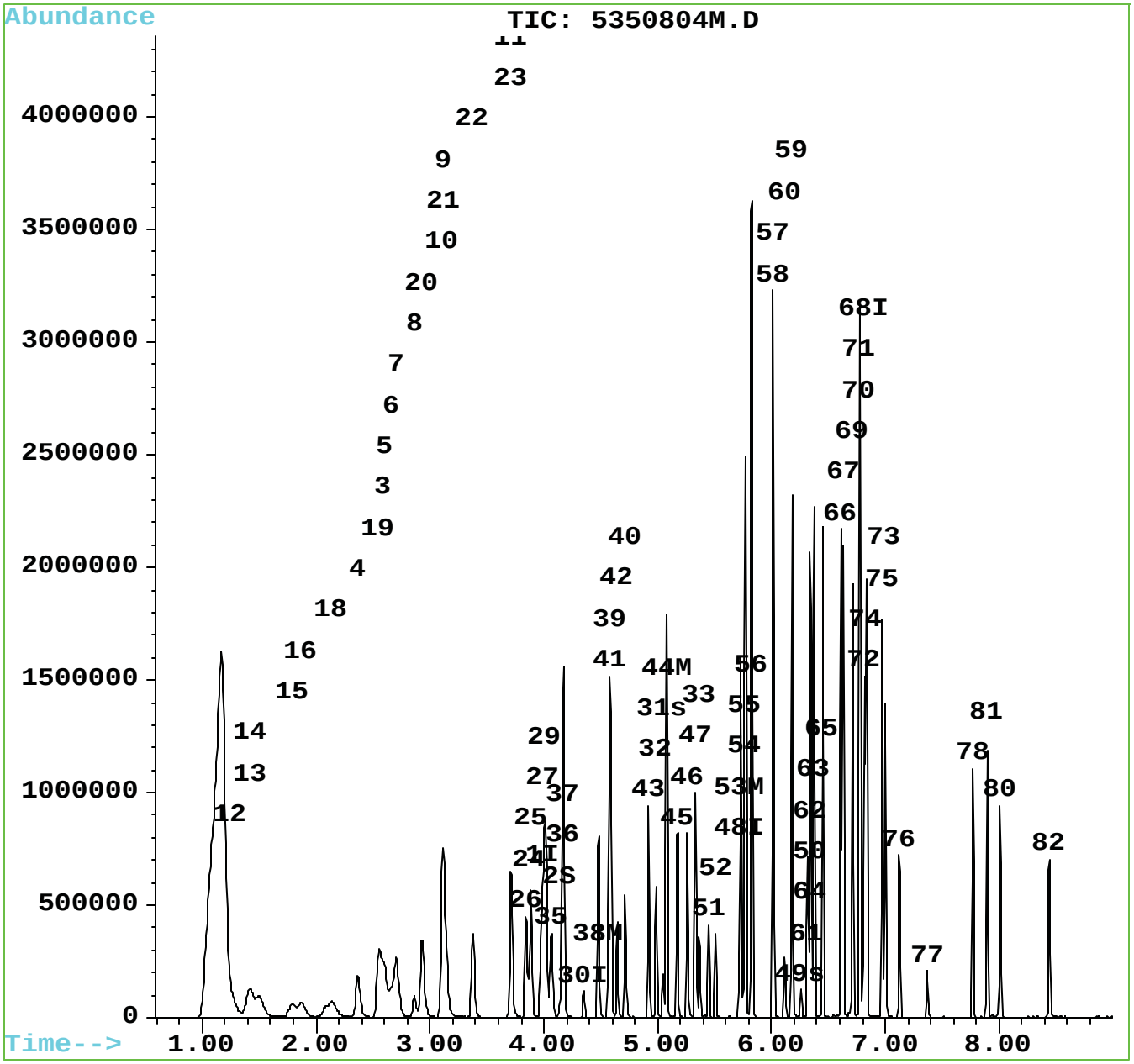
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
81)	Naphthalene	7.90	128	553103	54.53	ug/l	9
82)	2-Methylnaphthalene	8.45	142	202566	51.46	ug/l	9

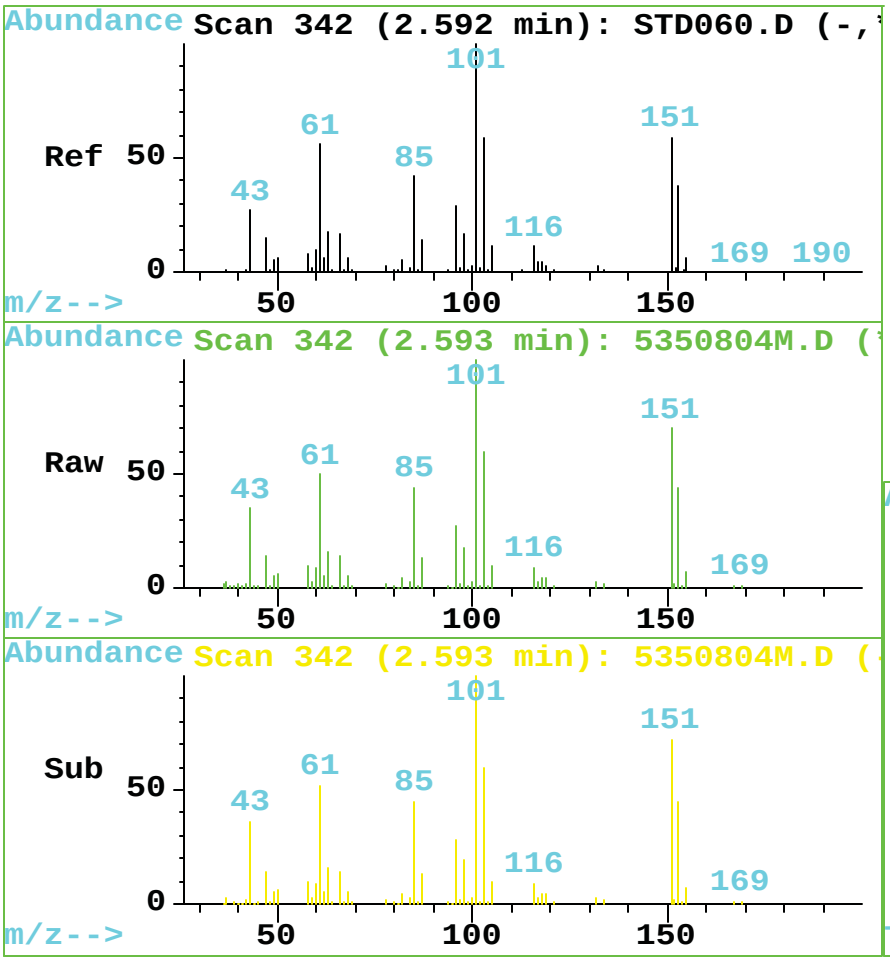
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350804m.d Vial: 5
Acq On : 16 Aug 12 1:06 pm Operator: lbr
Sample : 5ml ms 1dr0814 1m0816 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

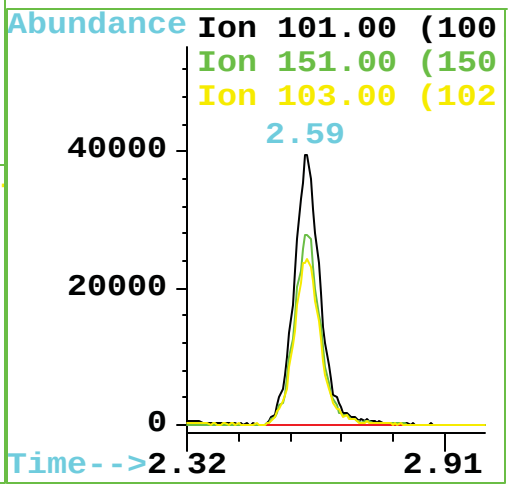


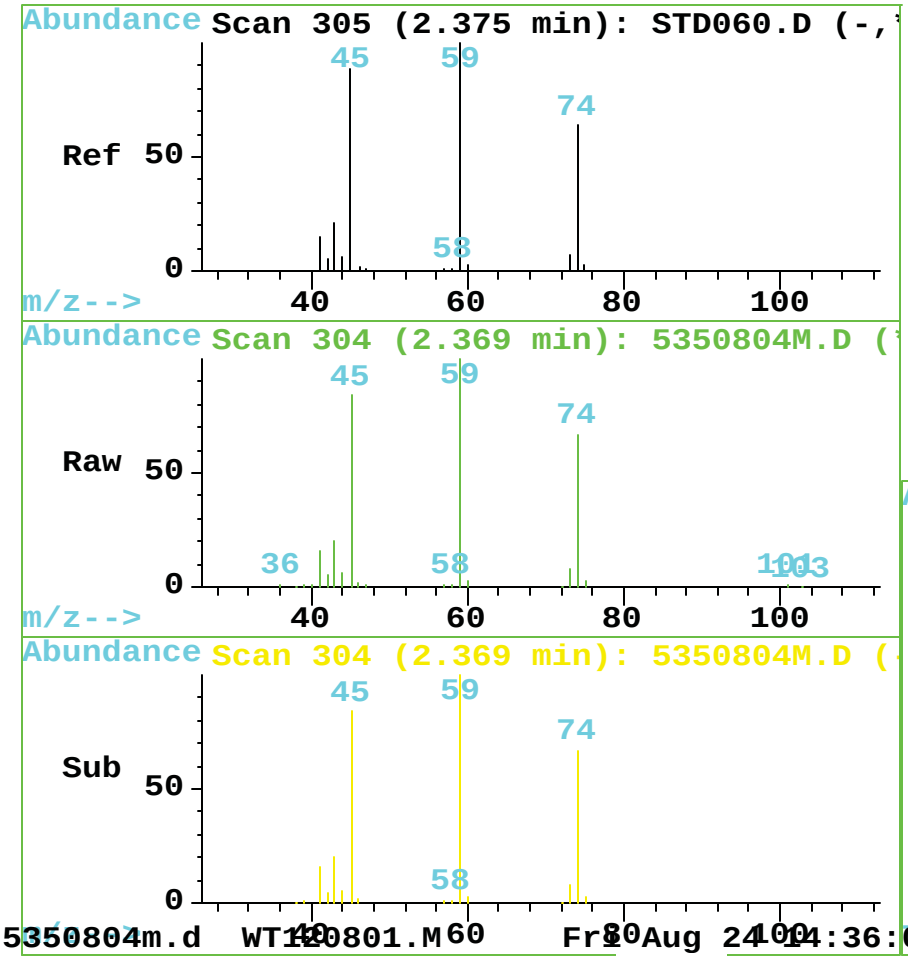


#3
1,1,2-Trichloro-1,2,2-trif
Concen: 55.43 ug/l
RT: 2.59 min Scan# 342
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:101 Resp: 166742

Ion	Ratio	Lower	Upper
101	100		
151	70.6	68.6	128.6
103	62.9	33.9	93.9
0	0.0	0.0	0.0

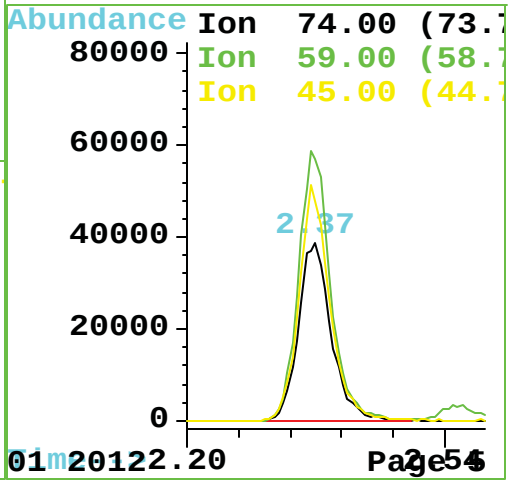


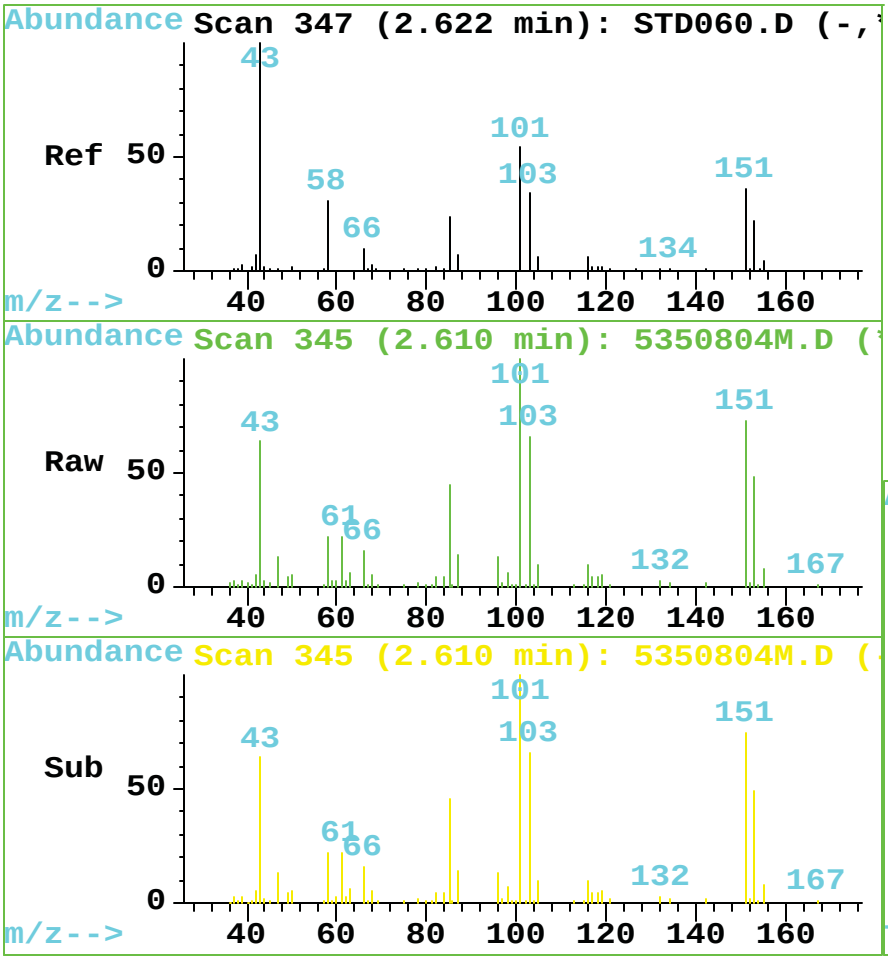


#4
Diethyl ether (*)
Concen: 48.67 ug/l
RT: 2.37 min Scan# 304
Delta R.T. -0.02 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:74 Resp: 112995

Ion	Ratio	Lower	Upper
74	100		
59	148.2	87.0	147.0#
45	125.6	43.4	103.4#
0	0.0	0.0	0.0

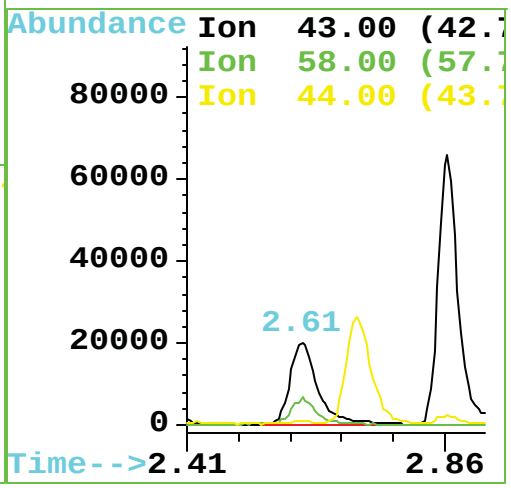


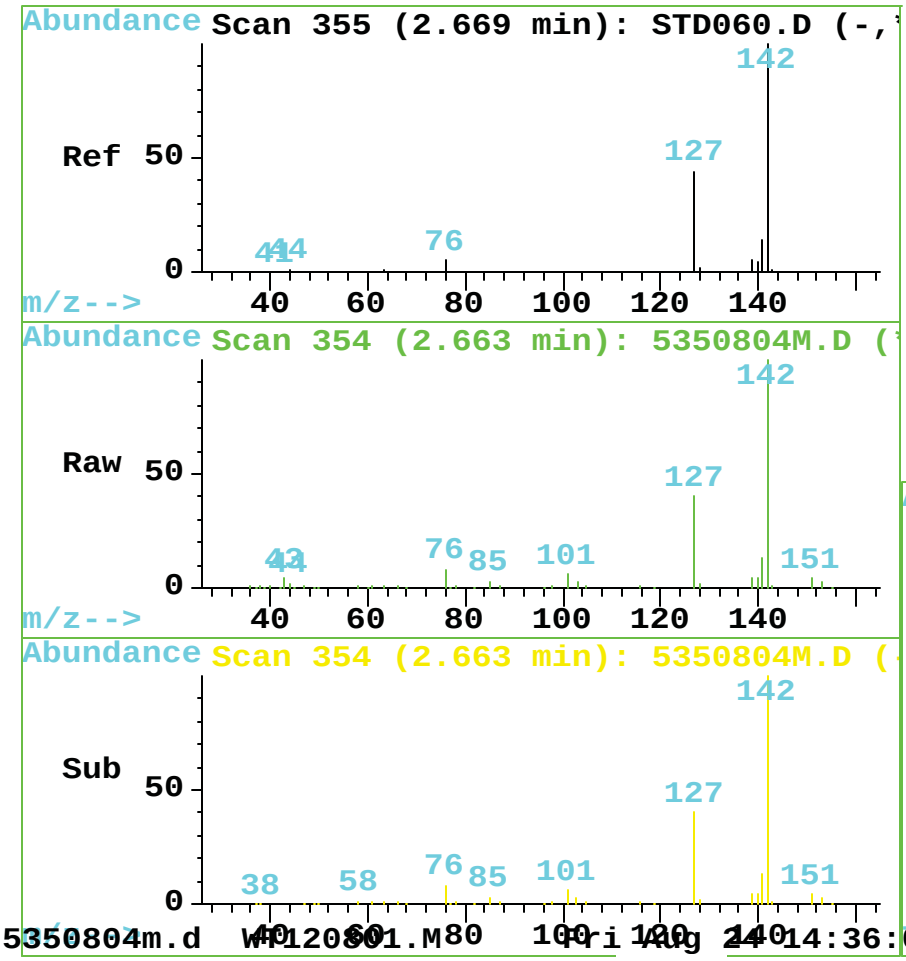


#5
Acetone (*)
Concen: 44.10 ug/l
RT: 2.61 min Scan# 345
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:43 Resp: 69265

Ion	Ratio	Lower	Upper
43	100		
58	30.2	11.0	71.0
44	2.2	0.0	33.9
0	0.0	0.0	0.0

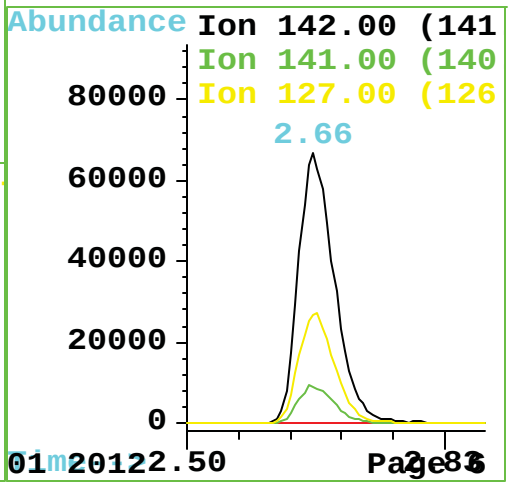


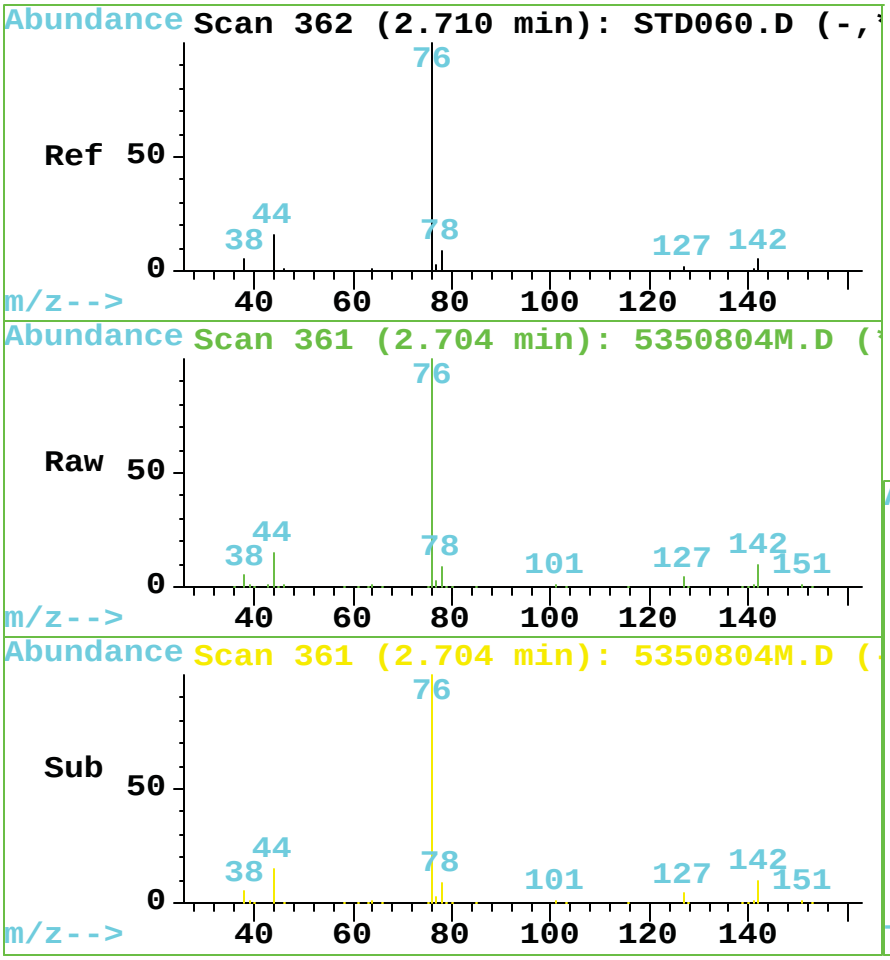


#6
Methyl iodide (iodomethane
Concen: 53.58 ug/l
RT: 2.66 min Scan# 354
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:142 Resp: 217336

Ion	Ratio	Lower	Upper
142	100		
141	13.8	0.0	43.6
127	40.6	0.0	59.1
0	0.0	0.0	0.0

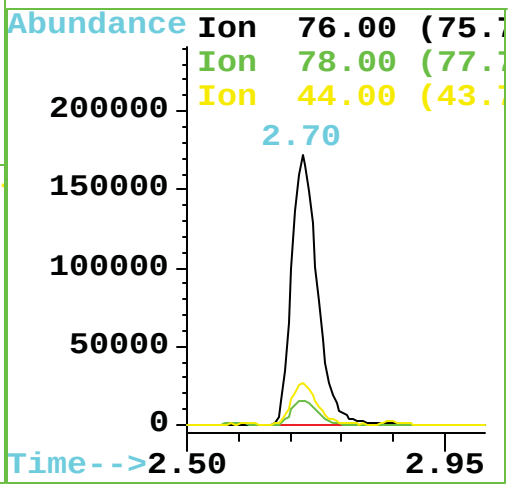


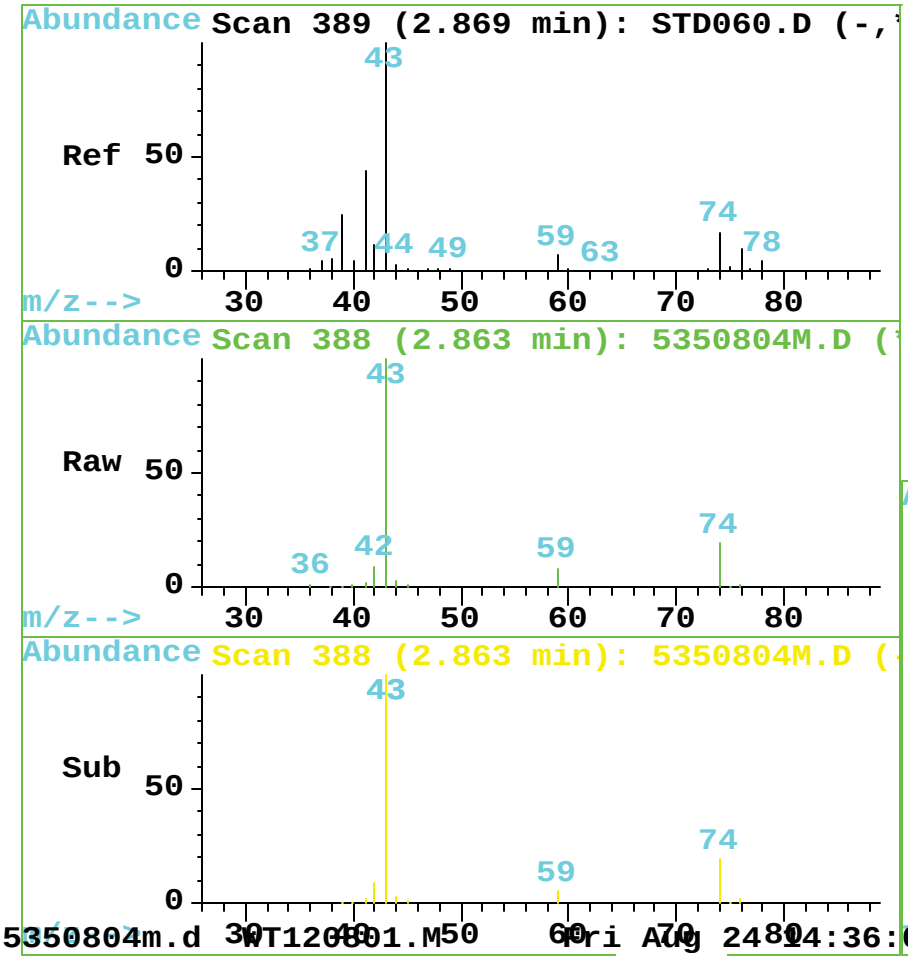


#7
Carbon disulfide (*)
Concen: 50.70 ug/l
RT: 2.70 min Scan# 361
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:76 Resp: 537656

Ion	Ratio	Lower	Upper
76	100		
78	9.2	0.0	39.2
44	15.1	0.0	37.7
0	0.0	0.0	0.0

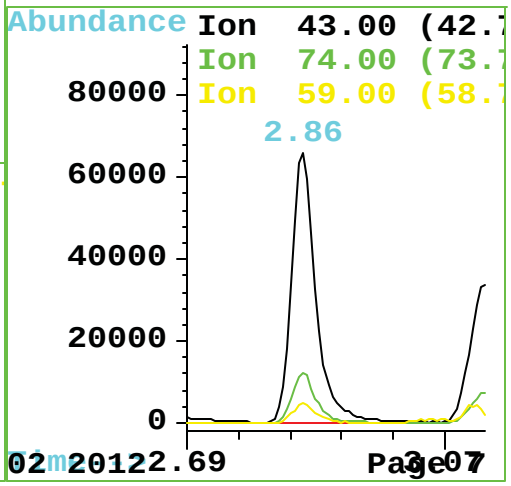


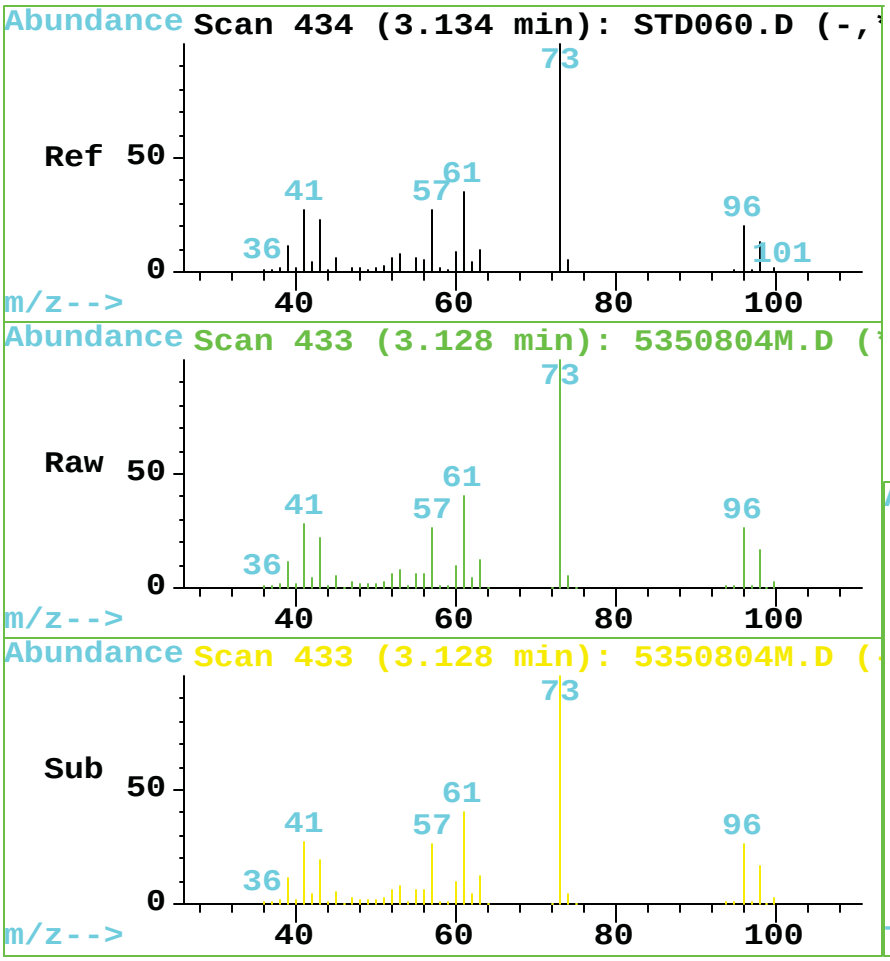


#8
Methyl Acetate
Concen: 51.13 ug/l
RT: 2.86 min Scan# 388
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:43 Resp: 164188

Ion	Ratio	Lower	Upper
43	100		
74	18.3	3.0	63.0
59	7.2	0.0	39.3
0	0.0	0.0	0.0

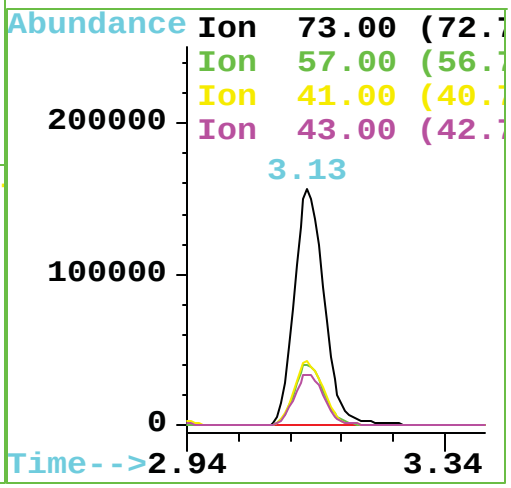


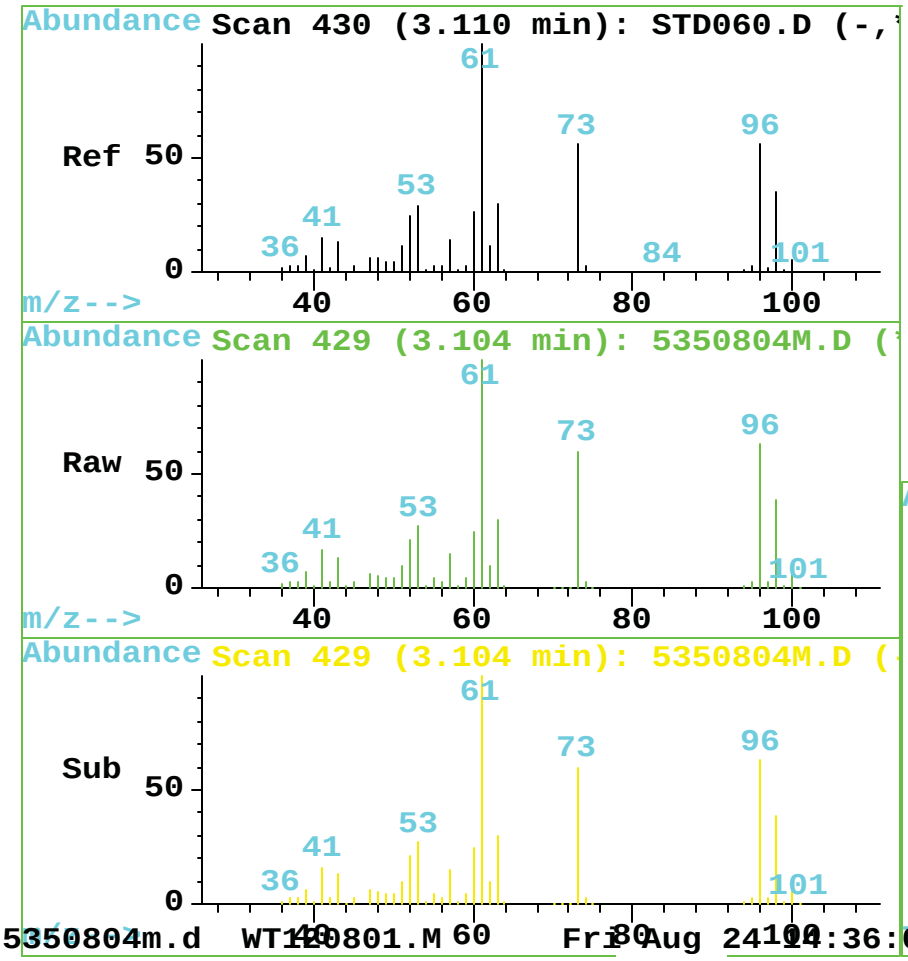


#9
tert-Methyl butyl ether (M
Concen: 53.26 ug/l
RT: 3.13 min Scan# 433
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:73 Resp: 515630

Ion	Ratio	Lower	Upper
73	100		
57	26.0	0.0	50.8
41	26.9	0.0	48.8
43	22.3	0.0	43.6

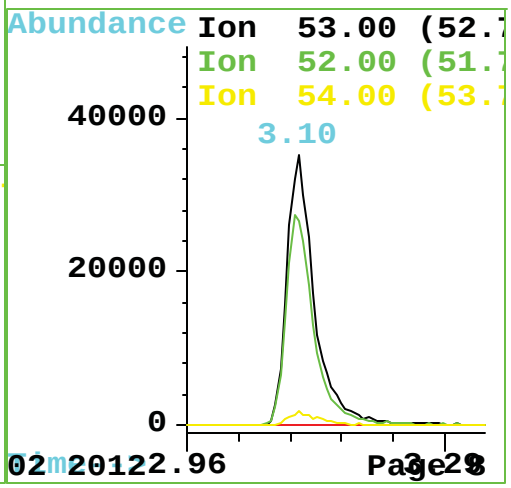


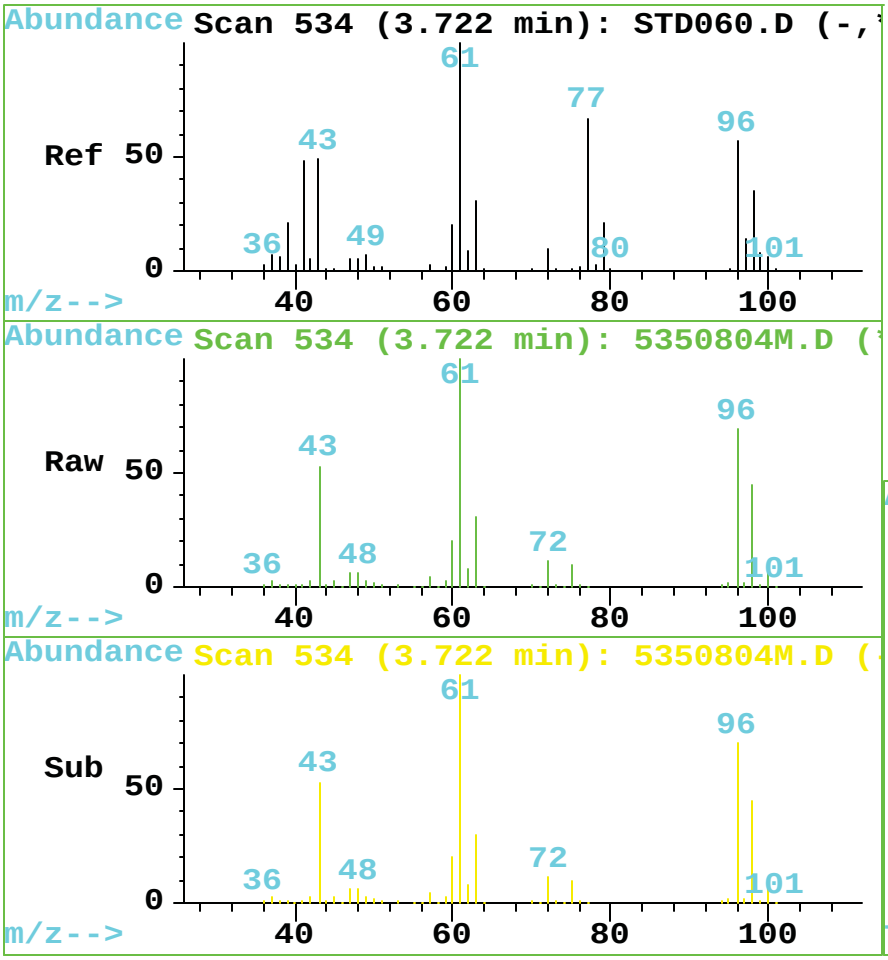


#10
Acrylonitrile (*)
Concen: 51.92 ug/l
RT: 3.10 min Scan# 429
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:53 Resp: 85846

Ion	Ratio	Lower	Upper
53	100		
52	78.4	44.2	104.2
54	4.9	0.0	31.3
0	0.0	0.0	0.0

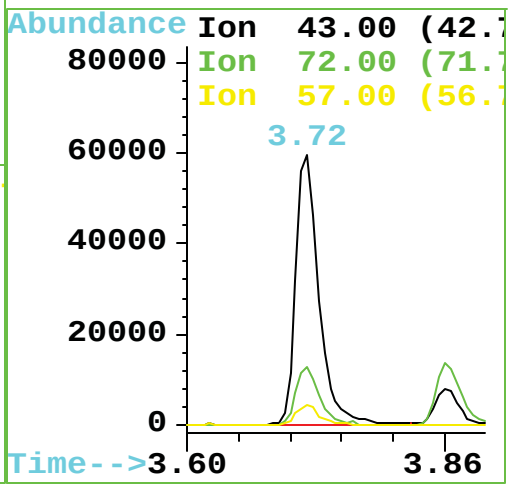


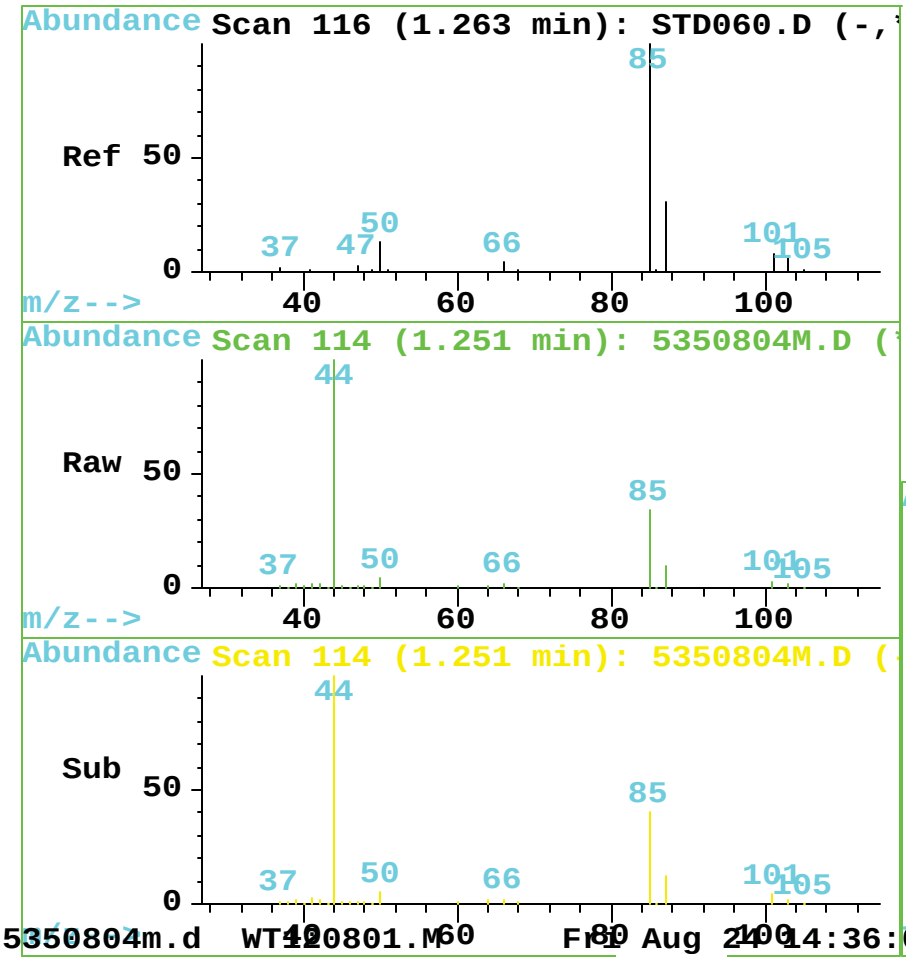


#11
2-Butanone (MEK) (*)
Concen: 42.59 ug/l
RT: 3.72 min Scan# 534
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:43 Resp: 98614

Ion	Ratio	Lower	Upper
43	100		
72	21.6	6.4	66.4
57	7.2	0.0	37.8
0	0.0	0.0	0.0

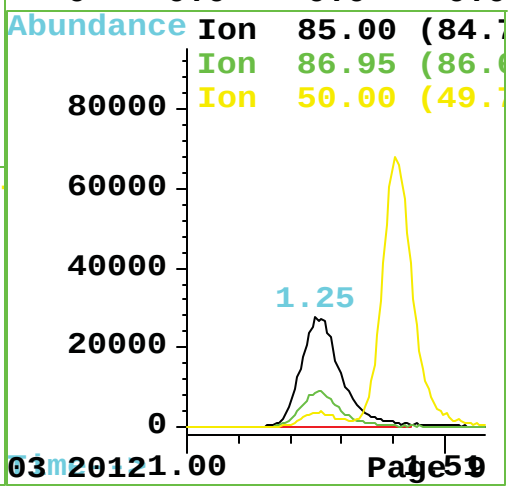


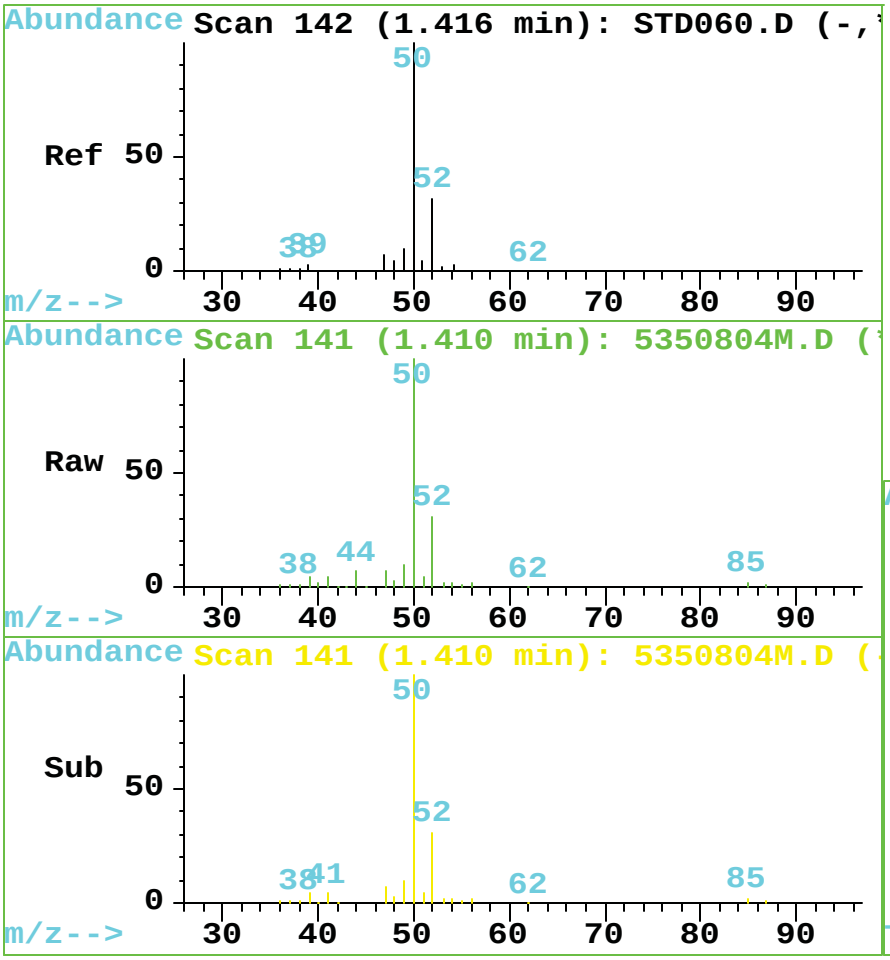


#12
Dichlorodifluoromethane
Concen: 49.18 ug/l
RT: 1.25 min Scan# 114
Delta R.T. -0.03 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:85 Resp: 154927

Ion	Ratio	Lower	Upper
85	100		
87	31.8	1.4	61.4
50	12.3	0.0	34.7
0	0.0	0.0	0.0

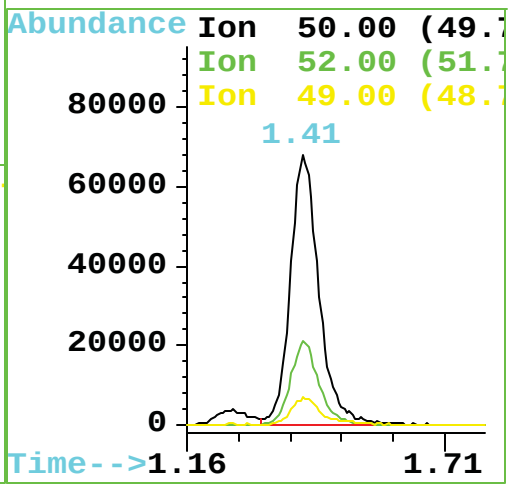


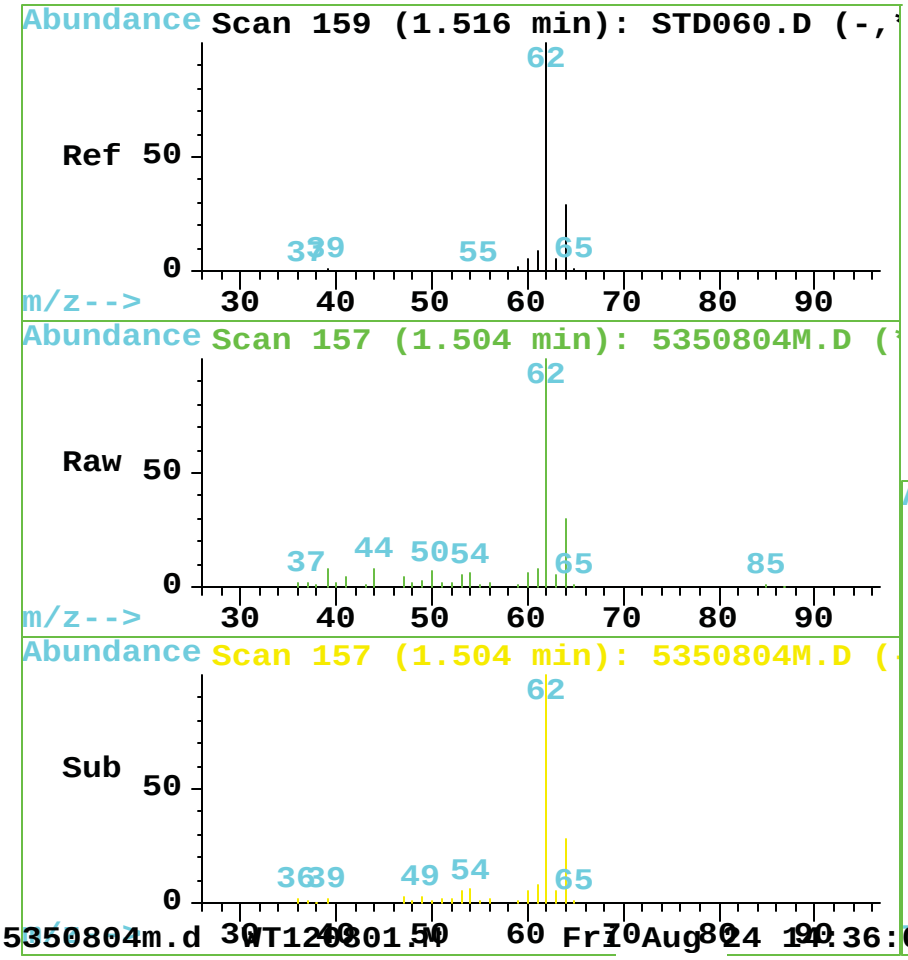


#13
Chloromethane (SPCC)
Concen: 55.60 ug/l
RT: 1.41 min Scan# 141
Delta R.T. -0.02 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:50 Resp: 288686

Ion	Ratio	Lower	Upper
50	100		
52	30.7	1.7	61.7
49	11.5	0.0	38.9
0	0.0	0.0	0.0

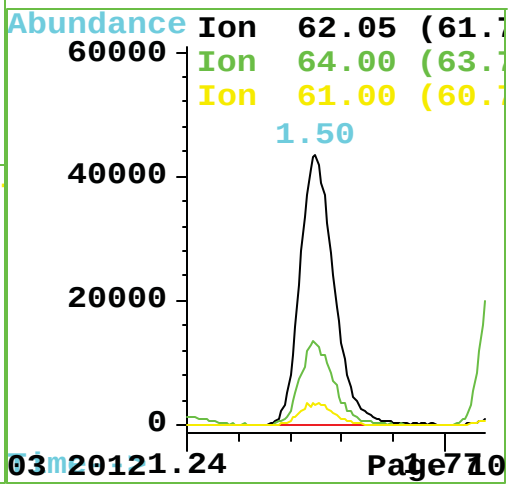


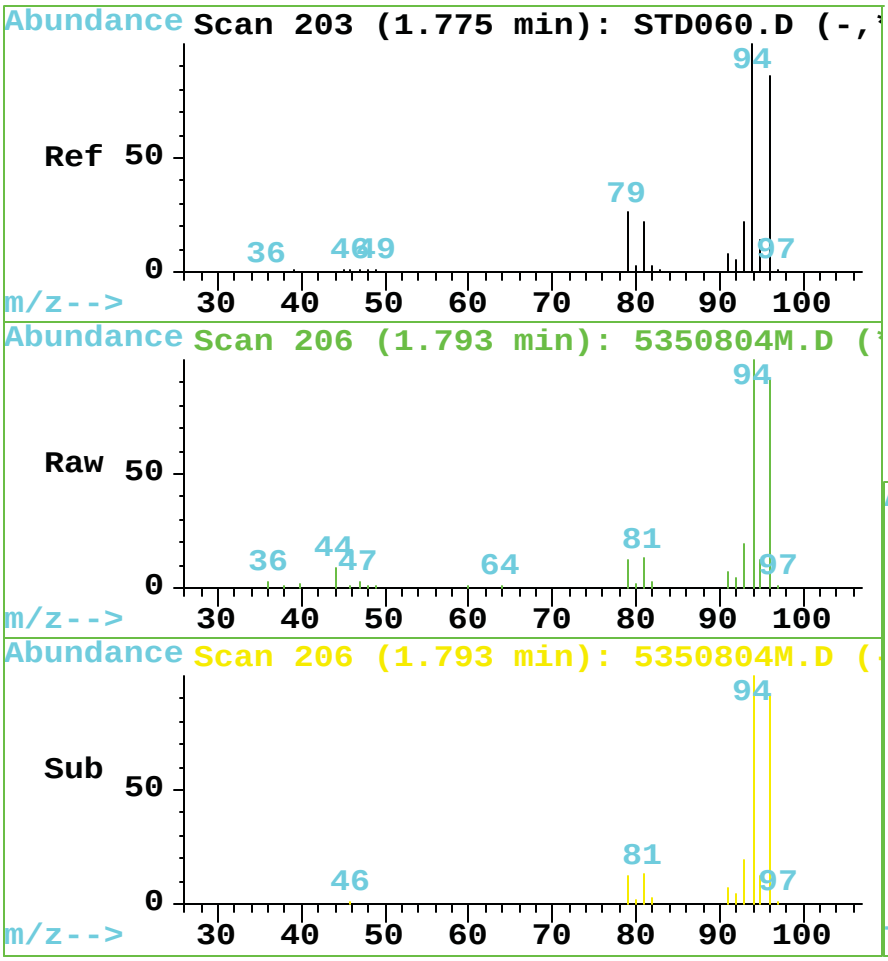


#14
Vinyl Chloride (CCC)
Concen: 45.43 ug/l
RT: 1.50 min Scan# 157
Delta R.T. -0.02 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:62.05 Resp: 21208

Ion	Ratio	Lower	Upper
62	100		
64	30.4	2.7	62.7
61	7.8	0.0	37.9
0	0.0	0.0	0.0

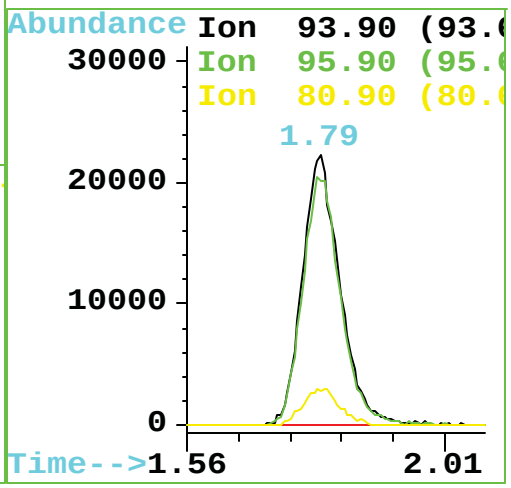


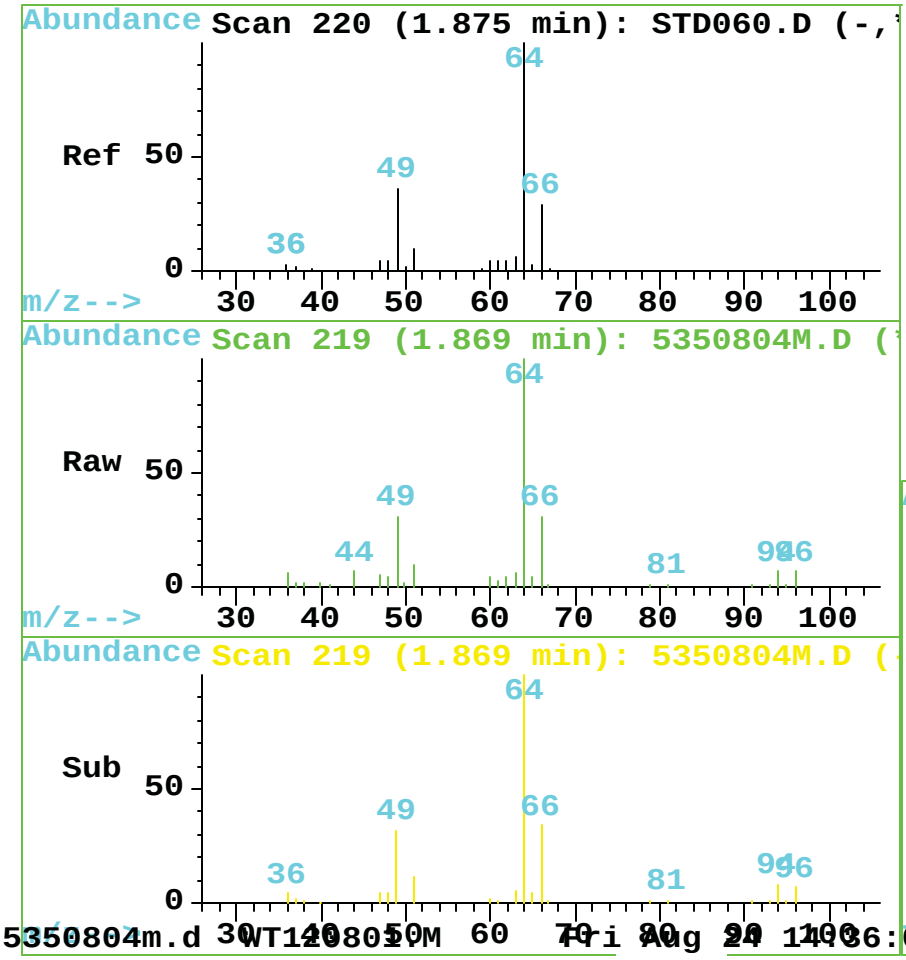


#15
Bromomethane
Concen: 48.11 ug/l
RT: 1.79 min Scan# 206
Delta R.T. 0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:93.9 Resp: 102274

Ion	Ratio	Lower	Upper
94	100		
96	93.1	65.8	125.8
81	13.1	0.0	38.8
0	0.0	0.0	0.0

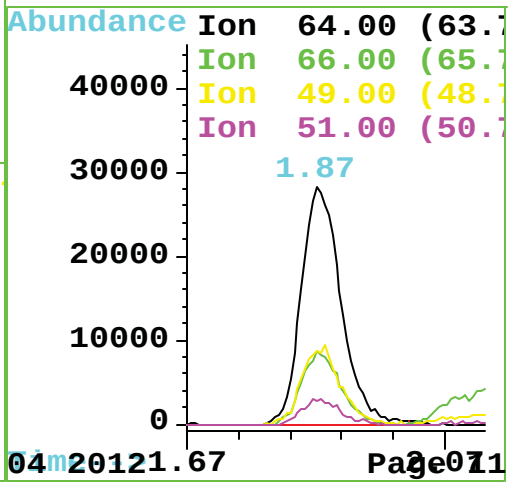


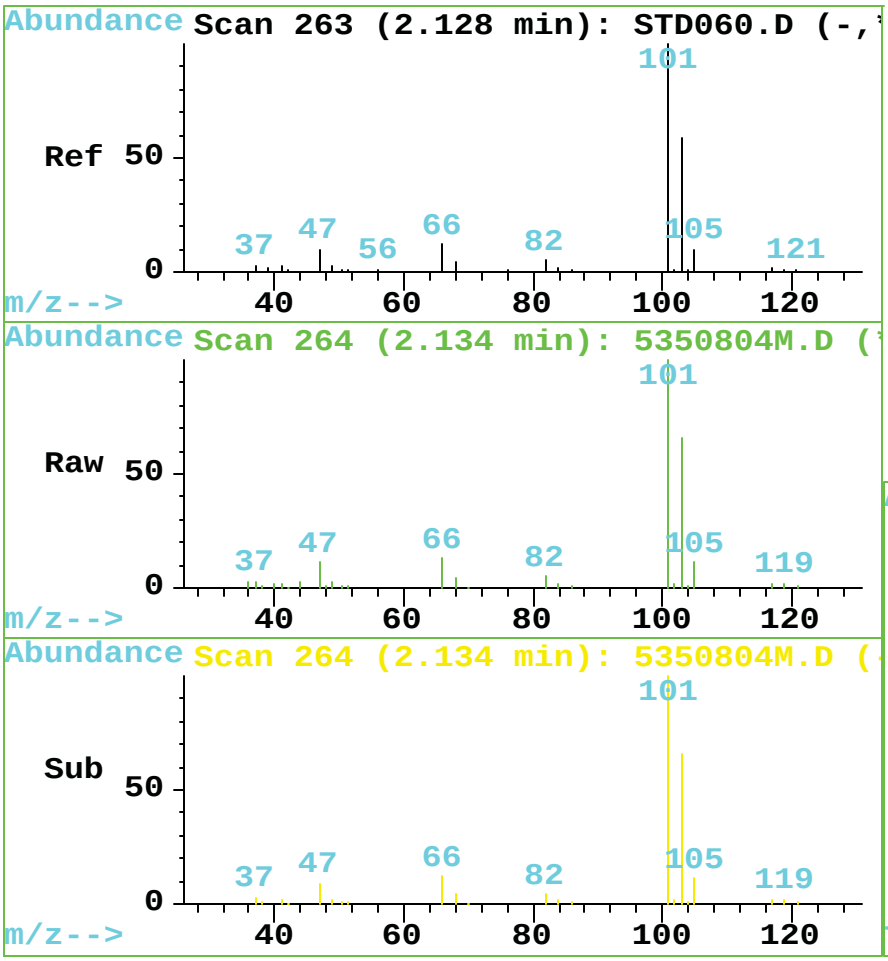


#16
Chloroethane
Concen: 47.69 ug/l
RT: 1.87 min Scan# 219
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:64 Resp: 119541

Ion	Ratio	Lower	Upper
64	100		
66	30.1	2.6	62.6
49	31.8	0.0	49.7
51	10.0	0.0	36.1

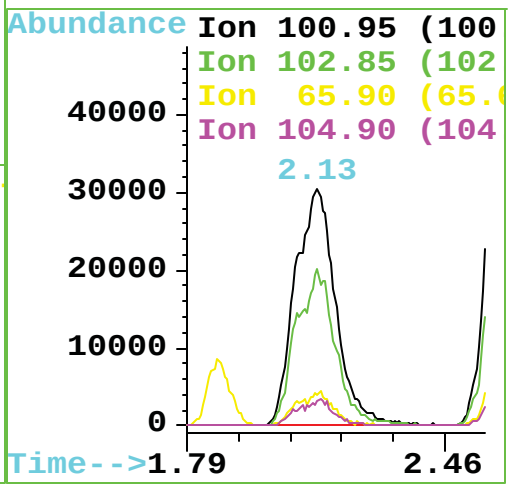


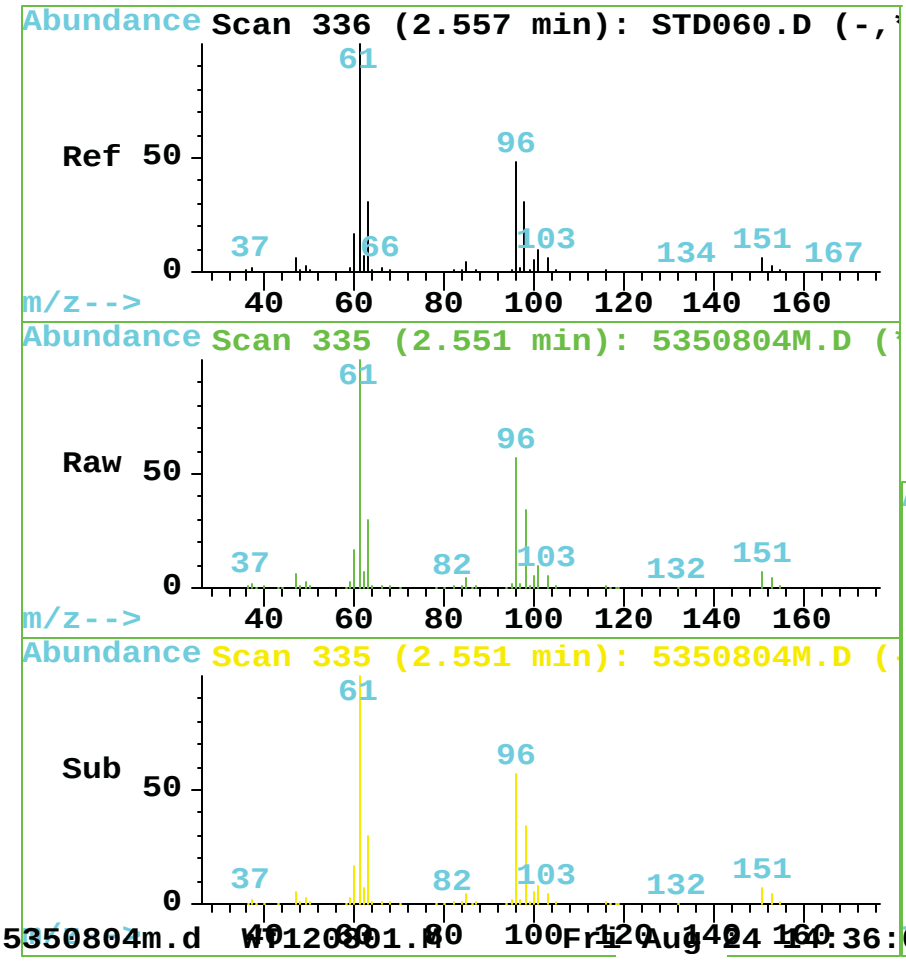


#18
Trichlorofluoromethane
Concen: 47.41 ug/l
RT: 2.13 min Scan# 264
Delta R.T. 0.02 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:100.95 Resp: 2231

Ion	Ratio	Lower	Upper
101	100		
103	64.3	35.8	95.8
66	8.1	0.0	39.7
105	10.0	0.0	40.7

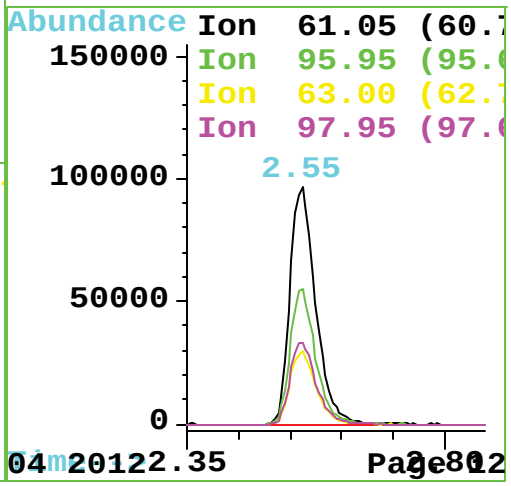


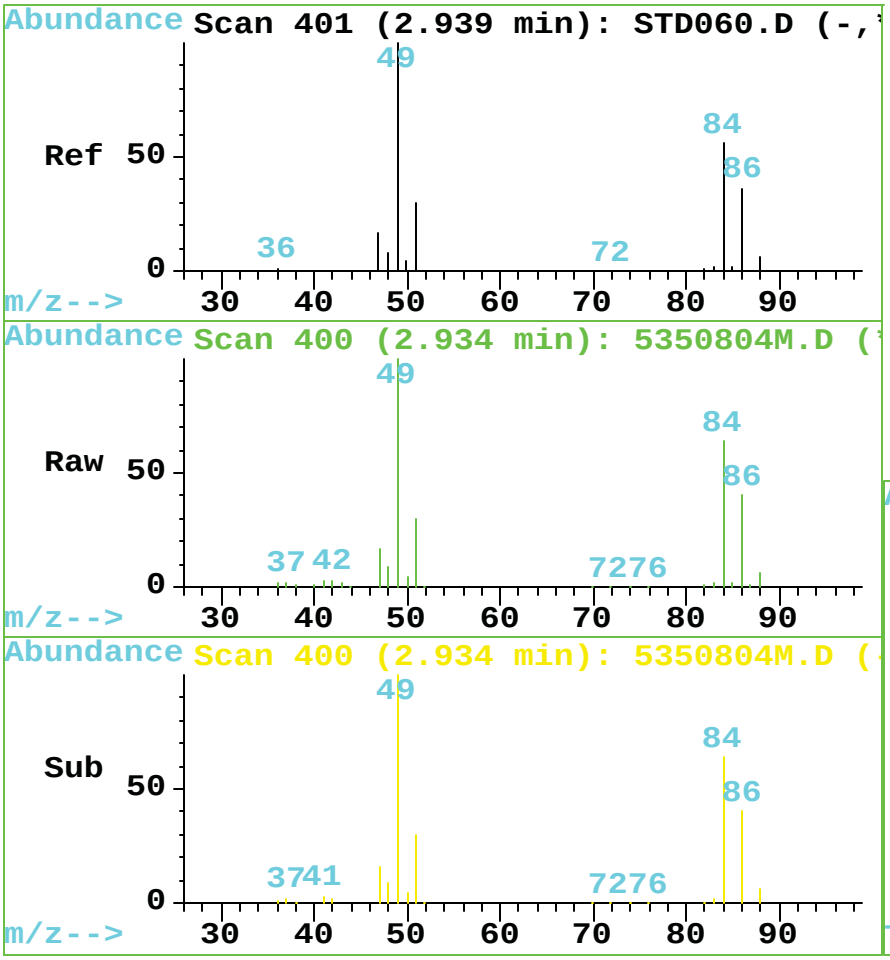


#19
1,1-Dichloroethene (CCC/MS
Concen: 50.65 ug/l
RT: 2.55 min Scan# 335
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:61.05 Resp: 29795

Ion	Ratio	Lower	Upper
61	100		
96	56.3	53.4	113.4
63	30.8	1.9	61.9
98	34.7	23.0	83.0

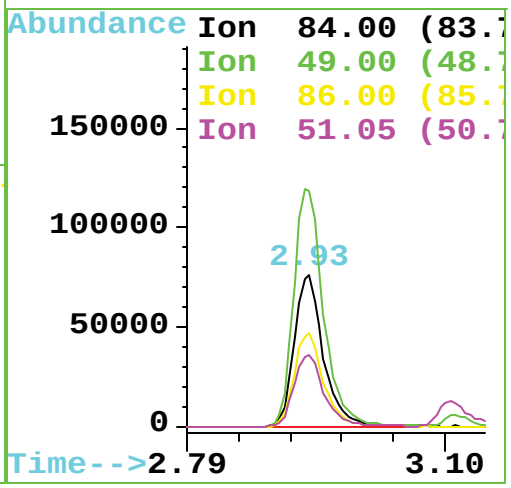


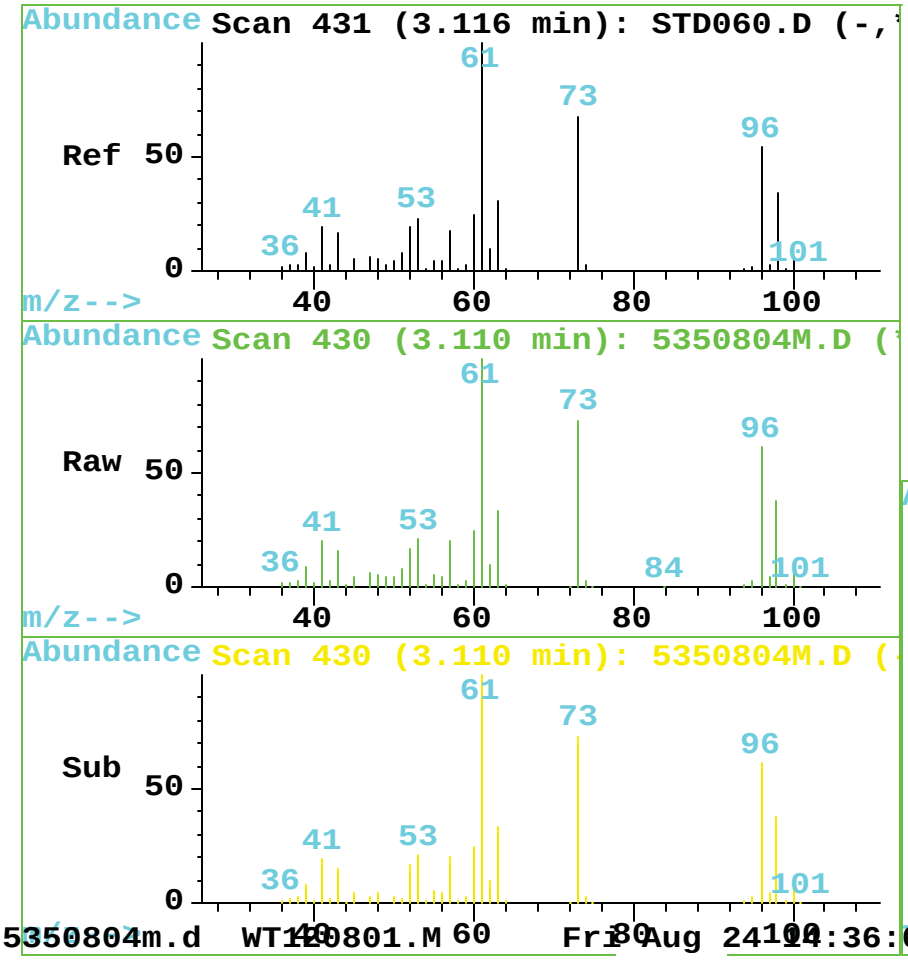


#20
Methylene Chloride
Concen: 50.84 ug/l
RT: 2.93 min Scan# 400
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:84 Resp: 182742

Ion	Ratio	Lower	Upper
84	100		
49	161.2	62.0	122.0#
86	62.4	34.3	94.3
51	48.5	0.0	58.7

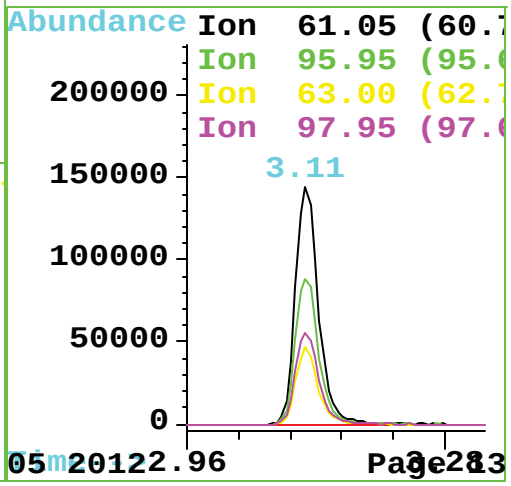


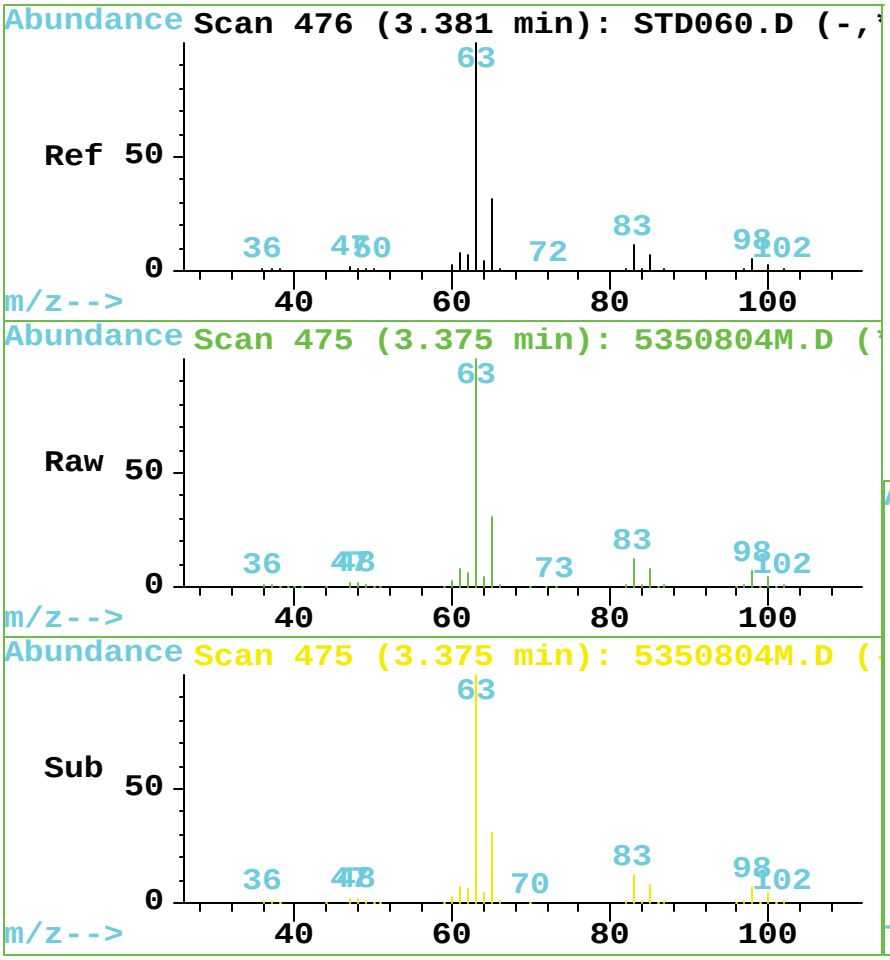


#21
trans-1,2-Dichloroethene
Concen: 49.65 ug/l
RT: 3.11 min Scan# 430
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:61.05 Resp: 28442

Ion	Ratio	Lower	Upper
61	100		
96	62.4	62.0	122.0
63	30.8	2.0	62.0
98	39.1	28.2	88.2

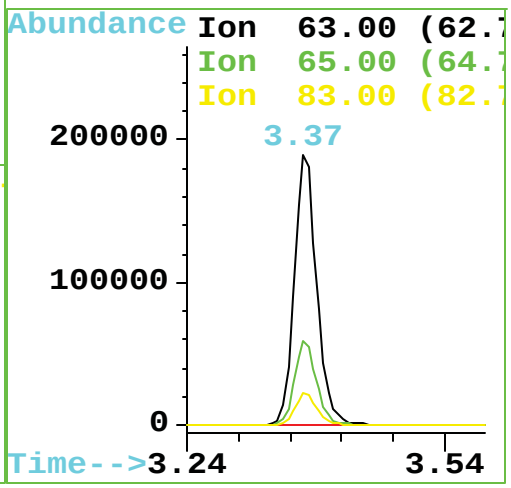


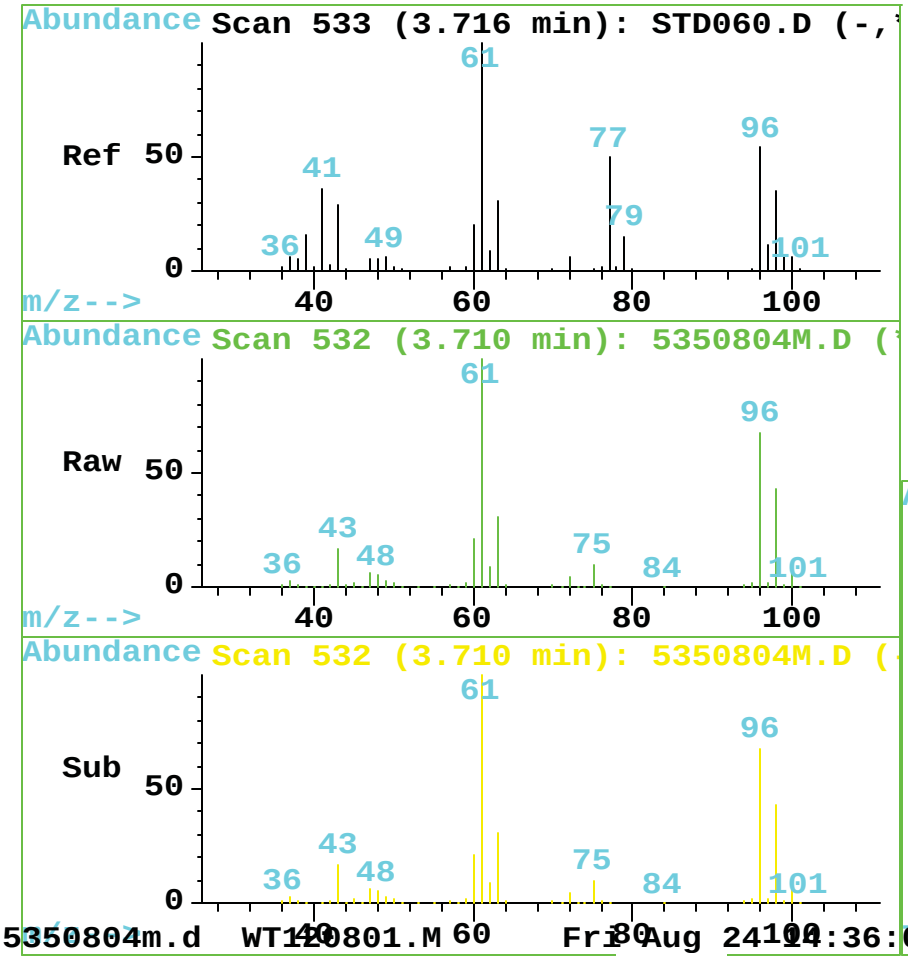


#22
1,1-Dichloroethane (SPCC)
Concen: 50.08 ug/l
RT: 3.37 min Scan# 475
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:63 Resp: 344463

Ion	Ratio	Lower	Upper
63	100		
65	30.5	1.7	61.7
83	11.7	0.0	43.5
0	0.0	0.0	0.0

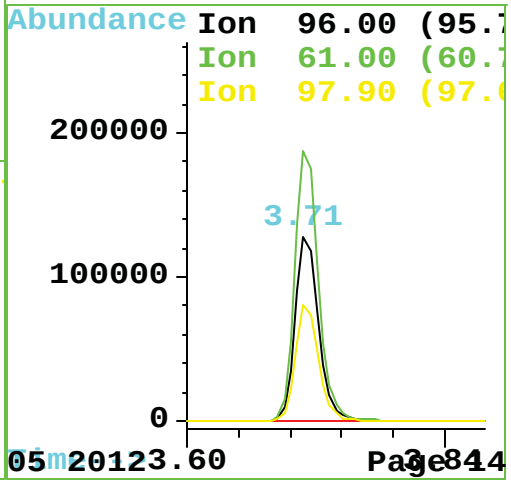


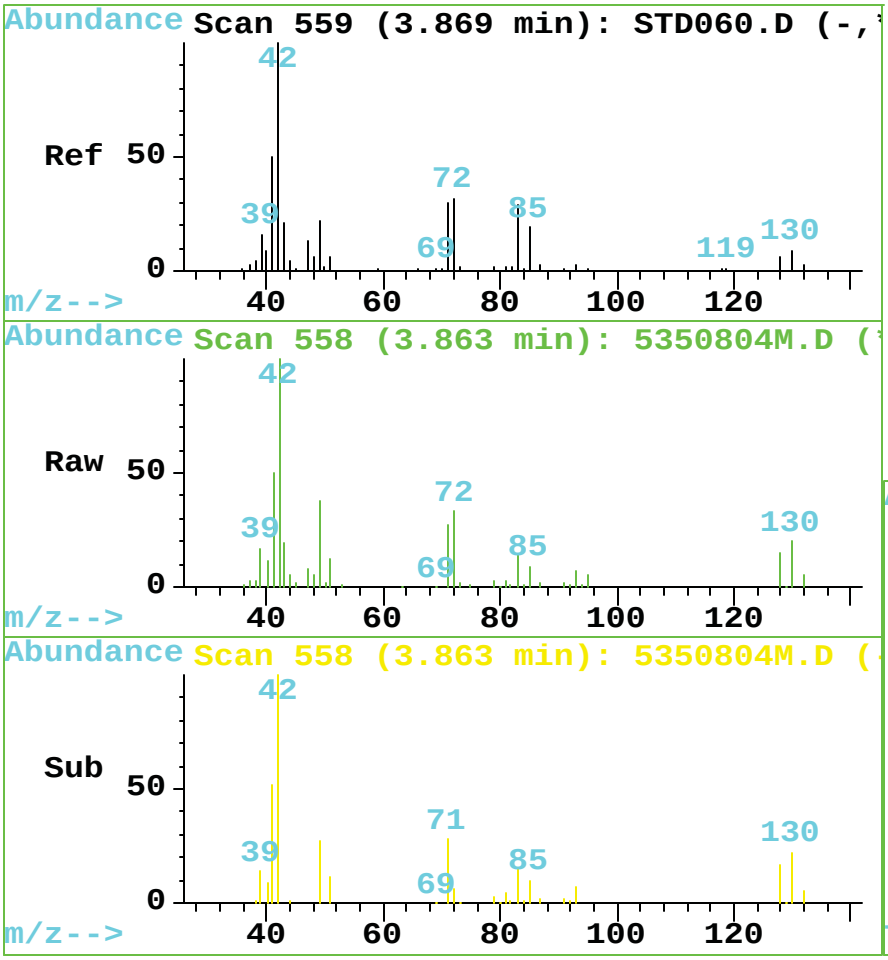


#23
cis-1,2-Dichloroethene
Concen: 50.93 ug/l
RT: 3.71 min Scan# 532
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:96 Resp: 189056

Ion	Ratio	Lower	Upper
96	100		
61	147.3	79.3	139.3#
98	62.7	33.9	93.9
0	0.0	0.0	0.0

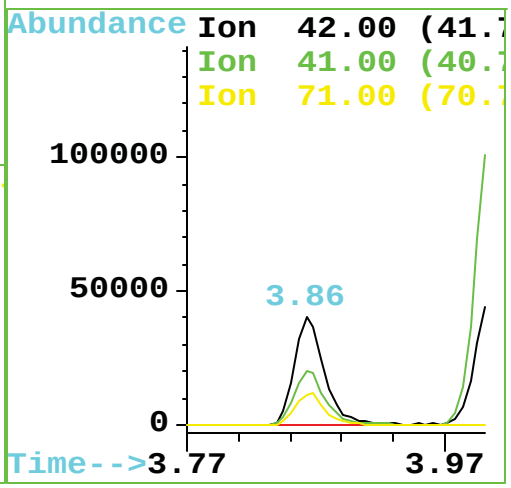


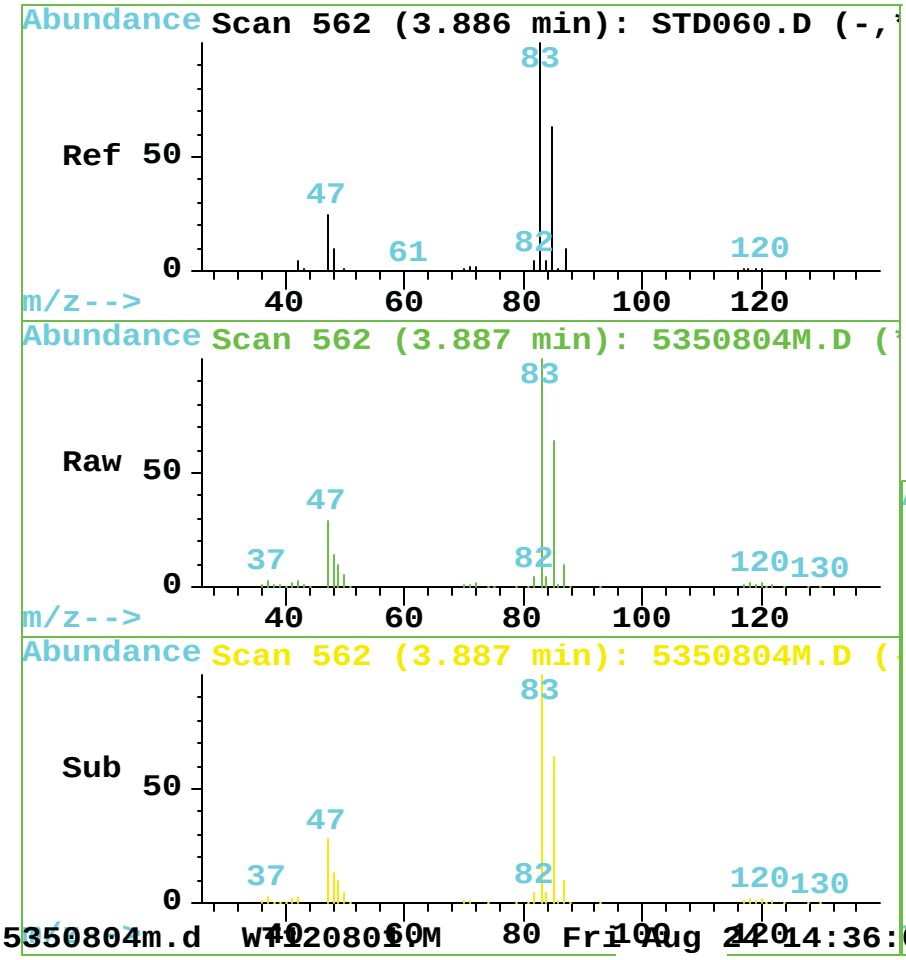


#24
Tetrahydrofuran
Concen: 45.27 ug/l
RT: 3.86 min Scan# 558
Delta R.T. -0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:42 Resp: 67138

Ion	Ratio	Lower	Upper
42	100		
41	52.2	179.3	239.3#
71	29.5	14.9	74.9
0	0.0	0.0	0.0

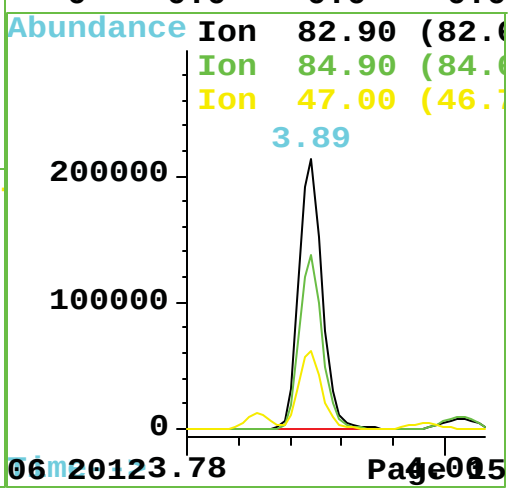


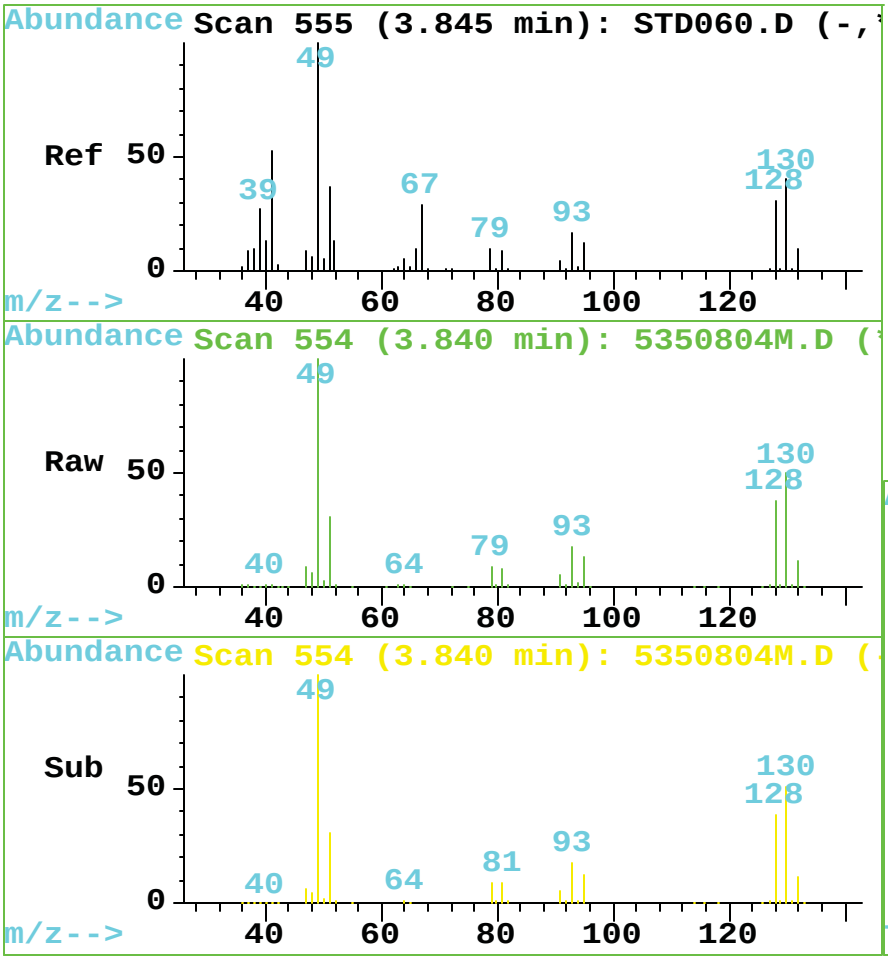


#25
Chloroform (CCC)
Concen: 49.40 ug/l
RT: 3.89 min Scan# 562
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:82.9 Resp: 291996

Ion	Ratio	Lower	Upper
83	100		
85	63.9	36.2	96.2
47	28.5	0.0	46.5
0	0.0	0.0	0.0

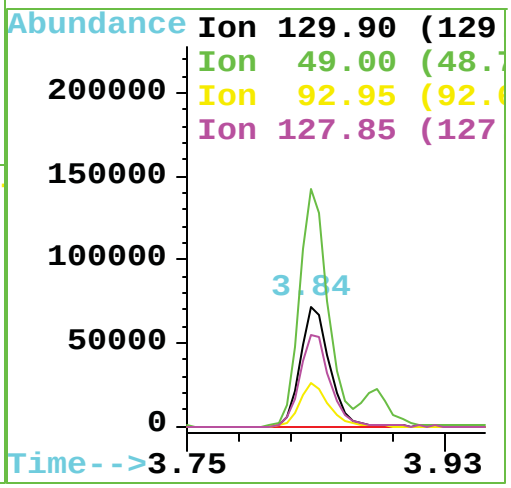


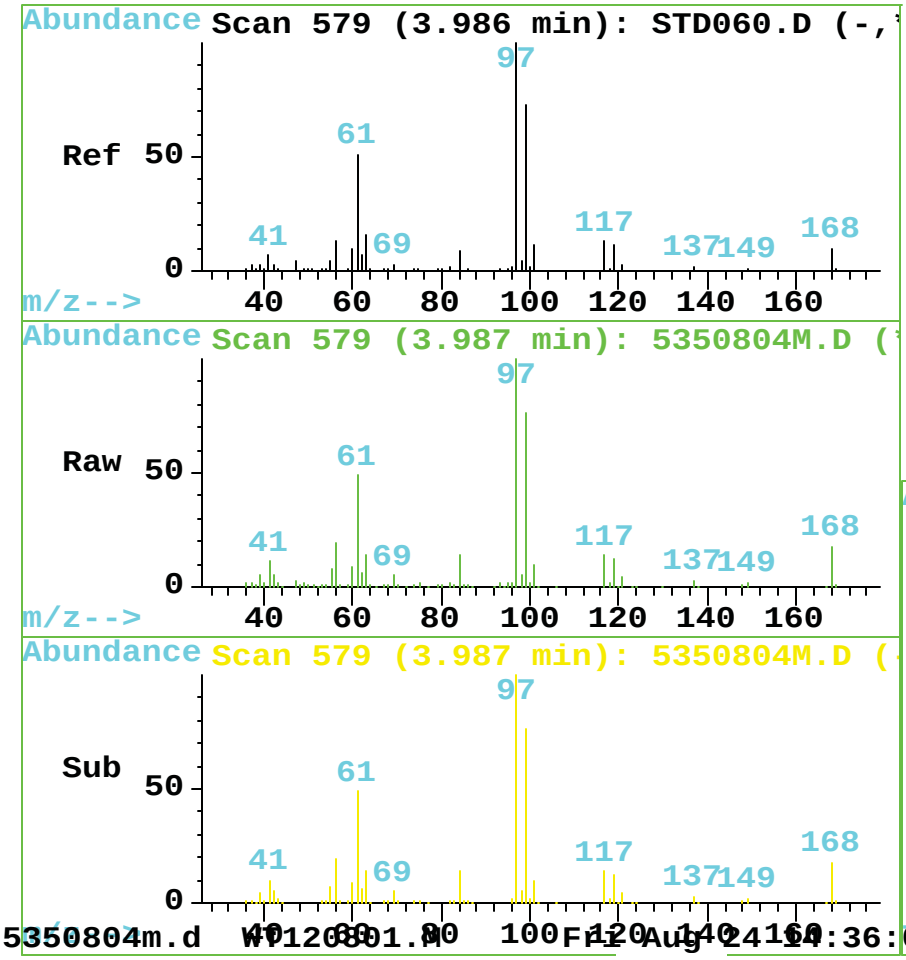


#26
Bromochloromethane
Concen: 52.95 ug/l
RT: 3.84 min Scan# 554
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:129.9 Resp: 10330

Ion	Ratio	Lower	Upper
130	100		
49	195.8	51.9	111.9#
93	35.3	0.0	55.3
128	77.8	46.1	106.1

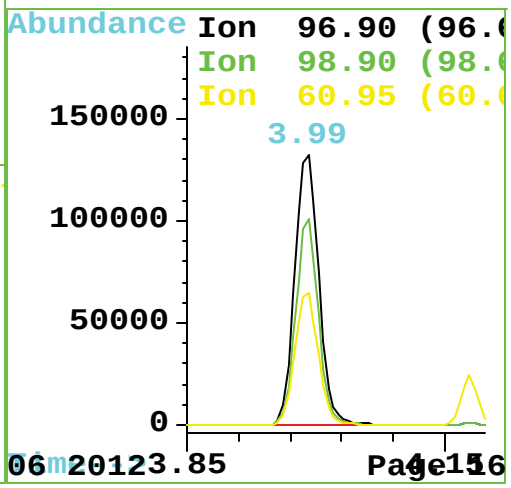


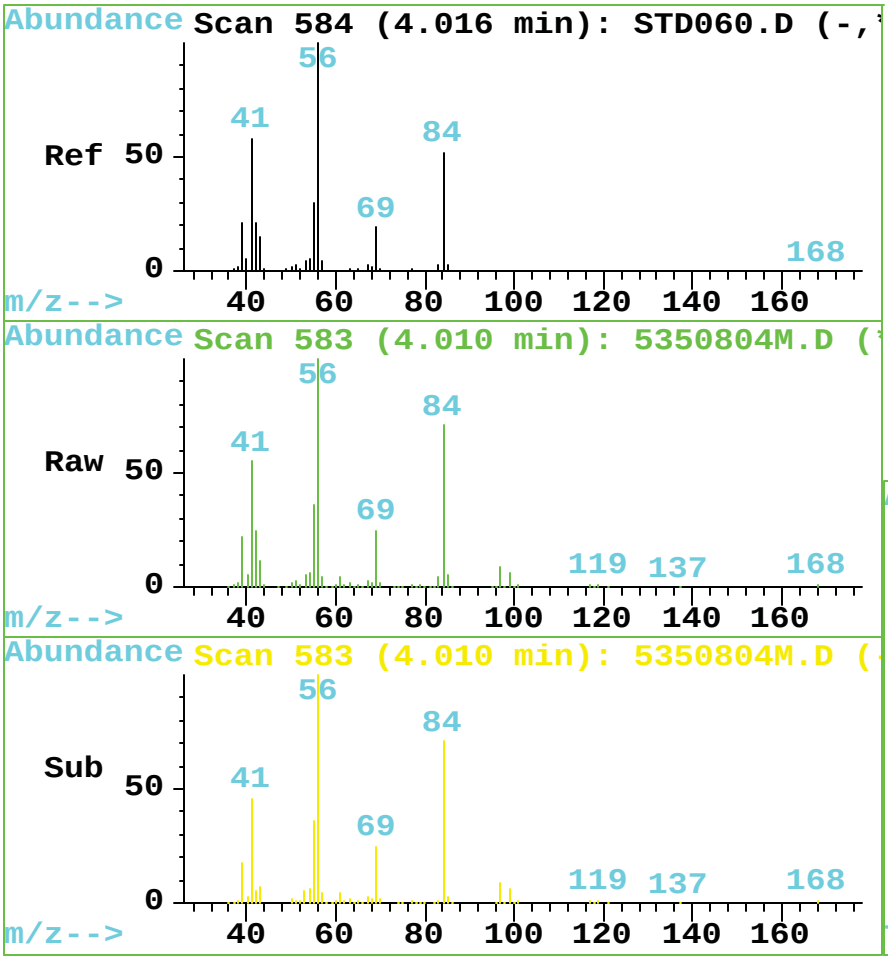


#27
1,1,1-Trichloroethane
Concen: 50.97 ug/l
RT: 3.99 min Scan# 579
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:96.9 Resp: 260743

Ion	Ratio	Lower	Upper
97	100		
99	71.7	230.0	290.0#
61	48.3	11.8	71.8
0	0.0	0.0	0.0

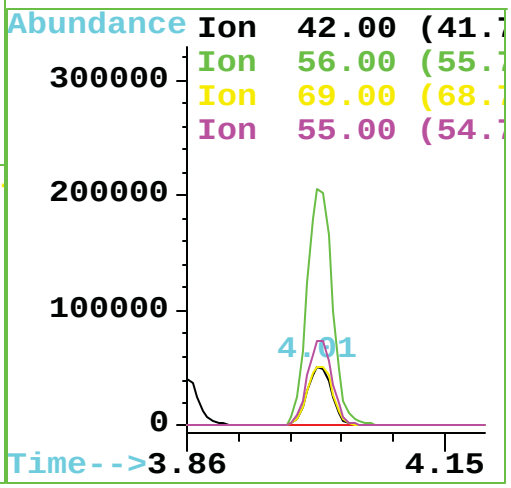


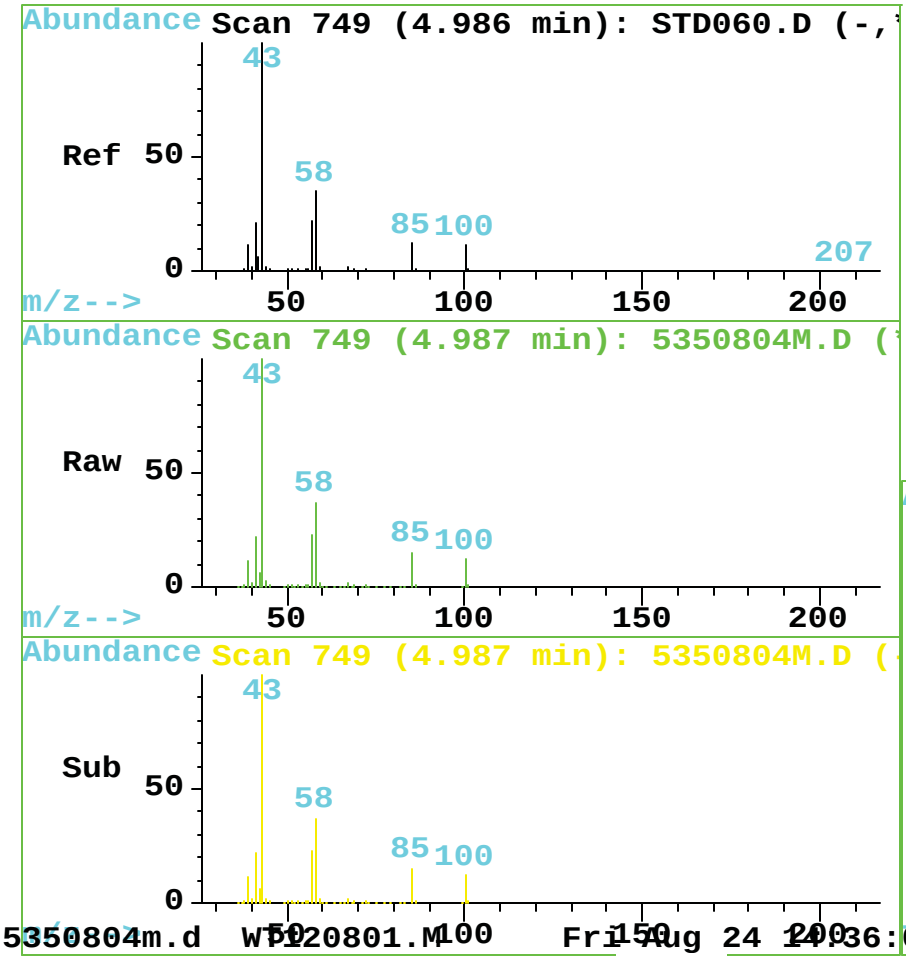


#29
Cyclohexane
Concen: 44.34 ug/l
RT: 4.01 min Scan# 583
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:42 Resp: 103082

Ion	Ratio	Lower	Upper
42	100		
56	405.2	857.9	917.9#
69	103.9	156.0	216.0#
55	144.0	174.4	234.4#

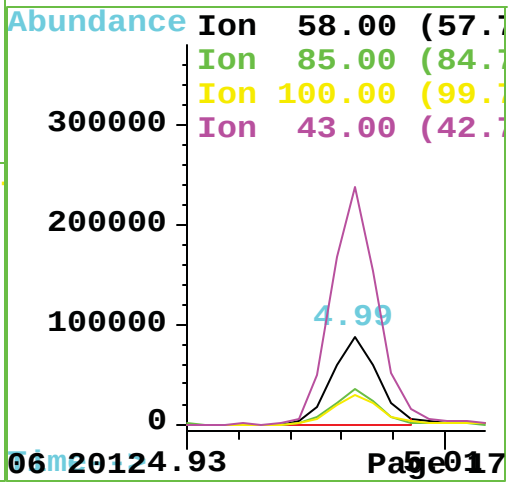


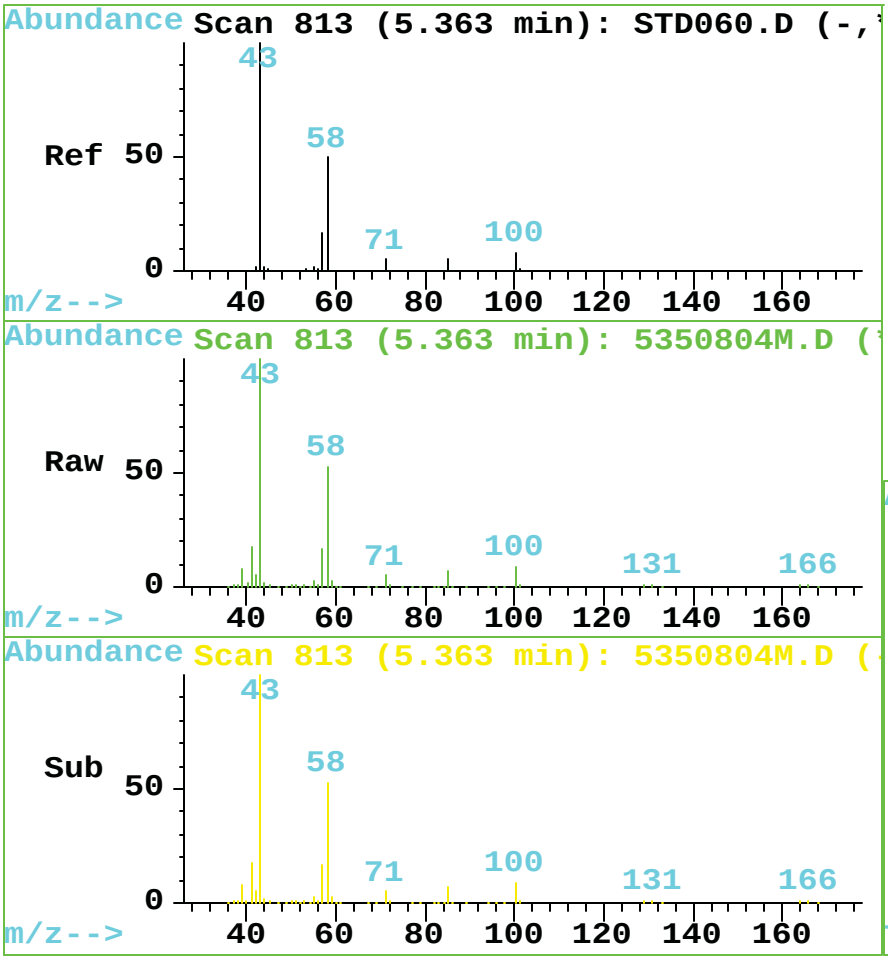


#32
4-Methyl-2-pentanone (MIBK
Concen: 65.98 ug/l
RT: 4.99 min Scan# 749
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:58 Resp: 88194

Ion	Ratio	Lower	Upper
58	100		
85	38.0	21.9	81.9
100	33.3	27.6	87.6
43	271.7	199.0	259.0#

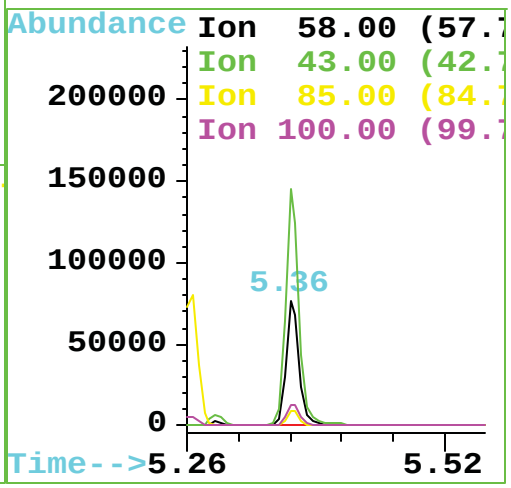


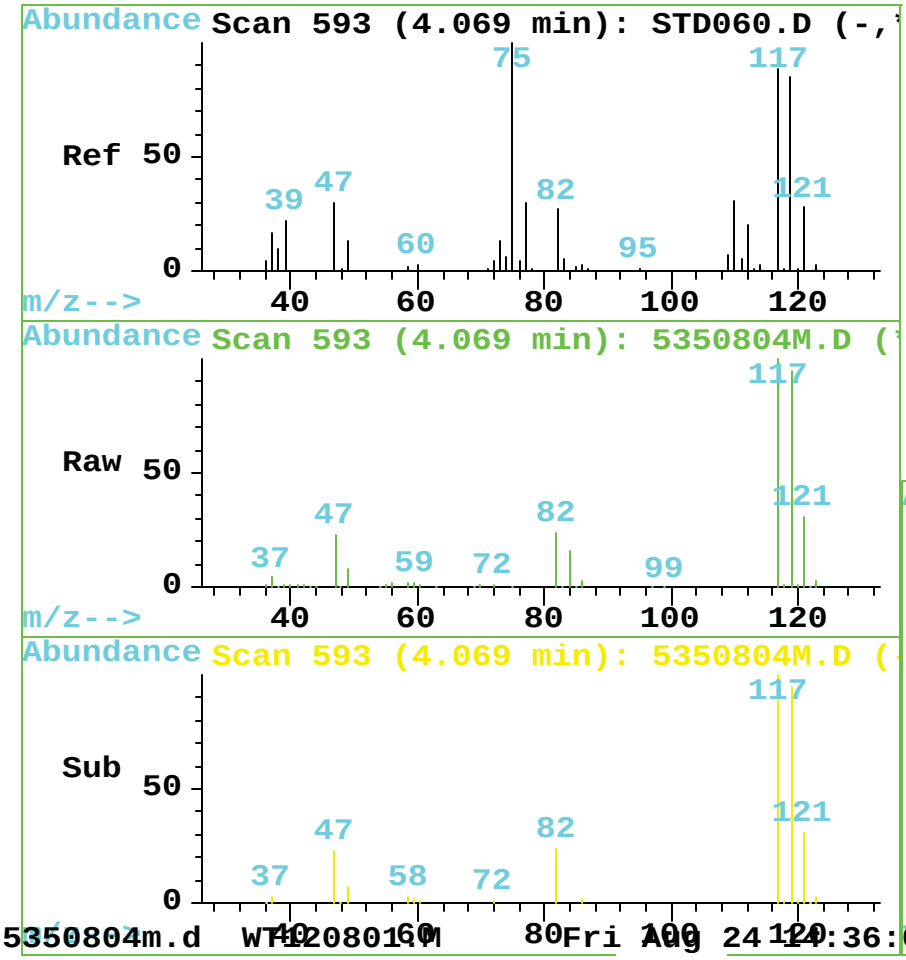


#33
2-Hexanone (*)
Concen: 50.17 ug/l
RT: 5.36 min Scan# 813
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:58 Resp: 77866

Ion	Ratio	Lower	Upper
58	100		
43	191.0	120.9	180.9#
85	12.9	0.0	48.4
100	18.3	0.5	60.5

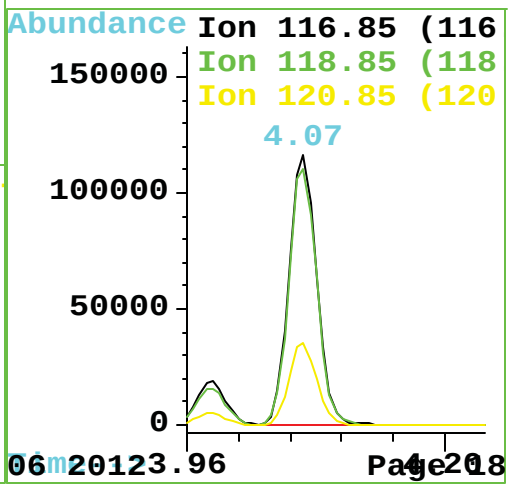


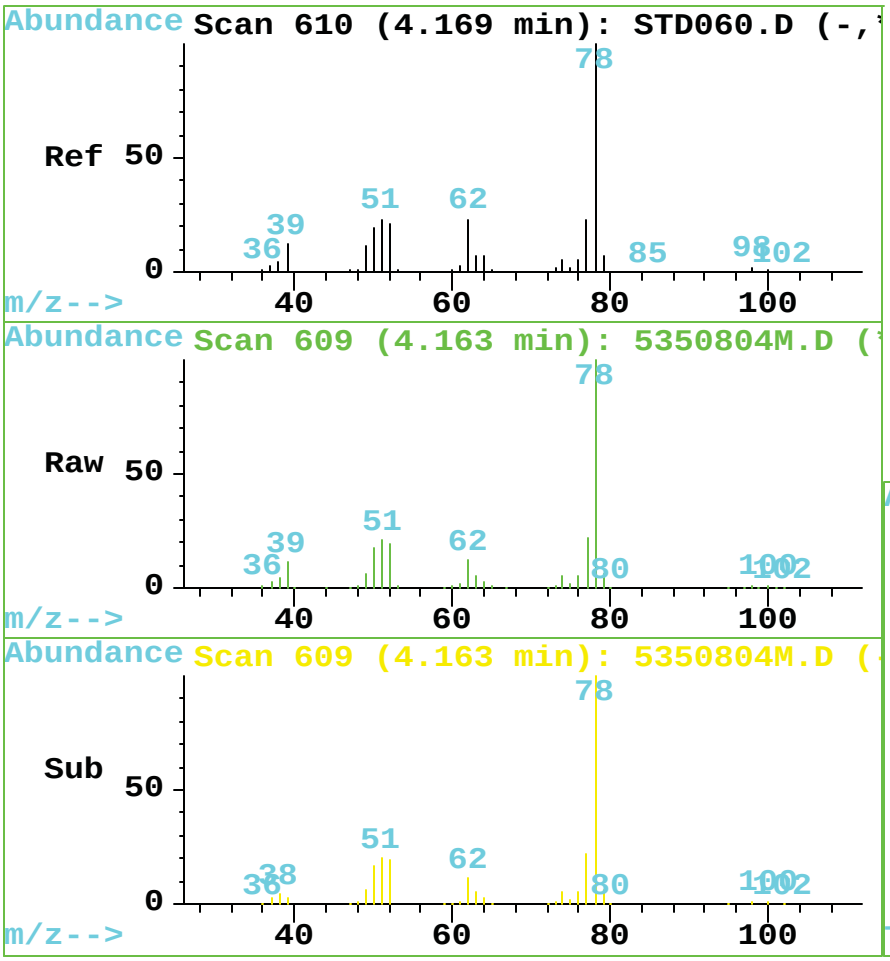


#35
Carbon Tetrachloride
Concen: 51.30 ug/l
RT: 4.07 min Scan# 593
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:116.85 Resp: 2039

Ion	Ratio	Lower	Upper
117	100		
119	96.0	67.4	127.4
121	30.7	1.5	61.5
0	0.0	0.0	0.0

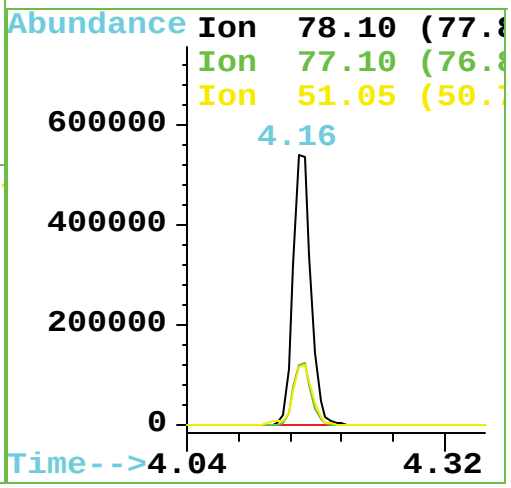


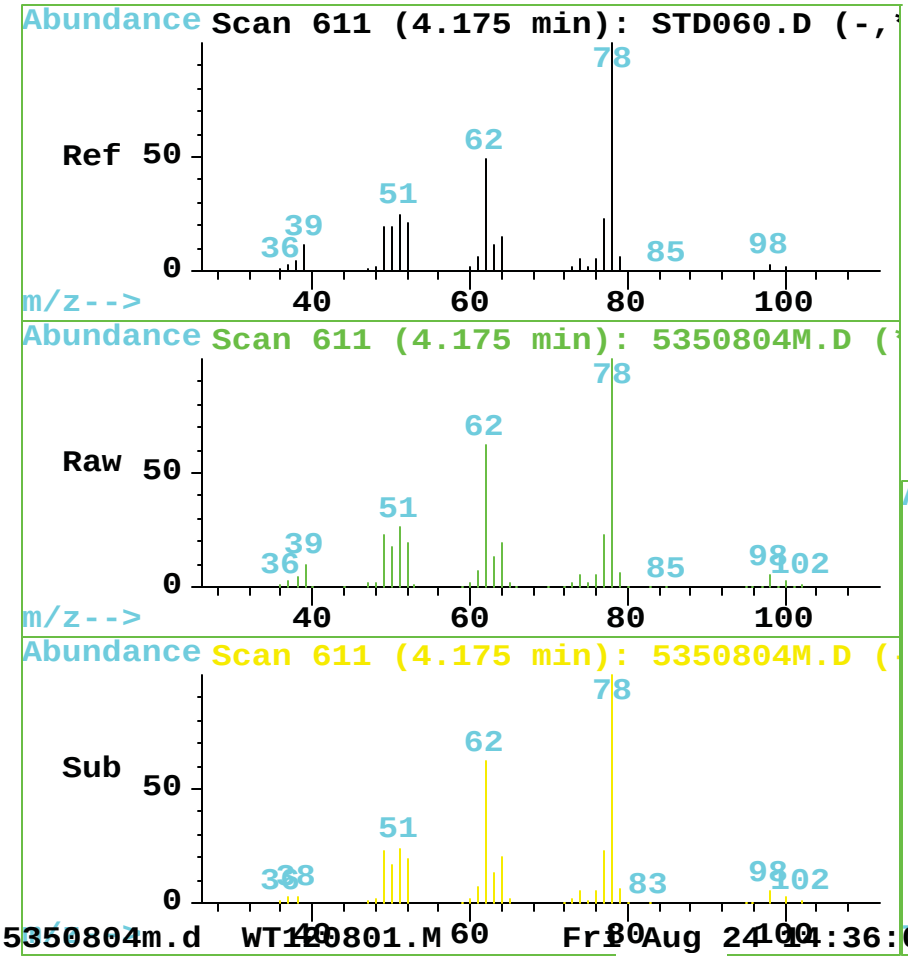


#36
Benzene (MS)
Concen: 50.80 ug/l
RT: 4.16 min Scan# 609
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:78.1 Resp: 742763

Ion	Ratio	Lower	Upper
78	100		
77	22.8	0.0	52.9
51	24.6	0.0	43.1
0	0.0	0.0	0.0

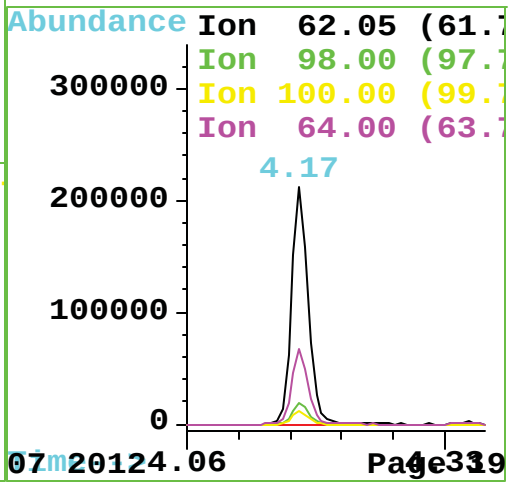


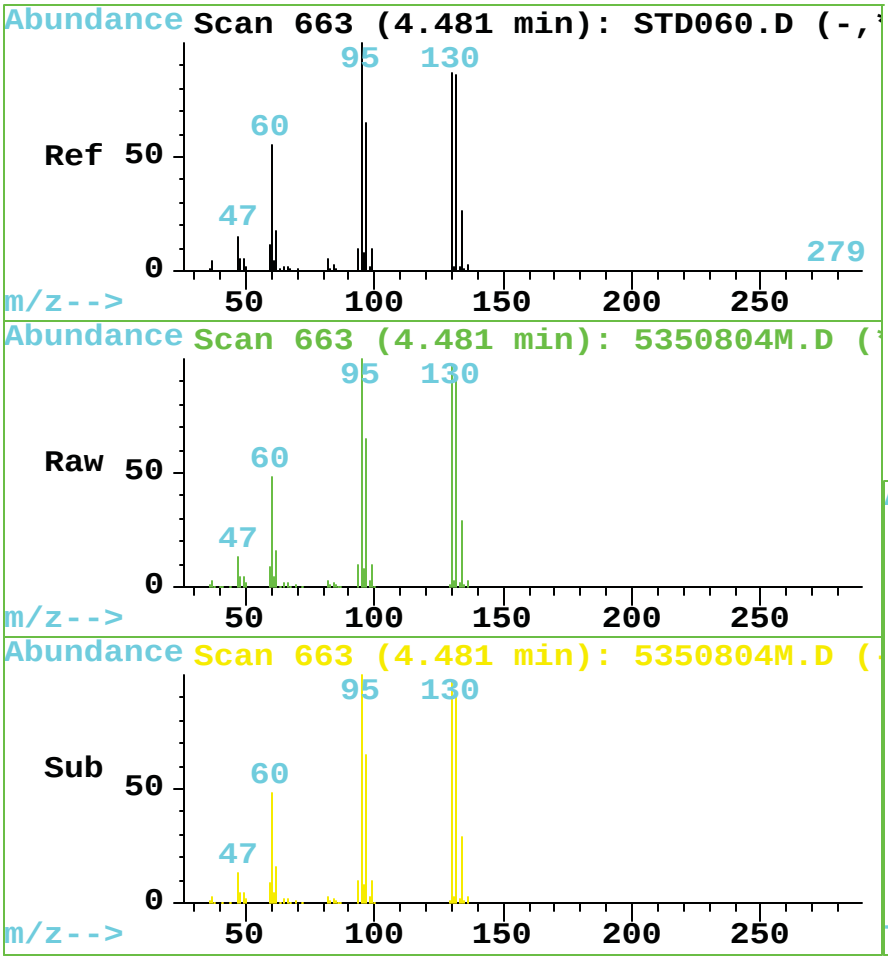


#37
1,2-Dichloroethane
Concen: 48.29 ug/l
RT: 4.17 min Scan# 611
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:62.05 Resp: 25423

Ion	Ratio	Lower	Upper
62	100		
98	8.7	0.0	45.2
100	5.2	0.0	39.3
64	30.9	3.7	63.7

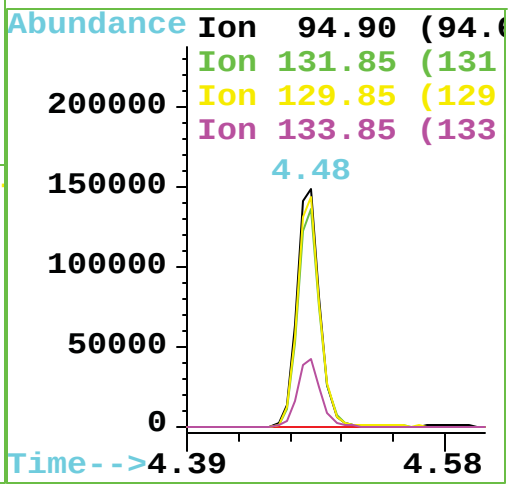


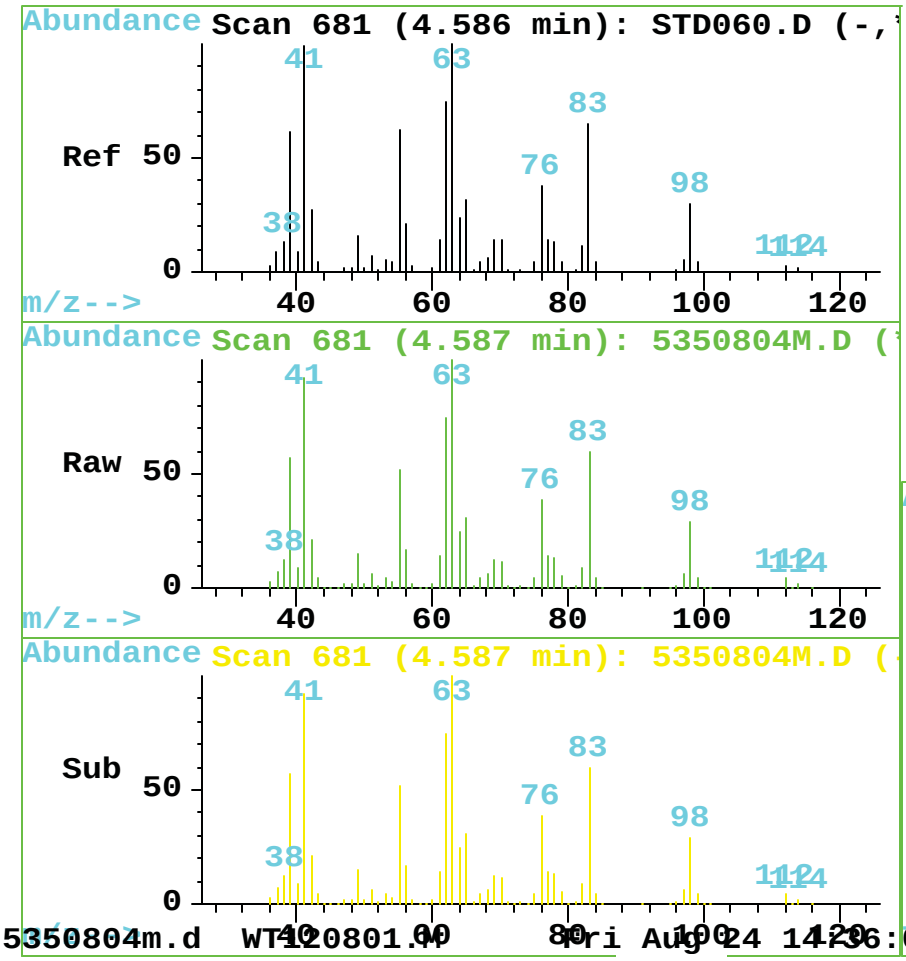


#38
Trichloroethene (MS)
Concen: 50.65 ug/l
RT: 4.48 min Scan# 663
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:94.9 Resp: 170765

Ion	Ratio	Lower	Upper
95	100		
132	89.7	88.7	148.7
130	94.5	91.7	151.7
134	28.2	7.7	67.7

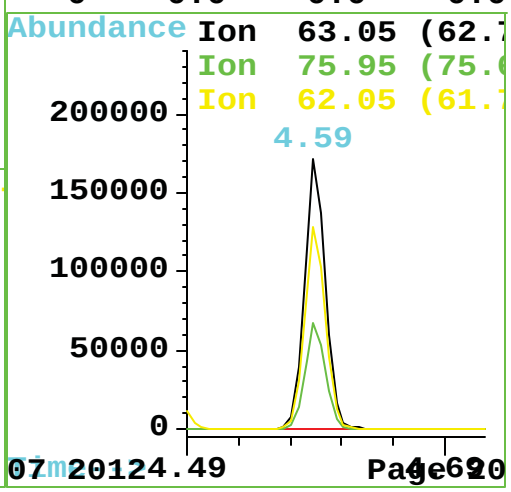


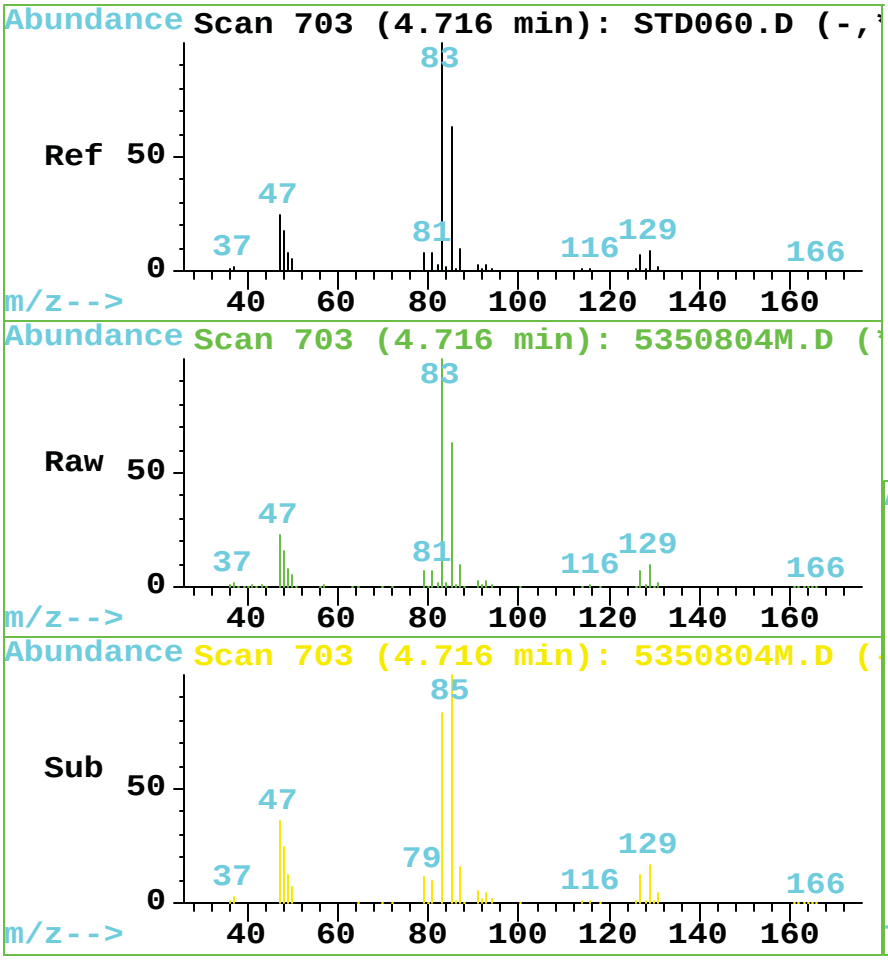


#39
1,2-Dichloropropane (CCC)
Concen: 50.62 ug/l
RT: 4.59 min Scan# 681
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:63.05 Resp: 19659

Ion	Ratio	Lower	Upper
63	100		
76	38.1	6.9	66.9
62	74.9	38.7	98.7
0	0.0	0.0	0.0

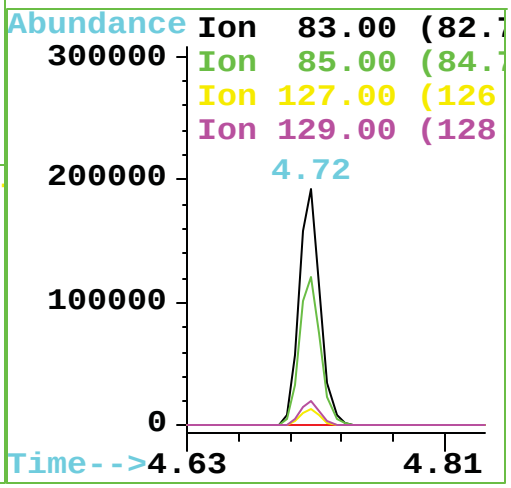


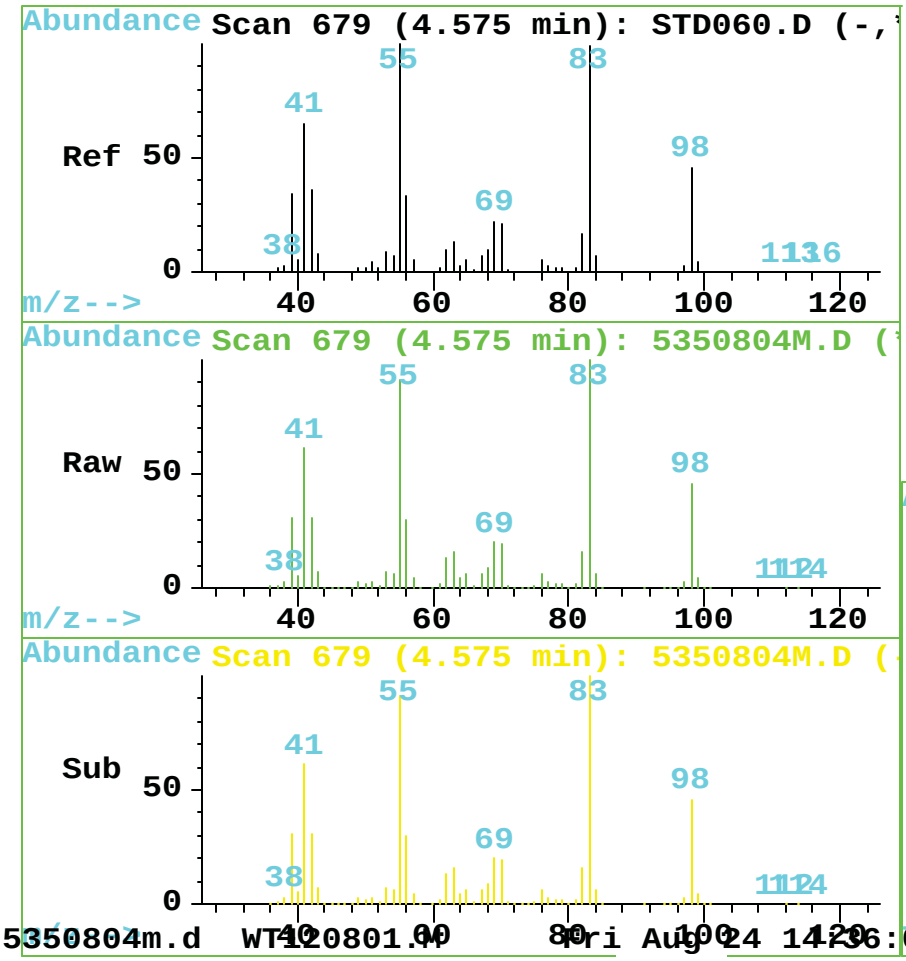


#40
Bromodichloromethane
Concen: 49.89 ug/l
RT: 4.72 min Scan# 703
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:83 Resp: 204792

Ion	Ratio	Lower	Upper
83	100		
85	64.1	32.4	92.4
127	7.3	0.0	39.6
129	10.0	0.0	42.6

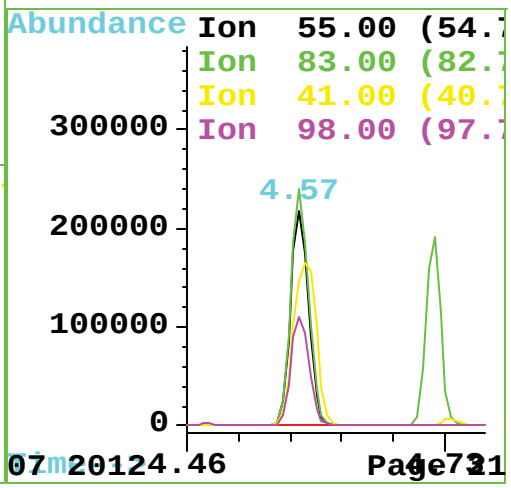


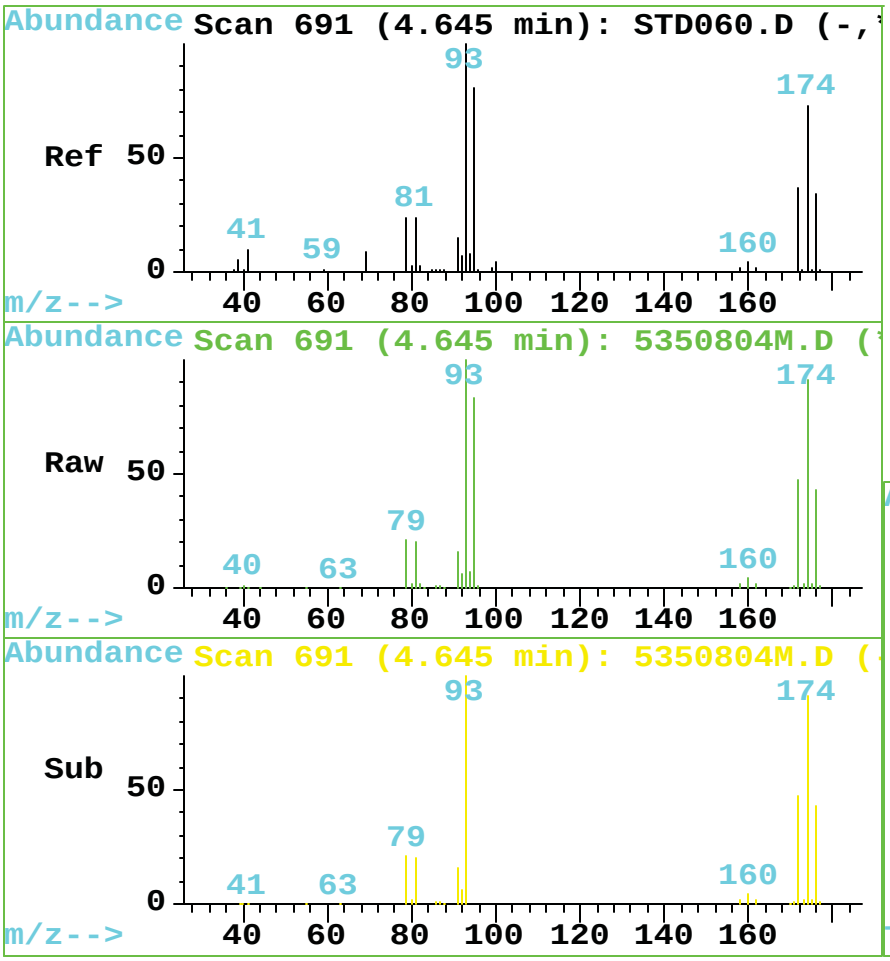


#41
Methyl Cyclohexane
Concen: 54.74 ug/l
RT: 4.57 min Scan# 679
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:55 Resp: 291842

Ion	Ratio	Lower	Upper
55	100		
83	107.8	134.8	194.8#
41	96.3	33.0	93.0#
98	51.5	56.4	116.4#

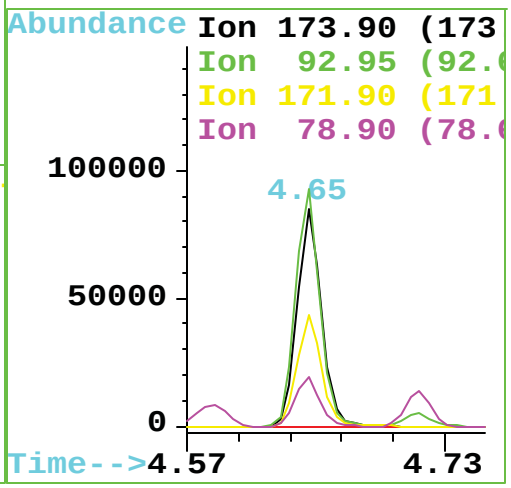


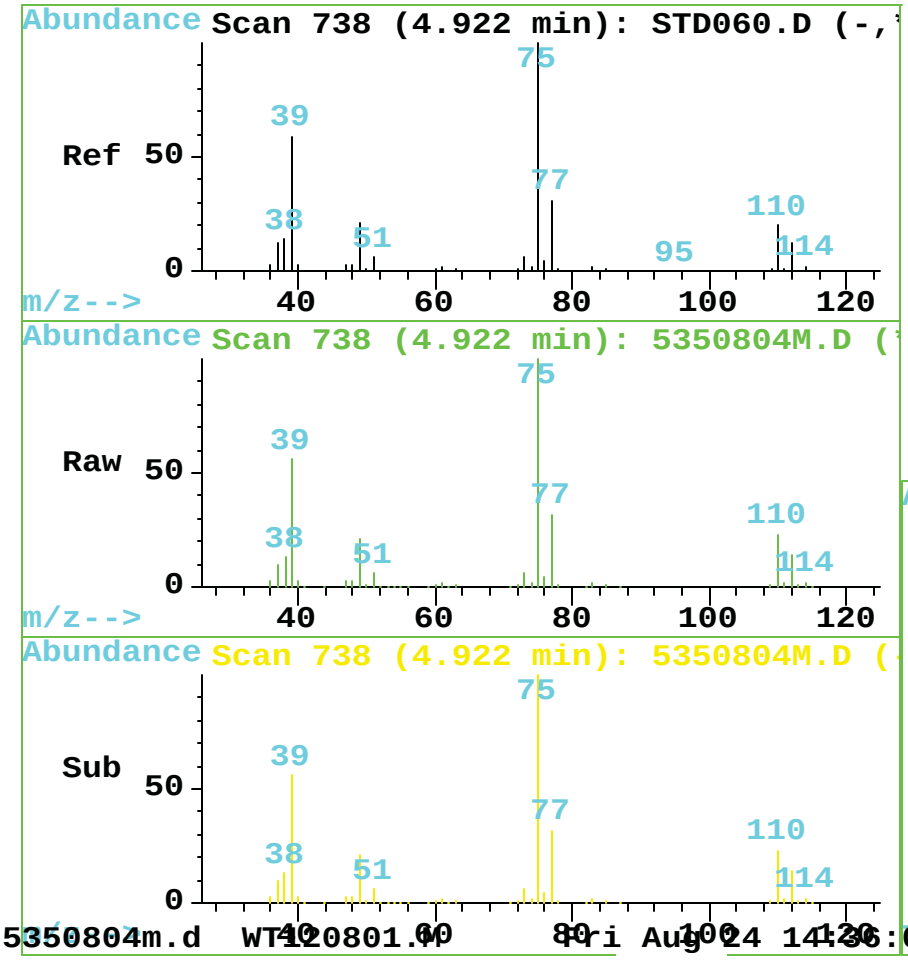


#42
Dibromomethane
Concen: 54.93 ug/l
RT: 4.65 min Scan# 691
Delta R.T. 0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:173.9 Resp: 8966

Ion	Ratio	Lower	Upper
174	100		
93	110.0	35.2	95.2#
172	51.9	21.8	81.8
79	22.7	0.0	39.8

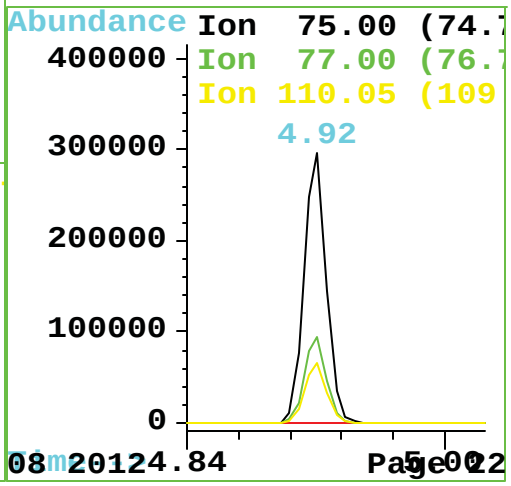


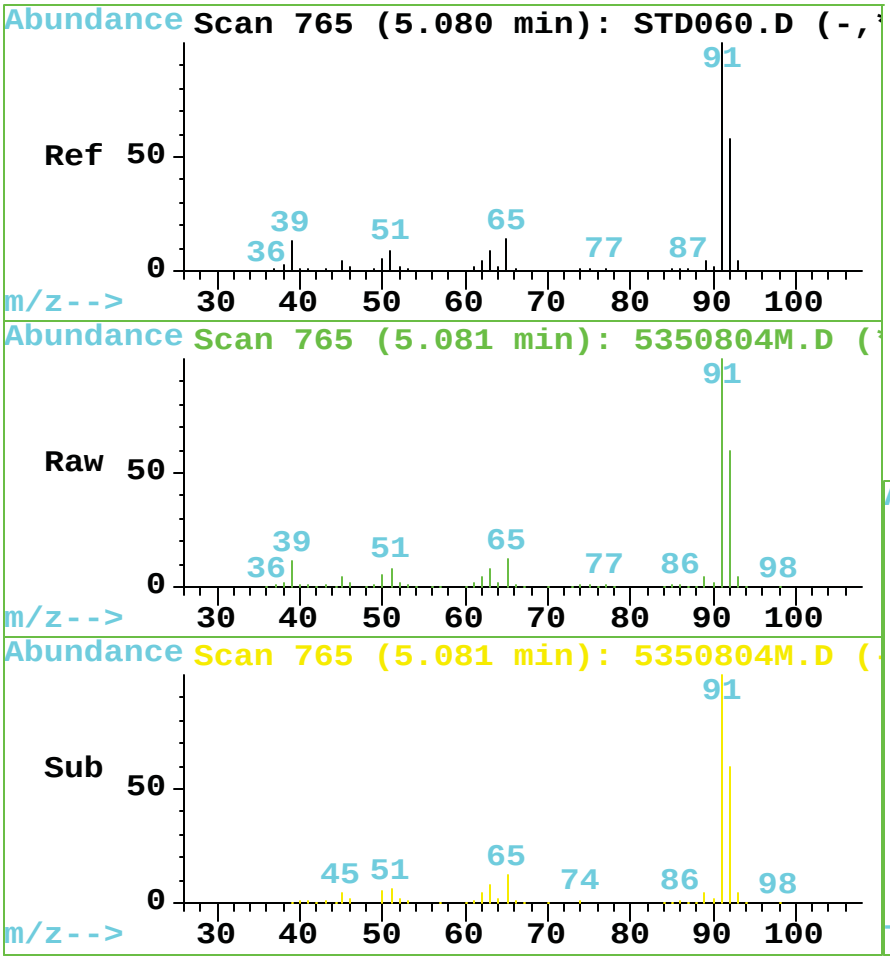


#43
cis-1,3-Dichloropropene
Concen: 47.37 ug/l
RT: 4.92 min Scan# 738
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:75 Resp: 289691

Ion	Ratio	Lower	Upper
75	100		
77	31.8	1.3	61.3
110	22.1	0.0	58.3
0	0.0	0.0	0.0

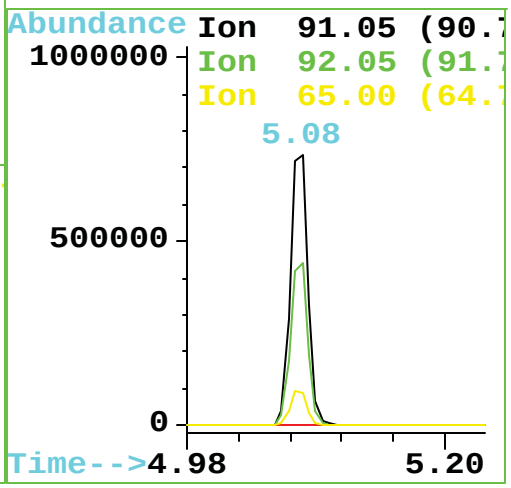


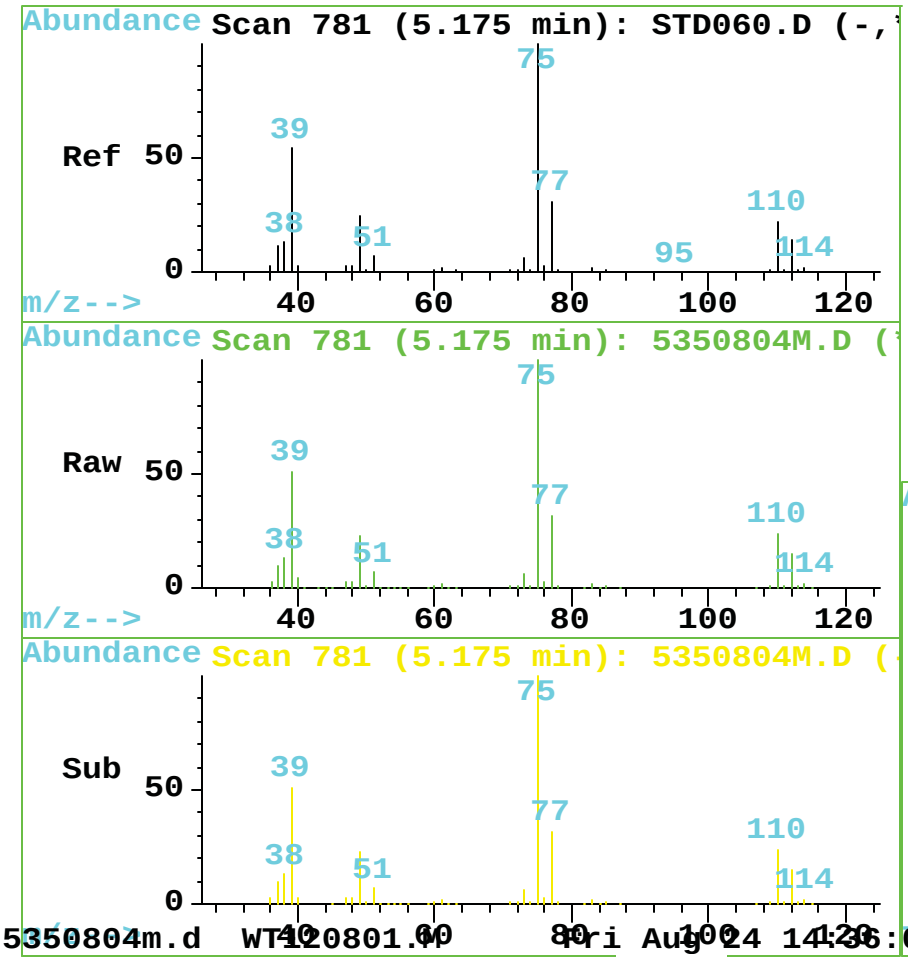


#44
Toluene (CCC/MS)
Concen: 50.82 ug/l
RT: 5.08 min Scan# 765
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:91.05 Resp: 77666

Ion	Ratio	Lower	Upper
91	100		
92	59.2	30.7	90.7
65	11.9	0.0	39.2
0	0.0	0.0	0.0

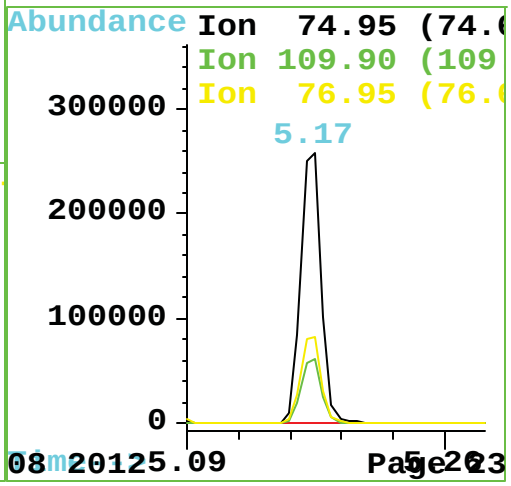


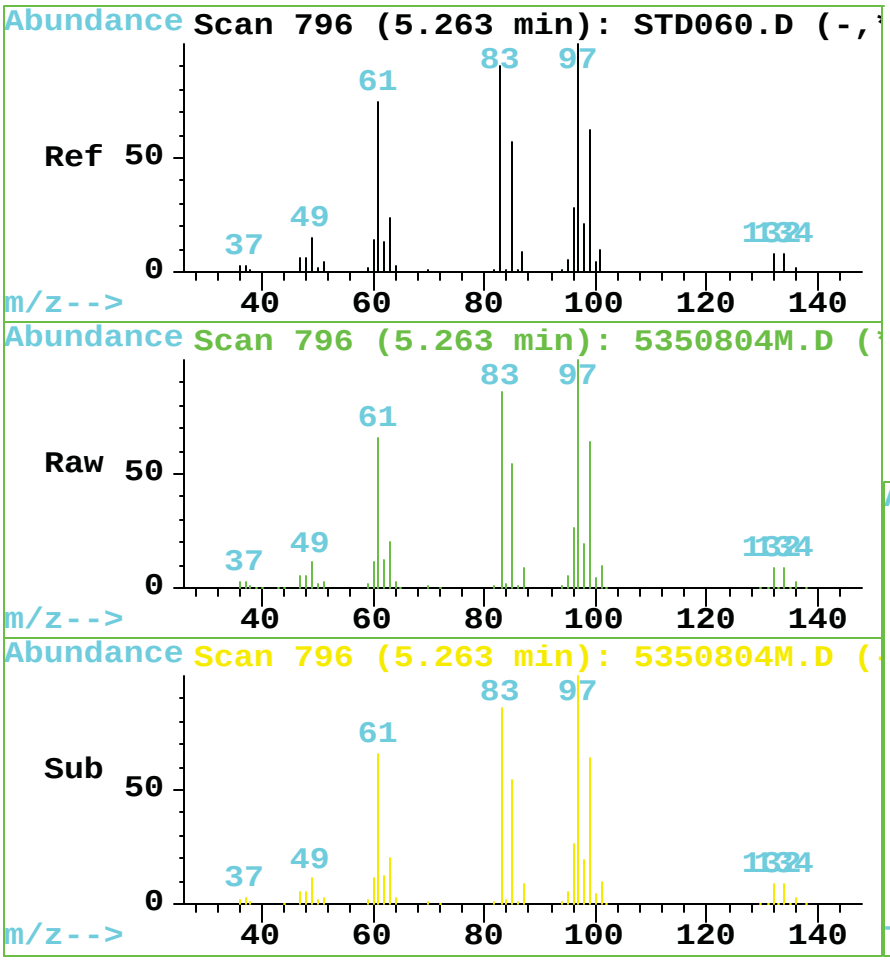


#45
trans-1,3-Dichloropropene
Concen: 48.36 ug/l
RT: 5.17 min Scan# 781
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:74.95 Resp: 25756

Ion	Ratio	Lower	Upper
75	100		
110	23.6	0.5	60.5
77	31.5	1.5	61.5
0	0.0	0.0	0.0

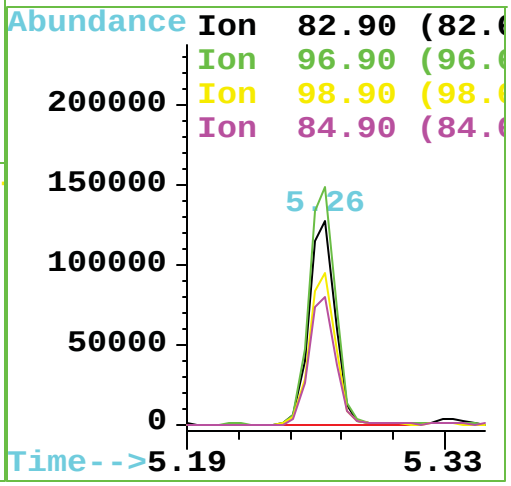


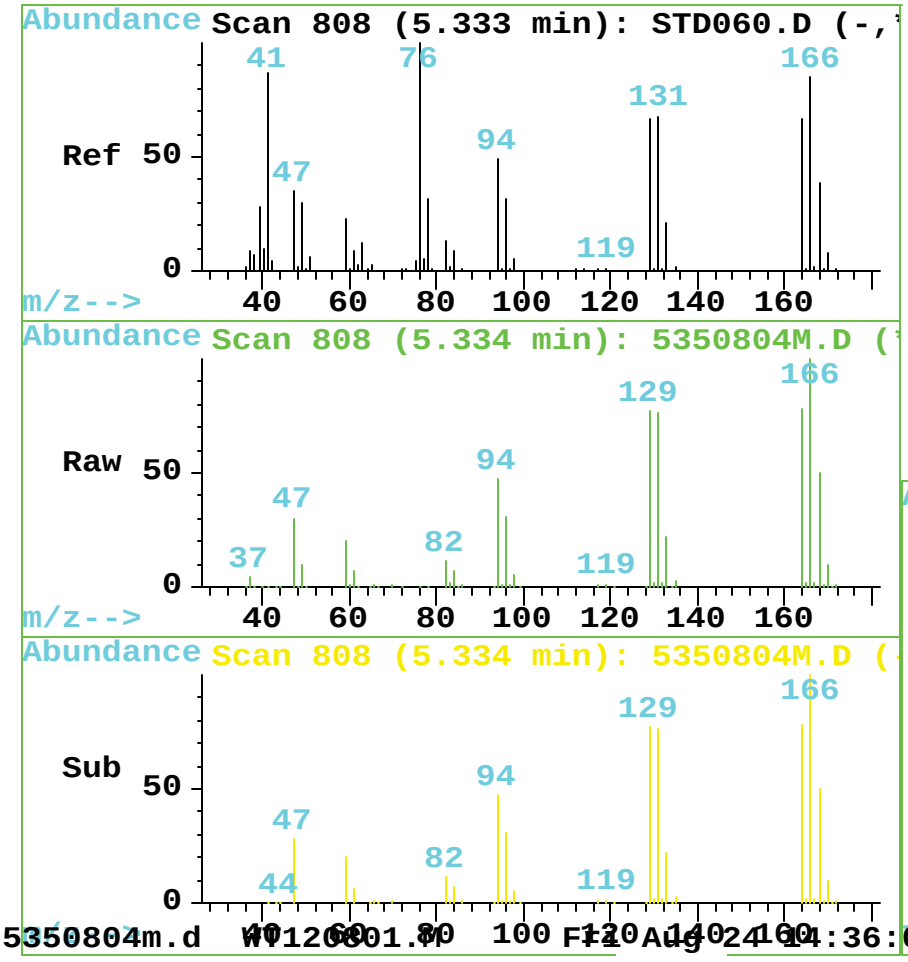


#46
1,1,2-Trichloroethane
Concen: 51.23 ug/l
RT: 5.26 min Scan# 796
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:82.9 Resp: 128082

Ion	Ratio	Lower	Upper
83	100		
97	117.8	100.1	160.1
99	74.1	52.1	112.1
85	63.6	36.5	96.5

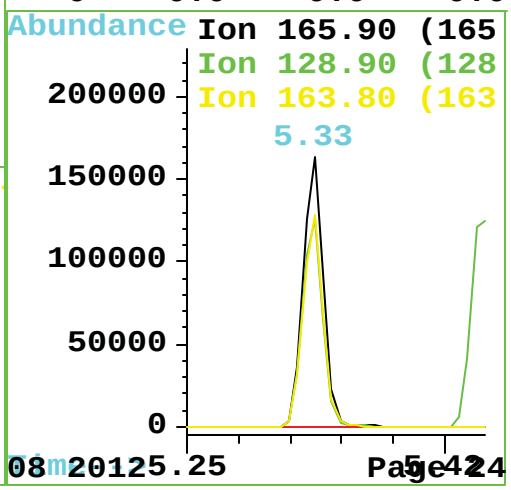


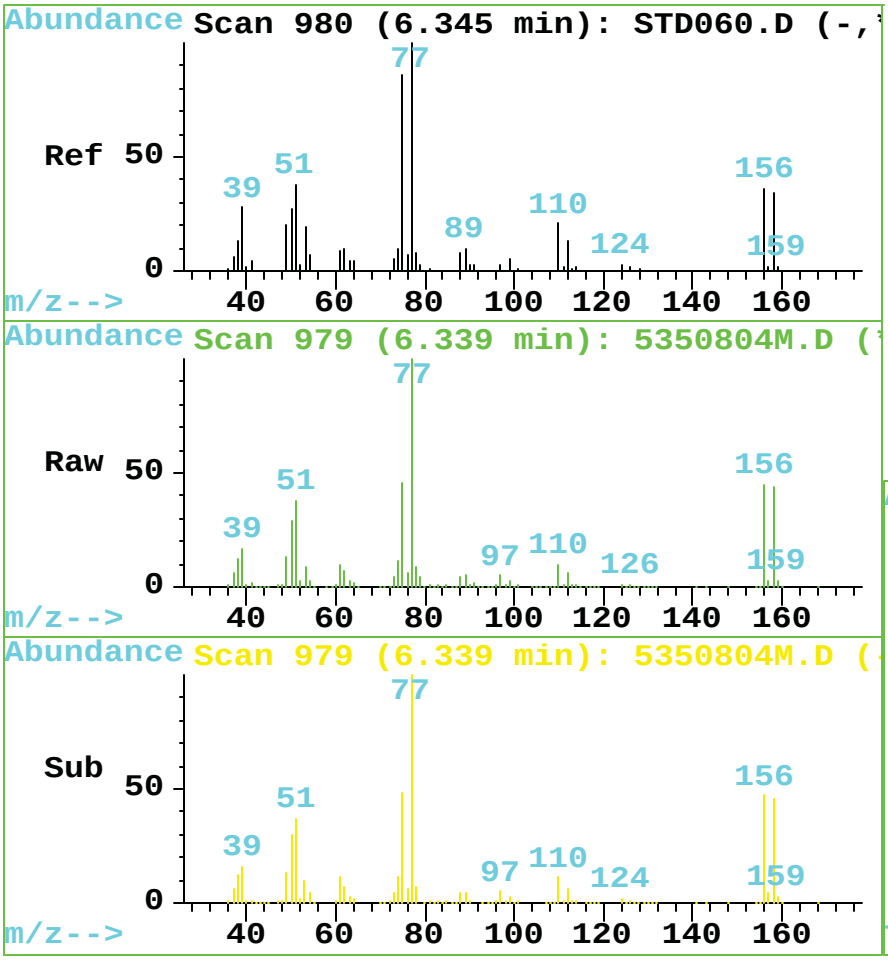


#47
Tetrachloroethene
Concen: 56.17 ug/l
RT: 5.33 min Scan# 808
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:165.9 Resp: 16061

Ion	Ratio	Lower	Upper
166	100		
129	78.2	30.6	90.6
164	77.5	47.0	107.0
0	0.0	0.0	0.0

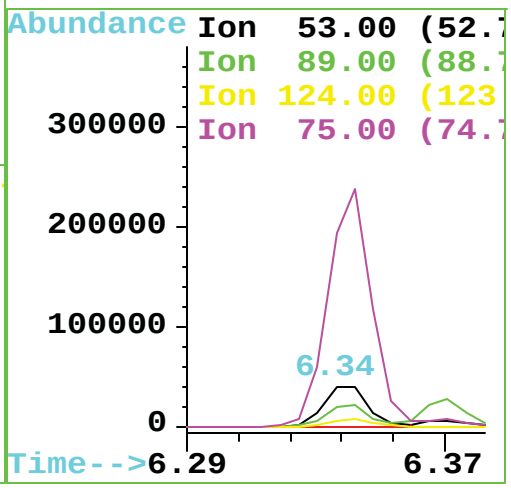


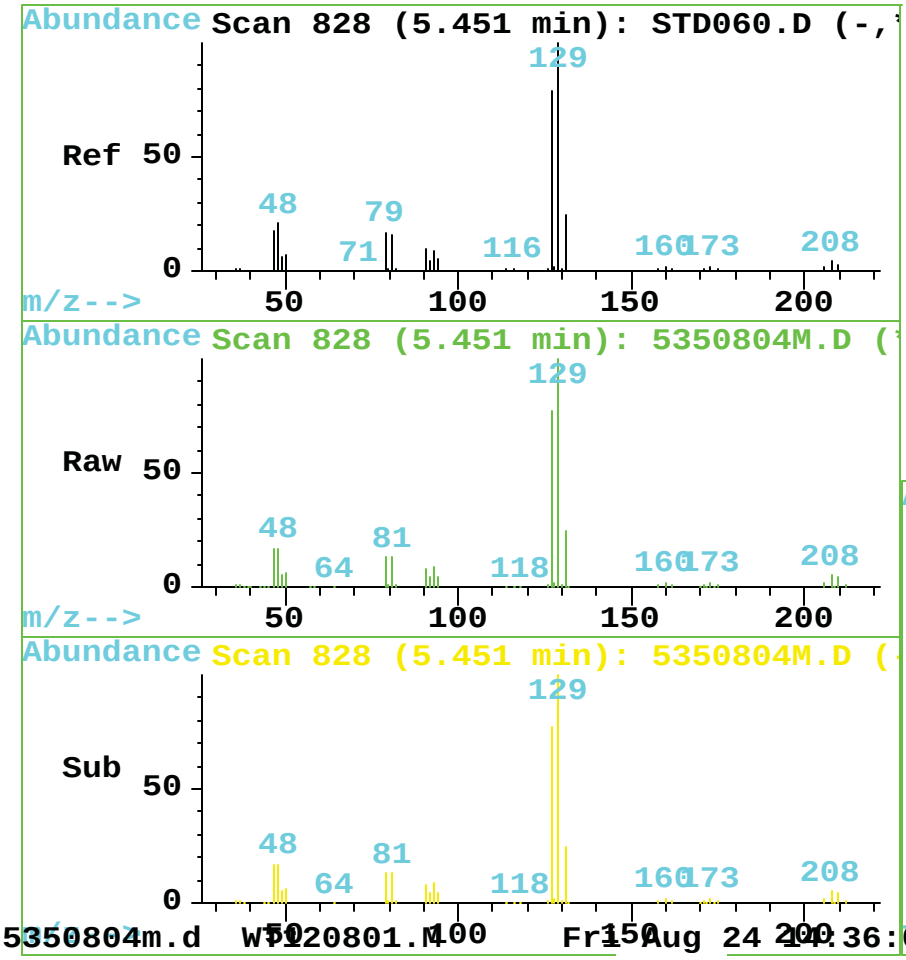


#50
trans-1,4-Dichloro-2-buten
Concen: 47.69 ug/l
RT: 6.34 min Scan# 979
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:53 Resp: 38951

Ion	Ratio	Lower	Upper
53	100		
89	50.6	36.6	96.6
124	16.9	0.0	58.8
75	599.0	596.3	656.3

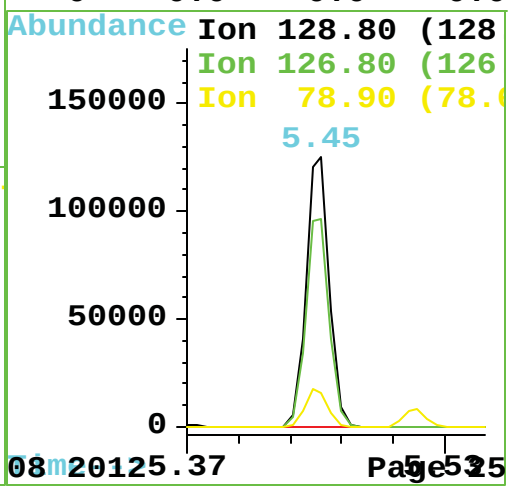


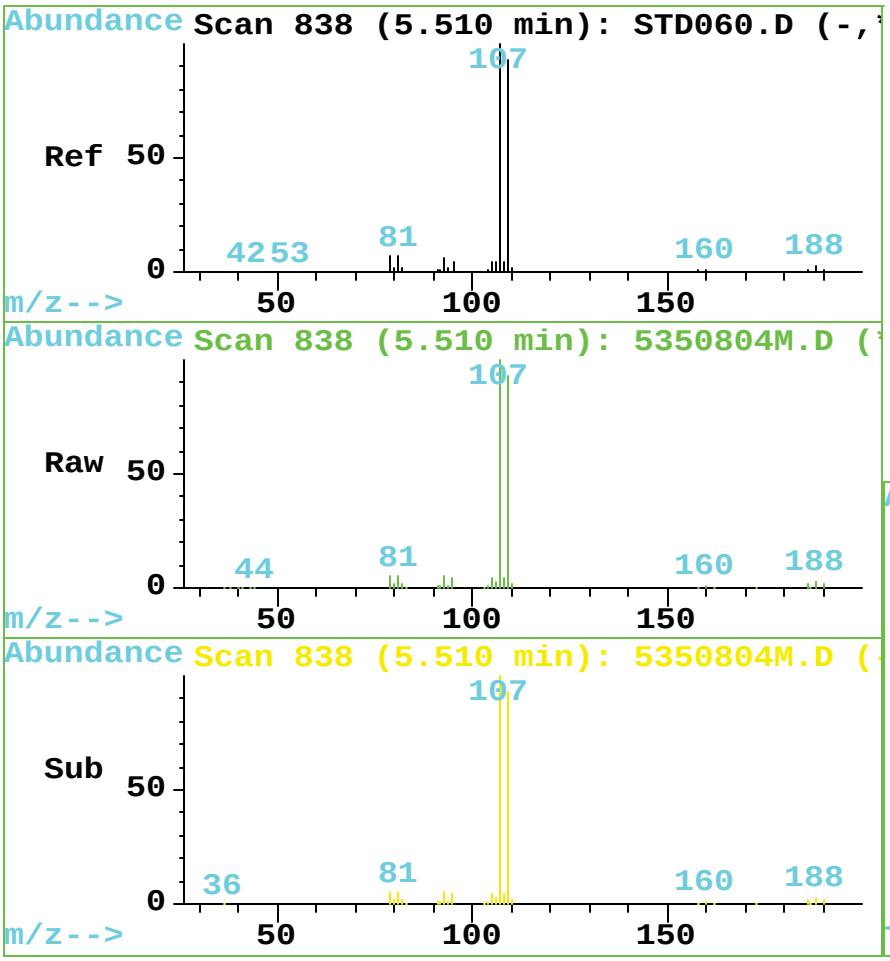


#51
Dibromochloromethane
Concen: 50.28 ug/l
RT: 5.45 min Scan# 828
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:128.8 Resp: 12663

Ion	Ratio	Lower	Upper
129	100		
127	78.6	47.7	107.7
79	13.6	0.0	38.0
0	0.0	0.0	0.0

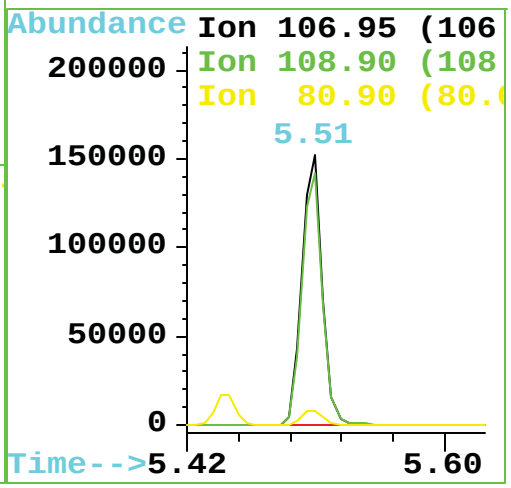


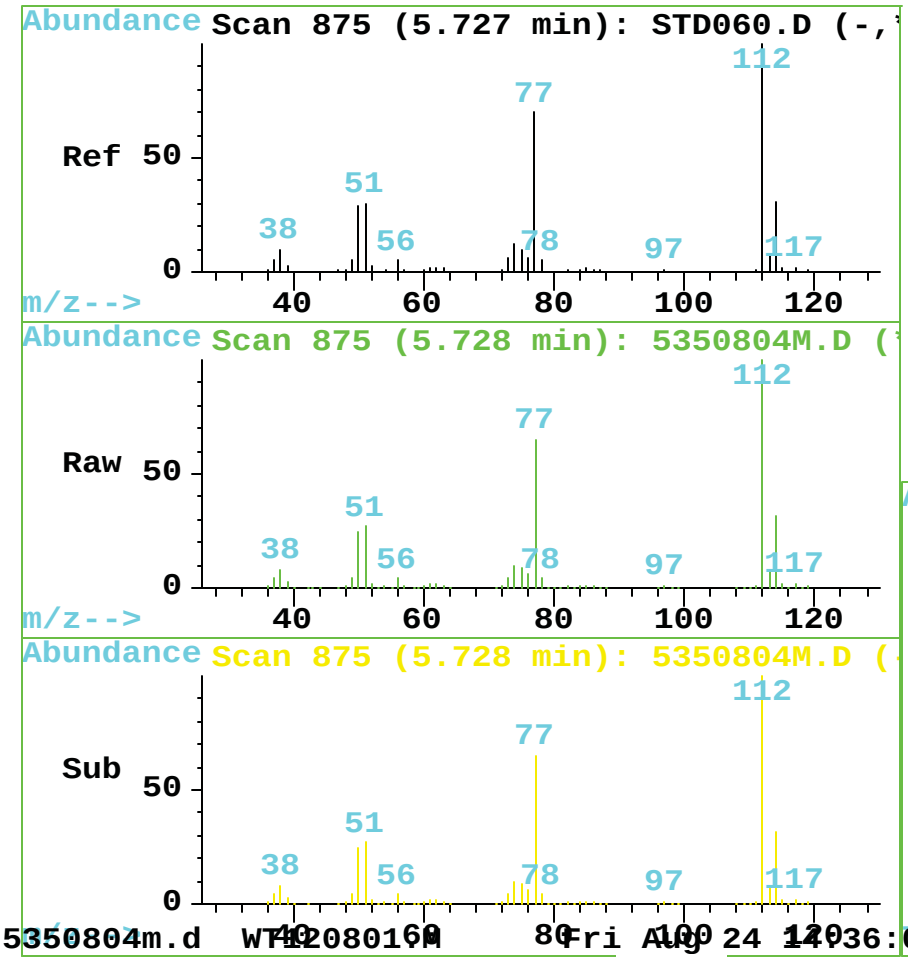


#52
1,2-Dibromoethane
Concen: 53.71 ug/l
RT: 5.51 min Scan# 838
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:106.95 Resp: 1491

Ion	Ratio	Lower	Upper
107	100		
109	94.2	64.0	124.0
81	5.8	0.0	33.3
0	0.0	0.0	0.0

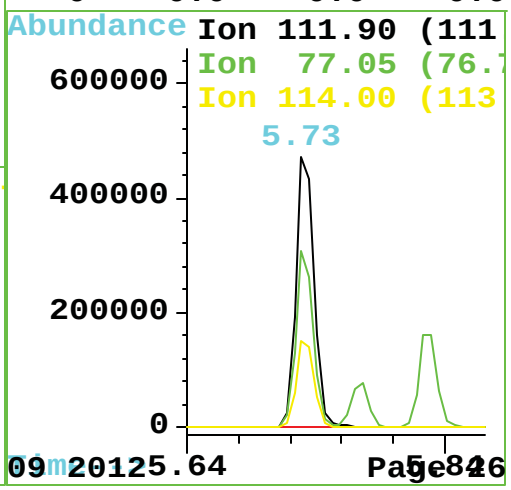


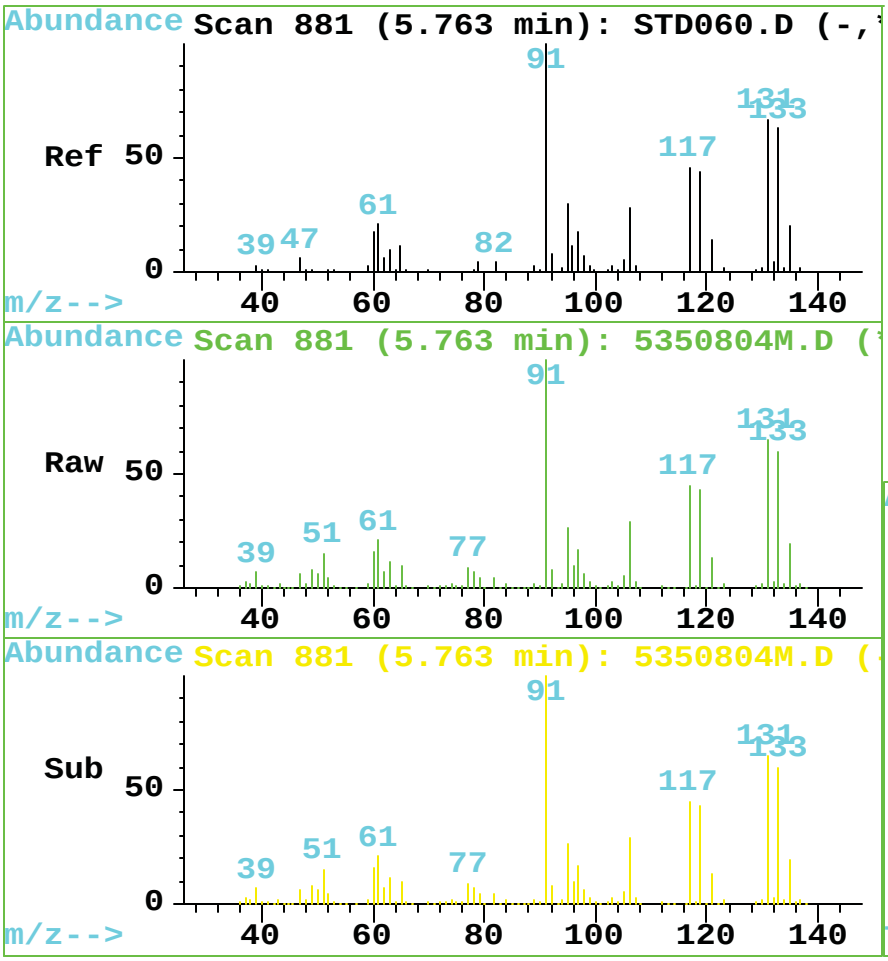


#53
Chlorobenzene (SPCC/MS)
Concen: 52.45 ug/l
RT: 5.73 min Scan# 875
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:111.9 Resp: 46611

Ion	Ratio	Lower	Upper
112	100		
77	62.7	18.9	78.9
114	32.1	2.0	62.0
0	0.0	0.0	0.0

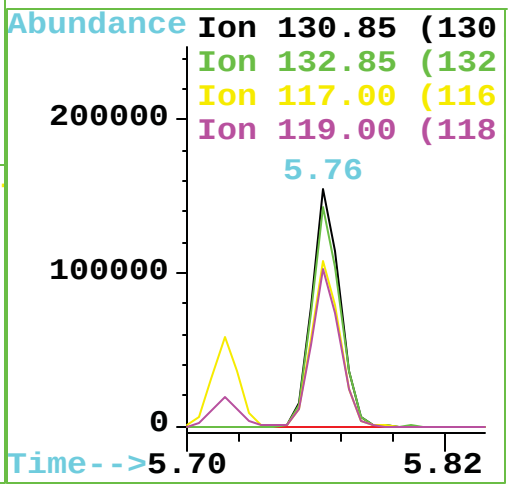


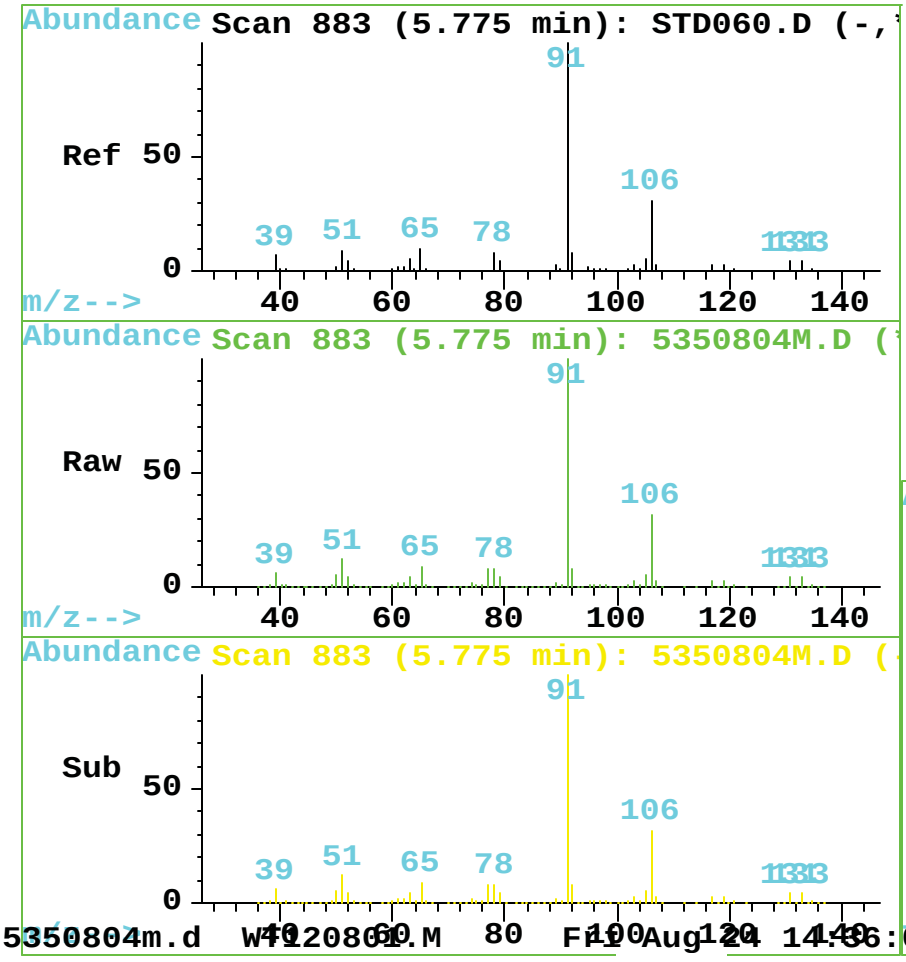


#54
1,1,1,2-Tetrachloroethane
Concen: 54.10 ug/l
RT: 5.76 min Scan# 881
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:130.85 Resp: 1432

Ion	Ratio	Lower	Upper
131	100		
133	93.3	66.8	126.8
117	70.4	38.0	98.0
119	66.3	34.9	94.9

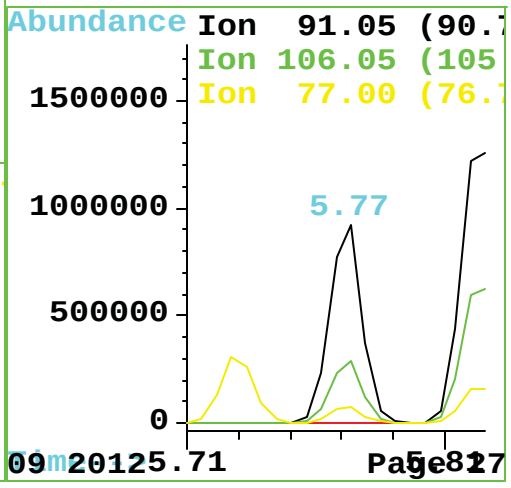


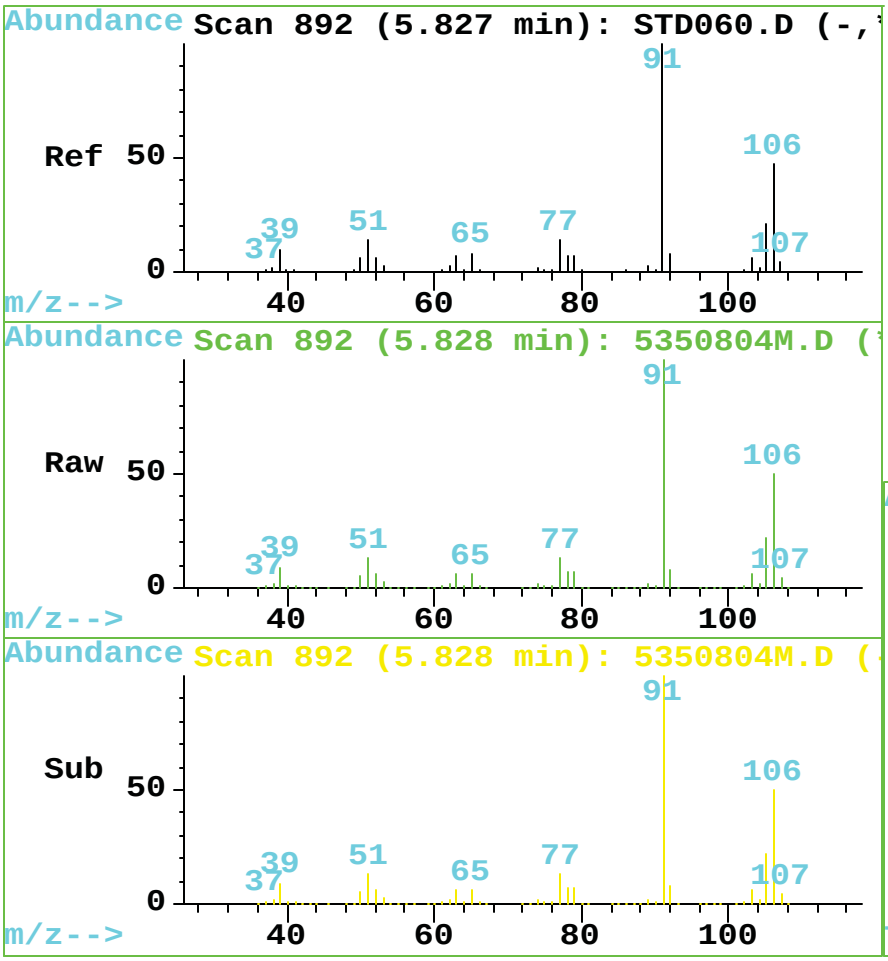


#55
Ethylbenzene (CCC)
Concen: 51.27 ug/l
RT: 5.77 min Scan# 883
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:91.05 Resp: 84416

Ion	Ratio	Lower	Upper
91	100		
106	31.3	4.9	64.9
77	8.5	0.0	37.2
0	0.0	0.0	0.0

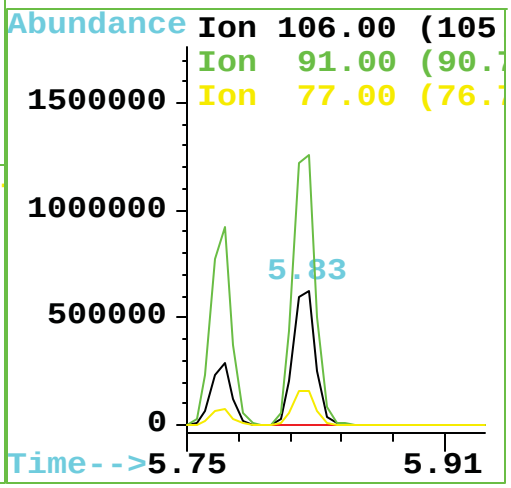


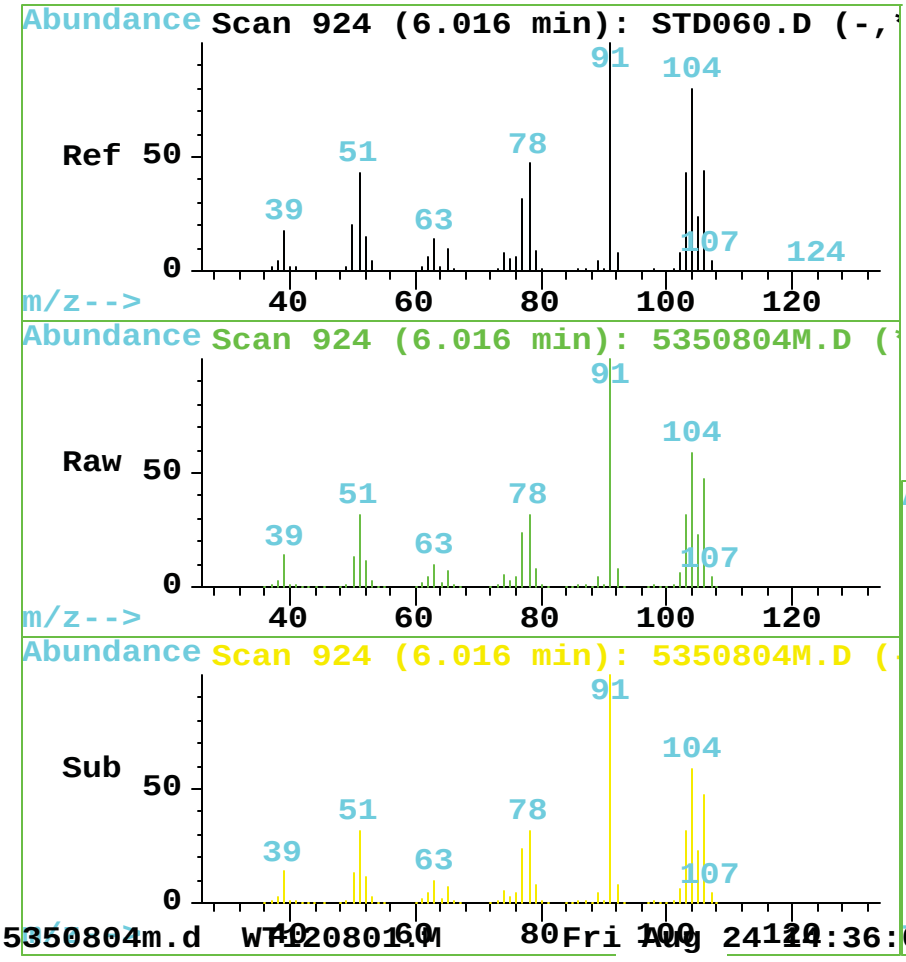


#56
p,m-Xylene
Concen: 102.40 ug/l
RT: 5.83 min Scan# 892
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:106 Resp: 623899

Ion	Ratio	Lower	Upper
106	100		
91	203.2	146.0	206.0
77	26.3	0.0	50.4
0	0.0	0.0	0.0

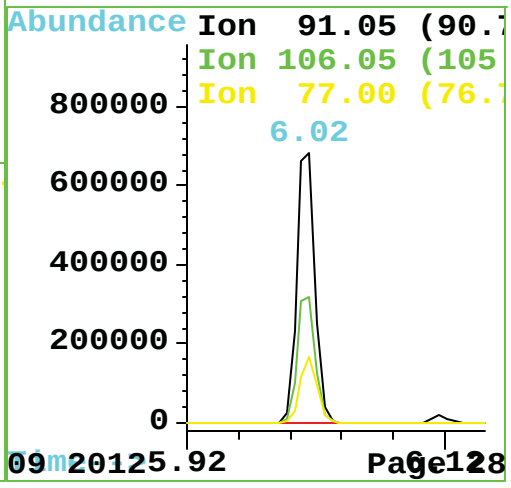


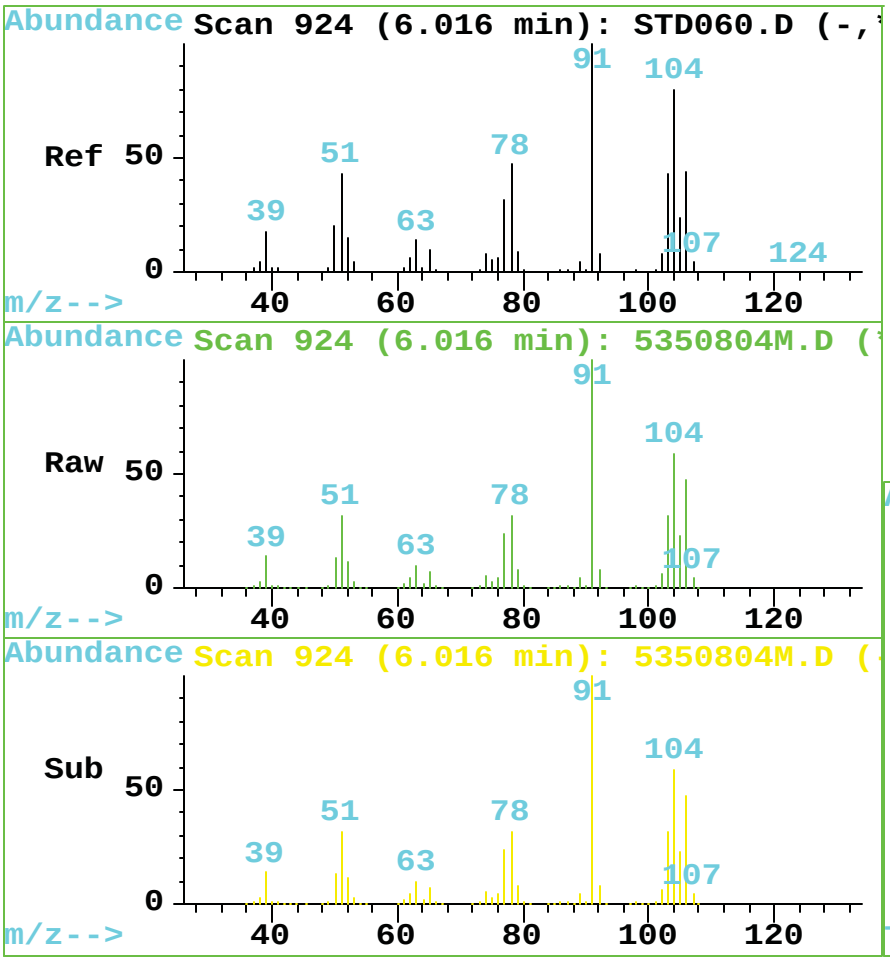


#57
o-Xylene
Concen: 51.00 ug/l
RT: 6.02 min Scan# 924
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:91.05 Resp: 67273

Ion	Ratio	Lower	Upper
91	100		
106	46.6	24.0	84.0
77	23.3	0.0	55.3
0	0.0	0.0	0.0

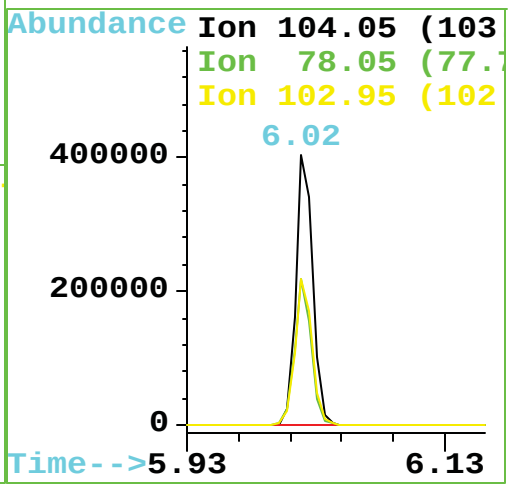


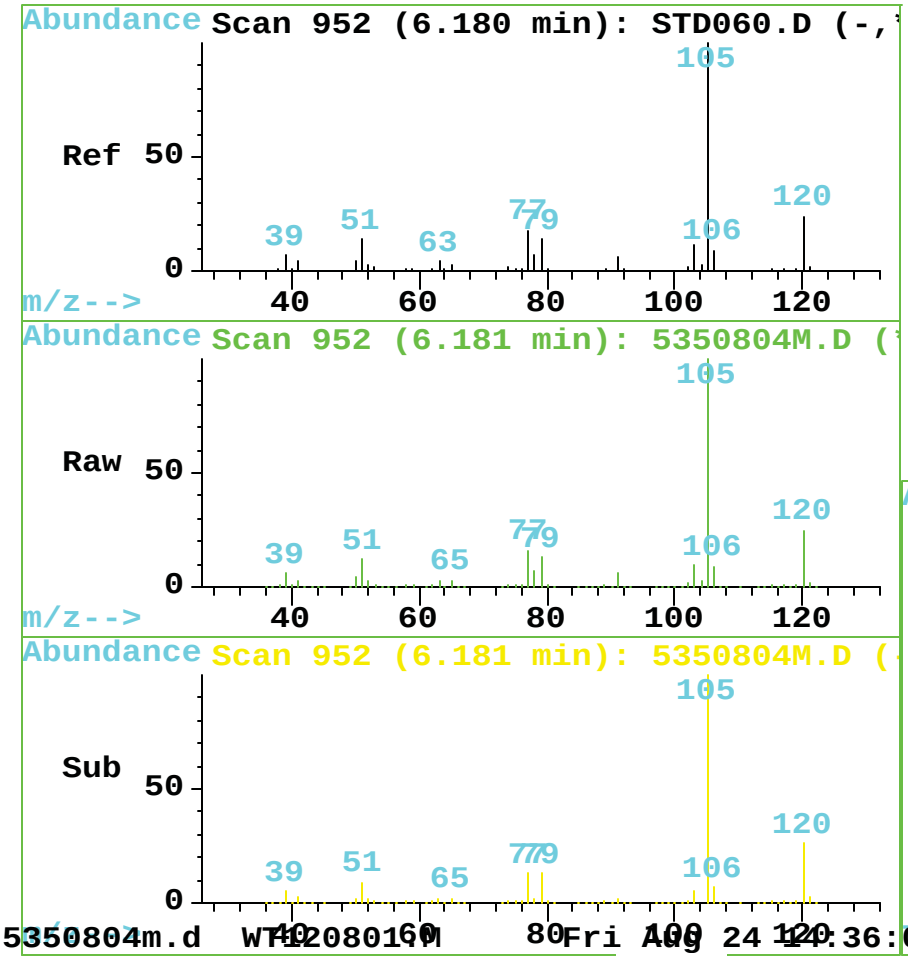


#58
Styrene
Concen: 36.68 ug/l
RT: 6.02 min Scan# 924
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:104.05 Resp: 3736

Ion	Ratio	Lower	Upper
104	100		
78	53.2	8.8	68.8
103	54.9	22.5	82.5
0	0.0	0.0	0.0

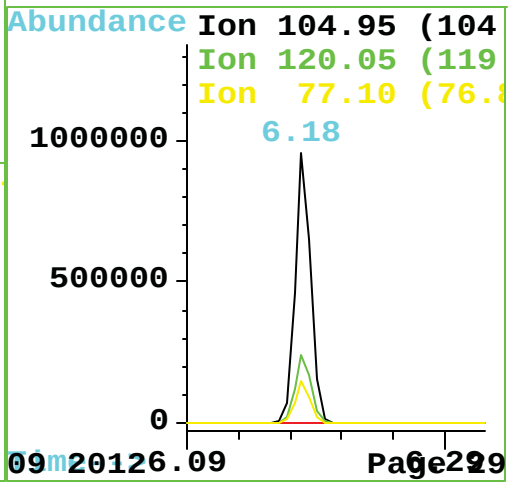


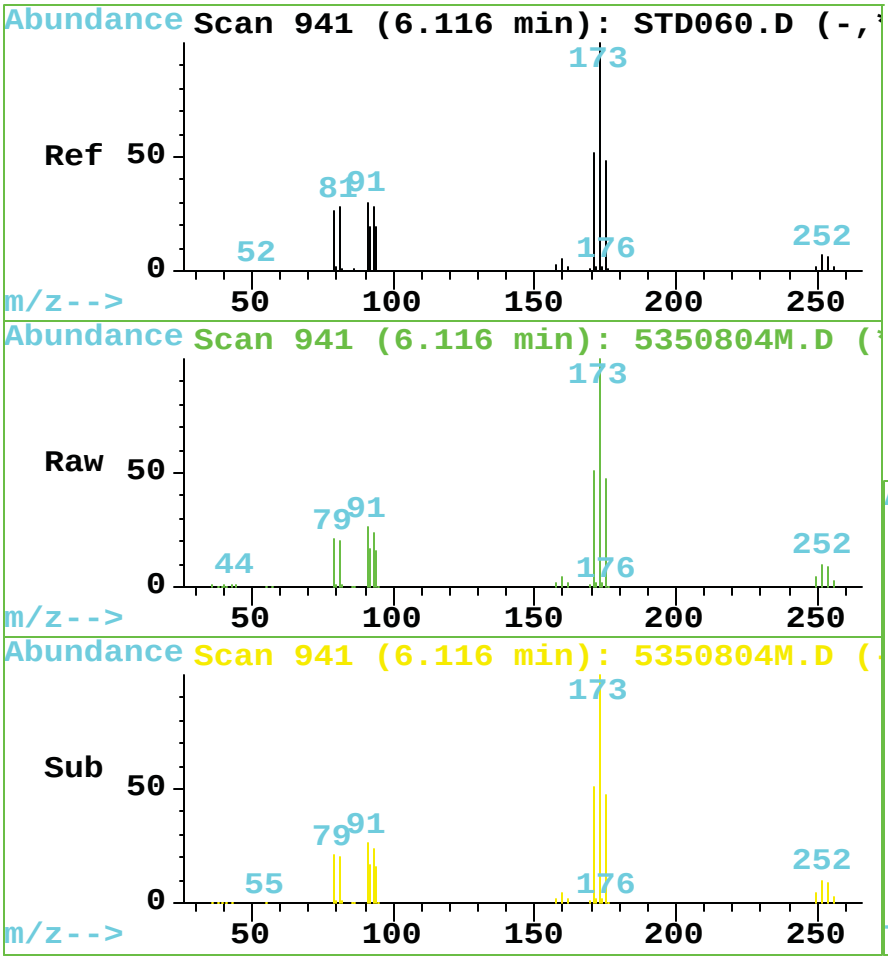


#59
Isopropylbenzene
Concen: 52.71 ug/l
RT: 6.18 min Scan# 952
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:104.95 Resp: 8187

Ion	Ratio	Lower	Upper
105	100		
120	25.8	0.0	59.2
77	15.1	0.0	41.7
0	0.0	0.0	0.0

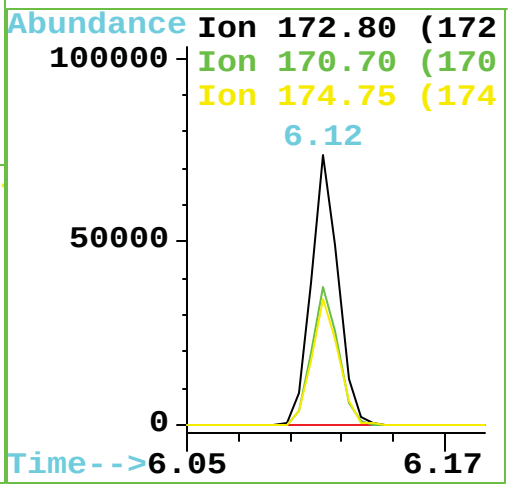


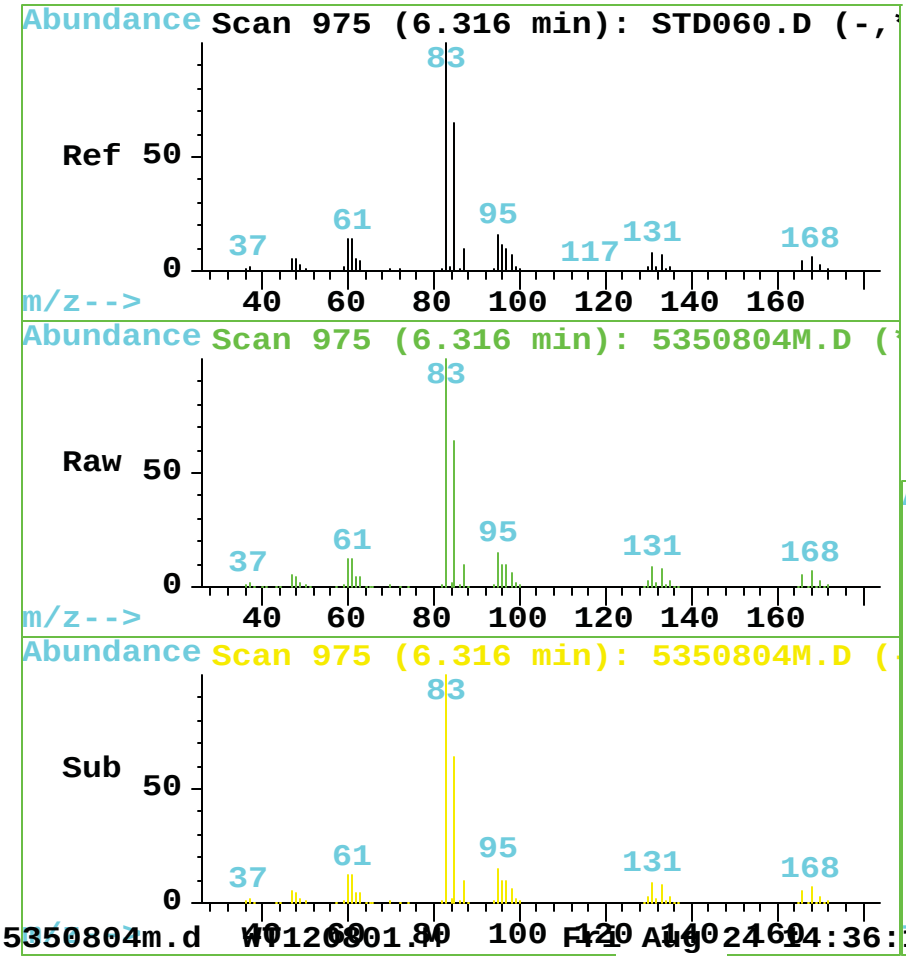


#60
Bromoform (SPCC)
Concen: 45.04 ug/l
RT: 6.12 min Scan# 941
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:172.8 Resp: 6570

Ion	Ratio	Lower	Upper
173	100		
171	50.8	19.8	79.8
175	46.9	17.5	77.5
0	0.0	0.0	0.0

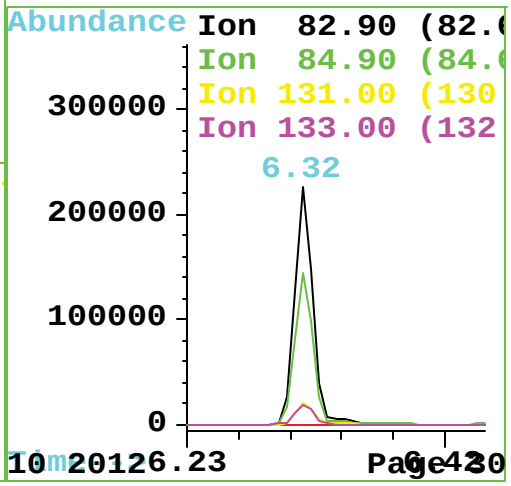


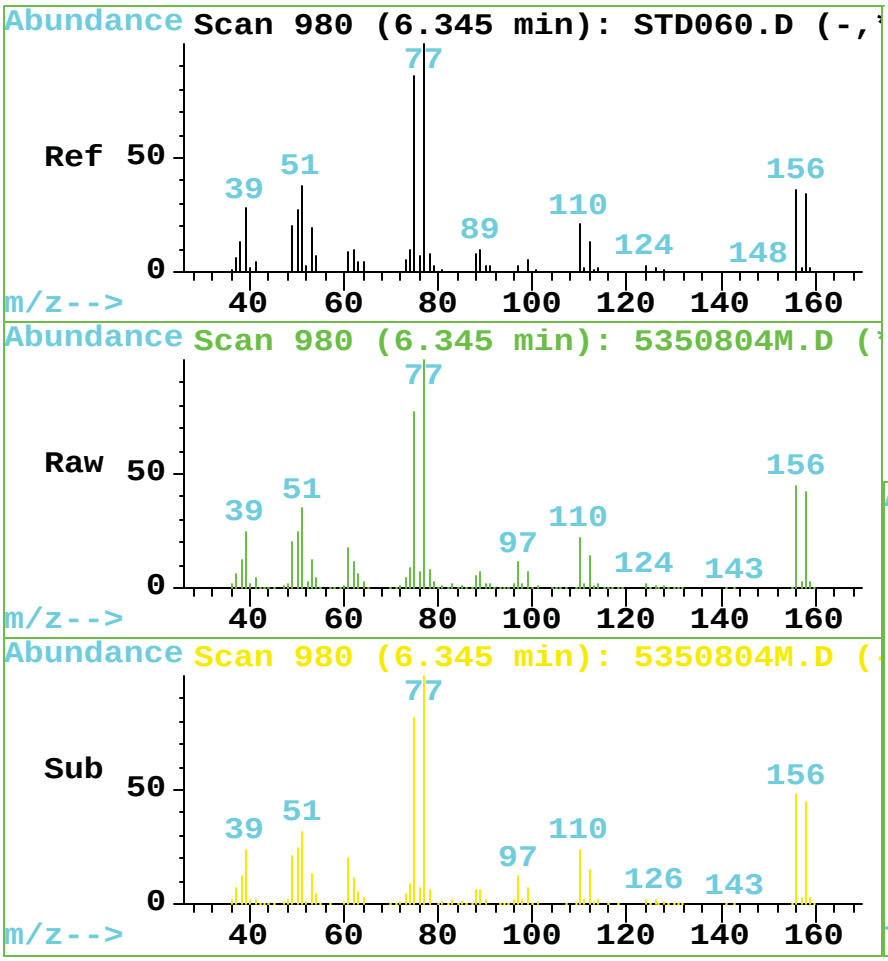


#61
1,1,2,2-Tetrachloroethane
Concen: 53.04 ug/l
RT: 6.32 min Scan# 975
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:82.9 Resp: 208022

Ion	Ratio	Lower	Upper
83	100		
85	64.1	34.5	94.5
131	9.1	0.0	42.5
133	8.1	0.0	43.0

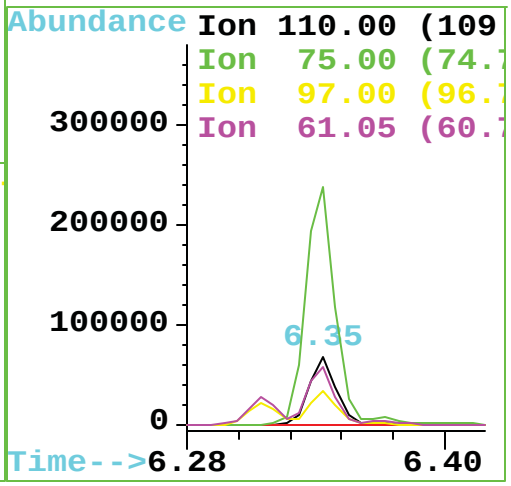


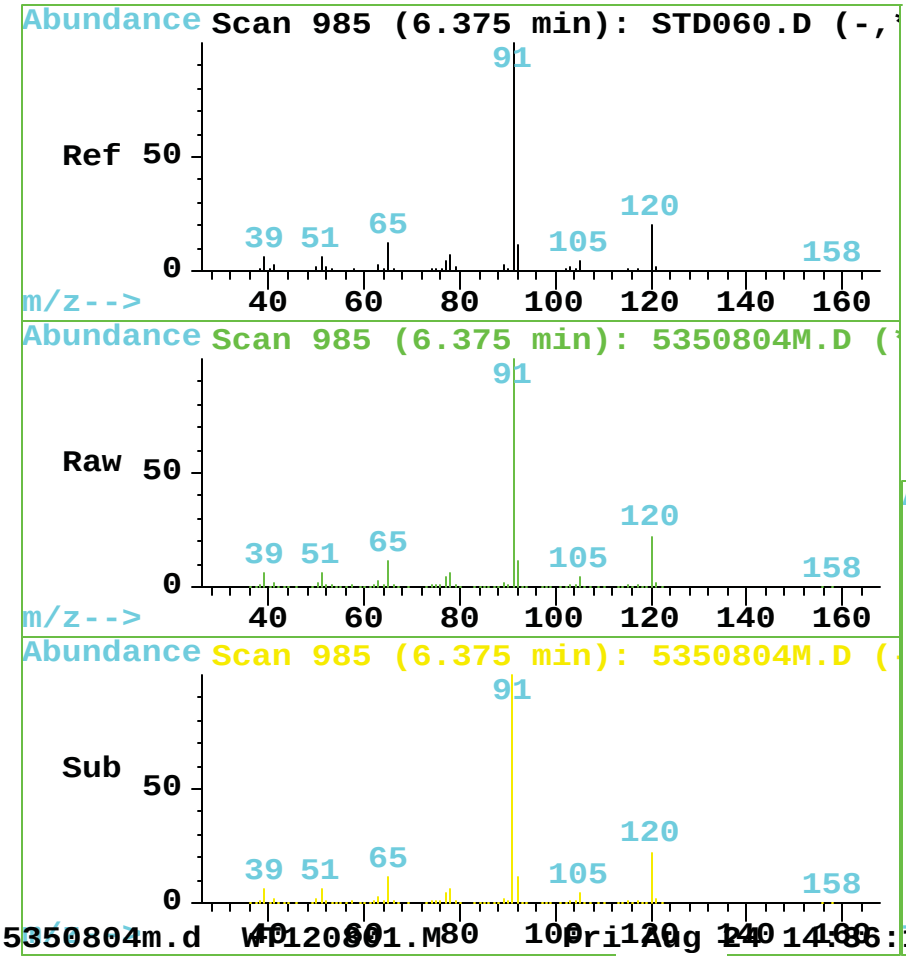


#62
1,2,3-Trichloropropane
Concen: 53.47 ug/l
RT: 6.35 min Scan# 980
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:110 Resp: 59721

Ion	Ratio	Lower	Upper
110	100		
75	390.7	310.4	370.4#
97	50.7	15.3	75.3
61	90.9	21.2	81.2#

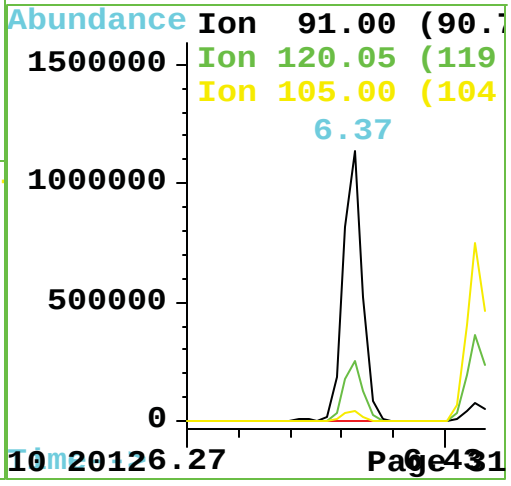


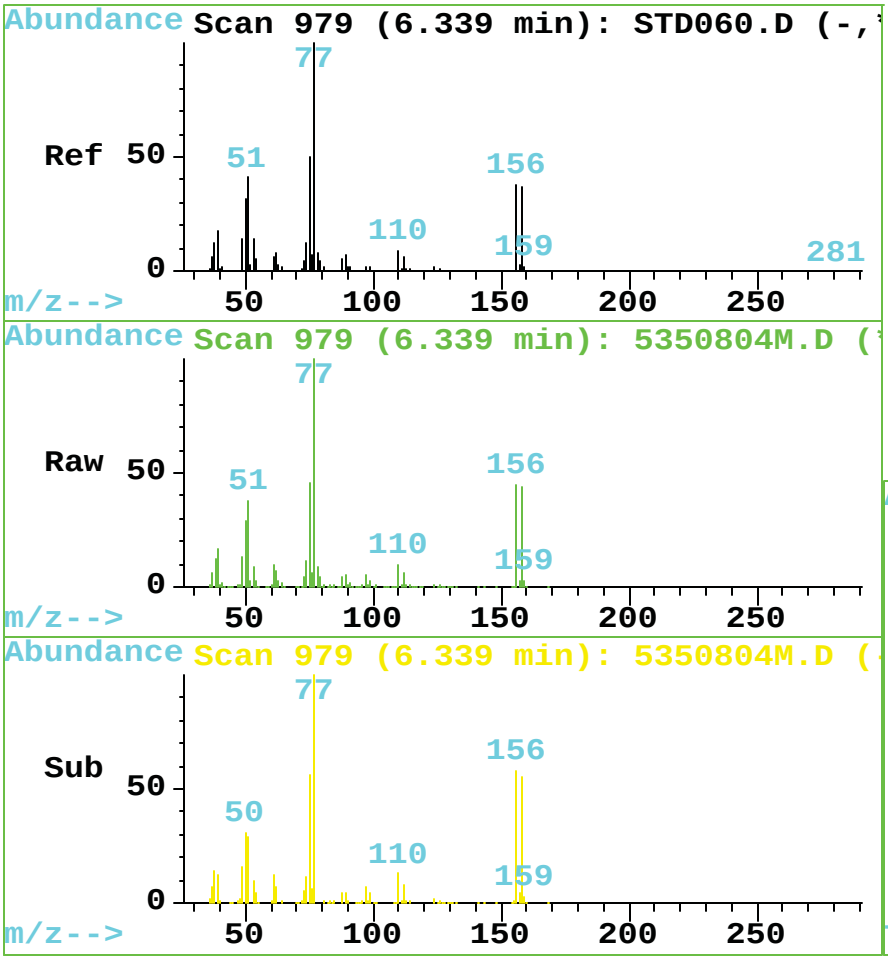


#63
n-Propylbenzene
Concen: 53.53 ug/l
RT: 6.37 min Scan# 985
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:91 Resp: 985506

Ion	Ratio	Lower	Upper
91	100		
120	22.0	0.0	57.4
105	3.7	0.0	33.9
0	0.0	0.0	0.0

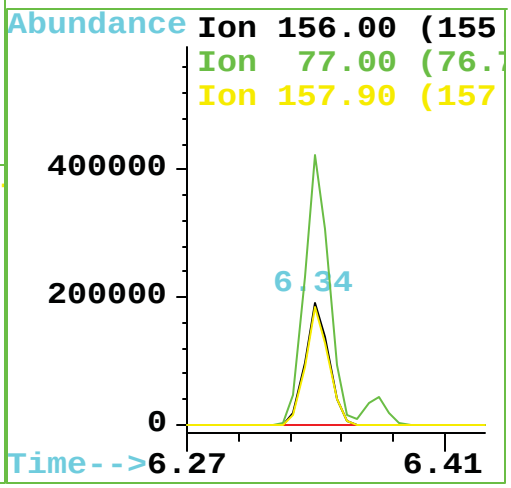


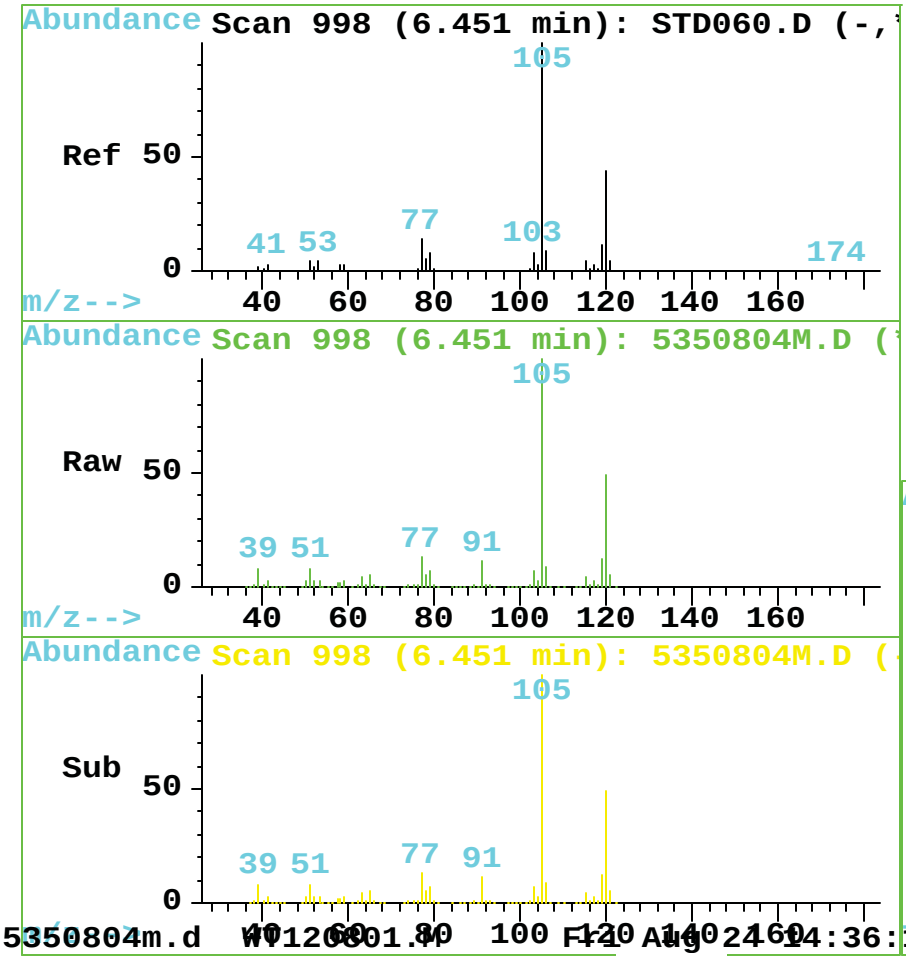


#64
Bromobenzene
Concen: 56.50 ug/l
RT: 6.34 min Scan# 979
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:156 Resp: 173635

Ion	Ratio	Lower	Upper
156	100		
77	230.9	99.6	159.6#
158	95.7	67.1	127.1
0	0.0	0.0	0.0

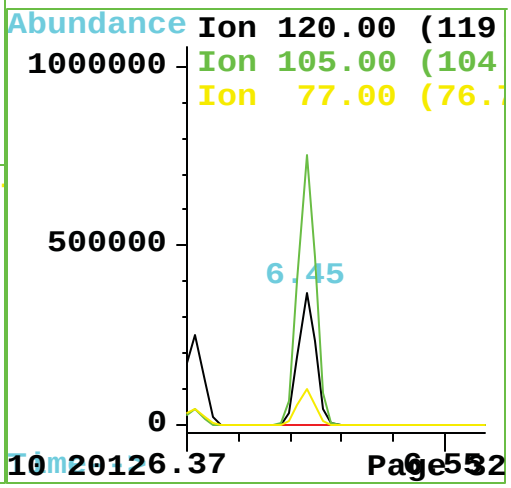


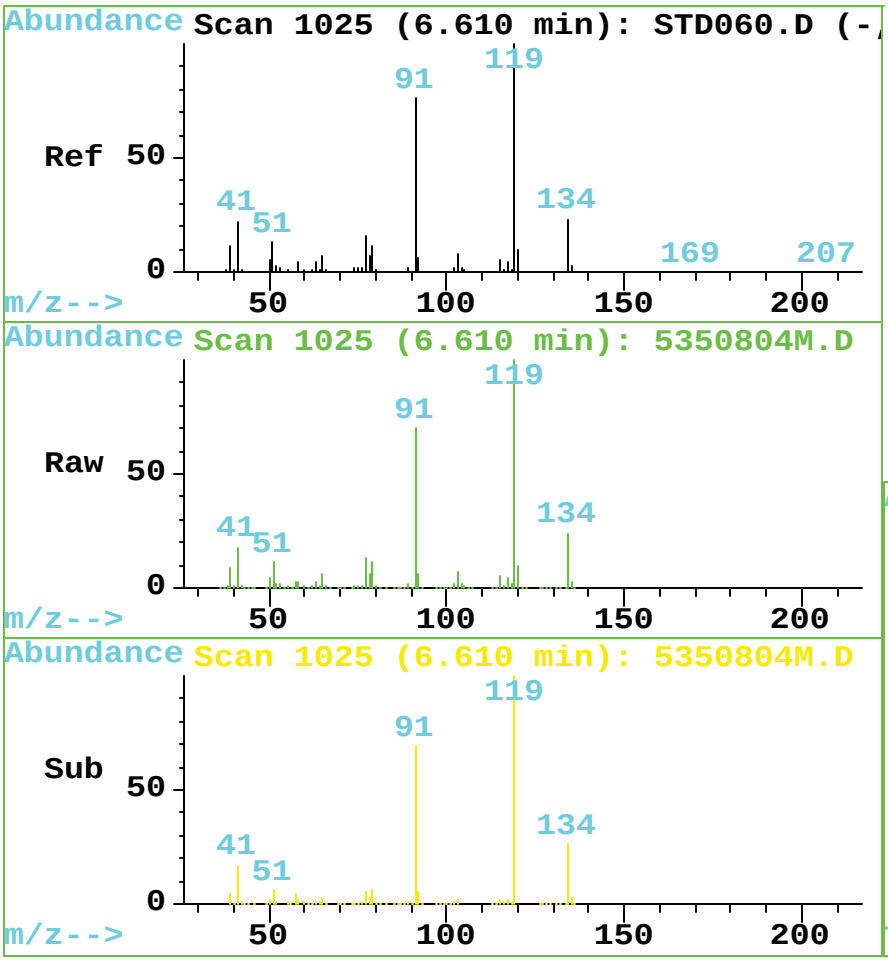


#65
1,3,5-Trimethylbenzene
Concen: 51.54 ug/l
RT: 6.45 min Scan# 998
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:120 Resp: 310680

Ion	Ratio	Lower	Upper
120	100		
105	204.3	148.1	208.1
77	26.1	0.0	48.3
0	0.0	0.0	0.0

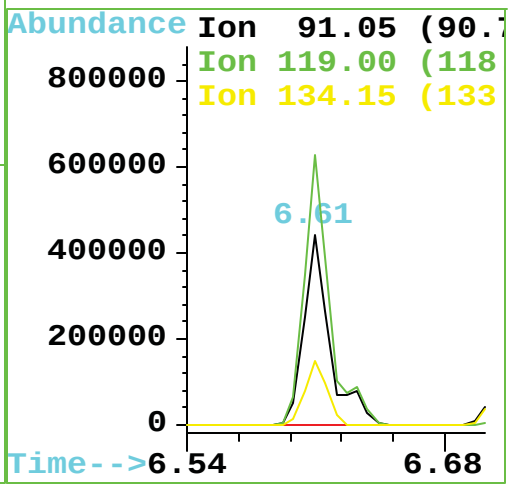


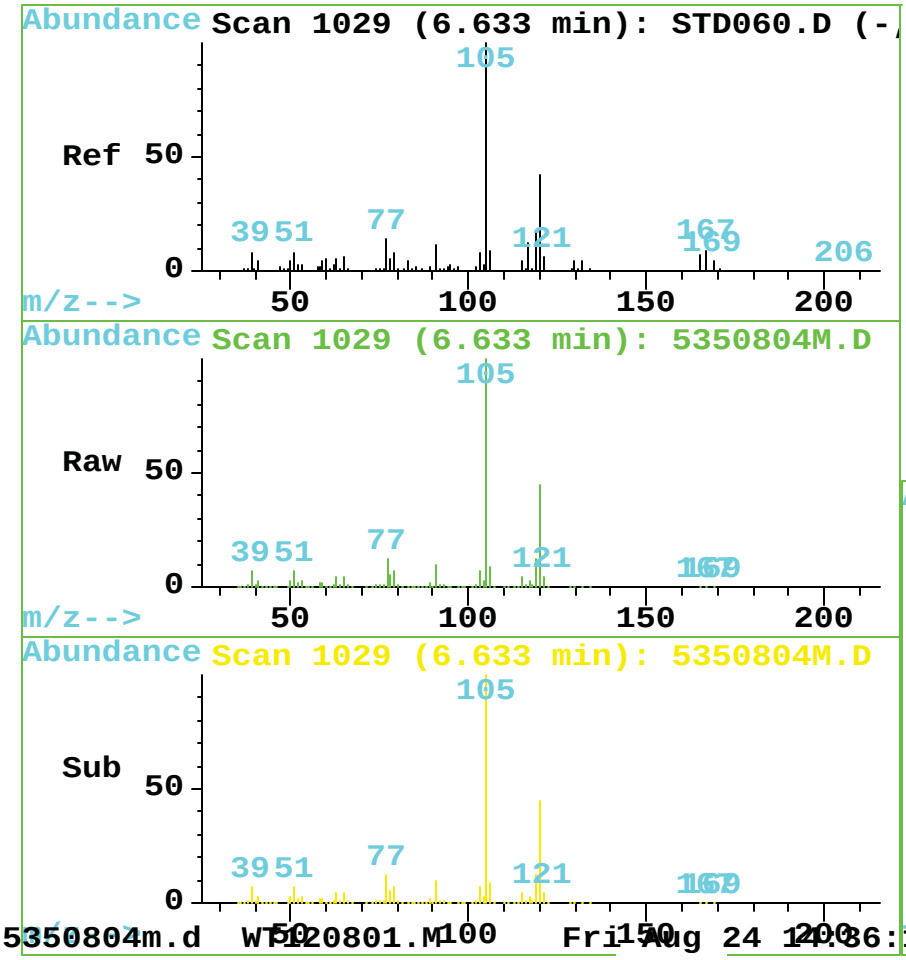


#66
tert-Butylbenzene
Concen: 51.08 ug/l
RT: 6.61 min Scan# 1025
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:91.05 Resp: 44604

Ion	Ratio	Lower	Upper
91	100		
119	137.9	168.7	228.7#
134	29.1	17.8	77.8
0	0.0	0.0	0.0

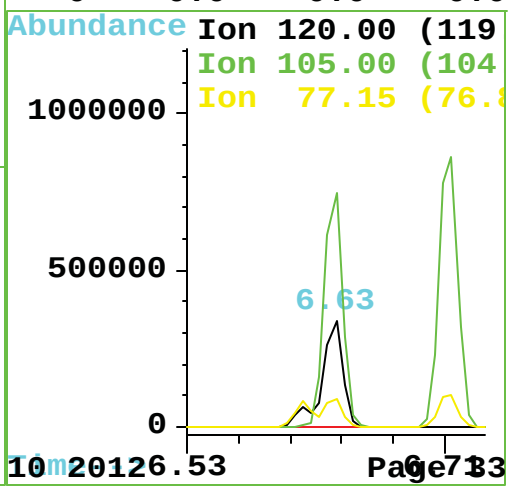


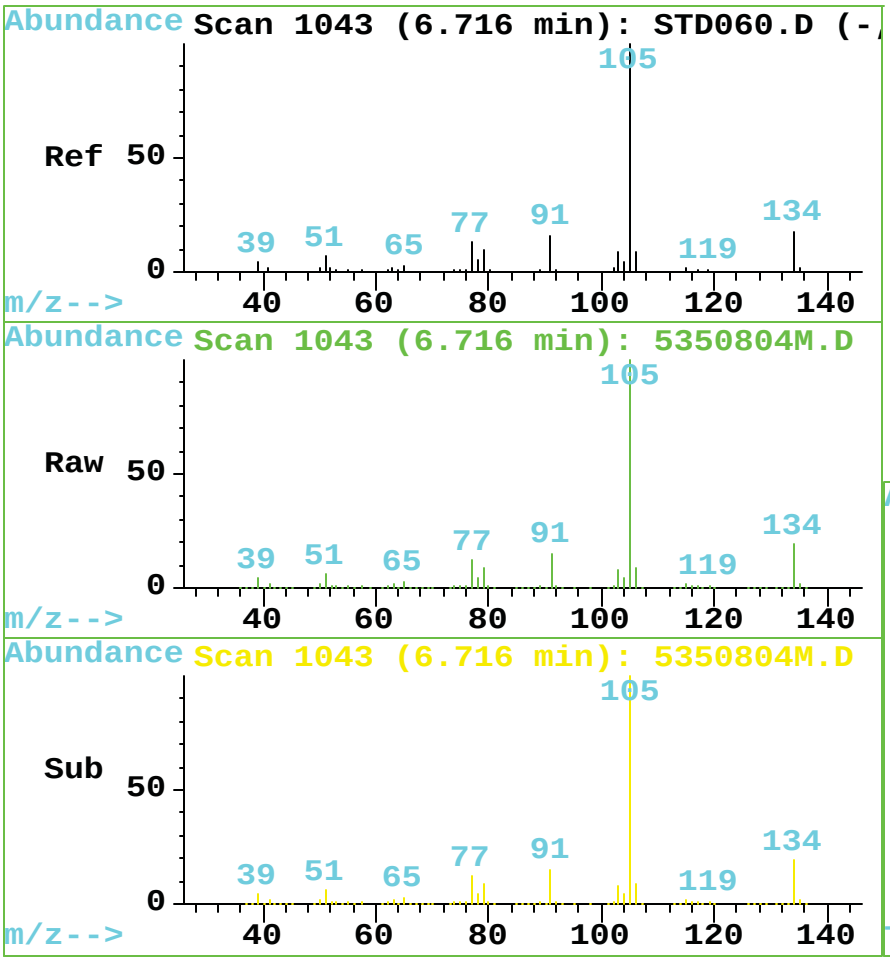


#67
1,2,4-Trimethylbenzene
Concen: 53.02 ug/l
RT: 6.63 min Scan# 1029
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:120 Resp: 349412

Ion	Ratio	Lower	Upper
120	100		
105	191.2	133.2	193.2
77	21.2	0.0	44.8
0	0.0	0.0	0.0

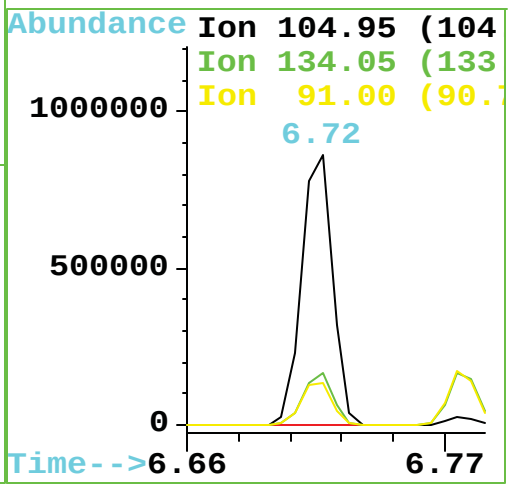


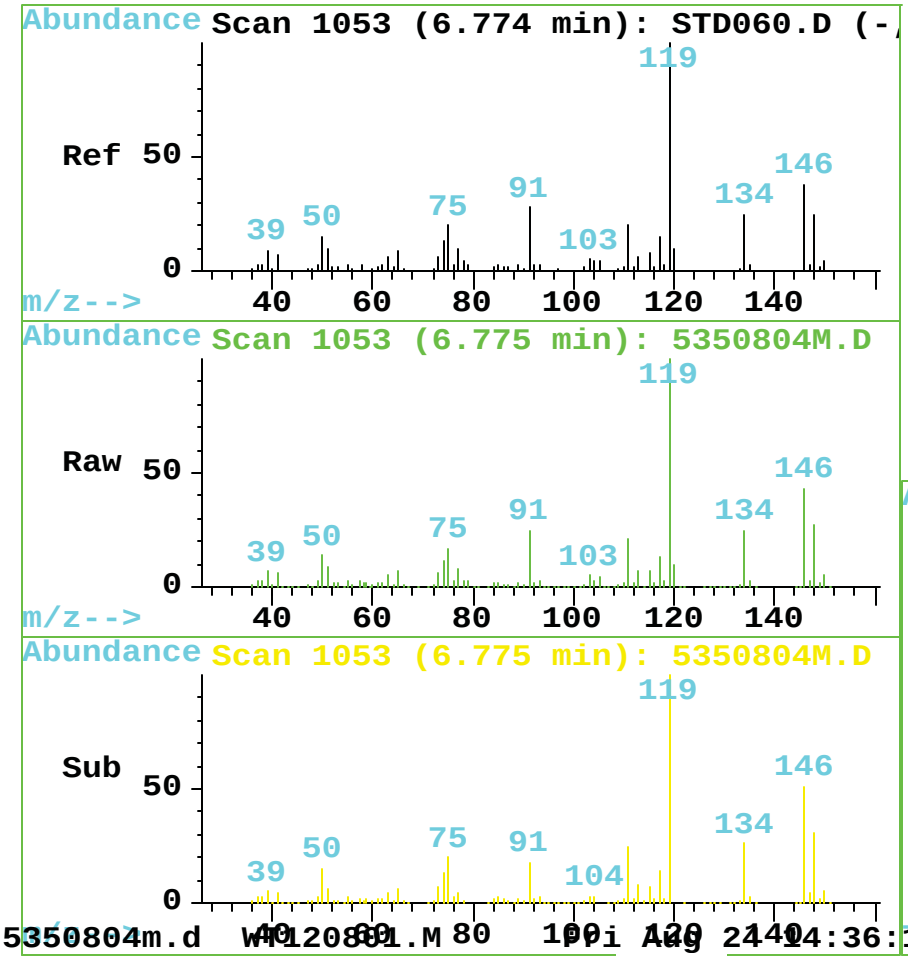


#69
sec-Butylbenzene
Concen: 49.07 ug/l
RT: 6.72 min Scan# 1043
Delta R.T. 0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:104.95 Resp: 7964

Ion	Ratio	Lower	Upper
105	100		
134	18.5	0.0	53.3
91	15.8	0.0	43.3
0	0.0	0.0	0.0

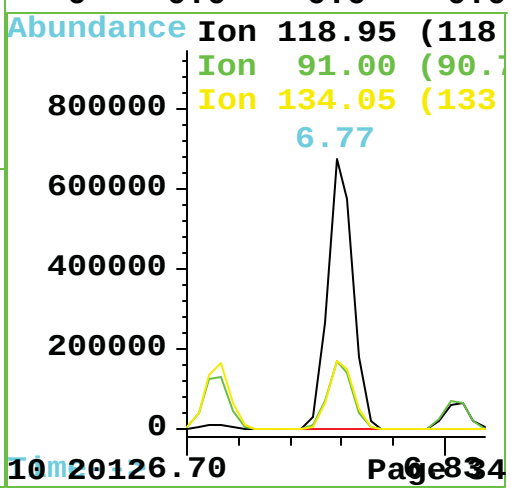


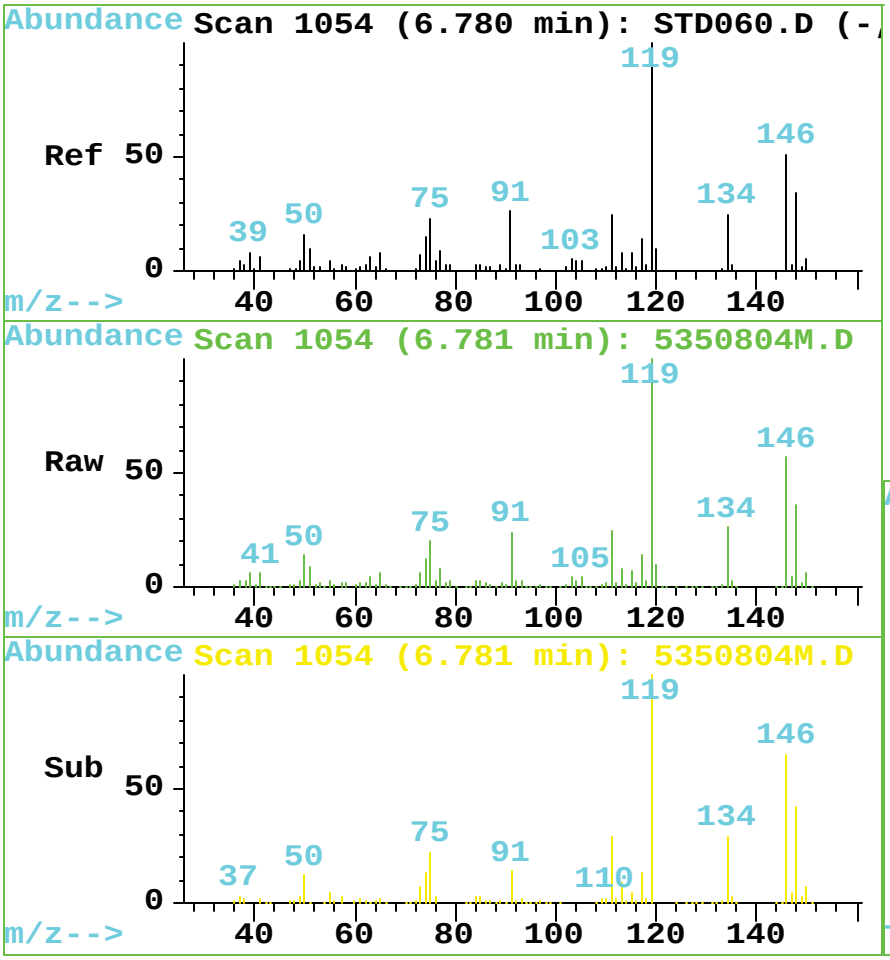


#70
p-Isopropyltoluene
Concen: 48.86 ug/l
RT: 6.77 min Scan# 1053
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:118.95 Resp: 6186

Ion	Ratio	Lower	Upper
119	100		
91	24.6	0.0	48.0
134	25.3	0.0	58.6
0	0.0	0.0	0.0

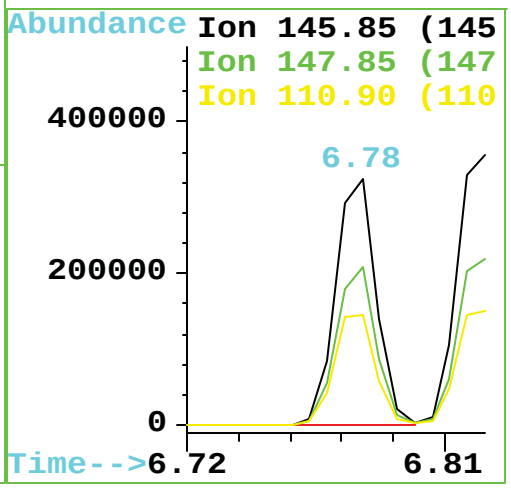


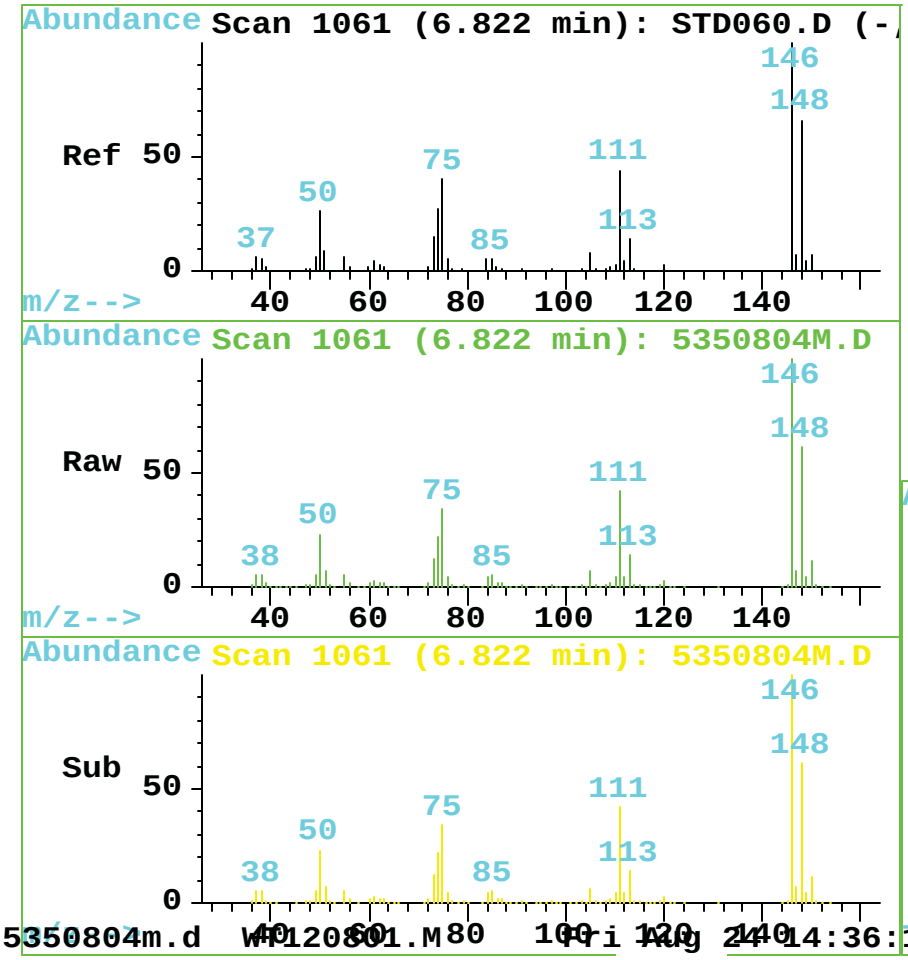


#71
1,3-Dichlorobenzene
Concen: 50.38 ug/l
RT: 6.78 min Scan# 1054
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:145.85 Resp: 3085

Ion	Ratio	Lower	Upper
146	100		
148	63.0	34.4	94.4
111	46.0	3.9	63.9
0	0.0	0.0	0.0

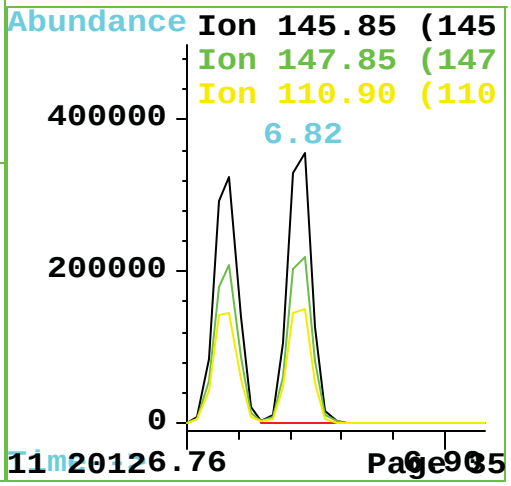


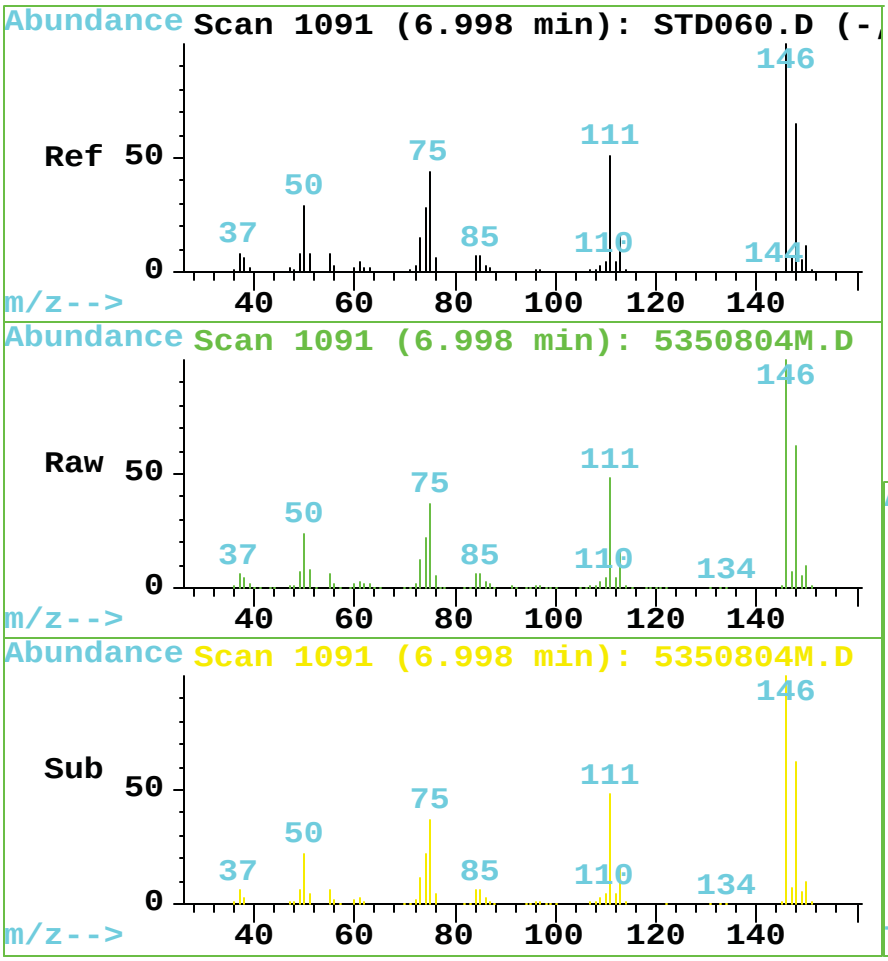


#72
1,4-Dichlorobenzene
Concen: 51.00 ug/l
RT: 6.82 min Scan# 1061
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:145.85 Resp: 3350

Ion	Ratio	Lower	Upper
146	100		
148	61.6	33.7	93.7
111	43.1	0.8	60.8
0	0.0	0.0	0.0

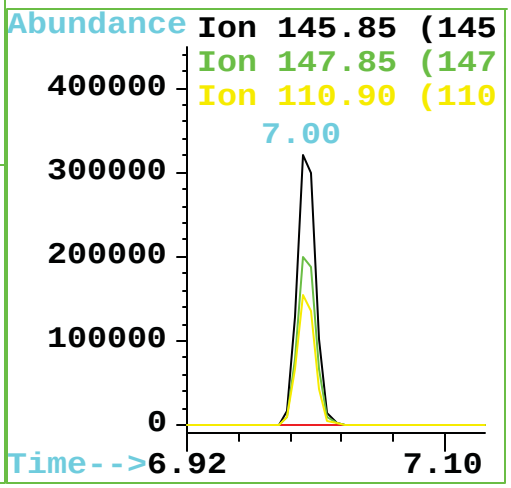


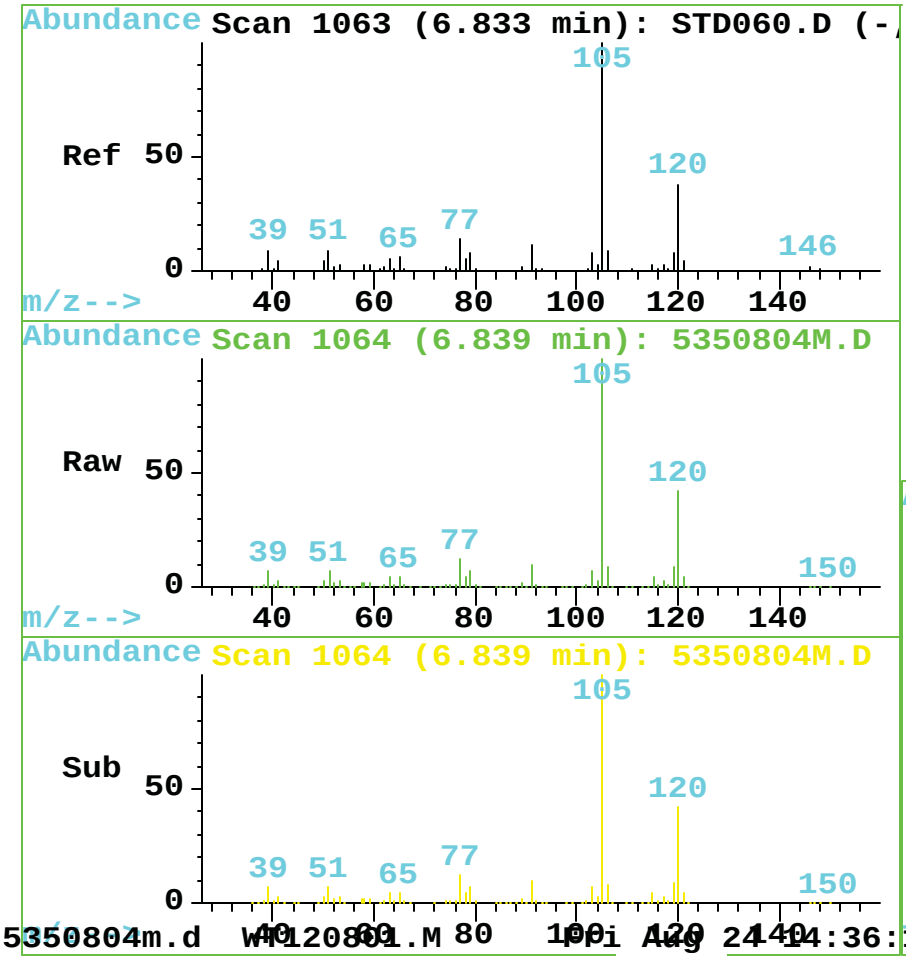


#73
1,2-Dichlorobenzene
Concen: 50.21 ug/l
RT: 7.00 min Scan# 1091
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:145.85 Resp: 3129

Ion	Ratio	Lower	Upper
146	100		
148	62.6	33.2	93.2
111	47.1	4.4	64.4
0	0.0	0.0	0.0

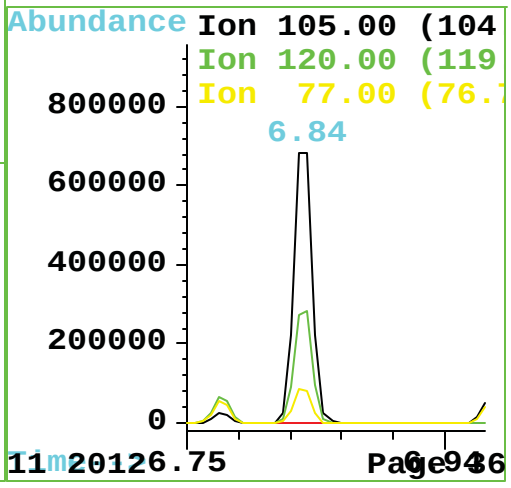


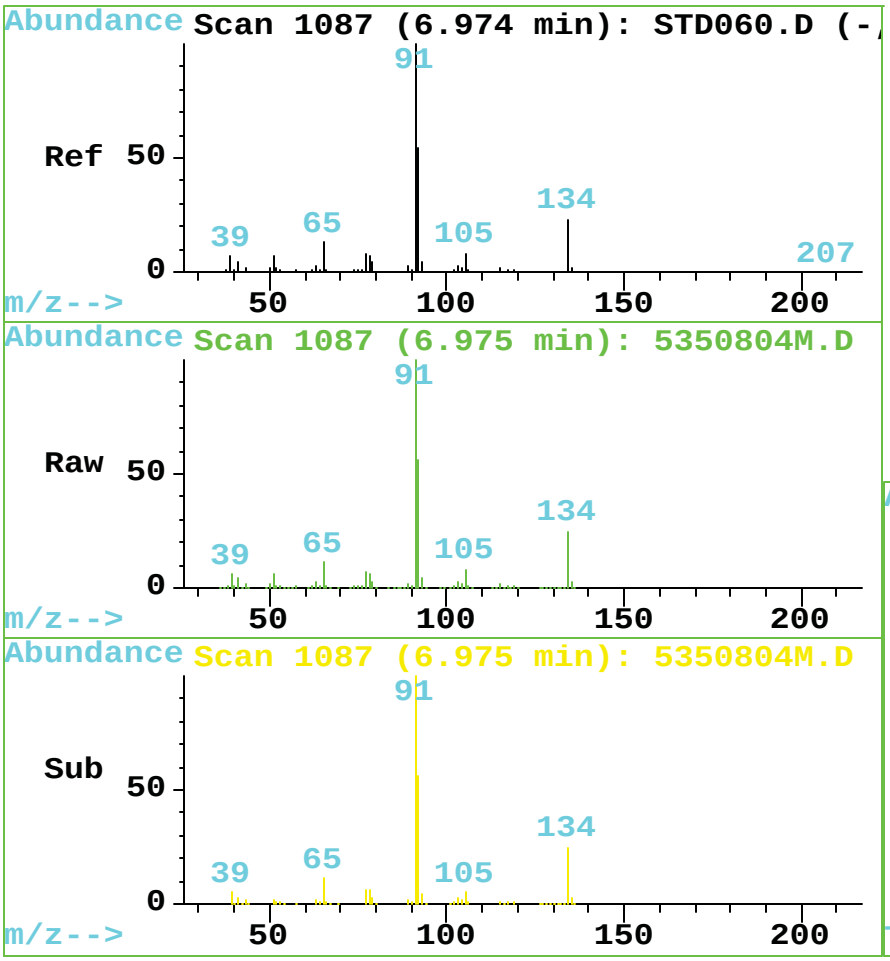


#74
1,2,3-Trimethylbenzene
Concen: 47.72 ug/l
RT: 6.84 min Scan# 1064
Delta R.T. 0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:105 Resp: 659230

Ion	Ratio	Lower	Upper
105	100		
120	41.3	18.2	78.2
77	12.5	0.0	39.5
0	0.0	0.0	0.0

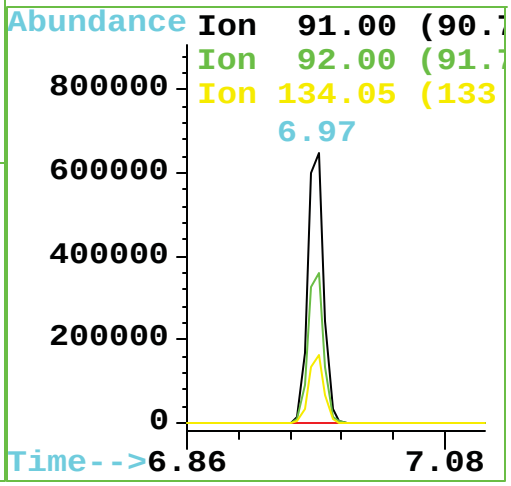


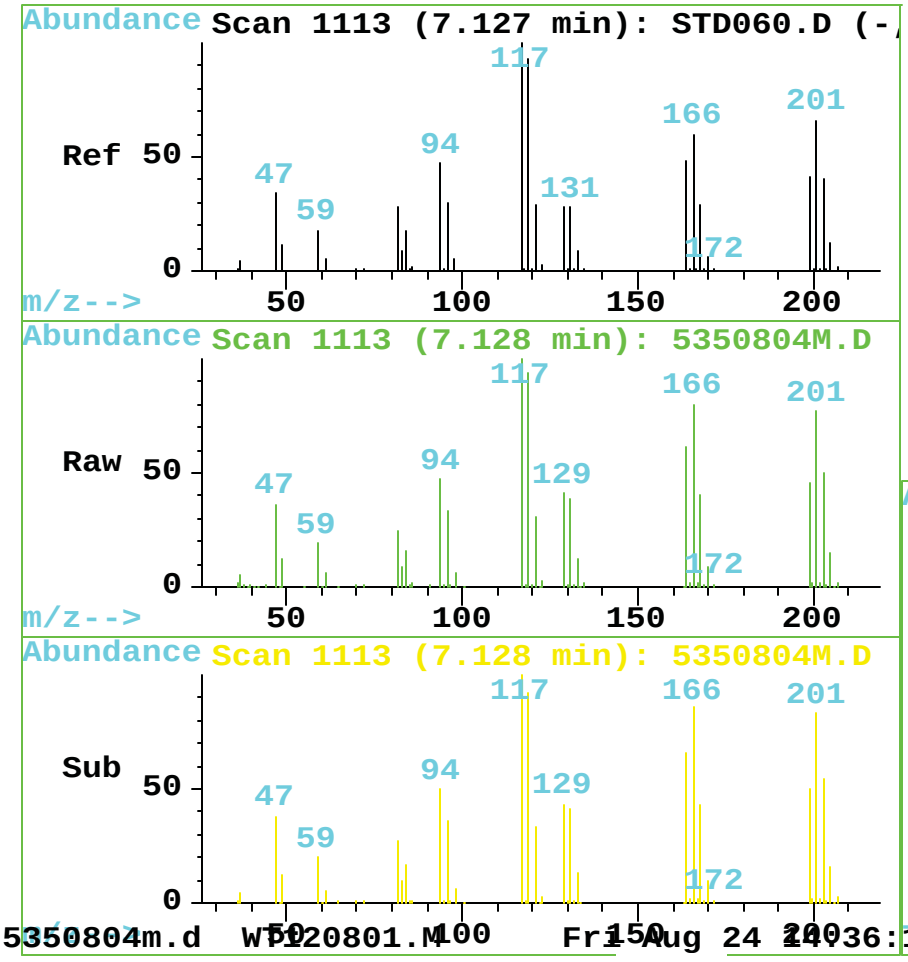


#75
n-Butylbenzene
Concen: 48.11 ug/l
RT: 6.97 min Scan# 1087
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:91 Resp: 604759

Ion	Ratio	Lower	Upper
91	100		
92	55.0	26.5	86.5
134	24.1	3.9	63.9
0	0.0	0.0	0.0

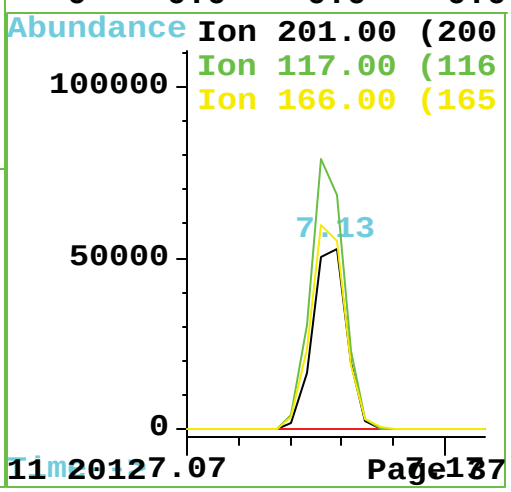


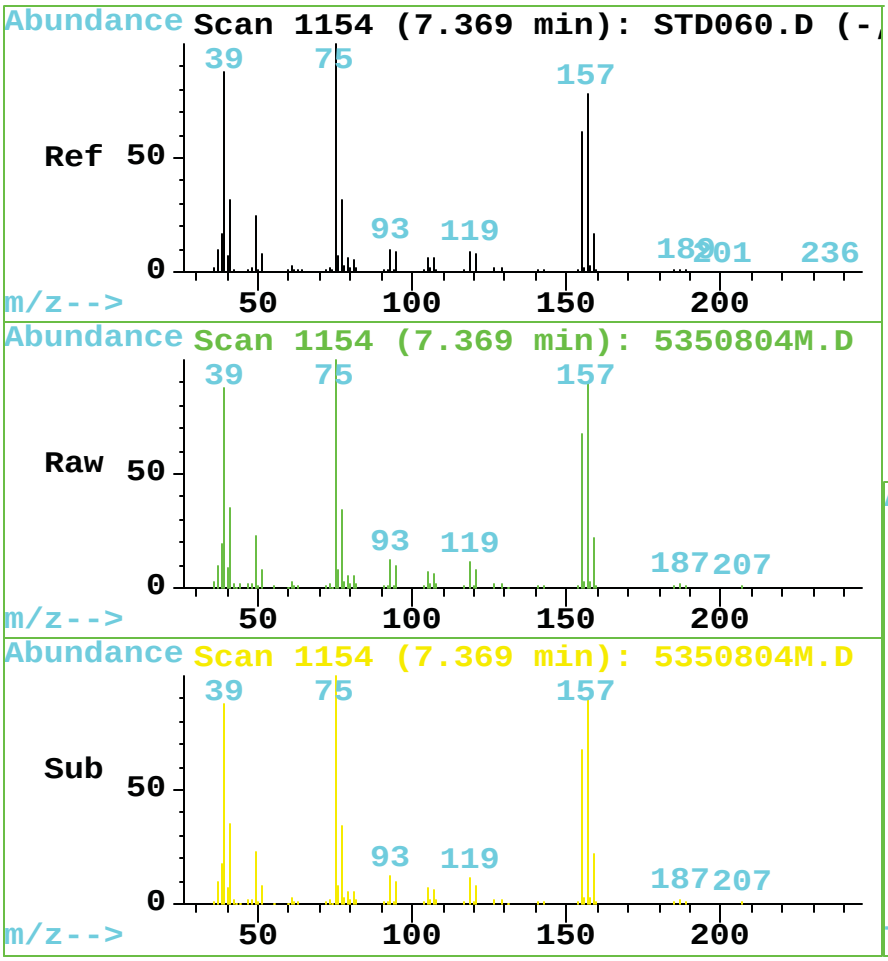


#76
Hexachloroethane
Concen: 38.05 ug/l
RT: 7.13 min Scan# 1113
Delta R.T. 0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:201 Resp: 50395

Ion	Ratio	Lower	Upper
201	100		
117	146.1	57.0	117.0#
166	114.7	55.3	115.3
0	0.0	0.0	0.0

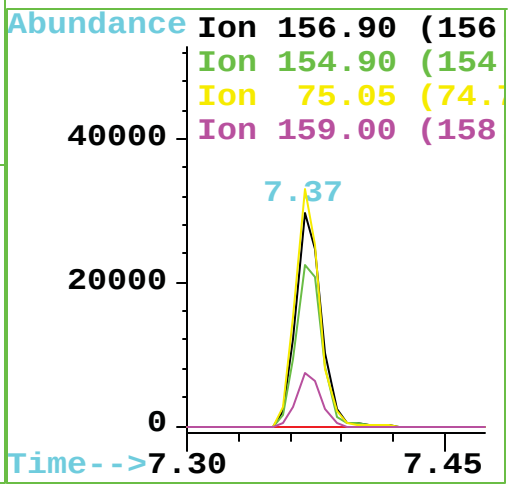


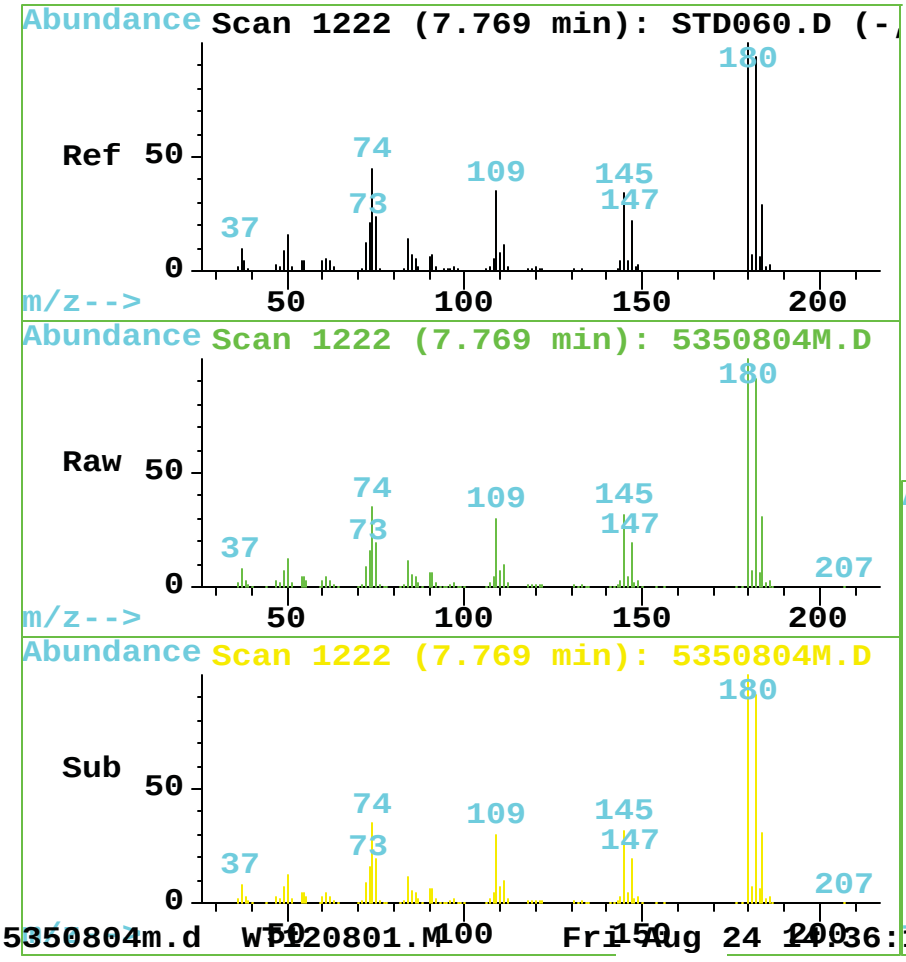


#77
1,2-Dibromo-3-Chloropropan
Concen: 50.08 ug/l
RT: 7.37 min Scan# 1154
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:156.9 Resp: 2901

Ion	Ratio	Lower	Upper
157	100		
155	78.4	43.5	103.5
75	105.9	29.9	89.9#
159	23.8	0.0	54.7

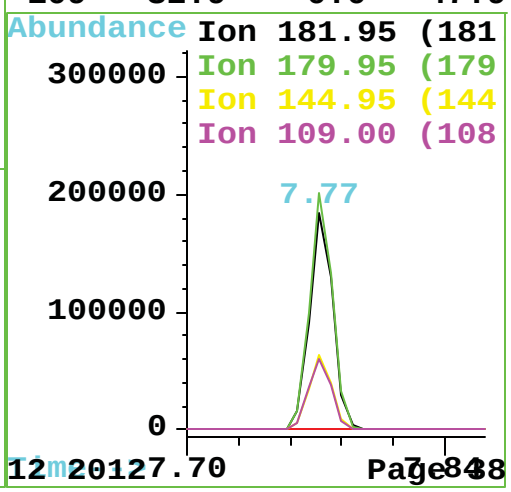


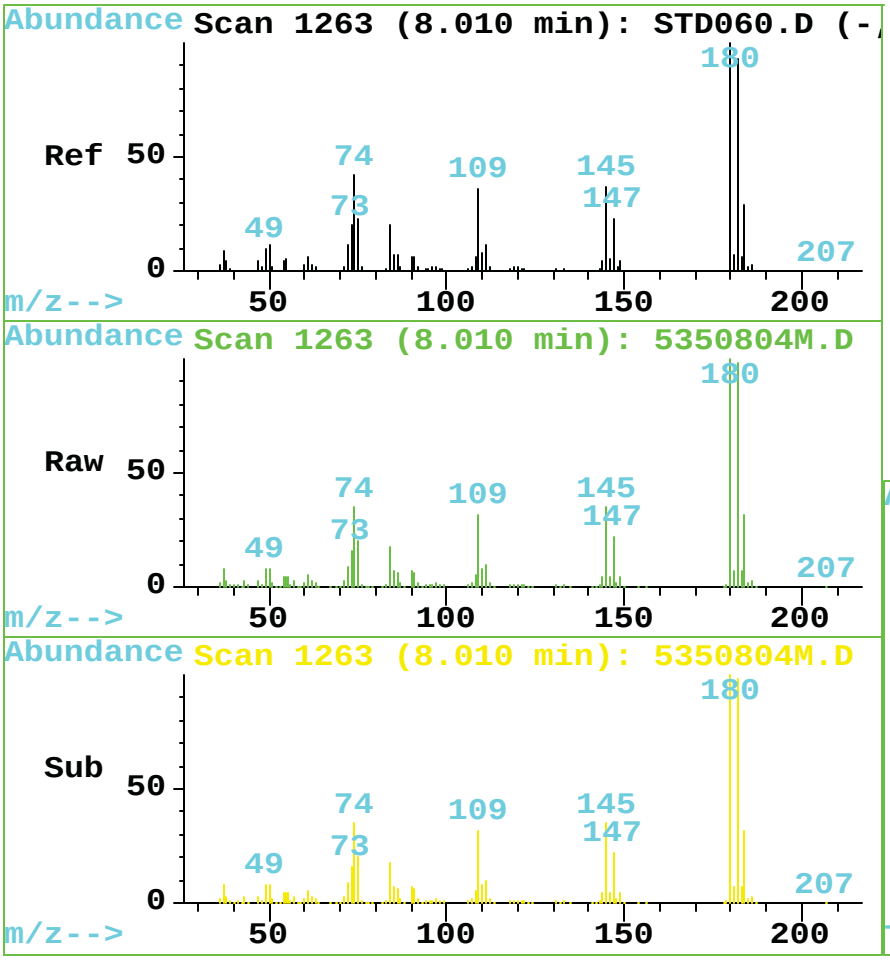


#78
1,2,4-Trichlorobenzene
Concen: 48.47 ug/l
RT: 7.77 min Scan# 1222
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:181.95 Resp: 1609

Ion	Ratio	Lower	Upper
182	100		
180	107.5	73.7	133.7
145	34.2	0.0	55.9
109	32.9	0.0	47.9

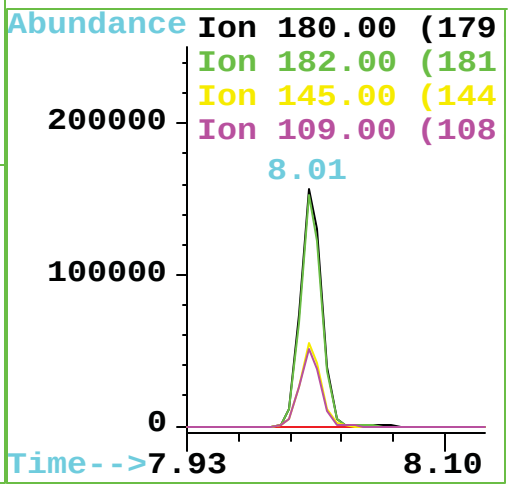


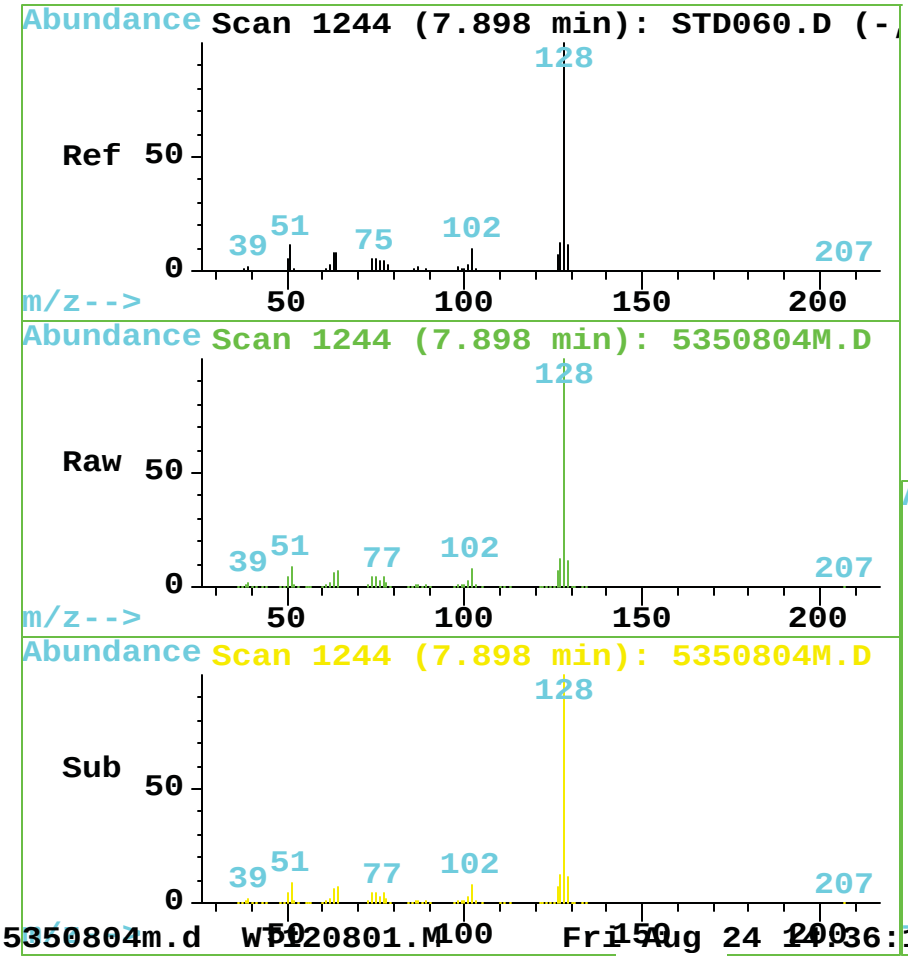


#80
1,2,3-Trichlorobenzene
Concen: 49.11 ug/l
RT: 8.01 min Scan# 1263
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:180 Resp: 147894

Ion	Ratio	Lower	Upper
180	100		
182	94.9	66.6	126.6
145	33.5	0.0	56.9
109	30.9	0.0	47.8

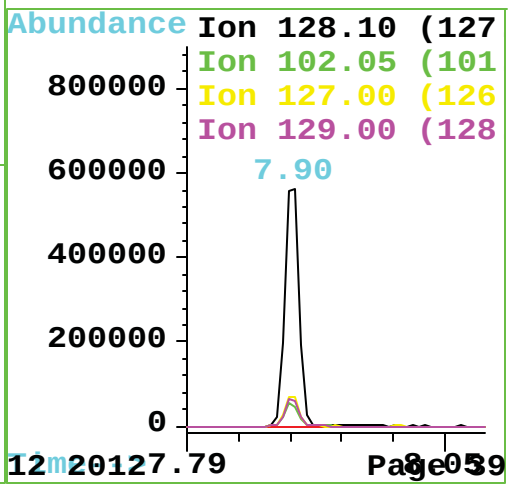


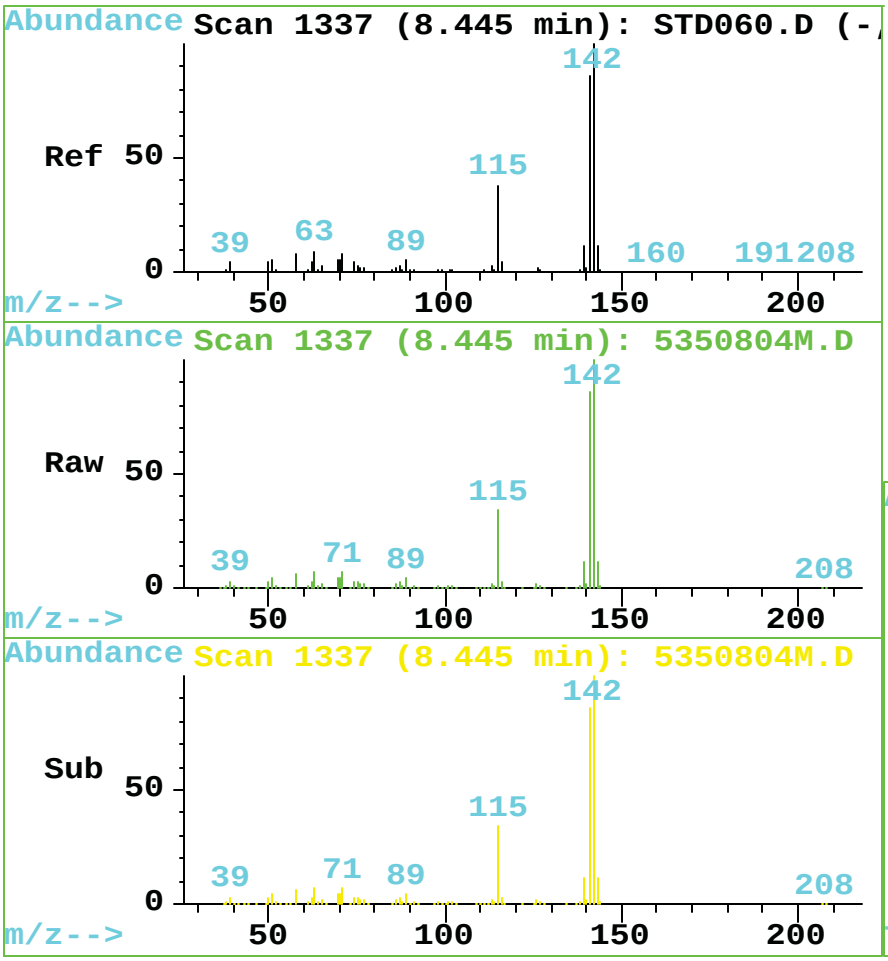


#81
Naphthalene
Concen: 54.53 ug/l
RT: 7.90 min Scan# 1244
Delta R.T. 0.01 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:128.1 Resp: 55310

Ion	Ratio	Lower	Upper
128	100		
102	8.9	0.0	36.6
127	12.4	0.0	42.3
129	11.1	0.0	40.7

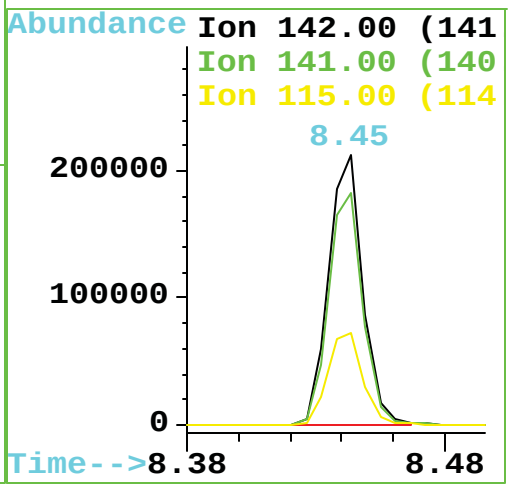




#82
2-Methylnaphthalene
Concen: 51.46 ug/l
RT: 8.45 min Scan# 1337
Delta R.T. 0.00 min
Lab File: 5350804m.d
Acq: 16 Aug 12 1:06 pm

Tgt Ion:142 Resp: 202566

Ion	Ratio	Lower	Upper
142	100		
141	86.4	54.2	114.2
115	35.3	0.0	54.4
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350805n.d Vial: 6
Acq On : 16 Aug 12 1:27 pm Operator: lbr
Sample : 5ml msd 1dr0814 1m0816 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31584	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	56165	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	31303	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	24780	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	20436	4.45	ug/l		89.0
31) TOLUENE-D8 (S)	5.05	98	67409	4.85	ug/l		97.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17799	5.37	ug/l		107.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	164551	53.84	ug/l		8
4) Diethyl ether (*)	2.37	74	116507	49.39	ug/l	#	6
5) Acetone (*)	2.62	43	73508	46.07	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	218208	52.95	ug/l		8
7) Carbon disulfide (*)	2.71	76	466199	43.27	ug/l		9
8) Methyl Acetate	2.87	43	161942	49.64	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	527172	53.60	ug/l		8
10) Acrylonitrile (*)	3.11	53	85554	50.93	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	99508	42.31	ug/l		7
12) Dichlorodifluoromethane	1.27	85	146070	45.78	ug/l		9
13) Chloromethane (SPCC)	1.42	50	281492	53.36	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	203930	43.00	ug/l		9
15) Bromomethane	1.80	94	101168	46.85	ug/l		9
16) Chloroethane	1.88	64	122132	47.96	ug/l		8
18) Trichlorofluoromethane	2.14	101	221725	46.37	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	285877	47.84	ug/l		7
20) Methylene Chloride	2.94	84	185452	50.78	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	286291	49.19	ug/l		7
22) 1,1-Dichloroethane (SPCC)	3.38	63	352052	50.39	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	195494	51.84	ug/l	#	7
24) Tetrahydrofuran	3.87	42	67028	44.49	ug/l	#	1
25) Chloroform (CCC)	3.89	83	300174	49.99	ug/l		9
26) Bromochloromethane	3.85	130	105060	53.00	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	265964	51.17	ug/l	#	
29) Cyclohexane	4.02	42	102342	43.33	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	90094	66.76	ug/l	#	7
33) 2-Hexanone (*)	5.36	58	77025	49.16	ug/l	#	7
35) Carbon Tetrachloride	4.07	117	205170	51.11	ug/l		9
36) Benzene (MS)	4.17	78	755966	51.21	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350805n.d Vial: 6
Acq On : 16 Aug 12 1:27 pm Operator: lbr
Sample : 5ml msd 1dr0814 1m0816 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
37)	1,2-Dichloroethane	4.17	62	259387	48.80	ug/l		9
38)	Trichloroethene (MS)	4.48	95	174661	51.31	ug/l		7
39)	1,2-Dichloropropane (CCC)	4.59	63	203225	51.83	ug/l		9
40)	Bromodichloromethane	4.72	83	206407	49.81	ug/l		9
41)	Methyl Cyclohexane	4.57	55	291448	54.15	ug/l	#	5
42)	Dibromomethane	4.65	174	90784	55.09	ug/l	#	6
43)	cis-1,3-Dichloropropene	4.92	75	287048	46.49	ug/l		9
44)	Toluene (CCC/MS)	5.08	91	759101	49.20	ug/l		9
45)	trans-1,3-Dichloropropene	5.17	75	249941	46.52	ug/l		9
46)	1,1,2-Trichloroethane	5.26	83	128695	50.98	ug/l		9
47)	Tetrachloroethene	5.33	166	166466	57.67	ug/l		9
50)	trans-1,4-Dichloro-2-buten	6.35	53	31584	38.22	ug/l	#	7
51)	Dibromochloromethane	5.45	129	126028	48.97	ug/l		9
52)	1,2-Dibromoethane	5.51	107	149598	52.72	ug/l		9
53)	Chlorobenzene (SPCC/MS)	5.73	112	479232	52.77	ug/l		8
54)	1,1,1,2-Tetrachloroethane	5.76	131	143458	53.04	ug/l		9
55)	Ethylbenzene (CCC)	5.77	91	825730	49.07	ug/l		9
56)	p,m-Xylene	5.83	106	568253	91.26	ug/l		8
57)	o-Xylene	6.02	91	632167	46.90	ug/l		8
58)	Styrene	6.02	104	63912	6.14	ug/l	#	2
59)	Isopropylbenzene	6.18	105	805978	50.77	ug/l		9
60)	Bromoform (SPCC)	6.12	173	64212	43.15	ug/l		9
61)	1,1,2,2-Tetrachloroethane	6.32	83	209171	52.19	ug/l		9
62)	1,2,3-Trichloropropane	6.35	110	62654	54.89	ug/l	#	8
63)	n-Propylbenzene	6.37	91	967915	51.45	ug/l		9
64)	Bromobenzene	6.34	156	172885	55.05	ug/l	#	4
65)	1,3,5-Trimethylbenzene	6.45	120	227390	36.91	ug/l	#	7
66)	tert-Butylbenzene	6.61	91	429015	48.08	ug/l	#	6
67)	1,2,4-Trimethylbenzene	6.63	120	278431	41.35	ug/l		8
69)	sec-Butylbenzene	6.72	105	784250	48.83	ug/l		9
70)	p-Isopropyltoluene	6.77	119	584620	46.66	ug/l		9
71)	1,3-Dichlorobenzene	6.78	146	310739	51.27	ug/l		9
72)	1,4-Dichlorobenzene	6.82	146	333707	51.33	ug/l		9
73)	1,2-Dichlorobenzene	7.00	146	313908	50.90	ug/l		9
74)	1,2,3-Trimethylbenzene	6.83	105	508701	37.22	ug/l		9
75)	n-Butylbenzene	6.97	91	591313	47.55	ug/l		9
76)	Hexachloroethane	7.13	201	49171	37.53	ug/l	#	5
77)	1,2-Dibromo-3-Chloropropan	7.37	157	28797	50.23	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	165397	50.33	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	155263	52.11	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350805n.d Vial: 6
Acq On : 16 Aug 12 1:27 pm Operator: lbr
Sample : 5ml msd 1dr0814 1m0816 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

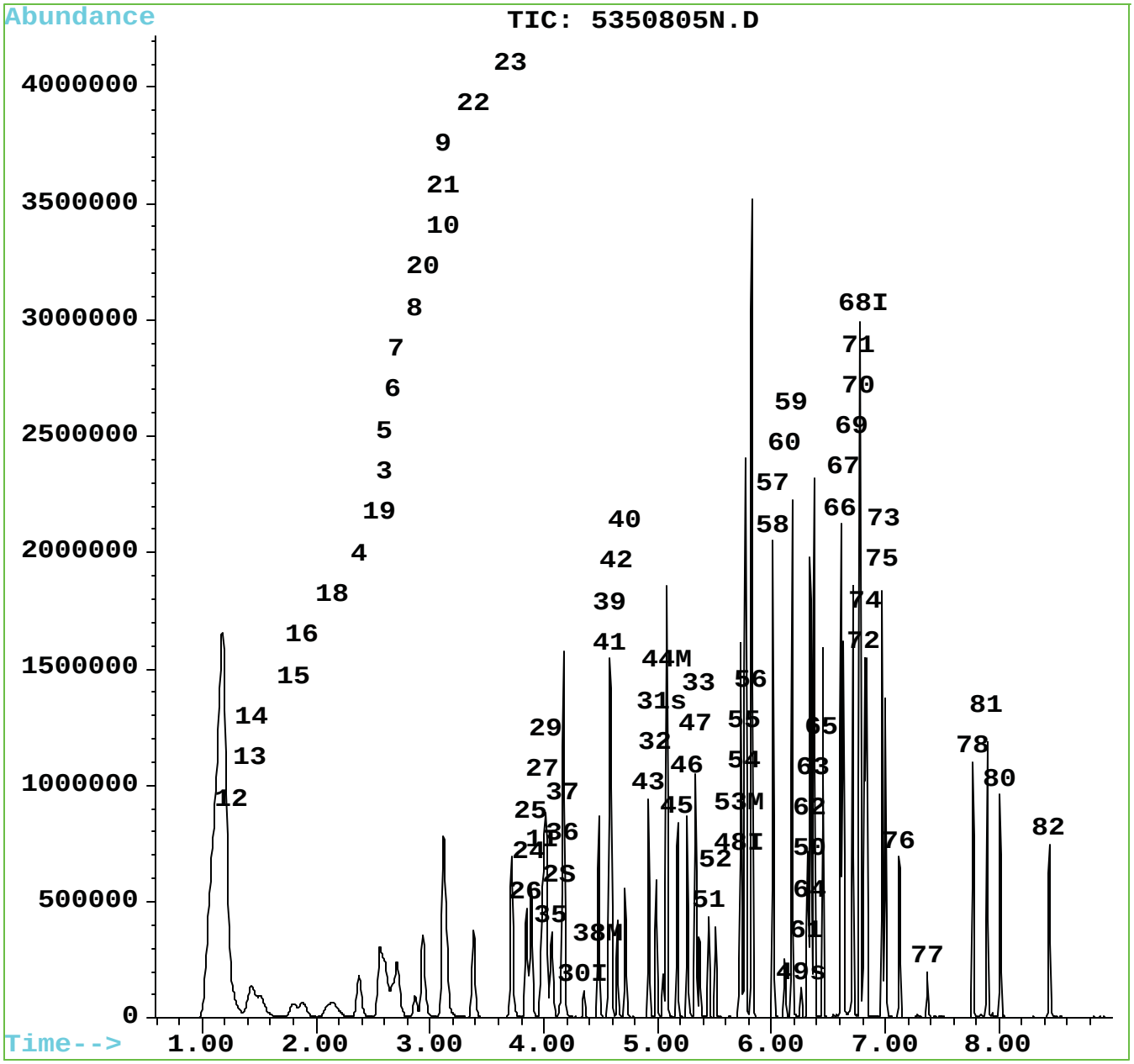
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
81) Naphthalene	7.90	128	561047	55.90 ug/l	9
82) 2-Methylnaphthalene	8.45	142	205478	52.79 ug/l	9

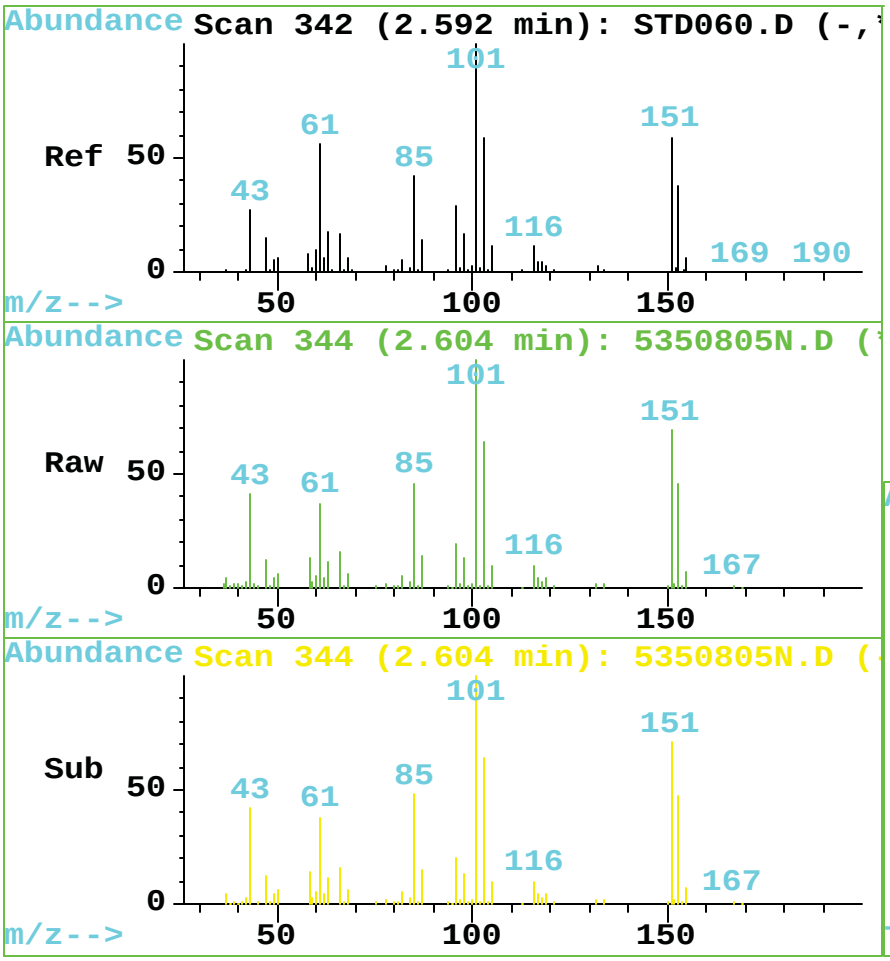
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350805n.d Vial: 6
Acq On : 16 Aug 12 1:27 pm Operator: lbr
Sample : 5ml msd 1dr0814 1m0816 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

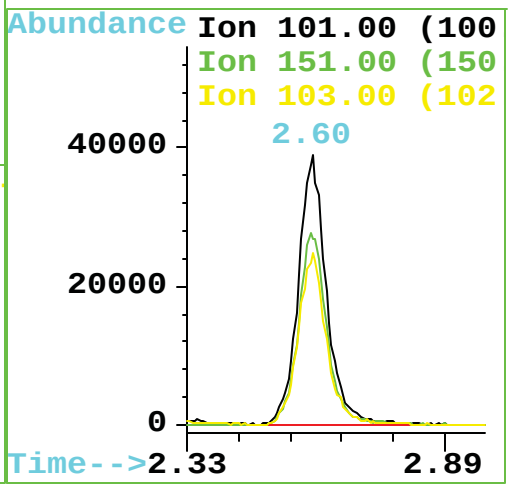


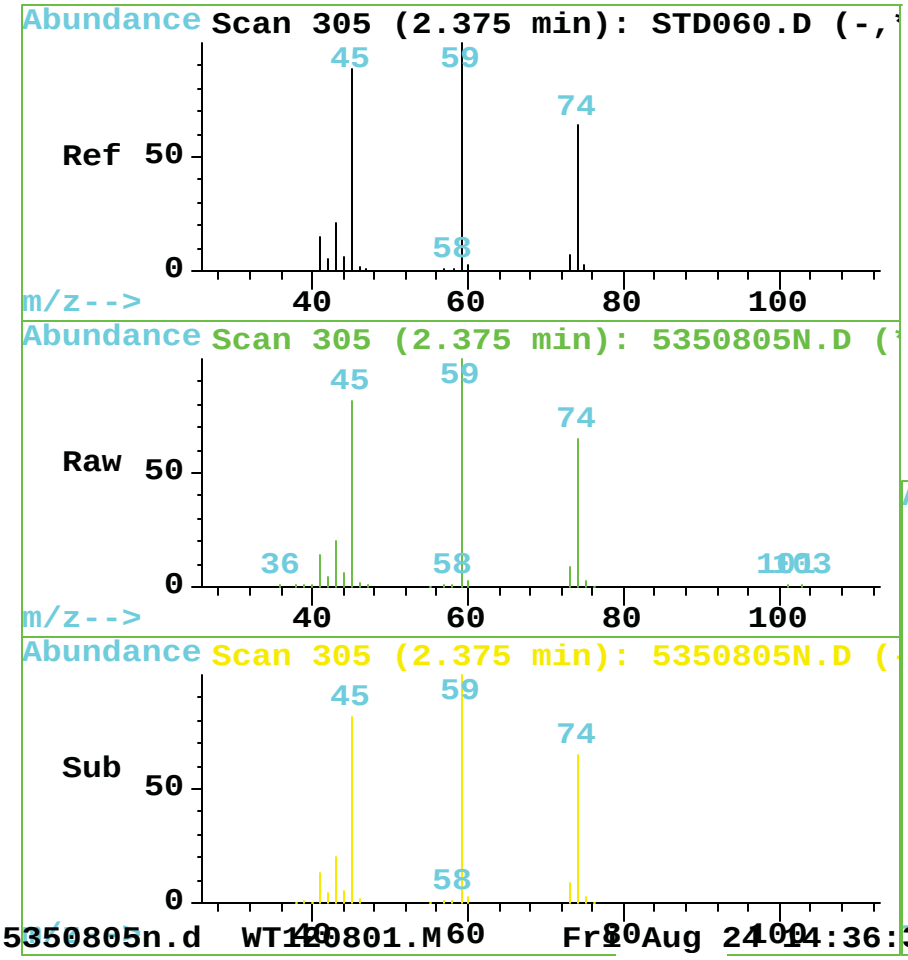


#3
1,1,2-Trichloro-1,2,2-trif
Concen: 53.84 ug/l
RT: 2.60 min Scan# 344
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:101 Resp: 164551

Ion	Ratio	Lower	Upper
101	100		
151	71.3	68.6	128.6
103	64.1	33.9	93.9
0	0.0	0.0	0.0

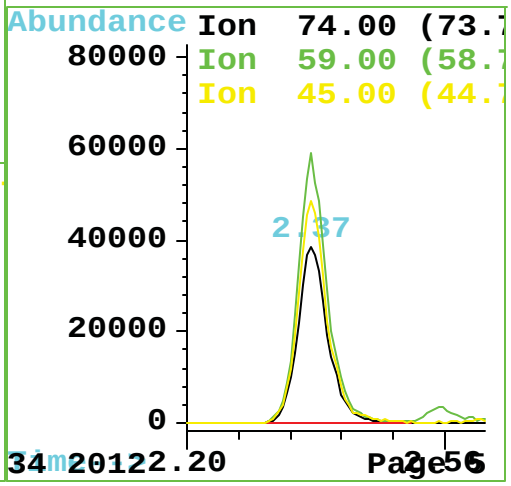


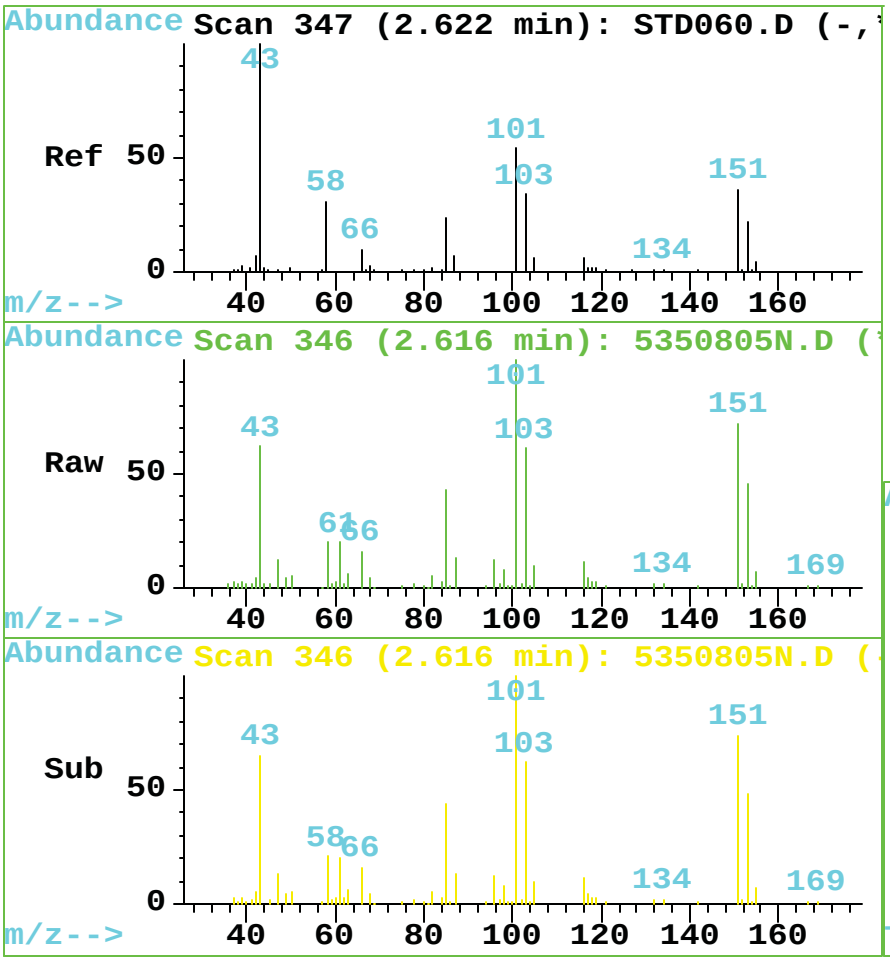


#4
Diethyl ether (*)
Concen: 49.39 ug/l
RT: 2.37 min Scan# 305
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:74 Resp: 116507

Ion	Ratio	Lower	Upper
74	100		
59	147.8	87.0	147.0#
45	123.8	43.4	103.4#
0	0.0	0.0	0.0

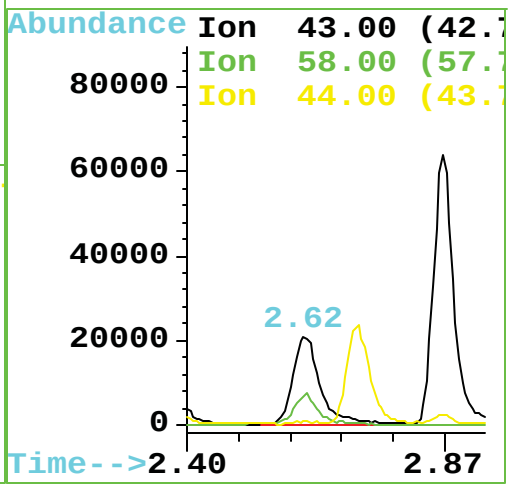


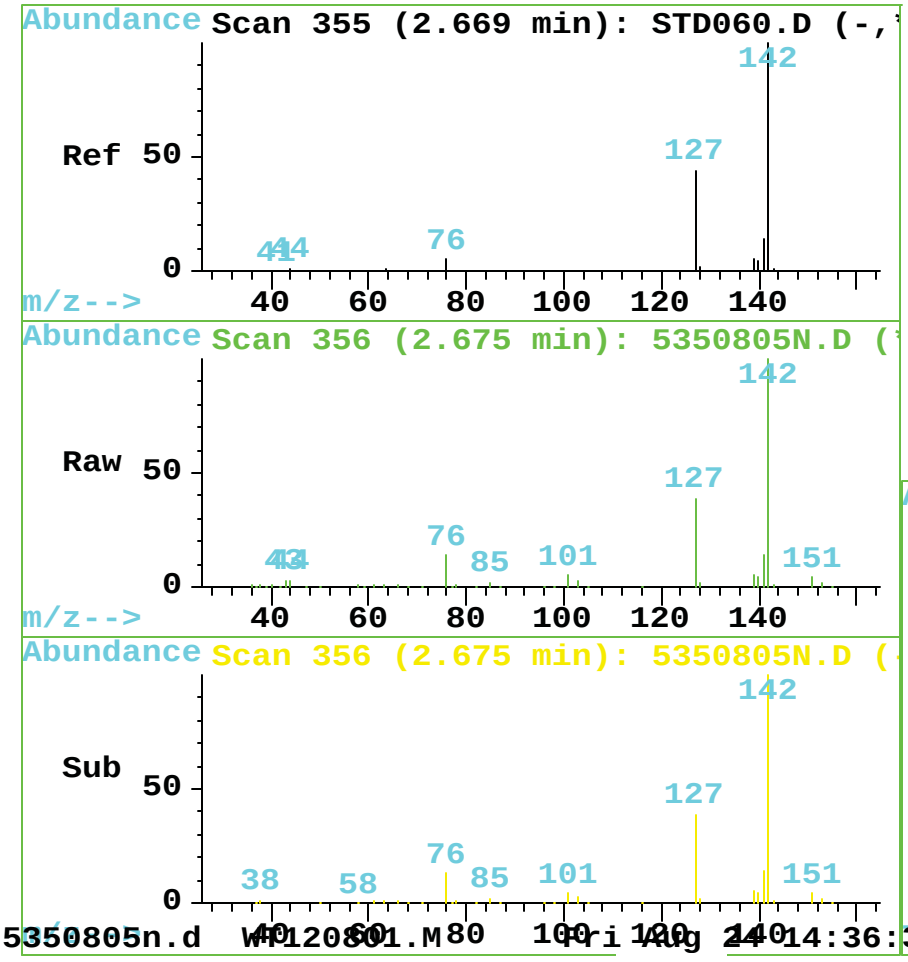


#5
Acetone (*)
Concen: 46.07 ug/l
RT: 2.62 min Scan# 346
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:43 Resp: 73508

Ion	Ratio	Lower	Upper
43	100		
58	32.1	11.0	71.0
44	1.9	0.0	33.9
0	0.0	0.0	0.0

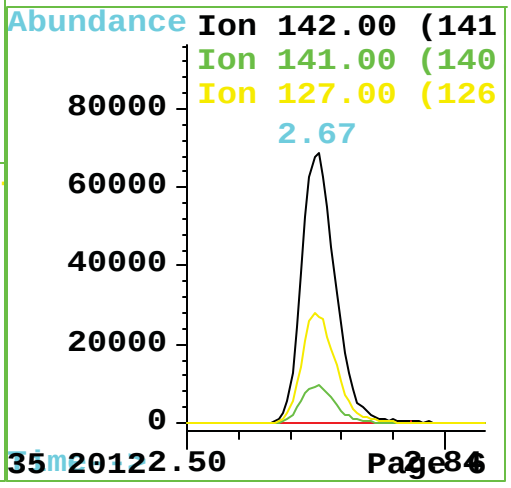


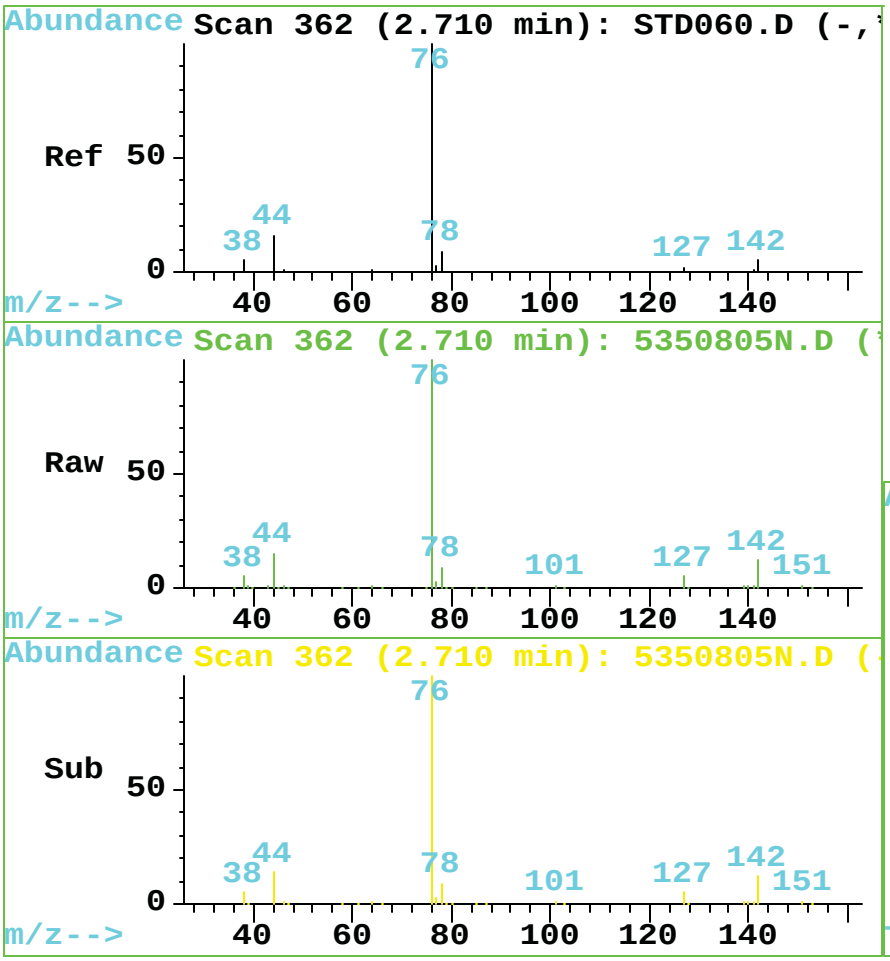


#6
Methyl iodide (iodomethane
Concen: 52.95 ug/l
RT: 2.67 min Scan# 356
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:142 Resp: 218208

Ion	Ratio	Lower	Upper
142	100		
141	14.0	0.0	43.6
127	41.2	0.0	59.1
0	0.0	0.0	0.0

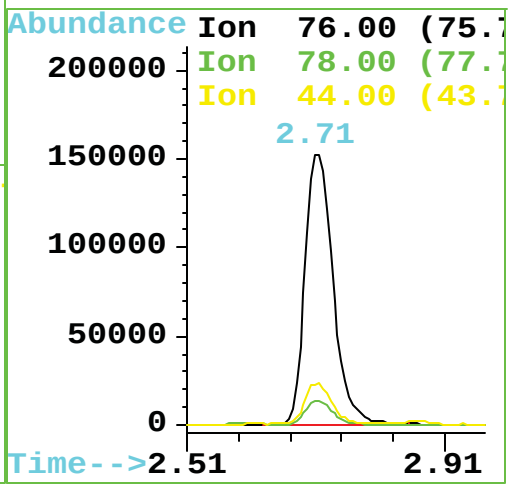


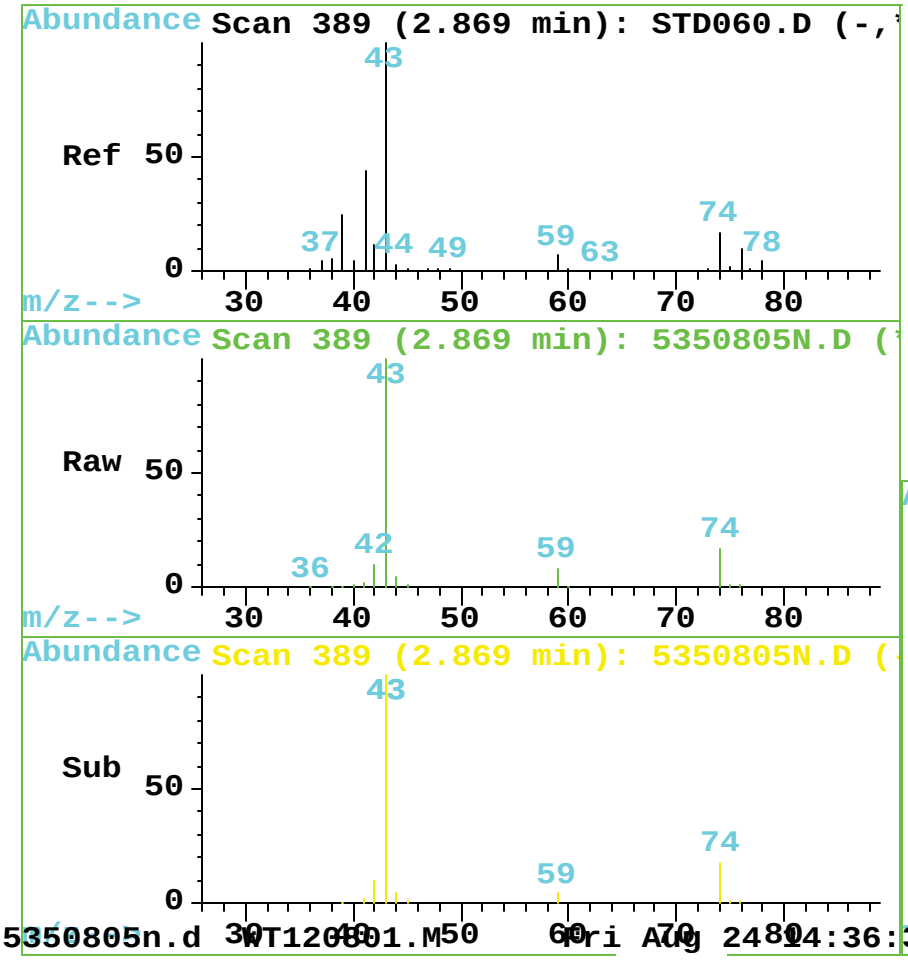


#7
Carbon disulfide (*)
Concen: 43.27 ug/l
RT: 2.71 min Scan# 362
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:76 Resp: 466199

Ion	Ratio	Lower	Upper
76	100		
78	9.0	0.0	39.2
44	14.8	0.0	37.7
0	0.0	0.0	0.0

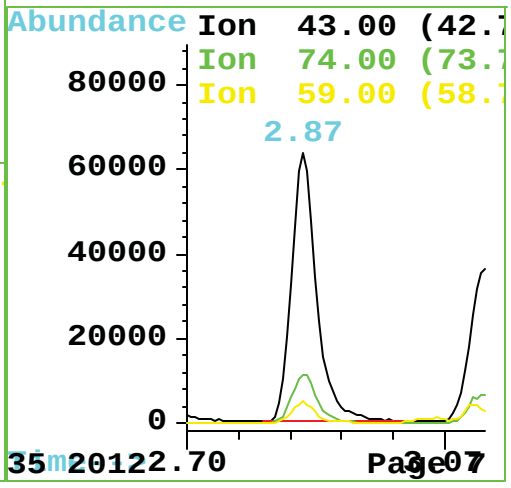


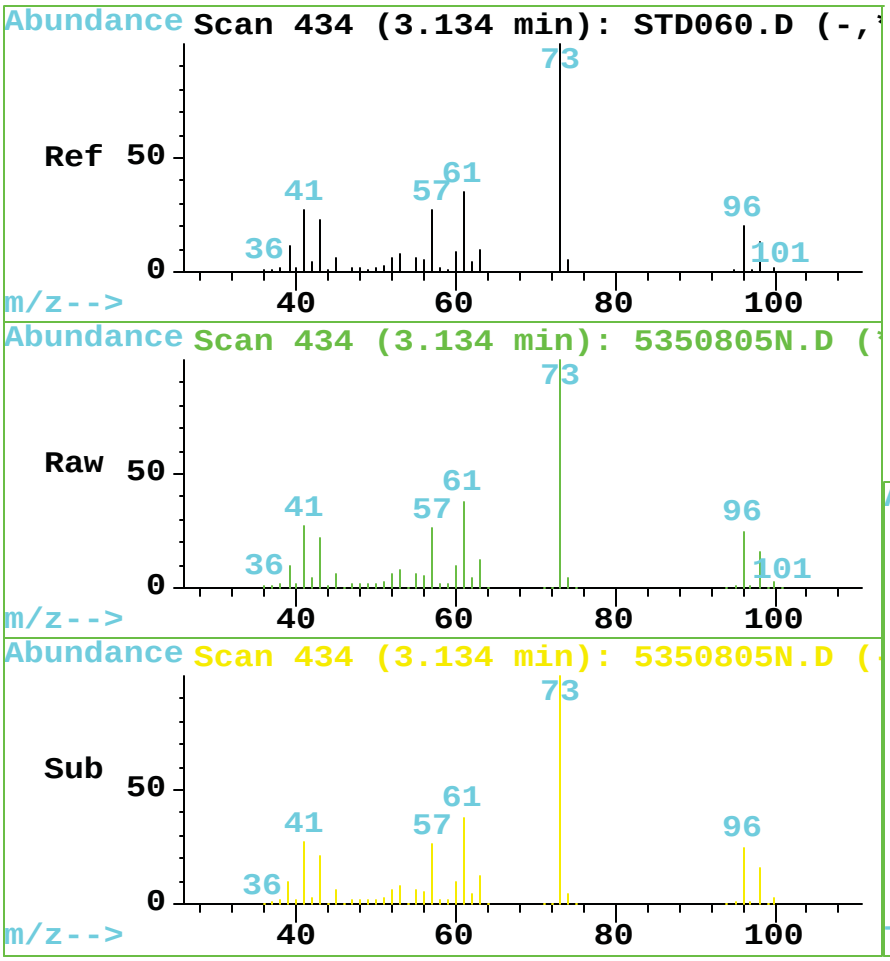


#8
Methyl Acetate
Concen: 49.64 ug/l
RT: 2.87 min Scan# 389
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:43 Resp: 161942

Ion	Ratio	Lower	Upper
43	100		
74	18.4	3.0	63.0
59	7.5	0.0	39.3
0	0.0	0.0	0.0

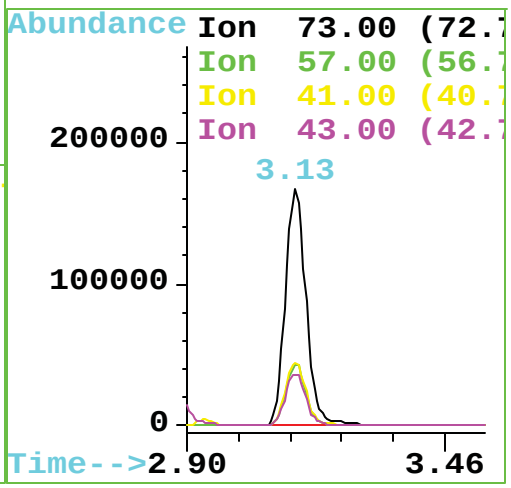


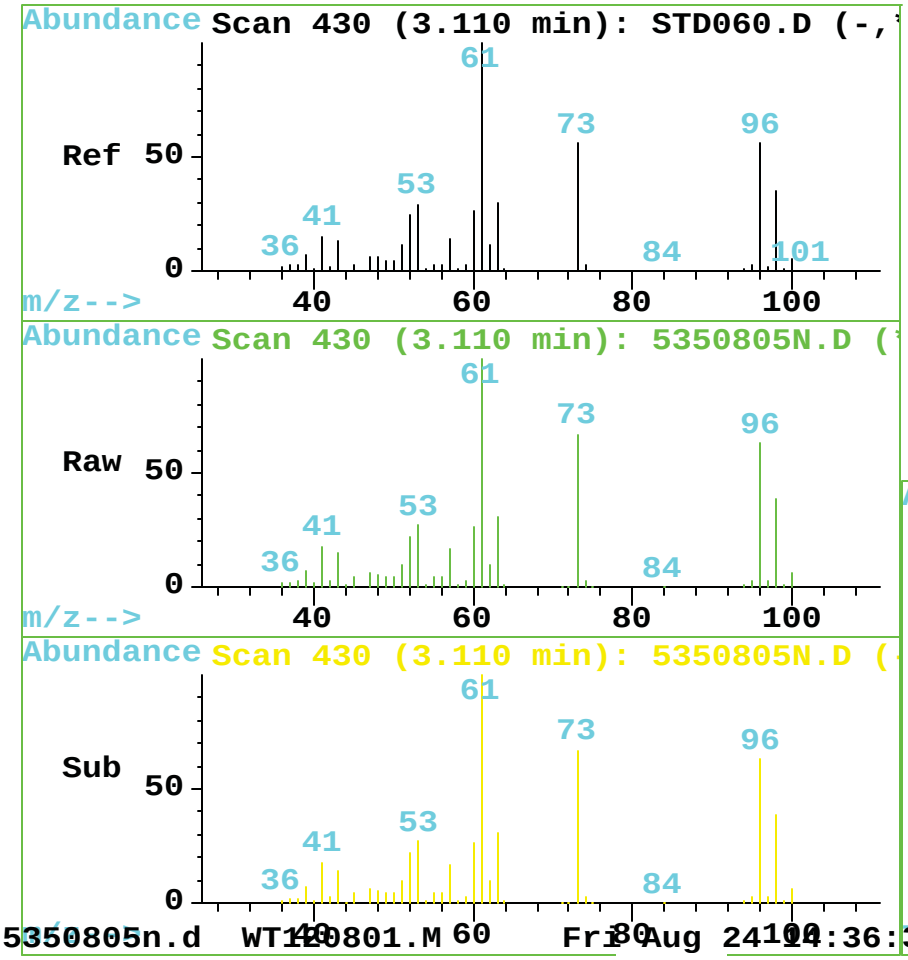


#9
tert-Methyl butyl ether (M
Concen: 53.60 ug/l
RT: 3.13 min Scan# 434
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:73 Resp: 527172

Ion	Ratio	Lower	Upper
73	100		
57	25.8	0.0	50.8
41	26.3	0.0	48.8
43	22.3	0.0	43.6

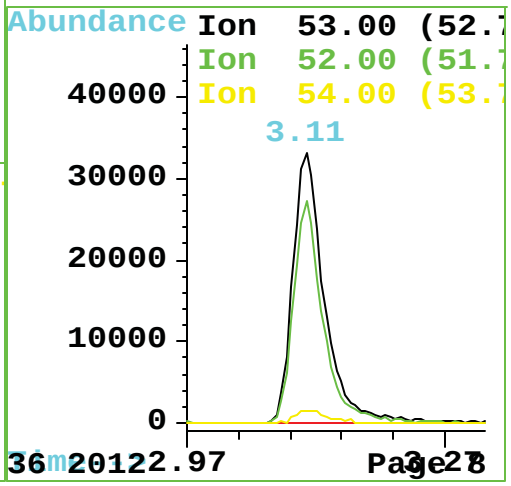


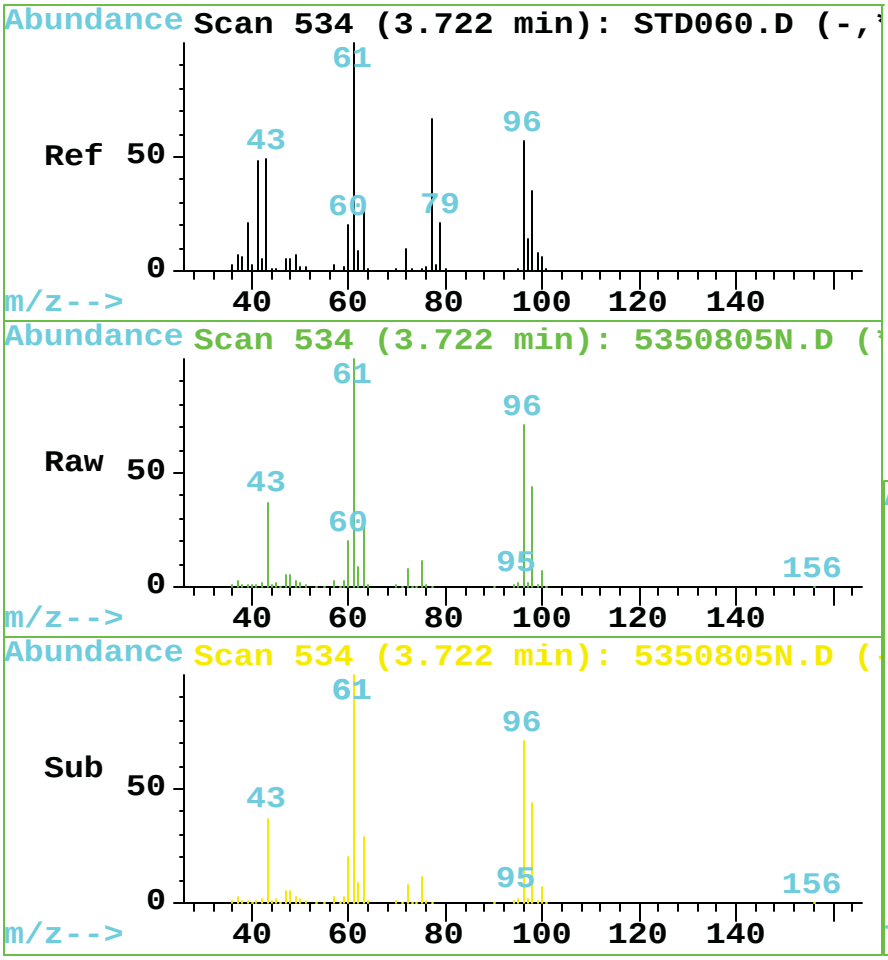


#10
Acrylonitrile (*)
Concen: 50.93 ug/l
RT: 3.11 min Scan# 430
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:53 Resp: 85554

Ion	Ratio	Lower	Upper
53	100		
52	77.1	44.2	104.2
54	4.8	0.0	31.3
0	0.0	0.0	0.0

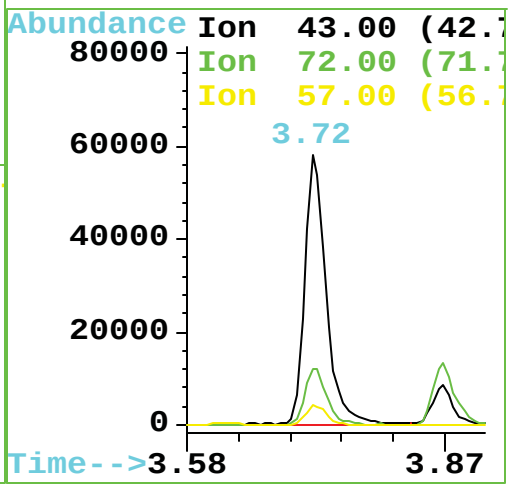


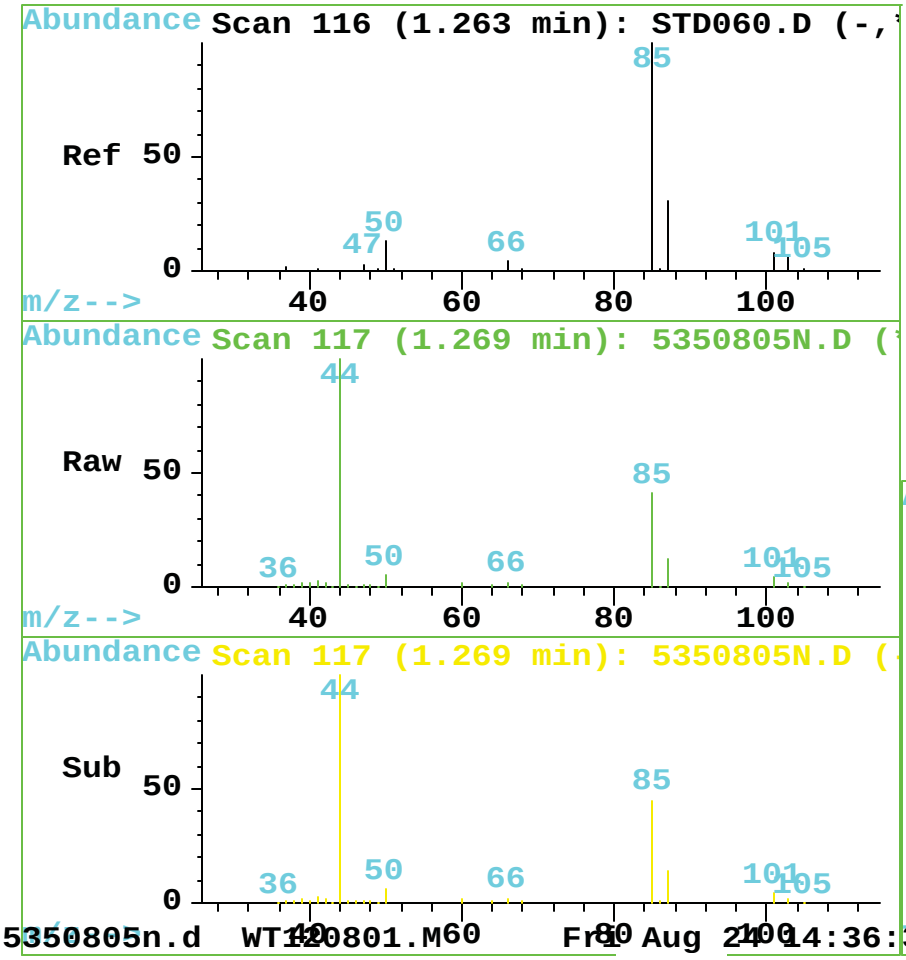


#11
2-Butanone (MEK) (*)
Concen: 42.31 ug/l
RT: 3.72 min Scan# 534
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:43 Resp: 99508

Ion	Ratio	Lower	Upper
43	100		
72	21.6	6.4	66.4
57	7.2	0.0	37.8
0	0.0	0.0	0.0

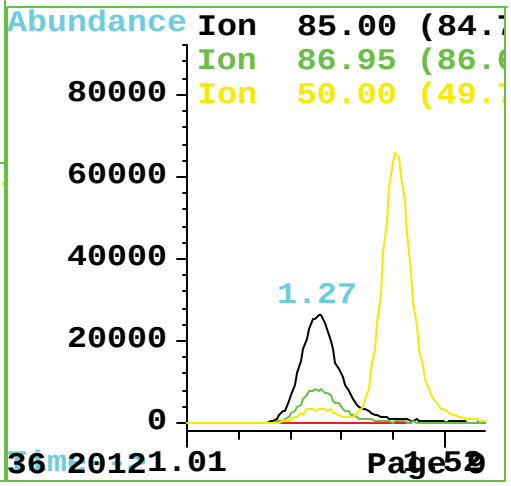


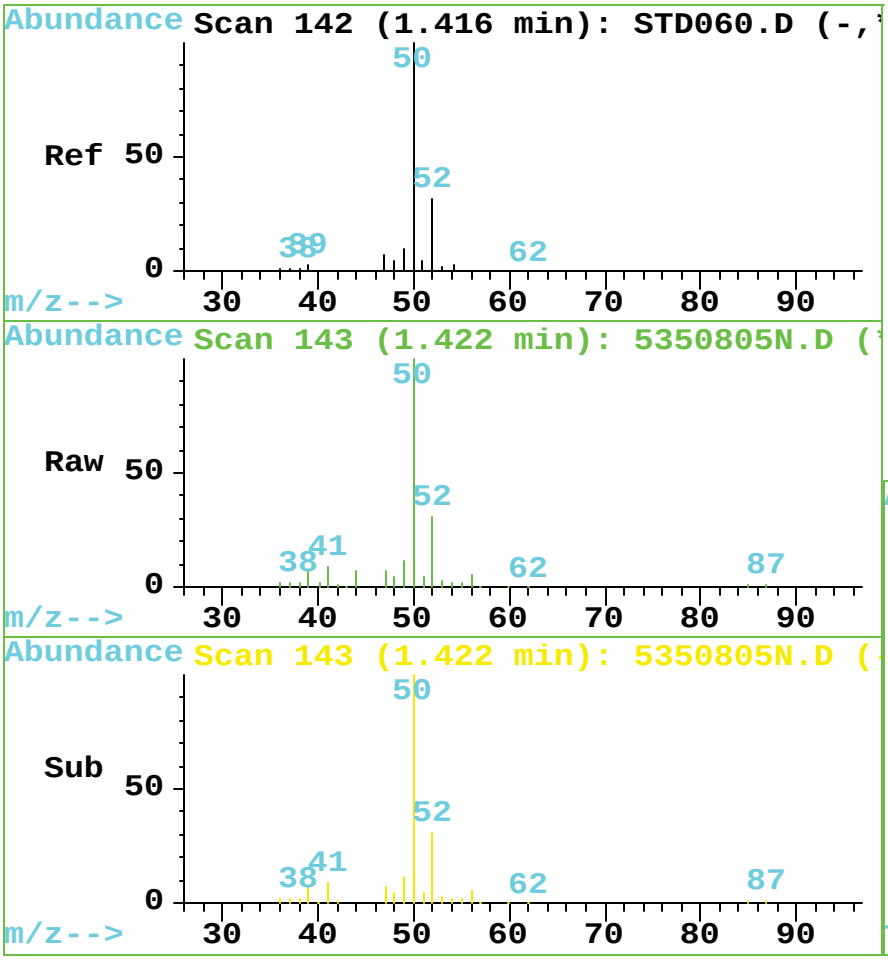


#12
Dichlorodifluoromethane
Concen: 45.78 ug/l
RT: 1.27 min Scan# 117
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:85 Resp: 146070

Ion	Ratio	Lower	Upper
85	100		
87	32.1	1.4	61.4
50	6.0	0.0	34.7
0	0.0	0.0	0.0

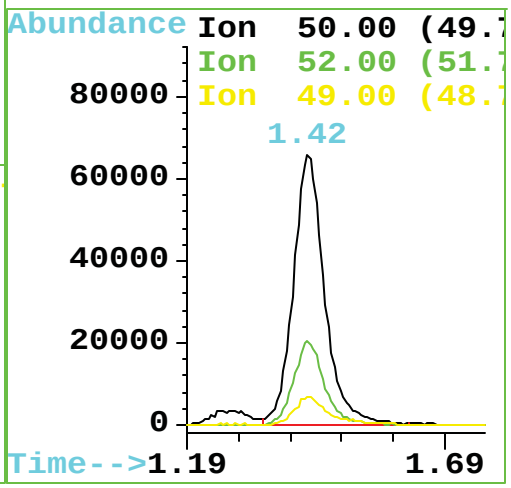


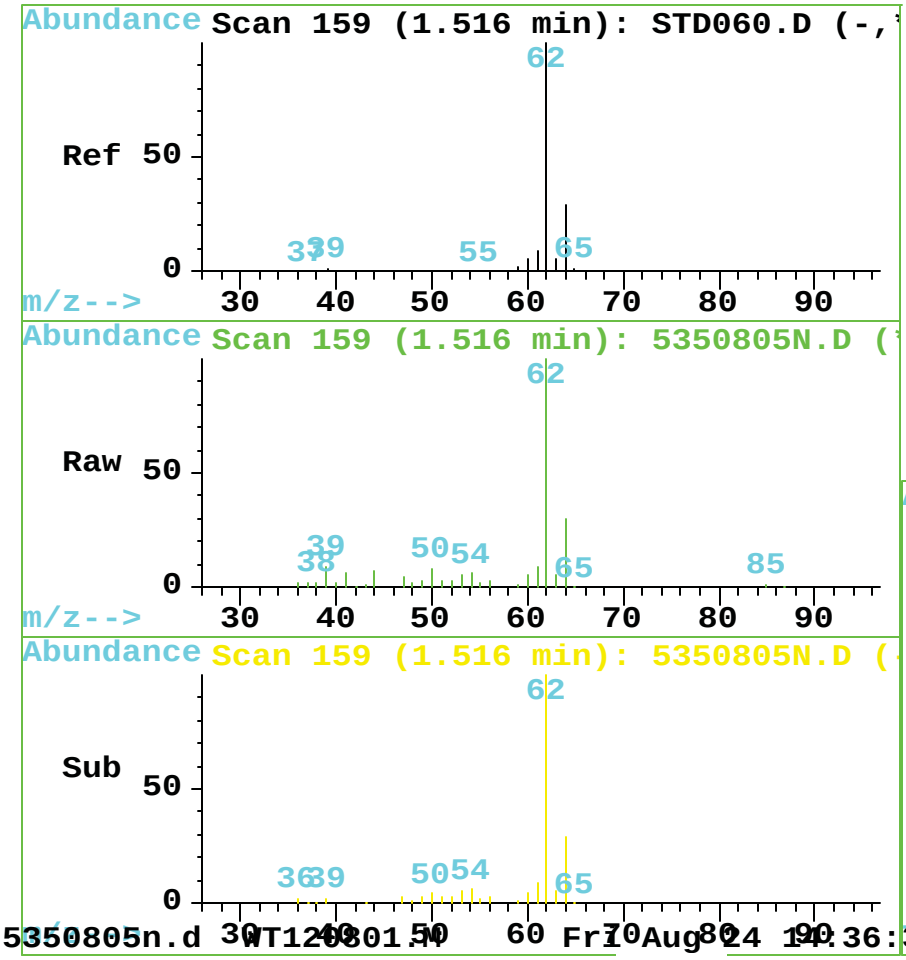


#13
Chloromethane (SPCC)
Concen: 53.36 ug/l
RT: 1.42 min Scan# 143
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:50 Resp: 281492

Ion	Ratio	Lower	Upper
50	100		
52	31.0	1.7	61.7
49	12.0	0.0	38.9
0	0.0	0.0	0.0

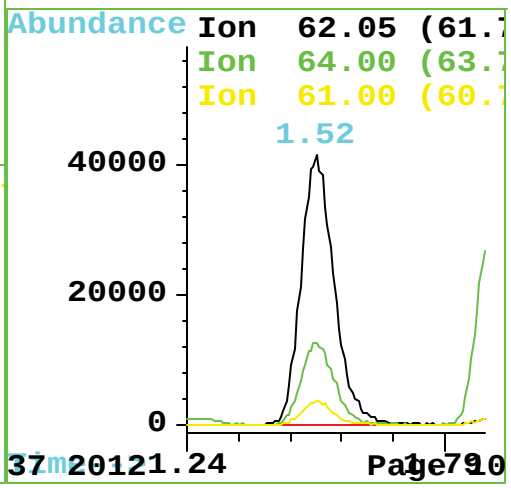


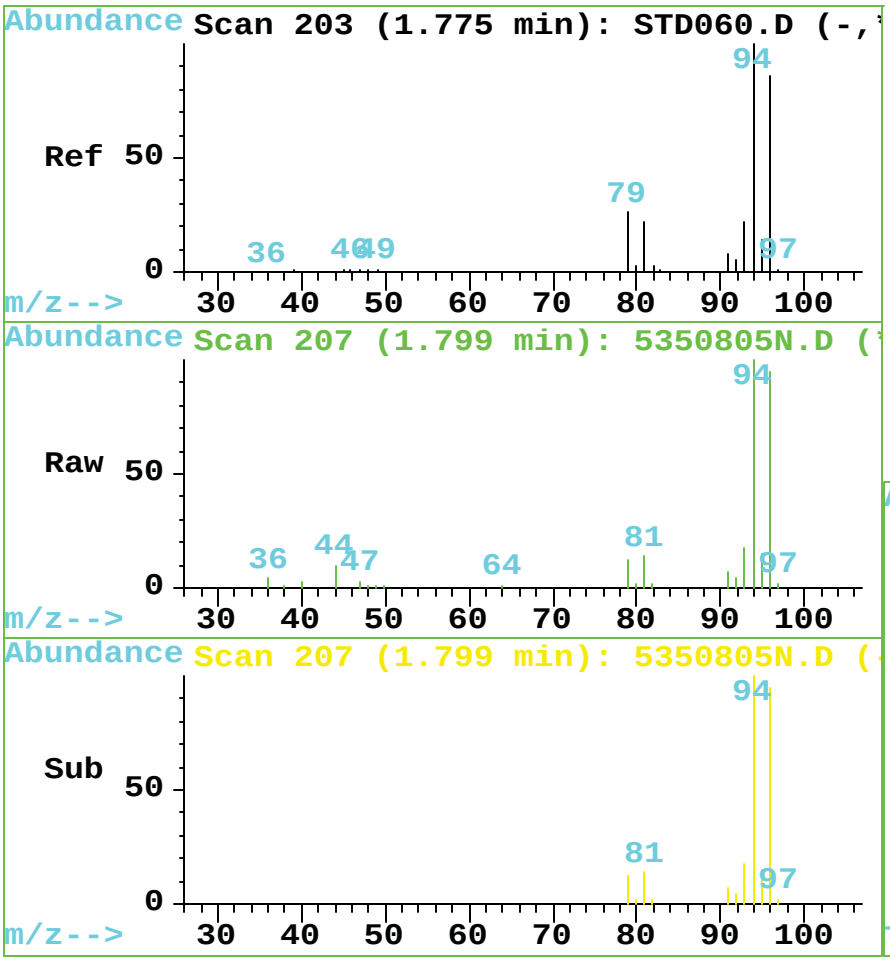


#14
Vinyl Chloride (CCC)
Concen: 43.00 ug/l
RT: 1.52 min Scan# 159
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:62.05 Resp: 20393

Ion	Ratio	Lower	Upper
62	100		
64	30.8	2.7	62.7
61	8.3	0.0	37.9
0	0.0	0.0	0.0

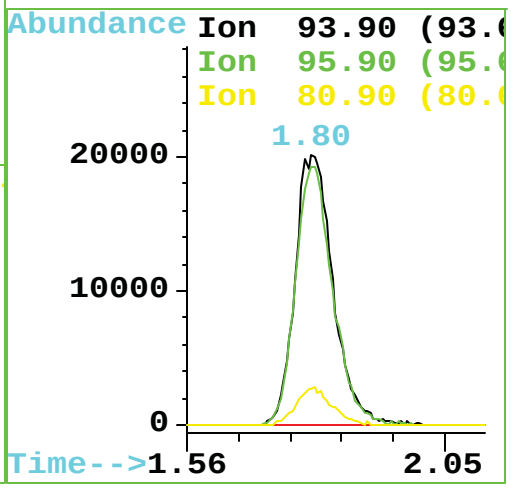


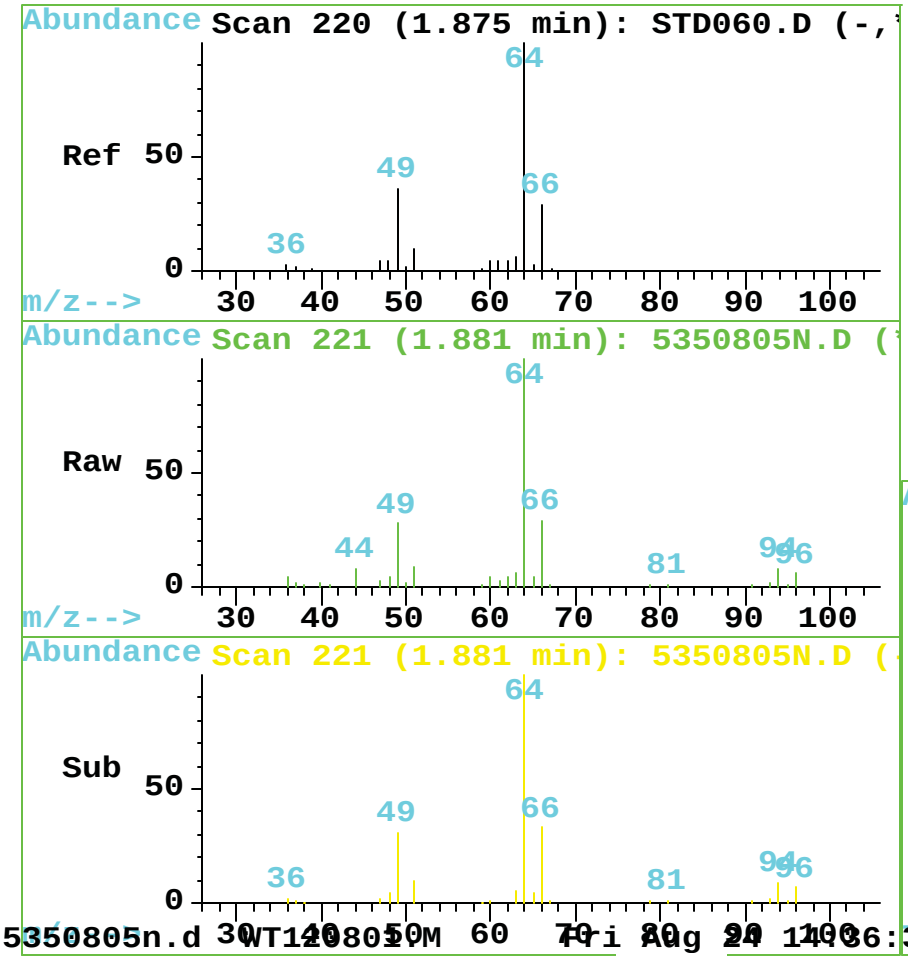


#15
Bromomethane
Concen: 46.85 ug/l
RT: 1.80 min Scan# 207
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:93.9 Resp: 101168

Ion	Ratio	Lower	Upper
94	100		
96	93.9	65.8	125.8
81	12.8	0.0	38.8
0	0.0	0.0	0.0

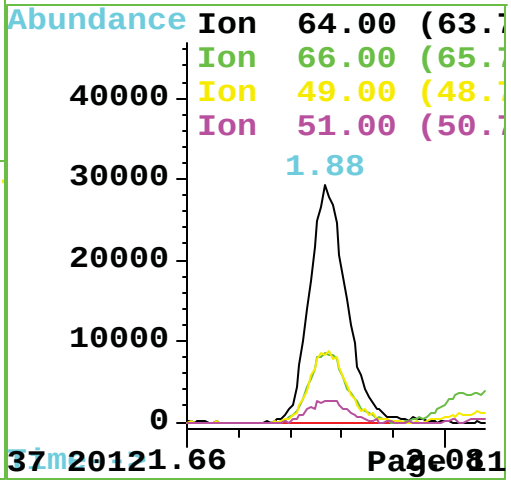


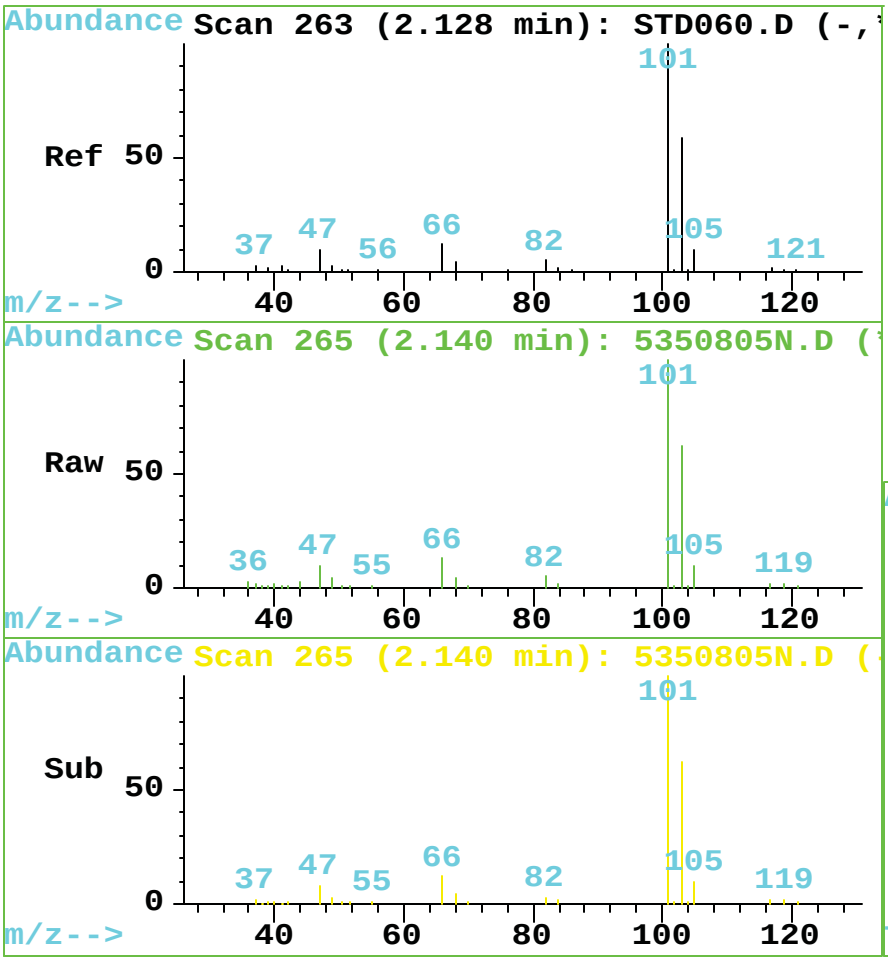


#16
Chloroethane
Concen: 47.96 ug/l
RT: 1.88 min Scan# 221
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:64 Resp: 122132

Ion	Ratio	Lower	Upper
64	100		
66	30.3	2.6	62.6
49	30.7	0.0	49.7
51	9.4	0.0	36.1

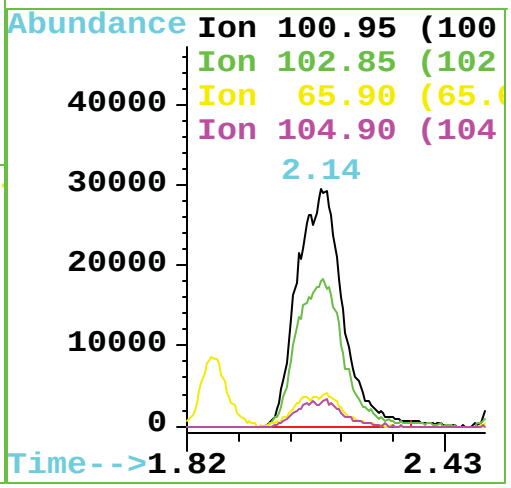


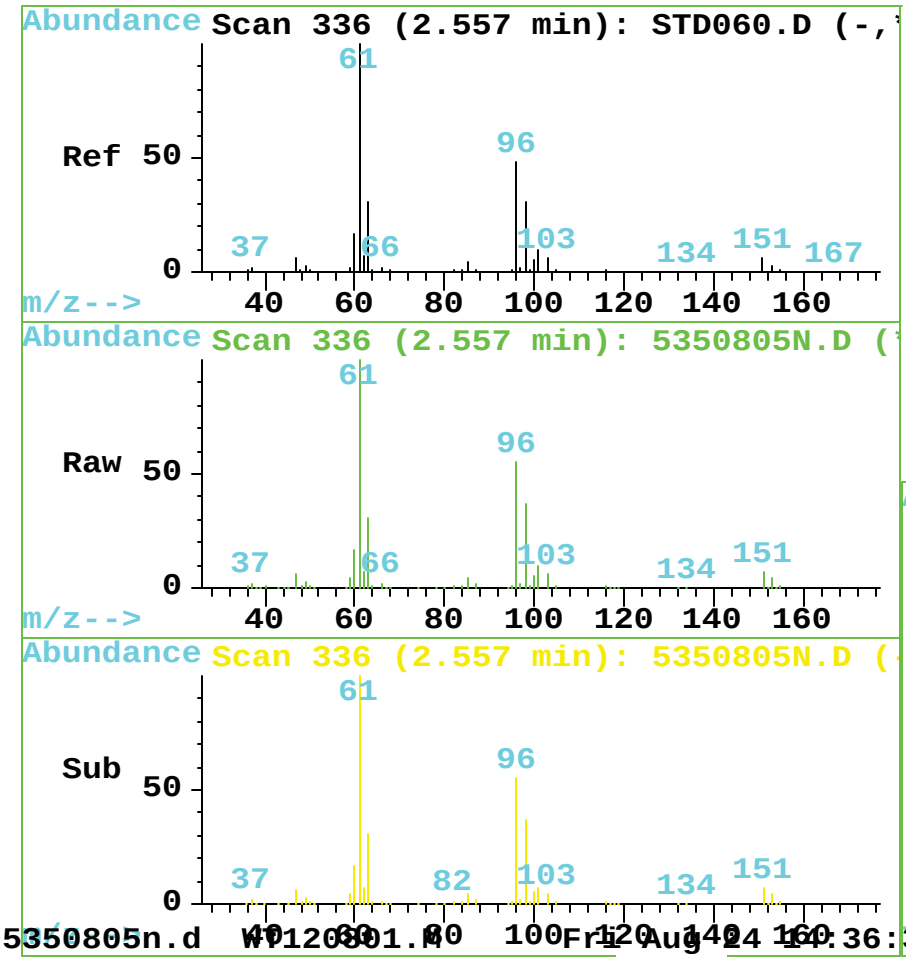


#18
Trichlorofluoromethane
Concen: 46.37 ug/l
RT: 2.14 min Scan# 265
Delta R.T. 0.03 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:100.95 Resp: 2217

Ion	Ratio	Lower	Upper
101	100		
103	63.6	35.8	95.8
66	6.6	0.0	39.7
105	5.2	0.0	40.7

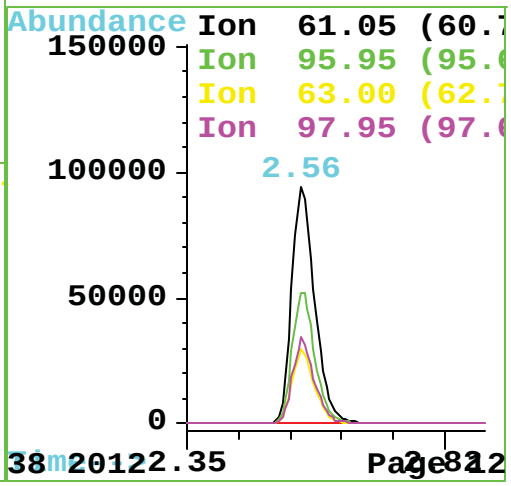


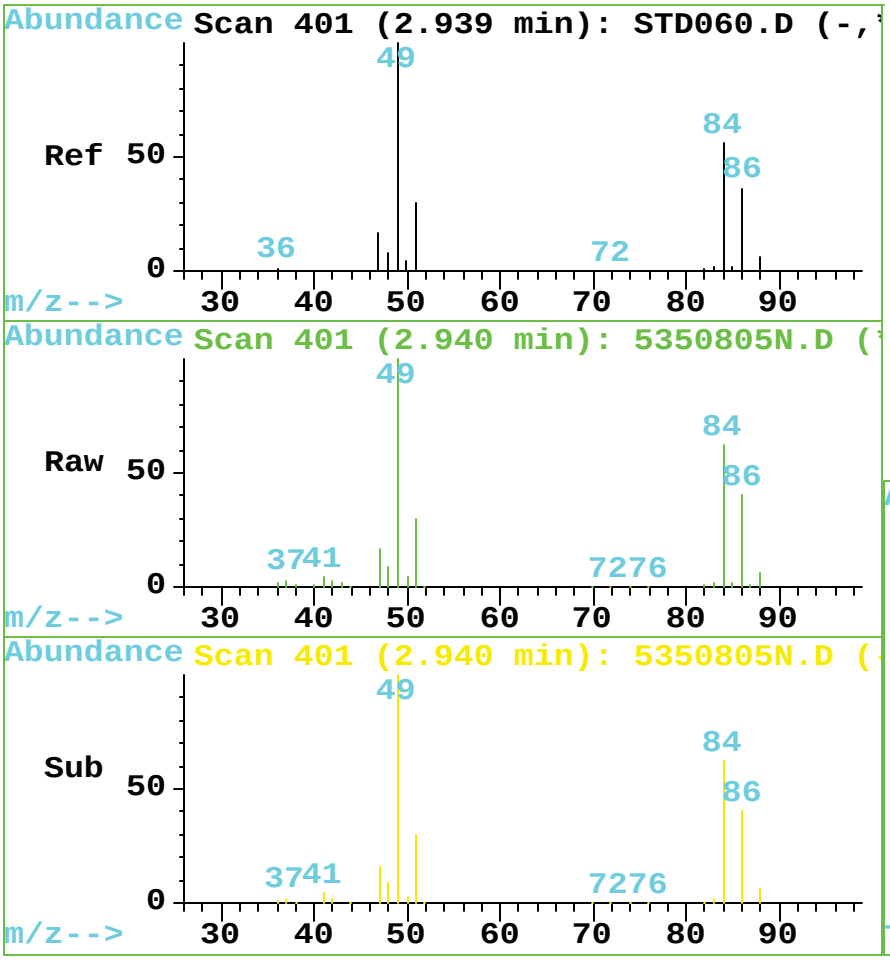


#19
1,1-Dichloroethene (CCC/MS
Concen: 47.84 ug/l
RT: 2.56 min Scan# 336
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:61.05 Resp: 28587

Ion	Ratio	Lower	Upper
61	100		
96	54.8	53.4	113.4
63	30.3	1.9	61.9
98	34.4	23.0	83.0

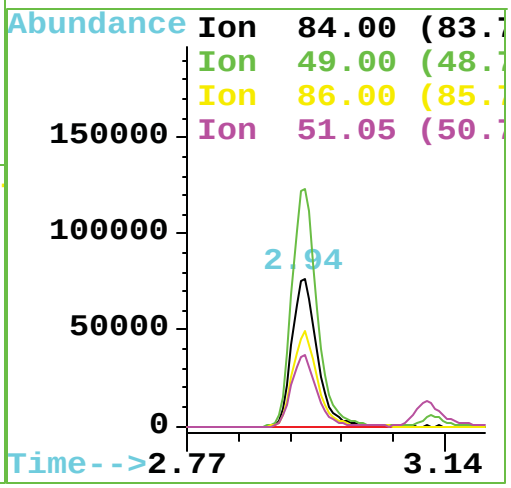


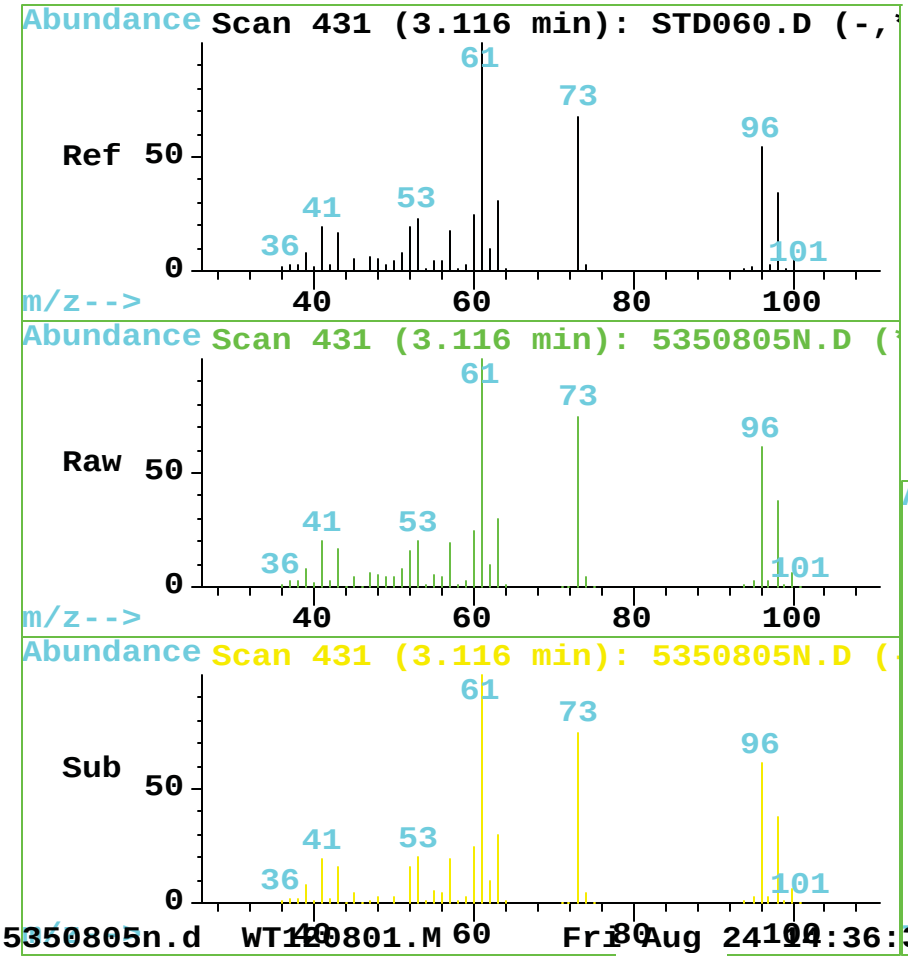


#20
Methylene Chloride
Concen: 50.78 ug/l
RT: 2.94 min Scan# 401
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:84 Resp: 185452

Ion	Ratio	Lower	Upper
84	100		
49	162.4	62.0	122.0#
86	63.0	34.3	94.3
51	47.9	0.0	58.7

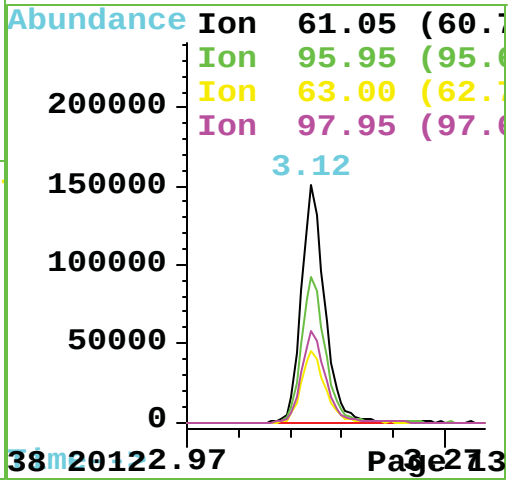


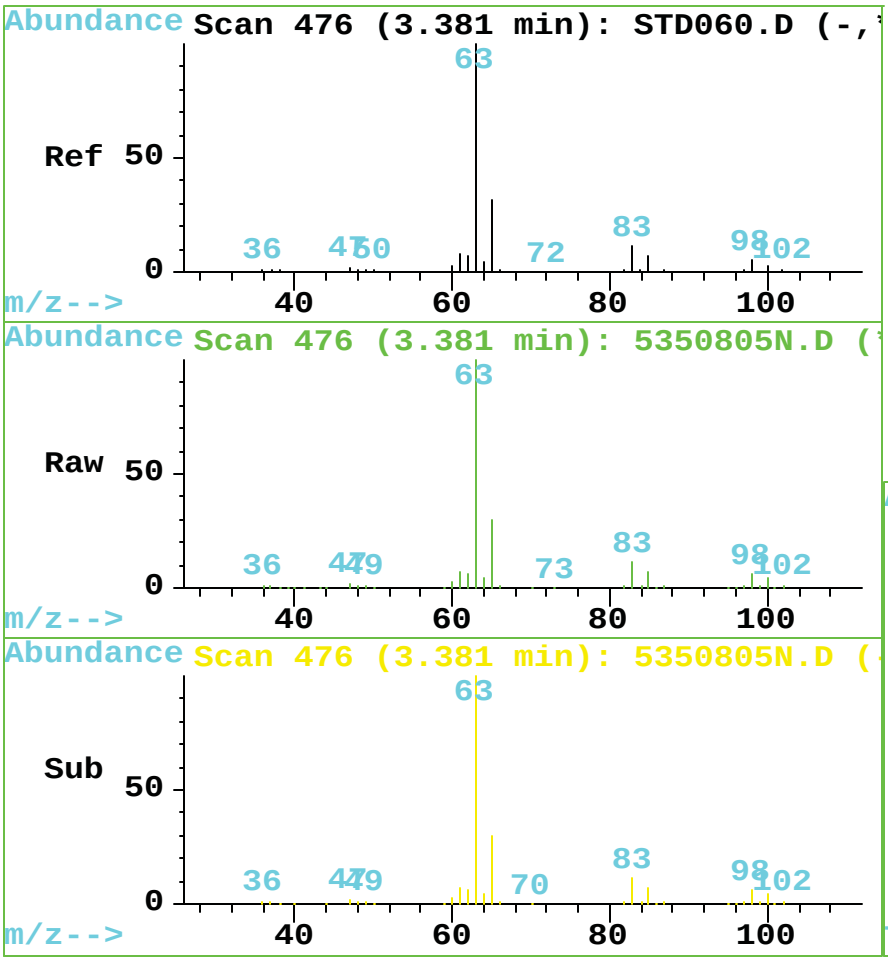


#21
trans-1,2-Dichloroethene
Concen: 49.19 ug/l
RT: 3.12 min Scan# 431
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:61.05 Resp: 28629

Ion	Ratio	Lower	Upper
61	100		
96	62.2	62.0	122.0
63	30.3	2.0	62.0
98	38.9	28.2	88.2

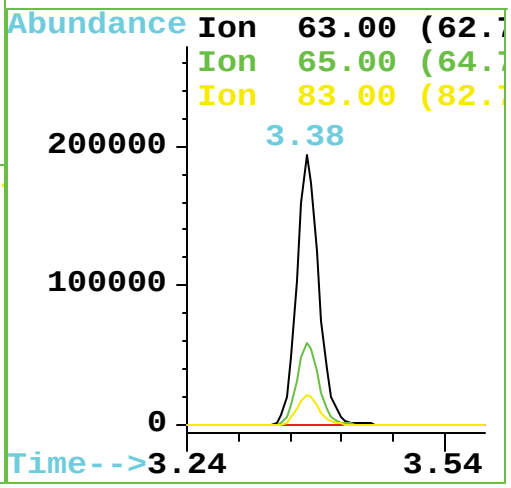


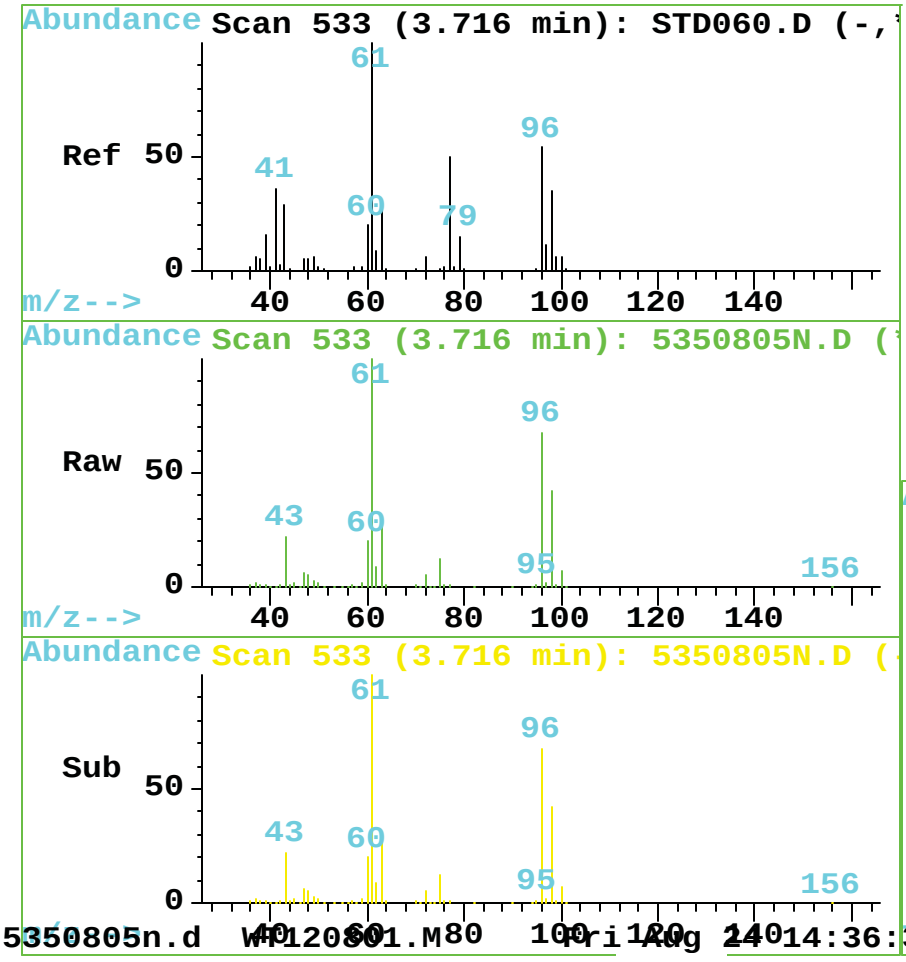


#22
1,1-Dichloroethane (SPCC)
Concen: 50.39 ug/l
RT: 3.38 min Scan# 476
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:63 Resp: 352052

Ion	Ratio	Lower	Upper
63	100		
65	30.4	1.7	61.7
83	11.4	0.0	43.5
0	0.0	0.0	0.0

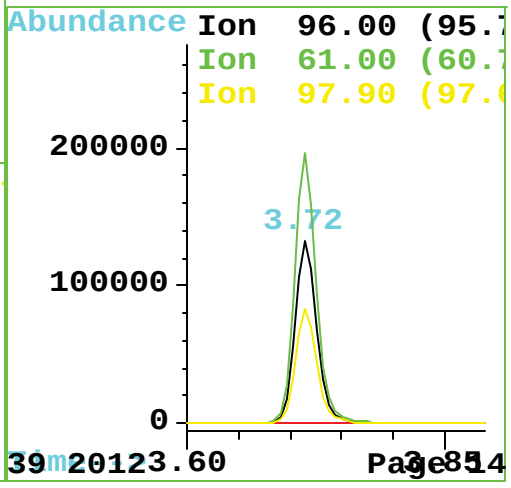


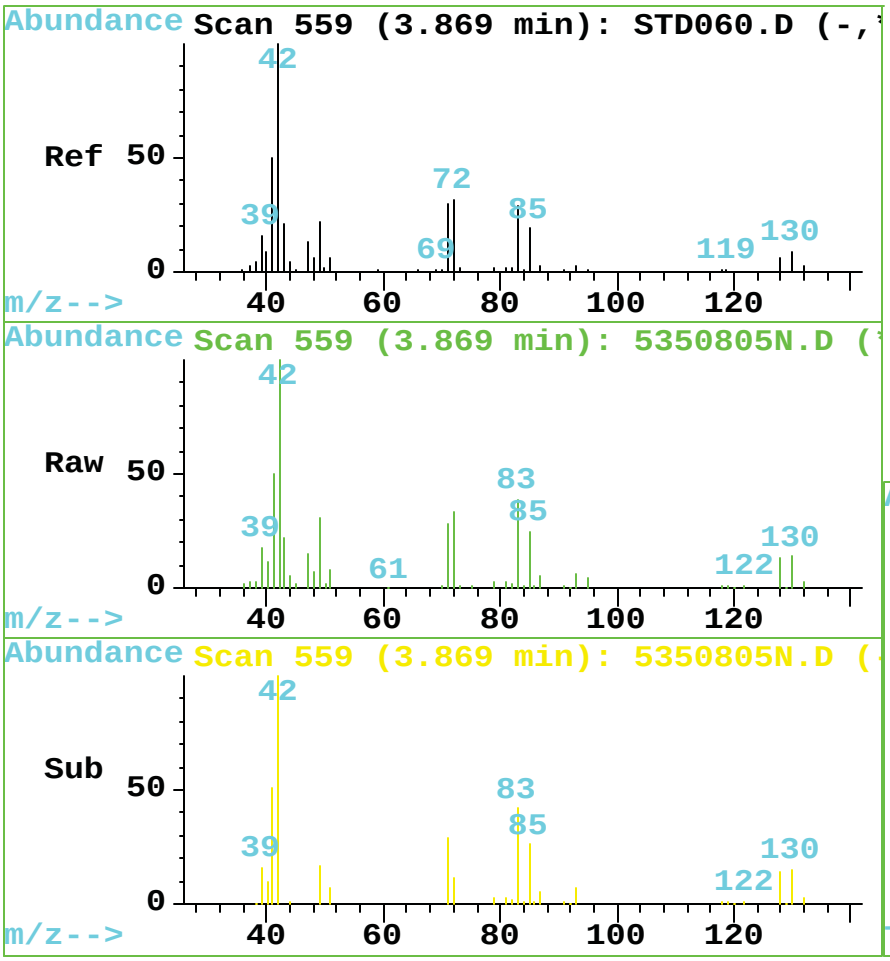


#23
cis-1,2-Dichloroethene
Concen: 51.84 ug/l
RT: 3.72 min Scan# 533
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:96 Resp: 195494

Ion	Ratio	Lower	Upper
96	100		
61	147.0	79.3	139.3#
98	62.3	33.9	93.9
0	0.0	0.0	0.0

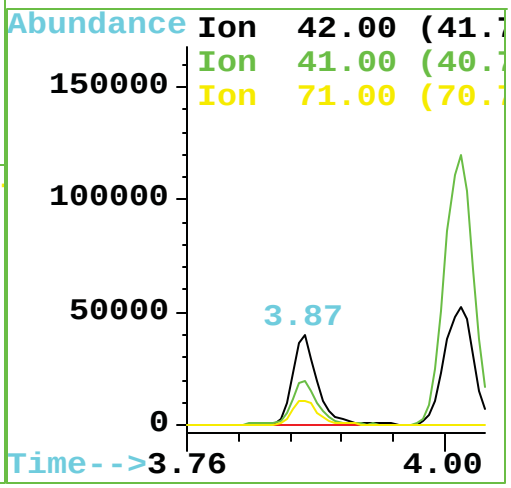


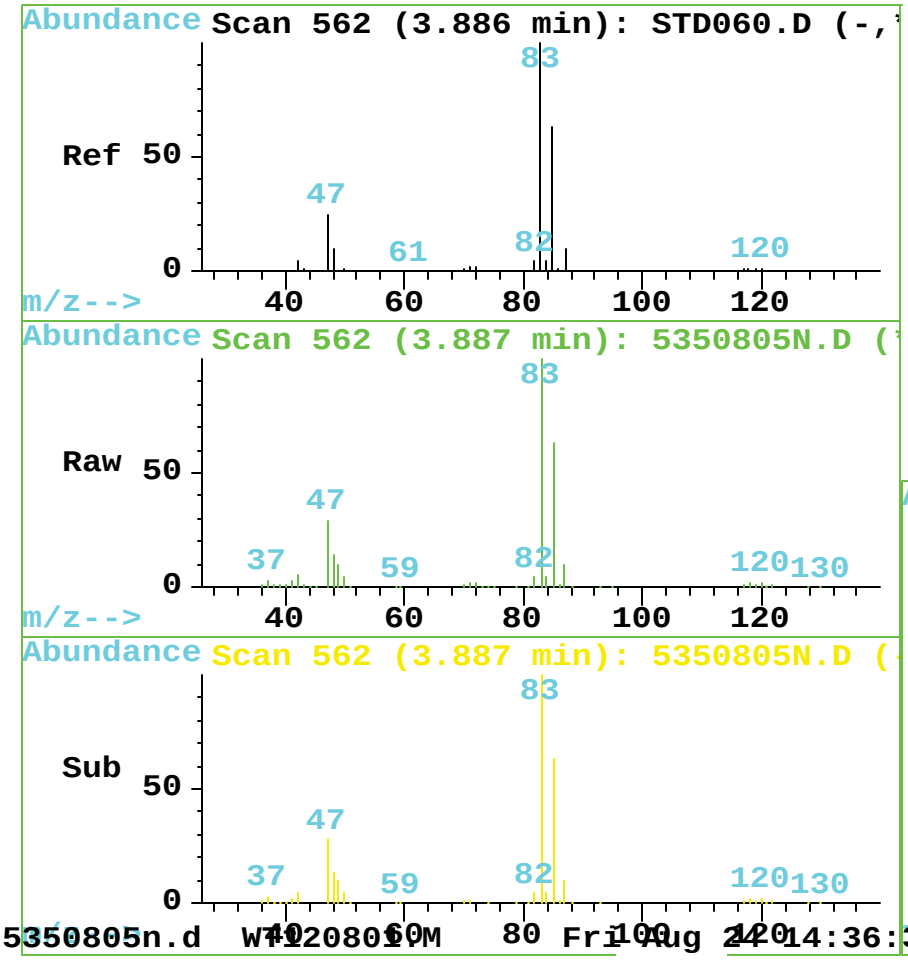


#24
Tetrahydrofuran
Concen: 44.49 ug/l
RT: 3.87 min Scan# 559
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:42 Resp: 67028

Ion	Ratio	Lower	Upper
42	100		
41	53.8	179.3	239.3#
71	29.8	14.9	74.9
0	0.0	0.0	0.0

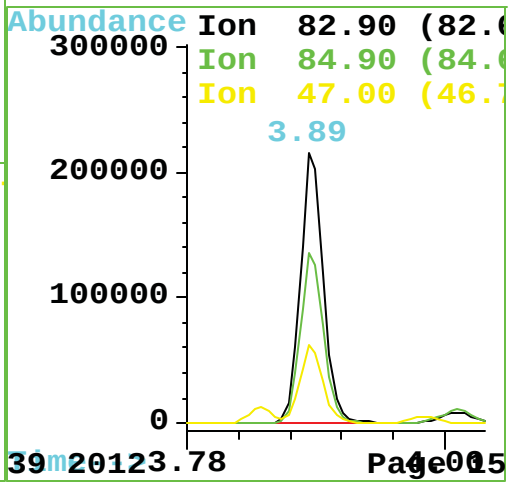


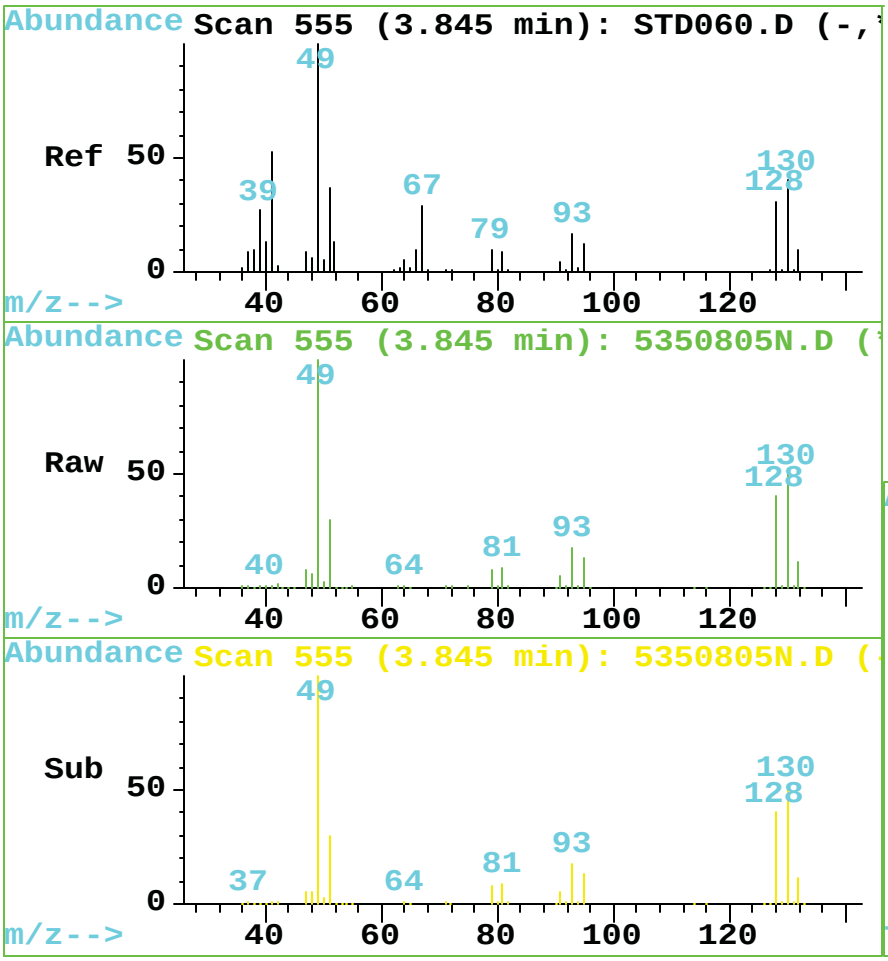


#25
Chloroform (CCC)
Concen: 49.99 ug/l
RT: 3.89 min Scan# 562
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:82.9 Resp: 300174

Ion	Ratio	Lower	Upper
83	100		
85	63.9	36.2	96.2
47	28.5	0.0	46.5
0	0.0	0.0	0.0

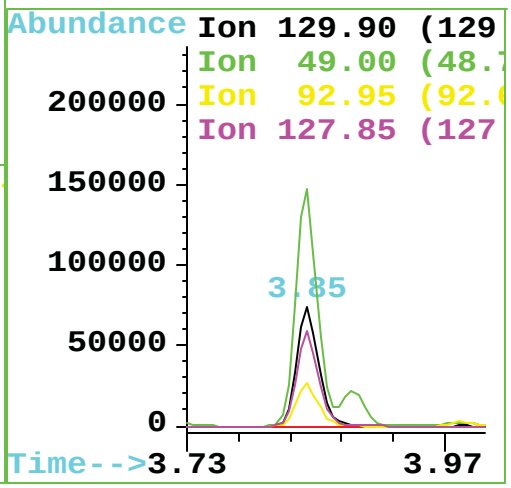


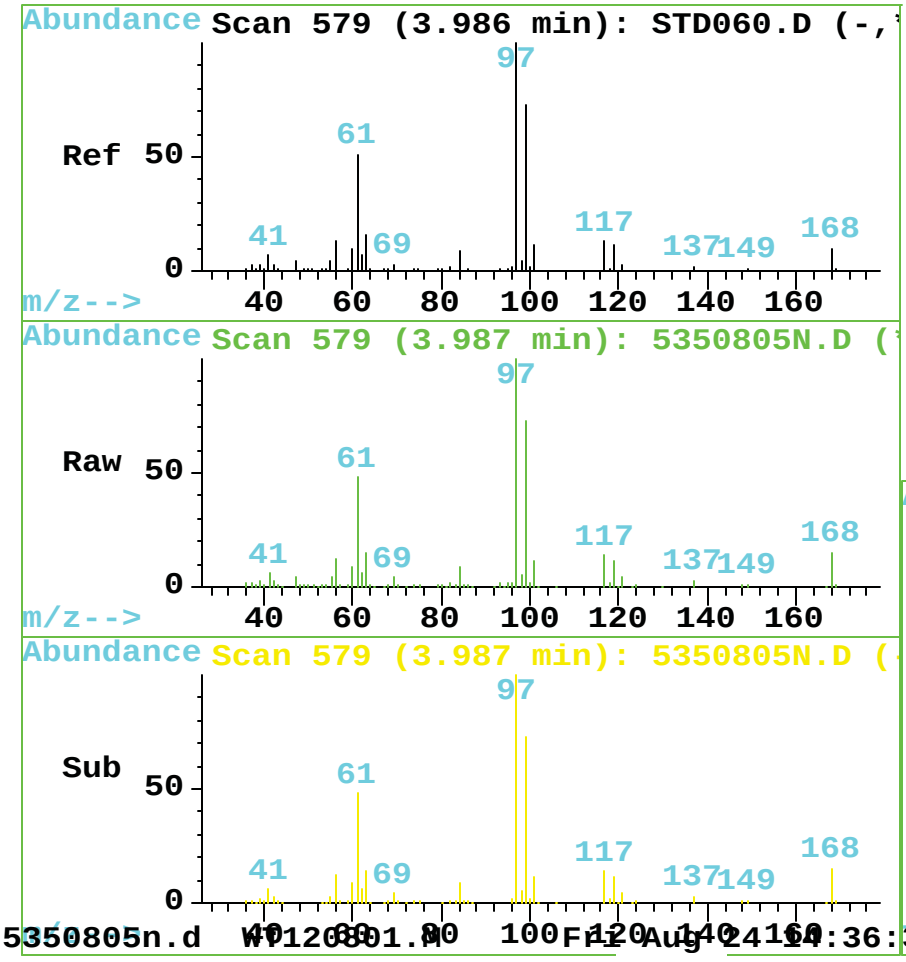


#26
Bromochloromethane
Concen: 53.00 ug/l
RT: 3.85 min Scan# 555
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:129.9 Resp: 10506

Ion	Ratio	Lower	Upper
130	100		
49	200.6	51.9	111.9#
93	36.0	0.0	55.3
128	78.8	46.1	106.1

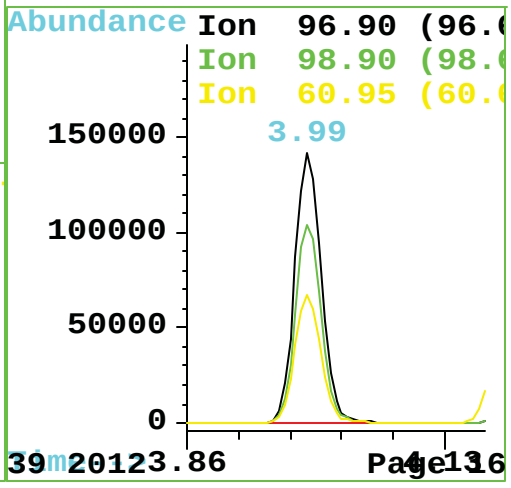


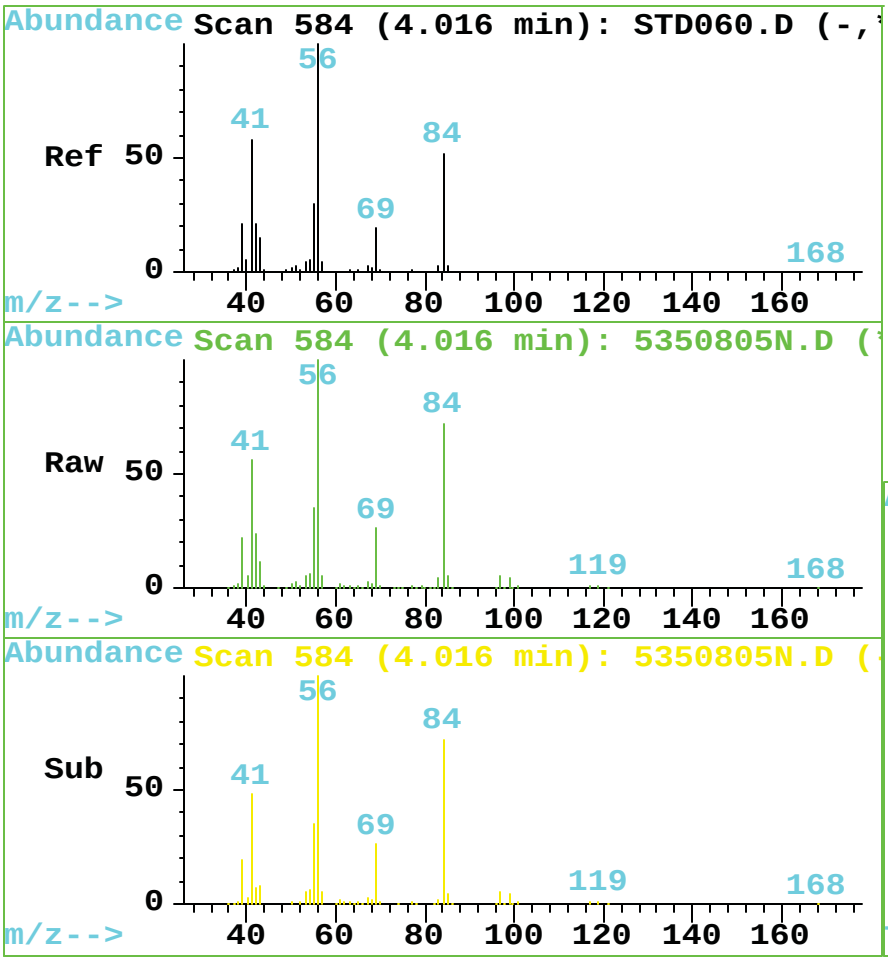


#27
1,1,1-Trichloroethane
Concen: 51.17 ug/l
RT: 3.99 min Scan# 579
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:96.9 Resp: 265964

Ion	Ratio	Lower	Upper
97	100		
99	71.7	230.0	290.0#
61	47.4	11.8	71.8
0	0.0	0.0	0.0

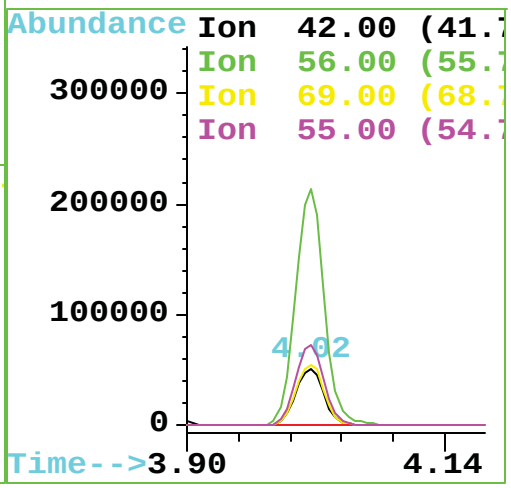


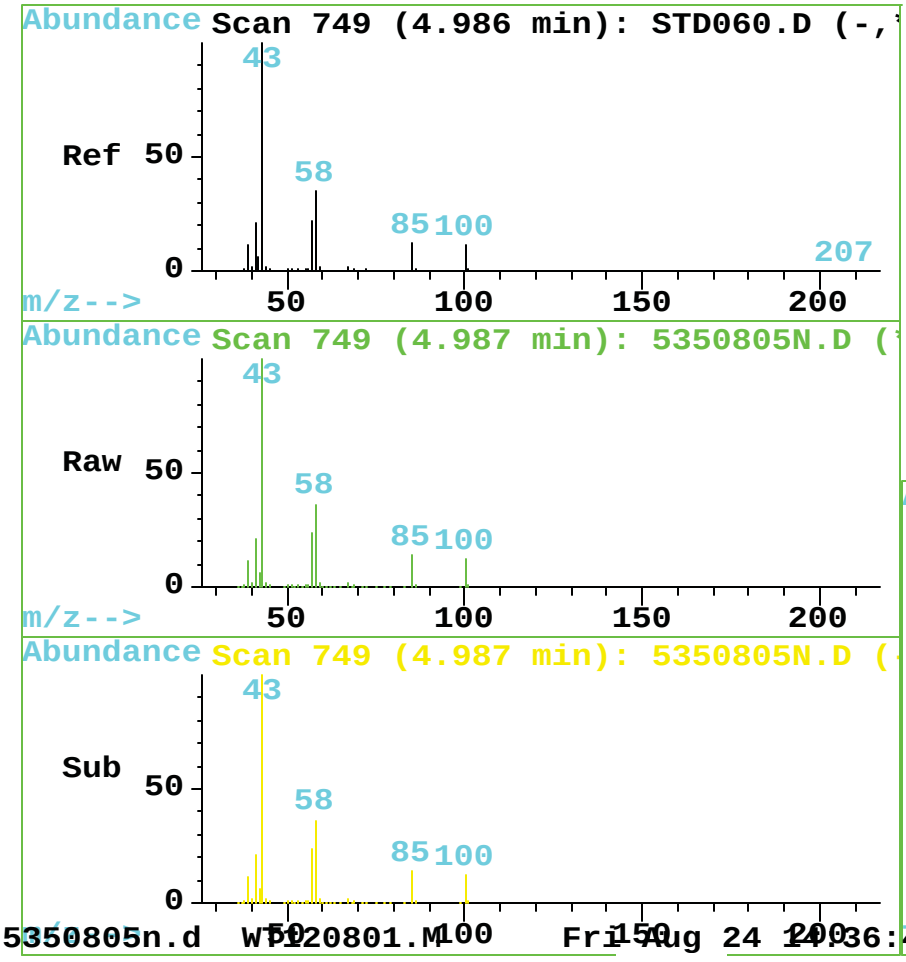


#29
Cyclohexane
Concen: 43.33 ug/l
RT: 4.02 min Scan# 584
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:42 Resp: 102342

Ion	Ratio	Lower	Upper
42	100		
56	408.5	857.9	917.9#
69	106.8	156.0	216.0#
55	141.8	174.4	234.4#

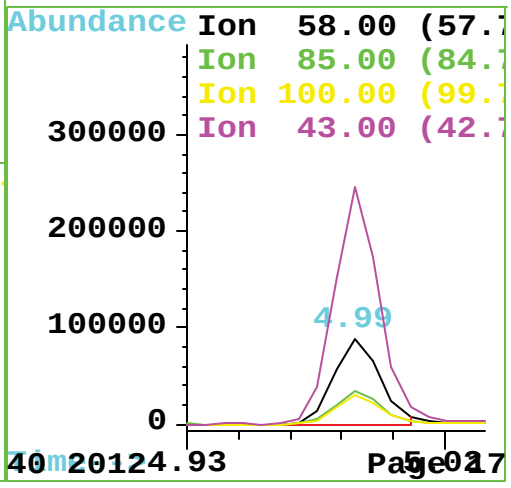


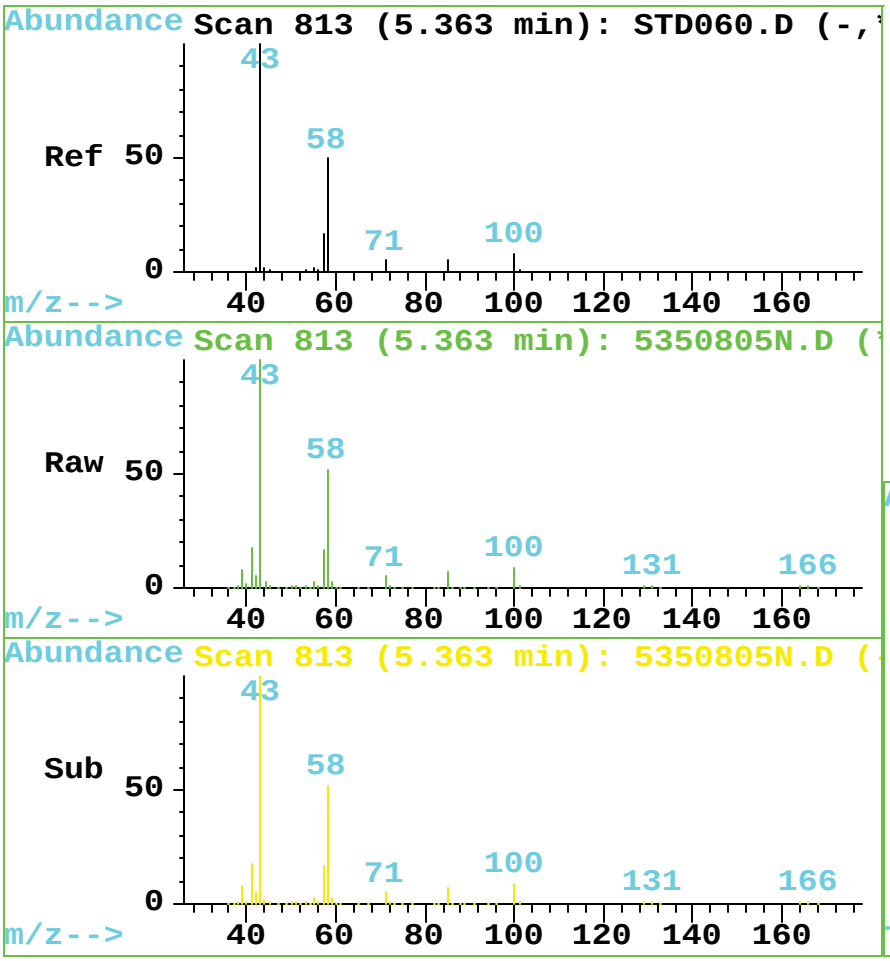


#32
4-Methyl-2-pentanone (MIBK
Concen: 66.76 ug/l
RT: 4.99 min Scan# 749
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:58 Resp: 90094

Ion	Ratio	Lower	Upper
58	100		
85	38.3	21.9	81.9
100	33.1	27.6	87.6
43	270.4	199.0	259.0#

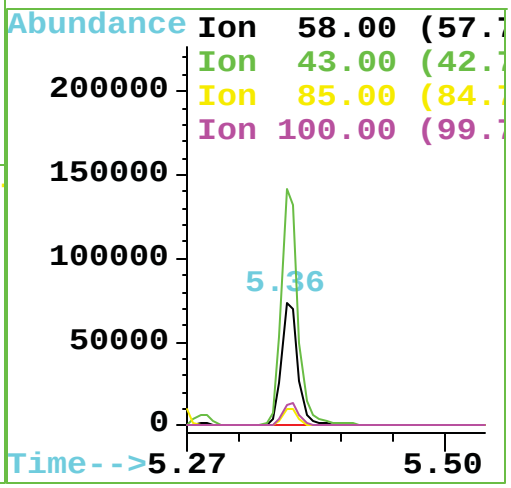


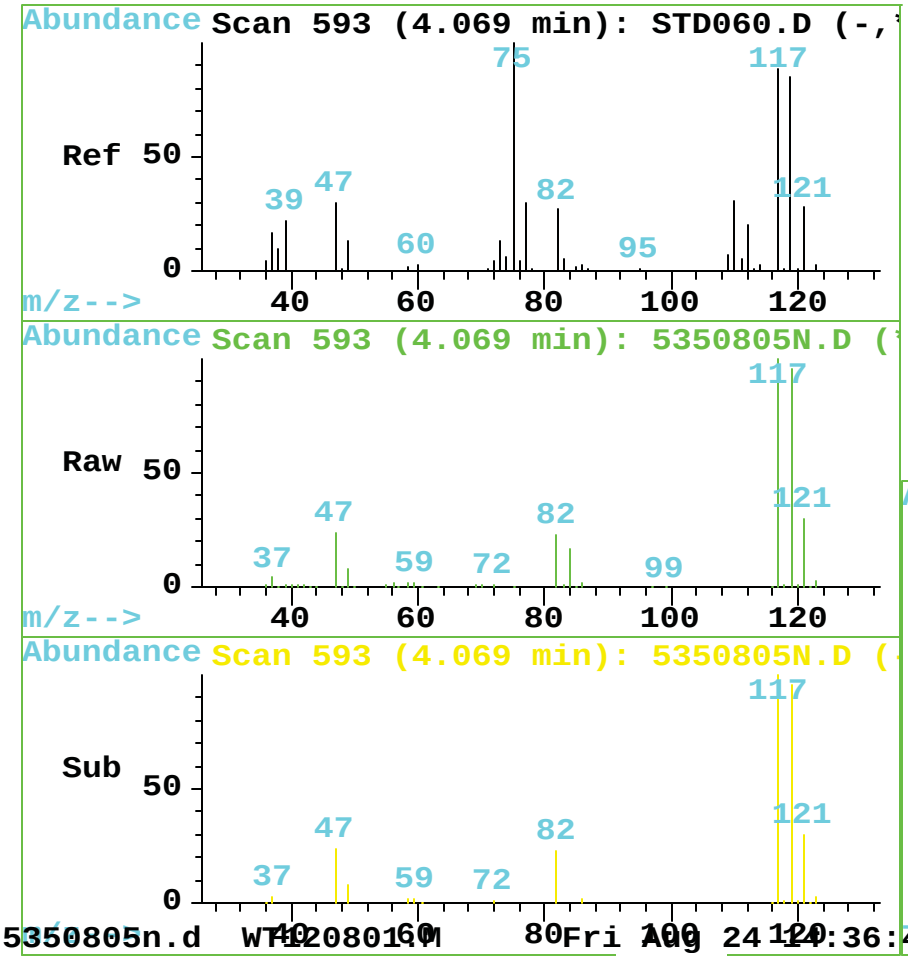


#33
2-Hexanone (*)
Concen: 49.16 ug/l
RT: 5.36 min Scan# 813
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:58 Resp: 77025

Ion	Ratio	Lower	Upper
58	100		
43	194.1	120.9	180.9#
85	14.2	0.0	48.4
100	19.3	0.5	60.5

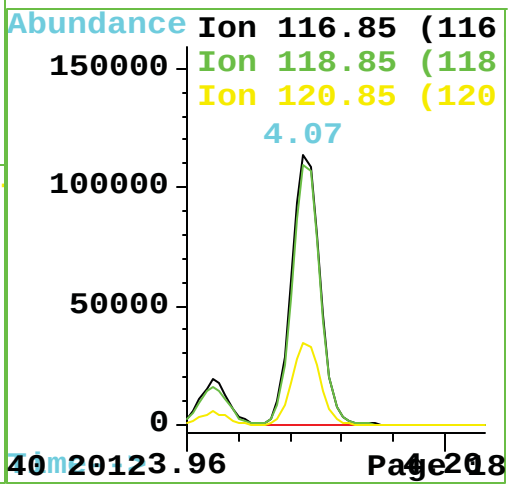


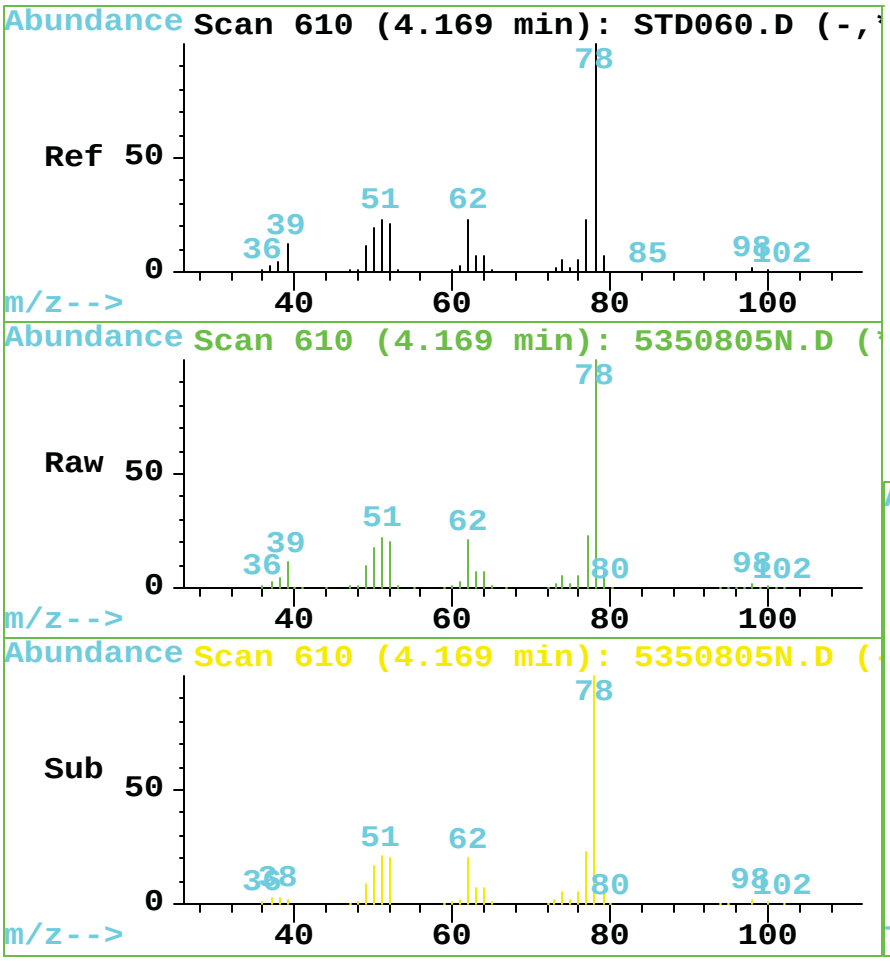


#35
Carbon Tetrachloride
Concen: 51.11 ug/l
RT: 4.07 min Scan# 593
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:116.85 Resp: 2051

Ion	Ratio	Lower	Upper
117	100		
119	94.7	67.4	127.4
121	30.1	1.5	61.5
0	0.0	0.0	0.0

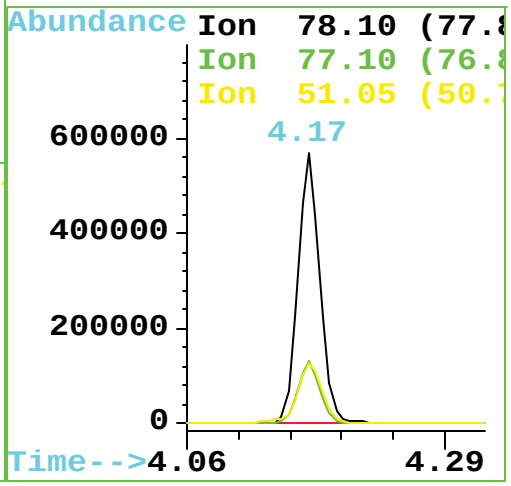


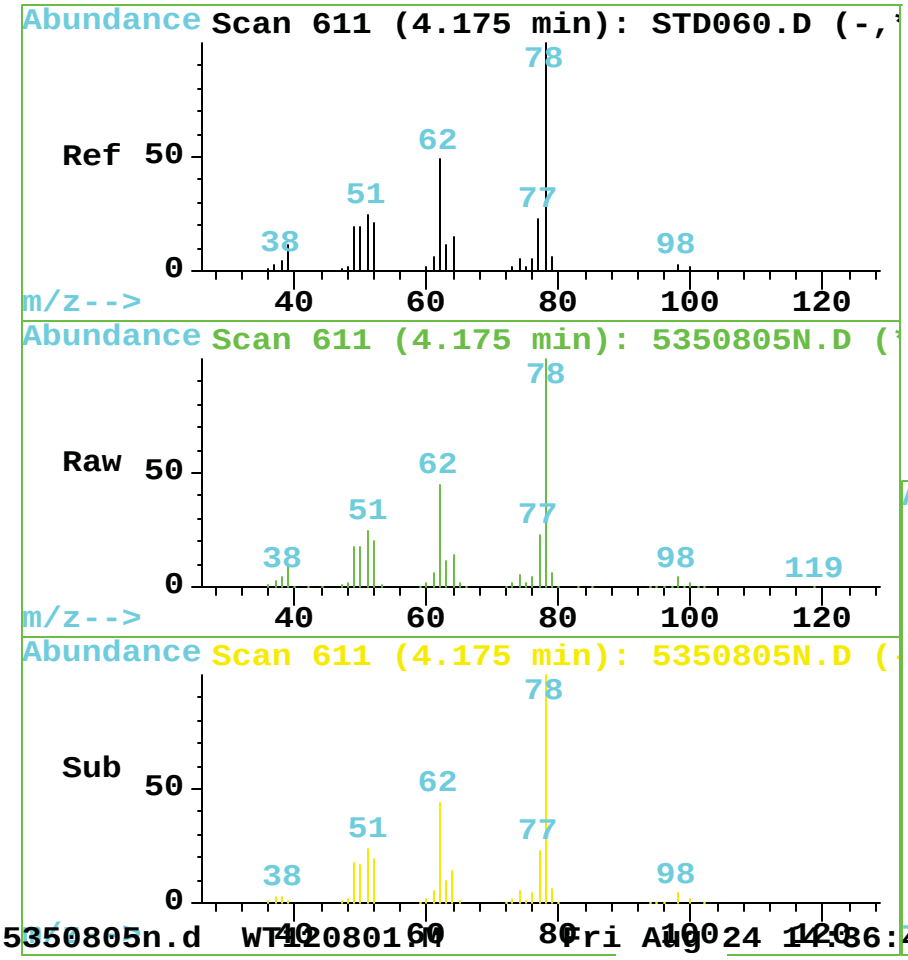


#36
Benzene (MS)
Concen: 51.21 ug/l
RT: 4.17 min Scan# 610
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:78.1 Resp: 755966

Ion	Ratio	Lower	Upper
78	100		
77	23.0	0.0	52.9
51	24.9	0.0	43.1
0	0.0	0.0	0.0

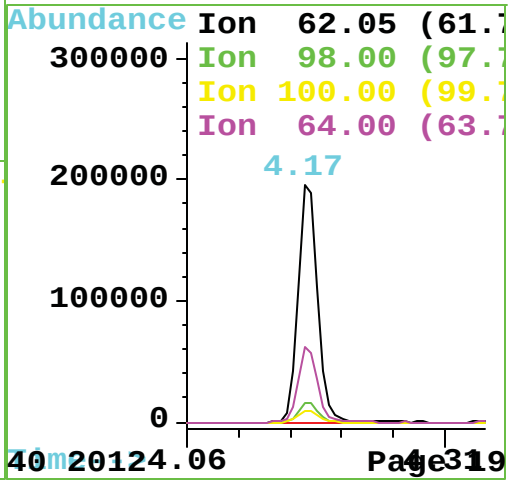


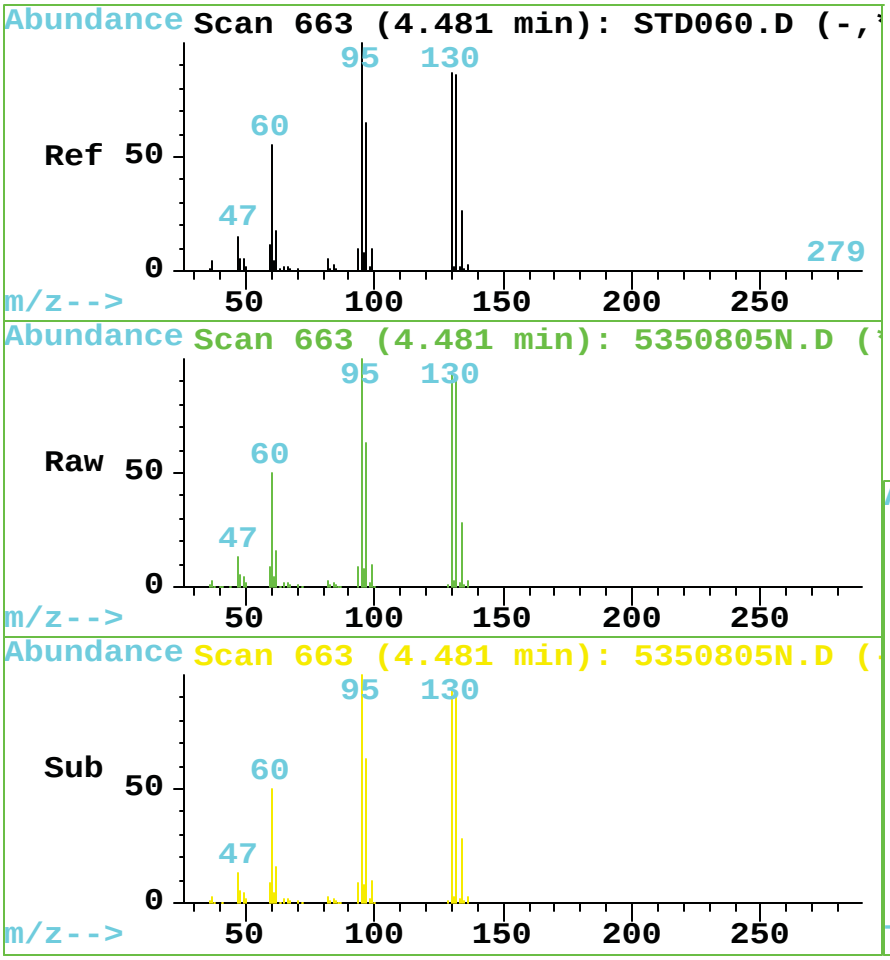


#37
1,2-Dichloroethane
Concen: 48.80 ug/l
RT: 4.17 min Scan# 611
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:62.05 Resp: 25938

Ion	Ratio	Lower	Upper
62	100		
98	8.3	0.0	45.2
100	5.0	0.0	39.3
64	31.2	3.7	63.7

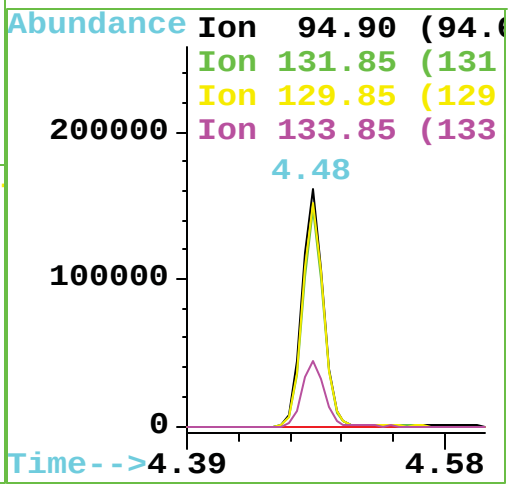


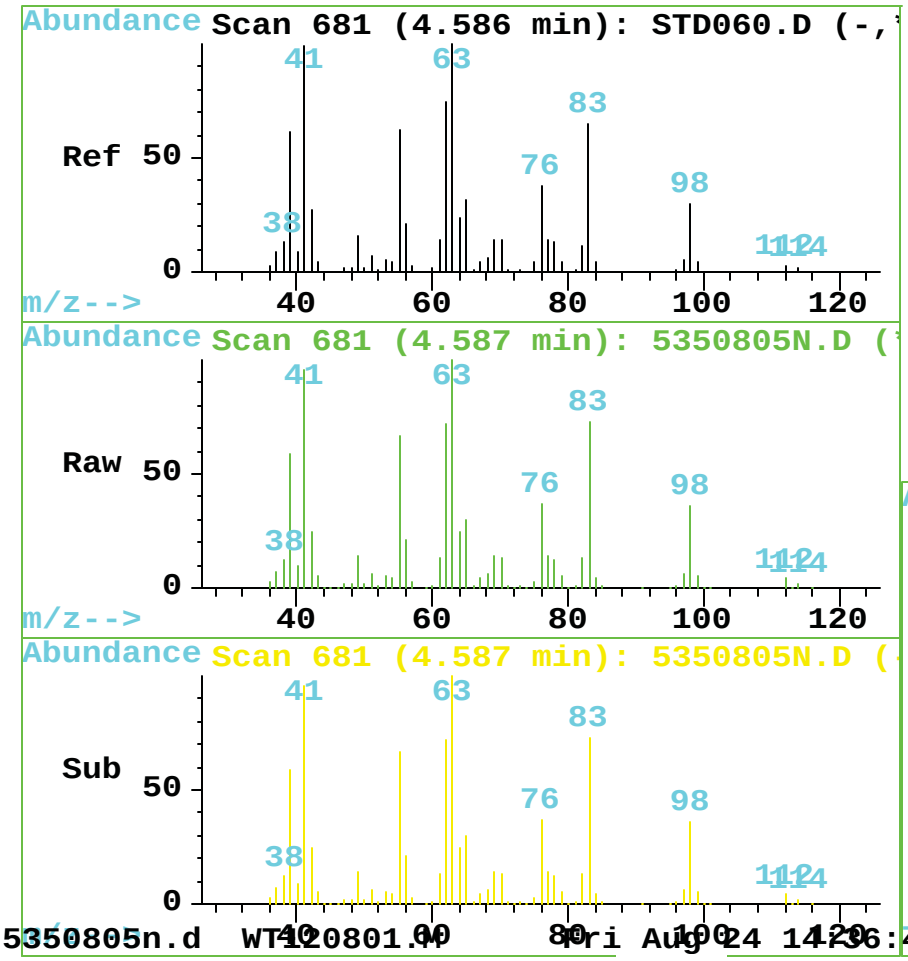


#38
Trichloroethene (MS)
Concen: 51.31 ug/l
RT: 4.48 min Scan# 663
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:94.9 Resp: 174661

Ion	Ratio	Lower	Upper
95	100		
132	90.0	88.7	148.7
130	93.8	91.7	151.7
134	28.3	7.7	67.7

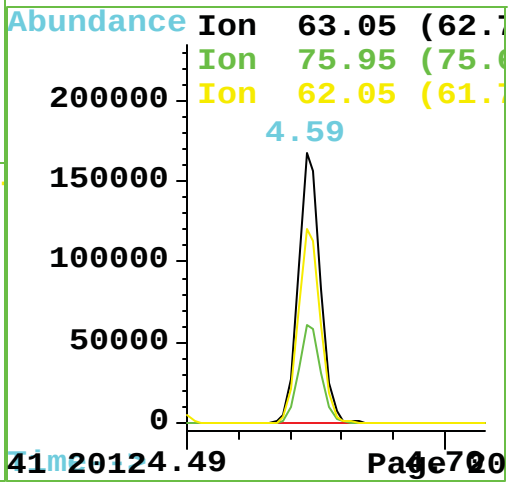


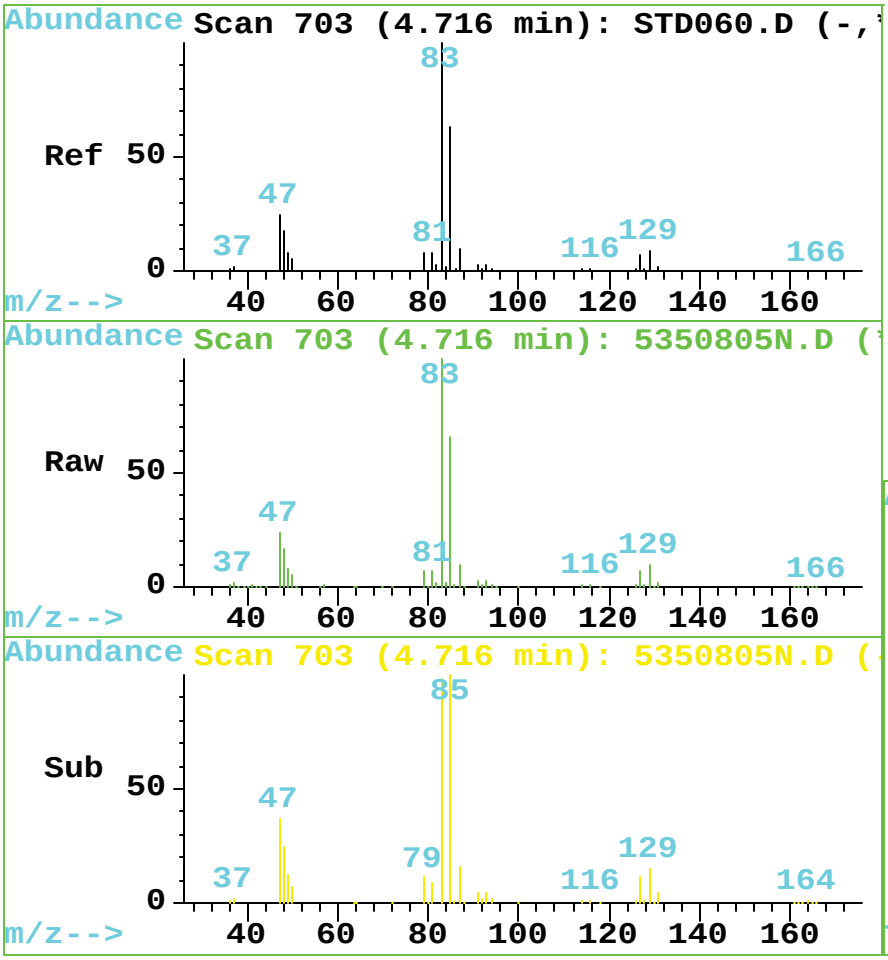


#39
1,2-Dichloropropane (CCC)
Concen: 51.83 ug/l
RT: 4.59 min Scan# 681
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:63.05 Resp: 20322

Ion	Ratio	Lower	Upper
63	100		
76	36.4	6.9	66.9
62	72.8	38.7	98.7
0	0.0	0.0	0.0

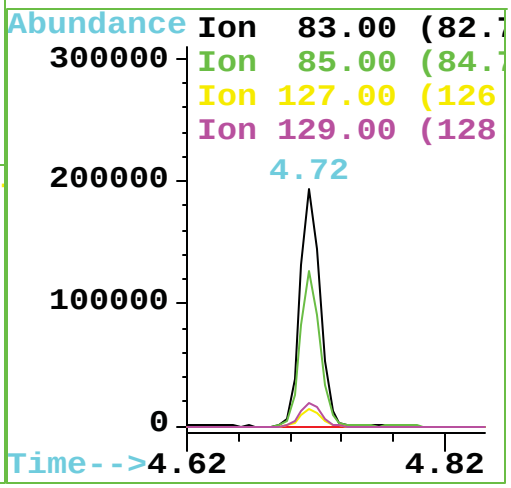


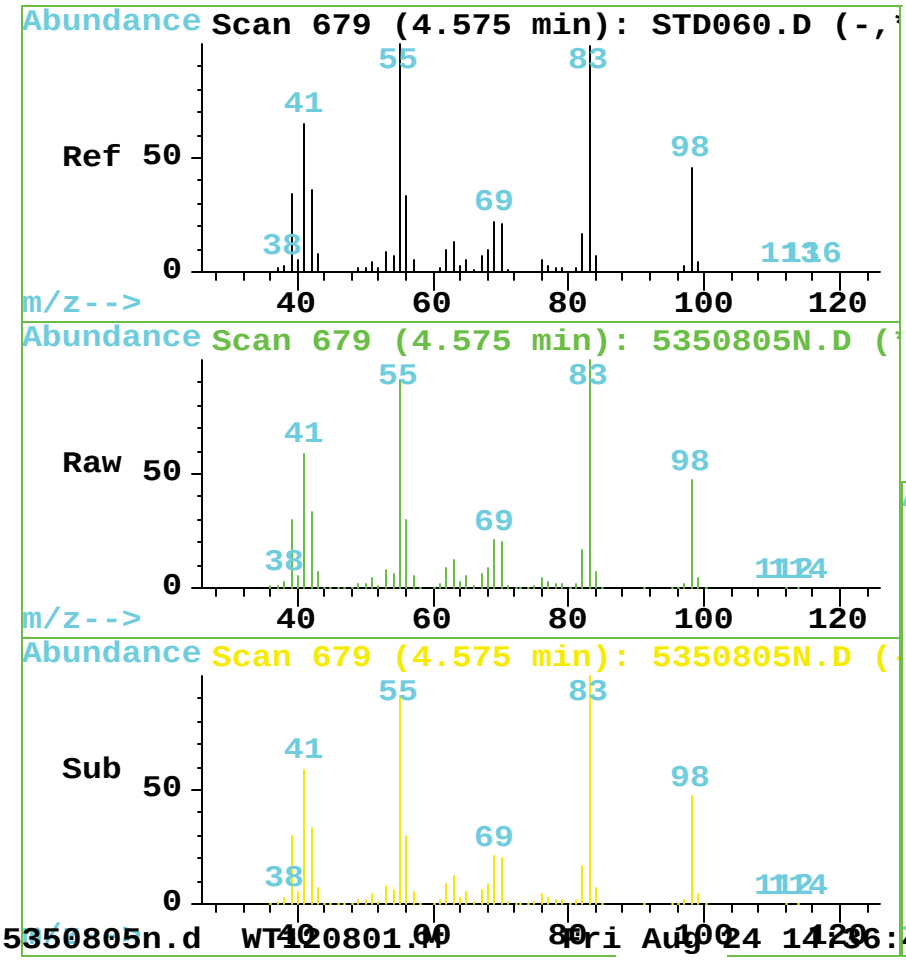


#40
Bromodichloromethane
Concen: 49.81 ug/l
RT: 4.72 min Scan# 703
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:83 Resp: 206407

Ion	Ratio	Lower	Upper
83	100		
85	64.2	32.4	92.4
127	7.3	0.0	39.6
129	9.9	0.0	42.6

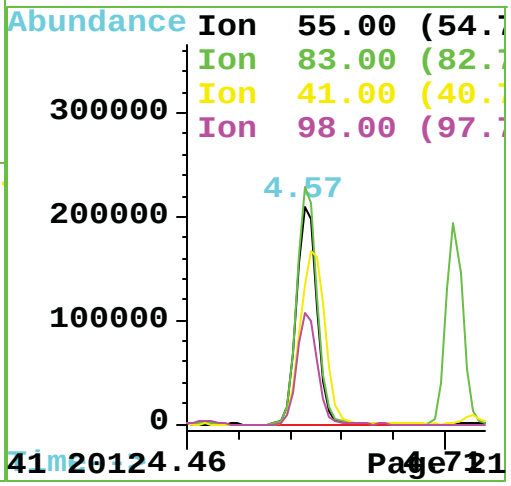


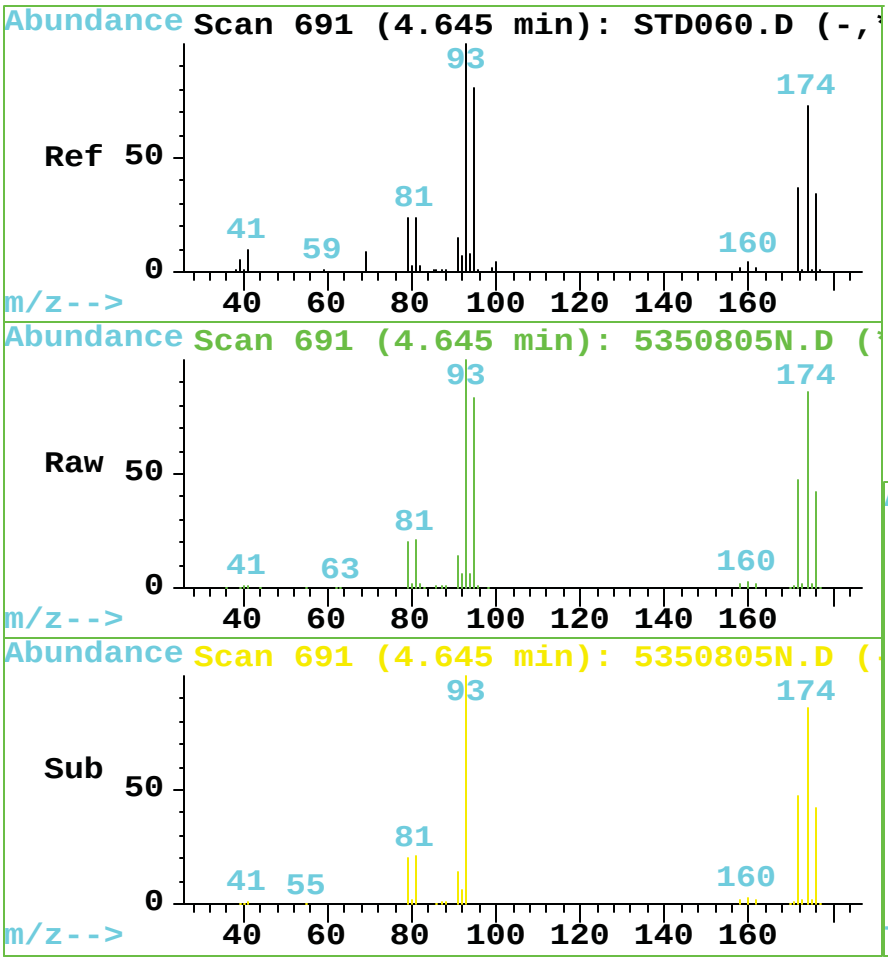


#41
Methyl Cyclohexane
Concen: 54.15 ug/l
RT: 4.57 min Scan# 679
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:55 Resp: 291448

Ion	Ratio	Lower	Upper
55	100		
83	107.7	134.8	194.8#
41	96.4	33.0	93.0#
98	51.1	56.4	116.4#

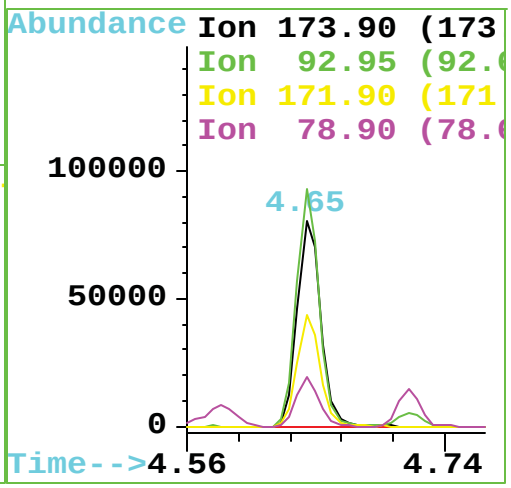


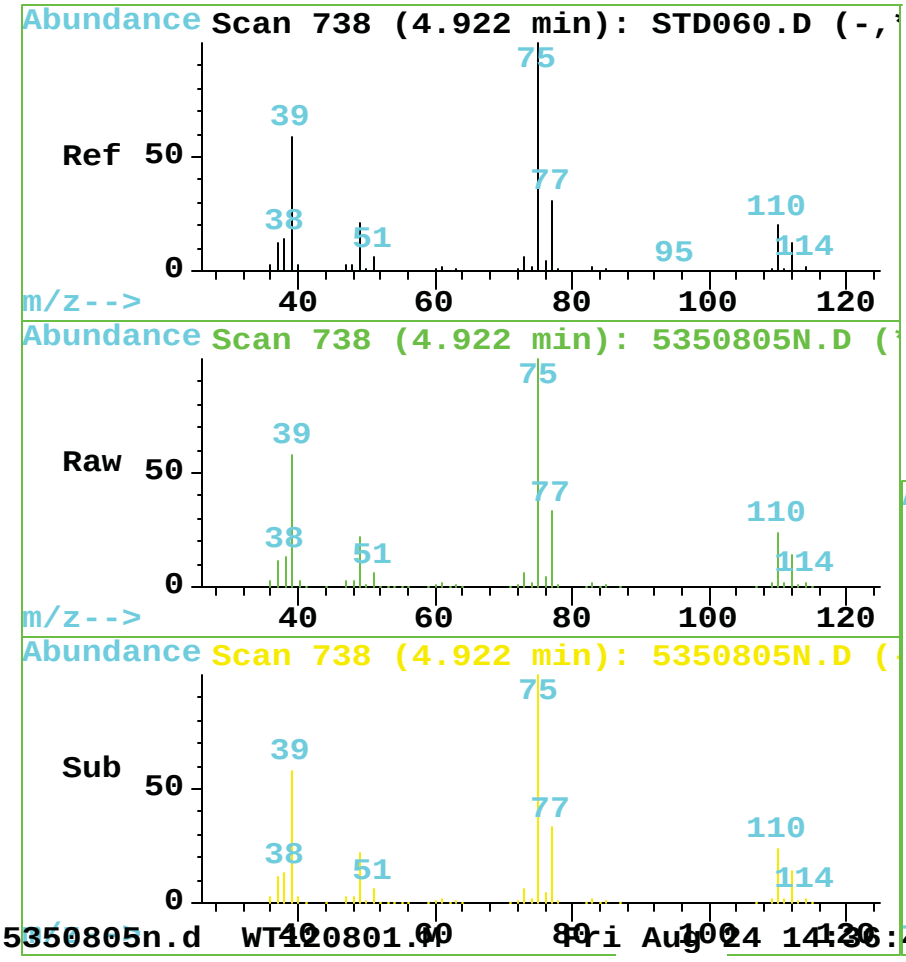


#42
Dibromomethane
Concen: 55.09 ug/l
RT: 4.65 min Scan# 691
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:173.9 Resp: 9078

Ion	Ratio	Lower	Upper
174	100		
93	110.8	35.2	95.2#
172	52.3	21.8	81.8
79	22.7	0.0	39.8

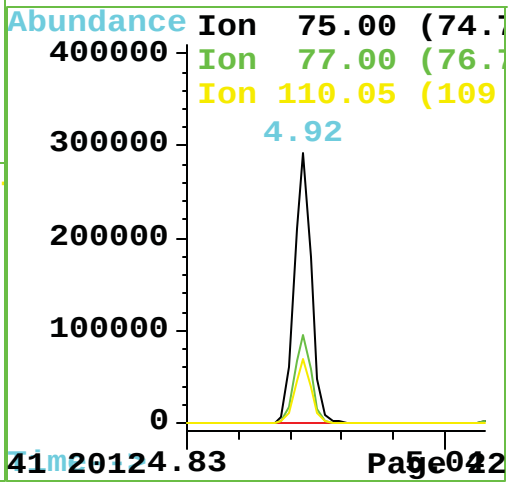


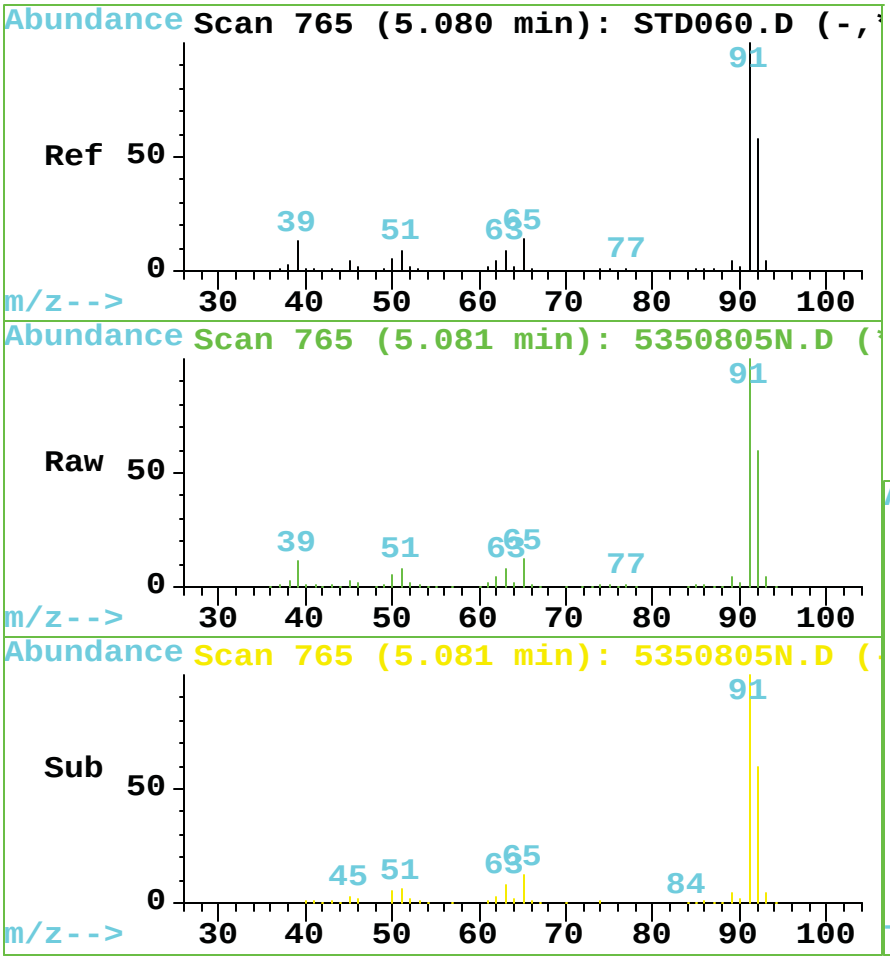


#43
cis-1,3-Dichloropropene
Concen: 46.49 ug/l
RT: 4.92 min Scan# 738
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:75 Resp: 287048

Ion	Ratio	Lower	Upper
75	100		
77	31.9	1.3	61.3
110	22.4	0.0	58.3
0	0.0	0.0	0.0

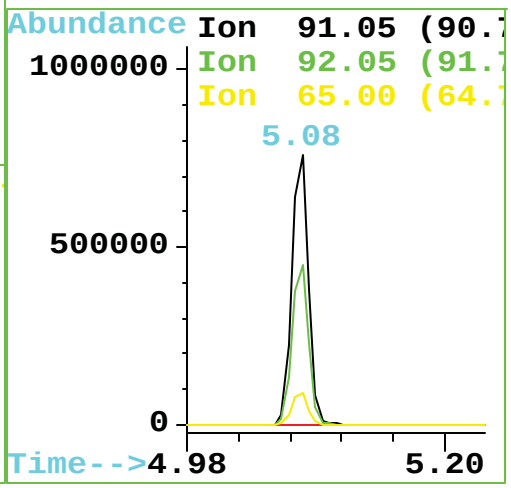


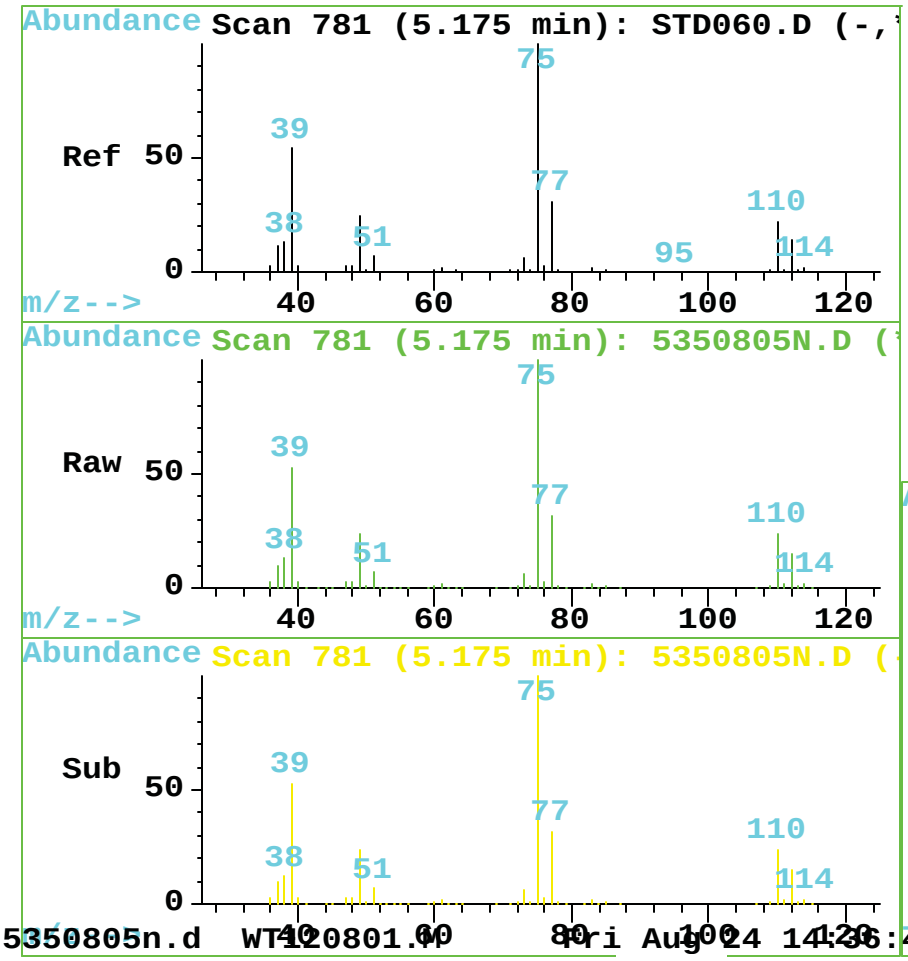


#44
Toluene (CCC/MS)
Concen: 49.20 ug/l
RT: 5.08 min Scan# 765
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:91.05 Resp: 75910

Ion	Ratio	Lower	Upper
91	100		
92	59.6	30.7	90.7
65	11.9	0.0	39.2
0	0.0	0.0	0.0

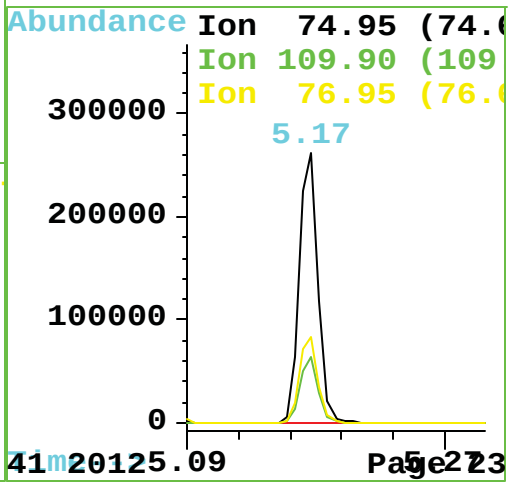


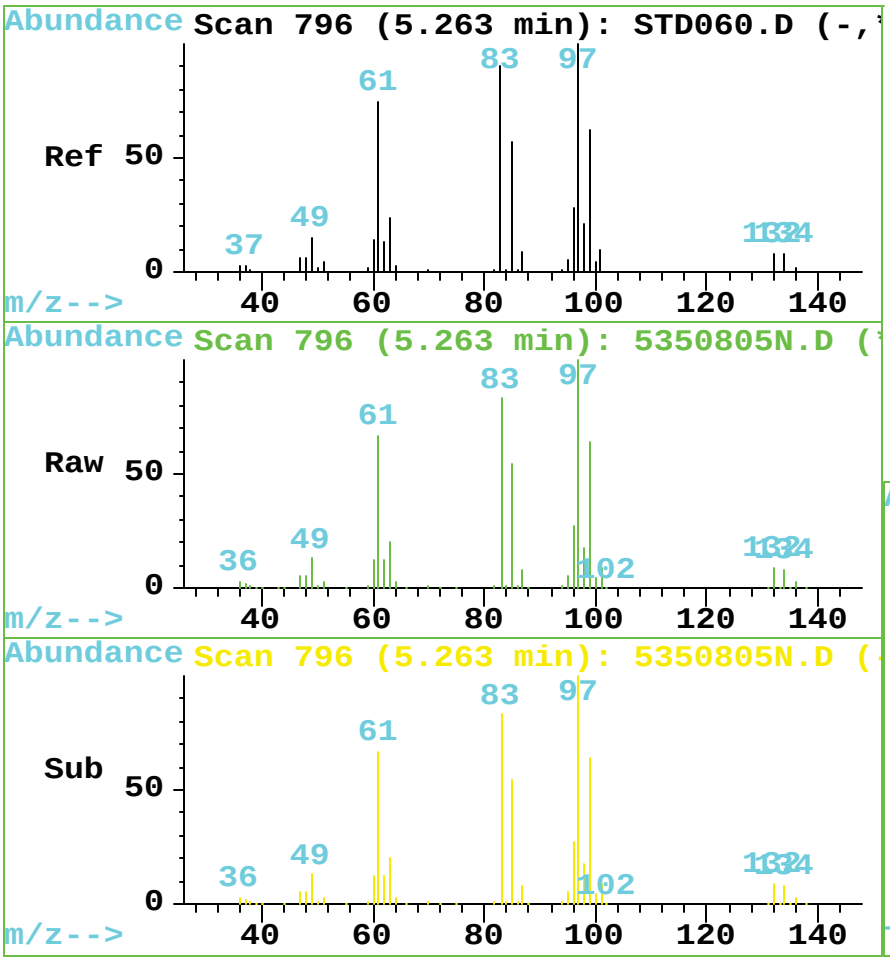


#45
trans-1,3-Dichloropropene
Concen: 46.52 ug/l
RT: 5.17 min Scan# 781
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:74.95 Resp: 24994

Ion	Ratio	Lower	Upper
75	100		
110	23.3	0.5	60.5
77	31.5	1.5	61.5
0	0.0	0.0	0.0

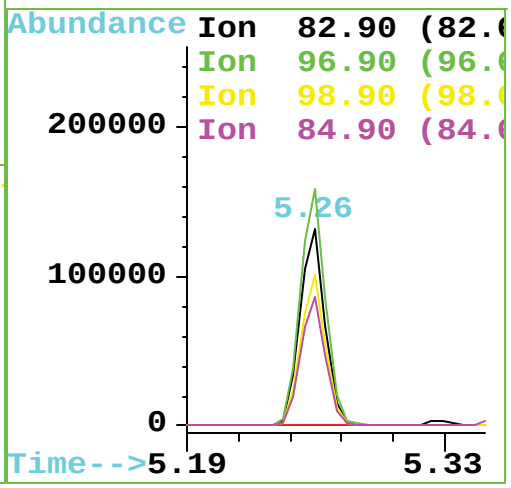


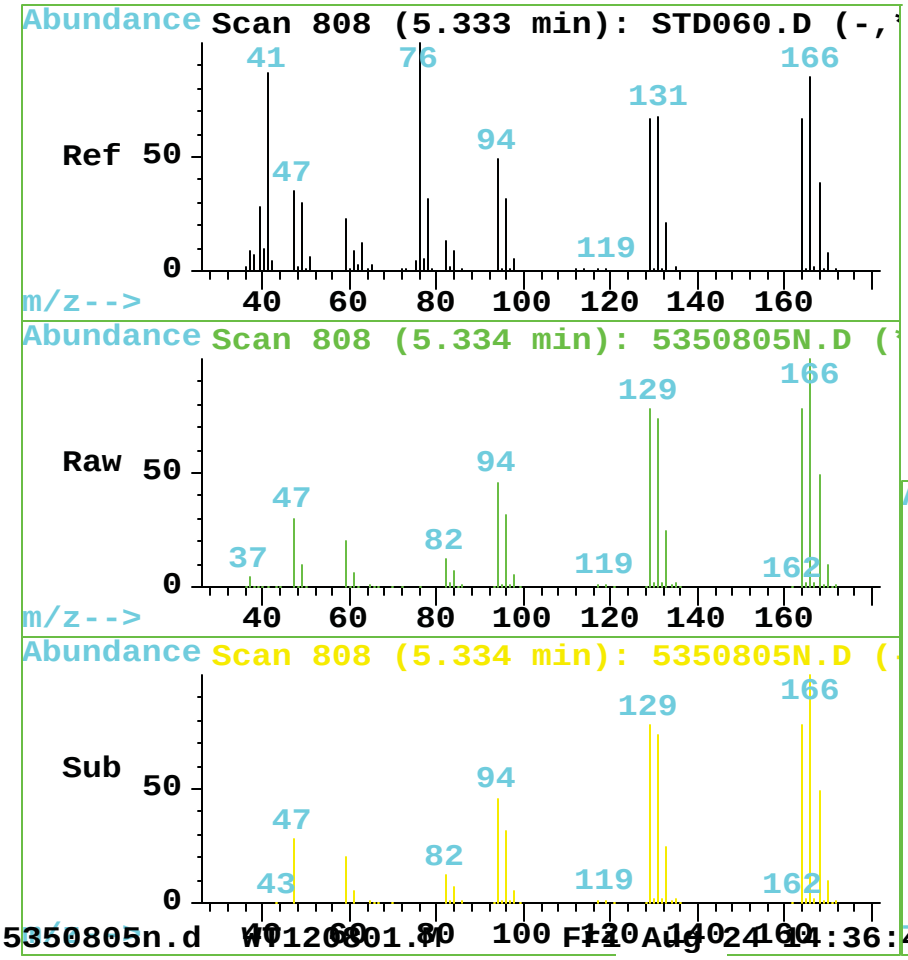


#46
1,1,2-Trichloroethane
Concen: 50.98 ug/l
RT: 5.26 min Scan# 796
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:82.9 Resp: 128695

Ion	Ratio	Lower	Upper
83	100		
97	120.7	100.1	160.1
99	76.3	52.1	112.1
85	65.1	36.5	96.5

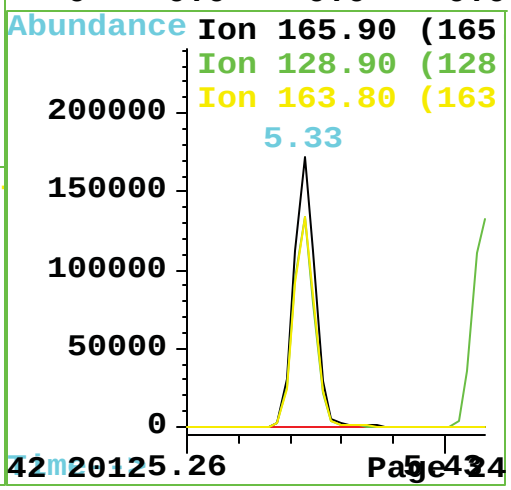


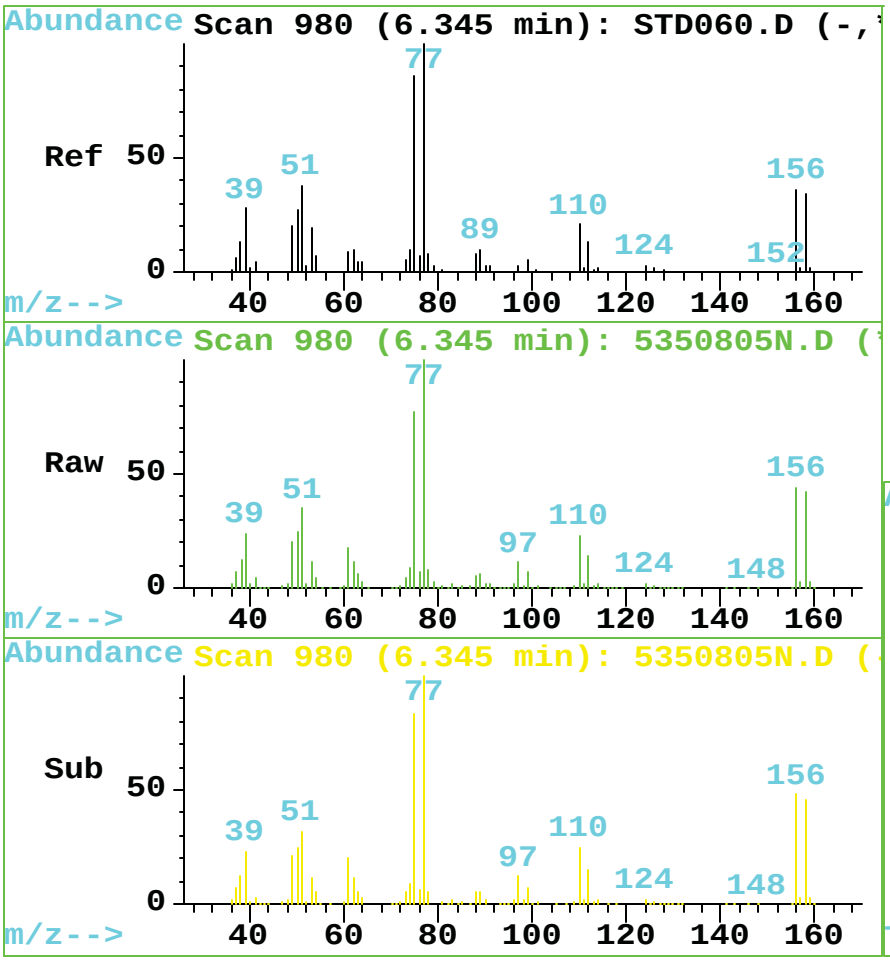


#47
Tetrachloroethene
Concen: 57.67 ug/l
RT: 5.33 min Scan# 808
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:165.9 Resp: 16646

Ion	Ratio	Lower	Upper
166	100		
129	77.3	30.6	90.6
164	78.0	47.0	107.0
0	0.0	0.0	0.0

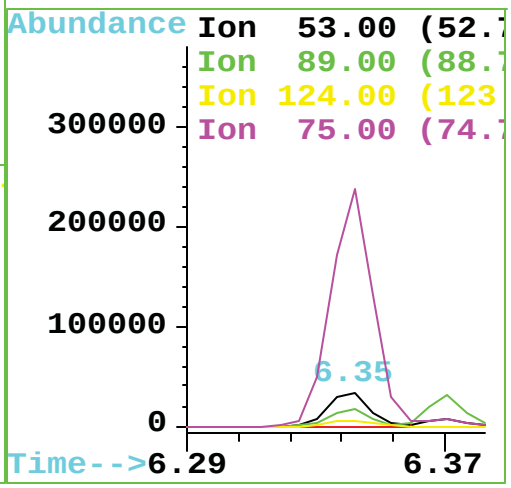


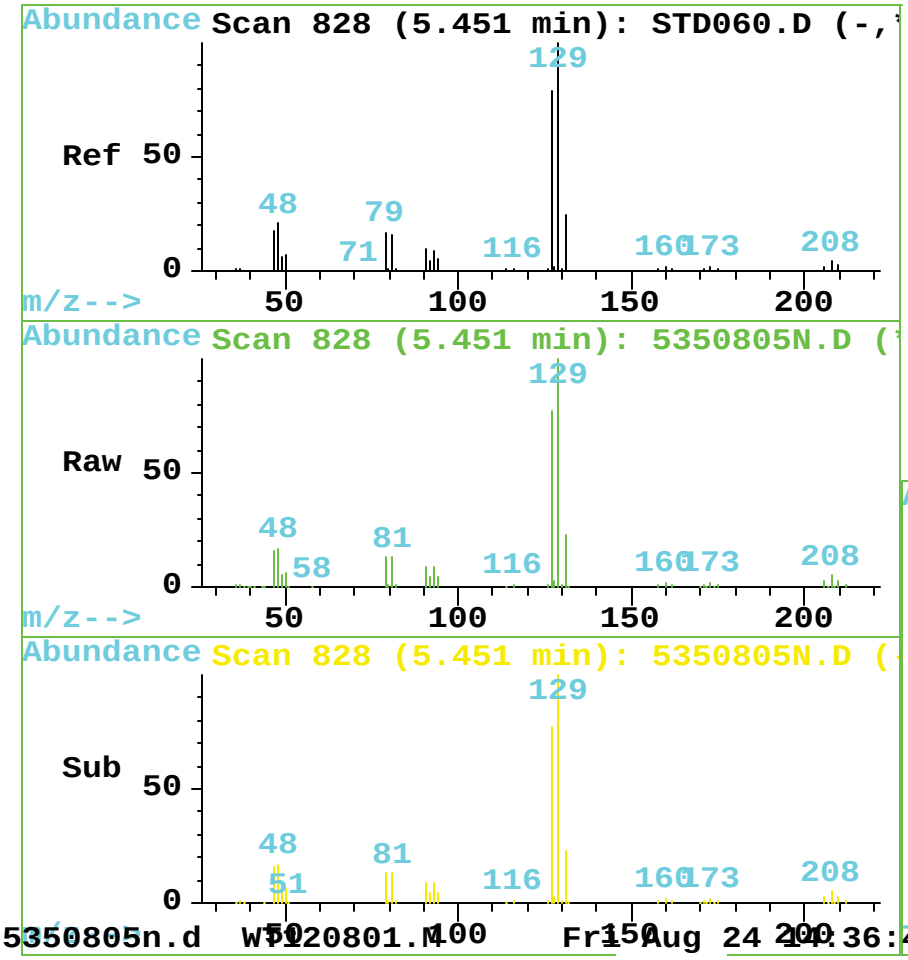


#50
trans-1,4-Dichloro-2-buten
Concen: 38.22 ug/l
RT: 6.35 min Scan# 980
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:53 Resp: 31584

Ion	Ratio	Lower	Upper
53	100		
89	50.1	36.6	96.6
124	15.8	0.0	58.8
75	722.9	596.3	656.3#

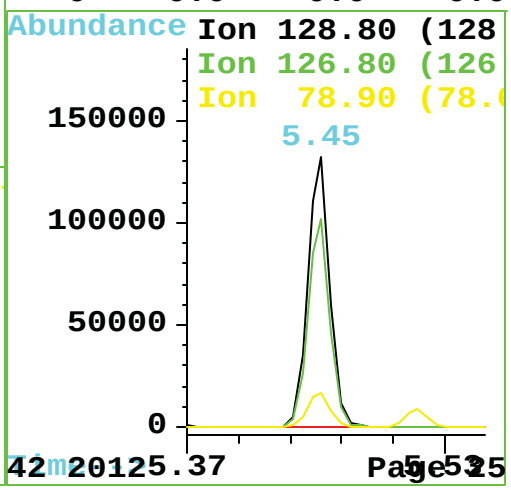


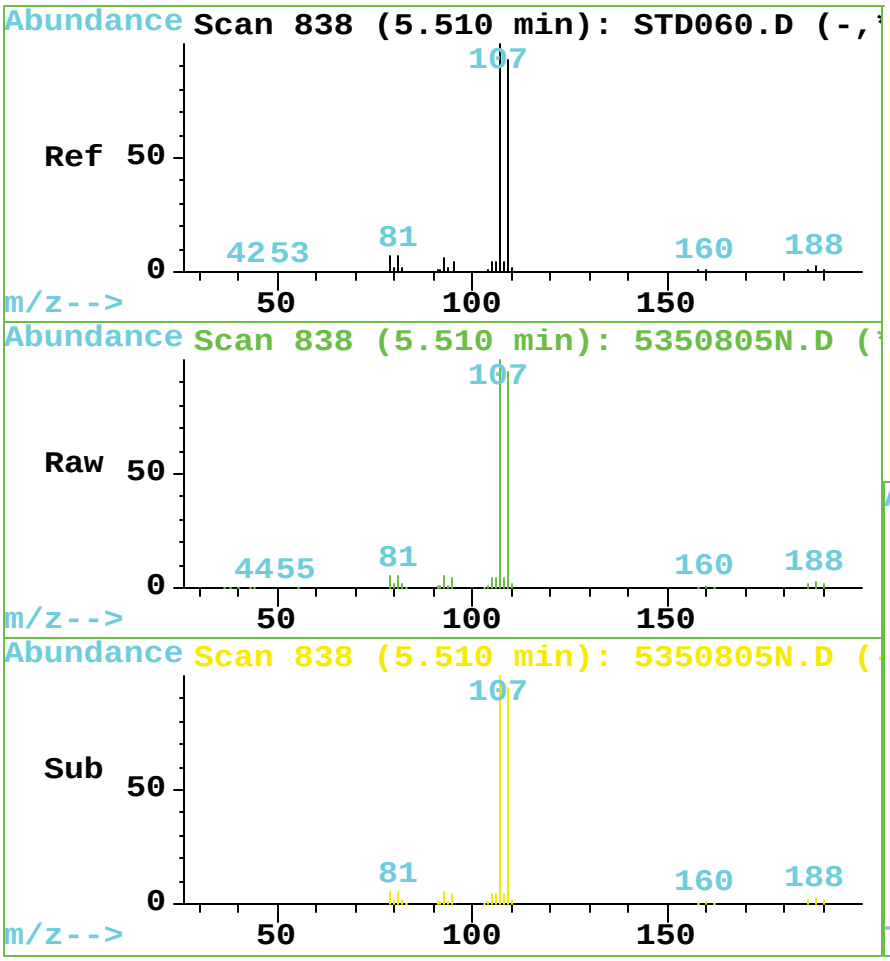


#51
Dibromochloromethane
Concen: 48.97 ug/l
RT: 5.45 min Scan# 828
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:128.8 Resp: 12602

Ion	Ratio	Lower	Upper
129	100		
127	77.4	47.7	107.7
79	13.5	0.0	38.0
0	0.0	0.0	0.0

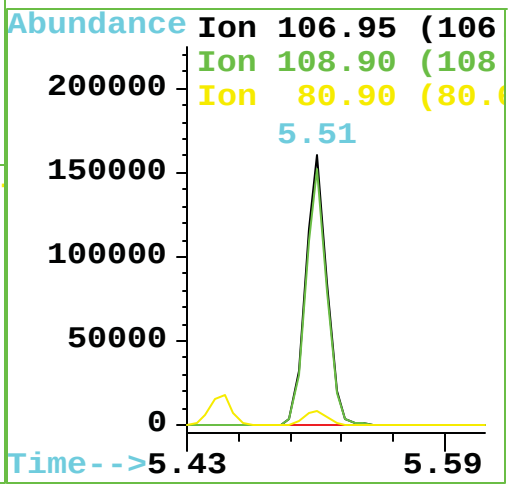


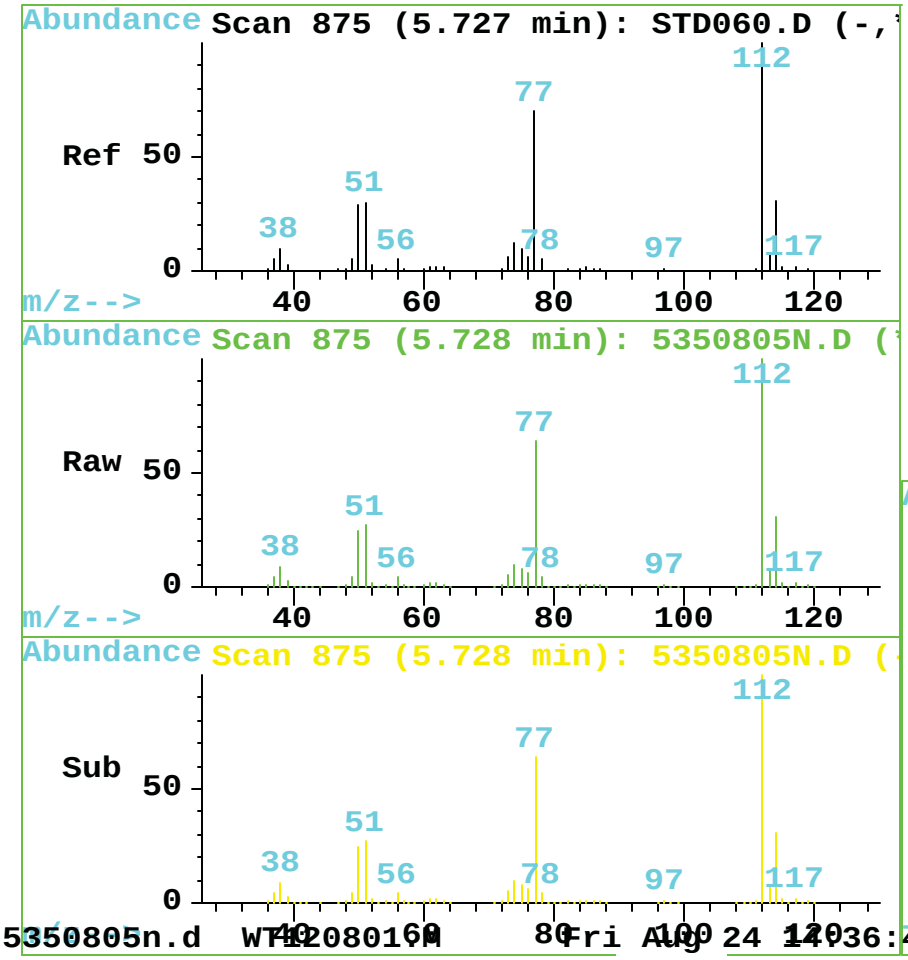


#52
1,2-Dibromoethane
Concen: 52.72 ug/l
RT: 5.51 min Scan# 838
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:106.95 Resp: 1495

Ion	Ratio	Lower	Upper
107	100		
109	94.6	64.0	124.0
81	5.7	0.0	33.3
0	0.0	0.0	0.0

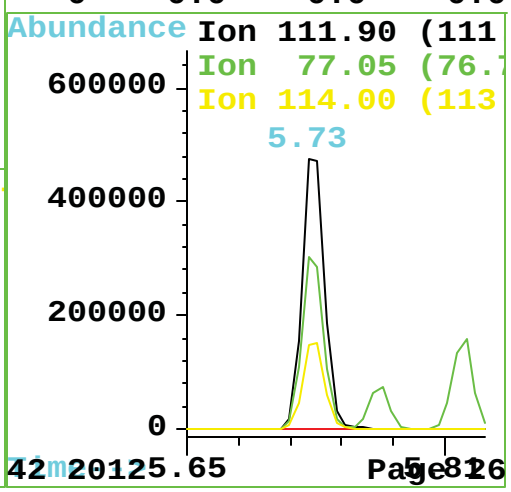


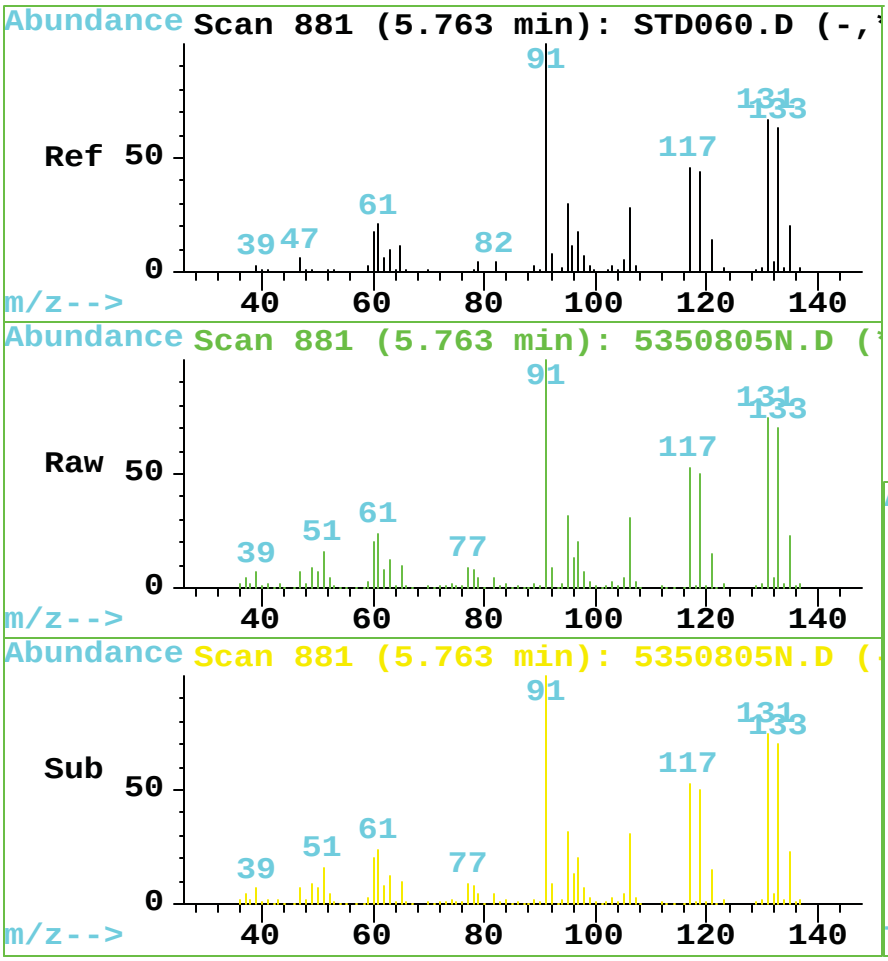


#53
Chlorobenzene (SPCC/MS)
Concen: 52.77 ug/l
RT: 5.73 min Scan# 875
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:111.9 Resp: 47923

Ion	Ratio	Lower	Upper
112	100		
77	61.7	18.9	78.9
114	31.7	2.0	62.0
0	0.0	0.0	0.0

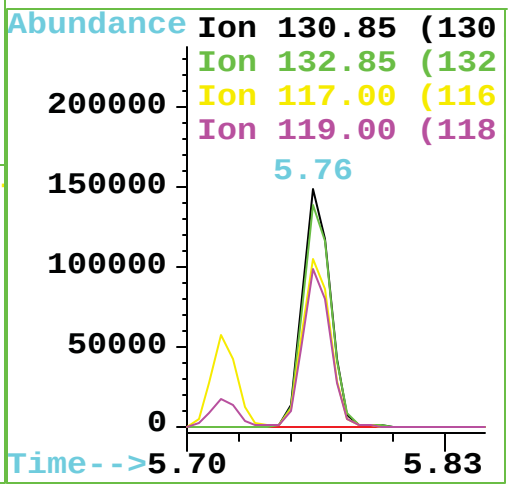


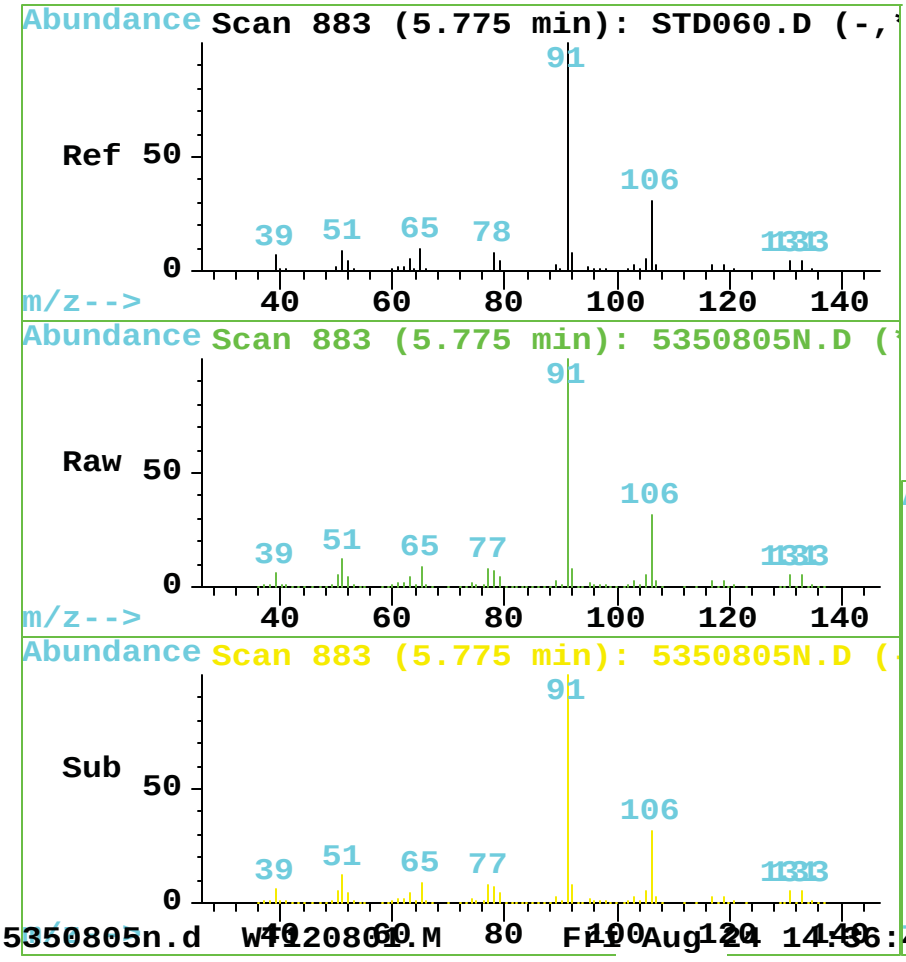


#54
1,1,1,2-Tetrachloroethane
Concen: 53.04 ug/l
RT: 5.76 min Scan# 881
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:130.85 Resp: 1434

Ion	Ratio	Lower	Upper
131	100		
133	95.1	66.8	126.8
117	71.4	38.0	98.0
119	66.3	34.9	94.9

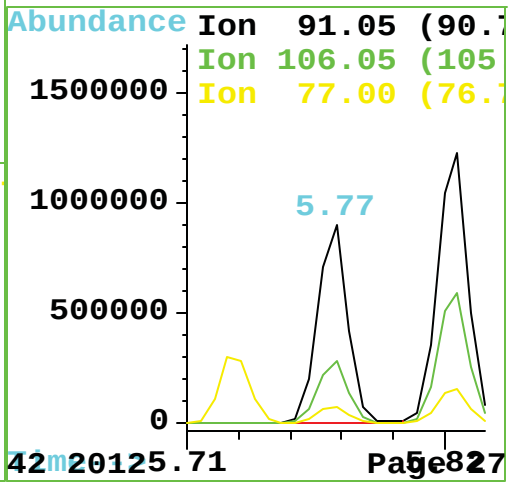


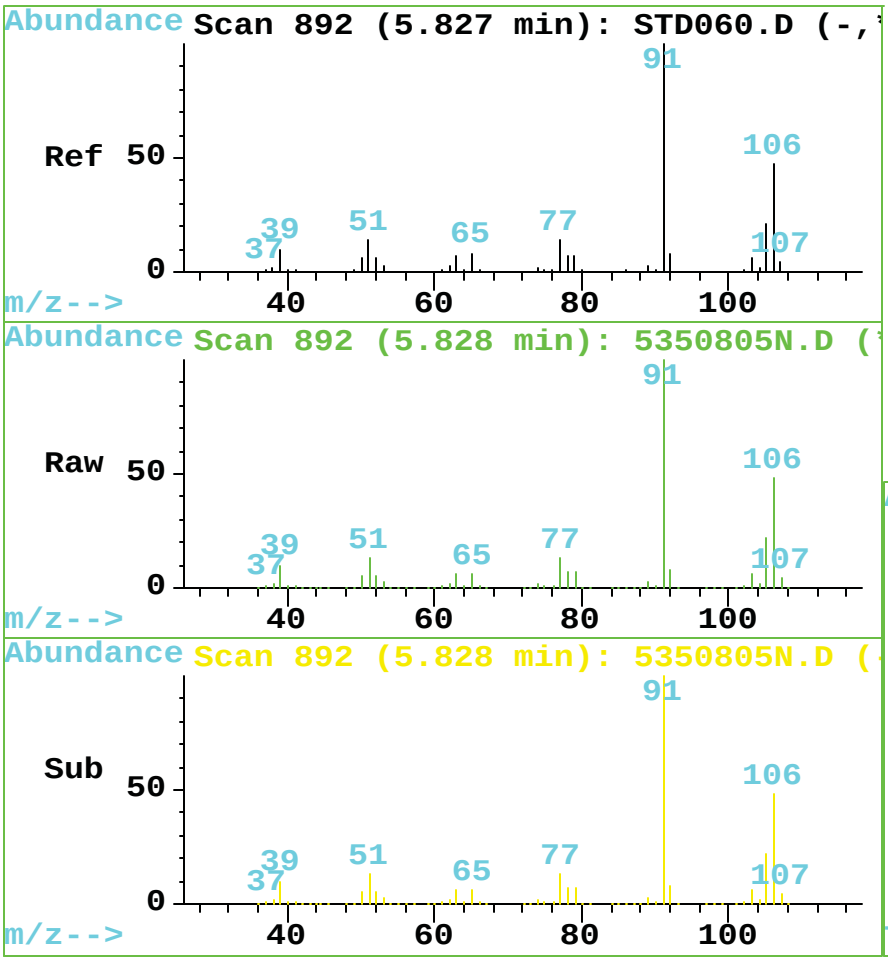


#55
Ethylbenzene (CCC)
Concen: 49.07 ug/l
RT: 5.77 min Scan# 883
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:91.05 Resp: 82573

Ion	Ratio	Lower	Upper
91	100		
106	31.4	4.9	64.9
77	8.5	0.0	37.2
0	0.0	0.0	0.0

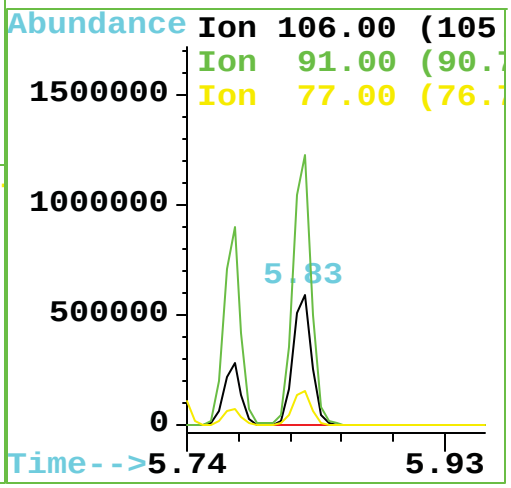


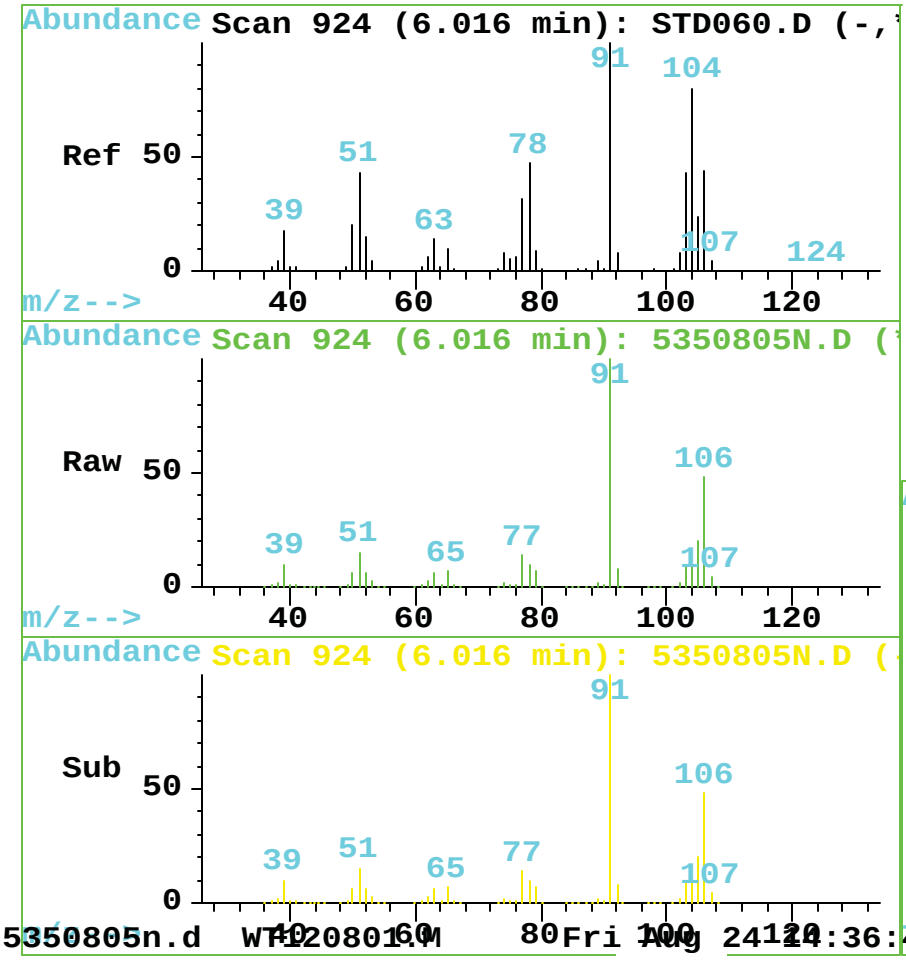


#56
p,m-Xylene
Concen: 91.26 ug/l
RT: 5.83 min Scan# 892
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:106 Resp: 568253

Ion	Ratio	Lower	Upper
106	100		
91	204.0	146.0	206.0
77	26.3	0.0	50.4
0	0.0	0.0	0.0

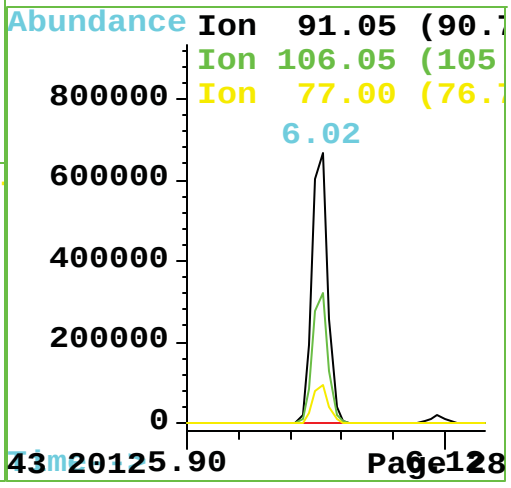


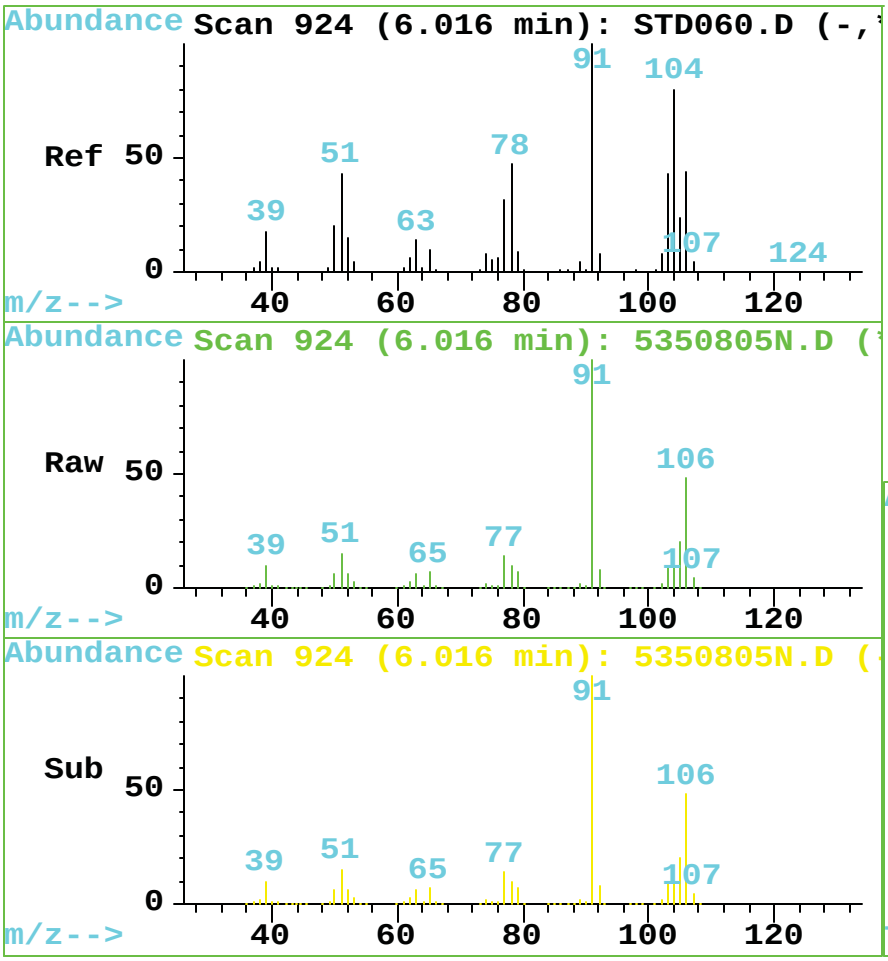


#57
o-Xylene
Concen: 46.90 ug/l
RT: 6.02 min Scan# 924
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:91.05 Resp: 63216

Ion	Ratio	Lower	Upper
91	100		
106	47.0	24.0	84.0
77	13.9	0.0	55.3
0	0.0	0.0	0.0

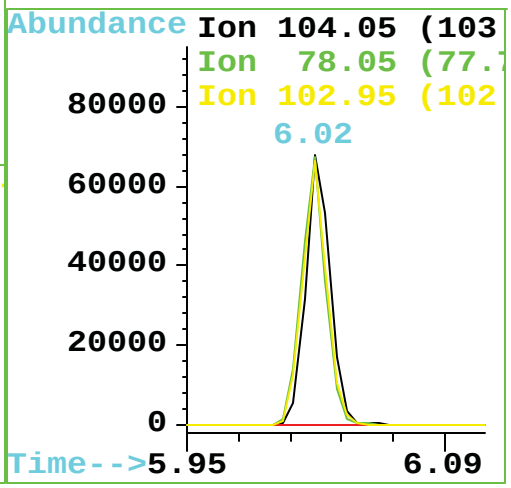


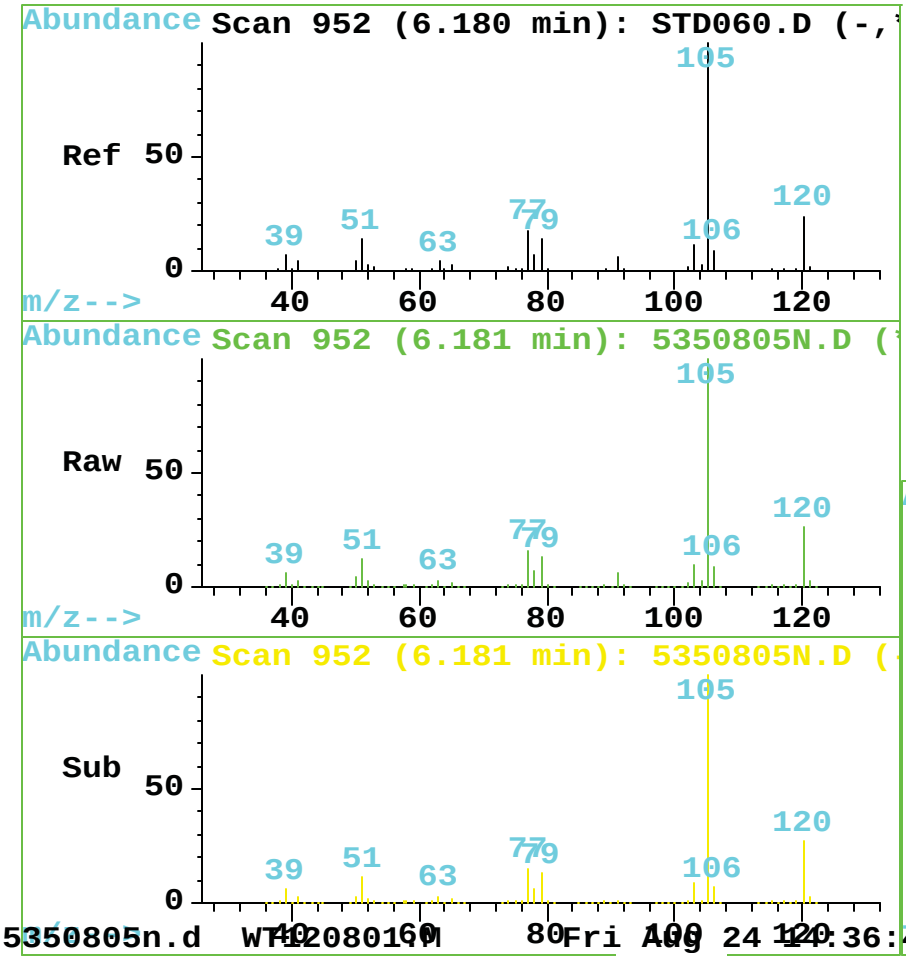


#58
Styrene
Concen: 6.14 ug/l
RT: 6.02 min Scan# 924
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:104.05 Resp: 639

Ion	Ratio	Lower	Upper
104	100		
78	97.8	8.8	68.8#
103	96.7	22.5	82.5#
0	0.0	0.0	0.0

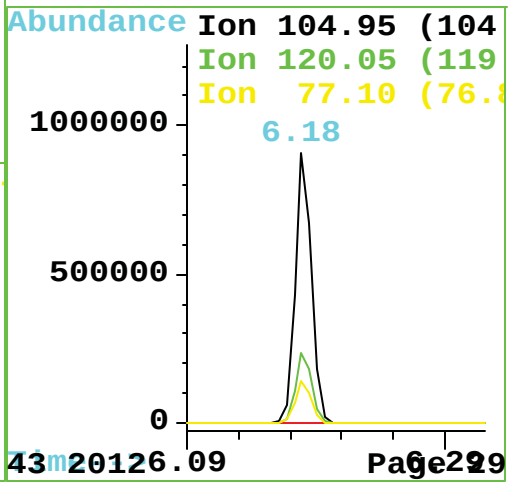


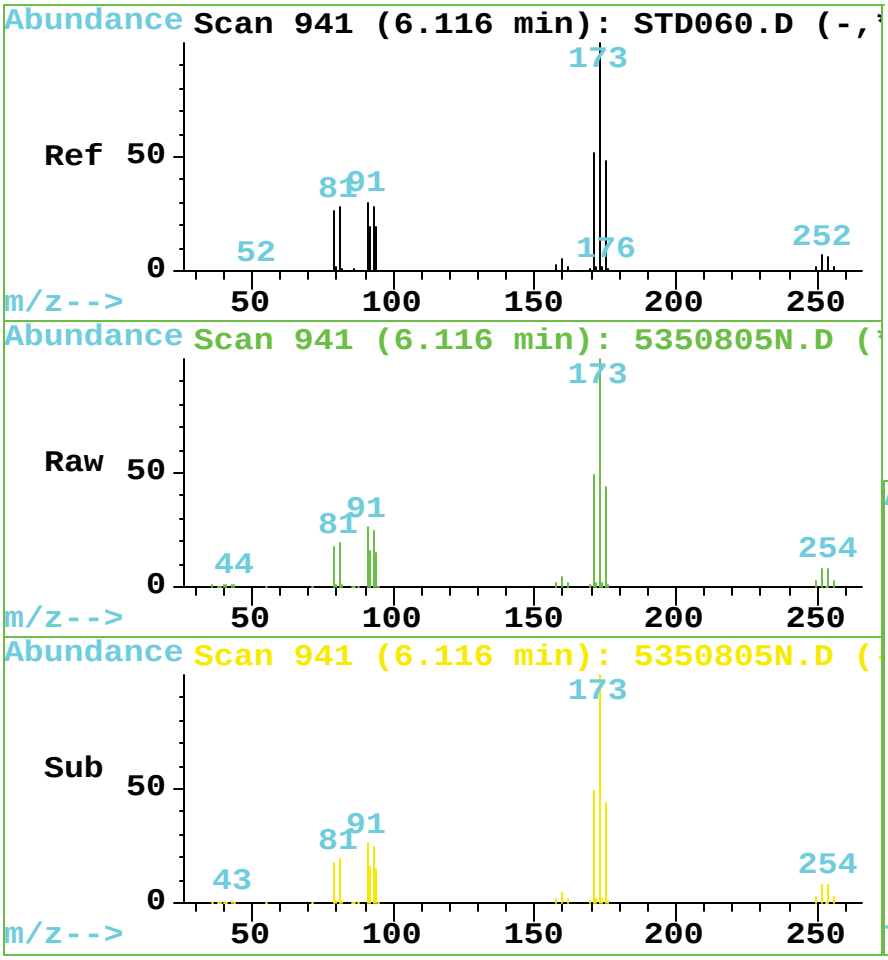


#59
Isopropylbenzene
Concen: 50.77 ug/l
RT: 6.18 min Scan# 952
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:104.95 Resp: 8059

Ion	Ratio	Lower	Upper
105	100		
120	26.4	0.0	59.2
77	15.2	0.0	41.7
0	0.0	0.0	0.0

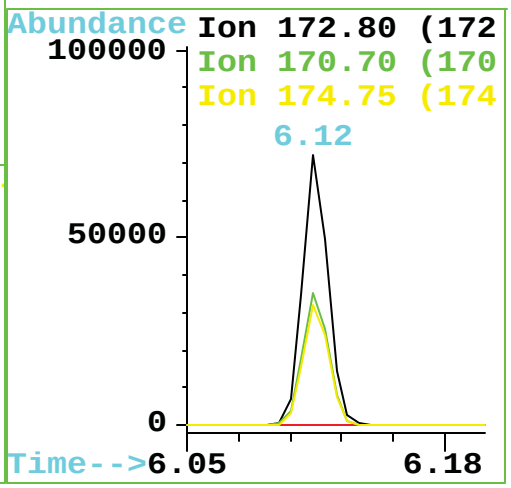


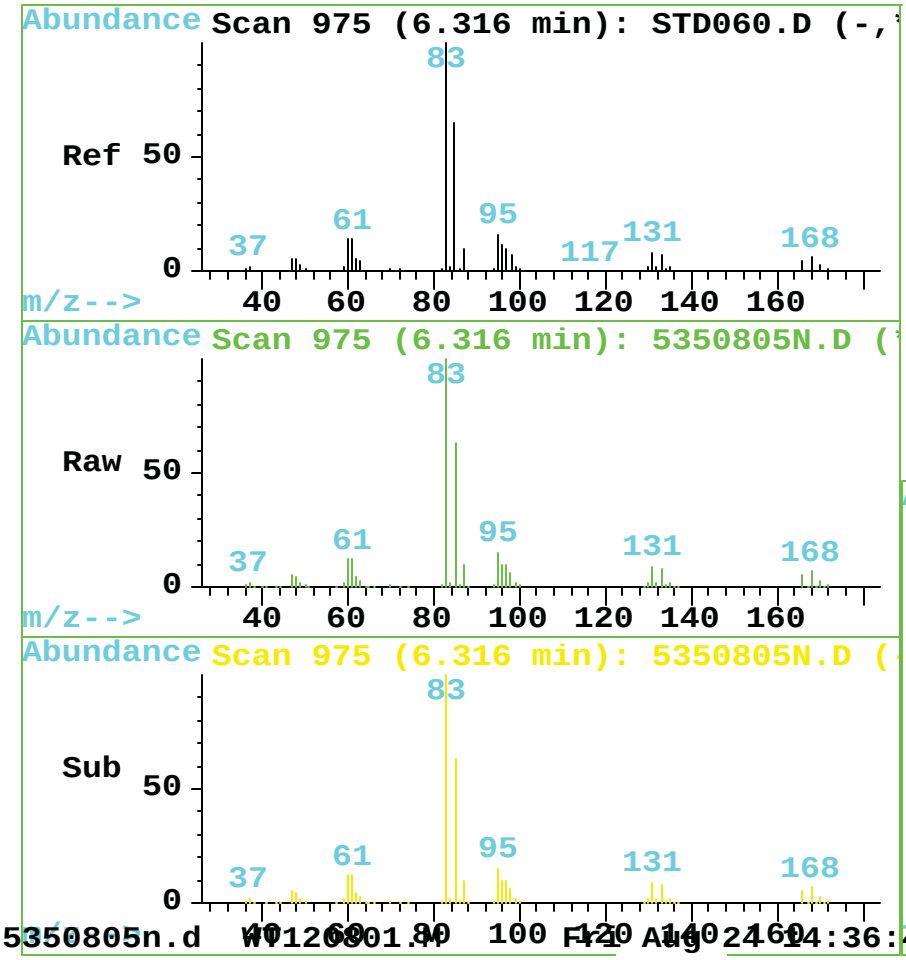


#60
Bromoform (SPCC)
Concen: 43.15 ug/l
RT: 6.12 min Scan# 941
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:172.8 Resp: 6421

Ion	Ratio	Lower	Upper
173	100		
171	50.1	19.8	79.8
175	45.9	17.5	77.5
0	0.0	0.0	0.0

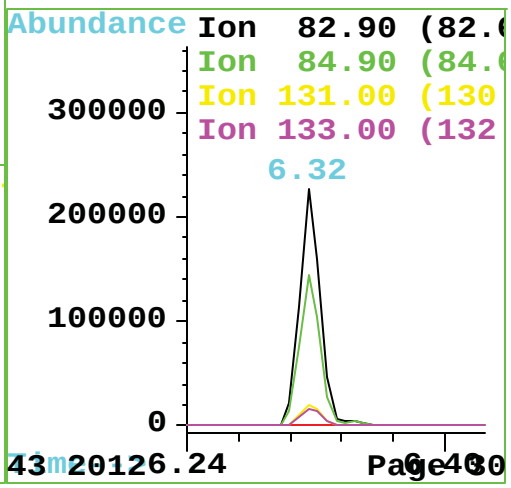


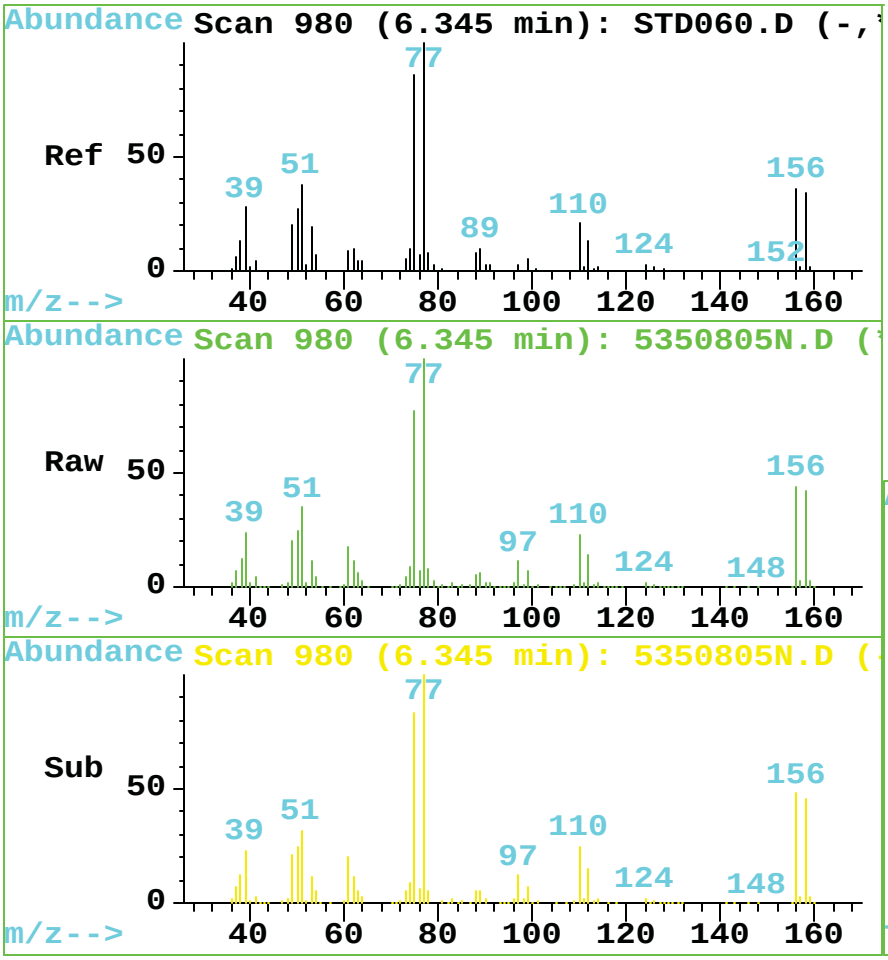


#61
1,1,2,2-Tetrachloroethane
Concen: 52.19 ug/l
RT: 6.32 min Scan# 975
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:82.9 Resp: 209171

Ion	Ratio	Lower	Upper
83	100		
85	64.1	34.5	94.5
131	9.6	0.0	42.5
133	7.9	0.0	43.0

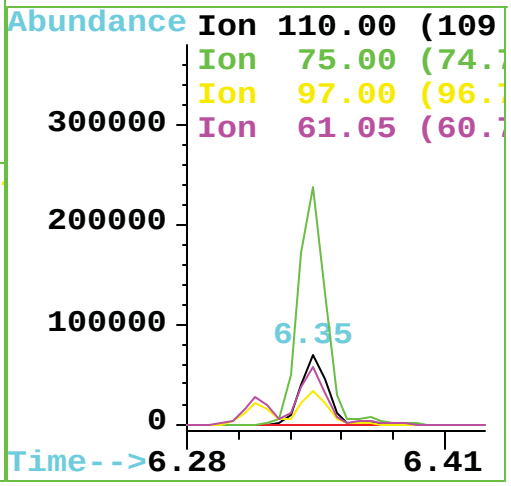


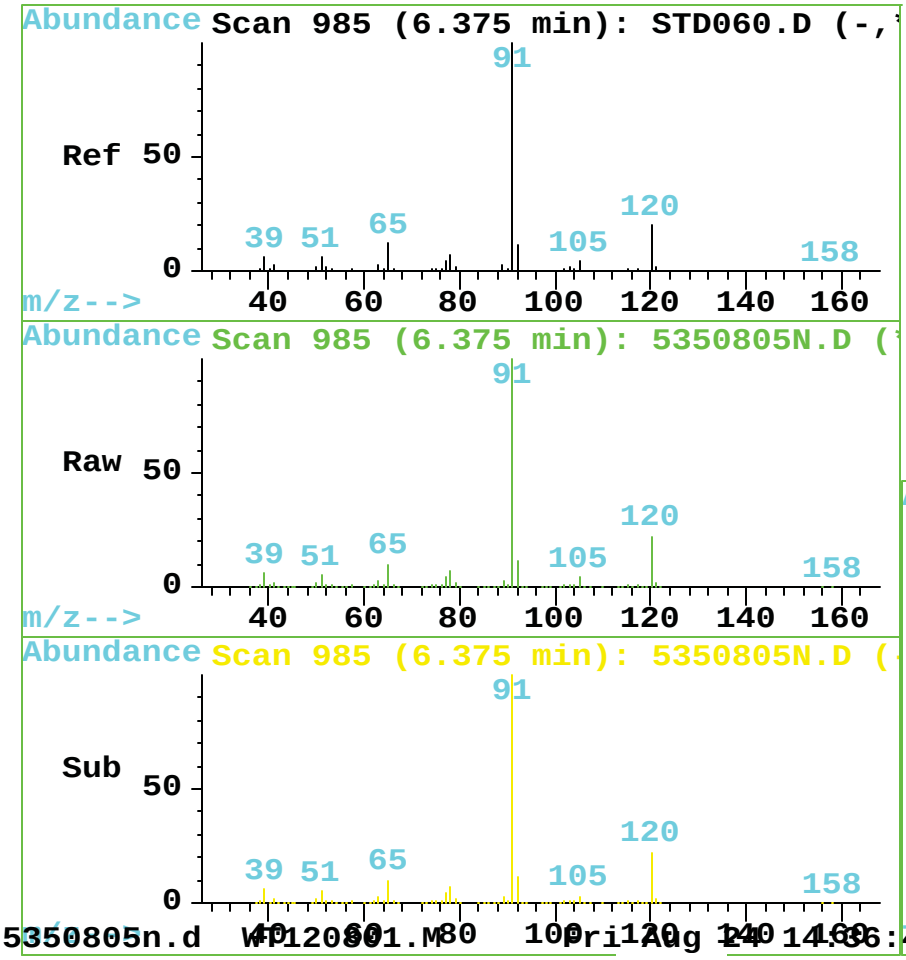


#62
1,2,3-Trichloropropane
Concen: 54.89 ug/l
RT: 6.35 min Scan# 980
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:110 Resp: 62654

Ion	Ratio	Lower	Upper
110	100		
75	364.4	310.4	370.4
97	49.4	15.3	75.3
61	85.8	21.2	81.2#

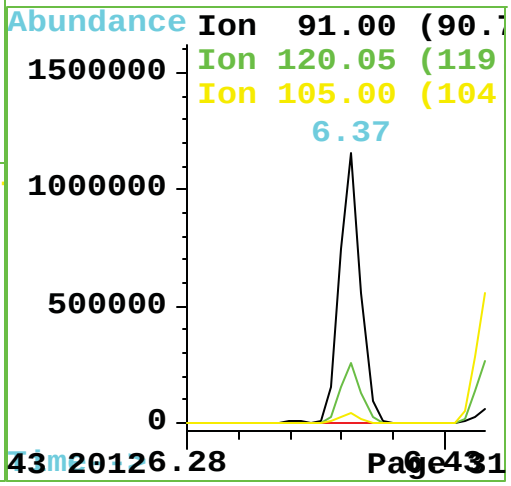


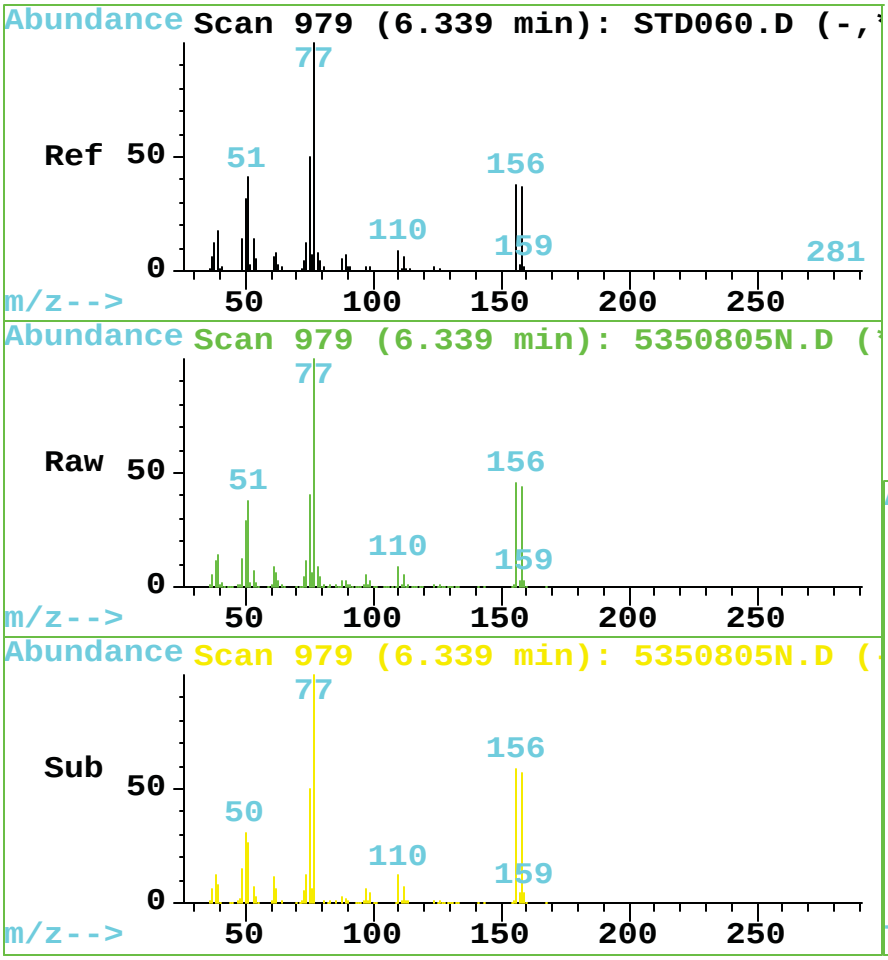


#63
n-Propylbenzene
Concen: 51.45 ug/l
RT: 6.37 min Scan# 985
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:91 Resp: 967915

Ion	Ratio	Lower	Upper
91	100		
120	21.9	0.0	57.4
105	3.5	0.0	33.9
0	0.0	0.0	0.0

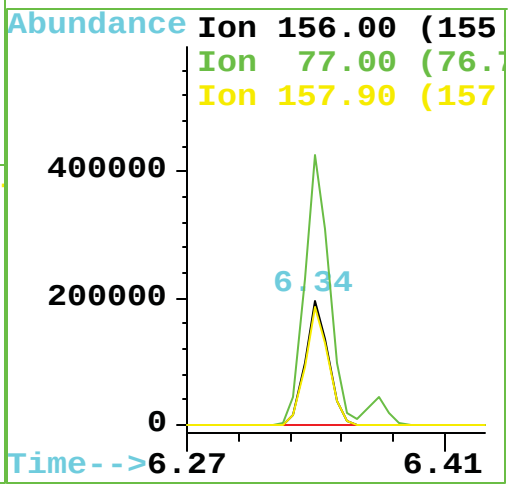


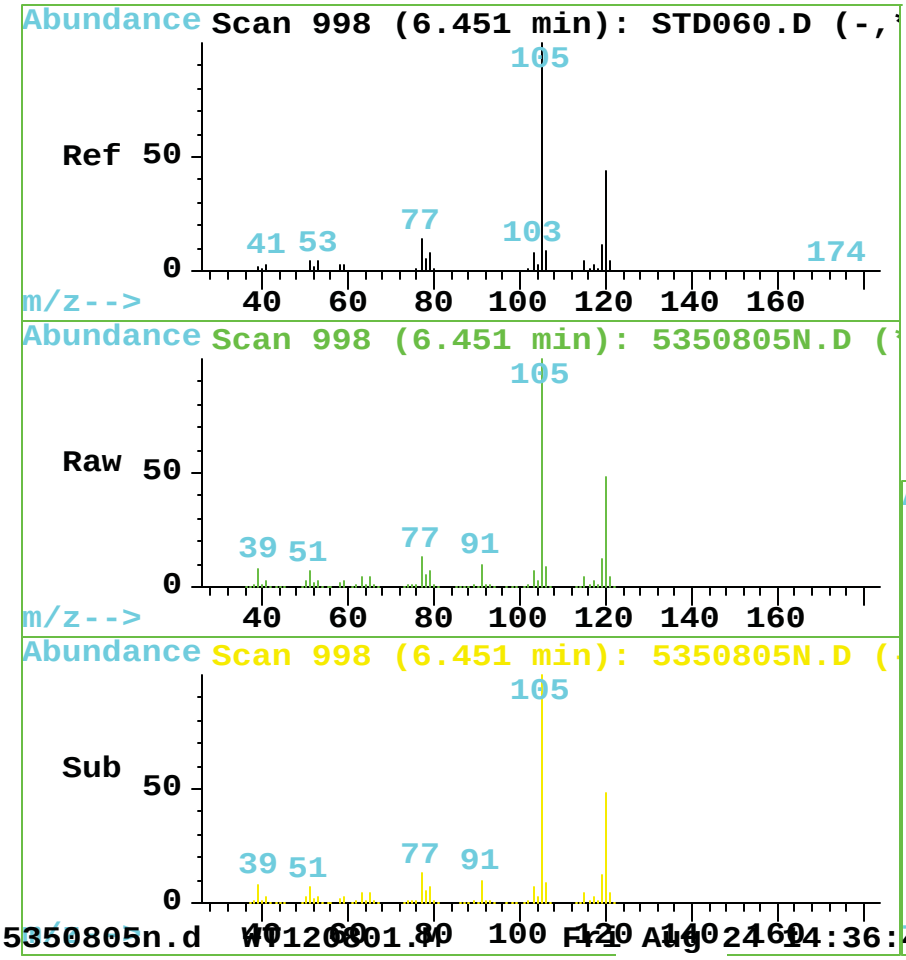


#64
Bromobenzene
Concen: 55.05 ug/l
RT: 6.34 min Scan# 979
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:156 Resp: 172885

Ion	Ratio	Lower	Upper
156	100		
77	232.5	99.6	159.6#
158	95.9	67.1	127.1
0	0.0	0.0	0.0

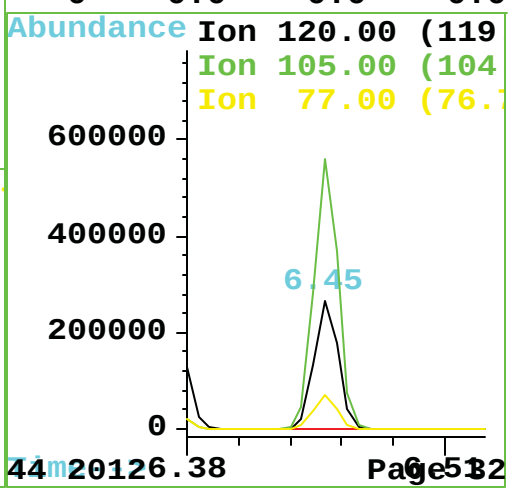


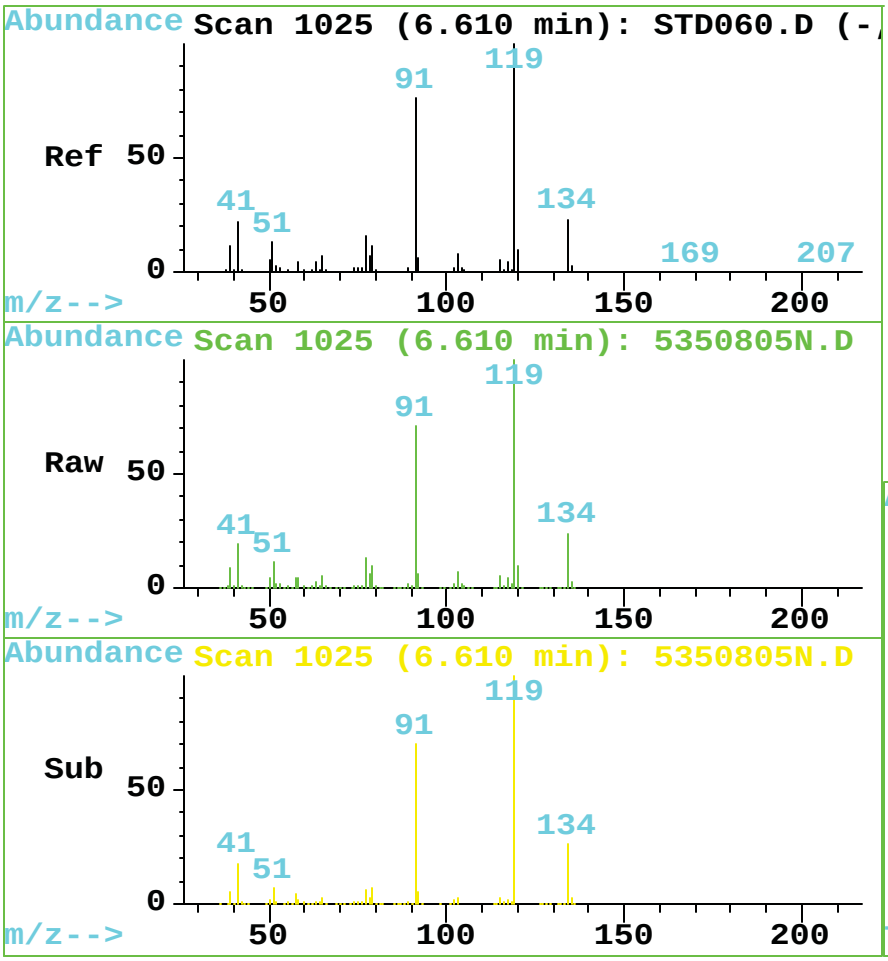


#65
1,3,5-Trimethylbenzene
Concen: 36.91 ug/l
RT: 6.45 min Scan# 998
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:120 Resp: 227390

Ion	Ratio	Lower	Upper
120	100		
105	209.4	148.1	208.1#
77	26.2	0.0	48.3
0	0.0	0.0	0.0

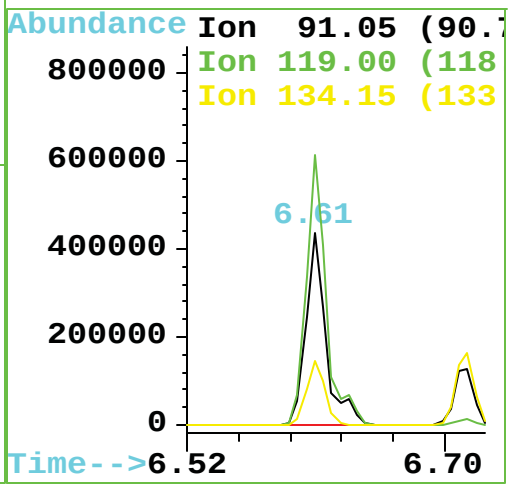


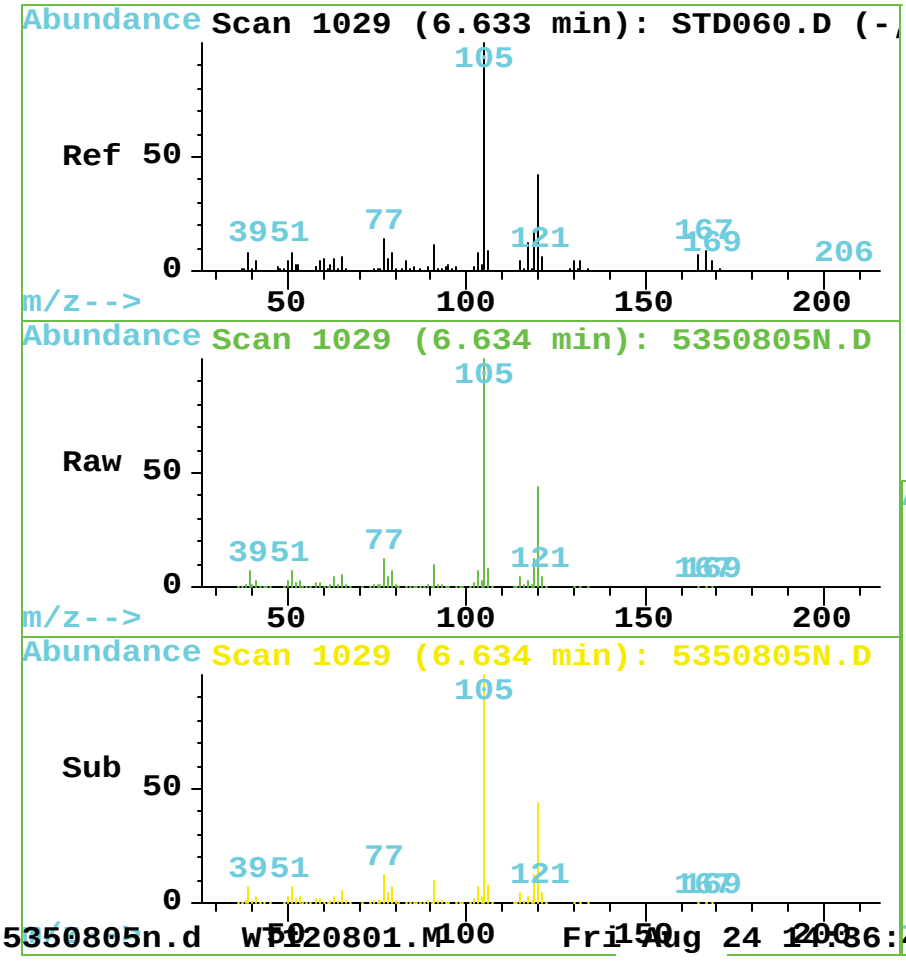


#66
tert-Butylbenzene
Concen: 48.08 ug/l
RT: 6.61 min Scan# 1025
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:91.05 Resp: 42901

Ion	Ratio	Lower	Upper
91	100		
119	139.9	168.7	228.7#
134	30.7	17.8	77.8
0	0.0	0.0	0.0

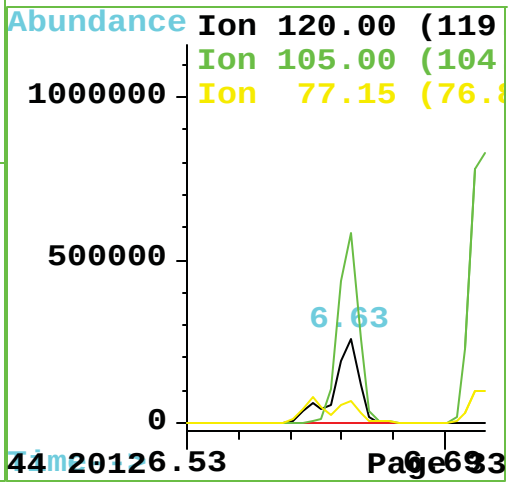


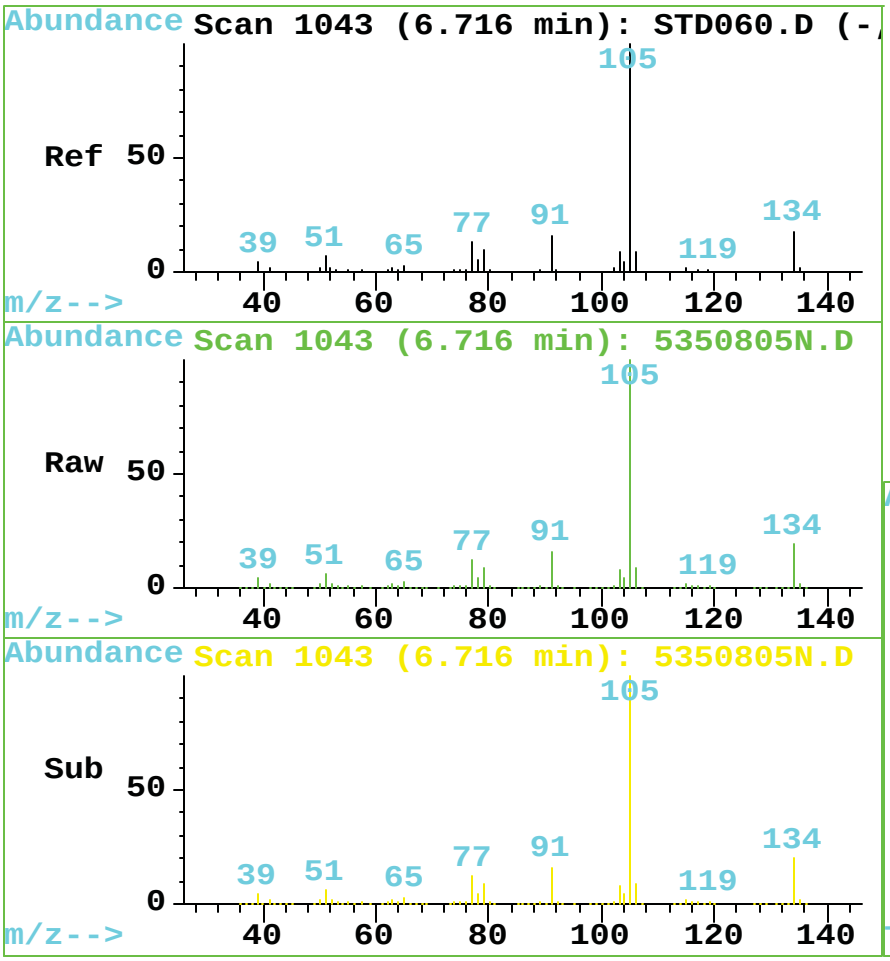


#67
1,2,4-Trimethylbenzene
Concen: 41.35 ug/l
RT: 6.63 min Scan# 1029
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:120 Resp: 278431

Ion	Ratio	Lower	Upper
120	100		
105	184.5	133.2	193.2
77	21.7	0.0	44.8
0	0.0	0.0	0.0

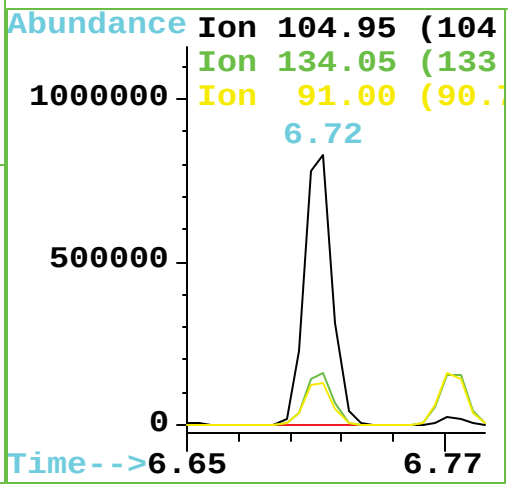


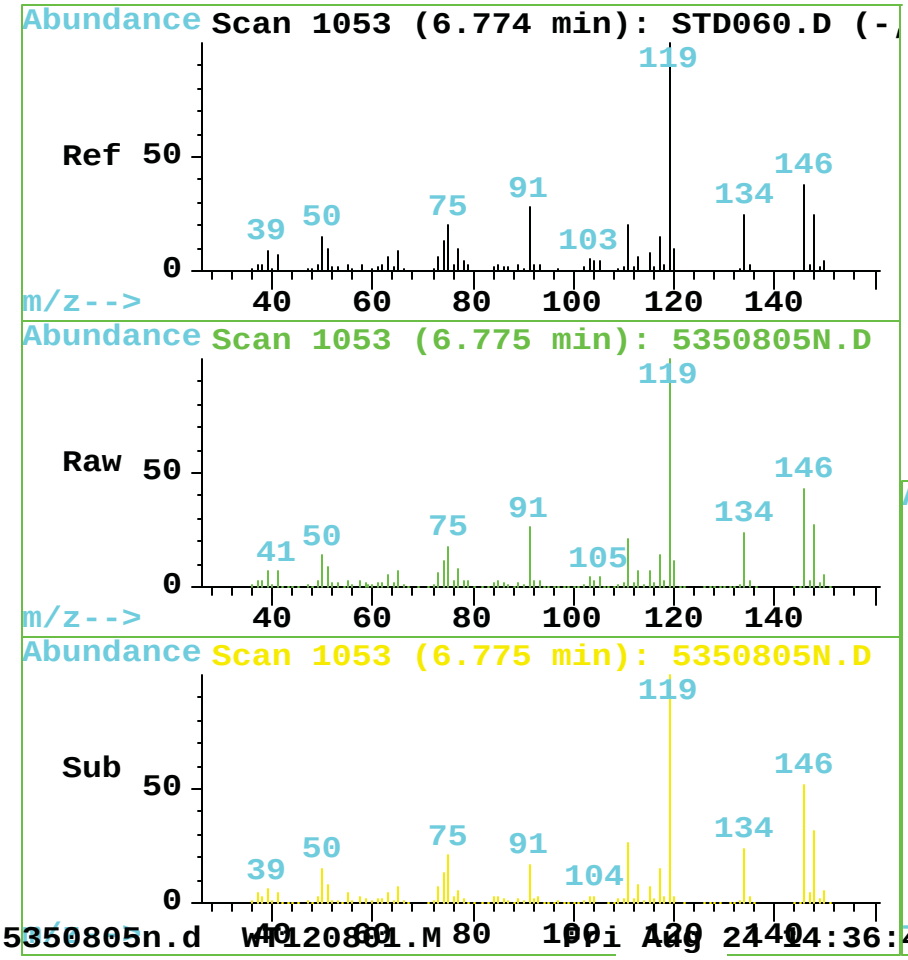


#69
sec-Butylbenzene
Concen: 48.83 ug/l
RT: 6.72 min Scan# 1043
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:104.95 Resp: 7842

Ion	Ratio	Lower	Upper
105	100		
134	18.8	0.0	53.3
91	15.9	0.0	43.3
0	0.0	0.0	0.0

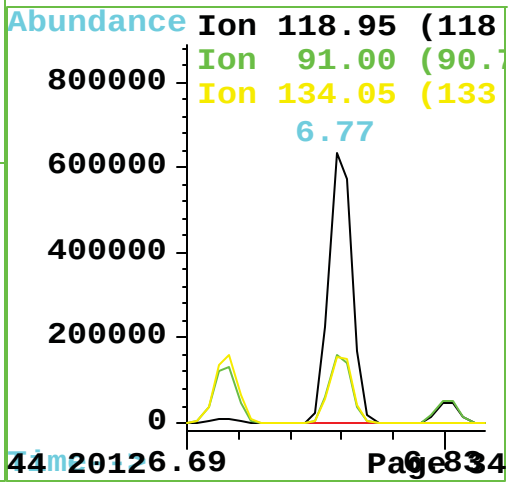


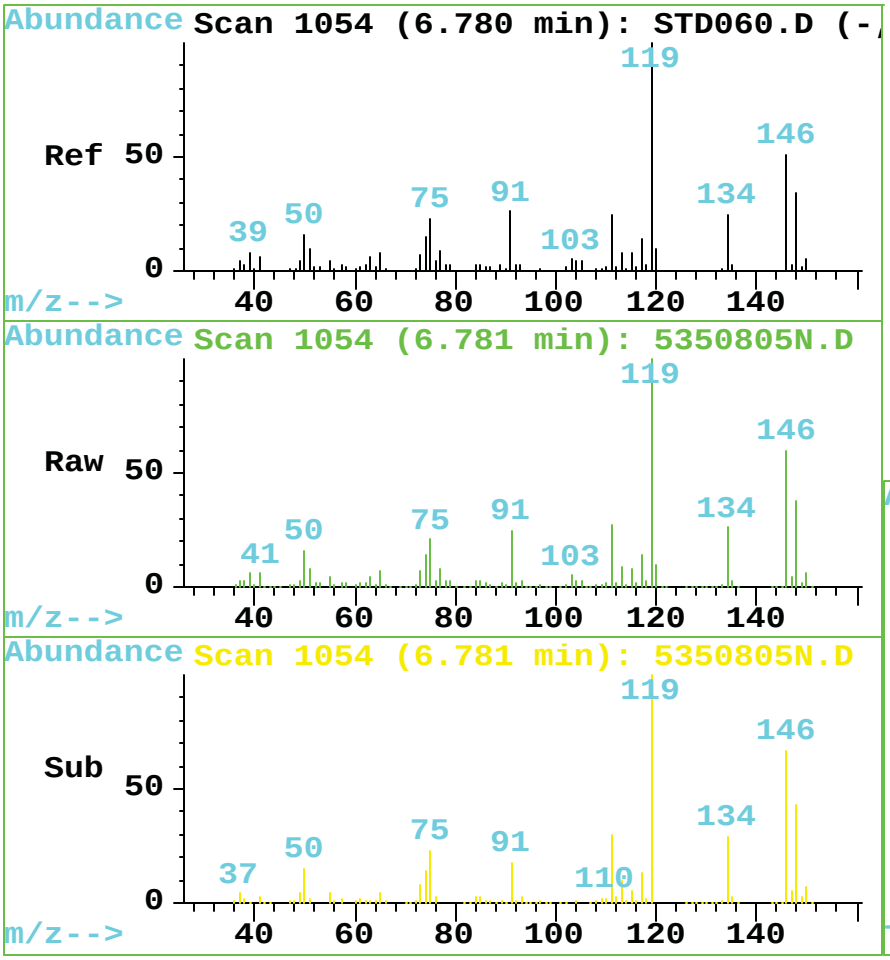


#70
p-Isopropyltoluene
Concen: 46.66 ug/l
RT: 6.77 min Scan# 1053
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:118.95 Resp: 5846

Ion	Ratio	Lower	Upper
119	100		
91	24.9	0.0	48.0
134	25.1	0.0	58.6
0	0.0	0.0	0.0

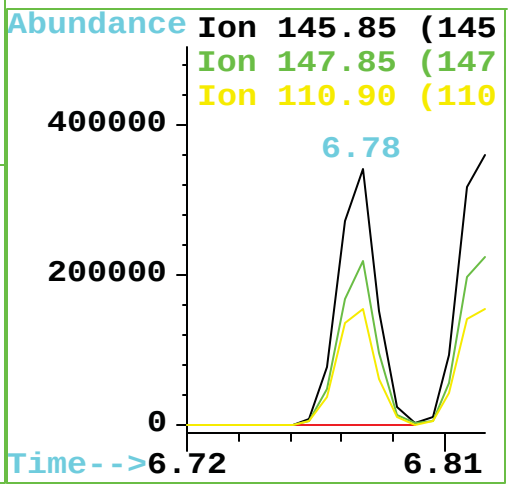


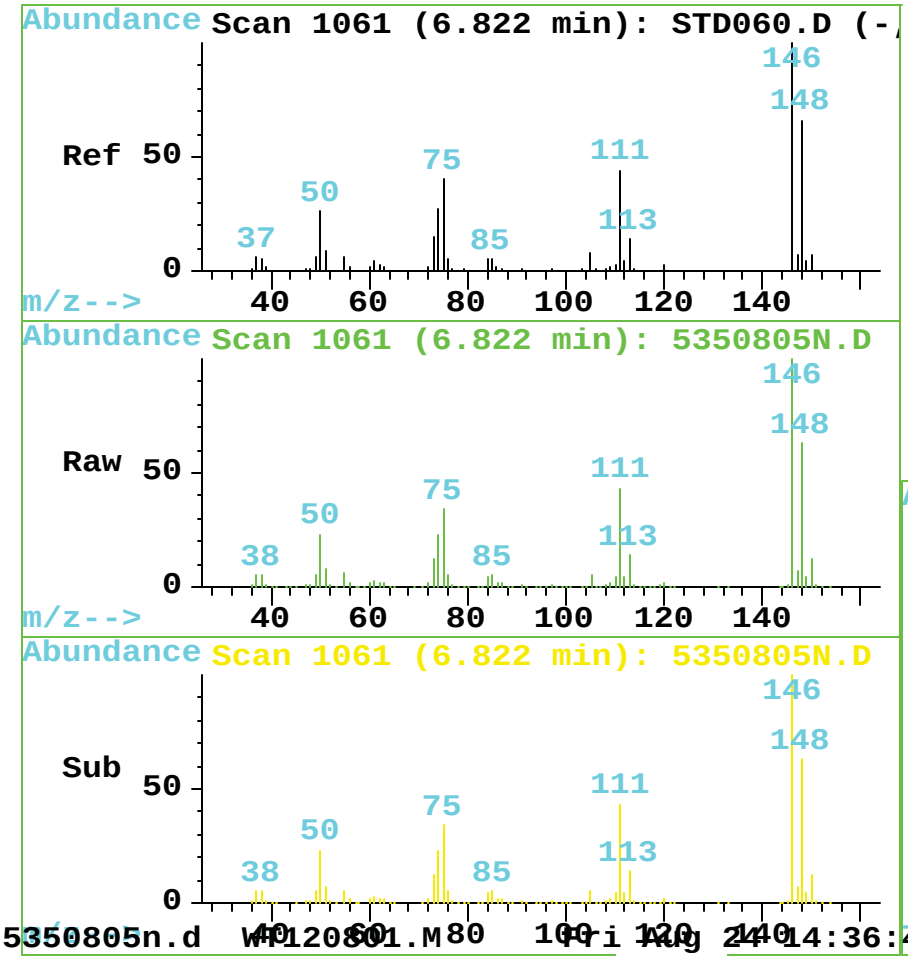


#71
1,3-Dichlorobenzene
Concen: 51.27 ug/l
RT: 6.78 min Scan# 1054
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:145.85 Resp: 3107

Ion	Ratio	Lower	Upper
146	100		
148	62.7	34.4	94.4
111	46.3	3.9	63.9
0	0.0	0.0	0.0

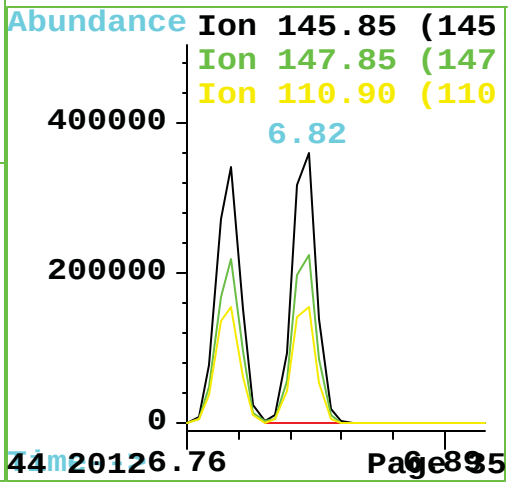


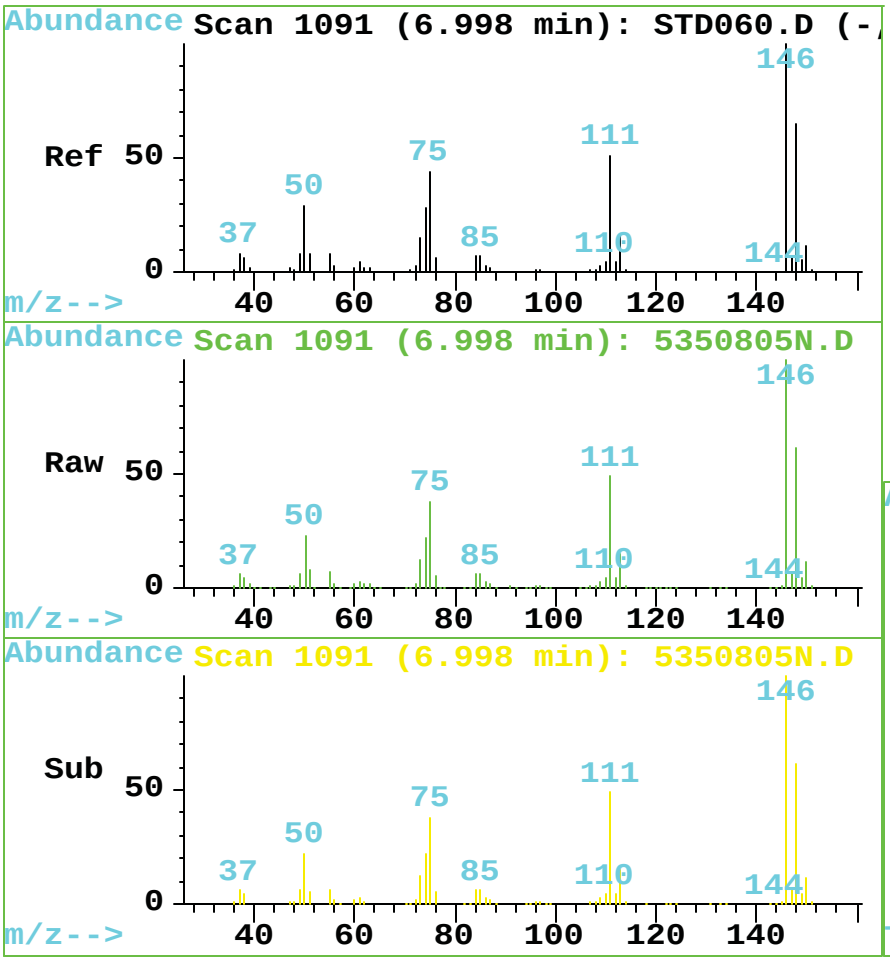


#72
1,4-Dichlorobenzene
Concen: 51.33 ug/l
RT: 6.82 min Scan# 1061
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:145.85 Resp: 3337

Ion	Ratio	Lower	Upper
146	100		
148	61.8	33.7	93.7
111	43.2	0.8	60.8
0	0.0	0.0	0.0

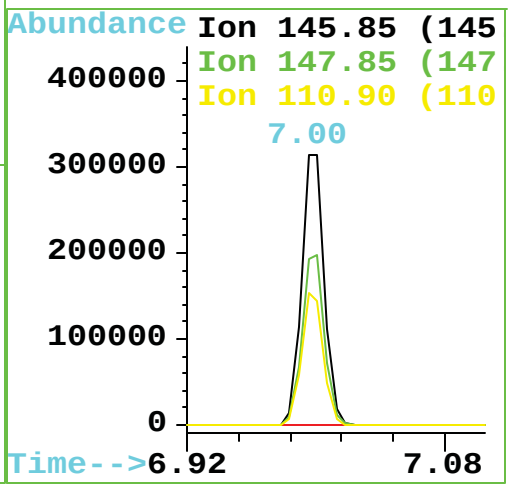


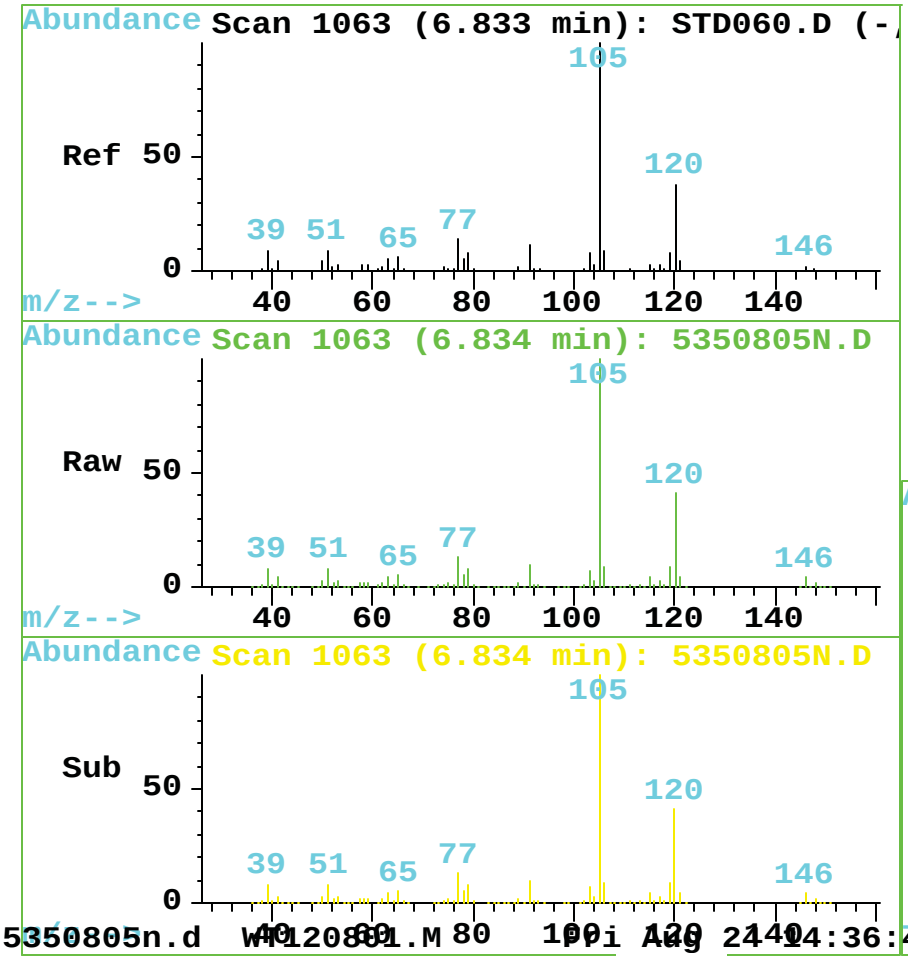


#73
1,2-Dichlorobenzene
Concen: 50.90 ug/l
RT: 7.00 min Scan# 1091
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:145.85 Resp: 3139

Ion	Ratio	Lower	Upper
146	100		
148	62.2	33.2	93.2
111	47.6	4.4	64.4
0	0.0	0.0	0.0

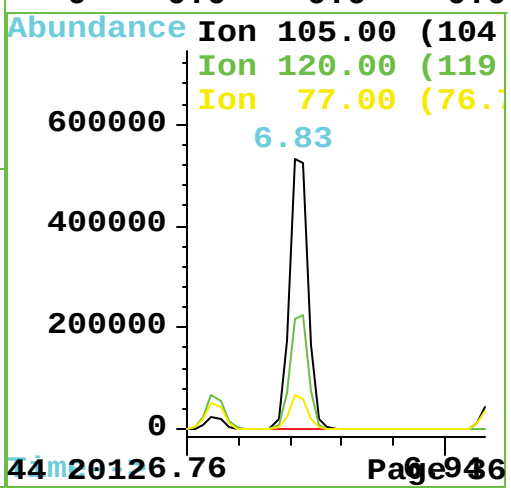


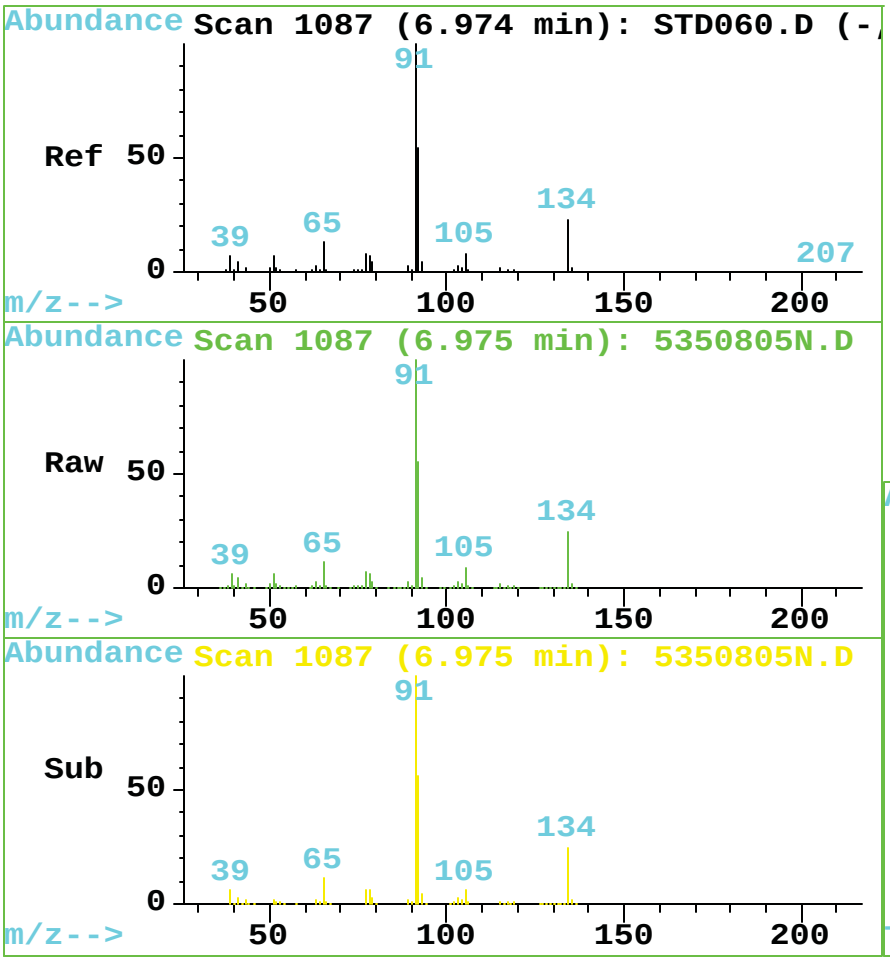


#74
1,2,3-Trimethylbenzene
Concen: 37.22 ug/l
RT: 6.83 min Scan# 1063
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:105 Resp: 508701

Ion	Ratio	Lower	Upper
105	100		
120	41.9	18.2	78.2
77	12.4	0.0	39.5
0	0.0	0.0	0.0

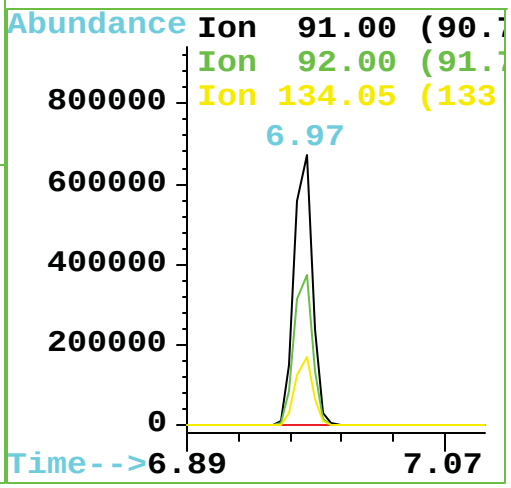


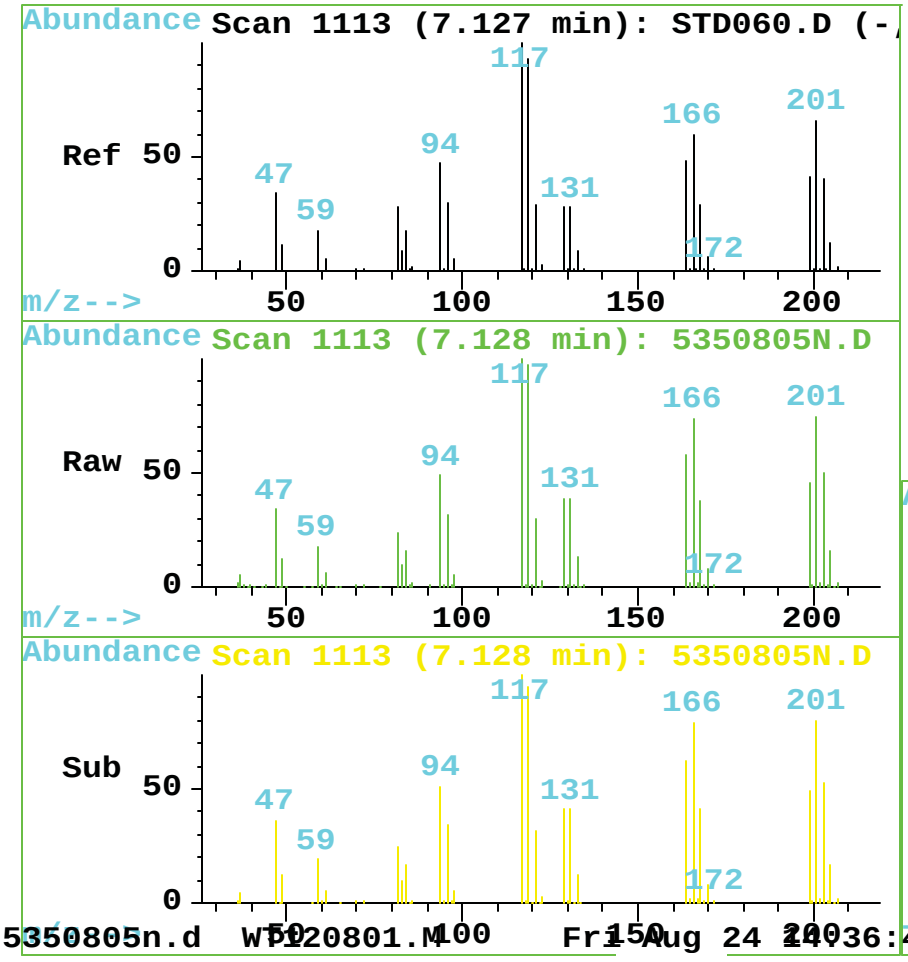


#75
n-Butylbenzene
Concen: 47.55 ug/l
RT: 6.97 min Scan# 1087
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:91 Resp: 591313

Ion	Ratio	Lower	Upper
91	100		
92	55.8	26.5	86.5
134	24.2	3.9	63.9
0	0.0	0.0	0.0

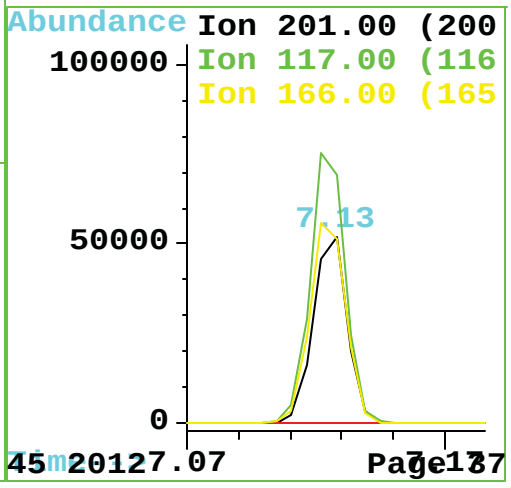


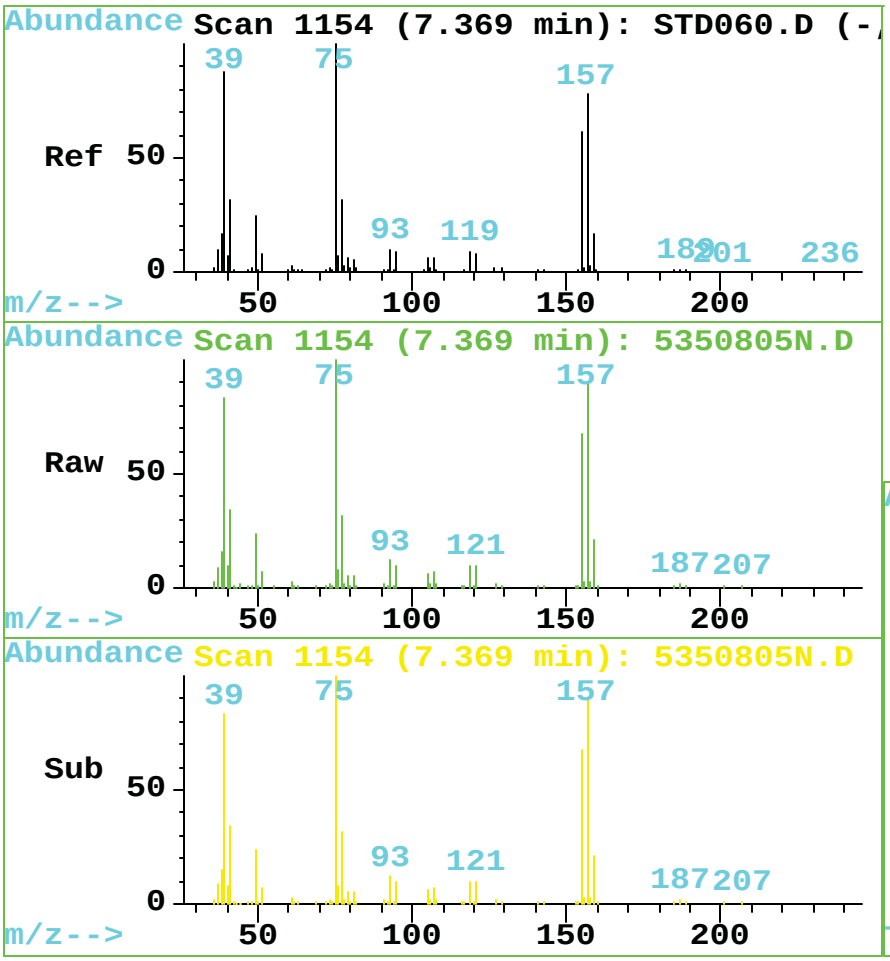


#76
Hexachloroethane
Concen: 37.53 ug/l
RT: 7.13 min Scan# 1113
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:201 Resp: 49171

Ion	Ratio	Lower	Upper
201	100		
117	148.6	57.0	117.0#
166	114.4	55.3	115.3
0	0.0	0.0	0.0

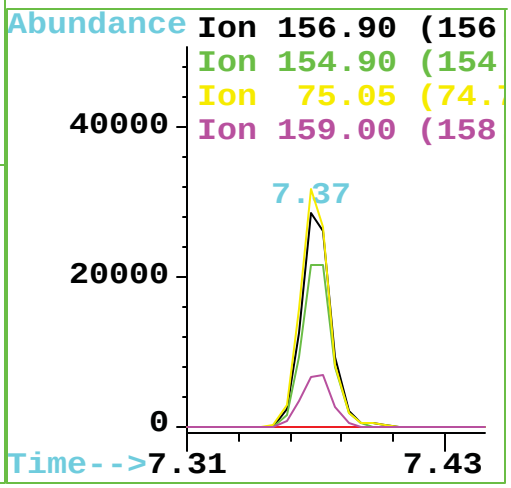


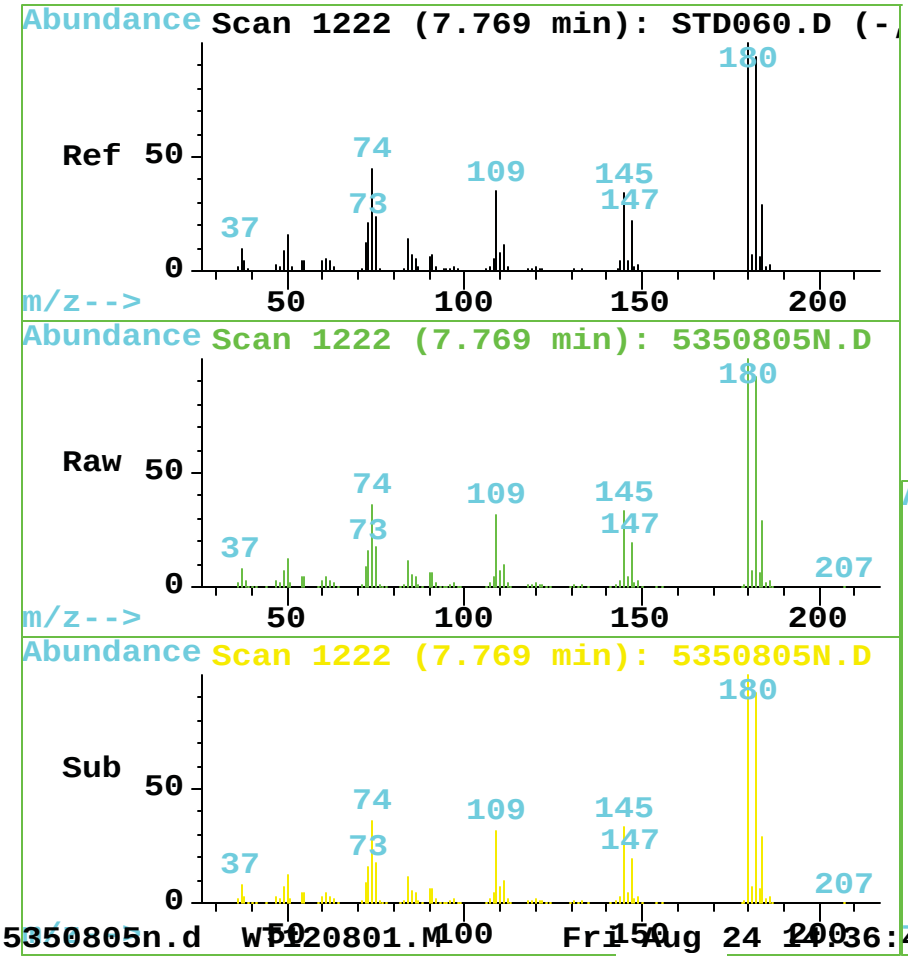


#77
1,2-Dibromo-3-Chloropropan
Concen: 50.23 ug/l
RT: 7.37 min Scan# 1154
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:156.9 Resp: 2879

Ion	Ratio	Lower	Upper
157	100		
155	78.7	43.5	103.5
75	107.8	29.9	89.9#
159	25.2	0.0	54.7

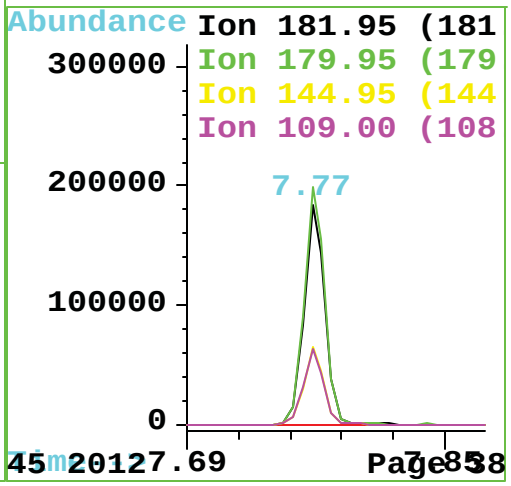


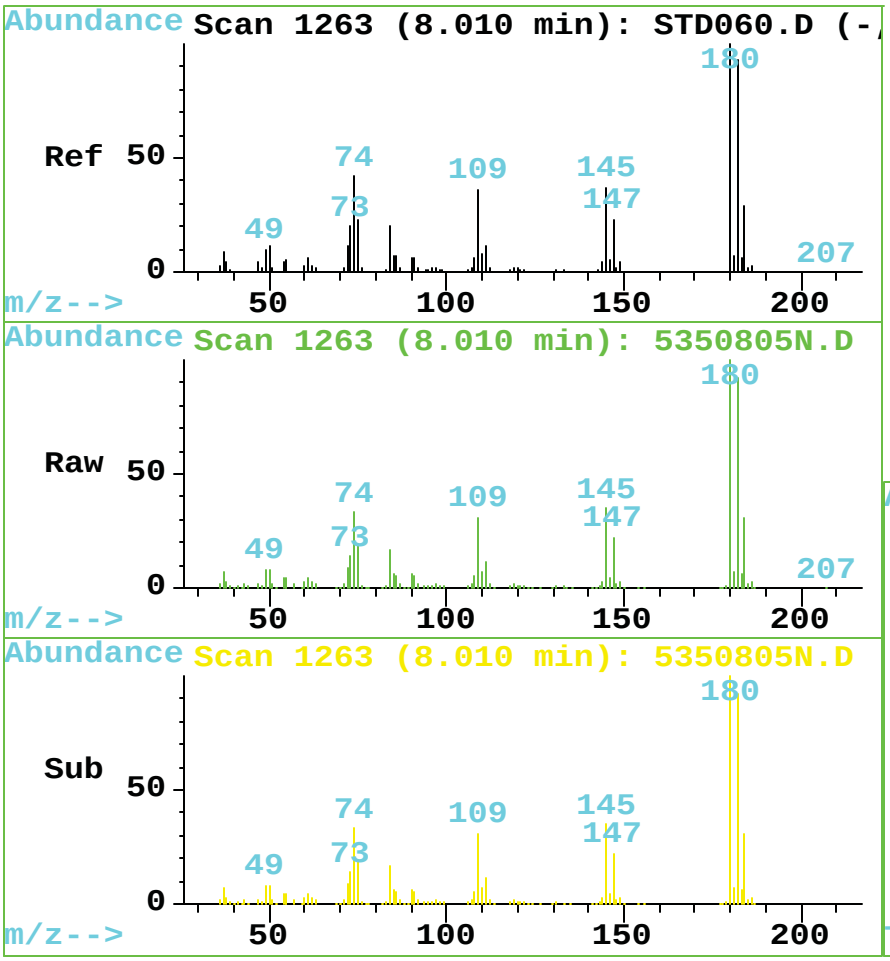


#78
1,2,4-Trichlorobenzene
Concen: 50.33 ug/l
RT: 7.77 min Scan# 1222
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:181.95 Resp: 1653

Ion	Ratio	Lower	Upper
182	100		
180	107.4	73.7	133.7
145	33.5	0.0	55.9
109	32.9	0.0	47.9

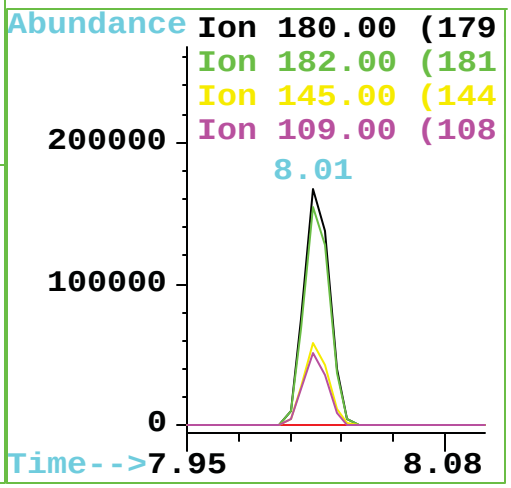


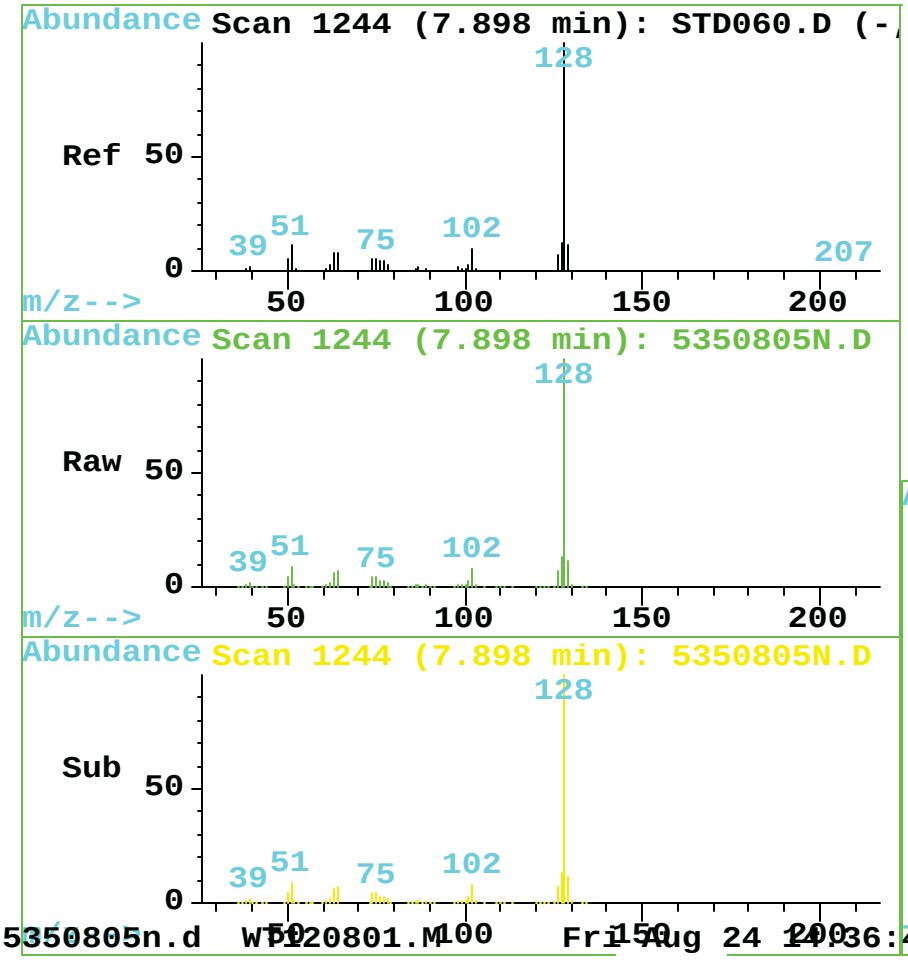


#80
1,2,3-Trichlorobenzene
Concen: 52.11 ug/l
RT: 8.01 min Scan# 1263
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:180 Resp: 155263

Ion	Ratio	Lower	Upper
180	100		
182	91.9	66.6	126.6
145	33.5	0.0	56.9
109	29.6	0.0	47.8

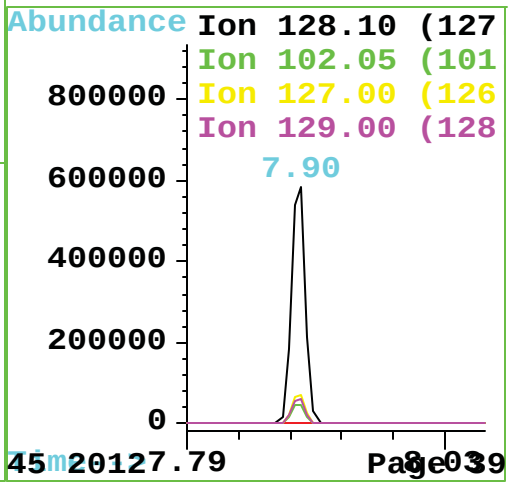


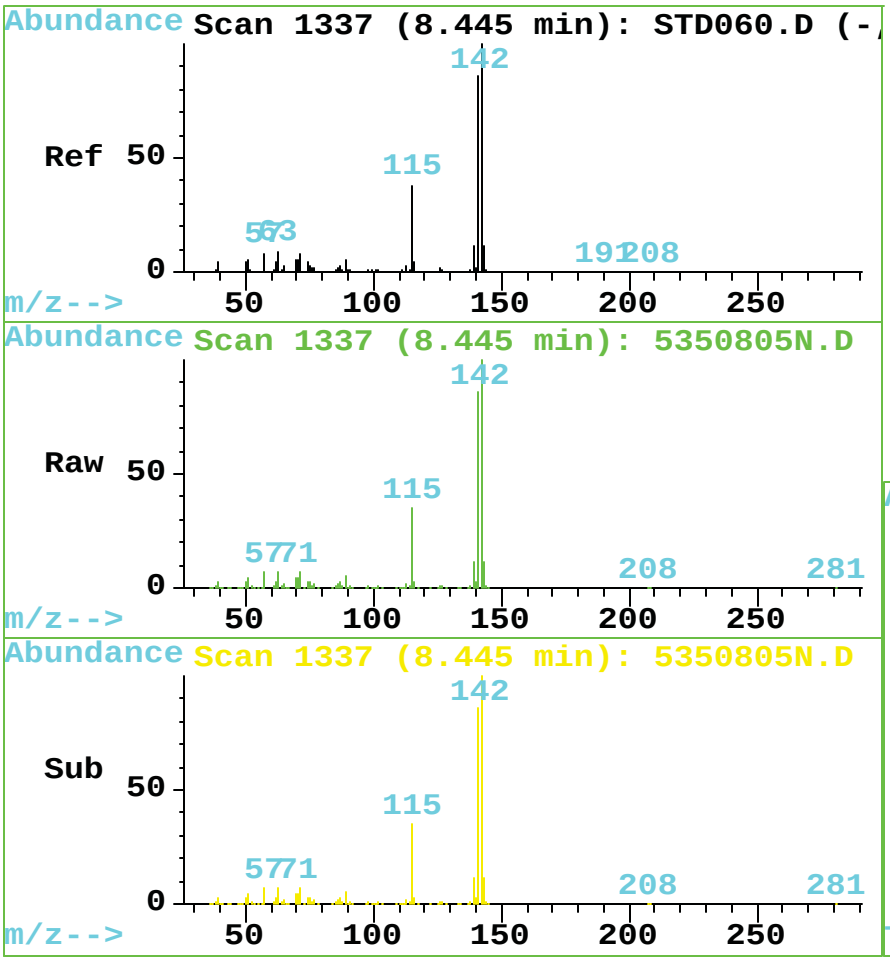


#81
Naphthalene
Concen: 55.90 ug/l
RT: 7.90 min Scan# 1244
Delta R.T. 0.01 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:128.1 Resp: 56104

Ion	Ratio	Lower	Upper
128	100		
102	8.6	0.0	36.6
127	12.5	0.0	42.3
129	10.8	0.0	40.7

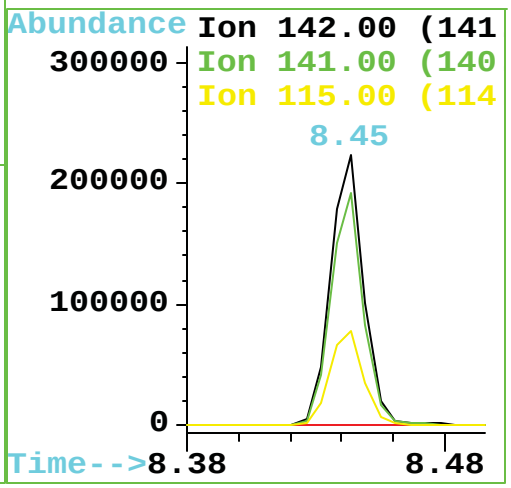




#82
2-Methylnaphthalene
Concen: 52.79 ug/l
RT: 8.45 min Scan# 1337
Delta R.T. 0.00 min
Lab File: 5350805n.d
Acq: 16 Aug 12 1:27 pm

Tgt Ion:142 Resp: 205478

Ion	Ratio	Lower	Upper
142	100		
141	84.7	54.2	114.2
115	35.6	0.0	54.4
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350806.d Vial: 10
Acq On : 16 Aug 12 4:10 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

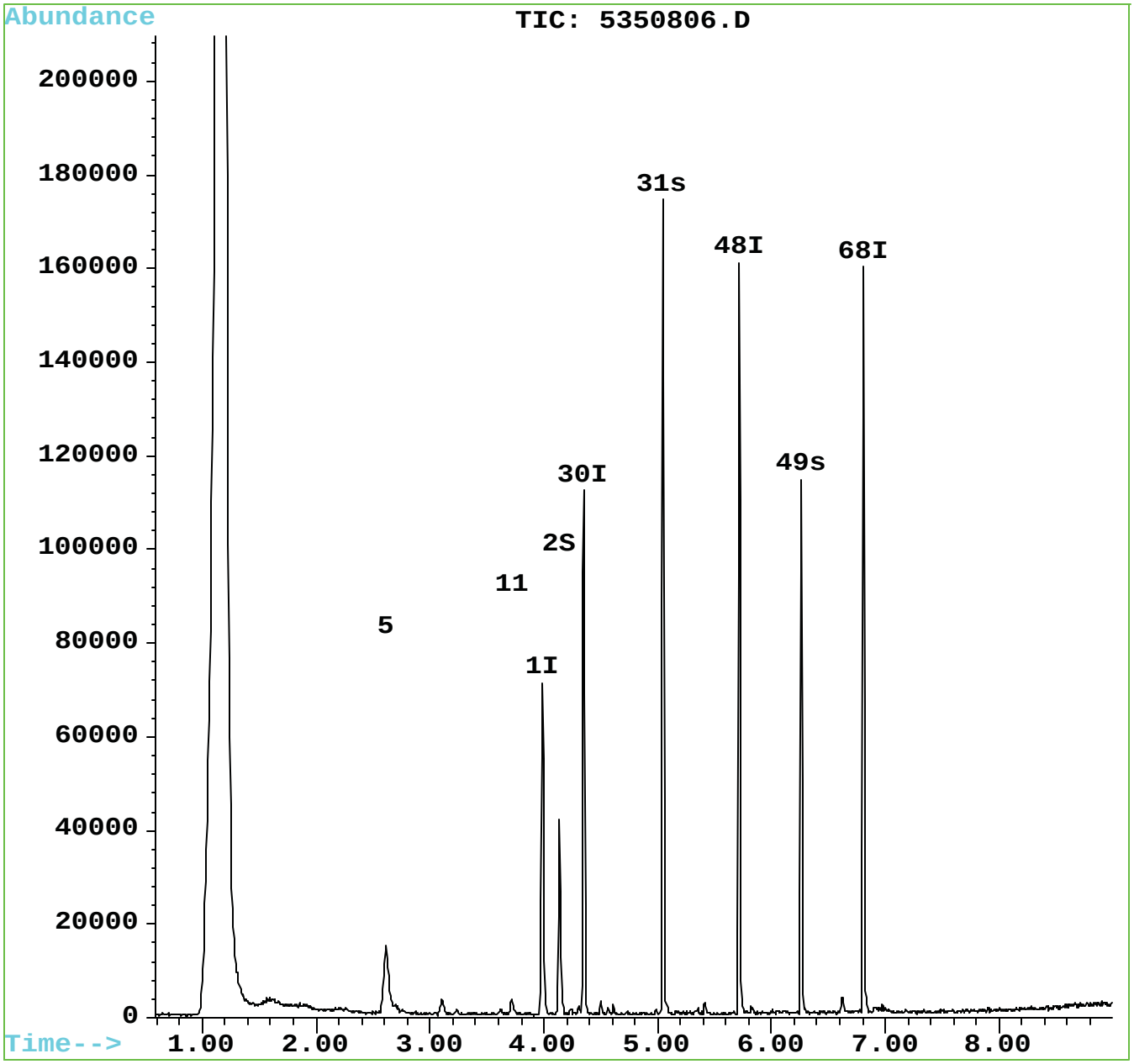
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30793	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	53684	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29147	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22506	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19715	4.41	ug/l	88.1
31) TOLUENE-D8 (S)	5.05	98	62168	4.68	ug/l	93.6
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15995	5.19	ug/l	103.7
Target Compounds						Qvalu
5) Acetone (*)	2.61	43	31014	19.94	ug/l	8
11) 2-Butanone (MEK) (*)	3.73	43	2718	1.19	ug/l #	6

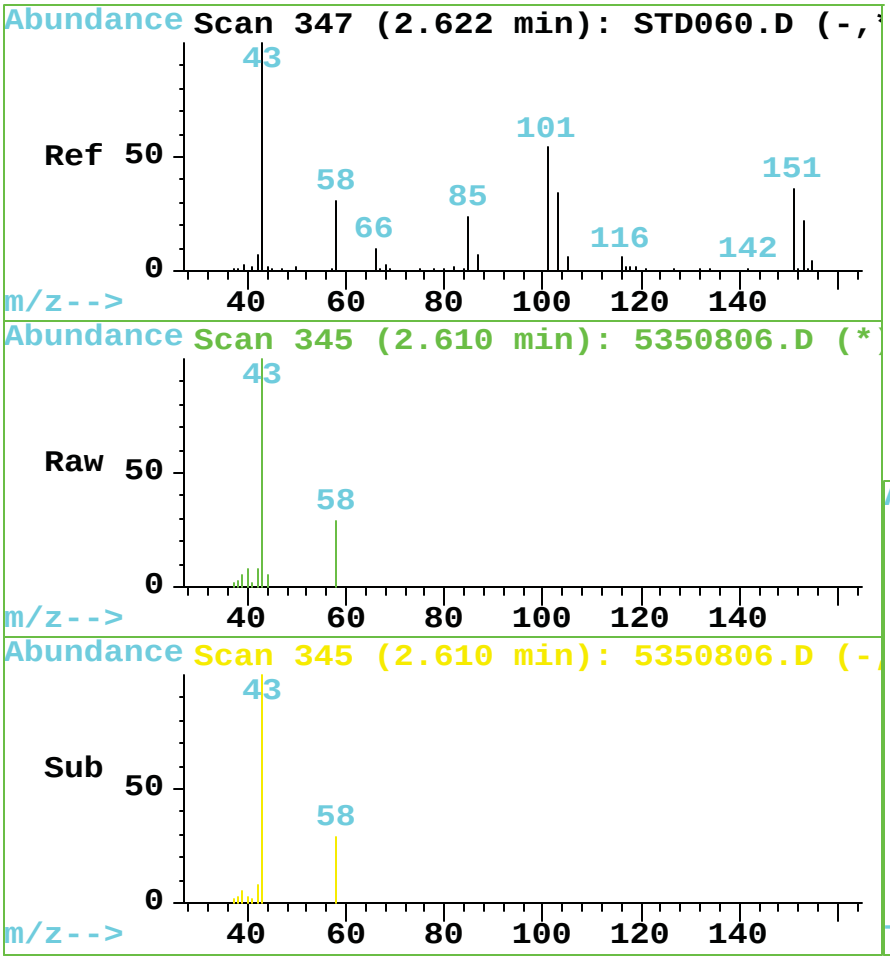
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350806.d Vial: 10
Acq On : 16 Aug 12 4:10 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

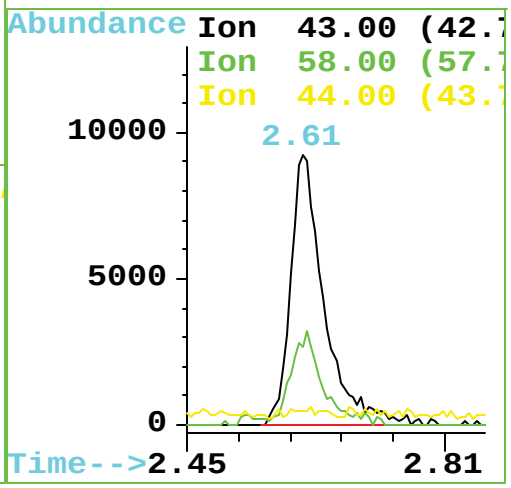


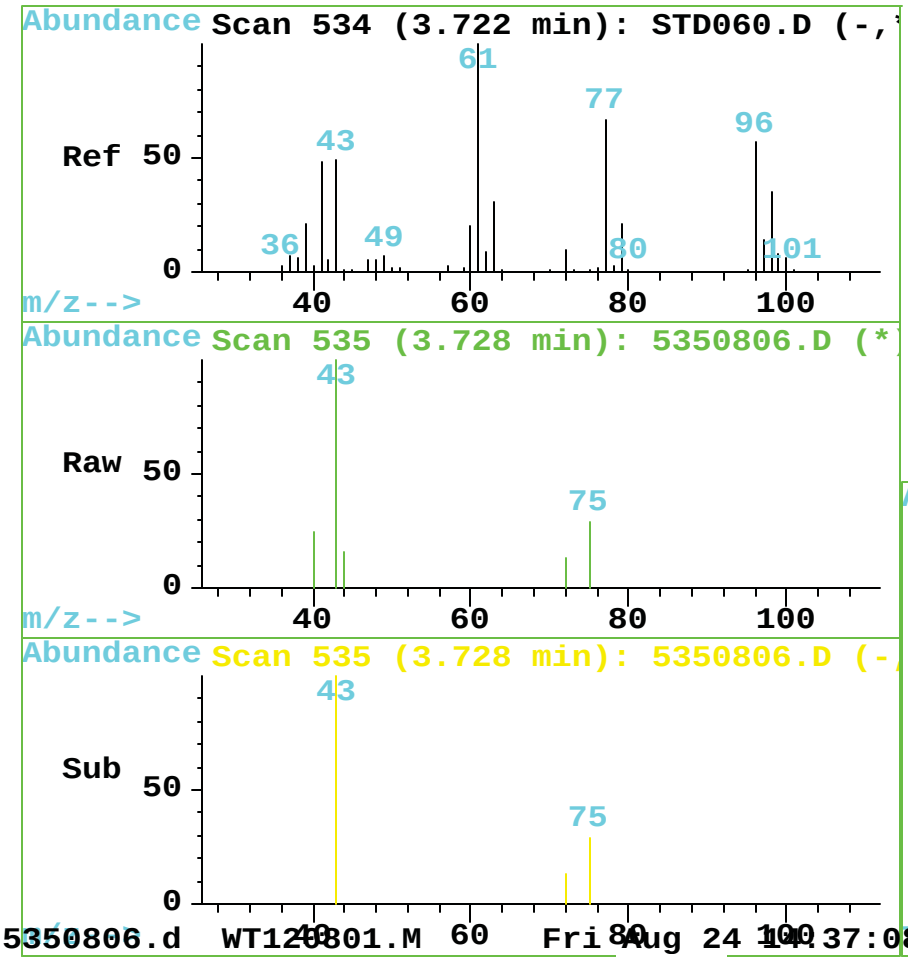


#5
Acetone (*)
Concen: 19.94 ug/l
RT: 2.61 min Scan# 345
Delta R.T. 0.00 min
Lab File: 5350806.d
Acq: 16 Aug 12 4:10 pm

Tgt Ion:43 Resp: 31014

Ion	Ratio	Lower	Upper
43	100		
58	32.6	11.0	71.0
44	0.5	0.0	33.9
0	0.0	0.0	0.0

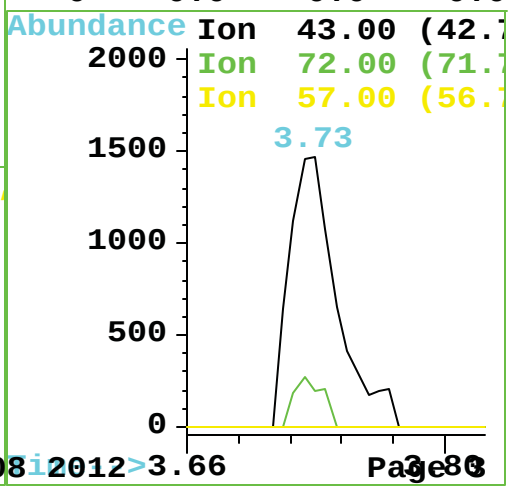




#11
2-Butanone (MEK) (*)
Concen: 1.19 ug/l
RT: 3.73 min Scan# 535
Delta R.T. 0.00 min
Lab File: 5350806.d
Acq: 16 Aug 12 4:10 pm

Tgt Ion:43 Resp: 2718

Ion	Ratio	Lower	Upper
43	100		
72	11.1	6.4	66.4
57	0.0	0.0	37.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350807.d Vial: 11
Acq On : 16 Aug 12 4:31 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

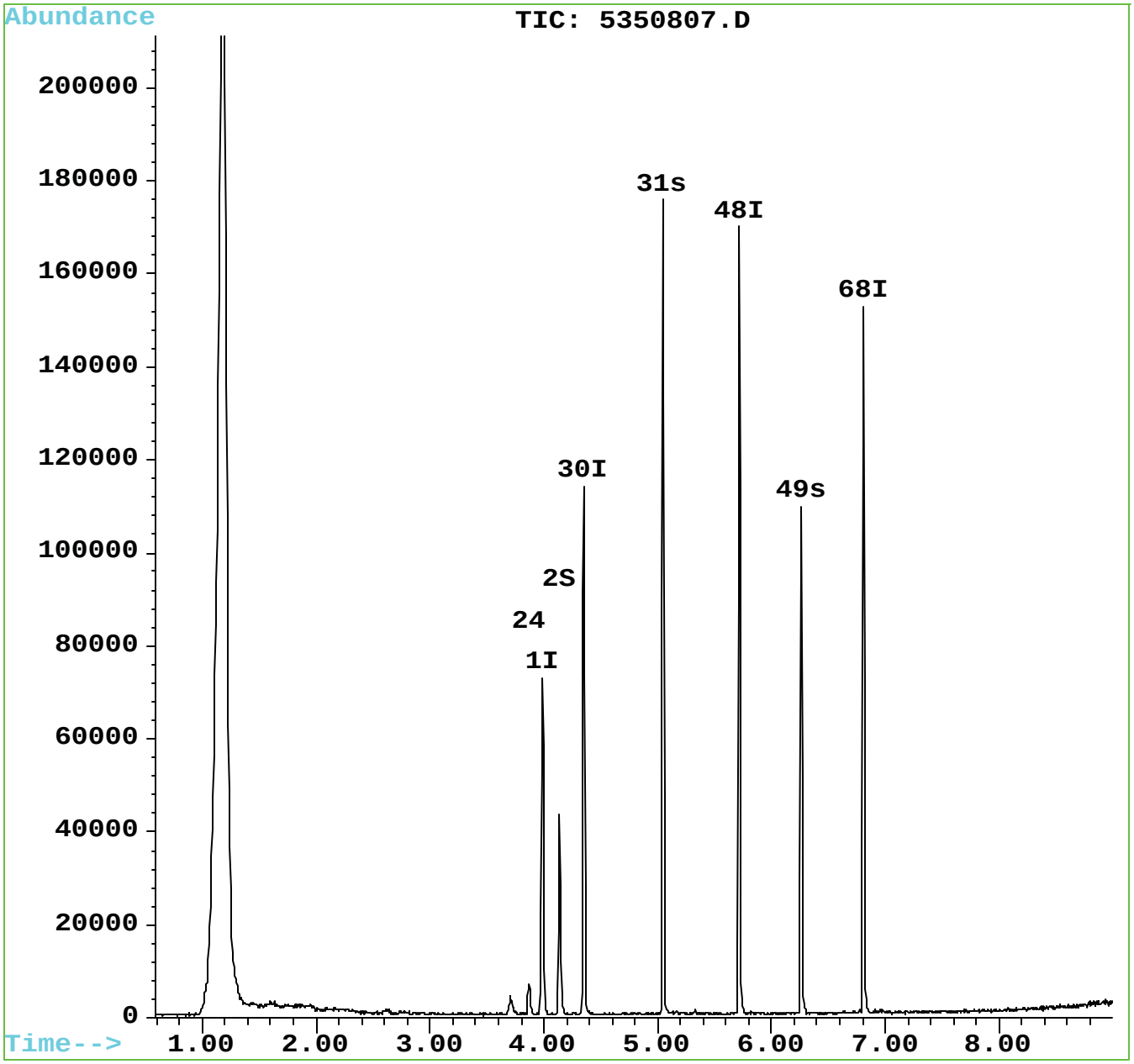
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30565	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54540	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30150	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23716	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19319	4.35	ug/l	87.0
31) TOLUENE-D8 (S)	5.05	98	62640	4.64	ug/l	92.8
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16284	5.10	ug/l	102.0
Target Compounds						Qvalu
24) Tetrahydrofuran	3.87	42	3504	2.40	ug/l #	1

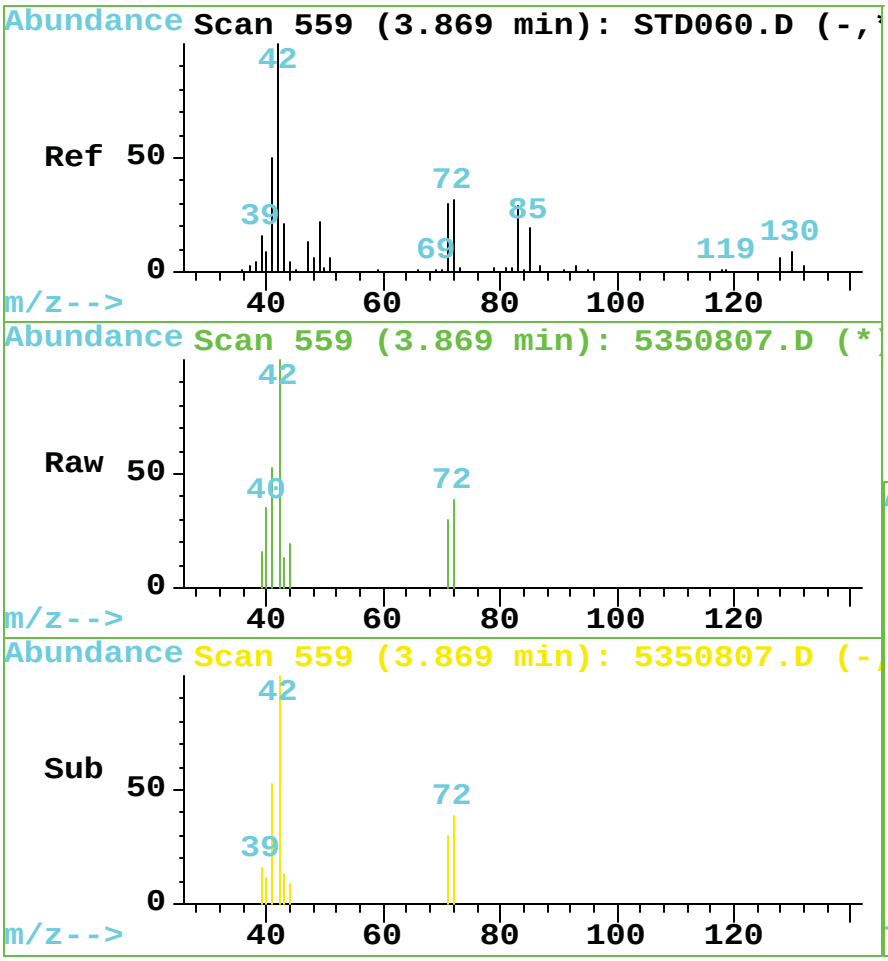
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350807.d Vial: 11
Acq On : 16 Aug 12 4:31 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

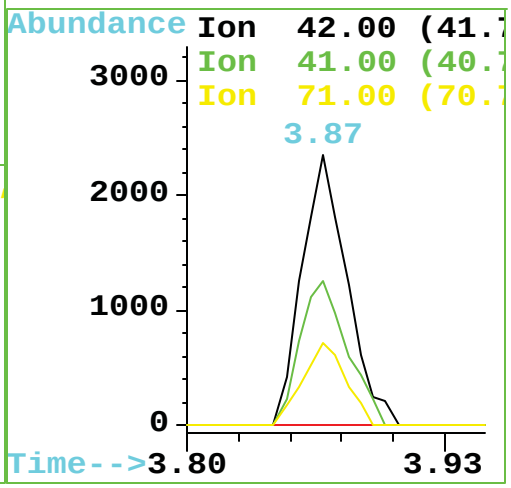




#24
Tetrahydrofuran
Concen: 2.40 ug/l
RT: 3.87 min Scan# 559
Delta R.T. 0.00 min
Lab File: 5350807.d
Acq: 16 Aug 12 4:31 pm

Tgt Ion:42 Resp: 3504

Ion	Ratio	Lower	Upper
42	100		
41	55.8	179.3	239.3#
71	29.1	14.9	74.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350808.d Vial: 12
Acq On : 16 Aug 12 4:51 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

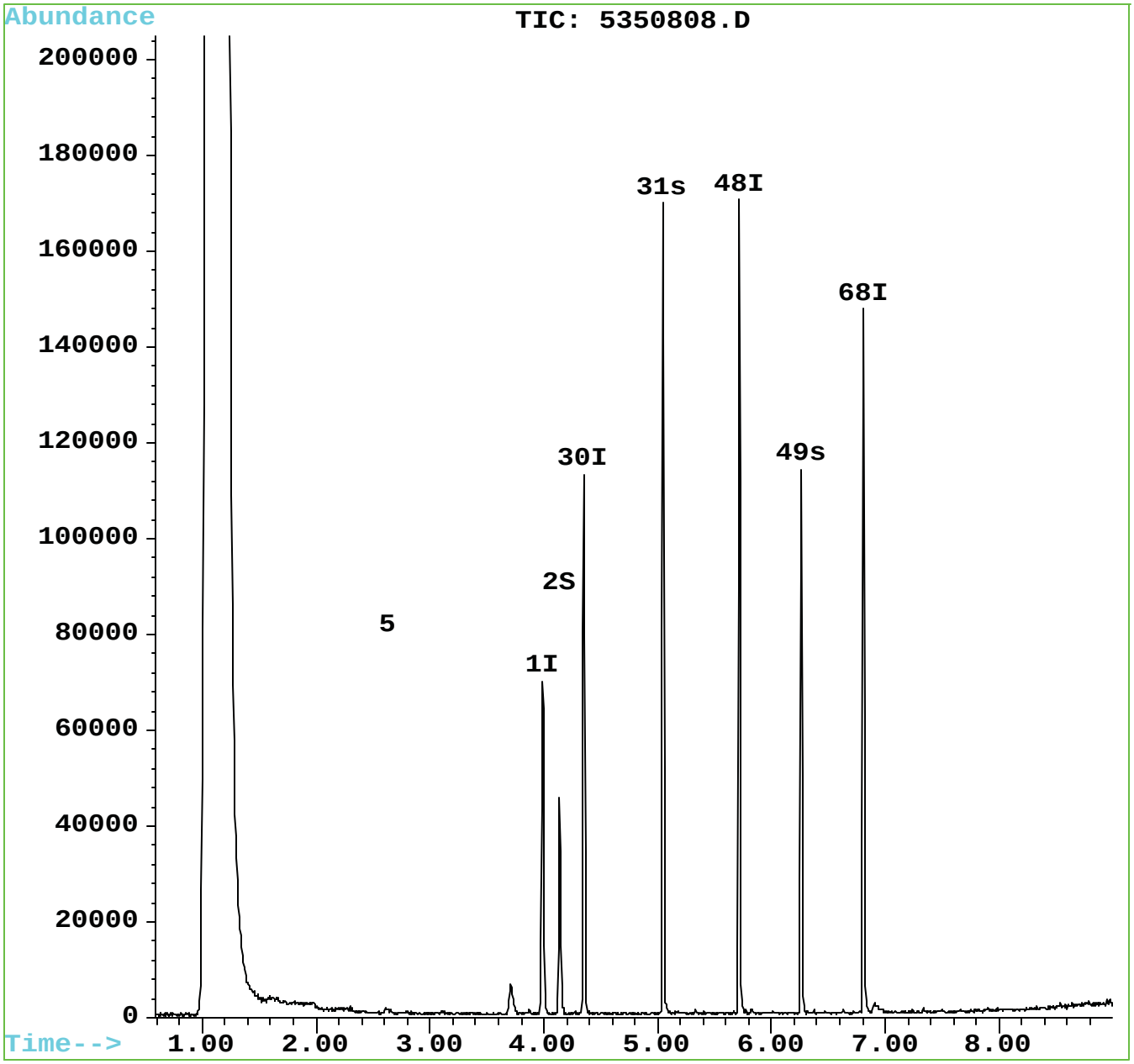
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30698	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	52125	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	28683	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23432	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19182	4.30	ug/l	86.0
31) TOLUENE-D8 (S)	5.05	98	62186	4.82	ug/l	96.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15869	5.23	ug/l	104.5
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	2099	1.35	ug/l	9

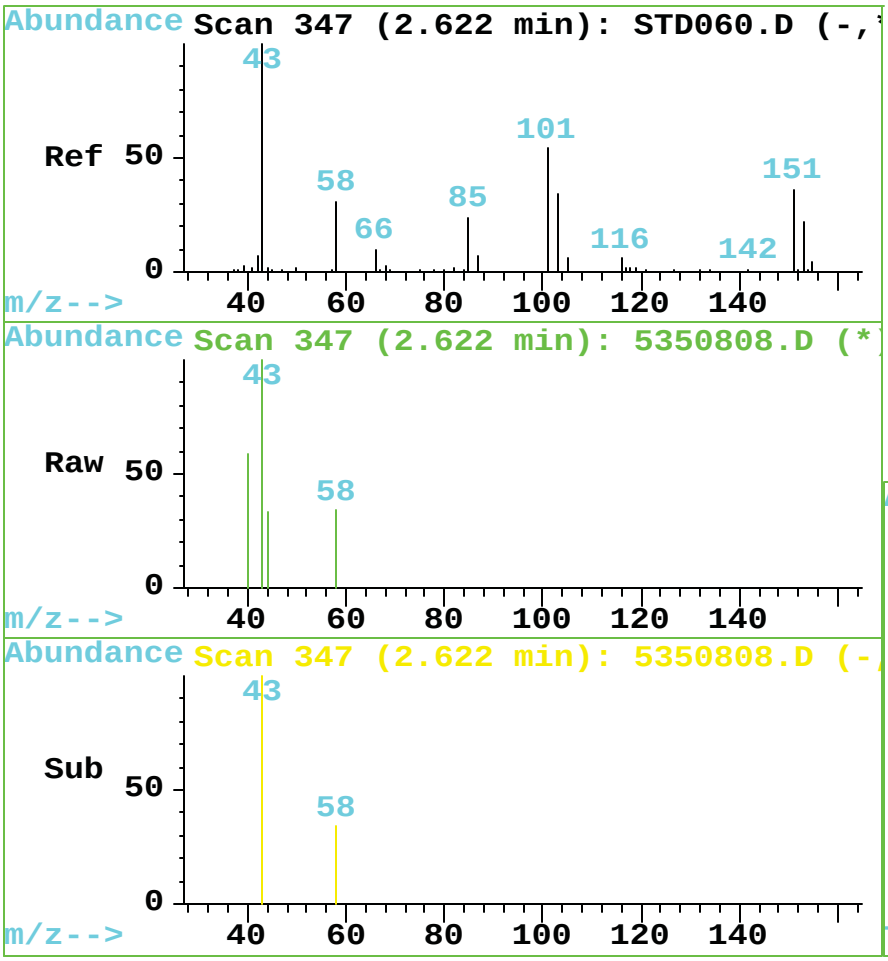
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350808.d Vial: 12
Acq On : 16 Aug 12 4:51 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

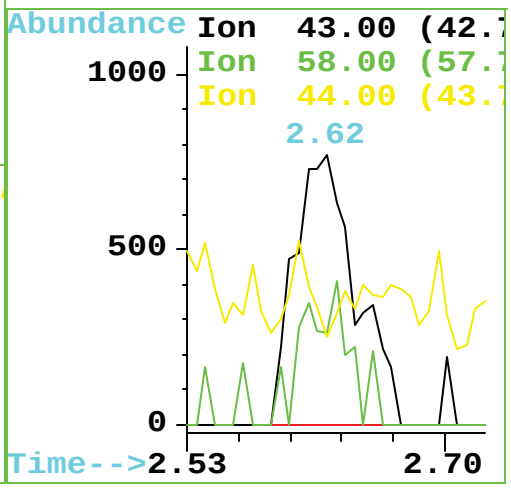




#5
Acetone (*)
Concen: 1.35 ug/l
RT: 2.62 min Scan# 347
Delta R.T. 0.01 min
Lab File: 5350808.d
Acq: 16 Aug 12 4:51 pm

Tgt Ion:43 Resp: 2099

Ion	Ratio	Lower	Upper
43	100		
58	39.7	11.0	71.0
44	11.2	0.0	33.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350809.d Vial: 13
Acq On : 16 Aug 12 5:11 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

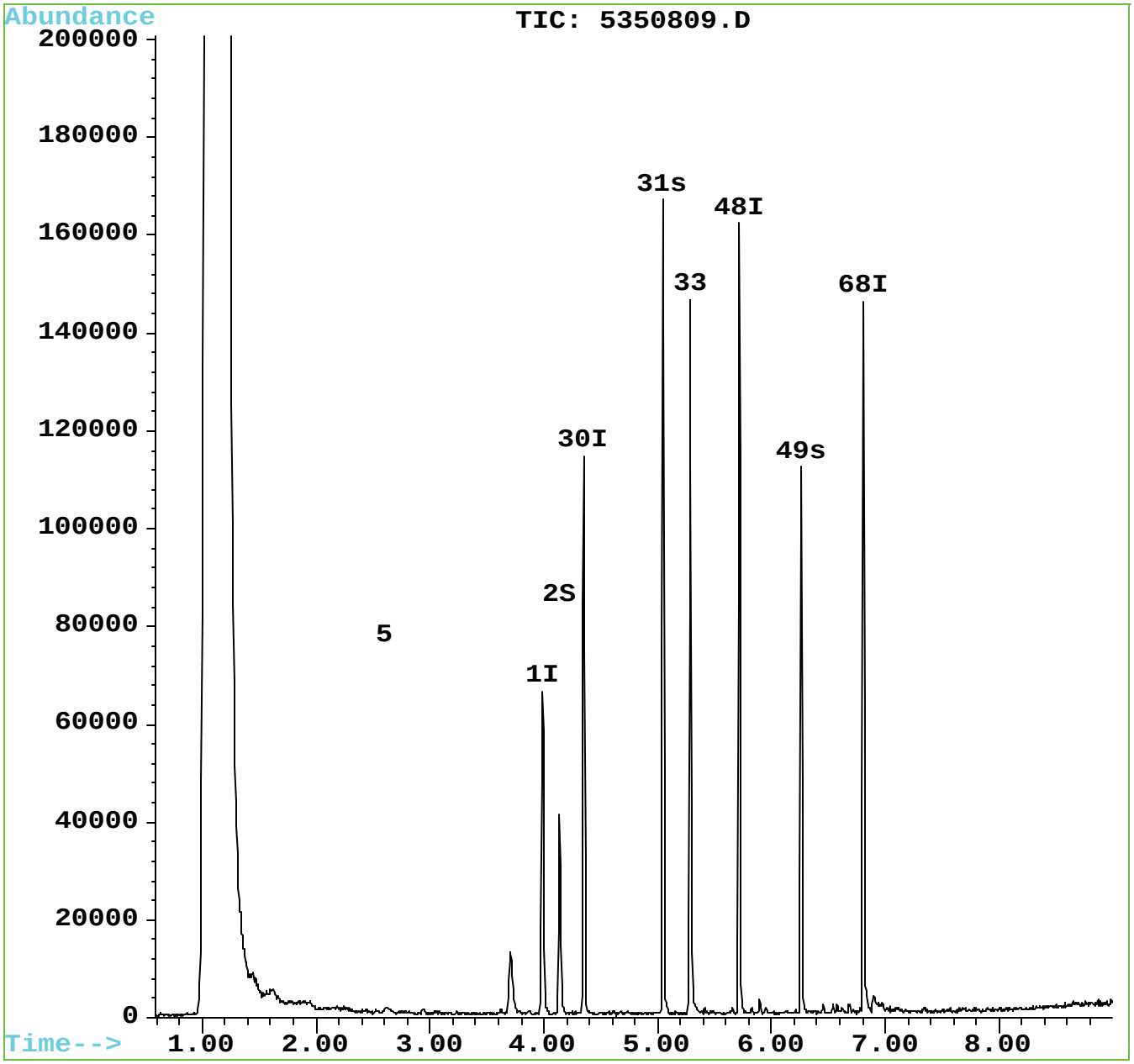
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	29166	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	52176	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	28482	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23457	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19268	4.55	ug/l	90.9
31) TOLUENE-D8 (S)	5.05	98	60755	4.71	ug/l	94.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15678	5.20	ug/l	104.0
Target Compounds						Qvalu
5) Acetone (*)	2.61	43	2094	1.42	ug/l	8
33) 2-Hexanone (*)	5.29	58	20387	14.01	ug/l #	

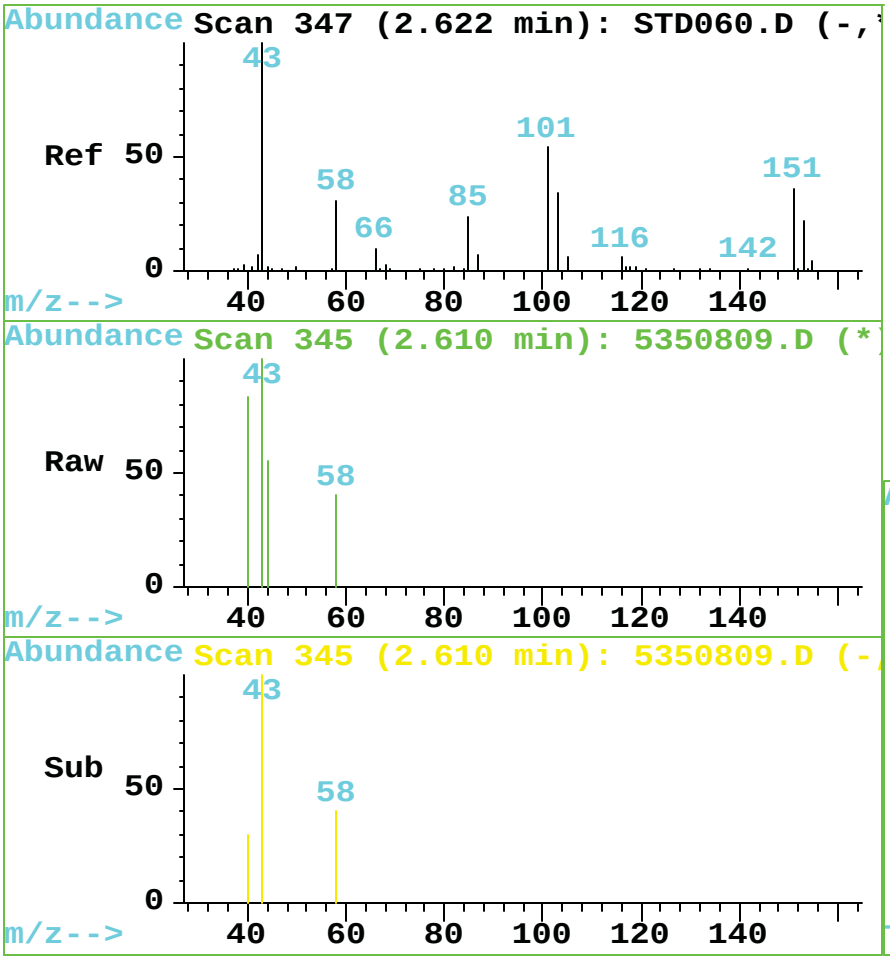
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350809.d Vial: 13
Acq On : 16 Aug 12 5:11 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

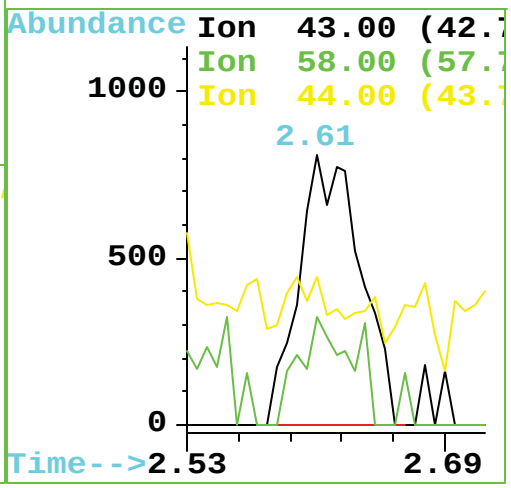


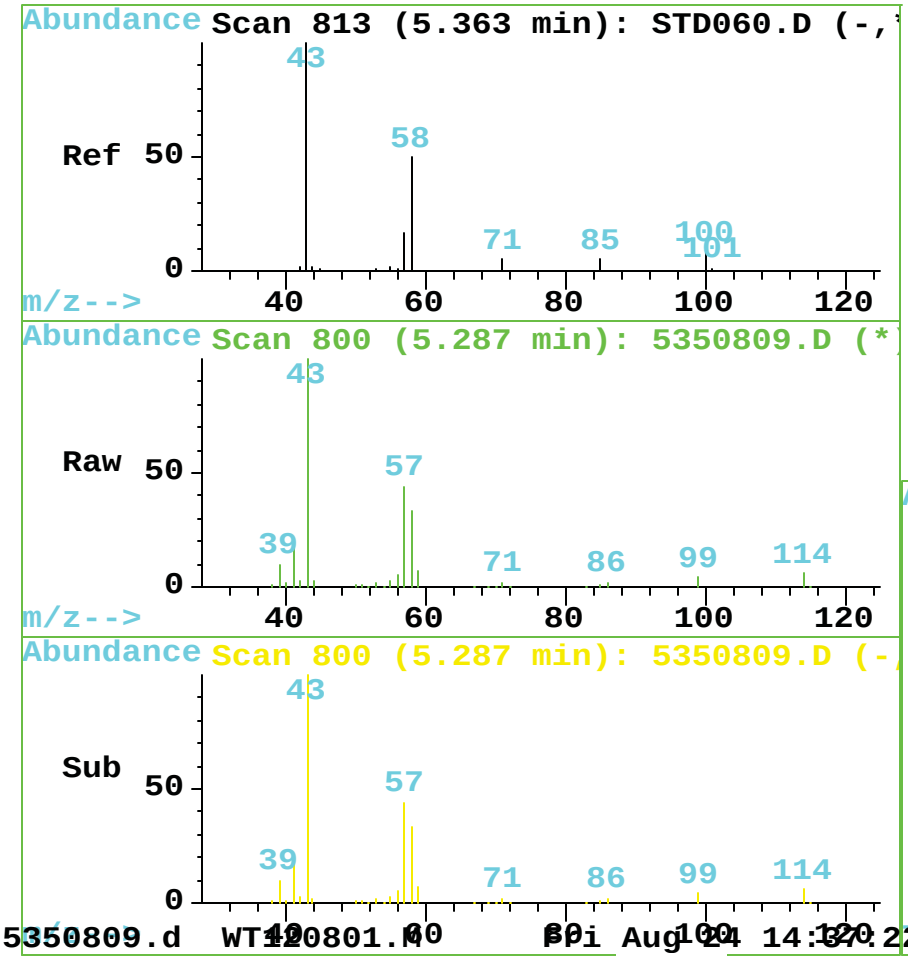


#5
Acetone (*)
Concen: 1.42 ug/l
RT: 2.61 min Scan# 345
Delta R.T. 0.00 min
Lab File: 5350809.d
Acq: 16 Aug 12 5:11 pm

Tgt Ion:43 Resp: 2094

Ion	Ratio	Lower	Upper
43	100		
58	34.2	11.0	71.0
44	10.7	0.0	33.9
0	0.0	0.0	0.0

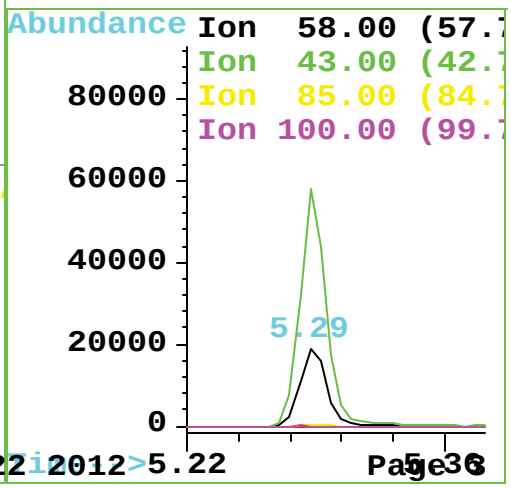




#33
2-Hexanone (*)
Concen: 14.01 ug/l
RT: 5.29 min Scan# 800
Delta R.T. -0.08 min
Lab File: 5350809.d
Acq: 16 Aug 12 5:11 pm

Tgt Ion:58 Resp: 20387

Ion	Ratio	Lower	Upper
58	100		
43	297.3	120.9	180.9#
85	2.5	0.0	48.4
100	0.3	0.5	60.5#



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350810.d Vial: 14
Acq On : 16 Aug 12 5:32 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

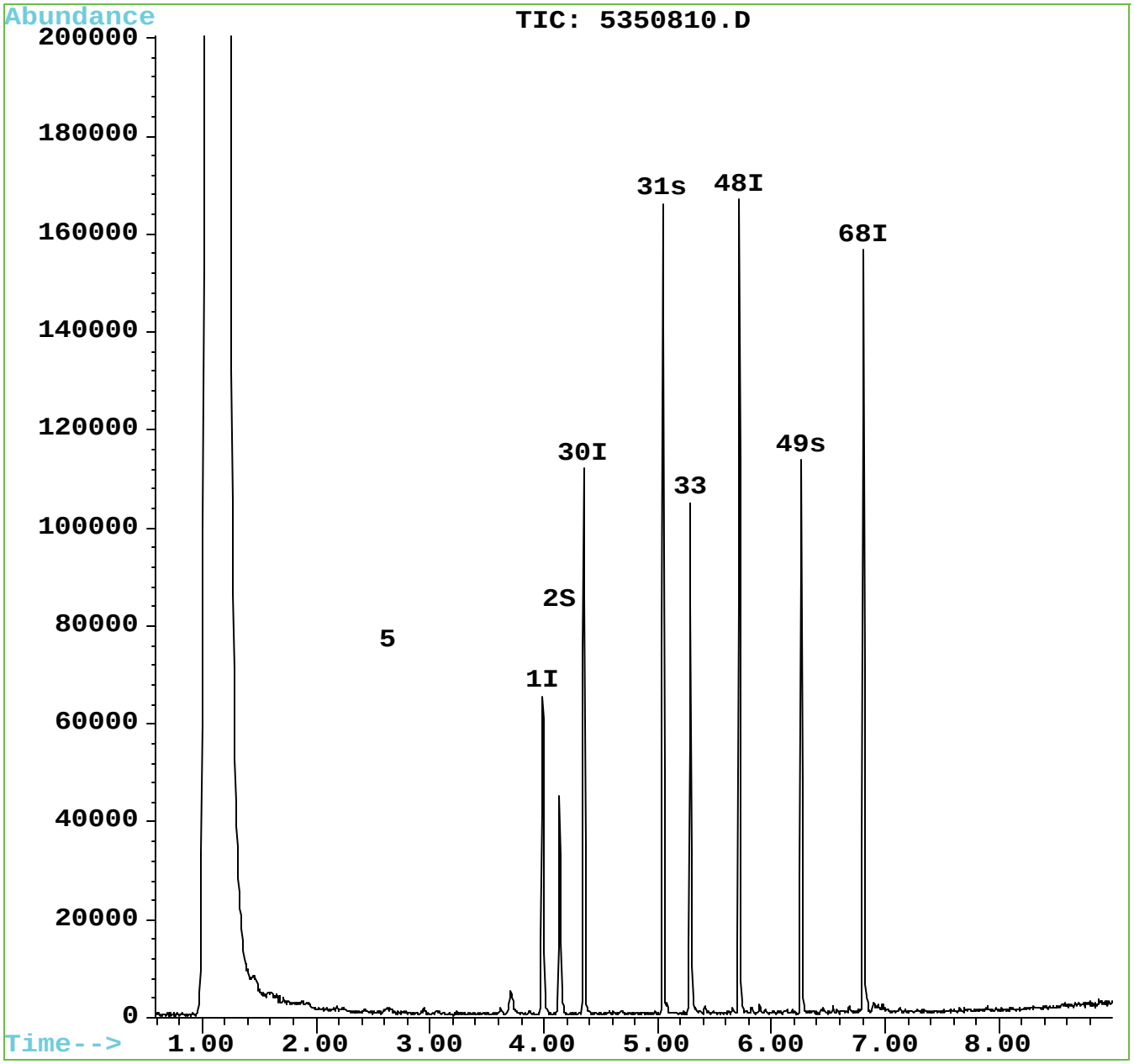
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	29349	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	51853	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29082	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22453	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18772	4.40	ug/l	88.0
31) TOLUENE-D8 (S)	5.05	98	60083	4.69	ug/l	93.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15519	5.04	ug/l	100.8
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	2162	1.46	ug/l	9
33) 2-Hexanone (*)	5.29	58	14766	10.21	ug/l #	

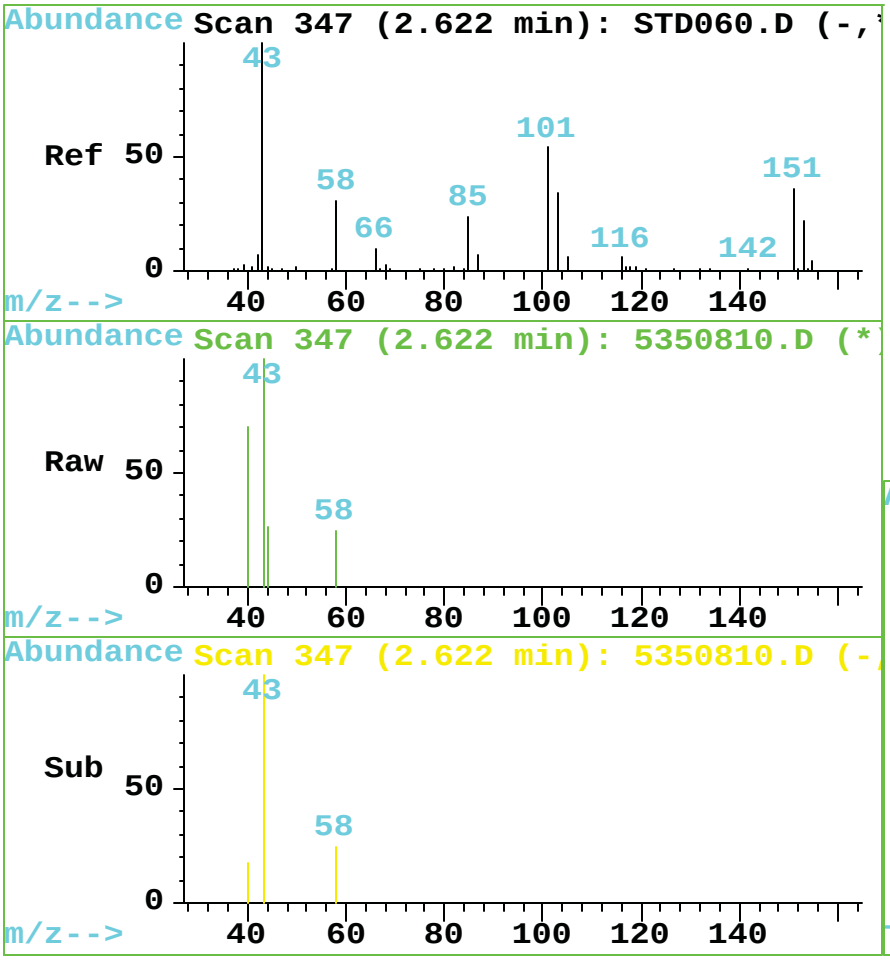
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\5350810.d Vial: 14
Acq On : 16 Aug 12 5:32 pm Operator: lbr
Sample : 5ml 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:49 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

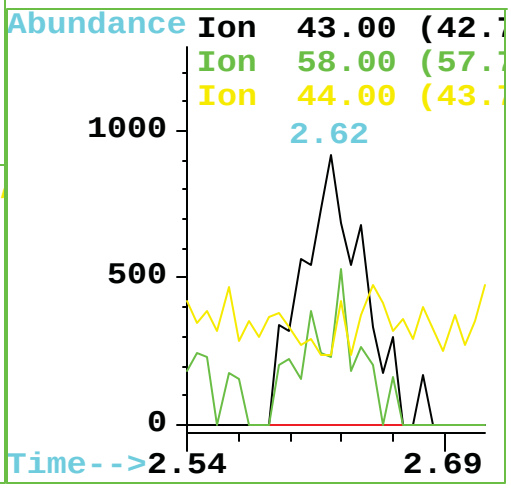


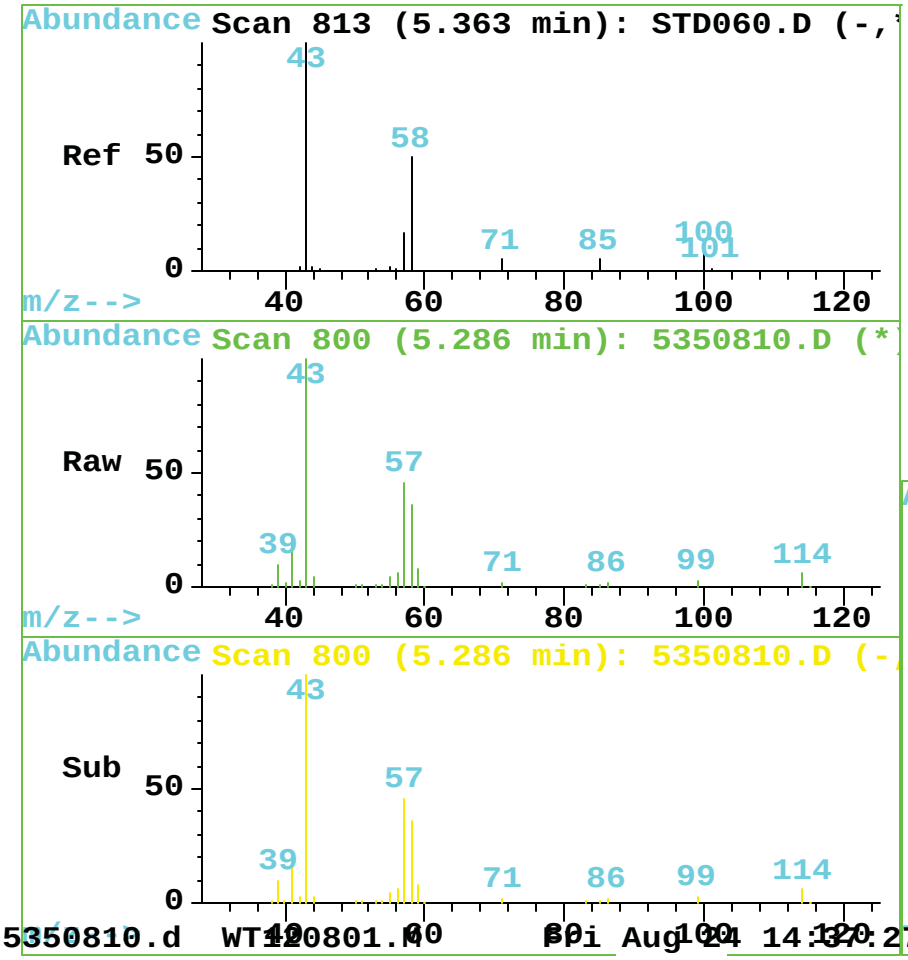


#5
Acetone (*)
Concen: 1.46 ug/l
RT: 2.62 min Scan# 347
Delta R.T. 0.01 min
Lab File: 5350810.d
Acq: 16 Aug 12 5:32 pm

Tgt Ion:43 Resp: 2162

Ion	Ratio	Lower	Upper
43	100		
58	45.7	11.0	71.0
44	16.2	0.0	33.9
0	0.0	0.0	0.0

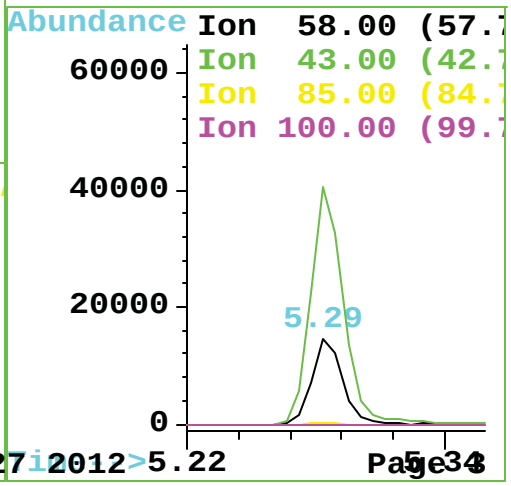




#33
2-Hexanone (*)
Concen: 10.21 ug/l
RT: 5.29 min Scan# 800
Delta R.T. -0.08 min
Lab File: 5350810.d
Acq: 16 Aug 12 5:32 pm

Tgt Ion:58 Resp: 14766

Ion	Ratio	Lower	Upper
58	100		
43	298.7	120.9	180.9#
85	1.5	0.0	48.4
100	0.0	0.5	60.5#



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wt120801.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.726	2.57	0.721	0.762	0.722	0.719	0.726	0.707				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.484	5.86	0.451	0.455	0.475	0.491	0.511	0.519				
	Diethyl ether (*)	A	0.373	2.84	0.357	0.368	0.371	0.374	0.387	0.382				
	Acetone (*)	A	0.253	8.61		0.258	0.218	0.252	0.278	0.257				
	Methyl iodide (iodomethane) (*	A	0.652	5.17	0.605	0.638	0.637	0.653	0.684	0.697				
	Carbon disulfide (*)	A	1.705	9.40	1.470	1.594	1.686	1.730	1.849	1.903				
	Methyl Acetate	A	0.517	3.32	0.492	0.505	0.523	0.514	0.523	0.542				
	tert-Methyl butyl ether (MTBE)	A	1.557	6.74	1.422	1.455	1.555	1.568	1.655	1.686				
	Acrylonitrile (*)	A	0.266	14.79	0.191	0.260	0.277	0.274	0.293	0.300				
	2-Butanone (MEK) (*)	A	0.372	5.23		0.362	0.346	0.372	0.394	0.388				
	Dichlorodifluoromethane	QO	0.461	21.53	0.304	0.436	0.441	0.446	0.567	0.571	1.00	0.00	0.485	0.00
	Chloromethane (SPCC)	A	0.835	6.11	0.766	0.844	0.803	0.814	0.904	0.879				
	Vinyl Chloride (CCC)	A	0.751	8.18	0.639	0.747	0.759	0.747	0.812	0.801				
	Bromomethane	A	0.342	14.05	0.376	0.384	0.381	0.329	0.319	0.262				
	Chloroethane	A	0.403	13.50	0.394	0.459	0.451	0.410	0.398	0.307				
	Acrolein	A	0.100	5.92		0.093	0.098	0.098	0.106	0.107				
	Trichlorofluoromethane	A	0.757	5.47	0.680	0.782	0.777	0.773	0.790	0.740				
	1,1-Dichloroethene (CCC/MS)	A	0.946	5.34	0.868	0.928	0.928	0.953	0.992	1.008				
	Methylene Chloride	A	0.578	2.21	0.580	0.578	0.562	0.565	0.586	0.596				
	trans-1,2-Dichloroethene	A	0.922	4.55	0.866	0.895	0.898	0.935	0.964	0.971				
	1,1-Dichloroethane (SPCC)	A	1.106	4.25	1.032	1.081	1.094	1.125	1.144	1.161				
	cis-1,2-Dichloroethene	A	0.597	3.11	0.566	0.595	0.591	0.598	0.615	0.617				
	Tetrahydrofuran	A	0.238	8.66		0.268	0.251	0.219	0.223	0.231				
	Chloroform (CCC)	A	0.951	1.74	0.940	0.930	0.945	0.950	0.963	0.976				
	Bromochloromethane	A	0.314	4.10	0.292	0.306	0.314	0.320	0.324	0.326				
	1,1,1-Trichloroethane	A	0.823	6.08	0.761	0.766	0.827	0.837	0.866	0.881				
	1,1-Dichloropropene	A	0.826	2.26	0.802	0.819	0.811	0.829	0.851	0.842				
	Cyclohexane	A	0.374	3.99	0.353	0.368	0.363	0.382	0.389	0.389				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.237	1.02	1.226	1.221	1.230	1.251	1.244	1.248				
	4-Methyl-2-pentanone (MIBK) (*	A	0.120	14.73	0.090	0.110	0.120	0.129	0.135	0.136				
	2-Hexanone (*)	LO	0.119	24.06	0.065	0.117	0.116	0.130	0.143	0.140	1.00	0.00	0.140	0.00
	2-chloroethylvinyl ether	A	0.230	7.00	0.205	0.215	0.236	0.234	0.247	0.240				
	Carbon Tetrachloride	A	0.358	8.73	0.317	0.334	0.341	0.372	0.393	0.388				
	Benzene (MS)	A	1.314	2.75	1.285	1.277	1.310	1.311	1.379	1.322				
	1,2-Dichloroethane	A	0.473	3.47	0.455	0.465	0.464	0.475	0.502	0.479				
	Trichloroethene (MS)	A	0.303	3.49	0.291	0.300	0.294	0.302	0.318	0.313				
	1,2-Dichloropropane (CCC)	A	0.349	6.13	0.313	0.344	0.344	0.353	0.376	0.363				
	Bromodichloromethane	A	0.369	12.86	0.288	0.349	0.361	0.390	0.411	0.414				
	Methyl Cyclohexane	A	0.479	6.40	0.443	0.455	0.462	0.487	0.518	0.510				
	Dibromomethane	A	0.147	4.89	0.157	0.137	0.141	0.145	0.150	0.150				
	cis-1,3-Dichloropropene	LO	0.478	17.82	0.326	0.450	0.474	0.514	0.552	0.553	1.00	0.00	0.549	0.00
	Toluene (CCC/MS)	A	1.374	2.71	1.375	1.358	1.325	1.376	1.439	1.369				
	trans-1,3-Dichloropropene	QO	0.423	21.90	0.263	0.378	0.418	0.468	0.501	0.507	1.00	0.00	0.469	0.00
	1,1,2-Trichloroethane	A	0.225	2.89	0.224	0.217	0.218	0.226	0.234	0.229				
	Tetrachloroethene	A	0.257	4.78	0.236	0.251	0.257	0.261	0.272	0.263				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.529	4.01	0.511	0.536	0.546	0.509	0.512	0.559				
	trans-1,4-Dichloro-2-butene	QO	0.101	53.27	0.014	0.069	0.092	0.129	0.148	0.154	1.00	0.00	0.127	0.00
	Dibromochloromethane	A	0.411	14.40	0.315	0.373	0.407	0.441	0.463	0.468				
	1,2-Dibromoethane	A	0.453	5.31	0.408	0.445	0.464	0.463	0.468	0.472				
	Chlorobenzene (SPCC/MS)	A	1.451	1.89	1.482	1.433	1.469	1.444	1.467	1.408				
	1,1,1,2-Tetrachloroethane	A	0.432	10.75	0.346	0.417	0.459	0.463	0.470	0.437				
	Ethylbenzene (CCC)	A	2.688	3.98	2.624	2.652	2.750	2.779	2.798	2.522				
	p,m-Xylene	A	0.995	6.59	0.986	1.011	1.049	1.034	1.019	0.868				
	o-Xylene	A	2.153	4.96	2.139	2.120	2.218	2.241	2.239	1.962				
	Styrene	A	1.663	7.00	1.525	1.661	1.755	1.762	1.757	1.516				
	Isopropylbenzene	A	2.536	6.25	2.254	2.514	2.663	2.634	2.666	2.482				
	Bromoform (SPCC)	QO	0.214	25.74	0.122	0.186	0.206	0.239	0.255	0.273	1.00	0.00	0.228	0.00
	1,1,2,2-Tetrachloroethane (SPC	A	0.640	6.49	0.558	0.639	0.660	0.652	0.666	0.666				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wt120801.m	1,2,3-Trichloropropane	A	0.182	5.43	0.164	0.182	0.189	0.186	0.192	0.181				
	n-Propylbenzene	A	3.005	6.53	2.643	2.965	3.126	3.118	3.184	2.993				
	Bromobenzene	A	0.502	5.22	0.455	0.500	0.515	0.519	0.528	0.493				
	1,3,5-Trimethylbenzene	A	0.984	5.53	0.891	0.989	1.008	1.026	1.037	0.953				
	tert-Butylbenzene	A	1.425	4.85	1.326	1.367	1.436	1.484	1.509	1.430				
	1,2,4-Trimethylbenzene	A	1.076	8.58	0.927	1.077	1.135	1.154	1.154	1.007				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.240	5.09	2.943	3.206	3.257	3.344	3.427	3.265				
	p-Isopropyltoluene	A	2.528	6.08	2.330	2.583	2.600	2.682	2.634	2.339				
	1,3-Dichlorobenzene	A	1.223	5.51	1.222	1.242	1.268	1.269	1.246	1.090				
	1,4-Dichlorobenzene	A	1.312	0.90	1.306	1.316	1.307	1.313	1.332	1.297				
	1,2-Dichlorobenzene	A	1.245	1.08	1.256	1.244	1.226	1.251	1.259	1.231				
	1,2,3-Trimethylbenzene	A	2.758	5.67	2.457	2.789	2.795	2.878	2.880	2.747				
	n-Butylbenzene	A	2.510	6.28	2.218	2.480	2.518	2.610	2.669	2.562				
	Hexachloroethane	QO	0.233	24.82	0.131	0.215	0.224	0.263	0.279	0.287	1.00	0.00	0.259	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.102	32.85	0.039	0.095	0.104	0.116	0.123	0.132	1.00	0.00	0.111	0.00
	1,2,4-Trichlorobenzene	A	0.663	5.07	0.617	0.633	0.653	0.688	0.694	0.694				
	Hexachlorobutadiene	A	0.240	9.84	0.197	0.238	0.235	0.248	0.261	0.260				
	1,2,3-Trichlorobenzene	A	0.601	3.14	0.570	0.589	0.606	0.610	0.624	0.607				
	Naphthalene	A	2.025	9.47	1.683	1.933	2.053	2.121	2.189	2.172				
	2-Methylnaphthalene	QO	0.677	16.47	0.532	0.544	0.710	0.752	0.795	0.730	1.00	0.00	0.804	0.00

Calibration Date: 08/01/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): wt120801.M (Mean %RSD: 8.34)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\merfolk.thd\methods\wt120801.m\

Injection Time	Calibration Data File
08/01/12 10:52	bfb01a.d
08/01/12 13:01	std001.d
08/01/12 13:22	std010.d
08/01/12 13:42	std020.d
08/01/12 14:02	std060.d
08/01/12 14:22	std100.d
08/01/12 14:42	std200.d
08/01/12 16:20	icv01a.d

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\bfb01a.d Vial:
Acq On : 1 Aug 12 10:52 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:37 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

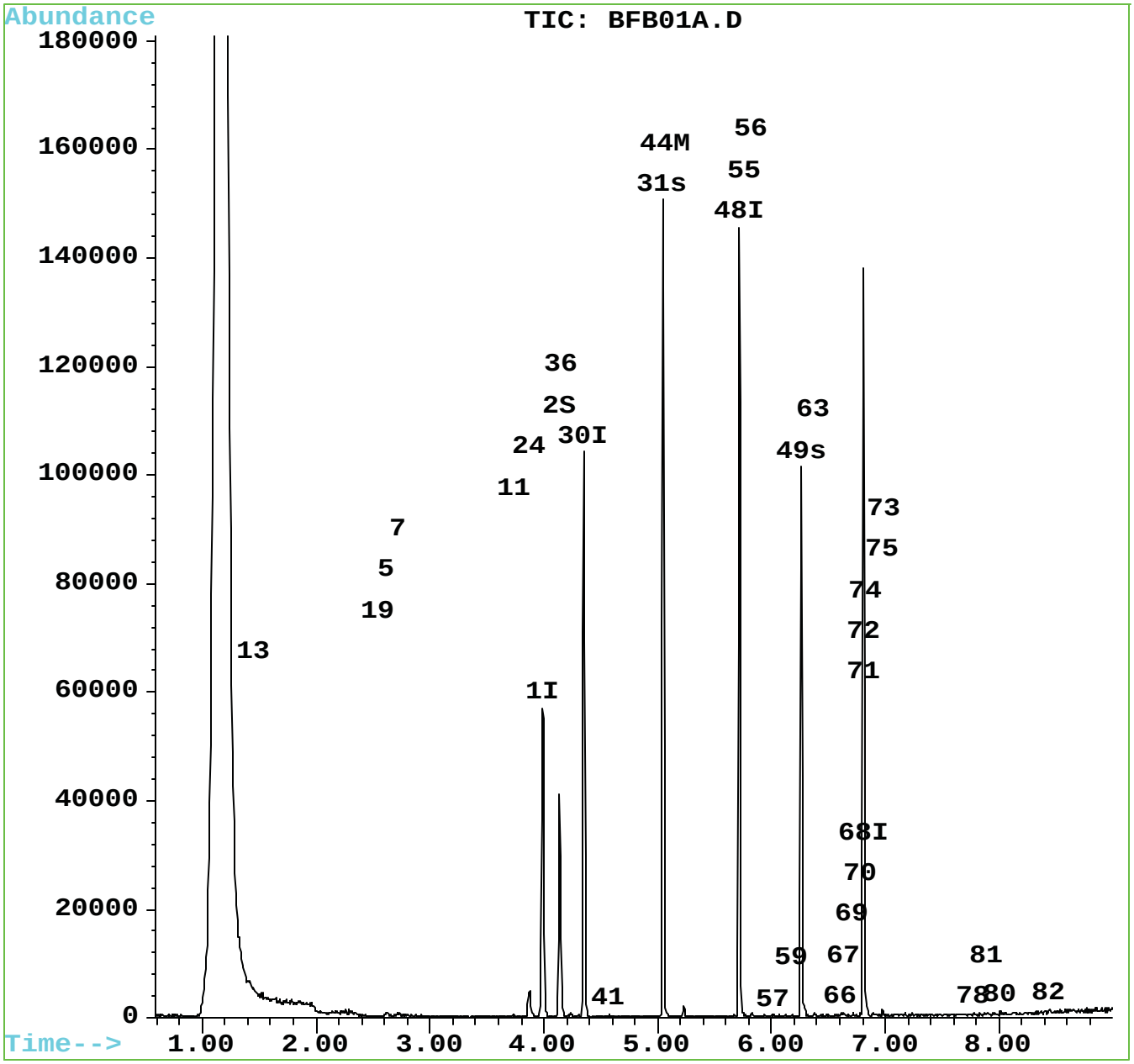
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	25765	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	46803	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26358	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	19557	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18278	5.66	ug/l	113.1
31) TOLUENE-D8 (S)	5.05	98	56424	5.05	ug/l	100.9
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	13363	4.42	ug/l	88.5
Target Compounds						Qvalu
5) Acetone (*)	2.63	43	1196	0.78	ug/l #	4
7) Carbon disulfide (*)	2.71	76	1334	0.17	ug/l #	7
11) 2-Butanone (MEK) (*)	3.74	43	166	0.09	ug/l #	4
13) Chloromethane (SPCC)	1.45	50	60	0.02	ug/l #	5
19) 1,1-Dichloroethene (CCC/MS	2.55	61	54	0.01	ug/l #	2
24) Tetrahydrofuran	3.87	42	3142	2.66	ug/l #	1
36) Benzene (MS)	4.16	78	137	0.01	ug/l #	
41) Methyl Cyclohexane	4.57	55	55	0.01	ug/l #	6
44) Toluene (CCC/MS)	5.08	91	384	0.03	ug/l #	2
55) Ethylbenzene (CCC)	5.77	91	178	0.01	ug/l #	4
56) p,m-Xylene	5.82	106	127	0.02	ug/l #	4
57) o-Xylene	6.02	91	112	0.01	ug/l #	3
59) Isopropylbenzene	6.19	105	194	0.01	ug/l #	5
63) n-Propylbenzene	6.37	91	249	0.02	ug/l #	5
66) tert-Butylbenzene	6.61	91	77	0.01	ug/l #	7
67) 1,2,4-Trimethylbenzene	6.63	120	90	0.02	ug/l #	6
69) sec-Butylbenzene	6.72	105	254	0.02	ug/l #	5
70) p-Isopropyltoluene	6.78	119	158	0.02	ug/l #	5
71) 1,3-Dichlorobenzene	6.82	146	112	0.03	ug/l #	
72) 1,4-Dichlorobenzene	6.82	146	112	0.02	ug/l #	
73) 1,2-Dichlorobenzene	7.00	146	56	0.01	ug/l #	2
74) 1,2,3-Trimethylbenzene	6.84	105	251	0.03	ug/l #	
75) n-Butylbenzene	6.97	91	314	0.03	ug/l #	6
78) 1,2,4-Trichlorobenzene	7.77	182	137	0.05	ug/l #	6
80) 1,2,3-Trichlorobenzene	8.01	180	132	0.05	ug/l #	6
81) Naphthalene	7.90	128	444	0.05	ug/l #	7
82) 2-Methylnaphthalene	8.45	142	229	0.06	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\bfb01a.d Vial:
Acq On : 1 Aug 12 10:52 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:37 19112

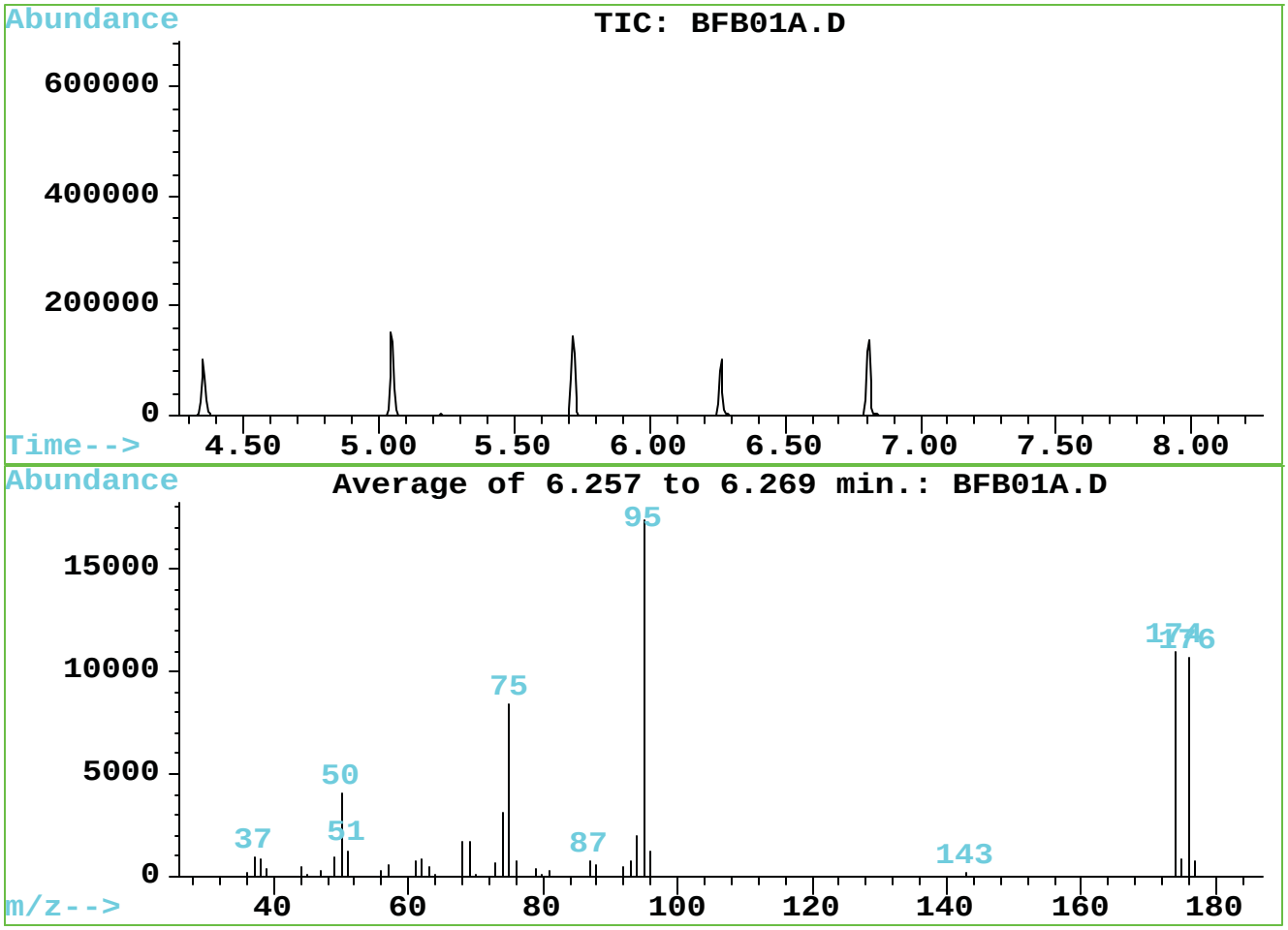
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M\BFB01A.D Vial:
Acq On : 1 Aug 12 10:52 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 966

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	23.2	4031	PASS
75	95	30	66	48.3	8382	PASS
95	95	100	100	100.0	17361	PASS
96	95	5	9	6.9	1204	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	62.9	10920	PASS
175	174	4	9	7.5	816	PASS
176	174	93	101	97.4	10640	PASS
177	176	5	9	7.5	802	PASS

BFB01A.D WT120801.M Mon Aug 20 17:21:58 2012

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	25565	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	46282	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	25723	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	20002	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18428	5.75	ug/l		115.0
31) TOLUENE-D8 (S)	5.05	98	56738	5.13	ug/l		102.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	13149	4.46	ug/l		89.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	2307	1.03	ug/l	#	5
4) Diethyl ether (*)	2.37	74	1827	1.07	ug/l		7
5) Acetone (*)	2.62	43	1544	1.02	ug/l		5
6) Methyl iodide (iodomethane	2.66	142	3094	0.95	ug/l		8
7) Carbon disulfide (*)	2.70	76	7516	0.96	ug/l		8
8) Methyl Acetate	2.87	43	2514	1.02	ug/l	#	6
9) tert-Methyl butyl ether (M	3.13	73	7273	0.93	ug/l		7
10) Acrylonitrile (*)	3.12	53	975	0.74	ug/l	#	9
11) 2-Butanone (MEK) (*)	3.73	43	2023	1.05	ug/l	#	6
12) Dichlorodifluoromethane	1.26	85	1556	0.73	ug/l	m	7
13) Chloromethane (SPCC)	1.40	50	3916	1.09	ug/l		8
14) Vinyl Chloride (CCC)	1.51	62	3269	1.02	ug/l		6
15) Bromomethane	1.78	94	1925	1.42	ug/l	#	4
16) Chloroethane	1.86	64	2012	1.22	ug/l	#	6
17) Acrolein	2.46	56	114	0.19	ug/l	m	7
18) Trichlorofluoromethane	2.13	101	3477	1.16	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.56	61	4438	1.08	ug/l		7
20) Methylene Chloride	2.95	84	2968	1.10	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	4430	1.09	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	5279	1.06	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	2893	1.04	ug/l	#	6
24) Tetrahydrofuran	3.87	42	3769	3.22	ug/l	#	1
25) Chloroform (CCC)	3.89	83	4806	1.12	ug/l		9
26) Bromochloromethane	3.85	130	1495	0.96	ug/l	#	2
27) 1,1,1-Trichloroethane	3.99	97	3889	1.03	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	4101	1.13	ug/l		8
29) Cyclohexane	4.01	42	1803	1.15	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.99	58	833	0.70	ug/l	#	4
33) 2-Hexanone (*)	5.37	58	599	0.48	ug/l	#	3

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.85	63	1896	0.97 ug/l	8
35) Carbon Tetrachloride	4.06	117	2933	0.97 ug/l	9
36) Benzene (MS)	4.17	78	11897	1.08 ug/l #	2
37) 1,2-Dichloroethane	4.18	62	4211	1.12 ug/l	9
38) Trichloroethene (MS)	4.47	95	2697	1.04 ug/l	8
39) 1,2-Dichloropropane (CCC)	4.59	63	2897	1.01 ug/l	9
40) Bromodichloromethane	4.72	83	2670	0.85 ug/l	9
41) Methyl Cyclohexane	4.57	55	4099	0.99 ug/l #	5
42) Dibromomethane	4.65	174	1457	1.07 ug/l #	6
43) cis-1,3-Dichloropropene	4.92	75	3022	0.71 ug/l	8
44) Toluene (CCC/MS)	5.08	91	12731	1.11 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	2436	0.63 ug/l	8
46) 1,1,2-Trichloroethane	5.26	83	2069	1.07 ug/l	8
47) Tetrachloroethene	5.33	166	2189	0.94 ug/l	7
50) trans-1,4-Dichloro-2-buten	6.35	53	70	0.07 ug/l #	
51) Dibromochloromethane	5.45	129	1623	0.68 ug/l	9
52) 1,2-Dibromoethane	5.51	107	2097	0.87 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	7623	1.04 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	1780	0.78 ug/l	8
55) Ethylbenzene (CCC)	5.77	91	13502	1.03 ug/l	9
56) p,m-Xylene	5.83	106	10149	2.05 ug/l	8
57) o-Xylene	6.02	91	11006	1.06 ug/l	9
58) Styrene	6.02	104	7843	0.95 ug/l	9
59) Isopropylbenzene	6.18	105	11594	0.90 ug/l	9
60) Bromoform (SPCC)	6.12	173	628	0.44 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	2872	0.85 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	842	0.87 ug/l	8
63) n-Propylbenzene	6.37	91	13595	0.90 ug/l	9
64) Bromobenzene	6.34	156	2341	0.89 ug/l #	2
65) 1,3,5-Trimethylbenzene	6.45	120	4583	0.89 ug/l #	7
66) tert-Butylbenzene	6.61	91	6820	0.96 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	4767	0.85 ug/l #	6
69) sec-Butylbenzene	6.72	105	11775	0.93 ug/l	9
70) p-Isopropyltoluene	6.77	119	9319	0.95 ug/l	9
71) 1,3-Dichlorobenzene	6.78	146	4890	1.07 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	5225	1.05 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	5023	1.05 ug/l	9
74) 1,2,3-Trimethylbenzene	6.84	105	9830	0.96 ug/l	8
75) n-Butylbenzene	6.97	91	8871	0.91 ug/l	8
76) Hexachloroethane	7.13	201	526	0.44 ug/l #	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

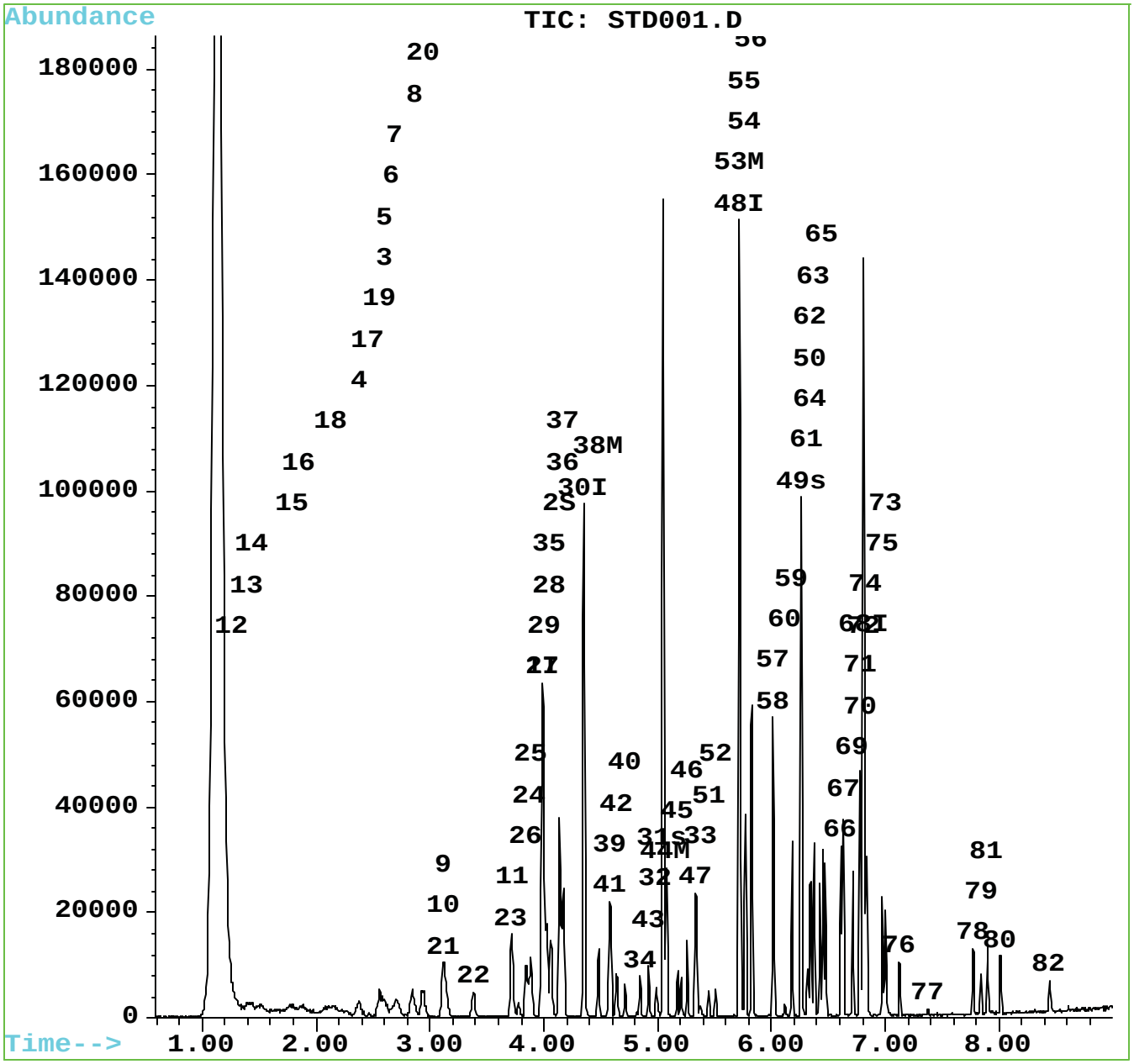
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.38	157	157	0.26	ug/l	#	4
78)	1,2,4-Trichlorobenzene	7.77	182	2468	0.86	ug/l		9
79)	Hexachlorobutadiene	7.85	225	789	0.65	ug/l	#	7
80)	1,2,3-Trichlorobenzene	8.02	180	2281	0.84	ug/l		9
81)	Naphthalene	7.90	128	6734	0.72	ug/l		9
82)	2-Methylnaphthalene	8.45	142	2130	0.52	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	26057	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	47576	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26732	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	20548	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19864	6.08	ug/l		121.6
31) TOLUENE-D8 (S)	5.05	98	58067	5.11	ug/l		102.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14322	4.68	ug/l		93.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	23726	10.42	ug/l		8
4) Diethyl ether (*)	2.39	74	19189	10.99	ug/l	#	6
5) Acetone (*)	2.62	43	13465	8.71	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	33271	10.02	ug/l		8
7) Carbon disulfide (*)	2.71	76	83046	10.43	ug/l		8
8) Methyl Acetate	2.87	43	26316	10.50	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	75818	9.55	ug/l		7
10) Acrylonitrile (*)	3.11	53	13564	10.08	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	18889	9.59	ug/l		7
12) Dichlorodifluoromethane	1.28	85	22728	10.29	ug/l		9
13) Chloromethane (SPCC)	1.42	50	43999	11.99	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	38934	11.89	ug/l		9
15) Bromomethane	1.81	94	20005	14.76	ug/l		9
16) Chloroethane	1.88	64	23943	14.60	ug/l		8
17) Acrolein	2.49	56	4872	7.90	ug/l		8
18) Trichlorofluoromethane	2.13	101	40762	13.29	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	48346	11.53	ug/l		7
20) Methylene Chloride	2.94	84	30124	10.98	ug/l	#	6
21) trans-1,2-Dichloroethene	3.12	61	46628	11.30	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	56329	11.15	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	30996	10.90	ug/l	#	6
24) Tetrahydrofuran	3.87	42	13984	11.72	ug/l		9
25) Chloroform (CCC)	3.89	83	48490	11.10	ug/l		9
26) Bromochloromethane	3.85	130	15952	10.06	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	39912	10.33	ug/l	#	2
28) 1,1-Dichloropropene	4.06	75	42696	11.58	ug/l		8
29) Cyclohexane	4.02	42	19158	11.95	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	10512	8.61	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	11104	8.63	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	20455	10.23 ug/l		9
35) Carbon Tetrachloride	4.07	117	31766	10.21 ug/l		9
36) Benzene (MS)	4.17	78	121525	10.77 ug/l		8
37) 1,2-Dichloroethane	4.17	62	44240	11.41 ug/l		9
38) Trichloroethene (MS)	4.48	95	28517	10.73 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	32759	11.15 ug/l		9
40) Bromodichloromethane	4.72	83	33205	10.26 ug/l		9
41) Methyl Cyclohexane	4.57	55	43261	10.21 ug/l	#	5
42) Dibromomethane	4.65	174	13079	9.35 ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	42850	9.75 ug/l		9
44) Toluene (CCC/MS)	5.08	91	129199	10.93 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	35991	9.08 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	20647	10.36 ug/l		9
47) Tetrachloroethene	5.33	166	23925	9.97 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	3713	3.77 ug/l	#	
51) Dibromochloromethane	5.45	129	19924	8.03 ug/l		9
52) 1,2-Dibromoethane	5.51	107	23802	9.47 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	76627	10.06 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	22271	9.42 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	141786	10.43 ug/l		9
56) p,m-Xylene	5.83	106	108088	20.97 ug/l		8
57) o-Xylene	6.02	91	113367	10.50 ug/l		8
58) Styrene	6.02	104	88793	10.40 ug/l		9
59) Isopropylbenzene	6.18	105	134416	10.01 ug/l		9
60) Bromoform (SPCC)	6.12	173	9945	6.76 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	34178	9.68 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	9741	9.64 ug/l	#	7
63) n-Propylbenzene	6.37	91	158507	10.09 ug/l		9
64) Bromobenzene	6.34	156	26715	9.78 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	52872	9.88 ug/l	#	7
66) tert-Butylbenzene	6.61	91	73061	9.87 ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.63	120	57580	9.91 ug/l	#	7
69) sec-Butylbenzene	6.72	105	131761	10.11 ug/l		9
70) p-Isopropyltoluene	6.77	119	106144	10.56 ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	51021	10.88 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	54089	10.57 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	51121	10.44 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	114627	10.90 ug/l		9
75) n-Butylbenzene	6.97	91	101916	10.18 ug/l		9
76) Hexachloroethane	7.13	201	8856	7.23 ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

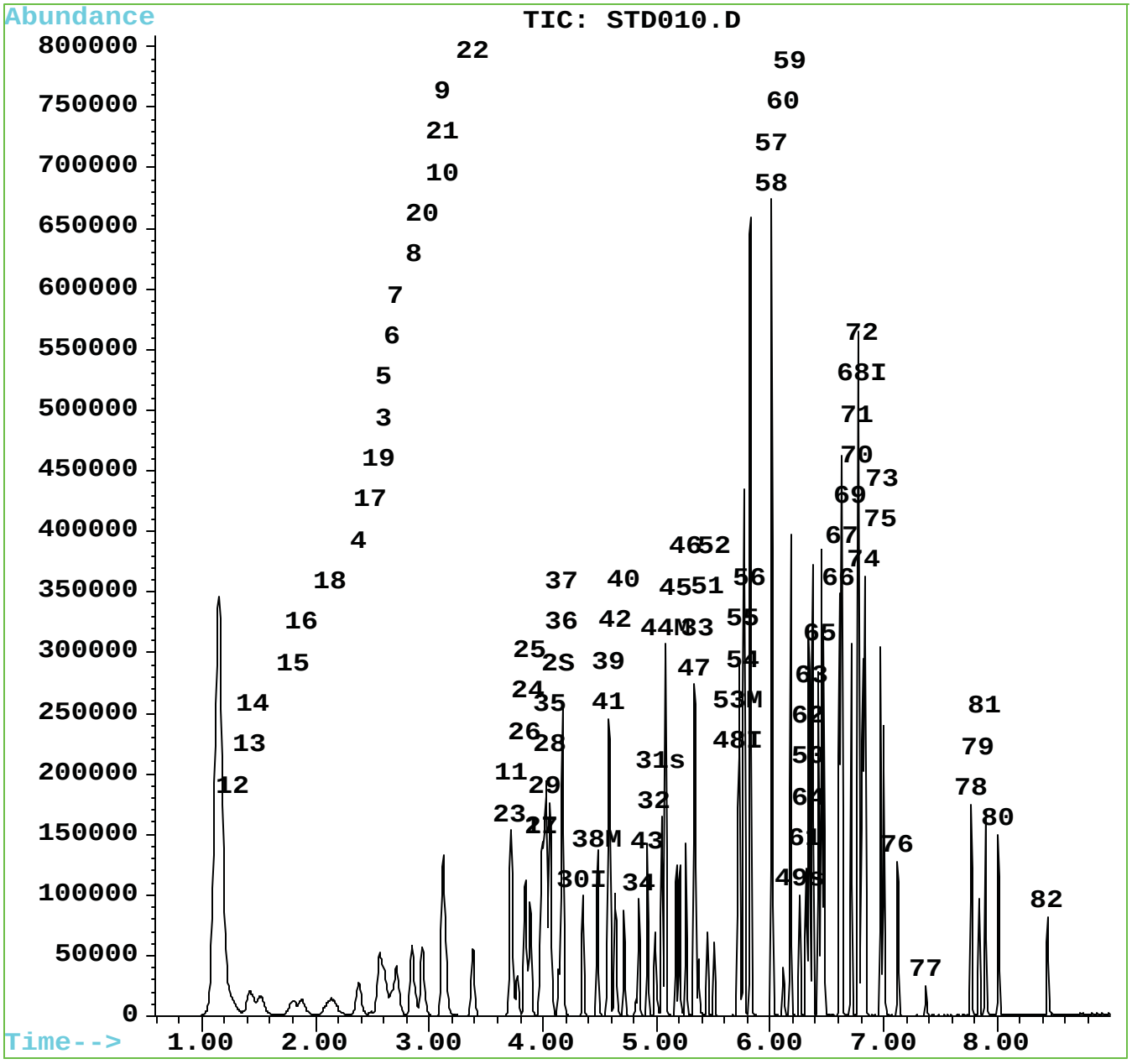
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	3914	6.39	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	25996	8.86	ug/l		9
79)	Hexachlorobutadiene	7.84	225	9779	7.83	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	24192	8.66	ug/l		9
81)	Naphthalene	7.90	128	79440	8.29	ug/l		9
82)	2-Methylnaphthalene	8.45	142	22346	5.32	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	26189	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	48324	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26468	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	21098	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18903	5.76	ug/l		115.1
31) TOLUENE-D8 (S)	5.05	98	59432	5.15	ug/l		103.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14461	4.77	ug/l		95.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	49775	21.75	ug/l		8
4) Diethyl ether (*)	2.37	74	38915	22.17	ug/l	#	6
5) Acetone (*)	2.61	43	22849	14.71	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	66713	19.99	ug/l		8
7) Carbon disulfide (*)	2.71	76	176661	22.08	ug/l		8
8) Methyl Acetate	2.86	43	54822	21.76	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	162943	20.43	ug/l		8
10) Acrylonitrile (*)	3.11	53	29054	21.49	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	36213	18.30	ug/l		7
12) Dichlorodifluoromethane	1.26	85	46170	20.43	ug/l		9
13) Chloromethane (SPCC)	1.41	50	84167	22.81	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	79516	24.17	ug/l		9
15) Bromomethane	1.79	94	39935	30.02	ug/l		9
16) Chloroethane	1.87	64	47213	29.37	ug/l		8
17) Acrolein	2.48	56	10290	16.60	ug/l		9
18) Trichlorofluoromethane	2.14	101	81344	26.38	ug/l	m	3
19) 1,1-Dichloroethene (CCC/MS	2.56	61	97242	23.07	ug/l	#	7
20) Methylene Chloride	2.93	84	58885	21.35	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	94085	22.68	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	114570	22.56	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	61951	21.69	ug/l	#	6
24) Tetrahydrofuran	3.87	42	26342	21.96	ug/l		8
25) Chloroform (CCC)	3.89	83	98947	22.54	ug/l		9
26) Bromochloromethane	3.85	130	32897	20.63	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	86585	22.29	ug/l	#	1
28) 1,1-Dichloropropene	4.06	75	84979	22.94	ug/l		9
29) Cyclohexane	4.02	42	37998	23.58	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	23137	18.67	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	22417	17.15	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.85	63	45660	22.48 ug/l	8
35) Carbon Tetrachloride	4.07	117	65872	20.84 ug/l	9
36) Benzene (MS)	4.17	78	253268	22.09 ug/l	8
37) 1,2-Dichloroethane	4.17	62	89664	22.77 ug/l	9
38) Trichloroethene (MS)	4.48	95	56867	21.06 ug/l	7
39) 1,2-Dichloropropane (CCC)	4.59	63	66495	22.29 ug/l	9
40) Bromodichloromethane	4.72	83	69829	21.24 ug/l	9
41) Methyl Cyclohexane	4.57	55	89278	20.74 ug/l #	5
42) Dibromomethane	4.65	174	27162	19.11 ug/l #	5
43) cis-1,3-Dichloropropene	4.92	75	91676	20.54 ug/l	9
44) Toluene (CCC/MS)	5.08	91	256081	21.34 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	80869	20.09 ug/l	9
46) 1,1,2-Trichloroethane	5.26	83	42230	20.86 ug/l	9
47) Tetrachloroethene	5.33	166	49699	20.39 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.34	53	9786	10.04 ug/l #	5
51) Dibromochloromethane	5.45	129	43084	17.53 ug/l	9
52) 1,2-Dibromoethane	5.51	107	49084	19.72 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	155507	20.61 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	48593	20.75 ug/l	9
55) Ethylbenzene (CCC)	5.77	91	291172	21.63 ug/l	9
56) p,m-Xylene	5.83	106	222173	43.54 ug/l	8
57) o-Xylene	6.02	91	234807	21.96 ug/l	9
58) Styrene	6.02	104	185838	21.99 ug/l	9
59) Isopropylbenzene	6.18	105	281970	21.22 ug/l	9
60) Bromoform (SPCC)	6.12	173	21797	14.91 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	69868	19.99 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	19987	19.98 ug/l #	8
63) n-Propylbenzene	6.37	91	330985	21.29 ug/l	8
64) Bromobenzene	6.34	156	54565	20.18 ug/l #	3
65) 1,3,5-Trimethylbenzene	6.45	120	106702	20.13 ug/l #	7
66) tert-Butylbenzene	6.61	91	152026	20.73 ug/l #	7
67) 1,2,4-Trimethylbenzene	6.63	120	120208	20.89 ug/l #	7
69) sec-Butylbenzene	6.71	105	274831	20.55 ug/l	9
70) p-Isopropyltoluene	6.77	119	219425	21.27 ug/l	9
71) 1,3-Dichlorobenzene	6.78	146	107044	22.23 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	110266	20.99 ug/l	9
73) 1,2-Dichlorobenzene	7.00	146	103479	20.59 ug/l	9
74) 1,2,3-Trimethylbenzene	6.83	105	235913	21.86 ug/l	8
75) n-Butylbenzene	6.97	91	212492	20.67 ug/l	9
76) Hexachloroethane	7.13	201	18933	15.04 ug/l #	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

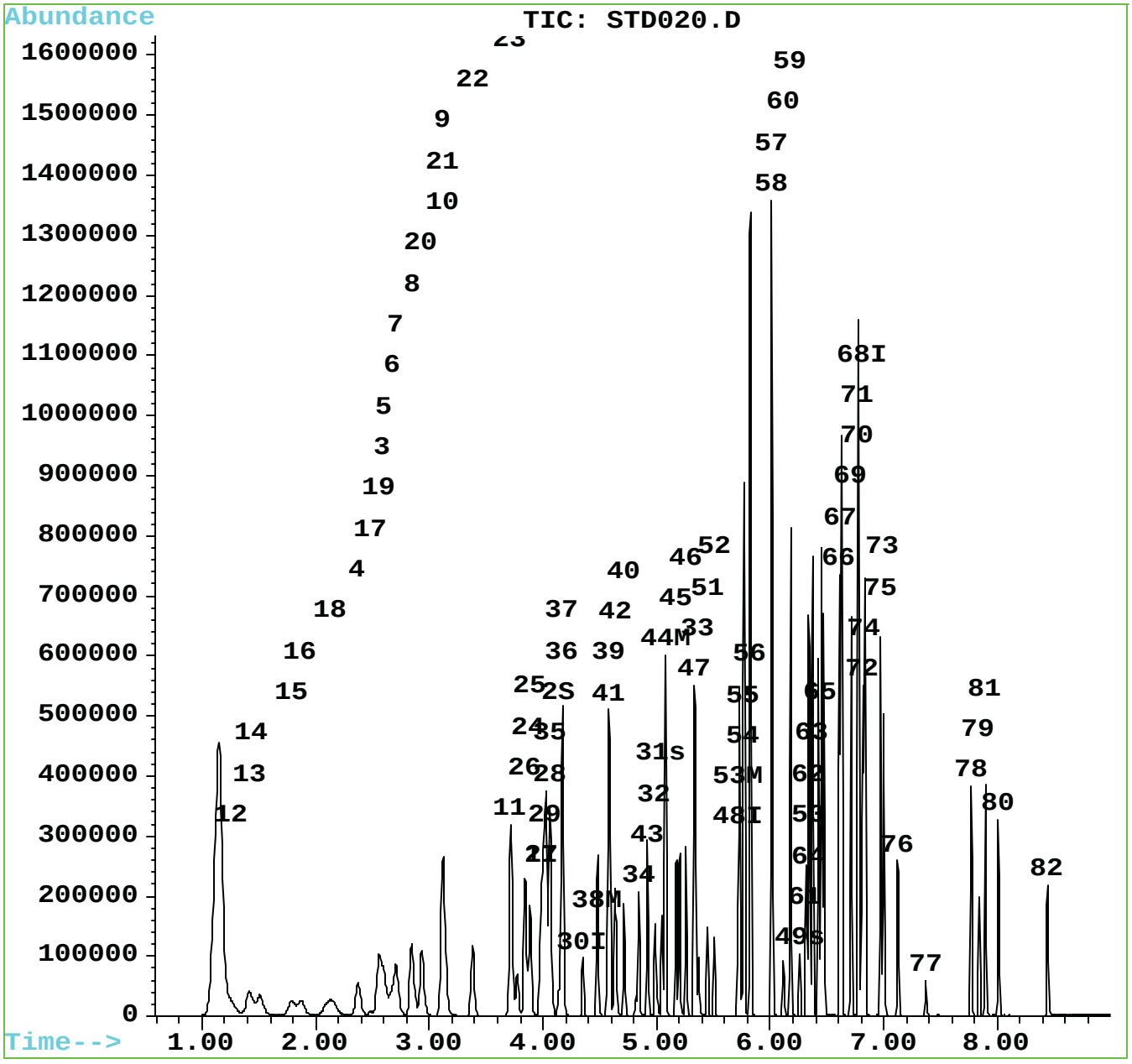
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	8778	13.96	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	55138	18.30	ug/l		9
79)	Hexachlorobutadiene	7.85	225	19852	15.48	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	51172	17.83	ug/l		9
81)	Naphthalene	7.89	128	173253	17.61	ug/l		9
82)	2-Methylnaphthalene	8.44	142	59914	13.90	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	27134	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	49502	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	27852	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	21684	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19516	5.74	ug/l		114.7
31) TOLUENE-D8 (S)	5.05	98	61916	5.24	ug/l		104.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14182	4.44	ug/l		88.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	159916	67.44	ug/l	#	8
4) Diethyl ether (*)	2.37	74	121850	67.01	ug/l	#	6
5) Acetone (*)	2.62	43	81985	50.95	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	212599	61.47	ug/l		8
7) Carbon disulfide (*)	2.71	76	563341	67.96	ug/l		9
8) Methyl Acetate	2.87	43	167423	64.14	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	510679	61.79	ug/l		8
10) Acrylonitrile (*)	3.11	53	89286	63.74	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	121131	59.08	ug/l		7
12) Dichlorodifluoromethane	1.27	85	145331	58.35	ug/l		9
13) Chloromethane (SPCC)	1.42	50	264973	69.32	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	243252	71.36	ug/l		9
15) Bromomethane	1.80	94	107251	85.31	ug/l		9
16) Chloroethane	1.87	64	133549	89.52	ug/l		8
17) Acrolein	2.49	56	32019	49.84	ug/l		9
18) Trichlorofluoromethane	2.15	101	251567	78.74	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	310262	71.04	ug/l	#	7
20) Methylene Chloride	2.94	84	184121	64.43	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	304449	70.85	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	366259	69.61	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	194868	65.84	ug/l	#	6
24) Tetrahydrofuran	3.87	42	71295	57.36	ug/l	#	7
25) Chloroform (CCC)	3.89	83	309224	68.00	ug/l		9
26) Bromochloromethane	3.85	130	104258	63.12	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	272389	67.69	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	269855	70.31	ug/l		8
29) Cyclohexane	4.02	42	124356	74.49	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	76806	60.49	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	77134	57.60	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	139110	66.85	ug/l		8
35) Carbon Tetrachloride	4.07	117	220731	68.19	ug/l		9
36) Benzene (MS)	4.17	78	778900	66.33	ug/l		8
37) 1,2-Dichloroethane	4.17	62	282094	69.92	ug/l		9
38) Trichloroethene (MS)	4.48	95	179333	64.82	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	209835	68.66	ug/l		9
40) Bromodichloromethane	4.72	83	231638	68.78	ug/l		9
41) Methyl Cyclohexane	4.57	55	289086	65.57	ug/l	#	5
42) Dibromomethane	4.65	174	85881	58.99	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	305105	66.73	ug/l		9
44) Toluene (CCC/MS)	5.08	91	817244	66.48	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	278019	67.41	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	134459	64.83	ug/l		9
47) Tetrachloroethene	5.33	166	155264	62.18	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	42962	41.89	ug/l		9
51) Dibromochloromethane	5.45	129	147287	56.95	ug/l		9
52) 1,2-Dibromoethane	5.51	107	154724	59.06	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	482753	60.80	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	154891	62.86	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	928668	65.57	ug/l		9
56) p,m-Xylene	5.83	106	691126	128.72	ug/l	#	7
57) o-Xylene	6.02	91	749017	66.56	ug/l		8
58) Styrene	6.02	104	588909	66.22	ug/l		9
59) Isopropylbenzene	6.18	105	880374	62.96	ug/l		9
60) Bromoform (SPCC)	6.12	173	79916	51.12	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	217988	59.26	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	62291	59.18	ug/l	#	6
63) n-Propylbenzene	6.37	91	1042169	63.69	ug/l		8
64) Bromobenzene	6.34	156	173502	60.97	ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	343071	61.50	ug/l	#	7
66) tert-Butylbenzene	6.61	91	496122	64.30	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	385721	63.71	ug/l	#	7
69) sec-Butylbenzene	6.72	105	870158	63.30	ug/l		9
70) p-Isopropyltoluene	6.77	119	697891	65.82	ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	330322	66.73	ug/l		8
72) 1,4-Dichlorobenzene	6.82	146	341591	63.25	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	325420	63.00	ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	748753	67.49	ug/l		8
75) n-Butylbenzene	6.97	91	679214	64.28	ug/l		9
76) Hexachloroethane	7.13	201	68488	52.95	ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

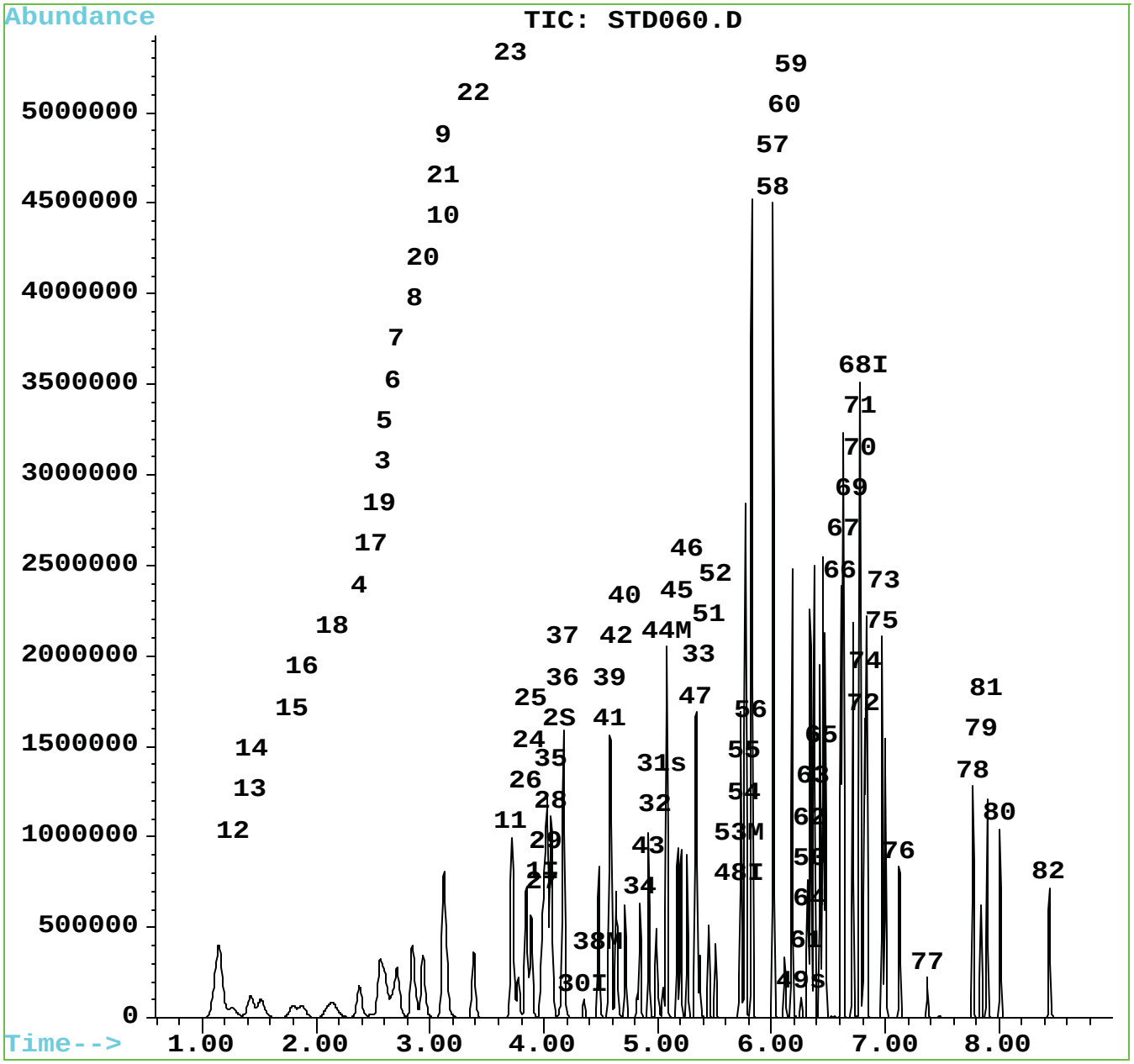
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	30152	46.84	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	179017	57.82	ug/l		9
79)	Hexachlorobutadiene	7.85	225	64467	48.90	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	158820	53.85	ug/l		9
81)	Naphthalene	7.90	128	551895	54.58	ug/l		9
82)	2-Methylnaphthalene	8.45	142	195795	44.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	28803	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	51293	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29297	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22937	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	20922	5.79	ug/l		115.8
31) TOLUENE-D8 (S)	5.05	98	63786	5.21	ug/l		104.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15012	4.47	ug/l		89.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	294611	117.04	ug/l		8
4) Diethyl ether (*)	2.38	74	222819	115.44	ug/l	#	6
5) Acetone (*)	2.62	43	159895	93.62	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	393985	107.31	ug/l		8
7) Carbon disulfide (*)	2.71	76	1065290	121.07	ug/l		9
8) Methyl Acetate	2.87	43	301044	108.64	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	953487	108.68	ug/l		8
10) Acrylonitrile (*)	3.11	53	168881	113.58	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	226926	104.27	ug/l		7
12) Dichlorodifluoromethane	1.26	85	326519	113.58	ug/l		9
13) Chloromethane (SPCC)	1.43	50	520983	128.40	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	467590	129.22	ug/l		9
15) Bromomethane	1.80	94	183553	157.22	ug/l		9
16) Chloroethane	1.88	64	229093	172.20	ug/l		8
17) Acrolein	2.49	56	61335	89.95	ug/l		9
18) Trichlorofluoromethane	2.15	101	455163	134.21	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	571183	123.21	ug/l	#	7
20) Methylene Chloride	2.94	84	337650	111.31	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	555076	121.69	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	659191	118.02	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	354000	112.67	ug/l	#	6
24) Tetrahydrofuran	3.87	42	128603	97.48	ug/l	#	7
25) Chloroform (CCC)	3.89	83	555008	114.97	ug/l		9
26) Bromochloromethane	3.85	130	186525	106.38	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	498970	116.82	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	490201	120.33	ug/l		8
29) Cyclohexane	4.02	42	224284	126.57	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	138511	105.29	ug/l	#	6
33) 2-Hexanone (*)	5.36	58	146766	105.78	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	253275	117.46 ug/l		8
35) Carbon Tetrachloride	4.07	117	403015	120.15 ug/l		9
36) Benzene (MS)	4.17	78	1414631	116.26 ug/l		8
37) 1,2-Dichloroethane	4.18	62	514515	123.08 ug/l		9
38) Trichloroethene (MS)	4.48	95	326701	113.97 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	386216	121.97 ug/l		9
40) Bromodichloromethane	4.72	83	421205	120.70 ug/l		9
41) Methyl Cyclohexane	4.57	55	531858	116.43 ug/l	#	5
42) Dibromomethane	4.65	174	153931	102.04 ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	565814	119.43 ug/l		9
44) Toluene (CCC/MS)	5.08	91	1475726	115.85 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	513877	120.24 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	239644	111.50 ug/l		9
47) Tetrachloroethene	5.33	166	279137	107.88 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	86515	80.19 ug/l	#	7
51) Dibromochloromethane	5.45	129	271069	99.65 ug/l		9
52) 1,2-Dibromoethane	5.51	107	274147	99.48 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	859818	102.95 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	275373	106.24 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	1639554	110.06 ug/l		9
56) p,m-Xylene	5.83	106	1194174	211.44 ug/l	#	7
57) o-Xylene	6.02	91	1311895	110.82 ug/l		8
58) Styrene	6.02	104	1029613	110.07 ug/l		9
59) Isopropylbenzene	6.18	105	1561888	106.18 ug/l		9
60) Bromoform (SPCC)	6.12	173	149209	89.23 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	389964	100.78 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	112295	101.42 ug/l	#	6
63) n-Propylbenzene	6.37	91	1865569	108.39 ug/l		8
64) Bromobenzene	6.34	156	309349	103.35 ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	607487	103.53 ug/l	#	7
66) tert-Butylbenzene	6.61	91	884411	108.96 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	676034	106.15 ug/l	#	7
69) sec-Butylbenzene	6.72	105	1572225	108.12 ug/l		9
70) p-Isopropyltoluene	6.78	119	1208413	107.74 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	571482	109.14 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	610967	106.95 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	577647	105.71 ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	1321187	112.59 ug/l		8
75) n-Butylbenzene	6.97	91	1224185	109.52 ug/l		9
76) Hexachloroethane	7.13	201	127924	93.50 ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

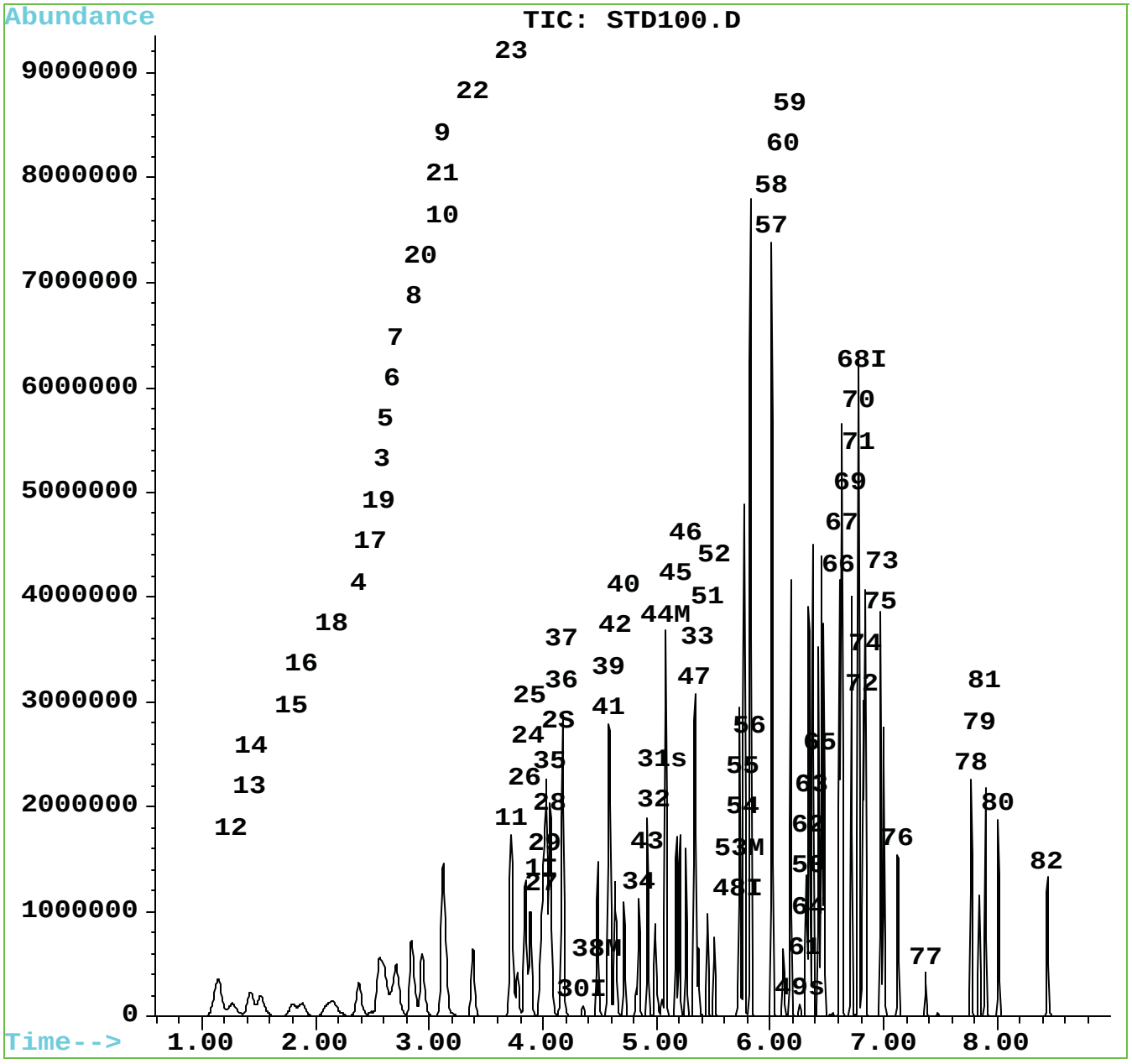
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	56200	82.86	ug/l	#	6
78)	1,2,4-Trichlorobenzene	7.77	182	318169	97.16	ug/l		9
79)	Hexachlorobutadiene	7.85	225	119783	85.89	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	286357	91.78	ug/l		9
81)	Naphthalene	7.90	128	1004411	93.90	ug/l		9
82)	2-Methylnaphthalene	8.45	142	364661	77.81	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	29908	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54448	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30819	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23675	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	21145	4.92	ug/l		98.4
31) TOLUENE-D8 (S)	5.05	98	67968	5.07	ug/l		101.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17238	5.23	ug/l		104.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	620618	216.86	ug/l		8
4) Diethyl ether (*)	2.37	74	457556	208.80	ug/l	#	5
5) Acetone (*)	2.62	43	307549	201.98	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	833633	214.35	ug/l		8
7) Carbon disulfide (*)	2.70	76	2277038	226.24	ug/l		9
8) Methyl Acetate	2.87	43	648573	210.85	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	2017218	217.73	ug/l		8
10) Acrylonitrile (*)	3.10	53	358705	227.19	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	463857	212.10	ug/l		7
12) Dichlorodifluoromethane	1.26	85	682569	202.43	ug/l		9
13) Chloromethane (SPCC)	1.42	50	1050991	214.34	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	957966	217.52	ug/l		9
17) Acrolein	2.49	56	128378	207.81	ug/l		10
18) Trichlorofluoromethane	2.13	101	885458	201.06	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	1205631	217.90	ug/l		7
20) Methylene Chloride	2.93	84	713538	208.35	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	1161048	215.60	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	1388428	213.70	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	738321	210.17	ug/l	#	6
24) Tetrahydrofuran	3.87	42	275835	193.68	ug/l	#	7
25) Chloroform (CCC)	3.89	83	1167198	208.68	ug/l		9
26) Bromochloromethane	3.85	130	390306	209.88	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	1054022	217.14	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	1007082	209.02	ug/l		8
29) Cyclohexane	4.02	42	465605	214.42	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	296966	227.40	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	304371	236.08	ug/l	#	7
34) 2-chloroethylvinyl ether	4.85	63	521763	213.57	ug/l		8
35) Carbon Tetrachloride	4.07	117	845996	222.64	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.17	78	2878906	206.70	ug/l		8
37) 1,2-Dichloroethane	4.18	62	1043325	208.80	ug/l		9
38) Trichloroethene (MS)	4.48	95	680750	210.60	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	791053	214.56	ug/l		9
40) Bromodichloromethane	4.72	83	902308	230.17	ug/l		9
41) Methyl Cyclohexane	4.57	55	1111691	217.33	ug/l	#	5
42) Dibromomethane	4.65	174	327314	206.03	ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	1205329	237.67	ug/l		9
44) Toluene (CCC/MS)	5.08	91	2980882	204.49	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	1104074	245.82	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	499629	207.97	ug/l		9
47) Tetrachloroethene	5.33	166	573569	209.06	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	189640	178.19	ug/l	#	6
51) Dibromochloromethane	5.45	129	576961	203.09	ug/l		9
52) 1,2-Dibromoethane	5.51	107	581877	208.44	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	1735841	196.17	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.77	131	538965	205.01	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	3109373	190.78	ug/l		9
56) p,m-Xylene	5.83	106	2139865	354.48	ug/l	#	7
57) o-Xylene	6.02	91	2418086	185.22	ug/l		8
58) Styrene	6.02	104	1869438	185.04	ug/l		8
59) Isopropylbenzene	6.18	105	3060173	197.93	ug/l		9
60) Bromoform (SPCC)	6.12	173	336607	186.59	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	821106	208.59	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	223470	200.24	ug/l	#	6
63) n-Propylbenzene	6.37	91	3690182	201.69	ug/l		9
64) Bromobenzene	6.34	156	607182	198.93	ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	1174728	195.09	ug/l	#	7
66) tert-Butylbenzene	6.61	91	1762240	203.65	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	1241530	189.52	ug/l	#	7
69) sec-Butylbenzene	6.72	105	3092179	205.19	ug/l		9
70) p-Isopropyltoluene	6.78	119	2214725	188.98	ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	1032019	182.49	ug/l		8
72) 1,4-Dichlorobenzene	6.82	146	1228542	201.98	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	1165425	201.22	ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	2601639	204.62	ug/l		8
75) n-Butylbenzene	6.97	91	2426504	207.49	ug/l		9
76) Hexachloroethane	7.13	201	271333	197.49	ug/l	#	5
77) 1,2-Dibromo-3-Chloropropan	7.37	157	125010	185.57	ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	657094	209.93	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

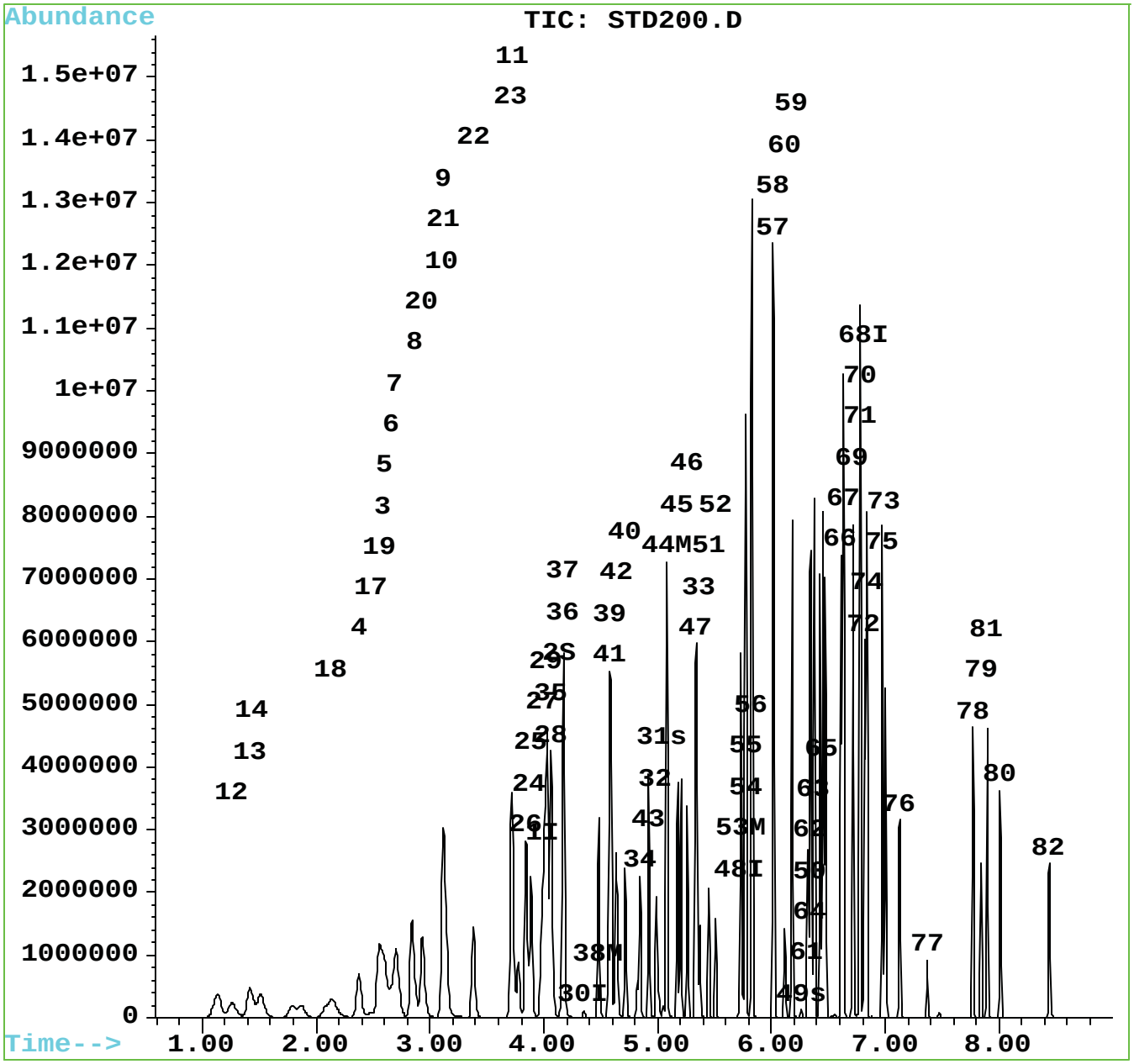
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.85	225	246065	210.95	ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	575121	199.81	ug/l	9
81)	Naphthalene	7.90	128	2056504	213.81	ug/l	9
82)	2-Methylnaphthalene	8.45	142	691275	201.41	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	28802	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	52581	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29736	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23065	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19953	4.77	ug/l		95.3
31) TOLUENE-D8 (S)	5.05	98	64881	4.99	ug/l		99.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15135	4.81	ug/l		96.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	158288	56.79	ug/l		8
4) Diethyl ether (*)	2.37	74	114788	53.36	ug/l	#	6
5) Acetone (*)	2.61	43	73198	50.31	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	202789	53.97	ug/l		8
7) Carbon disulfide (*)	2.71	76	551088	56.10	ug/l		9
8) Methyl Acetate	2.86	43	154362	51.88	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	500062	55.75	ug/l		8
10) Acrylonitrile (*)	3.10	53	86480	56.46	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	104271	48.61	ug/l		8
12) Dichlorodifluoromethane	1.25	85	157605	53.79	ug/l		9
13) Chloromethane (SPCC)	1.41	50	279286	58.06	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	232157	53.68	ug/l		9
15) Bromomethane	1.79	94	105273	53.45	ug/l		9
16) Chloroethane	1.86	64	131026	56.42	ug/l		8
17) Acrolein	2.48	56	29225	50.35	ug/l		9
18) Trichlorofluoromethane	2.13	101	245665	56.34	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	291561	53.50	ug/l	#	7
20) Methylene Chloride	2.93	84	177230	53.22	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	283731	53.46	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	335408	52.64	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	179892	52.31	ug/l	#	7
24) Tetrahydrofuran	3.86	42	67059	48.81	ug/l	#	1
25) Chloroform (CCC)	3.89	83	286290	52.28	ug/l		9
26) Bromochloromethane	3.85	130	95809	53.00	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	252651	53.31	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	459	0.10	ug/l	#	
29) Cyclohexane	4.01	42	98611	45.78	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	71452	56.55	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	72296	49.29	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	115764	47.98	ug/l		8
35) Carbon Tetrachloride	4.07	117	202147	53.78	ug/l		9
36) Benzene (MS)	4.17	78	721415	52.20	ug/l		8
37) 1,2-Dichloroethane	4.17	62	263202	52.89	ug/l		9
38) Trichloroethene (MS)	4.48	95	165943	52.07	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	197490	53.80	ug/l		9
40) Bromodichloromethane	4.72	83	212879	54.87	ug/l		9
41) Methyl Cyclohexane	4.57	55	278513	55.27	ug/l	#	5
42) Dibromomethane	4.65	174	78676	50.99	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	279442	48.34	ug/l		9
44) Toluene (CCC/MS)	5.08	91	739071	51.17	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	253894	50.40	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	123622	52.31	ug/l		9
47) Tetrachloroethene	5.33	166	140081	51.84	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.34	53	38326	48.31	ug/l		9
51) Dibromochloromethane	5.45	129	137396	56.20	ug/l		9
52) 1,2-Dibromoethane	5.51	107	141403	52.46	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	443690	51.43	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	142764	55.56	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	837144	52.37	ug/l		9
56) p,m-Xylene	5.83	106	626217	105.87	ug/l	#	7
57) o-Xylene	6.02	91	686512	53.61	ug/l		9
58) Styrene	6.02	104	520202	52.61	ug/l		9
59) Isopropylbenzene	6.18	105	798140	52.93	ug/l		9
60) Bromoform (SPCC)	6.12	173	73012	51.25	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	198679	52.18	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	57902	53.40	ug/l	#	6
63) n-Propylbenzene	6.37	91	970898	54.33	ug/l		9
64) Bromobenzene	6.34	156	158201	53.03	ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	313841	53.63	ug/l	#	7
66) tert-Butylbenzene	6.61	91	450317	53.13	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	354119	55.36	ug/l	#	7
69) sec-Butylbenzene	6.72	105	806478	53.95	ug/l		9
70) p-Isopropyltoluene	6.77	119	648345	55.60	ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	305012	54.07	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	315549	52.15	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	302174	52.64	ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	695043	54.63	ug/l		8
75) n-Butylbenzene	6.97	91	625456	54.03	ug/l		9
76) Hexachloroethane	7.13	201	61852	50.38	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

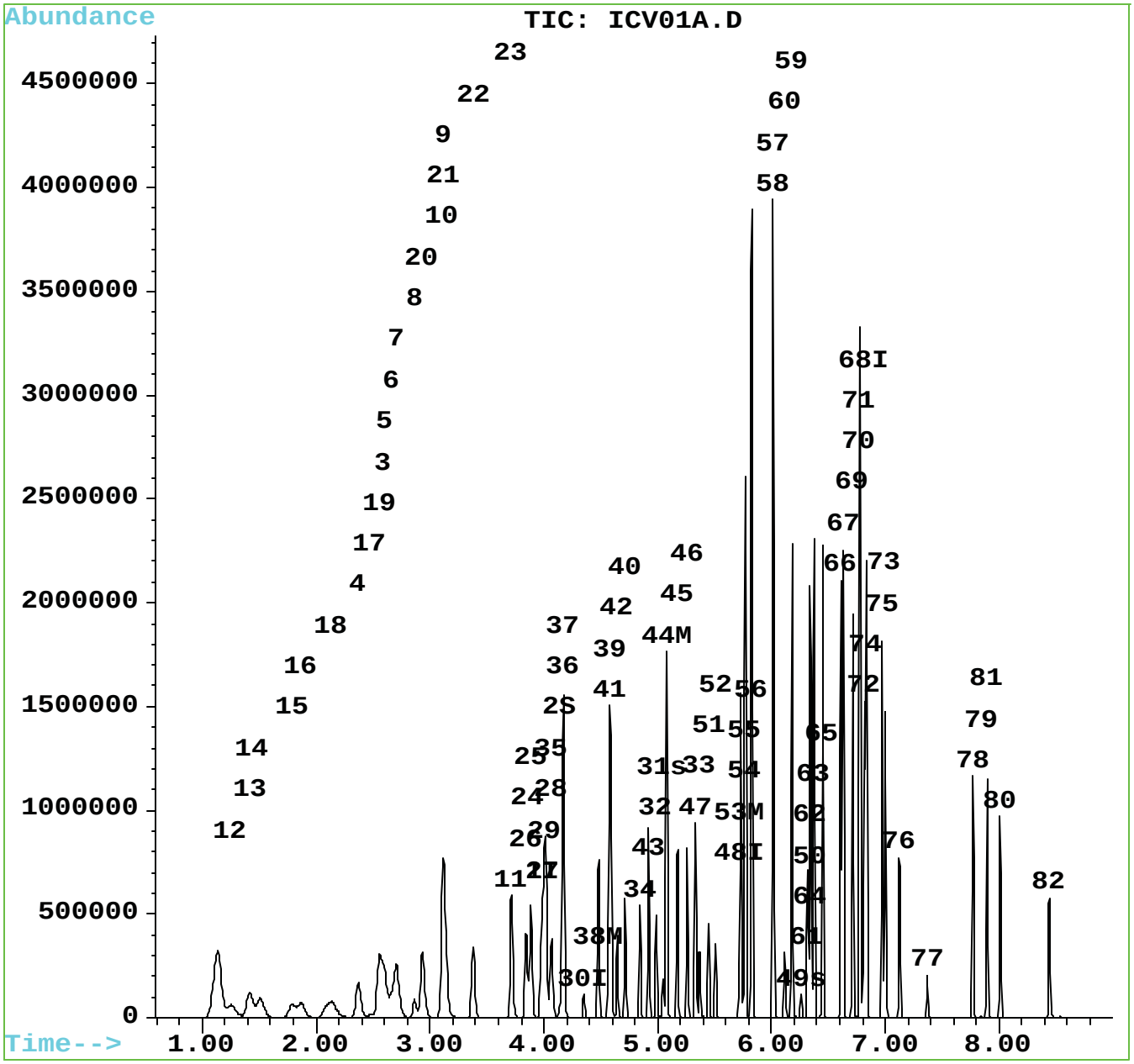
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	27900	52.19	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	165223	54.02	ug/l		9
79)	Hexachlorobutadiene	7.85	225	1124	1.02	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	151418	54.60	ug/l		9
81)	Naphthalene	7.89	128	518180	55.47	ug/l		9
82)	2-Methylnaphthalene	8.45	142	165543	45.54	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120816a3.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc16a.d	08/16/12 11:50	1,1,2-Trichloro-1,2,2-trifluoroethane	0.449	0.05
		Diethyl ether	0.341	0.05
		Acetone	0.328	0.01
		Methyl iodide	0.615	0.05
		Carbon disulfide	1.445	0.05
		Methyl acetate	0.489	0.05
		tert-Methyl butyl ether	1.479	0.05
		Acrylonitrile	0.262	0.01
		2-Butanone	0.394	0.01
		Dichlorodifluoromethane	0.451	0.05
		Chloromethane	0.796	0.10
		Vinyl Chloride	0.672	0.05
		Bromomethane	0.292	0.05
		Chloroethane	0.356	0.05
		Trichlorofluoromethane	0.614	0.05
		1,1-Dichloroethene	0.844	0.05
		Methylene Chloride	0.538	0.05
		trans-1,2-Dichloroethene	0.835	0.05
		1,1-Dichloroethane	1.012	0.10
		cis-1,2-Dichloroethene	0.555	0.05
		Tetrahydrofuran	0.220	0.01
		Chloroform	0.859	0.05
		Bromochloromethane	0.304	0.05
		1,1,1-Trichloroethane	0.746	0.05
		Cyclohexane	0.337	0.05
		4-Methyl-2-pentanone	0.122	0.01
		2-Hexanone	0.148	0.01
		Carbon Tetrachloride	0.313	0.05
		Benzene	1.214	0.05
		1,2-Dichloroethane	0.427	0.05
		Trichloroethene	0.284	0.05
		1,2-Dichloropropane	0.332	0.05
		Bromodichloromethane	0.339	0.05
		Methyl cyclohexane	0.464	0.05
		Dibromomethane	0.144	0.05
		cis-1,3-Dichloropropene	0.482	0.05
		Toluene	1.265	0.05
		trans-1,3-Dichloropropene	0.434	0.05
		1,1,2-Trichloroethane	0.209	0.05
		Tetrachloroethene	0.259	0.05
		trans-1,4-Dichloro-2-butene	0.127	0.05
		Dibromochloromethane	0.385	0.05
		1,2-Dibromoethane	0.452	0.05
		Chlorobenzene	1.397	0.30
		1,1,1,2-Tetrachloroethane	0.424	0.05
		Ethylbenzene	2.556	0.05
		p,m-Xylene	0.955	0.05
		o-Xylene	2.032	0.05
		Styrene	1.624	0.05
		Isopropylbenzene	2.417	0.05
		Bromoform	0.194	0.10
		1,1,2,2-Tetrachloroethane	0.618	0.30
		1,2,3-Trichloropropane	0.179	0.05
		n-Propylbenzene	2.903	0.05

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120816a3.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		Bromobenzene	0.513	0.05
		1,3,5-Trimethylbenzene	0.969	0.05
		tert-Butylbenzene	1.351	0.05
		1,2,4-Trimethylbenzene	1.078	0.05
		sec-Butylbenzene	3.148	0.05
		p-Isopropyltoluene	2.420	0.05
		1,3-Dichlorobenzene	1.172	0.05
		1,4-Dichlorobenzene	1.265	0.05
		1,2-Dichlorobenzene	1.189	0.05
		1,2,3-Trimethylbenzene	2.652	0.05
		n-Butylbenzene	2.377	0.05
		Hexachloroethane	0.187	0.05
		1,2-Dibromo-3-Chloropropane	0.101	0.05
		1,2,4-Trichlorobenzene	0.631	0.05
		1,2,3-Trichlorobenzene	0.555	0.05
		Naphthalene	1.955	0.05
		2-Methylnaphthalene	0.526	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*		*CCC %D/UCL*
spcc16a.d	08/16/12 11:50	1,1,2-Trichloro-1,2,2-trifluoroet	46.4/ 50.0		7.3/ 20.0
		Diethyl ether	45.7/ 50.0		8.6/ 20.0
		Acetone	64.7/ 50.0	*	29.5/ 20.0
		Methyl iodide	47.2/ 50.0		5.7/ 20.0
		Carbon disulfide	42.3/ 50.0		15.3/ 20.0
		Methyl acetate	47.4/ 50.0		5.3/ 20.0
		tert-Methyl butyl ether	47.5/ 50.0		5.0/ 20.0
		Acrylonitrile	49.2/ 50.0		1.5/ 20.0
		2-Butanone	53.0/ 50.0		6.0/ 20.0
		Dichlorodifluoromethane	44.7/ 50.0		10.6/ 20.0
		Chloromethane	47.7/ 50.0		4.6/ 20.0
		Vinyl Chloride	44.8/ 50.0		10.5/ 20.0
		Bromomethane	42.7/ 50.0		14.7/ 20.0
		Chloroethane	44.1/ 50.0		11.8/ 20.0
		Trichlorofluoromethane	40.6/ 50.0		18.9/ 20.0
		1,1-Dichloroethene	44.6/ 50.0		10.8/ 20.0
		Methylene Chloride	46.6/ 50.0		6.9/ 20.0
		trans-1,2-Dichloroethene	45.3/ 50.0		9.3/ 20.0
		1,1-Dichloroethane	45.8/ 50.0		8.5/ 20.0
		cis-1,2-Dichloroethene	46.5/ 50.0		7.0/ 20.0
		Tetrahydrofuran	46.0/ 50.0		8.0/ 20.0
		Chloroform	45.1/ 50.0		9.7/ 20.0
		Bromochloromethane	48.4/ 50.0		3.2/ 20.0
		1,1,1-Trichloroethane	45.3/ 50.0		9.4/ 20.0
		Cyclohexane	45.1/ 50.0		9.8/ 20.0
		4-Methyl-2-pentanone	50.9/ 50.0		1.8/ 20.0
		2-Hexanone	53.4/ 50.0		6.7/ 20.0
		Carbon Tetrachloride	43.8/ 50.0		12.3/ 20.0
		Benzene	46.2/ 50.0		7.6/ 20.0
		1,2-Dichloroethane	45.2/ 50.0		9.7/ 20.0
		Trichloroethene	46.9/ 50.0		6.2/ 20.0
		1,2-Dichloropropane	47.5/ 50.0		5.0/ 20.0
		Bromodichloromethane	45.9/ 50.0		8.2/ 20.0
		Methyl cyclohexane	48.4/ 50.0		3.2/ 20.0
		Dibromomethane	48.8/ 50.0		2.3/ 20.0
		cis-1,3-Dichloropropene	43.8/ 50.0		12.4/ 20.0
		Toluene	46.1/ 50.0		7.9/ 20.0
		trans-1,3-Dichloropropene	45.4/ 50.0		9.2/ 20.0
		1,1,2-Trichloroethane	46.4/ 50.0		7.1/ 20.0
		Tetrachloroethene	50.4/ 50.0		0.8/ 20.0
		trans-1,4-Dichloro-2-butene	47.6/ 50.0		4.7/ 20.0
		Dibromochloromethane	46.9/ 50.0		6.2/ 20.0
		1,2-Dibromoethane	49.9/ 50.0		0.2/ 20.0
		Chlorobenzene	48.2/ 50.0		3.7/ 20.0
		1,1,1,2-Tetrachloroethane	49.1/ 50.0		1.7/ 20.0
		Ethylbenzene	47.6/ 50.0		4.9/ 20.0
		p,m-Xylene	96.0/100.0		4.0/ 20.0
		o-Xylene	47.2/ 50.0		5.6/ 20.0
		Styrene	48.8/ 50.0		2.4/ 20.0
		Isopropylbenzene	47.7/ 50.0		4.6/ 20.0
		Bromoform	41.0/ 50.0		18.1/ 20.0
		1,1,2,2-Tetrachloroethane	48.3/ 50.0		3.4/ 20.0
		1,2,3-Trichloropropane	49.1/ 50.0		1.8/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120816a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
		n-Propylbenzene	48.3/ 50.0		3.4/ 20.0
		Bromobenzene	51.1/ 50.0		2.1/ 20.0
		1,3,5-Trimethylbenzene	49.2/ 50.0		1.5/ 20.0
		tert-Butylbenzene	47.4/ 50.0		5.2/ 20.0
		1,2,4-Trimethylbenzene	50.1/ 50.0		0.2/ 20.0
		sec-Butylbenzene	48.6/ 50.0		2.9/ 20.0
		p-Isopropyltoluene	47.9/ 50.0		4.3/ 20.0
		1,3-Dichlorobenzene	47.9/ 50.0		4.1/ 20.0
		1,4-Dichlorobenzene	48.2/ 50.0		3.6/ 20.0
		1,2-Dichlorobenzene	47.8/ 50.0		4.4/ 20.0
		1,2,3-Trimethylbenzene	48.1/ 50.0		3.8/ 20.0
		n-Butylbenzene	47.4/ 50.0		5.3/ 20.0
		Hexachloroethane	35.4/ 50.0	*	29.2/ 20.0
		1,2-Dibromo-3-Chloropropane	43.7/ 50.0		12.6/ 20.0
		1,2,4-Trichlorobenzene	47.6/ 50.0		4.8/ 20.0
		1,2,3-Trichlorobenzene	46.2/ 50.0		7.7/ 20.0
		Naphthalene	48.3/ 50.0		3.4/ 20.0
		2-Methylnaphthalene	33.1/ 50.0	*	33.7/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\spcc16a.d Vial: 2
Acq On : 16 Aug 12 11:50 am Operator: lbr
Sample : spcc/ccc 1dr0814 1v0816 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31151	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	56260	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30835	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	24268	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19700	4.35	ug/l		87.0
31) TOLUENE-D8 (S)	5.05	98	67201	4.83	ug/l		96.6
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17802	5.46	ug/l		109.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	139771	46.37	ug/l		8
4) Diethyl ether (*)	2.37	74	106332	45.71	ug/l	#	6
5) Acetone (*)	2.61	43	101883	64.74	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	191728	47.17	ug/l		8
7) Carbon disulfide (*)	2.71	76	449894	42.34	ug/l		9
8) Methyl Acetate	2.86	43	152389	47.36	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	460612	47.48	ug/l		8
10) Acrylonitrile (*)	3.10	53	81578	49.24	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	123012	53.02	ug/l		7
12) Dichlorodifluoromethane	1.25	85	140500	44.69	ug/l		9
13) Chloromethane (SPCC)	1.42	50	248048	47.68	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	209320	44.75	ug/l		9
15) Bromomethane	1.79	94	90897	42.67	ug/l		9
16) Chloroethane	1.89	64	110794	44.11	ug/l		8
18) Trichlorofluoromethane	2.14	101	191269	40.56	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	262971	44.62	ug/l		7
20) Methylene Chloride	2.93	84	167735	46.57	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	260274	45.34	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	315323	45.76	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	172998	46.51	ug/l	#	6
24) Tetrahydrofuran	3.86	42	68375	46.01	ug/l		8
25) Chloroform (CCC)	3.89	83	267319	45.14	ug/l		9
26) Bromochloromethane	3.84	130	94663	48.42	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	232337	45.32	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	228408	44.40	ug/l		9
29) Cyclohexane	4.02	42	105100	45.12	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	68805	50.90	ug/l	#	6
33) 2-Hexanone (*)	5.36	58	83753	53.36	ug/l	#	7
35) Carbon Tetrachloride	4.07	117	176282	43.84	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\spcc16a.d Vial: 2
Acq On : 16 Aug 12 11:50 am Operator: lbr
Sample : spcc/ccc 1dr0814 1v0816 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.17	78	683001	46.19	ug/l		8
37) 1,2-Dichloroethane	4.17	62	240479	45.16	ug/l		9
38) Trichloroethene (MS)	4.48	95	159858	46.88	ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	186546	47.50	ug/l		9
40) Bromodichloromethane	4.72	83	190542	45.90	ug/l		9
41) Methyl Cyclohexane	4.57	55	260930	48.40	ug/l	#	5
42) Dibromomethane	4.65	174	80621	48.84	ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	270969	43.81	ug/l		9
44) Toluene (CCC/MS)	5.08	91	711729	46.05	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	244209	45.40	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	117404	46.43	ug/l		9
47) Tetrachloroethene	5.33	166	145784	50.42	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	39154	47.63	ug/l	#	7
51) Dibromochloromethane	5.45	129	118836	46.88	ug/l		9
52) 1,2-Dibromoethane	5.51	107	139399	49.88	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	430781	48.15	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	130904	49.13	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	788204	47.56	ug/l		9
56) p,m-Xylene	5.83	106	588571	95.96	ug/l		8
57) o-Xylene	6.02	91	626517	47.18	ug/l		9
58) Styrene	6.02	104	500649	48.82	ug/l		9
59) Isopropylbenzene	6.18	105	745474	47.68	ug/l		9
60) Bromoform (SPCC)	6.12	173	59924	40.97	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	190765	48.32	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	55212	49.10	ug/l	#	7
63) n-Propylbenzene	6.37	91	895279	48.31	ug/l		9
64) Bromobenzene	6.34	156	157930	51.05	ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	298756	49.23	ug/l	#	7
66) tert-Butylbenzene	6.61	91	416537	47.39	ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.63	120	332302	50.09	ug/l		8
69) sec-Butylbenzene	6.72	105	763947	48.57	ug/l		9
70) p-Isopropyltoluene	6.77	119	587277	47.87	ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	284474	47.93	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	306850	48.19	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	288663	47.79	ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	643607	48.08	ug/l		9
75) n-Butylbenzene	6.97	91	576884	47.36	ug/l		9
76) Hexachloroethane	7.13	201	45374	35.40	ug/l	#	4
77) 1,2-Dibromo-3-Chloropropan	7.37	157	24392	43.71	ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	153111	47.58	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\spcc16a.d Vial: 2
Acq On : 16 Aug 12 11:50 am Operator: lbr
Sample : spcc/ccc 1dr0814 1v0816 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

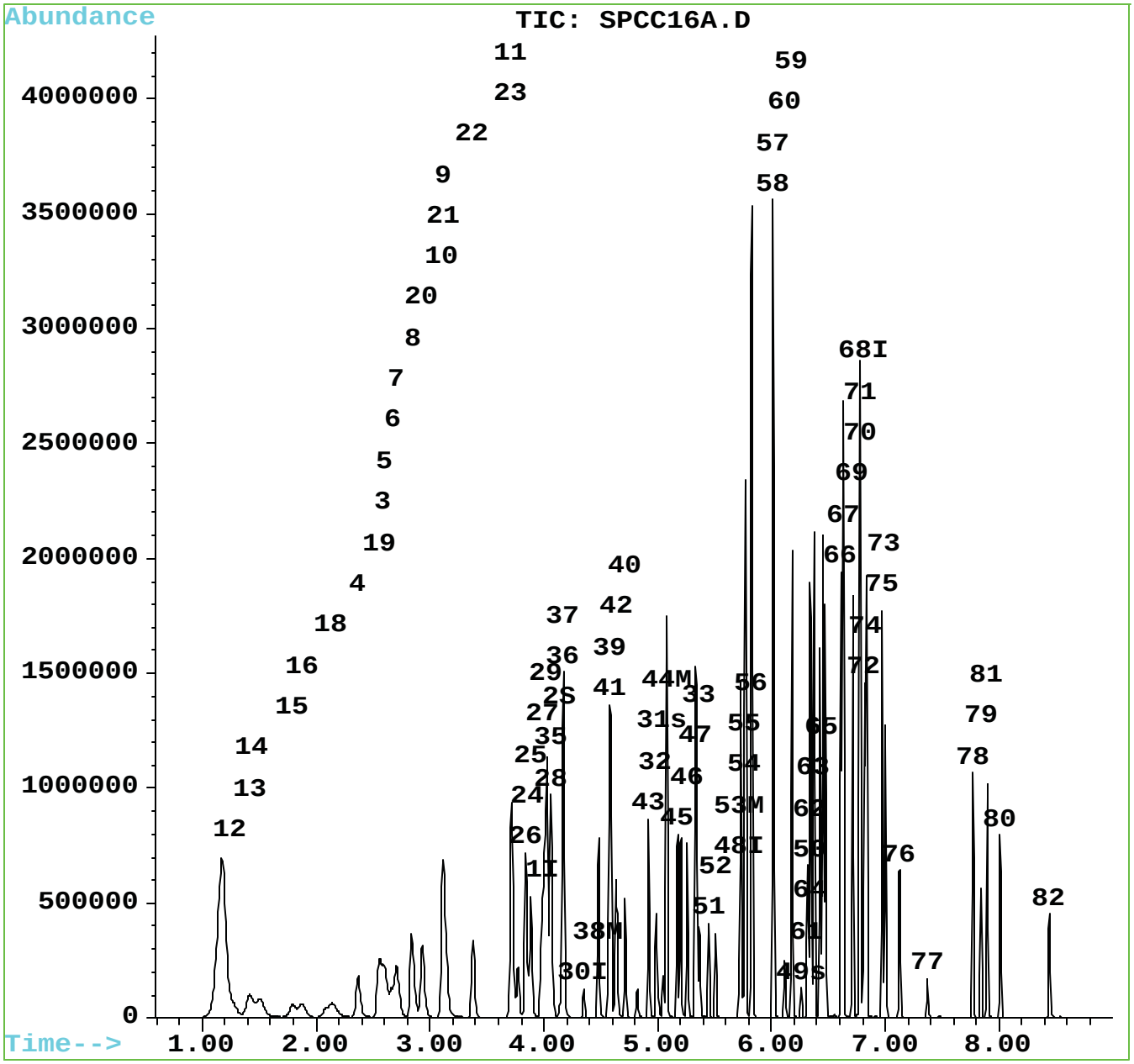
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
79)	Hexachlorobutadiene	7.85	225	61260	52.62 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	134731	46.17 ug/l	9
81)	Naphthalene	7.90	128	474599	48.28 ug/l	9
82)	2-Methylnaphthalene	8.45	142	127489	33.14 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\spcc16a.d Vial: 2
Acq On : 16 Aug 12 11:50 am Operator: lbr
Sample : spcc/ccc 1dr0814 1v0816 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\bfb16a.d Vial: 1
Acq On : 16 Aug 12 11:24 am Operator: lbr
Sample : 25ng/bfb 1dr0814 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 17 10:50 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

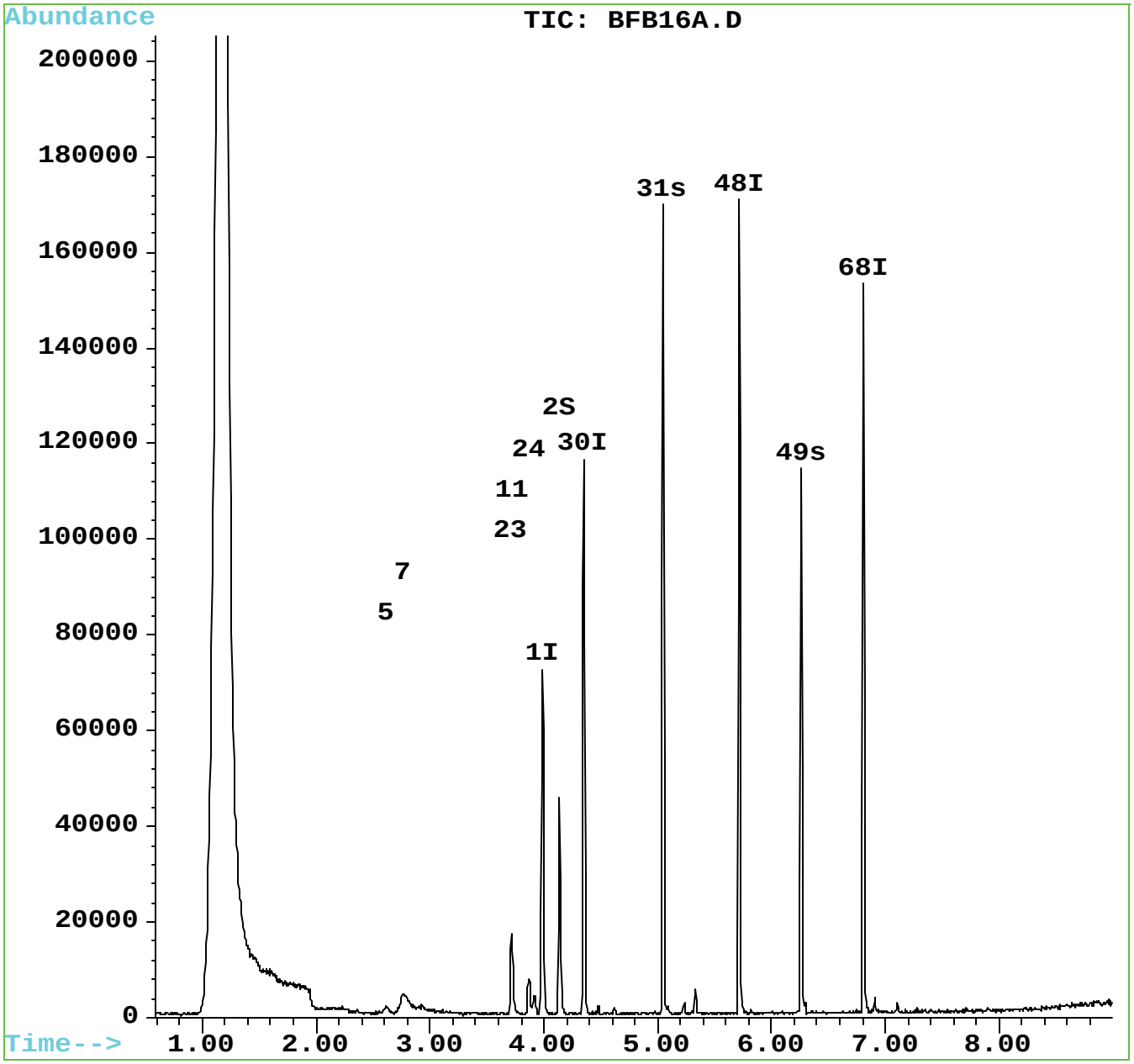
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31951	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54974	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29445	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23957	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18953	4.08	ug/l		81.6
31) TOLUENE-D8 (S)	5.05	98	65381	4.81	ug/l		96.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16138	5.18	ug/l		103.6
Target Compounds							Qvalu
5) Acetone (*)	2.62	43	2832	1.75	ug/l	#	4
7) Carbon disulfide (*)	2.76	76	16613	1.52	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	6334	2.66	ug/l		6
23) cis-1,2-Dichloroethene	3.72	96	4084	1.07	ug/l	#	7
24) Tetrahydrofuran	3.87	42	4398	2.89	ug/l	#	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\bfb16a.d Vial: 1
Acq On : 16 Aug 12 11:24 am Operator: lbr
Sample : 25ng/bfb 1dr0814 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 17 10:50 19112

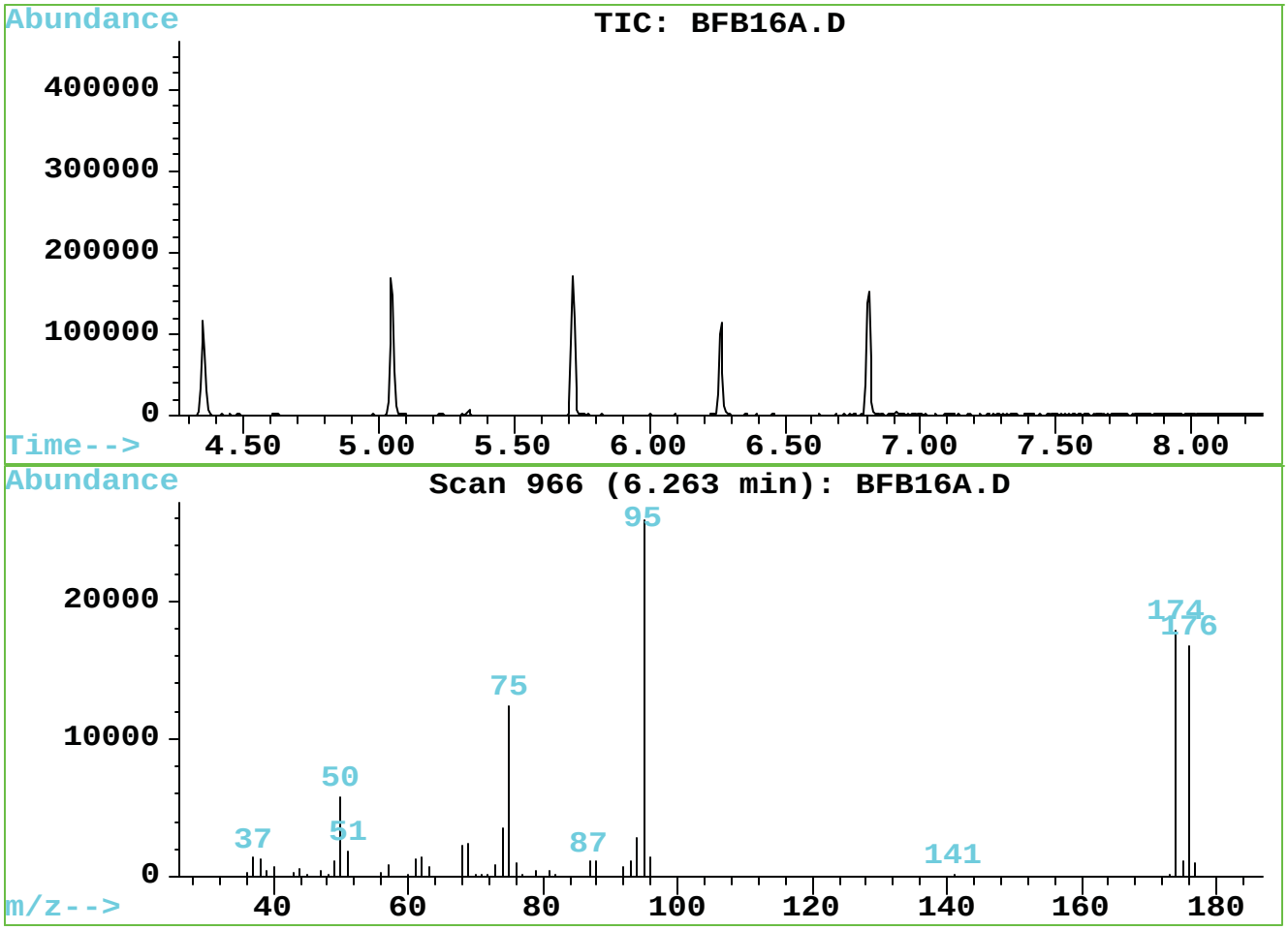
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\DATA\120816A3\BFB16A.D Vial: 1
Acq On : 16 Aug 12 11:24 am Operator: lbr
Sample : 25ng/bfb 1dr0814 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260



Peak Apex is scan: 966

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	22.4	5791	PASS
75	95	30	66	48.2	12444	PASS
95	95	100	100	100.0	25840	PASS
96	95	5	9	5.5	1430	PASS
173	174	0	2	1.0	183	PASS
174	95	50	120	69.2	17888	PASS
175	174	4	9	6.6	1177	PASS
176	174	93	101	93.6	16744	PASS
177	176	5	9	6.3	1061	PASS

BFB16A.D WT120801.M Fri Aug 24 14:39:32 2012

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\blkw16a.d Vial: 6
Acq On : 16 Aug 12 2:49 pm Operator: lbr
Sample : 5ml blank 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

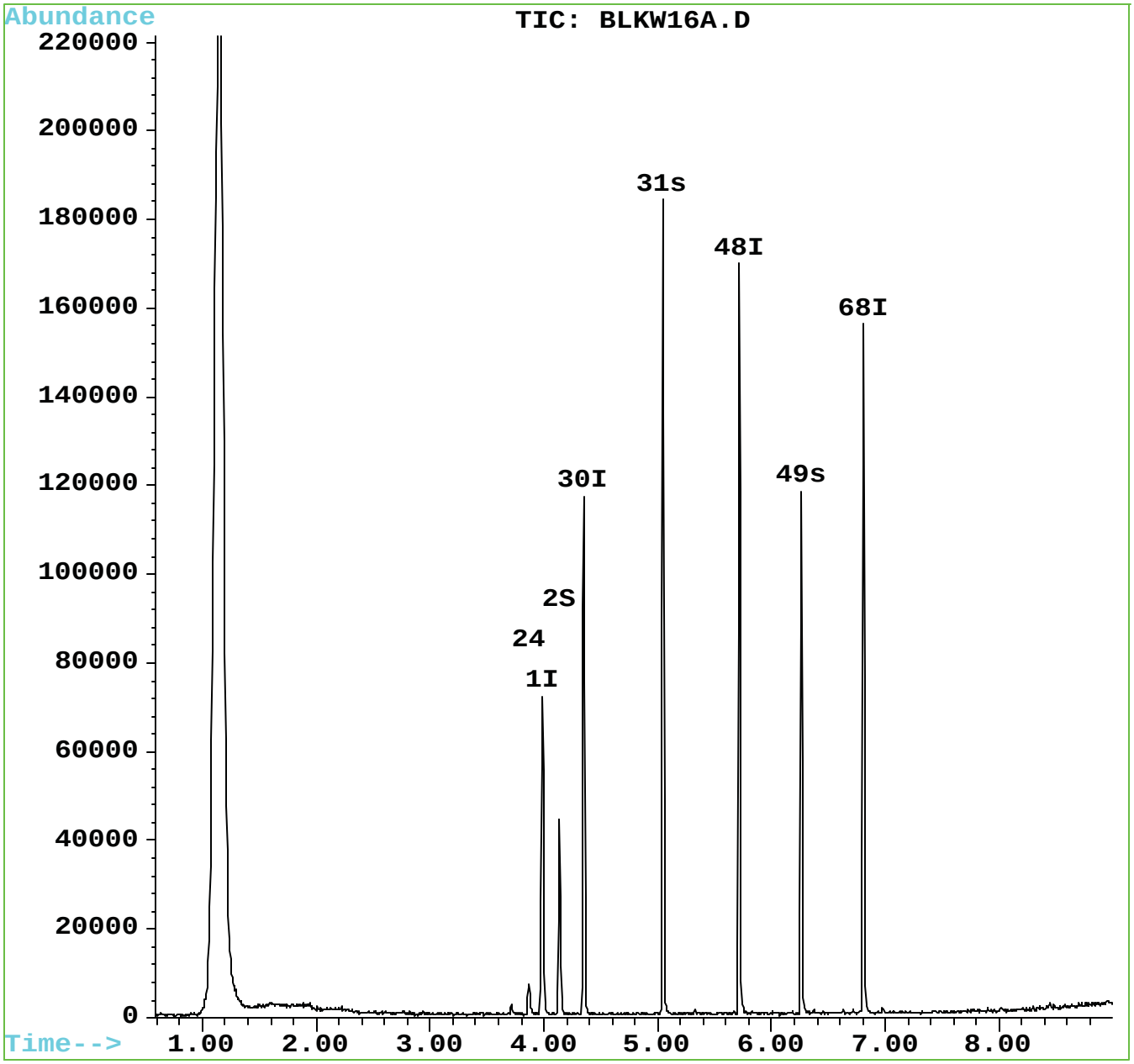
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31631	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	55088	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30404	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22895	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19536	4.25	ug/l	85.0
31) TOLUENE-D8 (S)	5.05	98	65167	4.78	ug/l	95.6
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16278	5.06	ug/l	101.2
Target Compounds						Qvalu
24) Tetrahydrofuran	3.86	42	3487	2.31	ug/l #	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\blkw16a.d Vial: 6
Acq On : 16 Aug 12 2:49 pm Operator: lbr
Sample : 5ml blank 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\lcsw16a.d Vial: 3
Acq On : 16 Aug 12 12:25 pm Operator: lbr
Sample : blank ms 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	32003	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	56266	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30341	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	25264	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19605	4.22	ug/l		84.3
31) TOLUENE-D8 (S)	5.05	98	67686	4.86	ug/l		97.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17198	5.36	ug/l		107.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	158920	51.32	ug/l		8
4) Diethyl ether (*)	2.37	74	109986	46.02	ug/l	#	5
5) Acetone (*)	2.62	43	60358	37.33	ug/l	#	8
6) Methyl iodide (iodomethane	2.67	142	213151	51.05	ug/l		8
7) Carbon disulfide (*)	2.71	76	523776	47.98	ug/l		9
8) Methyl Acetate	2.86	43	151570	45.85	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	483209	48.48	ug/l		8
10) Acrylonitrile (*)	3.10	53	84718	49.77	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	94162	39.51	ug/l		8
12) Dichlorodifluoromethane	1.26	85	162764	50.15	ug/l		9
13) Chloromethane (SPCC)	1.42	50	285826	53.48	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	212110	44.14	ug/l		9
15) Bromomethane	1.79	94	100531	45.94	ug/l		9
16) Chloroethane	1.88	64	125350	48.58	ug/l		8
18) Trichlorofluoromethane	2.15	101	216190	44.62	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	295933	48.87	ug/l		7
20) Methylene Chloride	2.93	84	181041	48.93	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	282385	47.88	ug/l		7
22) 1,1-Dichloroethane (SPCC)	3.38	63	341164	48.19	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	188259	49.27	ug/l	#	7
24) Tetrahydrofuran	3.87	42	65137	42.67	ug/l	#	1
25) Chloroform (CCC)	3.89	83	289262	47.54	ug/l		9
26) Bromochloromethane	3.85	130	100327	49.95	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	254765	48.38	ug/l	#	
29) Cyclohexane	4.02	42	99439	41.55	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	69236	51.21	ug/l	#	7
33) 2-Hexanone (*)	5.36	58	65953	42.02	ug/l	#	6
35) Carbon Tetrachloride	4.07	117	196935	48.97	ug/l		9
36) Benzene (MS)	4.17	78	731816	49.49	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\lcsw16a.d Vial: 3
Acq On : 16 Aug 12 12:25 pm Operator: lbr
Sample : blank ms 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
37) 1,2-Dichloroethane	4.17	62	248749	46.71 ug/l		9
38) Trichloroethene (MS)	4.48	95	169930	49.83 ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	196075	49.92 ug/l		9
40) Bromodichloromethane	4.72	83	201946	48.64 ug/l		9
41) Methyl Cyclohexane	4.57	55	293403	54.41 ug/l	#	5
42) Dibromomethane	4.65	174	85841	51.99 ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	282190	45.62 ug/l		9
44) Toluene (CCC/MS)	5.08	91	758327	49.06 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	249178	46.30 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	125263	49.53 ug/l		9
47) Tetrachloroethene	5.33	166	160575	55.53 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.35	53	38678	47.81 ug/l	#	8
51) Dibromochloromethane	5.45	129	126830	50.84 ug/l		9
52) 1,2-Dibromoethane	5.51	107	141443	51.43 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	461215	52.39 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	139465	53.20 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	852373	52.26 ug/l		9
56) p,m-Xylene	5.83	106	624830	103.53 ug/l		8
57) o-Xylene	6.02	91	674818	51.65 ug/l		9
58) Styrene	6.02	104	530034	52.53 ug/l		9
59) Isopropylbenzene	6.18	105	817856	53.16 ug/l		9
60) Bromoform (SPCC)	6.12	173	63421	43.94 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	186322	47.96 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	56275	50.86 ug/l	#	7
63) n-Propylbenzene	6.37	91	987424	54.15 ug/l		9
64) Bromobenzene	6.34	156	167129	54.91 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	318568	53.35 ug/l	#	7
66) tert-Butylbenzene	6.61	91	447375	51.73 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	363665	55.71 ug/l		8
69) sec-Butylbenzene	6.72	105	819661	50.06 ug/l		9
70) p-Isopropyltoluene	6.77	119	638582	49.99 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	305973	49.52 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	326128	49.20 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	309016	49.15 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	680842	48.86 ug/l		9
75) n-Butylbenzene	6.97	91	629882	49.68 ug/l		9
76) Hexachloroethane	7.13	201	48888	36.62 ug/l	#	4
77) 1,2-Dibromo-3-Chloropropan	7.37	157	24298	41.90 ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	162025	48.36 ug/l		9
79) Hexachlorobutadiene	7.84	225	2353	1.94 ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\lcsw16a.d Vial: 3
Acq On : 16 Aug 12 12:25 pm Operator: lbr
Sample : blank ms 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

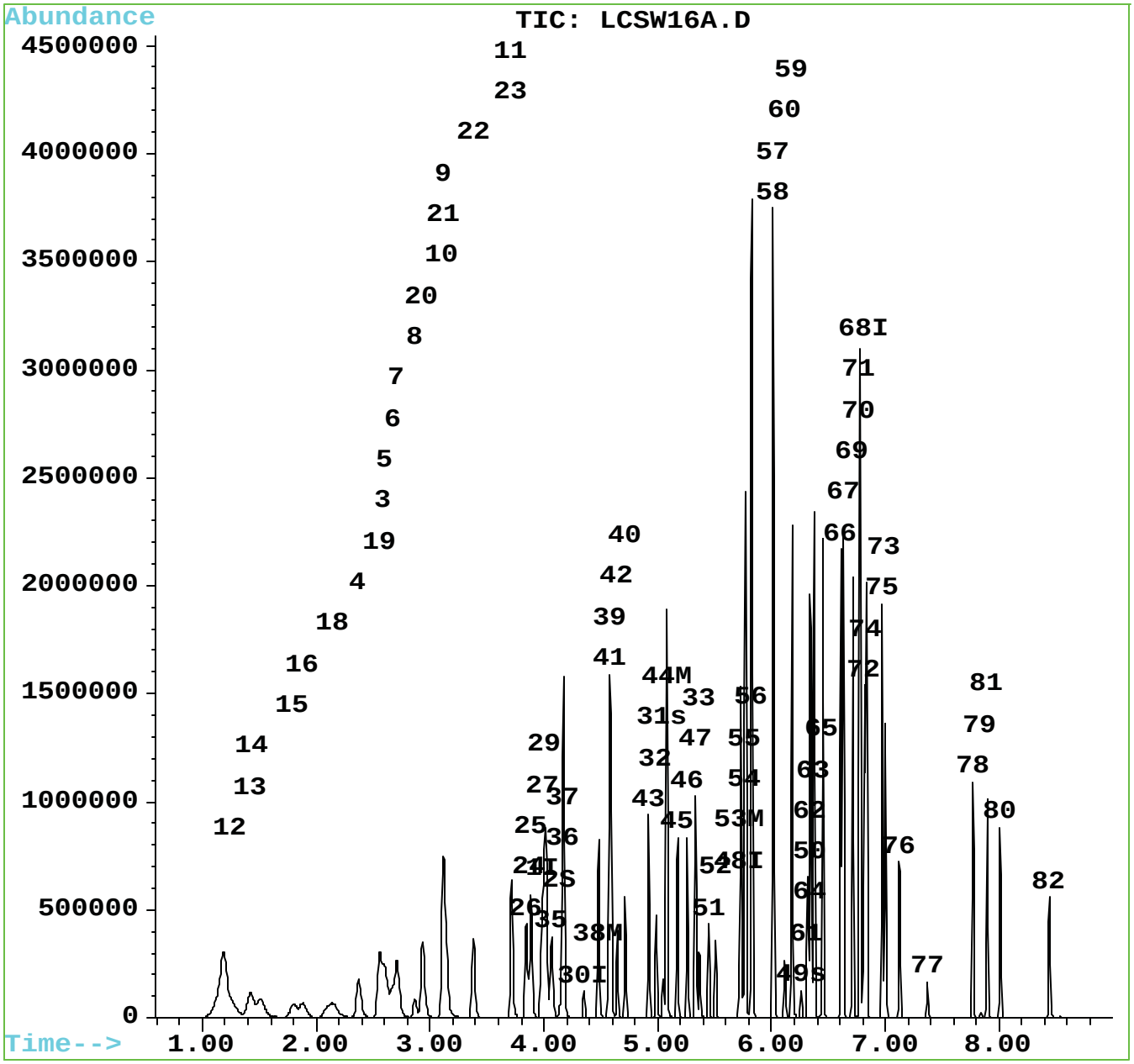
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
80)	1,2,3-Trichlorobenzene	8.01	180	144850	47.68	ug/l	9
81)	Naphthalene	7.90	128	480959	47.00	ug/l	9
82)	2-Methylnaphthalene	8.44	142	155306	38.89	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\lcsw16a.d Vial: 3
Acq On : 16 Aug 12 12:25 pm Operator: lbr
Sample : blank ms 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\lcsw16b.d Vial: 4
Acq On : 16 Aug 12 12:46 pm Operator: lbr
Sample : blank msd 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31868	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	55104	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30938	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	25356	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19398	4.19	ug/l		83.8
31) TOLUENE-D8 (S)	5.05	98	68175	5.00	ug/l		100.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17629	5.39	ug/l		107.7
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	159935	51.86	ug/l		8
4) Diethyl ether (*)	2.37	74	112737	47.37	ug/l	#	5
5) Acetone (*)	2.62	43	95482	59.31	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	212482	51.10	ug/l		8
7) Carbon disulfide (*)	2.72	76	527028	48.49	ug/l		9
8) Methyl Acetate	2.87	43	163837	49.77	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	511220	51.51	ug/l		8
10) Acrylonitrile (*)	3.11	53	90146	53.19	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	124389	52.41	ug/l		7
12) Dichlorodifluoromethane	1.27	85	157564	48.81	ug/l		9
13) Chloromethane (SPCC)	1.42	50	282064	53.00	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	210205	43.92	ug/l		9
15) Bromomethane	1.80	94	98654	45.27	ug/l		9
16) Chloroethane	1.89	64	120919	47.06	ug/l		8
18) Trichlorofluoromethane	2.15	101	218514	45.29	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	297004	49.26	ug/l		7
20) Methylene Chloride	2.93	84	180784	49.06	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	283444	48.27	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	343698	48.75	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	187473	49.27	ug/l	#	7
24) Tetrahydrofuran	3.87	42	71626	47.12	ug/l	#	1
25) Chloroform (CCC)	3.89	83	292404	48.26	ug/l		9
26) Bromochloromethane	3.85	130	103183	51.59	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	254328	48.50	ug/l	#	
28) 1,1-Dichloropropene	4.17	75	12513	2.38	ug/l	#	
29) Cyclohexane	4.02	42	99746	41.86	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	75637	57.13	ug/l	#	7
33) 2-Hexanone (*)	5.36	58	81841	53.24	ug/l	#	7
35) Carbon Tetrachloride	4.07	117	198713	50.45	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\lcsw16b.d Vial: 4
Acq On : 16 Aug 12 12:46 pm Operator: lbr
Sample : blank msd 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.17	78	735455	50.78	ug/l		9
37) 1,2-Dichloroethane	4.17	62	257113	49.30	ug/l		9
38) Trichloroethene (MS)	4.48	95	170699	51.11	ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	197251	51.28	ug/l		9
40) Bromodichloromethane	4.72	83	206949	50.90	ug/l		9
41) Methyl Cyclohexane	4.57	55	294362	55.74	ug/l	#	5
42) Dibromomethane	4.65	174	88547	54.76	ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	291450	48.11	ug/l		9
44) Toluene (CCC/MS)	5.08	91	765234	50.55	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	254134	48.18	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	129976	52.48	ug/l		9
47) Tetrachloroethene	5.33	166	159818	56.43	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.35	53	40527	49.06	ug/l	#	8
51) Dibromochloromethane	5.45	129	129916	51.08	ug/l		9
52) 1,2-Dibromoethane	5.51	107	149476	53.30	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	463225	51.61	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	142349	53.25	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	851126	51.18	ug/l		9
56) p,m-Xylene	5.83	106	629525	102.30	ug/l		8
57) o-Xylene	6.02	91	679244	50.98	ug/l		9
58) Styrene	6.02	104	532739	51.78	ug/l		9
59) Isopropylbenzene	6.18	105	826976	52.71	ug/l		9
60) Bromoform (SPCC)	6.12	173	67570	45.82	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	202441	51.10	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	59704	52.92	ug/l	#	7
63) n-Propylbenzene	6.37	91	999818	53.77	ug/l		9
64) Bromobenzene	6.34	156	172459	55.56	ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	322128	52.91	ug/l	#	7
66) tert-Butylbenzene	6.61	91	453317	51.40	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	363747	54.65	ug/l		7
69) sec-Butylbenzene	6.72	105	815986	49.66	ug/l		9
70) p-Isopropyltoluene	6.77	119	638859	49.84	ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	311107	50.17	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	331568	49.84	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	310388	49.19	ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	694874	49.69	ug/l		9
75) n-Butylbenzene	6.97	91	638467	50.17	ug/l		9
76) Hexachloroethane	7.13	201	50289	37.51	ug/l	#	4
77) 1,2-Dibromo-3-Chloropropan	7.37	157	28338	48.39	ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	168528	50.12	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\lcsw16b.d Vial: 4
Acq On : 16 Aug 12 12:46 pm Operator: lbr
Sample : blank msd 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration

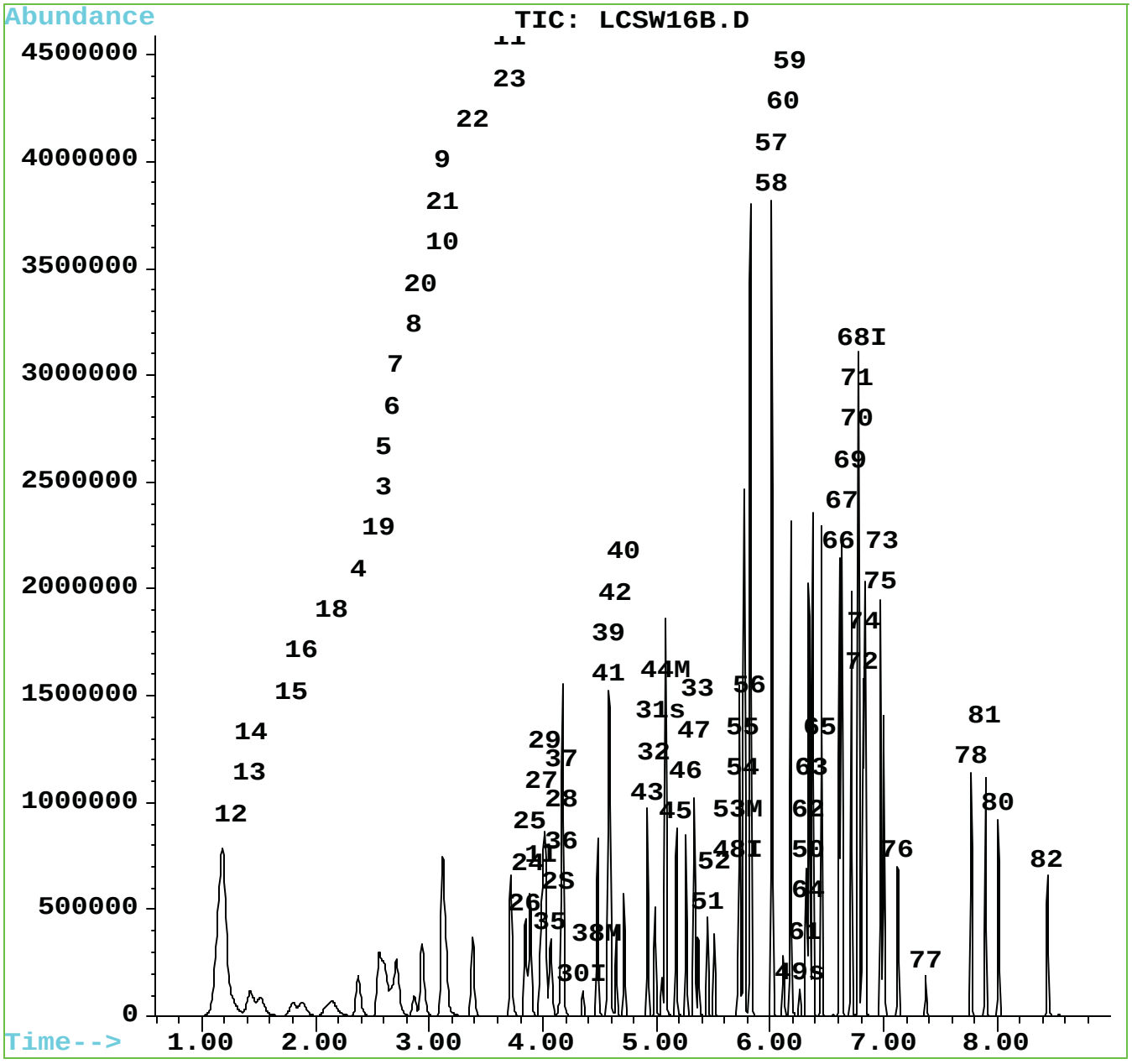
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
80)	1,2,3-Trichlorobenzene	8.01	180	153661	50.40	ug/l	9
81)	Naphthalene	7.90	128	529855	51.59	ug/l	9
82)	2-Methylnaphthalene	8.45	142	179409	44.88	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120816a3\lcsw16b.d Vial: 4
Acq On : 16 Aug 12 12:46 pm Operator: lbr
Sample : blank msd 1dr0814 Inst : Merfolk
Misc : w/1 id:vf120816w1 Multiplr: 1.00
Quant Time: Aug 17 10:51 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260
Last Update : Wed Aug 22 09:58:54 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
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Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d13a.d	08/13/12 11:41	dftpp std (120801) [none]	WW	IP	**1**	
spnn13a.d	08/13/12 12:00	pna std 50 (120314) [none]	WW	CV	**1**	
blkw13a.d	08/13/12 12:21	pna-w 1000ml/1ml df:1 sp120809w01	WW	Bl	**1**	
lcsw13a.d	08/13/12 12:40	pna-w 1000ml/1ml df:1 sp120809w01	WW	MS	**1**	
lcsdw13a.d	08/13/12 13:00	pna-w 1000ml/1ml df:1 sp120809w01	WW	MS		
5348404.d	08/13/12 13:19	pna-w 880ml/1ml df:2 sp120809w01	WW			
5348405.d	08/13/12 13:38	pna-w 900ml/1ml df:2 sp120809w01	WW			
5349817.d	08/13/12 13:57	pna-w 880ml/1ml df:2 sp120809w01	WW			
5349818.d	08/13/12 14:16	pna-w 970ml/1ml df:2 sp120809w01	WW			
5349819.d	08/13/12 14:35	pna-w 980ml/1ml df:2 sp120809w01	WW			
5349820.d	08/13/12 14:54	pna-w 890ml/1ml df:2 sp120809w01	WW			
5349821.d	08/13/12 15:14	pna-w 860ml/1ml df:2 sp120809w01	WW			
5349822.d	08/13/12 15:33	pna-w 900ml/1ml df:2 sp120809w01	WW			
5350801.d	08/13/12 15:52	pna-w 990ml/1ml df:2 sp120809w01	WW		**1**	
5350803.d	08/13/12 16:11	pna-w 990ml/1ml df:2 sp120809w01	WW		**1 2**	
5350804m.d	08/13/12 16:30	pna-w 990ml/1ml df:2 sp120809w01	WW	MS	**1 3**	
5350805n.d	08/13/12 16:49	pna-w 990ml/1ml df:2 sp120809w01	WW	MS	**1 3**	
5350806.d	08/13/12 17:08	pna-w 990ml/1ml df:2 sp120809w01	WW		**1**	
5350808.d	08/13/12 17:27	pna-w 990ml/1ml df:2 sp120809w01	WW		**1**	
5350809.d	08/13/12 17:47	pna-w 990ml/1ml df:2 sp120809w01	WW		**1**	
5350810.d	08/13/12 18:06	pna-w 990ml/1ml df:2 sp120809w01	WW		**1**	
5349823.d	08/13/12 18:25	pna-w 900ml/1ml df:2 sp120809w01	WW			
5349815.d	08/13/12 18:44	pna-w 980ml/1ml df:20 sp120809w01	WW			
5349816.d	08/13/12 19:03	pna-w 990ml/2ml df:60 sp120809w01	WW			
5348801r.d	08/13/12 19:22	pna-s 30g/2ml df:8 sp120808s02	SO			

Matrix (Mtx) Summary

Water Samples:	19	Soil Samples:	1
Water Duplicates:	2	Soil Duplicates:	0
Water Spikes:	4	Soil Spikes:	0
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 1
3: Matrix Spike Outliers (Form 3b): 2
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120813.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spnn13a.d	2-Fluorobiphenyl	54.1/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	49.6/100.0	n/a	10.0/114.0	
	Terphenyl-D14	55.7/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blkw13a.d	2-Fluorobiphenyl	68.3/100.0	68.3	10.0/116.0	WW
	Nitrobenzene-D5	62.9/100.0	62.9	10.0/114.0	
	Terphenyl-D14	82.9/100.0	82.9	10.0/141.0	
				Total Outliers: 0	
lcsw13a.d	2-Fluorobiphenyl	73.0/100.0	73.0	10.0/116.0	WW
	Nitrobenzene-D5	71.8/100.0	71.8	10.0/114.0	
	Terphenyl-D14	95.9/100.0	95.9	10.0/141.0	
				Total Outliers: 0	
lcsdw13a.d	2-Fluorobiphenyl	65.5/100.0	65.5	10.0/116.0	WW
	Nitrobenzene-D5	62.1/100.0	62.1	10.0/114.0	
	Terphenyl-D14	79.4/100.0	79.4	10.0/141.0	
				Total Outliers: 0	
5348404.d	2-Fluorobiphenyl	52.9/100.0	52.9	10.0/116.0	WW
	Nitrobenzene-D5	42.2/100.0	42.2	10.0/114.0	
	Terphenyl-D14	56.5/100.0	56.5	10.0/141.0	
				Total Outliers: 0	
5348405.d	2-Fluorobiphenyl	19.9/100.0	19.9	10.0/116.0	WW
	Nitrobenzene-D5	16.9/100.0	16.9	10.0/114.0	
	Terphenyl-D14	24.4/100.0	24.4	10.0/141.0	
				Total Outliers: 0	
5349817.d	2-Fluorobiphenyl	59.0/100.0	59.0	10.0/116.0	WW
	Nitrobenzene-D5	51.1/100.0	51.1	10.0/114.0	
	Terphenyl-D14	50.7/100.0	50.7	10.0/141.0	
				Total Outliers: 0	
5349818.d	2-Fluorobiphenyl	92.4/100.0	92.4	10.0/116.0	WW
	Nitrobenzene-D5	78.9/100.0	78.9	10.0/114.0	
	Terphenyl-D14	107.9/100.0	107.9	10.0/141.0	
				Total Outliers: 0	
5349819.d	2-Fluorobiphenyl	88.9/100.0	88.9	10.0/116.0	WW
	Nitrobenzene-D5	72.1/100.0	72.1	10.0/114.0	
	Terphenyl-D14	104.3/100.0	104.3	10.0/141.0	
				Total Outliers: 0	
5349820.d	2-Fluorobiphenyl	87.6/100.0	87.6	10.0/116.0	WW
	Nitrobenzene-D5	72.1/100.0	72.1	10.0/114.0	
	Terphenyl-D14	102.7/100.0	102.7	10.0/141.0	
				Total Outliers: 0	
5349821.d	2-Fluorobiphenyl	91.9/100.0	91.9	10.0/116.0	WW
	Nitrobenzene-D5	75.5/100.0	75.5	10.0/114.0	
	Terphenyl-D14	105.8/100.0	105.8	10.0/141.0	
				Total Outliers: 0	
5349822.d	2-Fluorobiphenyl	90.8/100.0	90.8	10.0/116.0	WW
	Nitrobenzene-D5	74.2/100.0	74.2	10.0/114.0	
	Terphenyl-D14	82.9/100.0	82.9	10.0/141.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120813.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
5350801.d	2-Fluorobiphenyl	92.6/100.0	92.6	10.0/116.0	WW
	Nitrobenzene-D5	77.1/100.0	77.1	10.0/114.0	
	Terphenyl-D14	106.3/100.0	106.3	10.0/141.0	
				Total Outliers: 0	
5350803.d	2-Fluorobiphenyl	7.0/100.0	7.0 *	10.0/116.0	WW
	Nitrobenzene-D5	8.3/100.0	8.3 *	10.0/114.0	
	Terphenyl-D14	10.3/100.0	10.3	10.0/141.0	
				Total Outliers: 2	
5350804m.d	2-Fluorobiphenyl	15.4/100.0	15.4	10.0/116.0	WW
	Nitrobenzene-D5	14.9/100.0	14.9	10.0/114.0	
	Terphenyl-D14	19.6/100.0	19.6	10.0/141.0	
				Total Outliers: 0	
5350805n.d	2-Fluorobiphenyl	22.9/100.0	22.9	10.0/116.0	WW
	Nitrobenzene-D5	21.7/100.0	21.7	10.0/114.0	
	Terphenyl-D14	24.0/100.0	24.0	10.0/141.0	
				Total Outliers: 0	
5350806.d	2-Fluorobiphenyl	100.7/100.0	100.7	10.0/116.0	WW
	Nitrobenzene-D5	84.0/100.0	84.0	10.0/114.0	
	Terphenyl-D14	116.5/100.0	116.5	10.0/141.0	
				Total Outliers: 0	
5350808.d	2-Fluorobiphenyl	80.0/100.0	80.0	10.0/116.0	WW
	Nitrobenzene-D5	63.7/100.0	63.7	10.0/114.0	
	Terphenyl-D14	97.4/100.0	97.4	10.0/141.0	
				Total Outliers: 0	
5350809.d	2-Fluorobiphenyl	94.7/100.0	94.7	10.0/116.0	WW
	Nitrobenzene-D5	78.9/100.0	78.9	10.0/114.0	
	Terphenyl-D14	110.0/100.0	110.0	10.0/141.0	
				Total Outliers: 0	
5350810.d	2-Fluorobiphenyl	91.8/100.0	91.8	10.0/116.0	WW
	Nitrobenzene-D5	73.8/100.0	73.8	10.0/114.0	
	Terphenyl-D14	107.4/100.0	107.4	10.0/141.0	
				Total Outliers: 0	
5349823.d	2-Fluorobiphenyl	67.3/100.0	67.3	10.0/116.0	WW
	Nitrobenzene-D5	54.1/100.0	54.1	10.0/114.0	
	Terphenyl-D14	66.2/100.0	66.2	10.0/141.0	
				Total Outliers: 0	
5349815.d	2-Fluorobiphenyl	94.4/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	98.7/100.0	n/a	10.0/114.0	
	Terphenyl-D14	103.5/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
5349816.d	2-Fluorobiphenyl	124.6/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	32.0/100.0	n/a	10.0/114.0	
	Terphenyl-D14	133.4/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
5348801r.d	2-Fluorobiphenyl	96.9/100.0	96.9	10.0/115.0	SO
	Nitrobenzene-D5	71.5/100.0	71.5	18.5/120.0	
	Terphenyl-D14	111.0/100.0	111.0	10.3/137.0	
				Total Outliers: 0	

NOTES
*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsdw13a.d			
Dup ID : LCSD1			
Prep Batch: sp120809w01			
Prep Date : / /			
Parent File: lcsw13a.d			
naphthalene	31.53/ 35.83	12.8/25.0	WW
2-methylnaphthalene	32.81/ 37.15	12.4/25.0	
1-methylnaphthalene	30.84/ 35.43	13.9/25.0	
acenaphthylene	37.62/ 43.23	13.9/25.0	
acenaphthene **	34.74/ 40.45	15.2/25.0	
fluorene	39.38/ 44.78	12.8/25.0	
phenanthrene	35.09/ 41.69	17.2/25.0	
anthracene	38.03/ 43.81	14.1/25.0	
fluoranthene	39.41/ 49.48	22.7/25.0	
pyrene **	39.43/ 48.91	21.5/25.0	
benzo(a)anthracene	41.09/ 47.30	14.1/25.0	
chrysene	39.81/ 45.07	12.4/25.0	
benzo(b)fluoranthene	43.24/ 47.88	10.2/25.0	
benzo(k)fluoranthene	38.11/ 46.04	18.8/25.0	
benzo(a)pyrene	41.52/ 48.23	15.0/25.0	
indeno(1,2,3-cd)pyrene	40.44/ 47.42	15.9/25.0	
dibenzo(ah)anthracene	40.68/ 47.45	15.4/25.0	
benzo(ghi)perylene	40.07/ 46.89	15.7/25.0	
[end of compound list]			
		Total Outliers: 0	
Dup File : 5350805n.d			
Dup ID : S53508.05			
Prep Batch: sp120809w01			
Prep Date : 08/09/12			
Parent File: 5350804m.d			
naphthalene	10.61/ 6.79	43.9/25.0*	WW
2-methylnaphthalene	10.90/ 7.12	42.0/25.0*	
1-methylnaphthalene	10.08/ 6.56	42.3/25.0*	
acenaphthylene	12.03/ 7.80	42.7/25.0*	
acenaphthene **	10.48/ 6.81	42.5/25.0*	
fluorene	12.42/ 8.07	42.5/25.0*	
phenanthrene	10.11/ 6.78	39.4/25.0*	
anthracene	12.22/ 8.06	41.0/25.0*	
fluoranthene	12.23/ 8.35	37.7/25.0*	
pyrene **	12.24/ 8.03	41.5/25.0*	
benzo(a)anthracene	12.47/ 8.37	39.3/25.0*	
chrysene	12.32/ 8.29	39.1/25.0*	
benzo(b)fluoranthene	13.18/ 8.68	41.2/25.0*	
benzo(k)fluoranthene	10.99/ 7.42	38.8/25.0*	
benzo(a)pyrene	11.94/ 7.88	41.0/25.0*	
indeno(1,2,3-cd)pyrene	10.89/ 7.18	41.1/25.0*	
dibenzo(ah)anthracene	11.19/ 7.36	41.3/25.0*	
benzo(ghi)perylene	10.62/ 7.02	40.8/25.0*	
[end of compound list]			
		Total Outliers: 18	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcsw13a.d						
Spike ID : LCS1						
Prep Batch: sp120809w01						
Prep Date : 08/09/12						
Parent File: blkw13a.d						
1-Methylnaphthalene	35.43/	0.00	50.00	70.9	10.0/120.0	WW
2-Methylnaphthalene	37.15/	0.00	50.00	74.3	35.6/120.0	
Acenaphthene	40.45/	0.00	50.00	80.9	23.4/114.1	
Acenaphthylene	43.23/	0.00	50.00	86.5	35.4/127.7	
Anthracene	43.81/	0.00	50.00	87.6	32.3/142.4	
Benzo(a)anthracene	47.30/	0.00	50.00	94.6	36.7/134.7	
Benzo(a)pyrene	48.23/	0.00	50.00	96.5	14.4/142.5	
Benzo(b)fluoranthene	47.88/	0.00	50.00	95.8	29.0/152.7	
Benzo(ghi)perylene	46.89/	0.00	50.00	93.8	45.2/130.7	
Benzo(k)fluoranthene	46.04/	0.00	50.00	92.1	29.8/136.0	
Chrysene	45.07/	0.00	50.00	90.1	38.7/137.1	
Dibenzo(ah)anthracene	47.45/	0.00	50.00	94.9	45.3/130.8	
Fluorene	44.78/	0.00	50.00	89.6	37.8/127.8	
Fluoranthene	49.48/	0.00	50.00	99.0	29.3/135.3	
Indeno(1,2,3-cd)pyrene	47.42/	0.00	50.00	94.8	39.2/137.4	
Naphthalene	35.83/	0.00	50.00	71.7	22.1/110.0	
Phenanthrene	41.69/	0.00	50.00	83.4	36.4/143.0	
Pyrene	48.91/	0.00	50.00	97.8	32.1/126.8	
					Total Outliers:	**0**
Spike File : lcsdw13a.d						
Spike ID : LCSD1						
Prep Batch: sp120809w01						
Prep Date : / /						
Parent File: blkw13a.d						
1-Methylnaphthalene	30.84/	0.00	50.00	61.7	10.0/120.0	WW
2-Methylnaphthalene	32.81/	0.00	50.00	65.6	35.6/120.0	
Acenaphthene	34.74/	0.00	50.00	69.5	23.4/114.1	
Acenaphthylene	37.62/	0.00	50.00	75.2	35.4/127.7	
Anthracene	38.03/	0.00	50.00	76.1	32.3/142.4	
Benzo(a)anthracene	41.09/	0.00	50.00	82.2	36.7/134.7	
Benzo(a)pyrene	41.52/	0.00	50.00	83.0	14.4/142.5	
Benzo(b)fluoranthene	43.24/	0.00	50.00	86.5	29.0/152.7	
Benzo(ghi)perylene	40.07/	0.00	50.00	80.1	45.2/130.7	
Benzo(k)fluoranthene	38.11/	0.00	50.00	76.2	29.8/136.0	
Chrysene	39.81/	0.00	50.00	79.6	38.7/137.1	
Dibenzo(ah)anthracene	40.68/	0.00	50.00	81.4	45.3/130.8	
Fluorene	39.38/	0.00	50.00	78.8	37.8/127.8	
Fluoranthene	39.41/	0.00	50.00	78.8	29.3/135.3	
Indeno(1,2,3-cd)pyrene	40.44/	0.00	50.00	80.9	39.2/137.4	
Naphthalene	31.53/	0.00	50.00	63.1	22.1/110.0	
Phenanthrene	35.09/	0.00	50.00	70.2	36.4/143.0	
Pyrene	39.43/	0.00	50.00	78.9	32.1/126.8	
					Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : 5350804m.d						
Spike ID : S53508.04						
Prep Batch: sp120809w01						
Prep Date : 08/09/12						
Parent File: 5350803.d						
1-Methylnaphthalene	6.56/	0.00	50.00	13.1	10.0/120.0	WW
2-Methylnaphthalene	7.12/	0.00	50.00	14.2*	35.6/120.0	
Acenaphthene	6.81/	0.00	50.00	13.6*	23.4/114.1	
Acenaphthylene	7.80/	0.00	50.00	15.6*	35.4/127.7	
Anthracene	8.06/	0.00	50.00	16.1*	32.3/142.4	
Benzo(a)anthracene	8.37/	0.00	50.00	16.7*	36.7/134.7	
Benzo(a)pyrene	7.88/	0.00	50.00	15.8	14.4/142.5	
Benzo(b)fluoranthene	8.68/	0.00	50.00	17.4*	29.0/152.7	
Benzo(ghi)perylene	7.02/	0.00	50.00	14.0*	45.2/130.7	
Benzo(k)fluoranthene	7.42/	0.00	50.00	14.8*	29.8/136.0	
Chrysene	8.29/	0.00	50.00	16.6*	38.7/137.1	
Dibenzo(ah)anthracene	7.36/	0.00	50.00	14.7*	45.3/130.8	
Fluorene	8.07/	0.00	50.00	16.1*	37.8/127.8	
Fluoranthene	8.35/	0.00	50.00	16.7*	29.3/135.3	
Indeno(1,2,3-cd)pyrene	7.18/	0.00	50.00	14.4*	39.2/137.4	
Naphthalene	6.79/	0.00	50.00	13.6*	22.1/110.0	
Phenanthrene	6.78/	0.00	50.00	13.6*	36.4/143.0	
Pyrene	8.03/	0.00	50.00	16.1*	32.1/126.8	
					Total Outliers: 16	
Spike File : 5350805n.d						
Spike ID : S53508.05						
Prep Batch: sp120809w01						
Prep Date : 08/09/12						
Parent File: 5350803.d						
1-Methylnaphthalene	10.08/	0.00	50.00	20.2	10.0/120.0	WW
2-Methylnaphthalene	10.90/	0.00	50.00	21.8*	35.6/120.0	
Acenaphthene	10.48/	0.00	50.00	21.0*	23.4/114.1	
Acenaphthylene	12.03/	0.00	50.00	24.1*	35.4/127.7	
Anthracene	12.22/	0.00	50.00	24.4*	32.3/142.4	
Benzo(a)anthracene	12.47/	0.00	50.00	24.9*	36.7/134.7	
Benzo(a)pyrene	11.94/	0.00	50.00	23.9	14.4/142.5	
Benzo(b)fluoranthene	13.18/	0.00	50.00	26.4*	29.0/152.7	
Benzo(ghi)perylene	10.62/	0.00	50.00	21.2*	45.2/130.7	
Benzo(k)fluoranthene	10.99/	0.00	50.00	22.0*	29.8/136.0	
Chrysene	12.32/	0.00	50.00	24.6*	38.7/137.1	
Dibenzo(ah)anthracene	11.19/	0.00	50.00	22.4*	45.3/130.8	
Fluorene	12.42/	0.00	50.00	24.8*	37.8/127.8	
Fluoranthene	12.23/	0.00	50.00	24.5*	29.3/135.3	
Indeno(1,2,3-cd)pyrene	10.89/	0.00	50.00	21.8*	39.2/137.4	
Naphthalene	10.61/	0.00	50.00	21.2*	22.1/110.0	
Phenanthrene	10.11/	0.00	50.00	20.2*	36.4/143.0	
Pyrene	12.24/	0.00	50.00	24.5*	32.1/126.8	
					Total Outliers: 16	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120813.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blkw13a.d (pna-w 1000ml/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120809w01
Prep Date : 08/09/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/l]	MDL [mg/l]	RL [mg/l]
Benzo(b)fluoranthene	Not detected		0.1	0.5
Chrysene	Not detected		0.1	0.5
Benzo(k)fluoranthene	Not detected		0.1	0.5
Indeno(1,2,3-cd)pyrene	Not detected		0.2	0.5
Benzo(a)pyrene	Not detected		0.1	0.5
Benzo(ghi)perylene	Not detected		0.4	0.5
Dibenzo(ah)anthracene	Not detected		0.5	0.5
Benzo(a)anthracene	Not detected		0.1	0.5
Fluoranthene	Not detected		0.1	0.5
Pyrene **	Not detected		0.1	0.5
1-Methylnaphthalene	Not detected		0.1	0.5
2-Methylnaphthalene	Not detected		0.2	0.5
Acenaphthylene	Not detected		0.1	0.5
Fluorene	Not detected		0.1	0.5
Acenaphthene **	Not detected		0.1	0.5
Anthracene	Not detected		0.1	0.5
Phenanthrene	Not detected		0.1	0.5
Naphthalene	Not detected		0.2	0.5

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120813.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blkw13a.d
Method Blank Prep Date: 08/09/12
Blank/LCS Preparation Batch: sp120809w01

LCS Data File: lcsw13a.d
LCS Prep Date: 08/09/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53484.04	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53484.05	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53498.15	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53498.16	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53498.17	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53498.18	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53498.19	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53498.20	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53498.21	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53498.22	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53498.23	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53508.01	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53508.03	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53508.04	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
S53508.05	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
S53508.06	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53508.08	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53508.09	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW
S53508.10	H120813	SP120809W01	08/13/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120809W01		08/09/12	Semi Volatile Extraction	PNAEXTW

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d13a.d	08/13/12 11:41	51	198	30.0	80.0	31.7	58944	PASS
		68	69	0.0	2.0	1.6	938	PASS
		69	198	0.0	100.0	32.5	60304	PASS
		70	69	0.0	2.0	0.7	406	PASS
		127	198	25.0	75.0	41.9	77904	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	185792	PASS
		199	198	5.0	9.0	6.8	12721	PASS
		275	198	10.0	30.0	28.0	51992	PASS
		365	198	1.0	100.0	3.3	6140	PASS
		441	443	0.0	100.0	76.2	21168	PASS
		442	198	40.0	110.0	76.4	141888	PASS
		443	442	15.0	24.0	19.6	27792	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn13a.d	08/13/12 12:00	1,4-Dichlorobenzene-D4	144520/ 4.60	72260- 289040	4.10- 5.10
		Naphthalene-D8	485936/ 5.55	242968- 971872	5.05- 6.05
		Acenaphthalene-D10	277501/ 6.90	138751- 555002	6.40- 7.40
		Phenanthrene-D10	528783/ 8.15	264392- 1057566	7.65- 8.65
		Chrysene-D12	631417/10.86	315709- 1262834	10.36-11.36
		Perylene-D12	675412/12.51	337706- 1350824	12.01-13.01
					Total Outliers: N/A
blkw13a.d	08/13/12 12:21	1,4-Dichlorobenzene-D4	151580/ 4.60	Ratio: 1.049	Diff.: 0.00
		Naphthalene-D8	540299/ 5.55	Ratio: 1.112	Diff.: 0.00
		Acenaphthalene-D10	296033/ 6.89	Ratio: 1.067	Diff.: -0.01
		Phenanthrene-D10	578955/ 8.15	Ratio: 1.095	Diff.: 0.00
		Chrysene-D12	673384/10.86	Ratio: 1.066	Diff.: 0.00
		Perylene-D12	661432/12.51	Ratio: 0.979	Diff.: 0.00
					Total Outliers: 0
lcsw13a.d	08/13/12 12:40	1,4-Dichlorobenzene-D4	155064/ 4.59	Ratio: 1.073	Diff.: -0.01
		Naphthalene-D8	545469/ 5.55	Ratio: 1.123	Diff.: 0.00
		Acenaphthalene-D10	305613/ 6.89	Ratio: 1.101	Diff.: -0.01
		Phenanthrene-D10	605843/ 8.15	Ratio: 1.146	Diff.: 0.00
		Chrysene-D12	705827/10.86	Ratio: 1.118	Diff.: 0.00
		Perylene-D12	711996/12.51	Ratio: 1.054	Diff.: 0.00
					Total Outliers: 0
lcsdw13a.d	08/13/12 13:00	1,4-Dichlorobenzene-D4	153516/ 4.59	Ratio: 1.062	Diff.: -0.01
		Naphthalene-D8	544882/ 5.55	Ratio: 1.121	Diff.: 0.00
		Acenaphthalene-D10	303651/ 6.89	Ratio: 1.094	Diff.: -0.01
		Phenanthrene-D10	603268/ 8.15	Ratio: 1.141	Diff.: 0.00
		Chrysene-D12	698337/10.86	Ratio: 1.106	Diff.: 0.00
		Perylene-D12	707484/12.51	Ratio: 1.047	Diff.: 0.00
					Total Outliers: 0
5348404.d	08/13/12 13:19	1,4-Dichlorobenzene-D4	135355/ 4.60	Ratio: 0.937	Diff.: 0.00
		Naphthalene-D8	486839/ 5.55	Ratio: 1.002	Diff.: 0.00
		Acenaphthalene-D10	268977/ 6.89	Ratio: 0.969	Diff.: -0.01
		Phenanthrene-D10	523196/ 8.15	Ratio: 0.989	Diff.: 0.00
		Chrysene-D12	605540/10.85	Ratio: 0.959	Diff.: -0.01
		Perylene-D12	591092/12.50	Ratio: 0.875	Diff.: -0.01
					Total Outliers: 0
5348405.d	08/13/12 13:38	1,4-Dichlorobenzene-D4	125431/ 4.60	Ratio: 0.868	Diff.: 0.00
		Naphthalene-D8	453878/ 5.55	Ratio: 0.934	Diff.: 0.00
		Acenaphthalene-D10	251158/ 6.89	Ratio: 0.905	Diff.: -0.01
		Phenanthrene-D10	482415/ 8.15	Ratio: 0.912	Diff.: 0.00
		Chrysene-D12	601548/10.85	Ratio: 0.953	Diff.: -0.01
		Perylene-D12	541898/12.50	Ratio: 0.802	Diff.: -0.01
					Total Outliers: 0
5349817.d	08/13/12 13:57	1,4-Dichlorobenzene-D4	119165/ 4.60	Ratio: 0.825	Diff.: 0.00
		Naphthalene-D8	431547/ 5.55	Ratio: 0.888	Diff.: 0.00
		Acenaphthalene-D10	240683/ 6.89	Ratio: 0.867	Diff.: -0.01
		Phenanthrene-D10	464095/ 8.15	Ratio: 0.878	Diff.: 0.00
		Chrysene-D12	533740/10.85	Ratio: 0.845	Diff.: -0.01
		Perylene-D12	518840/12.50	Ratio: 0.768	Diff.: -0.01
					Total Outliers: 0
5349818.d	08/13/12 14:16	1,4-Dichlorobenzene-D4	136196/ 4.60	Ratio: 0.942	Diff.: 0.00
		Naphthalene-D8	486453/ 5.55	Ratio: 1.001	Diff.: 0.00
		Acenaphthalene-D10	269350/ 6.89	Ratio: 0.971	Diff.: -0.01
		Phenanthrene-D10	520538/ 8.15	Ratio: 0.984	Diff.: 0.00
		Chrysene-D12	604392/10.85	Ratio: 0.957	Diff.: -0.01
		Perylene-D12	604801/12.50	Ratio: 0.895	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5349819.d	08/13/12 14:35	1,4-Dichlorobenzene-D4	120629/ 4.59	Ratio: 0.835	Diff.: -0.01
		Naphthalene-D8	433198/ 5.55	Ratio: 0.891	Diff.: 0.00
		Acenaphthalene-D10	240083/ 6.89	Ratio: 0.865	Diff.: -0.01
		Phenanthrene-D10	466376/ 8.15	Ratio: 0.882	Diff.: 0.00
		Chrysene-D12	541465/10.86	Ratio: 0.858	Diff.: 0.00
		Perylene-D12	535775/12.50	Ratio: 0.793	Diff.: -0.01
					Total Outliers: 0
5349820.d	08/13/12 14:54	1,4-Dichlorobenzene-D4	120195/ 4.60	Ratio: 0.832	Diff.: 0.00
		Naphthalene-D8	433717/ 5.55	Ratio: 0.893	Diff.: 0.00
		Acenaphthalene-D10	241407/ 6.89	Ratio: 0.870	Diff.: -0.01
		Phenanthrene-D10	472152/ 8.15	Ratio: 0.893	Diff.: 0.00
		Chrysene-D12	542048/10.85	Ratio: 0.858	Diff.: -0.01
		Perylene-D12	531949/12.50	Ratio: 0.788	Diff.: -0.01
					Total Outliers: 0
5349821.d	08/13/12 15:14	1,4-Dichlorobenzene-D4	115977/ 4.60	Ratio: 0.802	Diff.: 0.00
		Naphthalene-D8	425631/ 5.55	Ratio: 0.876	Diff.: 0.00
		Acenaphthalene-D10	232885/ 6.89	Ratio: 0.839	Diff.: -0.01
		Phenanthrene-D10	447777/ 8.15	Ratio: 0.847	Diff.: 0.00
		Chrysene-D12	526164/10.86	Ratio: 0.833	Diff.: 0.00
		Perylene-D12	513351/12.51	Ratio: 0.760	Diff.: 0.00
					Total Outliers: 0
5349822.d	08/13/12 15:33	1,4-Dichlorobenzene-D4	118970/ 4.60	Ratio: 0.823	Diff.: 0.00
		Naphthalene-D8	433237/ 5.55	Ratio: 0.892	Diff.: 0.00
		Acenaphthalene-D10	239729/ 6.89	Ratio: 0.864	Diff.: -0.01
		Phenanthrene-D10	465914/ 8.15	Ratio: 0.881	Diff.: 0.00
		Chrysene-D12	545100/10.85	Ratio: 0.863	Diff.: -0.01
		Perylene-D12	525402/12.50	Ratio: 0.778	Diff.: -0.01
					Total Outliers: 0
5350801.d	08/13/12 15:52	1,4-Dichlorobenzene-D4	115132/ 4.59	Ratio: 0.797	Diff.: -0.01
		Naphthalene-D8	418738/ 5.55	Ratio: 0.862	Diff.: 0.00
		Acenaphthalene-D10	233206/ 6.89	Ratio: 0.840	Diff.: -0.01
		Phenanthrene-D10	457452/ 8.15	Ratio: 0.865	Diff.: 0.00
		Chrysene-D12	525842/10.85	Ratio: 0.833	Diff.: -0.01
		Perylene-D12	508804/12.50	Ratio: 0.753	Diff.: -0.01
					Total Outliers: 0
5350803.d	08/13/12 16:11	1,4-Dichlorobenzene-D4	118875/ 4.60	Ratio: 0.823	Diff.: 0.00
		Naphthalene-D8	433633/ 5.55	Ratio: 0.892	Diff.: 0.00
		Acenaphthalene-D10	238522/ 6.89	Ratio: 0.860	Diff.: -0.01
		Phenanthrene-D10	463602/ 8.15	Ratio: 0.877	Diff.: 0.00
		Chrysene-D12	536614/10.85	Ratio: 0.850	Diff.: -0.01
		Perylene-D12	531466/12.50	Ratio: 0.787	Diff.: -0.01
					Total Outliers: 0
5350804m.d	08/13/12 16:30	1,4-Dichlorobenzene-D4	138226/ 4.59	Ratio: 0.956	Diff.: -0.01
		Naphthalene-D8	489852/ 5.55	Ratio: 1.008	Diff.: 0.00
		Acenaphthalene-D10	270475/ 6.89	Ratio: 0.975	Diff.: -0.01
		Phenanthrene-D10	526362/ 8.15	Ratio: 0.995	Diff.: 0.00
		Chrysene-D12	620091/10.86	Ratio: 0.982	Diff.: 0.00
		Perylene-D12	612522/12.50	Ratio: 0.907	Diff.: -0.01
					Total Outliers: 0
5350805n.d	08/13/12 16:49	1,4-Dichlorobenzene-D4	118556/ 4.60	Ratio: 0.820	Diff.: 0.00
		Naphthalene-D8	432060/ 5.55	Ratio: 0.889	Diff.: 0.00
		Acenaphthalene-D10	234487/ 6.89	Ratio: 0.845	Diff.: -0.01
		Phenanthrene-D10	463262/ 8.15	Ratio: 0.876	Diff.: 0.00
		Chrysene-D12	538910/10.85	Ratio: 0.853	Diff.: -0.01
		Perylene-D12	530418/12.50	Ratio: 0.785	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5350806.d	08/13/12 17:08	1,4-Dichlorobenzene-D4	124841/ 4.60	Ratio: 0.864	Diff.: 0.00
		Naphthalene-D8	453233/ 5.55	Ratio: 0.933	Diff.: 0.00
		Acenaphthalene-D10	247679/ 6.89	Ratio: 0.893	Diff.: -0.01
		Phenanthrene-D10	481064/ 8.15	Ratio: 0.910	Diff.: 0.00
		Chrysene-D12	564375/10.85	Ratio: 0.894	Diff.: -0.01
		Perylene-D12	547045/12.50	Ratio: 0.810	Diff.: -0.01
					Total Outliers: 0
5350808.d	08/13/12 17:27	1,4-Dichlorobenzene-D4	116658/ 4.60	Ratio: 0.807	Diff.: 0.00
		Naphthalene-D8	426164/ 5.55	Ratio: 0.877	Diff.: 0.00
		Acenaphthalene-D10	237129/ 6.89	Ratio: 0.855	Diff.: -0.01
		Phenanthrene-D10	461744/ 8.15	Ratio: 0.873	Diff.: 0.00
		Chrysene-D12	535516/10.85	Ratio: 0.848	Diff.: -0.01
		Perylene-D12	516013/12.50	Ratio: 0.764	Diff.: -0.01
					Total Outliers: 0
5350809.d	08/13/12 17:47	1,4-Dichlorobenzene-D4	122375/ 4.60	Ratio: 0.847	Diff.: 0.00
		Naphthalene-D8	442654/ 5.55	Ratio: 0.911	Diff.: 0.00
		Acenaphthalene-D10	243471/ 6.89	Ratio: 0.877	Diff.: -0.01
		Phenanthrene-D10	470967/ 8.15	Ratio: 0.891	Diff.: 0.00
		Chrysene-D12	553082/10.85	Ratio: 0.876	Diff.: -0.01
		Perylene-D12	535764/12.50	Ratio: 0.793	Diff.: -0.01
					Total Outliers: 0
5350810.d	08/13/12 18:06	1,4-Dichlorobenzene-D4	118757/ 4.60	Ratio: 0.822	Diff.: 0.00
		Naphthalene-D8	430487/ 5.55	Ratio: 0.886	Diff.: 0.00
		Acenaphthalene-D10	234211/ 6.89	Ratio: 0.844	Diff.: -0.01
		Phenanthrene-D10	459073/ 8.15	Ratio: 0.868	Diff.: 0.00
		Chrysene-D12	537682/10.85	Ratio: 0.852	Diff.: -0.01
		Perylene-D12	518354/12.50	Ratio: 0.767	Diff.: -0.01
					Total Outliers: 0
5349823.d	08/13/12 18:25	1,4-Dichlorobenzene-D4	119987/ 4.59	Ratio: 0.830	Diff.: -0.01
		Naphthalene-D8	434312/ 5.55	Ratio: 0.894	Diff.: 0.00
		Acenaphthalene-D10	239243/ 6.89	Ratio: 0.862	Diff.: -0.01
		Phenanthrene-D10	466114/ 8.15	Ratio: 0.881	Diff.: 0.00
		Chrysene-D12	544942/10.85	Ratio: 0.863	Diff.: -0.01
		Perylene-D12	517485/12.50	Ratio: 0.766	Diff.: -0.01
					Total Outliers: 0
5349815.d	08/13/12 18:44	1,4-Dichlorobenzene-D4	137491/ 4.60	Ratio: 0.951	Diff.: 0.00
		Naphthalene-D8	490140/ 5.55	Ratio: 1.009	Diff.: 0.00
		Acenaphthalene-D10	268455/ 6.89	Ratio: 0.967	Diff.: -0.01
		Phenanthrene-D10	525745/ 8.15	Ratio: 0.994	Diff.: 0.00
		Chrysene-D12	619230/10.86	Ratio: 0.981	Diff.: 0.00
		Perylene-D12	583846/12.51	Ratio: 0.864	Diff.: 0.00
					Total Outliers: 0
5349816.d	08/13/12 19:03	1,4-Dichlorobenzene-D4	128236/ 4.60	Ratio: 0.887	Diff.: 0.00
		Naphthalene-D8	464299/ 5.55	Ratio: 0.955	Diff.: 0.00
		Acenaphthalene-D10	259304/ 6.89	Ratio: 0.934	Diff.: -0.01
		Phenanthrene-D10	504058/ 8.15	Ratio: 0.953	Diff.: 0.00
		Chrysene-D12	587054/10.86	Ratio: 0.930	Diff.: 0.00
		Perylene-D12	542057/12.51	Ratio: 0.803	Diff.: 0.00
					Total Outliers: 0
5348801r.d	08/13/12 19:22	1,4-Dichlorobenzene-D4	142787/ 4.59	Ratio: 0.988	Diff.: -0.01
		Naphthalene-D8	508315/ 5.55	Ratio: 1.046	Diff.: 0.00
		Acenaphthalene-D10	282698/ 6.89	Ratio: 1.019	Diff.: -0.01
		Phenanthrene-D10	544856/ 8.15	Ratio: 1.030	Diff.: 0.00
		Chrysene-D12	597782/10.85	Ratio: 0.947	Diff.: -0.01
		Perylene-D12	396681/12.50	Ratio: 0.587	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*

KEY:

```
[Area/RT]:    Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]:   +/- 0.5 minutes of relative internal standard RT
[Ratio]:      Ratio of internal standard areas
[Diff]:       Difference in internal standard retention times (minutes)
```

CONTROL LIMITS:

```
Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT
```

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120813.2

LIMS ID: S53508.01
Data File: 5350801.d
Date Received: 08/09/12

Tag: MW 129 (08-08-2012) (1250)
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120809w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/13/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/09/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/13/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (93%)				08/13/12	
4165-60-0	Nitrobenzene-D5	Pass (77%)					
98904-43-9	Terphenyl-D14	Pass (106%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120813.2

LIMS ID: S53508.03
Data File: 5350803.d
Date Received: 08/09/12

Tag: MW 105 (08-08-2012) (1445)
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120809w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/13/12	S
208-96-8	Acenaphthylene	Not detected	5		ug/l		S
120-12-7	Anthracene	Not detected	5		ug/l		S
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		S
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		S
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		S
86-73-7	Fluorene	Not detected	5		ug/l		S
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		S
85-01-8	Phenanthrene	Not detected	2		ug/l		S
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		S
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		S
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/09/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/13/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Fail (7%)				08/13/12	
4165-60-0	Nitrobenzene-D5	Fail (8%)					
98904-43-9	Terphenyl-D14	Pass (10%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120813.2

LIMS ID: S53508.04
Data File: 5350804m.d
Date Received: 08/09/12

Tag: MW 105 (08-08-2012) (1445) MS
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120809w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	7	5		ug/l	08/13/12	*
208-96-8	Acenaphthylene	8	5		ug/l		*
120-12-7	Anthracene	8	5		ug/l		*
56-55-3	Benzo(a)anthracene	8	1		ug/l		*
50-32-8	Benzo(a)pyrene	8	1		ug/l		*
205-99-2	Benzo(b)fluoranthene	9	1		ug/l		*
207-08-9	Benzo(k)fluoranthene	7	1		ug/l		*
191-24-2	Benzo(ghi)perylene	7	1		ug/l		*
218-01-9	Chrysene	8	1		ug/l		*
53-70-3	Dibenzo(ah)anthracene	7	2		ug/l		*
206-44-0	Fluoranthene	8	1		ug/l		*
86-73-7	Fluorene	8	5		ug/l		*
193-39-5	Indeno(1,2,3-cd)pyrene	7	2		ug/l		*
91-20-3	Naphthalene	7	5		ug/l		*
85-01-8	Phenanthrene	7	2		ug/l		*
129-00-0	Pyrene	8	5		ug/l		*
91-57-6	2-Methylnaphthalene	7	5		ug/l		*
90-12-0	1-Methylnaphthalene	7	5		ug/l		*
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/09/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/13/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (15%)				08/13/12	
4165-60-0	Nitrobenzene-D5	Pass (15%)					
98904-43-9	Terphenyl-D14	Pass (20%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120813.2

LIMS ID: S53508.05
Data File: 5350805n.d
Date Received: 08/09/12

Tag: MW 105 (08-08-2012) (1445) MSD
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120809w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	11	5		ug/l	08/13/12	*
208-96-8	Acenaphthylene	12	5		ug/l		*
120-12-7	Anthracene	12	5		ug/l		*
56-55-3	Benzo(a)anthracene	13	1		ug/l		*
50-32-8	Benzo(a)pyrene	12	1		ug/l		*
205-99-2	Benzo(b)fluoranthene	13	1		ug/l		*
207-08-9	Benzo(k)fluoranthene	11	1		ug/l		*
191-24-2	Benzo(ghi)perylene	11	1		ug/l		*
218-01-9	Chrysene	12	1		ug/l		*
53-70-3	Dibenzo(ah)anthracene	11	2		ug/l		*
206-44-0	Fluoranthene	12	1		ug/l		*
86-73-7	Fluorene	13	5		ug/l		*
193-39-5	Indeno(1,2,3-cd)pyrene	11	2		ug/l		*
91-20-3	Naphthalene	11	5		ug/l		*
85-01-8	Phenanthrene	10	2		ug/l		*
129-00-0	Pyrene	12	5		ug/l		*
91-57-6	2-Methylnaphthalene	11	5		ug/l		*
90-12-0	1-Methylnaphthalene	10	5		ug/l		*
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/09/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/13/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (23%)				08/13/12	
4165-60-0	Nitrobenzene-D5	Pass (22%)					
98904-43-9	Terphenyl-D14	Pass (24%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120813.2

LIMS ID: S53508.06
Data File: 5350806.d
Date Received: 08/09/12

Tag: MW 101 (08-08-2012) (1615)
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120809w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/13/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/09/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/13/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (101%)				08/13/12	
4165-60-0	Nitrobenzene-D5	Pass (84%)					
98904-43-9	Terphenyl-D14	Pass (117%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120813.2

LIMS ID: S53508.08
Data File: 5350808.d
Date Received: 08/09/12

Tag: MW 165 (08-09-2012) (0825)
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120809w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/13/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/09/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/13/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (80%)				08/13/12	
4165-60-0	Nitrobenzene-D5	Pass (64%)					
98904-43-9	Terphenyl-D14	Pass (97%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120813.2

LIMS ID: S53508.09
Data File: 5350809.d
Date Received: 08/09/12

Tag: MW 139 (08-09-2012) (0915)
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120809w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/13/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/09/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/13/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (95%)				08/13/12	
4165-60-0	Nitrobenzene-D5	Pass (79%)					
98904-43-9	Terphenyl-D14	Pass (110%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120813.2

LIMS ID: S53508.10
Data File: 5350810.d
Date Received: 08/09/12

Tag: DUP-01 (08-09-12)
Notes: pna-w 990ml/1ml df:2 w/1; id:sp120809w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/13/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/09/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/13/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (92%)				08/13/12	
4165-60-0	Nitrobenzene-D5	Pass (74%)					
98904-43-9	Terphenyl-D14	Pass (107%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120813.2

Note/Qualifier Key

A:	TIC is a suspected aldol-condensation product
B:	Compound also found in associated method blank
C:	Analyte presence confirmed by GC/MS
D:	Identified in an analysis at a secondary dilution factor
E:	Concentration exceeds calibration range
J:	Estimated value less than reporting limit, but greater than MDL
N:	Presumptive evidence of TIC
P:	Pesticide/Aroclor 2-column RPD exceeds limit
U:	Analyte not detected above reporting limit
!:	Result is outside of stated limit criteria
F:	Analysis run outside of holding time
G:	Estimated result due to extraction run outside of holding time
H:	Sample submitted and run outside of holding time
I:	Matrix interference with internal standard
K:	Elevated reporting limit due to low total solids
L:	Elevated reporting limit due to low sample amount
M:	Result reported to MDL not RDL
O:	Analysis performed by outside laboratory. See attached report.
Q:	Reported result represents most abundant aroclor
R:	Preliminary result
S:	Surrogate recovery outside of control limits
T:	No correction for total solids
V:	Accurate value not available due to presence of multiple aroclors
W:	Surrogate result not applicable due to sample dilution
X:	Elevated reporting limit due to matrix interference
Y:	Elevated reporting limit due to high target concentration
Z:	Estimated result due to matrix interference
p:	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*:	Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350801.d Vial: 17
Acq On : 13 Aug 12 3:52 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:49 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

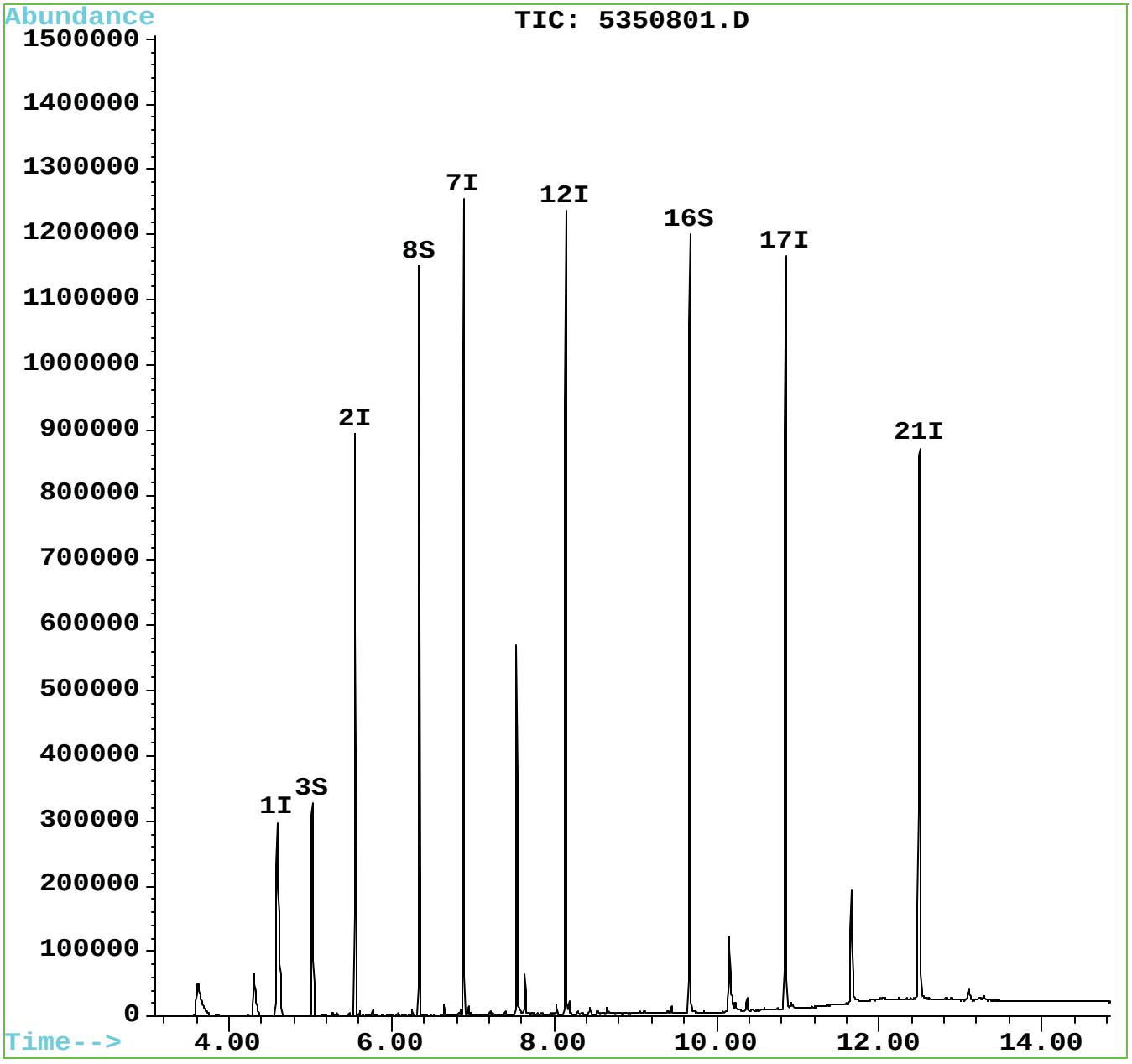
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	115132	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.55	136	418738	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	233206	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	457452	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	525842	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	508804	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	133644	38.55	ng/ul	38.5
8) 2-Fluorobiphenyl	6.34	172	325774	46.28	ng/ul	46.2
16) Terphenyl-D14	9.68	244	469603	53.13	ng/ul	53.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350801.d Vial: 17
Acq On : 13 Aug 12 3:52 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:49 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350803.d Vial: 18
Acq On : 13 Aug 12 4:11 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:34 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

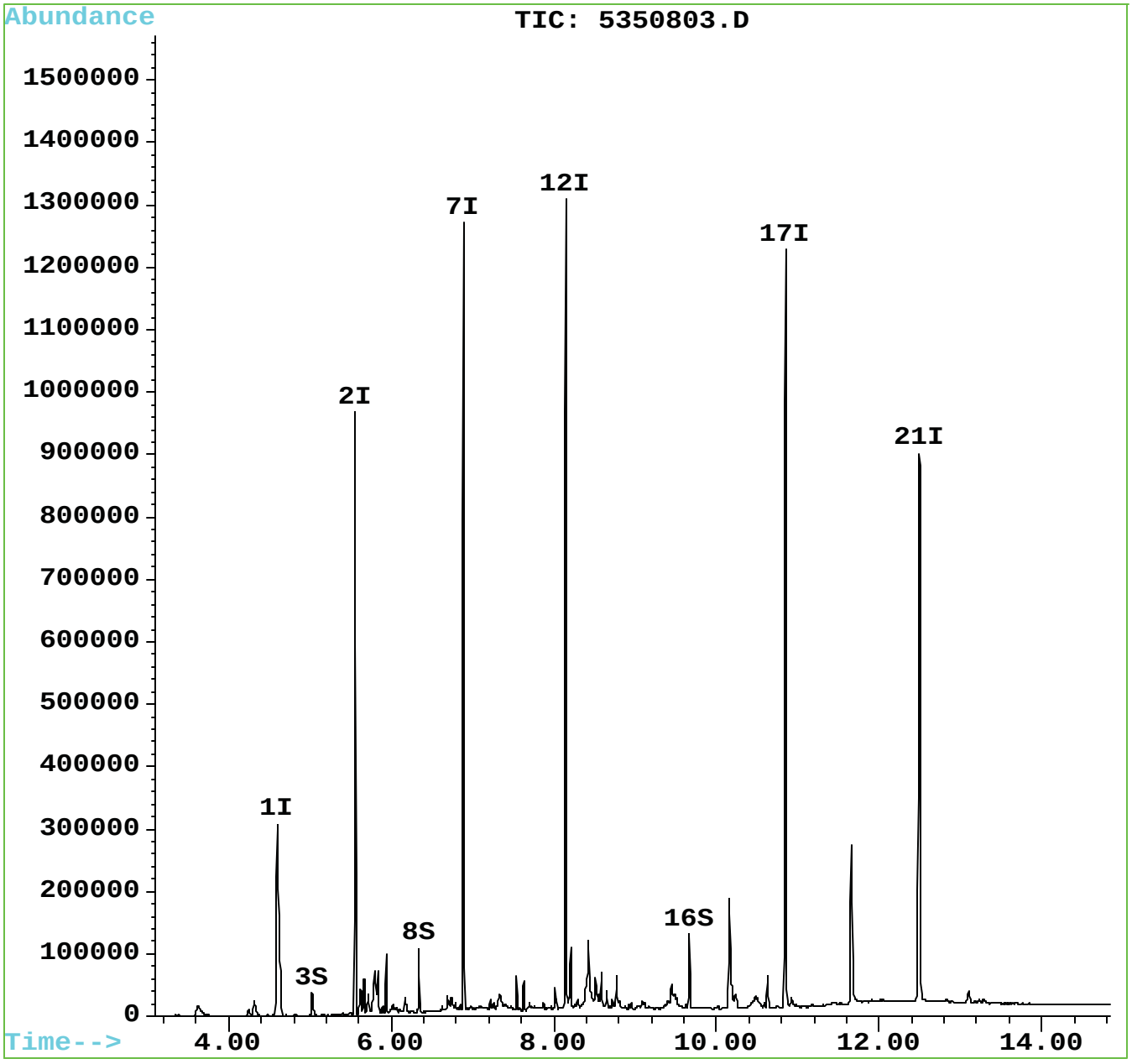
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	118875	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	433633	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	238522	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	463602	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	536614	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	531466	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.02	82	14960	4.17	ng/ul	4.1
8) 2-Fluorobiphenyl	6.34	172	25304	3.51	ng/ul	3.5
16) Terphenyl-D14	9.67	244	45896	5.12	ng/ul	5.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350803.d Vial: 18
Acq On : 13 Aug 12 4:11 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:34 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350804m.d Vial: 19
Acq On : 13 Aug 12 4:30 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:49 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

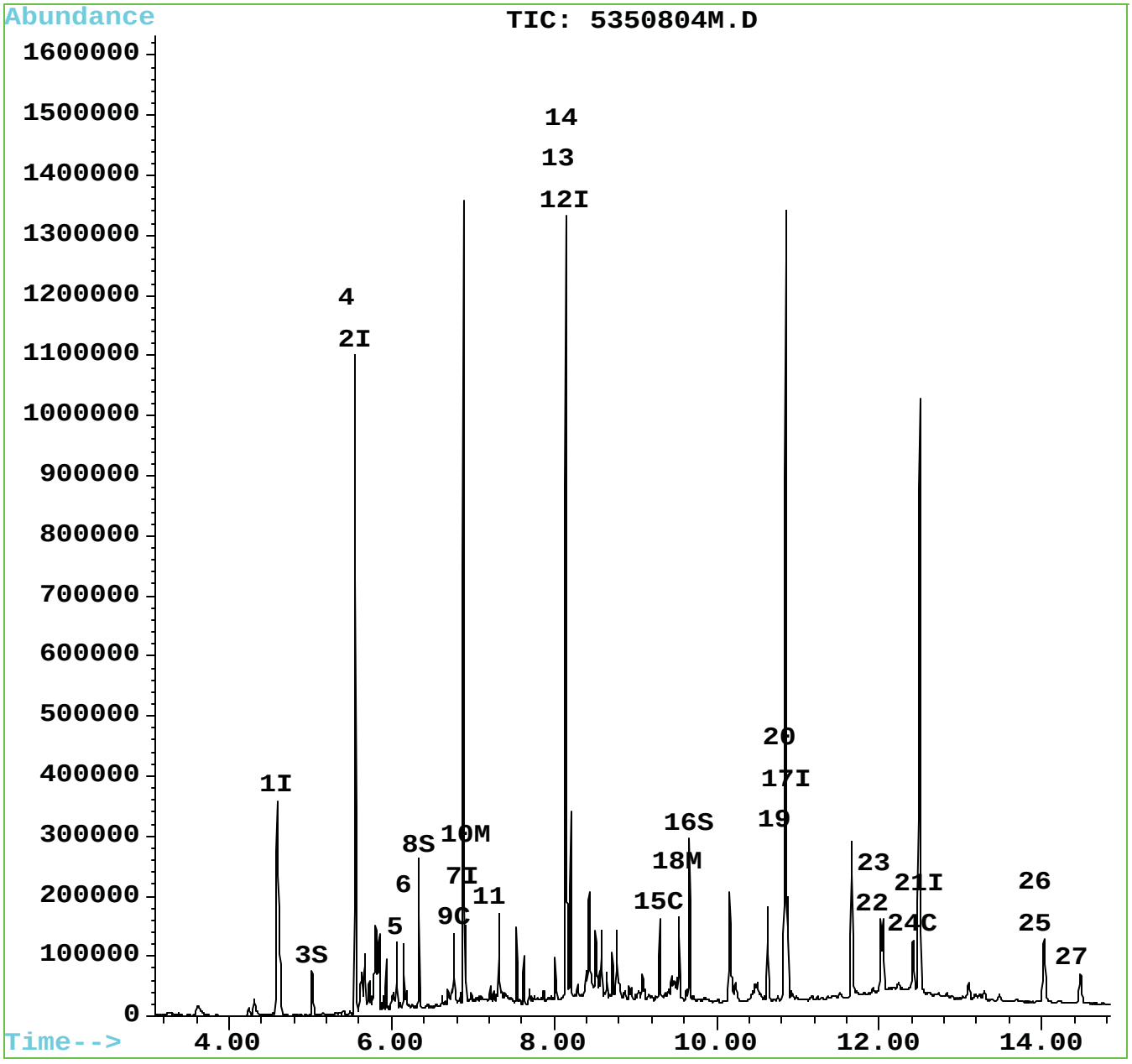
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	138226	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.55	136	489852	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	270475	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	526362	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.86	240	620091	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	612522	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.02	82	30176	7.44	ng/ul	7.4
8) 2-Fluorobiphenyl	6.34	172	62845	7.70	ng/ul	7.7
16) Terphenyl-D14	9.67	244	99883	9.82	ng/ul	9.8
Target Compounds						Qvalu
4) Naphthalene	5.57	128	38081	3.39	ng/ul	10
5) 2-Methylnaphthalene	6.07	141	22213	3.56	ng/ul	9
6) 1-Methylnaphthalene	6.15	142	23541	3.28	ng/ul	9
9) Acenaphthylene	6.77	152	43238	3.90	ng/ul	9
10) Acenaphthene **	6.92	154	26797	3.40	ng/ul	9
11) Fluorene	7.32	166	32471	4.03	ng/ul	9
13) Phenanthrene	8.17	178	49602	3.39	ng/ul#	8
14) Anthracene	8.21	178	50607	4.03	ng/ul#	4
15) Fluoranthene	9.30	202	58434	4.18	ng/ul	9
18) Pyrene **	9.54	202	58814	4.02	ng/ul	9
19) Benzo(a)anthracene	10.83	228	60183	4.18	ng/ul	9
20) Chrysene	10.88	228	57521	4.15	ng/ul	9
22) Benzo(b)fluoranthene	12.02	252	64119	4.34	ng/ulm	9
23) Benzo(k)fluoranthene	12.05	252	51333	3.71	ng/ul	9
24) Benzo(a)pyrene	12.42	252	50323	3.94	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.03	276	56689	3.59	ng/ul	9
26) Dibenzo(ah)anthracene	14.04	278	47590	3.68	ng/ul	9
27) Benzo(ghi)perylene	14.48	276	45547	3.51	ng/ul	9

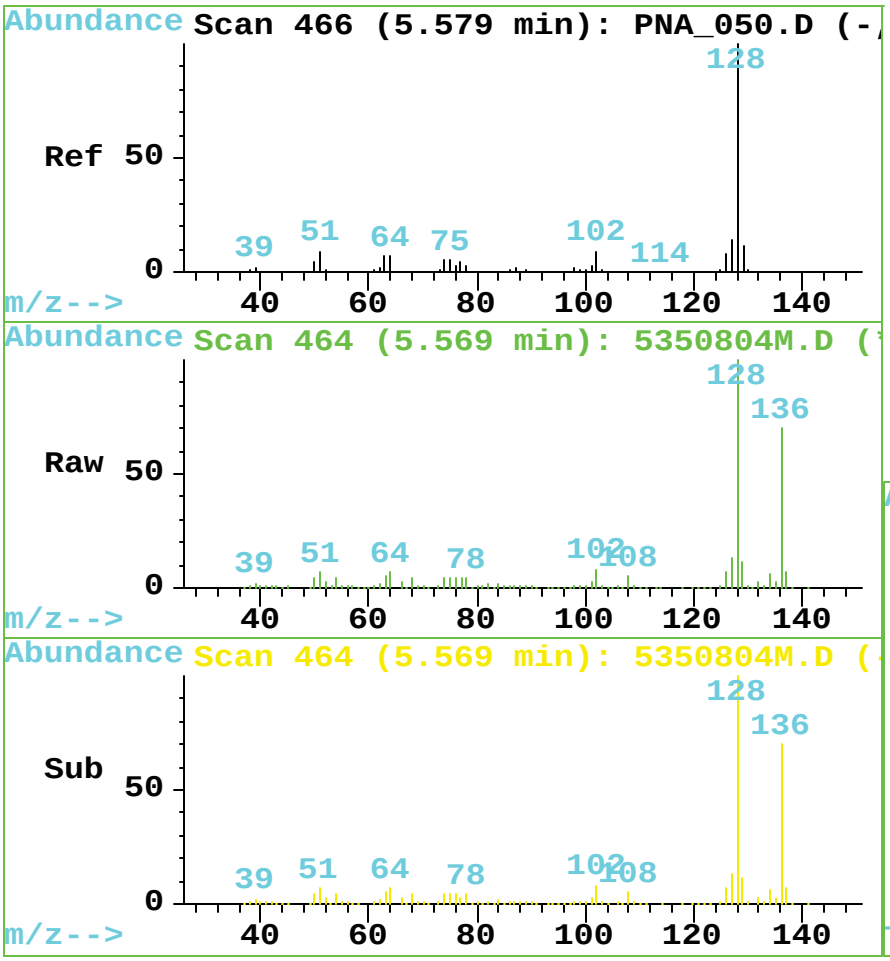
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350804m.d Vial: 19
Acq On : 13 Aug 12 4:30 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:49 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

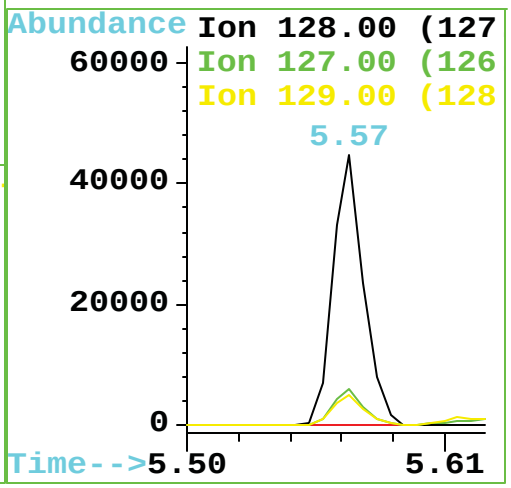


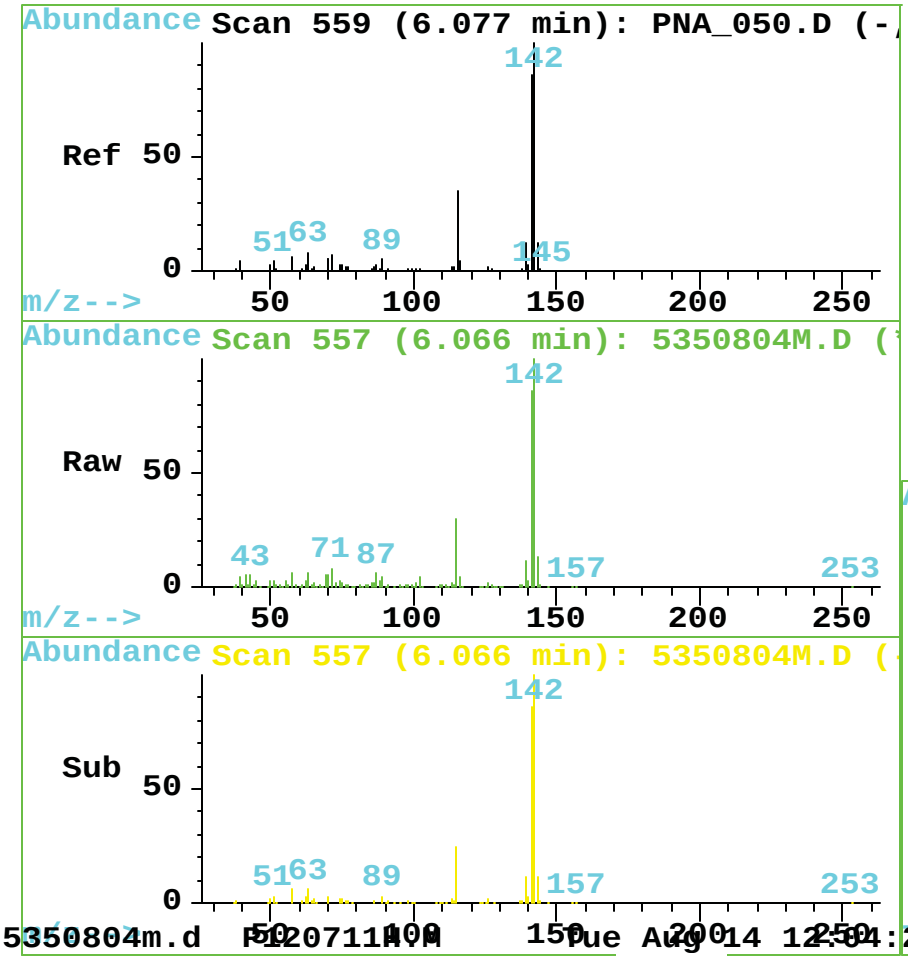


#4
Naphthalene
Concen: 3.39 ng/ul
RT: 5.57 min Scan# 464
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:128 Resp: 38081

Ion	Ratio	Lower	Upper
128	100		
127	13.7	0.0	43.5
129	11.2	0.0	41.4
0	0.0	0.0	0.0

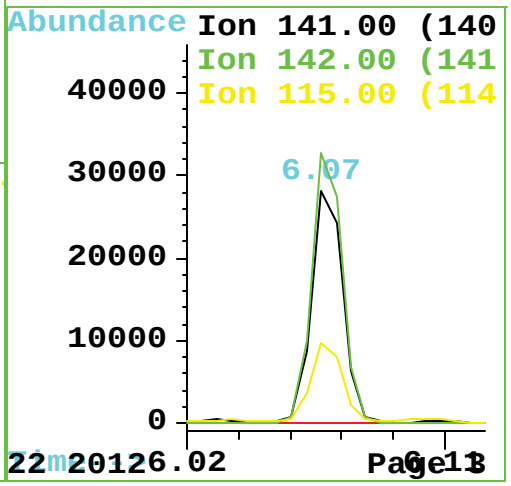


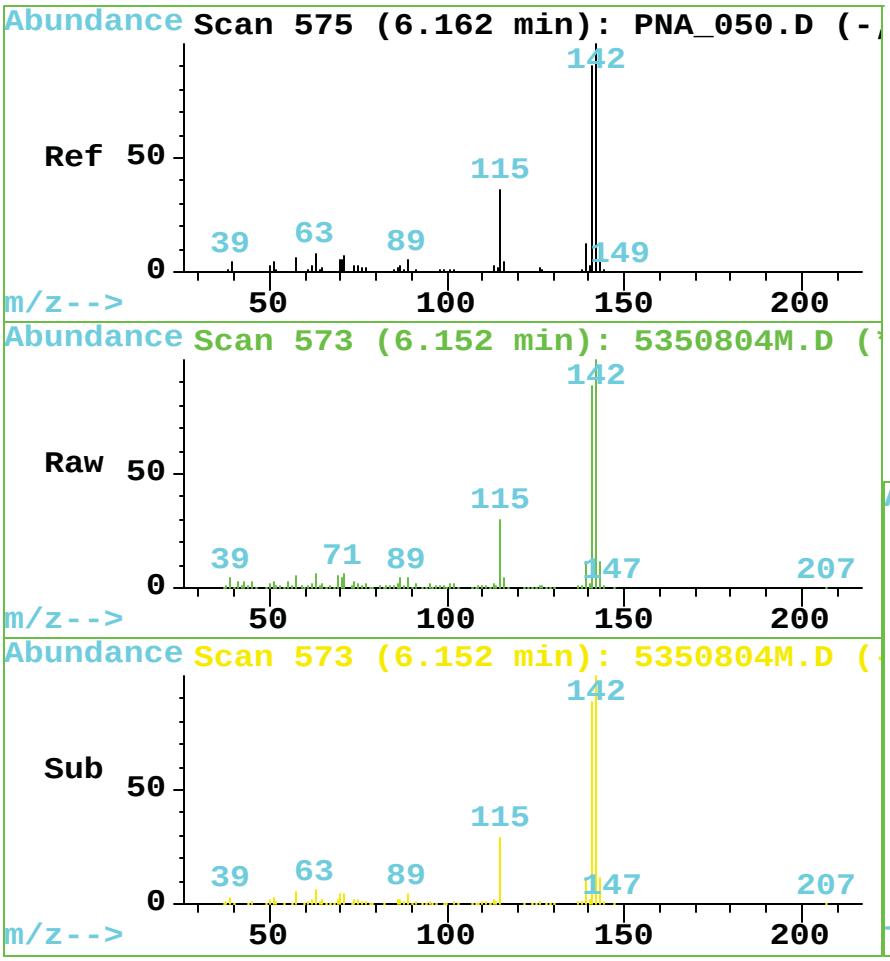


#5
2-Methylnaphthalene
Concen: 3.56 ng/ul
RT: 6.07 min Scan# 557
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:141 Resp: 22213

Ion	Ratio	Lower	Upper
141	100		
142	113.2	81.1	150.6
115	35.2	27.8	51.7
0	0.0	0.0	0.0

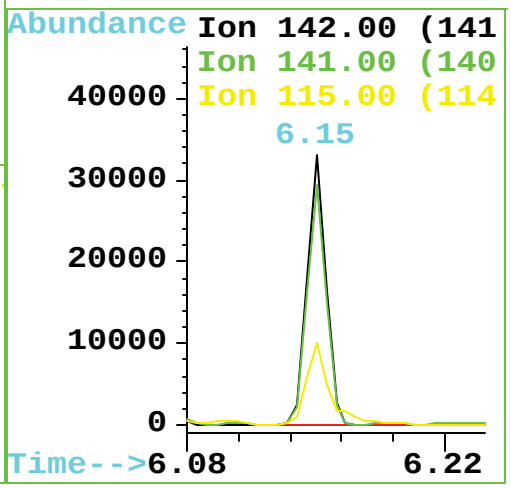


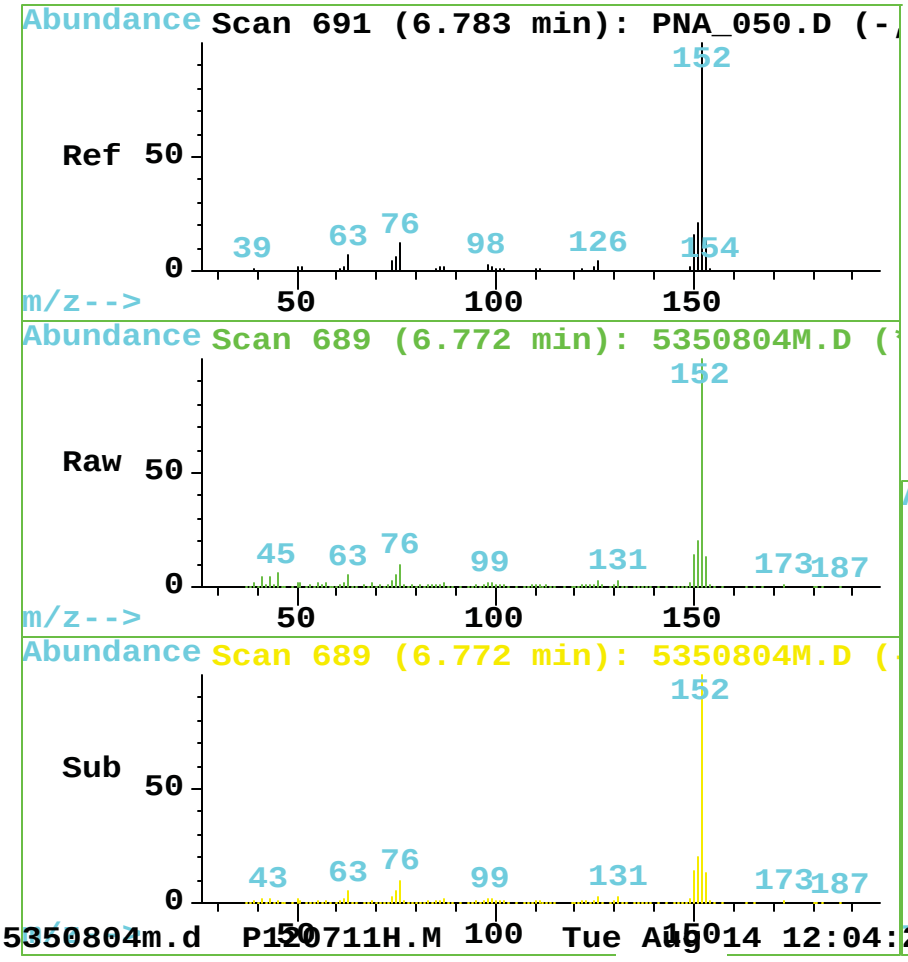


#6
1-Methylnaphthalene
Concen: 3.28 ng/ul
RT: 6.15 min Scan# 573
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:142 Resp: 23541

Ion	Ratio	Lower	Upper
142	100		
141	89.0	71.4	107.1
115	37.5	28.6	42.9
0	0.0	0.0	0.0

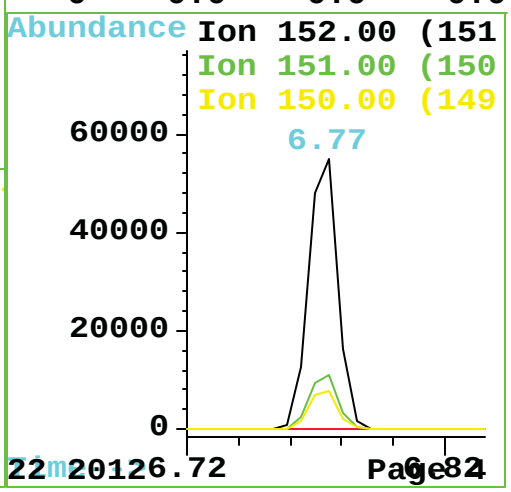


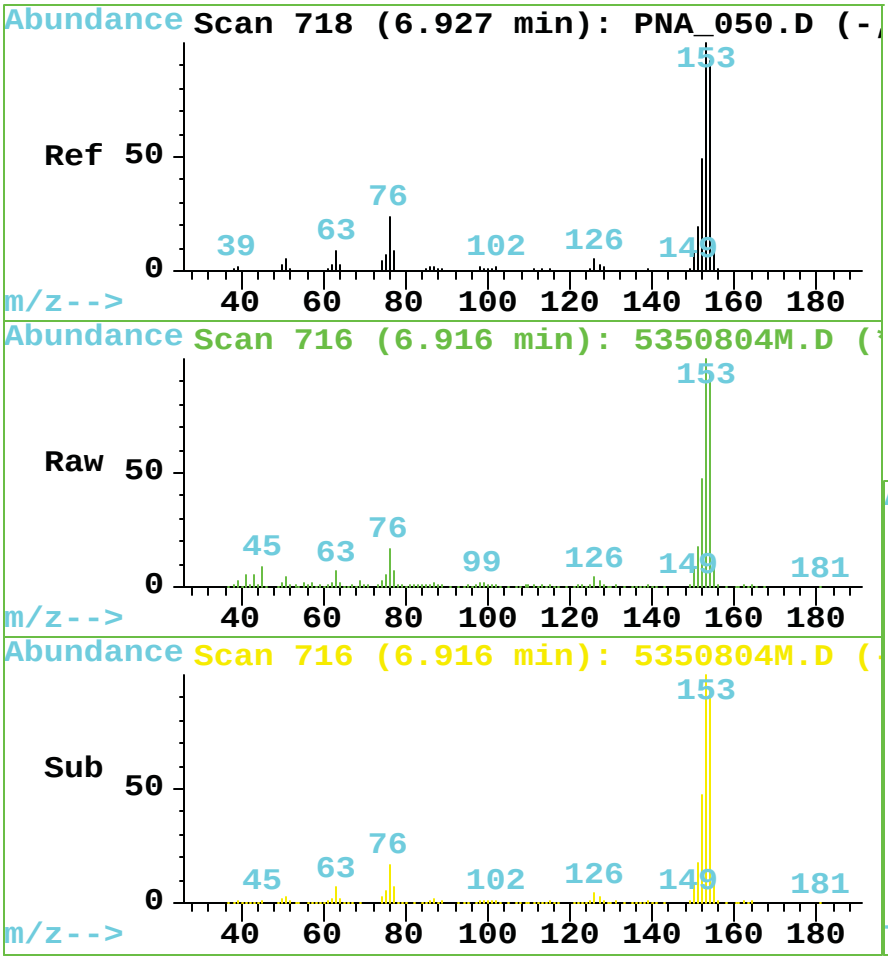


#9
Acenaphthylene
Concen: 3.90 ng/ul
RT: 6.77 min Scan# 689
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:152 Resp: 43238

Ion	Ratio	Lower	Upper
152	100		
151	19.8	0.0	50.7
150	14.0	0.0	45.3
0	0.0	0.0	0.0

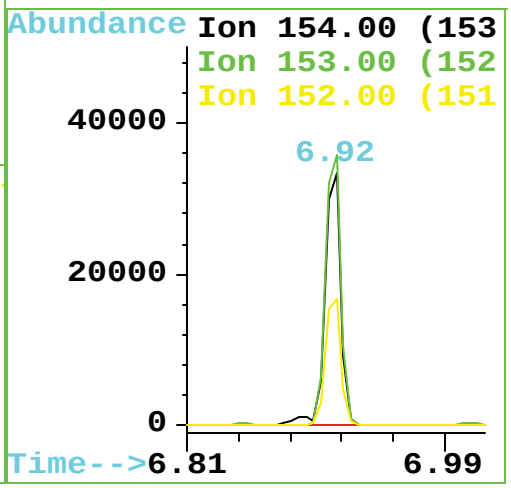


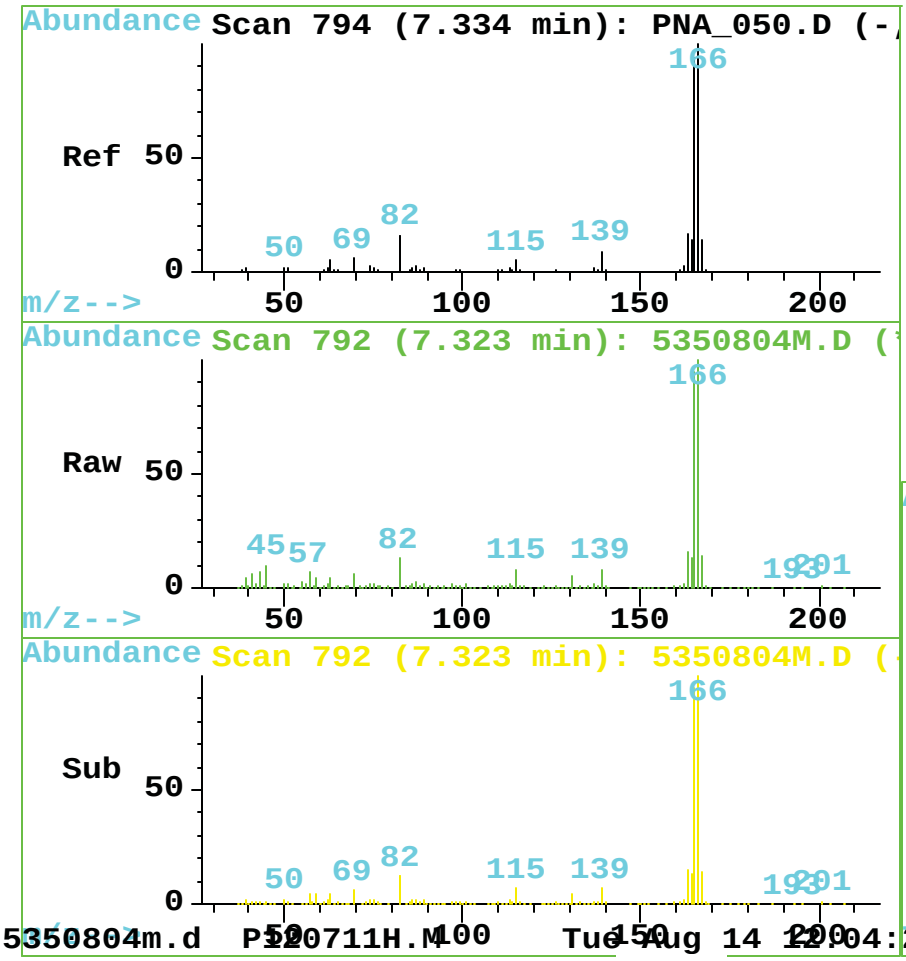


#10
Acenaphthene **
Concen: 3.40 ng/ul
RT: 6.92 min Scan# 716
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:154 Resp: 26797

Ion	Ratio	Lower	Upper
154	100		
153	102.7	77.7	137.7
152	48.2	27.4	77.4
0	0.0	0.0	0.0

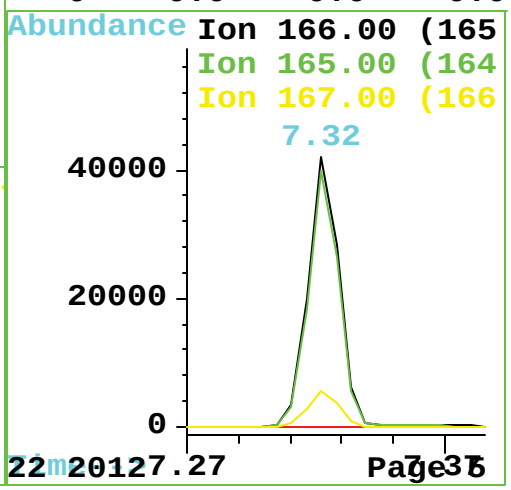


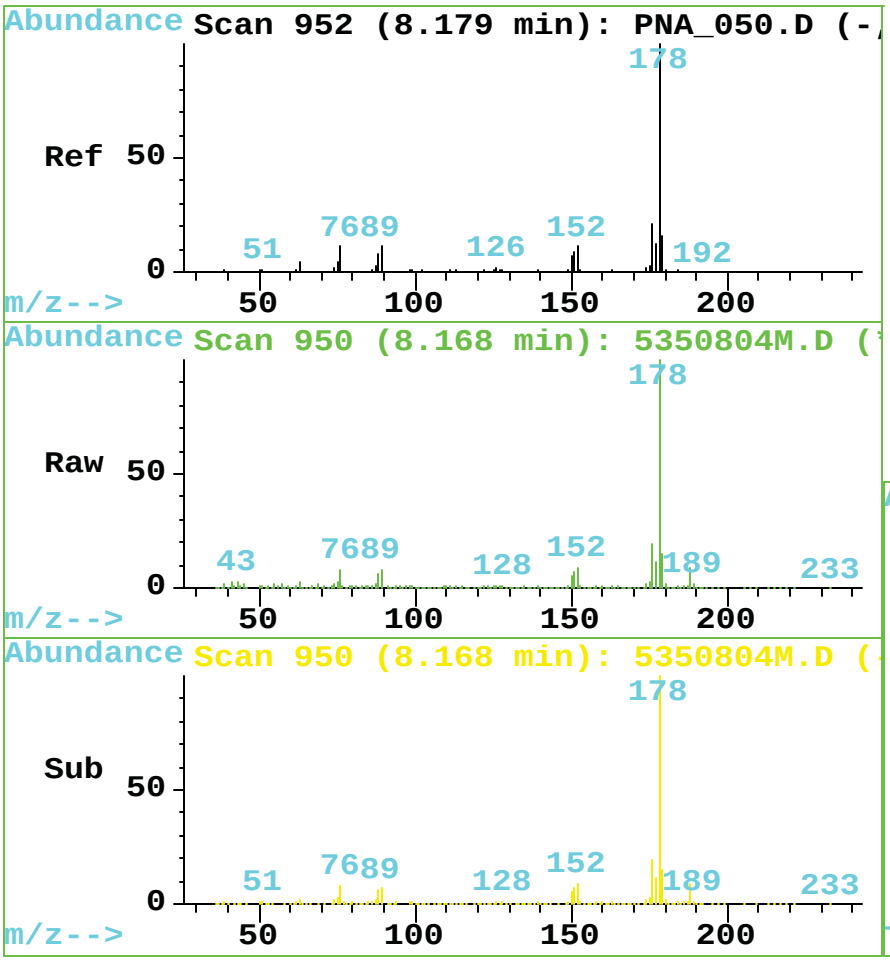


#11
Fluorene
Concen: 4.03 ng/ul
RT: 7.32 min Scan# 792
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:166 Resp: 32471

Ion	Ratio	Lower	Upper
166	100		
165	93.1	64.0	124.0
167	14.1	0.0	43.8
0	0.0	0.0	0.0

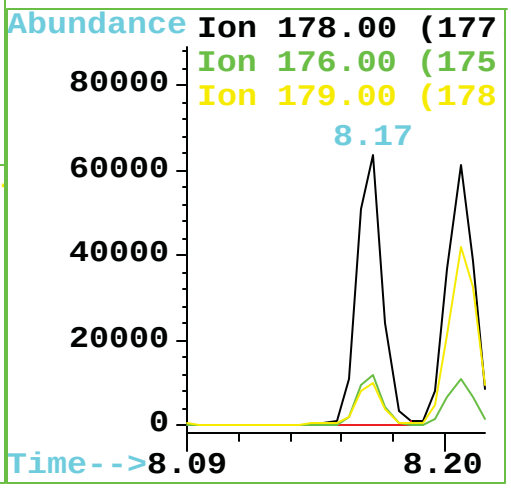


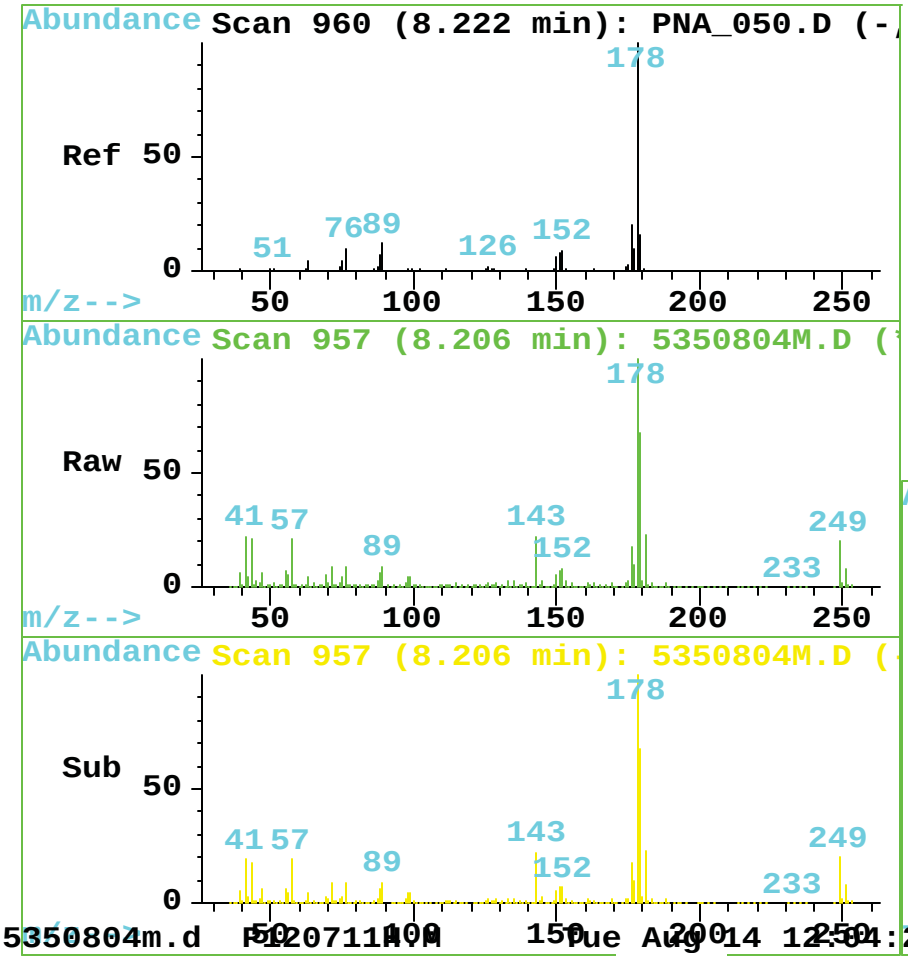


#13
Phenanthrene
Concen: 3.39 ng/ul
RT: 8.17 min Scan# 950
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:178 Resp: 49602

Ion	Ratio	Lower	Upper
178	100		
176	18.7	0.0	50.1
179	0.0	0.0	46.1
0	0.0	0.0	0.0

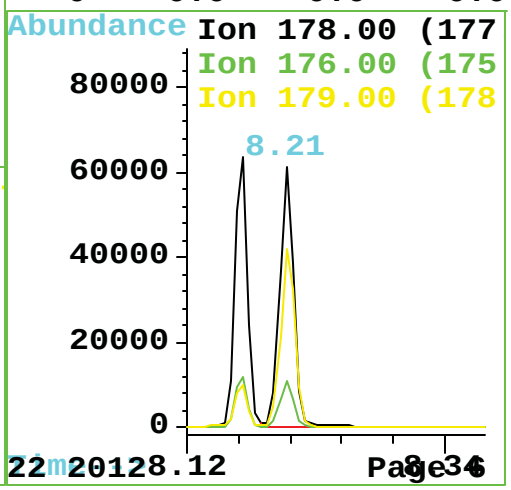


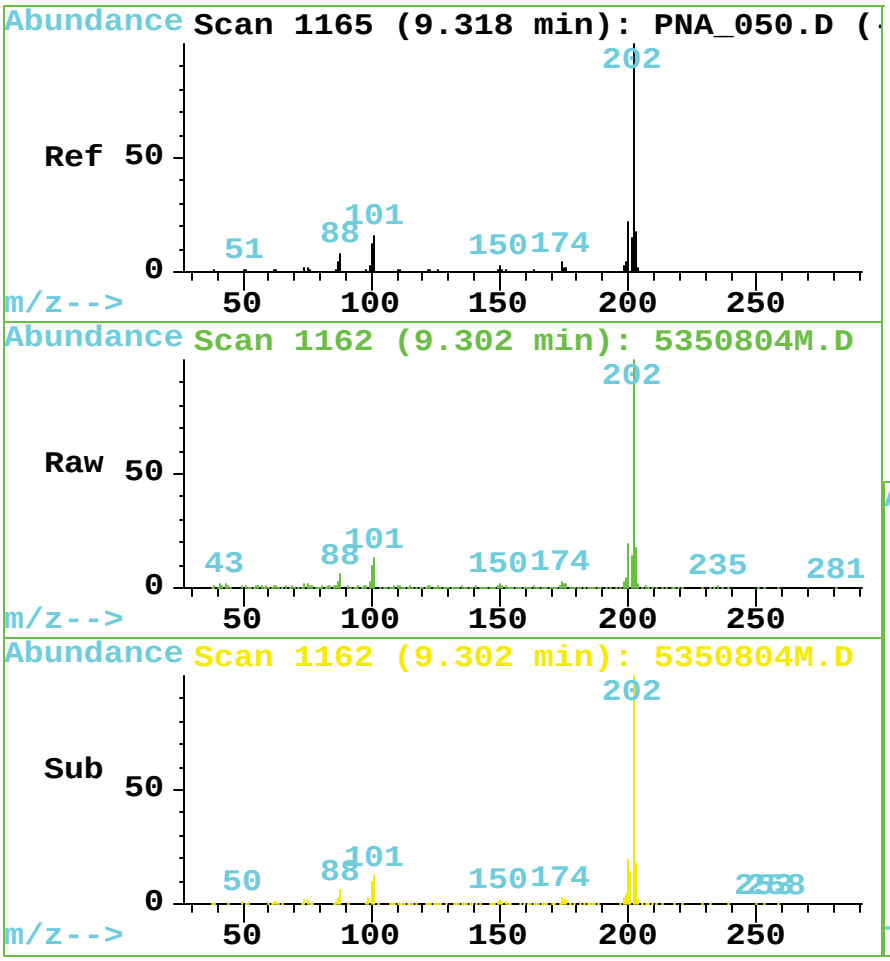


#14
Anthracene
Concen: 4.03 ng/ul
RT: 8.21 min Scan# 957
Delta R.T. -0.02 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:178 Resp: 50607

Ion	Ratio	Lower	Upper
178	100		
176	17.8	0.0	49.6
179	70.7	0.0	46.1#
0	0.0	0.0	0.0

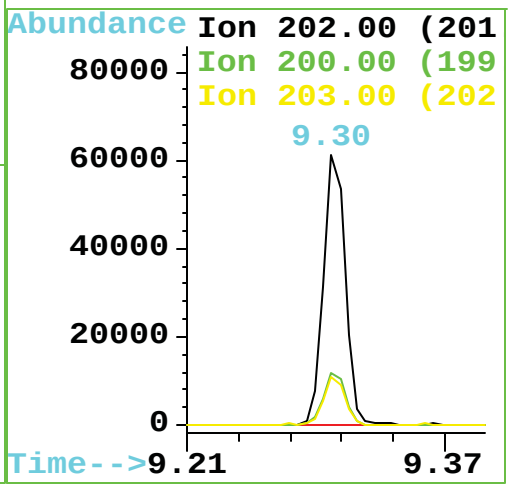


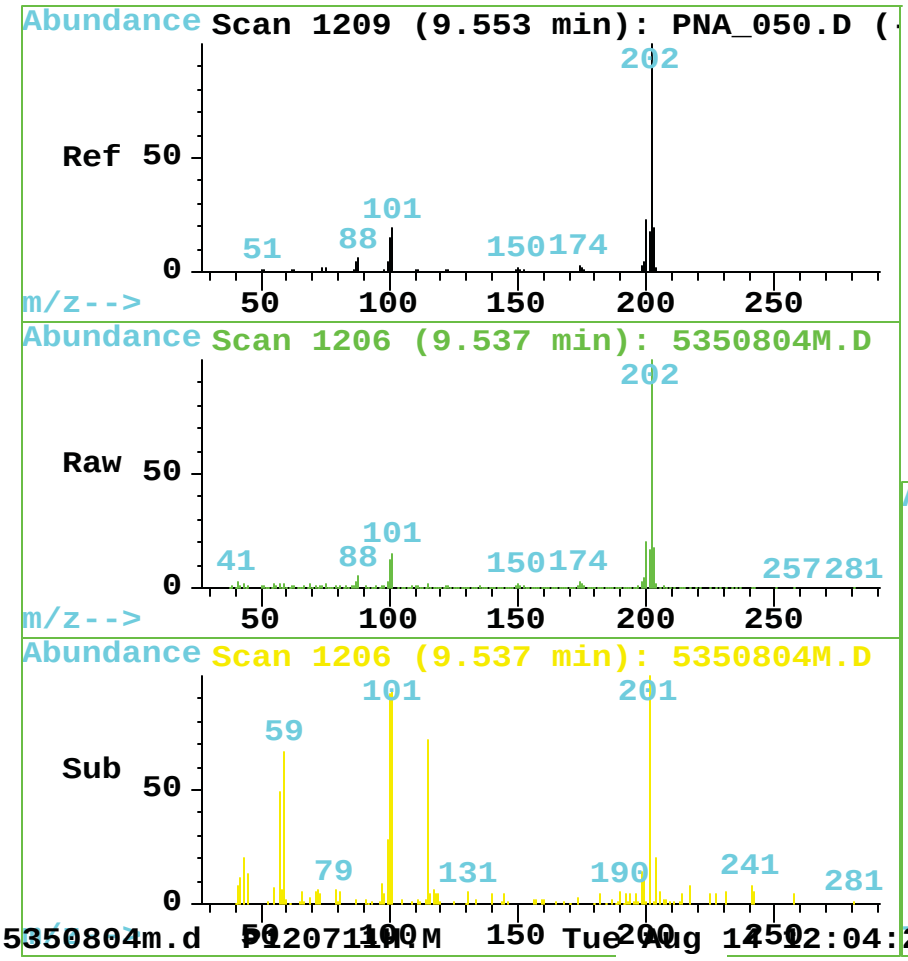


#15
Fluoranthene
Concen: 4.18 ng/ul
RT: 9.30 min Scan# 1162
Delta R.T. -0.02 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:202 Resp: 58434

Ion	Ratio	Lower	Upper
202	100		
200	19.4	0.0	51.6
203	17.6	0.0	48.4
0	0.0	0.0	0.0

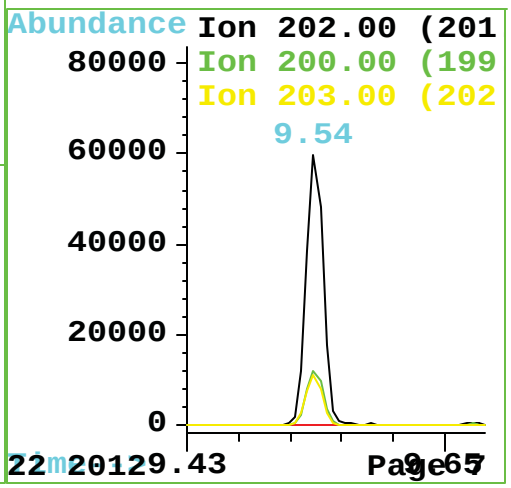


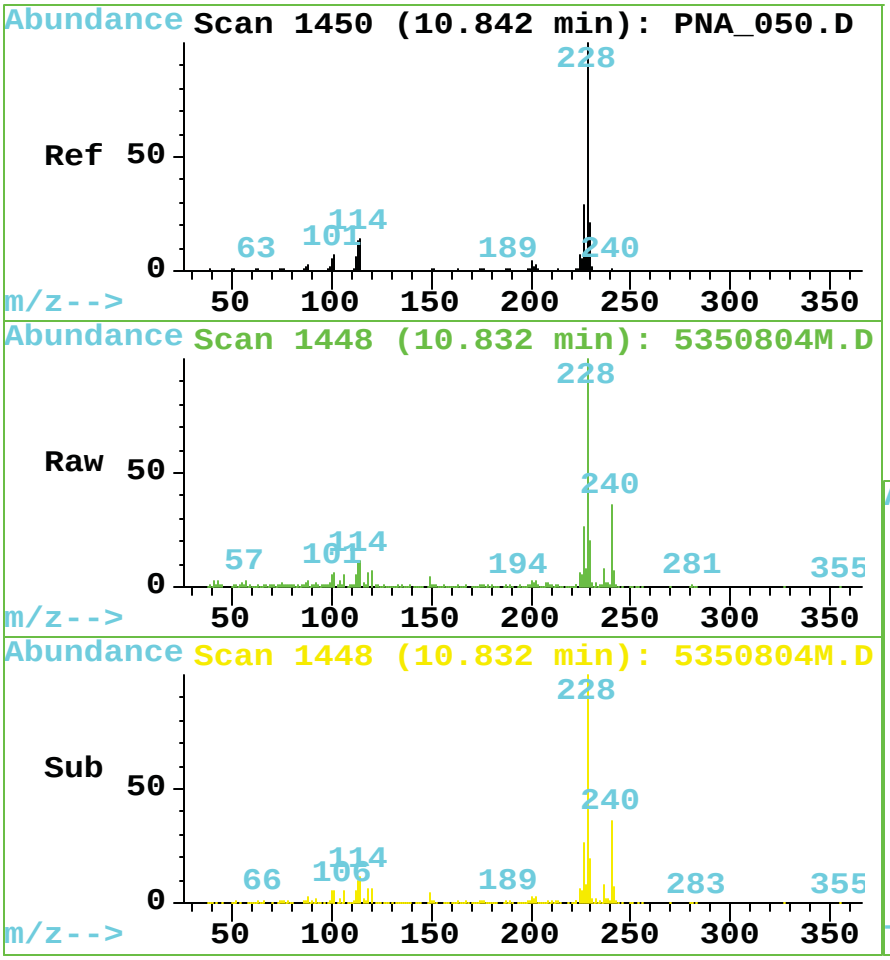


#18
Pyrene **
Concen: 4.02 ng/ul
RT: 9.54 min Scan# 1206
Delta R.T. -0.02 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:202 Resp: 58814

Ion	Ratio	Lower	Upper
202	100		
200	20.3	0.0	52.1
203	18.3	0.0	48.7
0	0.0	0.0	0.0

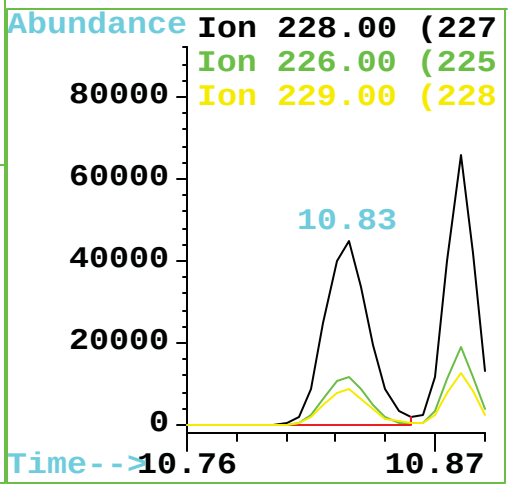


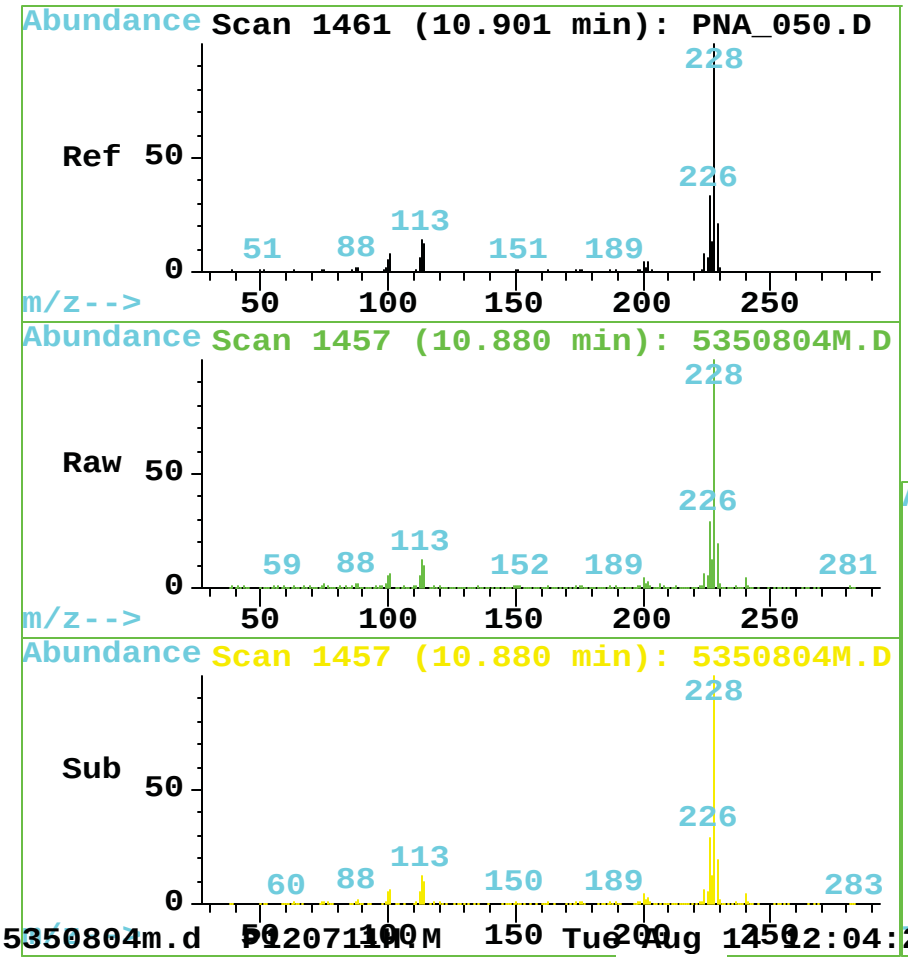


#19
Benzo(a)anthracene
Concen: 4.18 ng/ul
RT: 10.83 min Scan# 1448
Delta R.T. -0.01 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:228 Resp: 60183

Ion	Ratio	Lower	Upper
228	100		
226	26.0	0.0	58.4
229	19.6	0.0	50.5
0	0.0	0.0	0.0

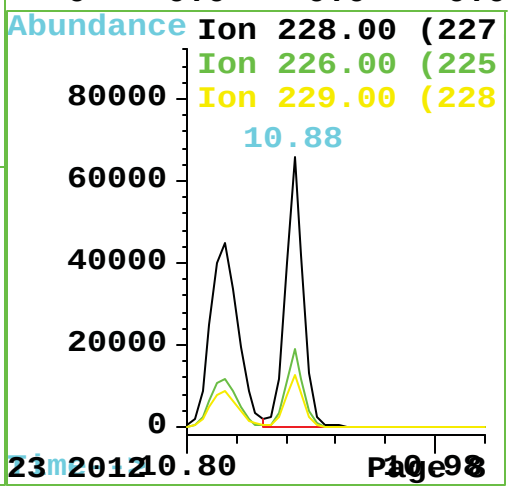


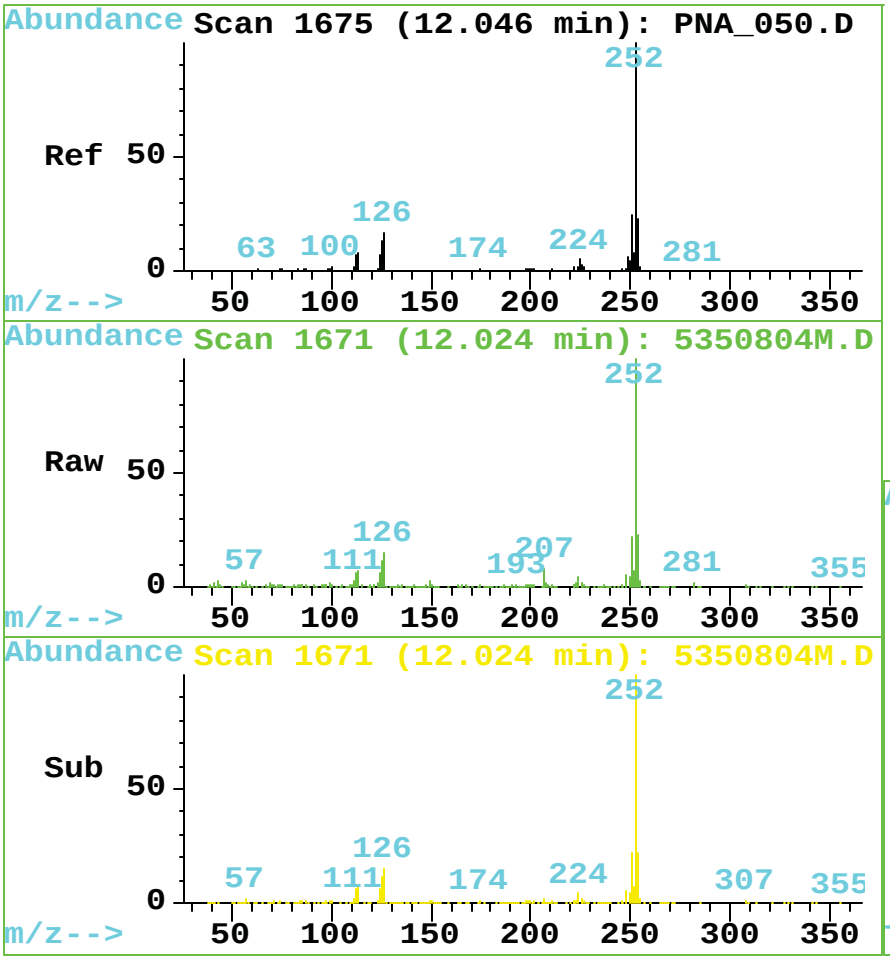


#20
Chrysene
Concen: 4.15 ng/ul
RT: 10.88 min Scan# 1457
Delta R.T. -0.02 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:228 Resp: 57521

Ion	Ratio	Lower	Upper
228	100		
226	28.1	1.5	61.5
229	19.2	0.0	50.4
0	0.0	0.0	0.0

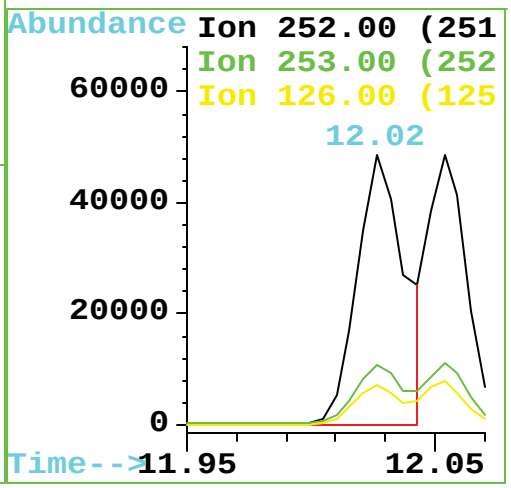


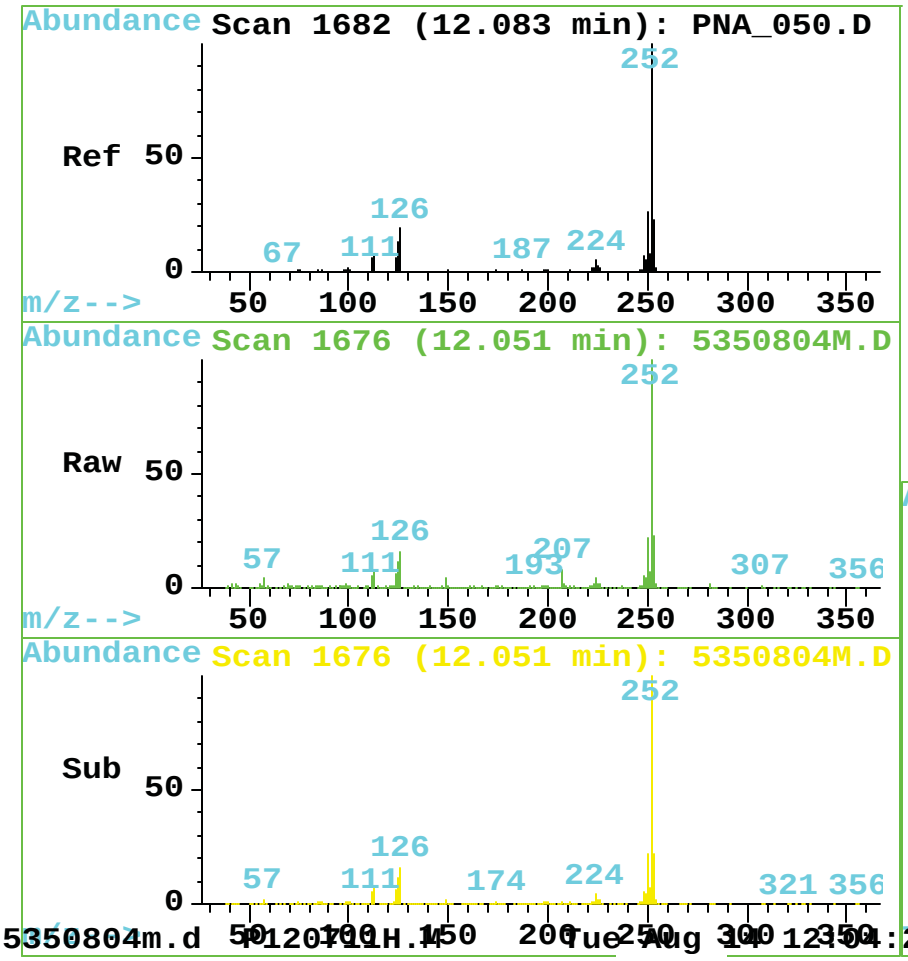


#22
Benzo(b)fluoranthene
Concen: 4.34 ng/ul m
RT: 12.02 min Scan# 1671
Delta R.T. -0.02 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:252 Resp: 64119

Ion	Ratio	Lower	Upper
252	100		
253	22.5	0.0	52.9
126	15.0	0.0	47.5
0	0.0	0.0	0.0

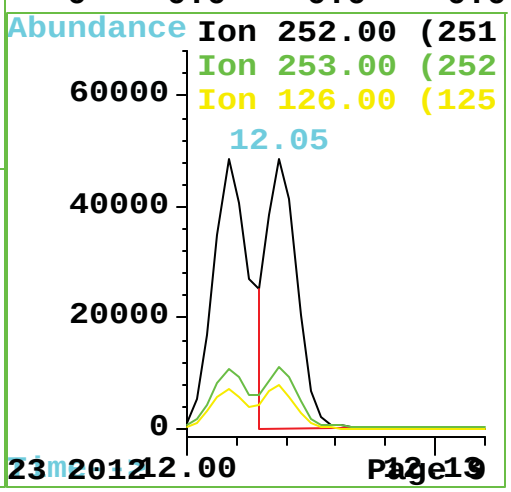


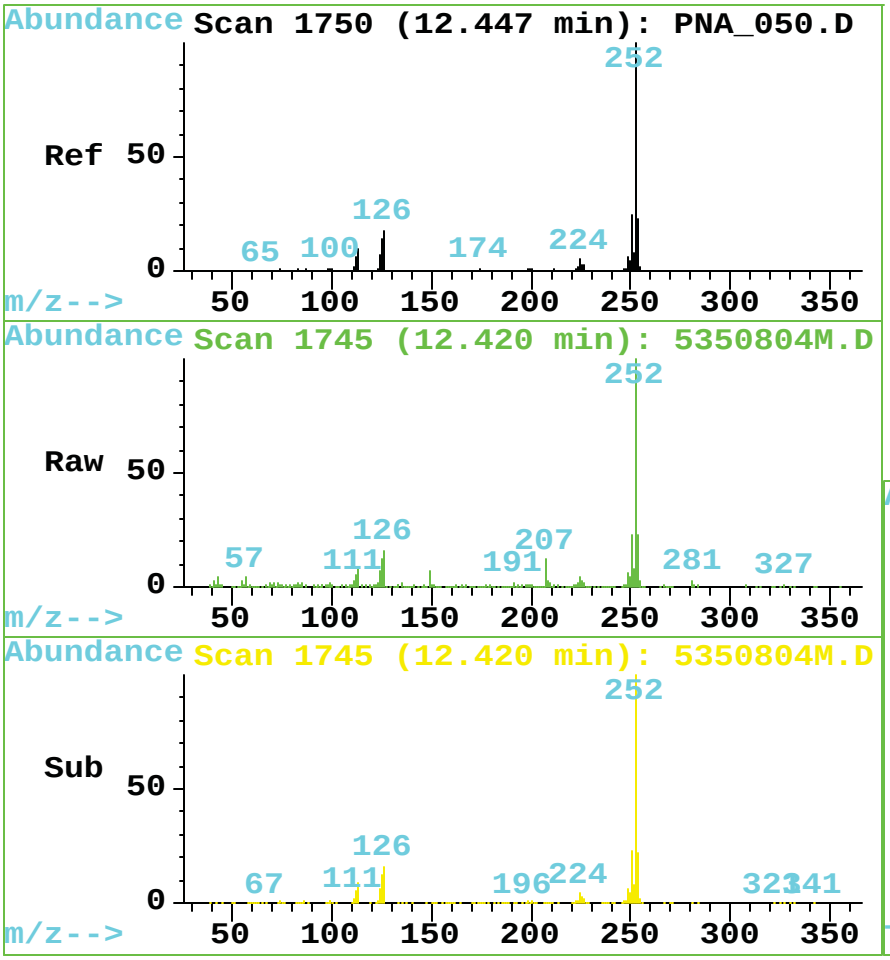


#23
Benzo(k)fluoranthene
Concen: 3.71 ng/ul
RT: 12.05 min Scan# 1676
Delta R.T. -0.03 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:252 Resp: 51333

Ion	Ratio	Lower	Upper
252	100		
253	21.5	0.0	52.8
126	18.1	0.0	48.5
0	0.0	0.0	0.0

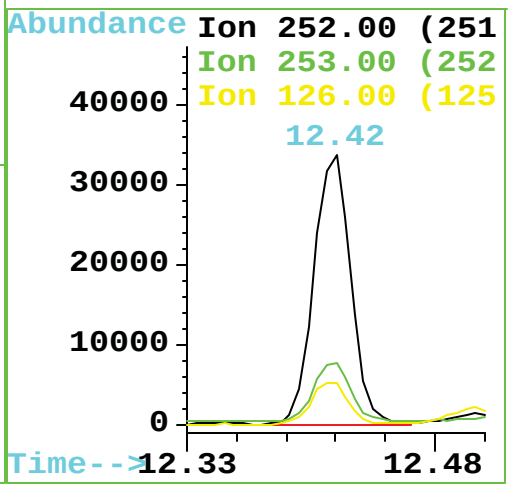


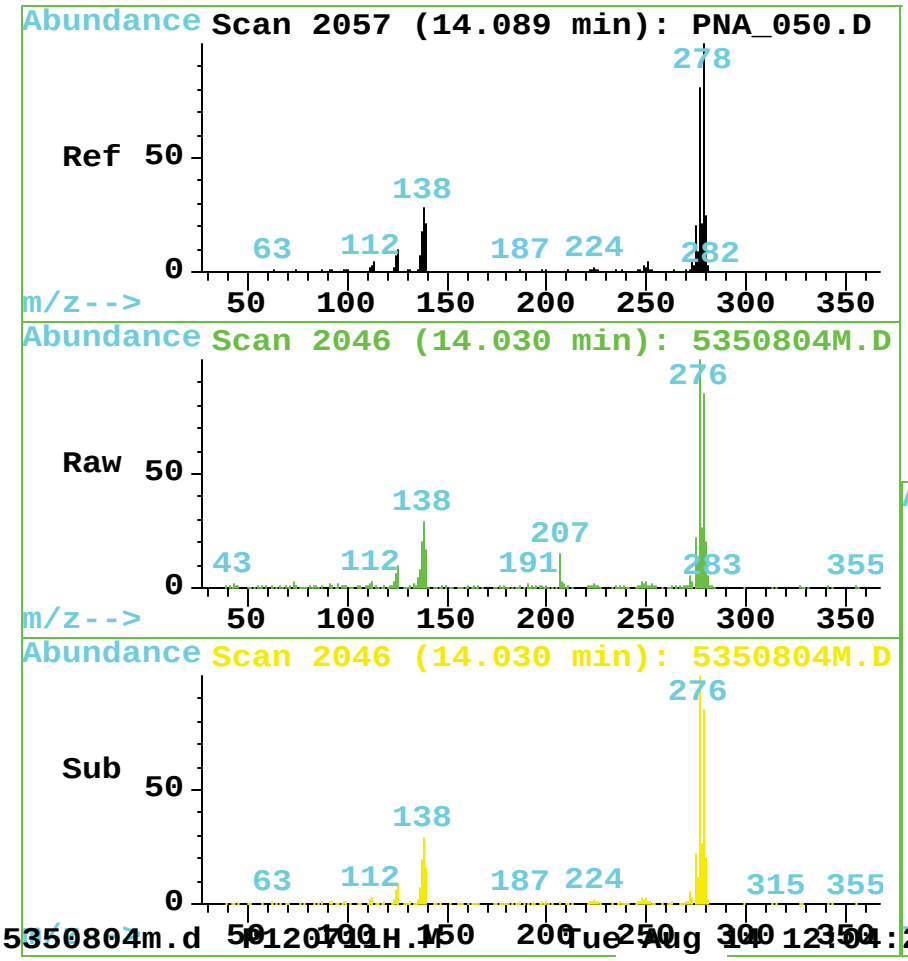


#24
Benzo(a)pyrene
Concen: 3.94 ng/ul
RT: 12.42 min Scan# 1745
Delta R.T. -0.03 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:252 Resp: 50323

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	52.7
126	15.8	0.0	47.9
0	0.0	0.0	0.0

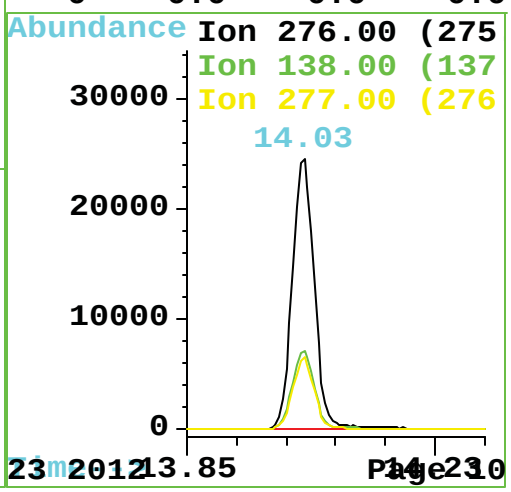


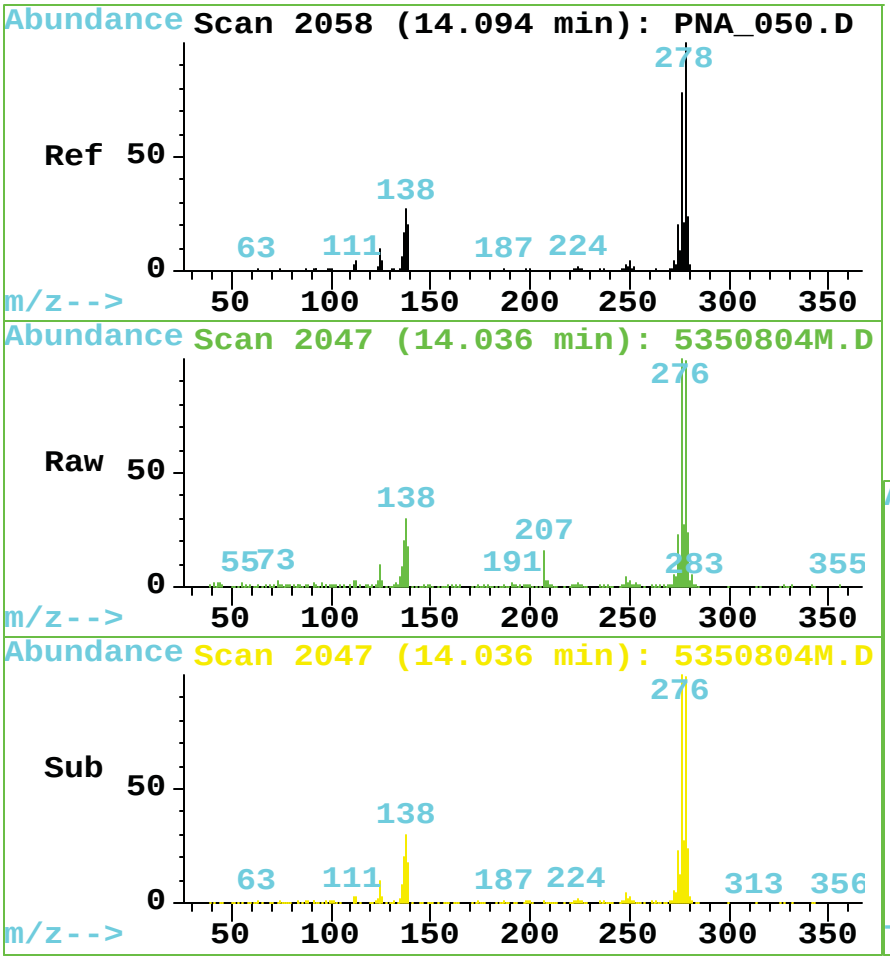


#25
Indeno(1,2,3-cd)pyrene
Concen: 3.59 ng/ul
RT: 14.03 min Scan# 2046
Delta R.T. -0.06 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:276 Resp: 56689

Ion	Ratio	Lower	Upper
276	100		
138	29.2	1.0	61.0
277	25.9	5.7	45.7
0	0.0	0.0	0.0

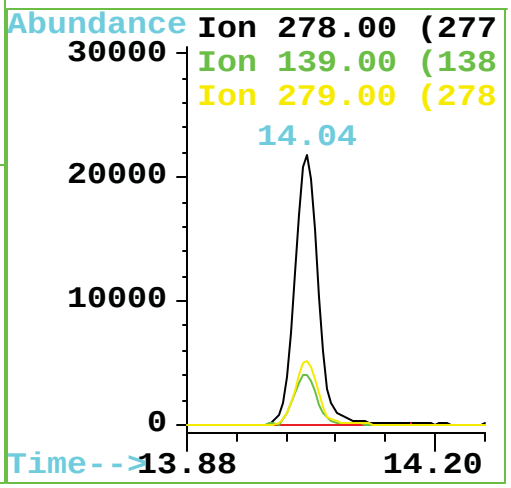


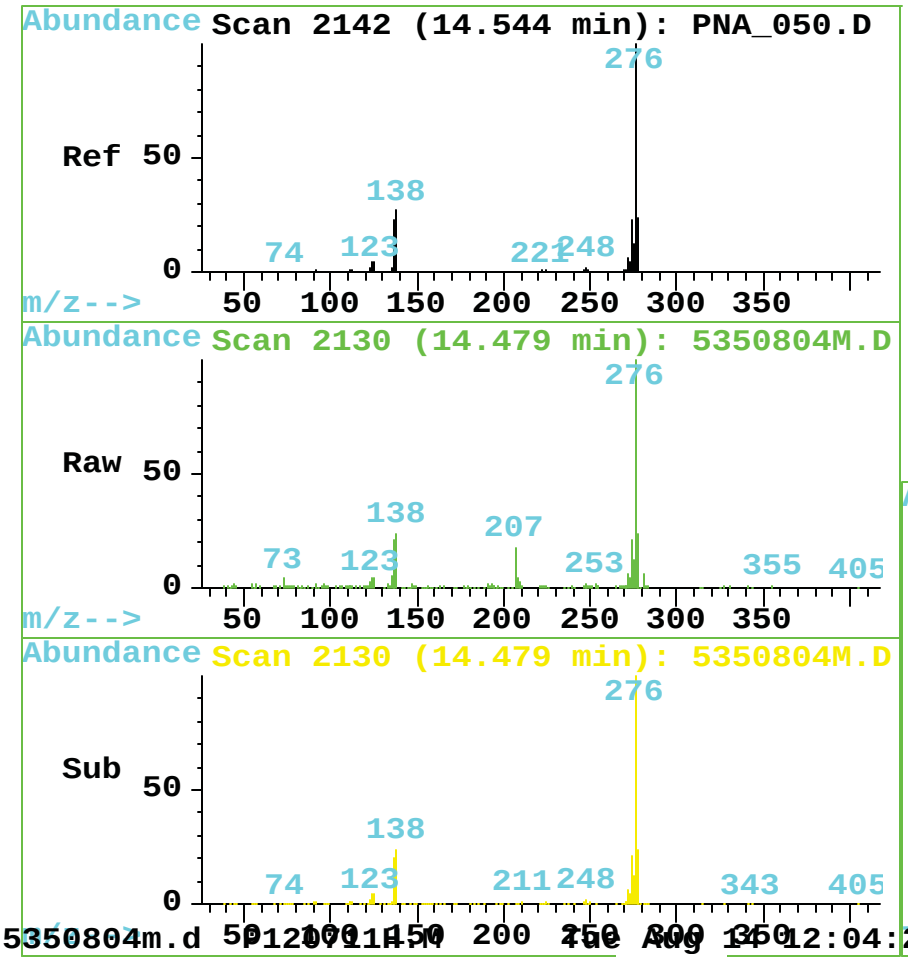


#26
Dibenzo(ah)anthracene
Concen: 3.68 ng/ul
RT: 14.04 min Scan# 2047
Delta R.T. -0.06 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:278 Resp: 47590

Ion	Ratio	Lower	Upper
278	100		
139	19.2	0.0	49.8
279	23.7	9.1	39.1
0	0.0	0.0	0.0

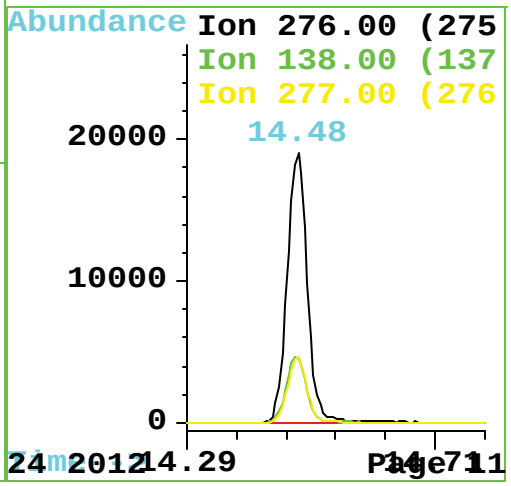




#27
Benzo(ghi)perylene
Concen: 3.51 ng/ul
RT: 14.48 min Scan# 2130
Delta R.T. -0.06 min
Lab File: 5350804m.d
Acq: 13 Aug 12 4:30 pm

Tgt Ion:276 Resp: 45547

Ion	Ratio	Lower	Upper
276	100		
138	24.6	0.0	56.7
277	23.5	4.2	44.2
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350805n.d Vial: 20
Acq On : 13 Aug 12 4:49 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:50 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

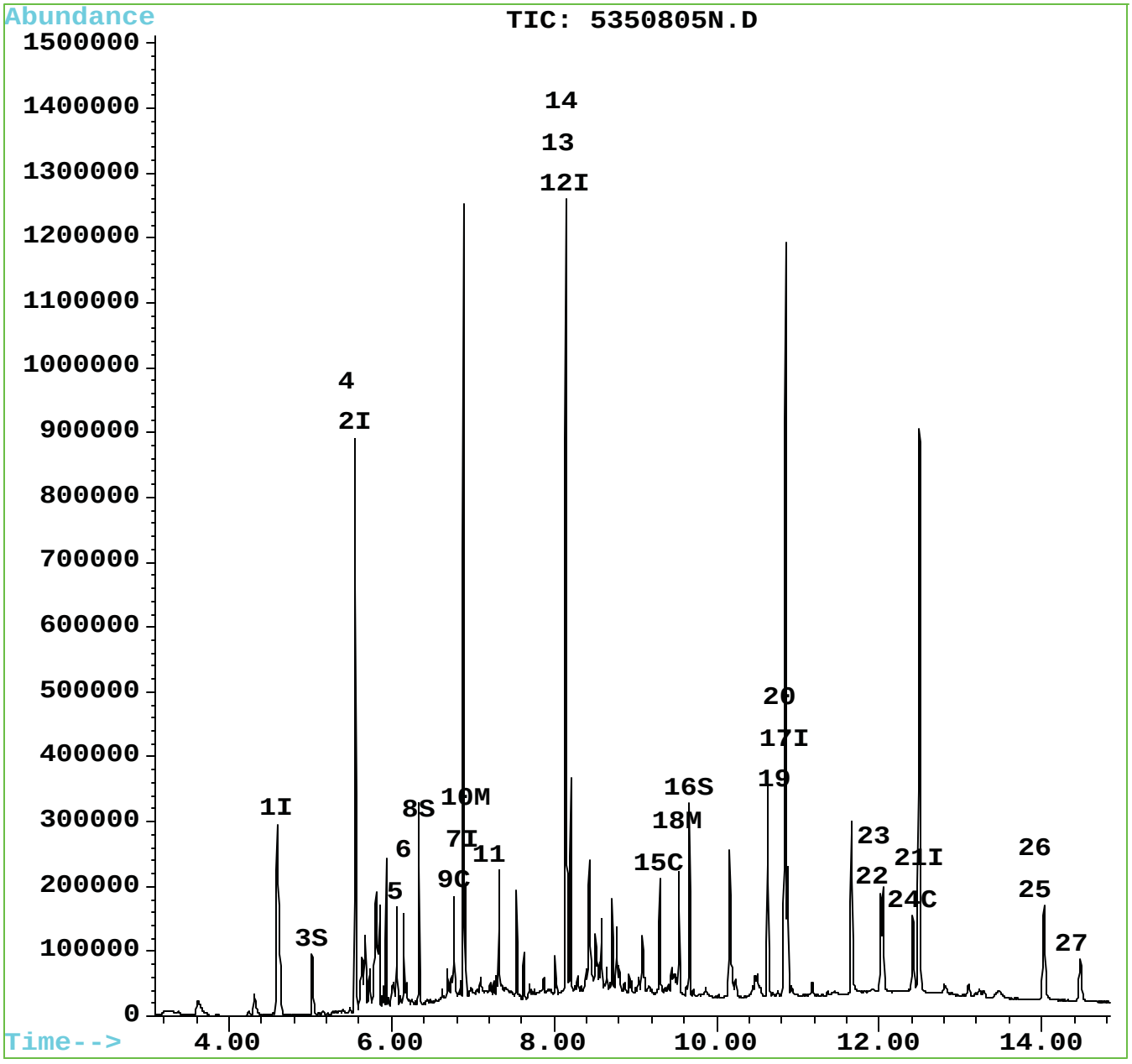
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	118556	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	432060	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	234487	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	463262	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	538910	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	530418	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.02	82	38737	10.83	ng/ul	10.8
8) 2-Fluorobiphenyl	6.34	172	81150	11.46	ng/ul	11.4
16) Terphenyl-D14	9.67	244	107516	12.01	ng/ul	12.0
Target Compounds						Qvalu
4) Naphthalene	5.57	128	52527	5.31	ng/ul	9
5) 2-Methylnaphthalene	6.07	141	30012	5.45	ng/ul	9
6) 1-Methylnaphthalene	6.15	142	31895	5.04	ng/ul	9
9) Acenaphthylene	6.77	152	57815	6.02	ng/ul	9
10) Acenaphthene **	6.92	154	35543	5.24	ng/ul	9
11) Fluorene	7.32	166	43339	6.21	ng/ul	9
13) Phenanthrene	8.17	178	64798	5.06	ng/ul#	8
14) Anthracene	8.21	178	67512	6.11	ng/ul#	6
15) Fluoranthene	9.30	202	75272	6.11	ng/ul	9
18) Pyrene **	9.54	202	77925	6.12	ng/ul	9
19) Benzo(a)anthracene	10.83	228	77924	6.23	ng/ul	9
20) Chrysene	10.88	228	74261	6.16	ng/ul	9
22) Benzo(b)fluoranthene	12.02	252	84261	6.59	ng/ulm	9
23) Benzo(k)fluoranthene	12.05	252	65848	5.49	ng/ul	9
24) Benzo(a)pyrene	12.41	252	65989	5.97	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.03	276	74448	5.44	ng/ul	9
26) Dibenzo(ah)anthracene	14.04	278	62666	5.59	ng/ul	9
27) Benzo(ghi)perylene	14.48	276	59648	5.31	ng/ul	9

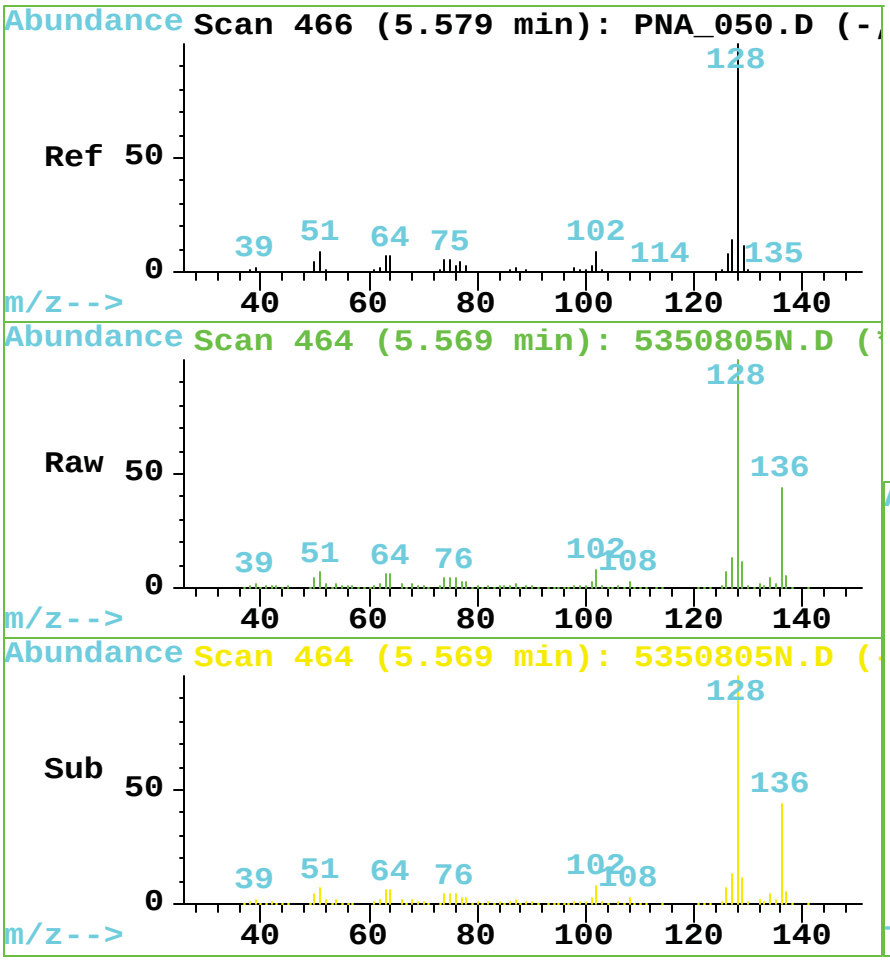
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350805n.d Vial: 20
Acq On : 13 Aug 12 4:49 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:50 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

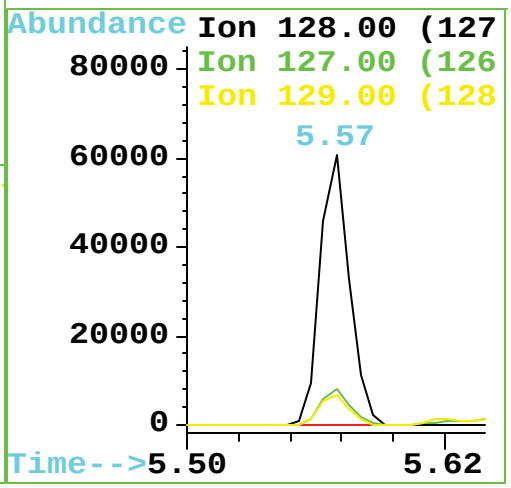


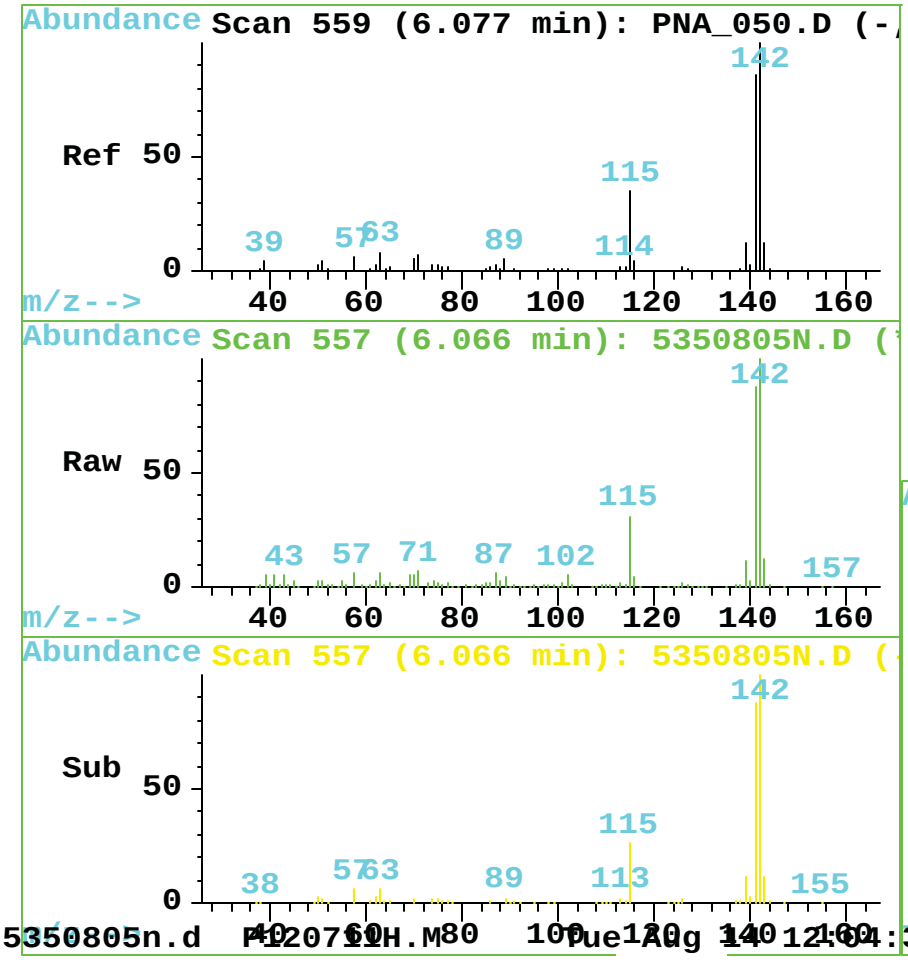


#4
Naphthalene
Concen: 5.31 ng/ul
RT: 5.57 min Scan# 464
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:128 Resp: 52527

Ion	Ratio	Lower	Upper
128	100		
127	13.9	0.0	43.5
129	11.3	0.0	41.4
0	0.0	0.0	0.0

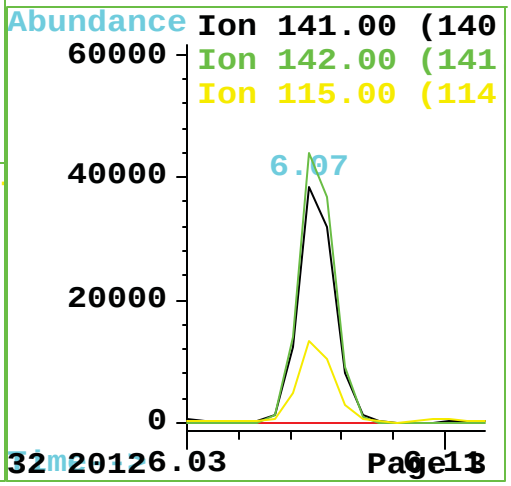


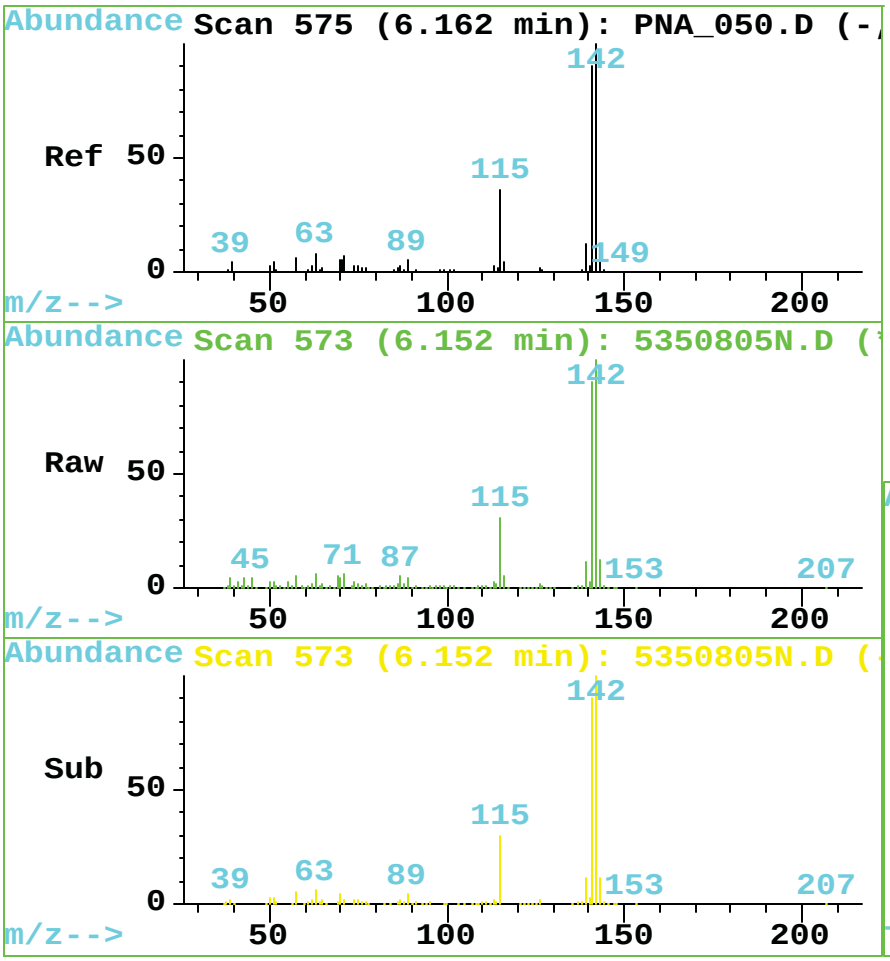


#5
2-Methylnaphthalene
Concen: 5.45 ng/ul
RT: 6.07 min Scan# 557
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:141 Resp: 30012

Ion	Ratio	Lower	Upper
141	100		
142	113.9	81.1	150.6
115	35.3	27.8	51.7
0	0.0	0.0	0.0

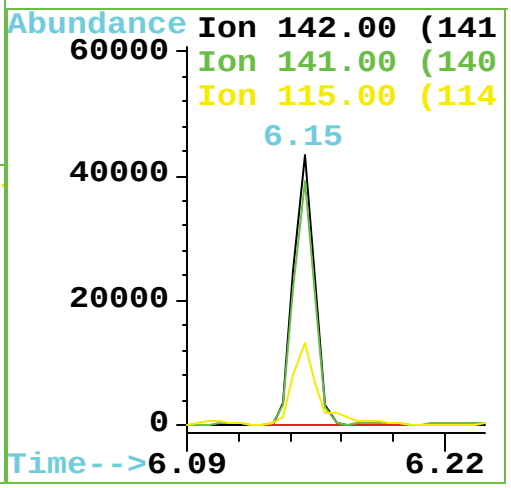


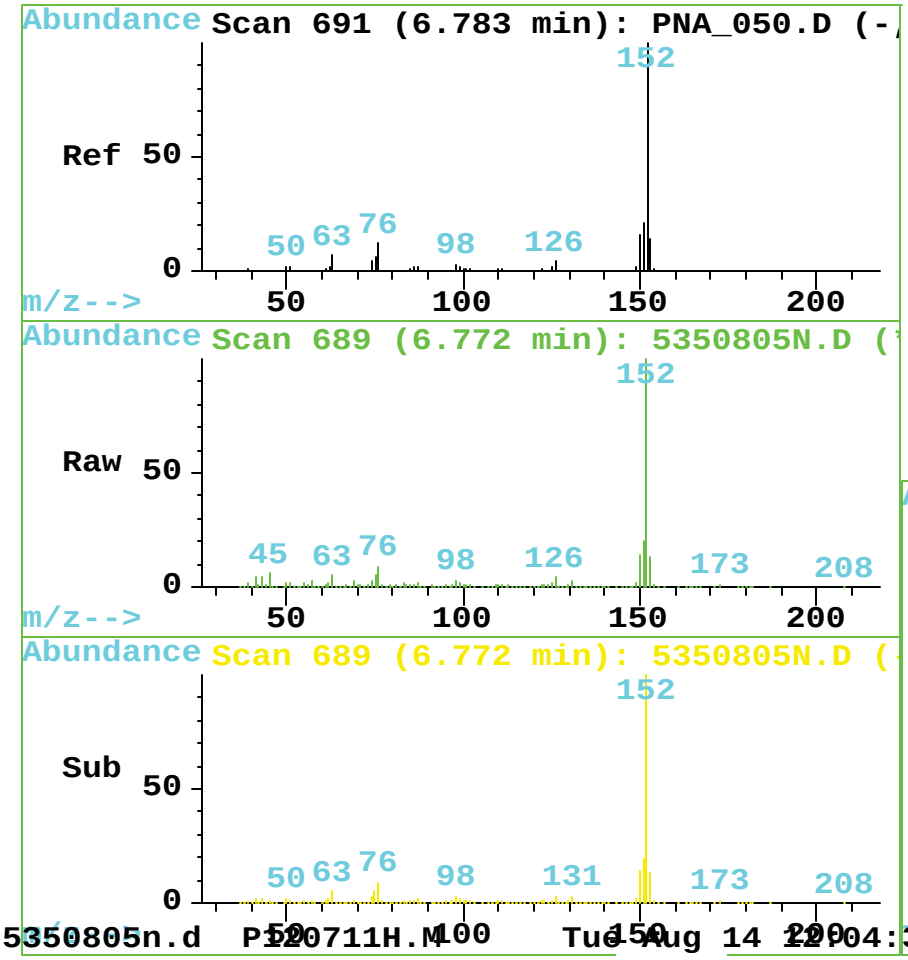


#6
1-Methylnaphthalene
Concen: 5.04 ng/ul
RT: 6.15 min Scan# 573
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:142 Resp: 31895

Ion	Ratio	Lower	Upper
142	100		
141	88.7	71.4	107.1
115	37.1	28.6	42.9
0	0.0	0.0	0.0

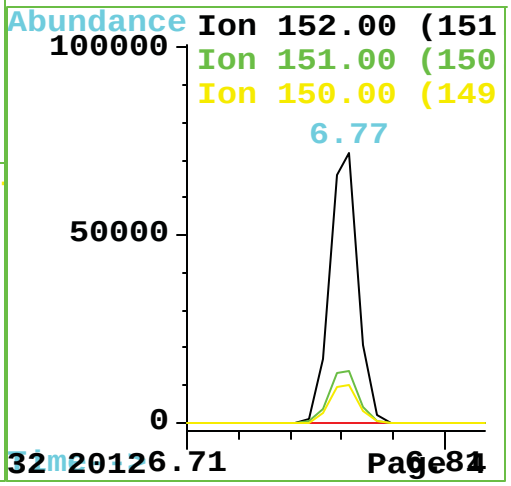


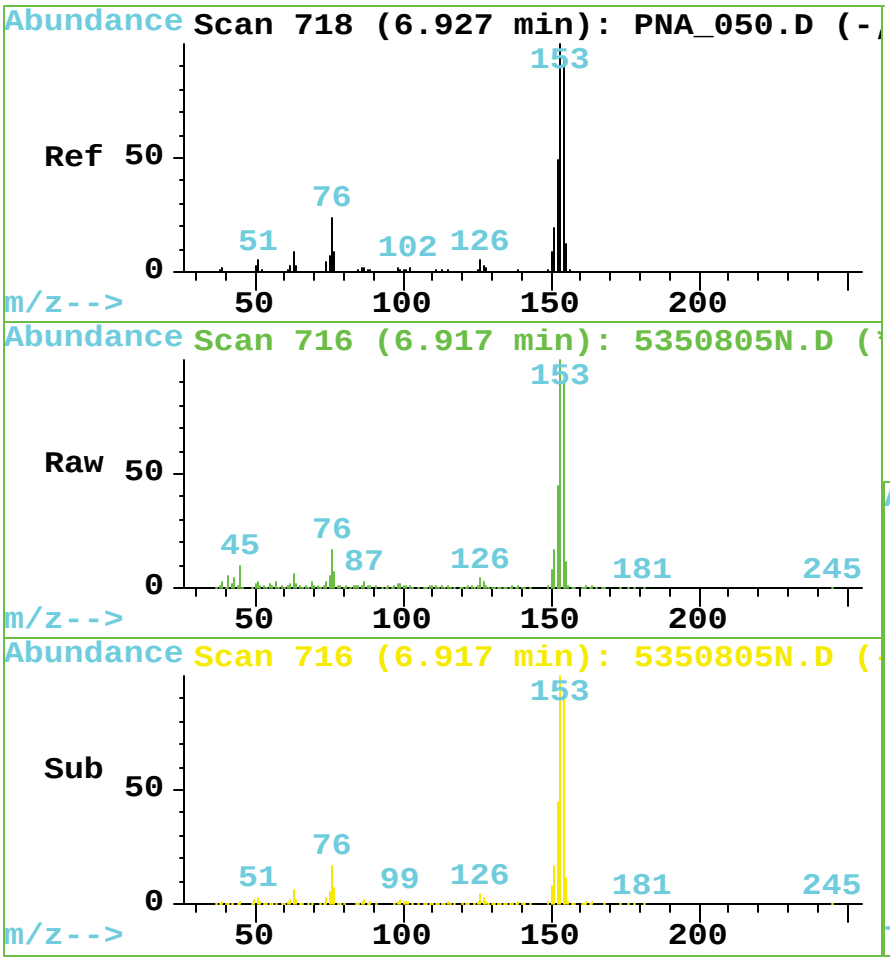


#9
Acenaphthylene
Concen: 6.02 ng/ul
RT: 6.77 min Scan# 689
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:152 Resp: 57815

Ion	Ratio	Lower	Upper
152	100		
151	19.9	0.0	50.7
150	14.5	0.0	45.3
0	0.0	0.0	0.0

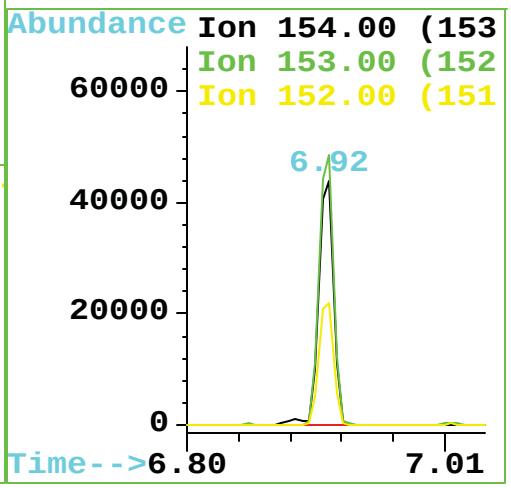


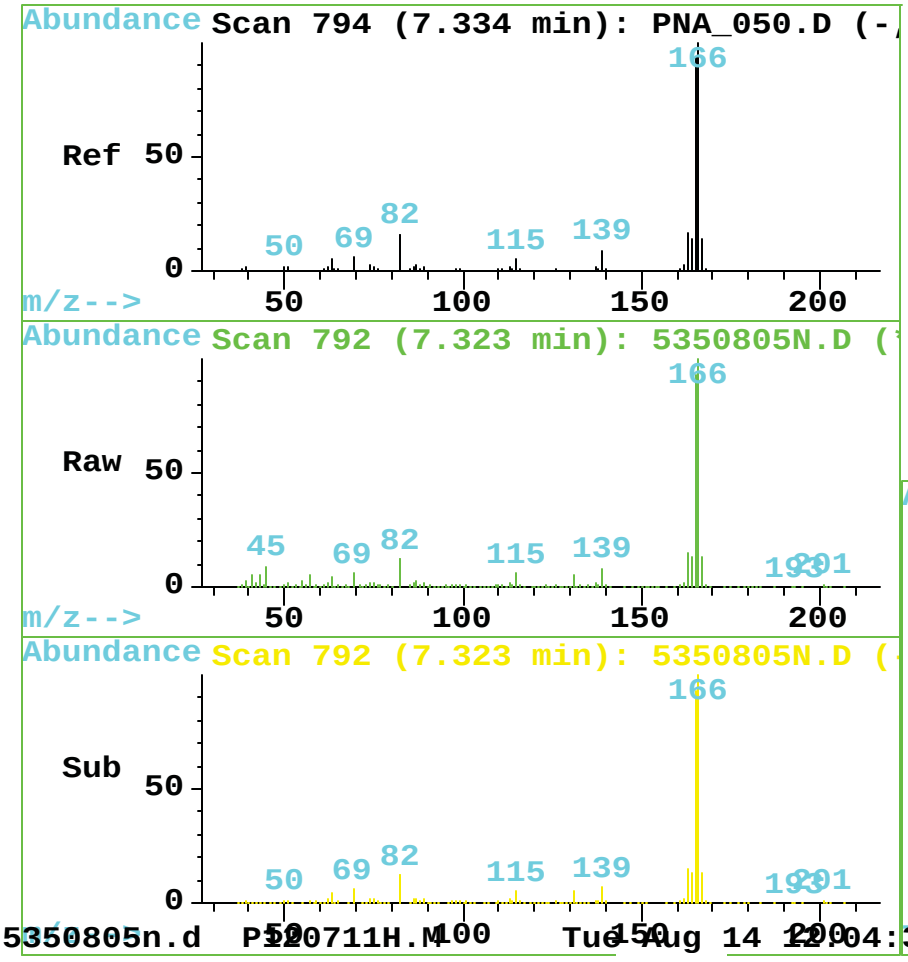


#10
Acenaphthene **
Concen: 5.24 ng/ul
RT: 6.92 min Scan# 716
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:154 Resp: 35543

Ion	Ratio	Lower	Upper
154	100		
153	105.8	77.7	137.7
152	48.4	27.4	77.4
0	0.0	0.0	0.0

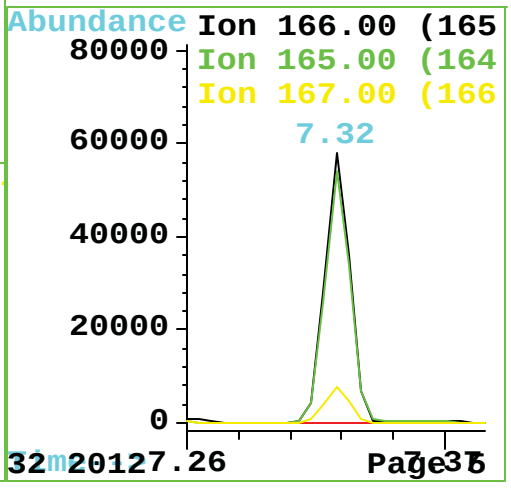


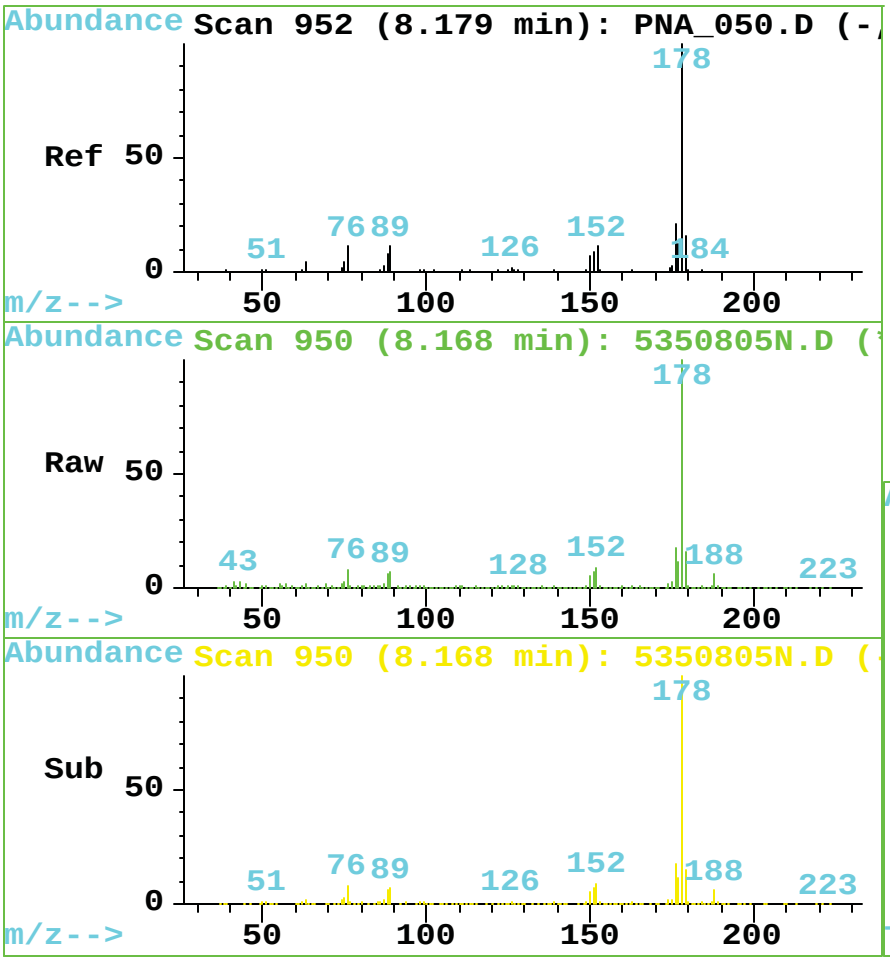


#11
Fluorene
Concen: 6.21 ng/ul
RT: 7.32 min Scan# 792
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:166 Resp: 43339

Ion	Ratio	Lower	Upper
166	100		
165	92.6	64.0	124.0
167	13.2	0.0	43.8
0	0.0	0.0	0.0

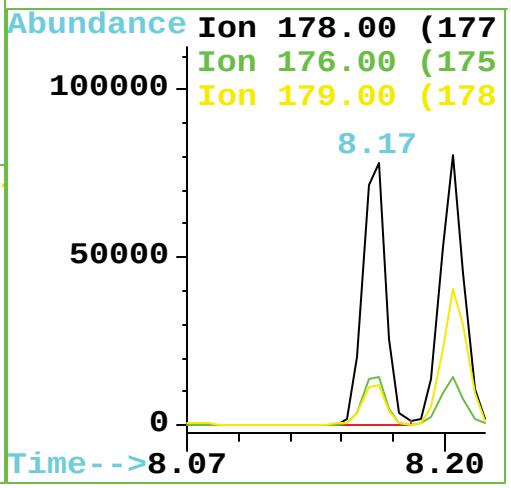


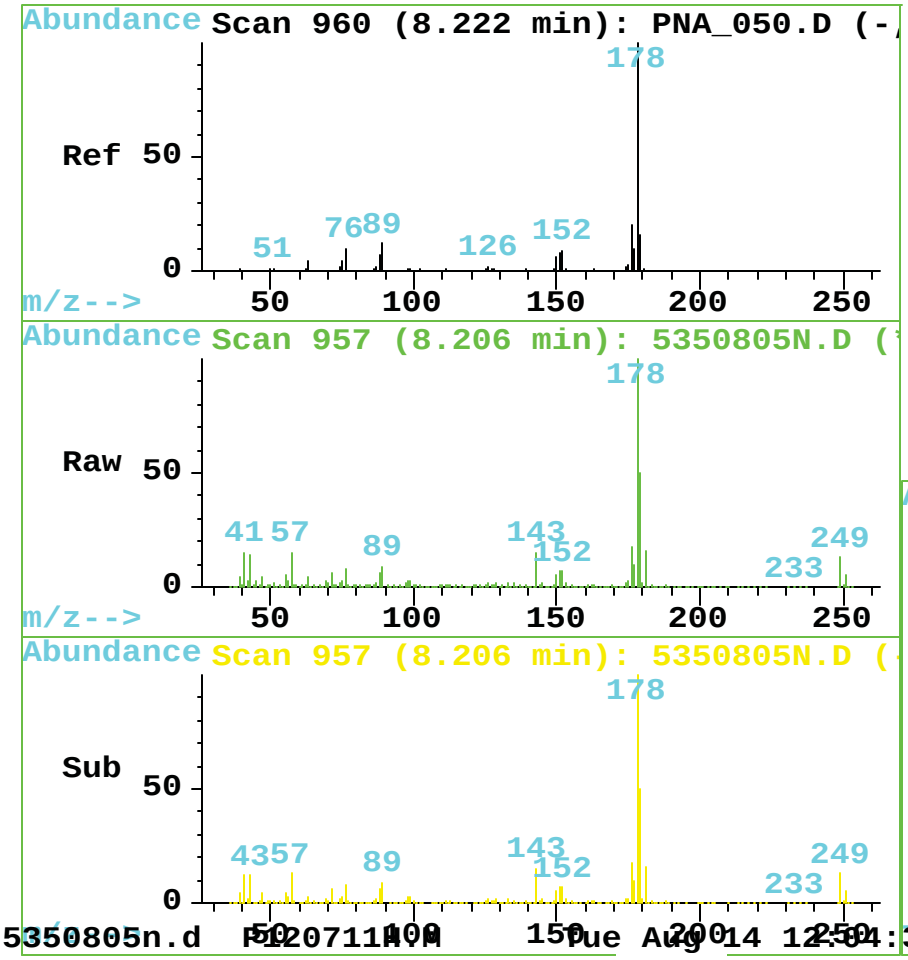


#13
Phenanthrene
Concen: 5.06 ng/ul
RT: 8.17 min Scan# 950
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:178 Resp: 64798

Ion	Ratio	Lower	Upper
178	100		
176	18.7	0.0	50.1
179	0.0	0.0	46.1
0	0.0	0.0	0.0

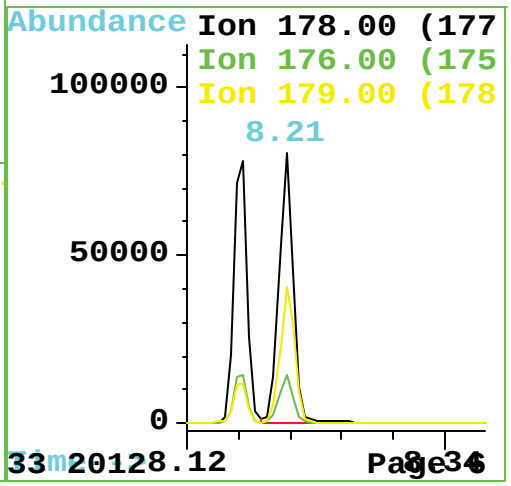


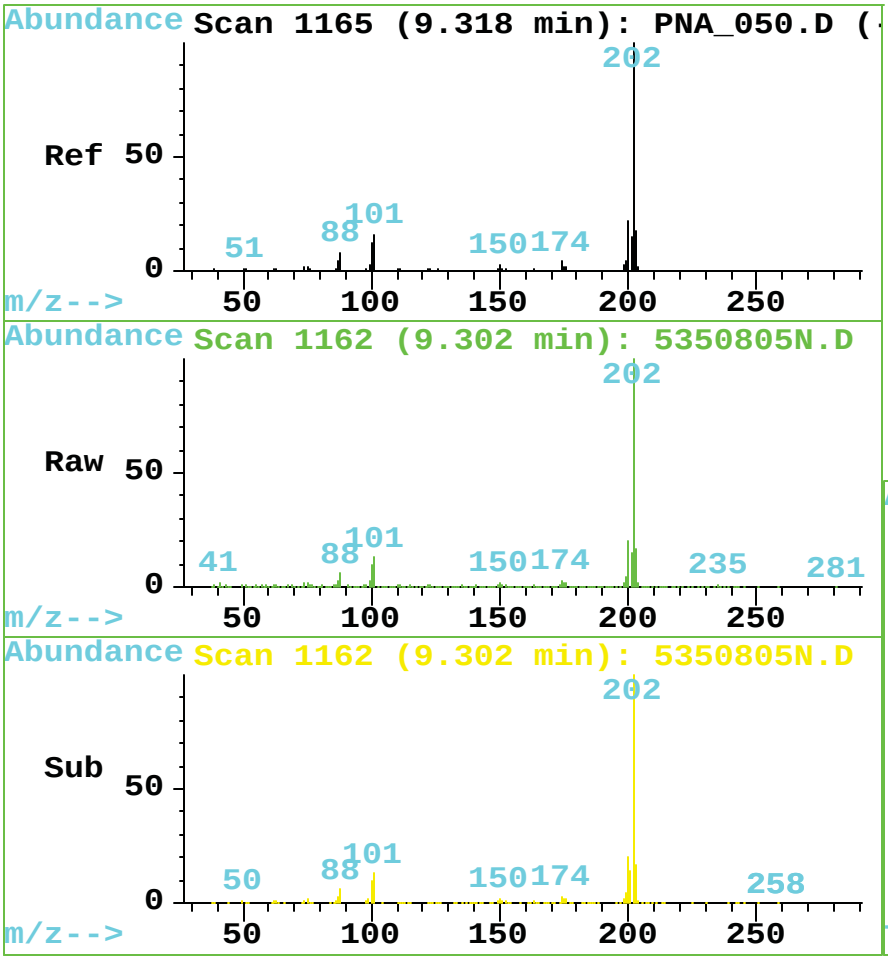


#14
Anthracene
Concen: 6.11 ng/ul
RT: 8.21 min Scan# 957
Delta R.T. -0.02 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:178 Resp: 67512

Ion	Ratio	Lower	Upper
178	100		
176	17.9	0.0	49.6
179	51.7	0.0	46.1#
0	0.0	0.0	0.0

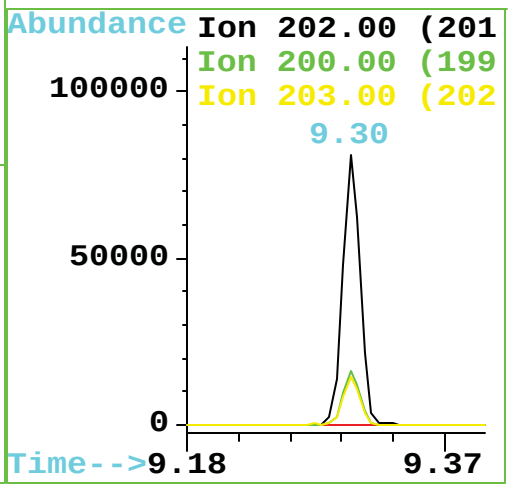


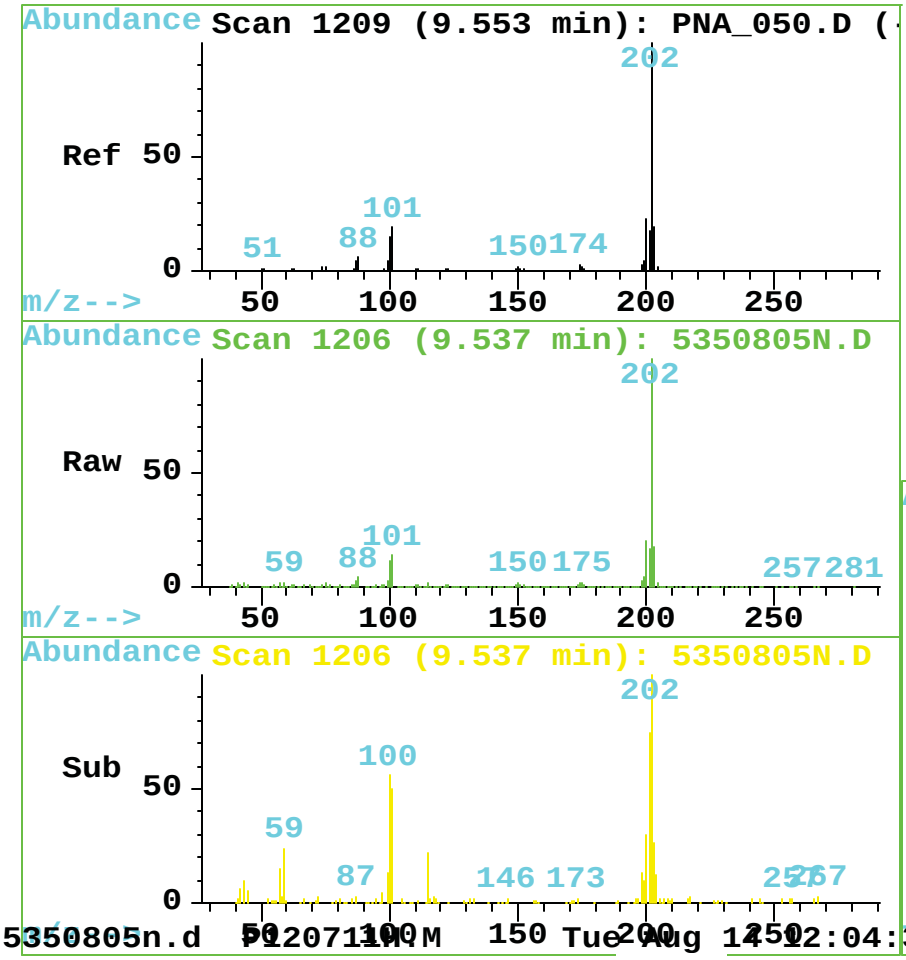


#15
Fluoranthene
Concen: 6.11 ng/ul
RT: 9.30 min Scan# 1162
Delta R.T. -0.02 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:202 Resp: 75272

Ion	Ratio	Lower	Upper
202	100		
200	19.6	0.0	51.6
203	17.5	0.0	48.4
0	0.0	0.0	0.0

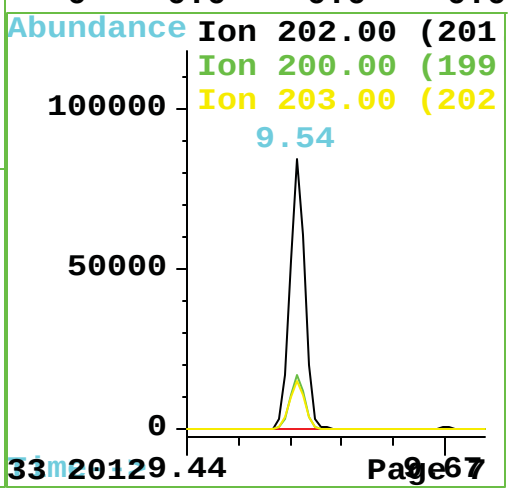


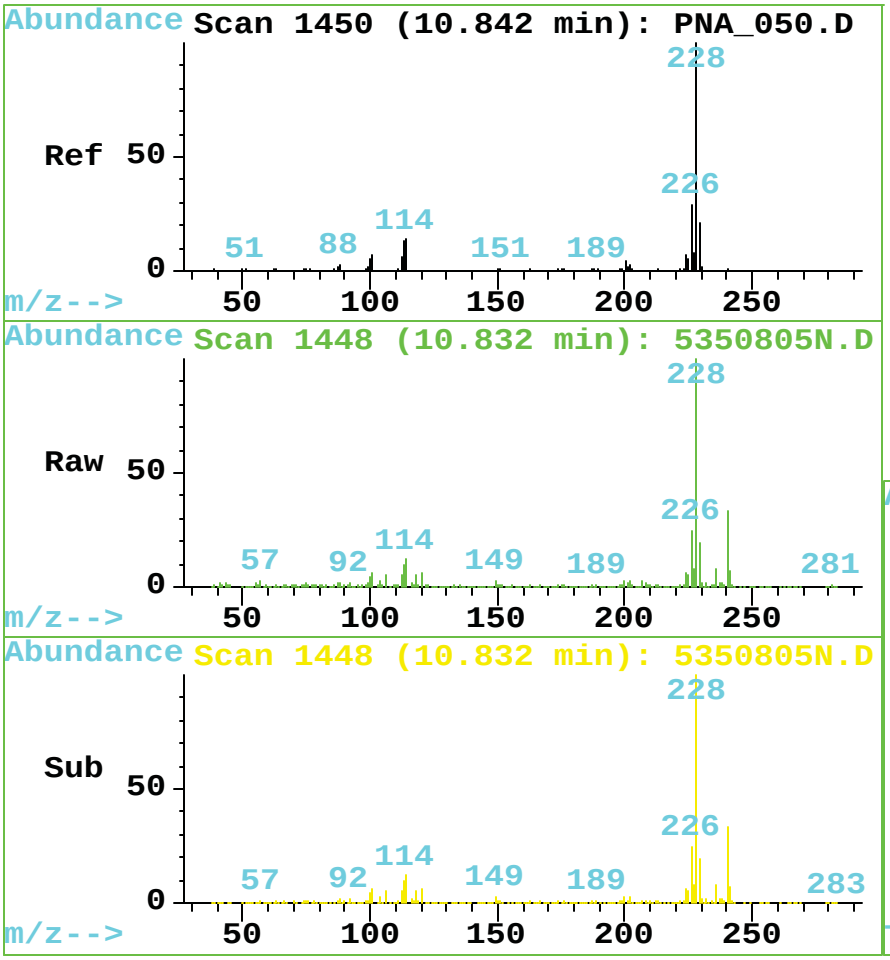


#18
Pyrene **
Concen: 6.12 ng/ul
RT: 9.54 min Scan# 1206
Delta R.T. -0.02 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:202 Resp: 77925

Ion	Ratio	Lower	Upper
202	100		
200	20.0	0.0	52.1
203	18.3	0.0	48.7
0	0.0	0.0	0.0

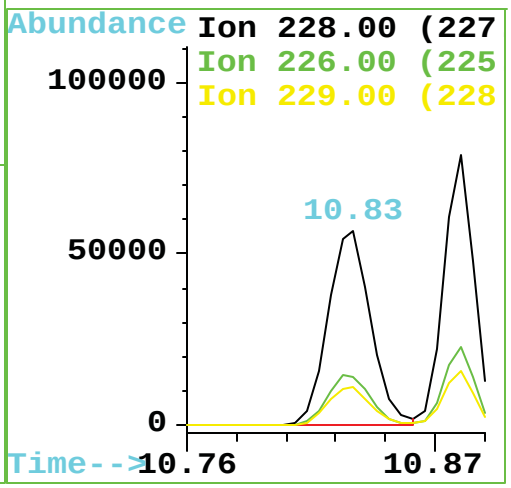


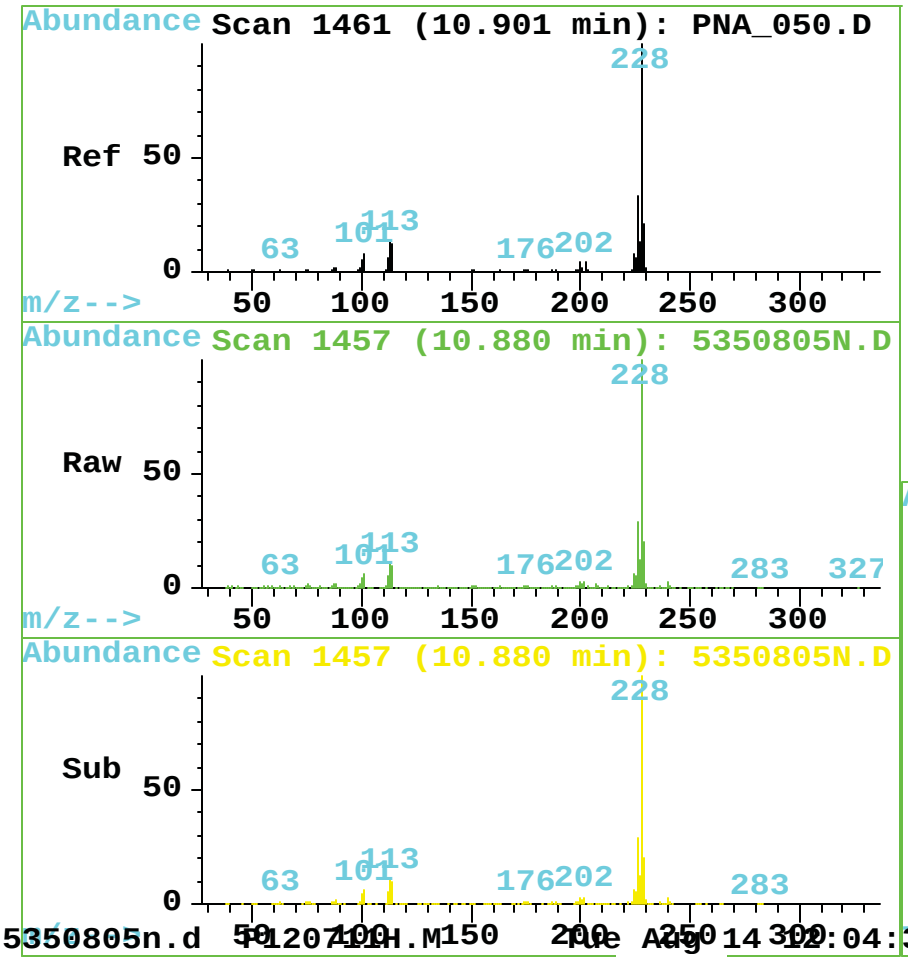


#19
Benzo(a)anthracene
Concen: 6.23 ng/ul
RT: 10.83 min Scan# 1448
Delta R.T. -0.01 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:228 Resp: 77924

Ion	Ratio	Lower	Upper
228	100		
226	25.7	0.0	58.4
229	19.3	0.0	50.5
0	0.0	0.0	0.0

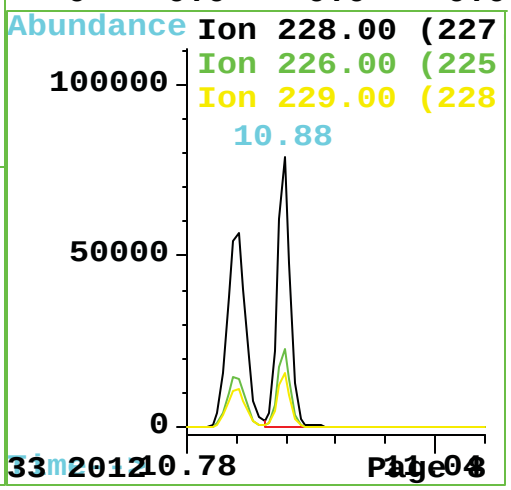


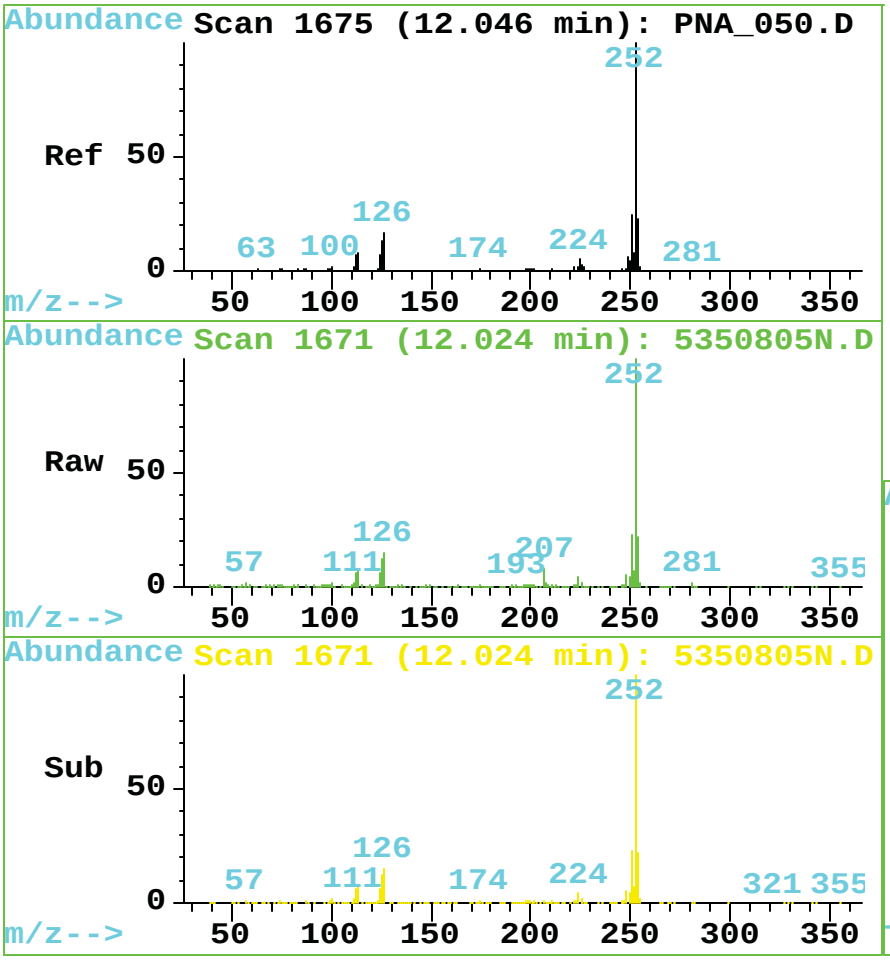


#20
Chrysene
Concen: 6.16 ng/ul
RT: 10.88 min Scan# 1457
Delta R.T. -0.02 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:228 Resp: 74261

Ion	Ratio	Lower	Upper
228	100		
226	29.1	1.5	61.5
229	19.5	0.0	50.4
0	0.0	0.0	0.0

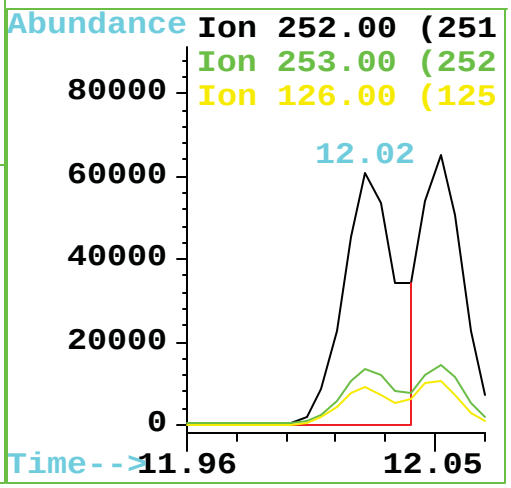


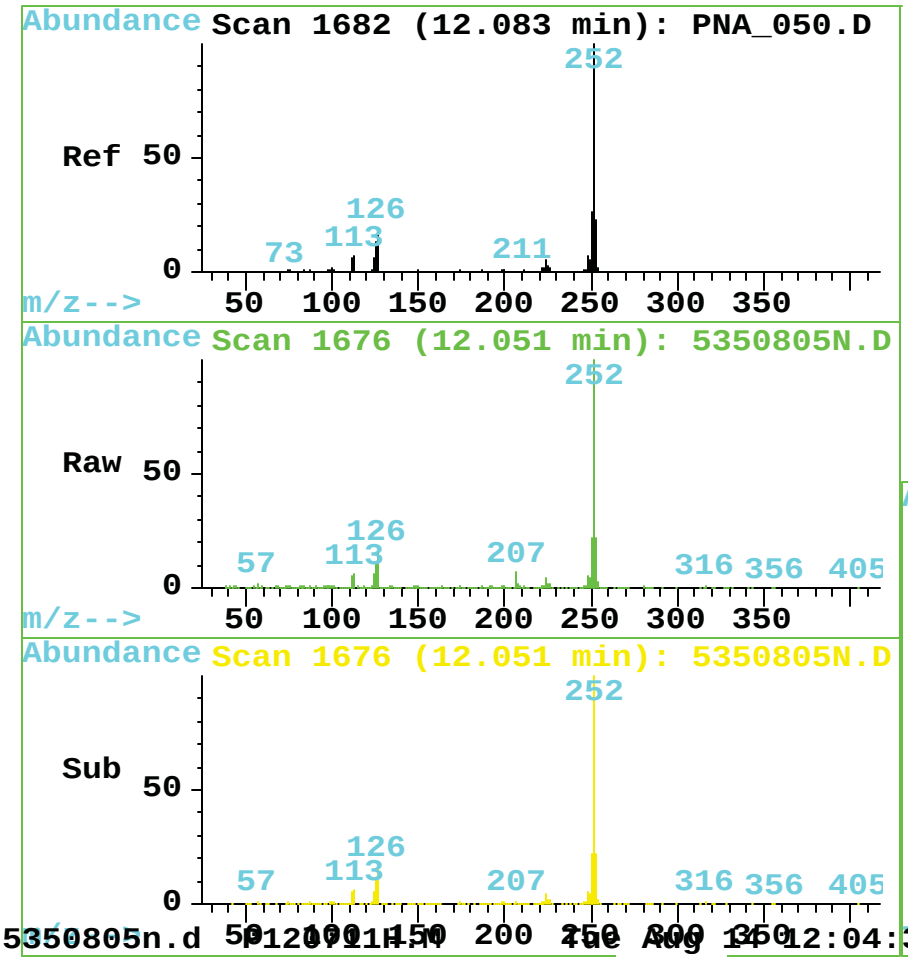


#22
Benzo(b)fluoranthene
Concen: 6.59 ng/ul m
RT: 12.02 min Scan# 1671
Delta R.T. -0.02 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:252 Resp: 84261

Ion	Ratio	Lower	Upper
252	100		
253	22.3	0.0	52.9
126	15.1	0.0	47.5
0	0.0	0.0	0.0

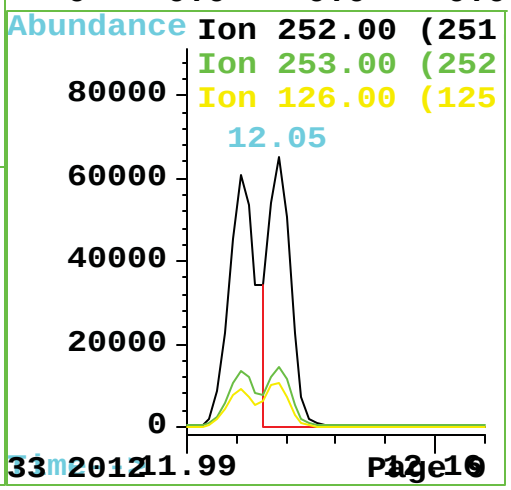


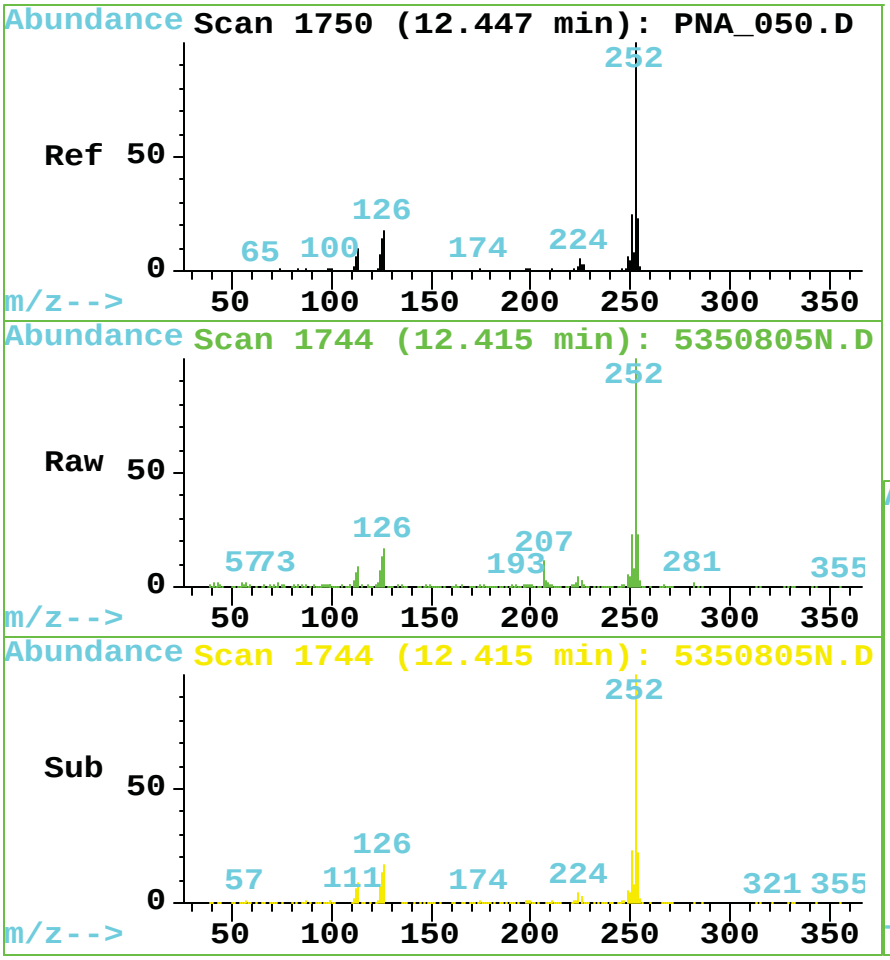


#23
Benzo(k)fluoranthene
Concen: 5.49 ng/ul
RT: 12.05 min Scan# 1676
Delta R.T. -0.03 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:252 Resp: 65848

Ion	Ratio	Lower	Upper
252	100		
253	21.6	0.0	52.8
126	18.8	0.0	48.5
0	0.0	0.0	0.0

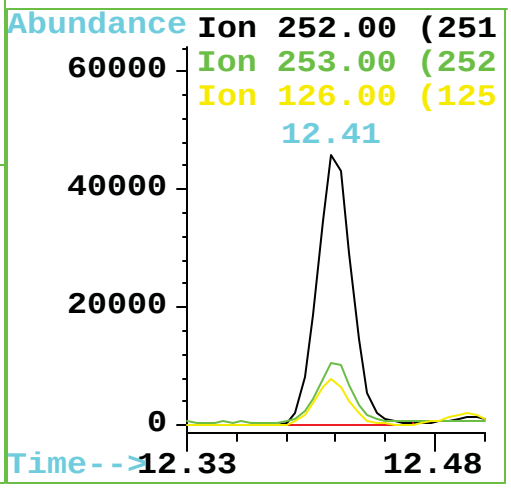


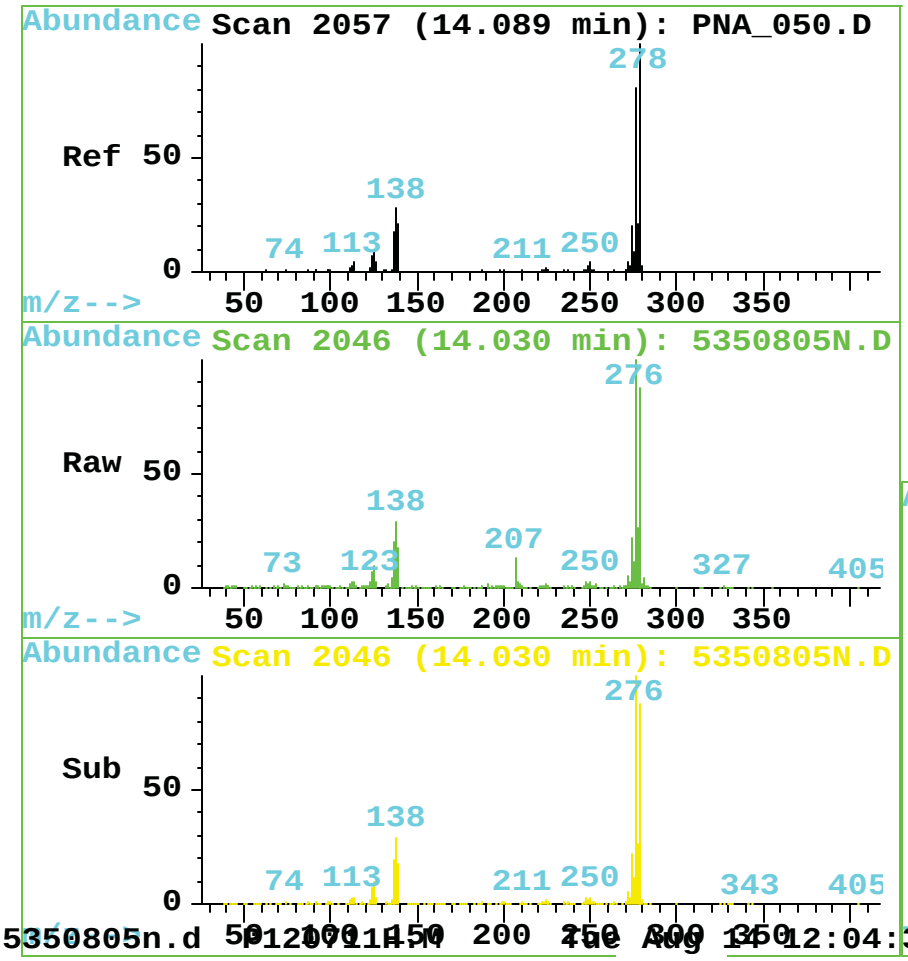


#24
Benzo(a)pyrene
Concen: 5.97 ng/ul
RT: 12.41 min Scan# 1744
Delta R.T. -0.03 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:252 Resp: 65989

Ion	Ratio	Lower	Upper
252	100		
253	21.9	0.0	52.7
126	16.7	0.0	47.9
0	0.0	0.0	0.0

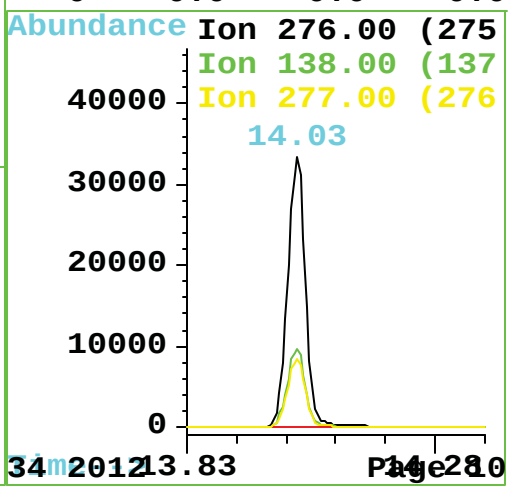


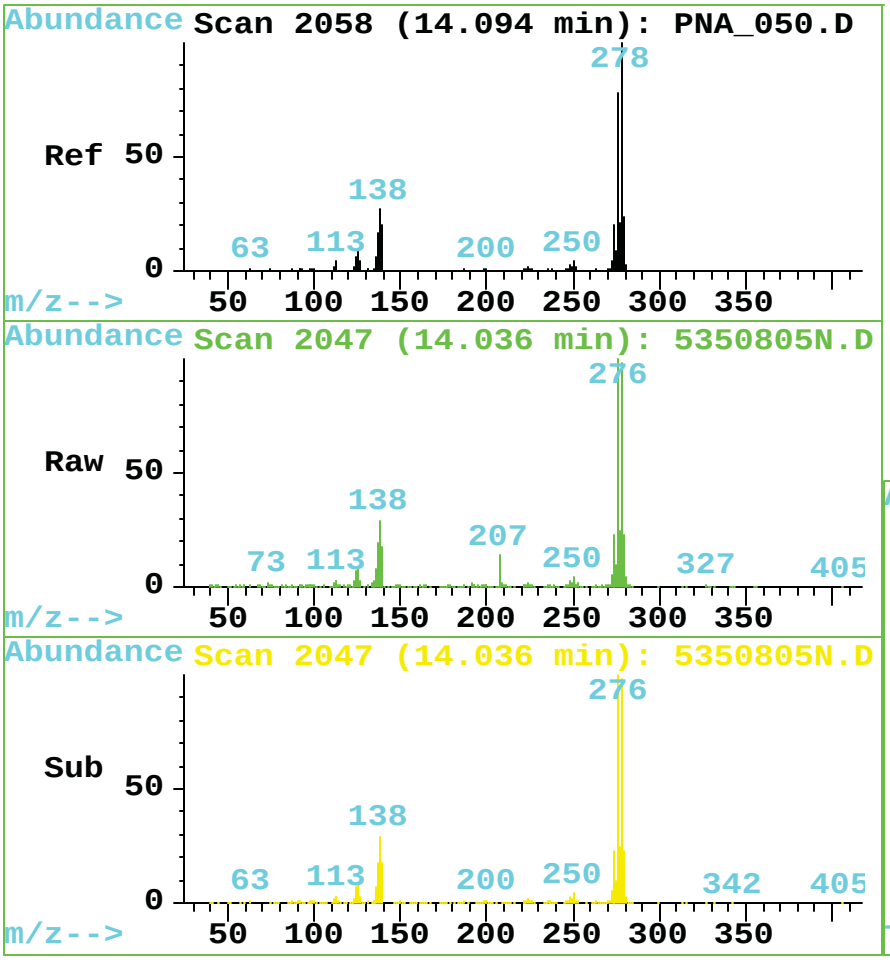


#25
Indeno(1,2,3-cd)pyrene
Concen: 5.44 ng/ul
RT: 14.03 min Scan# 2046
Delta R.T. -0.06 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:276 Resp: 74448

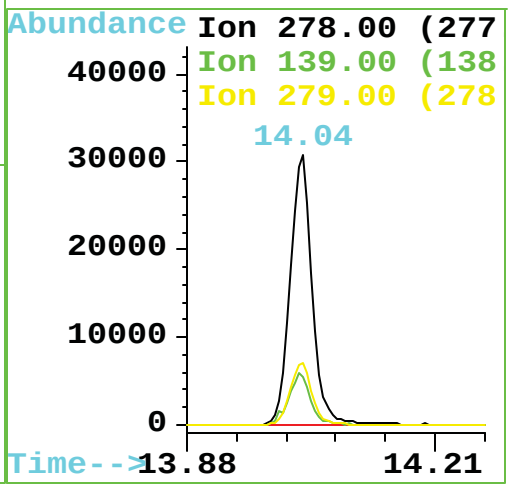
Ion	Ratio	Lower	Upper
276	100		
138	29.2	1.0	61.0
277	25.6	5.7	45.7
0	0.0	0.0	0.0

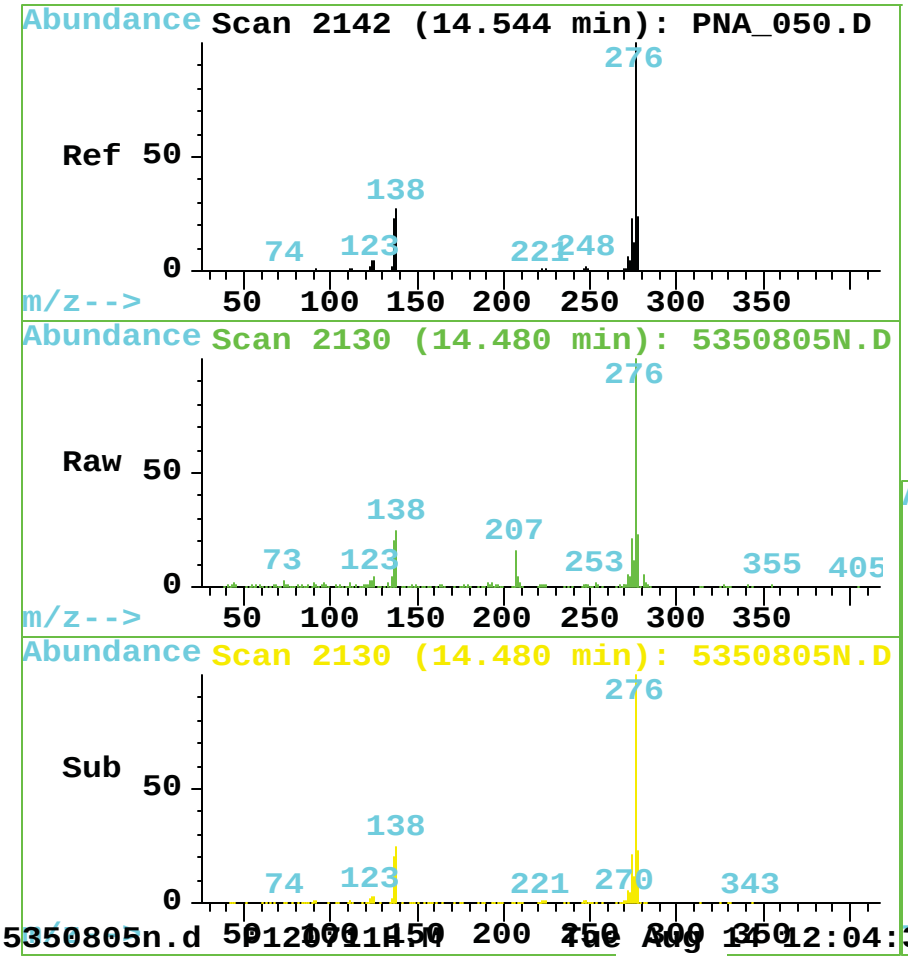




#26
Dibenzo(ah)anthracene
Concen: 5.59 ng/ul
RT: 14.04 min Scan# 2047
Delta R.T. -0.06 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

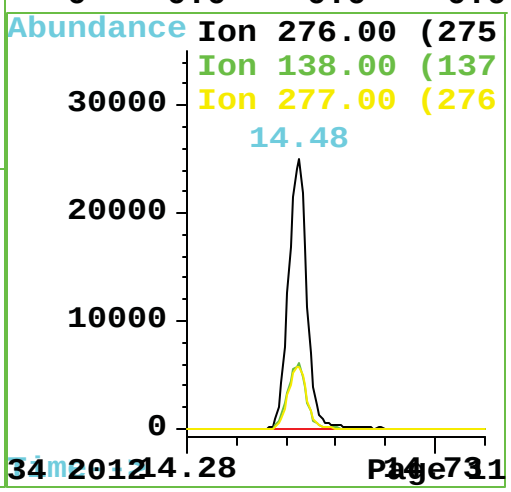
Tgt Ion:278	Resp:	62666	
Ion	Ratio	Lower	Upper
278	100		
139	19.5	0.0	49.8
279	23.1	9.1	39.1
0	0.0	0.0	0.0





#27
Benzo(ghi)perylene
Concen: 5.31 ng/ul
RT: 14.48 min Scan# 2130
Delta R.T. -0.06 min
Lab File: 5350805n.d
Acq: 13 Aug 12 4:49 pm

Tgt Ion:276	Resp:	59648	
Ion	Ratio	Lower	Upper
276	100		
138	24.8	0.0	56.7
277	23.5	4.2	44.2
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350806.d Vial: 21
Acq On : 13 Aug 12 5:08 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:50 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

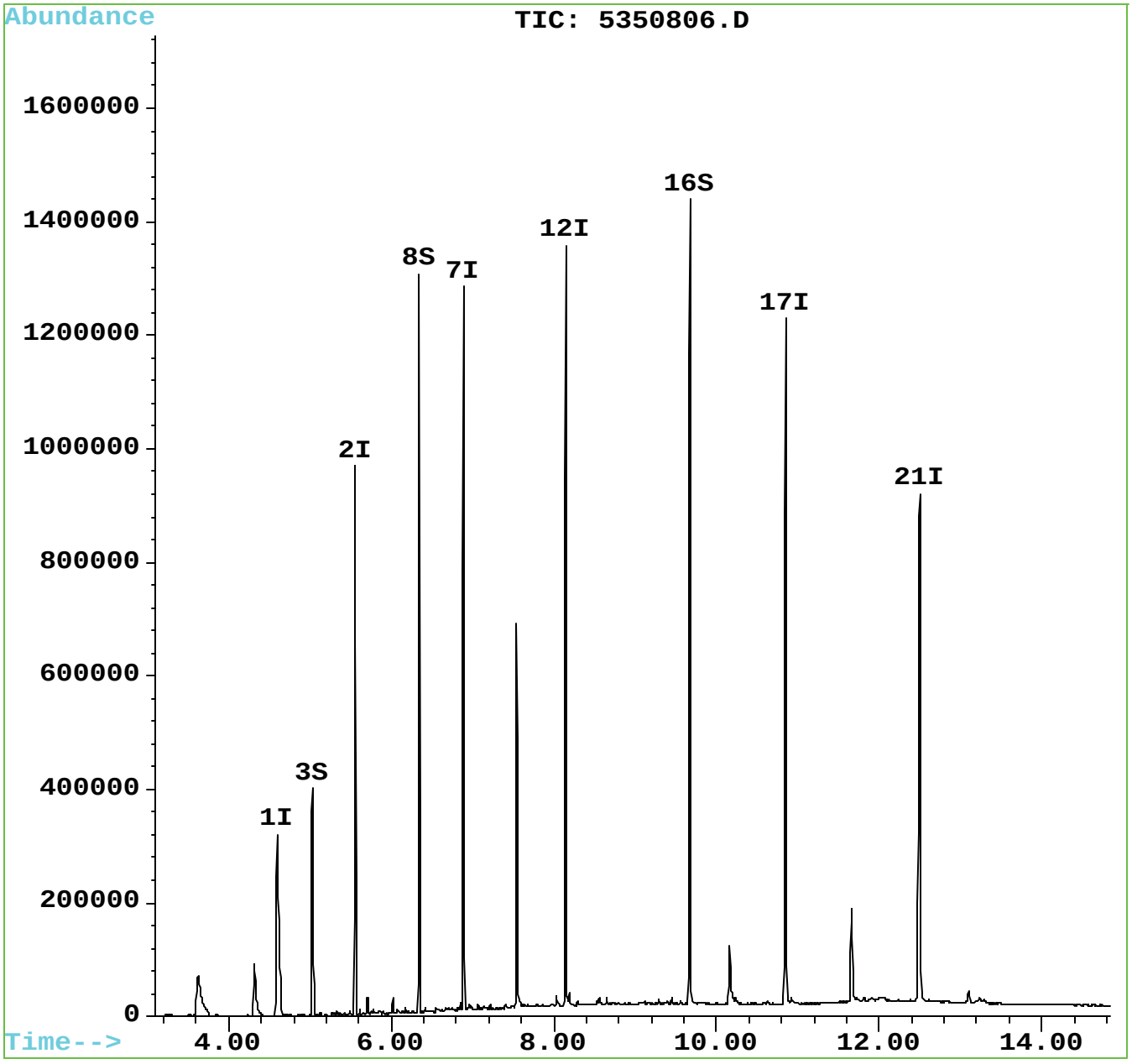
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	124841	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	453233	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	247679	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	481064	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	564375	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	547045	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	157634	42.01	ng/ul	42.0
8) 2-Fluorobiphenyl	6.34	172	376449	50.35	ng/ul	50.3
16) Terphenyl-D14	9.68	244	541389	58.25	ng/ul	58.2
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350806.d Vial: 21
Acq On : 13 Aug 12 5:08 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:50 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350808.d Vial: 22
Acq On : 13 Aug 12 5:27 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:50 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

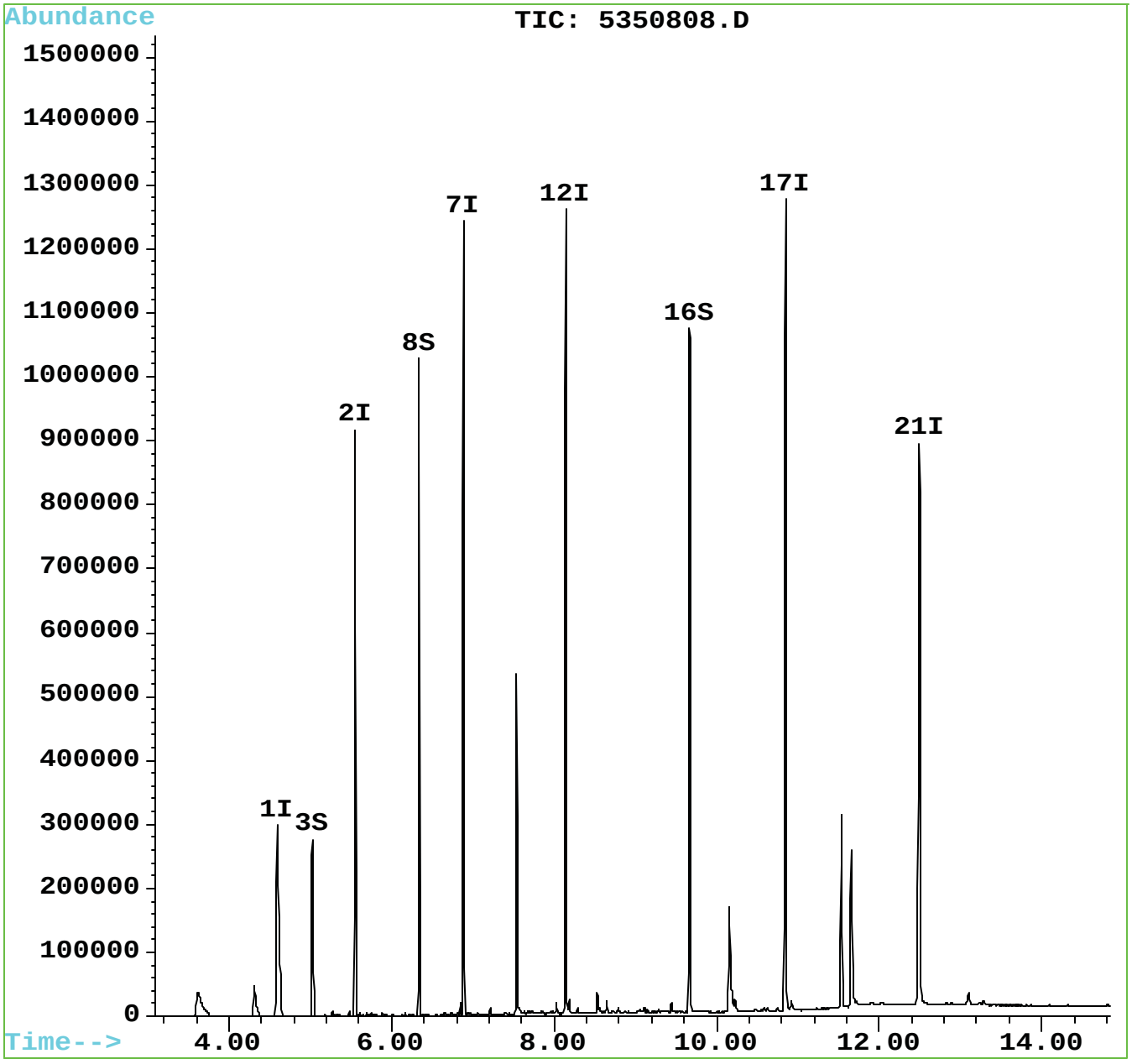
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	116658	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	426164	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	237129	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	461744	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	535516	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	516013	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	112439	31.87	ng/ul	31.8
8) 2-Fluorobiphenyl	6.34	172	286407	40.01	ng/ul	40.0
16) Terphenyl-D14	9.68	244	434562	48.71	ng/ul	48.7
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350808.d Vial: 22
Acq On : 13 Aug 12 5:27 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:50 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350809.d Vial: 23
Acq On : 13 Aug 12 5:47 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:51 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

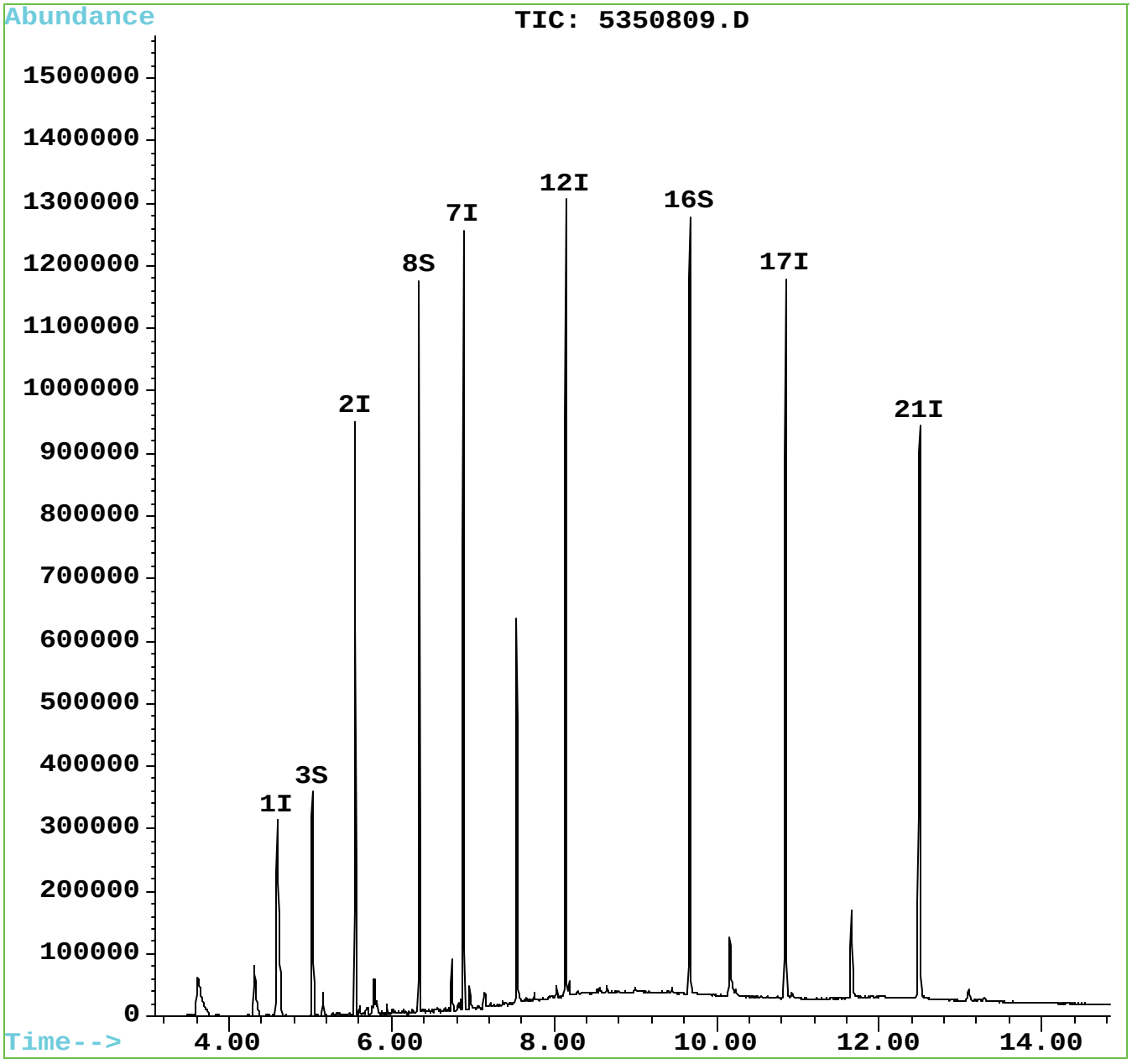
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	122375	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	442654	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	243471	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	470967	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	553082	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	535764	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	144511	39.43	ng/ul	39.4
8) 2-Fluorobiphenyl	6.34	172	347922	47.34	ng/ul	47.3
16) Terphenyl-D14	9.68	244	500338	54.98	ng/ul	54.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350809.d Vial: 23
Acq On : 13 Aug 12 5:47 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:51 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350810.d Vial: 24
Acq On : 13 Aug 12 6:06 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:51 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

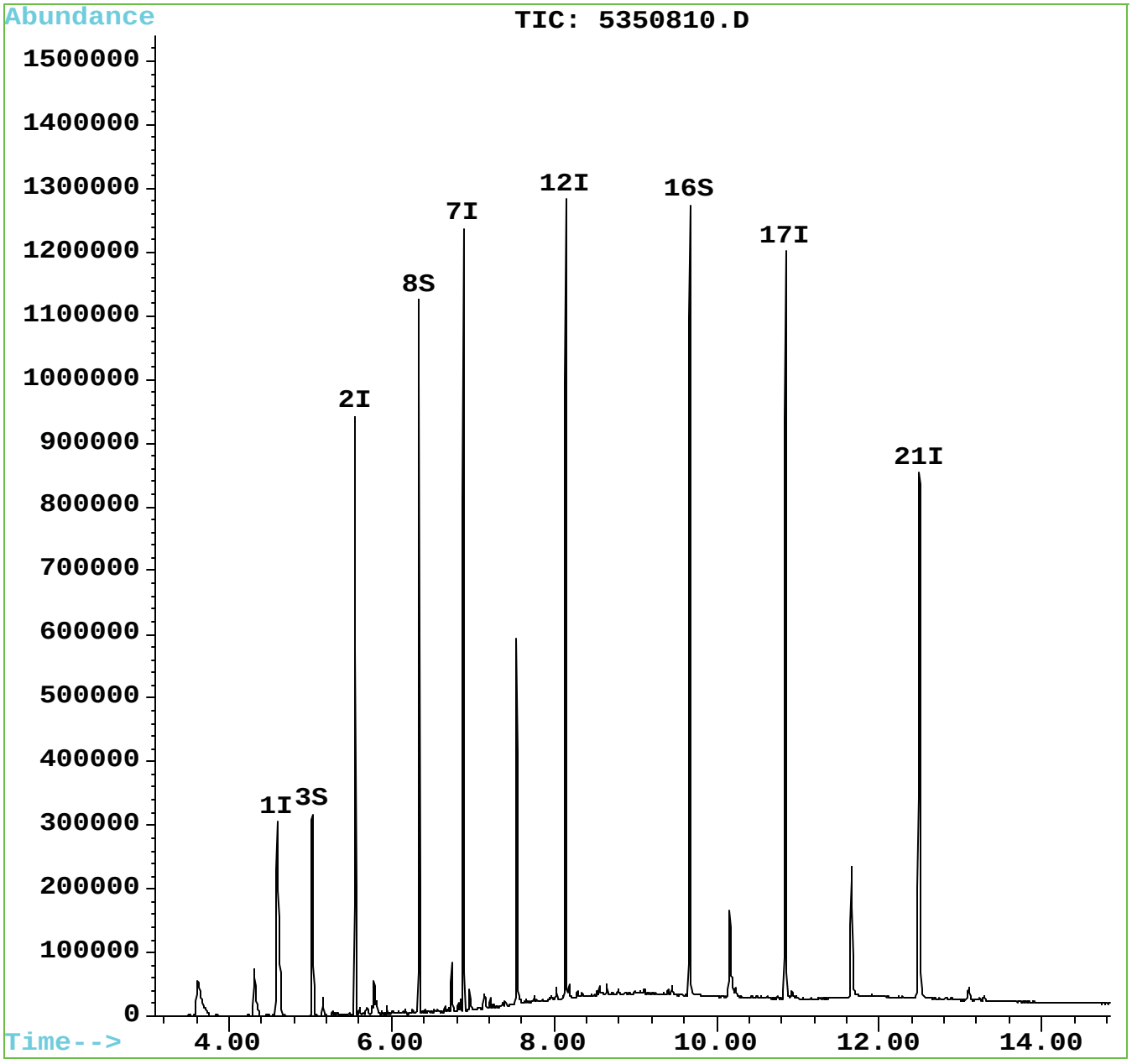
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	118757	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	430487	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	234211	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	459073	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	537682	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	518354	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	131450	36.88	ng/ul	36.8
8) 2-Fluorobiphenyl	6.34	172	324363	45.88	ng/ul	45.8
16) Terphenyl-D14	9.68	244	476396	53.71	ng/ul	53.7
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\5350810.d Vial: 24
Acq On : 13 Aug 12 6:06 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:51 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120813.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120711h.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	LO	0.308	15.60	0.212	0.312	0.325	0.339	0.335	0.327	1.00	0.00	0.331	0.00
	Naphthalene	A	0.916	14.44	1.118	1.006	0.929	0.876	0.818	0.751				
	2-Methylnaphthalene	A	0.510	12.37	0.575	0.576	0.532	0.495	0.462	0.419				
	1-Methylnaphthalene	A	0.586	14.31	0.687	0.668	0.605	0.563	0.517	0.474				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.208	14.12	1.404	1.375	1.247	1.176	1.080	0.963				
	Acenaphthylene	A	1.640	11.82	1.730	1.907	1.722	1.628	1.494	1.357				
	Acenaphthene **	QO	0.967	15.55	1.144	1.118	1.003	0.926	0.849	0.762	1.00	0.00	1.177	-0.17
	Fluorene	A	1.191	12.73	1.323	1.367	1.244	1.166	1.076	0.968				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	QO	0.961	15.48	1.175	1.086	0.969	0.911	0.854	0.773	1.00	0.00	1.124	-0.14
	Anthracene	A	0.954	12.20	1.043	1.110	0.989	0.918	0.874	0.791				
	Fluoranthene	A	1.063	9.22	1.059	1.215	1.113	1.061	1.003	0.926				
	Terphenyl-D14	A	0.773	7.88	0.762	0.862	0.806	0.780	0.750	0.679				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	0.945	9.38	0.982	1.072	0.981	0.937	0.876	0.820				
	Benzo(a)anthracene	A	0.928	6.44	0.918	1.017	0.963	0.933	0.896	0.841				
	Chrysene	A	0.895	10.11	0.998	0.989	0.914	0.875	0.822	0.771				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	0.965	6.13	0.907	1.039	0.978	0.997	0.985	0.881				
	Benzo(k)fluoranthene	A	0.904	9.08	0.766	0.985	0.978	0.939	0.875	0.881				
	Benzo(a)pyrene	A	0.834	10.68	0.658	0.887	0.873	0.892	0.864	0.827				
	Indeno(1,2,3-cd)pyrene	A	1.031	11.22	0.798	1.065	1.073	1.106	1.091	1.055				
	Dibenzo(ah)anthracene	A	0.845	11.68	0.646	0.889	0.882	0.903	0.893	0.857				
	Benzo(ghi)perylene	A	0.847	9.66	0.684	0.856	0.871	0.905	0.894	0.873				

Calibration Date: 71/1h/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120711h.M (Mean %RSD: 11.43)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\hades.6\methods\p120711h.m\

Injection Time	Calibration Data File
07/11/12 15:02	d11a.d
07/11/12 15:25	pna0005.d
07/11/12 16:23	pna_020.d
07/11/12 16:42	pna_040.d
07/11/12 17:01	pna_050.d
07/11/12 17:20	pna_060.d
07/11/12 17:39	pna_080.d
07/11/12 17:58	pna_100.d
07/17/12 10:59	d17a.d
07/17/12 11:50	icv17a.d

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d11a.d Vial: 1
Acq On : 11 Jul 12 3:02 pm Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

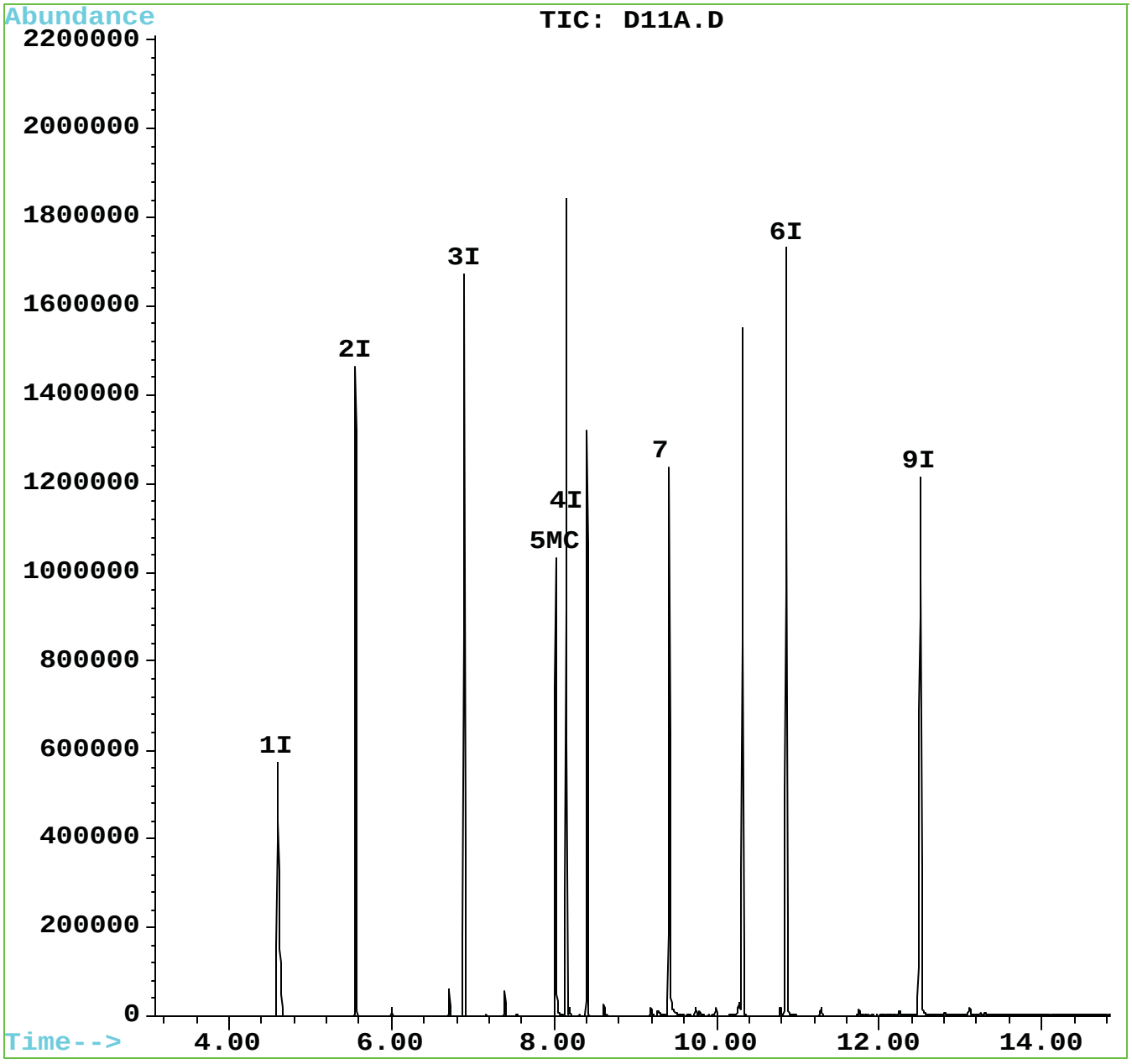
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	180364	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.56	136	646142	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	6.90	160	157761	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.16	188	665216	40.00	ng/ul	-0.0
6) CHRYSENE-D12	10.86	240	743367	40.00	ng/ul	-0.1
9) PERYLENE-D12	12.51	264	735374	40.00	ng/ul	-0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.02	266	108304	45.96	ng/ul	10
7) Benzidine	9.42	184	522196	66.26	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d11a.d Vial: 1
Acq On : 11 Jul 12 3:02 pm Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 11:03 19112

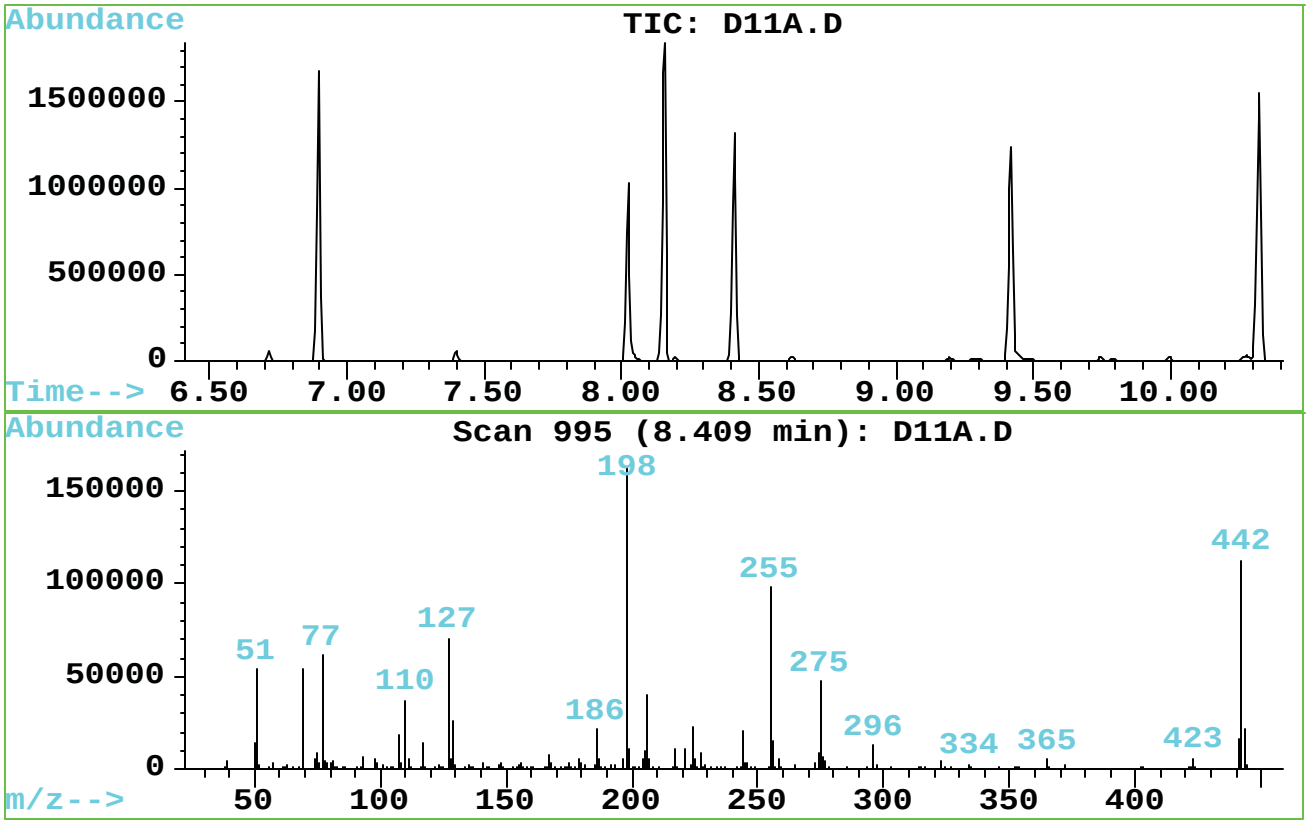
Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M\D11A.D Vial: 1
Acq On : 11 Jul 12 3:02 pm Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270



Peak Apex is scan: 995

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	32.8	53688	PASS
68	69	0	2	1.6	869	PASS
69	198	0	100	33.1	54144	PASS
70	69	0	2	0.5	284	PASS
127	198	25	75	43.0	70312	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	163584	PASS
199	198	5	9	6.9	11333	PASS
275	198	10	30	29.0	47488	PASS
365	198	1	100	3.2	5178	PASS
441	443	0	100	75.3	16632	PASS
442	198	40	110	68.8	112528	PASS
443	442	15	24	19.6	22096	PASS

D11A.D P120711H.M Fri Jul 20 12:21:55 2012

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna0005.d Vial: 2
Acq On : 11 Jul 12 3:25 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:29 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

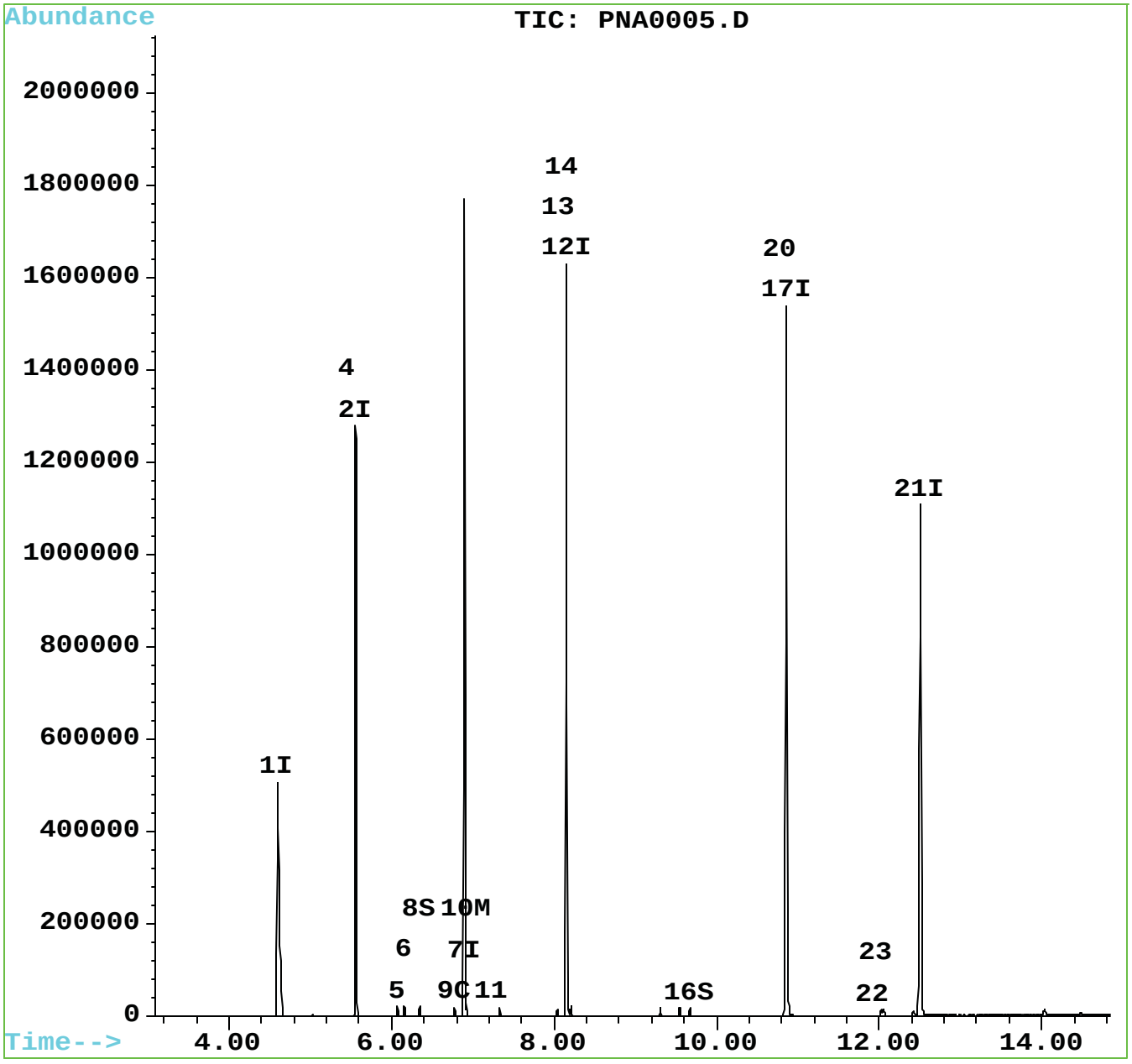
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	167893	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	585690	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	320029	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	584712	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	654856	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	640268	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	1551	1.38	ng/ul	1.3
8) 2-Fluorobiphenyl	6.35	172	5615	2.58	ng/ul	2.5
16) Terphenyl-D14	9.68	244	5566	2.85	ng/ul	2.8
Target Compounds						Qvalu
4) Naphthalene	5.57	128	8187	1.18	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	4211	0.56	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	5031	0.41	ng/ul	9
9) Acenaphthylene	6.78	152	6919	0.42	ng/ul	9
10) Acenaphthene **	6.92	154	4576	0.91	ng/ul	9
11) Fluorene	7.33	166	5292	0.53	ng/ul	9
13) Phenanthrene	8.17	178	8589	0.91	ng/ul	9
14) Anthracene	8.21	178	7623	0.83	ng/ul	9
20) Chrysene	10.89	228	8166	0.54	ng/ul	9
22) Benzo(b)fluoranthene	12.03	252	7262	0.64	ng/ul	9
23) Benzo(k)fluoranthene	12.06	252	6132	3.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna0005.d Vial: 2
Acq On : 11 Jul 12 3:25 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:29 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_020.d Vial: 5
Acq On : 11 Jul 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:30 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

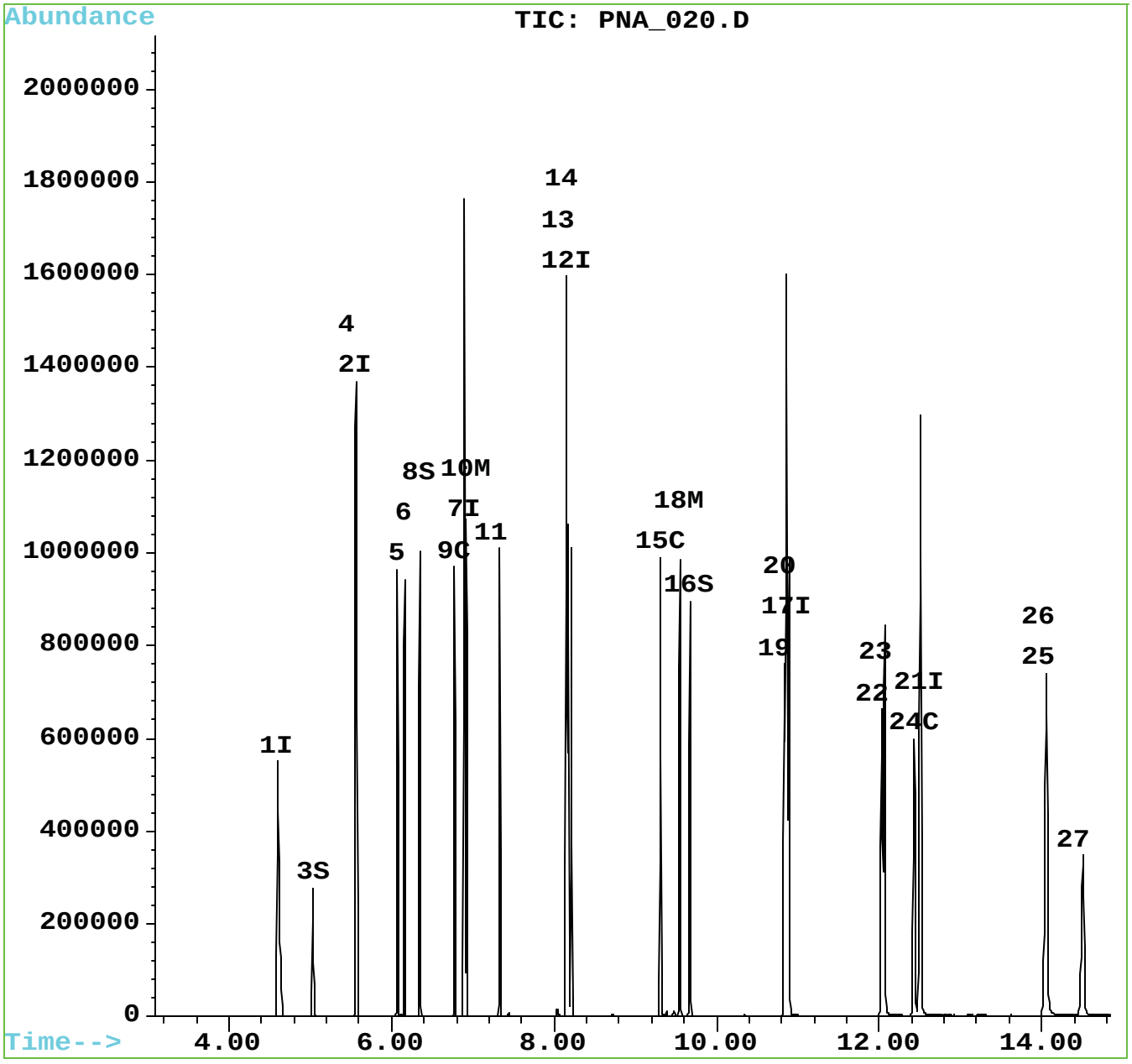
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	179514	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	625597	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	345525	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	637489	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	738717	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	737888	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	97591	87.45	ng/ul	87.4
8) 2-Fluorobiphenyl	6.35	172	237497	109.75	ng/ul	109.7
16) Terphenyl-D14	9.68	244	274634	143.06	ng/ul	143.0
Target Compounds						Qvalu
4) Naphthalene	5.57	128	314759	39.32	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	180085	24.29	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	209049	18.50	ng/ul	9
9) Acenaphthylene	6.78	152	329533	20.68	ng/ul	9
10) Acenaphthene **	6.92	154	193214	46.50	ng/ul	9
11) Fluorene	7.33	166	236167	24.11	ng/ul	9
13) Phenanthrene	8.17	178	346029	51.56	ng/ul	9
14) Anthracene	8.22	178	353676	41.12	ng/ul	9
15) Fluoranthene	9.31	202	387390	18.85	ng/ul	9
18) Pyrene **	9.55	202	396069	10.61	ng/ul	9
19) Benzo(a)anthracene	10.84	228	375636	9.76	ng/ul	10
20) Chrysene	10.89	228	365358	20.96	ng/ul	9
22) Benzo(b)fluoranthene	12.04	252	383440	27.37	ng/ul	9
23) Benzo(k)fluoranthene	12.07	252	363327	52.19	ng/ul	9
24) Benzo(a)pyrene	12.43	252	327129	16.10	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.06	276	392895	16.98	ng/ul	9
26) Dibenzo(ah)anthracene	14.06	278	327993	19.94	ng/ul	9
27) Benzo(ghi)perylene	14.51	276	315819	12.52	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_020.d Vial: 5
Acq On : 11 Jul 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:30 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_040.d Vial: 6
Acq On : 11 Jul 12 4:42 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:37 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

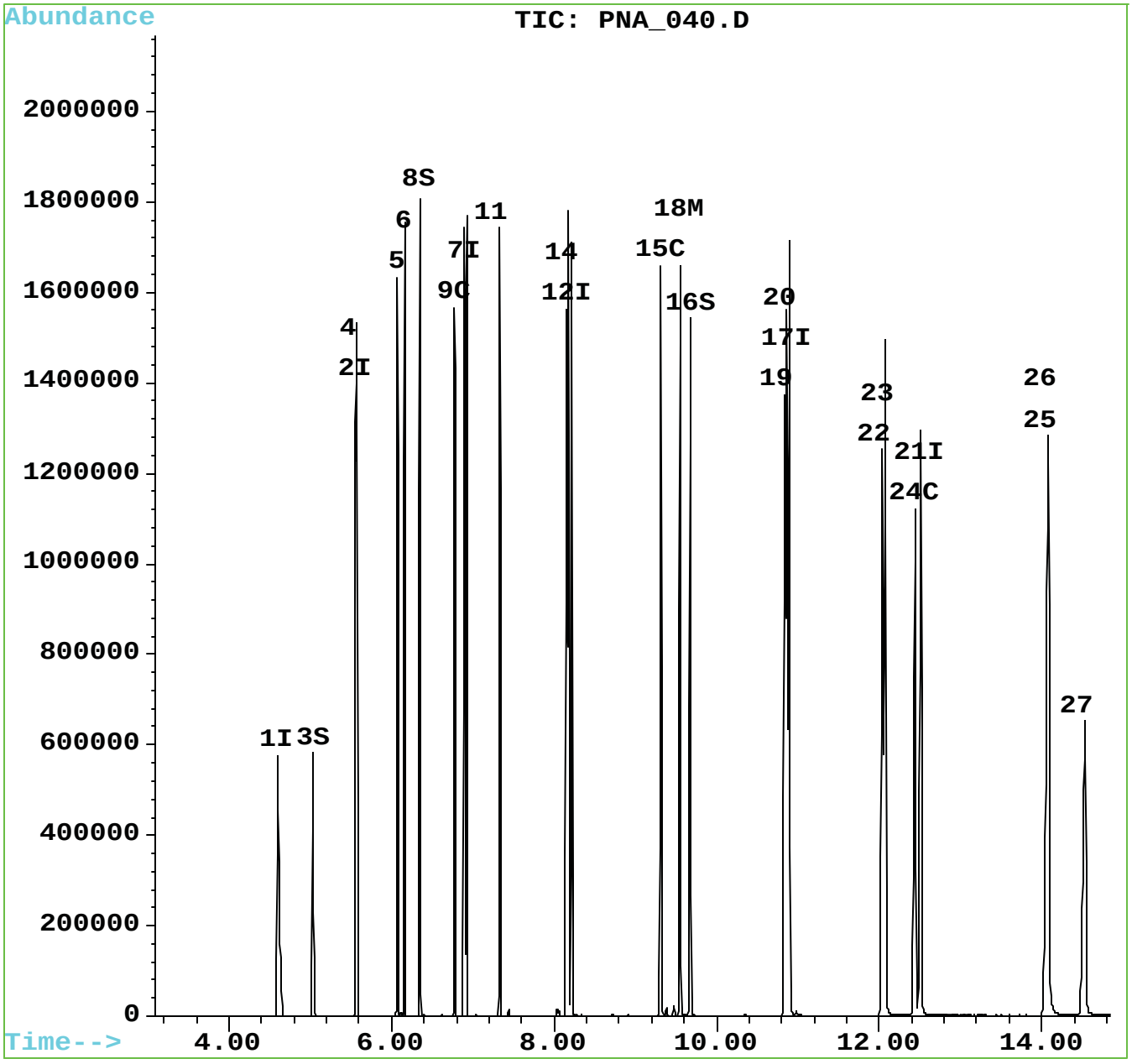
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	180899	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	625015	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	349682	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	653319	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	753262	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	753247	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	203308	200.34	ng/ul	200.3
8) 2-Fluorobiphenyl	6.35	172	435936	230.54	ng/ul	230.5
16) Terphenyl-D14	9.68	244	526429	281.30	ng/ul	281.3
Target Compounds						Qvalu
4) Naphthalene	5.57	128	580507	64.07	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	332731	47.27	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	378443	47.58	ng/ul	9
9) Acenaphthylene	6.78	152	602061	44.69	ng/ul	9
11) Fluorene	7.33	166	434962	45.64	ng/ul	9
14) Anthracene	8.22	178	646398	64.29	ng/ul	9
15) Fluoranthene	9.32	202	727431	42.37	ng/ul	9
18) Pyrene **	9.55	202	739135	20.09	ng/ul	9
19) Benzo(a)anthracene	10.84	228	725119	19.49	ng/ul	9
20) Chrysene	10.90	228	688281	37.16	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	736498	49.83	ng/ulm	9
23) Benzo(k)fluoranthene	12.08	252	736833	78.49	ng/ulm	9
24) Benzo(a)pyrene	12.44	252	657785	33.65	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.08	276	808345	35.60	ng/ul	9
26) Dibenzo(ah)anthracene	14.08	278	664101	40.75	ng/ul	9
27) Benzo(ghi)perylene	14.54	276	655777	26.67	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_040.d Vial: 6
Acq On : 11 Jul 12 4:42 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:37 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_050.d Vial: 7
Acq On : 11 Jul 12 5:01 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:42 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

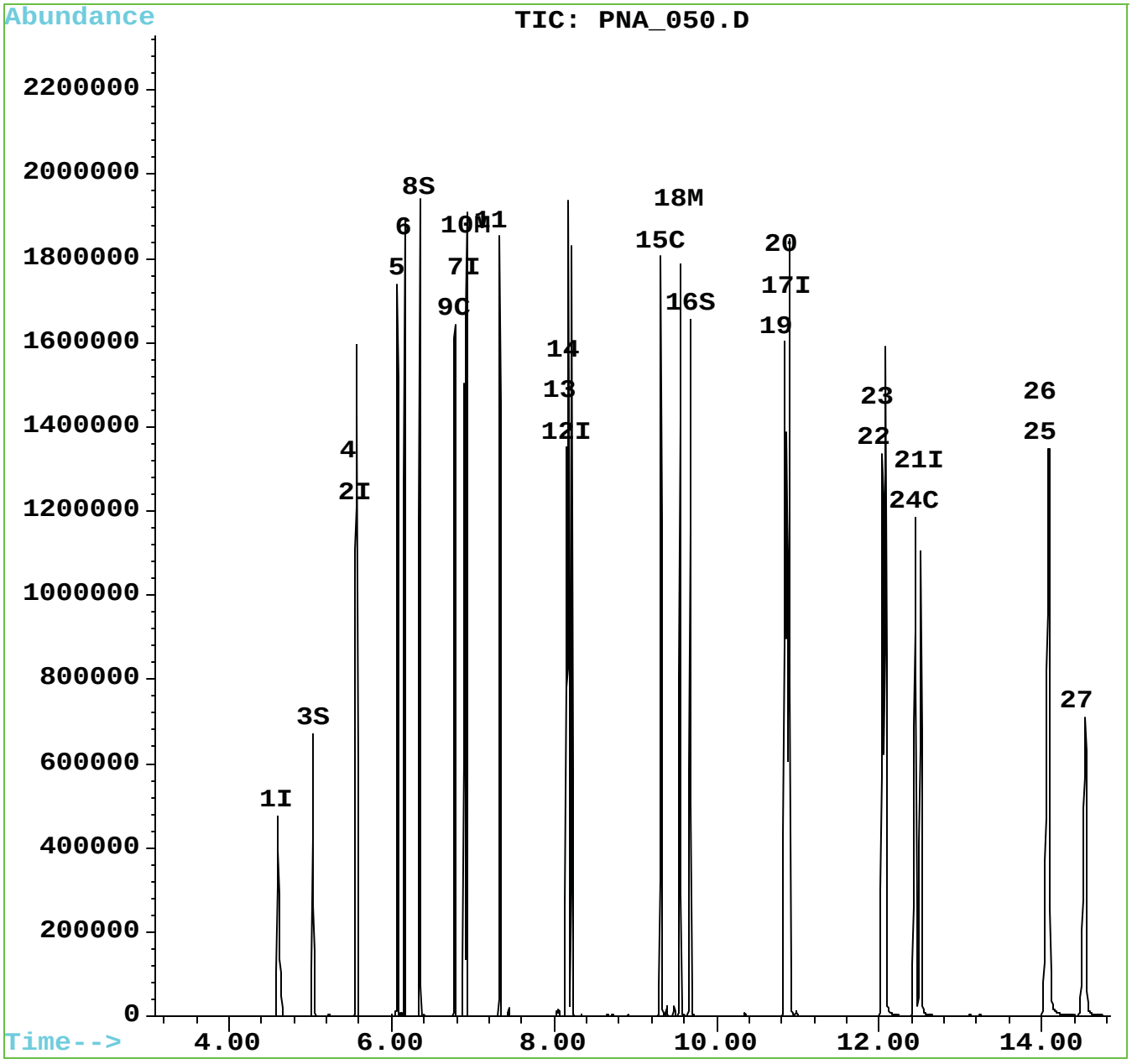
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	153619	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	539516	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	304280	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	557660	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	641613	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	638155	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	230895	310.15	ng/ul	310.1
8) 2-Fluorobiphenyl	6.35	172	476809	311.46	ng/ul	311.4
16) Terphenyl-D14	9.68	244	577490	321.58	ng/ul	321.5
Target Compounds						Qvalu
4) Naphthalene	5.58	128	641159	51.87	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	363951	52.93	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	415005	52.51	ng/ul	9
9) Acenaphthylene	6.78	152	665124	53.33	ng/ul	9
10) Acenaphthene **	6.93	154	380449	51.97	ng/ul	9
11) Fluorene	7.33	166	477240	52.69	ng/ul	9
13) Phenanthrene	8.18	178	697832	53.35	ng/ul	9
14) Anthracene	8.22	178	707428	53.18	ng/ul	9
15) Fluoranthene	9.32	202	797823	53.84	ng/ul	9
18) Pyrene **	9.55	202	812889	53.63	ng/ul	9
19) Benzo(a)anthracene	10.84	228	795381	53.43	ng/ul	9
20) Chrysene	10.90	228	757519	52.77	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	855353	55.59	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	781592	54.19	ng/ul	9
24) Benzo(a)pyrene	12.45	252	727335	54.68	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.09	276	908697	55.22	ng/ul	9
26) Dibenzo(ah)anthracene	14.09	278	742338	55.07	ng/ul	9
27) Benzo(ghi)perylene	14.54	276	739738	54.74	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_050.d Vial: 7
Acq On : 11 Jul 12 5:01 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:42 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_060.d Vial: 8
Acq On : 11 Jul 12 5:20 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:38 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

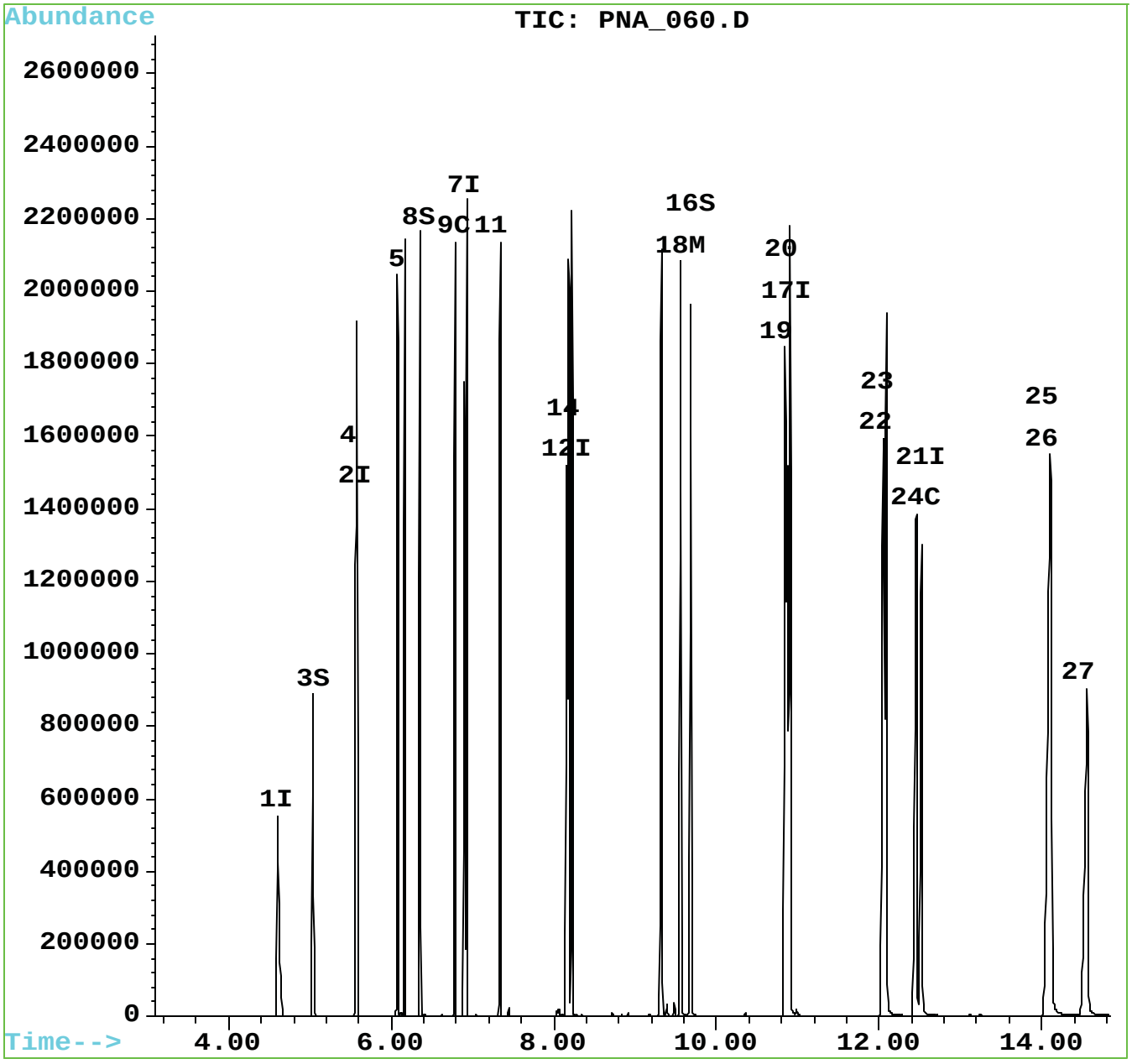
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	174561	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	606835	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	339373	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	628640	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	727886	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	721705	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	308560	341.22	ng/ul	341.2
8) 2-Fluorobiphenyl	6.35	172	598732	383.98	ng/ul	383.9
16) Terphenyl-D14	9.69	244	735082	407.94	ng/ul	407.9
Target Compounds						Qvalu
4) Naphthalene	5.58	128	797524	81.13	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	450356	66.16	ng/ul	9
9) Acenaphthylene	6.78	152	828622	80.10	ng/ul	9
11) Fluorene	7.34	166	593392	64.22	ng/ul	9
14) Anthracene	8.22	178	865350	81.60	ng/ul	9
18) Pyrene **	9.56	202	1023313	32.20	ng/ul	9
19) Benzo(a)anthracene	10.85	228	1018399	32.54	ng/ul	9
20) Chrysene	10.91	228	955801	53.46	ng/ul	9
22) Benzo(b)fluoranthene	12.06	252	1078836	73.32	ng/ulm	9
23) Benzo(k)fluoranthene	12.09	252	1016207	88.91	ng/ulm	9
24) Benzo(a)pyrene	12.46	252	966111	52.79	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.12	276	1197735	56.02	ng/ul	9
26) Dibenzo(ah)anthracene	14.11	278	977732	61.72	ng/ul	9
27) Benzo(ghi)perylene	14.57	276	979468	44.26	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_060.d Vial: 8
Acq On : 11 Jul 12 5:20 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:38 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_080.d Vial: 9
Acq On : 11 Jul 12 5:39 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:39 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

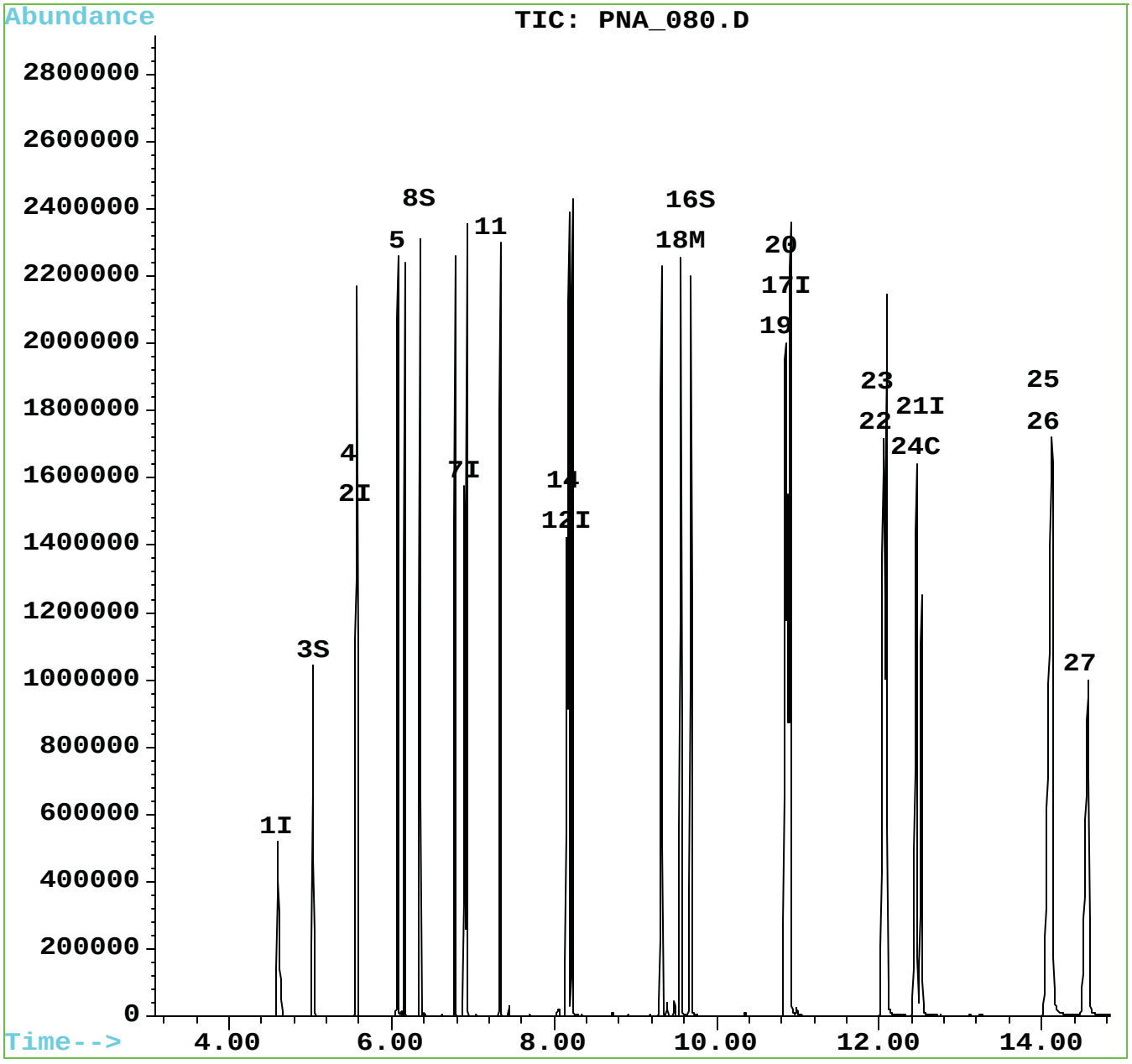
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	166585	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	574076	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	321323	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	586744	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	681358	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	676389	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	385154	499.78	ng/ul	499.7
8) 2-Fluorobiphenyl	6.35	172	694312	520.49	ng/ul	520.4
16) Terphenyl-D14	9.69	244	879821	513.59	ng/ul	513.5
Target Compounds						Qvalu
4) Naphthalene	5.58	128	939087	88.43	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	529937	79.64	ng/ul	9
11) Fluorene	7.34	166	691745	76.62	ng/ul	9
14) Anthracene	8.23	178	1025668	91.28	ng/ul	9
18) Pyrene **	9.56	202	1194405	49.96	ng/ul	9
19) Benzo(a)anthracene	10.85	228	1221410	53.48	ng/ul	9
20) Chrysene	10.91	228	1120434	68.08	ng/ul	9
22) Benzo(b)fluoranthene	12.06	252	1332116	91.08	ng/ul	9
23) Benzo(k)fluoranthene	12.09	252	1184191	84.63	ng/ulm	9
24) Benzo(a)pyrene	12.46	252	1168944	68.24	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.13	276	1475374	72.84	ng/ul	9
26) Dibenzo(ah)anthracene	14.12	278	1207681	77.27	ng/ul	9
27) Benzo(ghi)perylene	14.58	276	1209765	60.96	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_080.d Vial: 9
Acq On : 11 Jul 12 5:39 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:39 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_100.d Vial: 10
Acq On : 11 Jul 12 5:58 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:40 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

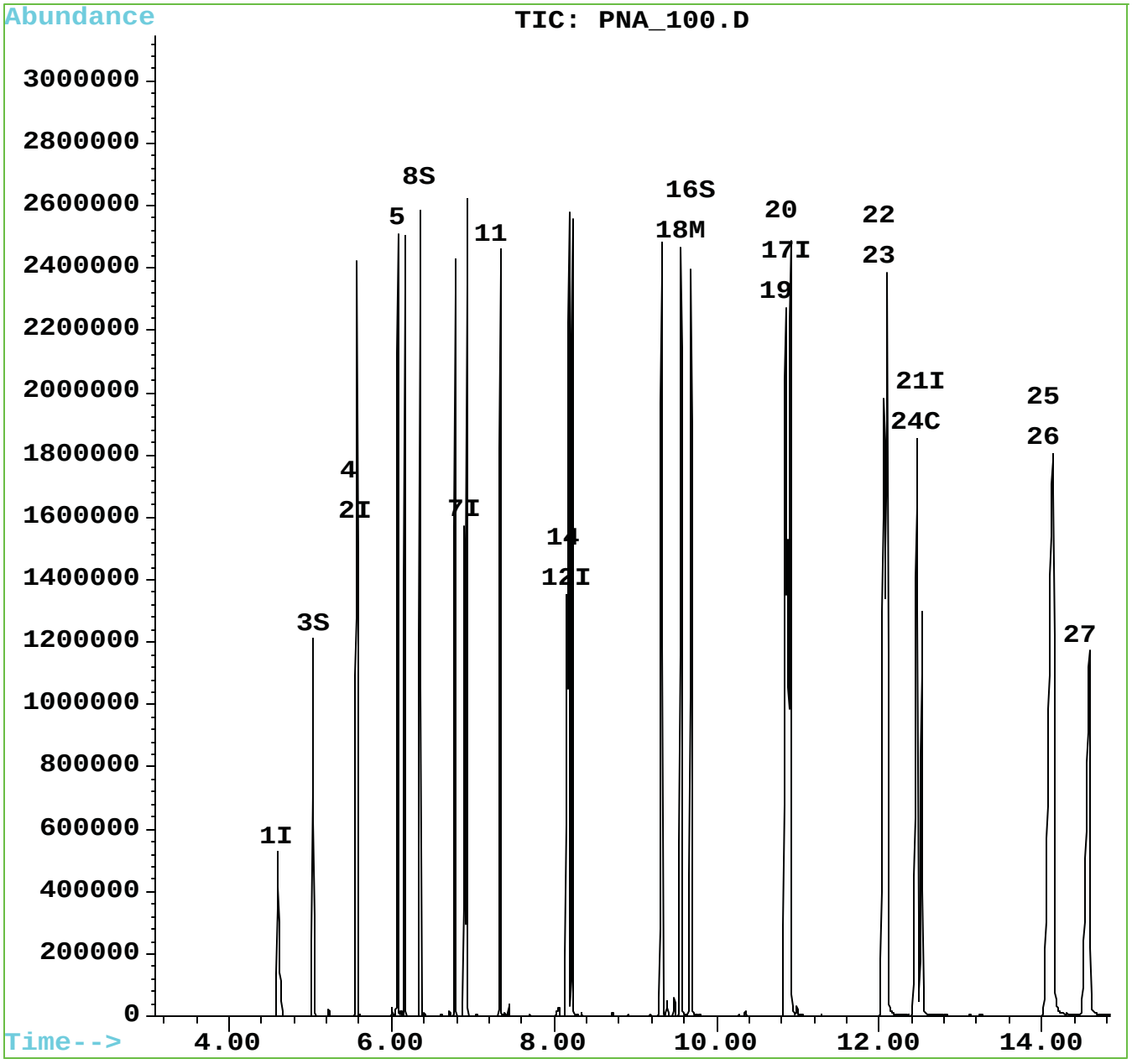
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	165660	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	571498	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	327462	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	607148	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	698098	40.00	ng/ul	0.0
21) PERYLENE-D12	12.53	264	695501	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.04	82	467663	631.36	ng/ul	631.3
8) 2-Fluorobiphenyl	6.35	172	788648	608.98	ng/ul	608.9
16) Terphenyl-D14	9.69	244	1030434	557.31	ng/ul	557.3
Target Compounds						Qvalu
4) Naphthalene	5.58	128	1073420	90.65	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	598746	86.30	ng/ul	9
11) Fluorene	7.34	166	792591	82.85	ng/ul	9
14) Anthracene	8.23	178	1201048	91.31	ng/ul	9
18) Pyrene **	9.56	202	1431447	69.73	ng/ul	9
19) Benzo(a)anthracene	10.85	228	1468215	70.12	ng/ul	9
20) Chrysene	10.91	228	1345876	82.13	ng/ul	9
22) Benzo(b)fluoranthene	12.10	252	3064676	157.24	ng/ulm	9
23) Benzo(k)fluoranthene	12.10	252	3064612	160.01	ng/ulm	9
24) Benzo(a)pyrene	12.47	252	1438597	85.95	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.15	276	1835170	91.46	ng/ul	9
26) Dibenzo(ah)anthracene	14.14	278	1489641	93.47	ng/ul	9
27) Benzo(ghi)perylene	14.59	276	1517491	82.16	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_100.d Vial: 10
Acq On : 11 Jul 12 5:58 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:40 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d17a.d Vial: 1
Acq On : 17 Jul 12 10:59 am Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 11:43 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

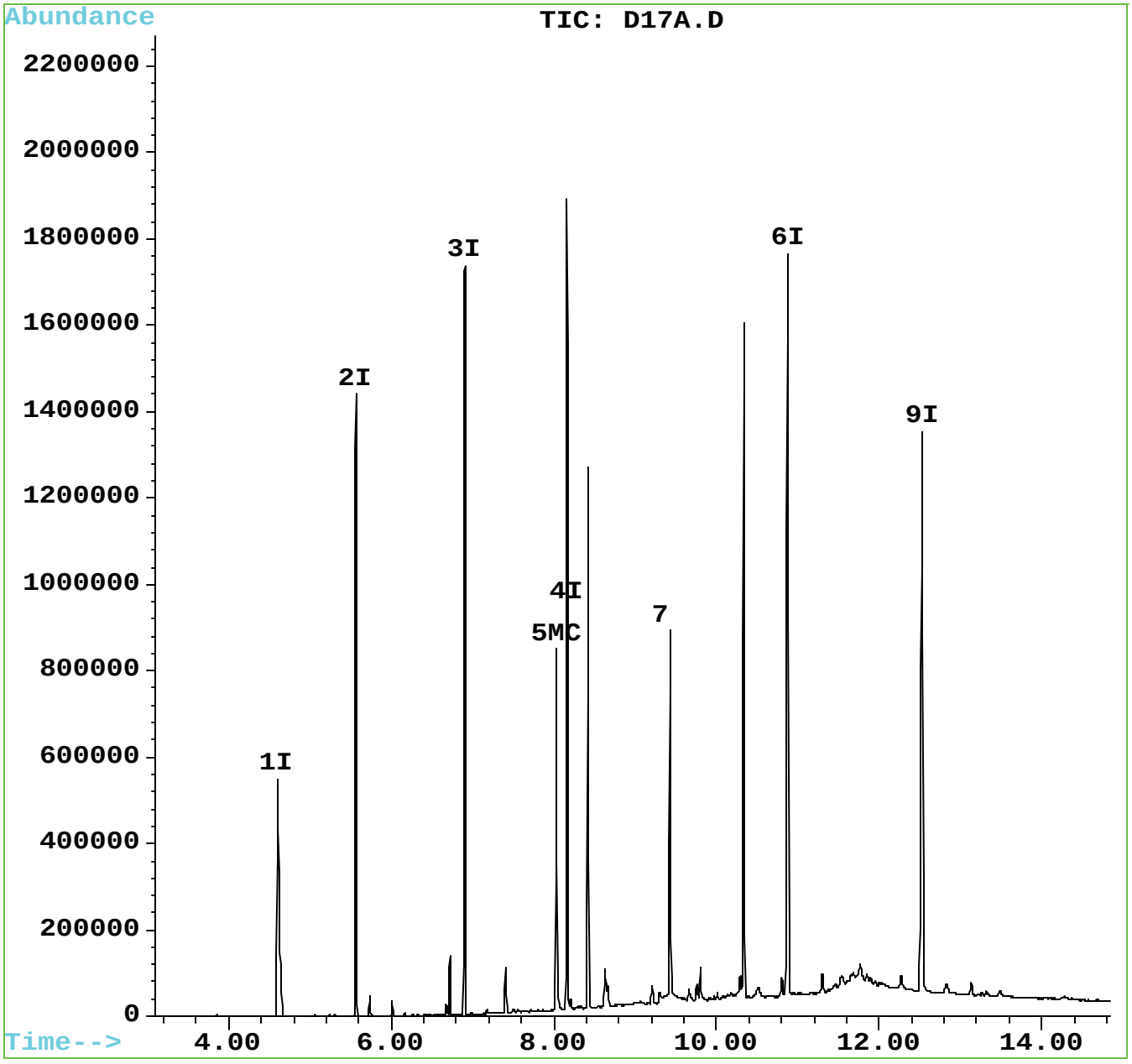
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	176282	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.56	136	651929	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	6.91	160	154362	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.16	188	655850	40.00	ng/ul	-0.0
6) CHRYSENE-D12	10.88	240	736544	40.00	ng/ul	-0.0
9) PERYLENE-D12	12.53	264	758943	40.00	ng/ul	-0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.03	266	92473	39.80	ng/ul	9
7) Benzidine	9.43	184	373860	47.88	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d17a.d Vial: 1
Acq On : 17 Jul 12 10:59 am Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 11:43 19112

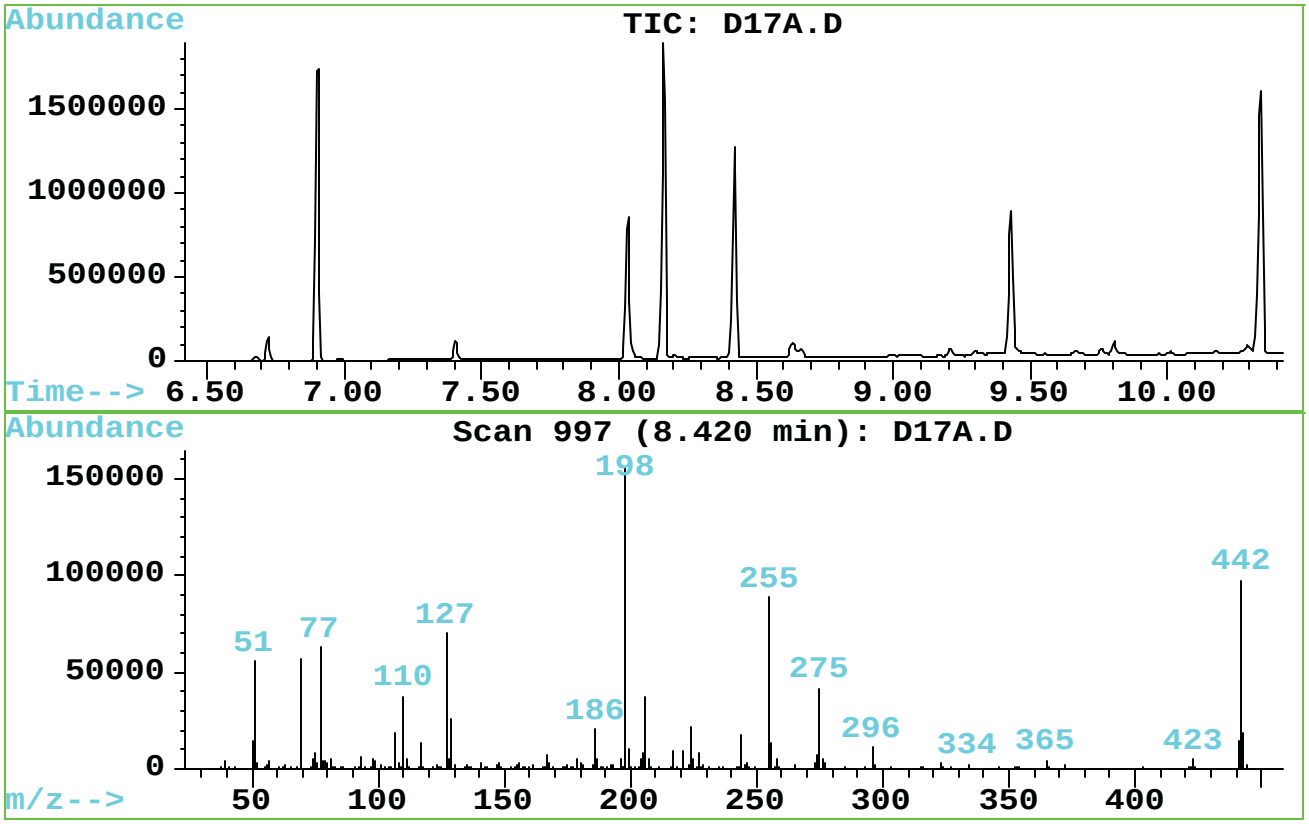
Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M\D17A.D Vial: 1
Acq On : 17 Jul 12 10:59 am Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270



Peak Apex is scan: 997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	35.6	55840	PASS
68	69	0	2	1.8	1014	PASS
69	198	0	100	36.4	57096	PASS
70	69	0	2	0.7	411	PASS
127	198	25	75	44.9	70336	PASS
197	198	0	1	0.9	1403	PASS
198	198	100	100	100.0	156736	PASS
199	198	5	9	6.9	10793	PASS
275	198	10	30	26.5	41584	PASS
365	198	1	100	2.9	4510	PASS
441	443	0	100	75.0	14360	PASS
442	198	40	110	62.2	97480	PASS
443	442	15	24	19.6	19136	PASS

D17A.D P120711H.M Fri Jul 20 12:22:32 2012

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\icv17a.d Vial: 3
Acq On : 17 Jul 12 11:50 am Operator: PL
Sample : pna std 50 (PP120706) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 12:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

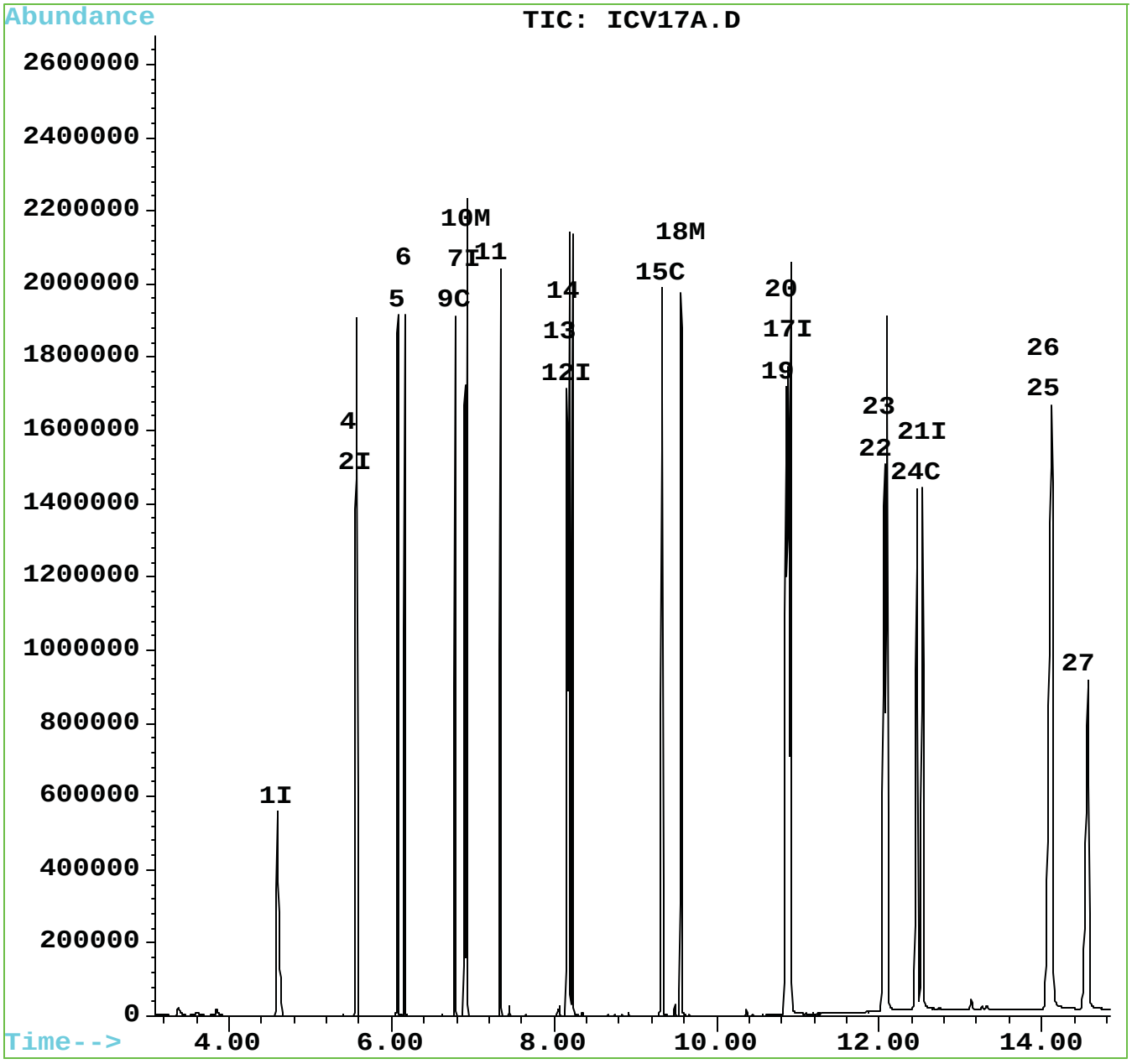
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	186116	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	681061	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.91	164	370436	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	713547	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.89	240	805661	40.00	ng/ul	0.0
21) PERYLENE-D12	12.54	264	820048	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	0.00	82	0	0.00	ng/ul	0.0
8) 2-Fluorobiphenyl	0.00	172	0	0.00	ng/ul	0.0
16) Terphenyl-D14	9.69	244	266	0.12	ng/ul	0.1
Target Compounds						Qvalu
4) Naphthalene	5.57	128	752155	48.20	ng/ul	10
5) 2-Methylnaphthalene	6.08	141	421150	48.52	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	455716	45.68	ng/ul	9
9) Acenaphthylene	6.79	152	765302	50.40	ng/ul	10
10) Acenaphthene **	6.93	154	444334	49.28	ng/ul	10
11) Fluorene	7.34	166	549789	49.86	ng/ul	9
13) Phenanthrene	8.19	178	804813	46.97	ng/ul	10
14) Anthracene	8.23	178	815637	47.92	ng/ul	10
15) Fluoranthene	9.33	202	917489	48.38	ng/ul	10
18) Pyrene **	9.56	202	937842	49.28	ng/ul	9
19) Benzo(a)anthracene	10.86	228	962683	51.51	ng/ul	10
20) Chrysene	10.92	228	896556	49.74	ng/ul	10
22) Benzo(b)fluoranthene	12.07	252	1082261	54.73	ng/ul	9
23) Benzo(k)fluoranthene	12.10	252	874452	47.18	ng/ul	9
24) Benzo(a)pyrene	12.47	252	907883	53.12	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.13	276	1184013	55.99	ng/ul	9
26) Dibenzo(ah)anthracene	14.13	278	966931	55.82	ng/ul	9
27) Benzo(ghi)perylene	14.58	276	972163	55.99	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\icv17a.d Vial: 3
Acq On : 17 Jul 12 11:50 am Operator: PL
Sample : pna std 50 (PP120706) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 12:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Initial Calibration Date: (see Form 6)

Analytical Batch: h120813.2
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn13a.d	08/13/12 12:00	Acenaphthylene	1.775	0.30
		Benzo(b)fluoranthene	0.979	0.30
		Naphthalene	0.939	0.30
		Phenanthrene	0.987	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Initial Calibration Date: (see Form 6)

Analytical Batch: h120813.2
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn13a.d	08/13/12 12:00	1-methylnaphthalene	53.3/ 50.0	6.5/ 20.0
		2-Methylnaphthalene	53.7/ 50.0	7.4/ 20.0
		Acenaphthene	51.9/ 50.0	3.8/ 20.0
		Acenaphthylene	54.1/ 50.0	8.2/ 20.0
		Anthracene	53.1/ 50.0	6.2/ 20.0
		Benzo(a)anthracene	54.6/ 50.0	9.2/ 20.0
		Benzo(a)pyrene	55.3/ 50.0	10.7/ 20.0
		Benzo(b)fluoranthene	50.8/ 50.0	1.6/ 20.0
		Benzo(ghi)perylene	51.7/ 50.0	3.3/ 20.0
		Benzo(k)fluoranthene	52.4/ 50.0	4.8/ 20.0
		Chrysene	52.8/ 50.0	5.5/ 20.0
		Dibenzo(ah)anthracene	51.6/ 50.0	3.2/ 20.0
		Fluorene	54.0/ 50.0	7.9/ 20.0
		Fluoranthene	55.5/ 50.0	11.1/ 20.0
		Indeno(1,2,3-cd)pyrene	51.7/ 50.0	3.3/ 20.0
		Naphthalene	51.3/ 50.0	2.5/ 20.0
		Phenanthrene	52.4/ 50.0	4.7/ 20.0
		Pyrene	53.0/ 50.0	6.0/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\spnn13a.d Vial: 2
Acq On : 13 Aug 12 12:00 pm Operator: PL
Sample : pna std 50 (120314) Inst : Hades
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 13 12:14 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

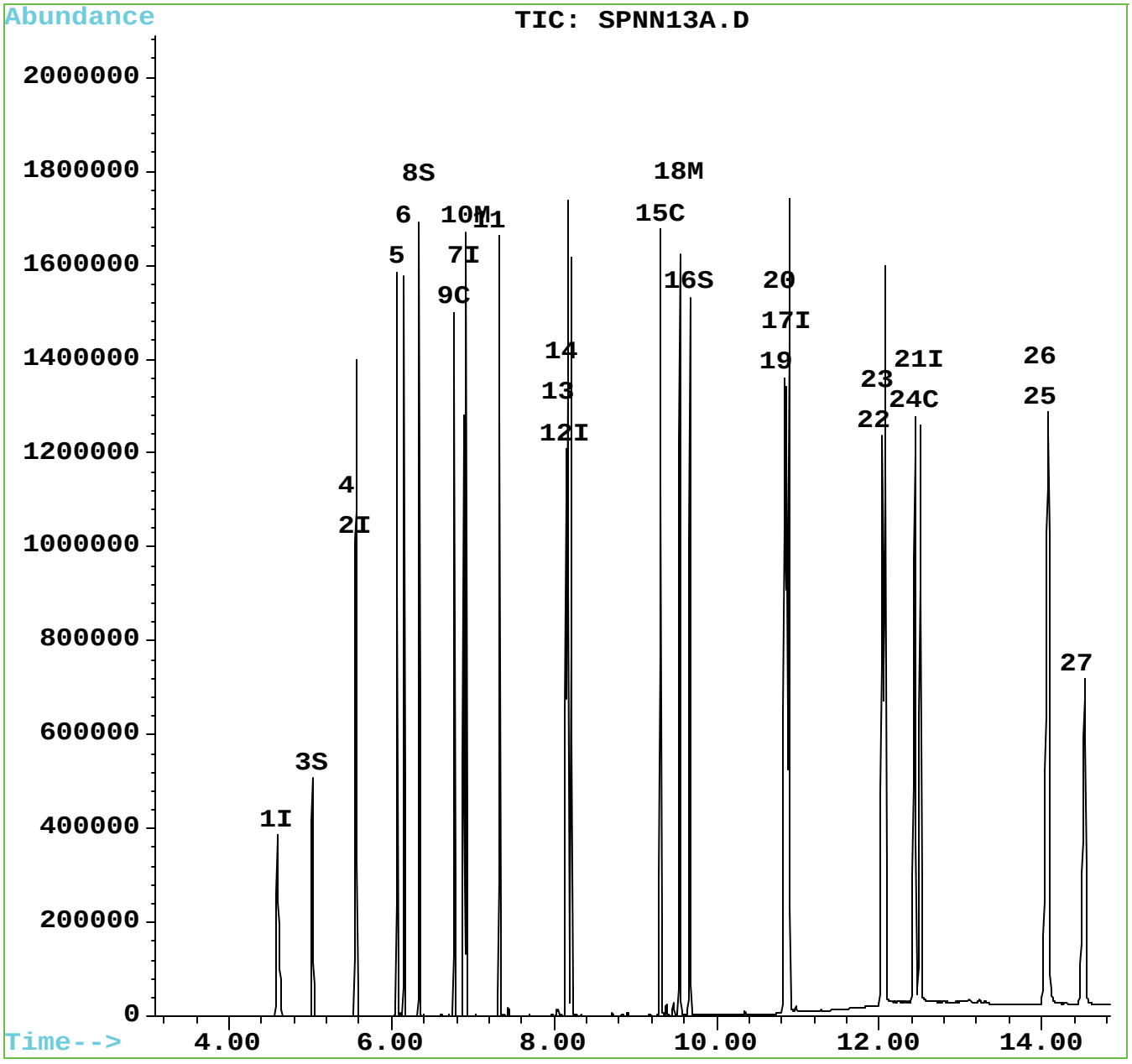
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	144520	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	485936	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.90	164	277501	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	528783	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	631417	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	675412	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	199435	49.57	ng/ul	49.5
8) 2-Fluorobiphenyl	6.34	172	452924	54.07	ng/ul	54.0
16) Terphenyl-D14	9.68	244	568637	55.66	ng/ul	55.6
Target Compounds						Qvalu
4) Naphthalene	5.57	128	570714	51.26	ng/ul	9
5) 2-Methylnaphthalene	6.07	141	332494	53.69	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	379036	53.25	ng/ul	9
9) Acenaphthylene	6.77	152	615485	54.11	ng/ul	9
10) Acenaphthene **	6.92	154	346590	51.90	ng/ul	9
11) Fluorene	7.33	166	445684	53.96	ng/ul	10
13) Phenanthrene	8.17	178	651888	52.37	ng/ul	9
14) Anthracene	8.22	178	670068	53.12	ng/ul	9
15) Fluoranthene	9.31	202	780404	55.54	ng/ul	9
18) Pyrene **	9.55	202	790302	52.99	ng/ul	9
19) Benzo(a)anthracene	10.84	228	799638	54.59	ng/ul	9
20) Chrysene	10.90	228	745497	52.77	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	826923	50.78	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	800155	52.41	ng/ul	9
24) Benzo(a)pyrene	12.44	252	778964	55.33	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.08	276	899928	51.67	ng/ul	9
26) Dibenzo(ah)anthracene	14.08	278	736057	51.59	ng/ul	9
27) Benzo(ghi)perylene	14.54	276	738977	51.67	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\spnn13a.d Vial: 2
Acq On : 13 Aug 12 12:00 pm Operator: PL
Sample : pna std 50 (120314) Inst : Hades
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 13 12:14 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\d13a.d Vial: 1
Acq On : 13 Aug 12 11:41 am Operator: PL
Sample : dftpp std (120801) Inst : Hades
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 13 12:15 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

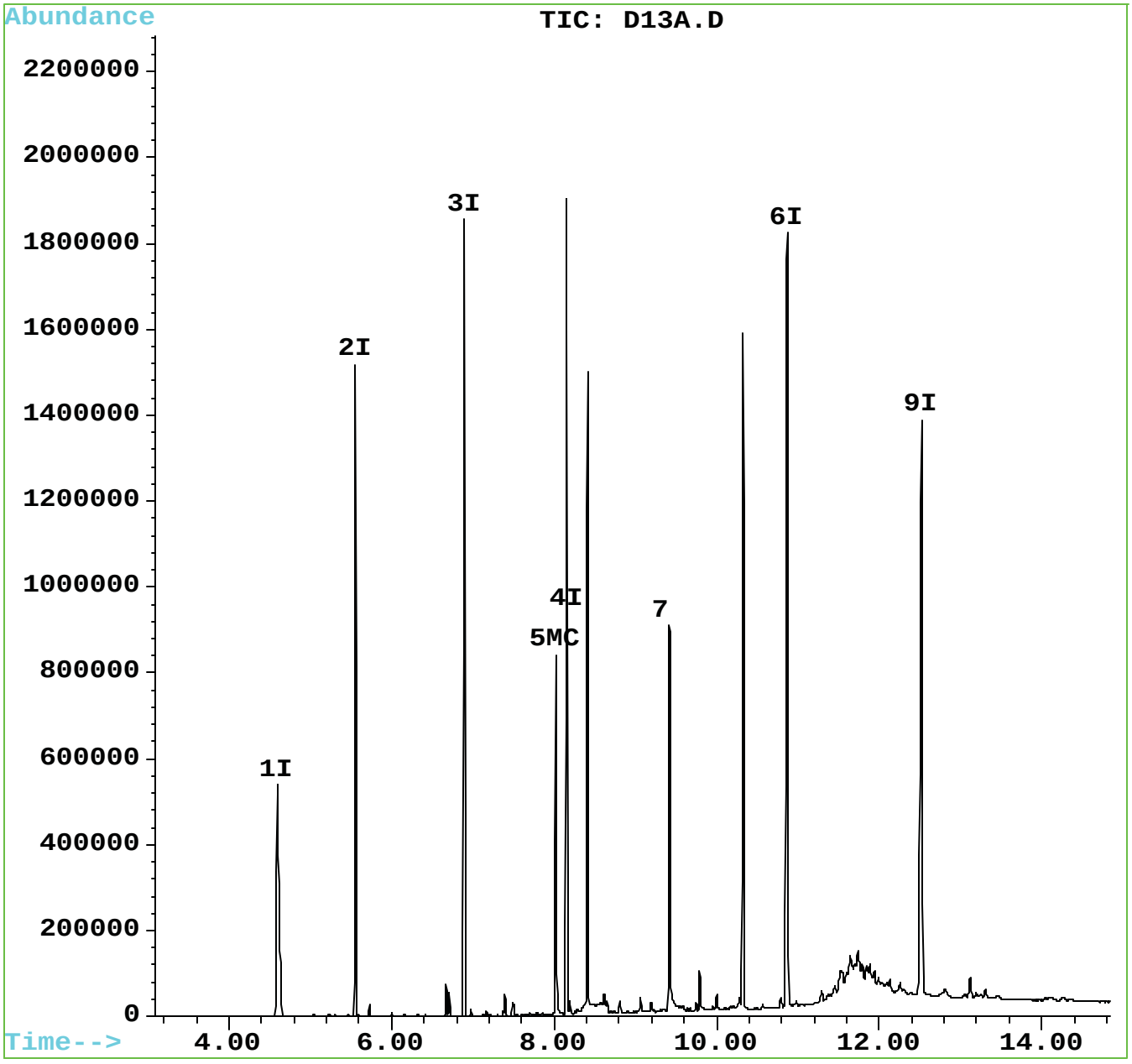
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	209922	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.56	136	721356	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	6.90	160	173172	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.16	188	802141	40.00	ng/ul	-0.0
6) CHRYSENE-D12	10.87	240	954267	40.00	ng/ul	-0.0
9) PERYLENE-D12	12.53	264	968797	40.00	ng/ul	-0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.03	266	110283	38.81	ng/ul	9
7) Benzidine	9.42	184	447669	44.25	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\d13a.d Vial: 1
Acq On : 13 Aug 12 11:41 am Operator: PL
Sample : dftpp std (120801) Inst : Hades
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 13 12:15 19112

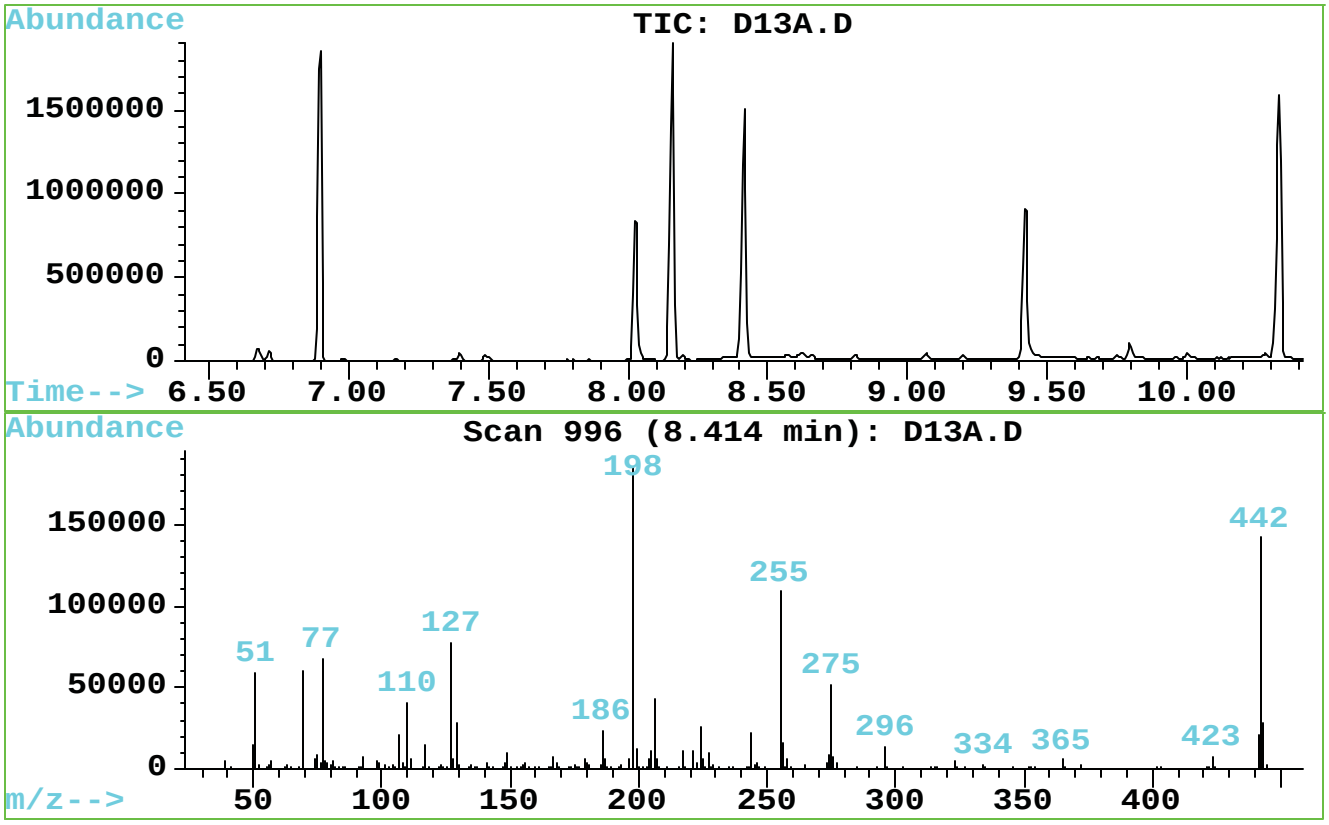
Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\HADES.6\DATA\H120813\D13A.D Vial: 1
Acq On : 13 Aug 12 11:41 am Operator: PL
Sample : dftpp std (120801) Inst : Hades
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270



Peak Apex is scan: 996

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	31.7	58944	PASS
68	69	0	2	1.6	938	PASS
69	198	0	100	32.5	60304	PASS
70	69	0	2	0.7	406	PASS
127	198	25	75	41.9	77904	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	185792	PASS
199	198	5	9	6.8	12721	PASS
275	198	10	30	28.0	51992	PASS
365	198	1	100	3.3	6140	PASS
441	443	0	100	76.2	21168	PASS
442	198	40	110	76.4	141888	PASS
443	442	15	24	19.6	27792	PASS

D13A.D P120711H.M Tue Aug 14 12:00:13 2012

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\blkw13a.d Vial: 3
Acq On : 13 Aug 12 12:21 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:28 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

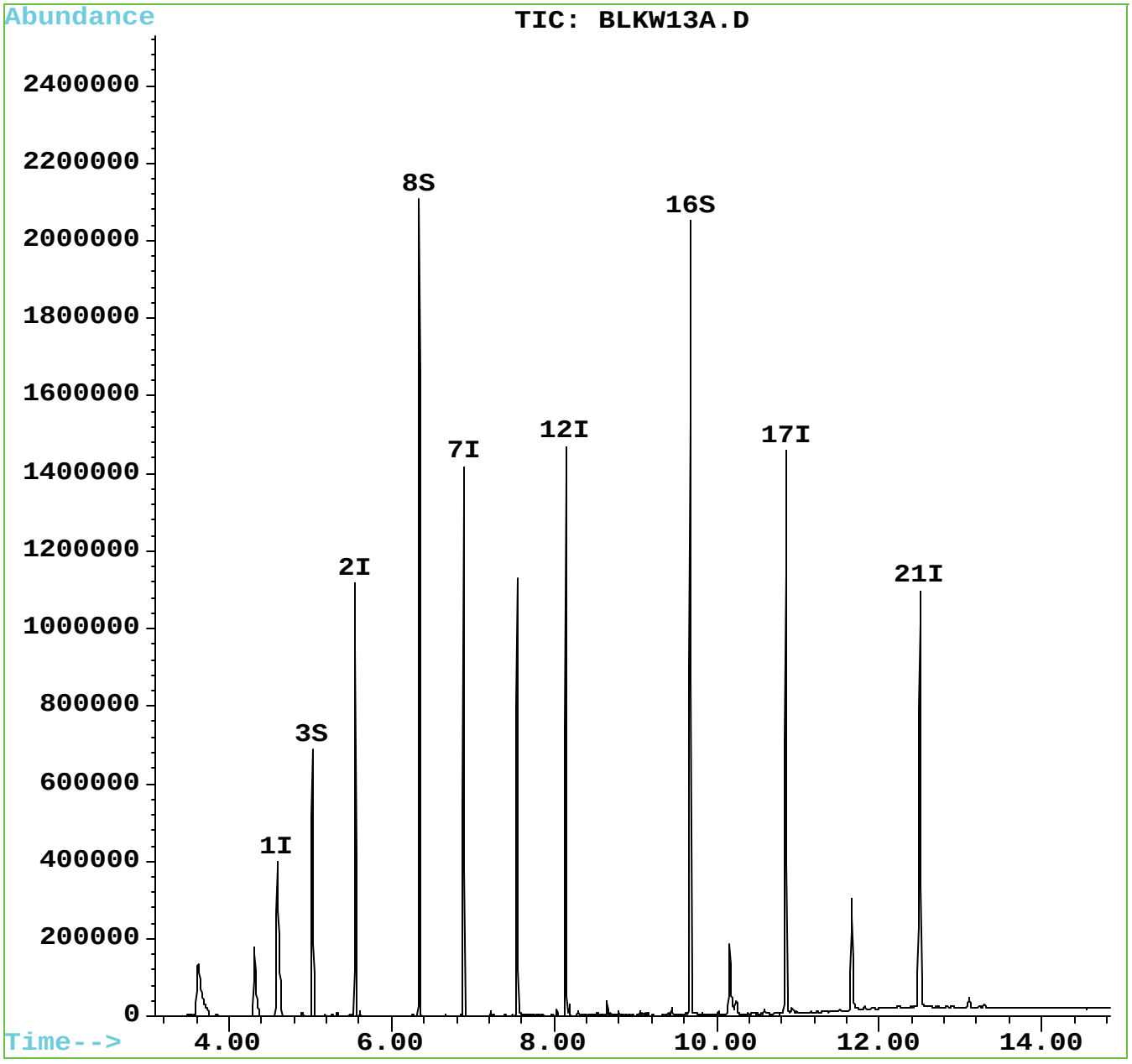
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	151580	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	540299	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	296033	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	578955	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	673384	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	661432	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	281153	62.85	ng/ul	62.8
8) 2-Fluorobiphenyl	6.34	172	610524	68.32	ng/ul	68.3
16) Terphenyl-D14	9.69	244	926914	82.86	ng/ul	82.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\blkw13a.d Vial: 3
Acq On : 13 Aug 12 12:21 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:28 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\lcsw13a.d Vial: 4
Acq On : 13 Aug 12 12:40 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:29 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

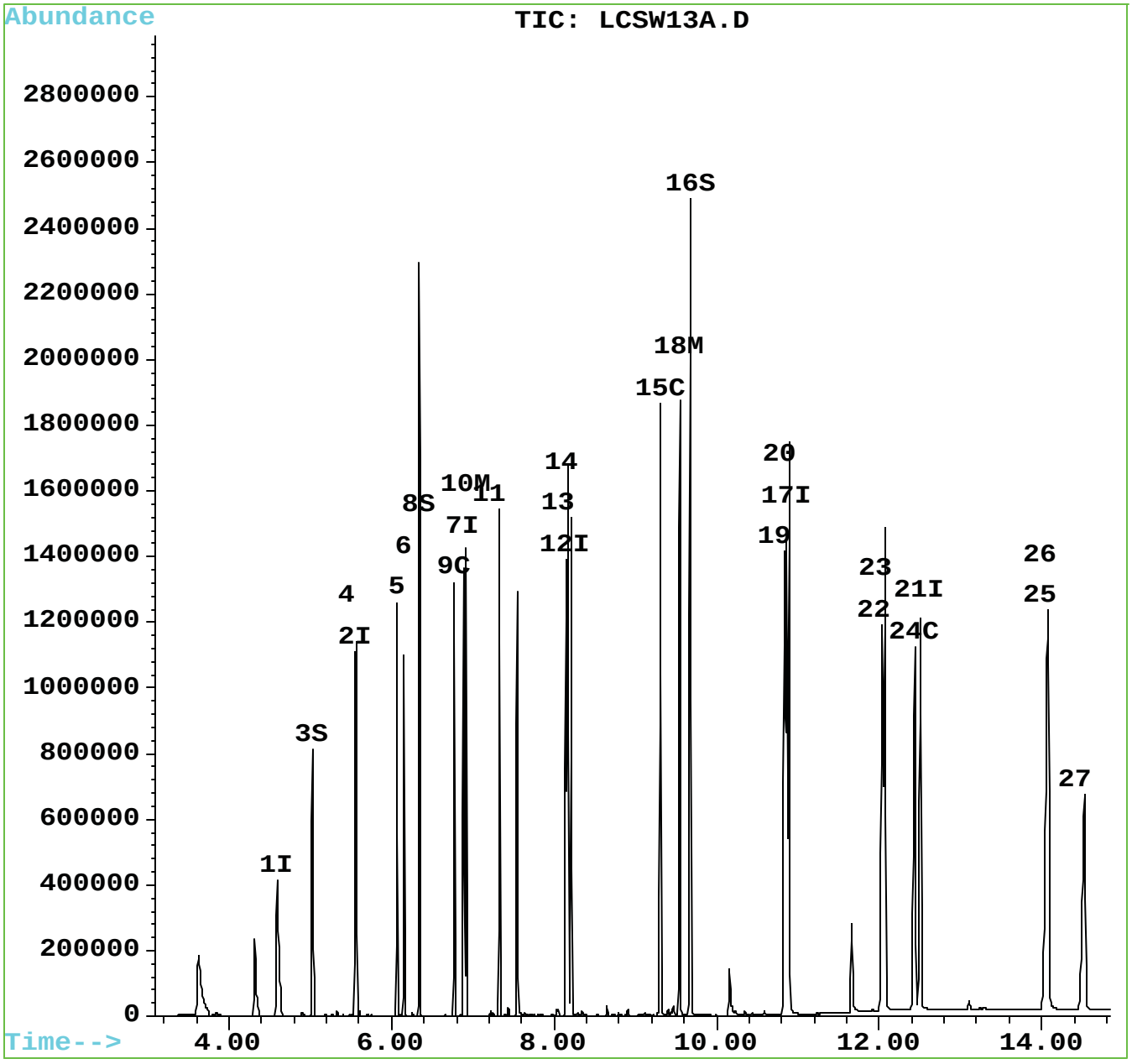
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	155064	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.55	136	545469	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	305613	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	605843	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	705827	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	711996	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	324207	71.79	ng/ul	71.7
8) 2-Fluorobiphenyl	6.34	172	673070	72.96	ng/ul	72.9
16) Terphenyl-D14	9.69	244	1122503	95.89	ng/ul	95.8
Target Compounds						Qvalu
4) Naphthalene	5.57	128	447798	35.83	ng/ul	9
5) 2-Methylnaphthalene	6.07	141	258235	37.15	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	283098	35.43	ng/ul	9
9) Acenaphthylene	6.77	152	541605	43.23	ng/ul	9
10) Acenaphthene **	6.92	154	312236	40.45	ng/ul	9
11) Fluorene	7.33	166	407382	44.78	ng/ul	9
13) Phenanthrene	8.17	178	618132	41.69	ng/ul	9
14) Anthracene	8.22	178	633114	43.81	ng/ul	9
15) Fluoranthene	9.31	202	796565	49.48	ng/ul	10
18) Pyrene **	9.55	202	815526	48.91	ng/ul	9
19) Benzo(a)anthracene	10.84	228	774504	47.30	ng/ul	9
20) Chrysene	10.90	228	711651	45.07	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	822048	47.88	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	740835	46.04	ng/ul	9
24) Benzo(a)pyrene	12.44	252	715708	48.23	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.08	276	870601	47.42	ng/ul	9
26) Dibenzo(ah)anthracene	14.08	278	713679	47.45	ng/ul	9
27) Benzo(ghi)perylene	14.53	276	706881	46.89	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120813\lcsw13a.d Vial: 4
Acq On : 13 Aug 12 12:40 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120809w01 Multiplr: 1.00
Quant Time: Aug 14 11:29 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Form 0: Sequence Log

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001SMPL.D#	Aug 16 2012 02:28 pm	Blank	Liquid	
002SMPL.D#	Aug 16 2012 02:31 pm	0.00	Liquid	
003SMPL.D#	Aug 16 2012 02:35 pm	0.0001	Liquid	
004SMPL.D#	Aug 16 2012 02:38 pm	0.0005	Liquid	
005SMPL.D#	Aug 16 2012 02:41 pm	0.001	Liquid	
006SMPL.D#	Aug 16 2012 02:44 pm	0.005	Liquid	
007SMPL.D#	Aug 16 2012 02:47 pm	0.02	Liquid	
008SMPL.D#	Aug 16 2012 02:51 pm	0.05	Liquid	
009SMPL.D#	Aug 16 2012 02:54 pm	0.20	Liquid	
010SMPL.D#	Aug 16 2012 02:57 pm	ICV-0.10	Liquid	ICV
011SMPL.D#	Aug 16 2012 03:00 pm	ERA-10/1	Liquid	ERA
012SMPL.D#	Aug 16 2012 03:03 pm	08/16 LCS-0.05	Liquid	LCS
013SMPL.D#	Aug 16 2012 03:07 pm	Rinse	Liquid	
014SMPL.D#	Aug 16 2012 03:10 pm	ICB	Liquid	ICB
015SMPL.D#	Aug 16 2012 03:13 pm	LRB	Liquid	LRB
016SMPL.D#	Aug 16 2012 03:16 pm	BS-0.0005	Liquid	BS
017SMPL.D#	Aug 16 2012 03:19 pm	BS-0.001	Liquid	BS
018SMPL.D#	Aug 16 2012 03:23 pm	53508.01 Dil	Liquid	DIL
019SMPL.D#	Aug 16 2012 03:26 pm	53508.01s tot	Liquid	S
020SMPL.D#	Aug 16 2012 03:29 pm	53508.01s dis	Liquid	S
021SMPL.D#	Aug 16 2012 03:32 pm	53508.06s tot	Liquid	S
022SMPL.D#	Aug 16 2012 03:39 pm	53508.06s dis	Liquid	S
023SMPL.D#	Aug 16 2012 03:42 pm	53508.08s	Liquid	S
024SMPL.D#	Aug 16 2012 03:45 pm	53508.09s tot	Liquid	S
025SMPL.D#	Aug 16 2012 03:48 pm	53508.09s dis	Liquid	S
026SMPL.D#	Aug 16 2012 03:51 pm	53508.01s-d dis	Liquid	S
027SMPL.D#	Aug 16 2012 03:54 pm	53508.03s tot	Liquid	S
028SMPL.D#	Aug 16 2012 03:58 pm	53508.04s tot MS-0.05	Liquid	MS
029SMPL.D#	Aug 16 2012 04:01 pm	53508.05s tot MSD	Liquid	MSD
030SMPL.D#	Aug 16 2012 04:04 pm	CCV1-0.10	Liquid	CCV
031SMPL.D#	Aug 16 2012 04:07 pm	Rinse	Liquid	
032SMPL.D#	Aug 16 2012 04:10 pm	CCB1	Liquid	CCB
033SMPL.D#	Aug 16 2012 04:14 pm	53508.10s tot	Liquid	S
034SMPL.D#	Aug 16 2012 04:17 pm	53508.10s dis	Liquid	S
035SMPL.D#	Aug 16 2012 04:20 pm	53519.02s	Liquid	S
036SMPL.D#	Aug 16 2012 04:23 pm	53519.03s tot	Liquid	S
037SMPL.D#	Aug 16 2012 04:26 pm	53519.03s dis	Liquid	S
038SMPL.D#	Aug 16 2012 04:29 pm	53519.04s tot	Liquid	S
039SMPL.D#	Aug 16 2012 04:33 pm	53519.04s dis	Liquid	S
040SMPL.D#	Aug 16 2012 04:36 pm	53519.05s tot	Liquid	S
041SMPL.D#	Aug 16 2012 04:39 pm	53519.05s dis	Liquid	S
042SMPL.D#	Aug 16 2012 04:42 pm	53508.03s dis	Liquid	S
043SMPL.D#	Aug 16 2012 04:45 pm	53508.04s dis MS-0.05	Liquid	MS
044SMPL.D#	Aug 16 2012 04:48 pm	53508.05s dis MSD	Liquid	MSD
045SMPL.D#	Aug 16 2012 04:52 pm	CCV2-0.10	Liquid	CCV
046SMPL.D#	Aug 16 2012 04:55 pm	Rinse	Liquid	
047SMPL.D#	Aug 16 2012 04:58 pm	CCB2	Liquid	CCB
048SMPL.D#	Aug 16 2012 05:01 pm	08/16 LCS-0.05	Liquid	LCS
049SMPL.D#	Aug 16 2012 05:04 pm	LRB	Liquid	LRB
050SMPL.D#	Aug 16 2012 05:08 pm	53519.06 Dil	Liquid	DIL
051SMPL.D#	Aug 16 2012 05:11 pm	53519.06s tot	Liquid	S
052SMPL.D#	Aug 16 2012 05:14 pm	53519.06s dis	Liquid	S
053SMPL.D#	Aug 16 2012 05:17 pm	53519.08s	Liquid	S

Form 0: Sequence Log

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054SMPL.D#	Aug 16 2012 05:20 pm	53519.09s	Liquid	S
055SMPL.D#	Aug 16 2012 05:23 pm	53560.01s	Liquid	S
056SMPL.D#	Aug 16 2012 05:27 pm	53560.02s	Liquid	S
057SMPL.D#	Aug 16 2012 05:30 pm	53560.03s	Liquid	S
058SMPL.D#	Aug 16 2012 05:33 pm	53560.04s	Liquid	S
059SMPL.D#	Aug 16 2012 05:36 pm	53560.04 MS-0.05	Liquid	MS
060SMPL.D#	Aug 16 2012 05:39 pm	53560.04 MSD	Liquid	MSD
061SMPL.D#	Aug 16 2012 05:42 pm	CCV3-0.10	Liquid	CCV
062SMPL.D#	Aug 16 2012 05:46 pm	Rinse	Liquid	
063SMPL.D#	Aug 16 2012 05:49 pm	CCB3	Liquid	CCB
064SMPL.D#	Aug 16 2012 05:52 pm	53574.01s	Liquid	S
065SMPL.D#	Aug 16 2012 05:55 pm	53575.01s	Liquid	S
066SMPL.D#	Aug 16 2012 05:58 pm	53572.01s	Liquid	S
067SMPL.D#	Aug 16 2012 06:02 pm	53572.02s	Liquid	S
068SMPL.D#	Aug 16 2012 06:05 pm	53572.03s	Liquid	S
069SMPL.D#	Aug 16 2012 06:08 pm	53572.04s	Liquid	S
070SMPL.D#	Aug 16 2012 06:11 pm	53572.04 MS-0.05	Liquid	MS
071SMPL.D#	Aug 16 2012 06:14 pm	53572.04 MSD	Liquid	MSD
072SMPL.D#	Aug 16 2012 06:17 pm	CCV4-0.10	Liquid	CCV
073SMPL.D#	Aug 16 2012 06:21 pm	Rinse	Liquid	
074SMPL.D#	Aug 16 2012 06:24 pm	CCB4	Liquid	CCB
075SMPL.D#	Aug 16 2012 06:27 pm	Soln-AA	Liquid	AA
076SMPL.D#	Aug 16 2012 06:30 pm	Soln-AB	Liquid	AB
107SMPL.D#	Aug 20 2012 12:37 pm	Blank	Liquid	
108SMPL.D#	Aug 20 2012 12:06 pm	0.00	Liquid	
109SMPL.D#	Aug 20 2012 12:09 pm	0.001	Liquid	
110SMPL.D#	Aug 20 2012 12:11 pm	0.005	Liquid	
111SMPL.D#	Aug 20 2012 12:13 pm	0.02	Liquid	
112SMPL.D#	Aug 20 2012 12:16 pm	0.05	Liquid	
113SMPL.D#	Aug 20 2012 12:18 pm	0.20	Liquid	
114SMPL.D#	Aug 20 2012 12:21 pm	ICV-0.10	Liquid	ICV
115SMPL.D#	Aug 20 2012 12:23 pm	ICB	Liquid	ICB
116SMPL.D#	Aug 20 2012 12:25 pm	BS-0.0005	Liquid	BS
117SMPL.D#	Aug 20 2012 12:28 pm	53508.03s-d tot	Liquid	S
118SMPL.D#	Aug 20 2012 12:30 pm	53508.03-d MS-0.10	Liquid	MS
119SMPL.D#	Aug 20 2012 12:32 pm	CCV3-0.10	Liquid	CCV
120SMPL.D#	Aug 20 2012 12:35 pm	CCB3	Liquid	CCB
121SMPL.D#	Aug 20 2012 12:39 pm	Soln-AA	Liquid	AA
122SMPL.D#	Aug 20 2012 12:42 pm	Soln-AB	Liquid	AB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53508.01
Sample Tag: MW 129 (08-08-2012) (1250)
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.004	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.614	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	0.0005	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.005	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.008	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.003	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.602	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	0.022	0.003		mg/L	25	08/16/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.051	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53508.03
Sample Tag: MW 105 (08-08-2012) (1445)
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.015	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.129	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	0.0014	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	0.007	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	0.048	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.029	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.044	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.008	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.030	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	0.007	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.022	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53508.04
Sample Tag: MW 105 (08-08-2012) (1445) MS
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.257	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.383	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	0.2511	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	0.256	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	0.300	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.265	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	0.185	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	0.1985	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.296	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.265	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.283	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	0.2491	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	0.252	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	0.261	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	0.247	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	0.242	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	0.1991	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.284	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53508.05
Sample Tag: MW 105 (08-08-2012) (1445) MSD
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.252	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.392	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	0.2513	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	0.257	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	0.301	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.270	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	0.184	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	0.1088	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.294	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.262	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.282	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	0.2516	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	0.249	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	0.259	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	0.246	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	0.241	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	0.1829	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.281	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53508.06
Sample Tag: MW 101 (08-08-2012) (1615)
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.005	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.048	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	0.013	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.007	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	Not detected	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.005	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.046	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	0.013	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.005	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53508.08
Sample Tag: MW 165 (08-09-2012) (0825)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	Not detected	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.266	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	Not detected	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53508.09
Sample Tag: MW 139 (08-09-2012) (0915)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.028	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.154	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.005	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.006	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.110	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.036	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53508.10
Sample Tag: DUP-01 (08-09-12)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.037	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.154	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	Not detected	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.011	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.110	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.029	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
010SMPL.D# ICV-0.10	ICV	1.000	Cr	0.097	0.10	97	90/110	mg/L	Liquid
			Ni	0.102	0.10	102	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.102	0.10	102	90/110		
			As	0.101	0.10	101	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.1014	0.10	101	90/110		
			Cd	0.1019	0.10	102	90/110		
			Ba	0.101	0.10	101	90/110		
			Pb	0.101	0.10	101	90/110		
030SMPL.D# CCV1-0.10	CCV	1.000	Cr	0.096	0.10	96	90/110	mg/L	Liquid
			Ni	0.100	0.10	100	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.098	0.10	98	90/110		
			Se	0.097	0.10	97	90/110		
			Ag	0.0998	0.10	100	90/110		
			Cd	0.1002	0.10	100	90/110		
			Ba	0.101	0.10	101	90/110		
			Pb	0.101	0.10	101	90/110		
045SMPL.D# CCV2-0.10	CCV	1.000	Cr	0.098	0.10	98	90/110	mg/L	Liquid
			Ni	0.100	0.10	100	90/110		
			Cu	0.102	0.10	102	90/110		
			Zn	0.101	0.10	101	90/110		
			As	0.099	0.10	99	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.0989	0.10	99	90/110		
			Cd	0.1002	0.10	100	90/110		
			Ba	0.103	0.10	103	90/110		
			Pb	0.104	0.10	104	90/110		
061SMPL.D# CCV3-0.10	CCV	1.000	Cr	0.096	0.10	96	90/110	mg/L	Liquid
			Ni	0.100	0.10	100	90/110		
			Cu	0.099	0.10	99	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.099	0.10	99	90/110		
			Se	0.101	0.10	101	90/110		
			Ag	0.0983	0.10	98	90/110		
			Cd	0.0998	0.10	100	90/110		
			Ba	0.103	0.10	103	90/110		
			Pb	0.101	0.10	101	90/110		
072SMPL.D# CCV4-0.10	CCV	1.000	Cr	0.095	0.10	95	90/110	mg/L	Liquid
			Ni	0.098	0.10	98	90/110		
			Cu	0.099	0.10	99	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.098	0.10	98	90/110		
			Se	0.098	0.10	98	90/110		
			Ag	0.0994	0.10	99	90/110		
			Cd	0.1003	0.10	100	90/110		
			Ba	0.103	0.10	103	90/110		
			Pb	0.101	0.10	101	90/110		
114SMPL.D# ICV-0.10	ICV	1.000	Se	0.100	0.10	100	90/110	mg/L	Liquid
119SMPL.D# CCV3-0.10	CCV	1.000	Se	0.094	0.10	94	90/110	mg/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: W8121-04

Data Set ID: MT3-12-0816A

Instrument ID: HP ICP/MS 2

Analysis Date: 08/16/12

Analyst:

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
011SMPL.D# ERA-10/1	5.000	Cr	0.619	0.623	99	0.542	0.704	mg/L	Liquid
		Ni	2.12	2.04	104	1.84	2.27		
		Cu	0.854	0.835	102	0.751	0.918		
		Zn	0.419	0.412	102	0.352	0.476		
		As	0.901	0.877	103	0.738	1.03		
		Se	1.01	1.03	98	0.815	1.19		
		Ag	0.1830	0.186	98	0.159	0.213		
		Cd	0.1206	0.118	102	0.0998	0.135		
		Ba	0.729	0.716	102	0.621	0.807		
		Pb	1.80	1.76	102	1.55	1.97		

Form 3: Blanks

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
014SMPL.D# ICB	ICB	1.000	Cr	<0.001	0.000007378	mg/L	Liquid
			Ni	<0.001	0.000008734		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	0.00001071		
			Se	<0.001	0.00004141		
			Ag	<0.00004	0.00001034		
			Cd	<0.0001	0.00001582		
			Ba	<0.001	0.000007102		
			Pb	<0.0006	<0.000		
015SMPL.D# LRB	LRB	1.000	Cr	<0.001	0.000006561	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.000002434		
			Zn	<0.001	<0.000		
			As	<0.0001	0.000003513		
			Se	<0.001	0.00001218		
			Ag	<0.00004	<0.000		
			Cd	<0.0001	0.000001943		
			Ba	<0.001	0.00001240		
			Pb	<0.0006	<0.000		
032SMPL.D# CCB1	CCB	1.000	Cr	<0.001	0.000008919	mg/L	Liquid
			Ni	<0.001	0.000004272		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	<0.000		
			Se	<0.001	0.00002219		
			Ag	<0.00004	0.000009551		
			Cd	<0.0001	0.00002938		
			Ba	<0.001	<0.000		
			Pb	<0.0006	0.000008676		
047SMPL.D# CCB2	CCB	1.000	Cr	<0.001	0.000005476	mg/L	Liquid
			Ni	<0.001	0.00001774		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	0.00001206		
			Se	<0.001	0.00003765		
			Ag	0.0001	0.0001164		
			Cd	<0.0001	<0.000		
			Ba	<0.001	<0.000		
			Pb	<0.0006	<0.000		
049SMPL.D# LRB	LRB	1.000	Cr	<0.001	0.000008955	mg/L	Liquid
			Ni	<0.001	0.000003622		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	0.000004722		
			Se	<0.001	0.0001215		
			Ag	0.00008	0.00007687		
			Cd	<0.0001	0.000004873		
			Ba	<0.001	0.00002781		
			Pb	<0.0006	<0.000		
063SMPL.D# CCB3	CCB	1.000	Cr	<0.001	0.000009685	mg/L	Liquid
			Ni	<0.001	0.00001487		
			Cu	<0.0008	<0.000		

Form 3: Blanks

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
063SMPL.D# CCB3	CCB	1.000	Zn	<0.001	<0.000	mg/L	Liquid
			As	<0.0001	<0.000		
			Se	<0.001	0.00001392		
			Ag	<0.00004	0.00003677		
			Cd	<0.0001	0.000004767		
			Ba	<0.001	<0.000		
			Pb	<0.0006	<0.000		
074SMPL.D# CCB4	CCB	1.000	Cr	<0.001	0.00001300	mg/L	Liquid
			Ni	<0.001	0.00001530		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	0.00001303		
			Se	<0.001	0.00003306		
			Ag	<0.00004	0.00003794		
			Cd	<0.0001	<0.000		
			Ba	<0.001	<0.000		
			Pb	<0.0006	<0.000		
115SMPL.D# ICB	ICB	1.000	Se	<0.001	0.0003318	mg/L	Liquid
120SMPL.D# CCB3	CCB	1.000	Se	<0.001	0.0002594	mg/L	Liquid

Form 4B: ICP Interference Check Sample

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
075SMPL.D# Soln-AA	AA	1.000	Cr	<0.01	0.0	N/A	N/A	mg/L	Liquid
			Ni	<0.01	0.0	N/A	N/A		
			Cu	<0.01	0.0	N/A	N/A		
			Zn	<0.01	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.002	0.0	N/A	N/A		
			Cd	<0.005	0.0	N/A	N/A		
			Ba	<0.01	0.0	N/A	N/A		
			Pb	<0.005	0.0	N/A	N/A		
076SMPL.D# Soln-AB	AB	1.000	Cr	0.024	0.025	96	70/135	mg/L	Liquid
			Ni	0.023	0.02	115	70/135		
			Cu	0.022	0.02	110	70/135		
			Zn	0.024	0.025	96	70/135		
			As	0.024	0.02	120	70/135		
			Ag	0.0198	0.020	99	70/135		
			Cd	0.0212	0.02	106	70/135		
121SMPL.D# Soln-AA	AA	1.000	Se	<0.005	0.0	N/A	N/A	mg/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
016SMPL.D#		1.000	Cr	0.0005	ND	0.0005	100	70/130	mg/L	Liquid
			Ni	0.0005	ND	0.0005	100	70/130		
			Cu	0.0005	ND	0.0005	100	70/130		
			Zn	0.0006	ND	0.0005	120	70/130		
			As	0.0005	ND	0.0005	100	70/130		
			Se	0.0004	ND	0.0005	80	70/130		
			Ag	0.0005	ND	0.0005	100	70/130		
			Cd	0.0005	ND	0.0005	100	70/130		
			Ba	0.0005	ND	0.0005	100	70/130		
			Pb	0.0005	ND	0.0005	100	70/130		
017SMPL.D# BS-0.001		1.000	Cr	0.0010	ND	0.001	100	70/130	mg/L	Liquid
			Ni	0.0011	ND	0.001	110	70/130		
			Cu	0.0011	ND	0.001	110	70/130		
			Zn	0.0013	ND	0.001	130	70/130		
			As	0.0010	ND	0.001	100	70/130		
			Se	0.0010	ND	0.001	100	70/130		
			Ag	0.0010	ND	0.001	100	70/130		
			Cd	0.0011	ND	0.001	110	70/130		
			Ba	0.0010	ND	0.001	100	70/130		
			Pb	0.0009	ND	0.001	90	70/130		
028SMPL.D#	**027SMPL.D#**	5.000	Cr	0.256	0.007	0.25	100	75/125	mg/L	Liquid
			Ni	0.284	0.027	0.25	103	75/125		
			Cu	0.300	0.048	0.25	101	75/125		
			Zn	0.296	0.044	0.25	101	75/125		
			As	0.257	0.015	0.25	97	75/125		
			Se	0.185	<0.005	0.25	74*	75/125		
			Ag	0.1985	<0.0002	0.25	79	75/125		
			Cd	0.2511	0.0014	0.25	100	75/125		
			Ba	0.383	0.129	0.25	102	75/125		
			Pb	0.265	0.029	0.25	94	75/125		
043SMPL.D#	**042SMPL.D#**	5.000	Cr	0.252	<0.005	0.25	101	75/125	mg/L	Liquid
			Ni	0.262	0.006	0.25	102	75/125		
			Cu	0.261	0.007	0.25	102	75/125		
			Zn	0.284	0.022	0.25	105	75/125		
			As	0.265	0.008	0.25	103	75/125		
			Se	0.242	<0.005	0.25	97	75/125		
			Ag	0.1991	<0.0002	0.25	80	75/125		
			Cd	0.2491	<0.0005	0.25	100	75/125		
			Ba	0.283	0.030	0.25	101	75/125		
			Pb	0.247	<0.003	0.25	99	75/125		
059SMPL.D# 53560.04	**058SMPL.D#**	5.000	Cr	0.260	<0.005	0.25	104	75/125	mg/L	Liquid
			Ni	0.263	<0.005	0.25	105	75/125		
			Cu	0.289	0.026	0.25	105	75/125		
			Zn	0.296	0.032	0.25	106	75/125		
			As	0.268	<0.002	0.25	107	75/125		
			Se	0.259	<0.005	0.25	104	75/125		
			Cd	0.2665	<0.0005	0.25	107	75/125		
			Ba	0.321	0.048	0.25	109	75/125		
			Pb	0.256	<0.003	0.25	102	75/125		
070SMPL.D# 53572.04	**069SMPL.D#**	5.000	Cr	0.248	<0.005	0.25	99	75/125	mg/L	Liquid
			Ni	0.252	<0.005	0.25	101	75/125		
			Cu	0.273	0.025	0.25	99	75/125		
			Zn	0.290	0.024	0.25	106	75/125		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
070SMPL.D# 53572.04	**069SMPL.D#**	5.000	As	0.251	<0.002	0.25	100	75/125	mg/L	Liquid
			Se	0.252	<0.005	0.25	101	75/125		
			Ag	0.2086	<0.0002	0.25	83	75/125		
			Cd	0.2564	<0.0005	0.25	103	75/125		
			Ba	0.308	0.046	0.25	105	75/125		
			Pb	0.248	<0.003	0.25	99	75/125		
116SMPL.D#		1.000	Se	0.0006	ND	0.0005	120	70/130	mg/L	Liquid
118SMPL.D#	**117SMPL.D#**	25.00	Se	2.41	<0.005	2.50	96	75/125	mg/L	Liquid

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Duplicate Name	Sample Name	Dilute	Element	Dup Conc	Samp Conc	%RPD	LCL/UCL	Units	Matrix
029SMPL.D# 53508.05s	**028SMPL.D# 53508.04s**	5.000	Cr	0.257	0.256	0	0/20	mg/L	Liquid
			Ni	0.282	0.284	1	0/20		
			Cu	0.301	0.300	0	0/20		
			Zn	0.294	0.296	1	0/20		
			As	0.252	0.257	2	0/20		
			Se	0.184	0.185	1	0/20		
			Ag	0.1088	0.1985	58 *	0/20		
			Cd	0.2513	0.2511	0	0/20		
			Ba	0.392	0.383	2	0/20		
			Pb	0.270	0.265	2	0/20		
044SMPL.D# 53508.05s	**043SMPL.D# 53508.04s**	5.000	Cr	0.249	0.252	1	0/20	mg/L	Liquid
			Ni	0.258	0.262	2	0/20		
			Cu	0.259	0.261	1	0/20		
			Zn	0.281	0.284	1	0/20		
			As	0.262	0.265	1	0/20		
			Se	0.241	0.242	0	0/20		
			Ag	0.1829	0.1991	8	0/20		
			Cd	0.2516	0.2491	1	0/20		
			Ba	0.282	0.283	0	0/20		
			Pb	0.246	0.247	0	0/20		
060SMPL.D# 53560.04	**059SMPL.D# 53560.04**	5.000	Cr	0.256	0.260	2	0/20	mg/L	Liquid
			Ni	0.264	0.263	0	0/20		
			Cu	0.288	0.289	0	0/20		
			Zn	0.297	0.296	0	0/20		
			As	0.268	0.268	0	0/20		
			Se	0.258	0.259	0	0/20		
			Cd	0.2599	0.2665	3	0/20		
			Ba	0.323	0.321	1	0/20		
			Pb	0.252	0.256	2	0/20		
071SMPL.D# 53572.04	**070SMPL.D# 53572.04**	5.000	Cr	0.248	0.248	0	0/20	mg/L	Liquid
			Ni	0.252	0.252	0	0/20		
			Cu	0.276	0.273	1	0/20		
			Zn	0.278	0.290	4	0/20		
			As	0.259	0.251	3	0/20		
			Se	0.251	0.252	0	0/20		
			Ag	0.2273	0.2086	9	0/20		
			Cd	0.2573	0.2564	0	0/20		
			Ba	0.307	0.308	0	0/20		
			Pb	0.255	0.248	3	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
012SMPL.D# 08/16 LCS-0.05	1.000	Cr	0.048	0.05	96	85/115	mg/L	Liquid
		Ni	0.050	0.05	100	85/115		
		Cu	0.050	0.05	100	85/115		
		Zn	0.052	0.05	104	85/115		
		As	0.050	0.05	100	85/115		
		Se	0.049	0.05	98	85/115		
		Ag	0.0500	0.05	100	85/115		
		Cd	0.0500	0.05	100	85/115		
		Ba	0.050	0.05	100	85/115		
		Pb	0.052	0.05	104	85/115		
048SMPL.D# 08/16 LCS-0.05	1.000	Cr	0.049	0.05	98	85/115	mg/L	Liquid
		Ni	0.051	0.05	102	85/115		
		Cu	0.051	0.05	102	85/115		
		Zn	0.051	0.05	102	85/115		
		As	0.050	0.05	100	85/115		
		Se	0.051	0.05	102	85/115		
		Ag	0.0500	0.05	100	85/115		
		Cd	0.0504	0.05	101	85/115		
		Ba	0.051	0.05	102	85/115		
		Pb	0.051	0.05	102	85/115		

Form 8: Serial Dilutions

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
018SMPL.D# 53508.01	**019SMPL.D# 53508.01s**	25.00	Cr	<0.005	<0.005	NC	0/10	mg/L	Liquid
			Ni	0.023	0.024	4	0/10		
			Cu	<0.004	<0.004	NC	0/10		
			Zn	0.011	0.008	32*	0/10		
			As	0.004	0.004	0	0/10		
			Se	<0.005	<0.005	NC	0/10		
			Ag	0.0004	<0.0002	200*	0/10		
			Cd	0.0008	0.0005	46*	0/10		
			Ba	0.682	0.614	10	0/10		
			Pb	0.030	0.005	143*	0/10		
050SMPL.D# 53519.06	**051SMPL.D# 53519.06s**	25.00	Cr	<0.005	<0.005	NC	0/10	mg/L	Liquid
			Ni	0.024	0.025	4	0/10		
			Cu	0.008	0.008	0	0/10		
			Zn	0.026	0.024	8	0/10		
			As	0.069	0.071	3	0/10		
			Se	<0.005	<0.005	NC	0/10		
			Cd	<0.0005	<0.0005	NC	0/10		
			Ba	0.280	0.238	16*	0/10		
			Pb	0.006	0.006	0	0/10		

Form 13: Analysis Run Log

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Filename	*Run Time*	*Matrix*	*Analytes*
001SMPL.D# Blank	Aug 16 2012 02:28 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
002SMPL.D# 0.00	Aug 16 2012 02:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
003SMPL.D# 0.0001	Aug 16 2012 02:35 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
004SMPL.D# 0.0005	Aug 16 2012 02:38 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
005SMPL.D# 0.001	Aug 16 2012 02:41 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
006SMPL.D# 0.005	Aug 16 2012 02:44 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
007SMPL.D# 0.02	Aug 16 2012 02:47 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
008SMPL.D# 0.05	Aug 16 2012 02:51 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
009SMPL.D# 0.20	Aug 16 2012 02:54 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
010SMPL.D# ICV-0.10	Aug 16 2012 02:57 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
011SMPL.D# ERA-10/1	Aug 16 2012 03:00 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
012SMPL.D# 08/16 LCS-0.05	Aug 16 2012 03:03 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
013SMPL.D# Rinse	Aug 16 2012 03:07 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
014SMPL.D# ICB	Aug 16 2012 03:10 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
015SMPL.D# LRB	Aug 16 2012 03:13 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
016SMPL.D# BS-0.0005	Aug 16 2012 03:16 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
017SMPL.D# BS-0.001	Aug 16 2012 03:19 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
018SMPL.D# 53508.01 Dil	Aug 16 2012 03:23 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
019SMPL.D# 53508.01s tot	Aug 16 2012 03:26 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
020SMPL.D# 53508.01s dis	Aug 16 2012 03:29 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Se,Zn
021SMPL.D# 53508.06s tot	Aug 16 2012 03:32 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
022SMPL.D# 53508.06s dis	Aug 16 2012 03:39 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
023SMPL.D# 53508.08s	Aug 16 2012 03:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
024SMPL.D# 53508.09s tot	Aug 16 2012 03:45 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
025SMPL.D# 53508.09s dis	Aug 16 2012 03:48 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
026SMPL.D# 53508.01s-d dis	Aug 16 2012 03:51 pm	Liquid	Pb
027SMPL.D# 53508.03s tot	Aug 16 2012 03:54 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
028SMPL.D# 53508.04s tot	Aug 16 2012 03:58 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
029SMPL.D# 53508.05s tot MSD	Aug 16 2012 04:01 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
030SMPL.D# CCV1-0.10	Aug 16 2012 04:04 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
031SMPL.D# Rinse	Aug 16 2012 04:07 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
032SMPL.D# CCB1	Aug 16 2012 04:10 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
033SMPL.D# 53508.10s tot	Aug 16 2012 04:14 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
034SMPL.D# 53508.10s dis	Aug 16 2012 04:17 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
035SMPL.D# 53519.02s	Aug 16 2012 04:20 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
036SMPL.D# 53519.03s tot	Aug 16 2012 04:23 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
037SMPL.D# 53519.03s dis	Aug 16 2012 04:26 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
038SMPL.D# 53519.04s tot	Aug 16 2012 04:29 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
039SMPL.D# 53519.04s dis	Aug 16 2012 04:33 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
040SMPL.D# 53519.05s tot	Aug 16 2012 04:36 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
041SMPL.D# 53519.05s dis	Aug 16 2012 04:39 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
042SMPL.D# 53508.03s dis	Aug 16 2012 04:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
043SMPL.D# 53508.04s dis	Aug 16 2012 04:45 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
044SMPL.D# 53508.05s dis MSD	Aug 16 2012 04:48 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
045SMPL.D# CCV2-0.10	Aug 16 2012 04:52 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
046SMPL.D# Rinse	Aug 16 2012 04:55 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
047SMPL.D# CCB2	Aug 16 2012 04:58 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
048SMPL.D# 08/16 LCS-0.05	Aug 16 2012 05:01 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
049SMPL.D# LRB	Aug 16 2012 05:04 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
050SMPL.D# 53519.06 Dil	Aug 16 2012 05:08 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
051SMPL.D# 53519.06s tot	Aug 16 2012 05:11 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
052SMPL.D# 53519.06s dis	Aug 16 2012 05:14 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
053SMPL.D# 53519.08s	Aug 16 2012 05:17 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn

Form 13: Analysis Run Log

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

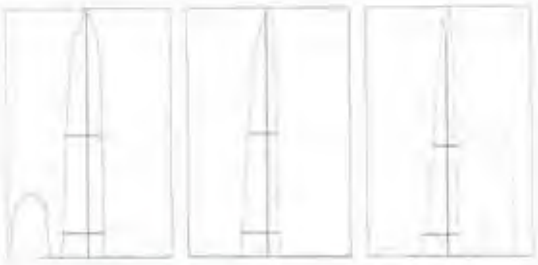
Filename	*Run Time*	*Matrix*	*Analytes*
054SMPL.D# 53519.09s	Aug 16 2012 05:20 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
055SMPL.D# 53560.01s	Aug 16 2012 05:23 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
056SMPL.D# 53560.02s	Aug 16 2012 05:27 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
057SMPL.D# 53560.03s	Aug 16 2012 05:30 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
058SMPL.D# 53560.04s	Aug 16 2012 05:33 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
059SMPL.D# 53560.04 MS-0.05	Aug 16 2012 05:36 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
060SMPL.D# 53560.04 MSD	Aug 16 2012 05:39 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
061SMPL.D# CCV3-0.10	Aug 16 2012 05:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
062SMPL.D# Rinse	Aug 16 2012 05:46 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
063SMPL.D# CCB3	Aug 16 2012 05:49 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
064SMPL.D# 53574.01s	Aug 16 2012 05:52 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
065SMPL.D# 53575.01s	Aug 16 2012 05:55 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
066SMPL.D# 53572.01s	Aug 16 2012 05:58 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
067SMPL.D# 53572.02s	Aug 16 2012 06:02 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
068SMPL.D# 53572.03s	Aug 16 2012 06:05 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
069SMPL.D# 53572.04s	Aug 16 2012 06:08 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
070SMPL.D# 53572.04 MS-0.05	Aug 16 2012 06:11 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
071SMPL.D# 53572.04 MSD	Aug 16 2012 06:14 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
072SMPL.D# CCV4-0.10	Aug 16 2012 06:17 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
073SMPL.D# Rinse	Aug 16 2012 06:21 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
074SMPL.D# CCB4	Aug 16 2012 06:24 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
075SMPL.D# Soln-AA	Aug 16 2012 06:27 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
076SMPL.D# Soln-AB	Aug 16 2012 06:30 pm	Liquid	Ag,As,Cd,Cr,Cu,Ni,Zn
107SMPL.D# Blank	Aug 20 2012 12:37 pm	Liquid	Se
108SMPL.D# 0.00	Aug 20 2012 12:06 pm	Liquid	Se
109SMPL.D# 0.001	Aug 20 2012 12:09 pm	Liquid	Se
110SMPL.D# 0.005	Aug 20 2012 12:11 pm	Liquid	Se
111SMPL.D# 0.02	Aug 20 2012 12:13 pm	Liquid	Se
112SMPL.D# 0.05	Aug 20 2012 12:16 pm	Liquid	Se
113SMPL.D# 0.20	Aug 20 2012 12:18 pm	Liquid	Se
114SMPL.D# ICV-0.10	Aug 20 2012 12:21 pm	Liquid	Se
115SMPL.D# ICB	Aug 20 2012 12:23 pm	Liquid	Se
116SMPL.D# BS-0.0005	Aug 20 2012 12:25 pm	Liquid	Se
117SMPL.D# 53508.03s-d tot	Aug 20 2012 12:28 pm	Liquid	
118SMPL.D# 53508.03-d MS-0.10	Aug 20 2012 12:30 pm	Liquid	Se
119SMPL.D# CCV3-0.10	Aug 20 2012 12:32 pm	Liquid	Se
120SMPL.D# CCB3	Aug 20 2012 12:35 pm	Liquid	Se
121SMPL.D# Soln-AA	Aug 20 2012 12:39 pm	Liquid	Se
122SMPL.D# Soln-AB	Aug 20 2012 12:42 pm	Liquid	

Tune Report

Tune File : nogas.u
Comment :

m/z	Range	Count	Mean	RSD%	Background
7	5,000	2019.0	2156.3	4.30	0.40
89	20,000	18764.0	18687.2	3.50	0.90
205	1,000	814.0	762.5	5.85	7.00

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec
n: 50
Oxide: 156/140 1.124%
Doubly Charged: 70/140 2.268%



m/z:	7	89	205
Height:	2,187	18,821	722
Axis:	7.00	89.00	205.00
W-50%:	0.70	0.55	0.45
W-10%:	0.7500	0.700	0.6500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec
Y axis : Linear

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power :	1450 W	Extract 1 :	-83.8 V	AMU Gain :	132
RF Matching :	1.75 V	Extract 2 :	-96.5 V	AMU Offset :	123
Smpl Depth :	9 mm	Omega Bias-ce :	-14 V	Axis Gain :	0.9992
Torch-H :	0 mm	Omega Lens-ce :	2 V	Axis Offset :	-0.04
Torch-V :	1 mm	Cell Entrance :	-30 V	QP Bias :	-3 V
Carrier Gas :	0.72 L/min	QP Focus :	3 V		
Makeup Gas :	0.27 L/min	Cell Exit :	-34 V	===Detector Parameters===	
Optional Gas :	0 %			Discriminator :	8 mV
Nebulizer Pump :	0.1 rps	===Octopole Parameters===		Analog HV :	1820 V
Sample Pump :	--- rps	OctP RF :	170 V	Pulse HV :	1360 V
S/C Temp :	2 degC	OctP Bias :	-6 V		

===Reaction Cell===
Reaction Mode : OFF
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : 0 %

Tune File : he.u
He Gas: 3.5 mL/min
Optional Gas: 0 %
QP Focus: -7 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -11.5 V

m/z	Count(Mean)	RSD%
51	75.4	13.81
59	5111.7	3.91
89	3115.7	3.66

Integration Time: 0.1000sec

Tune File : h2.u
H2 Gas: 4.7 mL/min
Optional Gas: 0 %
QP Focus: -8 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -15 V

m/z	Count(Mean)	RSD%
59	4791.3	3.66
78	2.1	69.80
89	21257.7	2.94

Integration Time: 0.1000sec

Generated : Aug 16, 2012 12:23:10
Printed : Aug 16, 2012 12:24:49

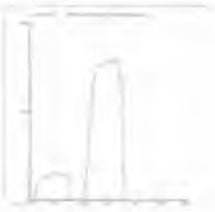
6020 and 200.8 Tune Check Sample

Data File: 0016TUN.D
Date Acquired: Aug 16 2012 12:32 pm
Operator:
Sample Name: 10ppb Li, Co, In, Tl
Misc Info: EPA tune solution
Vial Number: 4106
Current Method: TN_62_28.M

QC Tune Summary:
Pass

RSD%

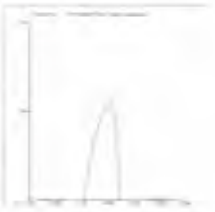
Element	Actual	Required	Flag
7 Li	2.09	5.00	
9 Be	3.50	5.00	
59 Co	1.29	5.00	
115 In	2.34	5.00	
205 Tl	4.03	5.00	
208 Pb	2.68	5.00	



7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:

9 Be
Mass Calib.
Actual: 9.00
Required 8.90 - 9.10
Flag:
Peak Width
Actual: 0.65
Required 0.75
Flag:

59 Co
Mass Calib.
Actual: 59.00
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.60
Required: 0.75
Flag:

205 Tl
Mass Calib.
Actual: 205.00
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:

208 Pb
Mass Calib.
Actual: 208.00
Required: 207.90 - 208.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:

Form 15: Internal Standards Summary

IS Check Reference Sample: 108SMPL.D# 0.00

Data Set ID: MT3-12-0816A

Instrument ID: HP ICP/MS 2

Analysis Date: 08/16/12

Analyst:

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh-1	206746	70-125	144722-258433	80-120	165397-248095	0

Seq ID	QC Type	Rh-1
107SMPL		106
108SMPL		100
109SMPL		100
110SMPL		94
111SMPL		107
112SMPL		109
113SMPL		112
114SMPL	ICV	110
115SMPL	ICB	96
116SMPL	BS	109
117SMPL	S	112
118SMPL	MS	112
119SMPL	CCV	113
120SMPL	CCB	105
121SMPL	AA	102
122SMPL	AB	74

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	Spike (ug/l)	MDL (ug/l)	Prep Batch
Al-27	4/9/2012	0.50	0.189	MTD-040212-1
Sb-121	3/20/2012	1.00	0.105	MTD-032012-3
As-75	3/20/2012	0.05	0.032	MTD-032012-2
Ba-137	3/20/2012	0.50	0.202	MTD-032012-2
Be-9	4/10/2012	0.10	0.079	MTD-041012-1
B-10	3/20/2012	1.00	0.589	MTD-032012-3
B-11	3/20/2012	1.00	0.277	MTD-032012-3
Cd-111	3/20/2012	0.05	0.038	MTD-032012-2
Cd-114	3/20/2012	0.10	0.030	MTD-032012-2
Cr-52	3/20/2012	0.10	0.023	MTD-032012-2
Cr-53	3/20/2012	0.10	0.054	MTD-032012-2
Co-59	3/20/2012	0.10	0.035	MTD-032012-2
Cu-65	3/20/2012	0.50	0.068	MTD-032012-2
Fe-56	4/9/2012	2.00	0.470	MTD-040912-1
Fe-57	4/9/2012	2.00	0.824	MTD-040912-1
Pb-208	3/20/2012	0.10	0.052	MTD-032012-2
Li-7	3/20/2012	1.00	0.166	MTD-032012-3
Mn-55	3/20/2012	0.10	0.187	MTD-032012-2
Mo-95	4/9/2012	0.50	0.442	MTD-040212-1
Ni-60	4/13/2012	0.10	0.035	MTD-041012-1
Se-78	3/20/2012	0.10	0.058	MTD-032012-2
Se-82	3/20/2012	0.50	0.475	MTD-032012-2
Ag-107	3/20/2012	0.10	0.025	MTD-032012-2
Sr-88	3/20/2012	0.10	0.016	MTD-032012-2
Tl-205	4/9/2012	0.50	0.089	MTD-040212-1
Sn-118	3/20/2012	0.10	0.079	MTD-032012-2
Ti-47	3/20/2012	0.50	0.124	MTD-032012-2
V-51	3/20/2012	0.05	0.018	MTD-032012-2
Zn-66	4/9/2012	2.00	0.366	MTD-040912-1

Element/Mass	Date	Spike (mg/l)	MDL (mg/l)	Prep Batch
Ca-43	4/16/2012	0.01	0.0101	MTD-041012-4
Ca-44	4/16/2012	0.01	0.0041	MTD-041012-4
Mg-24	4/16/2012	0.01	0.0006	MTD-041012-4
K-39	4/16/2012	0.01	0.0030	MTD-041012-4
Na-23	4/16/2012	0.10	0.0101	MTD-041012-4

Linear Range June 2012

		Prep Batch	Run Batch
Aluminum	5.0ppm	MTD-061912-5	MT3-12-0619C
Antimony	5.0ppm	MTD-061912-5	MT3-12-0619C
Arsenic	1.0ppm	MTD-061912-5	MT3-12-0619C
Barium	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-10	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-11	5.0ppm	MTD-061912-5	MT3-12-0619C
Beryllium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-111	5.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-114	5.0ppm	MTD-061912-5	MT3-12-0619C
Chromium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cobalt	2.0ppm	MTD-061912-5	MT3-12-0619C
Copper	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-56	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-57	2.0ppm	MTD-061912-5	MT3-12-0619C
Lead	5.0ppm	MTD-061912-5	MT3-12-0619C
Lithium	2.0ppm	MTD-061912-5	MT3-12-0619C
Manganese	1.0ppm	MTD-061912-5	MT3-12-0619C
Molybdenum	1.0ppm	MTD-061912-5	MT3-12-0619C
Nickel	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-78	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-82	5.0ppm	MTD-061912-5	MT3-12-0619C
Silver	1.0ppm	MTD-061912-5	MT3-12-0619C
Strontium-86	5.0ppm	MTD-061912-5	MT3-12-0619C
Thallium	5.0ppm	MTD-061912-5	MT3-12-0619C
Tin	1.0ppm	MTD-061912-5	MT3-12-0619C
Titanium	1.0ppm	MTD-061912-5	MT3-12-0619C
Vanadium	1.0ppm	MTD-061912-5	MT3-12-0619C
Zinc	2.0ppm	MTD-061912-5	MT3-12-0619C

Sodium-23	50ppm	MTD-061912-5	MT3-12-0619B
Magnesium-24	50ppm	MTD-061912-5	MT3-12-0619B
Potassium-39	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-43	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-44	50ppm	MTD-061912-5	MT3-12-0619B

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 001SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:28 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000178213	0.000006880	mg/L	106.51	2
Ni	60	103	.0000104215	0.00001742	mg/L	64.24	2
Cu	65	103	.0000587827	0.000009956	mg/L	316.39	2
Zn	66	103	.0000173916	0.000001862	mg/L	2,100	2
As	75	103	.0000007073	<0.000	mg/L	43.16	2
Se	78	89	.0000002673	0.000004271	mg/L	234.61	1
Ag	107	103	.0000046999	0.00001016	mg/L	53.69	2
Cd	111	103	.0000009117	0.000007045	mg/L	202.84	2
Ba	137	103	.0000013698	0.000008767	mg/L	185.47	2
Pb	208	185	.0000728293	0.00001643	mg/L	157.58	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 002SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:31 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000152885	.0000000000	mg/L	2.2E+9	2
Ni	60	103	.0000083307	.0000000000	mg/L	5.2E+8	2
Cu	65	103	.0000573845	.0000000000	mg/L	2.9E+8	2
Zn	66	103	.0000173063	<0.000	mg/L	3.4E+8	2
As	75	103	.0000014246	<0.000	mg/L	7.7E+8	2
Se	78	89	.0000002375	.0000000000	mg/L	1.1E+1	1
Ag	107	103	.0000027237	<0.000	mg/L	1.6E+9	2
Cd	111	103	.0000007159	.0000000000	mg/L	4.3E+8	2
Ba	137	103	.0000012226	<0.000	mg/L	2.1E+9	2
Pb	208	185	.0000650896	<0.000	mg/L	5.2E+8	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 003SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:35 pm
Sample Name: 0.0001
Sample Type: CalStd
Matrix: Liquid
Comments: Ag, As, Be, Cd, Tl
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000563454	0.0001115	mg/L	3.98	2
Ni	60	103	.0000348618	0.0002211	mg/L	14.10	2
Cu	65	103	.0002514336	0.001382	mg/L	6.94	2
Zn	66	103	.0000553002	0.0008294	mg/L	10.05	2
As	75	103	.0000045232	0.0001014	mg/L	20.14	2
Se	78	89	.0000008970	0.00009447	mg/L	40.40	1
Ag	107	103	.0000239871	0.0001093	mg/L	9.46	2
Cd	111	103	.0000031989	0.00008934	mg/L	25.60	2
Ba	137	103	.0000025833	0.00008104	mg/L	74.10	2
Pb	208	185	.0000969225	0.00006757	mg/L	103.85	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 004SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:38 pm
Sample Name: 0.0005
Sample Type: CalStd
Matrix: Liquid
Comments: Cu, Pb, V
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0001997038	0.0005009	mg/L	1.29	2
Ni	60	103	.0000780059	0.0005806	mg/L	4.70	2
Cu	65	103	.0001391274	0.0005821	mg/L	5.11	2
Zn	66	103	.0000461798	0.0006303	mg/L	3.33	2
As	75	103	.0000159806	0.0004763	mg/L	4.54	2
Se	78	89	.0000036603	0.0004903	mg/L	9.44	1
Ag	107	103	.0001004710	0.0005025	mg/L	1.04	2
Cd	111	103	.0000142577	0.0004872	mg/L	11.05	2
Ba	137	103	.0000089990	0.0004631	mg/L	16.09	2
Pb	208	185	.0003214945	0.0005442	mg/L	6.93	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 005SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:41 pm
Sample Name: 0.001
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003838333	0.001001	mg/L	2.39	2
Ni	60	103	.0001348363	0.001054	mg/L	4.45	2
Cu	65	103	.0002038420	0.001043	mg/L	3.59	2
Zn	66	103	.0000741457	0.001241	mg/L	0.54	2
As	75	103	.0000314702	0.0009832	mg/L	8.18	2
Se	78	89	.0000073818	0.001023	mg/L	6.02	1
Ag	107	103	.0001907184	0.0009665	mg/L	0.87	2
Cd	111	103	.0000304341	0.001069	mg/L	0.82	2
Ba	137	103	.0000163787	0.0009026	mg/L	3.83	2
Pb	208	185	.0005475088	0.001024	mg/L	2.35	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 006SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:44 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.001815373	0.004890	mg/L	1.33	2
Ni	60	103	.0006199682	0.005097	mg/L	2.82	2
Cu	65	103	.0007800090	0.005146	mg/L	2.03	2
Zn	66	103	.0002564590	0.005221	mg/L	1.45	2
As	75	103	.0001525904	0.004947	mg/L	3.25	2
Se	78	89	.0000351723	0.005004	mg/L	4.90	1
Ag	107	103	.0009873738	0.005062	mg/L	0.99	2
Cd	111	103	.0001349913	0.004831	mg/L	1.65	2
Ba	137	103	.0000814451	0.004778	mg/L	5.40	2
Pb	208	185	0.002327688	0.004802	mg/L	2.84	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 007SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:47 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.007138604	0.01935	mg/L	1.85	2
Ni	60	103	0.002438226	0.02025	mg/L	2.88	2
Cu	65	103	0.002918841	0.02038	mg/L	1.94	2
Zn	66	103	.0009431200	0.02021	mg/L	1.03	2
As	75	103	.0006204369	0.02026	mg/L	1.82	2
Se	78	89	.0001394866	0.01994	mg/L	3.42	1
Ag	107	103	0.003908786	0.02008	mg/L	0.39	2
Cd	111	103	.0005560132	0.01998	mg/L	1.99	2
Ba	137	103	.0003345169	0.01985	mg/L	3.55	2
Pb	208	185	0.009574104	0.02018	mg/L	5.68	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 008SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:51 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01775635	0.04819	mg/L	1.56	2
Ni	60	103	0.006045047	0.05031	mg/L	1.98	2
Cu	65	103	0.007207120	0.05091	mg/L	0.33	2
Zn	66	103	0.002363791	0.05123	mg/L	0.45	2
As	75	103	0.001535129	0.05019	mg/L	0.92	2
Se	78	89	.0003477492	0.04978	mg/L	3.75	1
Ag	107	103	0.009661258	0.04965	mg/L	1.53	2
Cd	111	103	0.001402925	0.05045	mg/L	1.80	2
Ba	137	103	.0008356123	0.04969	mg/L	1.45	2
Pb	208	185	0.02442557	0.05171	mg/L	3.88	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 009SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:54 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.07383474	0.2005	mg/L	2.11	2
Ni	60	103	0.02399559	0.1999	mg/L	0.78	2
Cu	65	103	0.02810596	0.1997	mg/L	0.90	2
Zn	66	103	0.009163270	0.1997	mg/L	1.24	2
As	75	103	0.006110678	0.1999	mg/L	0.96	2
Se	78	89	0.001396958	0.2001	mg/L	0.58	1
Ag	107	103	0.03891989	0.2001	mg/L	0.49	2
Cd	111	103	0.005556292	0.1999	mg/L	1.49	2
Ba	137	103	0.003361050	0.2001	mg/L	2.11	2
Pb	208	185	0.09408375	0.1996	mg/L	1.61	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 010SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:57 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03585713	0.09736	mg/L	1.60	2
Ni	60	103	0.01234423	0.1028	mg/L	1.00	2
Cu	65	103	0.01418654	0.1006	mg/L	0.92	2
Zn	66	103	0.004694842	0.1021	mg/L	1.43	2
As	75	103	0.003108114	0.1017	mg/L	1.76	2
Se	78	89	.0006986382	0.1000	mg/L	1.46	1
Ag	107	103	0.01972393	0.1014	mg/L	0.84	2
Cd	111	103	0.002833229	0.1019	mg/L	0.23	2
Ba	137	103	0.001703695	0.1014	mg/L	1.83	2
Pb	208	185	0.04807843	0.1019	mg/L	4.50	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 011SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:00 pm
Sample Name: ERA-10/1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.04565138	0.6198	mg/L	0.51	2
Ni	60	103	0.05109270	2.128	mg/L	1.82	2
Cu	65	103	0.02406848	0.8549	mg/L	0.57	2
Zn	66	103	0.003857809	0.4192	mg/L	0.68	2
As	75	103	0.005510749	0.9015	mg/L	1.96	2
Se	78	89	0.001422415	1.019	mg/L	0.53	1
Ag	107	103	0.007121063	0.1830	mg/L	0.31	2
Cd	111	103	.0006712632	0.1206	mg/L	0.76	2
Ba	137	103	0.002451803	0.7297	mg/L	2.53	2
Pb	208	185	0.1703767	1.807	mg/L	3.48	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 012SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:03 pm
Sample Name: 08/16 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01770159	0.04804	mg/L	1.11	2
Ni	60	103	0.006025441	0.05014	mg/L	2.53	2
Cu	65	103	0.007143651	0.05046	mg/L	1.45	2
Zn	66	103	0.002381146	0.05160	mg/L	0.93	2
As	75	103	0.001536591	0.05024	mg/L	2.27	2
Se	78	89	.0003426150	0.04904	mg/L	1.42	1
Ag	107	103	0.009726405	0.04999	mg/L	0.32	2
Cd	111	103	0.001390087	0.04999	mg/L	0.58	2
Ba	137	103	.0008485337	0.05046	mg/L	1.84	2
Pb	208	185	0.02438686	0.05162	mg/L	2.31	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 013SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:07 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000201702	0.00001326	mg/L	39.85	2
Ni	60	103	.0000098139	0.00001236	mg/L	78.44	2
Cu	65	103	.0000596031	0.00001580	mg/L	112.28	2
Zn	66	103	.0000155309	<0.000	mg/L	24.78	2
As	75	103	.0000025523	0.00003690	mg/L	35.37	2
Se	78	89	.0000011308	0.0001280	mg/L	37.75	1
Ag	107	103	.0000099821	0.00003732	mg/L	4.93	2
Cd	111	103	.0000009209	0.000007376	mg/L	140.18	2
Ba	137	103	.0000010752	<0.000	mg/L	291.73	2
Pb	208	185	.0000660301	0.000001996	mg/L	2,100	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 014SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:10 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000180049	0.000007378	mg/L	60.34	2
Ni	60	103	.0000093788	0.000008734	mg/L	78.35	2
Cu	65	103	.0000542234	<0.000	mg/L	92.31	2
Zn	66	103	.0000142349	<0.000	mg/L	37.57	2
As	75	103	.0000017520	0.00001071	mg/L	266.85	2
Se	78	89	.0000005266	0.00004141	mg/L	86.04	1
Ag	107	103	.0000047348	0.00001034	mg/L	36.73	2
Cd	111	103	.0000011557	0.00001582	mg/L	92.23	2
Ba	137	103	.0000013419	0.000007102	mg/L	349.48	2
Pb	208	185	.0000560167	<0.000	mg/L	184.94	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 015SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:13 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000177040	0.000006561	mg/L	74.67	2
Ni	60	103	.0000082876	<0.000	mg/L	2,900	2
Cu	65	103	.0000577263	0.000002434	mg/L	1,900	2
Zn	66	103	.0000133452	<0.000	mg/L	12.76	2
As	75	103	.0000015320	0.000003513	mg/L	234.42	2
Se	78	89	.0000003225	0.00001218	mg/L	44.06	1
Ag	107	103	.0000023051	<0.000	mg/L	107.48	2
Cd	111	103	.0000007699	0.000001943	mg/L	767.37	2
Ba	137	103	.0000014308	0.00001240	mg/L	37.65	2
Pb	208	185	.0000515297	<0.000	mg/L	55.32	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 016SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:16 pm
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0001961208	0.0004912	mg/L	6.90	2
Ni	60	103	.0000740460	0.0005476	mg/L	2.81	2
Cu	65	103	.0001299800	0.0005169	mg/L	2.73	2
Zn	66	103	.0000459757	0.0006259	mg/L	3.82	2
As	75	103	.0000166054	0.0004968	mg/L	3.44	2
Se	78	89	.0000032791	0.0004357	mg/L	23.43	1
Ag	107	103	.0001004807	0.0005026	mg/L	1.61	2
Cd	111	103	.0000139173	0.0004750	mg/L	4.98	2
Ba	137	103	.0000093909	0.0004865	mg/L	18.14	2
Pb	208	185	.0002811973	0.0004587	mg/L	12.51	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 017SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:19 pm
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003755087	0.0009785	mg/L	1.32	2
Ni	60	103	.0001376941	0.001078	mg/L	5.43	2
Cu	65	103	.0002075700	0.001069	mg/L	7.15	2
Zn	66	103	.0000777248	0.001319	mg/L	3.80	2
As	75	103	.0000311564	0.0009730	mg/L	6.06	2
Se	78	89	.0000073868	0.001024	mg/L	8.67	1
Ag	107	103	.0001918122	0.0009721	mg/L	4.52	2
Cd	111	103	.0000300172	0.001054	mg/L	9.89	2
Ba	137	103	.0000177728	0.0009857	mg/L	17.01	2
Pb	208	185	.0004833792	0.0008878	mg/L	11.39	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 018SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:23 pm
Sample Name: 53508.01 Dil
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 25.00

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000469985	0.002153	mg/L	11.13	2
Ni	60	103	.0001173209	0.02271	mg/L	1.11	2
Cu	65	103	.0000545837	<0.000	mg/L	60.05	2
Zn	66	103	.0000370177	0.01076	mg/L	5.25	2
As	75	103	.0000057408	0.003531	mg/L	6.72	2
Se	78	89	.0000004710	0.0008363	mg/L	69.10	1
Ag	107	103	.0000061055	0.0004346	mg/L	6.06	2
Cd	111	103	.0000015940	0.0007898	mg/L	31.64	2
Ba	137	103	.0004596149	0.6825	mg/L	3.13	2
Pb	208	185	.0006319234	0.03008	mg/L	11.37	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 019SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:26 pm
Sample Name: 53508.01s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0002973453	0.003831	mg/L	1.23	2
Ni	60	103	.0005790966	0.02378	mg/L	0.85	2
Cu	65	103	.0001137638	0.002007	mg/L	11.09	2
Zn	66	103	.0000886719	0.007790	mg/L	2.55	2
As	75	103	.0000270918	0.004200	mg/L	5.67	2
Se	78	89	.0000011857	0.0006791	mg/L	40.77	1
Ag	107	103	.0000070921	0.0001123	mg/L	19.26	2
Cd	111	103	.0000035889	0.0005169	mg/L	22.96	2
Ba	137	103	0.002066297	0.6149	mg/L	0.99	2
Pb	208	185	.0005404599	0.005045	mg/L	8.20	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 020SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:29 pm
Sample Name: 53508.01s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0002398678	0.003050	mg/L	1.19	2
Ni	60	103	.0005878174	0.02414	mg/L	1.44	2
Cu	65	103	.0000940370	0.001305	mg/L	23.27	2
Zn	66	103	.0004848884	0.05104	mg/L	1.03	2
As	75	103	.0000186964	0.002826	mg/L	9.72	2
Se	78	89	.0000007165	0.0003431	mg/L	67.85	1
Ag	107	103	.0000058123	0.00007939	mg/L	4.29	2
Cd	111	103	.0000034162	0.0004858	mg/L	23.30	2
Ba	137	103	0.002024323	0.6024	mg/L	2.14	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 021SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:32 pm
Sample Name: 53508.06s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003713780	0.004836	mg/L	5.74	2
Ni	60	103	.0001245842	0.004844	mg/L	0.57	2
Cu	65	103	.0004126571	0.01265	mg/L	0.35	2
Zn	66	103	.0000237220	0.0007003	mg/L	43.98	2
As	75	103	.0000296954	0.004626	mg/L	11.68	2
Se	78	89	.0000029567	0.001947	mg/L	9.19	1
Ag	107	103	.0000025759	<0.000	mg/L	205.89	2
Cd	111	103	.0000028299	0.0003803	mg/L	27.16	2
Ba	137	103	.0001619038	0.04785	mg/L	4.82	2
Pb	208	185	.0007616561	0.007393	mg/L	9.60	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 022SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:39 pm
Sample Name: 53508.06s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003589314	0.004667	mg/L	1.16	2
Ni	60	103	.0001235012	0.004799	mg/L	6.23	2
Cu	65	103	.0004160255	0.01277	mg/L	1.60	2
Zn	66	103	.0000585347	0.004500	mg/L	7.53	2
As	75	103	.0000326775	0.005114	mg/L	6.55	2
Se	78	89	.0000034731	0.002317	mg/L	1.25	1
Ag	107	103	.0000021606	<0.000	mg/L	145.06	2
Cd	111	103	.0000017455	0.0001852	mg/L	68.03	2
Ba	137	103	.0001548372	0.04574	mg/L	2.70	2
Pb	208	185	.0002507167	0.001970	mg/L	15.43	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 023SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:42 pm
Sample Name: 53508.08s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000269877	0.0001589	mg/L	8.28	2
Ni	60	103	.0006108670	0.02511	mg/L	1.89	2
Cu	65	103	.0001320570	0.002659	mg/L	10.37	2
Zn	66	103	.0000370218	0.002152	mg/L	11.52	2
As	75	103	.0000067137	0.0008654	mg/L	24.12	2
Se	78	89	.0000008963	0.0004719	mg/L	41.58	1
Ag	107	103	.0000021601	<0.000	mg/L	37.89	2
Cd	111	103	.0000024045	0.0003038	mg/L	20.75	2
Ba	137	103	.0008949105	0.2661	mg/L	1.19	2
Pb	208	185	.0003061142	0.002558	mg/L	14.73	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 024SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:45 pm
Sample Name: 53508.09s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0001079425	0.001258	mg/L	5.69	2
Ni	60	103	.0004915454	0.02013	mg/L	0.84	2
Cu	65	103	.0000901981	0.001168	mg/L	11.91	2
Zn	66	103	.0000669800	0.005422	mg/L	6.36	2
As	75	103	.0001723464	0.02797	mg/L	2.43	2
Se	78	89	.0000002917	0.00003885	mg/L	80.54	1
Ag	107	103	.0000026877	<0.000	mg/L	3,100	2
Cd	111	103	.0000010397	0.00005825	mg/L	61.18	2
Ba	137	103	.0005182267	0.1540	mg/L	4.77	2
Pb	208	185	.0002085479	0.001522	mg/L	30.77	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 025SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:48 pm
Sample Name: 53508.09s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000362447	0.0002846	mg/L	12.65	2
Ni	60	103	.0004499787	0.01840	mg/L	2.02	2
Cu	65	103	.0000722661	0.0005298	mg/L	11.77	2
Zn	66	103	.0003496308	0.03627	mg/L	2.02	2
As	75	103	.0000386725	0.006095	mg/L	7.21	2
Se	78	89	.0000002780	0.00002903	mg/L	83.43	1
Ag	107	103	.0000012711	<0.000	mg/L	8.62	2
Cd	111	103	.0000010899	0.00006728	mg/L	125.64	2
Ba	137	103	.0003729691	0.1107	mg/L	2.45	2
Pb	208	185	.0001388802	0.0007831	mg/L	31.11	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 026SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:51 pm
Sample Name: 53508.01s-d dis
Sample Type: Sample
Matrix: Liquid
Comments: 5/1
Dilution: 25.00

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Pb	208	185	.0004822337	0.02213	mg/L	20.10	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 027SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:54 pm
Sample Name: 53508.03s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0005261116	0.006938	mg/L	2.18	2
Ni	60	103	.0006626388	0.02726	mg/L	2.73	2
Cu	65	103	0.001397977	0.04773	mg/L	1.78	2
Zn	66	103	.0004181394	0.04375	mg/L	3.85	2
As	75	103	.0000942911	0.01520	mg/L	2.16	2
Se	78	89	.0000006336	0.0002837	mg/L	30.31	1
Ag	107	103	.0000046139	0.00004859	mg/L	57.28	2
Cd	111	103	.0000084753	0.001396	mg/L	19.61	2
Ba	137	103	.0004376171	0.1299	mg/L	2.15	2
Pb	208	185	0.002755920	0.02856	mg/L	4.89	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 028SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:58 pm
Sample Name: 53508.04s tot MS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01889471	0.2564	mg/L	0.58	2
Ni	60	103	0.006823802	0.2840	mg/L	2.47	2
Cu	65	103	0.008485275	0.3001	mg/L	0.62	2
Zn	66	103	0.002732504	0.2964	mg/L	2.15	2
As	75	103	0.001577719	0.2579	mg/L	2.10	2
Se	78	89	.0002587661	0.1851	mg/L	0.45	1
Ag	107	103	0.007725086	0.1985	mg/L	0.80	2
Cd	111	103	0.001396794	0.2511	mg/L	1.26	2
Ba	137	103	0.001289468	0.3836	mg/L	0.27	2
Pb	208	185	0.02504337	0.2651	mg/L	2.40	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 029SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:01 pm
Sample Name: 53508.05s tot MSD
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01897690	0.2575	mg/L	1.71	2
Ni	60	103	0.006791910	0.2826	mg/L	0.38	2
Cu	65	103	0.008529239	0.3016	mg/L	0.96	2
Zn	66	103	0.002712064	0.2941	mg/L	0.81	2
As	75	103	0.001544369	0.2525	mg/L	1.65	2
Se	78	89	.0002577888	0.1845	mg/L	2.94	1
Ag	107	103	0.004236868	0.1088	mg/L	2.91	2
Cd	111	103	0.001397453	0.2513	mg/L	1.33	2
Ba	137	103	0.001318112	0.3921	mg/L	3.34	2
Pb	208	185	0.02557811	0.2708	mg/L	2.80	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 030SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:04 pm
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03532968	0.09593	mg/L	1.97	2
Ni	60	103	0.01205277	0.1004	mg/L	0.86	2
Cu	65	103	0.01413539	0.1002	mg/L	1.27	2
Zn	66	103	0.004599414	0.1000	mg/L	0.99	2
As	75	103	0.003007864	0.09839	mg/L	0.16	2
Se	78	89	.0006749118	0.09664	mg/L	1.70	1
Ag	107	103	0.01941725	0.09981	mg/L	1.18	2
Cd	111	103	0.002784387	0.1002	mg/L	0.77	2
Ba	137	103	0.001698887	0.1011	mg/L	1.88	2
Pb	208	185	0.04785158	0.1014	mg/L	3.24	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 031SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:07 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000184134	0.000008488	mg/L	43.59	2
Ni	60	103	.0000109965	0.00002221	mg/L	46.42	2
Cu	65	103	.0000601286	0.00001954	mg/L	61.31	2
Zn	66	103	.0000130972	<0.000	mg/L	28.97	2
As	75	103	.0000024901	0.00003487	mg/L	47.18	2
Se	78	89	.0000014606	0.0001752	mg/L	37.16	1
Ag	107	103	.0000114207	0.00004471	mg/L	0.94	2
Cd	111	103	.0000009166	0.000007222	mg/L	374.83	2
Ba	137	103	.0000009517	<0.000	mg/L	101.80	2
Pb	208	185	.0001002412	0.00007461	mg/L	48.65	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 032SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:10 pm
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000185721	0.000008919	mg/L	101.40	2
Ni	60	103	.0000088434	0.000004272	mg/L	110.32	2
Cu	65	103	.0000560747	<0.000	mg/L	166.18	2
Zn	66	103	.0000146407	<0.000	mg/L	81.20	2
As	75	103	.0000011934	<0.000	mg/L	65.50	2
Se	78	89	.0000003924	0.00002219	mg/L	92.83	1
Ag	107	103	.0000045815	0.000009551	mg/L	37.20	2
Cd	111	103	.0000015324	0.00002938	mg/L	68.07	2
Ba	137	103	.0000010500	<0.000	mg/L	237.65	2
Pb	208	185	.0000691771	0.000008676	mg/L	652.49	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 033SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:14 pm
Sample Name: 53508.10s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000457101	0.0004132	mg/L	2.44	2
Ni	60	103	.0004679375	0.01915	mg/L	1.10	2
Cu	65	103	.0001057529	0.001722	mg/L	2.38	2
Zn	66	103	.0000414687	0.002637	mg/L	16.94	2
As	75	103	.0002272726	0.03695	mg/L	1.75	2
Se	78	89	.0000004521	0.0001537	mg/L	19.79	1
Ag	107	103	.0000056228	0.00007452	mg/L	26.81	2
Cd	111	103	.0000003218	<0.000	mg/L	22.06	2
Ba	137	103	.0005197739	0.1544	mg/L	3.21	2
Pb	208	185	.0000944646	0.0003117	mg/L	49.47	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 034SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:17 pm
Sample Name: 53508.10s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000347630	0.0002645	mg/L	4.39	2
Ni	60	103	.0004494844	0.01838	mg/L	1.33	2
Cu	65	103	.0000607362	0.0001193	mg/L	82.55	2
Zn	66	103	.0002832077	0.02902	mg/L	1.89	2
As	75	103	.0000657663	0.01053	mg/L	4.81	2
Se	78	89	.0000003065	0.00004942	mg/L	129.58	1
Ag	107	103	.0000027380	.0000003686	mg/L	586.54	2
Cd	111	103	.0000003725	<0.000	mg/L	48.26	2
Ba	137	103	.0003715514	0.1103	mg/L	3.03	2
Pb	208	185	.0000927751	0.0002938	mg/L	47.14	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 042SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:42 pm
Sample Name: 53508.03s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000882487	0.0009909	mg/L	5.30	2
Ni	60	103	.0001630096	0.006445	mg/L	2.35	2
Cu	65	103	.0002478466	0.006781	mg/L	0.65	2
Zn	66	103	.0002149634	0.02158	mg/L	1.23	2
As	75	103	.0000495483	0.007874	mg/L	8.30	2
Se	78	89	.0000005279	0.0002080	mg/L	91.88	1
Ag	107	103	.0000014703	<0.000	mg/L	13.58	2
Cd	111	103	.0000009516	0.00004240	mg/L	227.81	2
Ba	137	103	.0001013871	0.02983	mg/L	2.80	2
Pb	208	185	.0001985598	0.001416	mg/L	25.56	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 043SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:45 pm
Sample Name: 53508.04s dis MS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01860040	0.2524	mg/L	2.17	2
Ni	60	103	0.006295817	0.2620	mg/L	1.16	2
Cu	65	103	0.007408475	0.2617	mg/L	1.41	2
Zn	66	103	0.002623618	0.2845	mg/L	1.21	2
As	75	103	0.001622849	0.2653	mg/L	1.70	2
Se	78	89	.0003384266	0.2422	mg/L	2.77	1
Ag	107	103	0.007749998	0.1991	mg/L	0.69	2
Cd	111	103	0.001385286	0.2491	mg/L	2.40	2
Ba	137	103	.0009534432	0.2836	mg/L	3.15	2
Pb	208	185	0.02337955	0.2474	mg/L	3.13	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 044SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:48 pm
Sample Name: 53508.05s dis MSD
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01838523	0.2495	mg/L	1.51	2
Ni	60	103	0.006210475	0.2584	mg/L	2.53	2
Cu	65	103	0.007356368	0.2599	mg/L	2.12	2
Zn	66	103	0.002593999	0.2813	mg/L	1.80	2
As	75	103	0.001607501	0.2628	mg/L	2.46	2
Se	78	89	.0003378414	0.2418	mg/L	1.33	1
Ag	107	103	0.007117462	0.1829	mg/L	2.72	2
Cd	111	103	0.001399051	0.2516	mg/L	0.74	2
Ba	137	103	.0009489572	0.2822	mg/L	1.74	2
Pb	208	185	0.02325306	0.2461	mg/L	1.96	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 045SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:52 pm
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03594474	0.09760	mg/L	3.40	2
Ni	60	103	0.01206820	0.1005	mg/L	3.06	2
Cu	65	103	0.01438193	0.1020	mg/L	1.55	2
Zn	66	103	0.004660289	0.1014	mg/L	1.38	2
As	75	103	0.003028037	0.09905	mg/L	3.53	2
Se	78	89	.0006952304	0.09955	mg/L	1.16	1
Ag	107	103	0.01924043	0.09890	mg/L	2.63	2
Cd	111	103	0.002785883	0.1002	mg/L	0.63	2
Ba	137	103	0.001738664	0.1035	mg/L	0.95	2
Pb	208	185	0.04904717	0.1040	mg/L	3.92	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 046SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:55 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000263670	0.00003009	mg/L	35.76	2
Ni	60	103	.0000103481	0.00001681	mg/L	69.36	2
Cu	65	103	.0000612958	0.00002785	mg/L	78.03	2
Zn	66	103	.0000161752	<0.000	mg/L	81.13	2
As	75	103	.0000027978	0.00004494	mg/L	29.95	2
Se	78	89	.0000024962	0.0003235	mg/L	44.51	1
Ag	107	103	.0000592385	0.0002905	mg/L	6.08	2
Cd	111	103	.0000010644	0.00001254	mg/L	65.37	2
Ba	137	103	.0000017274	0.00003006	mg/L	165.54	2
Pb	208	185	.0000929302	0.00005909	mg/L	50.52	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 047SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:58 pm
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000173046	0.000005476	mg/L	66.95	2
Ni	60	103	.0000104595	0.00001774	mg/L	37.50	2
Cu	65	103	.0000552199	<0.000	mg/L	124.66	2
Zn	66	103	.0000143643	<0.000	mg/L	21.32	2
As	75	103	.0000017931	0.00001206	mg/L	271.39	2
Se	78	89	.0000005004	0.00003765	mg/L	50.54	1
Ag	107	103	.0000253637	0.0001164	mg/L	12.23	2
Cd	111	103	.0000006735	<0.000	mg/L	704.26	2
Ba	137	103	.0000010132	<0.000	mg/L	185.96	2
Pb	208	185	.0000542912	<0.000	mg/L	125.31	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 048SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:01 pm
Sample Name: 08/16 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01798519	0.04881	mg/L	0.99	2
Ni	60	103	0.006143950	0.05113	mg/L	1.33	2
Cu	65	103	0.007190588	0.05079	mg/L	0.63	2
Zn	66	103	0.002375783	0.05149	mg/L	2.09	2
As	75	103	0.001528972	0.04999	mg/L	0.72	2
Se	78	89	.0003532345	0.05056	mg/L	2.36	1
Ag	107	103	0.009736190	0.05004	mg/L	0.81	2
Cd	111	103	0.001402500	0.05044	mg/L	1.59	2
Ba	137	103	.0008532120	0.05074	mg/L	3.40	2
Pb	208	185	0.02411932	0.05106	mg/L	4.53	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 049SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:04 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000185852	0.000008955	mg/L	33.07	2
Ni	60	103	.0000087654	0.000003622	mg/L	296.80	2
Cu	65	103	.0000570046	<0.000	mg/L	282.51	2
Zn	66	103	.0000151983	<0.000	mg/L	120.76	2
As	75	103	.0000015689	0.000004722	mg/L	372.30	2
Se	78	89	.0000010858	0.0001215	mg/L	58.89	1
Ag	107	103	.0000176761	0.00007687	mg/L	4.85	2
Cd	111	103	.0000008514	0.000004873	mg/L	16.19	2
Ba	137	103	.0000016895	0.00002781	mg/L	184.43	2
Pb	208	185	.0000516249	<0.000	mg/L	225.27	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 061SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:42 pm
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03542247	0.09618	mg/L	1.00	2
Ni	60	103	0.01197628	0.09973	mg/L	0.39	2
Cu	65	103	0.01398643	0.09919	mg/L	0.21	2
Zn	66	103	0.004587909	0.09978	mg/L	1.22	2
As	75	103	0.003038868	0.09940	mg/L	1.06	2
Se	78	89	.0007056822	0.1010	mg/L	3.12	1
Ag	107	103	0.01912937	0.09833	mg/L	0.24	2
Cd	111	103	0.002773855	0.09978	mg/L	1.73	2
Ba	137	103	0.001730474	0.1030	mg/L	1.67	2
Pb	208	185	0.04764766	0.1010	mg/L	4.11	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 062SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:46 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000218157	0.00001773	mg/L	47.37	2
Ni	60	103	.0000099617	0.00001359	mg/L	27.10	2
Cu	65	103	.0000600931	0.00001929	mg/L	107.15	2
Zn	66	103	.0000139024	<0.000	mg/L	26.98	2
As	75	103	.0000021438	0.00002353	mg/L	45.69	2
Se	78	89	.0000017184	0.0002121	mg/L	20.14	1
Ag	107	103	.0000170227	0.00007351	mg/L	12.51	2
Cd	111	103	.0000006980	<0.000	mg/L	519.45	2
Ba	137	103	.0000010436	<0.000	mg/L	213.98	2
Pb	208	185	.0000794515	0.00003048	mg/L	61.38	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 063SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:49 pm
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000188538	0.000009685	mg/L	9.07	2
Ni	60	103	.0000101156	0.00001487	mg/L	101.88	2
Cu	65	103	.0000565737	<0.000	mg/L	356.49	2
Zn	66	103	.0000147473	<0.000	mg/L	46.40	2
As	75	103	.0000011500	<0.000	mg/L	176.92	2
Se	78	89	.0000003347	0.00001392	mg/L	97.49	1
Ag	107	103	.0000098759	0.00003677	mg/L	19.79	2
Cd	111	103	.0000008484	0.000004767	mg/L	168.07	2
Ba	137	103	.0000010923	<0.000	mg/L	342.35	2
Pb	208	185	.0000608751	<0.000	mg/L	227.39	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 072SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:17 pm
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03494230	0.09487	mg/L	2.56	2
Ni	60	103	0.01177791	0.09808	mg/L	1.22	2
Cu	65	103	0.01390442	0.09860	mg/L	2.63	2
Zn	66	103	0.004576845	0.09954	mg/L	0.47	2
As	75	103	0.002998847	0.09809	mg/L	0.99	2
Se	78	89	.0006817129	0.09761	mg/L	1.39	1
Ag	107	103	0.01934521	0.09944	mg/L	1.23	2
Cd	111	103	0.002788342	0.1003	mg/L	0.56	2
Ba	137	103	0.001732857	0.1031	mg/L	2.75	2
Pb	208	185	0.04801924	0.1018	mg/L	3.31	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 073SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:21 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000238909	0.00002337	mg/L	24.13	2
Ni	60	103	.0000101682	0.00001531	mg/L	68.52	2
Cu	65	103	.0000556191	<0.000	mg/L	310.26	2
Zn	66	103	.0000166019	<0.000	mg/L	114.25	2
As	75	103	.0000023912	0.00003163	mg/L	30.24	2
Se	78	89	.0000019028	0.0002385	mg/L	20.17	1
Ag	107	103	.0000167418	0.00007207	mg/L	8.23	2
Cd	111	103	.0000012472	0.00001912	mg/L	44.88	2
Ba	137	103	.0000013477	0.000007448	mg/L	221.54	2
Pb	208	185	.0000822248	0.00003637	mg/L	113.89	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 074SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:24 pm
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000200753	0.00001300	mg/L	6.29	2
Ni	60	103	.0000101663	0.00001530	mg/L	57.90	2
Cu	65	103	.0000497990	<0.000	mg/L	43.40	2
Zn	66	103	.0000156747	<0.000	mg/L	113.00	2
As	75	103	.0000018228	0.00001303	mg/L	106.22	2
Se	78	89	.0000004683	0.00003306	mg/L	56.23	1
Ag	107	103	.0000101038	0.00003794	mg/L	24.73	2
Cd	111	103	.0000004129	<0.000	mg/L	26.94	2
Ba	137	103	.0000008785	<0.000	mg/L	67.64	2
Pb	208	185	.0000643948	<0.000	mg/L	3,600	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 075SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:27 pm
Sample Name: Soln-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000358902	0.00005596	mg/L	12.80	2
Ni	60	103	.0000284571	0.0001677	mg/L	6.69	2
Cu	65	103	.0001164198	0.0004204	mg/L	11.73	2
Zn	66	103	.0002351144	0.004755	mg/L	1.83	2
As	75	103	.0000008942	<0.000	mg/L	27.18	2
Se	78	89	.0000003183	0.00001159	mg/L	118.98	1
Ag	107	103	.0000091900	0.00003324	mg/L	7.76	2
Cd	111	103	.0000005461	<0.000	mg/L	217.88	2
Ba	137	103	.0000026429	0.00008459	mg/L	61.26	2
Pb	208	185	.0000709478	0.00001243	mg/L	170.56	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 076SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:30 pm
Sample Name: Soln-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.008967207	0.02432	mg/L	2.56	2
Ni	60	103	0.002820279	0.02343	mg/L	1.13	2
Cu	65	103	0.003118473	0.02180	mg/L	2.79	2
Zn	66	103	0.001137286	0.02445	mg/L	2.11	2
As	75	103	.0007386603	0.02413	mg/L	2.56	2
Ag	107	103	0.003848032	0.01977	mg/L	0.55	2
Cd	111	103	.0005899689	0.02120	mg/L	0.39	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 107SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:37 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000070703	.0000000000	mg/L	1.1E+9	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 108SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:06 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000048407	<0.000	mg/L	26.07	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 109SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:09 pm
Sample Name: 0.001
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000369563	0.0009580	mg/L	6.47	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 110SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:11 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0001709770	0.005254	mg/L	1.79	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 111SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:13 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0006298821	0.01996	mg/L	1.90	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 112SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:16 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	0.001578133	0.05036	mg/L	0.41	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 113SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:18 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	0.006243148	0.1999	mg/L	1.13	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 114SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:21 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	0.003155114	0.1009	mg/L	0.77	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 115SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:23 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000151951	0.0003318	mg/L	5.39	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 116SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:25 pm
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000223579	0.0005613	mg/L	13.22	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 118SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:30 pm
Sample Name: 53508.03-d MS-0.10
Sample Type: Sample
Matrix: Liquid
Comments: 5/1
Dilution: 25.00

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	0.003024240	2.418	mg/L	1.04	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 119SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:32 pm
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	0.002923967	0.09353	mg/L	1.15	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 120SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:35 pm
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000129355	0.0002594	mg/L	6.33	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 121SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:39 pm
Sample Name: Soln-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000064172	<0.000	mg/L	36.48	1

Metals Digestion

(3015A \ 3050B) DATE 08/16/12

TIME START 9:30 ANALYST SLK

TIME FINISH 10:00 PREP BATCH MTD-08162-1

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS- 1	----	50	50		—	1
LRB- 1	----	50	50		—	1
53508.01		10		total 5% DL=25		5
01				dissolved*		
03				total		
04MS						
05MSD						
03				dis		
04MS						
05MSD						
06				T		
06				dis		
08						
09				T		
09				dis		
10				T		
10				dis		
53519.02						
03						
03						
04						
04						
05						
05						
				* all dissolved lab filtered		

NOTES: 1) *Spike values (unless otherwise stated):*
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078+ D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 1125633

3) HNO_3 Lot # 51332-OmniTrace *4) Centrifuge Tube Lot # 120201-060-1*

5) Balance ID: M2 *Reviewed by* [signature] *On* 08/16/12

Form 0: Sequence Log

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	8/15/2012 2:00:52 PM	Calibration Blank	Liquid	
002	8/15/2012 2:03:07 PM	Standard #1	Liquid	
003	8/15/2012 2:05:21 PM	Standard #2	Liquid	
004	8/15/2012 2:07:35 PM	Standard #3	Liquid	
005	8/15/2012 2:09:48 PM	Standard #4	Liquid	
006	8/15/2012 2:12:00 PM	Standard #5	Liquid	
007	8/15/2012 2:14:12 PM	Standard #6	Liquid	
008	8/15/2012 2:17:59 PM	Standard #7	Liquid	
009	8/15/2012 2:22:25 PM	CCV1-2.0 ppb	Liquid	CCV
010	8/15/2012 2:24:44 PM	CCB1	Liquid	CCB
011	8/15/2012 2:27:02 PM	ICV-5.0	Liquid	ICV
012	8/15/2012 2:31:07 PM	ICB	Liquid	ICB
013	8/15/2012 2:33:24 PM	ERA 8121-05 TV=15.9	Liquid	ERA
014	8/15/2012 2:37:41 PM	BS-0.10	Liquid	BS
015	8/15/2012 2:40:00 PM	08/15 LCS1-2.0 ppb	Liquid	LCS
016	8/15/2012 2:42:21 PM	08/15 LRB1	Liquid	LRB
017	8/15/2012 2:44:32 PM	53508.01s dis	Liquid	S
018	8/15/2012 2:46:43 PM	53508.06s dis	Liquid	S
019	8/15/2012 2:48:56 PM	53508.09s dis	Liquid	S
020	8/15/2012 2:51:08 PM	53508.10s dis	Liquid	S
021	8/15/2012 2:53:22 PM	53519.03s dis	Liquid	S
022	8/15/2012 2:55:36 PM	53519.04s dis	Liquid	S
023	8/15/2012 2:57:50 PM	53519.05s dis	Liquid	S
024	8/15/2012 3:00:02 PM	53519.06s dis	Liquid	S
025	8/15/2012 3:02:14 PM	53519.02s tot	Liquid	S
026	8/15/2012 3:04:27 PM	53508.03s dis	Liquid	S
027	8/15/2012 3:06:41 PM	53508.04s dis MS-2.0 ppb	Liquid	MS
028	8/15/2012 3:08:55 PM	53508.05s dis MSD	Liquid	MSD
029	8/15/2012 3:11:13 PM	CCV2-2.0 ppb	Liquid	CCV
030	8/15/2012 3:13:33 PM	CCB2	Liquid	CCB
031	8/15/2012 3:15:47 PM	53508.01s tot	Liquid	S
032	8/15/2012 3:18:02 PM	53508.06s tot	Liquid	S
033	8/15/2012 3:20:15 PM	53508.08s tot	Liquid	S
034	8/15/2012 3:22:28 PM	53508.09s tot	Liquid	S
035	8/15/2012 3:24:41 PM	53508.10s tot	Liquid	S
036	8/15/2012 3:26:55 PM	53519.03s tot	Liquid	S
037	8/15/2012 3:29:10 PM	53519.04s tot	Liquid	S
038	8/15/2012 3:31:25 PM	53519.05s tot	Liquid	S
039	8/15/2012 3:33:41 PM	53519.06s tot	Liquid	S
040	8/15/2012 3:35:55 PM	53508.03s tot	Liquid	S
041	8/15/2012 3:38:08 PM	53508.04s tot MS-2.0 ppb	Liquid	MS
042	8/15/2012 3:40:23 PM	53508.05s tot MSD	Liquid	MSD
043	8/15/2012 3:42:41 PM	CCV3-2.0 ppb	Liquid	CCV
044	8/15/2012 3:45:00 PM	CCB3	Liquid	CCB
045	8/15/2012 3:47:20 PM	08/15 LCS2-2.0 ppb	Liquid	LCS
046	8/15/2012 3:49:41 PM	08/15 LRB2	Liquid	LRB
047	8/15/2012 3:51:56 PM	53519.09s	Liquid	S
048	8/15/2012 3:54:11 PM	53519.08s	Liquid	S
049	8/15/2012 3:56:27 PM	53519.08 MS-2.0 ppb	Liquid	MS
050	8/15/2012 3:58:44 PM	53519.08 MSD	Liquid	MSD
051	8/15/2012 4:01:03 PM	CCV4-2.0 ppb	Liquid	CCV
052	8/15/2012 4:03:22 PM	CCB4	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53508.01
Sample Tag: MW 129 (08-08-2012) (1250)
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53508.03
Sample Tag: MW 105 (08-08-2012) (1445)
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53508.04
Sample Tag: MW 105 (08-08-2012) (1445) MS
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.0019	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	0.0019	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53508.05
Sample Tag: MW 105 (08-08-2012) (1445) MSD
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	0.0019	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	0.0018	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53508.06
Sample Tag: MW 101 (08-08-2012) (1615)
Date Collected: 08/08/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53508.08
Sample Tag: MW 165 (08-09-2012) (0825)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53508.09
Sample Tag: MW 139 (08-09-2012) (0915)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53508.10
Sample Tag: DUP-01 (08-09-12)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 CCV1-2.0 ppb	CCV	1.0	Hg	2.007	2.0	100	90/110	ug/L	Liquid
011 ICV-5.0	ICV	1.0	Hg	5.358	5.0	107	90/110	ug/L	Liquid
029 CCV2-2.0 ppb	CCV	1.0	Hg	1.991	2.0	100	90/110	ug/L	Liquid
043 CCV3-2.0 ppb	CCV	1.0	Hg	1.988	2.0	99	90/110	ug/L	Liquid
051 CCV4-2.0 ppb	CCV	1.0	Hg	1.999	2.0	100	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: 8121-05

Data Set ID: HG2-12-0815A

Instrument ID: HG QuickTrace

Analysis Date: 08/15/12

Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
013 ERA 8121-05 TV=15.9	2.0	Hg	16.40	15.9	103	9.76	21.5	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0162	ug/L	Liquid
012 ICB	ICB	1.0	Hg	<0.03	-0.0130	ug/L	Liquid
016 08/15 LRB1	LRB	1.0	Hg	<0.03	-0.0396	ug/L	Liquid
030 CCB2	CCB	1.0	Hg	<0.03	-0.0174	ug/L	Liquid
044 CCB3	CCB	1.0	Hg	<0.03	-0.0190	ug/L	Liquid
046 08/15 LRB2	LRB	1.0	Hg	<0.03	-0.0386	ug/L	Liquid
052 CCB4	CCB	1.0	Hg	<0.03	-0.0206	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
014 BS-0.10		1.0	Hg	0.092	ND	0.10	92	70/130	ug/L	Liquid
027 53508.04s dis	**040 53508.03s tot**	1.0	Hg	1.911	<0.2	2.0	96	80/120	ug/L	Liquid
041 53508.04s tot	**026 53508.03s dis**	1.0	Hg	1.949	<0.2	2.0	98	80/120	ug/L	Liquid
049 53519.08 MS-2.0	**048 53519.08s**	1.0	Hg	1.831	<0.2	2.0	92	80/120	ug/L	Liquid

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
028 53508.05s dis MSD	**027 53508.04s dis**	1.0	Hg	1.847	1.911	3	0/20	ug/L	Liquid
042 53508.05s tot MSD	**041 53508.04s tot**	1.0	Hg	1.934	1.949	1	0/20	ug/L	Liquid
050 53519.08 MSD	**049 53519.08 MS-2.0**	1.0	Hg	1.857	1.831	1	0/20	ug/L	Liquid

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 08/15 LCS1-2.0 ppb	1.0	Hg	1.841	2.0	92	85/115	ug/L	Liquid
045 08/15 LCS2-2.0 ppb	1.0	Hg	1.875	2.0	94	85/115	ug/L	Liquid

Form 13: Analysis Run Log

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	8/15/2012 2:00:52 PM	Liquid	Hg
002 Standard #1	8/15/2012 2:03:07 PM	Liquid	Hg
003 Standard #2	8/15/2012 2:05:21 PM	Liquid	Hg
004 Standard #3	8/15/2012 2:07:35 PM	Liquid	Hg
005 Standard #4	8/15/2012 2:09:48 PM	Liquid	Hg
006 Standard #5	8/15/2012 2:12:00 PM	Liquid	Hg
007 Standard #6	8/15/2012 2:14:12 PM	Liquid	Hg
008 Standard #7	8/15/2012 2:17:59 PM	Liquid	Hg
009 CCV1-2.0 ppb	8/15/2012 2:22:25 PM	Liquid	Hg
010 CCB1	8/15/2012 2:24:44 PM	Liquid	Hg
011 ICV-5.0	8/15/2012 2:27:02 PM	Liquid	Hg
012 ICB	8/15/2012 2:31:07 PM	Liquid	Hg
013 ERA 8121-05 TV=15.9	8/15/2012 2:33:24 PM	Liquid	Hg
014 BS-0.10	8/15/2012 2:37:41 PM	Liquid	Hg
015 08/15 LCS1-2.0 ppb	8/15/2012 2:40:00 PM	Liquid	Hg
016 08/15 LRB1	8/15/2012 2:42:21 PM	Liquid	Hg
017 53508.01s dis	8/15/2012 2:44:32 PM	Liquid	Hg
018 53508.06s dis	8/15/2012 2:46:43 PM	Liquid	Hg
019 53508.09s dis	8/15/2012 2:48:56 PM	Liquid	Hg
020 53508.10s dis	8/15/2012 2:51:08 PM	Liquid	Hg
021 53519.03s dis	8/15/2012 2:53:22 PM	Liquid	Hg
022 53519.04s dis	8/15/2012 2:55:36 PM	Liquid	Hg
023 53519.05s dis	8/15/2012 2:57:50 PM	Liquid	Hg
024 53519.06s dis	8/15/2012 3:00:02 PM	Liquid	Hg
025 53519.02s tot	8/15/2012 3:02:14 PM	Liquid	Hg
026 53508.03s dis	8/15/2012 3:04:27 PM	Liquid	Hg
027 53508.04s dis MS-2.0 ppb	8/15/2012 3:06:41 PM	Liquid	Hg
028 53508.05s dis MSD	8/15/2012 3:08:55 PM	Liquid	Hg
029 CCV2-2.0 ppb	8/15/2012 3:11:13 PM	Liquid	Hg
030 CCB2	8/15/2012 3:13:33 PM	Liquid	Hg
031 53508.01s tot	8/15/2012 3:15:47 PM	Liquid	Hg
032 53508.06s tot	8/15/2012 3:18:02 PM	Liquid	Hg
033 53508.08s tot	8/15/2012 3:20:15 PM	Liquid	Hg
034 53508.09s tot	8/15/2012 3:22:28 PM	Liquid	Hg
035 53508.10s tot	8/15/2012 3:24:41 PM	Liquid	Hg
036 53519.03s tot	8/15/2012 3:26:55 PM	Liquid	Hg
037 53519.04s tot	8/15/2012 3:29:10 PM	Liquid	Hg
038 53519.05s tot	8/15/2012 3:31:25 PM	Liquid	Hg
039 53519.06s tot	8/15/2012 3:33:41 PM	Liquid	Hg
040 53508.03s tot	8/15/2012 3:35:55 PM	Liquid	Hg
041 53508.04s tot MS-2.0 ppb	8/15/2012 3:38:08 PM	Liquid	Hg
042 53508.05s tot MSD	8/15/2012 3:40:23 PM	Liquid	Hg
043 CCV3-2.0 ppb	8/15/2012 3:42:41 PM	Liquid	Hg
044 CCB3	8/15/2012 3:45:00 PM	Liquid	Hg
045 08/15 LCS2-2.0 ppb	8/15/2012 3:47:20 PM	Liquid	Hg
046 08/15 LRB2	8/15/2012 3:49:41 PM	Liquid	Hg
047 53519.09s	8/15/2012 3:51:56 PM	Liquid	Hg
048 53519.08s	8/15/2012 3:54:11 PM	Liquid	Hg
049 53519.08 MS-2.0 ppb	8/15/2012 3:56:27 PM	Liquid	Hg
050 53519.08 MSD	8/15/2012 3:58:44 PM	Liquid	Hg
051 CCV4-2.0 ppb	8/15/2012 4:01:03 PM	Liquid	Hg
052 CCB4	8/15/2012 4:03:22 PM	Liquid	Hg

Data Set: HG2-12-0815A
Run Date: 08/15/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	8/15/2012 2:00:52 PM	Calibration Blank	1081.0000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	8/15/2012 2:03:07 PM	Standard #1	2357.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	8/15/2012 2:05:21 PM	Standard #2	3523.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	8/15/2012 2:07:35 PM	Standard #3	7050.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	8/15/2012 2:09:48 PM	Standard #4	13010.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	8/15/2012 2:12:00 PM	Standard #5	24970.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	8/15/2012 2:14:12 PM	Standard #6	71720.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	8/15/2012 2:17:59 PM	Standard #7	118700.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	8/15/2012 2:22:25 PM	CCV1-2.0 ppb	24800.0000	2.0070	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	8/15/2012 2:24:44 PM	CCB1	1023.0000	-0.0162	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	8/15/2012 2:27:02 PM	ICV-5.0	64170.0000	5.3580	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	8/15/2012 2:31:07 PM	ICB	1061.0000	-0.0130	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	8/15/2012 2:33:24 PM	ERA 8121-05 TV=15.9	97610.0000	16.4060	ug/L	Liquid	2.0	1.0000	2.0000
Hg	014	8/15/2012 2:37:41 PM	BS-0.10	2292.0000	0.0917	ug/L	Liquid	1.0	1.0000	1.0000
Hg	015	8/15/2012 2:40:00 PM	08/15 LCS1-2.0 ppb	22850.0000	1.8410	ug/L	Liquid	1.0	1.0000	1.0000
Hg	016	8/15/2012 2:42:21 PM	08/15 LRB1	747.9000	-0.0396	ug/L	Liquid	1.0	1.0000	1.0000
Hg	017	8/15/2012 2:44:32 PM	53508.01s dis	652.4000	-0.0477	ug/L	Liquid	1.0	1.0000	1.0000
Hg	018	8/15/2012 2:46:43 PM	53508.06s dis	772.3000	-0.0375	ug/L	Liquid	1.0	1.0000	1.0000
Hg	019	8/15/2012 2:48:56 PM	53508.09s dis	712.8000	-0.0426	ug/L	Liquid	1.0	1.0000	1.0000
Hg	020	8/15/2012 2:51:08 PM	53508.10s dis	733.2000	-0.0409	ug/L	Liquid	1.0	1.0000	1.0000
Hg	026	8/15/2012 3:04:27 PM	53508.03s dis	793.2000	-0.0358	ug/L	Liquid	1.0	1.0000	1.0000
Hg	027	8/15/2012 3:06:41 PM	53508.04s dis MS-2.0 ppb	23670.0000	1.9110	ug/L	Liquid	1.0	1.0000	1.0000
Hg	028	8/15/2012 3:08:55 PM	53508.05s dis MSD	22920.0000	1.8470	ug/L	Liquid	1.0	1.0000	1.0000
Hg	029	8/15/2012 3:11:13 PM	CCV2-2.0 ppb	24620.0000	1.9910	ug/L	Liquid	1.0	1.0000	1.0000
Hg	030	8/15/2012 3:13:33 PM	CCB2	1009.0000	-0.0174	ug/L	Liquid	1.0	1.0000	1.0000
Hg	031	8/15/2012 3:15:47 PM	53508.01s tot	653.8000	-0.0476	ug/L	Liquid	1.0	1.0000	1.0000
Hg	032	8/15/2012 3:18:02 PM	53508.06s tot	729.7000	-0.0412	ug/L	Liquid	1.0	1.0000	1.0000
Hg	033	8/15/2012 3:20:15 PM	53508.08s tot	701.5000	-0.0436	ug/L	Liquid	1.0	1.0000	1.0000
Hg	034	8/15/2012 3:22:28 PM	53508.09s tot	664.0000	-0.0468	ug/L	Liquid	1.0	1.0000	1.0000
Hg	035	8/15/2012 3:24:41 PM	53508.10s tot	667.7000	-0.0465	ug/L	Liquid	1.0	1.0000	1.0000
Hg	040	8/15/2012 3:35:55 PM	53508.03s tot	1981.0000	0.0653	ug/L	Liquid	1.0	1.0000	1.0000
Hg	041	8/15/2012 3:38:08 PM	53508.04s tot MS-2.0 ppb	24120.0000	1.9490	ug/L	Liquid	1.0	1.0000	1.0000
Hg	042	8/15/2012 3:40:23 PM	53508.05s tot MSD	23940.0000	1.9340	ug/L	Liquid	1.0	1.0000	1.0000
Hg	043	8/15/2012 3:42:41 PM	CCV3-2.0 ppb	24580.0000	1.9880	ug/L	Liquid	1.0	1.0000	1.0000
Hg	044	8/15/2012 3:45:00 PM	CCB3	990.1000	-0.0190	ug/L	Liquid	1.0	1.0000	1.0000
Hg	045	8/15/2012 3:47:20 PM	08/15 LCS2-2.0 ppb	23250.0000	1.8750	ug/L	Liquid	1.0	1.0000	1.0000
Hg	046	8/15/2012 3:49:41 PM	08/15 LRB2	759.6000	-0.0386	ug/L	Liquid	1.0	1.0000	1.0000
Hg	051	8/15/2012 4:01:03 PM	CCV4-2.0 ppb	24700.0000	1.9990	ug/L	Liquid	1.0	1.0000	1.0000
Hg	052	8/15/2012 4:03:22 PM	CCB4	971.9000	-0.0206	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 10:30 | Beginning | End | DATE 08/15/12
TIME FINISH: 12:30 | TEMP: block #1 95 °C | block #1 95 °C | ANALYST DPH
PREP BATCH: HGD-081512-1 | block #2 95 °C | block #2 95 °C | REVIEWED BY JMK
BALANCE ID: M1 | block #3 95 °C | block #3 95 °C | REVIEW DATE 08/23/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 1	------	25	--------	----------	1	25g	
LRB- 1	------		--------	----------		25g	
53508.01							tot.
01							dis.*
03							tot
04 MS							
05 MSD							
03							dis
04 MS							
05 MSD							
06							tot
06							dis
08							tot.
09							tot.
09							dis.
10							tot.
10							dis.
53519.02							tot.
03							tot.
03							dis.
04							tot.
04							dis.
05							tot.
05							dis.
06							tot.
06							dis.

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 113201 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)
Sand lot # TH121ZEMS

Effective Date 7/10/12

* dissolved are all lab filtered

Solvent Lot #: 52069
Na2SO4 Lot #: 2351C512
Acid #: 50328A
SSD #: PR120802
MS/LCS #: PP120802 / BR120802

PNA/DRO Liquid Extraction Log
Method 3510 C

Analyst: emr
Date: 8-9-2012
Time Started: 6:00
Time Ended: 9:00
Batch ID#: SP120809B6

#	Merit #	Matrix	Sample Volume (ml)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Turbo VAP ID	pH	Notes
Initial Q.C.	BLANK	D.I.	1000 ml	CH2Cl2	140	1	1	---	eV3	7	
	LCS	D.I.	1000 ml	↓	↓			1		7	
	LCSD	D.I.	1000 ml	↓	↓			1		7	☐
	53508.04 MS	liq	990	CH_2Cl_2	140			1		7	(Parent Sample 53508.03) BNA SUR ☒
	105 MSD		990					1		7	↓
1	53484.04		880							7	
2	.05		900							7	
3	53498.15		980			↓				7	
4	.16		990			2ml				7	
5	.17		880			1ml				7	
6	.18		970							7	
7	.19		980							7	
8	.20		840							7	
9	.21		860							7	
10	.22		900							7	
11	.23		906							7	
12	53508.01		990							7	BNA SUR
13	.03		990							7	↓
14	.06		990							7	
15	.08		990							7	
16	.09		990							7	
17	.10	↓	990	↓	↓	↓	↓		↓	7	↓
18											
19											
20											

Reviewed by: [signature] On: 8/17

Prepared by: Merit Laboratories, Inc.

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

68127

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Susan Hoertt
COMPANY: Haley + Aldrich
ADDRESS: 8899 Gander Creek Drive
CITY: Miamisburg STATE: OH ZIP CODE: 45342
PHONE NO.: 937-530-1408 FAX NO.: 937-530-1458 P.O. NO.: 127270
E-MAIL ADDRESS: SHoertt@haleyaldrich.com QUOTE NO.:

INVOICE TO

CONTACT NAME: Bill to RACER ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 1950 Livonia Plant
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Megan Castles-Humphrey

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other Livonia, MI

MERIT LAB NO. FOR LAB USE ONLY	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	TCL VOC	SVOCs (PAHs) (MI 10 Metals)	(MI 10 Metals)*	Special Instructions
535508.01	8/8/12	12:50	MW129(08-08-2012)(1250)	GW	6	3	2	1					X	X	X	Normal
.02	8/8/12	—	2306-080812-0001	WQ	1		1						X			Trip blank
.03/.04	8/8/12	14:45	MW105(08-08-2012)(1445)	GW	18	9	6	3					X	X	X	Normal + MS/MSD
.05	8/8/12	16:15	MW101(08-08-2012)(1615)	GW	6	3	2	1					X	X	X	Normal
.06	8/9/12	—	2306-080912-0001	WQ	1		1						X			Trip blank
.07	8/9/12	08:25	MW165(08-09-2012)(0825)	GW	5	2	2	1					X	X	X	Normal, no filter sample
.08	8/9/12	09:15	MW139(08-09-2012)(0915)	GW	6	3	2	1					X	X	X	Normal
.09	8/9/12	—	DUP-01(08-09-12)	GW	6	3	2	1					X	X	X	Field Dup

RELINQUISHED BY: SIGNATURE/ORGANIZATION: Megan Castles-Humphrey / Haley + Aldrich ☐ Sampler DATE: 8/9/12 TIME: 1618
RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: 8.9.12 TIME: 1618
RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:

RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: 8-9-12 TIME: 1745
RELINQUISHED BY: SIGNATURE/ORGANIZATION: Tabatha Faust DATE: 8/9/12 TIME: 1400

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL
* to be filtered by Lab!! for dissolved metals

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.10.12

Merit Laboratories Login Checklist

Lab Set ID: S53508
Client: HALEYALDRICH (Haley & Aldrich)
Project: 11950 Livonia Plant
Submitted: 08/09/2012 14:00 Login User: ASB

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 2.9
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☒ Yes	☐ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Monica Wallingford

Address: Racer Trust
2930 Ecorse Road
Ypsilanti, MI 48198

Phone: 313-486-2928 FAX: 248-594-4829

Email: mwallingford@racertrust.org

Set ID: S53508 Location: HALEYALDRICH (Haley & Aldrich)

Project: 11950 Livonia Plant PO #: PO127270 Site: 1195

Submitted: 08/09/2012 14:00 Due Date: 08/23/2012 Collected by: M.CastlesHumphrey Login by: ASB

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S53508.01	MW 129 (08-08-2012) (1250)	Groundwater	08/08/2012 12:50	68127
S53508.02	2306-080812-0001	Water Quality	08/08/2012 00:01	68127
S53508.03	MW 105 (08-08-2012) (1445)	Groundwater	08/08/2012 14:45	68127
S53508.04	MW 105 (08-08-2012) (1445) MS	Groundwater	08/08/2012 14:45	68127
S53508.05	MW 105 (08-08-2012) (1445) MSD	Groundwater	08/08/2012 14:45	68127
S53508.06	MW 101 (08-08-2012) (1615)	Groundwater	08/08/2012 16:15	68127
S53508.07	2306-080912-0001	Water Quality	08/09/2012 00:01	68127
S53508.08	MW 165 (08-09-2012) (0825)	Groundwater	08/09/2012 08:25	68127
S53508.09	MW 139 (08-09-2012) (0915)	Groundwater	08/09/2012 09:15	68127
S53508.10	DUP-01 (08-09-12)	Groundwater	08/09/2012 00:01	68127

Samples: S53508.01, 03-06, 09-10

Analysis Code	Analysis Title	Method	Units	Holding Date
$8260TCL	TCL Volatile Organics 8260	SW8260B	mg/L	08/22/2012
$8270PNW	Polynuclear Aromatic Hydrocarbon	SW8270C	mg/L	09/17/2012
2115WMS	Arsenic	E200.8	mg/L	02/04/2013
2120WMS	Barium	E200.8	mg/L	02/04/2013
2135WMS	Cadmium	E200.8	mg/L	02/04/2013
2145WMS	Chromium	E200.8	mg/L	02/04/2013
2155WMS	Copper	E200.8	mg/L	02/04/2013
2165WMS	Lead	E200.8	mg/L	02/04/2013
2185W	Mercury	E245.1	mg/L	09/05/2012
2205WMS	Selenium	E200.8	mg/L	02/04/2013
2215WMS	Silver	E200.8	mg/L	02/04/2013
2245WMS	Zinc	E200.8	mg/L	02/04/2013
1605W	Metal Digestion	3015A		02/04/2013
2115DIS	Arsenic, Dissolved	E200.8	mg/L	02/04/2013
2120DIS	Barium, Dissolved	E200.8	mg/L	02/04/2013
2135DIS	Cadmium, Dissolved	E200.8	mg/L	02/04/2013
2145DIS	Chromium, Dissolved	E200.8	mg/L	02/04/2013
2155DIS	Copper, Dissolved	E200.8	mg/L	02/04/2013
2165DIS	Lead, Dissolved	E200.8	mg/L	02/04/2013
2185DIS	Mercury, Dissolved	E245.1	mg/L	09/05/2012
2205DIS	Selenium, Dissolved	E200.8	mg/L	02/04/2013
2215DIS	Silver, Dissolved	E200.8	mg/L	02/04/2013
2245DIS	Zinc, Dissolved	E200.8	mg/L	02/04/2013
1605DIS	Metal Digestion, Dissolved Metals	3015A		02/04/2013
1605HGDIS	Mercury Digestion, Dissolved	E245.1		09/05/2012
PNAEXTW	Semi Volatile Extraction	3510C		08/15/2012
1605HGW	Mercury Digestion	E245.1		09/05/2012

Samples: S53508.02, 07

Analysis Code	Analysis Title	Method	Units	Holding Date
$8260TCL	TCL Volatile Organics 8260	SW8260B	mg/L	08/22/2012

Samples: S53508.08

Analysis Code	Analysis Title	Method	Units	Holding Date

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Monica Wallingford

Address: Racer Trust
2930 Ecorse Road
Ypsilanti, MI 48198

Phone: 313-486-2928 FAX: 248-594-4829

Email: mwallingford@racertrust.org

Set ID: S53508 Location: HALEYALDRICH (Haley & Aldrich)

Project: 11950 Livonia Plant PO #: PO127270 Site: 1195

Submitted: 08/09/2012 14:00 Due Date: 08/23/2012 Collected by: M.CastlesHumphrey Login by: ASB

$8260TCL	TCL Volatile Organics 8260	SW8260B	mg/L	08/23/2012
$8270PNW	Polynuclear Aromatic Hydrocarbon	SW8270C	mg/L	09/18/2012
2115WMS	Arsenic	E200.8	mg/L	02/05/2013
2120WMS	Barium	E200.8	mg/L	02/05/2013
2135WMS	Cadmium	E200.8	mg/L	02/05/2013
2145WMS	Chromium	E200.8	mg/L	02/05/2013
2155WMS	Copper	E200.8	mg/L	02/05/2013
2165WMS	Lead	E200.8	mg/L	02/05/2013
2185W	Mercury	E245.1	mg/L	09/06/2012
2205WMS	Selenium	E200.8	mg/L	02/05/2013
2215WMS	Silver	E200.8	mg/L	02/05/2013
2245WMS	Zinc	E200.8	mg/L	02/05/2013
PNAEXTW	Semi Volatile Extraction	3510C		08/16/2012
1605HGW	Mercury Digestion	E245.1		09/06/2012
1605W	Metal Digestion	3015A		02/05/2013

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HALEY & ALDRICH
11950 LIVONIA PLANT

SDG Batch:
53519

Pages 1 - 456

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FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

HALEY & ALDRICH

PROJECT:
11950 LIVONIA PLANT

SDG Batch:
53519.01

Prepared by:
Merit Laboratories, Inc.

September 10, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53519.01 - .09

Deliverable	References		Pages		Checklist	
	Merit	CLP	From	To	Lab	Audit
1. **Inventory Sheet** (not numbered)		DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	43	☑	☐
4. **Volatiles Data**			44	231		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
BFB - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Martix Spike/Matrix Spike Duplicate Data					☑	☐
5. **Semi-Volatiles Data**			232	306		
a. QC Summary						
Sequence / Injection Log	F. 0				☑	☐
Surrogate Compound Summary	F. 2	F. II			☑	☐
Matrix Spike/Matrix Spike Duplicate Summary	F.3a, b	F. III			☑	☐
Method Blank Summary	F. 4	F. IV			☑	☐
GC/MS Instrument Performance Check	F. 5	F. V			☑	☐
Internal Standard Area and RT Summary	F. 8	F. VIII			☑	☐
b. Sample Data						
TCL Results	F. 1	F. I			☑	☐
Reconstructed total ion chromatograms (RIC)					☑	☐
Raw & background-subtracted spectra of target compounds identified					☑	☐
Quantitation reports						
c. Standards Data (All Instruments)						
Initial Calibration Data	F. 6	F. VI			☑	☐
RICs and Quantitation Reports for all IC Standards					☑	☐

Deliverable	References		Pages		Checklist	
	Merit	**CLP**	**From**	**To**	**Lab**	**Audit**
System Performance/Calibration Check Compounds	F. 7a, b	F. VII			☑	☐
RICs and Quantitation Reports for all SPCC/CCC Standards					☑	☐
d. Raw QC Data						
DFTPP - mass table, spectrum, RIC					☑	☐
Blank Data					☑	☐
Matrix Spike/Matrix Spike Duplicate Data					☑	☐
8. **Miscellaneous Data**			452	452		
Preparation / Extraction logbooks					☑	☐
9. **Shipping / Receiving Documents**			453	456		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt		DC-1			☑	☐

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S53519.01 - .09

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	2	☑	☐
3. **Analytical Summary Report**			3	43	☑	☐
6. **ICP/MS Metals Data**			307	432		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
7. **Mercury Data**			433	451		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Analysis Run Log		F. XIII			☑	☐
Mercury Cold Vapor Raw Data					☑	☐
Preparation / Digestion Log					☑	☐
9. **Shipping / Receiving Documents**			453	456		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: HALEY & ALDRICH
PROJECT: 11950 LIVONIA PLANT
Merit IDs: S53519.01-S53519.09

Field Sampling: M. Castles Humphrey performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (08/10/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 6020. The metal digestion was performed according to Method 3050B. The QC requirements were followed for this specific project and method-specified criteria were met.

Notes: Dilution test not applicable if measured concentration is less than 100 times MDL.

Outliers: The MS/MSD had high RPD for total Silver.

Mercury: All mercury QC requirements were met according to the specifications in Method 7471A. *Outliers*: None

Semivolatile Organics: The organic method utilized for this SDG was 8270C (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers*: None

Volatile Organics: The organic method utilized for this SDG was 8260B (GC/MS). The QC requirements were followed for this specific project and method-specified criteria were met.

Outliers:
Run-Batch 120817A3:

- The CCC had the compounds Bromomethane and 1,2-Dibromo-3-chloropropane outside of control limits.

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PHONE: 517-332-0167 FAX: 517-332-6333
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Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

09/10/12

Barb Ball — Date

QA Officer

Analytical Laboratory Report

Report ID: S53519.01(01)
Generated on 08/24/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53519.01-S53519.09
Project: 11950 Livonia Plant
Collected Date: 08/09/2012 - 08/10/2012
Submitted Date/Time: 08/10/2012 14:30
Sampled by: M.CastlesHumphrey
P.O. #: PO127270

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (9 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S53519.01	2306-080912-0002	Water Quality	08/09/2012 00:01
S53519.02	MW137 (08-09-2012) (1215)	Groundwater	08/09/2012 12:15
S53519.03	MW135 (08-09-2012) (1320)	Groundwater	08/09/2012 13:20
S53519.04	Dup-02 (08-09-2012)	Groundwater	08/09/2012 00:01
S53519.05	MW158 (08-09-2012) (1515)	Groundwater	08/09/2012 15:15
S53519.06	MW124 (08-09-2012) (1630)	Groundwater	08/09/2012 16:30
S53519.07	2306-080912-0003	Water Quality	08/09/2012 00:01
S53519.08	MW115 (08-10-2012) (0845)	Groundwater	08/10/2012 08:45
S53519.09	MW152 (08-10-2012) (1035)	Groundwater	08/10/2012 10:35

Analytical Laboratory Report

Lab Sample ID: S53519.01
Sample Tag: 2306-080912-0002
Collected Date/Time: 08/09/2012 00:01
Matrix: Water Quality
COC Reference: 68128

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/17/12 15:56	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/17/12 15:56	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/17/12 15:56	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/17/12 15:56	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/17/12 15:56	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/17/12 15:56	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/17/12 15:56	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/17/12 15:56	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/17/12 15:56	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/17/12 15:56	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/17/12 15:56	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/17/12 15:56	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	100-42-5	

Lab Sample ID: S53519.01 (continued)
Sample Tag: 2306-080912-0002

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/17/12 15:56	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/17/12 15:56	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53519.02
Sample Tag: MW137 (08-09-2012) (1215)
Collected Date/Time: 08/09/2012 12:15
Matrix: Groundwater
COC Reference: 68128

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	4.2	IR
2	1L Amber	None	Yes	4.2	IR
1	125ml Plastic	HNO3	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/13/12 22:02	EMR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	08/16/12 16:20	SLS	7440-38-2	
Barium	0.316	mg/L	0.005	E200.8	08/16/12 16:20	SLS	7440-39-3	
Cadmium	0.0006	mg/L	0.0005	E200.8	08/16/12 16:20	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 16:20	SLS	7440-47-3	
Copper	0.035	mg/L	0.004	E200.8	08/16/12 16:20	SLS	7440-50-8	
Lead	0.005	mg/L	0.003	E200.8	08/16/12 16:20	SLS	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:02	JRT	7439-97-6	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 16:20	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 16:20	SLS	7440-22-4	
Zinc	0.028	mg/L	0.005	E200.8	08/16/12 16:20	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/14/12 16:55	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/14/12 16:55	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/14/12 16:55	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/14/12 16:55	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/14/12 16:55	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 16:55	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 16:55	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/14/12 16:55	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/14/12 16:55	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/14/12 16:55	PL	53-70-3	
Fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 16:55	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/14/12 16:55	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/14/12 16:55	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/14/12 16:55	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/14/12 16:55	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/14/12 16:55	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 16:55	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 16:55	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/17/12 16:17	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/17/12 16:17	WAT	67-64-1	

Lab Sample ID: S53519.02 (continued)
Sample Tag: MW137 (08-09-2012) (1215)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/17/12 16:17	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/17/12 16:17	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/17/12 16:17	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/17/12 16:17	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/17/12 16:17	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/17/12 16:17	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/17/12 16:17	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/17/12 16:17	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/17/12 16:17	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/17/12 16:17	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/17/12 16:17	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/17/12 16:17	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53519.03
Sample Tag: MW135 (08-09-2012) (1320)
Collected Date/Time: 08/09/2012 13:20
Matrix: Groundwater
COC Reference: 68128

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	4.2	IR
2	1L Amber	None	Yes	4.2	IR
1	125ml Plastic	HNO3	Yes	4.2	IR
1	125ml Plastic	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/13/12 22:02	EMR		
Metals								
Arsenic, Dissolved	0.009	mg/L	0.002	E200.8	08/16/12 16:26	SLS	7440-38-2	
Arsenic	0.011	mg/L	0.002	E200.8	08/16/12 16:23	SLS	7440-38-2	
Barium, Dissolved	0.067	mg/L	0.005	E200.8	08/16/12 16:26	SLS	7440-39-3	
Barium	0.072	mg/L	0.005	E200.8	08/16/12 16:23	SLS	7440-39-3	
Cadmium, Dissolved	Not detected	mg/L	0.0005	E200.8	08/16/12 16:26	SLS	7440-43-9	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 16:23	SLS	7440-43-9	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:26	SLS	7440-47-3	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 16:23	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	08/16/12 16:26	SLS	7440-50-8	
Copper	Not detected	mg/L	0.004	E200.8	08/16/12 16:23	SLS	7440-50-8	
Lead, Dissolved	0.003	mg/L	0.003	E200.8	08/16/12 16:26	SLS	7439-92-1	
Lead	0.004	mg/L	0.003	E200.8	08/16/12 16:23	SLS	7439-92-1	
Mercury, Dissolved	Not detected	mg/L	0.0002	E245.1	08/15/12 14:53	JRT	7439-97-6	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:26	JRT	7439-97-6	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:26	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 16:23	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	08/16/12 16:26	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 16:23	SLS	7440-22-4	
Zinc, Dissolved	0.016	mg/L	0.005	E200.8	08/16/12 16:26	SLS	7440-66-6	
Zinc	Not detected	mg/L	0.005	E200.8	08/16/12 16:23	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/14/12 17:14	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/14/12 17:14	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/14/12 17:14	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/14/12 17:14	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/14/12 17:14	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 17:14	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 17:14	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/14/12 17:14	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/14/12 17:14	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/14/12 17:14	PL	53-70-3	

Lab Sample ID: S53519.03 (continued)
Sample Tag: MW135 (08-09-2012) (1320)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 17:14	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/14/12 17:14	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/14/12 17:14	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/14/12 17:14	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/14/12 17:14	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/14/12 17:14	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 17:14	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 17:14	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/17/12 16:37	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/17/12 16:37	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/17/12 16:37	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/17/12 16:37	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/17/12 16:37	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/17/12 16:37	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/17/12 16:37	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/17/12 16:37	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/17/12 16:37	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/17/12 16:37	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/17/12 16:37	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	79-34-5	

Lab Sample ID: S53519.03 (continued)
Sample Tag: MW135 (08-09-2012) (1320)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/17/12 16:37	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/17/12 16:37	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/17/12 16:37	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53519.04
Sample Tag: Dup-02 (08-09-2012)
Collected Date/Time: 08/09/2012 00:01
Matrix: Groundwater
COC Reference: 68128

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	4.2	IR
2	1L Amber	None	Yes	4.2	IR
1	125ml Plastic	HNO3	Yes	4.2	IR
1	125ml Plastic	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/13/12 22:02	EMR		
Metals								
Arsenic, Dissolved	0.009	mg/L	0.002	E200.8	08/16/12 16:33	SLS	7440-38-2	
Arsenic	0.011	mg/L	0.002	E200.8	08/16/12 16:29	SLS	7440-38-2	
Barium, Dissolved	0.066	mg/L	0.005	E200.8	08/16/12 16:33	SLS	7440-39-3	
Barium	0.076	mg/L	0.005	E200.8	08/16/12 16:29	SLS	7440-39-3	
Cadmium, Dissolved	Not detected	mg/L	0.0005	E200.8	08/16/12 16:33	SLS	7440-43-9	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 16:29	SLS	7440-43-9	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:33	SLS	7440-47-3	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 16:29	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	08/16/12 16:33	SLS	7440-50-8	
Copper	Not detected	mg/L	0.004	E200.8	08/16/12 16:29	SLS	7440-50-8	
Lead, Dissolved	0.003	mg/L	0.003	E200.8	08/16/12 16:33	SLS	7439-92-1	
Lead	0.003	mg/L	0.003	E200.8	08/16/12 16:29	SLS	7439-92-1	
Mercury, Dissolved	Not detected	mg/L	0.0002	E245.1	08/15/12 14:55	JRT	7439-97-6	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:29	JRT	7439-97-6	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:33	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 16:29	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	08/16/12 16:33	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 16:29	SLS	7440-22-4	
Zinc, Dissolved	0.016	mg/L	0.005	E200.8	08/16/12 16:33	SLS	7440-66-6	
Zinc	Not detected	mg/L	0.005	E200.8	08/16/12 16:29	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/14/12 17:33	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/14/12 17:33	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/14/12 17:33	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/14/12 17:33	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/14/12 17:33	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 17:33	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 17:33	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/14/12 17:33	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/14/12 17:33	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/14/12 17:33	PL	53-70-3	

Lab Sample ID: S53519.04 (continued)
Sample Tag: Dup-02 (08-09-2012)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 17:33	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/14/12 17:33	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/14/12 17:33	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/14/12 17:33	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/14/12 17:33	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/14/12 17:33	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 17:33	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 17:33	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/17/12 16:57	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/17/12 16:57	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/17/12 16:57	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/17/12 16:57	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/17/12 16:57	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/17/12 16:57	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/17/12 16:57	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/17/12 16:57	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/17/12 16:57	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/17/12 16:57	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/17/12 16:57	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	79-34-5	

Lab Sample ID: S53519.04 (continued)
Sample Tag: Dup-02 (08-09-2012)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/17/12 16:57	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/17/12 16:57	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/17/12 16:57	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53519.05
Sample Tag: MW158 (08-09-2012) (1515)
Collected Date/Time: 08/09/2012 15:15
Matrix: Groundwater
COC Reference: 68128

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	4.2	IR
2	1L Amber	None	Yes	4.2	IR
1	125ml Plastic	HNO3	Yes	4.2	IR
1	125ml Plastic	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/13/12 22:02	EMR		
Metals								
Arsenic, Dissolved	0.003	mg/L	0.002	E200.8	08/16/12 16:39	SLS	7440-38-2	
Arsenic	0.018	mg/L	0.002	E200.8	08/16/12 16:36	SLS	7440-38-2	
Barium, Dissolved	0.137	mg/L	0.005	E200.8	08/16/12 16:39	SLS	7440-39-3	
Barium	0.169	mg/L	0.005	E200.8	08/16/12 16:36	SLS	7440-39-3	
Cadmium, Dissolved	Not detected	mg/L	0.0005	E200.8	08/16/12 16:39	SLS	7440-43-9	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 16:36	SLS	7440-43-9	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:39	SLS	7440-47-3	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 16:36	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	08/16/12 16:39	SLS	7440-50-8	
Copper	0.013	mg/L	0.004	E200.8	08/16/12 16:36	SLS	7440-50-8	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	08/16/12 16:39	SLS	7439-92-1	
Lead	0.012	mg/L	0.003	E200.8	08/16/12 16:36	SLS	7439-92-1	
Mercury, Dissolved	Not detected	mg/L	0.0002	E245.1	08/15/12 14:57	JRT	7439-97-6	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:31	JRT	7439-97-6	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 16:39	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 16:36	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	08/16/12 16:39	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	08/16/12 16:36	SLS	7440-22-4	
Zinc, Dissolved	0.022	mg/L	0.005	E200.8	08/16/12 16:39	SLS	7440-66-6	
Zinc	0.034	mg/L	0.005	E200.8	08/16/12 16:36	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/14/12 17:53	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/14/12 17:53	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/14/12 17:53	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/14/12 17:53	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/14/12 17:53	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 17:53	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 17:53	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/14/12 17:53	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/14/12 17:53	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/14/12 17:53	PL	53-70-3	

Lab Sample ID: S53519.05 (continued)
Sample Tag: MW158 (08-09-2012) (1515)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 17:53	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/14/12 17:53	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/14/12 17:53	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/14/12 17:53	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/14/12 17:53	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/14/12 17:53	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 17:53	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 17:53	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/17/12 17:18	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/17/12 17:18	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/17/12 17:18	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/17/12 17:18	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/17/12 17:18	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/17/12 17:18	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/17/12 17:18	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/17/12 17:18	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/17/12 17:18	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/17/12 17:18	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/17/12 17:18	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	79-34-5	

Lab Sample ID: S53519.05 (continued)
Sample Tag: MW158 (08-09-2012) (1515)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/17/12 17:18	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/17/12 17:18	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/17/12 17:18	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53519.06
Sample Tag: MW124 (08-09-2012) (1630)
Collected Date/Time: 08/09/2012 16:30
Matrix: Groundwater
COC Reference: 68128

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	4.2	IR
2	1L Amber	None	Yes	4.2	IR
1	125ml Plastic	HNO3	Yes	4.2	IR
1	125ml Plastic	None	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Mercury Digestion	Completed			E245.1	08/15/12 10:30	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/13/12 22:02	EMR		
Metals								
Arsenic, Dissolved	0.007	mg/L	0.002	E200.8	08/16/12 17:14	SLS	7440-38-2	
Arsenic	0.071	mg/L	0.002	E200.8	08/16/12 17:11	SLS	7440-38-2	
Barium, Dissolved	0.193	mg/L	0.005	E200.8	08/16/12 17:14	SLS	7440-39-3	
Barium	0.238	mg/L	0.005	E200.8	08/16/12 17:11	SLS	7440-39-3	
Cadmium, Dissolved	Not detected	mg/L	0.0005	E200.8	08/16/12 17:14	SLS	7440-43-9	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 17:11	SLS	7440-43-9	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 17:14	SLS	7440-47-3	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 17:11	SLS	7440-47-3	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	08/16/12 17:14	SLS	7440-50-8	
Copper	0.008	mg/L	0.004	E200.8	08/16/12 17:11	SLS	7440-50-8	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	08/16/12 17:14	SLS	7439-92-1	
Lead	0.006	mg/L	0.003	E200.8	08/16/12 17:11	SLS	7439-92-1	
Mercury, Dissolved	Not detected	mg/L	0.0002	E245.1	08/15/12 15:00	JRT	7439-97-6	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:33	JRT	7439-97-6	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	08/16/12 17:14	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 17:11	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	08/17/12 12:54	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	08/17/12 12:52	SLS	7440-22-4	
Zinc, Dissolved	0.026	mg/L	0.005	E200.8	08/16/12 17:14	SLS	7440-66-6	
Zinc	0.024	mg/L	0.005	E200.8	08/16/12 17:11	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/14/12 20:26	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/14/12 20:26	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/14/12 20:26	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	56-55-3	X
Benzo(a)pyrene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	50-32-8	X
Benzo(b)fluoranthene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	205-99-2	X
Benzo(k)fluoranthene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	207-08-9	X
Benzo(ghi)perylene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	191-24-2	X
Chrysene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	218-01-9	X

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53519.06 (continued)
Sample Tag: MW124 (08-09-2012) (1630)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatic Hydrocarbon (continued)								
Dibenzo(ah)anthracene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	53-70-3	X
Fluoranthene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	206-44-0	X
Fluorene	Not detected	ug/L	5	SW8270C	08/14/12 20:26	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	193-39-5	X
Naphthalene	Not detected	ug/L	5	SW8270C	08/14/12 20:26	PL	91-20-3	
Phenanthrene	Not detected	ug/L	4	SW8270C	08/14/12 20:26	PL	85-01-8	X
Pyrene	Not detected	ug/L	5	SW8270C	08/14/12 20:26	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 20:26	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 20:26	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/17/12 17:38	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/17/12 17:38	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/17/12 17:38	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/17/12 17:38	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/17/12 17:38	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/17/12 17:38	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/17/12 17:38	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/17/12 17:38	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/17/12 17:38	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/17/12 17:38	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/17/12 17:38	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	106-93-4	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53519.06 (continued)
Sample Tag: MW124 (08-09-2012) (1630)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/17/12 17:38	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/17/12 17:38	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/17/12 17:38	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53519.07
Sample Tag: 2306-080912-0003
Collected Date/Time: 08/09/2012 00:01
Matrix: Water Quality
COC Reference: 68128

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/17/12 17:59	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/17/12 17:59	WAT	67-64-1	
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/17/12 17:59	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/17/12 17:59	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/17/12 17:59	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/17/12 17:59	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/17/12 17:59	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/17/12 17:59	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/17/12 17:59	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/17/12 17:59	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/17/12 17:59	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/17/12 17:59	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	100-42-5	

Lab Sample ID: S53519.07 (continued)
Sample Tag: 2306-080912-0003

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/17/12 17:59	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/17/12 17:59	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53519.08
Sample Tag: MW115 (08-10-2012) (0845)
Collected Date/Time: 08/10/2012 08:45
Matrix: Groundwater
COC Reference: 68128

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	4.2	IR
2	1L Amber	None	Yes	4.2	IR
1	125ml Plastic	HNO3	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 13:20	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/13/12 22:02	EMR		
Metals								
Arsenic	0.004	mg/L	0.002	E200.8	08/16/12 17:17	SLS	7440-38-2	
Barium	0.172	mg/L	0.005	E200.8	08/16/12 17:17	SLS	7440-39-3	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 17:17	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 17:17	SLS	7440-47-3	
Copper	0.005	mg/L	0.004	E200.8	08/16/12 17:17	SLS	7440-50-8	
Lead	0.004	mg/L	0.003	E200.8	08/16/12 17:17	SLS	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:54	JRT	7439-97-6	
Selenium	Not detected	mg/L	0.005	E200.8	08/16/12 17:17	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0002	E200.8	08/17/12 12:56	SLS	7440-22-4	
Zinc	0.013	mg/L	0.005	E200.8	08/16/12 17:17	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	SW8270C	08/14/12 18:12	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	SW8270C	08/14/12 18:12	PL	208-96-8	
Anthracene	Not detected	ug/L	5	SW8270C	08/14/12 18:12	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	SW8270C	08/14/12 18:12	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	1	SW8270C	08/14/12 18:12	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 18:12	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 18:12	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	SW8270C	08/14/12 18:12	PL	191-24-2	
Chrysene	Not detected	ug/L	1	SW8270C	08/14/12 18:12	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	2	SW8270C	08/14/12 18:12	PL	53-70-3	
Fluoranthene	Not detected	ug/L	1	SW8270C	08/14/12 18:12	PL	206-44-0	
Fluorene	Not detected	ug/L	5	SW8270C	08/14/12 18:12	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	SW8270C	08/14/12 18:12	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	SW8270C	08/14/12 18:12	PL	91-20-3	
Phenanthrene	Not detected	ug/L	2	SW8270C	08/14/12 18:12	PL	85-01-8	
Pyrene	Not detected	ug/L	5	SW8270C	08/14/12 18:12	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 18:12	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	SW8270C	08/14/12 18:12	PL	90-12-0	
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/17/12 18:19	WAT	76-13-1	
Acetone	Not detected	ug/L	20	SW8260B	08/17/12 18:19	WAT	67-64-1	

Lab Sample ID: S53519.08 (continued)
Sample Tag: MW115 (08-10-2012) (0845)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/17/12 18:19	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/17/12 18:19	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/17/12 18:19	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/L	20	SW8260B	08/17/12 18:19	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	75-71-8	
Chloromethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/17/12 18:19	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/17/12 18:19	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	10	SW8260B	08/17/12 18:19	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/17/12 18:19	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/17/12 18:19	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	79-34-5	
Ethylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	100-41-4	
p,m-Xylene	Not detected	ug/L	2	SW8260B	08/17/12 18:19	WAT		
o-Xylene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/17/12 18:19	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/17/12 18:19	WAT	120-82-1	

Analytical Laboratory Report

Lab Sample ID: S53519.09
Sample Tag: MW152 (08-10-2012) (1035)
Collected Date/Time: 08/10/2012 10:35
Matrix: Groundwater
COC Reference: 68128

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	4.2	IR
2	1L Amber	None	Yes	4.2	IR
1	125ml Plastic	HNO3	Yes	4.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			E245.1	08/15/12 13:20	JRH		
Metal Digestion	Completed			3015A	08/16/12 01:00	SLR		
PNA Extraction	Completed			3510C	08/13/12 22:02	EMR		
Metals								
Arsenic	0.027	mg/L	0.002	E200.8	08/16/12 17:20	SLS	7440-38-2	
Barium	0.138	mg/L	0.005	E200.8	08/16/12 17:20	SLS	7440-39-3	
Cadmium	Not detected	mg/L	0.0005	E200.8	08/16/12 17:20	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	E200.8	08/16/12 17:20	SLS	7440-47-3	
Copper	0.016	mg/L	0.004	E200.8	08/16/12 17:20	SLS	7440-50-8	
Lead	Not detected	mg/L	0.003	E200.8	08/16/12 17:20	SLS	7439-92-1	
Mercury	Not detected	mg/L	0.0002	E245.1	08/15/12 15:51	JRT	7439-97-6	
Selenium	0.007	mg/L	0.005	E200.8	08/16/12 17:20	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0002	E200.8	08/17/12 12:58	SLS	7440-22-4	
Zinc	0.011	mg/L	0.005	E200.8	08/16/12 17:20	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	83-32-9	X
Acenaphthylene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	208-96-8	X
Anthracene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	120-12-7	X
Benzo(a)anthracene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	56-55-3	X
Benzo(a)pyrene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	50-32-8	X
Benzo(b)fluoranthene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	205-99-2	X
Benzo(k)fluoranthene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	207-08-9	X
Benzo(ghi)perylene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	191-24-2	X
Chrysene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	218-01-9	X
Dibenzo(ah)anthracene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	53-70-3	X
Fluoranthene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	206-44-0	X
Fluorene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	86-73-7	X
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	193-39-5	X
Naphthalene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	91-20-3	X
Phenanthrene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	85-01-8	X
Pyrene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	129-00-0	X
2-Methylnaphthalene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	91-57-6	X
1-Methylnaphthalene	Not detected	ug/L	8	SW8270C	08/14/12 20:45	PL	90-12-0	X
Organics - Volatiles								
TCL Volatile Organics 8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	30	SW8260B	08/17/12 18:40	WAT	76-13-1	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S53519.09 (continued)
Sample Tag: MW152 (08-10-2012) (1035)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (continued)								
Acetone	870	ug/L	20	SW8260B	08/17/12 18:40	WAT	67-64-1	E
Carbon disulfide	Not detected	ug/L	5	SW8260B	08/17/12 18:40	WAT	75-15-0	
Methyl Acetate	Not detected	ug/L	10	SW8260B	08/17/12 18:40	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	08/17/12 18:40	WAT	1634-04-4	
2-Butanone (MEK)	180	ug/L	20	SW8260B	08/17/12 18:40	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	75-71-8	
Chloromethane	1	ug/L	1	SW8260B	08/17/12 18:40	WAT	74-87-3	
Vinyl chloride	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	75-01-4	
Bromomethane	Not detected	ug/L	2	SW8260B	08/17/12 18:40	WAT	74-83-9	
Chloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	75-35-4	
Methylene chloride	Not detected	ug/L	5	SW8260B	08/17/12 18:40	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	156-59-2	
Chloroform	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	71-55-6	
Cyclohexane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	50	ug/L	10	SW8260B	08/17/12 18:40	WAT	108-10-1	
2-Hexanone	Not detected	ug/L	50	SW8260B	08/17/12 18:40	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	56-23-5	
Benzene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	107-06-2	
Trichloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/L	20	SW8260B	08/17/12 18:40	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	10061-01-5	
Toluene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	106-93-4	
Chlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	79-34-5	
Ethylbenzene	3	ug/L	1	SW8260B	08/17/12 18:40	WAT	100-41-4	
p,m-Xylene	10	ug/L	2	SW8260B	08/17/12 18:40	WAT		
o-Xylene	4	ug/L	1	SW8260B	08/17/12 18:40	WAT	95-47-6	
Styrene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	98-82-8	
Bromoform	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	1	SW8260B	08/17/12 18:40	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	2	SW8260B	08/17/12 18:40	WAT	120-82-1	

E-Concentration exceeds calibration range

Lab Sample ID: S53519.09 (continued)
Sample Tag: MW152 (08-10-2012) (1035)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (Replicate 01)								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/L	2,000	SW8260B	08/23/12 16:35	WAT	76-13-1	Y
Acetone	2,000	ug/L	1,000	SW8260B	08/23/12 16:35	WAT	67-64-1	Y
Carbon disulfide	Not detected	ug/L	300	SW8260B	08/23/12 16:35	WAT	75-15-0	Y
Methyl Acetate	Not detected	ug/L	500	SW8260B	08/23/12 16:35	WAT	79-20-9	Y
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	300	SW8260B	08/23/12 16:35	WAT	1634-04-4	Y
2-Butanone (MEK)	Not detected	ug/L	1,000	SW8260B	08/23/12 16:35	WAT	78-93-3	Y
Dichlorodifluoromethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	75-71-8	Y
Chloromethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	74-87-3	Y
Vinyl chloride	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	75-01-4	Y
Bromomethane	Not detected	ug/L	100	SW8260B	08/23/12 16:35	WAT	74-83-9	Y
Chloroethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	75-00-3	Y
Trichlorofluoromethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	75-69-4	Y
1,1-Dichloroethene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	75-35-4	Y
Methylene chloride	Not detected	ug/L	300	SW8260B	08/23/12 16:35	WAT	75-09-2	Y
trans-1,2-Dichloroethene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	156-60-5	Y
1,1-Dichloroethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	75-34-3	Y
cis-1,2-Dichloroethene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	156-59-2	Y
Chloroform	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	67-66-3	Y
1,1,1-Trichloroethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	71-55-6	Y
Cyclohexane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	110-82-7	Y
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	500	SW8260B	08/23/12 16:35	WAT	108-10-1	Y
2-Hexanone	Not detected	ug/L	3,000	SW8260B	08/23/12 16:35	WAT	591-78-6	Y
Carbon tetrachloride	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	56-23-5	Y
Benzene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	71-43-2	Y
1,2-Dichloroethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	107-06-2	Y
Trichloroethene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	79-01-6	Y
1,2-Dichloropropane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	78-87-5	Y
Bromodichloromethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	75-27-4	Y
Methyl cyclohexane	Not detected	ug/L	1,000	SW8260B	08/23/12 16:35	WAT	108-87-2	Y
cis-1,3-Dichloropropene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	10061-01-5	Y
Toluene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	108-88-3	Y
trans-1,3-Dichloropropene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	10061-02-6	Y
1,1,2-Trichloroethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	79-00-5	Y
Tetrachloroethene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	127-18-4	Y
Dibromochloromethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	124-48-1	Y
1,2-Dibromoethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	106-93-4	Y
Chlorobenzene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	108-90-7	Y
1,1,2,2-Tetrachloroethane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	79-34-5	Y
Ethylbenzene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	100-41-4	Y
p,m-Xylene	Not detected	ug/L	100	SW8260B	08/23/12 16:35	WAT		Y
o-Xylene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	95-47-6	Y
Styrene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	100-42-5	Y
Isopropylbenzene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	98-82-8	Y
Bromoform	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	75-25-2	Y
1,3-Dichlorobenzene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	541-73-1	Y
1,4-Dichlorobenzene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	106-46-7	Y
1,2-Dichlorobenzene	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	95-50-1	Y
1,2-Dibromo-3-chloropropane	Not detected	ug/L	50	SW8260B	08/23/12 16:35	WAT	96-12-8	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S53519.09 (continued)
Sample Tag: MW152 (08-10-2012) (1035)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics 8260 (Replicate 01) (continued)								
1,2,4-Trichlorobenzene	Not detected	ug/L	100	SW8260B	08/23/12 16:35	WAT	120-82-1	Y

Y-Elevated reporting limit due to high target concentration

Quality Control Cover Page

Report ID: S53519.01(01)
Report Date: 08/24/2012
Project: 11950 Livonia Plant
Lab Sample ID(s): S53519.01-S53519.09

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S53519.01	2306-080912-0002	08/09/2012 00:01	Water Quality	Organics
S53519.02	MW137 (08-09-2012) (1215)	08/09/2012 12:15	Groundwater	Extraction / Prep., Metals, Organics
S53519.03	MW135 (08-09-2012) (1320)	08/09/2012 13:20	Groundwater	Extraction / Prep., Metals, Organics
S53519.04	Dup-02 (08-09-2012)	08/09/2012 00:01	Groundwater	Extraction / Prep., Metals, Organics
S53519.05	MW158 (08-09-2012) (1515)	08/09/2012 15:15	Groundwater	Extraction / Prep., Metals, Organics
S53519.06	MW124 (08-09-2012) (1630)	08/09/2012 16:30	Groundwater	Extraction / Prep., Metals, Organics
S53519.07	2306-080912-0003	08/09/2012 00:01	Water Quality	Organics
S53519.08	MW115 (08-10-2012) (0845)	08/10/2012 08:45	Groundwater	Extraction / Prep., Metals, Organics
S53519.09	MW152 (08-10-2012) (1035)	08/10/2012 10:35	Groundwater	Extraction / Prep., Metals, Organics

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S53519.01(01)
Generated on 09/07/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S53519.01-S53519.09
Project: 11950 Livonia Plant
Submitted Date/Time: 08/10/2012 14:30
Sampled by: M.CastlesHumphrey
P.O. #: PO127270

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-10)
Prep Batch Summary (Pages 11-14)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S53519.01
Sample Tag: 2306-080912-0002
Collected Date/Time: 08/09/2012 00:01
Matrix: Water Quality
COC Reference: 68128

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/17/12 15:56	120817A3	VF120817W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53519.02
Sample Tag: MW137 (08-09-2012) (1215)
Collected Date/Time: 08/09/2012 12:15
Matrix: Groundwater
COC Reference: 68128

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic	E200.8	08/16/12 16:20	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 16:20	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 16:20	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 16:20	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 16:20	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 16:20	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:02	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 16:20	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 16:20	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 16:20	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 16:55	H120814	SP120813W01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/17/12 16:17	120817A3	VF120817W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53519.03
Sample Tag: MW135 (08-09-2012) (1320)
Collected Date/Time: 08/09/2012 13:20
Matrix: Groundwater
COC Reference: 68128

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 16:23	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 16:23	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 16:23	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 16:23	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 16:23	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 16:23	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 14:53	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:26	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 16:23	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 16:23	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 16:23	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 17:14	H120814	SP120813W01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/17/12 16:37	120817A3	VF120817W1	Yes	LCS/BLK/LCSD

Lab Sample ID: S53519.04
Sample Tag: Dup-02 (08-09-2012)
Collected Date/Time: 08/09/2012 00:01
Matrix: Groundwater
COC Reference: 68128

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 16:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 16:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 16:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 16:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 16:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 16:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 14:55	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:29	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 16:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 16:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 16:29	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 17:33	H120814	SP120813W01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/17/12 16:57	120817A3	VF120817W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53519.05
Sample Tag: MW158 (08-09-2012) (1515)
Collected Date/Time: 08/09/2012 15:15
Matrix: Groundwater
COC Reference: 68128

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 16:36	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 16:36	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 16:36	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 16:36	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 16:36	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 16:36	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 14:57	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:31	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 16:36	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Silver	E200.8	08/16/12 16:36	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 16:36	MT3-12-0816A	MTD-081612-1	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 17:53	H120814	SP120813W01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/17/12 17:18	120817A3	VF120817W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53519.06
Sample Tag: MW124 (08-09-2012) (1630)
Collected Date/Time: 08/09/2012 16:30
Matrix: Groundwater
COC Reference: 68128

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	08/16/12 17:11	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Barium, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 17:11	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Cadmium, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 17:11	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Chromium, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 17:11	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Copper, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 17:11	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 17:11	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Mercury, Dissolved	E245.1	08/15/12 15:00	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:33	HG2-12-0815A	HGD-081512-1	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 17:11	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	08/17/12 12:54	MT3-12-0817A	MTD-081612-2	No	LCS/BLK/MS/MSD
Silver	E200.8	08/17/12 12:52	MT3-12-0817A	MTD-081612-2	No	LCS/BLK/MS/MSD
Zinc, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 17:11	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 20:26	H120814	SP120813W01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/17/12 17:38	120817A3	VF120817W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53519.07
Sample Tag: 2306-080912-0003
Collected Date/Time: 08/09/2012 00:01
Matrix: Water Quality
COC Reference: 68128

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/17/12 17:59	120817A3	VF120817W1	Yes	LCS/BLK/LCSD

QC Report - Analysis Summary

Lab Sample ID: S53519.08
Sample Tag: MW115 (08-10-2012) (0845)
Collected Date/Time: 08/10/2012 08:45
Matrix: Groundwater
COC Reference: 68128

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic	E200.8	08/16/12 17:17	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 17:17	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 17:17	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 17:17	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 17:17	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 17:17	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:54	HG2-12-0815A	HGD-081512-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 17:17	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Silver	E200.8	08/17/12 12:56	MT3-12-0817A	MTD-081612-2	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 17:17	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 18:12	H120814	SP120813W01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/17/12 18:19	120817A3	VF120817W1	Yes	LCS/BLK/LCSD

Lab Sample ID: S53519.09
Sample Tag: MW152 (08-10-2012) (1035)
Collected Date/Time: 08/10/2012 10:35
Matrix: Groundwater
COC Reference: 68128

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic	E200.8	08/16/12 17:20	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Barium	E200.8	08/16/12 17:20	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Cadmium	E200.8	08/16/12 17:20	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Chromium	E200.8	08/16/12 17:20	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Copper	E200.8	08/16/12 17:20	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Lead	E200.8	08/16/12 17:20	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Mercury	E245.1	08/15/12 15:51	HG2-12-0815A	HGD-081512-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	08/16/12 17:20	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Silver	E200.8	08/17/12 12:58	MT3-12-0817A	MTD-081612-2	No	LCS/BLK/MS/MSD
Zinc	E200.8	08/16/12 17:20	MT3-12-0816A	MTD-081612-2	No	LCS/BLK/MS/MSD
Organics - Semi-Volatiles						
Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 20:45	H120814	SP120813W01	Yes	LCS/BLK/LCSD
Organics - Volatiles						
TCL Volatile Organics 8260	SW8260B	08/17/12 18:40	120817A3	VF120817W1	Yes	LCS/BLK/LCSD
TCL Volatile Organics 8260 (Replicate 01)	SW8260B	08/23/12 16:35	120823A6	VF120823W1	Yes	LCS/BLK/LCSD

Metals, Prep Batch ID: HGD-081512-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53519.02	Mercury	E245.1	08/15/12 15:02	HG2-12-0815A
S53519.03	Mercury, Dissolved	E245.1	08/15/12 14:53	HG2-12-0815A
S53519.03	Mercury	E245.1	08/15/12 15:26	HG2-12-0815A
S53519.04	Mercury, Dissolved	E245.1	08/15/12 14:55	HG2-12-0815A
S53519.04	Mercury	E245.1	08/15/12 15:29	HG2-12-0815A
S53519.05	Mercury, Dissolved	E245.1	08/15/12 14:57	HG2-12-0815A
S53519.05	Mercury	E245.1	08/15/12 15:31	HG2-12-0815A
S53519.06	Mercury, Dissolved	E245.1	08/15/12 15:00	HG2-12-0815A
S53519.06	Mercury	E245.1	08/15/12 15:33	HG2-12-0815A

Metals, Prep Batch ID: HGD-081512-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53519.08	Mercury	E245.1	08/15/12 15:54	HG2-12-0815A
S53519.09	Mercury	E245.1	08/15/12 15:51	HG2-12-0815A

Metals, Prep Batch ID: MTD-081612-1

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53519.02	Arsenic	E200.8	08/16/12 16:20	MT3-12-0816A
S53519.02	Barium	E200.8	08/16/12 16:20	MT3-12-0816A
S53519.02	Cadmium	E200.8	08/16/12 16:20	MT3-12-0816A
S53519.02	Chromium	E200.8	08/16/12 16:20	MT3-12-0816A
S53519.02	Copper	E200.8	08/16/12 16:20	MT3-12-0816A
S53519.02	Lead	E200.8	08/16/12 16:20	MT3-12-0816A
S53519.02	Selenium	E200.8	08/16/12 16:20	MT3-12-0816A
S53519.02	Silver	E200.8	08/16/12 16:20	MT3-12-0816A
S53519.02	Zinc	E200.8	08/16/12 16:20	MT3-12-0816A
S53519.03	Arsenic, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A
S53519.03	Arsenic	E200.8	08/16/12 16:23	MT3-12-0816A
S53519.03	Barium, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A
S53519.03	Barium	E200.8	08/16/12 16:23	MT3-12-0816A
S53519.03	Cadmium, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A
S53519.03	Cadmium	E200.8	08/16/12 16:23	MT3-12-0816A
S53519.03	Chromium, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A
S53519.03	Chromium	E200.8	08/16/12 16:23	MT3-12-0816A
S53519.03	Copper, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A
S53519.03	Copper	E200.8	08/16/12 16:23	MT3-12-0816A
S53519.03	Lead, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A
S53519.03	Lead	E200.8	08/16/12 16:23	MT3-12-0816A
S53519.03	Selenium, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A
S53519.03	Selenium	E200.8	08/16/12 16:23	MT3-12-0816A
S53519.03	Silver, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A
S53519.03	Silver	E200.8	08/16/12 16:23	MT3-12-0816A
S53519.03	Zinc, Dissolved	E200.8	08/16/12 16:26	MT3-12-0816A
S53519.03	Zinc	E200.8	08/16/12 16:23	MT3-12-0816A
S53519.04	Arsenic, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A
S53519.04	Arsenic	E200.8	08/16/12 16:29	MT3-12-0816A
S53519.04	Barium, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A
S53519.04	Barium	E200.8	08/16/12 16:29	MT3-12-0816A

Metals, Prep Batch ID: MTD-081612-1 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53519.04	Cadmium, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A
S53519.04	Cadmium	E200.8	08/16/12 16:29	MT3-12-0816A
S53519.04	Chromium, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A
S53519.04	Chromium	E200.8	08/16/12 16:29	MT3-12-0816A
S53519.04	Copper, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A
S53519.04	Copper	E200.8	08/16/12 16:29	MT3-12-0816A
S53519.04	Lead, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A
S53519.04	Lead	E200.8	08/16/12 16:29	MT3-12-0816A
S53519.04	Selenium, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A
S53519.04	Selenium	E200.8	08/16/12 16:29	MT3-12-0816A
S53519.04	Silver, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A
S53519.04	Silver	E200.8	08/16/12 16:29	MT3-12-0816A
S53519.04	Zinc, Dissolved	E200.8	08/16/12 16:33	MT3-12-0816A
S53519.04	Zinc	E200.8	08/16/12 16:29	MT3-12-0816A
S53519.05	Arsenic, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A
S53519.05	Arsenic	E200.8	08/16/12 16:36	MT3-12-0816A
S53519.05	Barium, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A
S53519.05	Barium	E200.8	08/16/12 16:36	MT3-12-0816A
S53519.05	Cadmium, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A
S53519.05	Cadmium	E200.8	08/16/12 16:36	MT3-12-0816A
S53519.05	Chromium, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A
S53519.05	Chromium	E200.8	08/16/12 16:36	MT3-12-0816A
S53519.05	Copper, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A
S53519.05	Copper	E200.8	08/16/12 16:36	MT3-12-0816A
S53519.05	Lead, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A
S53519.05	Lead	E200.8	08/16/12 16:36	MT3-12-0816A
S53519.05	Selenium, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A
S53519.05	Selenium	E200.8	08/16/12 16:36	MT3-12-0816A
S53519.05	Silver, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A
S53519.05	Silver	E200.8	08/16/12 16:36	MT3-12-0816A
S53519.05	Zinc, Dissolved	E200.8	08/16/12 16:39	MT3-12-0816A
S53519.05	Zinc	E200.8	08/16/12 16:36	MT3-12-0816A

Metals, Prep Batch ID: MTD-081612-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53519.06	Arsenic, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A
S53519.06	Arsenic	E200.8	08/16/12 17:11	MT3-12-0816A
S53519.06	Barium, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A
S53519.06	Barium	E200.8	08/16/12 17:11	MT3-12-0816A
S53519.06	Cadmium, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A
S53519.06	Cadmium	E200.8	08/16/12 17:11	MT3-12-0816A
S53519.06	Chromium, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A
S53519.06	Chromium	E200.8	08/16/12 17:11	MT3-12-0816A
S53519.06	Copper, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A
S53519.06	Copper	E200.8	08/16/12 17:11	MT3-12-0816A
S53519.06	Lead, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A
S53519.06	Lead	E200.8	08/16/12 17:11	MT3-12-0816A
S53519.06	Selenium, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A

Metals, Prep Batch ID: MTD-081612-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53519.06	Selenium	E200.8	08/16/12 17:11	MT3-12-0816A
S53519.06	Silver, Dissolved	E200.8	08/17/12 12:54	MT3-12-0817A
S53519.06	Silver	E200.8	08/17/12 12:52	MT3-12-0817A
S53519.06	Zinc, Dissolved	E200.8	08/16/12 17:14	MT3-12-0816A
S53519.06	Zinc	E200.8	08/16/12 17:11	MT3-12-0816A
S53519.08	Arsenic	E200.8	08/16/12 17:17	MT3-12-0816A
S53519.08	Barium	E200.8	08/16/12 17:17	MT3-12-0816A
S53519.08	Cadmium	E200.8	08/16/12 17:17	MT3-12-0816A
S53519.08	Chromium	E200.8	08/16/12 17:17	MT3-12-0816A
S53519.08	Copper	E200.8	08/16/12 17:17	MT3-12-0816A
S53519.08	Lead	E200.8	08/16/12 17:17	MT3-12-0816A
S53519.08	Selenium	E200.8	08/16/12 17:17	MT3-12-0816A
S53519.08	Silver	E200.8	08/17/12 12:56	MT3-12-0817A
S53519.08	Zinc	E200.8	08/16/12 17:17	MT3-12-0816A
S53519.09	Arsenic	E200.8	08/16/12 17:20	MT3-12-0816A
S53519.09	Barium	E200.8	08/16/12 17:20	MT3-12-0816A
S53519.09	Cadmium	E200.8	08/16/12 17:20	MT3-12-0816A
S53519.09	Chromium	E200.8	08/16/12 17:20	MT3-12-0816A
S53519.09	Copper	E200.8	08/16/12 17:20	MT3-12-0816A
S53519.09	Lead	E200.8	08/16/12 17:20	MT3-12-0816A
S53519.09	Selenium	E200.8	08/16/12 17:20	MT3-12-0816A
S53519.09	Silver	E200.8	08/17/12 12:58	MT3-12-0817A
S53519.09	Zinc	E200.8	08/16/12 17:20	MT3-12-0816A

Organics - Semi-Volatiles, Prep Batch ID: SP120813W01

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53519.02	Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 16:55	H120814
S53519.03	Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 17:14	H120814
S53519.04	Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 17:33	H120814
S53519.05	Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 17:53	H120814
S53519.06	Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 20:26	H120814
S53519.08	Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 18:12	H120814
S53519.09	Polynuclear Aromatic Hydrocarbon	SW8270C	08/14/12 20:45	H120814

Organics - Volatiles, Prep Batch ID: VF120817W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53519.01	TCL Volatile Organics 8260	SW8260B	08/17/12 15:56	120817A3
S53519.02	TCL Volatile Organics 8260	SW8260B	08/17/12 16:17	120817A3
S53519.03	TCL Volatile Organics 8260	SW8260B	08/17/12 16:37	120817A3
S53519.04	TCL Volatile Organics 8260	SW8260B	08/17/12 16:57	120817A3
S53519.05	TCL Volatile Organics 8260	SW8260B	08/17/12 17:18	120817A3
S53519.06	TCL Volatile Organics 8260	SW8260B	08/17/12 17:38	120817A3
S53519.07	TCL Volatile Organics 8260	SW8260B	08/17/12 17:59	120817A3
S53519.08	TCL Volatile Organics 8260	SW8260B	08/17/12 18:19	120817A3
S53519.09	TCL Volatile Organics 8260	SW8260B	08/17/12 18:40	120817A3

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: VF120823W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S53519.09	TCL Volatile Organics 8260 (Replicate 01)	SW8260B	08/23/12 16:35	120823A6

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb17a.d	08/17/12 11:01	25ng/bfb 1dr0814 [none]	WW	IP		
spcc17a.d	08/17/12 11:54	spcc/ccc 1dr0814 1v0817 4ch0612 3ac0712	WW	CV	**4**	
lcsw17a.d	08/17/12 13:08	blank ms 1dr0817 1m0817 1mch0817	WW	MS		
lcsw17b.d	08/17/12 13:28	blank msd 1dr0817 1m0817 1mch0817	WW	MS		
blkw17a.d	08/17/12 14:50	5ml blank 1dr0817 vf120817w1	WW	Bl		
5351901.d	08/17/12 15:56	5ml 1dr0817 vf120817w1	WW			
5351902.d	08/17/12 16:17	5ml 1dr0817 vf120817w1	WW			
5351903.d	08/17/12 16:37	5ml 1dr0817 vf120817w1	WW			
5351904.d	08/17/12 16:57	5ml 1dr0817 vf120817w1	WW			
5351905.d	08/17/12 17:18	5ml 1dr0817 vf120817w1	WW			
5351906.d	08/17/12 17:38	5ml 1dr0817 vf120817w1	WW			
5351907.d	08/17/12 17:59	5ml 1dr0817 vf120817w1	WW			
5351908.d	08/17/12 18:19	5ml 1dr0817 vf120817w1	WW			
5351909.d	08/17/12 18:40	5ml 1dr0817 vf120817w1	WW			

Matrix (Mtx) Summary

Water Samples:	9	Soil Samples:	0
Water Duplicates:	1	Soil Duplicates:	0
Water Spikes:	2	Soil Spikes:	0
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes

Index of Applicable Reporting Forms

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Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb23a.d	08/23/12 11:06	50ng/bfb 1dr0822 [none]	WW	IP	**1**	
spcc23a.d	08/23/12 12:23	spcc/ccc 1dr0822 1v0823 1hc0612 4ac0712	WW	CV	**1**	**4**
lcsw23a.d	08/23/12 13:09	blank ms 1dr0822 1m0823 1mac0823	WW	MS	**1**	
lcsw23b.d	08/23/12 13:30	blank msd 1dr0822 1m0823 1mac0823	WW	MS	**1**	
blkw23a.d	08/23/12 14:52	5ml blank 1dr0822 vf120823w1	WW	Bl	**1**	
5351909.d	08/23/12 15:13	5:1 1dr0822 vf120823w1	WW		**1**	
5351909r.d	08/23/12 16:35	50:1 1dr0822 vf120823w1	WW		**1**	

Matrix (Mtx) Summary

Water Samples:	2	Soil Samples:	0
Water Duplicates:	1	Soil Duplicates:	0
Water Spikes:	2	Soil Spikes:	0
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 1
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc17a.d	4-Bromofluorobenzene	5.7/ 5.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.3/ 5.0	n/a	77.0/121.0	
	Toluene-D8	4.7/ 5.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcsw17a.d	4-Bromofluorobenzene	5.3/ 5.0	105.4	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.6/ 5.0	92.6	77.0/121.0	
	Toluene-D8	5.0/ 5.0	100.4	86.0/118.0	
				Total Outliers: 0	
lcsw17b.d	4-Bromofluorobenzene	5.3/ 5.0	105.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	87.6	77.0/121.0	
	Toluene-D8	4.9/ 5.0	98.8	86.0/118.0	
				Total Outliers: 0	
blkw17a.d	4-Bromofluorobenzene	5.1/ 5.0	102.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	87.0	77.0/121.0	
	Toluene-D8	4.9/ 5.0	98.4	86.0/118.0	
				Total Outliers: 0	
5351901.d	4-Bromofluorobenzene	5.1/ 5.0	102.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	88.4	77.0/121.0	
	Toluene-D8	4.9/ 5.0	98.2	86.0/118.0	
				Total Outliers: 0	
5351902.d	4-Bromofluorobenzene	5.2/ 5.0	104.8	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.5/ 5.0	90.2	77.0/121.0	
	Toluene-D8	4.9/ 5.0	97.0	86.0/118.0	
				Total Outliers: 0	
5351903.d	4-Bromofluorobenzene	5.2/ 5.0	103.2	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.3/ 5.0	86.8	77.0/121.0	
	Toluene-D8	5.0/ 5.0	100.0	86.0/118.0	
				Total Outliers: 0	
5351904.d	4-Bromofluorobenzene	5.0/ 5.0	99.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.3/ 5.0	86.6	77.0/121.0	
	Toluene-D8	4.8/ 5.0	95.4	86.0/118.0	
				Total Outliers: 0	
5351905.d	4-Bromofluorobenzene	5.2/ 5.0	104.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	88.0	77.0/121.0	
	Toluene-D8	5.0/ 5.0	100.2	86.0/118.0	
				Total Outliers: 0	
5351906.d	4-Bromofluorobenzene	5.2/ 5.0	103.2	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.6/ 5.0	92.2	77.0/121.0	
	Toluene-D8	4.9/ 5.0	97.6	86.0/118.0	
				Total Outliers: 0	
5351907.d	4-Bromofluorobenzene	5.4/ 5.0	108.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.5/ 5.0	89.2	77.0/121.0	
	Toluene-D8	4.9/ 5.0	97.8	86.0/118.0	
				Total Outliers: 0	
5351908.d	4-Bromofluorobenzene	5.2/ 5.0	104.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.4/ 5.0	87.2	77.0/121.0	
	Toluene-D8	5.0/ 5.0	100.8	86.0/118.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5351909.d	4-Bromofluorobenzene	5.3/ 5.0	105.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	4.3/ 5.0	86.4	77.0/121.0	
	Toluene-D8	4.9/ 5.0	97.2	86.0/118.0	
				Total Outliers:	**0**

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura
Level: N/A

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc23a.d	4-Bromofluorobenzene	5.1/ 5.0	n/a	83.0/119.0	WW
	1,2-Dichloroethane-D4	5.3/ 5.0	n/a	77.0/121.0	
	Toluene-D8	5.0/ 5.0	n/a	86.0/118.0	
				Total Outliers: n/a	
lcsw23a.d	4-Bromofluorobenzene	4.8/ 5.0	96.4	83.0/119.0	WW
	1,2-Dichloroethane-D4	5.5/ 5.0	109.8	77.0/121.0	
	Toluene-D8	5.1/ 5.0	101.6	86.0/118.0	
				Total Outliers: 0	
lcsw23b.d	4-Bromofluorobenzene	5.1/ 5.0	102.6	83.0/119.0	WW
	1,2-Dichloroethane-D4	5.3/ 5.0	106.0	77.0/121.0	
	Toluene-D8	4.9/ 5.0	98.4	86.0/118.0	
				Total Outliers: 0	
blkw23a.d	4-Bromofluorobenzene	4.7/ 5.0	94.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	5.8/ 5.0	115.2	77.0/121.0	
	Toluene-D8	5.2/ 5.0	104.4	86.0/118.0	
				Total Outliers: 0	
5351909.d	4-Bromofluorobenzene	4.7/ 5.0	93.0	83.0/119.0	WW
	1,2-Dichloroethane-D4	5.9/ 5.0	117.0	77.0/121.0	
	Toluene-D8	5.0/ 5.0	99.8	86.0/118.0	
				Total Outliers: 0	
5351909r.d	4-Bromofluorobenzene	4.7/ 5.0	94.4	83.0/119.0	WW
	1,2-Dichloroethane-D4	5.7/ 5.0	113.6	77.0/121.0	
	Toluene-D8	5.0/ 5.0	99.4	86.0/118.0	
				Total Outliers: 0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Dup File : lcsw17b.d
Dup ID : LCS1
Prep Batch: vf120817w1
Prep Date : 08/17/12
Parent File: lcsw17a.d

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
1,1,2-trichloro-1,2,2-trifluoroethane	45.27/ 51.30	12.5/25.0	WW
diethyl ether (*)	42.20/ 44.47	5.2/25.0	
acetone (*)	46.84/ 44.75	4.6/25.0	
methyl iodide (iodomethane) (*)	46.62/ 50.26	7.5/25.0	
carbon disulfide (*)	42.62/ 47.50	10.8/25.0	
methyl acetate	46.10/ 46.95	1.8/25.0	
tert-methyl butyl ether (mtbe) (*)	47.36/ 49.10	3.6/25.0	
acrylonitrile (*)	47.45/ 51.22	7.6/25.0	
2-butanone (mek) (*)	41.29/ 41.18	0.3/25.0	
dichlorodifluoromethane	40.40/ 48.09	17.4/25.0	
chloromethane (spcc)	44.13/ 51.27	15.0/25.0	
vinyl chloride (ccc)	36.79/ 42.15	13.6/25.0	
bromomethane	35.00/ 39.19	11.3/25.0	
chloroethane	35.80/ 40.31	11.9/25.0	
acrolein	50.73/ 53.77	5.8/25.0	
trichlorofluoromethane	38.30/ 42.94	11.4/25.0	
1,1-dichloroethene (ccc/ms)	42.96/ 47.36	9.7/25.0	
methylene chloride	44.71/ 48.08	7.3/25.0	
trans-1,2-dichloroethene	42.41/ 46.26	8.7/25.0	
1,1-dichloroethane (spcc)	43.18/ 47.21	8.9/25.0	
cis-1,2-dichloroethene	44.93/ 48.37	7.4/25.0	
tetrahydrofuran	41.97/ 44.39	5.6/25.0	
chloroform (ccc)	42.94/ 46.70	8.4/25.0	
bromochloromethane	46.61/ 49.44	5.9/25.0	
1,1,1-trichloroethane	43.08/ 47.29	9.3/25.0	
1,1-dichloropropene	2.07/ 2.29	10.1/25.0	
cyclohexane	36.94/ 41.06	10.6/25.0	
4-methyl-2-pentanone (mibk) (*)	50.96/ 51.48	1.0/25.0	
2-hexanone (*)	44.04/ 42.80	2.9/25.0	
2-chloroethylvinyl ether	49.22/ 50.45	2.5/25.0	
carbon tetrachloride	42.54/ 46.74	9.4/25.0	
benzene (ms)	43.93/ 47.39	7.6/25.0	
1,2-dichloroethane	43.29/ 44.99	3.9/25.0	
trichloroethene (ms)	44.61/ 47.73	6.8/25.0	
1,2-dichloropropane (ccc)	44.97/ 47.62	5.7/25.0	
bromodichloromethane	44.74/ 46.58	4.0/25.0	
methyl cyclohexane	47.67/ 50.69	6.1/25.0	
dibromomethane	48.94/ 50.85	3.8/25.0	
cis-1,3-dichloropropene	42.61/ 44.36	4.0/25.0	
toluene (ccc/ms)	43.79/ 47.14	7.4/25.0	
trans-1,3-dichloropropene	43.41/ 44.93	3.4/25.0	
1,1,2-trichloroethane	46.68/ 48.39	3.6/25.0	
tetrachloroethene	47.29/ 51.69	8.9/25.0	
trans-1,4-dichloro-2-butene	48.33/ 49.64	2.7/25.0	
dibromochloromethane	47.93/ 50.67	5.6/25.0	
1,2-dibromoethane	50.39/ 51.86	2.9/25.0	
chlorobenzene (spcc/ms)	48.18/ 51.78	7.2/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
1,1,1,2-tetrachloroethane	49.49/ 52.26	5.4/25.0	
ethylbenzene (ccc)	46.45/ 50.30	8.0/25.0	
p,m-xylene	92.76/102.07	9.6/25.0	
o-xylene	46.75/ 50.27	7.3/25.0	
styrene	47.42/ 50.53	6.4/25.0	
isopropylbenzene	47.23/ 51.75	9.1/25.0	
bromoform (spcc)	43.46/ 45.15	3.8/25.0	
1,1,2,2-tetrachloroethane (spcc)	47.41/ 49.74	4.8/25.0	
1,2,3-trichloropropane	48.81/ 51.66	5.7/25.0	
n-propylbenzene	48.53/ 52.57	8.0/25.0	
bromobenzene	51.14/ 54.87	7.0/25.0	
1,3,5-trimethylbenzene	48.40/ 52.56	8.2/25.0	
tert-butylbenzene	46.50/ 50.87	9.0/25.0	
1,2,4-trimethylbenzene	50.44/ 54.33	7.4/25.0	
sec-butylbenzene	45.56/ 49.46	8.2/25.0	
p-isopropyltoluene	45.50/ 49.17	7.8/25.0	
1,3-dichlorobenzene	46.10/ 49.23	6.6/25.0	
1,4-dichlorobenzene	46.88/ 49.57	5.6/25.0	
1,2-dichlorobenzene	46.45/ 49.51	6.4/25.0	
1,2,3-trimethylbenzene	45.77/ 49.08	7.0/25.0	
n-butylbenzene	45.32/ 48.84	7.5/25.0	
hexachloroethane	35.21/ 36.87	4.6/25.0	
1,2-dibromo-3-chloropropane	43.09/ 45.87	6.3/25.0	
1,2,4-trichlorobenzene	46.78/ 48.97	4.6/25.0	
1,2,3-trichlorobenzene	47.18/ 48.15	2.0/25.0	
naphthalene	48.70/ 48.48	0.5/25.0	
2-methylnaphthalene	43.00/ 34.71	21.3/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Dup File : lcsw23b.d
Dup ID : LCS1
Prep Batch: vf120823w1
Prep Date : 08/23/12
Parent File: lcsw23a.d

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
1,1,2-trichloro-1,2,2-trifluoroethane	54.32/ 53.89	0.8/25.0	WW
diethyl ether (*)	48.35/ 48.02	0.7/25.0	
acetone (*)	46.88/ 39.51	17.1/25.0	
methyl iodide (iodomethane) (*)	49.38/ 49.26	0.2/25.0	
carbon disulfide (*)	51.80/ 51.32	0.9/25.0	
methyl acetate	48.77/ 46.79	4.1/25.0	
tert-methyl butyl ether (mtbe) (*)	50.69/ 50.13	1.1/25.0	
acrylonitrile (*)	50.86/ 49.65	2.4/25.0	
2-butanone (mek) (*)	44.99/ 40.26	11.1/25.0	
dichlorodifluoromethane	41.52/ 41.24	0.7/25.0	
chloromethane (spcc)	47.91/ 47.00	1.9/25.0	
vinyl chloride (ccc)	44.93/ 45.72	1.7/25.0	
bromomethane	46.01/ 46.49	1.0/25.0	
chloroethane	49.77/ 49.47	0.6/25.0	
acrolein	65.01/ 63.43	2.5/25.0	
trichlorofluoromethane	52.77/ 51.37	2.7/25.0	
1,1-dichloroethene (ccc/ms)	50.98/ 50.42	1.1/25.0	
methylene chloride	48.68/ 47.87	1.7/25.0	
trans-1,2-dichloroethene	49.62/ 48.94	1.4/25.0	
1,1-dichloroethane (spcc)	50.37/ 49.78	1.2/25.0	
cis-1,2-dichloroethene	49.80/ 49.93	0.3/25.0	
tetrahydrofuran	45.85/ 44.55	2.9/25.0	
chloroform (ccc)	51.20/ 51.29	0.2/25.0	
bromochloromethane	48.16/ 48.94	1.6/25.0	
1,1,1-trichloroethane	50.14/ 49.21	1.9/25.0	
cyclohexane	43.01/ 44.55	3.5/25.0	
4-methyl-2-pentanone (mibk) (*)	49.05/ 46.92	4.4/25.0	
2-hexanone (*)	45.80/ 45.90	0.2/25.0	
2-chloroethylvinyl ether	48.65/ 47.88	1.6/25.0	
carbon tetrachloride	47.40/ 48.25	1.8/25.0	
benzene (ms)	47.02/ 46.73	0.6/25.0	
1,2-dichloroethane	46.84/ 47.15	0.7/25.0	
trichloroethene (ms)	47.25/ 46.79	1.0/25.0	
1,2-dichloropropane (ccc)	47.99/ 48.14	0.3/25.0	
bromodichloromethane	49.12/ 49.55	0.9/25.0	
methyl cyclohexane	47.47/ 48.58	2.3/25.0	
dibromomethane	45.85/ 45.58	0.6/25.0	
cis-1,3-dichloropropene	45.89/ 47.35	3.1/25.0	
toluene (ccc/ms)	48.03/ 48.39	0.7/25.0	
trans-1,3-dichloropropene	45.38/ 45.74	0.8/25.0	
1,1,2-trichloroethane	48.04/ 48.78	1.5/25.0	
tetrachloroethene	40.29/ 40.65	0.9/25.0	
trans-1,4-dichloro-2-butene	51.82/ 63.30	19.9/25.0	
dibromochloromethane	43.46/ 43.78	0.7/25.0	
1,2-dibromoethane	47.77/ 46.22	3.3/25.0	
chlorobenzene (spcc/ms)	46.03/ 45.71	0.7/25.0	
1,1,1,2-tetrachloroethane	46.92/ 47.10	0.4/25.0	

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
ethylbenzene (ccc)	49.10/ 47.94	2.4/25.0	
p,m-xylene	97.58/ 95.60	2.0/25.0	
o-xylene	48.53/ 47.67	1.8/25.0	
styrene	48.54/ 48.12	0.9/25.0	
isopropylbenzene	48.64/ 47.85	1.6/25.0	
bromoform (spcc)	46.23/ 46.65	0.9/25.0	
1,1,2,2-tetrachloroethane (spcc)	47.43/ 45.86	3.4/25.0	
1,2,3-trichloropropane	48.10/ 45.72	5.1/25.0	
n-propylbenzene	51.40/ 50.03	2.7/25.0	
bromobenzene	46.49/ 46.18	0.7/25.0	
1,3,5-trimethylbenzene	46.35/ 46.18	0.4/25.0	
tert-butylbenzene	47.43/ 46.53	1.9/25.0	
1,2,4-trimethylbenzene	47.46/ 47.18	0.6/25.0	
sec-butylbenzene	50.41/ 49.82	1.2/25.0	
p-isopropyltoluene	51.81/ 51.16	1.3/25.0	
1,3-dichlorobenzene	50.84/ 49.09	3.5/25.0	
1,4-dichlorobenzene	49.01/ 47.95	2.2/25.0	
1,2-dichlorobenzene	48.34/ 48.26	0.2/25.0	
1,2,3-trimethylbenzene	49.75/ 49.18	1.2/25.0	
n-butylbenzene	52.10/ 51.07	2.0/25.0	
hexachloroethane	43.41/ 43.92	1.2/25.0	
1,2-dibromo-3-chloropropane	46.31/ 45.55	1.7/25.0	
1,2,4-trichlorobenzene	49.41/ 48.25	2.4/25.0	
1,2,3-trichlorobenzene	48.82/ 48.51	0.6/25.0	
naphthalene	49.69/ 48.46	2.5/25.0	
2-methylnaphthalene	48.70/ 47.82	1.8/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcsw17a.d
Spike ID : LCS1
Prep Batch: vf120817w1
Prep Date : 08/17/12
Parent File: blkw17a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	51.30/	0.00	50.00	102.6	75.1/135.9	WW
Diethyl ether	44.47/	0.00	50.00	88.9	67.4/121.2	
Acetone	44.75/	0.00	50.00	89.5	29.9/161.5	
Methyl iodide	50.26/	0.00	50.00	100.5	68.8/116.4	
Carbon disulfide	47.50/	0.00	50.00	95.0	63.8/137.4	
Methyl acetate	46.95/	0.00	50.00	93.9	64.7/125.4	
tert-Methyl butyl ether	49.10/	0.00	50.00	98.2	73.2/122.4	
Acrylonitrile	51.22/	0.00	50.00	102.4	69.9/128.9	
2-Butanone	41.18/	0.00	50.00	82.4	44.0/134.4	
Dichlorodifluoromethane	48.09/	0.00	50.00	96.2	10.0/222.8	
Chloromethane	51.27/	0.00	50.00	102.5	23.8/166.5	
Vinyl Chloride	42.15/	0.00	50.00	84.3	43.5/149.1	
Bromomethane	39.19/	0.00	50.00	78.4	56.8/151.3	
Chloroethane	40.31/	0.00	50.00	80.6	53.4/149.4	
Trichlorofluoromethane	42.94/	0.00	50.00	85.9	59.7/151.8	
1,1-Dichloroethene	47.36/	0.00	50.00	94.7	69.6/139.4	
Methylene Chloride	48.08/	0.00	50.00	96.2	73.3/121.1	
trans-1,2-Dichloroethene	46.26/	0.00	50.00	92.5	73.6/129.3	
1,1-Dichloroethane	47.21/	0.00	50.00	94.4	71.5/126.2	
cis-1,2-Dichloroethene	48.37/	0.00	50.00	96.7	76.6/122.1	
Tetrahydrofuran	44.39/	2.10	50.00	88.8	59.0/117.9	
Chloroform	46.70/	0.00	50.00	93.4	78.4/124.0	
Bromochloromethane	49.44/	0.00	50.00	98.9	78.2/120.8	
1,1,1-Trichloroethane	47.29/	0.00	50.00	94.6	79.4/130.9	
Cyclohexane	41.06/	0.00	50.00	82.1	10.0/169.1	
4-Methyl-2-pentanone	51.48/	0.00	50.00	103.0	71.6/125.2	
2-Hexanone	42.80/	0.00	50.00	85.6	55.4/136.9	
Carbon Tetrachloride	46.74/	0.00	50.00	93.5	72.6/133.0	
Benzene	47.39/	0.00	50.00	94.8	79.9/124.9	
1,2-Dichloroethane	44.99/	0.00	50.00	90.0	76.0/126.3	
Trichloroethene	47.73/	0.00	50.00	95.5	79.7/124.2	
1,2-Dichloropropane	47.62/	0.00	50.00	95.2	78.6/126.4	
Bromodichloromethane	46.58/	0.00	50.00	93.2	80.4/128.2	
Methyl cyclohexane	50.69/	0.00	50.00	101.4	76.6/131.3	
Dibromomethane	50.85/	0.00	50.00	101.7	76.9/122.1	
cis-1,3-Dichloropropene	44.36/	0.00	50.00	88.7	79.8/129.9	
Toluene	47.14/	0.00	50.00	94.3	79.8/124.5	
trans-1,3-Dichloropropene	44.93/	0.00	50.00	89.9	74.0/131.3	
1,1,2-Trichloroethane	48.39/	0.00	50.00	96.8	78.7/123.1	
Tetrachloroethene	51.69/	0.00	50.00	103.4	74.5/124.5	
trans-1,4-Dichloro-2-butene	49.64/	0.00	50.00	99.3	68.6/135.4	
Dibromochloromethane	50.67/	0.00	50.00	101.3	74.6/127.2	
1,2-Dibromoethane	51.86/	0.00	50.00	103.7	70.3/133.7	
Chlorobenzene	51.78/	0.00	50.00	103.6	79.2/122.7	
1,1,1,2-Tetrachloroethane	52.26/	0.00	50.00	104.5	80.3/128.2	
Ethylbenzene	50.30/	0.00	50.00	100.6	79.5/129.1	
p,m-Xylene	102.07/	0.00	100.00	102.1	79.4/132.2	
o-Xylene	50.27/	0.00	50.00	100.5	80.2/131.0	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	50.53/	0.00	50.00	101.1	69.5/126.7	
Isopropylbenzene	51.75/	0.00	50.00	103.5	74.4/121.5	
Bromoform	45.15/	0.00	50.00	90.3	69.4/128.0	
1,1,2,2-Tetrachloroethane	49.74/	0.00	50.00	99.5	79.8/126.3	
1,2,3-Trichloropropane	51.66/	0.00	50.00	103.3	78.3/138.8	
n-Propylbenzene	52.57/	0.00	50.00	105.1	82.0/130.7	
Bromobenzene	54.87/	0.00	50.00	109.7	78.7/124.6	
1,3,5-Trimethylbenzene	52.56/	0.00	50.00	105.1	81.3/128.9	
tert-Butylbenzene	50.87/	0.00	50.00	101.7	80.7/128.9	
1,2,4-Trimethylbenzene	54.33/	0.00	50.00	108.7	81.4/130.8	
sec-Butylbenzene	49.46/	0.00	50.00	98.9	77.4/129.8	
p-Isopropyltoluene	49.17/	0.00	50.00	98.3	79.8/137.5	
1,3-Dichlorobenzene	49.23/	0.00	50.00	98.5	77.0/131.3	
1,4-Dichlorobenzene	49.57/	0.00	50.00	99.1	20.7/137.7	
1,2-Dichlorobenzene	49.51/	0.00	50.00	99.0	10.0/166.2	
1,2,3-Trimethylbenzene	49.08/	0.00	50.00	98.2	76.3/124.2	
n-Butylbenzene	48.84/	0.00	50.00	97.7	80.0/133.3	
Hexachloroethane	36.87/	0.00	50.00	73.7	23.8/138.1	
1,2-Dibromo-3-Chloropropane	45.87/	0.00	50.00	91.7	21.2/189.4	
1,2,4-Trichlorobenzene	48.97/	0.00	50.00	97.9	27.4/143.4	
1,2,3-Trichlorobenzene	48.15/	0.00	50.00	96.3	75.4/131.4	
Naphthalene	48.48/	0.00	50.00	97.0	32.9/135.8	
2-Methylnaphthalene	34.71/	0.00	50.00	69.4	25.5/165.5	
					Total Outliers:	**0**

Spike File : lcsw17b.d
Spike ID : LCS1
Prep Batch: vf120817w1
Prep Date : 08/17/12
Parent File: blkw17a.d

1,1,2-Trichloro-1,2,2-trifluor	45.27/	0.00	50.00	90.5	75.1/135.9	WW
Diethyl ether	42.20/	0.00	50.00	84.4	67.4/121.2	
Acetone	46.84/	0.00	50.00	93.7	29.9/161.5	
Methyl iodide	46.62/	0.00	50.00	93.2	68.8/116.4	
Carbon disulfide	42.62/	0.00	50.00	85.2	63.8/137.4	
Methyl acetate	46.10/	0.00	50.00	92.2	64.7/125.4	
tert-Methyl butyl ether	47.36/	0.00	50.00	94.7	73.2/122.4	
Acrylonitrile	47.45/	0.00	50.00	94.9	69.9/128.9	
2-Butanone	41.29/	0.00	50.00	82.6	44.0/134.4	
Dichlorodifluoromethane	40.40/	0.00	50.00	80.8	10.0/222.8	
Chloromethane	44.13/	0.00	50.00	88.3	23.8/166.5	
Vinyl Chloride	36.79/	0.00	50.00	73.6	43.5/149.1	
Bromomethane	35.00/	0.00	50.00	70.0	56.8/151.3	
Chloroethane	35.80/	0.00	50.00	71.6	53.4/149.4	
Trichlorofluoromethane	38.30/	0.00	50.00	76.6	59.7/151.8	
1,1-Dichloroethene	42.96/	0.00	50.00	85.9	69.6/139.4	
Methylene Chloride	44.71/	0.00	50.00	89.4	73.3/121.1	
trans-1,2-Dichloroethene	42.41/	0.00	50.00	84.8	73.6/129.3	
1,1-Dichloroethane	43.18/	0.00	50.00	86.4	71.5/126.2	
cis-1,2-Dichloroethene	44.93/	0.00	50.00	89.9	76.6/122.1	
Tetrahydrofuran	41.97/	2.10	50.00	83.9	59.0/117.9	
Chloroform	42.94/	0.00	50.00	85.9	78.4/124.0	
Bromochloromethane	46.61/	0.00	50.00	93.2	78.2/120.8	
1,1,1-Trichloroethane	43.08/	0.00	50.00	86.2	79.4/130.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	36.94/	0.00	50.00	73.9	10.0/169.1	
4-Methyl-2-pentanone	50.96/	0.00	50.00	101.9	71.6/125.2	
2-Hexanone	44.04/	0.00	50.00	88.1	55.4/136.9	
Carbon Tetrachloride	42.54/	0.00	50.00	85.1	72.6/133.0	
Benzene	43.93/	0.00	50.00	87.9	79.9/124.9	
1,2-Dichloroethane	43.29/	0.00	50.00	86.6	76.0/126.3	
Trichloroethene	44.61/	0.00	50.00	89.2	79.7/124.2	
1,2-Dichloropropane	44.97/	0.00	50.00	89.9	78.6/126.4	
Bromodichloromethane	44.74/	0.00	50.00	89.5	80.4/128.2	
Methyl cyclohexane	47.67/	0.00	50.00	95.3	76.6/131.3	
Dibromomethane	48.94/	0.00	50.00	97.9	76.9/122.1	
cis-1,3-Dichloropropene	42.61/	0.00	50.00	85.2	79.8/129.9	
Toluene	43.79/	0.00	50.00	87.6	79.8/124.5	
trans-1,3-Dichloropropene	43.41/	0.00	50.00	86.8	74.0/131.3	
1,1,2-Trichloroethane	46.68/	0.00	50.00	93.4	78.7/123.1	
Tetrachloroethene	47.29/	0.00	50.00	94.6	74.5/124.5	
trans-1,4-Dichloro-2-butene	48.33/	0.00	50.00	96.7	68.6/135.4	
Dibromochloromethane	47.93/	0.00	50.00	95.9	74.6/127.2	
1,2-Dibromoethane	50.39/	0.00	50.00	100.8	70.3/133.7	
Chlorobenzene	48.18/	0.00	50.00	96.4	79.2/122.7	
1,1,1,2-Tetrachloroethane	49.49/	0.00	50.00	99.0	80.3/128.2	
Ethylbenzene	46.45/	0.00	50.00	92.9	79.5/129.1	
p,m-Xylene	92.76/	0.00	100.00	92.8	79.4/132.2	
o-Xylene	46.75/	0.00	50.00	93.5	80.2/131.0	
Styrene	47.42/	0.00	50.00	94.8	69.5/126.7	
Isopropylbenzene	47.23/	0.00	50.00	94.5	74.4/121.5	
Bromoform	43.46/	0.00	50.00	86.9	69.4/128.0	
1,1,2,2-Tetrachloroethane	47.41/	0.00	50.00	94.8	79.8/126.3	
1,2,3-Trichloropropane	48.81/	0.00	50.00	97.6	78.3/138.8	
n-Propylbenzene	48.53/	0.00	50.00	97.1	82.0/130.7	
Bromobenzene	51.14/	0.00	50.00	102.3	78.7/124.6	
1,3,5-Trimethylbenzene	48.40/	0.00	50.00	96.8	81.3/128.9	
tert-Butylbenzene	46.50/	0.00	50.00	93.0	80.7/128.9	
1,2,4-Trimethylbenzene	50.44/	0.00	50.00	100.9	81.4/130.8	
sec-Butylbenzene	45.56/	0.00	50.00	91.1	77.4/129.8	
p-Isopropyltoluene	45.50/	0.00	50.00	91.0	79.8/137.5	
1,3-Dichlorobenzene	46.10/	0.00	50.00	92.2	77.0/131.3	
1,4-Dichlorobenzene	46.88/	0.00	50.00	93.8	20.7/137.7	
1,2-Dichlorobenzene	46.45/	0.00	50.00	92.9	10.0/166.2	
1,2,3-Trimethylbenzene	45.77/	0.00	50.00	91.5	76.3/124.2	
n-Butylbenzene	45.32/	0.00	50.00	90.6	80.0/133.3	
Hexachloroethane	35.21/	0.00	50.00	70.4	23.8/138.1	
1,2-Dibromo-3-Chloropropane	43.09/	0.00	50.00	86.2	21.2/189.4	
1,2,4-Trichlorobenzene	46.78/	0.00	50.00	93.6	27.4/143.4	
1,2,3-Trichlorobenzene	47.18/	0.00	50.00	94.4	75.4/131.4	
Naphthalene	48.70/	0.00	50.00	97.4	32.9/135.8	
2-Methylnaphthalene	43.00/	0.00	50.00	86.0	25.5/165.5	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Spike File : lcsw23a.d
Spike ID : LCS1
Prep Batch: vf120823w1
Prep Date : 08/23/12
Parent File: blkw23a.d

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1,1,2-Trichloro-1,2,2-trifluor	53.89/	0.00	50.00	107.8	75.1/135.9	WW
Diethyl ether	48.02/	0.00	50.00	96.0	67.4/121.2	
Acetone	39.51/	0.00	50.00	79.0	29.9/161.5	
Methyl iodide	49.26/	0.00	50.00	98.5	68.8/116.4	
Carbon disulfide	51.32/	0.00	50.00	102.6	63.8/137.4	
Methyl acetate	46.79/	0.00	50.00	93.6	64.7/125.4	
tert-Methyl butyl ether	50.13/	0.00	50.00	100.3	73.2/122.4	
Acrylonitrile	49.65/	0.00	50.00	99.3	69.9/128.9	
2-Butanone	40.26/	0.00	50.00	80.5	44.0/134.4	
Dichlorodifluoromethane	41.24/	0.00	50.00	82.5	10.0/222.8	
Chloromethane	47.00/	0.00	50.00	94.0	23.8/166.5	
Vinyl Chloride	45.72/	0.00	50.00	91.4	43.5/149.1	
Bromomethane	46.49/	0.00	50.00	93.0	56.8/151.3	
Chloroethane	49.47/	0.00	50.00	98.9	53.4/149.4	
Trichlorofluoromethane	51.37/	0.00	50.00	102.7	59.7/151.8	
1,1-Dichloroethene	50.42/	0.00	50.00	100.8	69.6/139.4	
Methylene Chloride	47.87/	0.00	50.00	95.7	73.3/121.1	
trans-1,2-Dichloroethene	48.94/	0.00	50.00	97.9	73.6/129.3	
1,1-Dichloroethane	49.78/	0.00	50.00	99.6	71.5/126.2	
cis-1,2-Dichloroethene	49.93/	0.00	50.00	99.9	76.6/122.1	
Tetrahydrofuran	44.55/	2.99	50.00	89.1	59.0/117.9	
Chloroform	51.29/	0.00	50.00	102.6	78.4/124.0	
Bromochloromethane	48.94/	0.00	50.00	97.9	78.2/120.8	
1,1,1-Trichloroethane	49.21/	0.00	50.00	98.4	79.4/130.9	
Cyclohexane	44.55/	0.00	50.00	89.1	10.0/169.1	
4-Methyl-2-pentanone	46.92/	0.00	50.00	93.8	71.6/125.2	
2-Hexanone	45.90/	0.00	50.00	91.8	55.4/136.9	
Carbon Tetrachloride	48.25/	0.00	50.00	96.5	72.6/133.0	
Benzene	46.73/	0.00	50.00	93.5	79.9/124.9	
1,2-Dichloroethane	47.15/	0.00	50.00	94.3	76.0/126.3	
Trichloroethene	46.79/	0.00	50.00	93.6	79.7/124.2	
1,2-Dichloropropane	48.14/	0.00	50.00	96.3	78.6/126.4	
Bromodichloromethane	49.55/	0.00	50.00	99.1	80.4/128.2	
Methyl cyclohexane	48.58/	0.00	50.00	97.2	76.6/131.3	
Dibromomethane	45.58/	0.00	50.00	91.2	76.9/122.1	
cis-1,3-Dichloropropene	47.35/	0.00	50.00	94.7	79.8/129.9	
Toluene	48.39/	0.00	50.00	96.8	79.8/124.5	
trans-1,3-Dichloropropene	45.74/	0.00	50.00	91.5	74.0/131.3	
1,1,2-Trichloroethane	48.78/	0.00	50.00	97.6	78.7/123.1	
Tetrachloroethene	40.65/	0.00	50.00	81.3	74.5/124.5	
trans-1,4-Dichloro-2-butene	63.30/	0.00	50.00	126.6	68.6/135.4	
Dibromochloromethane	43.78/	0.00	50.00	87.6	74.6/127.2	
1,2-Dibromoethane	46.22/	0.00	50.00	92.4	70.3/133.7	
Chlorobenzene	45.71/	0.00	50.00	91.4	79.2/122.7	
1,1,1,2-Tetrachloroethane	47.10/	0.00	50.00	94.2	80.3/128.2	
Ethylbenzene	47.94/	0.00	50.00	95.9	79.5/129.1	
p,m-Xylene	95.60/	0.00	100.00	95.6	79.4/132.2	
o-Xylene	47.67/	0.00	50.00	95.3	80.2/131.0	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Styrene	48.12/	0.00	50.00	96.2	69.5/126.7	
Isopropylbenzene	47.85/	0.00	50.00	95.7	74.4/121.5	
Bromoform	46.65/	0.00	50.00	93.3	69.4/128.0	
1,1,2,2-Tetrachloroethane	45.86/	0.00	50.00	91.7	79.8/126.3	
1,2,3-Trichloropropane	45.72/	0.00	50.00	91.4	78.3/138.8	
n-Propylbenzene	50.03/	0.00	50.00	100.1	82.0/130.7	
Bromobenzene	46.18/	0.00	50.00	92.4	78.7/124.6	
1,3,5-Trimethylbenzene	46.18/	0.00	50.00	92.4	81.3/128.9	
tert-Butylbenzene	46.53/	0.00	50.00	93.1	80.7/128.9	
1,2,4-Trimethylbenzene	47.18/	0.00	50.00	94.4	81.4/130.8	
sec-Butylbenzene	49.82/	0.00	50.00	99.6	77.4/129.8	
p-Isopropyltoluene	51.16/	0.00	50.00	102.3	79.8/137.5	
1,3-Dichlorobenzene	49.09/	0.00	50.00	98.2	77.0/131.3	
1,4-Dichlorobenzene	47.95/	0.00	50.00	95.9	20.7/137.7	
1,2-Dichlorobenzene	48.26/	0.00	50.00	96.5	10.0/166.2	
1,2,3-Trimethylbenzene	49.18/	0.00	50.00	98.4	76.3/124.2	
n-Butylbenzene	51.07/	0.00	50.00	102.1	80.0/133.3	
Hexachloroethane	43.92/	0.00	50.00	87.8	23.8/138.1	
1,2-Dibromo-3-Chloropropane	45.55/	0.00	50.00	91.1	21.2/189.4	
1,2,4-Trichlorobenzene	48.25/	0.00	50.00	96.5	27.4/143.4	
1,2,3-Trichlorobenzene	48.51/	0.00	50.00	97.0	75.4/131.4	
Naphthalene	48.46/	0.00	50.00	96.9	32.9/135.8	
2-Methylnaphthalene	47.82/	0.00	50.00	95.6	25.5/165.5	
					Total Outliers:	**0**

Spike File : lcsw23b.d
Spike ID : LCS1
Prep Batch: vf120823w1
Prep Date : 08/23/12
Parent File: blkw23a.d

1,1,2-Trichloro-1,2,2-trifluor	54.32/	0.00	50.00	108.6	75.1/135.9	WW
Diethyl ether	48.35/	0.00	50.00	96.7	67.4/121.2	
Acetone	46.88/	0.00	50.00	93.8	29.9/161.5	
Methyl iodide	49.38/	0.00	50.00	98.8	68.8/116.4	
Carbon disulfide	51.80/	0.00	50.00	103.6	63.8/137.4	
Methyl acetate	48.77/	0.00	50.00	97.5	64.7/125.4	
tert-Methyl butyl ether	50.69/	0.00	50.00	101.4	73.2/122.4	
Acrylonitrile	50.86/	0.00	50.00	101.7	69.9/128.9	
2-Butanone	44.99/	0.00	50.00	90.0	44.0/134.4	
Dichlorodifluoromethane	41.52/	0.00	50.00	83.0	10.0/222.8	
Chloromethane	47.91/	0.00	50.00	95.8	23.8/166.5	
Vinyl Chloride	44.93/	0.00	50.00	89.9	43.5/149.1	
Bromomethane	46.01/	0.00	50.00	92.0	56.8/151.3	
Chloroethane	49.77/	0.00	50.00	99.5	53.4/149.4	
Trichlorofluoromethane	52.77/	0.00	50.00	105.5	59.7/151.8	
1,1-Dichloroethene	50.98/	0.00	50.00	102.0	69.6/139.4	
Methylene Chloride	48.68/	0.00	50.00	97.4	73.3/121.1	
trans-1,2-Dichloroethene	49.62/	0.00	50.00	99.2	73.6/129.3	
1,1-Dichloroethane	50.37/	0.00	50.00	100.7	71.5/126.2	
cis-1,2-Dichloroethene	49.80/	0.00	50.00	99.6	76.6/122.1	
Tetrahydrofuran	45.85/	2.99	50.00	91.7	59.0/117.9	
Chloroform	51.20/	0.00	50.00	102.4	78.4/124.0	
Bromochloromethane	48.16/	0.00	50.00	96.3	78.2/120.8	
1,1,1-Trichloroethane	50.14/	0.00	50.00	100.3	79.4/130.9	

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Cyclohexane	43.01/	0.00	50.00	86.0	10.0/169.1	
4-Methyl-2-pentanone	49.05/	0.00	50.00	98.1	71.6/125.2	
2-Hexanone	45.80/	0.00	50.00	91.6	55.4/136.9	
Carbon Tetrachloride	47.40/	0.00	50.00	94.8	72.6/133.0	
Benzene	47.02/	0.00	50.00	94.0	79.9/124.9	
1,2-Dichloroethane	46.84/	0.00	50.00	93.7	76.0/126.3	
Trichloroethene	47.25/	0.00	50.00	94.5	79.7/124.2	
1,2-Dichloropropane	47.99/	0.00	50.00	96.0	78.6/126.4	
Bromodichloromethane	49.12/	0.00	50.00	98.2	80.4/128.2	
Methyl cyclohexane	47.47/	0.00	50.00	94.9	76.6/131.3	
Dibromomethane	45.85/	0.00	50.00	91.7	76.9/122.1	
cis-1,3-Dichloropropene	45.89/	0.00	50.00	91.8	79.8/129.9	
Toluene	48.03/	0.00	50.00	96.1	79.8/124.5	
trans-1,3-Dichloropropene	45.38/	0.00	50.00	90.8	74.0/131.3	
1,1,2-Trichloroethane	48.04/	0.00	50.00	96.1	78.7/123.1	
Tetrachloroethene	40.29/	0.00	50.00	80.6	74.5/124.5	
trans-1,4-Dichloro-2-butene	51.82/	0.00	50.00	103.6	68.6/135.4	
Dibromochloromethane	43.46/	0.00	50.00	86.9	74.6/127.2	
1,2-Dibromoethane	47.77/	0.00	50.00	95.5	70.3/133.7	
Chlorobenzene	46.03/	0.00	50.00	92.1	79.2/122.7	
1,1,1,2-Tetrachloroethane	46.92/	0.00	50.00	93.8	80.3/128.2	
Ethylbenzene	49.10/	0.00	50.00	98.2	79.5/129.1	
p,m-Xylene	97.58/	0.00	100.00	97.6	79.4/132.2	
o-Xylene	48.53/	0.00	50.00	97.1	80.2/131.0	
Styrene	48.54/	0.00	50.00	97.1	69.5/126.7	
Isopropylbenzene	48.64/	0.00	50.00	97.3	74.4/121.5	
Bromoform	46.23/	0.00	50.00	92.5	69.4/128.0	
1,1,2,2-Tetrachloroethane	47.43/	0.00	50.00	94.9	79.8/126.3	
1,2,3-Trichloropropane	48.10/	0.00	50.00	96.2	78.3/138.8	
n-Propylbenzene	51.40/	0.00	50.00	102.8	82.0/130.7	
Bromobenzene	46.49/	0.00	50.00	93.0	78.7/124.6	
1,3,5-Trimethylbenzene	46.35/	0.00	50.00	92.7	81.3/128.9	
tert-Butylbenzene	47.43/	0.00	50.00	94.9	80.7/128.9	
1,2,4-Trimethylbenzene	47.46/	0.00	50.00	94.9	81.4/130.8	
sec-Butylbenzene	50.41/	0.00	50.00	100.8	77.4/129.8	
p-Isopropyltoluene	51.81/	0.00	50.00	103.6	79.8/137.5	
1,3-Dichlorobenzene	50.84/	0.00	50.00	101.7	77.0/131.3	
1,4-Dichlorobenzene	49.01/	0.00	50.00	98.0	20.7/137.7	
1,2-Dichlorobenzene	48.34/	0.00	50.00	96.7	10.0/166.2	
1,2,3-Trimethylbenzene	49.75/	0.00	50.00	99.5	76.3/124.2	
n-Butylbenzene	52.10/	0.00	50.00	104.2	80.0/133.3	
Hexachloroethane	43.41/	0.00	50.00	86.8	23.8/138.1	
1,2-Dibromo-3-Chloropropane	46.31/	0.00	50.00	92.6	21.2/189.4	
1,2,4-Trichlorobenzene	49.41/	0.00	50.00	98.8	27.4/143.4	
1,2,3-Trichlorobenzene	48.82/	0.00	50.00	97.6	75.4/131.4	
Naphthalene	49.69/	0.00	50.00	99.4	32.9/135.8	
2-Methylnaphthalene	48.70/	0.00	50.00	97.4	25.5/165.5	

Total Outliers: 0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw17a.d (5ml blank 1dr0817)
Blank ID : BLANK1
Prep Batch: vf120817w1
Prep Date : 08/17/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		0.17	1
Diethyl ether (*)	Not detected		0.19	1
Acetone (*)	Not detected		4.0	10
Methyl iodide (iodomethane) (*	Not detected		0.14	1
Carbon disulfide (*)	Not detected		0.15	1
Methyl Acetate	Not detected		0.20	1
tert-Methyl butyl ether (MTBE)	Not detected		0.13	1
Acrylonitrile (*)	Not detected		0.35	1
2-Butanone (MEK) (*)	Not detected		3.3	10
Dichlorodifluoromethane	Not detected		0.093	1
Chloromethane (SPCC)	Not detected		0.14	1
Vinyl Chloride (CCC)	Not detected		0.10	1
Bromomethane	Not detected		0.16	1
Chloroethane	Not detected		0.23	1
Acrolein	Not detected		1.8	10
Trichlorofluoromethane	Not detected		0.16	1
1,1-Dichloroethene (CCC/MS)	Not detected		0.20	1
Methylene Chloride	Not detected		0.17	1
trans-1,2-Dichloroethene	Not detected		0.088	1
1,1-Dichloroethane (SPCC)	Not detected		0.14	1
cis-1,2-Dichloroethene	Not detected		0.18	1
Tetrahydrofuran	2.10	2.1	1.2	10
Chloroform (CCC)	Not detected		0.15	1
Bromochloromethane	Not detected		0.13	1
1,1,1-Trichloroethane	Not detected		0.13	1
1,1-Dichloropropene	Not detected		0.17	1
Cyclohexane	Not detected		0.20	1
4-Methyl-2-pentanone (MIBK) (*	Not detected		0.31	1
2-Hexanone (*)	Not detected		0.24	1
2-chloroethylvinyl ether	Not detected		0.29	1
Carbon Tetrachloride	Not detected		0.16	1
Benzene (MS)	Not detected		0.11	1
1,2-Dichloroethane	Not detected		0.13	1
Trichloroethene (MS)	Not detected		0.19	1
1,2-Dichloropropane (CCC)	Not detected		0.11	1
Bromodichloromethane	Not detected		0.054	1
Methyl Cyclohexane	Not detected		0.13	1
Dibromomethane	Not detected		0.14	1
cis-1,3-Dichloropropene	Not detected		0.20	1
Toluene (CCC/MS)	Not detected		0.16	1
trans-1,3-Dichloropropene	Not detected		0.12	1
1,1,2-Trichloroethane	Not detected		0.19	1
Tetrachloroethene	Not detected		0.27	1
trans-1,4-Dichloro-2-butene	Not detected		0.22	1
Dibromochloromethane	Not detected		0.18	1
1,2-Dibromoethane	Not detected		0.10	1
Chlorobenzene (SPCC/MS)	Not detected		0.14	1
1,1,1,2-Tetrachloroethane	Not detected		0.26	1
Ethylbenzene (CCC)	Not detected		0.12	1
p,m-Xylene	Not detected		0.14	1
o-Xylene	Not detected		0.14	1
Styrene	Not detected		0.12	1
Isopropylbenzene	Not detected		0.13	1

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw17a.d (5ml blank 1dr0817)
Blank ID : BLANK1
Prep Batch: vf120817w1
Prep Date : 08/17/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
Bromoform (SPCC)	Not detected		0.076	1
1,1,2,2-Tetrachloroethane (SPC	Not detected		0.18	1
1,2,3-Trichloropropane	Not detected		0.20	1
n-Propylbenzene	Not detected		0.11	1
Bromobenzene	Not detected		0.12	1
1,3,5-Trimethylbenzene	Not detected		0.15	1
tert-Butylbenzene	Not detected		0.088	1
1,2,4-Trimethylbenzene	Not detected		0.096	1
sec-Butylbenzene	Not detected		0.14	1
p-Isopropyltoluene	Not detected		0.12	1
1,3-Dichlorobenzene	Not detected		0.11	1
1,4-Dichlorobenzene	Not detected		0.073	1
1,2-Dichlorobenzene	Not detected		0.13	1
1,2,3-Trimethylbenzene	Not detected		0.14	1
n-Butylbenzene	Not detected		0.12	1
Hexachloroethane	Not detected		0.15	1
1,2-Dibromo-3-Chloropropane	Not detected		0.20	1
1,2,4-Trichlorobenzene	Not detected		0.15	1
Hexachlorobutadiene	Not detected		0.12	1
1,2,3-Trichlorobenzene	Not detected		0.092	1
Naphthalene	Not detected		0.16	1
2-Methylnaphthalene	Not detected		0.14	1

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura
Level: N/A

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw23a.d (5ml blank 1dr0822)
Blank ID : BLANK1
Prep Batch: vf120823w1
Prep Date : 08/23/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
1,1,2-Trichloro-1,2,2-trifluor	Not detected		0.28	1
Diethyl ether (*)	Not detected		0.18	1
Acetone (*)	Not detected		1.4	10
Methyl iodide (iodomethane) (*	Not detected		0.17	1
Carbon disulfide (*)	Not detected		0.14	1
Methyl Acetate	Not detected		0.33	1
tert-Methyl butyl ether (MTBE)	Not detected		0.19	1
Acrylonitrile (*)	Not detected		0.47	1
2-Butanone (MEK) (*)	Not detected		4.0	10
Dichlorodifluoromethane	Not detected		0.33	1
Chloromethane (SPCC)	Not detected		0.17	1
Vinyl Chloride (CCC)	Not detected		0.33	1
Bromomethane	Not detected		0.28	1
Chloroethane	Not detected		0.29	1
Acrolein	Not detected		1.8	10
Trichlorofluoromethane	Not detected		0.20	1
1,1-Dichloroethene (CCC/MS)	Not detected		0.24	1
Methylene Chloride	Not detected		0.24	1
trans-1,2-Dichloroethene	Not detected		0.22	1
1,1-Dichloroethane (SPCC)	Not detected		0.23	1
cis-1,2-Dichloroethene	Not detected		0.31	1
Tetrahydrofuran	2.99	3.0	0.67	10
Chloroform (CCC)	Not detected		0.20	1
Bromochloromethane	Not detected		0.28	1
1,1,1-Trichloroethane	Not detected		0.28	1
1,1-Dichloropropene	Not detected		0.13	1
Cyclohexane	Not detected		0.15	1
4-Methyl-2-pentanone (MIBK) (*	Not detected		0.34	1
2-Hexanone (*)	Not detected		0.38	1
2-chloroethylvinyl ether	Not detected		0.29	1
Carbon Tetrachloride	Not detected		0.26	1
Benzene (MS)	Not detected		0.16	1
1,2-Dichloroethane	Not detected		0.26	1
Trichloroethene (MS)	Not detected		0.35	1
1,2-Dichloropropane (CCC)	Not detected		0.26	1
Bromodichloromethane	Not detected		0.31	1
Methyl Cyclohexane	Not detected		0.24	1
Dibromomethane	Not detected		0.39	1
cis-1,3-Dichloropropene	Not detected		0.20	1
Toluene (CCC/MS)	Not detected		0.17	1
trans-1,3-Dichloropropene	Not detected		0.17	1
1,1,2-Trichloroethane	Not detected		0.29	1
Tetrachloroethene	Not detected		0.21	1
trans-1,4-Dichloro-2-butene	Not detected		0.46	1
Dibromochloromethane	Not detected		0.13	1
1,2-Dibromoethane	Not detected		0.19	1
Chlorobenzene (SPCC/MS)	Not detected		0.23	1
1,1,1,2-Tetrachloroethane	Not detected		0.12	1
Ethylbenzene (CCC)	Not detected		0.22	1
p,m-Xylene	Not detected		0.40	1
o-Xylene	Not detected		0.20	1
Styrene	Not detected		0.19	1
Isopropylbenzene	Not detected		0.24	1

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura
Level: N/A

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

BLANK FILE : blkw23a.d (5ml blank 1dr0822)
Blank ID : BLANK1
Prep Batch: vf120823w1
Prep Date : 08/23/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [ug/l]	Sample Conc. [ug/l]	MDL [ug/l]	RL [ug/l]
Bromoform (SPCC)	Not detected		0.29	1
1,1,2,2-Tetrachloroethane (SPC	Not detected		0.47	1
1,2,3-Trichloropropane	Not detected		0.58	1
n-Propylbenzene	Not detected		0.13	1
Bromobenzene	Not detected		0.20	1
1,3,5-Trimethylbenzene	Not detected		0.25	1
tert-Butylbenzene	Not detected		0.29	1
1,2,4-Trimethylbenzene	Not detected		0.23	1
sec-Butylbenzene	Not detected		0.22	1
p-Isopropyltoluene	Not detected		0.20	1
1,3-Dichlorobenzene	Not detected		0.21	1
1,4-Dichlorobenzene	Not detected		0.17	1
1,2-Dichlorobenzene	Not detected		0.14	1
1,2,3-Trimethylbenzene	Not detected		0.15	1
n-Butylbenzene	Not detected		0.12	1
Hexachloroethane	Not detected		0.29	1
1,2-Dibromo-3-Chloropropane	Not detected		0.26	1
1,2,4-Trichlorobenzene	Not detected		0.18	1
Hexachlorobutadiene	Not detected		0.25	1
1,2,3-Trichlorobenzene	Not detected		0.21	1
Naphthalene	Not detected		0.23	1
2-Methylnaphthalene	Not detected		0.12	1

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Level: N/A

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blkw17a.d
Method Blank Prep Date: 08/17/12
Blank/LCS Preparation Batch: vf120817w1

LCS Data File: lcsw17a.d
LCS Prep Date: 08/17/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53178.29	120817A3	VF120817W1	08/17/12	Volatile Organics - NY	$8260WNY
S53519.01	120817A3	VF120817W1	08/17/12	TCL Volatile Organics 8260	$8260TCL
S53519.02	120817A3	VF120817W1	08/17/12	TCL Volatile Organics 8260	$8260TCL
S53519.03	120817A3	VF120817W1	08/17/12	TCL Volatile Organics 8260	$8260TCL
S53519.04	120817A3	VF120817W1	08/17/12	TCL Volatile Organics 8260	$8260TCL
S53519.05	120817A3	VF120817W1	08/17/12	TCL Volatile Organics 8260	$8260TCL
S53519.06	120817A3	VF120817W1	08/17/12	TCL Volatile Organics 8260	$8260TCL
S53519.07	120817A3	VF120817W1	08/17/12	TCL Volatile Organics 8260	$8260TCL
S53519.08	120817A3	VF120817W1	08/17/12	TCL Volatile Organics 8260	$8260TCL
S53519.09	120817A3	VF120817W1	08/17/12	TCL Volatile Organics 8260	$8260TCL

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura
Level: N/A

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blkw23a.d
Method Blank Prep Date: 08/23/12
Blank/LCS Preparation Batch: vf120823w1

LCS Data File: lcsw23a.d
LCS Prep Date: 08/23/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53519.09	120823A6	VF120823W1	08/23/12	TCL Volatile Organics 8260	$8260TCL(01)
S53527.01	120823A6	VF120823W1	08/23/12	TCLP Volatiles	$TCLPVOL
S53533.01	120823A6	VF120823W1	08/23/12	VOCs, TTO List	$624TTO
S53558.01	120823A6	VF120823W1	08/23/12	VOCs, TTO List	$624TTO
S53558.02	120823A6	VF120823W1	08/23/12	VOCs, TTO List	$624TTO
S53558.03	120823A6	VF120823W1	08/23/12	VOCs, TTO List	$624TTO
S53558.04	120823A6	VF120823W1	08/23/12	VOCs, TTO List	$624TTO
S53559.01	120823A6	VF120823W1	08/23/12	BTEX, GC/MS	$BTX826W
S53559.04	120823A6	VF120823W1	08/23/12	BTEX, GC/MS	$BTX826W
S53577.01	120823A6	VF120823W1	08/23/12	VOCs, TTO	$624GEN
S53578.01	120823A6	VF120823W1	08/23/12	VOCs, TTO	$624GEN
S53591.01	120823A6	VF120823W1	08/23/12	Purgeables, TTO	$SMCOTTOV
	120823A6	VF120823W1	08/23/12	Total BTEX	BTEX TOTAL
S53613.13	120823A6	VF120823W1	08/23/12	Volatile Organics - DEQ List	$8260W

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb17a.d	08/17/12 11:01	50	95	15.0	40.0	20.3	5621	PASS
		75	95	30.0	60.0	47.0	13014	PASS
		95	95	100.0	100.0	100.0	27704	PASS
		96	95	5.0	9.0	6.4	1776	PASS
		173	174	0.0	2.0	1.0	175	PASS
		174	95	50.0	120.0	61.9	17160	PASS
		175	174	5.0	9.0	7.1	1212	PASS
		176	174	95.0	101.0	95.9	16456	PASS
		177	176	5.0	9.0	6.9	1136	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb23a.d	08/23/12 11:06	50	95	15.0	40.0	22.5	11723	PASS
		75	95	30.0	60.0	50.6	26360	PASS
		95	95	100.0	100.0	100.0	52136	PASS
		96	95	5.0	9.0	6.6	3457	PASS
		173	174	0.0	2.0	0.5	182	PASS
		174	95	50.0	120.0	66.7	34800	PASS
		175	174	5.0	9.0	5.6	1943	PASS
		176	174	95.0	101.0	96.8	33680	PASS
		177	176	5.0	9.0	6.1	2048	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*		*RT Range*
spcc17a.d	08/17/12 11:54	Pentafluorobenzene	30649/ 3.99	15325-	61298	3.49- 4.49
		1,4-Difluorobenzene	54492/ 4.35	27246-	108984	3.85- 4.85
		Chlorobenzene-D5	29277/ 5.72	14639-	58554	5.22- 6.22
		1,4-Dichlorobenzene-D4	25060/ 6.81	12530-	50120	6.31- 7.31
					Total Outliers:	**N/A**
lcsw17a.d	08/17/12 13:08	Pentafluorobenzene	31349/ 3.99	Ratio: 1.023	Diff.: 0.00	
		1,4-Difluorobenzene	56959/ 4.35	Ratio: 1.045	Diff.: 0.00	
		Chlorobenzene-D5	29919/ 5.72	Ratio: 1.022	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	24464/ 6.81	Ratio: 0.976	Diff.: 0.00	
					Total Outliers:	**0**
lcsw17b.d	08/17/12 13:28	Pentafluorobenzene	32191/ 3.99	Ratio: 1.050	Diff.: 0.00	
		1,4-Difluorobenzene	57476/ 4.35	Ratio: 1.055	Diff.: 0.00	
		Chlorobenzene-D5	30751/ 5.72	Ratio: 1.050	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	25245/ 6.81	Ratio: 1.007	Diff.: 0.00	
					Total Outliers:	**0**
blkw17a.d	08/17/12 14:50	Pentafluorobenzene	32296/ 3.99	Ratio: 1.054	Diff.: 0.00	
		1,4-Difluorobenzene	54971/ 4.35	Ratio: 1.009	Diff.: 0.00	
		Chlorobenzene-D5	29874/ 5.72	Ratio: 1.020	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	22839/ 6.81	Ratio: 0.911	Diff.: 0.00	
					Total Outliers:	**0**
5351901.d	08/17/12 15:56	Pentafluorobenzene	31197/ 3.99	Ratio: 1.018	Diff.: 0.00	
		1,4-Difluorobenzene	54622/ 4.35	Ratio: 1.002	Diff.: 0.00	
		Chlorobenzene-D5	29892/ 5.72	Ratio: 1.021	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	23185/ 6.81	Ratio: 0.925	Diff.: 0.00	
					Total Outliers:	**0**
5351902.d	08/17/12 16:17	Pentafluorobenzene	30186/ 3.99	Ratio: 0.985	Diff.: 0.00	
		1,4-Difluorobenzene	53757/ 4.35	Ratio: 0.987	Diff.: 0.00	
		Chlorobenzene-D5	28986/ 5.72	Ratio: 0.990	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	23707/ 6.81	Ratio: 0.946	Diff.: 0.00	
					Total Outliers:	**0**
5351903.d	08/17/12 16:37	Pentafluorobenzene	30698/ 3.99	Ratio: 1.002	Diff.: 0.00	
		1,4-Difluorobenzene	53390/ 4.35	Ratio: 0.980	Diff.: 0.00	
		Chlorobenzene-D5	28906/ 5.72	Ratio: 0.987	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	22315/ 6.81	Ratio: 0.890	Diff.: 0.00	
					Total Outliers:	**0**
5351904.d	08/17/12 16:57	Pentafluorobenzene	30280/ 3.99	Ratio: 0.988	Diff.: 0.00	
		1,4-Difluorobenzene	54548/ 4.35	Ratio: 1.001	Diff.: 0.00	
		Chlorobenzene-D5	29947/ 5.72	Ratio: 1.023	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	22437/ 6.81	Ratio: 0.895	Diff.: 0.00	
					Total Outliers:	**0**
5351905.d	08/17/12 17:18	Pentafluorobenzene	31060/ 3.99	Ratio: 1.013	Diff.: 0.00	
		1,4-Difluorobenzene	52630/ 4.35	Ratio: 0.966	Diff.: 0.00	
		Chlorobenzene-D5	28202/ 5.72	Ratio: 0.963	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	24008/ 6.81	Ratio: 0.958	Diff.: 0.00	
					Total Outliers:	**0**
5351906.d	08/17/12 17:38	Pentafluorobenzene	30537/ 3.99	Ratio: 0.996	Diff.: 0.00	
		1,4-Difluorobenzene	53219/ 4.35	Ratio: 0.977	Diff.: 0.00	
		Chlorobenzene-D5	29230/ 5.72	Ratio: 0.998	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	22703/ 6.81	Ratio: 0.906	Diff.: 0.00	
					Total Outliers:	**0**
5351907.d	08/17/12 17:59	Pentafluorobenzene	29862/ 3.99	Ratio: 0.974	Diff.: 0.00	
		1,4-Difluorobenzene	53820/ 4.35	Ratio: 0.988	Diff.: 0.00	
		Chlorobenzene-D5	28570/ 5.72	Ratio: 0.976	Diff.: 0.00	
		1,4-Dichlorobenzene-D4	22834/ 6.81	Ratio: 0.911	Diff.: 0.00	
					Total Outliers:	**0**

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5351908.d	08/17/12 18:19	Pentafluorobenzene	30752/ 3.99	Ratio: 1.003	Diff.: 0.00
		1,4-Difluorobenzene	52540/ 4.35	Ratio: 0.964	Diff.: 0.00
		Chlorobenzene-D5	29226/ 5.72	Ratio: 0.998	Diff.: 0.00
		1,4-Dichlorobenzene-D4	22914/ 6.81	Ratio: 0.914	Diff.: 0.00
					Total Outliers: 0
5351909.d	08/17/12 18:40	Pentafluorobenzene	31608/ 3.99	Ratio: 1.031	Diff.: 0.00
		1,4-Difluorobenzene	56147/ 4.35	Ratio: 1.030	Diff.: 0.00
		Chlorobenzene-D5	29434/ 5.72	Ratio: 1.005	Diff.: 0.00
		1,4-Dichlorobenzene-D4	23372/ 6.81	Ratio: 0.933	Diff.: 0.00
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*		*RT Range*
spcc23a.d	08/23/12 12:23	Pentafluorobenzene	49852/ 3.86	24926-	99704	3.36- 4.36
		1,4-Difluorobenzene	89469/ 4.23	44735-	178938	3.73- 4.73
		Chlorobenzene-D5	51101/ 5.60	25551-	102202	5.10- 6.10
		1,4-Dichlorobenzene-D4	43310/ 6.70	21655-	86620	6.20- 7.20
					Total Outliers:	**N/A**
lcsw23a.d	08/23/12 13:09	Pentafluorobenzene	54541/ 3.87	Ratio: 1.094		Diff.: 0.01
		1,4-Difluorobenzene	96118/ 4.23	Ratio: 1.074		Diff.: 0.00
		Chlorobenzene-D5	55377/ 5.60	Ratio: 1.084		Diff.: 0.00
		1,4-Dichlorobenzene-D4	46549/ 6.70	Ratio: 1.075		Diff.: 0.00
					Total Outliers:	**0**
lcsw23b.d	08/23/12 13:30	Pentafluorobenzene	53879/ 3.87	Ratio: 1.081		Diff.: 0.01
		1,4-Difluorobenzene	96202/ 4.23	Ratio: 1.075		Diff.: 0.00
		Chlorobenzene-D5	54394/ 5.60	Ratio: 1.064		Diff.: 0.00
		1,4-Dichlorobenzene-D4	45602/ 6.70	Ratio: 1.053		Diff.: 0.00
					Total Outliers:	**0**
blkw23a.d	08/23/12 14:52	Pentafluorobenzene	37611/ 3.87	Ratio: 0.754		Diff.: 0.01
		1,4-Difluorobenzene	68287/ 4.23	Ratio: 0.763		Diff.: 0.00
		Chlorobenzene-D5	39701/ 5.60	Ratio: 0.777		Diff.: 0.00
		1,4-Dichlorobenzene-D4	30059/ 6.70	Ratio: 0.694		Diff.: 0.00
					Total Outliers:	**0**
5351909.d	08/23/12 15:13	Pentafluorobenzene	37429/ 3.87	Ratio: 0.751		Diff.: 0.01
		1,4-Difluorobenzene	68124/ 4.23	Ratio: 0.761		Diff.: 0.00
		Chlorobenzene-D5	38554/ 5.60	Ratio: 0.754		Diff.: 0.00
		1,4-Dichlorobenzene-D4	31934/ 6.70	Ratio: 0.737		Diff.: 0.00
					Total Outliers:	**0**
5351909r.d	08/23/12 16:35	Pentafluorobenzene	34514/ 3.87	Ratio: 0.692		Diff.: 0.01
		1,4-Difluorobenzene	62550/ 4.23	Ratio: 0.699		Diff.: 0.00
		Chlorobenzene-D5	34587/ 5.60	Ratio: 0.677		Diff.: 0.00
		1,4-Dichlorobenzene-D4	27629/ 6.70	Ratio: 0.638		Diff.: 0.00
					Total Outliers:	**0**

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120817a3.3

LIMS ID: S53519.01
Data File: 5351901.d
Date Received: 08/10/12

Tag: 2306-080912-0002
Notes: 5ml 1dr0817
w/1 id:vf120817w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/17/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/17/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (88%)				08/17/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (98%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120817a3.3

LIMS ID: S53519.02
Data File: 5351902.d
Date Received: 08/10/12

Tag: MW137 (08-09-2012) (1215)
Notes: 5ml 1dr0817
w/1 id:vf120817w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/17/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/17/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (90%)				08/17/12	
460-00-4	4-Bromofluorobenzene	Pass (105%)					
2037-26-5	Toluene-D8	Pass (97%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120817a3.3

LIMS ID: S53519.03
Data File: 5351903.d
Date Received: 08/10/12

Tag: MW135 (08-09-2012) (1320)
Notes: 5ml 1dr0817
w/1 id:vf120817w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/17/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/17/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (87%)				08/17/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (100%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120817a3.3

LIMS ID: S53519.04
Data File: 5351904.d
Date Received: 08/10/12

Tag: Dup-02 (08-09-2012)
Notes: 5ml 1dr0817
w/1 id:vf120817w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/17/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/17/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (87%)				08/17/12	
460-00-4	4-Bromofluorobenzene	Pass (100%)					
2037-26-5	Toluene-D8	Pass (95%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120817a3.3

LIMS ID: S53519.05
Data File: 5351905.d
Date Received: 08/10/12

Tag: MW158 (08-09-2012) (1515)
Notes: 5ml 1dr0817
w/1 id:vf120817w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/17/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/17/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (88%)				08/17/12	
460-00-4	4-Bromofluorobenzene	Pass (105%)					
2037-26-5	Toluene-D8	Pass (100%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120817a3.3

LIMS ID: S53519.06
Data File: 5351906.d
Date Received: 08/10/12

Tag: MW124 (08-09-2012) (1630)
Notes: 5ml 1dr0817
w/1 id:vf120817w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/17/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/17/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (92%)				08/17/12	
460-00-4	4-Bromofluorobenzene	Pass (103%)					
2037-26-5	Toluene-D8	Pass (98%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120817a3.3

LIMS ID: S53519.07
Data File: 5351907.d
Date Received: 08/10/12

Tag: 2306-080912-0003
Notes: 5ml 1dr0817
w/1 id:vf120817w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/17/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/17/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (89%)				08/17/12	
460-00-4	4-Bromofluorobenzene	Pass (108%)					
2037-26-5	Toluene-D8	Pass (98%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120817a3.3

LIMS ID: S53519.08
Data File: 5351908.d
Date Received: 08/10/12

Tag: MW115 (08-10-2012) (0845)
Notes: 5ml 1dr0817
w/1 id:vf120817w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/17/12	
67-64-1	Acetone	Not detected	20	4.0	ug/l		
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	Not detected	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	Not detected	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	Not detected	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	Not detected	2	0.14	ug/l		
95-47-6	o-Xylene	Not detected	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/17/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (87%)				08/17/12	
460-00-4	4-Bromofluorobenzene	Pass (105%)					
2037-26-5	Toluene-D8	Pass (101%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.03.Merfolk
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120817a3.3

LIMS ID: S53519.09
Data File: 5351909.d
Date Received: 08/10/12

Tag: MW152 (08-10-2012) (1035)
Notes: 5ml 1dr0817
w/1 id:vf120817w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 1

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	30	0.17	ug/l	08/17/12	
67-64-1	Acetone	870	20	4.0	ug/l		E
75-15-0	Carbon disulfide	Not detected	5	0.15	ug/l		
79-20-9	Methyl Acetate	Not detected	10	0.20	ug/l		
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	5	0.13	ug/l		
78-93-3	2-Butanone (MEK)	180	20	3.3	ug/l		
75-71-8	Dichlorodifluoromethane	Not detected	1	0.093	ug/l		
74-87-3	Chloromethane	1	1	0.14	ug/l		
75-01-4	Vinyl chloride	Not detected	1	0.10	ug/l		
74-83-9	Bromomethane	Not detected	2	0.16	ug/l		
75-00-3	Chloroethane	Not detected	1	0.23	ug/l		
75-69-4	Trichlorofluoromethane	Not detected	1	0.16	ug/l		
75-35-4	1,1-Dichloroethene	Not detected	1	0.20	ug/l		
75-09-2	Methylene chloride	Not detected	5	0.17	ug/l		
156-60-5	trans-1,2-Dichloroethene	Not detected	1	0.088	ug/l		
75-34-3	1,1-Dichloroethane	Not detected	1	0.14	ug/l		
156-59-2	cis-1,2-Dichloroethene	Not detected	1	0.18	ug/l		
67-66-3	Chloroform	Not detected	1	0.15	ug/l		
71-55-6	1,1,1-Trichloroethane	Not detected	1	0.13	ug/l		
110-82-7	Cyclohexane	Not detected	1	0.20	ug/l		
108-10-1	4-Methyl-2-pentanone (MIBK)	50	10	0.31	ug/l		
591-78-6	2-Hexanone	Not detected	50	0.24	ug/l		
56-23-5	Carbon tetrachloride	Not detected	1	0.16	ug/l		
71-43-2	Benzene	Not detected	1	0.11	ug/l		
107-06-2	1,2-Dichloroethane	Not detected	1	0.13	ug/l		
79-01-6	Trichloroethene	Not detected	1	0.19	ug/l		
78-87-5	1,2-Dichloropropane	Not detected	1	0.11	ug/l		
75-27-4	Bromodichloromethane	Not detected	1	0.054	ug/l		
108-87-2	Methyl cyclohexane	Not detected	20	0.13	ug/l		
10061-01-5	cis-1,3-Dichloropropene	Not detected	1	0.20	ug/l		
108-88-3	Toluene	Not detected	1	0.16	ug/l		
10061-02-6	trans-1,3-Dichloropropene	Not detected	1	0.12	ug/l		
79-00-5	1,1,2-Trichloroethane	Not detected	1	0.19	ug/l		
127-18-4	Tetrachloroethene	Not detected	1	0.27	ug/l		
124-48-1	Dibromochloromethane	Not detected	1	0.18	ug/l		
106-93-4	1,2-Dibromoethane	Not detected	1	0.10	ug/l		
108-90-7	Chlorobenzene	Not detected	1	0.14	ug/l		
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	1	0.18	ug/l		
100-41-4	Ethylbenzene	3	1	0.12	ug/l		
M/P-XYLENE	p,m-Xylene	10	2	0.14	ug/l		
95-47-6	o-Xylene	4	1	0.14	ug/l		
100-42-5	Styrene	Not detected	1	0.12	ug/l		
98-82-8	Isopropylbenzene	Not detected	1	0.13	ug/l		
75-25-2	Bromoform	Not detected	1	0.076	ug/l		
541-73-1	1,3-Dichlorobenzene	Not detected	1	0.11	ug/l		
106-46-7	1,4-Dichlorobenzene	Not detected	1	0.073	ug/l		
95-50-1	1,2-Dichlorobenzene	Not detected	1	0.13	ug/l		
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	1	0.20	ug/l		
120-82-1	1,2,4-Trichlorobenzene	Not detected	2	0.15	ug/l		
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/17/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (86%)				08/17/12	
460-00-4	4-Bromofluorobenzene	Pass (106%)					
2037-26-5	Toluene-D8	Pass (97%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.06.Verdura
GC Column: VOCOL/L:60m/D:0.53mm

Analytical Batch: 120823a6.3

LIMS ID: S53519.09
Data File: 5351909.d
Date Received: 08/10/12

Tag: MW152 (08-10-2012) (1035)
Notes: 5:1 1dr0822
w/5 id:vf120823w1

Matrix: WW
Injection Volume: n/a
Dilution Factor: 50

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
TCL Volatile Organics 8260 (Reanalysis)							
76-13-1	1,1,2-Trichloro-1,2,2-trifluor	Not detected	2000	14	ug/l	08/23/12	Y
67-64-1	Acetone	2000	1000	69	ug/l		Y
75-15-0	Carbon disulfide	Not detected	300	7.0	ug/l		Y
79-20-9	Methyl Acetate	Not detected	500	16	ug/l		Y
1634-04-4	tert-Methyl butyl ether (MTBE)	Not detected	300	9.3	ug/l		Y
78-93-3	2-Butanone (MEK)	Not detected	1000	200	ug/l		Y
75-71-8	Dichlorodifluoromethane	Not detected	50	17	ug/l		Y
74-87-3	Chloromethane	Not detected	50	8.3	ug/l		Y
75-01-4	Vinyl chloride	Not detected	50	17	ug/l		Y
74-83-9	Bromomethane	Not detected	100	14	ug/l		Y
75-00-3	Chloroethane	Not detected	50	14	ug/l		Y
75-69-4	Trichlorofluoromethane	Not detected	50	10	ug/l		Y
75-35-4	1,1-Dichloroethene	Not detected	50	12	ug/l		Y
75-09-2	Methylene chloride	Not detected	300	12	ug/l		Y
156-60-5	trans-1,2-Dichloroethene	Not detected	50	11	ug/l		Y
75-34-3	1,1-Dichloroethane	Not detected	50	11	ug/l		Y
156-59-2	cis-1,2-Dichloroethene	Not detected	50	16	ug/l		Y
67-66-3	Chloroform	Not detected	50	10	ug/l		Y
71-55-6	1,1,1-Trichloroethane	Not detected	50	14	ug/l		Y
110-82-7	Cyclohexane	Not detected	50	7.6	ug/l		Y
108-10-1	4-Methyl-2-pentanone (MIBK)	Not detected	500	17	ug/l		Y
591-78-6	2-Hexanone	Not detected	3000	19	ug/l		Y
56-23-5	Carbon tetrachloride	Not detected	50	13	ug/l		Y
71-43-2	Benzene	Not detected	50	8.0	ug/l		Y
107-06-2	1,2-Dichloroethane	Not detected	50	13	ug/l		Y
79-01-6	Trichloroethene	Not detected	50	18	ug/l		Y
78-87-5	1,2-Dichloropropane	Not detected	50	13	ug/l		Y
75-27-4	Bromodichloromethane	Not detected	50	16	ug/l		Y
108-87-2	Methyl cyclohexane	Not detected	1000	12	ug/l		Y
10061-01-5	cis-1,3-Dichloropropene	Not detected	50	9.9	ug/l		Y
108-88-3	Toluene	Not detected	50	8.7	ug/l		Y
10061-02-6	trans-1,3-Dichloropropene	Not detected	50	8.3	ug/l		Y
79-00-5	1,1,2-Trichloroethane	Not detected	50	14	ug/l		Y
127-18-4	Tetrachloroethene	Not detected	50	11	ug/l		Y
124-48-1	Dibromochloromethane	Not detected	50	6.4	ug/l		Y
106-93-4	1,2-Dibromoethane	Not detected	50	9.4	ug/l		Y
108-90-7	Chlorobenzene	Not detected	50	11	ug/l		Y
79-34-5	1,1,2,2-Tetrachloroethane	Not detected	50	23	ug/l		Y
100-41-4	Ethylbenzene	Not detected	50	11	ug/l		Y
M/P-XYLENE	p,m-Xylene	Not detected	100	20	ug/l		Y
95-47-6	o-Xylene	Not detected	50	9.8	ug/l		Y
100-42-5	Styrene	Not detected	50	9.7	ug/l		Y
98-82-8	Isopropylbenzene	Not detected	50	12	ug/l		Y
75-25-2	Bromoform	Not detected	50	15	ug/l		Y
541-73-1	1,3-Dichlorobenzene	Not detected	50	10	ug/l		Y
106-46-7	1,4-Dichlorobenzene	Not detected	50	8.3	ug/l		Y
95-50-1	1,2-Dichlorobenzene	Not detected	50	6.9	ug/l		Y
96-12-8	1,2-Dibromo-3-chloropropane	Not detected	50	13	ug/l		Y
120-82-1	1,2,4-Trichlorobenzene	Not detected	100	9.0	ug/l		Y
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/23/12	
540-36-3	1,4-Difluorobenzene	Pass					
3114-55-4	Chlorobenzene-D5	Pass					
363-72-4	Pentafluorobenzene	Pass					
Surrogate Standard Recovery (see Form 2)							
17060-07-0	1,2-Dichloroethane-D4	Pass (114%)				08/23/12	
460-00-4	4-Bromofluorobenzene	Pass (93%)					
2037-26-5	Toluene-D8	Pass (100%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Volatile Organics

Instrument ID: vol.06.Verdura
Analytical Batch: 120823a6.3
GC Column: VOCOL/L:60m/D:0.53mm

Note/Qualifier Key

A: TIC is a suspected aldol-condensation product
B: Compound also found in associated method blank
C: Analyte presence confirmed by GC/MS
D: Identified in an analysis at a secondary dilution factor
E: Concentration exceeds calibration range
J: Estimated value less than reporting limit, but greater than MDL
N: Presumptive evidence of TIC
P: Pesticide/Aroclor 2-column RPD exceeds limit
U: Analyte not detected above reporting limit
!: Result is outside of stated limit criteria
F: Analysis run outside of holding time
G: Estimated result due to extraction run outside of holding time
H: Sample submitted and run outside of holding time
I: Matrix interference with internal standard
K: Elevated reporting limit due to low total solids
L: Elevated reporting limit due to low sample amount
M: Result reported to MDL not RDL
O: Analysis performed by outside laboratory. See attached report.
Q: Reported result represents most abundant aroclor
R: Preliminary result
S: Surrogate recovery outside of control limits
T: No correction for total solids
V: Accurate value not available due to presence of multiple aroclors
W: Surrogate result not applicable due to sample dilution
X: Elevated reporting limit due to matrix interference
Y: Elevated reporting limit due to high target concentration
Z: Estimated result due to matrix interference
p: Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*: Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351901.d Vial: 10
Acq On : 17 Aug 12 3:56 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 9:59 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

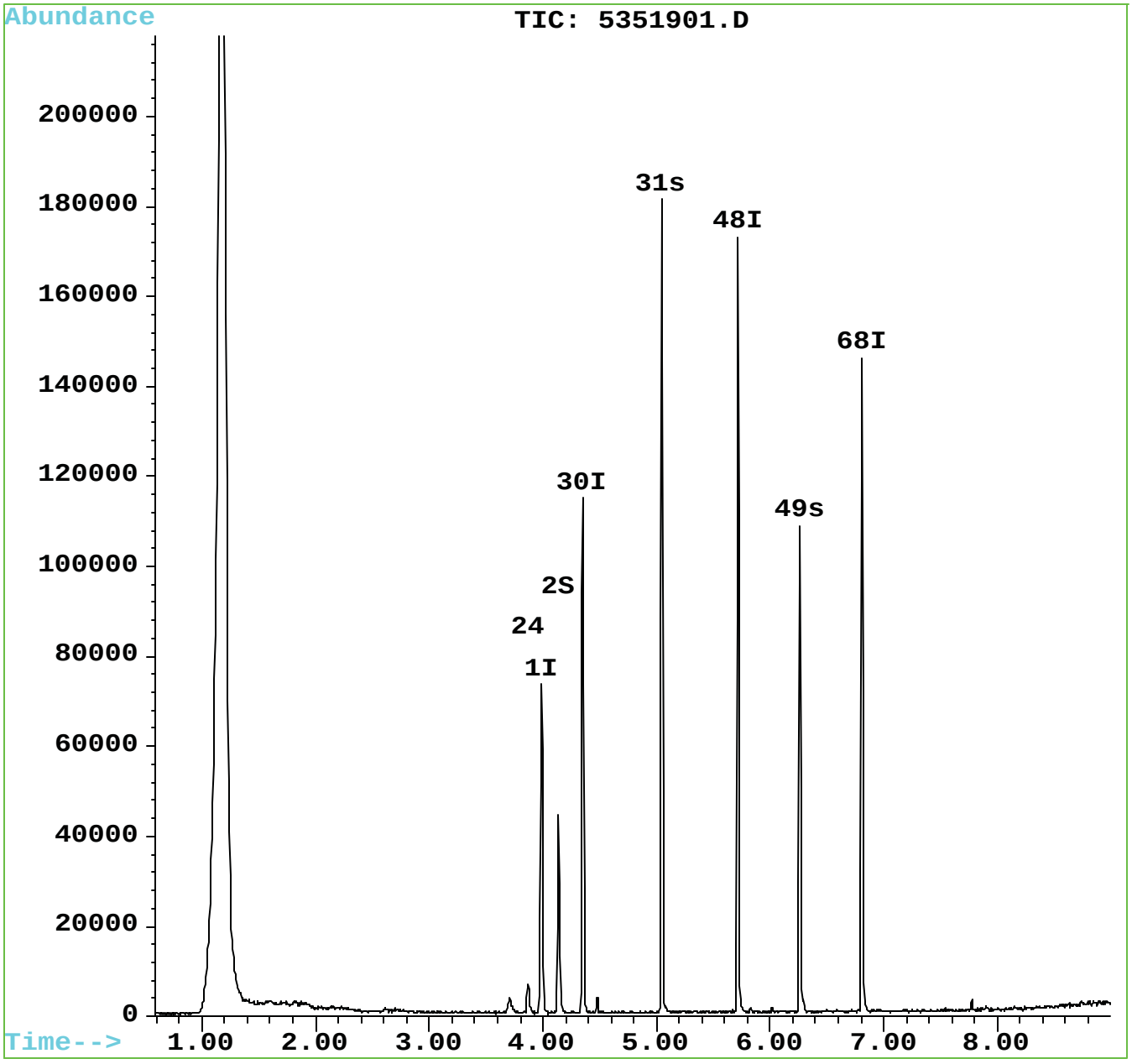
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31197	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54622	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29892	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23185	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	20035	4.42	ug/l	88.4
31) TOLUENE-D8 (S)	5.05	98	66348	4.91	ug/l	98.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16219	5.13	ug/l	102.5
Target Compounds						Qvalu
24) Tetrahydrofuran	3.87	42	3618	2.43	ug/l #	1

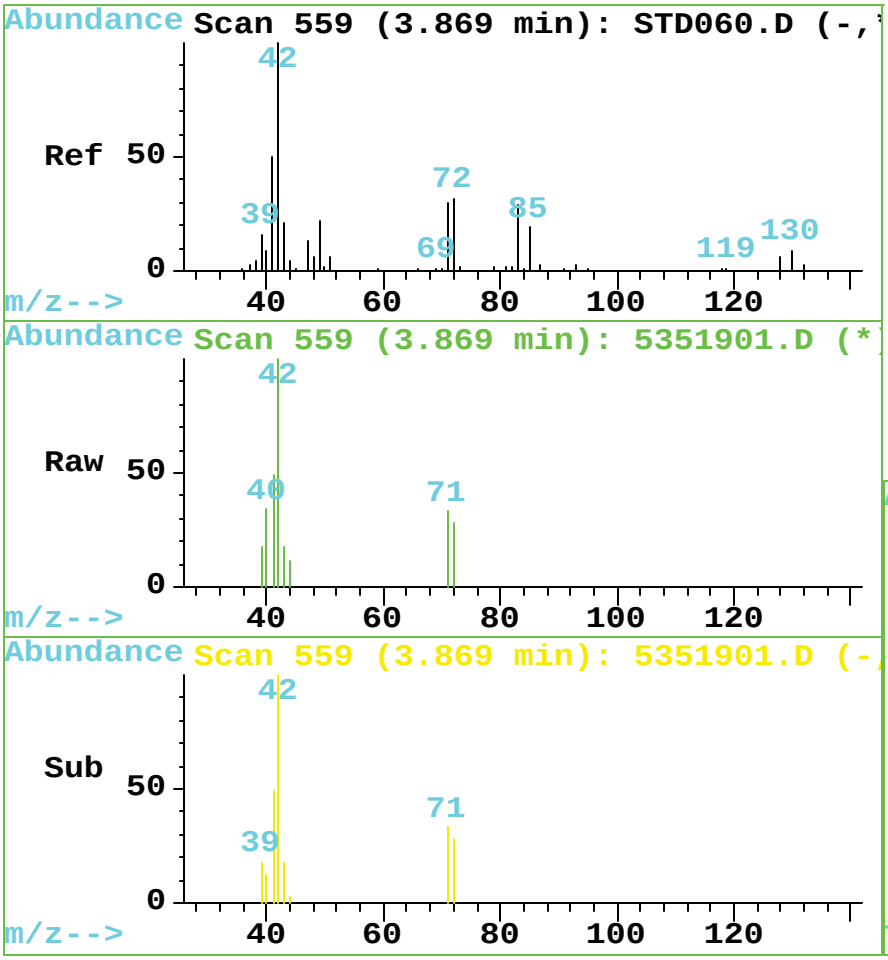
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351901.d Vial: 10
Acq On : 17 Aug 12 3:56 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 9:59 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

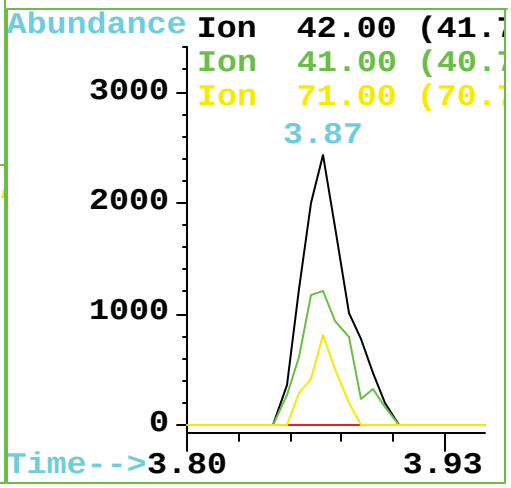




#24
Tetrahydrofuran
Concen: 2.43 ug/l
RT: 3.87 min Scan# 559
Delta R.T. 0.00 min
Lab File: 5351901.d
Acq: 17 Aug 12 3:56 pm

Tgt Ion:42 Resp: 3618

Ion	Ratio	Lower	Upper
42	100		
41	55.8	179.3	239.3#
71	21.6	14.9	74.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351902.d Vial: 11
Acq On : 17 Aug 12 4:17 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:36 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

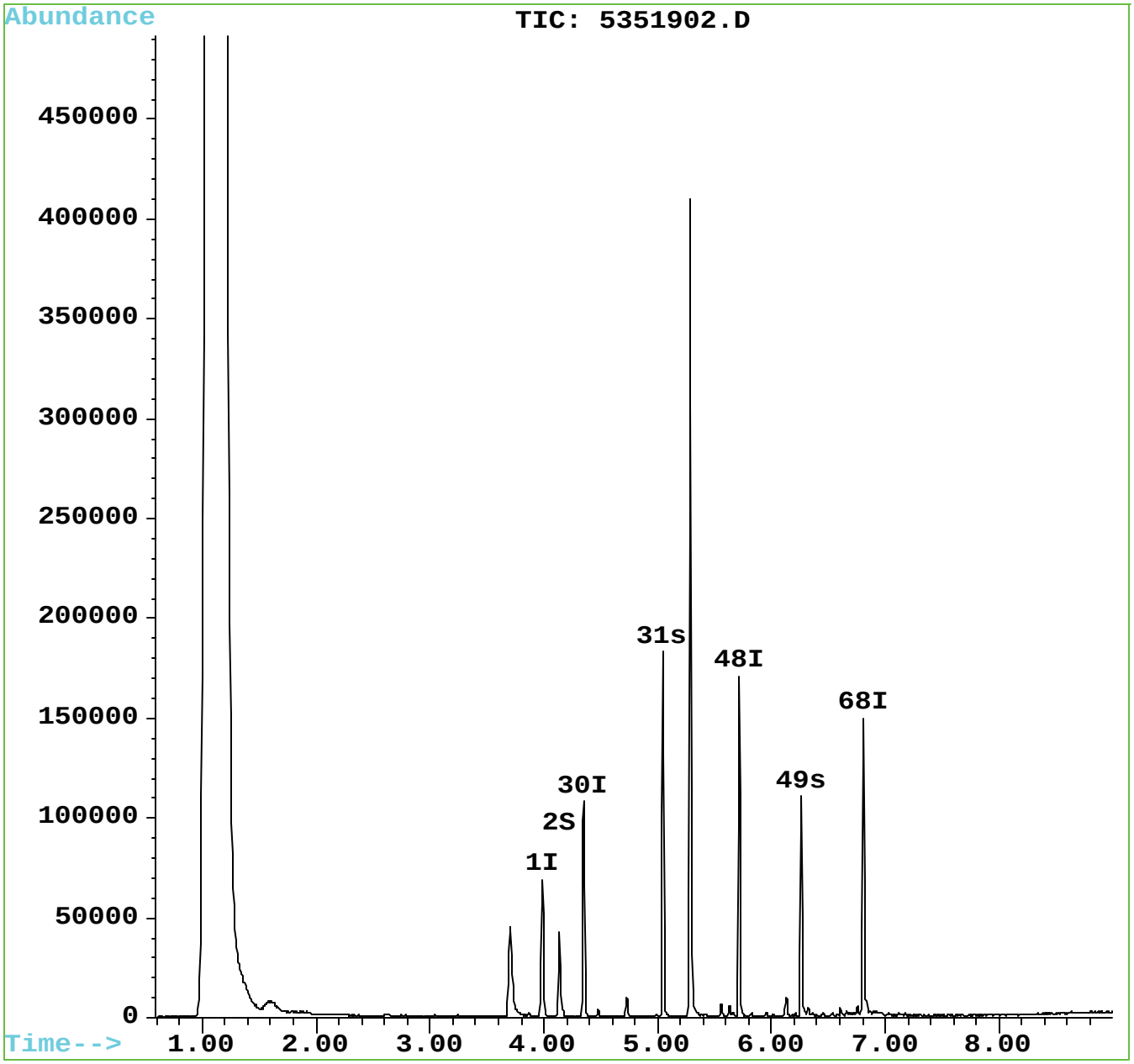
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30186	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	53757	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	28986	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23707	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	19768	4.51	ug/l	90.1
31) TOLUENE-D8 (S)	5.05	98	64505	4.85	ug/l	97.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16068	5.24	ug/l	104.7
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351902.d Vial: 11
Acq On : 17 Aug 12 4:17 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:36 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351903.d Vial: 12
Acq On : 17 Aug 12 4:37 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 9:59 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

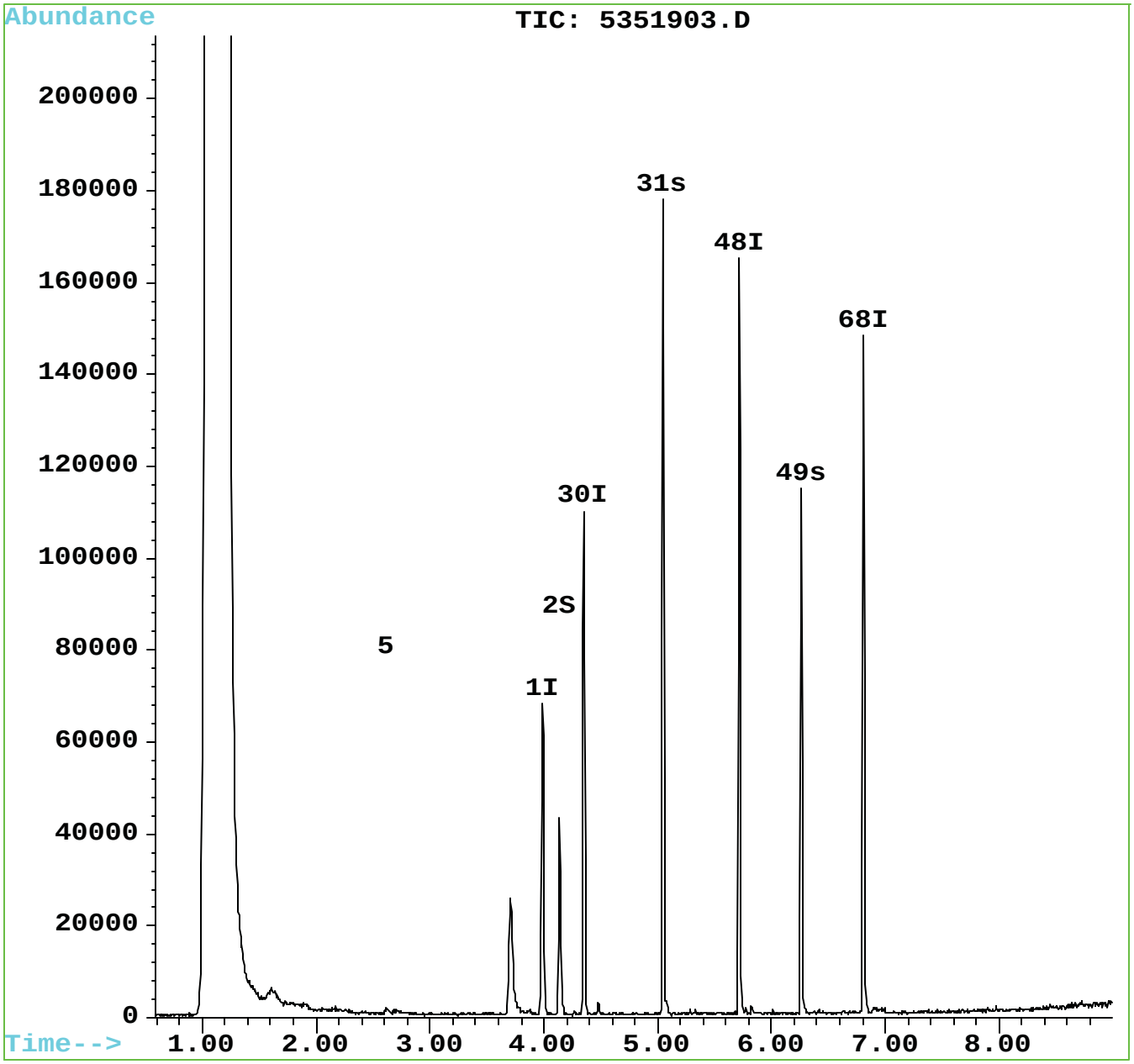
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30698	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	53390	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	28906	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22315	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19330	4.34	ug/l	86.7
31) TOLUENE-D8 (S)	5.05	98	65985	5.00	ug/l	99.9
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15793	5.16	ug/l	103.2
Target Compounds						Qvalu
5) Acetone (*)	2.63	43	1610	1.04	ug/l	5

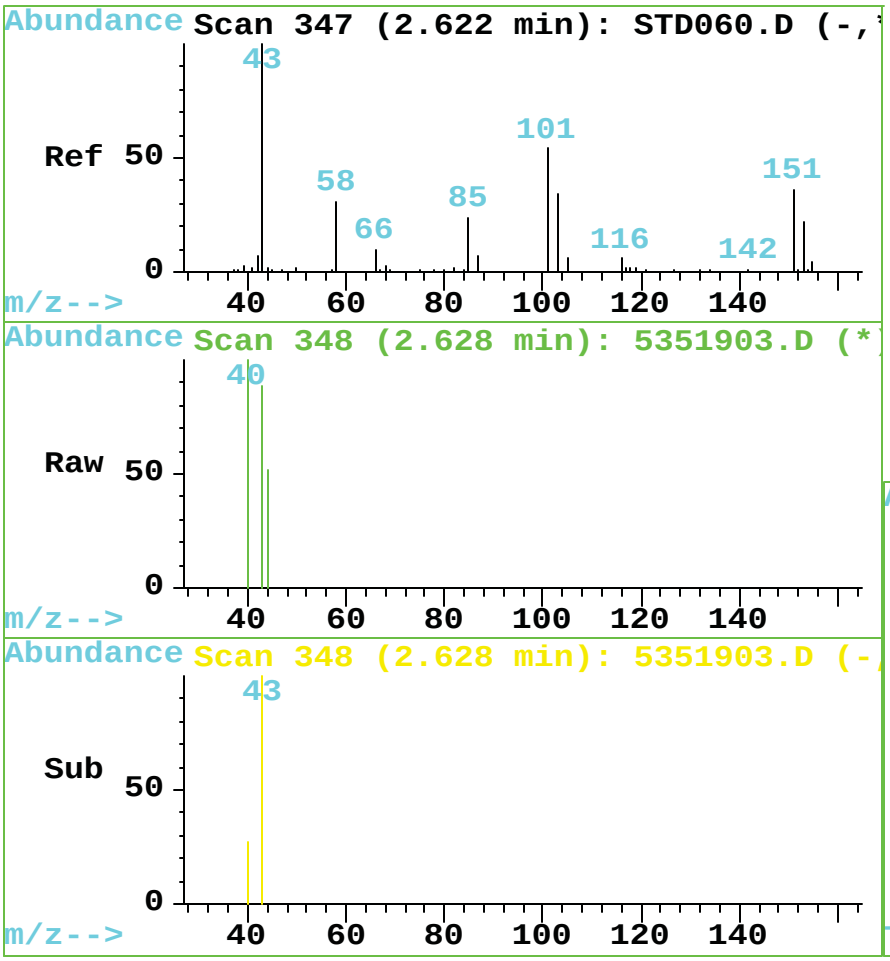
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351903.d Vial: 12
Acq On : 17 Aug 12 4:37 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 9:59 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

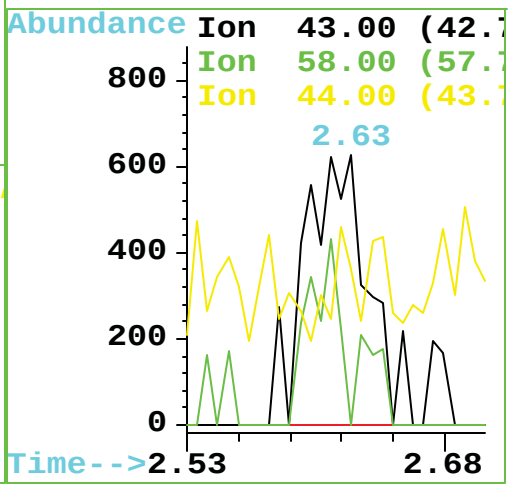




#5
Acetone (*)
Concen: 1.04 ug/l
RT: 2.63 min Scan# 348
Delta R.T. 0.02 min
Lab File: 5351903.d
Acq: 17 Aug 12 4:37 pm

Tgt Ion:43 Resp: 1610

Ion	Ratio	Lower	Upper
43	100		
58	12.0	11.0	71.0
44	14.0	0.0	33.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351904.d Vial: 13
Acq On : 17 Aug 12 4:57 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 9:59 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

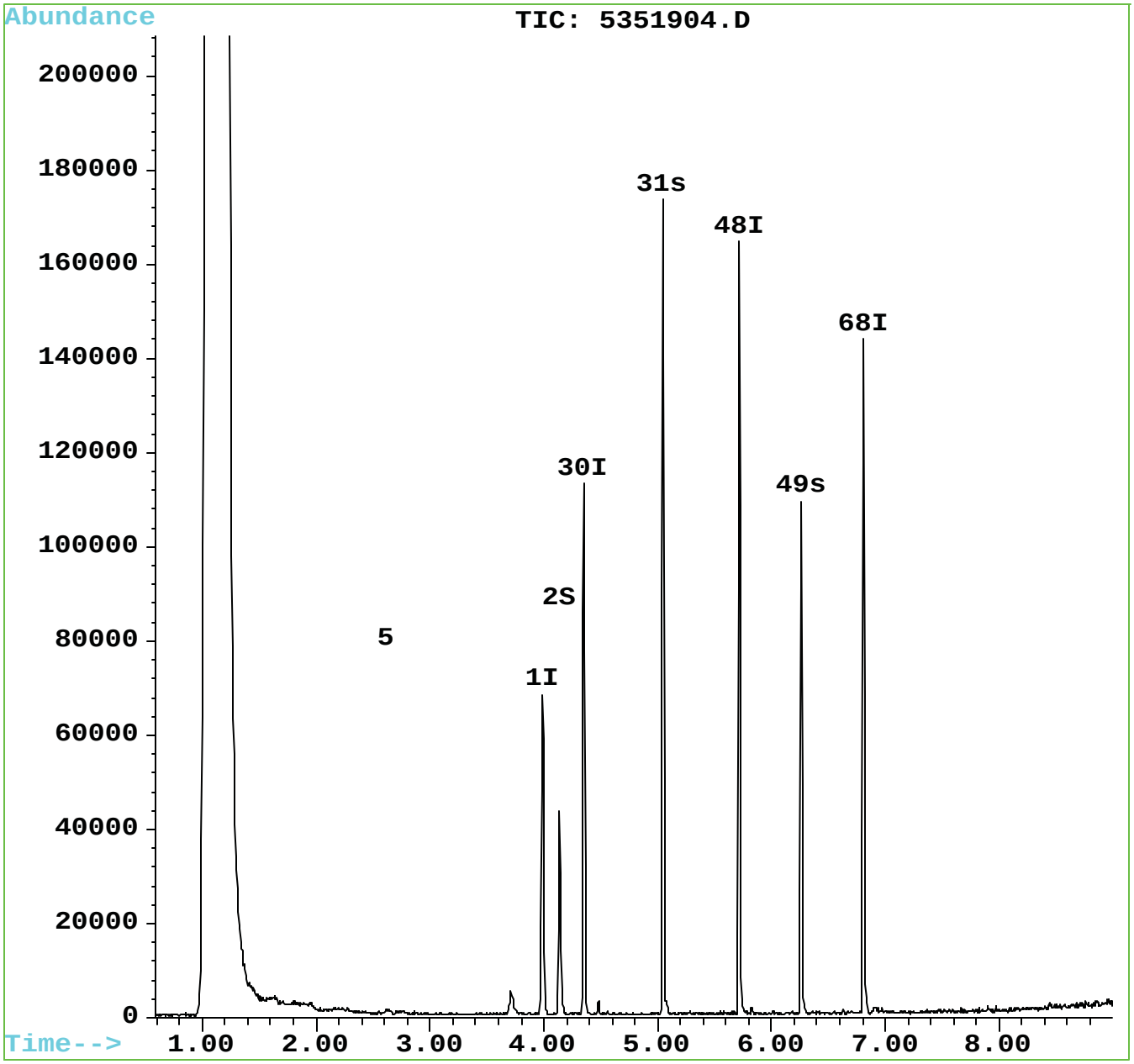
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30280	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54548	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29947	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22437	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19034	4.33	ug/l	86.5
31) TOLUENE-D8 (S)	5.05	98	64282	4.77	ug/l	95.3
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15778	4.98	ug/l	99.5
Target Compounds						Qvalu
5) Acetone (*)	2.61	43	1688	1.10	ug/l	9

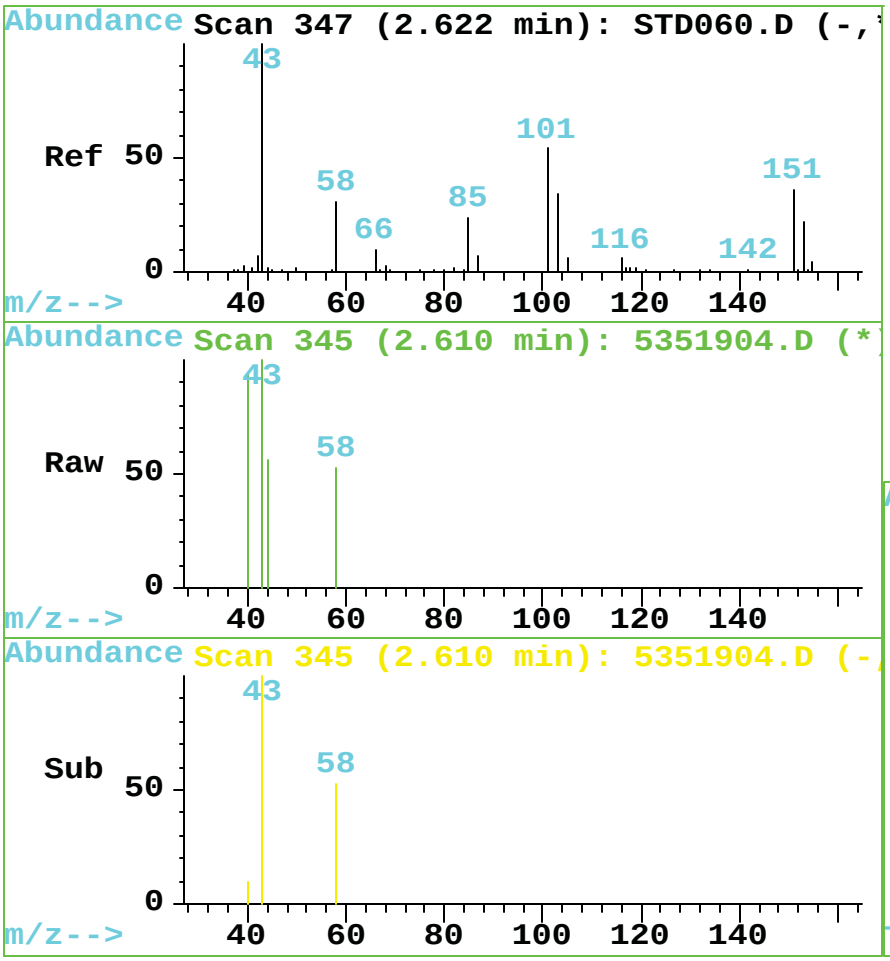
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351904.d Vial: 13
Acq On : 17 Aug 12 4:57 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 9:59 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

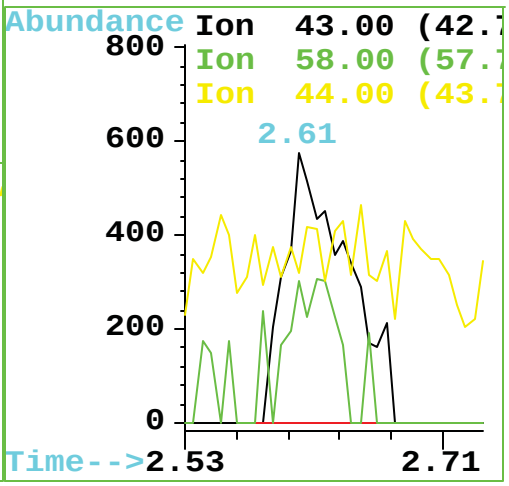




#5
Acetone (*)
Concen: 1.10 ug/l
RT: 2.61 min Scan# 345
Delta R.T. 0.00 min
Lab File: 5351904.d
Acq: 17 Aug 12 4:57 pm

Tgt Ion:43 Resp: 1688

Ion	Ratio	Lower	Upper
43	100		
58	39.6	11.0	71.0
44	4.9	0.0	33.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351905.d Vial: 14
Acq On : 17 Aug 12 5:18 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 9:59 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

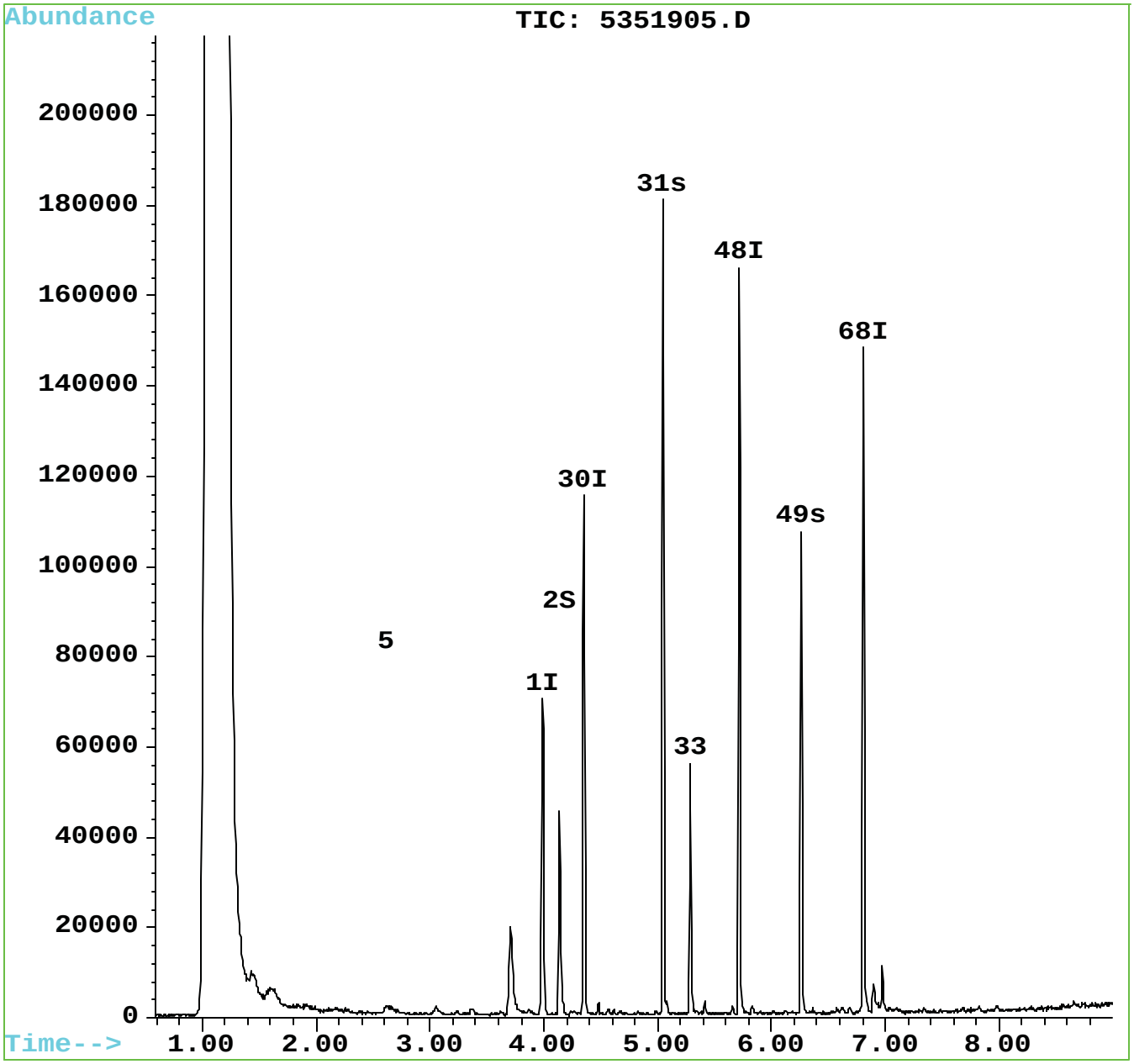
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31060	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	52630	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	28202	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	24008	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19871	4.40	ug/l	88.0
31) TOLUENE-D8 (S)	5.05	98	65160	5.01	ug/l	100.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15597	5.23	ug/l	104.5
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	3481	2.22	ug/l	8
33) 2-Hexanone (*)	5.29	58	7775	5.30	ug/l #	

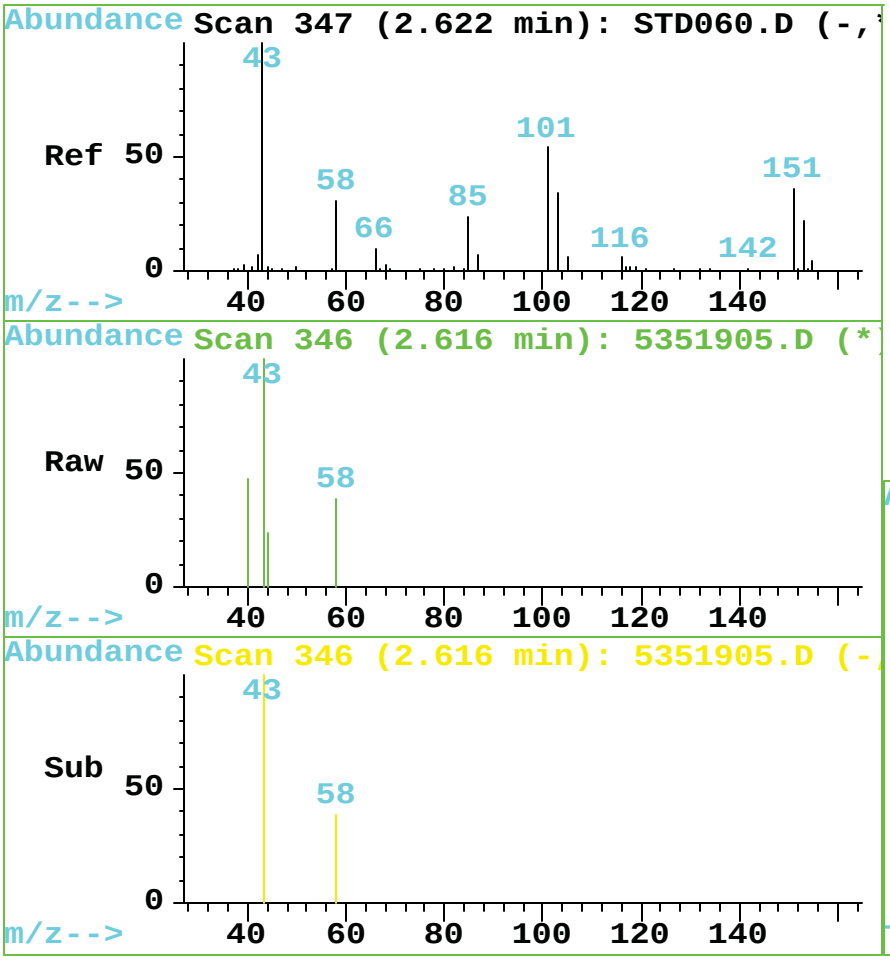
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351905.d Vial: 14
Acq On : 17 Aug 12 5:18 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 9:59 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

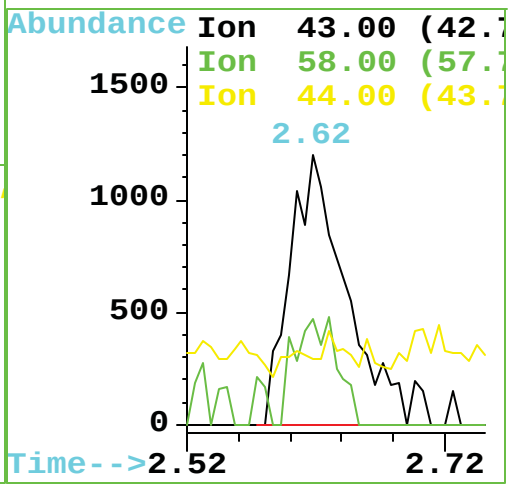


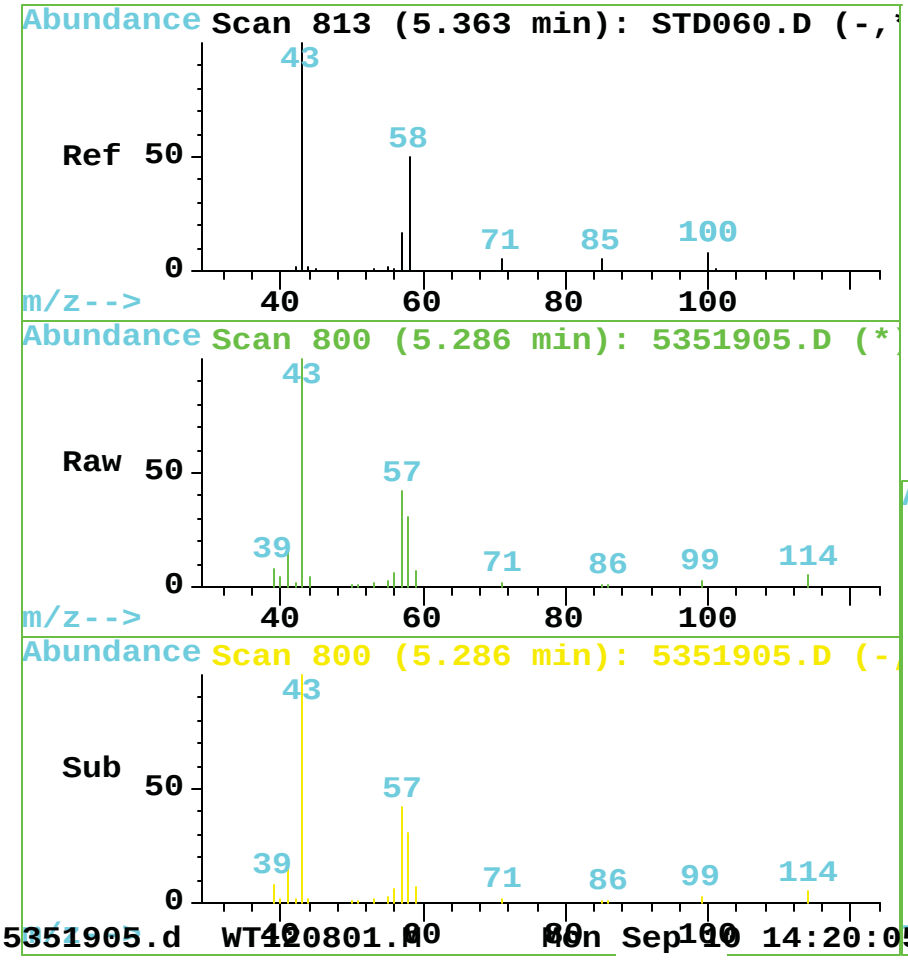


#5
Acetone (*)
Concen: 2.22 ug/l
RT: 2.62 min Scan# 346
Delta R.T. 0.01 min
Lab File: 5351905.d
Acq: 17 Aug 12 5:18 pm

Tgt Ion:43 Resp: 3481

Ion	Ratio	Lower	Upper
43	100		
58	30.7	11.0	71.0
44	4.3	0.0	33.9
0	0.0	0.0	0.0

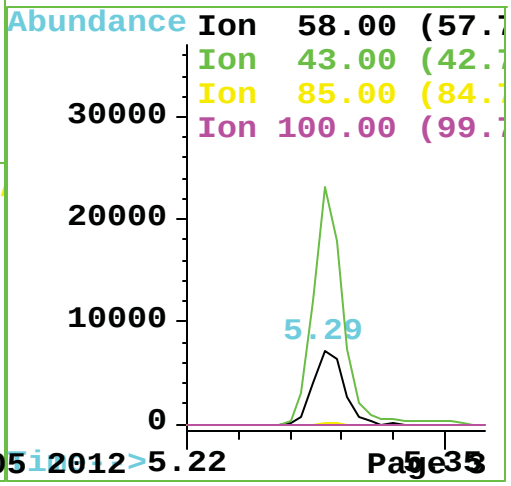




#33
2-Hexanone (*)
Concen: 5.30 ug/l
RT: 5.29 min Scan# 800
Delta R.T. -0.08 min
Lab File: 5351905.d
Acq: 17 Aug 12 5:18 pm

Tgt Ion:58 Resp: 7775

Ion	Ratio	Lower	Upper
58	100		
43	308.1	120.9	180.9#
85	1.5	0.0	48.4
100	0.0	0.5	60.5#



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351906.d Vial: 15
Acq On : 17 Aug 12 5:38 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:00 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

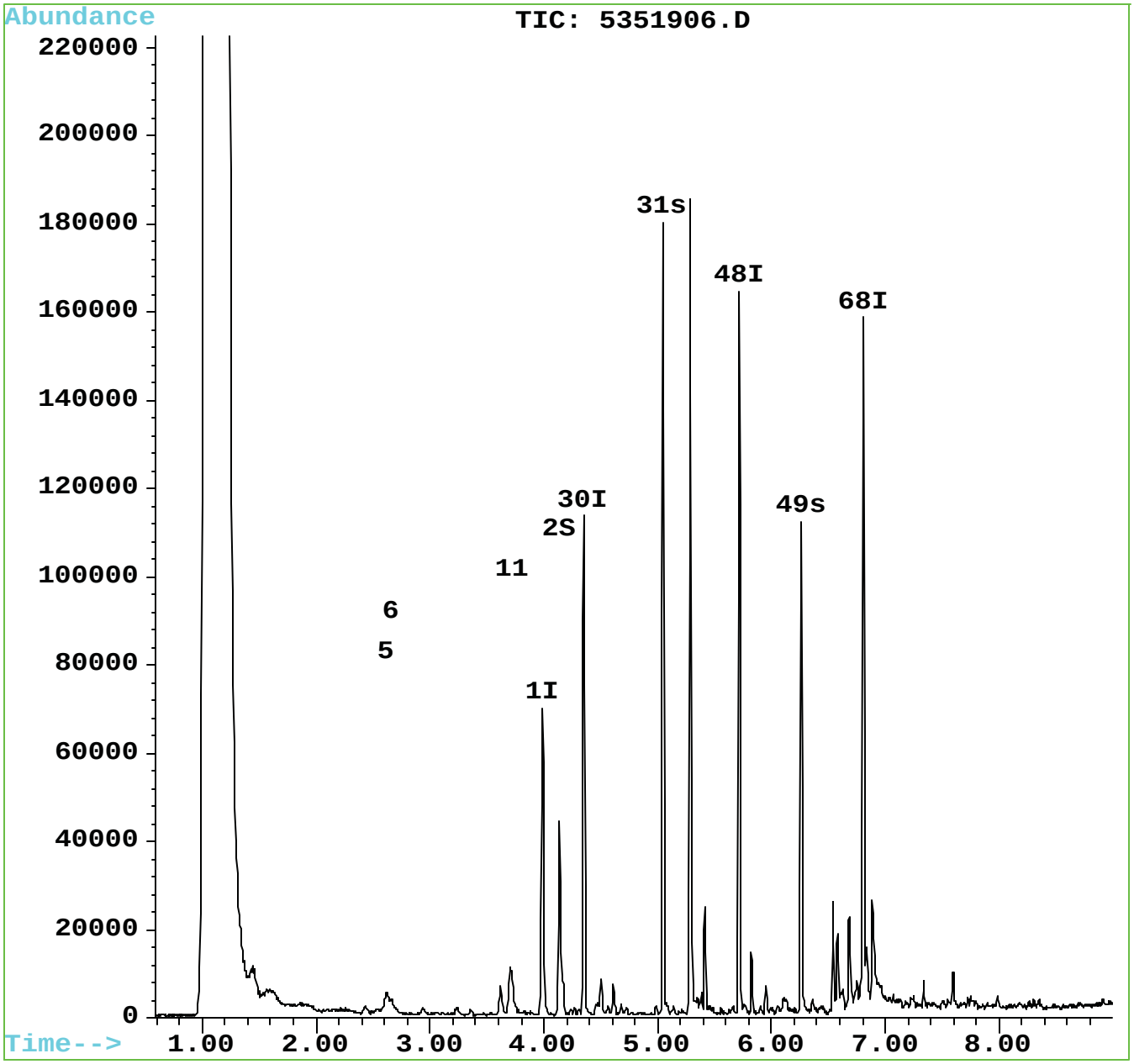
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30537	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	53219	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29230	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22703	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	20439	4.61	ug/l	92.1
31) TOLUENE-D8 (S)	5.05	98	64190	4.88	ug/l	97.5
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15949	5.16	ug/l	103.1
Target Compounds						Qvalu
5) Acetone (*)	2.61	43	9880	6.40	ug/l	9
6) Methyl iodide (iodomethane	2.66	142	4108	1.03	ug/l	8
11) 2-Butanone (MEK) (*)	3.73	43	2488	1.09	ug/l #	6

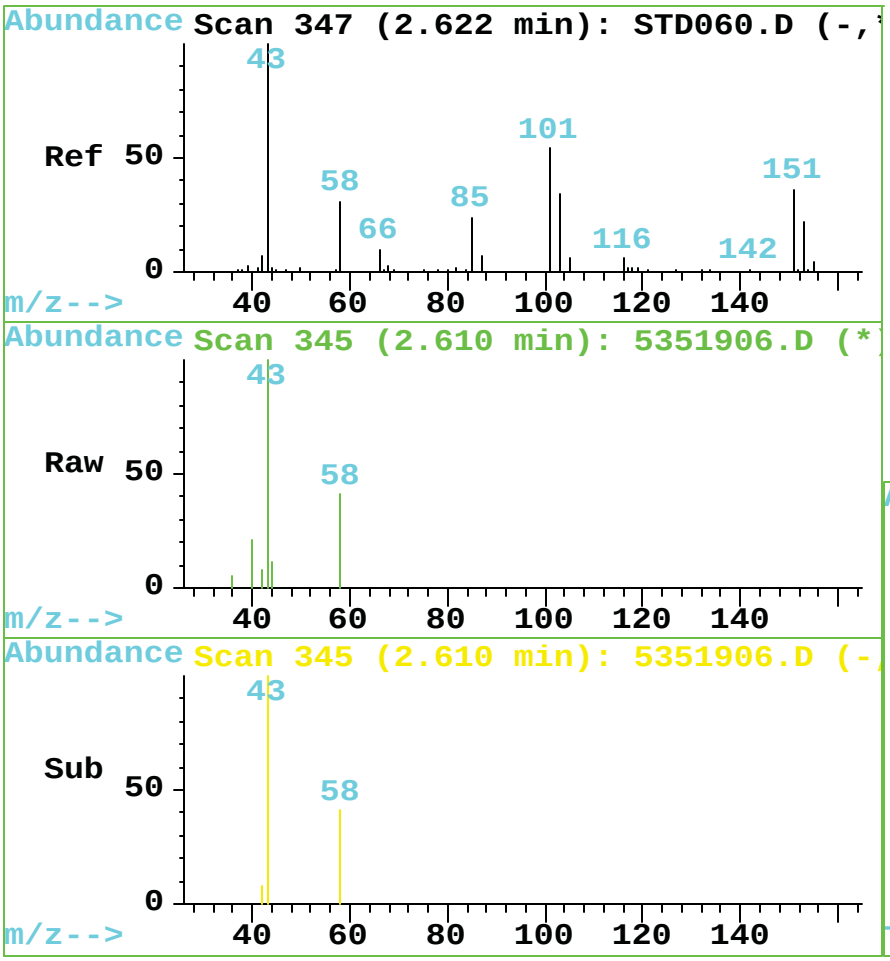
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351906.d Vial: 15
Acq On : 17 Aug 12 5:38 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:00 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

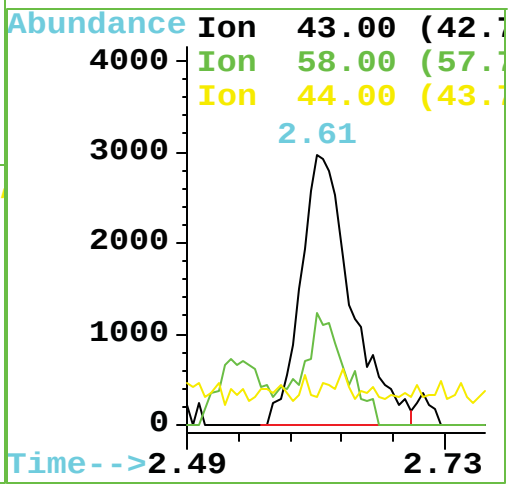


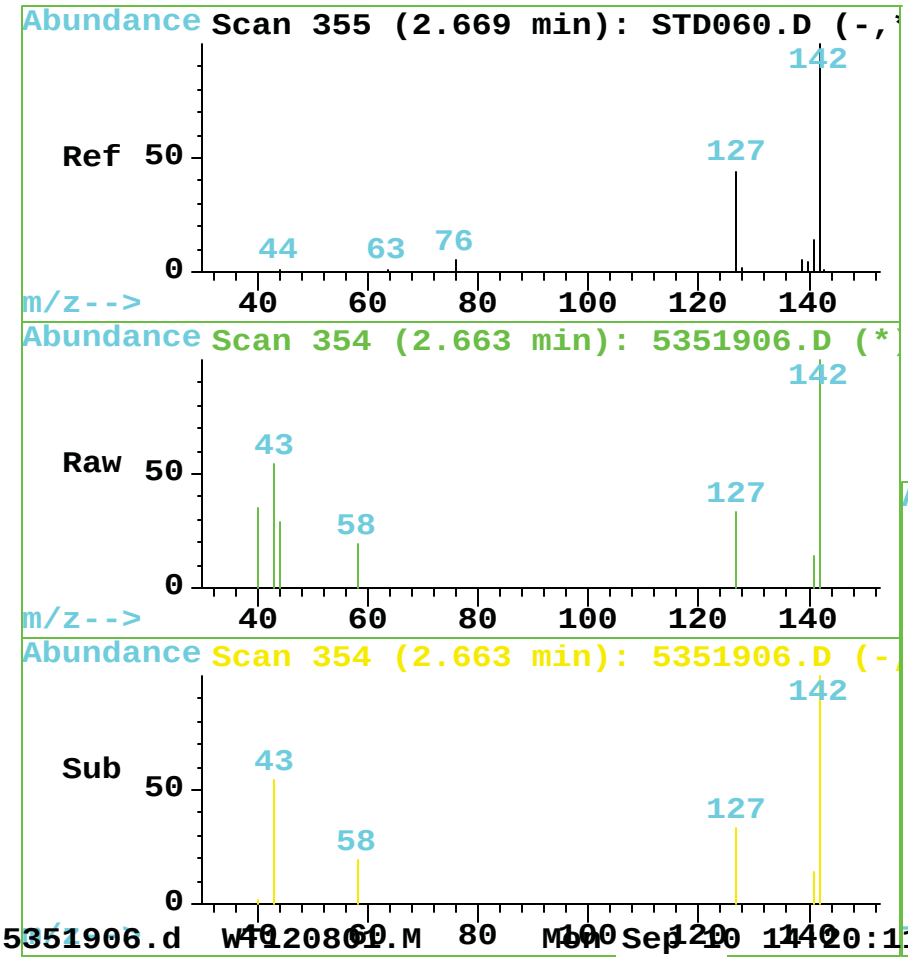


#5
Acetone (*)
Concen: 6.40 ug/l
RT: 2.61 min Scan# 345
Delta R.T. 0.00 min
Lab File: 5351906.d
Acq: 17 Aug 12 5:38 pm

Tgt Ion:43 Resp: 9880

Ion	Ratio	Lower	Upper
43	100		
58	35.9	11.0	71.0
44	1.6	0.0	33.9
0	0.0	0.0	0.0

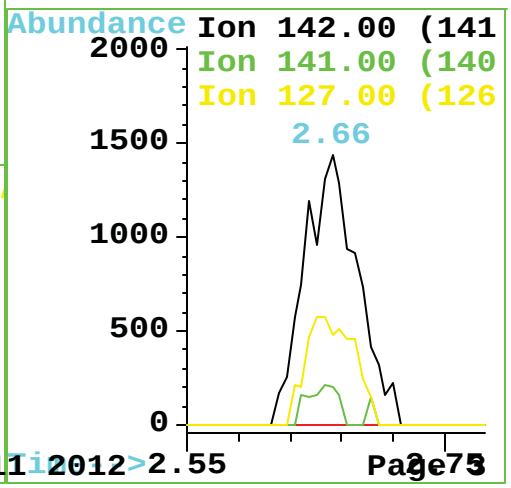


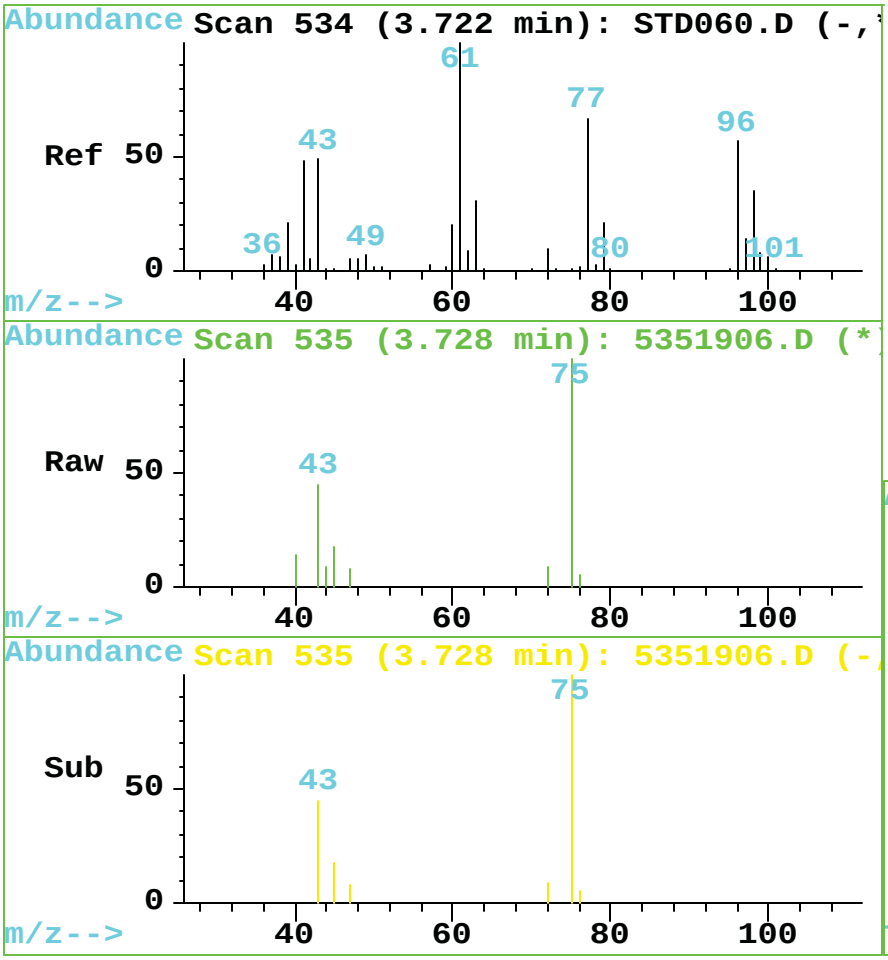


#6
Methyl iodide (iodomethane
Concen: 1.03 ug/l
RT: 2.66 min Scan# 354
Delta R.T. -0.01 min
Lab File: 5351906.d
Acq: 17 Aug 12 5:38 pm

Tgt Ion:142 Resp: 4108

Ion	Ratio	Lower	Upper
142	100		
141	9.0	0.0	43.6
127	37.0	0.0	59.1
0	0.0	0.0	0.0

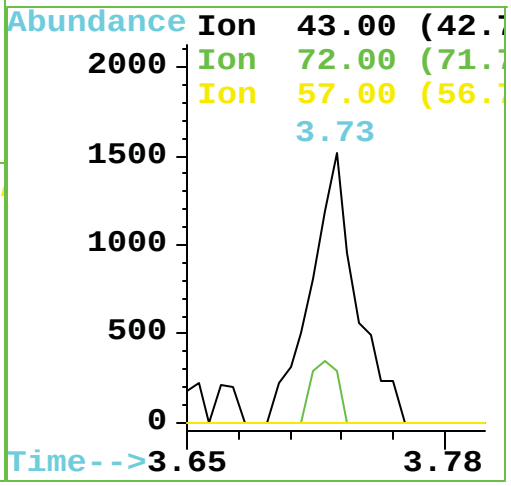




#11
2-Butanone (MEK) (*)
Concen: 1.09 ug/l
RT: 3.73 min Scan# 535
Delta R.T. 0.00 min
Lab File: 5351906.d
Acq: 17 Aug 12 5:38 pm

Tgt Ion:43 Resp: 2488

Ion	Ratio	Lower	Upper
43	100		
72	13.3	6.4	66.4
57	0.0	0.0	37.8
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351907.d Vial: 16
Acq On : 17 Aug 12 5:59 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:00 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

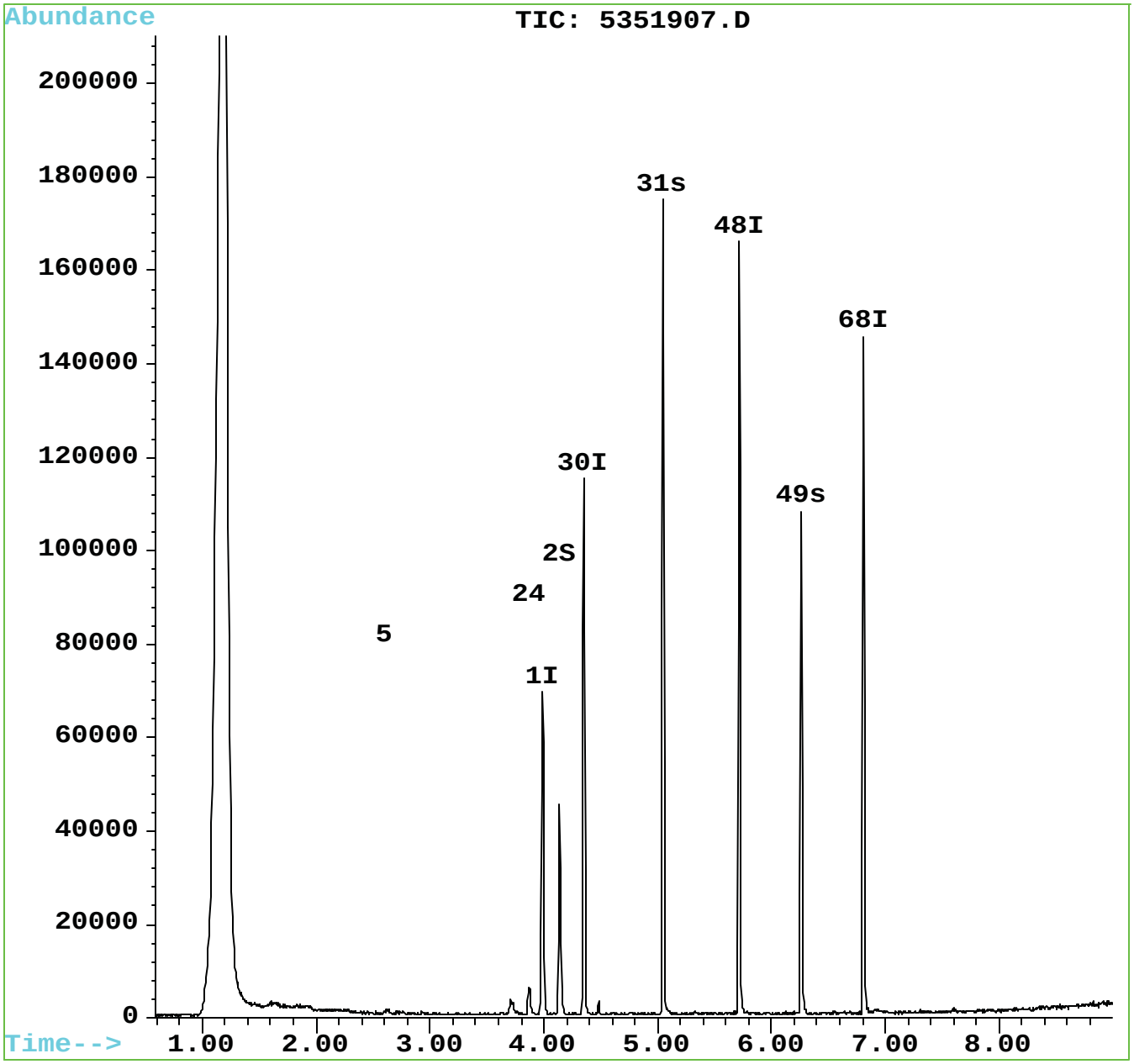
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	29862	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	53820	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	28570	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22834	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19358	4.46	ug/l	89.2
31) TOLUENE-D8 (S)	5.05	98	65076	4.89	ug/l	97.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16331	5.40	ug/l	108.0
Target Compounds						Qvalu
5) Acetone (*)	2.61	43	1645	1.09	ug/l	9
24) Tetrahydrofuran	3.87	42	3549	2.49	ug/l #	1

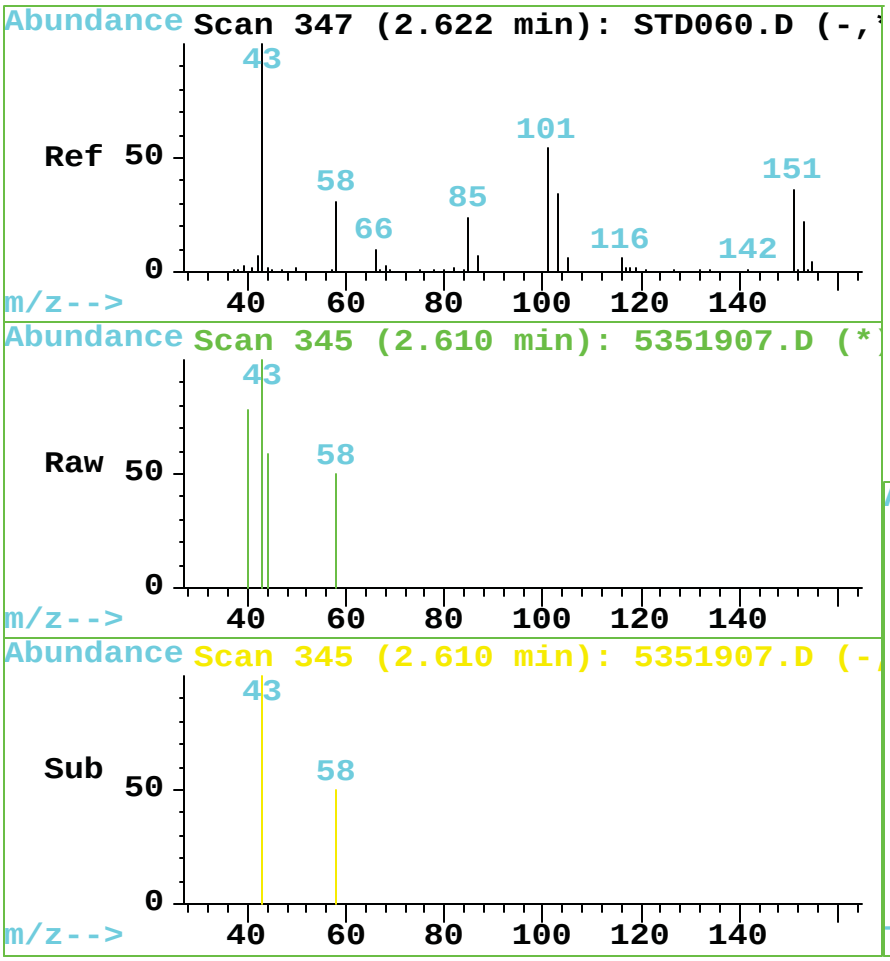
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351907.d Vial: 16
Acq On : 17 Aug 12 5:59 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:00 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

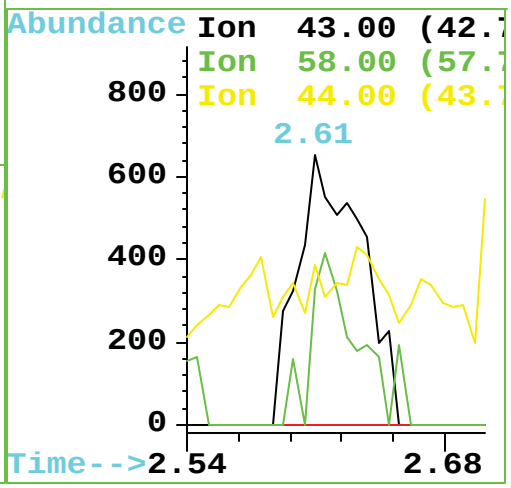


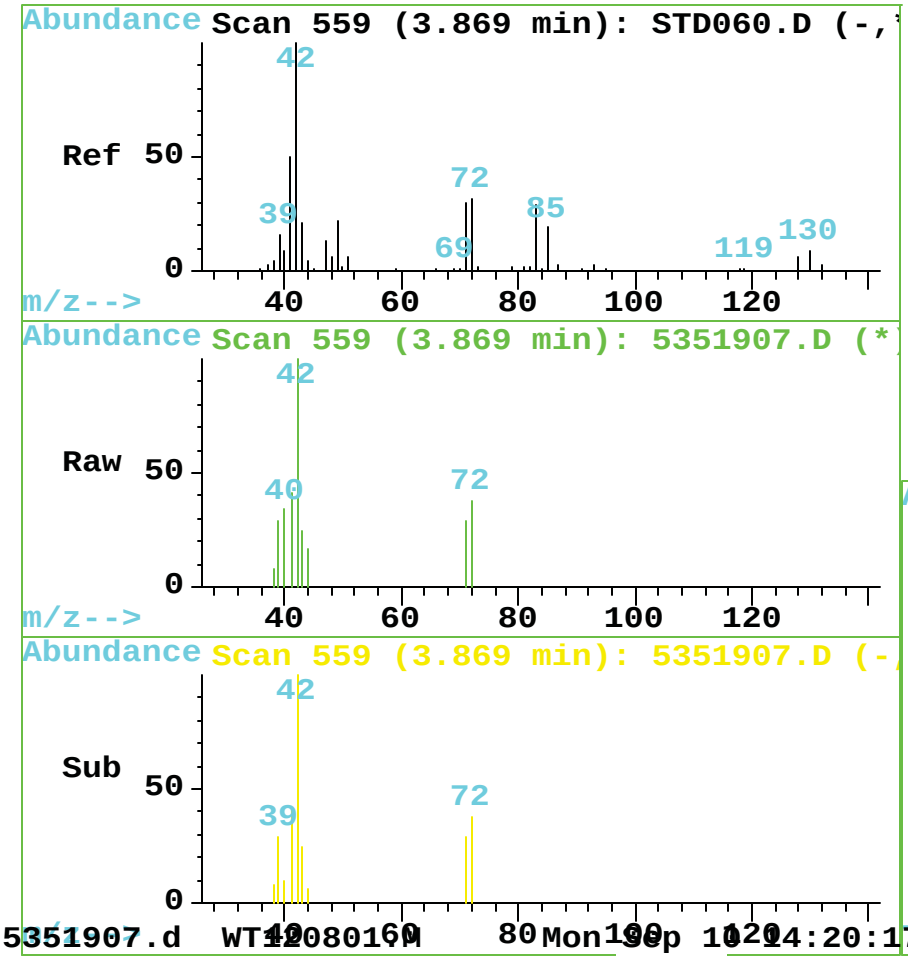


#5
Acetone (*)
Concen: 1.09 ug/l
RT: 2.61 min Scan# 345
Delta R.T. 0.00 min
Lab File: 5351907.d
Acq: 17 Aug 12 5:59 pm

Tgt Ion:43 Resp: 1645

Ion	Ratio	Lower	Upper
43	100		
58	42.3	11.0	71.0
44	3.3	0.0	33.9
0	0.0	0.0	0.0

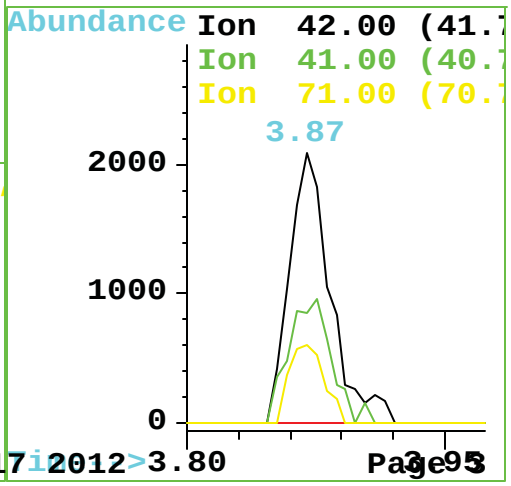




#24
Tetrahydrofuran
Concen: 2.49 ug/l
RT: 3.87 min Scan# 559
Delta R.T. 0.00 min
Lab File: 5351907.d
Acq: 17 Aug 12 5:59 pm

Tgt Ion:42 Resp: 3549

Ion	Ratio	Lower	Upper
42	100		
41	48.7	179.3	239.3#
71	24.9	14.9	74.9
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351908.d Vial: 17
Acq On : 17 Aug 12 6:19 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:00 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

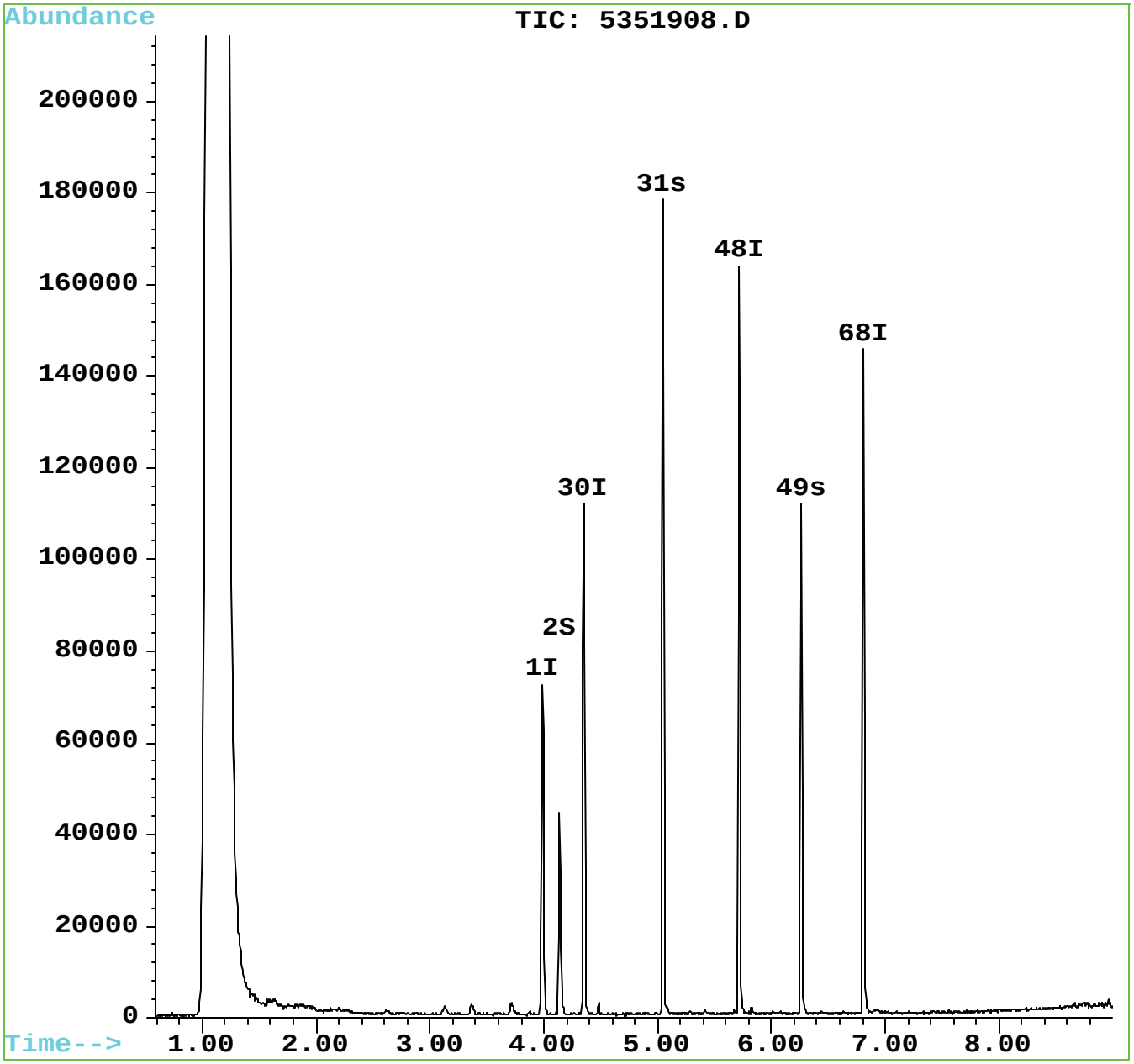
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30752	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	52540	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29226	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22914	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19492	4.36	ug/l	87.2
31) TOLUENE-D8 (S)	5.05	98	65513	5.04	ug/l	100.8
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16177	5.23	ug/l	104.6
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351908.d Vial: 17
Acq On : 17 Aug 12 6:19 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:00 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351909.d Vial: 18
Acq On : 17 Aug 12 6:40 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:58 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

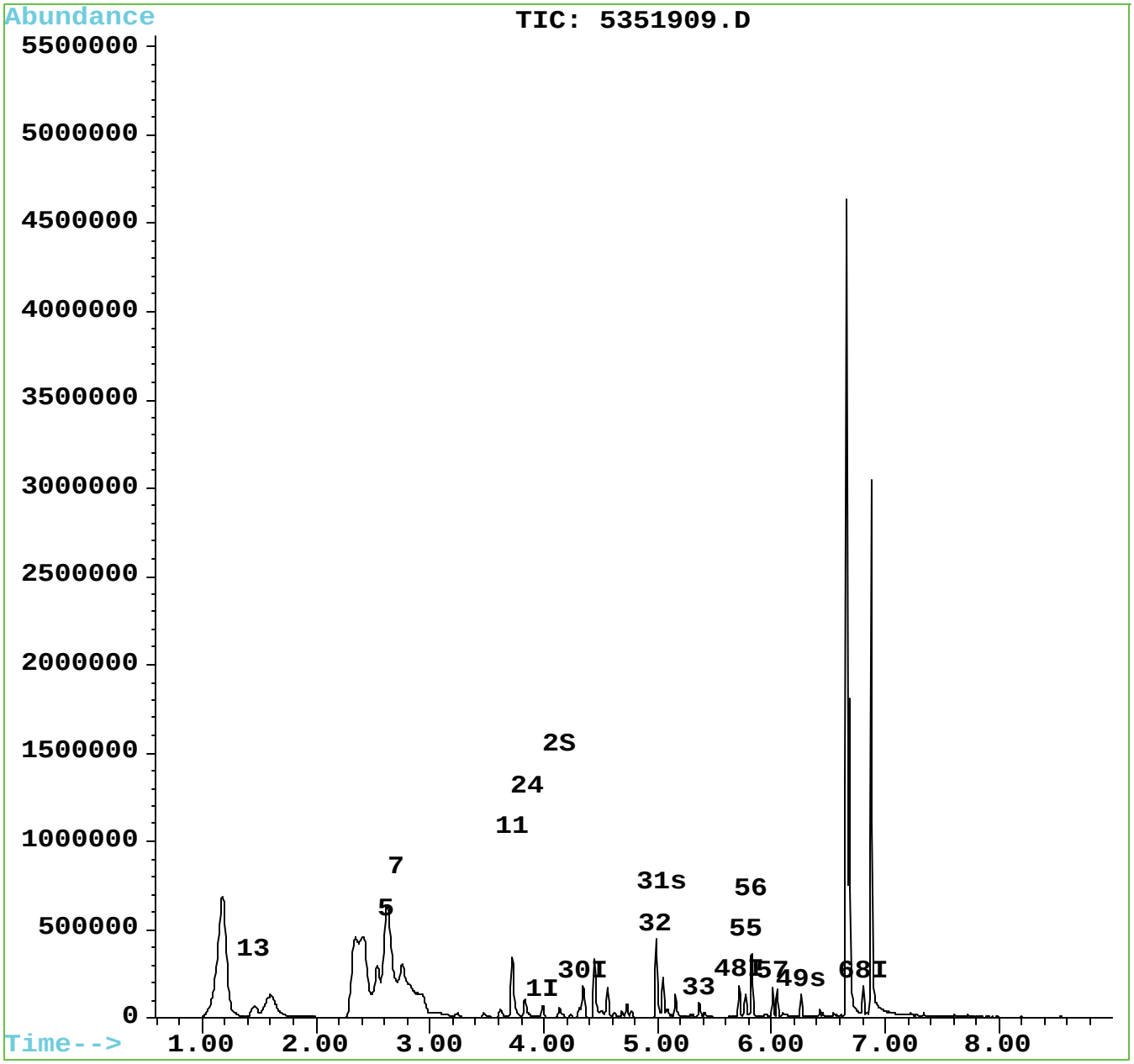
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31608	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	56147	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29434	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23372	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19827	4.32	ug/l	86.3
31) TOLUENE-D8 (S)	5.05	98	67455	4.86	ug/l	97.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16446	5.28	ug/l	105.6
Target Compounds						Qvalu
5) Acetone (*)	2.62	43	1387296	868.83	ug/l	8
7) Carbon disulfide (*)	2.71	76	52781	4.90	ug/l	9
11) 2-Butanone (MEK) (*)	3.72	43	419894	178.38	ug/l	7
13) Chloromethane (SPCC)	1.45	50	7378	1.40	ug/l	7
24) Tetrahydrofuran	3.87	42	2424	1.61	ug/l #	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	69833	51.76	ug/l #	7
33) 2-Hexanone (*)	5.36	58	18504	11.81	ug/l #	6
55) Ethylbenzene (CCC)	5.77	91	43568	2.75	ug/l	9
56) p,m-Xylene	5.82	106	56816	9.70	ug/l	8
57) o-Xylene	6.02	91	55632	4.39	ug/l	8

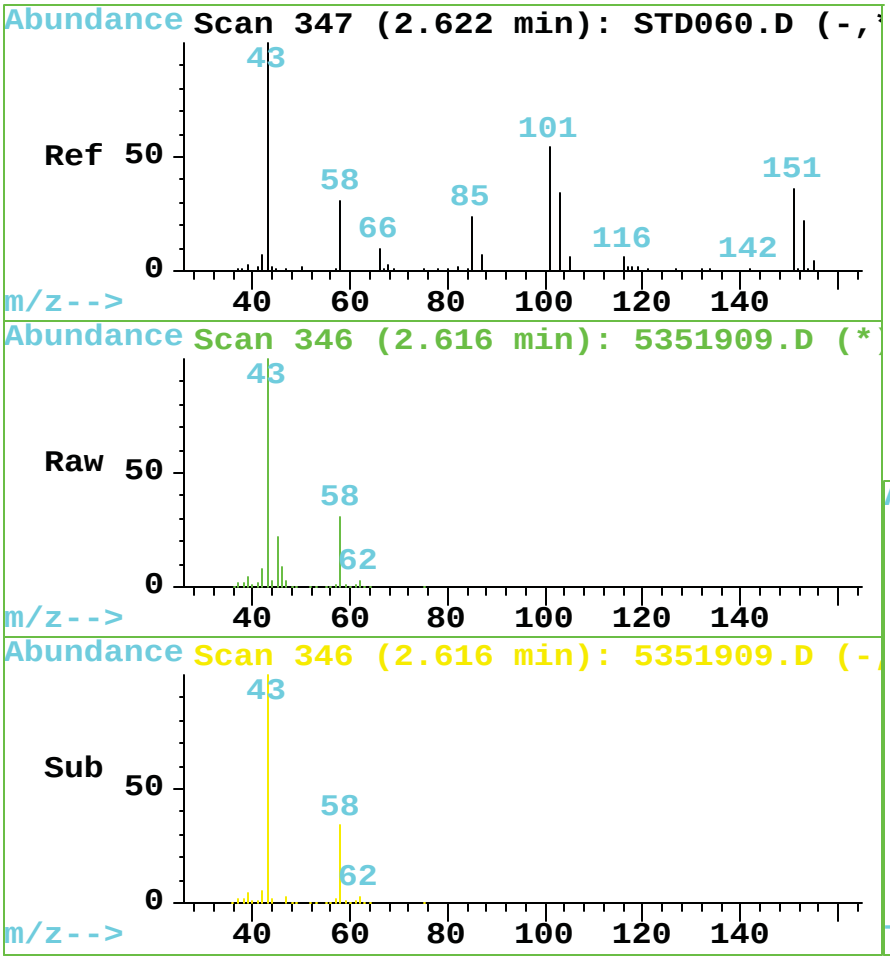
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\5351909.d Vial: 18
Acq On : 17 Aug 12 6:40 pm Operator: lbr
Sample : 5ml 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:58 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

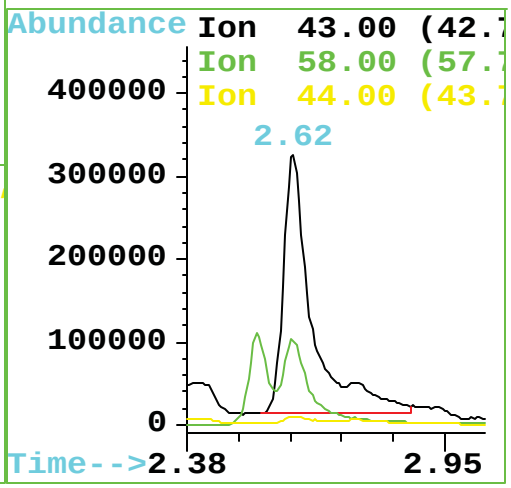


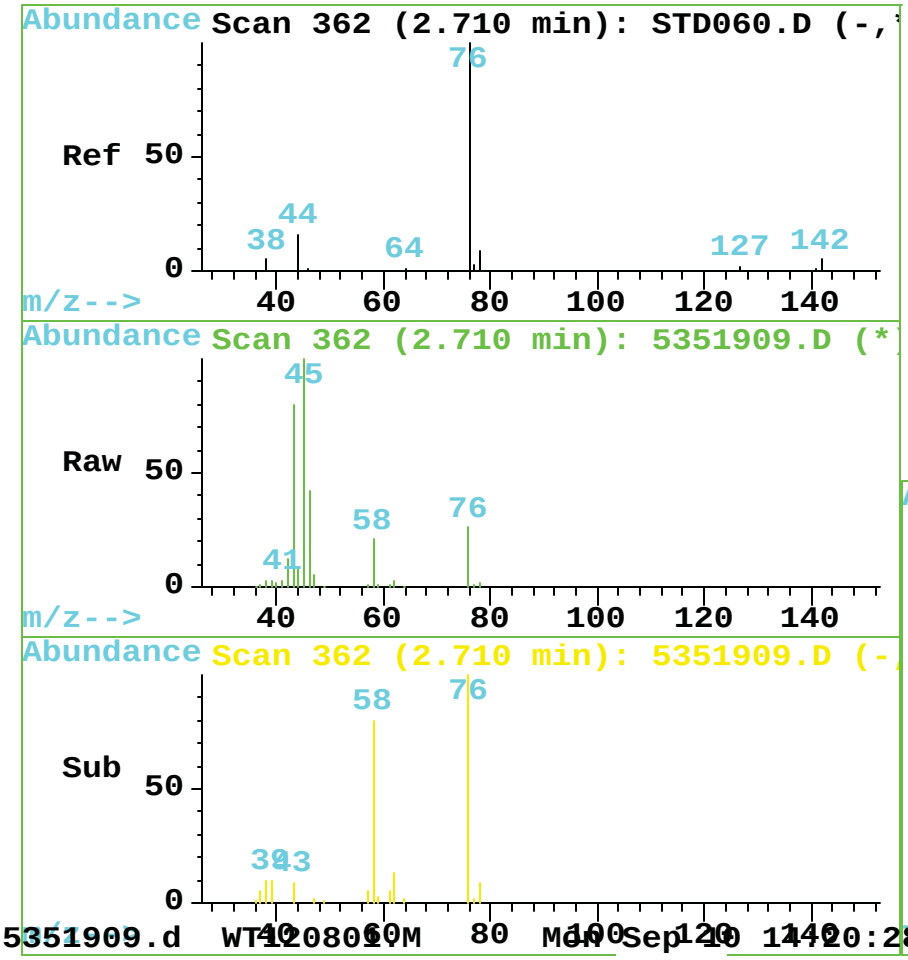


#5
Acetone (*)
Concen: 868.83 ug/l
RT: 2.62 min Scan# 346
Delta R.T. 0.01 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:43 Resp: 1387296

Ion	Ratio	Lower	Upper
43	100		
58	29.8	11.0	71.0
44	2.3	0.0	33.9
0	0.0	0.0	0.0

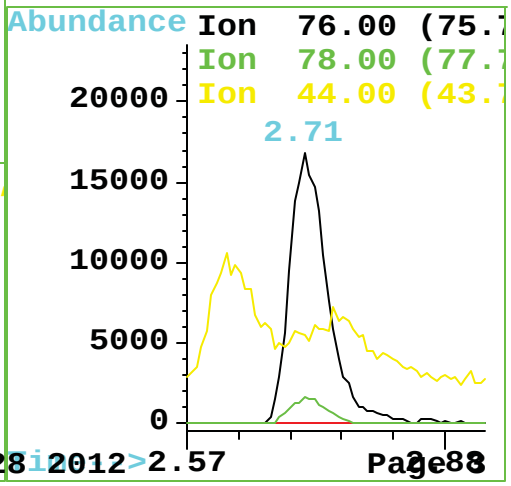


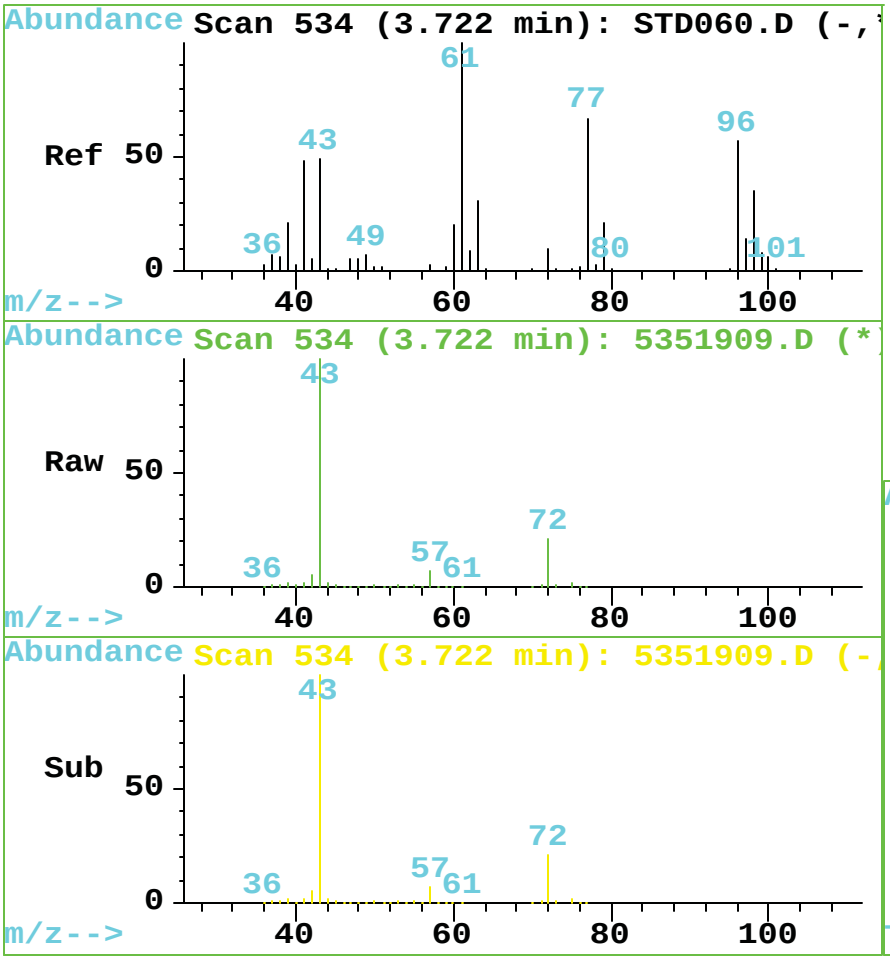


#7
Carbon disulfide (*)
Concen: 4.90 ug/l
RT: 2.71 min Scan# 362
Delta R.T. -0.01 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:76 Resp: 52781

Ion	Ratio	Lower	Upper
76	100		
78	8.8	0.0	39.2
44	10.1	0.0	37.7
0	0.0	0.0	0.0

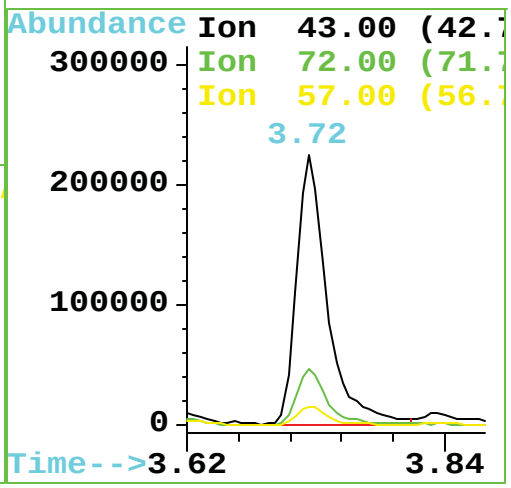


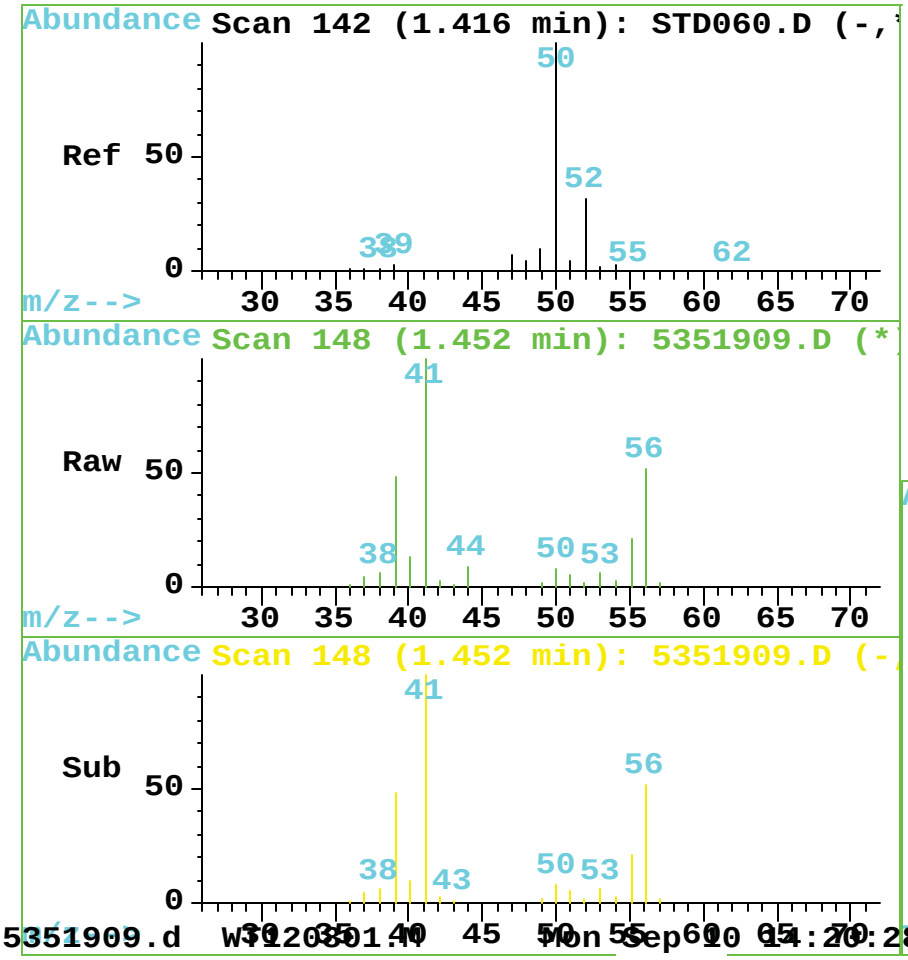


#11
2-Butanone (MEK) (*)
Concen: 178.38 ug/l
RT: 3.72 min Scan# 534
Delta R.T. -0.01 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:43 Resp: 419894

Ion	Ratio	Lower	Upper
43	100		
72	20.9	6.4	66.4
57	6.9	0.0	37.8
0	0.0	0.0	0.0

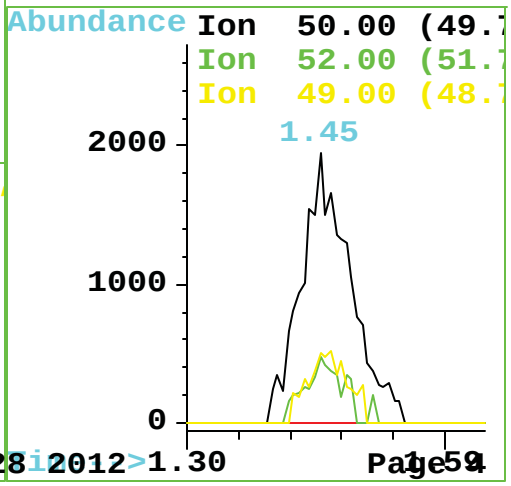


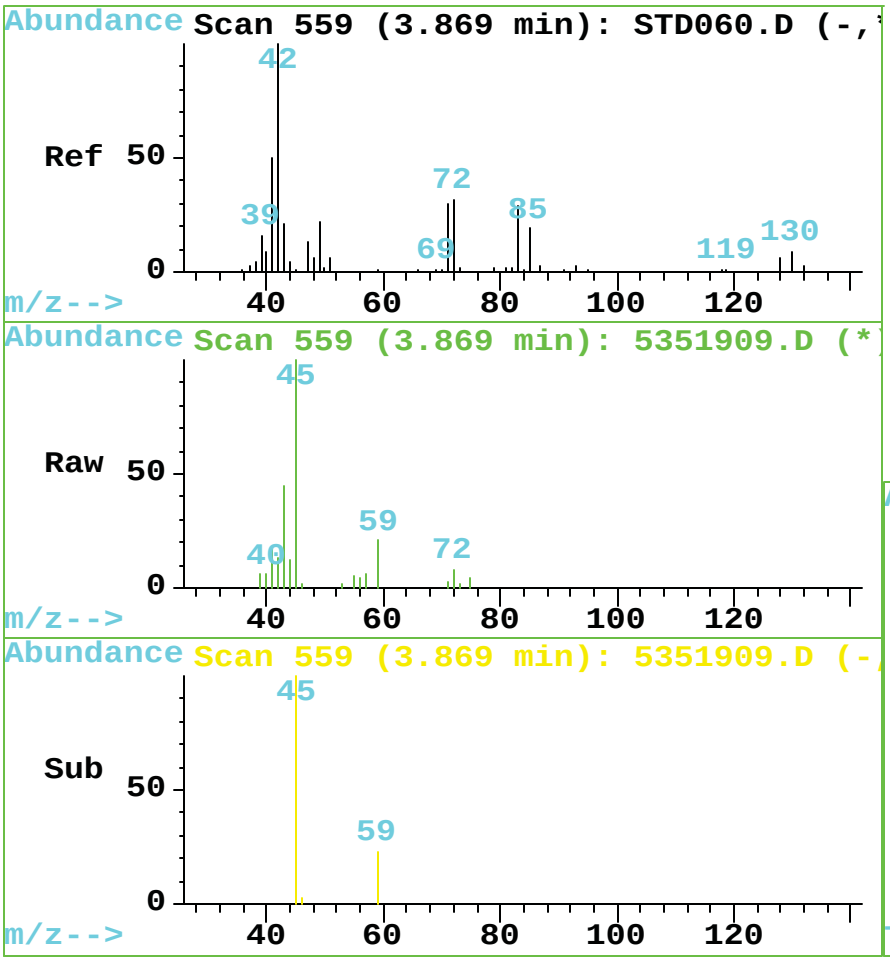


#13
Chloromethane (SPCC)
Concen: 1.40 ug/l
RT: 1.45 min Scan# 148
Delta R.T. 0.02 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:50 Resp: 7378

Ion	Ratio	Lower	Upper
50	100		
52	18.7	1.7	61.7
49	22.1	0.0	38.9
0	0.0	0.0	0.0

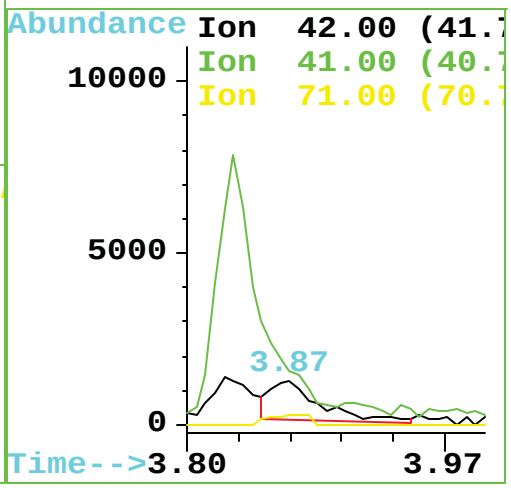


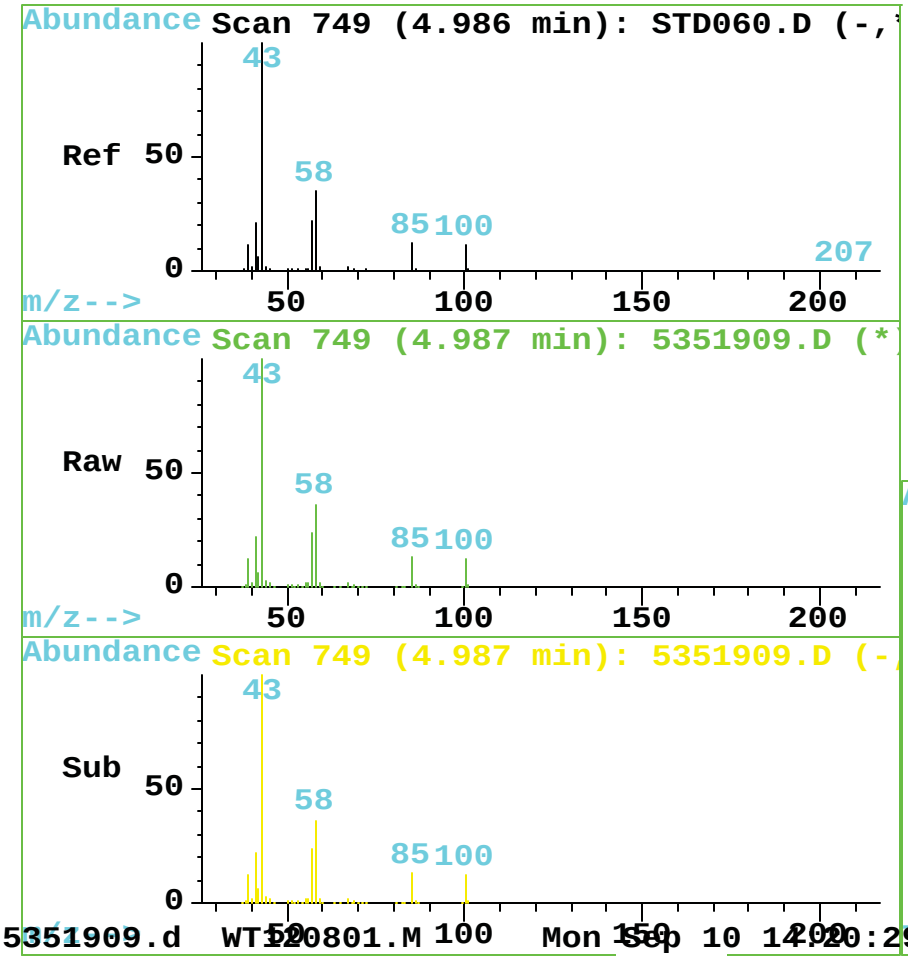


#24
Tetrahydrofuran
Concen: 1.61 ug/l
RT: 3.87 min Scan# 559
Delta R.T. 0.00 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:42 Resp: 2424

Ion	Ratio	Lower	Upper
42	100		
41	22.4	179.3	239.3#
71	21.3	14.9	74.9
0	0.0	0.0	0.0

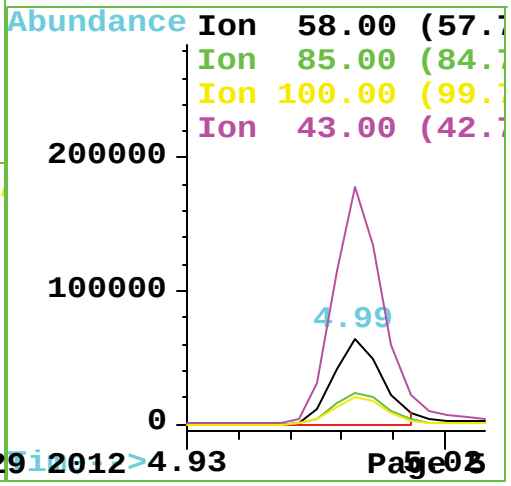


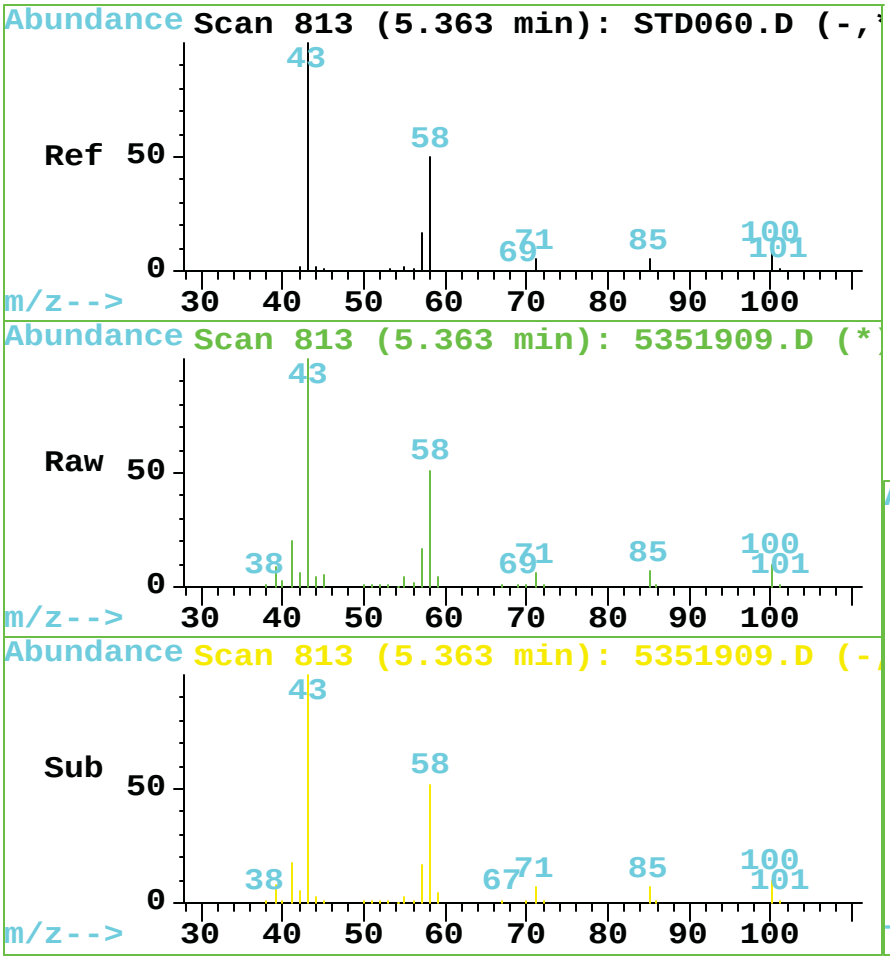


#32
4-Methyl-2-pentanone (MIBK
Concen: 51.76 ug/l
RT: 4.99 min Scan# 749
Delta R.T. 0.00 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:58 Resp: 69833

Ion	Ratio	Lower	Upper
58	100		
85	38.0	21.9	81.9
100	33.1	27.6	87.6
43	274.1	199.0	259.0#

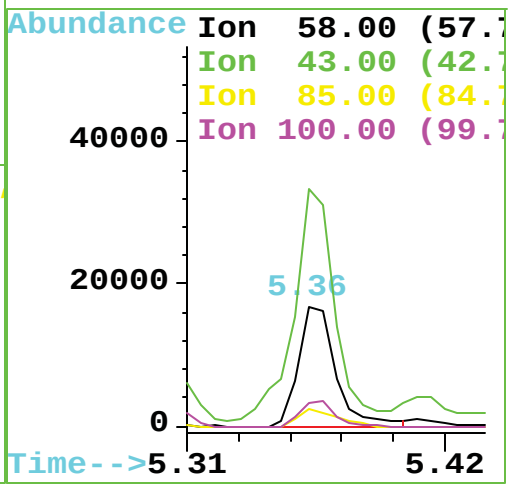


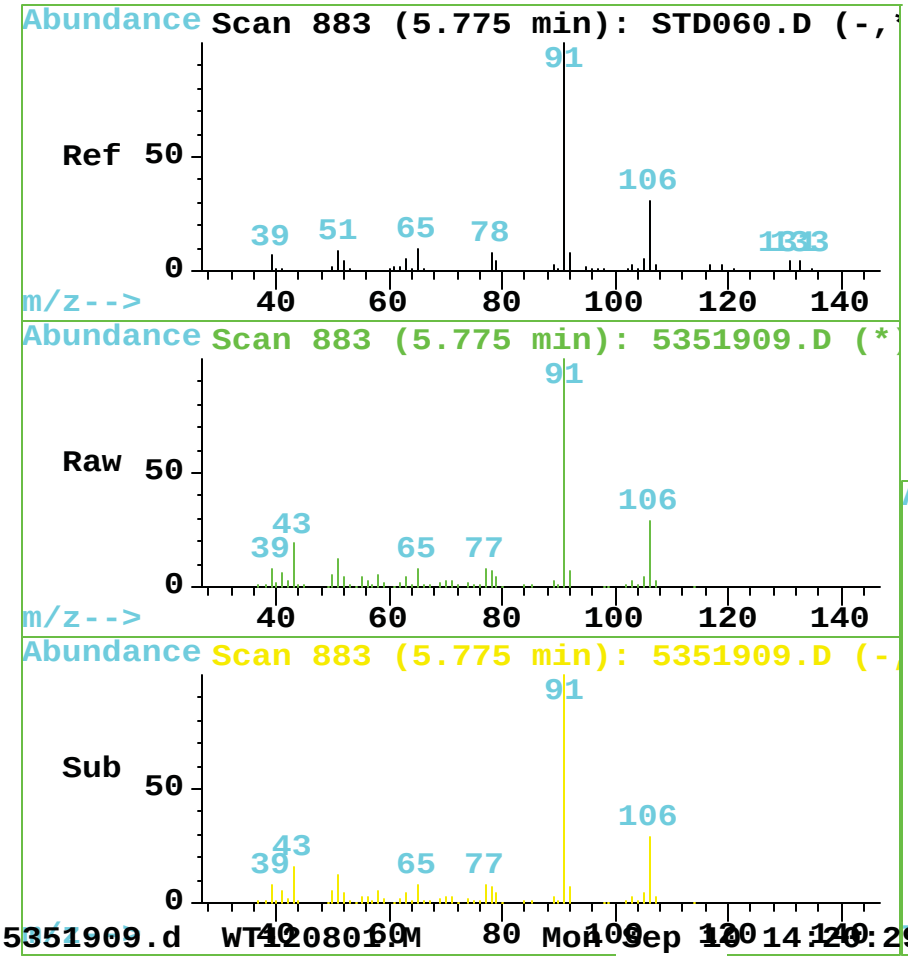


#33
2-Hexanone (*)
Concen: 11.81 ug/l
RT: 5.36 min Scan# 813
Delta R.T. -0.00 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:58 Resp: 18504

Ion	Ratio	Lower	Upper
58	100		
43	212.3	120.9	180.9#
85	14.5	0.0	48.4
100	19.0	0.5	60.5

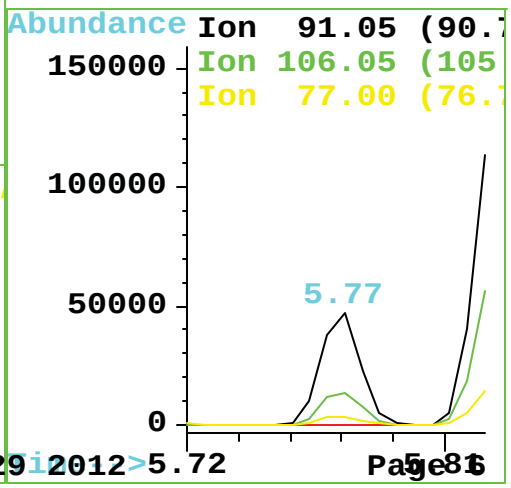


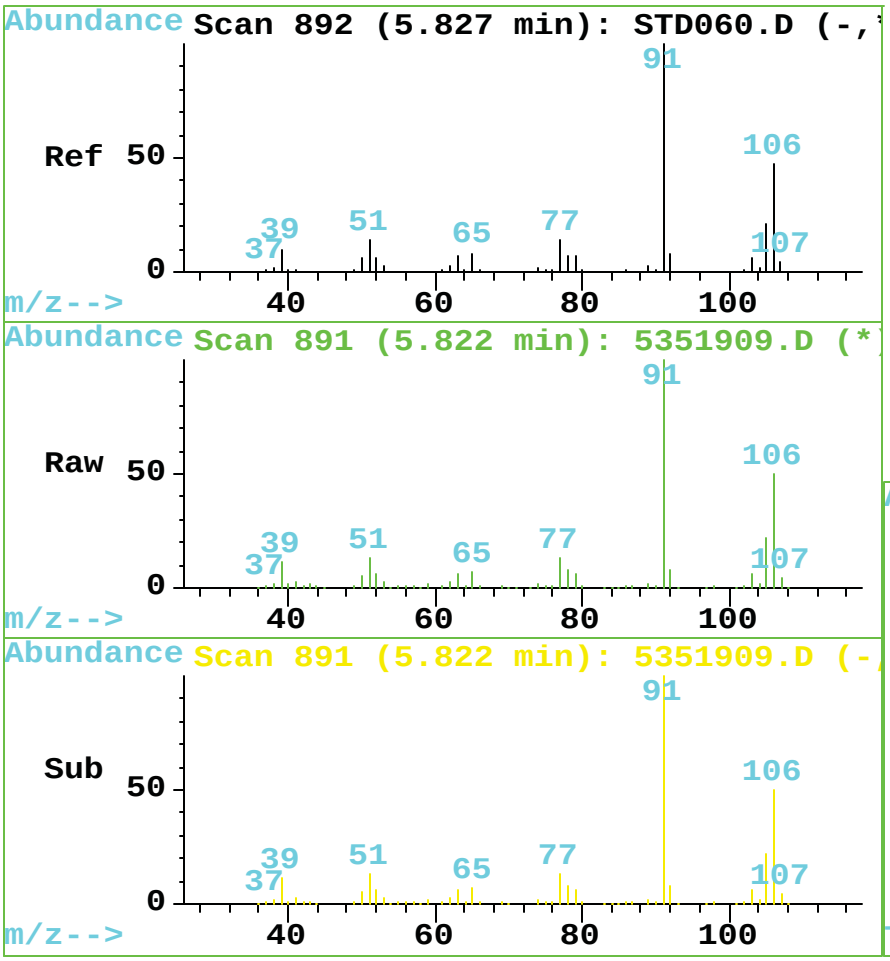


#55
Ethylbenzene (CCC)
Concen: 2.75 ug/l
RT: 5.77 min Scan# 883
Delta R.T. 0.00 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:91.05 Resp: 4356

Ion	Ratio	Lower	Upper
91	100		
106	30.1	4.9	64.9
77	8.4	0.0	37.2
0	0.0	0.0	0.0

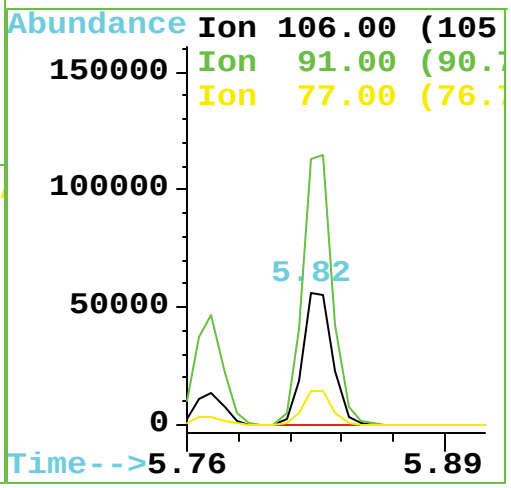


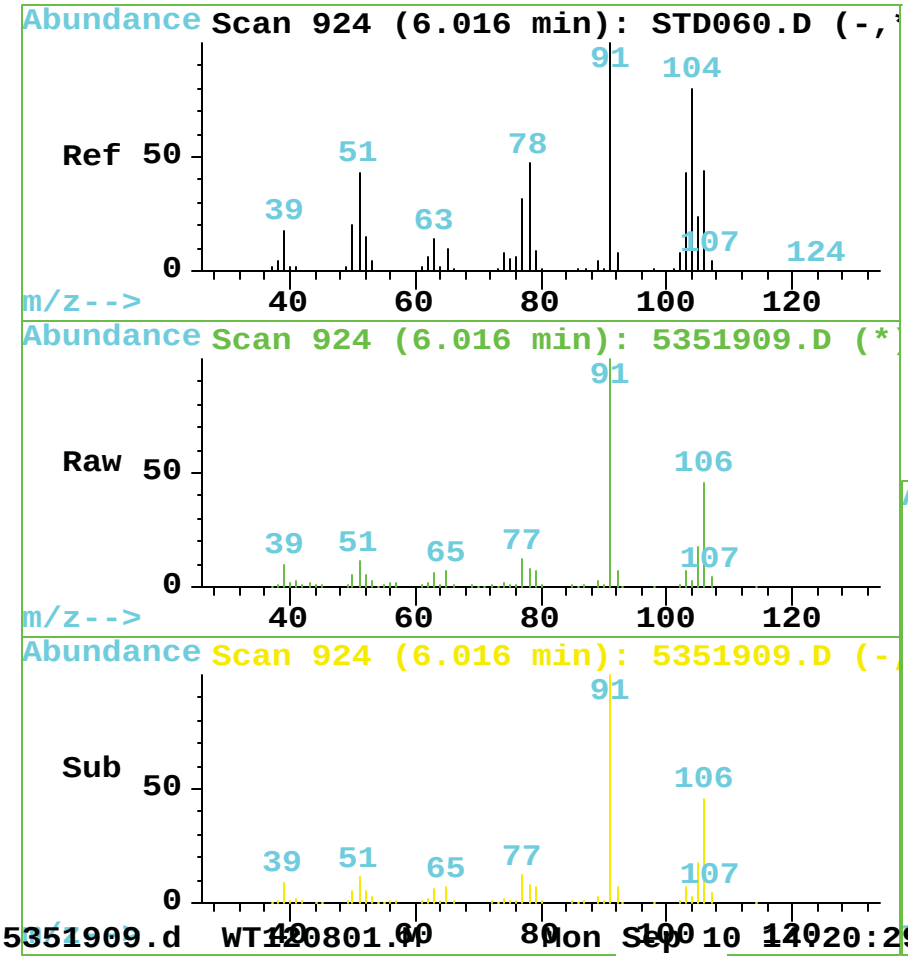


#56
p,m-Xylene
Concen: 9.70 ug/l
RT: 5.82 min Scan# 891
Delta R.T. -0.01 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:106 Resp: 56816

Ion	Ratio	Lower	Upper
106	100		
91	203.7	146.0	206.0
77	25.8	0.0	50.4
0	0.0	0.0	0.0

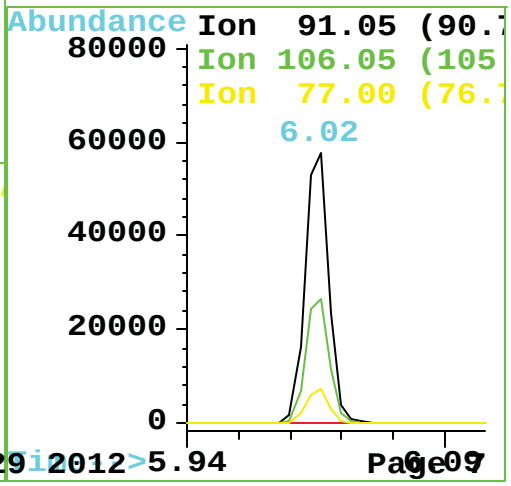




#57
o-Xylene
Concen: 4.39 ug/l
RT: 6.02 min Scan# 924
Delta R.T. 0.00 min
Lab File: 5351909.d
Acq: 17 Aug 12 6:40 pm

Tgt Ion:91.05 Resp: 5563

Ion	Ratio	Lower	Upper
91	100		
106	46.2	24.0	84.0
77	12.1	0.0	55.3
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\5351909.d Vial: 8
Acq On : 23 Aug 12 3:13 pm Operator: lbr
Sample : 5:1 1dr0822 Inst : Verdura
Misc : w/5 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:17 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

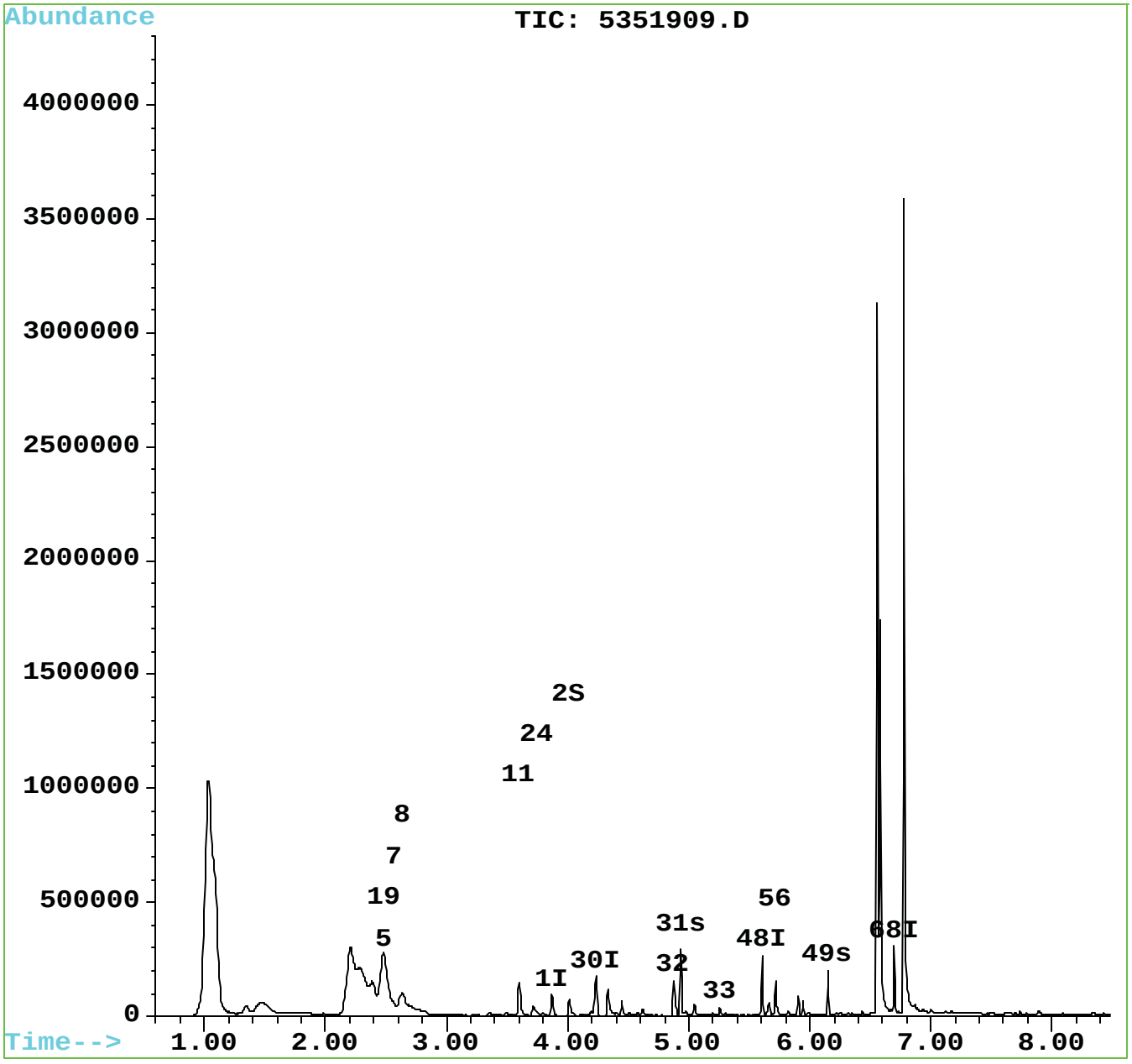
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	37429	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	68124	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	38554	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	31934	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	30110	5.85	ug/l		116.9
31) TOLUENE-D8 (S)	4.93	98	82221	4.99	ug/l		99.7
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	20933	4.65	ug/l		92.9
Target Compounds							Qvalu
5) Acetone (*)	2.48	43	488131	427.12	ug/l		8
7) Carbon disulfide (*)	2.57	76	18017	1.18	ug/l		9
8) Methyl Acetate	2.63	43	52571	16.65	ug/l	#	6
11) 2-Butanone (MEK) (*)	3.60	43	139799	77.61	ug/l		8
19) 1,1-Dichloroethene (CCC/MS	2.50	61	17087	2.01	ug/l	#	3
24) Tetrahydrofuran	3.75	42	6368	4.89	ug/l	#	3
32) 4-Methyl-2-pentanone (MIBK	4.87	58	23553	13.88	ug/l	#	8
33) 2-Hexanone (*)	5.26	58	6880	4.20	ug/l	#	7
56) p,m-Xylene	5.72	106	20704	1.97	ug/l		9

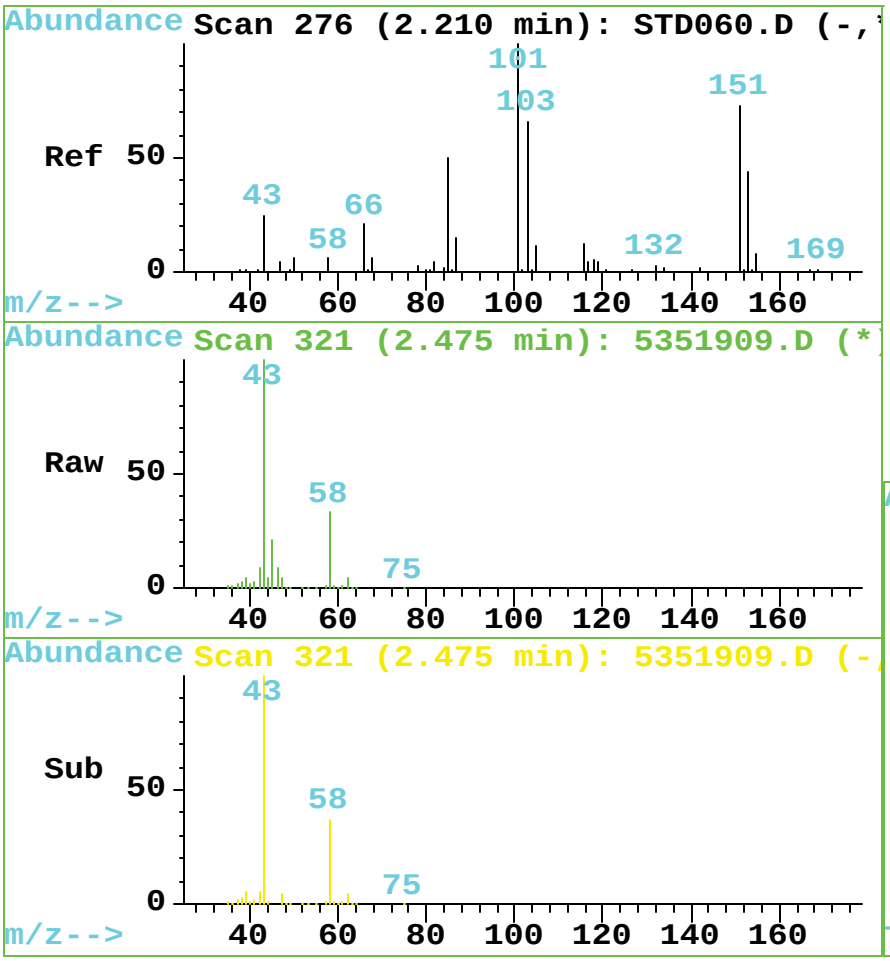
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\5351909.d Vial: 8
Acq On : 23 Aug 12 3:13 pm Operator: lbr
Sample : 5:1 1dr0822 Inst : Verdura
Misc : w/5 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:17 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

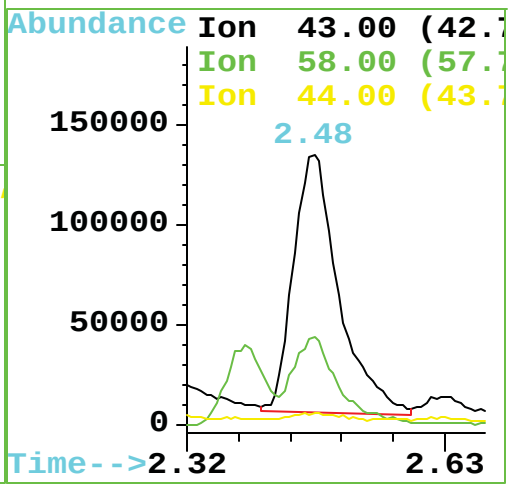


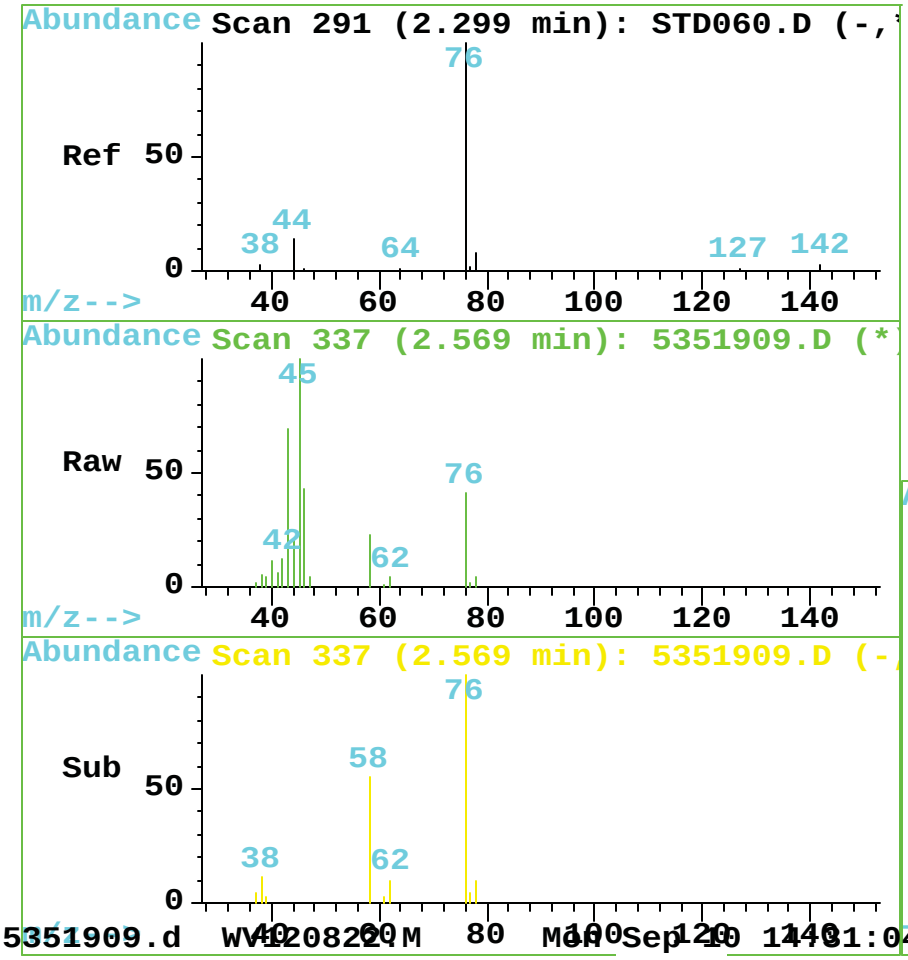


#5
Acetone (*)
Concen: 427.12 ug/l
RT: 2.48 min Scan# 321
Delta R.T. 0.01 min
Lab File: 5351909.d
Acq: 23 Aug 12 3:13 pm

Tgt Ion:43 Resp: 488131

Ion	Ratio	Lower	Upper
43	100		
58	34.4	11.8	71.8
44	2.8	0.0	35.4
0	0.0	0.0	0.0

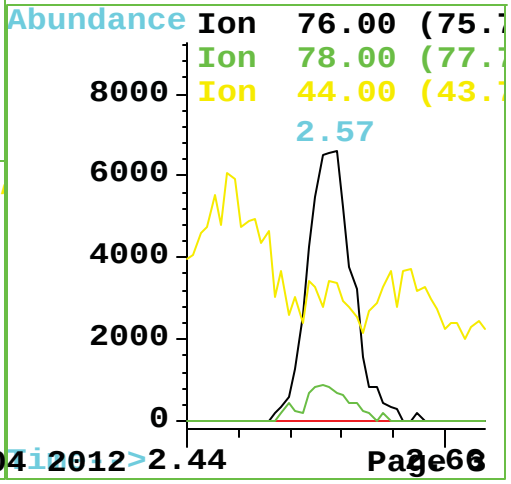


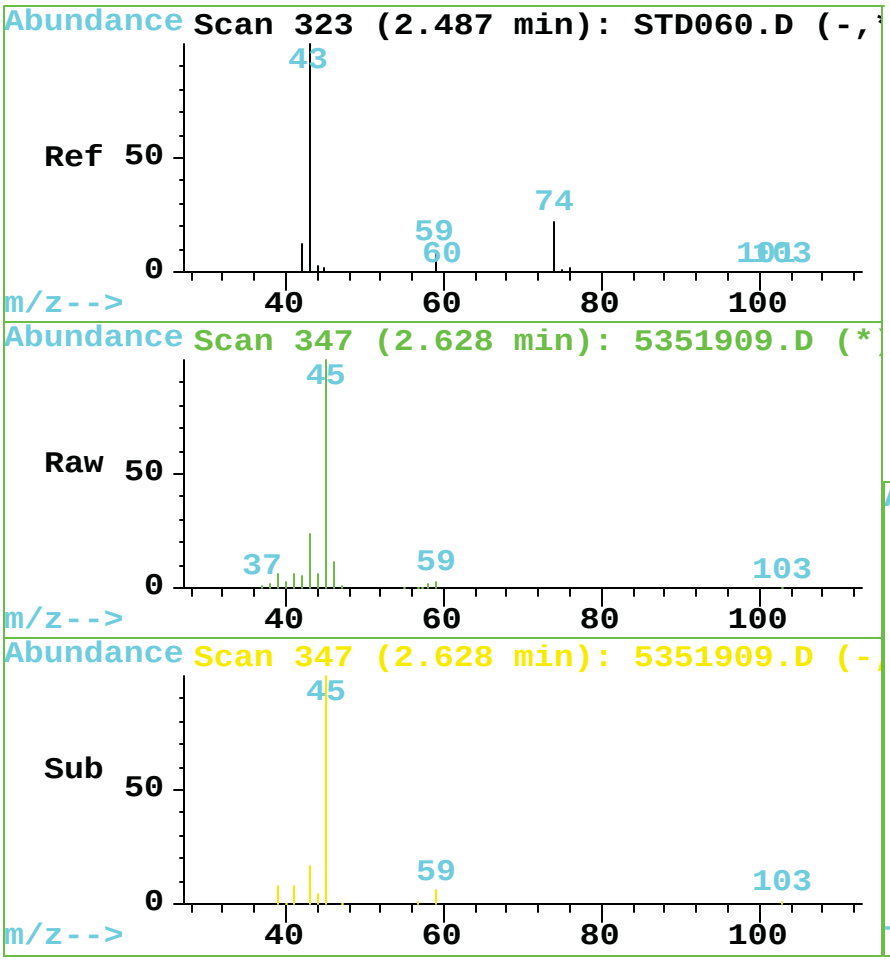


#7
Carbon disulfide (*)
Concen: 1.18 ug/l
RT: 2.57 min Scan# 337
Delta R.T. 0.01 min
Lab File: 5351909.d
Acq: 23 Aug 12 3:13 pm

Tgt Ion:76 Resp: 18017

Ion	Ratio	Lower	Upper
76	100		
78	13.9	0.0	39.6
44	10.5	0.0	40.0
0	0.0	0.0	0.0

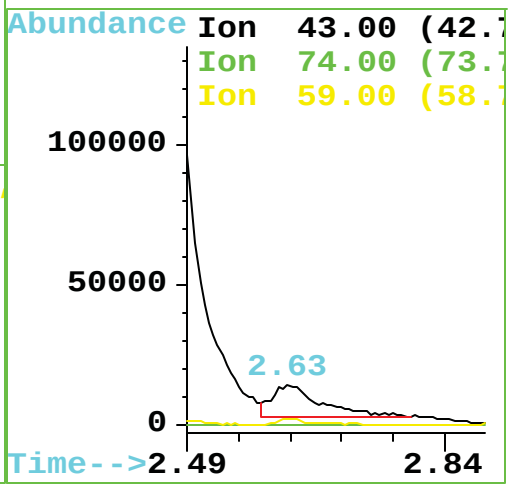


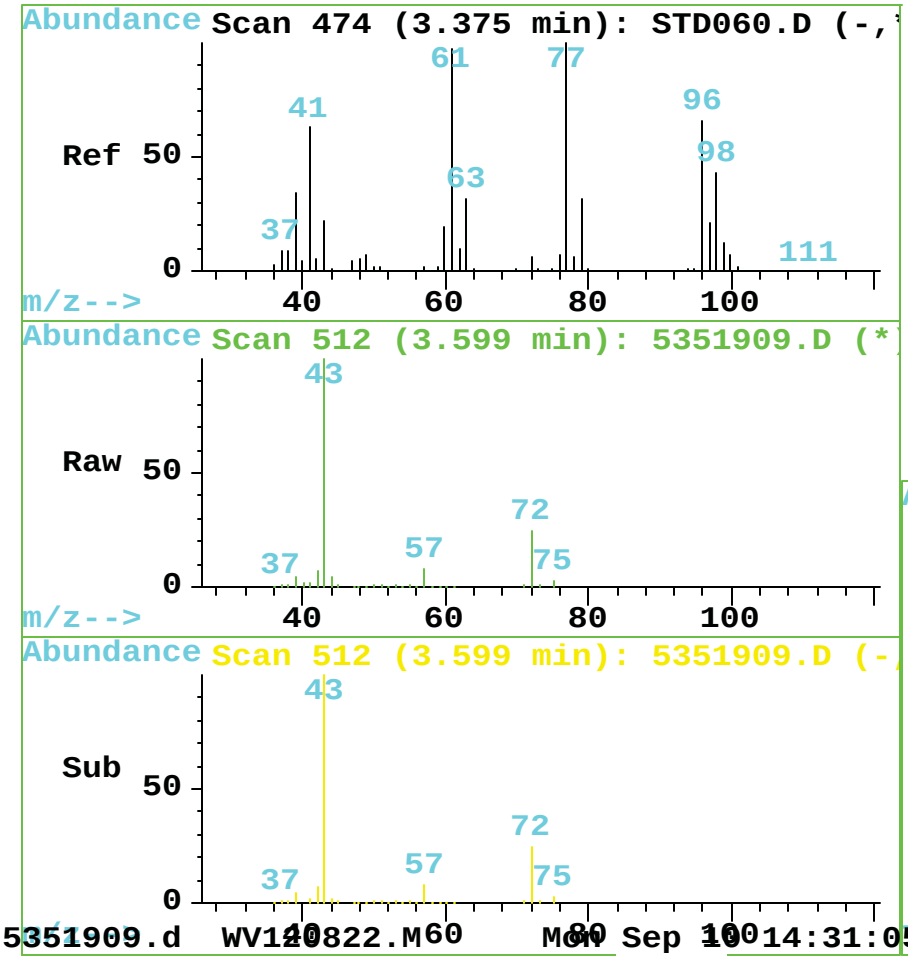


#8
Methyl Acetate
Concen: 16.65 ug/l
RT: 2.63 min Scan# 347
Delta R.T. -0.09 min
Lab File: 5351909.d
Acq: 23 Aug 12 3:13 pm

Tgt Ion:43 Resp: 52571

Ion	Ratio	Lower	Upper
43	100		
74	0.0	0.0	54.6
59	11.0	0.0	37.5
0	0.0	0.0	0.0

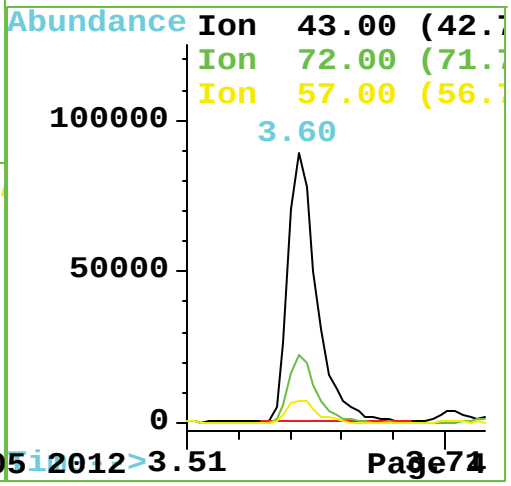


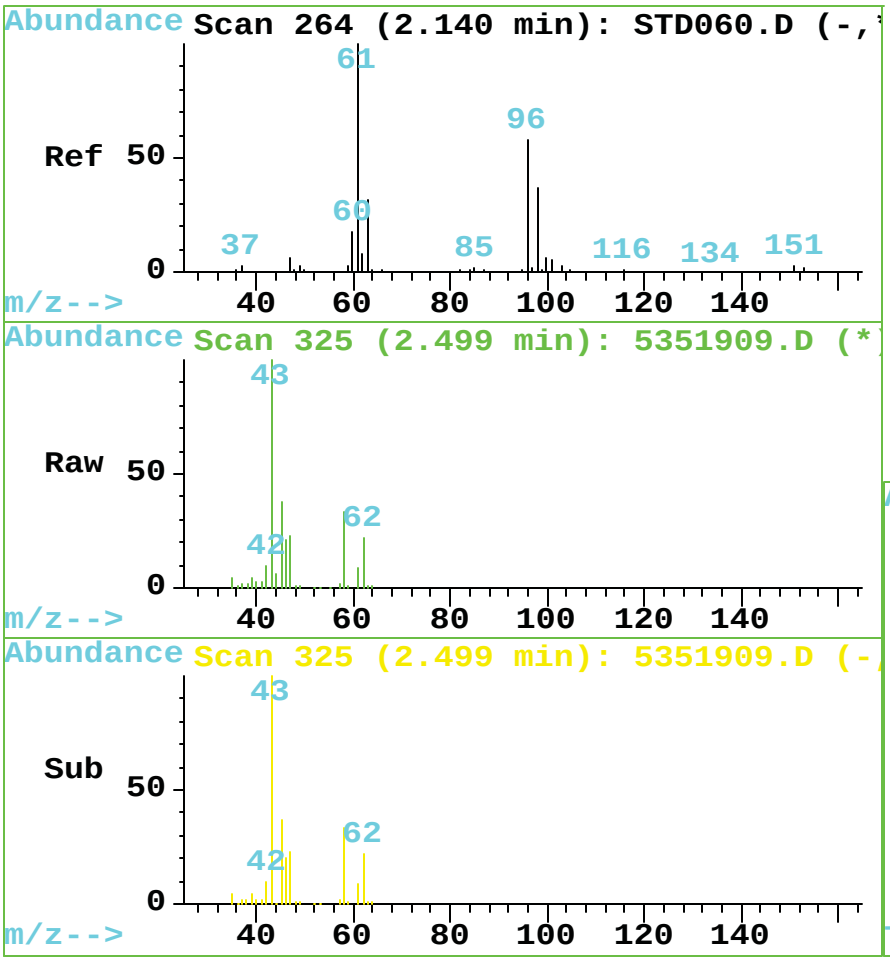


#11
2-Butanone (MEK) (*)
Concen: 77.61 ug/l
RT: 3.60 min Scan# 512
Delta R.T. 0.00 min
Lab File: 5351909.d
Acq: 23 Aug 12 3:13 pm

Tgt Ion:43 Resp: 139799

Ion	Ratio	Lower	Upper
43	100		
72	24.5	5.1	65.1
57	9.0	0.0	38.0
0	0.0	0.0	0.0

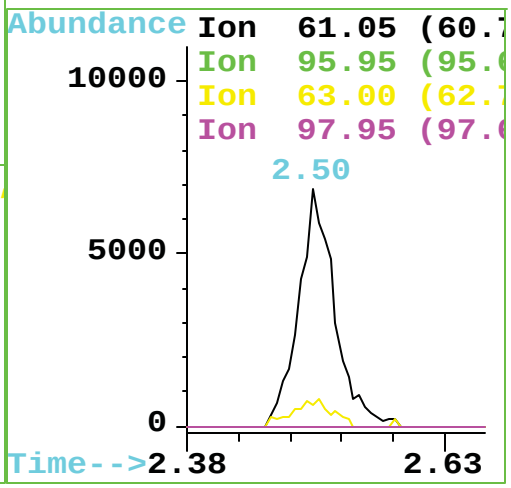


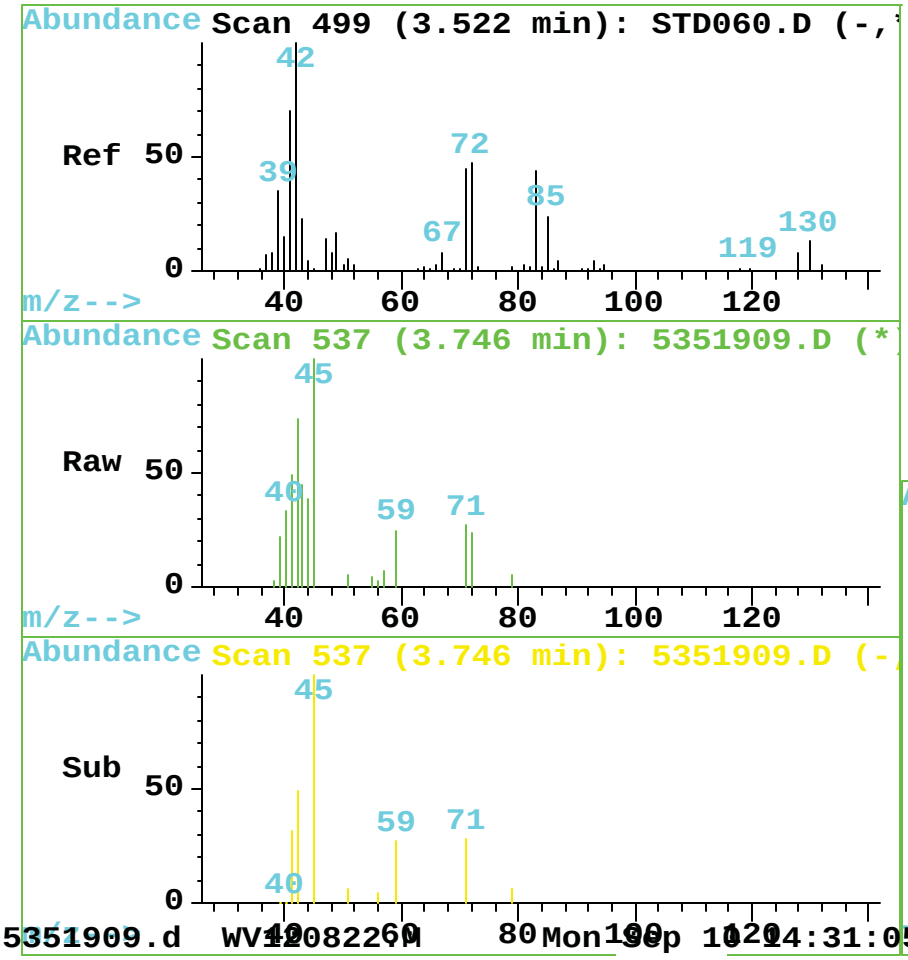


#19
1,1-Dichloroethene (CCC/MS
Concen: 2.01 ug/l
RT: 2.50 min Scan# 325
Delta R.T. 0.09 min
Lab File: 5351909.d
Acq: 23 Aug 12 3:13 pm

Tgt Ion:61.05 Resp: 1708

Ion	Ratio	Lower	Upper
61	100		
96	0.0	37.6	97.6#
63	12.1	2.5	62.5
98	0.0	12.3	72.3#

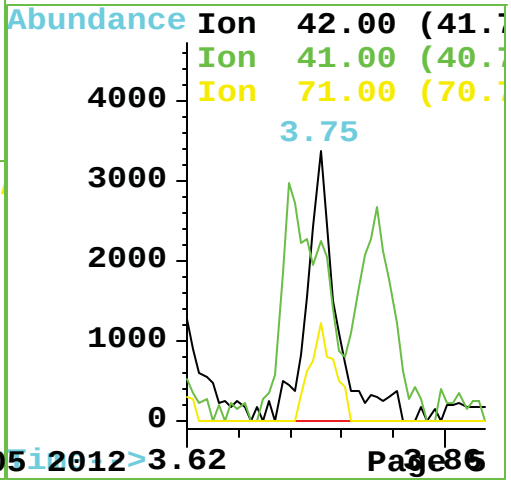


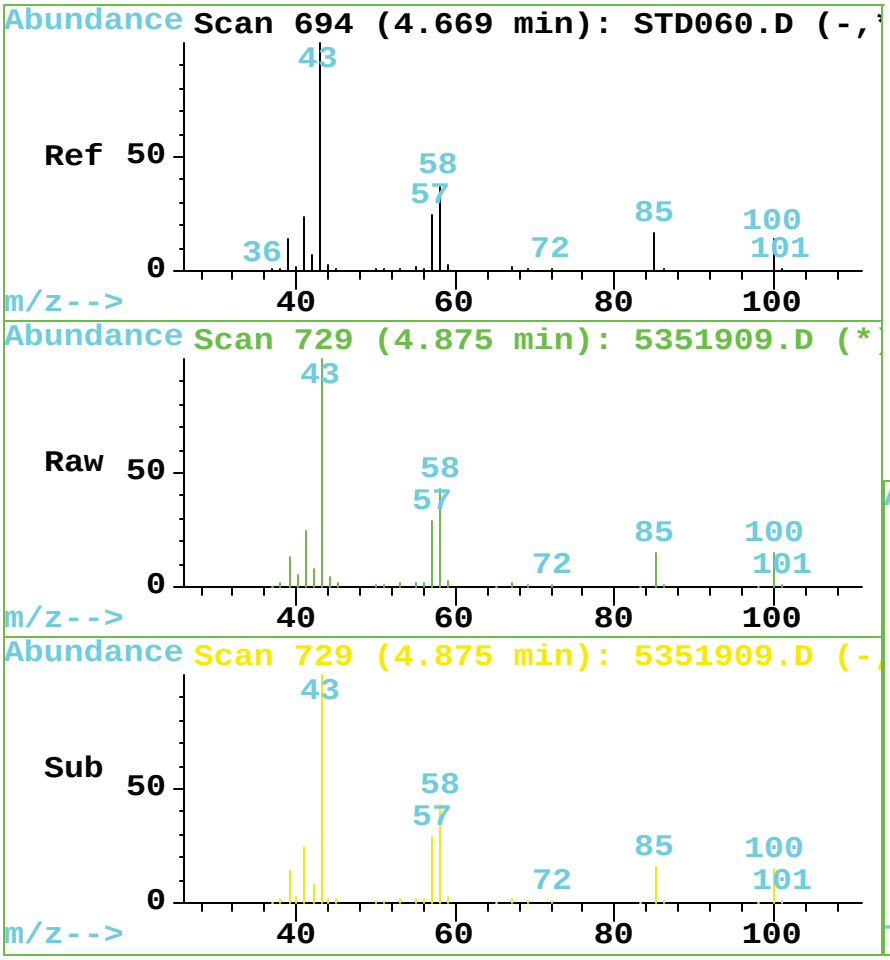


#24
Tetrahydrofuran
Concen: 4.89 ug/l
RT: 3.75 min Scan# 537
Delta R.T. 0.01 min
Lab File: 5351909.d
Acq: 23 Aug 12 3:13 pm

Tgt Ion:42 Resp: 6368

Ion	Ratio	Lower	Upper
42	100		
41	125.1	212.5	272.5#
71	29.9	13.4	73.4
0	0.0	0.0	0.0

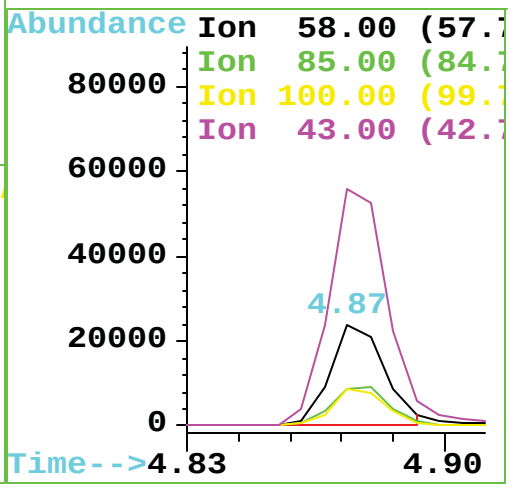


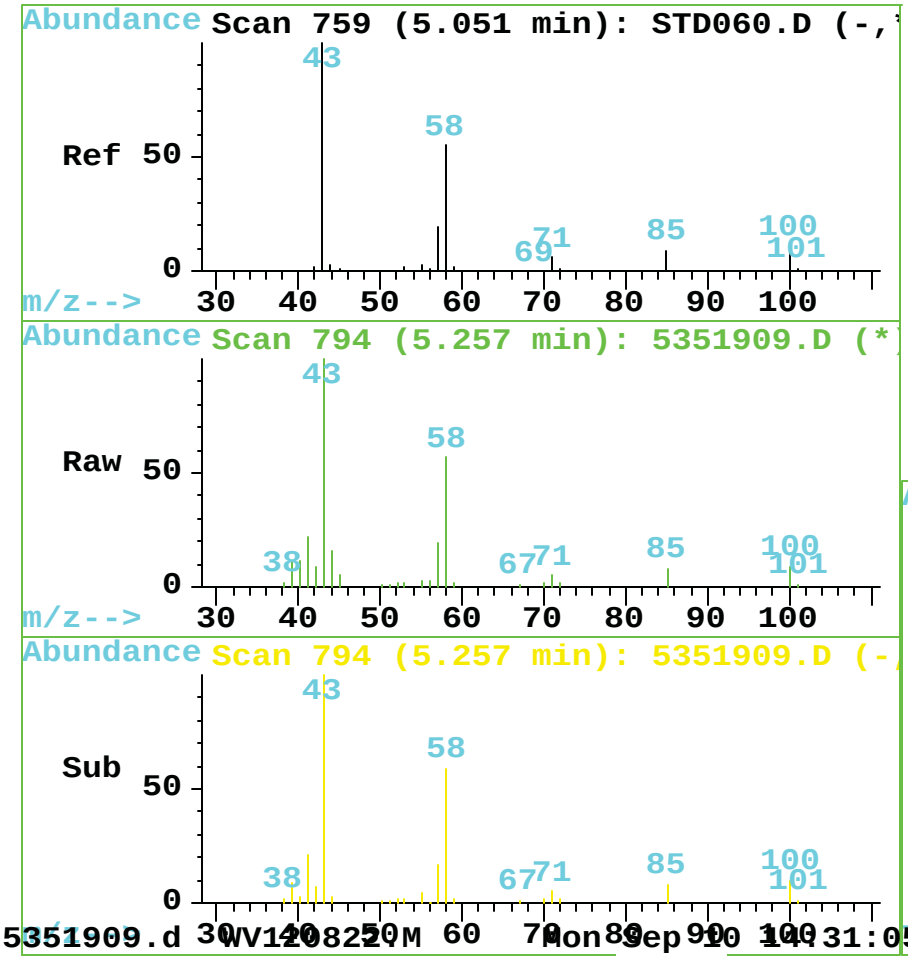


#32
4-Methyl-2-pentanone (MIBK
Concen: 13.88 ug/l
RT: 4.87 min Scan# 729
Delta R.T. 0.00 min
Lab File: 5351909.d
Acq: 23 Aug 12 3:13 pm

Tgt Ion:58 Resp: 23553

Ion	Ratio	Lower	Upper
58	100		
85	40.9	17.6	77.6
100	36.5	12.0	72.0
43	245.8	250.9	310.9#

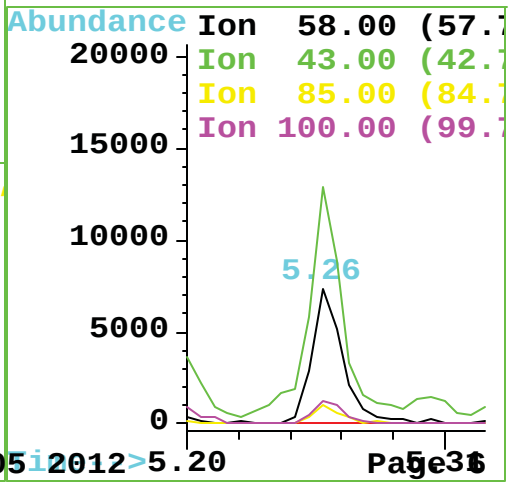


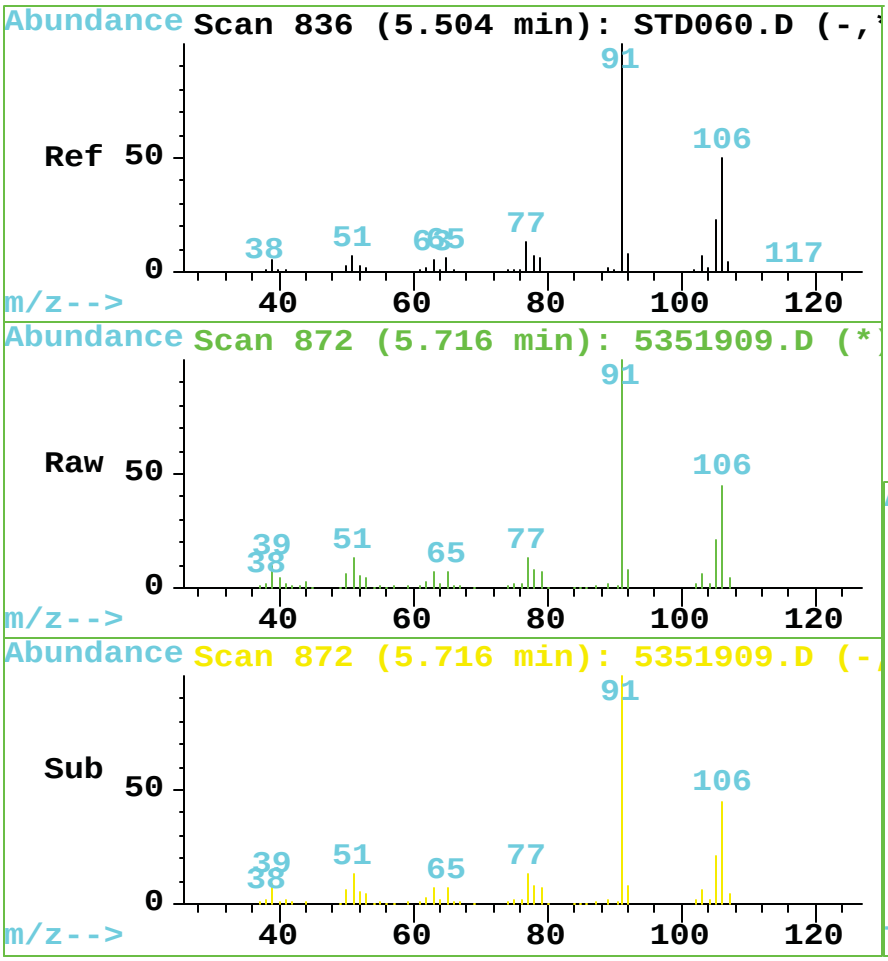


#33
2-Hexanone (*)
Concen: 4.20 ug/l
RT: 5.26 min Scan# 794
Delta R.T. 0.00 min
Lab File: 5351909.d
Acq: 23 Aug 12 3:13 pm

Tgt Ion:58 Resp: 6880

Ion	Ratio	Lower	Upper
58	100		
43	189.1	122.1	182.1#
85	13.2	0.0	47.9
100	16.8	0.0	49.3

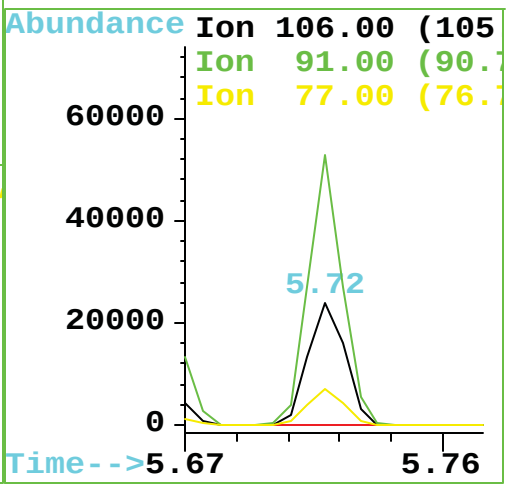




#56
p,m-Xylene
Concen: 1.97 ug/l
RT: 5.72 min Scan# 872
Delta R.T. 0.00 min
Lab File: 5351909.d
Acq: 23 Aug 12 3:13 pm

Tgt Ion:106 Resp: 20704

Ion	Ratio	Lower	Upper
106	100		
91	200.3	174.3	234.3
77	28.4	0.0	56.7
0	0.0	0.0	0.0



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\5351909r.d Vial: 12
Acq On : 23 Aug 12 4:35 pm Operator: lbr
Sample : 50:1 1dr0822 Inst : Verdura
Misc : w/50 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:17 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

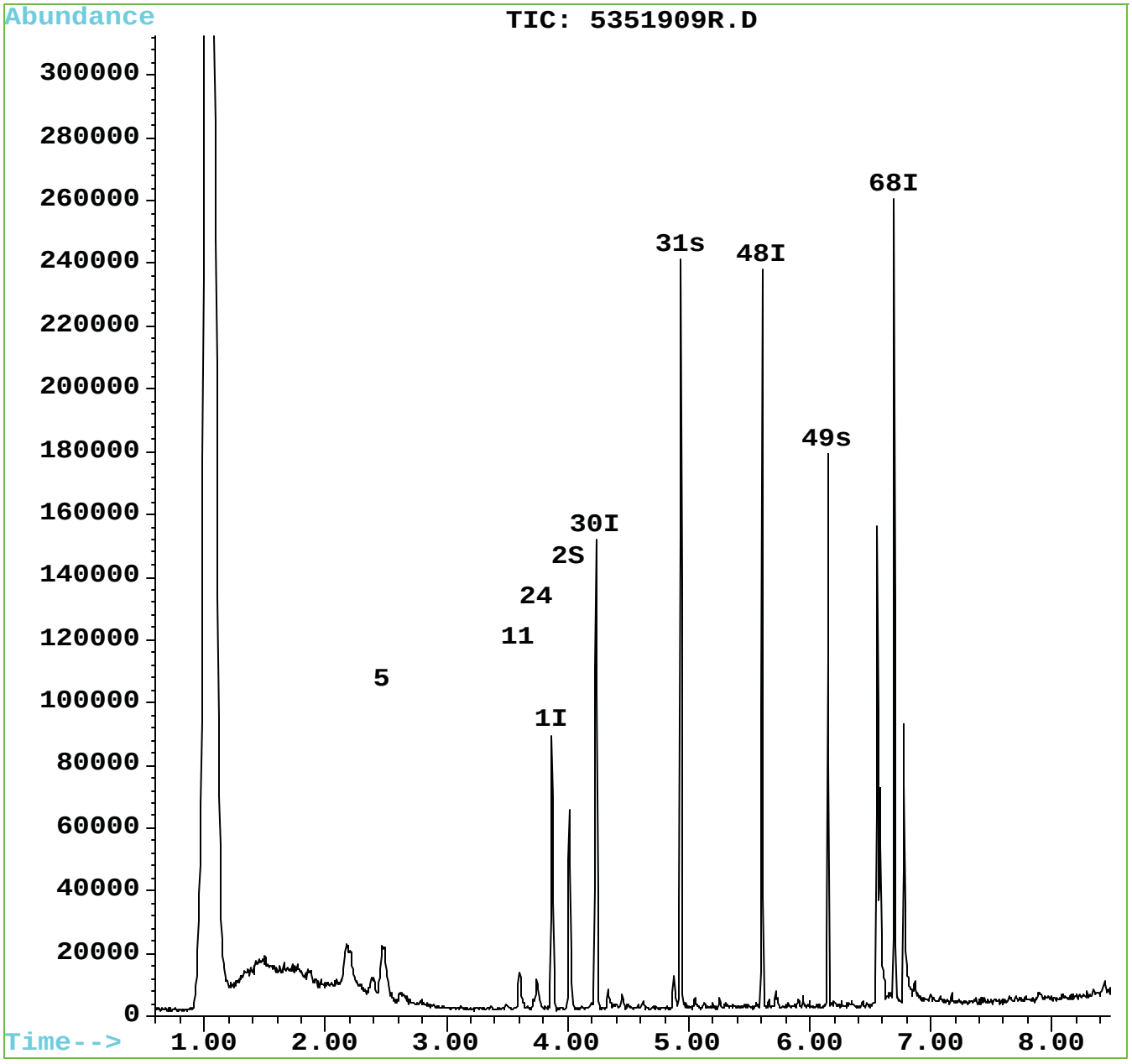
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	34514	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	62550	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	34587	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	27629	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	26981	5.68	ug/l	113.6
31) TOLUENE-D8 (S)	4.93	98	75243	4.97	ug/l	99.4
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	19077	4.72	ug/l	94.4
Target Compounds						Qvalu
5) Acetone (*)	2.47	43	39116	37.12	ug/l	8
11) 2-Butanone (MEK) (*)	3.60	43	10334	6.22	ug/l	7
24) Tetrahydrofuran	3.75	42	4979	4.15	ug/l #	1

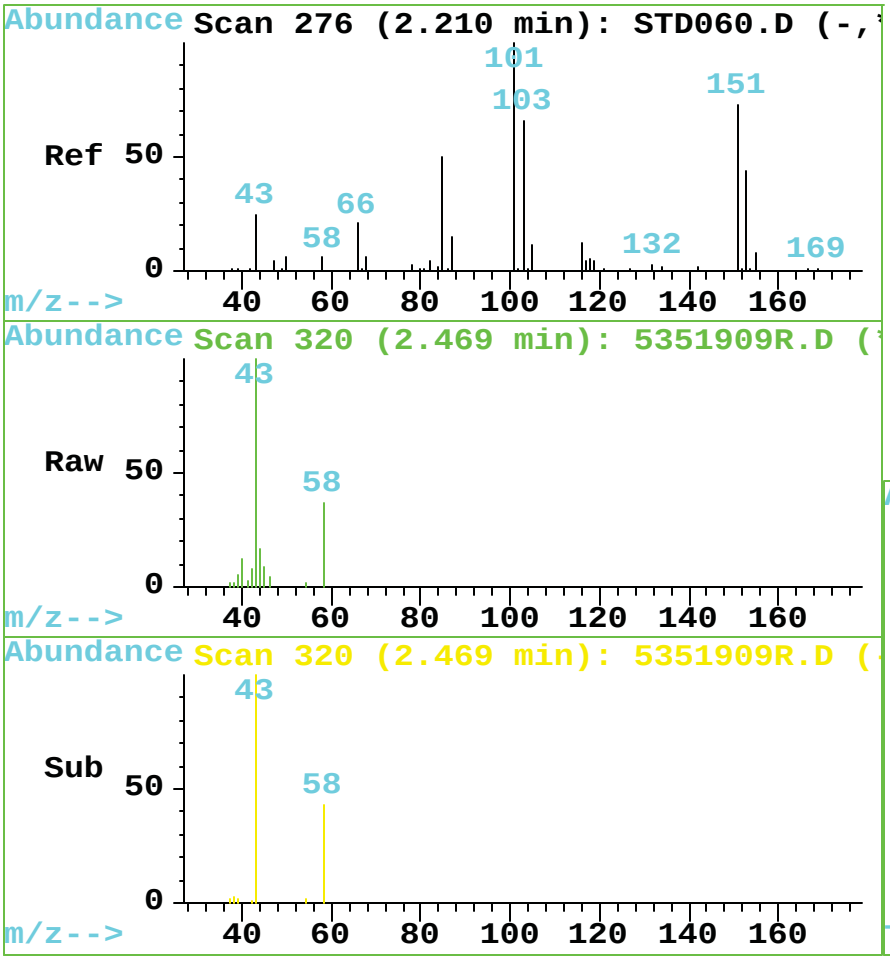
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\5351909r.d Vial: 12
Acq On : 23 Aug 12 4:35 pm Operator: lbr
Sample : 50:1 1dr0822 Inst : Verdura
Misc : w/50 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:17 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

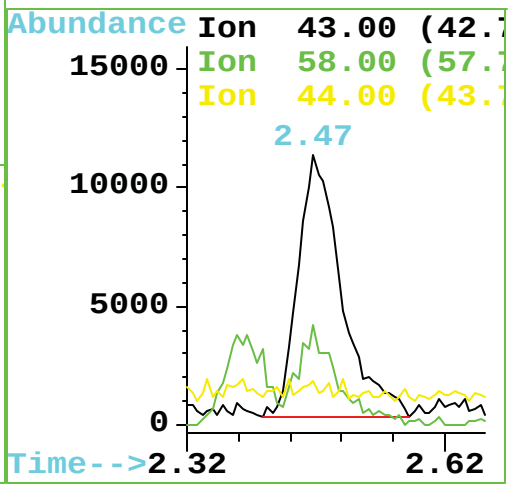


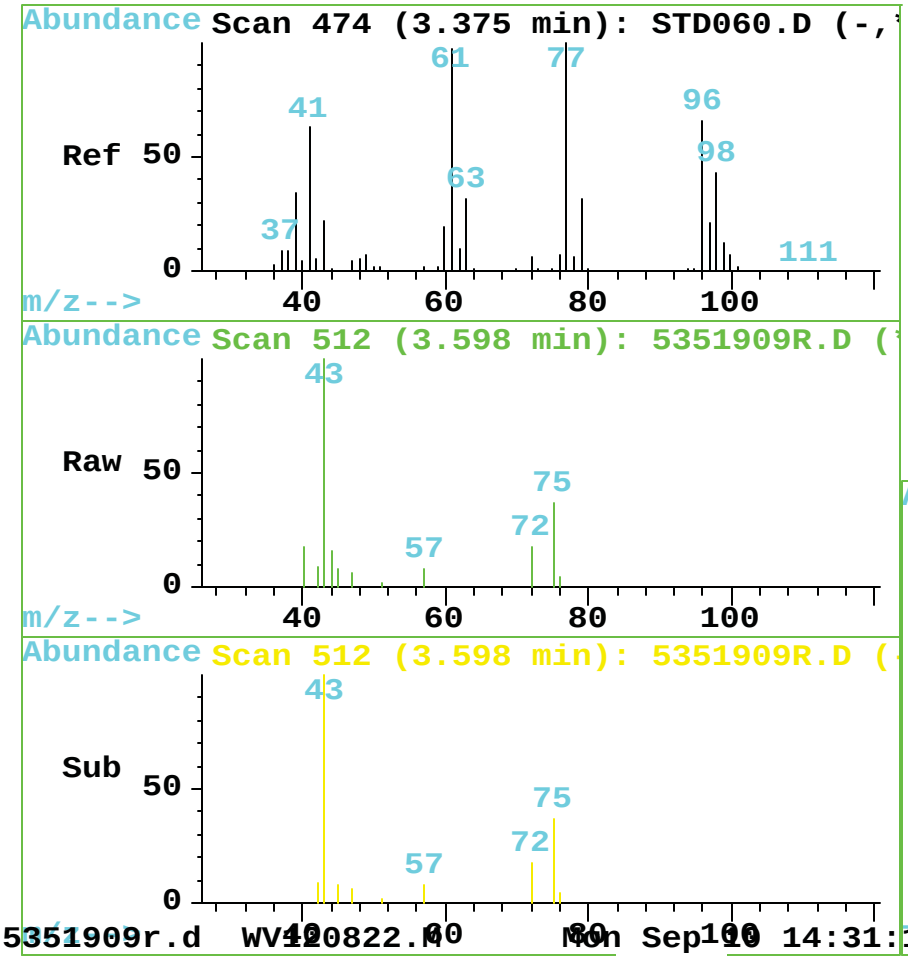


#5
Acetone (*)
Concen: 37.12 ug/l
RT: 2.47 min Scan# 320
Delta R.T. 0.00 min
Lab File: 5351909r.d
Acq: 23 Aug 12 4:35 pm

Tgt Ion:43 Resp: 39116

Ion	Ratio	Lower	Upper
43	100		
58	34.4	11.8	71.8
44	2.4	0.0	35.4
0	0.0	0.0	0.0

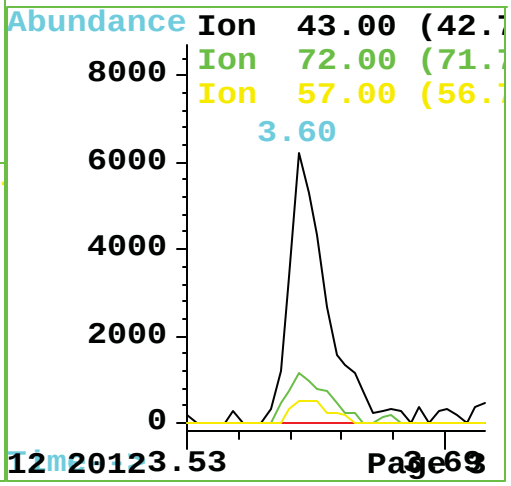


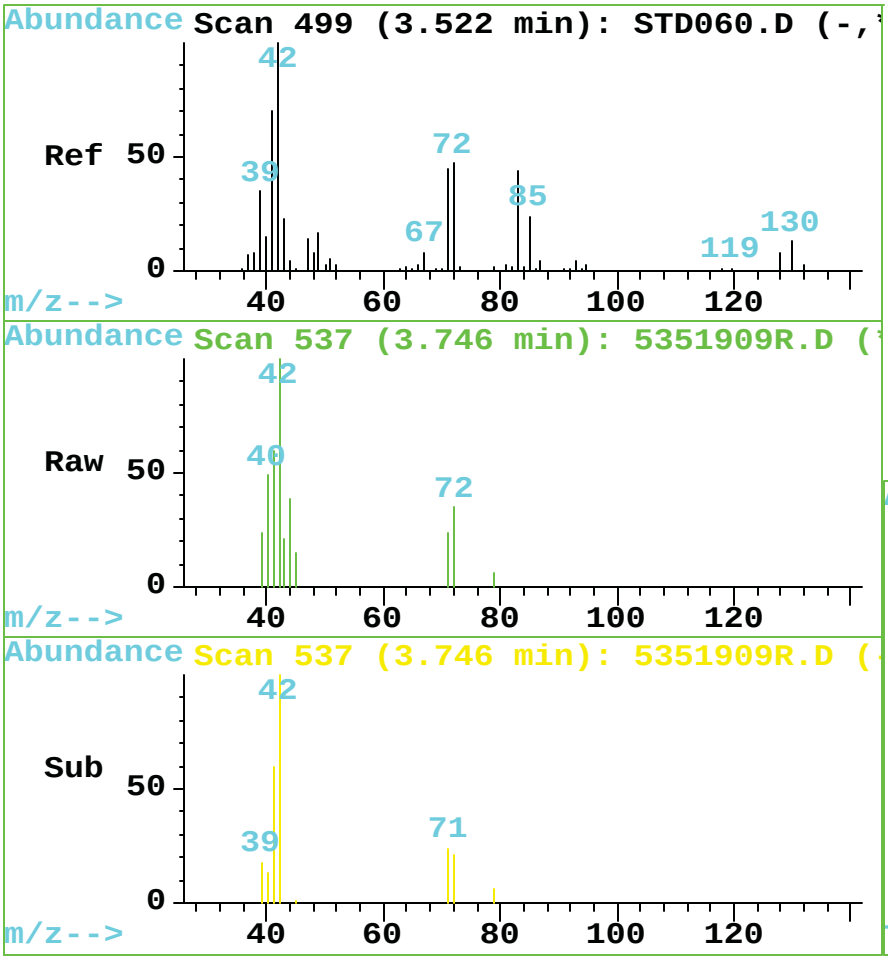


#11
2-Butanone (MEK) (*)
Concen: 6.22 ug/l
RT: 3.60 min Scan# 512
Delta R.T. 0.00 min
Lab File: 5351909r.d
Acq: 23 Aug 12 4:35 pm

Tgt Ion:43 Resp: 10334

Ion	Ratio	Lower	Upper
43	100		
72	19.7	5.1	65.1
57	8.7	0.0	38.0
0	0.0	0.0	0.0

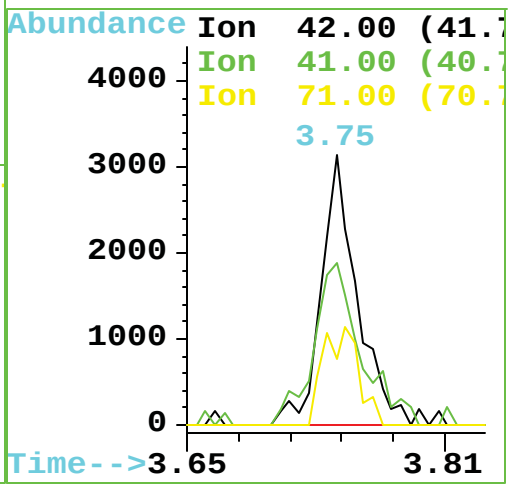




#24
Tetrahydrofuran
Concen: 4.15 ug/l
RT: 3.75 min Scan# 537
Delta R.T. 0.01 min
Lab File: 5351909r.d
Acq: 23 Aug 12 4:35 pm

Tgt Ion:42 Resp: 4979

Ion	Ratio	Lower	Upper
42	100		
41	79.0	212.5	272.5#
71	36.1	13.4	73.4
0	0.0	0.0	0.0



Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wt120801.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.726	2.57	0.721	0.762	0.722	0.719	0.726	0.707				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.484	5.86	0.451	0.455	0.475	0.491	0.511	0.519				
	Diethyl ether (*)	A	0.373	2.84	0.357	0.368	0.371	0.374	0.387	0.382				
	Acetone (*)	A	0.253	8.61		0.258	0.218	0.252	0.278	0.257				
	Methyl iodide (iodomethane) (*	A	0.652	5.17	0.605	0.638	0.637	0.653	0.684	0.697				
	Carbon disulfide (*)	A	1.705	9.40	1.470	1.594	1.686	1.730	1.849	1.903				
	Methyl Acetate	A	0.517	3.32	0.492	0.505	0.523	0.514	0.523	0.542				
	tert-Methyl butyl ether (MTBE)	A	1.557	6.74	1.422	1.455	1.555	1.568	1.655	1.686				
	Acrylonitrile (*)	A	0.266	14.79	0.191	0.260	0.277	0.274	0.293	0.300				
	2-Butanone (MEK) (*)	A	0.372	5.23		0.362	0.346	0.372	0.394	0.388				
	Dichlorodifluoromethane	QO	0.461	21.53	0.304	0.436	0.441	0.446	0.567	0.571	1.00	0.00	0.485	0.00
	Chloromethane (SPCC)	A	0.835	6.11	0.766	0.844	0.803	0.814	0.904	0.879				
	Vinyl Chloride (CCC)	A	0.751	8.18	0.639	0.747	0.759	0.747	0.812	0.801				
	Bromomethane	A	0.342	14.05	0.376	0.384	0.381	0.329	0.319	0.262				
	Chloroethane	A	0.403	13.50	0.394	0.459	0.451	0.410	0.398	0.307				
	Acrolein	A	0.100	5.92		0.093	0.098	0.098	0.106	0.107				
	Trichlorofluoromethane	A	0.757	5.47	0.680	0.782	0.777	0.773	0.790	0.740				
	1,1-Dichloroethene (CCC/MS)	A	0.946	5.34	0.868	0.928	0.928	0.953	0.992	1.008				
	Methylene Chloride	A	0.578	2.21	0.580	0.578	0.562	0.565	0.586	0.596				
	trans-1,2-Dichloroethene	A	0.922	4.55	0.866	0.895	0.898	0.935	0.964	0.971				
	1,1-Dichloroethane (SPCC)	A	1.106	4.25	1.032	1.081	1.094	1.125	1.144	1.161				
	cis-1,2-Dichloroethene	A	0.597	3.11	0.566	0.595	0.591	0.598	0.615	0.617				
	Tetrahydrofuran	A	0.238	8.66		0.268	0.251	0.219	0.223	0.231				
	Chloroform (CCC)	A	0.951	1.74	0.940	0.930	0.945	0.950	0.963	0.976				
	Bromochloromethane	A	0.314	4.10	0.292	0.306	0.314	0.320	0.324	0.326				
	1,1,1-Trichloroethane	A	0.823	6.08	0.761	0.766	0.827	0.837	0.866	0.881				
	1,1-Dichloropropene	A	0.826	2.26	0.802	0.819	0.811	0.829	0.851	0.842				
	Cyclohexane	A	0.374	3.99	0.353	0.368	0.363	0.382	0.389	0.389				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.237	1.02	1.226	1.221	1.230	1.251	1.244	1.248				
	4-Methyl-2-pentanone (MIBK) (*	A	0.120	14.73	0.090	0.110	0.120	0.129	0.135	0.136				
	2-Hexanone (*)	LO	0.119	24.06	0.065	0.117	0.116	0.130	0.143	0.140	1.00	0.00	0.140	0.00
	2-chloroethylvinyl ether	A	0.230	7.00	0.205	0.215	0.236	0.234	0.247	0.240				
	Carbon Tetrachloride	A	0.358	8.73	0.317	0.334	0.341	0.372	0.393	0.388				
	Benzene (MS)	A	1.314	2.75	1.285	1.277	1.310	1.311	1.379	1.322				
	1,2-Dichloroethane	A	0.473	3.47	0.455	0.465	0.464	0.475	0.502	0.479				
	Trichloroethene (MS)	A	0.303	3.49	0.291	0.300	0.294	0.302	0.318	0.313				
	1,2-Dichloropropane (CCC)	A	0.349	6.13	0.313	0.344	0.344	0.353	0.376	0.363				
	Bromodichloromethane	A	0.369	12.86	0.288	0.349	0.361	0.390	0.411	0.414				
	Methyl Cyclohexane	A	0.479	6.40	0.443	0.455	0.462	0.487	0.518	0.510				
	Dibromomethane	A	0.147	4.89	0.157	0.137	0.141	0.145	0.150	0.150				
	cis-1,3-Dichloropropene	LO	0.478	17.82	0.326	0.450	0.474	0.514	0.552	0.553	1.00	0.00	0.549	0.00
	Toluene (CCC/MS)	A	1.374	2.71	1.375	1.358	1.325	1.376	1.439	1.369				
	trans-1,3-Dichloropropene	QO	0.423	21.90	0.263	0.378	0.418	0.468	0.501	0.507	1.00	0.00	0.469	0.00
	1,1,2-Trichloroethane	A	0.225	2.89	0.224	0.217	0.218	0.226	0.234	0.229				
	Tetrachloroethene	A	0.257	4.78	0.236	0.251	0.257	0.261	0.272	0.263				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.529	4.01	0.511	0.536	0.546	0.509	0.512	0.559				
	trans-1,4-Dichloro-2-butene	QO	0.101	53.27	0.014	0.069	0.092	0.129	0.148	0.154	1.00	0.00	0.127	0.00
	Dibromochloromethane	A	0.411	14.40	0.315	0.373	0.407	0.441	0.463	0.468				
	1,2-Dibromoethane	A	0.453	5.31	0.408	0.445	0.464	0.463	0.468	0.472				
	Chlorobenzene (SPCC/MS)	A	1.451	1.89	1.482	1.433	1.469	1.444	1.467	1.408				
	1,1,1,2-Tetrachloroethane	A	0.432	10.75	0.346	0.417	0.459	0.463	0.470	0.437				
	Ethylbenzene (CCC)	A	2.688	3.98	2.624	2.652	2.750	2.779	2.798	2.522				
	p,m-Xylene	A	0.995	6.59	0.986	1.011	1.049	1.034	1.019	0.868				
	o-Xylene	A	2.153	4.96	2.139	2.120	2.218	2.241	2.239	1.962				
	Styrene	A	1.663	7.00	1.525	1.661	1.755	1.762	1.757	1.516				
	Isopropylbenzene	A	2.536	6.25	2.254	2.514	2.663	2.634	2.666	2.482				
	Bromoform (SPCC)	QO	0.214	25.74	0.122	0.186	0.206	0.239	0.255	0.273	1.00	0.00	0.228	0.00
	1,1,2,2-Tetrachloroethane (SPC	A	0.640	6.49	0.558	0.639	0.660	0.652	0.666	0.666				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wt120801.m	1,2,3-Trichloropropane	A	0.182	5.43	0.164	0.182	0.189	0.186	0.192	0.181				
	n-Propylbenzene	A	3.005	6.53	2.643	2.965	3.126	3.118	3.184	2.993				
	Bromobenzene	A	0.502	5.22	0.455	0.500	0.515	0.519	0.528	0.493				
	1,3,5-Trimethylbenzene	A	0.984	5.53	0.891	0.989	1.008	1.026	1.037	0.953				
	tert-Butylbenzene	A	1.425	4.85	1.326	1.367	1.436	1.484	1.509	1.430				
	1,2,4-Trimethylbenzene	A	1.076	8.58	0.927	1.077	1.135	1.154	1.154	1.007				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	3.240	5.09	2.943	3.206	3.257	3.344	3.427	3.265				
	p-Isopropyltoluene	A	2.528	6.08	2.330	2.583	2.600	2.682	2.634	2.339				
	1,3-Dichlorobenzene	A	1.223	5.51	1.222	1.242	1.268	1.269	1.246	1.090				
	1,4-Dichlorobenzene	A	1.312	0.90	1.306	1.316	1.307	1.313	1.332	1.297				
	1,2-Dichlorobenzene	A	1.245	1.08	1.256	1.244	1.226	1.251	1.259	1.231				
	1,2,3-Trimethylbenzene	A	2.758	5.67	2.457	2.789	2.795	2.878	2.880	2.747				
	n-Butylbenzene	A	2.510	6.28	2.218	2.480	2.518	2.610	2.669	2.562				
	Hexachloroethane	QO	0.233	24.82	0.131	0.215	0.224	0.263	0.279	0.287	1.00	0.00	0.259	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.102	32.85	0.039	0.095	0.104	0.116	0.123	0.132	1.00	0.00	0.111	0.00
	1,2,4-Trichlorobenzene	A	0.663	5.07	0.617	0.633	0.653	0.688	0.694	0.694				
	Hexachlorobutadiene	A	0.240	9.84	0.197	0.238	0.235	0.248	0.261	0.260				
	1,2,3-Trichlorobenzene	A	0.601	3.14	0.570	0.589	0.606	0.610	0.624	0.607				
	Naphthalene	A	2.025	9.47	1.683	1.933	2.053	2.121	2.189	2.172				
	2-Methylnaphthalene	QO	0.677	16.47	0.532	0.544	0.710	0.752	0.795	0.730	1.00	0.00	0.804	0.00

Calibration Date: 08/01/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): wt120801.M (Mean %RSD: 8.34)

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wv120822.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.688	3.97	0.711	0.698	0.699	0.707	0.673	0.639				
	1,1,2-Trichloro-1,2,2-trifluor	A	0.583	10.31	0.609	0.474	0.579	0.570	0.648	0.616				
	Diethyl ether (*)	A	0.414	10.36	0.475	0.349	0.409	0.392	0.441	0.418				
	Acetone (*)	A	0.152	9.24		0.136	0.159	0.139	0.160	0.168				
	Methyl iodide (iodomethane) (*	A	0.880	9.59	0.856	0.747	0.870	0.865	0.988	0.953				
	Carbon disulfide (*)	A	2.046	12.46	1.918	1.652	2.030	2.038	2.359	2.281				
	Methyl Acetate	A	0.422	9.44	0.450	0.349	0.420	0.411	0.453	0.449				
	tert-Methyl butyl ether (MTBE)	A	1.782	9.43	1.825	1.477	1.768	1.764	1.962	1.898				
	Acrylonitrile (*)	A	0.251	10.35	0.265	0.208	0.237	0.246	0.274	0.275				
	2-Butanone (MEK) (*)	A	0.241	8.91		0.213	0.242	0.232	0.245	0.272				
	Dichlorodifluoromethane	LO	0.615	17.93	0.562	0.480	0.589	0.566	0.776	0.719	0.99	0.00	0.718	0.00
	Chloromethane (SPCC)	A	0.998	11.29	1.122	0.816	0.988	0.939	1.102	1.021				
	Vinyl Chloride (CCC)	A	0.879	10.34	0.937	0.721	0.874	0.845	0.980	0.919				
	Bromomethane	QO	0.487	21.25	0.683	0.388	0.483	0.454	0.493	0.422	1.00	0.00	0.518	0.00
	Chloroethane	A	0.538	13.24	0.658	0.456	0.545	0.521	0.566	0.482				
	Acrolein	A	0.083	3.44		0.083	0.087	0.083	0.084	0.079				
	Trichlorofluoromethane	A	0.955	8.74	0.995	0.802	0.965	0.951	1.053	0.964				
	1,1-Dichloroethene (CCC/MS)	A	1.134	8.69	1.148	0.950	1.160	1.121	1.239	1.185				
	Methylene Chloride	A	0.698	11.04	0.816	0.583	0.682	0.666	0.732	0.708				
	trans-1,2-Dichloroethene	A	1.070	9.08	1.077	0.892	1.076	1.065	1.176	1.135				
	1,1-Dichloroethane (SPCC)	A	1.287	8.39	1.329	1.092	1.282	1.263	1.401	1.357				
	cis-1,2-Dichloroethene	A	0.709	9.53	0.739	0.582	0.711	0.701	0.775	0.746				
	Tetrahydrofuran	A	0.174	3.65		0.166	0.177	0.168	0.180	0.178				
	Chloroform (CCC)	A	1.144	9.40	1.102	0.956	1.175	1.154	1.266	1.213				
	Bromochloromethane	A	0.387	8.56	0.390	0.327	0.388	0.387	0.426	0.406				
	1,1,1-Trichloroethane	A	1.050	9.70	1.039	0.867	1.057	1.055	1.172	1.107				
	1,1-Dichloropropene	A	0.963	7.85	1.018	0.820	0.982	0.957	1.031	0.972				
	Cyclohexane	A	0.416	8.78	0.454	0.354	0.402	0.424	0.449	0.411				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.209	2.01	1.193	1.198	1.235	1.220	1.234	1.175				
	4-Methyl-2-pentanone (MIBK) (*	A	0.124	10.92	0.124	0.102	0.120	0.123	0.138	0.139				
	2-Hexanone (*)	A	0.120	14.41	0.142	0.091	0.115	0.117	0.128	0.129				
	2-chloroethylvinyl ether	A	0.257	7.83	0.271	0.222	0.263	0.265	0.276	0.245				
	Carbon Tetrachloride	A	0.510	11.43	0.472	0.418	0.515	0.520	0.583	0.550				
	Benzene (MS)	A	1.644	9.32	1.658	1.367	1.640	1.630	1.810	1.756				
	1,2-Dichloroethane	A	0.600	7.36	0.614	0.518	0.603	0.591	0.644	0.628				
	Trichloroethene (MS)	A	0.396	10.42	0.413	0.319	0.395	0.391	0.437	0.420				
	1,2-Dichloropropane (CCC)	A	0.434	11.33	0.425	0.351	0.432	0.429	0.483	0.486				
	Bromodichloromethane	A	0.494	14.13	0.431	0.397	0.495	0.509	0.575	0.559				
	Methyl Cyclohexane	A	0.671	12.35	0.684	0.532	0.642	0.661	0.763	0.745				
	Dibromomethane	A	0.194	12.61	0.183	0.157	0.190	0.190	0.220	0.222				
	cis-1,3-Dichloropropene	QO	0.590	16.74	0.482	0.468	0.593	0.608	0.700	0.689	1.00	0.00	0.643	0.00
	Toluene (CCC/MS)	A	1.754	11.13	1.727	1.409	1.754	1.760	1.981	1.893				
	trans-1,3-Dichloropropene	QO	0.523	18.18	0.408	0.417	0.515	0.551	0.627	0.618	1.00	0.00	0.578	0.00
	1,1,2-Trichloroethane	A	0.265	8.43	0.261	0.225	0.267	0.263	0.289	0.282				
	Tetrachloroethene	A	0.440	12.59	0.423	0.361	0.398	0.481	0.508	0.467				
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.584	3.51	0.580	0.557	0.567	0.587	0.607	0.607				
	trans-1,4-Dichloro-2-butene	QO	0.110	39.13	0.083	0.067	0.087	0.095	0.154	0.173	0.99	0.00	0.101	0.00
	Dibromochloromethane	QO	0.570	17.22	0.501	0.440	0.537	0.576	0.686	0.679	1.00	0.00	0.613	0.00
	1,2-Dibromoethane	A	0.559	11.53	0.549	0.454	0.549	0.548	0.633	0.622				
	Chlorobenzene (SPCC/MS)	A	1.919	11.68	1.971	1.544	1.849	1.865	2.165	2.118				
	1,1,1,2-Tetrachloroethane	A	0.624	12.90	0.586	0.501	0.610	0.622	0.719	0.705				
	Ethylbenzene (CCC)	A	3.493	10.74	3.585	2.877	3.491	3.518	4.051	3.434				
	p,m-Xylene	A	1.360	11.40	1.285	1.124	1.357	1.390	1.596	1.406				
	o-Xylene	A	2.880	10.15	2.999	2.381	2.818	2.871	3.277	2.932				
	Styrene	A	2.272	12.72	2.097	1.845	2.232	2.342	2.690	2.425				
	Isopropylbenzene	A	3.414	11.39	3.444	2.783	3.389	3.448	4.010	3.407				
	Bromoform (SPCC)	QO	0.300	25.97	0.221	0.217	0.278	0.304	0.377	0.404	1.00	0.00	0.307	0.00
	1,1,2,2-Tetrachloroethane (SPC	A	0.723	10.07	0.742	0.600	0.708	0.700	0.806	0.781				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
wv120822.m	1,2,3-Trichloropropane	A	0.223	9.15	0.237	0.185	0.225	0.219	0.243	0.227				
	n-Propylbenzene	A	4.027	11.97	4.075	3.354	4.104	4.121	4.797	3.713				
	Bromobenzene	A	0.766	13.08	0.786	0.599	0.734	0.745	0.873	0.861				
	1,3,5-Trimethylbenzene	A	1.410	11.77	1.393	1.132	1.377	1.408	1.626	1.521				
	tert-Butylbenzene	A	2.052	9.79	2.150	1.700	2.038	2.026	2.309	2.090				
	1,2,4-Trimethylbenzene	A	1.560	11.64	1.485	1.281	1.530	1.580	1.825	1.660				
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	4.211	10.25	4.380	3.615	4.264	4.400	4.799	3.806				
	p-Isopropyltoluene	A	3.394	9.34	3.457	2.919	3.420	3.541	3.847	3.182				
	1,3-Dichlorobenzene	A	1.683	9.60	1.793	1.415	1.678	1.733	1.877	1.602				
	1,4-Dichlorobenzene	A	1.733	8.60	1.742	1.471	1.704	1.761	1.926	1.792				
	1,2-Dichlorobenzene	A	1.579	9.31	1.603	1.317	1.536	1.616	1.755	1.647				
	1,2,3-Trimethylbenzene	A	3.354	8.94	3.600	2.849	3.338	3.398	3.699	3.240				
	n-Butylbenzene	A	3.384	9.32	3.555	2.866	3.396	3.460	3.797	3.231				
	Hexachloroethane	QO	0.373	19.72	0.304	0.285	0.346	0.395	0.460	0.449	1.00	0.00	0.419	0.00
	1,2-Dibromo-3-Chloropropane	QO	0.115	16.96	0.097	0.094	0.105	0.121	0.137	0.138	1.00	0.00	0.124	0.00
	1,2,4-Trichlorobenzene	A	1.007	12.79	0.939	0.828	0.952	1.023	1.186	1.111				
	Hexachlorobutadiene	A	0.503	14.80	0.513	0.382	0.468	0.506	0.602	0.547				
	1,2,3-Trichlorobenzene	A	0.962	12.81	1.000	0.753	0.910	0.967	1.117	1.026				
	Naphthalene	A	2.544	11.41	2.454	2.069	2.479	2.612	2.925	2.727				
	2-Methylnaphthalene	LO	1.198	15.70	1.036	0.944	1.181	1.299	1.465	1.265	0.99	0.00	1.303	0.00

Calibration Date: 08/22/12

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): wv120822.M (Mean %RSD: 11.43)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\merfolk.thd\methods\wt120801.m\

Injection Time	Calibration Data File
08/01/12 10:52	bfb01a.d
08/01/12 13:01	std001.d
08/01/12 13:22	std010.d
08/01/12 13:42	std020.d
08/01/12 14:02	std060.d
08/01/12 14:22	std100.d
08/01/12 14:42	std200.d
08/01/12 16:20	icv01a.d

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\bfb01a.d Vial:
Acq On : 1 Aug 12 10:52 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:37 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

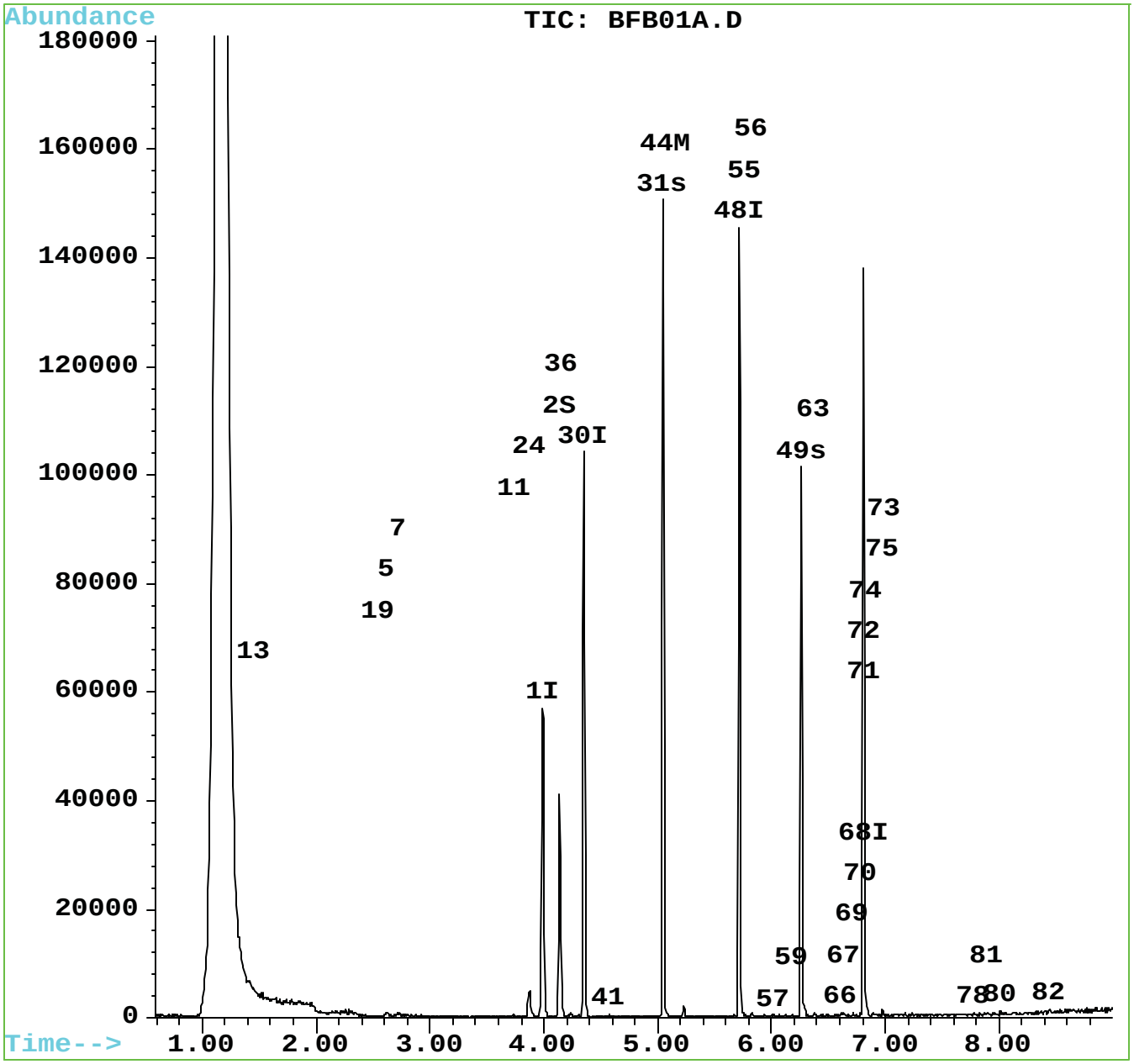
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	25765	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	46803	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26358	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	19557	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18278	5.66	ug/l		113.1
31) TOLUENE-D8 (S)	5.05	98	56424	5.05	ug/l		100.9
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	13363	4.42	ug/l		88.5
Target Compounds							Qvalu
5) Acetone (*)	2.63	43	1196	0.78	ug/l	#	4
7) Carbon disulfide (*)	2.71	76	1334	0.17	ug/l	#	7
11) 2-Butanone (MEK) (*)	3.74	43	166	0.09	ug/l	#	4
13) Chloromethane (SPCC)	1.45	50	60	0.02	ug/l	#	5
19) 1,1-Dichloroethene (CCC/MS	2.55	61	54	0.01	ug/l	#	2
24) Tetrahydrofuran	3.87	42	3142	2.66	ug/l	#	1
36) Benzene (MS)	4.16	78	137	0.01	ug/l	#	
41) Methyl Cyclohexane	4.57	55	55	0.01	ug/l	#	6
44) Toluene (CCC/MS)	5.08	91	384	0.03	ug/l	#	2
55) Ethylbenzene (CCC)	5.77	91	178	0.01	ug/l	#	4
56) p,m-Xylene	5.82	106	127	0.02	ug/l	#	4
57) o-Xylene	6.02	91	112	0.01	ug/l	#	3
59) Isopropylbenzene	6.19	105	194	0.01	ug/l	#	5
63) n-Propylbenzene	6.37	91	249	0.02	ug/l	#	5
66) tert-Butylbenzene	6.61	91	77	0.01	ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.63	120	90	0.02	ug/l	#	6
69) sec-Butylbenzene	6.72	105	254	0.02	ug/l	#	5
70) p-Isopropyltoluene	6.78	119	158	0.02	ug/l	#	5
71) 1,3-Dichlorobenzene	6.82	146	112	0.03	ug/l	#	
72) 1,4-Dichlorobenzene	6.82	146	112	0.02	ug/l	#	
73) 1,2-Dichlorobenzene	7.00	146	56	0.01	ug/l	#	2
74) 1,2,3-Trimethylbenzene	6.84	105	251	0.03	ug/l	#	
75) n-Butylbenzene	6.97	91	314	0.03	ug/l	#	6
78) 1,2,4-Trichlorobenzene	7.77	182	137	0.05	ug/l	#	6
80) 1,2,3-Trichlorobenzene	8.01	180	132	0.05	ug/l	#	6
81) Naphthalene	7.90	128	444	0.05	ug/l	#	7
82) 2-Methylnaphthalene	8.45	142	229	0.06	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\bfb01a.d Vial:
Acq On : 1 Aug 12 10:52 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:37 19112

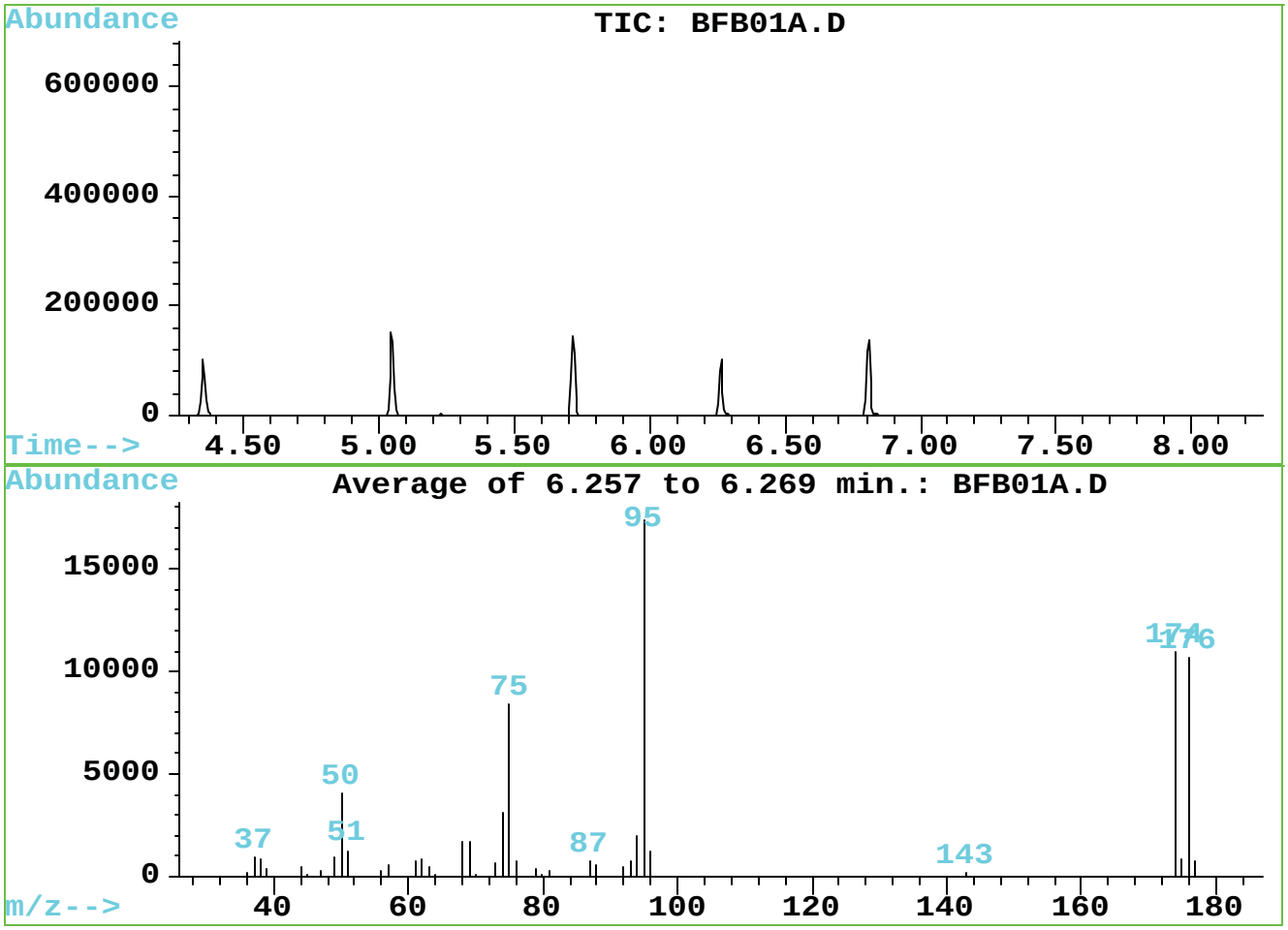
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M\BFB01A.D Vial:
Acq On : 1 Aug 12 10:52 am Operator: lbr
Sample : 25ng/bfb 1dr0731 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 966

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	23.2	4031	PASS
75	95	30	66	48.3	8382	PASS
95	95	100	100	100.0	17361	PASS
96	95	5	9	6.9	1204	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	62.9	10920	PASS
175	174	4	9	7.5	816	PASS
176	174	93	101	97.4	10640	PASS
177	176	5	9	7.5	802	PASS

BFB01A.D WT120801.M Mon Aug 20 17:21:58 2012

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	25565	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	46282	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	25723	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	20002	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18428	5.75	ug/l		115.0
31) TOLUENE-D8 (S)	5.05	98	56738	5.13	ug/l		102.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	13149	4.46	ug/l		89.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	2307	1.03	ug/l	#	5
4) Diethyl ether (*)	2.37	74	1827	1.07	ug/l		7
5) Acetone (*)	2.62	43	1544	1.02	ug/l		5
6) Methyl iodide (iodomethane	2.66	142	3094	0.95	ug/l		8
7) Carbon disulfide (*)	2.70	76	7516	0.96	ug/l		8
8) Methyl Acetate	2.87	43	2514	1.02	ug/l	#	6
9) tert-Methyl butyl ether (M	3.13	73	7273	0.93	ug/l		7
10) Acrylonitrile (*)	3.12	53	975	0.74	ug/l	#	9
11) 2-Butanone (MEK) (*)	3.73	43	2023	1.05	ug/l	#	6
12) Dichlorodifluoromethane	1.26	85	1556	0.73	ug/l	m	7
13) Chloromethane (SPCC)	1.40	50	3916	1.09	ug/l		8
14) Vinyl Chloride (CCC)	1.51	62	3269	1.02	ug/l		6
15) Bromomethane	1.78	94	1925	1.42	ug/l	#	4
16) Chloroethane	1.86	64	2012	1.22	ug/l	#	6
17) Acrolein	2.46	56	114	0.19	ug/l	m	7
18) Trichlorofluoromethane	2.13	101	3477	1.16	ug/l	m	8
19) 1,1-Dichloroethene (CCC/MS	2.56	61	4438	1.08	ug/l		7
20) Methylene Chloride	2.95	84	2968	1.10	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	4430	1.09	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	5279	1.06	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	2893	1.04	ug/l	#	6
24) Tetrahydrofuran	3.87	42	3769	3.22	ug/l	#	1
25) Chloroform (CCC)	3.89	83	4806	1.12	ug/l		9
26) Bromochloromethane	3.85	130	1495	0.96	ug/l	#	2
27) 1,1,1-Trichloroethane	3.99	97	3889	1.03	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	4101	1.13	ug/l		8
29) Cyclohexane	4.01	42	1803	1.15	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.99	58	833	0.70	ug/l	#	4
33) 2-Hexanone (*)	5.37	58	599	0.48	ug/l	#	3

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.85	63	1896	0.97 ug/l	8
35) Carbon Tetrachloride	4.06	117	2933	0.97 ug/l	9
36) Benzene (MS)	4.17	78	11897	1.08 ug/l #	2
37) 1,2-Dichloroethane	4.18	62	4211	1.12 ug/l	9
38) Trichloroethene (MS)	4.47	95	2697	1.04 ug/l	8
39) 1,2-Dichloropropane (CCC)	4.59	63	2897	1.01 ug/l	9
40) Bromodichloromethane	4.72	83	2670	0.85 ug/l	9
41) Methyl Cyclohexane	4.57	55	4099	0.99 ug/l #	5
42) Dibromomethane	4.65	174	1457	1.07 ug/l #	6
43) cis-1,3-Dichloropropene	4.92	75	3022	0.71 ug/l	8
44) Toluene (CCC/MS)	5.08	91	12731	1.11 ug/l	9
45) trans-1,3-Dichloropropene	5.17	75	2436	0.63 ug/l	8
46) 1,1,2-Trichloroethane	5.26	83	2069	1.07 ug/l	8
47) Tetrachloroethene	5.33	166	2189	0.94 ug/l	7
50) trans-1,4-Dichloro-2-buten	6.35	53	70	0.07 ug/l #	
51) Dibromochloromethane	5.45	129	1623	0.68 ug/l	9
52) 1,2-Dibromoethane	5.51	107	2097	0.87 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.73	112	7623	1.04 ug/l	8
54) 1,1,1,2-Tetrachloroethane	5.76	131	1780	0.78 ug/l	8
55) Ethylbenzene (CCC)	5.77	91	13502	1.03 ug/l	9
56) p,m-Xylene	5.83	106	10149	2.05 ug/l	8
57) o-Xylene	6.02	91	11006	1.06 ug/l	9
58) Styrene	6.02	104	7843	0.95 ug/l	9
59) Isopropylbenzene	6.18	105	11594	0.90 ug/l	9
60) Bromoform (SPCC)	6.12	173	628	0.44 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.32	83	2872	0.85 ug/l	9
62) 1,2,3-Trichloropropane	6.35	110	842	0.87 ug/l	8
63) n-Propylbenzene	6.37	91	13595	0.90 ug/l	9
64) Bromobenzene	6.34	156	2341	0.89 ug/l #	2
65) 1,3,5-Trimethylbenzene	6.45	120	4583	0.89 ug/l #	7
66) tert-Butylbenzene	6.61	91	6820	0.96 ug/l #	6
67) 1,2,4-Trimethylbenzene	6.63	120	4767	0.85 ug/l #	6
69) sec-Butylbenzene	6.72	105	11775	0.93 ug/l	9
70) p-Isopropyltoluene	6.77	119	9319	0.95 ug/l	9
71) 1,3-Dichlorobenzene	6.78	146	4890	1.07 ug/l	9
72) 1,4-Dichlorobenzene	6.82	146	5225	1.05 ug/l	8
73) 1,2-Dichlorobenzene	7.00	146	5023	1.05 ug/l	9
74) 1,2,3-Trimethylbenzene	6.84	105	9830	0.96 ug/l	8
75) n-Butylbenzene	6.97	91	8871	0.91 ug/l	8
76) Hexachloroethane	7.13	201	526	0.44 ug/l #	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

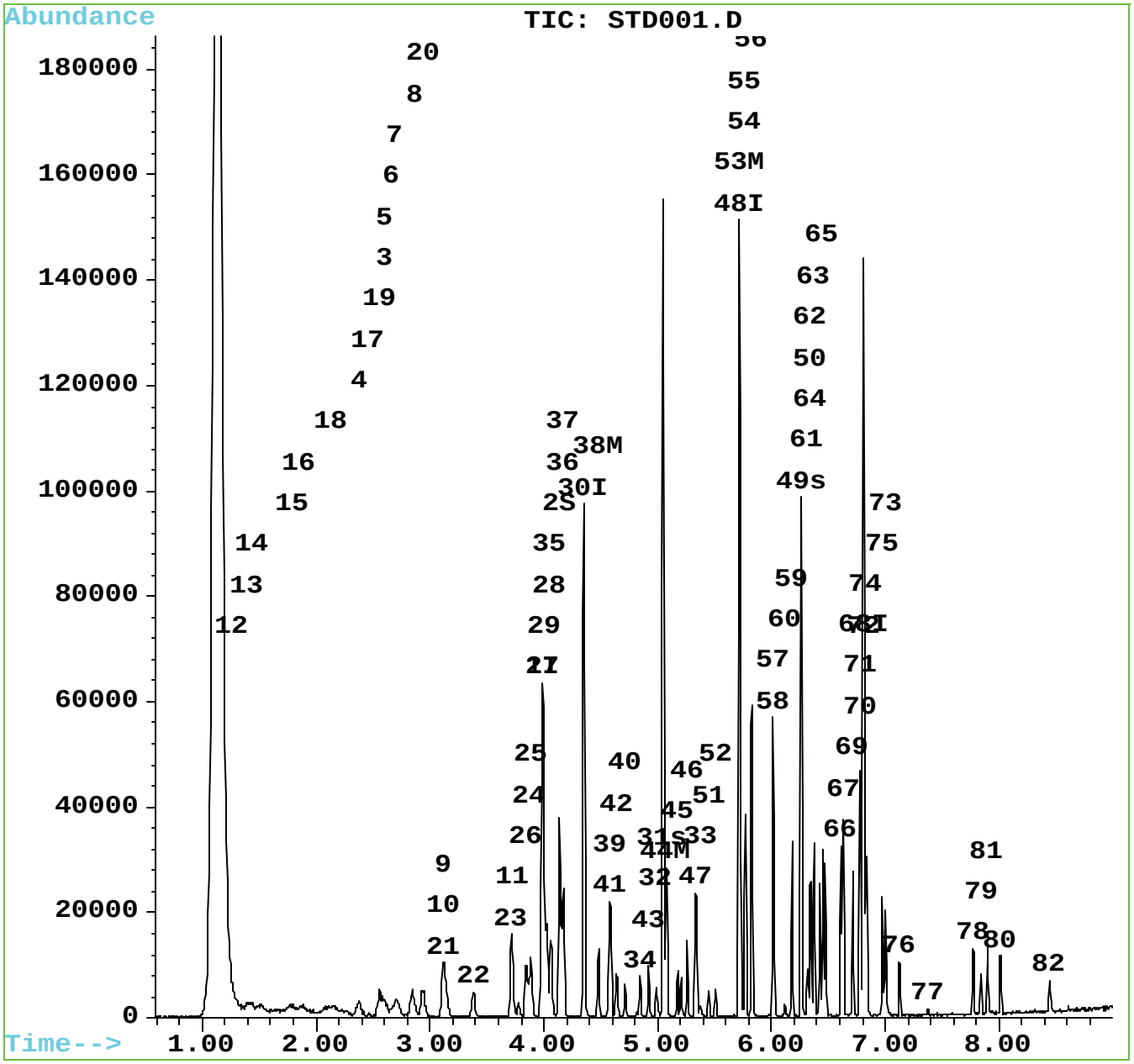
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.38	157	157	0.26	ug/l	#	4
78)	1,2,4-Trichlorobenzene	7.77	182	2468	0.86	ug/l		9
79)	Hexachlorobutadiene	7.85	225	789	0.65	ug/l	#	7
80)	1,2,3-Trichlorobenzene	8.02	180	2281	0.84	ug/l		9
81)	Naphthalene	7.90	128	6734	0.72	ug/l		9
82)	2-Methylnaphthalene	8.45	142	2130	0.52	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std001.d Vial:
Acq On : 1 Aug 12 1:01 pm Operator: lbr
Sample : 1dr0731 1c0801 1ac0801 1ch0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:38 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	26057	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	47576	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26732	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	20548	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19864	6.08	ug/l		121.6
31) TOLUENE-D8 (S)	5.05	98	58067	5.11	ug/l		102.2
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14322	4.68	ug/l		93.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	23726	10.42	ug/l		8
4) Diethyl ether (*)	2.39	74	19189	10.99	ug/l	#	6
5) Acetone (*)	2.62	43	13465	8.71	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	33271	10.02	ug/l		8
7) Carbon disulfide (*)	2.71	76	83046	10.43	ug/l		8
8) Methyl Acetate	2.87	43	26316	10.50	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	75818	9.55	ug/l		7
10) Acrylonitrile (*)	3.11	53	13564	10.08	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	18889	9.59	ug/l		7
12) Dichlorodifluoromethane	1.28	85	22728	10.29	ug/l		9
13) Chloromethane (SPCC)	1.42	50	43999	11.99	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	38934	11.89	ug/l		9
15) Bromomethane	1.81	94	20005	14.76	ug/l		9
16) Chloroethane	1.88	64	23943	14.60	ug/l		8
17) Acrolein	2.49	56	4872	7.90	ug/l		8
18) Trichlorofluoromethane	2.13	101	40762	13.29	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	48346	11.53	ug/l		7
20) Methylene Chloride	2.94	84	30124	10.98	ug/l	#	6
21) trans-1,2-Dichloroethene	3.12	61	46628	11.30	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	56329	11.15	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	30996	10.90	ug/l	#	6
24) Tetrahydrofuran	3.87	42	13984	11.72	ug/l		9
25) Chloroform (CCC)	3.89	83	48490	11.10	ug/l		9
26) Bromochloromethane	3.85	130	15952	10.06	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	39912	10.33	ug/l	#	2
28) 1,1-Dichloropropene	4.06	75	42696	11.58	ug/l		8
29) Cyclohexane	4.02	42	19158	11.95	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	10512	8.61	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	11104	8.63	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	20455	10.23 ug/l		9
35) Carbon Tetrachloride	4.07	117	31766	10.21 ug/l		9
36) Benzene (MS)	4.17	78	121525	10.77 ug/l		8
37) 1,2-Dichloroethane	4.17	62	44240	11.41 ug/l		9
38) Trichloroethene (MS)	4.48	95	28517	10.73 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	32759	11.15 ug/l		9
40) Bromodichloromethane	4.72	83	33205	10.26 ug/l		9
41) Methyl Cyclohexane	4.57	55	43261	10.21 ug/l	#	5
42) Dibromomethane	4.65	174	13079	9.35 ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	42850	9.75 ug/l		9
44) Toluene (CCC/MS)	5.08	91	129199	10.93 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	35991	9.08 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	20647	10.36 ug/l		9
47) Tetrachloroethene	5.33	166	23925	9.97 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	3713	3.77 ug/l	#	
51) Dibromochloromethane	5.45	129	19924	8.03 ug/l		9
52) 1,2-Dibromoethane	5.51	107	23802	9.47 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	76627	10.06 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	22271	9.42 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	141786	10.43 ug/l		9
56) p,m-Xylene	5.83	106	108088	20.97 ug/l		8
57) o-Xylene	6.02	91	113367	10.50 ug/l		8
58) Styrene	6.02	104	88793	10.40 ug/l		9
59) Isopropylbenzene	6.18	105	134416	10.01 ug/l		9
60) Bromoform (SPCC)	6.12	173	9945	6.76 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	34178	9.68 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	9741	9.64 ug/l	#	7
63) n-Propylbenzene	6.37	91	158507	10.09 ug/l		9
64) Bromobenzene	6.34	156	26715	9.78 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	52872	9.88 ug/l	#	7
66) tert-Butylbenzene	6.61	91	73061	9.87 ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.63	120	57580	9.91 ug/l	#	7
69) sec-Butylbenzene	6.72	105	131761	10.11 ug/l		9
70) p-Isopropyltoluene	6.77	119	106144	10.56 ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	51021	10.88 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	54089	10.57 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	51121	10.44 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	114627	10.90 ug/l		9
75) n-Butylbenzene	6.97	91	101916	10.18 ug/l		9
76) Hexachloroethane	7.13	201	8856	7.23 ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

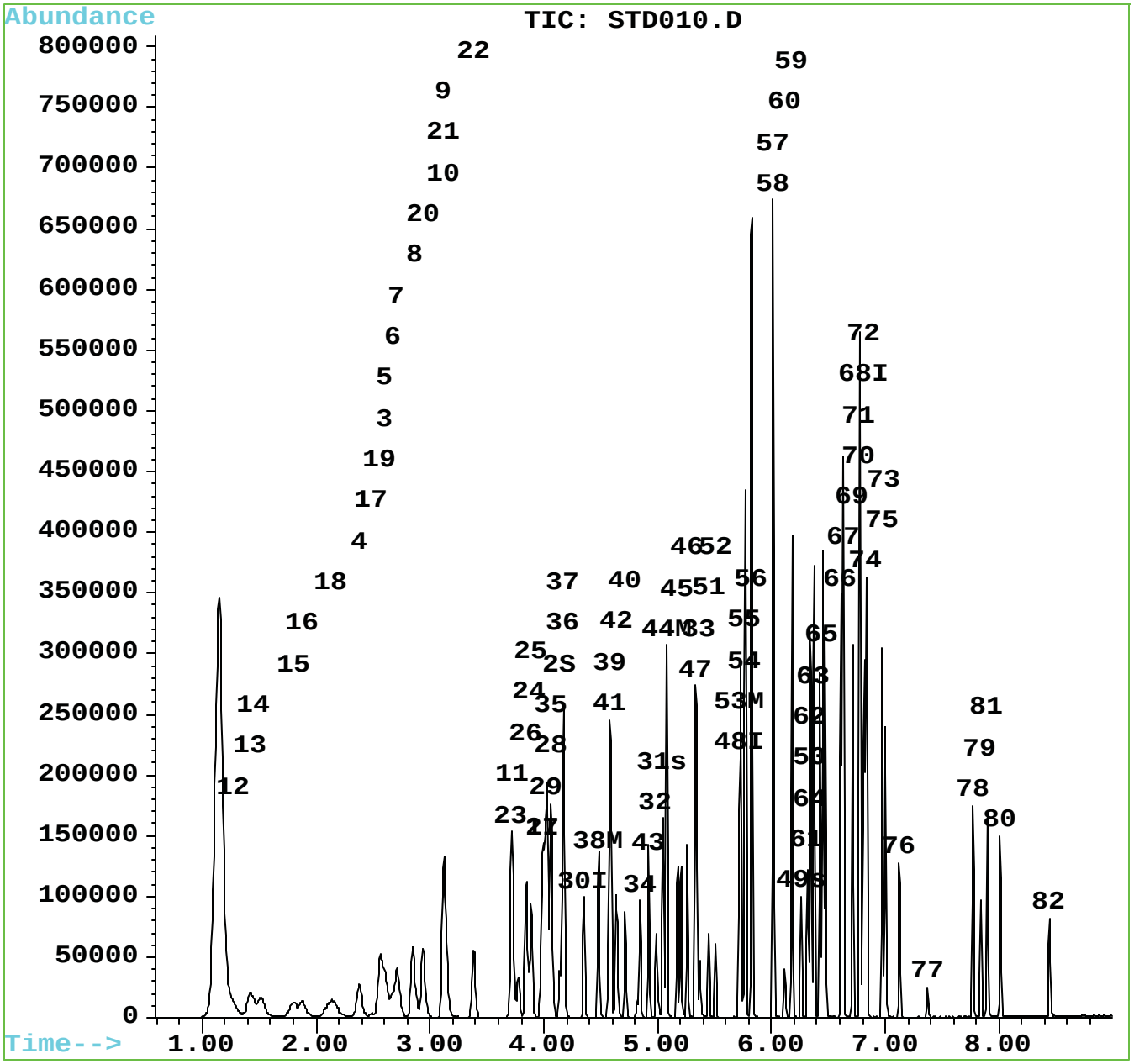
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	3914	6.39	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	25996	8.86	ug/l		9
79)	Hexachlorobutadiene	7.84	225	9779	7.83	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	24192	8.66	ug/l		9
81)	Naphthalene	7.90	128	79440	8.29	ug/l		9
82)	2-Methylnaphthalene	8.45	142	22346	5.32	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std010.d Vial:
Acq On : 1 Aug 12 1:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:40 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	26189	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	48324	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	26468	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	21098	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18903	5.76	ug/l		115.1
31) TOLUENE-D8 (S)	5.05	98	59432	5.15	ug/l		103.0
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14461	4.77	ug/l		95.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	49775	21.75	ug/l		8
4) Diethyl ether (*)	2.37	74	38915	22.17	ug/l	#	6
5) Acetone (*)	2.61	43	22849	14.71	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	66713	19.99	ug/l		8
7) Carbon disulfide (*)	2.71	76	176661	22.08	ug/l		8
8) Methyl Acetate	2.86	43	54822	21.76	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	162943	20.43	ug/l		8
10) Acrylonitrile (*)	3.11	53	29054	21.49	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	36213	18.30	ug/l		7
12) Dichlorodifluoromethane	1.26	85	46170	20.43	ug/l		9
13) Chloromethane (SPCC)	1.41	50	84167	22.81	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	79516	24.17	ug/l		9
15) Bromomethane	1.79	94	39935	30.02	ug/l		9
16) Chloroethane	1.87	64	47213	29.37	ug/l		8
17) Acrolein	2.48	56	10290	16.60	ug/l		9
18) Trichlorofluoromethane	2.14	101	81344	26.38	ug/l	m	3
19) 1,1-Dichloroethene (CCC/MS	2.56	61	97242	23.07	ug/l	#	7
20) Methylene Chloride	2.93	84	58885	21.35	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	94085	22.68	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	114570	22.56	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	61951	21.69	ug/l	#	6
24) Tetrahydrofuran	3.87	42	26342	21.96	ug/l		8
25) Chloroform (CCC)	3.89	83	98947	22.54	ug/l		9
26) Bromochloromethane	3.85	130	32897	20.63	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	86585	22.29	ug/l	#	1
28) 1,1-Dichloropropene	4.06	75	84979	22.94	ug/l		9
29) Cyclohexane	4.02	42	37998	23.58	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	23137	18.67	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	22417	17.15	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	45660	22.48	ug/l		8
35) Carbon Tetrachloride	4.07	117	65872	20.84	ug/l		9
36) Benzene (MS)	4.17	78	253268	22.09	ug/l		8
37) 1,2-Dichloroethane	4.17	62	89664	22.77	ug/l		9
38) Trichloroethene (MS)	4.48	95	56867	21.06	ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	66495	22.29	ug/l		9
40) Bromodichloromethane	4.72	83	69829	21.24	ug/l		9
41) Methyl Cyclohexane	4.57	55	89278	20.74	ug/l	#	5
42) Dibromomethane	4.65	174	27162	19.11	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	91676	20.54	ug/l		9
44) Toluene (CCC/MS)	5.08	91	256081	21.34	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	80869	20.09	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	42230	20.86	ug/l		9
47) Tetrachloroethene	5.33	166	49699	20.39	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.34	53	9786	10.04	ug/l	#	5
51) Dibromochloromethane	5.45	129	43084	17.53	ug/l		9
52) 1,2-Dibromoethane	5.51	107	49084	19.72	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	155507	20.61	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	48593	20.75	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	291172	21.63	ug/l		9
56) p,m-Xylene	5.83	106	222173	43.54	ug/l		8
57) o-Xylene	6.02	91	234807	21.96	ug/l		9
58) Styrene	6.02	104	185838	21.99	ug/l		9
59) Isopropylbenzene	6.18	105	281970	21.22	ug/l		9
60) Bromoform (SPCC)	6.12	173	21797	14.91	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	69868	19.99	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	19987	19.98	ug/l	#	8
63) n-Propylbenzene	6.37	91	330985	21.29	ug/l		8
64) Bromobenzene	6.34	156	54565	20.18	ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	106702	20.13	ug/l	#	7
66) tert-Butylbenzene	6.61	91	152026	20.73	ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.63	120	120208	20.89	ug/l	#	7
69) sec-Butylbenzene	6.71	105	274831	20.55	ug/l		9
70) p-Isopropyltoluene	6.77	119	219425	21.27	ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	107044	22.23	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	110266	20.99	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	103479	20.59	ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	235913	21.86	ug/l		8
75) n-Butylbenzene	6.97	91	212492	20.67	ug/l		9
76) Hexachloroethane	7.13	201	18933	15.04	ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

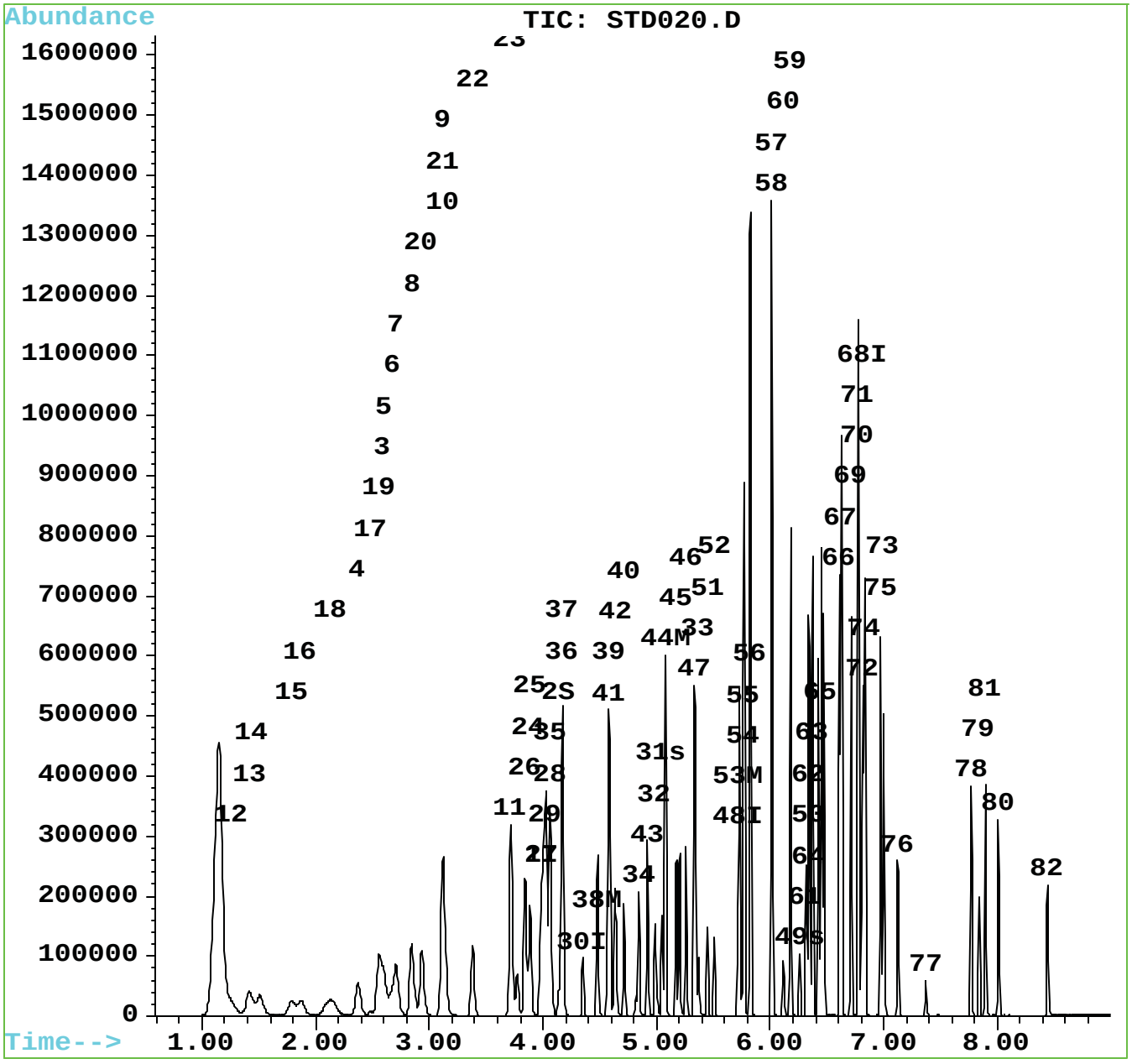
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	8778	13.96	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	55138	18.30	ug/l		9
79)	Hexachlorobutadiene	7.85	225	19852	15.48	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	51172	17.83	ug/l		9
81)	Naphthalene	7.89	128	173253	17.61	ug/l		9
82)	2-Methylnaphthalene	8.44	142	59914	13.90	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std020.d Vial:
Acq On : 1 Aug 12 1:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	27134	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	49502	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	27852	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	21684	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19516	5.74	ug/l		114.7
31) TOLUENE-D8 (S)	5.05	98	61916	5.24	ug/l		104.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	14182	4.44	ug/l		88.8
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	159916	67.44	ug/l	#	8
4) Diethyl ether (*)	2.37	74	121850	67.01	ug/l	#	6
5) Acetone (*)	2.62	43	81985	50.95	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	212599	61.47	ug/l		8
7) Carbon disulfide (*)	2.71	76	563341	67.96	ug/l		9
8) Methyl Acetate	2.87	43	167423	64.14	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	510679	61.79	ug/l		8
10) Acrylonitrile (*)	3.11	53	89286	63.74	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	121131	59.08	ug/l		7
12) Dichlorodifluoromethane	1.27	85	145331	58.35	ug/l		9
13) Chloromethane (SPCC)	1.42	50	264973	69.32	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	243252	71.36	ug/l		9
15) Bromomethane	1.80	94	107251	85.31	ug/l		9
16) Chloroethane	1.87	64	133549	89.52	ug/l		8
17) Acrolein	2.49	56	32019	49.84	ug/l		9
18) Trichlorofluoromethane	2.15	101	251567	78.74	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	310262	71.04	ug/l	#	7
20) Methylene Chloride	2.94	84	184121	64.43	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	304449	70.85	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	366259	69.61	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	194868	65.84	ug/l	#	6
24) Tetrahydrofuran	3.87	42	71295	57.36	ug/l	#	7
25) Chloroform (CCC)	3.89	83	309224	68.00	ug/l		9
26) Bromochloromethane	3.85	130	104258	63.12	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	272389	67.69	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	269855	70.31	ug/l		8
29) Cyclohexane	4.02	42	124356	74.49	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	76806	60.49	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	77134	57.60	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	139110	66.85	ug/l		8
35) Carbon Tetrachloride	4.07	117	220731	68.19	ug/l		9
36) Benzene (MS)	4.17	78	778900	66.33	ug/l		8
37) 1,2-Dichloroethane	4.17	62	282094	69.92	ug/l		9
38) Trichloroethene (MS)	4.48	95	179333	64.82	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	209835	68.66	ug/l		9
40) Bromodichloromethane	4.72	83	231638	68.78	ug/l		9
41) Methyl Cyclohexane	4.57	55	289086	65.57	ug/l	#	5
42) Dibromomethane	4.65	174	85881	58.99	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	305105	66.73	ug/l		9
44) Toluene (CCC/MS)	5.08	91	817244	66.48	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	278019	67.41	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	134459	64.83	ug/l		9
47) Tetrachloroethene	5.33	166	155264	62.18	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	42962	41.89	ug/l		9
51) Dibromochloromethane	5.45	129	147287	56.95	ug/l		9
52) 1,2-Dibromoethane	5.51	107	154724	59.06	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	482753	60.80	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	154891	62.86	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	928668	65.57	ug/l		9
56) p,m-Xylene	5.83	106	691126	128.72	ug/l	#	7
57) o-Xylene	6.02	91	749017	66.56	ug/l		8
58) Styrene	6.02	104	588909	66.22	ug/l		9
59) Isopropylbenzene	6.18	105	880374	62.96	ug/l		9
60) Bromoform (SPCC)	6.12	173	79916	51.12	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	217988	59.26	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	62291	59.18	ug/l	#	6
63) n-Propylbenzene	6.37	91	1042169	63.69	ug/l		8
64) Bromobenzene	6.34	156	173502	60.97	ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	343071	61.50	ug/l	#	7
66) tert-Butylbenzene	6.61	91	496122	64.30	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	385721	63.71	ug/l	#	7
69) sec-Butylbenzene	6.72	105	870158	63.30	ug/l		9
70) p-Isopropyltoluene	6.77	119	697891	65.82	ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	330322	66.73	ug/l		8
72) 1,4-Dichlorobenzene	6.82	146	341591	63.25	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	325420	63.00	ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	748753	67.49	ug/l		8
75) n-Butylbenzene	6.97	91	679214	64.28	ug/l		9
76) Hexachloroethane	7.13	201	68488	52.95	ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

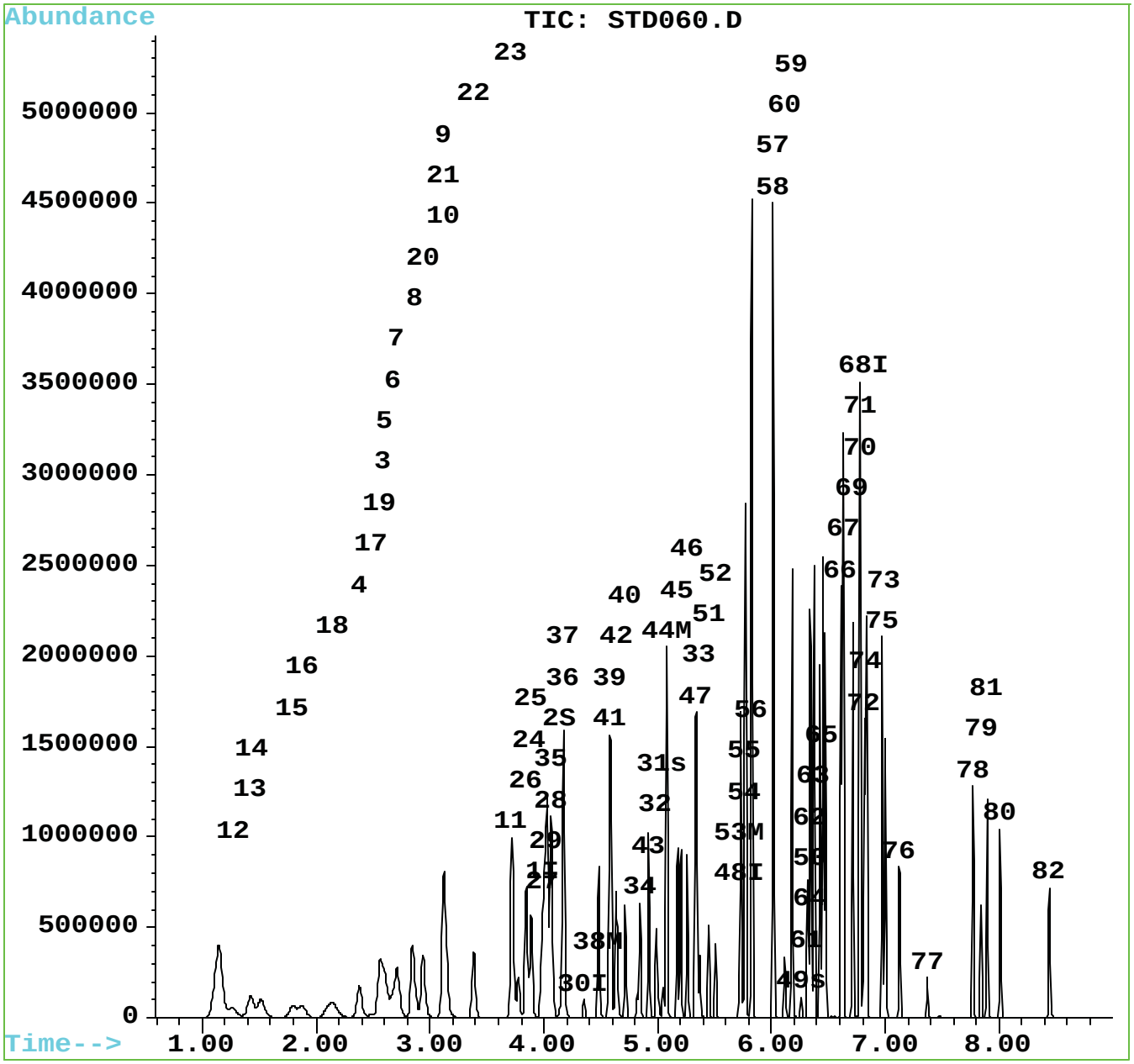
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	30152	46.84	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	179017	57.82	ug/l		9
79)	Hexachlorobutadiene	7.85	225	64467	48.90	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	158820	53.85	ug/l		9
81)	Naphthalene	7.90	128	551895	54.58	ug/l		9
82)	2-Methylnaphthalene	8.45	142	195795	44.19	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std060.d Vial:
Acq On : 1 Aug 12 2:02 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:41 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	28803	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	51293	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29297	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22937	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	20922	5.79	ug/l		115.8
31) TOLUENE-D8 (S)	5.05	98	63786	5.21	ug/l		104.1
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15012	4.47	ug/l		89.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	294611	117.04	ug/l		8
4) Diethyl ether (*)	2.38	74	222819	115.44	ug/l	#	6
5) Acetone (*)	2.62	43	159895	93.62	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	393985	107.31	ug/l		8
7) Carbon disulfide (*)	2.71	76	1065290	121.07	ug/l		9
8) Methyl Acetate	2.87	43	301044	108.64	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	953487	108.68	ug/l		8
10) Acrylonitrile (*)	3.11	53	168881	113.58	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	226926	104.27	ug/l		7
12) Dichlorodifluoromethane	1.26	85	326519	113.58	ug/l		9
13) Chloromethane (SPCC)	1.43	50	520983	128.40	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	467590	129.22	ug/l		9
15) Bromomethane	1.80	94	183553	157.22	ug/l		9
16) Chloroethane	1.88	64	229093	172.20	ug/l		8
17) Acrolein	2.49	56	61335	89.95	ug/l		9
18) Trichlorofluoromethane	2.15	101	455163	134.21	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	571183	123.21	ug/l	#	7
20) Methylene Chloride	2.94	84	337650	111.31	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	555076	121.69	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	659191	118.02	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	354000	112.67	ug/l	#	6
24) Tetrahydrofuran	3.87	42	128603	97.48	ug/l	#	7
25) Chloroform (CCC)	3.89	83	555008	114.97	ug/l		9
26) Bromochloromethane	3.85	130	186525	106.38	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	498970	116.82	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	490201	120.33	ug/l		8
29) Cyclohexane	4.02	42	224284	126.57	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	138511	105.29	ug/l	#	6
33) 2-Hexanone (*)	5.36	58	146766	105.78	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	253275	117.46 ug/l		8
35) Carbon Tetrachloride	4.07	117	403015	120.15 ug/l		9
36) Benzene (MS)	4.17	78	1414631	116.26 ug/l		8
37) 1,2-Dichloroethane	4.18	62	514515	123.08 ug/l		9
38) Trichloroethene (MS)	4.48	95	326701	113.97 ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	386216	121.97 ug/l		9
40) Bromodichloromethane	4.72	83	421205	120.70 ug/l		9
41) Methyl Cyclohexane	4.57	55	531858	116.43 ug/l	#	5
42) Dibromomethane	4.65	174	153931	102.04 ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	565814	119.43 ug/l		9
44) Toluene (CCC/MS)	5.08	91	1475726	115.85 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	513877	120.24 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	239644	111.50 ug/l		9
47) Tetrachloroethene	5.33	166	279137	107.88 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	86515	80.19 ug/l	#	7
51) Dibromochloromethane	5.45	129	271069	99.65 ug/l		9
52) 1,2-Dibromoethane	5.51	107	274147	99.48 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	859818	102.95 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	275373	106.24 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	1639554	110.06 ug/l		9
56) p,m-Xylene	5.83	106	1194174	211.44 ug/l	#	7
57) o-Xylene	6.02	91	1311895	110.82 ug/l		8
58) Styrene	6.02	104	1029613	110.07 ug/l		9
59) Isopropylbenzene	6.18	105	1561888	106.18 ug/l		9
60) Bromoform (SPCC)	6.12	173	149209	89.23 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	389964	100.78 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	112295	101.42 ug/l	#	6
63) n-Propylbenzene	6.37	91	1865569	108.39 ug/l		8
64) Bromobenzene	6.34	156	309349	103.35 ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	607487	103.53 ug/l	#	7
66) tert-Butylbenzene	6.61	91	884411	108.96 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	676034	106.15 ug/l	#	7
69) sec-Butylbenzene	6.72	105	1572225	108.12 ug/l		9
70) p-Isopropyltoluene	6.78	119	1208413	107.74 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	571482	109.14 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	610967	106.95 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	577647	105.71 ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	1321187	112.59 ug/l		8
75) n-Butylbenzene	6.97	91	1224185	109.52 ug/l		9
76) Hexachloroethane	7.13	201	127924	93.50 ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

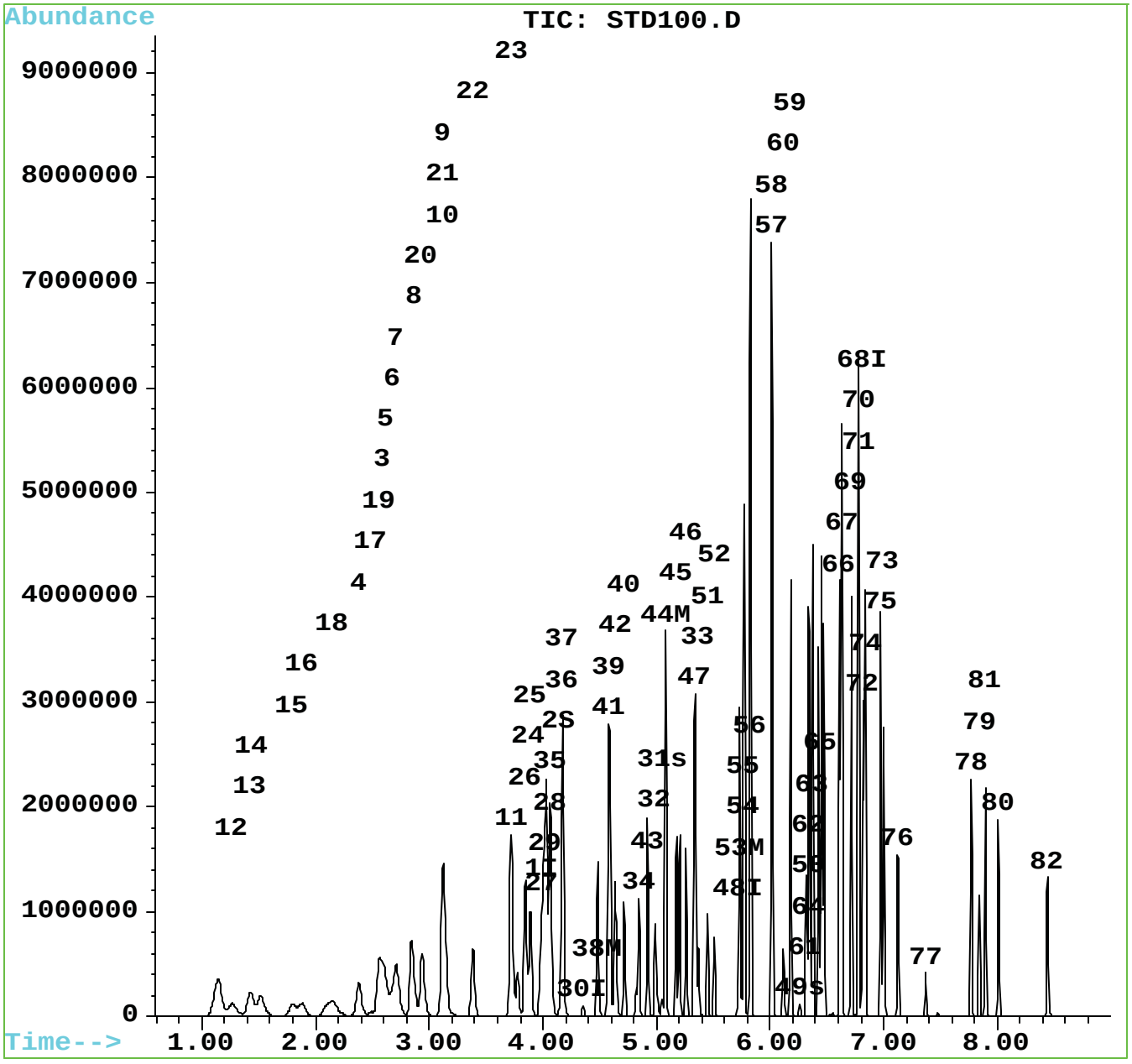
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	56200	82.86 ug/l #	6
78)	1,2,4-Trichlorobenzene	7.77	182	318169	97.16 ug/l	9
79)	Hexachlorobutadiene	7.85	225	119783	85.89 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	286357	91.78 ug/l	9
81)	Naphthalene	7.90	128	1004411	93.90 ug/l	9
82)	2-Methylnaphthalene	8.45	142	364661	77.81 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std100.d Vial:
Acq On : 1 Aug 12 2:22 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:42 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	29908	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54448	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30819	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23675	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	21145	4.92	ug/l		98.4
31) TOLUENE-D8 (S)	5.05	98	67968	5.07	ug/l		101.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17238	5.23	ug/l		104.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	620618	216.86	ug/l		8
4) Diethyl ether (*)	2.37	74	457556	208.80	ug/l	#	5
5) Acetone (*)	2.62	43	307549	201.98	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	833633	214.35	ug/l		8
7) Carbon disulfide (*)	2.70	76	2277038	226.24	ug/l		9
8) Methyl Acetate	2.87	43	648573	210.85	ug/l		8
9) tert-Methyl butyl ether (M	3.13	73	2017218	217.73	ug/l		8
10) Acrylonitrile (*)	3.10	53	358705	227.19	ug/l		9
11) 2-Butanone (MEK) (*)	3.73	43	463857	212.10	ug/l		7
12) Dichlorodifluoromethane	1.26	85	682569	202.43	ug/l		9
13) Chloromethane (SPCC)	1.42	50	1050991	214.34	ug/l		9
14) Vinyl Chloride (CCC)	1.52	62	957966	217.52	ug/l		9
17) Acrolein	2.49	56	128378	207.81	ug/l		10
18) Trichlorofluoromethane	2.13	101	885458	201.06	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	1205631	217.90	ug/l		7
20) Methylene Chloride	2.93	84	713538	208.35	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	1161048	215.60	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	1388428	213.70	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	738321	210.17	ug/l	#	6
24) Tetrahydrofuran	3.87	42	275835	193.68	ug/l	#	7
25) Chloroform (CCC)	3.89	83	1167198	208.68	ug/l		9
26) Bromochloromethane	3.85	130	390306	209.88	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	1054022	217.14	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	1007082	209.02	ug/l		8
29) Cyclohexane	4.02	42	465605	214.42	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	296966	227.40	ug/l	#	6
33) 2-Hexanone (*)	5.37	58	304371	236.08	ug/l	#	7
34) 2-chloroethylvinyl ether	4.85	63	521763	213.57	ug/l		8
35) Carbon Tetrachloride	4.07	117	845996	222.64	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
36) Benzene (MS)	4.17	78	2878906	206.70	ug/l		8
37) 1,2-Dichloroethane	4.18	62	1043325	208.80	ug/l		9
38) Trichloroethene (MS)	4.48	95	680750	210.60	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	791053	214.56	ug/l		9
40) Bromodichloromethane	4.72	83	902308	230.17	ug/l		9
41) Methyl Cyclohexane	4.57	55	1111691	217.33	ug/l	#	5
42) Dibromomethane	4.65	174	327314	206.03	ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	1205329	237.67	ug/l		9
44) Toluene (CCC/MS)	5.08	91	2980882	204.49	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	1104074	245.82	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	499629	207.97	ug/l		9
47) Tetrachloroethene	5.33	166	573569	209.06	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	189640	178.19	ug/l	#	6
51) Dibromochloromethane	5.45	129	576961	203.09	ug/l		9
52) 1,2-Dibromoethane	5.51	107	581877	208.44	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	1735841	196.17	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.77	131	538965	205.01	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	3109373	190.78	ug/l		9
56) p,m-Xylene	5.83	106	2139865	354.48	ug/l	#	7
57) o-Xylene	6.02	91	2418086	185.22	ug/l		8
58) Styrene	6.02	104	1869438	185.04	ug/l		8
59) Isopropylbenzene	6.18	105	3060173	197.93	ug/l		9
60) Bromoform (SPCC)	6.12	173	336607	186.59	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	821106	208.59	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	223470	200.24	ug/l	#	6
63) n-Propylbenzene	6.37	91	3690182	201.69	ug/l		9
64) Bromobenzene	6.34	156	607182	198.93	ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	1174728	195.09	ug/l	#	7
66) tert-Butylbenzene	6.61	91	1762240	203.65	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	1241530	189.52	ug/l	#	7
69) sec-Butylbenzene	6.72	105	3092179	205.19	ug/l		9
70) p-Isopropyltoluene	6.78	119	2214725	188.98	ug/l		8
71) 1,3-Dichlorobenzene	6.78	146	1032019	182.49	ug/l		8
72) 1,4-Dichlorobenzene	6.82	146	1228542	201.98	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	1165425	201.22	ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	2601639	204.62	ug/l		8
75) n-Butylbenzene	6.97	91	2426504	207.49	ug/l		9
76) Hexachloroethane	7.13	201	271333	197.49	ug/l	#	5
77) 1,2-Dibromo-3-Chloropropan	7.37	157	125010	185.57	ug/l	#	7
78) 1,2,4-Trichlorobenzene	7.77	182	657094	209.93	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

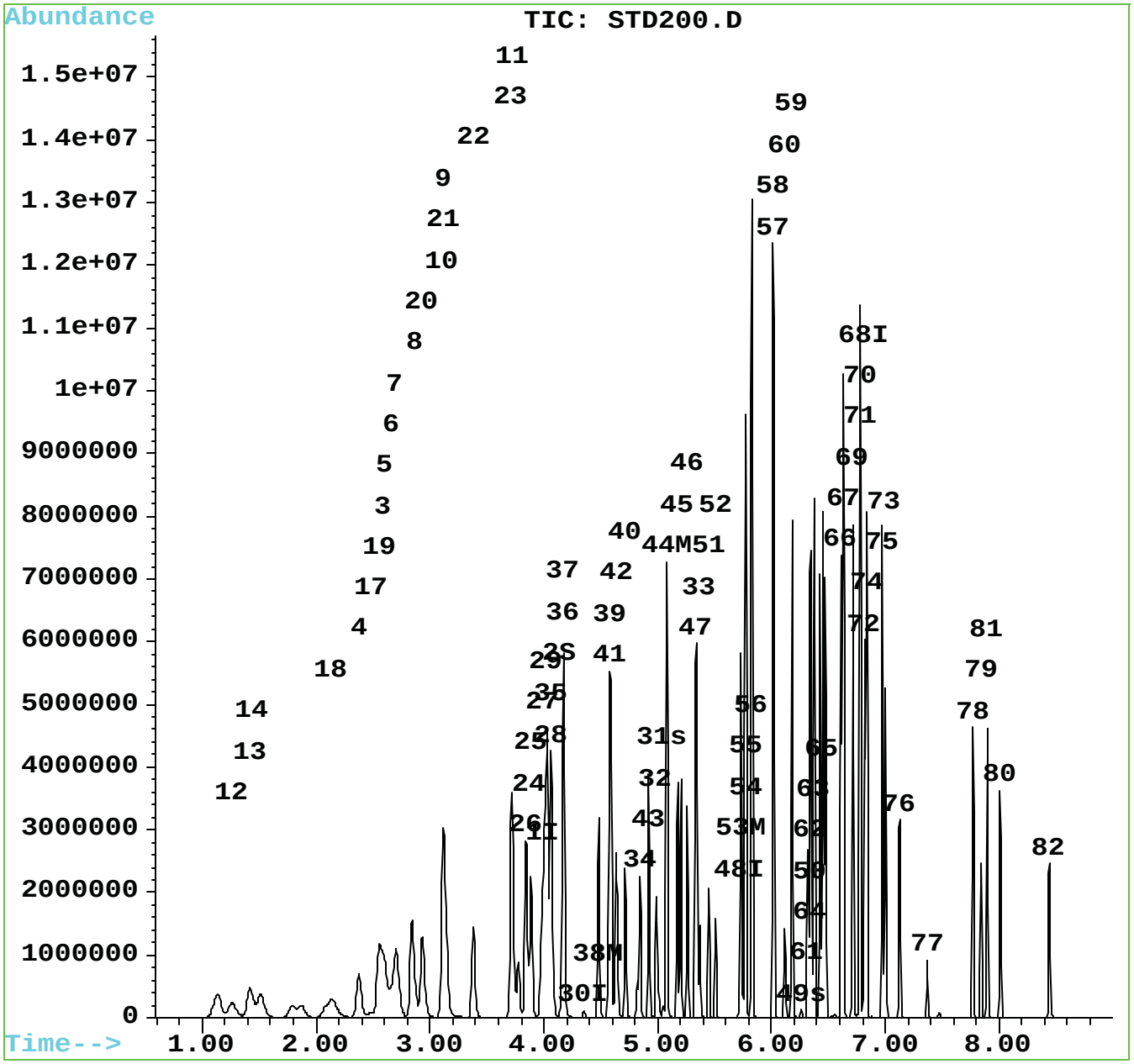
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
79)	Hexachlorobutadiene	7.85	225	246065	210.95	ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	575121	199.81	ug/l	9
81)	Naphthalene	7.90	128	2056504	213.81	ug/l	9
82)	2-Methylnaphthalene	8.45	142	691275	201.41	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\std200.d Vial:
Acq On : 1 Aug 12 2:42 pm Operator: lbr
Sample : 1dr0731 1c0801 2ac0712 4ch0612 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 14:54 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	28802	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	52581	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29736	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23065	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	19953	4.77	ug/l		95.3
31) TOLUENE-D8 (S)	5.05	98	64881	4.99	ug/l		99.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	15135	4.81	ug/l		96.2
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	158288	56.79	ug/l		8
4) Diethyl ether (*)	2.37	74	114788	53.36	ug/l	#	6
5) Acetone (*)	2.61	43	73198	50.31	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	202789	53.97	ug/l		8
7) Carbon disulfide (*)	2.71	76	551088	56.10	ug/l		9
8) Methyl Acetate	2.86	43	154362	51.88	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	500062	55.75	ug/l		8
10) Acrylonitrile (*)	3.10	53	86480	56.46	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	104271	48.61	ug/l		8
12) Dichlorodifluoromethane	1.25	85	157605	53.79	ug/l		9
13) Chloromethane (SPCC)	1.41	50	279286	58.06	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	232157	53.68	ug/l		9
15) Bromomethane	1.79	94	105273	53.45	ug/l		9
16) Chloroethane	1.86	64	131026	56.42	ug/l		8
17) Acrolein	2.48	56	29225	50.35	ug/l		9
18) Trichlorofluoromethane	2.13	101	245665	56.34	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	291561	53.50	ug/l	#	7
20) Methylene Chloride	2.93	84	177230	53.22	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	283731	53.46	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.38	63	335408	52.64	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	179892	52.31	ug/l	#	7
24) Tetrahydrofuran	3.86	42	67059	48.81	ug/l	#	1
25) Chloroform (CCC)	3.89	83	286290	52.28	ug/l		9
26) Bromochloromethane	3.85	130	95809	53.00	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	252651	53.31	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	459	0.10	ug/l	#	
29) Cyclohexane	4.01	42	98611	45.78	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	71452	56.55	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	72296	49.29	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	115764	47.98	ug/l		8
35) Carbon Tetrachloride	4.07	117	202147	53.78	ug/l		9
36) Benzene (MS)	4.17	78	721415	52.20	ug/l		8
37) 1,2-Dichloroethane	4.17	62	263202	52.89	ug/l		9
38) Trichloroethene (MS)	4.48	95	165943	52.07	ug/l	#	7
39) 1,2-Dichloropropane (CCC)	4.59	63	197490	53.80	ug/l		9
40) Bromodichloromethane	4.72	83	212879	54.87	ug/l		9
41) Methyl Cyclohexane	4.57	55	278513	55.27	ug/l	#	5
42) Dibromomethane	4.65	174	78676	50.99	ug/l	#	5
43) cis-1,3-Dichloropropene	4.92	75	279442	48.34	ug/l		9
44) Toluene (CCC/MS)	5.08	91	739071	51.17	ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	253894	50.40	ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	123622	52.31	ug/l		9
47) Tetrachloroethene	5.33	166	140081	51.84	ug/l		8
50) trans-1,4-Dichloro-2-buten	6.34	53	38326	48.31	ug/l		9
51) Dibromochloromethane	5.45	129	137396	56.20	ug/l		9
52) 1,2-Dibromoethane	5.51	107	141403	52.46	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	443690	51.43	ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	142764	55.56	ug/l		9
55) Ethylbenzene (CCC)	5.77	91	837144	52.37	ug/l		9
56) p,m-Xylene	5.83	106	626217	105.87	ug/l	#	7
57) o-Xylene	6.02	91	686512	53.61	ug/l		9
58) Styrene	6.02	104	520202	52.61	ug/l		9
59) Isopropylbenzene	6.18	105	798140	52.93	ug/l		9
60) Bromoform (SPCC)	6.12	173	73012	51.25	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	198679	52.18	ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	57902	53.40	ug/l	#	6
63) n-Propylbenzene	6.37	91	970898	54.33	ug/l		9
64) Bromobenzene	6.34	156	158201	53.03	ug/l	#	3
65) 1,3,5-Trimethylbenzene	6.45	120	313841	53.63	ug/l	#	7
66) tert-Butylbenzene	6.61	91	450317	53.13	ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	354119	55.36	ug/l	#	7
69) sec-Butylbenzene	6.72	105	806478	53.95	ug/l		9
70) p-Isopropyltoluene	6.77	119	648345	55.60	ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	305012	54.07	ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	315549	52.15	ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	302174	52.64	ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	695043	54.63	ug/l		8
75) n-Butylbenzene	6.97	91	625456	54.03	ug/l		9
76) Hexachloroethane	7.13	201	61852	50.38	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration

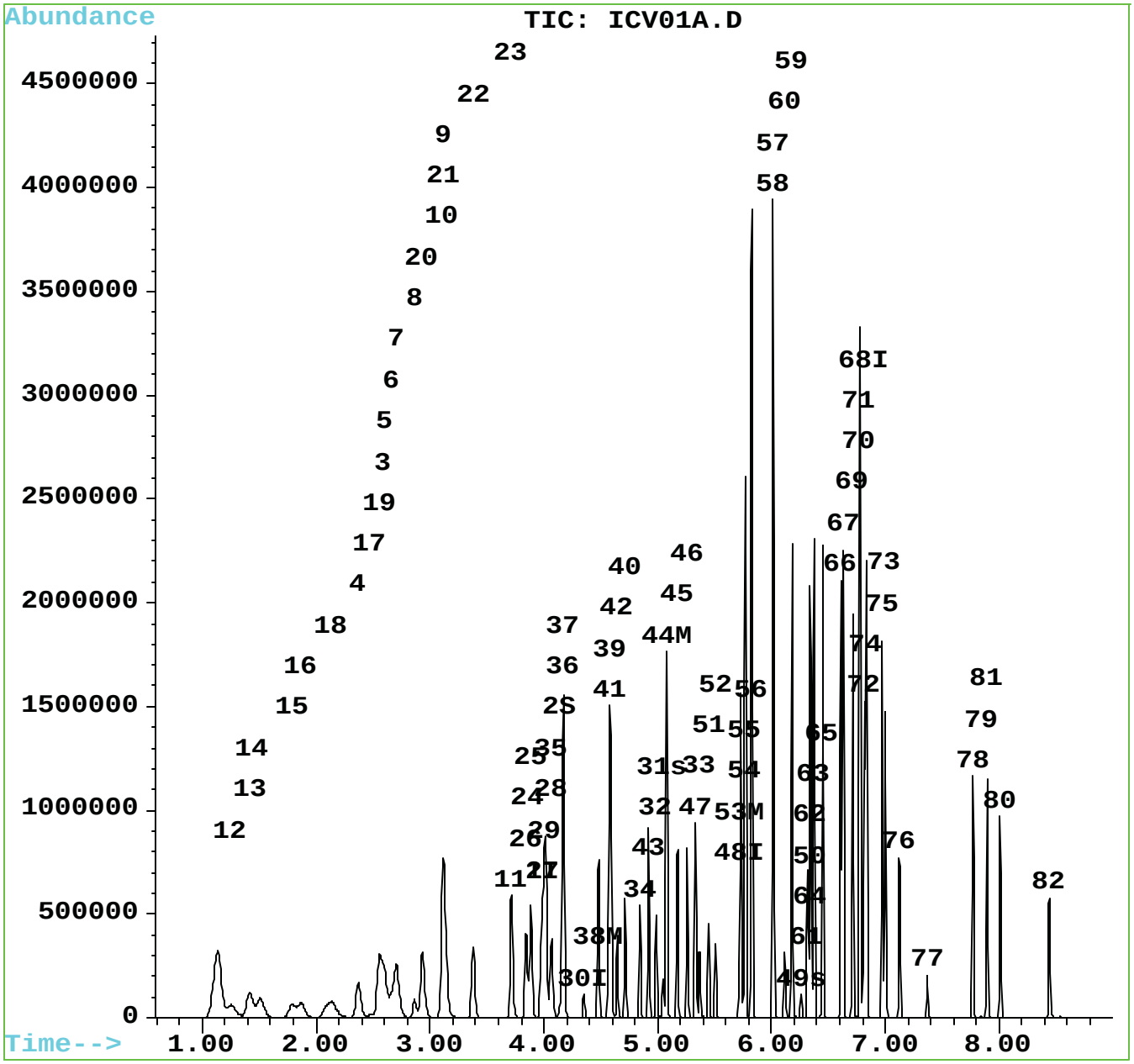
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	27900	52.19	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	165223	54.02	ug/l		9
79)	Hexachlorobutadiene	7.85	225	1124	1.02	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	151418	54.60	ug/l		9
81)	Naphthalene	7.89	128	518180	55.47	ug/l		9
82)	2-Methylnaphthalene	8.45	142	165543	45.54	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\methods\wt120801.m\icv01a.d Vial:
Acq On : 1 Aug 12 4:20 pm Operator: lbr
Sample : 1dr0731 1m0801 1mch0801 1mac0801 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 1 16:31 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Wed Aug 01 14:59:13 2012
Response via : Multiple Level Calibration



GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\verdura.sx\methods\wv120822.m\

Injection Time	Calibration Data File
08/22/12 17:21	bfb22b.d
08/22/12 19:44	std001.d
08/22/12 20:05	std010.d
08/22/12 20:25	std020.d
08/22/12 20:46	std060.d
08/22/12 21:06	std100.d
08/22/12 21:27	std200.d
08/23/12 11:49	icv22a.d

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\bfb22b.d Vial: 1
Acq On : 22 Aug 12 5:21 pm Operator: wat
Sample : 50ng/bfb 1dr0822 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:24 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

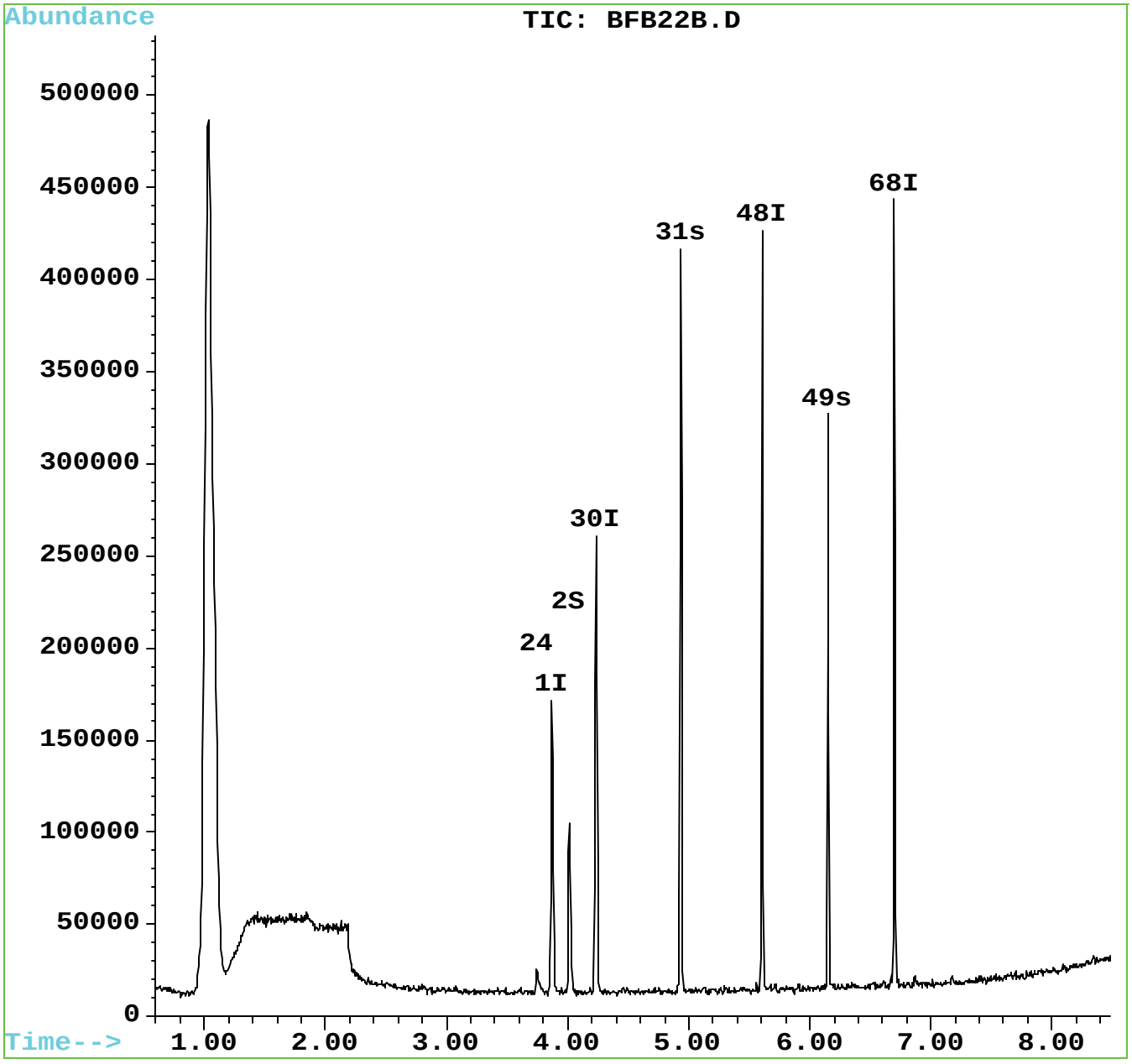
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	69052	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	109570	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	62554	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	51836	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	42768	3.81	ug/l	76.1
31) TOLUENE-D8 (S)	4.93	98	133669	4.81	ug/l	96.1
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	36510	5.30	ug/l	105.9
Target Compounds						Qvalu
24) Tetrahydrofuran	3.75	42	8112	2.61	ug/l	#

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\bfb22b.d Vial: 1
Acq On : 22 Aug 12 5:21 pm Operator: wat
Sample : 50ng/bfb 1dr0822 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:24 19112

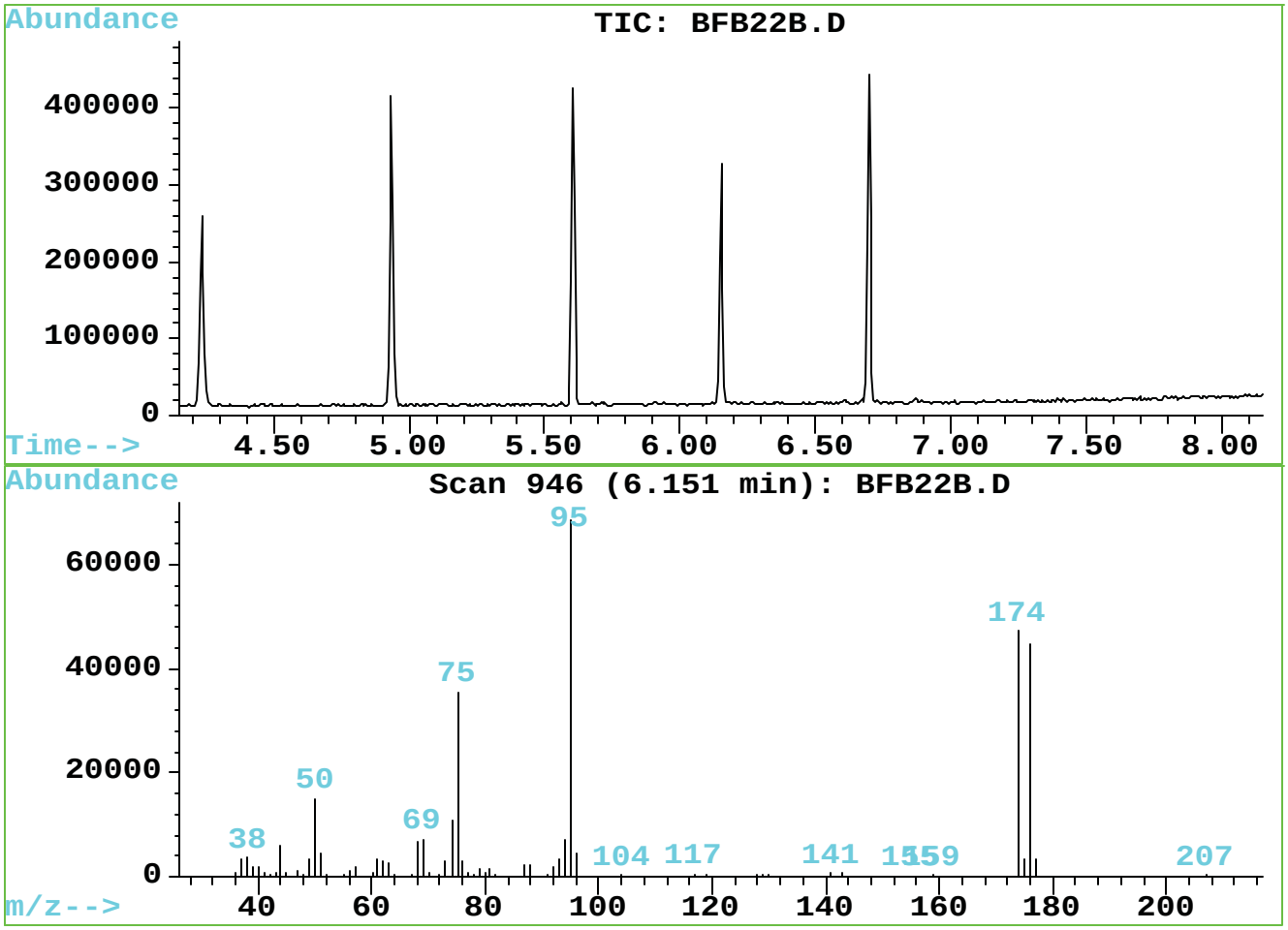
Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M\BFB22B.D Vial: 1
Acq On : 22 Aug 12 5:21 pm Operator: wat
Sample : 50ng/bfb 1dr0822 Inst : Verdura
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 946

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	21.9	14995	PASS
75	95	30	66	51.9	35496	PASS
95	95	100	100	100.0	68432	PASS
96	95	5	9	6.8	4626	PASS
173	174	0	2	0.4	183	PASS
174	95	50	120	68.9	47144	PASS
175	174	4	9	7.0	3308	PASS
176	174	93	101	95.1	44840	PASS
177	176	5	9	7.5	3375	PASS

BFB22B.D WV120822.M Mon Sep 10 14:53:47 2012

Quantitation Report

Data File : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M\STD001.D Vial: 8
Acq On : 22 Aug 12 7:44 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:40 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Aug 23 11:52:16 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	56994	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	97736	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	52976	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	43940	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	40550	5.17	ug/l		103.4
31) TOLUENE-D8 (S)	4.93	98	116611	4.93	ug/l		98.6
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	30749	4.97	ug/l		99.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.46	101	6937	1.04	ug/l		8
4) Diethyl ether (*)	2.22	74	4986	1.06	ug/l		8
5) Acetone (*)	2.49	43	3910	2.25	ug/l		5
6) Methyl iodide (iodomethane	2.52	142	9756	0.97	ug/l		9
7) Carbon disulfide (*)	2.56	76	21868	0.94	ug/l		7
8) Methyl Acetate	2.73	43	5127	1.07	ug/l		8
9) tert-Methyl butyl ether (M	2.99	73	20800	1.02	ug/l		8
10) Acrylonitrile (*)	2.97	53	3015	1.05	ug/l		9
11) 2-Butanone (MEK) (*)	3.60	43	14535	3.09	ug/l		8
12) Dichlorodifluoromethane	1.18	85	6409	0.91	ug/l		9
13) Chloromethane (SPCC)	1.30	50	11993	1.05	ug/l		7
14) Vinyl Chloride (CCC)	1.40	62	10680	1.07	ug/l		9
15) Bromomethane	1.65	94	7790	1.40	ug/l		8
16) Chloroethane	1.74	64	7506	1.22	ug/l		9
17) Acrolein	2.35	56	704	0.74	ug/l	#	4
18) Trichlorofluoromethane	1.94	101	3773	0.35	ug/l	#	3
19) 1,1-Dichloroethene (CCC/MS	2.41	61	13083	1.01	ug/l		8
20) Methylene Chloride	2.79	84	9305	1.17	ug/l	#	7
21) trans-1,2-Dichloroethene	2.98	61	12272	1.01	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.25	63	15151	1.03	ug/l		9
23) cis-1,2-Dichloroethene	3.59	96	8420	1.04	ug/l		8
24) Tetrahydrofuran	3.75	42	8265	4.17	ug/l	#	1
25) Chloroform (CCC)	3.76	83	12561	0.96	ug/l		8
26) Bromochloromethane	3.72	130	4440	1.01	ug/l		8
27) 1,1,1-Trichloroethane	3.86	97	11839	0.99	ug/l	#	4
28) 1,1-Dichloropropene	3.94	75	11608	1.06	ug/l		9
29) Cyclohexane	3.89	42	5177	1.09	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.88	58	2433	1.00	ug/l		9
33) 2-Hexanone (*)	5.26	58	2768	1.18	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M\STD001.D Vial: 8
Acq On : 22 Aug 12 7:44 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:40 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Aug 23 11:52:16 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.73	63	5303	1.06 ug/l	9
35) Carbon Tetrachloride	3.95	117	9227	0.93 ug/l	9
36) Benzene (MS)	4.05	78	32418	1.01 ug/l #	8
37) 1,2-Dichloroethane	4.06	62	12000	1.02 ug/l	9
38) Trichloroethene (MS)	4.36	95	8073	1.04 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.47	63	8315	0.98 ug/l	9
40) Bromodichloromethane	4.60	83	8429	0.87 ug/l	9
41) Methyl Cyclohexane	4.46	55	13370	1.02 ug/l	7
42) Dibromomethane	4.53	174	3585	0.95 ug/l	9
43) cis-1,3-Dichloropropene	4.81	75	9431	0.82 ug/l	9
44) Toluene (CCC/MS)	4.96	91	33760	0.98 ug/l	9
45) trans-1,3-Dichloropropene	5.06	75	7976	0.71 ug/l	9
46) 1,1,2-Trichloroethane	5.15	83	5109	0.99 ug/l	9
47) Tetrachloroethene	5.22	166	8267	0.96 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	883	0.76 ug/l #	
51) Dibromochloromethane	5.34	129	5306	0.82 ug/l	9
52) 1,2-Dibromoethane	5.39	107	5814	0.98 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.62	112	20878	1.03 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	6214	0.94 ug/l	9
55) Ethylbenzene (CCC)	5.66	91	37985	1.03 ug/l	10
56) p,m-Xylene	5.72	106	27225	1.89 ug/l	9
57) o-Xylene	5.90	91	31778	1.04 ug/l	9
58) Styrene	5.91	104	22219	0.92 ug/l	9
59) Isopropylbenzene	6.07	105	36491	1.01 ug/l	9
60) Bromoform (SPCC)	6.00	173	2345	0.72 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.21	83	7859	1.03 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	2516	1.07 ug/l #	5
63) n-Propylbenzene	6.26	91	43172	1.01 ug/l	9
64) Bromobenzene	6.23	156	8326	1.03 ug/l	9
65) 1,3,5-Trimethylbenzene	6.35	120	14760	0.99 ug/l	9
66) tert-Butylbenzene	6.50	91	22775	1.05 ug/l	9
67) 1,2,4-Trimethylbenzene	6.53	120	15738	0.95 ug/l	9
69) sec-Butylbenzene	6.61	105	38493	1.04 ug/l	9
70) p-Isopropyltoluene	6.67	119	30379	1.02 ug/l	9
71) 1,3-Dichlorobenzene	6.67	146	15757	1.07 ug/l	9
72) 1,4-Dichlorobenzene	6.71	146	15308	1.01 ug/l	9
73) 1,2-Dichlorobenzene	6.89	146	14089	1.02 ug/l	9
74) 1,2,3-Trimethylbenzene	6.73	105	31634	1.07 ug/l	9
75) n-Butylbenzene	6.87	91	31238	1.05 ug/l	9
76) Hexachloroethane	7.02	201	2670	0.68 ug/l #	7

(#) = qualifier out of range (m) = manual integration

Data File : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M\STD001.D Vial: 8
Acq On : 22 Aug 12 7:44 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:40 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Aug 23 11:52:16 2012
Response via : Multiple Level Calibration

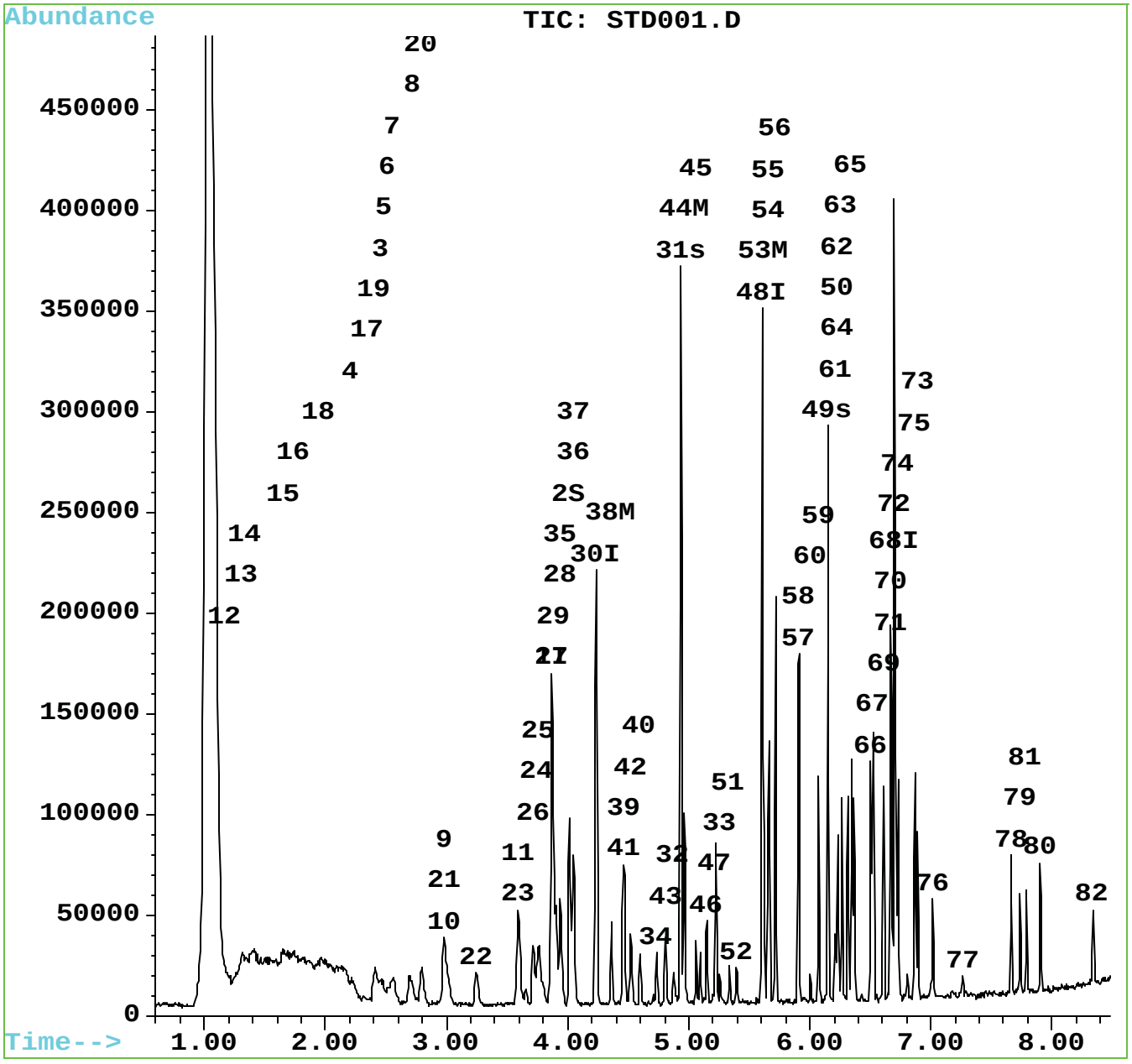
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77) 1,2-Dibromo-3-Chloropropan	7.26	157	856	0.84 ug/l #	8
78) 1,2,4-Trichlorobenzene	7.66	182	8255	0.93 ug/l	9
79) Hexachlorobutadiene	7.74	225	4509	1.02 ug/l	9
80) 1,2,3-Trichlorobenzene	7.90	180	8784	1.04 ug/l	9
81) Naphthalene	7.79	128	21566	0.96 ug/l	9
82) 2-Methylnaphthalene	8.34	142	9102	0.86 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M\STD001.D Vial: 8
Acq On : 22 Aug 12 7:44 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:40 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Aug 23 11:52:16 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std010.d Vial: 9
Acq On : 22 Aug 12 8:05 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:31 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	67797	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	115618	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	65047	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	54090	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	47330	4.29	ug/l		85.8
31) TOLUENE-D8 (S)	4.93	98	138545	4.72	ug/l		94.4
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	36231	5.06	ug/l		101.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.45	101	64257	7.76	ug/l		9
4) Diethyl ether (*)	2.22	74	47265	7.61	ug/l	#	7
5) Acetone (*)	2.46	43	18487	7.34	ug/l		8
6) Methyl iodide (iodomethane	2.52	142	101302	8.67	ug/l		9
7) Carbon disulfide (*)	2.56	76	223944	8.57	ug/l		9
8) Methyl Acetate	2.73	43	47288	6.51	ug/l		9
9) tert-Methyl butyl ether (M	3.00	73	200207	9.70	ug/l		8
10) Acrylonitrile (*)	2.96	53	28217	6.58	ug/l		9
11) 2-Butanone (MEK) (*)	3.60	43	28826	4.54	ug/l		8
12) Dichlorodifluoromethane	1.17	85	65029	7.38	ug/l		9
13) Chloromethane (SPCC)	1.30	50	110638	5.72	ug/l		9
14) Vinyl Chloride (CCC)	1.40	62	97810	6.31	ug/l		9
15) Bromomethane	1.66	94	52573	6.64	ug/l		9
16) Chloroethane	1.74	64	61866	6.60	ug/l		9
17) Acrolein	2.33	56	11189	7.94	ug/l		7
18) Trichlorofluoromethane	1.96	101	108705	6.72	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.40	61	128864	6.97	ug/l		8
20) Methylene Chloride	2.79	84	79115	8.43	ug/l	#	7
21) trans-1,2-Dichloroethene	2.97	61	120971	7.07	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.25	63	148131	7.53	ug/l		9
23) cis-1,2-Dichloroethene	3.59	96	78982	8.11	ug/l		8
24) Tetrahydrofuran	3.75	42	22566	7.40	ug/l		9
25) Chloroform (CCC)	3.76	83	129600	8.13	ug/l		9
26) Bromochloromethane	3.72	130	44274	8.81	ug/l		8
27) 1,1,1-Trichloroethane	3.86	97	117508	8.89	ug/l	#	2
28) 1,1-Dichloropropene	3.93	75	111242	7.89	ug/l		9
29) Cyclohexane	3.89	42	48041	5.91	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.87	58	23687	8.30	ug/l		9
33) 2-Hexanone (*)	5.26	58	21052	7.16	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std010.d Vial: 9
Acq On : 22 Aug 12 8:05 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:31 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.73	63	51320	7.71	ug/l		9
35) Carbon Tetrachloride	3.95	117	96618	8.55	ug/l		9
36) Benzene (MS)	4.05	78	316056	7.83	ug/l		8
37) 1,2-Dichloroethane	4.05	62	119854	7.27	ug/l		9
38) Trichloroethene (MS)	4.36	95	73765	7.93	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.47	63	81083	6.86	ug/l		9
40) Bromodichloromethane	4.60	83	91813	8.06	ug/l		9
41) Methyl Cyclohexane	4.46	55	123117	6.26	ug/l		7
42) Dibromomethane	4.53	174	36409	8.26	ug/l		9
43) cis-1,3-Dichloropropene	4.80	75	108291	7.83	ug/l		9
44) Toluene (CCC/MS)	4.96	91	325908	7.48	ug/l		9
45) trans-1,3-Dichloropropene	5.06	75	96508	7.30	ug/l		9
46) 1,1,2-Trichloroethane	5.15	83	52132	8.28	ug/l		9
47) Tetrachloroethene	5.22	166	83431	8.91	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.23	53	8766	4.35	ug/l	#	
51) Dibromochloromethane	5.34	129	57184	8.37	ug/l		9
52) 1,2-Dibromoethane	5.39	107	59041	8.80	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.62	112	200887	8.19	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.66	131	65174	8.82	ug/l		9
55) Ethylbenzene (CCC)	5.66	91	374254	7.98	ug/l		9
56) p,m-Xylene	5.72	106	292361	15.89	ug/l		9
57) o-Xylene	5.90	91	309792	7.92	ug/l		9
58) Styrene	5.91	104	239969	7.87	ug/l		9
59) Isopropylbenzene	6.07	105	362054	8.12	ug/l		9
60) Bromoform (SPCC)	6.00	173	28191	8.31	ug/l		10
61) 1,1,2,2-Tetrachloroethane	6.21	83	78010	8.50	ug/l		9
62) 1,2,3-Trichloropropane	6.23	110	24035	8.96	ug/l	#	6
63) n-Propylbenzene	6.27	91	436277	8.15	ug/l		9
64) Bromobenzene	6.23	156	77935	8.12	ug/l		10
65) 1,3,5-Trimethylbenzene	6.35	120	147202	8.23	ug/l		9
66) tert-Butylbenzene	6.50	91	221158	8.11	ug/l		9
67) 1,2,4-Trimethylbenzene	6.53	120	166647	8.10	ug/l		9
69) sec-Butylbenzene	6.61	105	391026	8.19	ug/l		9
70) p-Isopropyltoluene	6.67	119	315817	7.96	ug/l		9
71) 1,3-Dichlorobenzene	6.67	146	153035	8.06	ug/l		9
72) 1,4-Dichlorobenzene	6.71	146	159134	8.39	ug/l		9
73) 1,2-Dichlorobenzene	6.89	146	142459	8.28	ug/l		9
74) 1,2,3-Trimethylbenzene	6.73	105	308228	8.15	ug/l		9
75) n-Butylbenzene	6.87	91	309998	7.73	ug/l		9
76) Hexachloroethane	7.02	201	30809	6.14	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std010.d Vial: 9
Acq On : 22 Aug 12 8:05 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:31 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

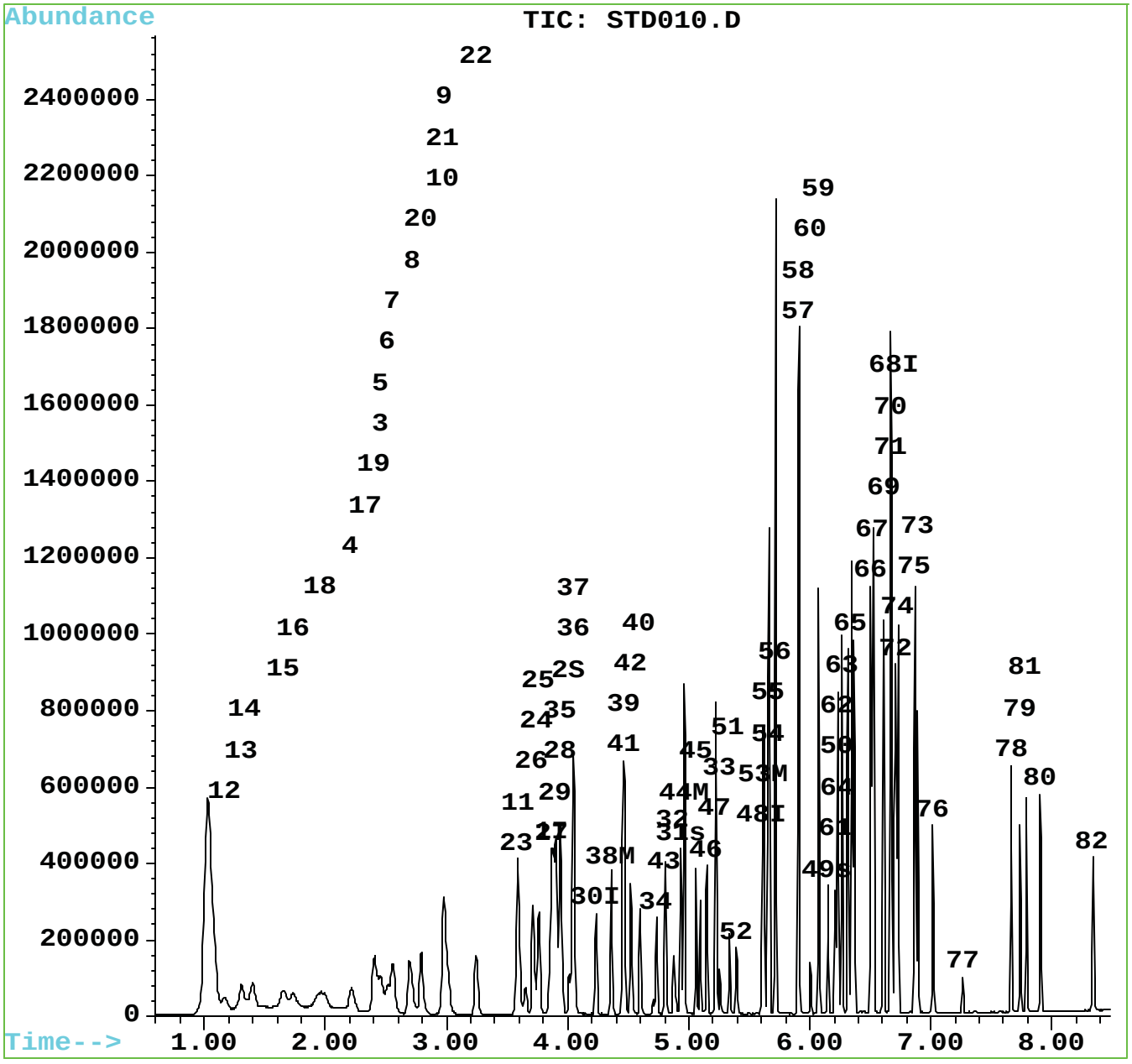
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.26	157	10166	9.90	ug/l	9
78)	1,2,4-Trichlorobenzene	7.66	182	89524	8.15	ug/l	9
79)	Hexachlorobutadiene	7.74	225	41370	7.77	ug/l	9
80)	1,2,3-Trichlorobenzene	7.90	180	81444	8.04	ug/l	9
81)	Naphthalene	7.79	128	223836	8.67	ug/l	10
82)	2-Methylnaphthalene	8.34	142	102076	8.68	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std010.d Vial: 9
Acq On : 22 Aug 12 8:05 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:31 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std020.d Vial: 1
Acq On : 22 Aug 12 8:25 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:32 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	55980	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	95179	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	54260	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	46469	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.01	65	39125	4.30	ug/l		85.9
31) TOLUENE-D8 (S)	4.93	98	117577	4.87	ug/l		97.3
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	30784	5.15	ug/l		103.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.45	101	129593	18.95	ug/l		9
4) Diethyl ether (*)	2.22	74	91475	17.83	ug/l	#	7
5) Acetone (*)	2.47	43	35705	17.18	ug/l		9
6) Methyl iodide (iodomethane	2.52	142	194912	20.19	ug/l		9
7) Carbon disulfide (*)	2.55	76	454619	21.06	ug/l		9
8) Methyl Acetate	2.72	43	94015	15.67	ug/l		9
9) tert-Methyl butyl ether (M	2.99	73	395801	23.22	ug/l		8
10) Acrylonitrile (*)	2.96	53	53048	14.97	ug/l		9
11) 2-Butanone (MEK) (*)	3.60	43	54143	10.32	ug/l		8
12) Dichlorodifluoromethane	1.16	85	131874	18.11	ug/l		9
13) Chloromethane (SPCC)	1.30	50	221237	13.84	ug/l		9
14) Vinyl Chloride (CCC)	1.40	62	195617	15.28	ug/l		9
15) Bromomethane	1.65	94	108092	16.53	ug/l		9
16) Chloroethane	1.73	64	122131	15.78	ug/l		9
17) Acrolein	2.33	56	19513	16.77	ug/l		9
18) Trichlorofluoromethane	1.94	101	216058	16.17	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.40	61	259760	17.03	ug/l		8
20) Methylene Chloride	2.79	84	152653	19.70	ug/l	#	8
21) trans-1,2-Dichloroethene	2.98	61	240890	17.04	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.25	63	287023	17.66	ug/l		9
23) cis-1,2-Dichloroethene	3.59	96	159253	19.79	ug/l		8
24) Tetrahydrofuran	3.74	42	39696	15.77	ug/l		9
25) Chloroform (CCC)	3.76	83	263090	19.99	ug/l		9
26) Bromochloromethane	3.72	130	86981	20.97	ug/l		8
27) 1,1,1-Trichloroethane	3.86	97	236680	21.68	ug/l	#	1
28) 1,1-Dichloropropene	3.93	75	219849	18.89	ug/l		9
29) Cyclohexane	3.89	42	90003	13.40	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.87	58	45799	19.49	ug/l		9
33) 2-Hexanone (*)	5.26	58	43822	18.11	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std020.d Vial: 1
Acq On : 22 Aug 12 8:25 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:32 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.73	63	100113	18.28 ug/l	9
35) Carbon Tetrachloride	3.94	117	196105	21.09 ug/l	9
36) Benzene (MS)	4.05	78	624475	18.79 ug/l	9
37) 1,2-Dichloroethane	4.05	62	229680	16.92 ug/l	9
38) Trichloroethene (MS)	4.36	95	150548	19.66 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.47	63	164503	16.90 ug/l	9
40) Bromodichloromethane	4.60	83	188476	20.10 ug/l	9
41) Methyl Cyclohexane	4.46	55	244395	15.10 ug/l	7
42) Dibromomethane	4.53	174	72433	19.96 ug/l	9
43) cis-1,3-Dichloropropene	4.80	75	225678	19.81 ug/l	9
44) Toluene (CCC/MS)	4.96	91	667952	18.61 ug/l	9
45) trans-1,3-Dichloropropene	5.06	75	195894	17.68 ug/l	9
46) 1,1,2-Trichloroethane	5.15	83	101713	19.62 ug/l	9
47) Tetrachloroethene	5.22	166	151506	19.66 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	18894	11.24 ug/l #	
51) Dibromochloromethane	5.34	129	116540	19.96 ug/l	9
52) 1,2-Dibromoethane	5.39	107	119150	21.29 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.62	112	401271	19.62 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	132395	21.48 ug/l	9
55) Ethylbenzene (CCC)	5.66	91	757609	19.36 ug/l	10
56) p,m-Xylene	5.72	106	589190	38.39 ug/l	9
57) o-Xylene	5.90	91	611599	18.75 ug/l	9
58) Styrene	5.91	104	484470	19.05 ug/l	9
59) Isopropylbenzene	6.07	105	735634	19.78 ug/l	9
60) Bromoform (SPCC)	6.00	173	60369	20.61 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.21	83	153715	20.09 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	48788	21.81 ug/l #	6
63) n-Propylbenzene	6.27	91	890786	19.95 ug/l	9
64) Bromobenzene	6.23	156	159245	19.89 ug/l	9
65) 1,3,5-Trimethylbenzene	6.35	120	298762	20.02 ug/l	9
66) tert-Butylbenzene	6.50	91	442277	19.44 ug/l	9
67) 1,2,4-Trimethylbenzene	6.53	120	332152	19.35 ug/l	10
69) sec-Butylbenzene	6.61	105	792563	19.32 ug/l	9
70) p-Isopropyltoluene	6.67	119	635732	18.64 ug/l	9
71) 1,3-Dichlorobenzene	6.67	146	311874	19.11 ug/l	10
72) 1,4-Dichlorobenzene	6.71	146	316704	19.44 ug/l	9
73) 1,2-Dichlorobenzene	6.89	146	285539	19.32 ug/l	9
74) 1,2,3-Trimethylbenzene	6.73	105	620478	19.10 ug/l	9
75) n-Butylbenzene	6.87	91	631244	18.32 ug/l	9
76) Hexachloroethane	7.02	201	64238	14.90 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std020.d Vial: 1
Acq On : 22 Aug 12 8:25 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:32 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

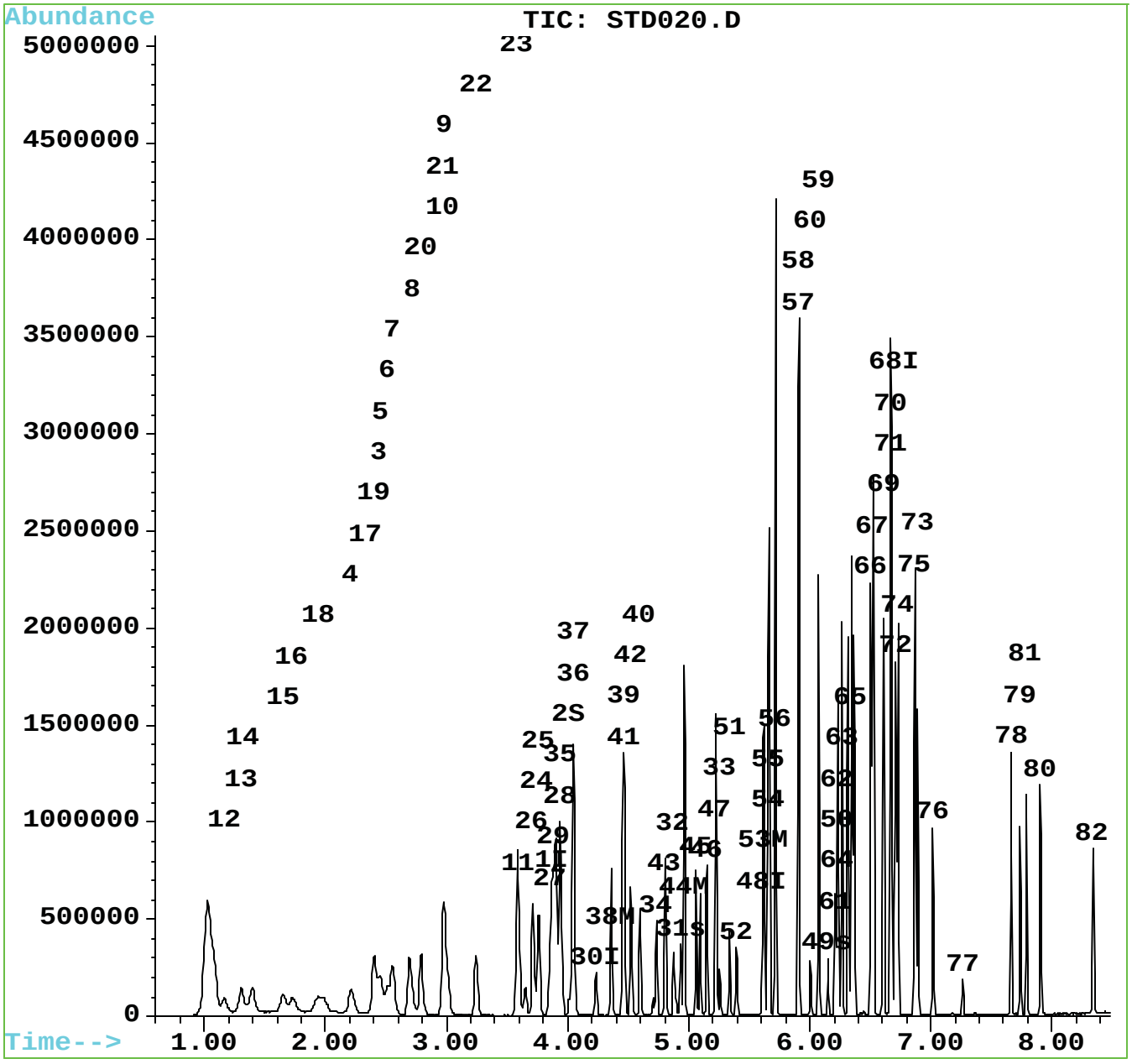
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.26	157	19591	22.21	ug/l	9
78)	1,2,4-Trichlorobenzene	7.66	182	176979	18.76	ug/l	9
79)	Hexachlorobutadiene	7.74	225	86900	19.00	ug/l	9
80)	1,2,3-Trichlorobenzene	7.90	180	169104	19.44	ug/l	9
81)	Naphthalene	7.79	128	460812	20.77	ug/l	9
82)	2-Methylnaphthalene	8.34	142	219442	21.71	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std020.d Vial: 1
Acq On : 22 Aug 12 8:25 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:32 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std060.d Vial: 1
Acq On : 22 Aug 12 8:46 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:33 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	58208	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	99030	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	56258	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	47647	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	41142	4.35	ug/l		86.9
31) TOLUENE-D8 (S)	4.93	98	120816	4.81	ug/l		96.1
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	33047	5.33	ug/l		106.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.46	101	398444	56.04	ug/l		9
4) Diethyl ether (*)	2.23	74	273951	51.35	ug/l		7
5) Acetone (*)	2.47	43	97272	45.00	ug/l	#	8
6) Methyl iodide (iodomethane	2.52	142	603928	60.17	ug/l		9
7) Carbon disulfide (*)	2.56	76	1423506	63.41	ug/l		9
8) Methyl Acetate	2.72	43	286876	45.97	ug/l		9
9) tert-Methyl butyl ether (M	3.00	73	1231962	69.52	ug/l		8
10) Acrylonitrile (*)	2.97	53	171524	46.56	ug/l		9
11) 2-Butanone (MEK) (*)	3.60	43	162064	29.70	ug/l		8
12) Dichlorodifluoromethane	1.18	85	395648	52.26	ug/l		9
13) Chloromethane (SPCC)	1.31	50	655648	39.46	ug/l		9
14) Vinyl Chloride (CCC)	1.40	62	590237	44.34	ug/l		9
15) Bromomethane	1.66	94	317004	46.62	ug/l		9
16) Chloroethane	1.74	64	363889	45.21	ug/l		9
17) Acrolein	2.34	56	57775	47.76	ug/l		8
18) Trichlorofluoromethane	1.95	101	664264	47.81	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.40	61	782707	49.34	ug/l		8
20) Methylene Chloride	2.79	84	465248	57.75	ug/l	#	8
21) trans-1,2-Dichloroethene	2.98	61	743701	50.59	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.25	63	882526	52.23	ug/l		9
23) cis-1,2-Dichloroethene	3.59	96	489401	58.50	ug/l		8
24) Tetrahydrofuran	3.74	42	117049	44.71	ug/l		8
25) Chloroform (CCC)	3.76	83	806092	58.92	ug/l		9
26) Bromochloromethane	3.72	130	270591	62.74	ug/l		8
27) 1,1,1-Trichloroethane	3.86	97	736903	64.93	ug/l	#	
28) 1,1-Dichloropropene	3.94	75	668515	55.24	ug/l		9
29) Cyclohexane	3.89	42	296288	42.43	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.87	58	145668	59.58	ug/l		9
33) 2-Hexanone (*)	5.26	58	139587	55.44	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std060.d Vial: 1
Acq On : 22 Aug 12 8:46 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:33 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.73	63	315082	55.29 ug/l	9
35) Carbon Tetrachloride	3.95	117	617797	63.86 ug/l	9
36) Benzene (MS)	4.05	78	1936474	56.00 ug/l	9
37) 1,2-Dichloroethane	4.05	62	702809	49.76 ug/l	9
38) Trichloroethene (MS)	4.36	95	464118	58.25 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.47	63	509801	50.34 ug/l	9
40) Bromodichloromethane	4.60	83	605428	62.04 ug/l	9
41) Methyl Cyclohexane	4.46	55	785486	46.66 ug/l	7
42) Dibromomethane	4.53	174	226308	59.94 ug/l	9
43) cis-1,3-Dichloropropene	4.81	75	722164	60.93 ug/l	9
44) Toluene (CCC/MS)	4.96	91	2091565	56.02 ug/l	9
45) trans-1,3-Dichloropropene	5.06	75	655352	53.59 ug/l	9
46) 1,1,2-Trichloroethane	5.15	83	313087	58.04 ug/l	9
47) Tetrachloroethene	5.22	166	571250	71.25 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	63964	36.70 ug/l #	2
51) Dibromochloromethane	5.34	129	388584	59.45 ug/l	9
52) 1,2-Dibromoethane	5.39	107	370022	63.78 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.62	112	1259329	59.39 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	419869	65.71 ug/l	9
55) Ethylbenzene (CCC)	5.66	91	2374759	58.53 ug/l	10
56) p,m-Xylene	5.72	106	1876666	117.92 ug/l	9
57) o-Xylene	5.90	91	1938281	57.30 ug/l	9
58) Styrene	5.91	104	1581002	59.95 ug/l	9
59) Isopropylbenzene	6.07	105	2327538	60.37 ug/l	9
60) Bromoform (SPCC)	6.00	173	205150	60.78 ug/l	10
61) 1,1,2,2-Tetrachloroethane	6.21	83	472607	59.57 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	148036	63.83 ug/l #	6
63) n-Propylbenzene	6.27	91	2782322	60.10 ug/l	9
64) Bromobenzene	6.23	156	502828	60.57 ug/l	9
65) 1,3,5-Trimethylbenzene	6.35	120	950644	61.45 ug/l	9
66) tert-Butylbenzene	6.50	91	1367528	57.97 ug/l	9
67) 1,2,4-Trimethylbenzene	6.53	120	1066596	59.92 ug/l	9
69) sec-Butylbenzene	6.61	105	2515661	59.80 ug/l	9
70) p-Isopropyltoluene	6.67	119	2024849	57.91 ug/l	9
71) 1,3-Dichlorobenzene	6.67	146	991036	59.24 ug/l	9
72) 1,4-Dichlorobenzene	6.71	146	1007017	60.29 ug/l	9
73) 1,2-Dichlorobenzene	6.89	146	923903	60.96 ug/l	9
74) 1,2,3-Trimethylbenzene	6.73	105	1942924	58.33 ug/l	9
75) n-Butylbenzene	6.87	91	1978332	55.99 ug/l	9
76) Hexachloroethane	7.02	201	225821	51.07 ug/l	9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std060.d Vial: 1
Acq On : 22 Aug 12 8:46 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:33 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

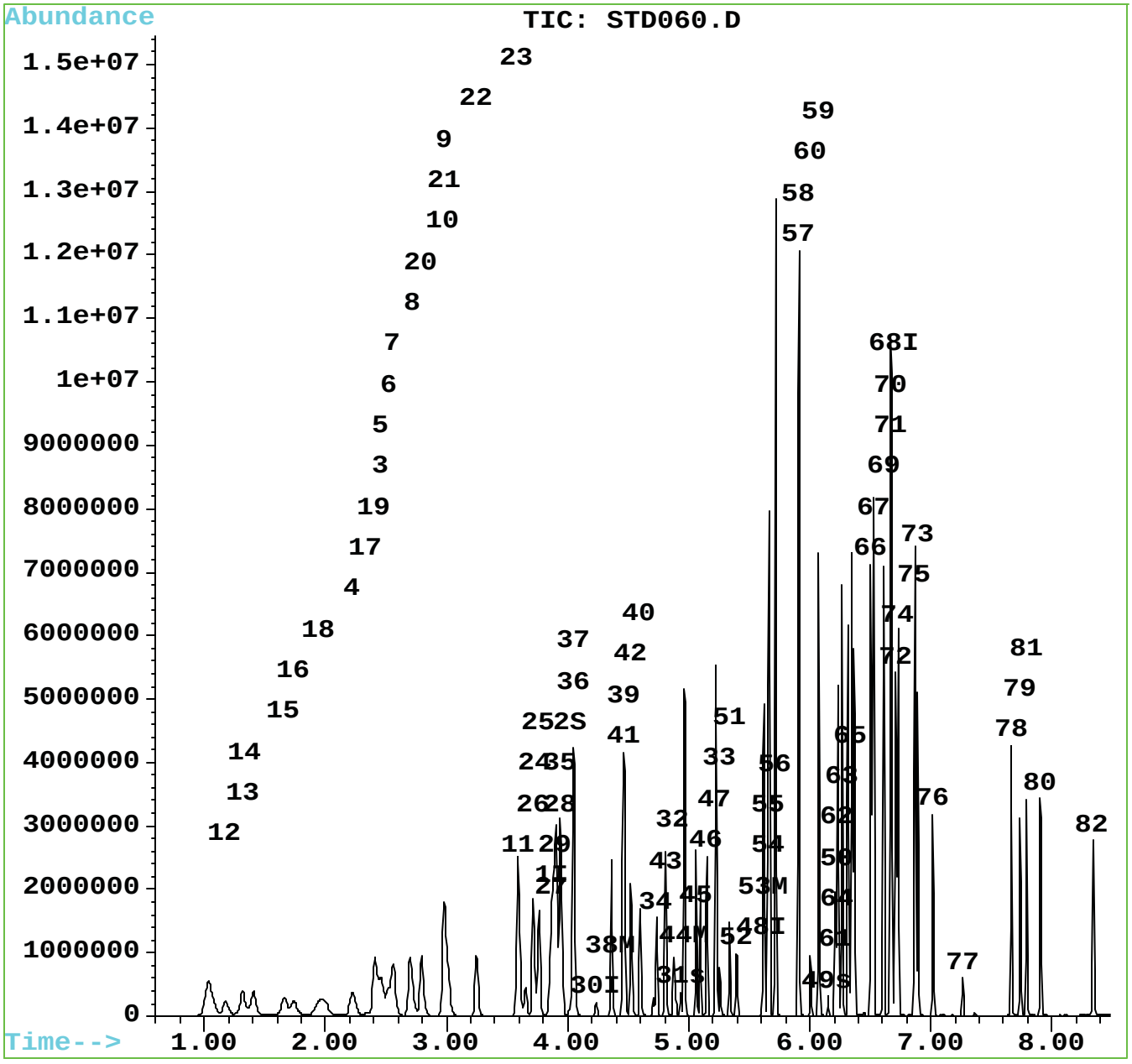
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.26	157	69059	76.34	ug/l	9
78)	1,2,4-Trichlorobenzene	7.66	182	584681	60.46	ug/l	9
79)	Hexachlorobutadiene	7.74	225	289286	61.67	ug/l	9
80)	1,2,3-Trichlorobenzene	7.90	180	553038	62.00	ug/l	9
81)	Naphthalene	7.79	128	1493724	65.68	ug/l	9
82)	2-Methylnaphthalene	8.34	142	742622	71.67	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std060.d Vial: 1
Acq On : 22 Aug 12 8:46 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:33 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std100.d Vial: 1
Acq On : 22 Aug 12 9:06 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:33 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	59088	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	99774	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.61	82	54958	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	49128	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	39751	4.14	ug/l		82.7
31) TOLUENE-D8 (S)	4.93	98	123152	4.86	ug/l		97.2
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	33349	5.51	ug/l		110.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.46	101	765688	106.08	ug/l		9
4) Diethyl ether (*)	2.22	74	520828	96.17	ug/l		7
5) Acetone (*)	2.47	43	189428	86.33	ug/l		8
6) Methyl iodide (iodomethane	2.52	142	1167046	114.55	ug/l		9
7) Carbon disulfide (*)	2.56	76	2787398	122.32	ug/l		9
8) Methyl Acetate	2.72	43	535315	84.51	ug/l		9
9) tert-Methyl butyl ether (M	3.00	73	2318441	128.88	ug/l		8
10) Acrylonitrile (*)	2.97	53	323750	86.57	ug/l		9
11) 2-Butanone (MEK) (*)	3.60	43	289156	52.20	ug/l		8
12) Dichlorodifluoromethane	1.17	85	917000	119.33	ug/l		9
13) Chloromethane (SPCC)	1.31	50	1301758	77.17	ug/l		9
14) Vinyl Chloride (CCC)	1.40	62	1157674	85.68	ug/l		9
15) Bromomethane	1.66	94	582914	84.44	ug/l		9
16) Chloroethane	1.73	64	668985	81.88	ug/l		9
17) Acrolein	2.33	56	99491	81.02	ug/l		8
18) Trichlorofluoromethane	1.95	101	1244793	88.26	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.40	61	1464611	90.95	ug/l		8
20) Methylene Chloride	2.79	84	864927	105.77	ug/l	#	8
21) trans-1,2-Dichloroethene	2.98	61	1389612	93.12	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.25	63	1655396	96.51	ug/l		9
23) cis-1,2-Dichloroethene	3.59	96	915718	107.83	ug/l		8
24) Tetrahydrofuran	3.74	42	212577	79.98	ug/l	#	8
25) Chloroform (CCC)	3.76	83	1495774	107.70	ug/l		9
26) Bromochloromethane	3.72	130	503664	115.05	ug/l		8
27) 1,1,1-Trichloroethane	3.86	97	1385307	120.24	ug/l	#	
28) 1,1-Dichloropropene	3.94	75	1217850	99.14	ug/l		10
29) Cyclohexane	3.89	42	530651	74.87	ug/l	#	7
32) 4-Methyl-2-pentanone (MIBK	4.88	58	275758	111.94	ug/l		9
33) 2-Hexanone (*)	5.26	58	255290	100.64	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std100.d Vial: 1
Acq On : 22 Aug 12 9:06 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:33 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.73	63	550083	95.81 ug/l		9
35) Carbon Tetrachloride	3.95	117	1162374	119.25 ug/l		9
36) Benzene (MS)	4.05	78	3611790	103.66 ug/l		9
37) 1,2-Dichloroethane	4.05	62	1285657	90.35 ug/l		9
38) Trichloroethene (MS)	4.36	95	871279	108.53 ug/l		9
39) 1,2-Dichloropropane (CCC)	4.47	63	964392	94.51 ug/l		9
40) Bromodichloromethane	4.60	83	1146822	116.65 ug/l		9
41) Methyl Cyclohexane	4.46	55	1522549	89.76 ug/l	#	7
42) Dibromomethane	4.53	174	438929	115.38 ug/l		9
43) cis-1,3-Dichloropropene	4.81	75	1396155	116.92 ug/l		9
44) Toluene (CCC/MS)	4.97	91	3952986	105.09 ug/l		9
45) trans-1,3-Dichloropropene	5.06	75	1250660	95.19 ug/l		9
46) 1,1,2-Trichloroethane	5.15	83	576314	106.04 ug/l		9
47) Tetrachloroethene	5.22	166	1014577	125.60 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.23	53	168873	99.17 ug/l	#	8
51) Dibromochloromethane	5.34	129	754234	108.23 ug/l		9
52) 1,2-Dibromoethane	5.40	107	696118	122.83 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.62	112	2379207	114.85 ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.66	131	790367	126.62 ug/l		9
55) Ethylbenzene (CCC)	5.66	91	4452968	112.34 ug/l		10
56) p,m-Xylene	5.72	106	3508857	225.70 ug/l		9
57) o-Xylene	5.90	91	3602011	109.00 ug/l		9
58) Styrene	5.91	104	2956736	114.76 ug/l		9
59) Isopropylbenzene	6.07	105	4408040	117.03 ug/l		9
60) Bromoform (SPCC)	6.00	173	414875	111.65 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.21	83	885655	114.27 ug/l		9
62) 1,2,3-Trichloropropane	6.24	110	267112	117.90 ug/l	#	7
63) n-Propylbenzene	6.27	91	5272147	116.57 ug/l		9
64) Bromobenzene	6.23	156	959992	118.38 ug/l		9
65) 1,3,5-Trimethylbenzene	6.35	120	1787600	118.29 ug/l		9
66) tert-Butylbenzene	6.50	91	2538088	110.13 ug/l		9
67) 1,2,4-Trimethylbenzene	6.53	120	2005821	115.35 ug/l		9
69) sec-Butylbenzene	6.61	105	4715029	108.70 ug/l		9
70) p-Isopropyltoluene	6.67	119	3779552	104.83 ug/l		9
71) 1,3-Dichlorobenzene	6.67	146	1844638	106.94 ug/l		9
72) 1,4-Dichlorobenzene	6.71	146	1892324	109.88 ug/l		9
73) 1,2-Dichlorobenzene	6.89	146	1724040	110.33 ug/l		9
74) 1,2,3-Trimethylbenzene	6.73	105	3634855	105.84 ug/l		9
75) n-Butylbenzene	6.87	91	3730729	102.40 ug/l		9
76) Hexachloroethane	7.02	201	451585	99.05 ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std100.d Vial: 1
Acq On : 22 Aug 12 9:06 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:33 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

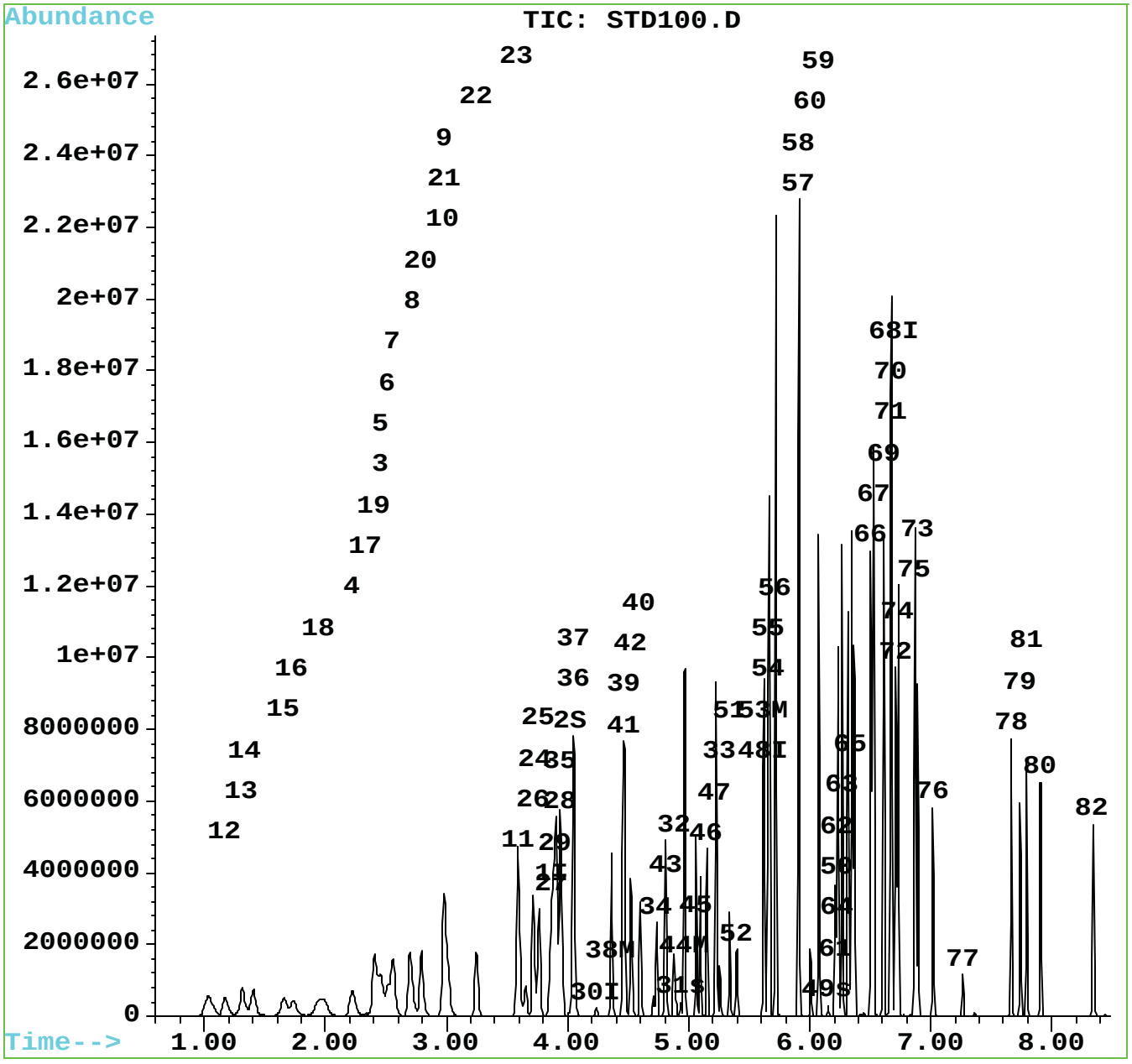
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.26	157	134517	144.22	ug/l	9
78)	1,2,4-Trichlorobenzene	7.66	182	1165761	116.91	ug/l	9
79)	Hexachlorobutadiene	7.74	225	591076	122.21	ug/l	9
80)	1,2,3-Trichlorobenzene	7.91	180	1097199	119.29	ug/l	9
81)	Naphthalene	7.79	128	2873731	122.54	ug/l	10
82)	2-Methylnaphthalene	8.34	142	1439095	134.69	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std100.d Vial: 1
Acq On : 22 Aug 12 9:06 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:33 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std200.d Vial: 1
Acq On : 22 Aug 12 9:27 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:34 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	63168	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	105701	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	57945	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	53658	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	40377	3.93	ug/l		78.5
31) TOLUENE-D8 (S)	4.93	98	124248	4.63	ug/l		92.6
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	35148	5.51	ug/l		110.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.46	101	1556763	201.75	ug/l		9
4) Diethyl ether (*)	2.22	74	1055475	182.30	ug/l	#	6
5) Acetone (*)	2.47	43	424458	180.94	ug/l	#	8
6) Methyl iodide (iodomethane	2.52	142	2408422	221.13	ug/l		9
7) Carbon disulfide (*)	2.56	76	5762226	236.54	ug/l		9
8) Methyl Acetate	2.73	43	1134472	167.53	ug/l		9
9) tert-Methyl butyl ether (M	3.00	73	4795078	249.34	ug/l		8
10) Acrylonitrile (*)	2.97	53	695488	173.97	ug/l		9
11) 2-Butanone (MEK) (*)	3.60	43	687368	116.07	ug/l		8
12) Dichlorodifluoromethane	1.17	85	1817922	221.29	ug/l		9
13) Chloromethane (SPCC)	1.31	50	2579171	143.02	ug/l		9
14) Vinyl Chloride (CCC)	1.40	62	2321271	160.70	ug/l		9
15) Bromomethane	1.65	94	1066964	144.58	ug/l		9
16) Chloroethane	1.73	64	1217885	139.43	ug/l		9
17) Acrolein	2.33	56	200780	152.94	ug/l		8
18) Trichlorofluoromethane	1.95	101	2434602	161.47	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.40	61	2993158	173.87	ug/l		8
20) Methylene Chloride	2.79	84	1788855	204.63	ug/l	#	7
21) trans-1,2-Dichloroethene	2.98	61	2868165	179.78	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.25	63	3429986	187.05	ug/l		9
23) cis-1,2-Dichloroethene	3.59	96	1883814	207.49	ug/l	#	8
24) Tetrahydrofuran	3.74	42	450841	158.68	ug/l		8
25) Chloroform (CCC)	3.76	83	3064368	206.38	ug/l		9
26) Bromochloromethane	3.72	130	1026719	219.37	ug/l	#	8
27) 1,1,1-Trichloroethane	3.86	97	2796936	227.08	ug/l	#	
28) 1,1-Dichloropropene	3.94	75	2455226	186.96	ug/l		9
29) Cyclohexane	3.89	42	1039301	137.16	ug/l	#	8
32) 4-Methyl-2-pentanone (MIBK	4.88	58	589062	225.71	ug/l		9
33) 2-Hexanone (*)	5.26	58	543792	202.35	ug/l		8

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std200.d Vial: 1
Acq On : 22 Aug 12 9:27 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:34 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.73	63	1034468	170.07	ug/l		9
35) Carbon Tetrachloride	3.95	117	2323471	225.00	ug/l		9
36) Benzene (MS)	4.05	78	7426001	201.18	ug/l		9
37) 1,2-Dichloroethane	4.06	62	2653975	176.05	ug/l		9
38) Trichloroethene (MS)	4.36	95	1776486	208.88	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.47	63	2056624	190.25	ug/l		9
40) Bromodichloromethane	4.60	83	2361429	226.72	ug/l		10
41) Methyl Cyclohexane	4.46	55	3148499	175.21	ug/l	#	7
42) Dibromomethane	4.53	174	937703	232.67	ug/l		9
43) cis-1,3-Dichloropropene	4.81	75	2911970	230.18	ug/l		9
44) Toluene (CCC/MS)	4.97	91	8002426	200.82	ug/l		9
45) trans-1,3-Dichloropropene	5.06	75	2612037	169.02	ug/l		9
46) 1,1,2-Trichloroethane	5.15	83	1192875	207.18	ug/l		9
47) Tetrachloroethene	5.22	166	1974023	230.67	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.24	53	401058	223.39	ug/l	#	8
51) Dibromochloromethane	5.34	129	1574224	188.37	ug/l		9
52) 1,2-Dibromoethane	5.40	107	1441843	241.30	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.62	112	4908386	224.73	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.66	131	1633212	248.15	ug/l		9
55) Ethylbenzene (CCC)	5.66	91	7959829	190.46	ug/l		9
56) p,m-Xylene	5.72	106	6519518	397.73	ug/l	#	6
57) o-Xylene	5.90	91	6795644	195.04	ug/l		9
58) Styrene	5.91	104	5619913	206.89	ug/l		9
59) Isopropylbenzene	6.07	105	7897367	198.87	ug/l		9
60) Bromoform (SPCC)	6.00	173	936841	199.98	ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.21	83	1810761	221.59	ug/l		9
62) 1,2,3-Trichloropropane	6.24	110	527051	220.64	ug/l	#	7
63) n-Propylbenzene	6.27	91	8605055	180.45	ug/l		8
64) Bromobenzene	6.23	156	1995552	233.39	ug/l		8
65) 1,3,5-Trimethylbenzene	6.35	120	3526199	221.31	ug/l		9
66) tert-Butylbenzene	6.50	91	4844581	199.38	ug/l		9
67) 1,2,4-Trimethylbenzene	6.53	120	3848642	209.93	ug/l		9
69) sec-Butylbenzene	6.61	105	8169205	172.44	ug/l		9
70) p-Isopropyltoluene	6.67	119	6830167	173.45	ug/l		9
71) 1,3-Dichlorobenzene	6.67	146	3437878	182.47	ug/l		9
72) 1,4-Dichlorobenzene	6.72	146	3847213	204.53	ug/l		9
73) 1,2-Dichlorobenzene	6.89	146	3536033	207.19	ug/l		9
74) 1,2,3-Trimethylbenzene	6.73	105	6955121	185.41	ug/l		9
75) n-Butylbenzene	6.87	91	6935035	174.28	ug/l		9
76) Hexachloroethane	7.02	201	963165	193.42	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std200.d Vial: 1
Acq On : 22 Aug 12 9:27 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:34 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

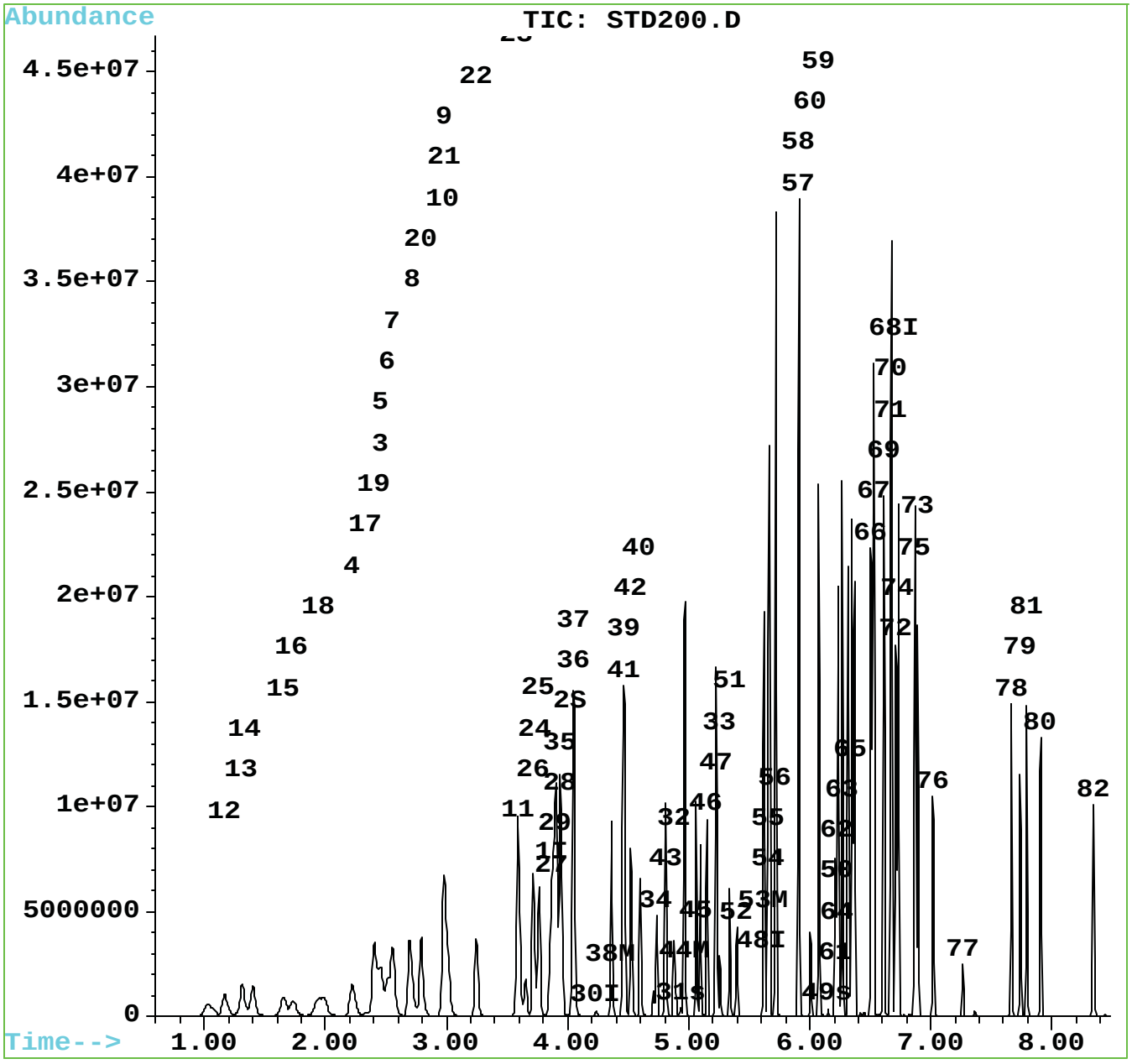
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.26	157	297141	291.67	ug/l	9
78)	1,2,4-Trichlorobenzene	7.67	182	2384186	218.91	ug/l	9
79)	Hexachlorobutadiene	7.74	225	1173829	222.21	ug/l	9
80)	1,2,3-Trichlorobenzene	7.91	180	2202984	219.30	ug/l	9
81)	Naphthalene	7.79	128	5852085	228.48	ug/l	9
82)	2-Methylnaphthalene	8.35	142	2714818	232.64	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\std200.d Vial: 1
Acq On : 22 Aug 12 9:27 pm Operator: wat
Sample : 2dr0821 1ac0821 1ch0821 1c0821 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 11:34 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\icv22a.d Vial: 2
Acq On : 23 Aug 12 11:49 am Operator: lbr
Sample : spcc/ccc 1dr0822 1v0823 1hc0612 4ac0712 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 12:03 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	51438	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	91289	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	51640	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	44790	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	36729	5.19	ug/l		103.8
31) TOLUENE-D8 (S)	4.93	98	113030	5.12	ug/l		102.3
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	31708	5.25	ug/l		105.0
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.45	101	313162	52.25	ug/l		9
4) Diethyl ether (*)	2.22	74	201155	47.26	ug/l	#	7
5) Acetone (*)	2.46	43	70008	44.57	ug/l	#	8
6) Methyl iodide (iodomethane	2.51	142	447072	49.39	ug/l		9
7) Carbon disulfide (*)	2.55	76	1098053	52.16	ug/l		9
8) Methyl Acetate	2.72	43	204373	47.09	ug/l		9
9) tert-Methyl butyl ether (M	2.99	73	900339	49.11	ug/l		9
10) Acrylonitrile (*)	2.96	53	124737	48.36	ug/l		9
11) 2-Butanone (MEK) (*)	3.60	43	119563	48.30	ug/l		8
12) Dichlorodifluoromethane	1.16	85	310608	42.03	ug/l		9
13) Chloromethane (SPCC)	1.30	50	474758	46.25	ug/l		9
14) Vinyl Chloride (CCC)	1.40	62	461185	50.99	ug/l		9
15) Bromomethane	1.65	94	247344	48.56	ug/l		9
16) Chloroethane	1.73	64	281236	50.79	ug/l		9
17) Acrolein	2.33	56	40337	47.12	ug/l		9
18) Trichlorofluoromethane	1.95	101	519738	52.91	ug/l	#	9
19) 1,1-Dichloroethene (CCC/MS	2.40	61	579445	49.68	ug/l		8
20) Methylene Chloride	2.79	84	344776	48.02	ug/l	#	8
21) trans-1,2-Dichloroethene	2.97	61	551022	50.06	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.25	63	666966	50.35	ug/l		9
23) cis-1,2-Dichloroethene	3.59	96	366190	50.21	ug/l		8
24) Tetrahydrofuran	3.74	42	83761	46.82	ug/l		8
25) Chloroform (CCC)	3.76	83	598513	50.85	ug/l		9
26) Bromochloromethane	3.72	130	193945	48.66	ug/l	#	8
27) 1,1,1-Trichloroethane	3.86	97	557080	51.60	ug/l	#	1
28) 1,1-Dichloropropene	3.93	75	500115	50.46	ug/l		9
29) Cyclohexane	3.89	42	211577	49.46	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.87	58	104719	46.05	ug/l		9
33) 2-Hexanone (*)	5.26	58	96512	43.94	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\icv22a.d Vial: 2
Acq On : 23 Aug 12 11:49 am Operator: lbr
Sample : spcc/ccc 1dr0822 1v0823 1hc0612 4ac0712 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 12:03 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
34) 2-chloroethylvinyl ether	4.73	63	210439	44.86	ug/l		9
35) Carbon Tetrachloride	3.95	117	460899	49.55	ug/l		9
36) Benzene (MS)	4.05	78	1437772	47.91	ug/l		9
37) 1,2-Dichloroethane	4.05	62	526094	48.04	ug/l		9
38) Trichloroethene (MS)	4.36	95	342316	47.37	ug/l		9
39) 1,2-Dichloropropane (CCC)	4.47	63	379952	47.90	ug/l		9
40) Bromodichloromethane	4.60	83	459441	50.90	ug/l		9
41) Methyl Cyclohexane	4.46	55	583455	47.61	ug/l		8
42) Dibromomethane	4.53	174	165562	46.77	ug/l		9
43) cis-1,3-Dichloropropene	4.80	75	571260	47.80	ug/l		9
44) Toluene (CCC/MS)	4.96	91	1570484	49.04	ug/l		9
45) trans-1,3-Dichloropropene	5.06	75	501246	46.71	ug/l		9
46) 1,1,2-Trichloroethane	5.15	83	231526	47.90	ug/l		9
47) Tetrachloroethene	5.22	166	338716	42.20	ug/l		9
50) trans-1,4-Dichloro-2-buten	6.23	53	105603	78.90	ug/l	#	6
51) Dibromochloromethane	5.34	129	295658	45.54	ug/l		9
52) 1,2-Dibromoethane	5.39	107	274393	47.51	ug/l		9
53) Chlorobenzene (SPCC/MS)	5.62	112	918245	46.34	ug/l		9
54) 1,1,1,2-Tetrachloroethane	5.66	131	315609	48.98	ug/l		9
55) Ethylbenzene (CCC)	5.66	91	1786501	49.53	ug/l		9
56) p,m-Xylene	5.72	106	1410315	100.43	ug/l		9
57) o-Xylene	5.90	91	1467985	49.36	ug/l		9
58) Styrene	5.91	104	1191007	50.76	ug/l		9
59) Isopropylbenzene	6.07	105	1767754	50.14	ug/l		9
60) Bromoform (SPCC)	6.00	173	164954	48.29	ug/l		10
61) 1,1,2,2-Tetrachloroethane	6.21	83	356393	47.74	ug/l		9
62) 1,2,3-Trichloropropane	6.24	110	109133	47.43	ug/l	#	8
63) n-Propylbenzene	6.27	91	2139523	51.44	ug/l		9
64) Bromobenzene	6.23	156	373406	47.18	ug/l		9
65) 1,3,5-Trimethylbenzene	6.35	120	694328	47.70	ug/l		9
66) tert-Butylbenzene	6.50	91	1041367	49.14	ug/l		10
67) 1,2,4-Trimethylbenzene	6.53	120	794264	49.29	ug/l		9
69) sec-Butylbenzene	6.61	105	1919144	50.88	ug/l		9
70) p-Isopropyltoluene	6.67	119	1570227	51.64	ug/l		10
71) 1,3-Dichlorobenzene	6.67	146	751769	49.86	ug/l		10
72) 1,4-Dichlorobenzene	6.71	146	747757	48.17	ug/l		9
73) 1,2-Dichlorobenzene	6.89	146	678129	47.94	ug/l		9
74) 1,2,3-Trimethylbenzene	6.73	105	1470667	48.95	ug/l		9
75) n-Butylbenzene	6.87	91	1564615	51.61	ug/l		9
76) Hexachloroethane	7.02	201	173015	45.35	ug/l		9

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\icv22a.d Vial: 2
Acq On : 23 Aug 12 11:49 am Operator: lbr
Sample : spcc/ccc 1dr0822 1v0823 1hc0612 4ac0712 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 12:03 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration

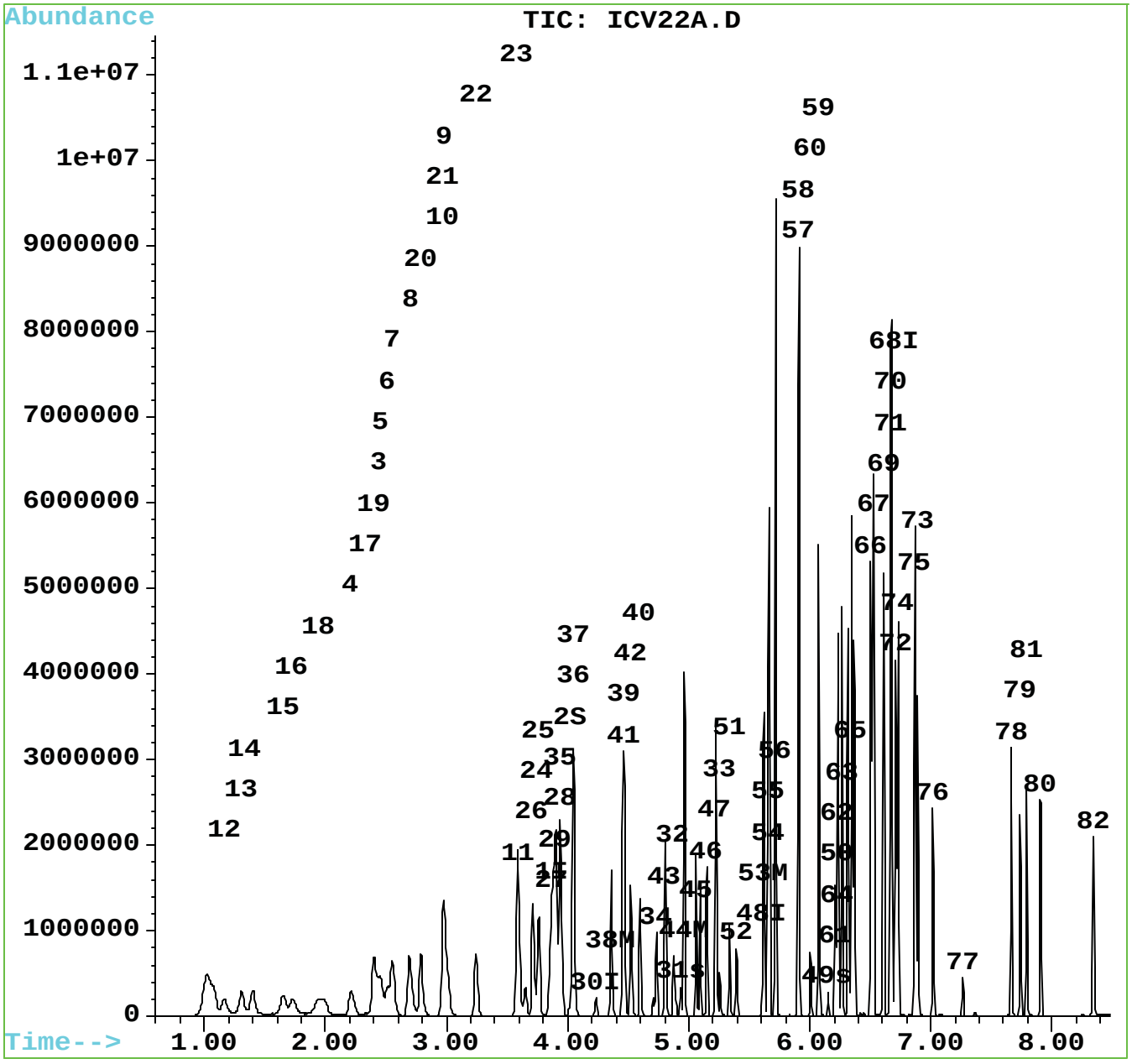
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.26	157	49964	43.96	ug/l	9
78)	1,2,4-Trichlorobenzene	7.66	182	430760	47.78	ug/l	9
79)	Hexachlorobutadiene	7.74	225	211471	46.94	ug/l	9
80)	1,2,3-Trichlorobenzene	7.91	180	399773	46.39	ug/l	9
81)	Naphthalene	7.79	128	1085516	47.63	ug/l	10
82)	2-Methylnaphthalene	8.35	142	543227	46.55	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\methods\wv120822.m\icv22a.d Vial: 2
Acq On : 23 Aug 12 11:49 am Operator: lbr
Sample : spcc/ccc 1dr0822 1v0823 1hc0612 4ac0712 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 23 12:03 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Mon Aug 27 11:18:17 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120817a3.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc17a.d	08/17/12 11:54	1,1,2-Trichloro-1,2,2-trifluoroethane	0.455	0.05
		Diethyl ether	0.320	0.05
		Acetone	0.266	0.01
		Methyl iodide	0.632	0.05
		Carbon disulfide	1.520	0.05
		Methyl acetate	0.461	0.05
		tert-Methyl butyl ether	1.426	0.05
		Acrylonitrile	0.244	0.01
		2-Butanone	0.321	0.01
		Dichlorodifluoromethane	0.464	0.05
		Chloromethane	0.797	0.10
		Vinyl Chloride	0.669	0.05
		Bromomethane	0.265	0.05
		Chloroethane	0.327	0.05
		Acrolein	0.071	0.05
		Trichlorofluoromethane	0.616	0.05
		1,1-Dichloroethene	0.848	0.05
		Methylene Chloride	0.538	0.05
		trans-1,2-Dichloroethene	0.836	0.05
		1,1-Dichloroethane	1.010	0.10
		cis-1,2-Dichloroethene	0.562	0.05
		Tetrahydrofuran	0.197	0.01
		Chloroform	0.852	0.05
		Bromochloromethane	0.307	0.05
		1,1,1-Trichloroethane	0.755	0.05
		Cyclohexane	0.350	0.05
		4-Methyl-2-pentanone	0.111	0.01
		2-Hexanone	0.125	0.01
		2-Chloroethylvinyl ether	0.211	0.05
		Carbon Tetrachloride	0.327	0.05
		Benzene	1.245	0.05
		1,2-Dichloroethane	0.422	0.05
		Trichloroethene	0.303	0.05
		1,2-Dichloropropane	0.329	0.05
		Bromodichloromethane	0.347	0.05
		Methyl cyclohexane	0.473	0.05
		Dibromomethane	0.143	0.05
		cis-1,3-Dichloropropene	0.488	0.05
		Toluene	1.290	0.05
		trans-1,3-Dichloropropene	0.438	0.05
		1,1,2-Trichloroethane	0.209	0.05
		Tetrachloroethene	0.260	0.05
		trans-1,4-Dichloro-2-butene	0.152	0.05
		Dibromochloromethane	0.407	0.05
		1,2-Dibromoethane	0.456	0.05
		Chlorobenzene	1.475	0.30
		1,1,1,2-Tetrachloroethane	0.446	0.05
		Ethylbenzene	2.667	0.05
		p,m-Xylene	0.994	0.05
		o-Xylene	2.119	0.05
		Styrene	1.699	0.05
		Isopropylbenzene	2.588	0.05
		Bromoform	0.203	0.10
		1,1,2,2-Tetrachloroethane	0.608	0.30

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120817a3.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		1,2,3-Trichloropropane	0.179	0.05
		n-Propylbenzene	3.048	0.05
		Bromobenzene	0.535	0.05
		1,3,5-Trimethylbenzene	1.020	0.05
		tert-Butylbenzene	1.413	0.05
		1,2,4-Trimethylbenzene	1.117	0.05
		sec-Butylbenzene	3.018	0.05
		p-Isopropyltoluene	2.344	0.05
		1,3-Dichlorobenzene	1.139	0.05
		1,4-Dichlorobenzene	1.231	0.05
		1,2-Dichlorobenzene	1.146	0.05
		1,2,3-Trimethylbenzene	2.549	0.05
		n-Butylbenzene	2.305	0.05
		Hexachloroethane	0.190	0.05
		1,2-Dibromo-3-Chloropropane	0.089	0.05
		1,2,4-Trichlorobenzene	0.595	0.05
		1,2,3-Trichlorobenzene	0.510	0.05
		Naphthalene	1.757	0.05
		2-Methylnaphthalene	0.455	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura
Initial Calibration Date: (see Form 6)

Analytical Batch: 120823a6.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc23a.d	08/23/12 12:23	1,1,2-Trichloro-1,2,2-trifluoroethane	0.605	0.05
		Diethyl ether	0.397	0.05
		Acetone	0.142	0.01
		Methyl iodide	0.856	0.05
		Carbon disulfide	2.083	0.05
		Methyl acetate	0.409	0.05
		tert-Methyl butyl ether	1.789	0.05
		Acrylonitrile	0.249	0.01
		2-Butanone	0.242	0.01
		Dichlorodifluoromethane	0.596	0.05
		Chloromethane	0.931	0.10
		Vinyl Chloride	0.894	0.05
		Bromomethane	0.473	0.05
		Chloroethane	0.537	0.05
		Acrolein	0.080	0.05
		Trichlorofluoromethane	0.978	0.05
		1,1-Dichloroethene	1.123	0.05
		Methylene Chloride	0.680	0.05
		trans-1,2-Dichloroethene	1.052	0.05
		1,1-Dichloroethane	1.283	0.10
		cis-1,2-Dichloroethene	0.711	0.05
		Tetrahydrofuran	0.168	0.01
		Chloroform	1.159	0.05
		Bromochloromethane	0.378	0.05
		1,1,1-Trichloroethane	1.071	0.05
		Cyclohexane	0.416	0.05
		4-Methyl-2-pentanone	0.119	0.01
		2-Hexanone	0.110	0.01
		2-Chloroethylvinyl ether	0.208	0.05
		Carbon Tetrachloride	0.490	0.05
		Benzene	1.543	0.05
		1,2-Dichloroethane	0.568	0.05
		Trichloroethene	0.368	0.05
		1,2-Dichloropropane	0.413	0.05
		Bromodichloromethane	0.497	0.05
		Methyl cyclohexane	0.615	0.05
		Dibromomethane	0.178	0.05
		cis-1,3-Dichloropropene	0.612	0.05
		Toluene	1.690	0.05
		trans-1,3-Dichloropropene	0.548	0.05
		1,1,2-Trichloroethane	0.253	0.05
		Tetrachloroethene	0.367	0.05
		trans-1,4-Dichloro-2-butene	0.178	0.05
		Dibromochloromethane	0.550	0.05
		1,2-Dibromoethane	0.520	0.05
		Chlorobenzene	1.756	0.30
		1,1,1,2-Tetrachloroethane	0.597	0.05
		Ethylbenzene	3.353	0.05
		p,m-Xylene	1.307	0.05
		o-Xylene	2.768	0.05
		Styrene	2.235	0.05
		Isopropylbenzene	3.306	0.05
		Bromoform	0.306	0.10
		1,1,2,2-Tetrachloroethane	0.687	0.30

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura
Initial Calibration Date: (see Form 6)

Analytical Batch: 120823a6.3
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
		1,2,3-Trichloropropane	0.207	0.05
		n-Propylbenzene	3.993	0.05
		Bromobenzene	0.705	0.05
		1,3,5-Trimethylbenzene	1.321	0.05
		tert-Butylbenzene	1.965	0.05
		1,2,4-Trimethylbenzene	1.503	0.05
		sec-Butylbenzene	4.302	0.05
		p-Isopropyltoluene	3.475	0.05
		1,3-Dichlorobenzene	1.664	0.05
		1,4-Dichlorobenzene	1.694	0.05
		1,2-Dichlorobenzene	1.479	0.05
		1,2,3-Trimethylbenzene	3.300	0.05
		n-Butylbenzene	3.476	0.05
		Hexachloroethane	0.389	0.05
		1,2-Dibromo-3-Chloropropane	0.117	0.05
		1,2,4-Trichlorobenzene	0.976	0.05
		1,2,3-Trichlorobenzene	0.922	0.05
		Naphthalene	2.487	0.05
		2-Methylnaphthalene	1.300	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
spcc17a.d	08/17/12 11:54	1,1,2-Trichloro-1,2,2-trifluoroet	47.0/ 50.0		6.0/ 20.0
		Diethyl ether	43.0/ 50.0		14.1/ 20.0
		Acetone	52.6/ 50.0		5.2/ 20.0
		Methyl iodide	48.5/ 50.0		3.0/ 20.0
		Carbon disulfide	44.6/ 50.0		10.8/ 20.0
		Methyl acetate	44.6/ 50.0		10.8/ 20.0
		tert-Methyl butyl ether	45.8/ 50.0		8.4/ 20.0
		Acrylonitrile	45.9/ 50.0		8.3/ 20.0
		2-Butanone	43.1/ 50.0		13.8/ 20.0
		Dichlorodifluoromethane	45.9/ 50.0		8.1/ 20.0
		Chloromethane	47.7/ 50.0		4.5/ 20.0
		Vinyl Chloride	44.5/ 50.0		10.9/ 20.0
		Bromomethane	38.7/ 50.0	*	22.5/ 20.0
		Chloroethane	40.5/ 50.0		18.9/ 20.0
		Acrolein	35.4/ 50.0	*	29.2/ 20.0
		Trichlorofluoromethane	40.7/ 50.0		18.7/ 20.0
		1,1-Dichloroethene	44.8/ 50.0		10.3/ 20.0
		Methylene Chloride	46.5/ 50.0		6.9/ 20.0
		trans-1,2-Dichloroethene	45.4/ 50.0		9.2/ 20.0
		1,1-Dichloroethane	45.7/ 50.0		8.6/ 20.0
		cis-1,2-Dichloroethene	47.1/ 50.0		5.9/ 20.0
		Tetrahydrofuran	41.3/ 50.0		17.4/ 20.0
		Chloroform	44.8/ 50.0		10.4/ 20.0
		Bromochloromethane	48.8/ 50.0		2.4/ 20.0
		1,1,1-Trichloroethane	45.8/ 50.0		8.3/ 20.0
		Cyclohexane	46.8/ 50.0		6.5/ 20.0
		4-Methyl-2-pentanone	46.3/ 50.0		7.4/ 20.0
		2-Hexanone	45.0/ 50.0		10.1/ 20.0
		2-Chloroethylvinyl ether	46.0/ 50.0		8.0/ 20.0
		Carbon Tetrachloride	45.8/ 50.0		8.4/ 20.0
		Benzene	47.4/ 50.0		5.3/ 20.0
		1,2-Dichloroethane	44.6/ 50.0		10.9/ 20.0
		Trichloroethene	50.1/ 50.0		0.2/ 20.0
		1,2-Dichloropropane	47.2/ 50.0		5.6/ 20.0
		Bromodichloromethane	47.0/ 50.0		6.0/ 20.0
		Methyl cyclohexane	49.4/ 50.0		1.2/ 20.0
		Dibromomethane	48.7/ 50.0		2.6/ 20.0
		cis-1,3-Dichloropropene	44.4/ 50.0		11.2/ 20.0
		Toluene	47.0/ 50.0		6.0/ 20.0
		trans-1,3-Dichloropropene	45.9/ 50.0		8.3/ 20.0
		1,1,2-Trichloroethane	46.4/ 50.0		7.3/ 20.0
		Tetrachloroethene	50.5/ 50.0		1.1/ 20.0
		trans-1,4-Dichloro-2-butene	56.3/ 50.0		12.6/ 20.0
		Dibromochloromethane	49.5/ 50.0		1.0/ 20.0
		1,2-Dibromoethane	50.3/ 50.0		0.6/ 20.0
		Chlorobenzene	50.8/ 50.0		1.7/ 20.0
		1,1,1,2-Tetrachloroethane	51.6/ 50.0		3.2/ 20.0
		Ethylbenzene	49.6/ 50.0		0.7/ 20.0
		p,m-Xylene	99.9/100.0		0.1/ 20.0
		o-Xylene	49.2/ 50.0		1.6/ 20.0
		Styrene	51.1/ 50.0		2.2/ 20.0
		Isopropylbenzene	51.0/ 50.0		2.0/ 20.0
		Bromoform	42.7/ 50.0		14.6/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.03.Merfolk
Initial Calibration Date: (see Form 6)

Analytical Batch: 120817a3.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
		1,1,2,2-Tetrachloroethane	47.5/ 50.0		5.0/ 20.0
		1,2,3-Trichloropropane	49.1/ 50.0		1.8/ 20.0
		n-Propylbenzene	50.7/ 50.0		1.4/ 20.0
		Bromobenzene	53.3/ 50.0		6.5/ 20.0
		1,3,5-Trimethylbenzene	51.8/ 50.0		3.7/ 20.0
		tert-Butylbenzene	49.6/ 50.0		0.8/ 20.0
		1,2,4-Trimethylbenzene	51.9/ 50.0		3.8/ 20.0
		sec-Butylbenzene	46.6/ 50.0		6.9/ 20.0
		p-Isopropyltoluene	46.4/ 50.0		7.3/ 20.0
		1,3-Dichlorobenzene	46.6/ 50.0		6.9/ 20.0
		1,4-Dichlorobenzene	46.9/ 50.0		6.2/ 20.0
		1,2-Dichlorobenzene	46.1/ 50.0		7.9/ 20.0
		1,2,3-Trimethylbenzene	46.2/ 50.0		7.6/ 20.0
		n-Butylbenzene	45.9/ 50.0		8.2/ 20.0
		Hexachloroethane	36.1/ 50.0	*	27.9/ 20.0
		1,2-Dibromo-3-Chloropropane	39.1/ 50.0	*	21.7/ 20.0
		1,2,4-Trichlorobenzene	44.9/ 50.0		10.3/ 20.0
		1,2,3-Trichlorobenzene	42.5/ 50.0		15.1/ 20.0
		Naphthalene	43.4/ 50.0		13.2/ 20.0
		2-Methylnaphthalene	28.6/ 50.0	*	42.7/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura
Initial Calibration Date: (see Form 6)

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration		CCC %D/UCL
spcc23a.d	08/23/12 12:23	1,1,2-Trichloro-1,2,2-trifluoroet	51.9/ 50.0		3.7/ 20.0
		Diethyl ether	48.0/ 50.0		4.0/ 20.0
		Acetone	46.3/ 50.0		7.5/ 20.0
		Methyl iodide	48.6/ 50.0		2.8/ 20.0
		Carbon disulfide	50.9/ 50.0		1.8/ 20.0
		Methyl acetate	48.5/ 50.0		3.1/ 20.0
		tert-Methyl butyl ether	50.2/ 50.0		0.4/ 20.0
		Acrylonitrile	49.7/ 50.0		0.7/ 20.0
		2-Butanone	50.2/ 50.0		0.3/ 20.0
		Dichlorodifluoromethane	41.5/ 50.0		17.0/ 20.0
		Chloromethane	46.7/ 50.0		6.7/ 20.0
		Vinyl Chloride	50.8/ 50.0		1.7/ 20.0
		Bromomethane	47.8/ 50.0		4.4/ 20.0
		Chloroethane	49.9/ 50.0		0.1/ 20.0
		Acrolein	48.2/ 50.0		3.6/ 20.0
		Trichlorofluoromethane	51.2/ 50.0		2.4/ 20.0
		1,1-Dichloroethene	49.5/ 50.0		0.9/ 20.0
		Methylene Chloride	48.7/ 50.0		2.6/ 20.0
		trans-1,2-Dichloroethene	49.2/ 50.0		1.6/ 20.0
		1,1-Dichloroethane	49.8/ 50.0		0.4/ 20.0
		cis-1,2-Dichloroethene	50.1/ 50.0		0.2/ 20.0
		Tetrahydrofuran	48.3/ 50.0		3.3/ 20.0
		Chloroform	50.7/ 50.0		1.3/ 20.0
		Bromochloromethane	48.9/ 50.0		2.3/ 20.0
		1,1,1-Trichloroethane	51.1/ 50.0		2.1/ 20.0
		Cyclohexane	50.0/ 50.0		0.0/ 20.0
		4-Methyl-2-pentanone	47.6/ 50.0		4.7/ 20.0
		2-Hexanone	45.8/ 50.0		8.4/ 20.0
		2-Chloroethylvinyl ether	40.4/ 50.0		19.2/ 20.0
		Carbon Tetrachloride	48.2/ 50.0		3.7/ 20.0
		Benzene	46.9/ 50.0		6.1/ 20.0
		1,2-Dichloroethane	47.3/ 50.0		5.4/ 20.0
		Trichloroethene	46.4/ 50.0		7.1/ 20.0
		1,2-Dichloropropane	47.5/ 50.0		4.9/ 20.0
		Bromodichloromethane	50.3/ 50.0		0.6/ 20.0
		Methyl cyclohexane	45.9/ 50.0		8.3/ 20.0
		Dibromomethane	45.9/ 50.0		8.2/ 20.0
		cis-1,3-Dichloropropene	46.8/ 50.0		6.4/ 20.0
		Toluene	48.2/ 50.0		3.7/ 20.0
		trans-1,3-Dichloropropene	46.6/ 50.0		6.8/ 20.0
		1,1,2-Trichloroethane	47.7/ 50.0		4.7/ 20.0
		Tetrachloroethene	41.7/ 50.0		16.6/ 20.0
		trans-1,4-Dichloro-2-butene	70.5/ 50.0	*	41.0/ 20.0
		Dibromochloromethane	43.8/ 50.0		12.4/ 20.0
		1,2-Dibromoethane	46.5/ 50.0		7.0/ 20.0
		Chlorobenzene	45.7/ 50.0		8.5/ 20.0
		1,1,1,2-Tetrachloroethane	47.9/ 50.0		4.3/ 20.0
		Ethylbenzene	48.0/ 50.0		4.0/ 20.0
		p,m-Xylene	96.1/100.0		3.9/ 20.0
		o-Xylene	48.1/ 50.0		3.9/ 20.0
		Styrene	49.2/ 50.0		1.6/ 20.0
		Isopropylbenzene	48.4/ 50.0		3.2/ 20.0
		Bromoform	46.4/ 50.0		7.3/ 20.0

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.06.Verdura
Initial Calibration Date: (see Form 6)

Analytical Batch: 120823a6.3
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
		1,1,2,2-Tetrachloroethane	47.5/ 50.0	5.0/ 20.0
		1,2,3-Trichloropropane	46.5/ 50.0	7.0/ 20.0
		n-Propylbenzene	49.6/ 50.0	0.8/ 20.0
		Bromobenzene	46.0/ 50.0	7.9/ 20.0
		1,3,5-Trimethylbenzene	46.8/ 50.0	6.3/ 20.0
		tert-Butylbenzene	47.9/ 50.0	4.2/ 20.0
		1,2,4-Trimethylbenzene	48.2/ 50.0	3.7/ 20.0
		sec-Butylbenzene	51.1/ 50.0	2.2/ 20.0
		p-Isopropyltoluene	51.2/ 50.0	2.4/ 20.0
		1,3-Dichlorobenzene	49.4/ 50.0	1.1/ 20.0
		1,4-Dichlorobenzene	48.9/ 50.0	2.3/ 20.0
		1,2-Dichlorobenzene	46.8/ 50.0	6.3/ 20.0
		1,2,3-Trimethylbenzene	49.2/ 50.0	1.6/ 20.0
		n-Butylbenzene	51.4/ 50.0	2.7/ 20.0
		Hexachloroethane	45.6/ 50.0	8.8/ 20.0
		1,2-Dibromo-3-Chloropropane	46.3/ 50.0	7.5/ 20.0
		1,2,4-Trichlorobenzene	48.5/ 50.0	2.9/ 20.0
		1,2,3-Trichlorobenzene	47.9/ 50.0	4.2/ 20.0
		Naphthalene	48.9/ 50.0	2.3/ 20.0
		2-Methylnaphthalene	49.9/ 50.0	0.2/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\spcc17a.d Vial: 2
Acq On : 17 Aug 12 11:54 am Operator: lbr
Sample : spcc/ccc 1dr0814 1v0817 4ch0612 3ac0712 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 20 10:02 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	30649	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54492	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29277	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	25060	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.13	65	19006	4.27	ug/l		85.3
31) TOLUENE-D8 (S)	5.05	98	63702	4.73	ug/l		94.5
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17570	5.67	ug/l		113.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.59	101	139379	47.00	ug/l		8
4) Diethyl ether (*)	2.36	74	98340	42.96	ug/l	#	5
5) Acetone (*)	2.60	43	81409	52.58	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	193879	48.48	ug/l		8
7) Carbon disulfide (*)	2.70	76	466035	44.58	ug/l		9
8) Methyl Acetate	2.86	43	141240	44.61	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	437034	45.79	ug/l		8
10) Acrylonitrile (*)	3.10	53	74750	45.86	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	98343	43.09	ug/l		8
12) Dichlorodifluoromethane	1.26	85	142252	45.94	ug/l		9
13) Chloromethane (SPCC)	1.41	50	244379	47.74	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	204966	44.53	ug/l		9
15) Bromomethane	1.79	94	81166	38.73	ug/l		9
16) Chloroethane	1.87	64	100183	40.54	ug/l		8
17) Acrolein	2.48	56	21859	35.39	ug/l		9
18) Trichlorofluoromethane	2.13	101	188724	40.67	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	260006	44.84	ug/l		7
20) Methylene Chloride	2.93	84	164908	46.54	ug/l	#	5
21) trans-1,2-Dichloroethene	3.11	61	256407	45.40	ug/l	#	7
22) 1,1-Dichloroethane (SPCC)	3.37	63	309703	45.68	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	172245	47.07	ug/l	#	6
24) Tetrahydrofuran	3.86	42	60350	41.28	ug/l	#	7
25) Chloroform (CCC)	3.89	83	261023	44.79	ug/l		9
26) Bromochloromethane	3.84	130	93884	48.81	ug/l	#	4
27) 1,1,1-Trichloroethane	3.98	97	231189	45.84	ug/l	#	
28) 1,1-Dichloropropene	4.06	75	227050	44.86	ug/l		9
29) Cyclohexane	4.02	42	107198	46.77	ug/l	#	5
32) 4-Methyl-2-pentanone (MIBK	4.99	58	60636	46.31	ug/l	#	6
33) 2-Hexanone (*)	5.36	58	68357	44.97	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\spcc17a.d Vial: 2
Acq On : 17 Aug 12 11:54 am Operator: lbr
Sample : spcc/ccc 1dr0814 1v0817 4ch0612 3ac0712 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 20 10:02 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	114985	45.98 ug/l		8
35) Carbon Tetrachloride	4.07	117	178342	45.79 ug/l		9
36) Benzene (MS)	4.16	78	678449	47.37 ug/l		9
37) 1,2-Dichloroethane	4.17	62	229860	44.57 ug/l		9
38) Trichloroethene (MS)	4.47	95	165378	50.08 ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	179519	47.19 ug/l		9
40) Bromodichloromethane	4.72	83	189026	47.01 ug/l		9
41) Methyl Cyclohexane	4.57	55	257923	49.39 ug/l	#	5
42) Dibromomethane	4.65	174	77838	48.68 ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	265998	44.40 ug/l		9
44) Toluene (CCC/MS)	5.07	91	703334	46.99 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	239015	45.86 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	113544	46.36 ug/l		9
47) Tetrachloroethene	5.33	166	141541	50.54 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.34	53	44341	56.30 ug/l	#	5
51) Dibromochloromethane	5.45	129	119112	49.49 ug/l		9
52) 1,2-Dibromoethane	5.51	107	133483	50.30 ug/l		10
53) Chlorobenzene (SPCC/MS)	5.73	112	431854	50.84 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	130530	51.60 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	780978	49.63 ug/l		9
56) p,m-Xylene	5.83	106	581555	99.86 ug/l		8
57) o-Xylene	6.02	91	620341	49.20 ug/l		9
58) Styrene	6.02	104	497327	51.08 ug/l		9
59) Isopropylbenzene	6.18	105	757536	51.02 ug/l		9
60) Bromoform (SPCC)	6.12	173	59376	42.68 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	178090	47.51 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	52424	49.11 ug/l	#	7
63) n-Propylbenzene	6.37	91	892194	50.71 ug/l		9
64) Bromobenzene	6.34	156	156451	53.27 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	298621	51.83 ug/l	#	7
66) tert-Butylbenzene	6.61	91	413825	49.59 ug/l	#	7
67) 1,2,4-Trimethylbenzene	6.63	120	326959	51.91 ug/l		7
69) sec-Butylbenzene	6.72	105	756214	46.56 ug/l		9
70) p-Isopropyltoluene	6.77	119	587320	46.36 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	285403	46.57 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	308332	46.90 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	287202	46.05 ug/l		9
74) 1,2,3-Trimethylbenzene	6.83	105	638907	46.22 ug/l		9
75) n-Butylbenzene	6.97	91	577598	45.92 ug/l		9
76) Hexachloroethane	7.13	201	47756	36.07 ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\spcc17a.d Vial: 2
Acq On : 17 Aug 12 11:54 am Operator: lbr
Sample : spcc/ccc 1dr0814 1v0817 4ch0612 3ac0712 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 20 10:02 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

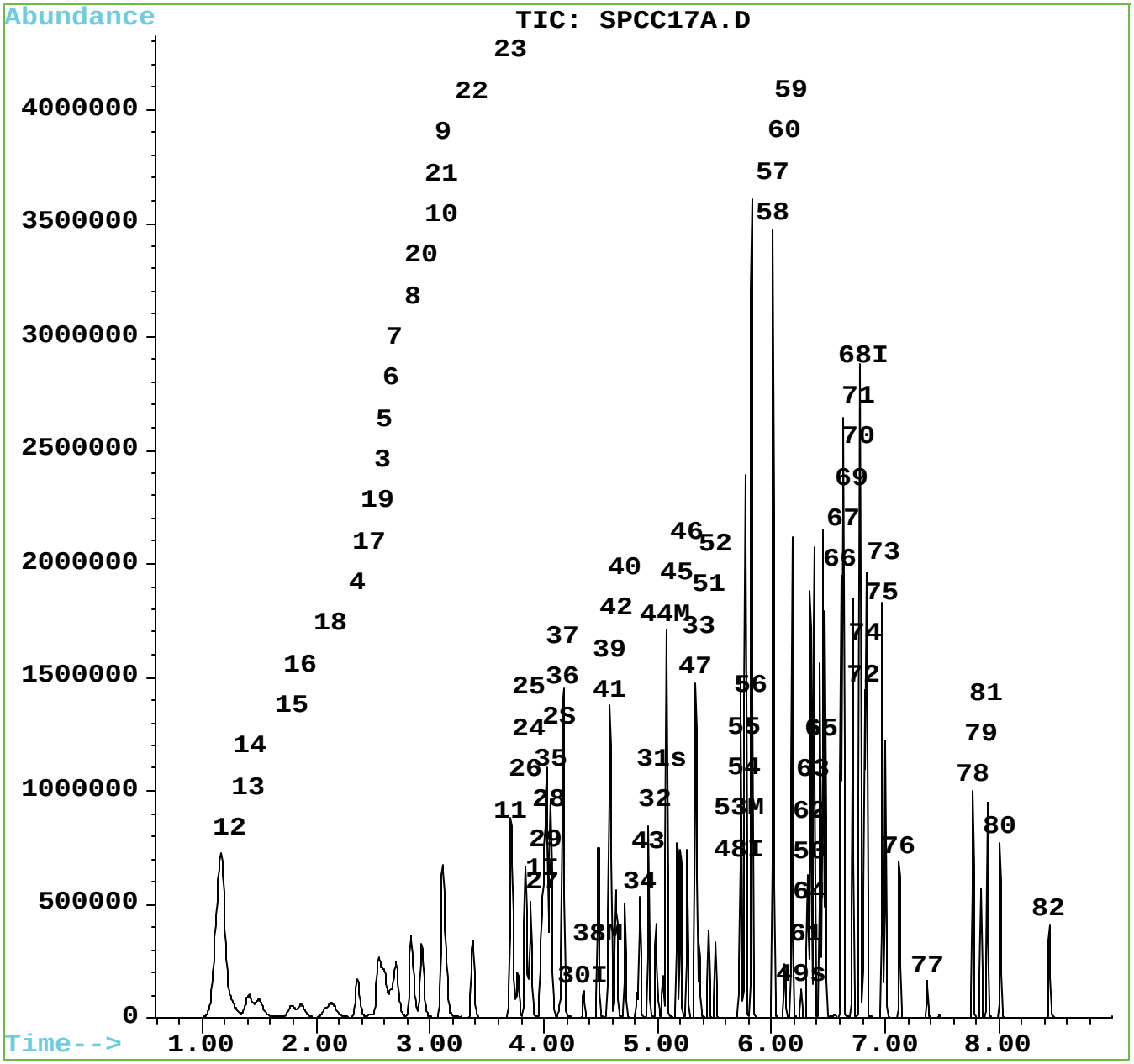
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	22448	39.13 ug/l #	7
78)	1,2,4-Trichlorobenzene	7.77	182	149048	44.85 ug/l	9
79)	Hexachlorobutadiene	7.85	225	63475	52.80 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	127966	42.47 ug/l	9
81)	Naphthalene	7.90	128	440306	43.38 ug/l	9
82)	2-Methylnaphthalene	8.45	142	113969	28.63 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\spcc17a.d Vial: 2
Acq On : 17 Aug 12 11:54 am Operator: lbr
Sample : spcc/ccc 1dr0814 1v0817 4ch0612 3ac0712 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 20 10:02 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\spcc23a.d Vial: 3
Acq On : 23 Aug 12 12:23 pm Operator: wat
Sample : spcc/ccc 1dr0822 1v0823 1hc0612 4ac0712 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.86	168	49852	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	89469	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	51101	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	43310	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.01	65	36403	5.31	ug/l		106.1
31) TOLUENE-D8 (S)	4.93	98	109082	5.04	ug/l		100.8
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	30201	5.06	ug/l		101.1
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.45	101	301209	51.85	ug/l		9
4) Diethyl ether (*)	2.21	74	197932	47.99	ug/l	#	7
5) Acetone (*)	2.46	43	70415	46.26	ug/l	#	8
6) Methyl iodide (iodomethane	2.50	142	426415	48.61	ug/l		9
7) Carbon disulfide (*)	2.55	76	1038480	50.90	ug/l		9
8) Methyl Acetate	2.72	43	203827	48.46	ug/l		9
9) tert-Methyl butyl ether (M	2.99	73	891816	50.19	ug/l		9
10) Acrylonitrile (*)	2.96	53	124115	49.65	ug/l		9
11) 2-Butanone (MEK) (*)	3.59	43	120356	50.17	ug/l		8
12) Dichlorodifluoromethane	1.15	85	297169	41.49	ug/l		9
13) Chloromethane (SPCC)	1.29	50	464105	46.65	ug/l		9
14) Vinyl Chloride (CCC)	1.39	62	445674	50.84	ug/l		9
15) Bromomethane	1.64	94	236121	47.80	ug/l		9
16) Chloroethane	1.72	64	267963	49.94	ug/l		9
17) Acrolein	2.33	56	40003	48.22	ug/l		9
18) Trichlorofluoromethane	1.95	101	487304	51.19	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.39	61	559891	49.53	ug/l		8
20) Methylene Chloride	2.79	84	338944	48.71	ug/l	#	8
21) trans-1,2-Dichloroethene	2.97	61	524714	49.18	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.24	63	639150	49.79	ug/l		9
23) cis-1,2-Dichloroethene	3.58	96	354151	50.11	ug/l		8
24) Tetrahydrofuran	3.74	42	83816	48.34	ug/l		9
25) Chloroform (CCC)	3.76	83	577937	50.66	ug/l		9
26) Bromochloromethane	3.71	130	188778	48.87	ug/l	#	8
27) 1,1,1-Trichloroethane	3.86	97	534107	51.05	ug/l	#	1
28) 1,1-Dichloropropene	3.93	75	482515	50.24	ug/l		9
29) Cyclohexane	3.89	42	207391	50.02	ug/l	#	6
32) 4-Methyl-2-pentanone (MIBK	4.87	58	106176	47.64	ug/l		9
33) 2-Hexanone (*)	5.26	58	98540	45.78	ug/l		8

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\spcc23a.d Vial: 3
Acq On : 23 Aug 12 12:23 pm Operator: wat
Sample : spcc/ccc 1dr0822 1v0823 1hc0612 4ac0712 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
34) 2-chloroethylvinyl ether	4.73	63	185718	40.39 ug/l	9
35) Carbon Tetrachloride	3.94	117	439131	48.17 ug/l	9
36) Benzene (MS)	4.04	78	1380510	46.94 ug/l	9
37) 1,2-Dichloroethane	4.05	62	507708	47.30 ug/l	9
38) Trichloroethene (MS)	4.36	95	328930	46.44 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.47	63	369481	47.53 ug/l	9
40) Bromodichloromethane	4.60	83	444819	50.29 ug/l	9
41) Methyl Cyclohexane	4.46	55	550738	45.86 ug/l	8
42) Dibromomethane	4.53	174	159266	45.91 ug/l	9
43) cis-1,3-Dichloropropene	4.80	75	547902	46.80 ug/l	9
44) Toluene (CCC/MS)	4.96	91	1511966	48.17 ug/l	9
45) trans-1,3-Dichloropropene	5.06	75	490192	46.61 ug/l	9
46) 1,1,2-Trichloroethane	5.15	83	225770	47.66 ug/l	9
47) Tetrachloroethene	5.22	166	327910	41.68 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	91131	70.49 ug/l #	7
51) Dibromochloromethane	5.33	129	281118	43.80 ug/l	9
52) 1,2-Dibromoethane	5.39	107	265633	46.48 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.62	112	896863	45.74 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	305186	47.87 ug/l	9
55) Ethylbenzene (CCC)	5.66	91	1713159	47.99 ug/l	9
56) p,m-Xylene	5.72	106	1335070	96.07 ug/l	9
57) o-Xylene	5.90	91	1414456	48.06 ug/l	9
58) Styrene	5.91	104	1141933	49.18 ug/l	9
59) Isopropylbenzene	6.07	105	1689305	48.42 ug/l	9
60) Bromoform (SPCC)	6.00	173	156219	46.35 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.21	83	351062	47.52 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	105904	46.51 ug/l #	8
63) n-Propylbenzene	6.27	91	2040534	49.58 ug/l	9
64) Bromobenzene	6.23	156	360526	46.03 ug/l	10
65) 1,3,5-Trimethylbenzene	6.35	120	674671	46.83 ug/l	9
66) tert-Butylbenzene	6.50	91	1004434	47.89 ug/l	10
67) 1,2,4-Trimethylbenzene	6.53	120	768175	48.17 ug/l	9
69) sec-Butylbenzene	6.61	105	1863090	51.08 ug/l	10
70) p-Isopropyltoluene	6.67	119	1505386	51.20 ug/l	10
71) 1,3-Dichlorobenzene	6.67	146	720742	49.44 ug/l	9
72) 1,4-Dichlorobenzene	6.71	146	733456	48.87 ug/l	9
73) 1,2-Dichlorobenzene	6.89	146	640504	46.83 ug/l	9
74) 1,2,3-Trimethylbenzene	6.73	105	1429270	49.19 ug/l	9
75) n-Butylbenzene	6.87	91	1505501	51.36 ug/l	9
76) Hexachloroethane	7.02	201	168336	45.62 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\spcc23a.d Vial: 3
Acq On : 23 Aug 12 12:23 pm Operator: wat
Sample : spcc/ccc 1dr0822 1v0823 1hc0612 4ac0712 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

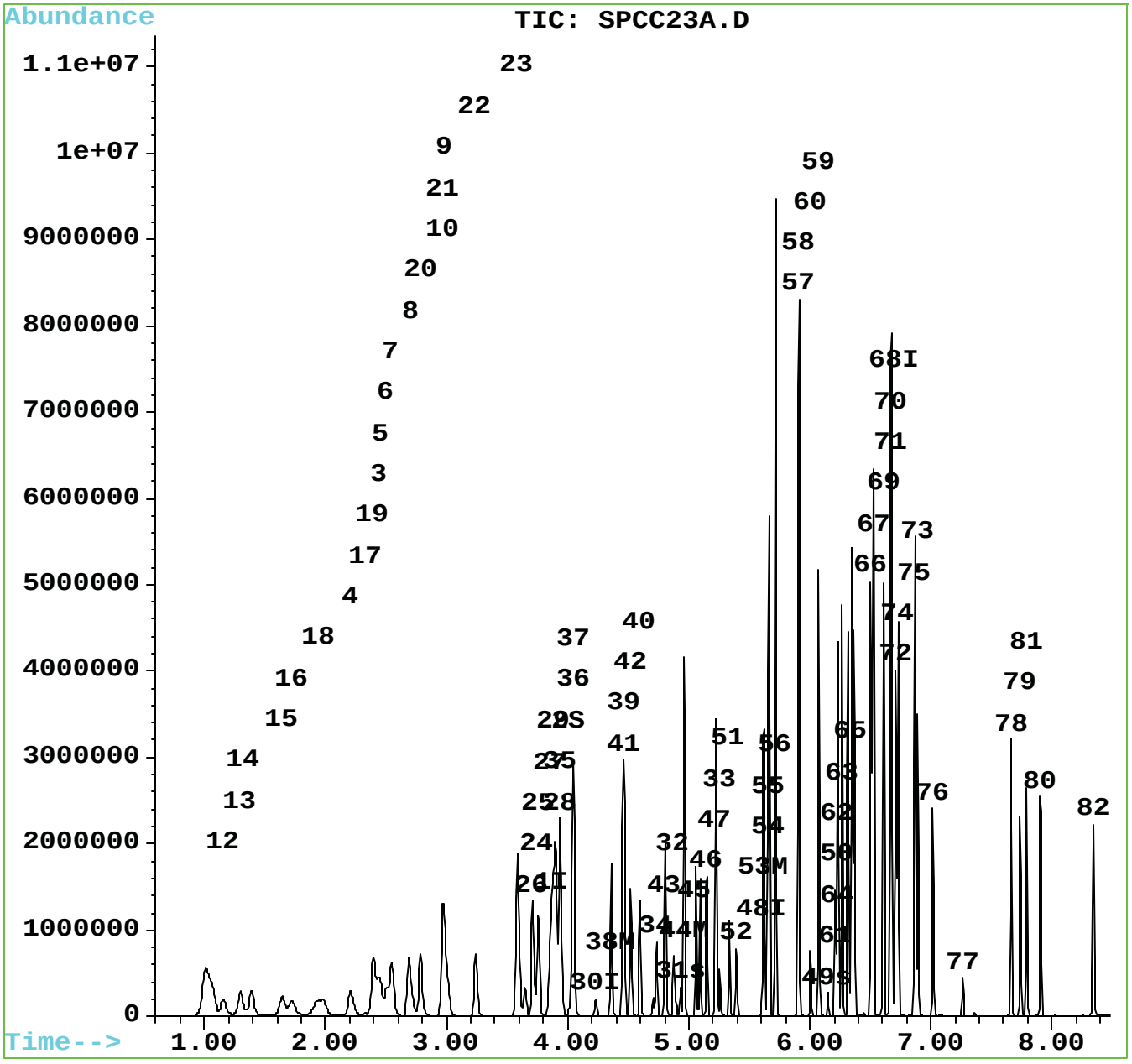
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.26	157	50901	46.25 ug/l	9
78)	1,2,4-Trichlorobenzene	7.66	182	423049	48.53 ug/l	9
79)	Hexachlorobutadiene	7.74	225	208996	47.98 ug/l	9
80)	1,2,3-Trichlorobenzene	7.91	180	399183	47.90 ug/l	9
81)	Naphthalene	7.79	128	1077004	48.87 ug/l	9
82)	2-Methylnaphthalene	8.35	142	563114	49.90 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\spcc23a.d Vial: 3
Acq On : 23 Aug 12 12:23 pm Operator: wat
Sample : spcc/ccc 1dr0822 1v0823 1hc0612 4ac0712 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\bfb17a.d Vial: 1
Acq On : 17 Aug 12 11:01 am Operator: wat
Sample : 25ng/bfb 1dr0814 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

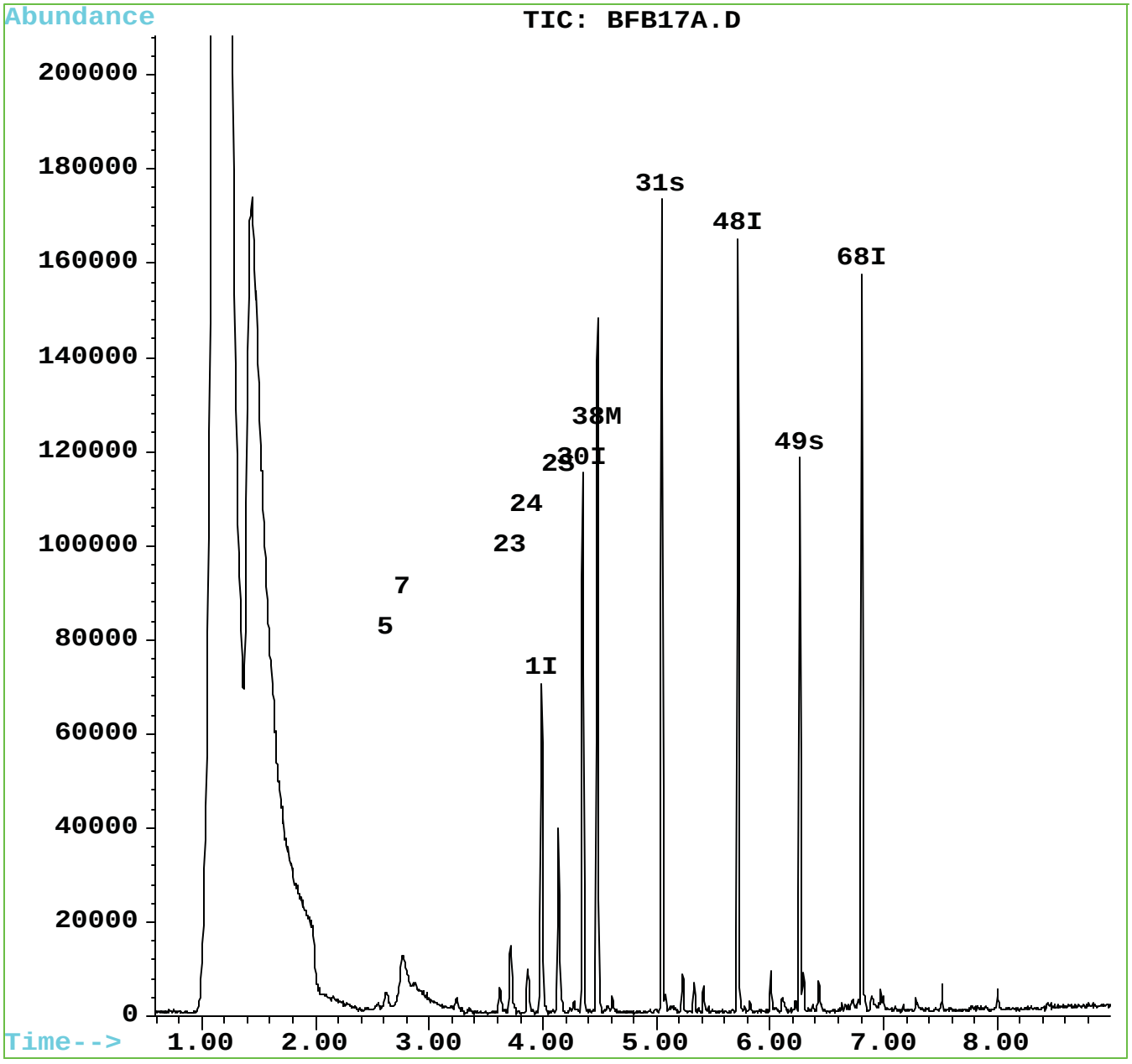
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	29395	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	53392	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	28523	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	23415	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	18028	4.22	ug/l		84.4
31) TOLUENE-D8 (S)	5.05	98	61665	4.67	ug/l		93.4
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16197	5.37	ug/l		107.3
Target Compounds							Qvalu
5) Acetone (*)	2.62	43	9038	6.09	ug/l		8
7) Carbon disulfide (*)	2.76	76	74125	7.39	ug/l		9
23) cis-1,2-Dichloroethene	3.71	96	3964	1.13	ug/l	#	7
24) Tetrahydrofuran	3.86	42	5286	3.77	ug/l	#	1
38) Trichloroethene (MS)	4.48	95	30774	9.51	ug/l		7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\bfb17a.d Vial: 1
Acq On : 17 Aug 12 11:01 am Operator: wat
Sample : 25ng/bfb 1dr0814 Inst : Merfolk
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

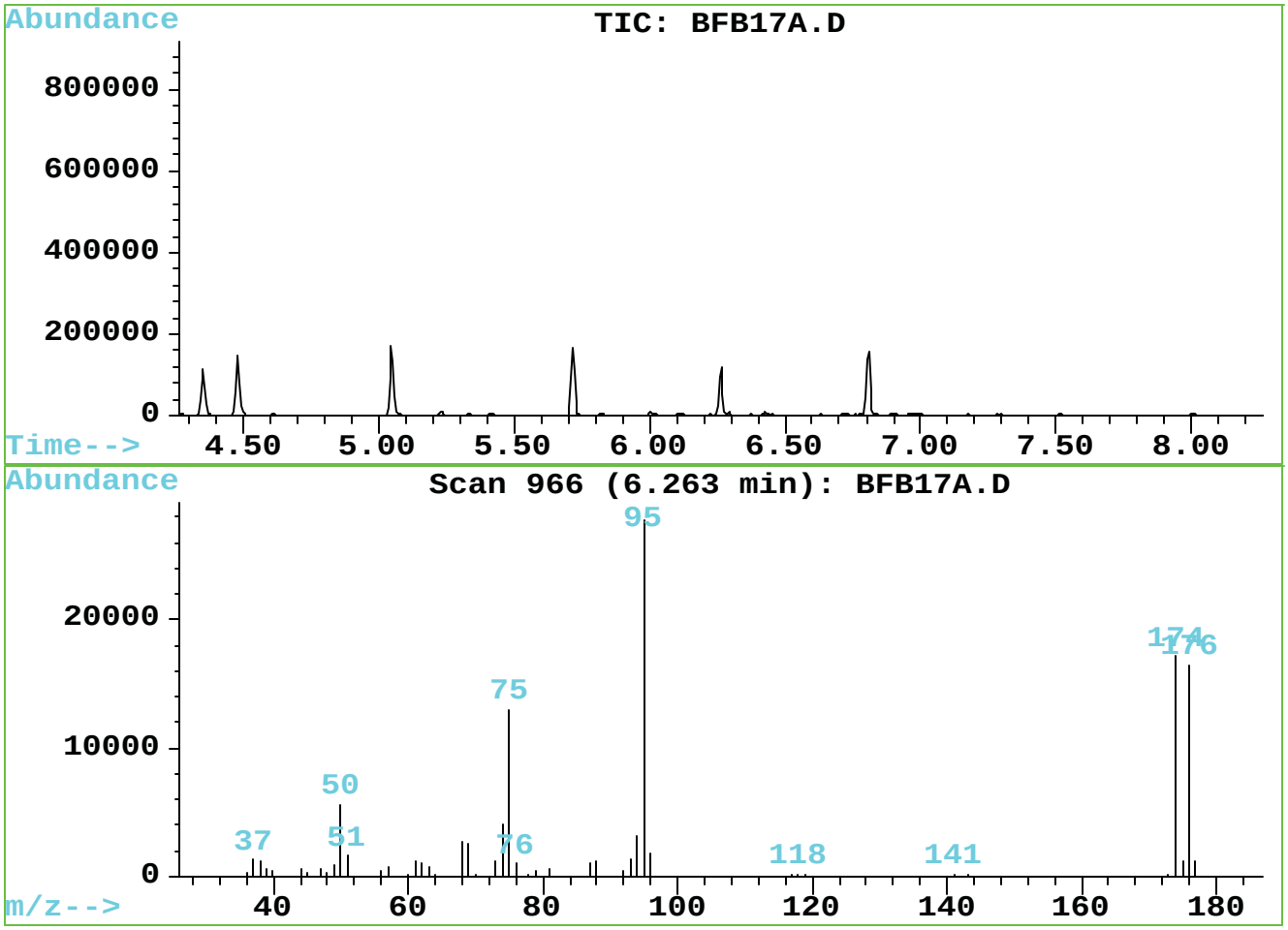
Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\MERFOLK.THD\DATA\120817A3\BFB17A.D Vial: 1
Acq On : 17 Aug 12 11:01 am Operator: wat
Sample : 25ng/bfb 1dr0814 Inst : Merfolk
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 966

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	20.3	5621	PASS
75	95	30	66	47.0	13014	PASS
95	95	100	100	100.0	27704	PASS
96	95	5	9	6.4	1776	PASS
173	174	0	2	1.0	175	PASS
174	95	50	120	61.9	17160	PASS
175	174	4	9	7.1	1212	PASS
176	174	93	101	95.9	16456	PASS
177	176	5	9	6.9	1136	PASS

BFB17A.D WT120801.M Mon Sep 10 14:21:55 2012

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\bfb23a.d Vial: 1
Acq On : 23 Aug 12 11:06 am Operator: lbr
Sample : 50ng/bfb 1dr0822 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 24 10:19 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

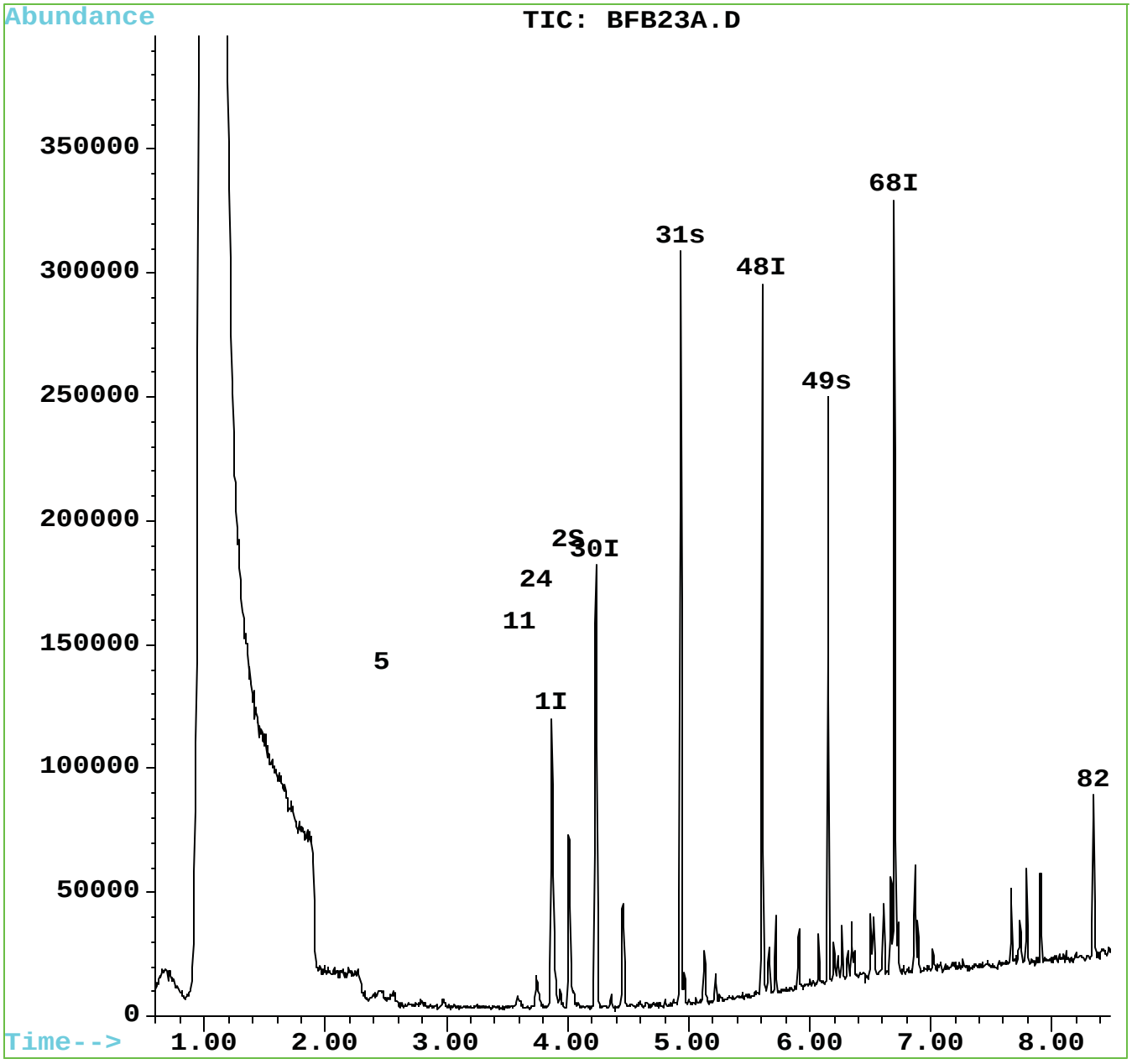
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	46115	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	80680	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	44681	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	37291	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	32422	5.11	ug/l	102.2
31) TOLUENE-D8 (S)	4.93	98	96535	4.95	ug/l	98.9
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	27273	5.22	ug/l	104.4
Target Compounds						Qvalu
5) Acetone (*)	2.47	43	2018	1.43	ug/l #	5
11) 2-Butanone (MEK) (*)	3.61	43	2238	1.01	ug/l #	5
24) Tetrahydrofuran	3.74	42	6980	4.35	ug/l #	1
82) 2-Methylnaphthalene	8.35	142	15978	1.64	ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\bfb23a.d Vial: 1
Acq On : 23 Aug 12 11:06 am Operator: lbr
Sample : 50ng/bfb 1dr0822 Inst : Verdura
Misc : w/1 Multiplr: 1.00
Quant Time: Aug 24 10:19 19112

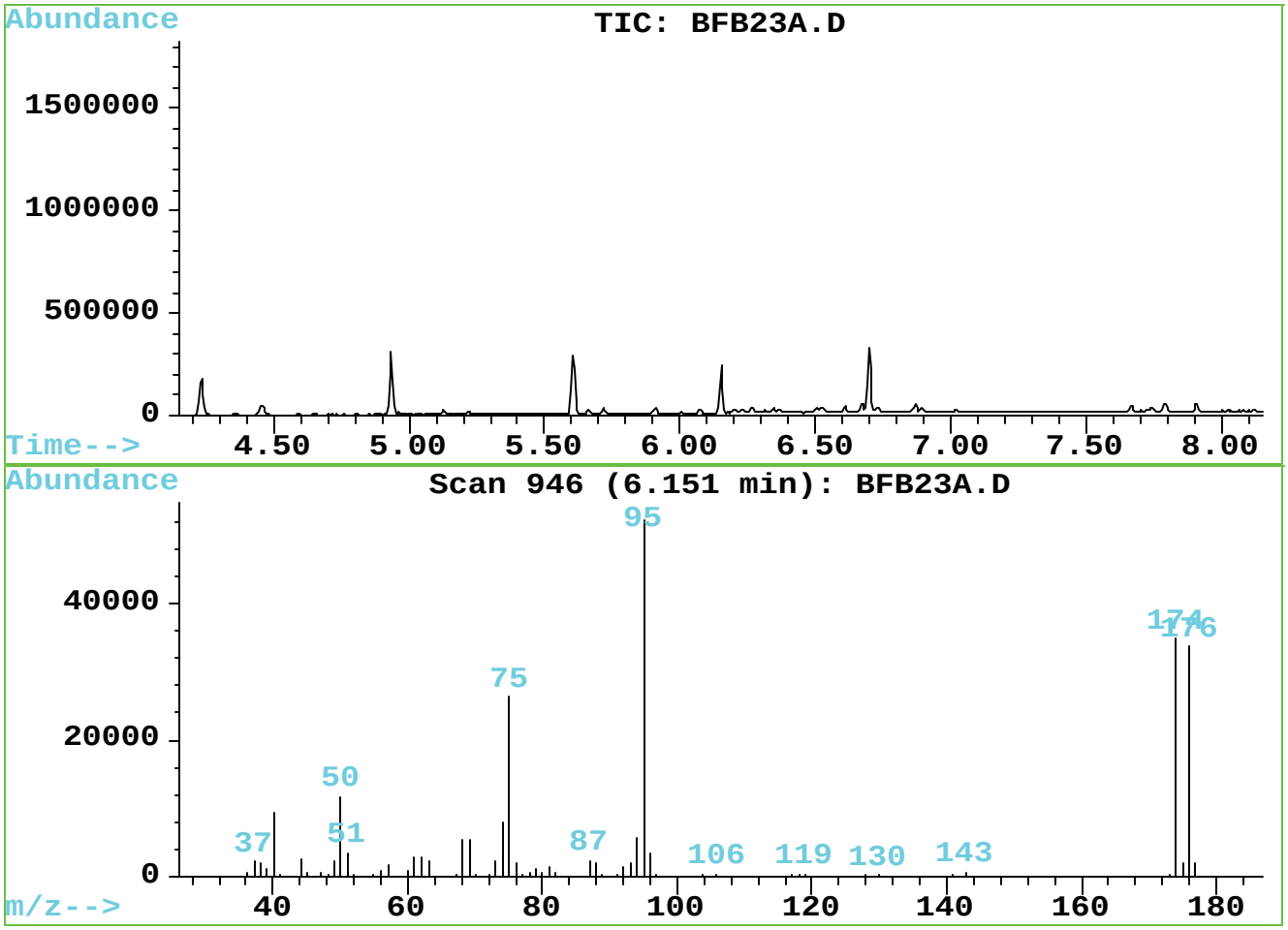
Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



BFB

Data File : F:\GCMS.DAT\VERDURA.SX\DATA\120823A6\BFB23A.D Vial: 1
Acq On : 23 Aug 12 11:06 am Operator: lbr
Sample : 50ng/bfb 1dr0822 Inst : Verdura
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B



Peak Apex is scan: 946

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	22.5	11723	PASS
75	95	30	66	50.6	26360	PASS
95	95	100	100	100.0	52136	PASS
96	95	5	9	6.6	3457	PASS
173	174	0	2	0.5	182	PASS
174	95	50	120	66.7	34800	PASS
175	174	4	9	5.6	1943	PASS
176	174	93	101	96.8	33680	PASS
177	176	5	9	6.1	2048	PASS

BFB23A.D WV120822.M Mon Sep 10 14:35:14 2012

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\blkw17a.d Vial: 7
Acq On : 17 Aug 12 2:50 pm Operator: lbr
Sample : 5ml blank 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

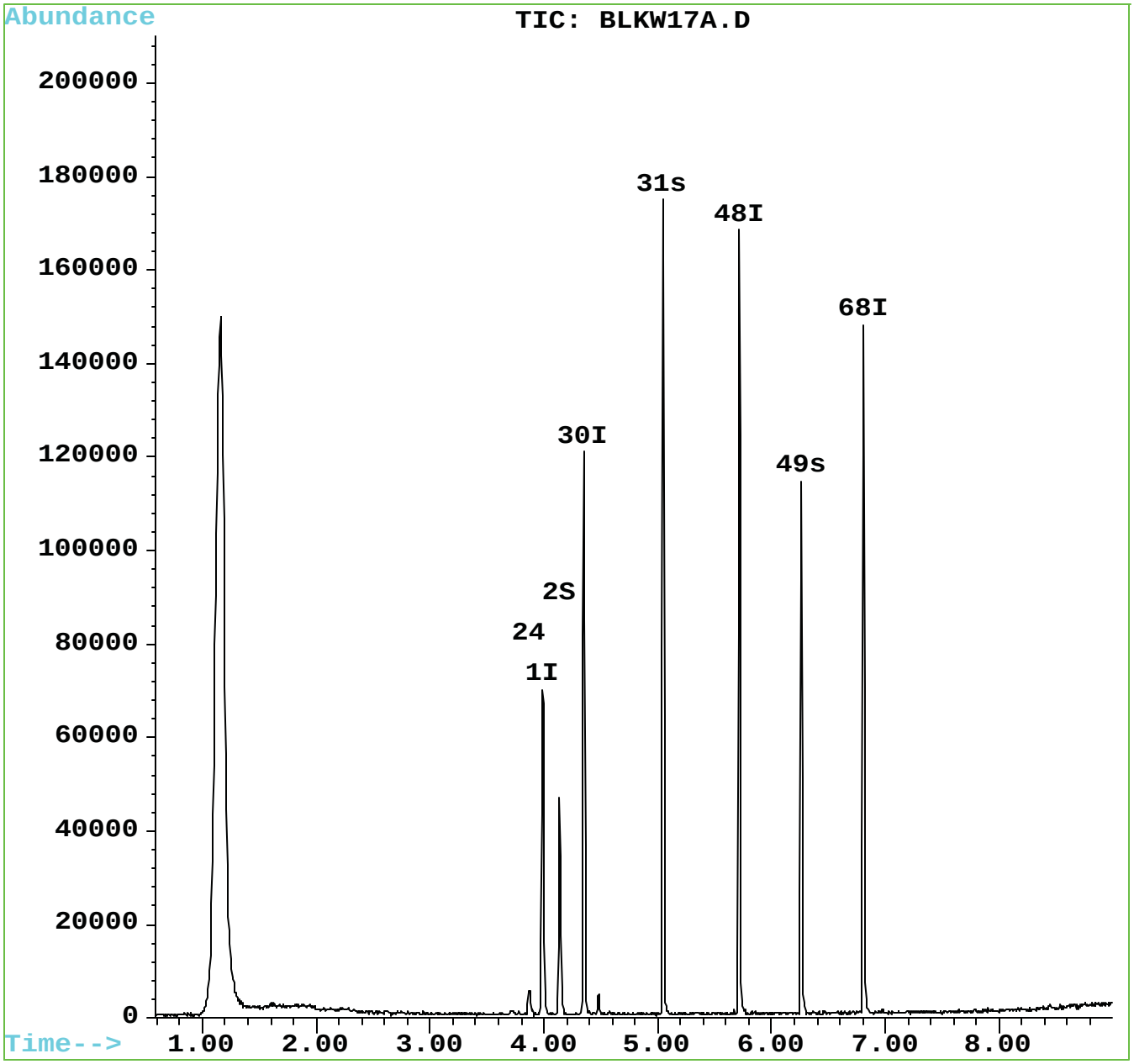
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	32296	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	54971	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29874	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	22839	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	20423	4.35	ug/l	87.0
31) TOLUENE-D8 (S)	5.05	98	66861	4.92	ug/l	98.3
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16227	5.13	ug/l	102.6
Target Compounds						Qvalu
24) Tetrahydrofuran	3.87	42	3233	2.10	ug/l #	1

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\blkw17a.d Vial: 7
Acq On : 17 Aug 12 2:50 pm Operator: lbr
Sample : 5ml blank 1dr0817 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\blkw23a.d Vial: 7
Acq On : 23 Aug 12 2:52 pm Operator: lbr
Sample : 5ml blank 1dr0822 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:19 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

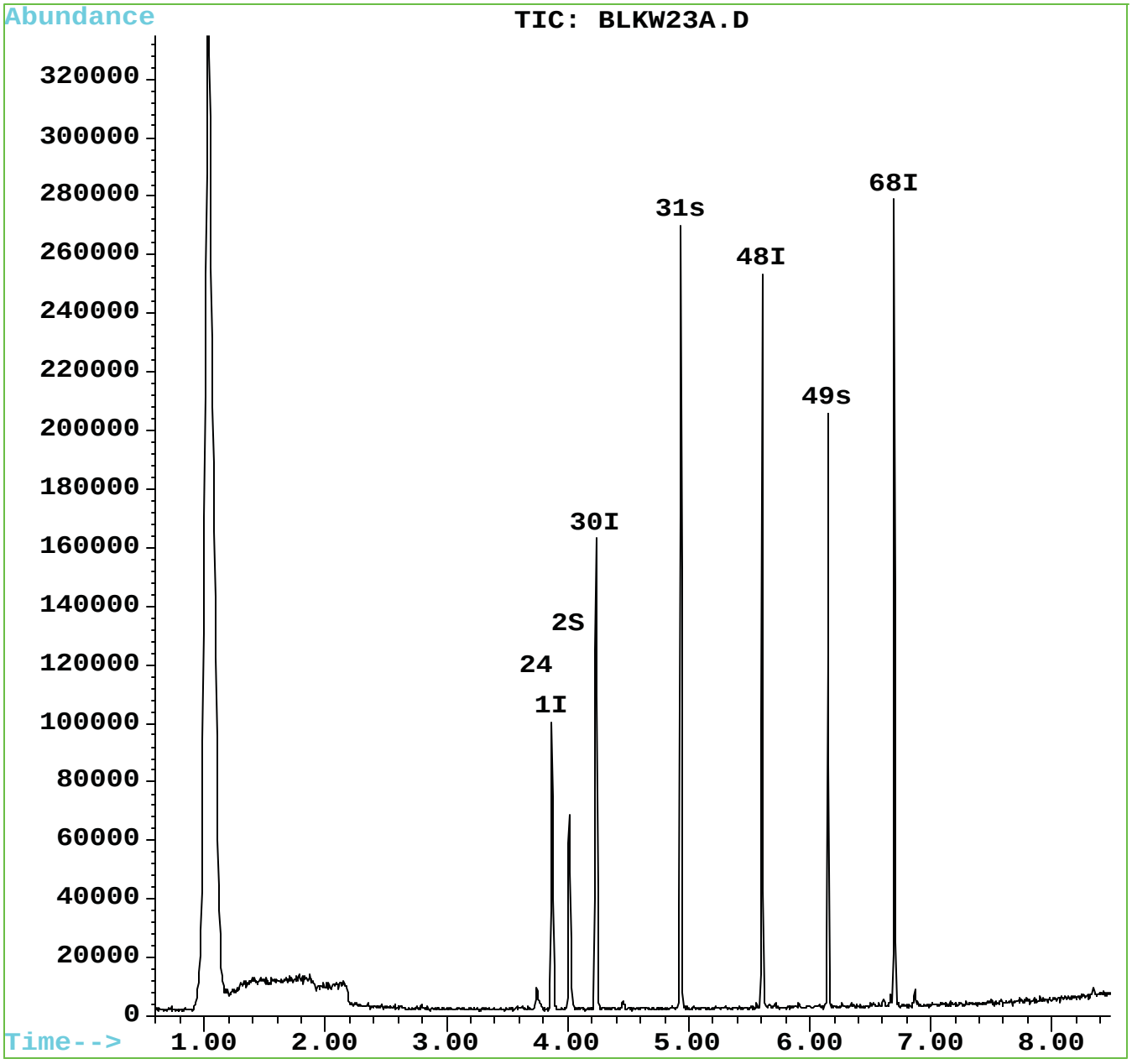
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	37611	5.00	ug/l	0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	68287	5.00	ug/l	0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	39701	5.00	ug/l	0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	30059	5.00	ug/l	0.0
System Monitoring Compounds						%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	29810	5.76	ug/l	115.2
31) TOLUENE-D8 (S)	4.93	98	86187	5.22	ug/l	104.3
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	21820	4.70	ug/l	94.0
Target Compounds						Qvalu
24) Tetrahydrofuran	3.75	42	3918	2.99	ug/l	#

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\blkw23a.d Vial: 7
Acq On : 23 Aug 12 2:52 pm Operator: lbr
Sample : 5ml blank 1dr0822 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:19 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\lcsw17a.d Vial: 4
Acq On : 17 Aug 12 1:08 pm Operator: lbr
Sample : blank ms 1dr0817 1m0817 1mch0817 1mac081 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	31349	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	56959	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	29919	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	24464	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	21078	4.63	ug/l		92.5
31) TOLUENE-D8 (S)	5.05	98	70651	5.02	ug/l		100.3
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	16677	5.27	ug/l		105.3
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	155614	51.30	ug/l		8
4) Diethyl ether (*)	2.37	74	104110	44.47	ug/l	#	5
5) Acetone (*)	2.62	43	70875	44.75	ug/l		8
6) Methyl iodide (iodomethane	2.67	142	205557	50.26	ug/l		8
7) Carbon disulfide (*)	2.72	76	507942	47.50	ug/l		9
8) Methyl Acetate	2.86	43	152038	46.95	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	479330	49.10	ug/l		8
10) Acrylonitrile (*)	3.11	53	85392	51.22	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	96132	41.18	ug/l		8
12) Dichlorodifluoromethane	1.26	85	152618	48.09	ug/l		9
13) Chloromethane (SPCC)	1.42	50	268437	51.27	ug/l		9
14) Vinyl Chloride (CCC)	1.51	62	198443	42.15	ug/l		9
15) Bromomethane	1.80	94	84010	39.19	ug/l		9
16) Chloroethane	1.87	64	101881	40.31	ug/l		8
17) Acrolein	2.49	56	33973	53.77	ug/l		9
18) Trichlorofluoromethane	2.15	101	203786	42.94	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.56	61	280937	47.36	ug/l		7
20) Methylene Chloride	2.94	84	174283	48.08	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	267221	46.26	ug/l		7
22) 1,1-Dichloroethane (SPCC)	3.38	63	327395	47.21	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	181050	48.37	ug/l	#	7
24) Tetrahydrofuran	3.87	42	66383	44.39	ug/l	#	1
25) Chloroform (CCC)	3.89	83	278340	46.70	ug/l		9
26) Bromochloromethane	3.85	130	97276	49.44	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	243967	47.29	ug/l	#	
28) 1,1-Dichloropropene	4.17	75	11858	2.29	ug/l	#	
29) Cyclohexane	4.02	42	96268	41.06	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	70456	51.48	ug/l	#	7
33) 2-Hexanone (*)	5.36	58	68011	42.80	ug/l	#	6

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\lcsw17a.d Vial: 4
Acq On : 17 Aug 12 1:08 pm Operator: lbr
Sample : blank ms 1dr0817 1m0817 1mch0817 1mac081 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	131854	50.45 ug/l		8
35) Carbon Tetrachloride	4.07	117	190304	46.74 ug/l		9
36) Benzene (MS)	4.17	78	709489	47.39 ug/l		8
37) 1,2-Dichloroethane	4.17	62	242533	44.99 ug/l		9
38) Trichloroethene (MS)	4.48	95	164766	47.73 ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	189324	47.62 ug/l		9
40) Bromodichloromethane	4.72	83	195756	46.58 ug/l		9
41) Methyl Cyclohexane	4.57	55	276658	50.69 ug/l	#	5
42) Dibromomethane	4.65	174	84989	50.85 ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	277778	44.36 ug/l		9
44) Toluene (CCC/MS)	5.08	91	737658	47.14 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	244671	44.93 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	123870	48.39 ug/l		9
47) Tetrachloroethene	5.33	166	151310	51.69 ug/l		9
50) trans-1,4-Dichloro-2-buten	6.35	53	39680	49.64 ug/l	#	7
51) Dibromochloromethane	5.45	129	124644	50.67 ug/l		9
52) 1,2-Dibromoethane	5.51	107	140639	51.86 ug/l		10
53) Chlorobenzene (SPCC/MS)	5.73	112	449434	51.78 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	135092	52.26 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	808878	50.30 ug/l		9
56) p,m-Xylene	5.83	106	607451	102.07 ug/l		8
57) o-Xylene	6.02	91	647704	50.27 ug/l		9
58) Styrene	6.02	104	502694	50.53 ug/l		9
59) Isopropylbenzene	6.18	105	785216	51.75 ug/l		9
60) Bromoform (SPCC)	6.12	173	64348	45.15 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	190533	49.74 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	56366	51.66 ug/l	#	7
63) n-Propylbenzene	6.37	91	945234	52.57 ug/l		9
64) Bromobenzene	6.34	156	164703	54.87 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	309493	52.56 ug/l	#	7
66) tert-Butylbenzene	6.61	91	433836	50.87 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	349706	54.33 ug/l		7
69) sec-Butylbenzene	6.72	105	784109	49.46 ug/l		9
70) p-Isopropyltoluene	6.77	119	608140	49.17 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	294538	49.23 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	318139	49.57 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	301426	49.51 ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	662262	49.08 ug/l		9
75) n-Butylbenzene	6.97	91	599630	48.84 ug/l		9
76) Hexachloroethane	7.13	201	47678	36.87 ug/l	#	4

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\lcsw17a.d Vial: 4
Acq On : 17 Aug 12 1:08 pm Operator: lbr
Sample : blank ms 1dr0817 1m0817 1mch0817 1mac081 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

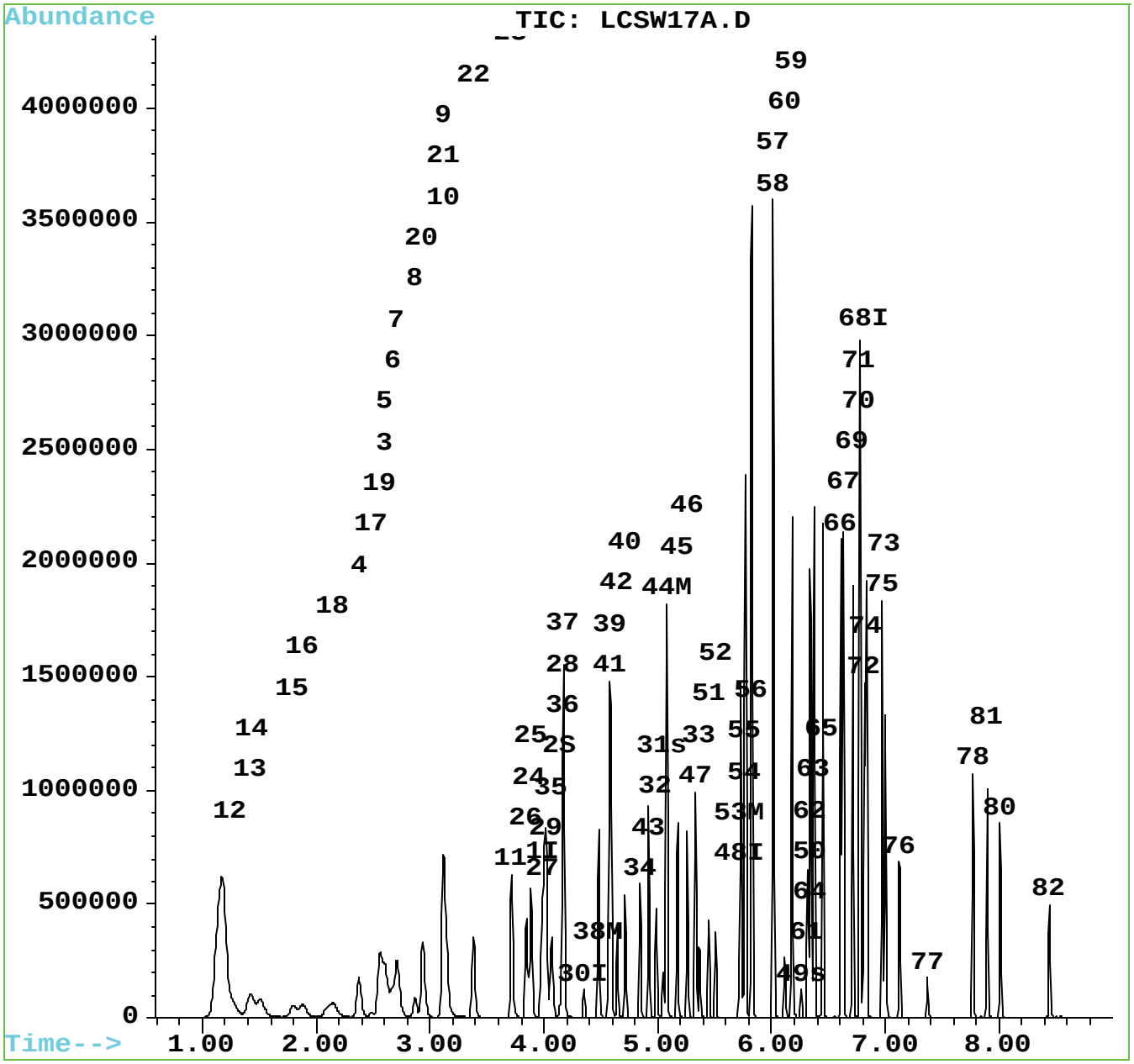
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	25852	45.87 ug/l #	7
78)	1,2,4-Trichlorobenzene	7.77	182	158874	48.97 ug/l	9
80)	1,2,3-Trichlorobenzene	8.01	180	141636	48.15 ug/l	9
81)	Naphthalene	7.90	128	480352	48.48 ug/l	9
82)	2-Methylnaphthalene	8.44	142	134508	34.71 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\lcsw17a.d Vial: 4
Acq On : 17 Aug 12 1:08 pm Operator: lbr
Sample : blank ms 1dr0817 1m0817 1mch0817 1mac081 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\lcsw17b.d Vial: 5
Acq On : 17 Aug 12 1:28 pm Operator: lbr
Sample : blank msd 1dr0817 1m0817 1mch0817 1mac08 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.99	168	32191	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.35	114	57476	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.72	82	30751	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.81	152	25245	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.14	65	20480	4.38	ug/l		87.6
31) TOLUENE-D8 (S)	5.05	98	70185	4.94	ug/l		98.7
49) 4-BROMOFLUOROBENZENE (S)	6.26	174	17169	5.28	ug/l		105.5
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.60	101	141005	45.27	ug/l		8
4) Diethyl ether (*)	2.37	74	101449	42.20	ug/l	#	5
5) Acetone (*)	2.62	43	76165	46.84	ug/l		8
6) Methyl iodide (iodomethane	2.66	142	195810	46.62	ug/l		8
7) Carbon disulfide (*)	2.71	76	467974	42.62	ug/l		9
8) Methyl Acetate	2.87	43	153283	46.10	ug/l		7
9) tert-Methyl butyl ether (M	3.13	73	474785	47.36	ug/l		8
10) Acrylonitrile (*)	3.10	53	81240	47.45	ug/l		9
11) 2-Butanone (MEK) (*)	3.72	43	98980	41.29	ug/l		7
12) Dichlorodifluoromethane	1.27	85	130774	40.40	ug/l		9
13) Chloromethane (SPCC)	1.42	50	237230	44.13	ug/l		9
14) Vinyl Chloride (CCC)	1.50	62	177852	36.79	ug/l		9
15) Bromomethane	1.80	94	77029	35.00	ug/l		9
16) Chloroethane	1.88	64	92909	35.80	ug/l		8
17) Acrolein	2.48	56	32912	50.73	ug/l		9
18) Trichlorofluoromethane	2.14	101	186640	38.30	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.55	61	261642	42.96	ug/l		7
20) Methylene Chloride	2.93	84	166409	44.71	ug/l	#	5
21) trans-1,2-Dichloroethene	3.12	61	251599	42.41	ug/l		7
22) 1,1-Dichloroethane (SPCC)	3.38	63	307520	43.18	ug/l		9
23) cis-1,2-Dichloroethene	3.72	96	172712	44.93	ug/l	#	7
24) Tetrahydrofuran	3.87	42	64454	41.97	ug/l	#	1
25) Chloroform (CCC)	3.89	83	262837	42.94	ug/l		9
26) Bromochloromethane	3.85	130	94168	46.61	ug/l	#	3
27) 1,1,1-Trichloroethane	3.99	97	228196	43.08	ug/l	#	
28) 1,1-Dichloropropene	4.17	75	11019	2.07	ug/l	#	
29) Cyclohexane	4.02	42	88924	36.94	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.99	58	70371	50.96	ug/l	#	7
33) 2-Hexanone (*)	5.37	58	70621	44.04	ug/l	#	7

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\lcsw17b.d Vial: 5
Acq On : 17 Aug 12 1:28 pm Operator: lbr
Sample : blank msd 1dr0817 1m0817 1mch0817 1mac08 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalu
34) 2-chloroethylvinyl ether	4.85	63	129815	49.22 ug/l		8
35) Carbon Tetrachloride	4.07	117	174768	42.54 ug/l		9
36) Benzene (MS)	4.17	78	663631	43.93 ug/l		8
37) 1,2-Dichloroethane	4.17	62	235477	43.29 ug/l		9
38) Trichloroethene (MS)	4.48	95	155403	44.61 ug/l		7
39) 1,2-Dichloropropane (CCC)	4.59	63	180411	44.97 ug/l		9
40) Bromodichloromethane	4.72	83	189739	44.74 ug/l		9
41) Methyl Cyclohexane	4.57	55	262581	47.67 ug/l	#	5
42) Dibromomethane	4.65	174	82536	48.94 ug/l	#	6
43) cis-1,3-Dichloropropene	4.92	75	269228	42.61 ug/l		9
44) Toluene (CCC/MS)	5.08	91	691385	43.79 ug/l		9
45) trans-1,3-Dichloropropene	5.17	75	238387	43.41 ug/l		9
46) 1,1,2-Trichloroethane	5.26	83	120595	46.68 ug/l		9
47) Tetrachloroethene	5.33	166	139698	47.29 ug/l		8
50) trans-1,4-Dichloro-2-buten	6.35	53	39652	48.33 ug/l	#	7
51) Dibromochloromethane	5.45	129	121174	47.93 ug/l		9
52) 1,2-Dibromoethane	5.51	107	140447	50.39 ug/l		9
53) Chlorobenzene (SPCC/MS)	5.73	112	429864	48.18 ug/l		8
54) 1,1,1,2-Tetrachloroethane	5.76	131	131488	49.49 ug/l		9
55) Ethylbenzene (CCC)	5.77	91	767824	46.45 ug/l		9
56) p,m-Xylene	5.83	106	567362	92.76 ug/l		8
57) o-Xylene	6.02	91	619126	46.75 ug/l		9
58) Styrene	6.02	104	484943	47.42 ug/l		9
59) Isopropylbenzene	6.18	105	736541	47.23 ug/l		9
60) Bromoform (SPCC)	6.12	173	63556	43.46 ug/l		9
61) 1,1,2,2-Tetrachloroethane	6.32	83	186684	47.41 ug/l		9
62) 1,2,3-Trichloropropane	6.35	110	54733	48.81 ug/l	#	7
63) n-Propylbenzene	6.37	91	896836	48.53 ug/l		9
64) Bromobenzene	6.34	156	157760	51.14 ug/l	#	4
65) 1,3,5-Trimethylbenzene	6.45	120	292893	48.40 ug/l	#	7
66) tert-Butylbenzene	6.61	91	407618	46.50 ug/l	#	6
67) 1,2,4-Trimethylbenzene	6.63	120	333661	50.44 ug/l		7
69) sec-Butylbenzene	6.72	105	745367	45.56 ug/l		9
70) p-Isopropyltoluene	6.77	119	580698	45.50 ug/l		9
71) 1,3-Dichlorobenzene	6.78	146	284613	46.10 ug/l		9
72) 1,4-Dichlorobenzene	6.82	146	310518	46.88 ug/l		9
73) 1,2-Dichlorobenzene	7.00	146	291828	46.45 ug/l		9
74) 1,2,3-Trimethylbenzene	6.84	105	637301	45.77 ug/l		9
75) n-Butylbenzene	6.97	91	574189	45.32 ug/l		9
76) Hexachloroethane	7.13	201	46939	35.21 ug/l	#	5

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\lcsw17b.d Vial: 5
Acq On : 17 Aug 12 1:28 pm Operator: lbr
Sample : blank msd 1dr0817 1m0817 1mch0817 1mac08 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

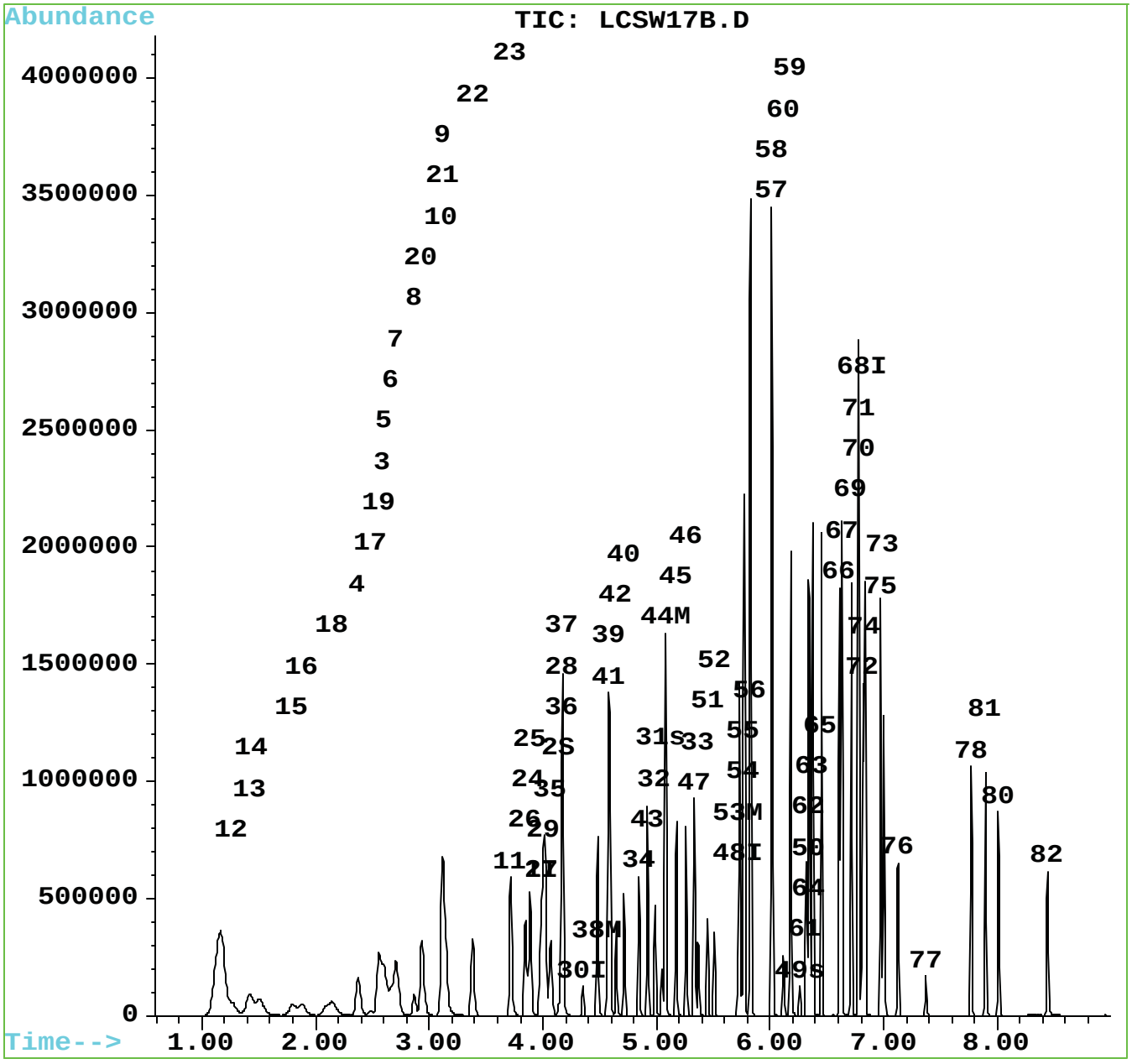
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalu
77)	1,2-Dibromo-3-Chloropropan	7.37	157	24999	43.09	ug/l	#	7
78)	1,2,4-Trichlorobenzene	7.77	182	156598	46.78	ug/l		9
80)	1,2,3-Trichlorobenzene	8.01	180	143216	47.18	ug/l		9
81)	Naphthalene	7.90	128	498003	48.70	ug/l		9
82)	2-Methylnaphthalene	8.45	142	171269	43.00	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\merfolk.thd\data\120817a3\lcsw17b.d Vial: 5
Acq On : 17 Aug 12 1:28 pm Operator: lbr
Sample : blank msd 1dr0817 1m0817 1mch0817 1mac08 Inst : Merfolk
Misc : w/1 id:vf120817w1 Multiplr: 1.00
Quant Time: Aug 20 10:01 19112

Method : F:\GCMS.DAT\MERFOLK.THD\METHODS\WT120801.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\lcsw23a.d Vial: 4
Acq On : 23 Aug 12 1:09 pm Operator: lbr
Sample : blank ms 1dr0822 1m0823 1mac0823 1mch082 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	54541	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	96118	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	55377	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	46549	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	41221	5.49	ug/l		109.8
31) TOLUENE-D8 (S)	4.93	98	118129	5.08	ug/l		101.6
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	31191	4.82	ug/l		96.4
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.46	101	342466	53.89	ug/l		9
4) Diethyl ether (*)	2.22	74	216725	48.02	ug/l		7
5) Acetone (*)	2.47	43	65793	39.51	ug/l	#	7
6) Methyl iodide (iodomethane	2.52	142	472703	49.26	ug/l		9
7) Carbon disulfide (*)	2.56	76	1145413	51.32	ug/l		9
8) Methyl Acetate	2.72	43	215318	46.79	ug/l		9
9) tert-Methyl butyl ether (M	3.00	73	974431	50.13	ug/l		9
10) Acrylonitrile (*)	2.97	53	135785	49.65	ug/l		9
11) 2-Butanone (MEK) (*)	3.60	43	105681	40.26	ug/l		8
12) Dichlorodifluoromethane	1.17	85	323117	41.24	ug/l		9
13) Chloromethane (SPCC)	1.32	50	511556	47.00	ug/l		9
14) Vinyl Chloride (CCC)	1.41	62	438445	45.72	ug/l		9
15) Bromomethane	1.66	94	251576	46.49	ug/l		9
16) Chloroethane	1.74	64	290454	49.47	ug/l		9
17) Acrolein	2.34	56	57573	63.43	ug/l		8
18) Trichlorofluoromethane	1.99	101	535023	51.37	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.41	61	623550	50.42	ug/l		8
20) Methylene Chloride	2.79	84	364463	47.87	ug/l	#	8
21) trans-1,2-Dichloroethene	2.97	61	571228	48.94	ug/l		8
22) 1,1-Dichloroethane (SPCC)	3.25	63	699073	49.78	ug/l		9
23) cis-1,2-Dichloroethene	3.59	96	386097	49.93	ug/l		9
24) Tetrahydrofuran	3.75	42	84525	44.55	ug/l	#	
25) Chloroform (CCC)	3.76	83	640213	51.29	ug/l		9
26) Bromochloromethane	3.72	130	206821	48.94	ug/l		8
27) 1,1,1-Trichloroethane	3.86	97	563341	49.21	ug/l	#	1
29) Cyclohexane	3.89	42	202096	44.55	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.87	58	112350	46.92	ug/l	#	8
33) 2-Hexanone (*)	5.26	58	106145	45.90	ug/l		8
34) 2-chloroethylvinyl ether	4.73	63	236492	47.88	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\lcsw23a.d Vial: 4
Acq On : 23 Aug 12 1:09 pm Operator: lbr
Sample : blank ms 1dr0822 1m0823 1mac0823 1mch082 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
35) Carbon Tetrachloride	3.95	117	472554	48.25 ug/l	9
36) Benzene (MS)	4.05	78	1476518	46.73 ug/l	9
37) 1,2-Dichloroethane	4.06	62	543713	47.15 ug/l	9
38) Trichloroethene (MS)	4.36	95	356012	46.79 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.47	63	402030	48.14 ug/l	9
40) Bromodichloromethane	4.60	83	470856	49.55 ug/l	10
41) Methyl Cyclohexane	4.46	55	626746	48.58 ug/l	8
42) Dibromomethane	4.53	174	169896	45.58 ug/l	9
43) cis-1,3-Dichloropropene	4.81	75	595760	47.35 ug/l	9
44) Toluene (CCC/MS)	4.96	91	1631794	48.39 ug/l	9
45) trans-1,3-Dichloropropene	5.06	75	516703	45.74 ug/l	9
46) 1,1,2-Trichloroethane	5.15	83	248258	48.78 ug/l	9
47) Tetrachloroethene	5.22	166	343530	40.65 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	86824	63.30 ug/l #	8
51) Dibromochloromethane	5.34	129	304538	43.78 ug/l	9
52) 1,2-Dibromoethane	5.39	107	286273	46.22 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.62	112	971236	45.71 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	325444	47.10 ug/l	9
55) Ethylbenzene (CCC)	5.66	91	1854503	47.94 ug/l	9
56) p,m-Xylene	5.72	106	1439611	95.60 ug/l	10
57) o-Xylene	5.90	91	1520382	47.67 ug/l	9
58) Styrene	5.91	104	1210718	48.12 ug/l	9
59) Isopropylbenzene	6.07	105	1809042	47.85 ug/l	9
60) Bromoform (SPCC)	6.00	173	170463	46.65 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.21	83	367144	45.86 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	112813	45.72 ug/l #	7
63) n-Propylbenzene	6.27	91	2231623	50.03 ug/l	9
64) Bromobenzene	6.23	156	391956	46.18 ug/l	9
65) 1,3,5-Trimethylbenzene	6.35	120	720859	46.18 ug/l	10
66) tert-Butylbenzene	6.50	91	1057549	46.53 ug/l	8
67) 1,2,4-Trimethylbenzene	6.53	120	815315	47.18 ug/l	9
69) sec-Butylbenzene	6.61	105	1953070	49.82 ug/l	9
70) p-Isopropyltoluene	6.67	119	1616716	51.16 ug/l	9
71) 1,3-Dichlorobenzene	6.67	146	769223	49.09 ug/l	9
72) 1,4-Dichlorobenzene	6.71	146	773431	47.95 ug/l	9
73) 1,2-Dichlorobenzene	6.89	146	709442	48.26 ug/l	9
74) 1,2,3-Trimethylbenzene	6.73	105	1535853	49.18 ug/l	9
75) n-Butylbenzene	6.87	91	1608862	51.07 ug/l	9
76) Hexachloroethane	7.02	201	174049	43.92 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.26	157	53854	45.55 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\lcsw23a.d Vial: 4
Acq On : 23 Aug 12 1:09 pm Operator: lbr
Sample : blank ms 1dr0822 1m0823 1mac0823 1mch082 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

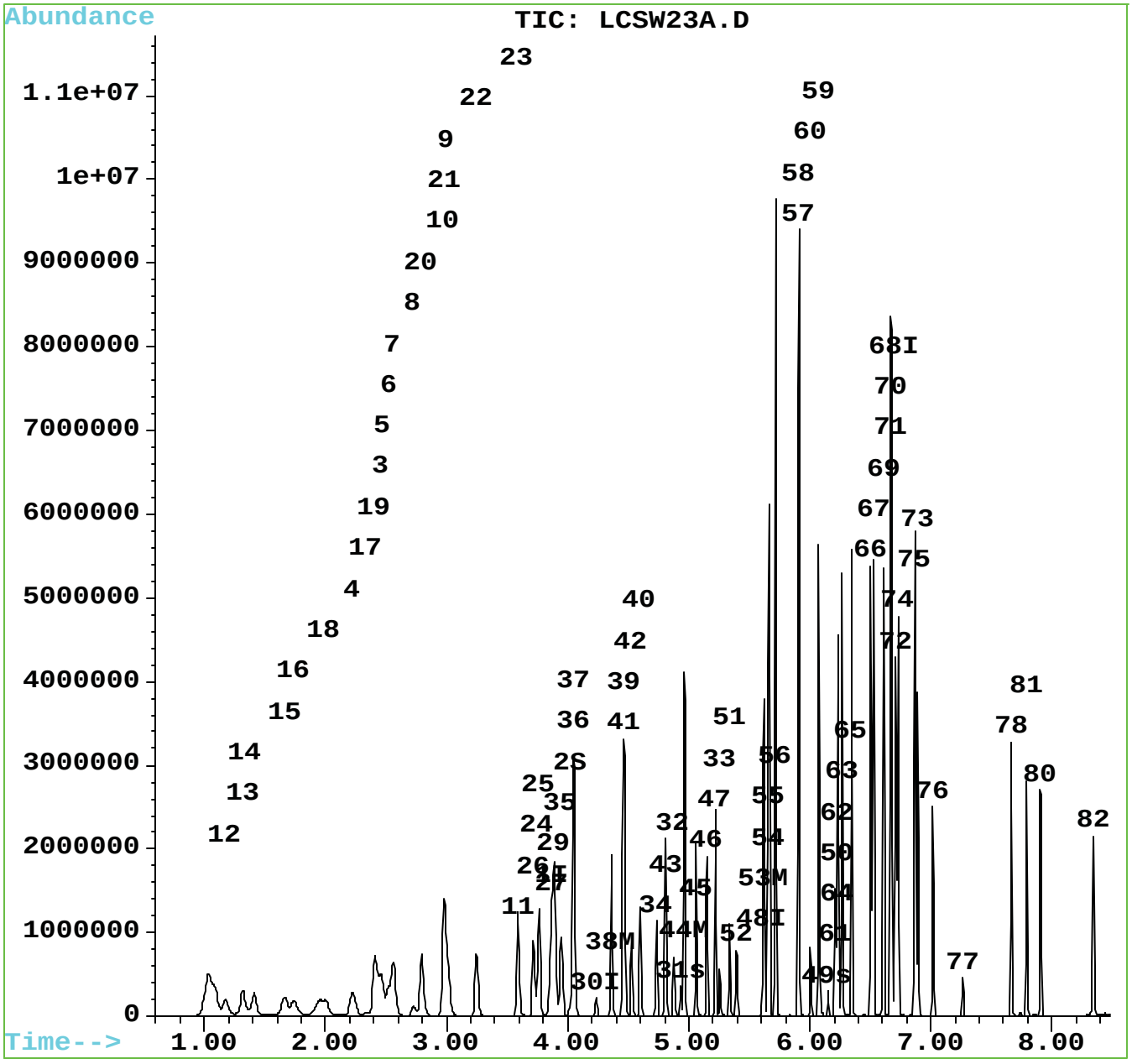
	Compound	R.T.	QIon	Response	Conc Unit	Qvalu
78)	1,2,4-Trichlorobenzene	7.66	182	452117	48.25 ug/l	9
80)	1,2,3-Trichlorobenzene	7.91	180	434523	48.51 ug/l	9
81)	Naphthalene	7.79	128	1147807	48.46 ug/l	9
82)	2-Methylnaphthalene	8.35	142	580003	47.82 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\lcsw23a.d Vial: 4
Acq On : 23 Aug 12 1:09 pm Operator: lbr
Sample : blank ms 1dr0822 1m0823 1mac0823 1mch082 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\lcsw23b.d Vial: 5
Acq On : 23 Aug 12 1:30 pm Operator: lbr
Sample : blank msd 1dr0822 1m0823 1mac0823 1mch08 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Mi
1) PENTAFLUOROBENZENE (I)	3.87	168	53879	5.00	ug/l		0.0
30) 1,4-DIFLUOROBENZENE (I)	4.23	114	96202	5.00	ug/l		0.0
48) CHLOROBENZENE-D5 (I)	5.60	82	54394	5.00	ug/l		0.0
68) 1,4-DICHLOROBENZENE-D4 (I)	6.70	152	45602	5.00	ug/l		0.0
System Monitoring Compounds							%Recover
2) 1,2-DICHLOROETHANE-D4 (S)	4.02	65	39274	5.30	ug/l		105.9
31) TOLUENE-D8 (S)	4.93	98	114433	4.92	ug/l		98.3
49) 4-BROMOFLUOROBENZENE (S)	6.15	174	32610	5.13	ug/l		102.6
Target Compounds							Qvalu
3) 1,1,2-Trichloro-1,2,2-trif	2.45	101	341030	54.32	ug/l		9
4) Diethyl ether (*)	2.22	74	215567	48.35	ug/l		7
5) Acetone (*)	2.46	43	77116	46.88	ug/l	#	8
6) Methyl iodide (iodomethane	2.51	142	468120	49.38	ug/l		9
7) Carbon disulfide (*)	2.55	76	1142143	51.80	ug/l		9
8) Methyl Acetate	2.72	43	221704	48.77	ug/l		9
9) tert-Methyl butyl ether (M	3.00	73	973324	50.69	ug/l		9
10) Acrylonitrile (*)	2.96	53	137400	50.86	ug/l		9
11) 2-Butanone (MEK) (*)	3.60	43	116658	44.99	ug/l		8
12) Dichlorodifluoromethane	1.16	85	321367	41.52	ug/l		9
13) Chloromethane (SPCC)	1.30	50	515116	47.91	ug/l		9
14) Vinyl Chloride (CCC)	1.40	62	425686	44.93	ug/l		9
15) Bromomethane	1.65	94	246046	46.01	ug/l		9
16) Chloroethane	1.73	64	288671	49.77	ug/l		9
17) Acrolein	2.33	56	58291	65.01	ug/l		8
18) Trichlorofluoromethane	1.93	101	542945	52.77	ug/l		9
19) 1,1-Dichloroethene (CCC/MS	2.40	61	622875	50.98	ug/l		8
20) Methylene Chloride	2.79	84	366111	48.68	ug/l	#	8
21) trans-1,2-Dichloroethene	2.97	61	572101	49.62	ug/l		9
22) 1,1-Dichloroethane (SPCC)	3.25	63	698891	50.37	ug/l		9
23) cis-1,2-Dichloroethene	3.59	96	380425	49.80	ug/l		9
24) Tetrahydrofuran	3.74	42	85930	45.85	ug/l	#	
25) Chloroform (CCC)	3.76	83	631267	51.20	ug/l		9
26) Bromochloromethane	3.72	130	201039	48.16	ug/l		8
27) 1,1,1-Trichloroethane	3.86	97	566997	50.14	ug/l	#	1
29) Cyclohexane	3.89	42	192709	43.01	ug/l	#	
32) 4-Methyl-2-pentanone (MIBK	4.87	58	117541	49.05	ug/l	#	8
33) 2-Hexanone (*)	5.26	58	105999	45.80	ug/l		8
34) 2-chloroethylvinyl ether	4.73	63	240495	48.65	ug/l		9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\lcsw23b.d Vial: 5
Acq On : 23 Aug 12 1:30 pm Operator: lbr
Sample : blank msd 1dr0822 1m0823 1mac0823 1mch08 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalu
35) Carbon Tetrachloride	3.95	117	464627	47.40 ug/l	9
36) Benzene (MS)	4.05	78	1486881	47.02 ug/l	9
37) 1,2-Dichloroethane	4.05	62	540568	46.84 ug/l	9
38) Trichloroethene (MS)	4.36	95	359810	47.25 ug/l	9
39) 1,2-Dichloropropane (CCC)	4.47	63	401164	47.99 ug/l	9
40) Bromodichloromethane	4.60	83	467221	49.12 ug/l	9
41) Methyl Cyclohexane	4.46	55	613000	47.47 ug/l	8
42) Dibromomethane	4.53	174	171022	45.85 ug/l	9
43) cis-1,3-Dichloropropene	4.80	75	577537	45.89 ug/l	9
44) Toluene (CCC/MS)	4.96	91	1621019	48.03 ug/l	9
45) trans-1,3-Dichloropropene	5.06	75	513000	45.38 ug/l	9
46) 1,1,2-Trichloroethane	5.15	83	244688	48.04 ug/l	9
47) Tetrachloroethene	5.22	166	340827	40.29 ug/l	9
50) trans-1,4-Dichloro-2-buten	6.23	53	67435	51.82 ug/l #	7
51) Dibromochloromethane	5.34	129	296879	43.46 ug/l	9
52) 1,2-Dibromoethane	5.39	107	290605	47.77 ug/l	9
53) Chlorobenzene (SPCC/MS)	5.62	112	960755	46.03 ug/l	9
54) 1,1,1,2-Tetrachloroethane	5.66	131	318425	46.92 ug/l	9
55) Ethylbenzene (CCC)	5.66	91	1865609	49.10 ug/l	9
56) p,m-Xylene	5.72	106	1443386	97.58 ug/l	9
57) o-Xylene	5.90	91	1520363	48.53 ug/l	10
58) Styrene	5.91	104	1199500	48.54 ug/l	9
59) Isopropylbenzene	6.07	105	1806375	48.64 ug/l	9
60) Bromoform (SPCC)	6.00	173	165818	46.23 ug/l	9
61) 1,1,2,2-Tetrachloroethane	6.21	83	372932	47.43 ug/l	9
62) 1,2,3-Trichloropropane	6.23	110	116576	48.10 ug/l #	7
63) n-Propylbenzene	6.27	91	2251797	51.40 ug/l	9
64) Bromobenzene	6.23	156	387535	46.49 ug/l	9
65) 1,3,5-Trimethylbenzene	6.35	120	710728	46.35 ug/l	9
66) tert-Butylbenzene	6.50	91	1058861	47.43 ug/l	8
67) 1,2,4-Trimethylbenzene	6.53	120	805527	47.46 ug/l	9
69) sec-Butylbenzene	6.61	105	1935725	50.41 ug/l	9
70) p-Isopropyltoluene	6.67	119	1603826	51.81 ug/l	9
71) 1,3-Dichlorobenzene	6.67	146	780373	50.84 ug/l	10
72) 1,4-Dichlorobenzene	6.71	146	774450	49.01 ug/l	9
73) 1,2-Dichlorobenzene	6.89	146	696154	48.34 ug/l	9
74) 1,2,3-Trimethylbenzene	6.73	105	1521982	49.75 ug/l	9
75) n-Butylbenzene	6.87	91	1607860	52.10 ug/l	9
76) Hexachloroethane	7.02	201	168483	43.41 ug/l	9
77) 1,2-Dibromo-3-Chloropropan	7.26	157	53667	46.31 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\lcsw23b.d Vial: 5
Acq On : 23 Aug 12 1:30 pm Operator: lbr
Sample : blank msd 1dr0822 1m0823 1mac0823 1mch08 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration

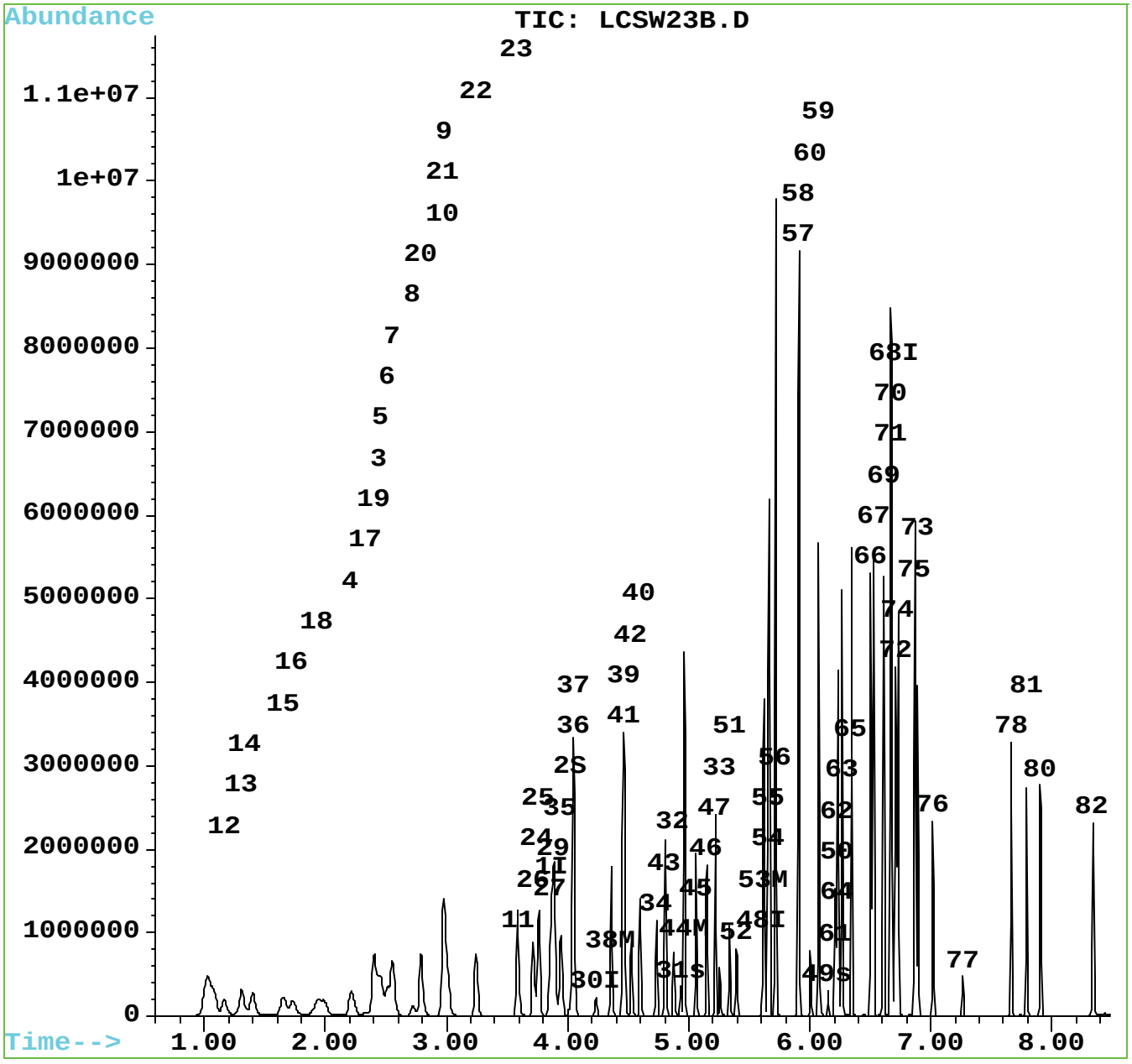
Compound	R.T.	QIon	Response	Conc Unit	Qvalu
78) 1,2,4-Trichlorobenzene	7.66	182	453516	49.41 ug/l	9
80) 1,2,3-Trichlorobenzene	7.90	180	428369	48.82 ug/l	9
81) Naphthalene	7.79	128	1153129	49.69 ug/l	9
82) 2-Methylnaphthalene	8.34	142	578684	48.70 ug/l	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\verdura.sx\data\120823a6\lcsw23b.d Vial: 5
Acq On : 23 Aug 12 1:30 pm Operator: lbr
Sample : blank msd 1dr0822 1m0823 1mac0823 1mch08 Inst : Verdura
Misc : w/1 id:vf120823w1 Multiplr: 1.00
Quant Time: Aug 24 10:20 19112

Method : F:\GCMS.DAT\VERDURA.SX\METHODS\WV120822.M
Title : Volatile Organics, SW-846 # 8260B
Last Update : Thu Sep 06 10:52:33 2012
Response via : Multiple Level Calibration



Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d14c.d	08/14/12 13:38	dftpp std (120801) [none]	WW	IP	**1**	
spnn14a.d	08/14/12 13:57	pna std 50 (120314) [none]	WW	CV	**1**	
blkw14a.d	08/14/12 14:22	pna-w 1000ml/1ml df:1 sp120813w01	WW	Bl	**1**	
blks14a.d	08/14/12 14:41	pna-s 30g/1ml df:1 sp120813s01	SO	Bl		
lcsw14a.d	08/14/12 15:00	pna-w 1000ml/1ml df:1 sp120813w01	WW	MS	**1**	
lcsdw14a.d	08/14/12 15:19	pna-w 1000ml/1ml df:1 sp120813w01	WW	MS	**1**	
lcss14a.d	08/14/12 15:39	pna-s 30g/1ml df:1 sp120813s01	SO	MS		
lcsds14a.d	08/14/12 15:58	pna-s 30g/1ml df:1 sp120813s01	SO	MS		
5351001.d	08/14/12 16:17	pna-w 990ml/1ml df:2 sp120813w01	WW		**1**	
5351002.d	08/14/12 16:36	pna-w 990ml/1ml df:2 sp120813w01	WW		**1**	
5351902.d	08/14/12 16:55	pna-w 990ml/1ml df:2 sp120813w01	WW		**1**	
5351903.d	08/14/12 17:14	pna-w 1000ml/1ml df:2 sp120813w01	WW		**1**	
5351904.d	08/14/12 17:33	pna-w 990ml/1ml df:2 sp120813w01	WW		**1**	
5351905.d	08/14/12 17:53	pna-w 990ml/1ml df:2 sp120813w01	WW		**1**	
5351908.d	08/14/12 18:12	pna-w 990ml/1ml df:2 sp120813w01	WW		**1**	
5349801.d	08/14/12 18:31	pna-s 30g/1ml df:6 sp120813s01	SO			
5349802.d	08/14/12 18:50	pna-s 30g/1ml df:6 sp120813s01	SO			
5349805.d	08/14/12 19:09	pna-s 30g/1ml df:6 sp120813s01	SO			
5349806.d	08/14/12 19:28	pna-s 30g/1ml df:6 sp120813s01	SO			
5349807.d	08/14/12 19:47	pna-s 30g/1ml df:6 sp120813s01	SO			
5349812.d	08/14/12 20:07	pna-s 30g/1ml df:6 sp120813s01	SO			
5351906.d	08/14/12 20:26	pna-w 990ml/1ml df:8 sp120813w01	WW		**1**	
5351909.d	08/14/12 20:45	pna-w 1000ml/1ml df:15 sp120813w01	WW		**1**	
5349813.d	08/14/12 21:04	pna-s 30g/1ml df:10 sp120813s01	SO			
5349808.d	08/14/12 21:23	pna-s 30g/1ml df:15 sp120813s01	SO			
5349803.d	08/14/12 21:42	pna-s 30g/1ml df:20 sp120813s01	SO			
5349811.d	08/14/12 22:01	pna-s 30g/1ml df:12 sp120813s01	SO			
5349804.d	08/14/12 22:21	pna-s 30g/2ml df:20 sp120813s01	SO			
5349809.d	08/14/12 22:40	pna-s 30g/1ml df:20 sp120813s01	SO			
5349810.d	08/14/12 22:59	pna-s 30g/1ml df:10 sp120813s01	SO			
5349601.d	08/14/12 23:18	pna-s 30g/2ml df:10 sp120813s01	SO			

Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A

Index of Applicable Reporting Forms

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Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA

Matrix (Mtx) Summary

Water Samples:	9	Soil Samples:	14
Water Duplicates:	1	Soil Duplicates:	1
Water Spikes:	2	Soil Spikes:	2
Water Blanks:	1	Soil Blanks:	1

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Forms 7a and 7b): 0
5 Internal Standard Outliers (Form 8): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spnn14a.d	2-Fluorobiphenyl	53.4/100.0	n/a	10.0/116.0	WW
	Nitrobenzene-D5	49.5/100.0	n/a	10.0/114.0	
	Terphenyl-D14	56.0/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
blkw14a.d	2-Fluorobiphenyl	68.0/100.0	68.0	10.0/116.0	WW
	Nitrobenzene-D5	62.6/100.0	62.6	10.0/114.0	
	Terphenyl-D14	81.7/100.0	81.7	10.0/141.0	
				Total Outliers: 0	
blks14a.d	2-Fluorobiphenyl	74.3/100.0	74.3	10.0/115.0	SO
	Nitrobenzene-D5	60.9/100.0	60.9	18.5/120.0	
	Terphenyl-D14	94.0/100.0	94.0	10.3/137.0	
				Total Outliers: 0	
lcsw14a.d	2-Fluorobiphenyl	78.6/100.0	78.6	10.0/116.0	WW
	Nitrobenzene-D5	75.7/100.0	75.7	10.0/114.0	
	Terphenyl-D14	92.9/100.0	92.9	10.0/141.0	
				Total Outliers: 0	
lcsdw14a.d	2-Fluorobiphenyl	73.3/100.0	73.3	10.0/116.0	WW
	Nitrobenzene-D5	69.1/100.0	69.1	10.0/114.0	
	Terphenyl-D14	88.0/100.0	88.0	10.0/141.0	
				Total Outliers: 0	
lcss14a.d	2-Fluorobiphenyl	72.2/100.0	72.2	10.0/115.0	SO
	Nitrobenzene-D5	58.1/100.0	58.1	18.5/120.0	
	Terphenyl-D14	90.5/100.0	90.5	10.3/137.0	
				Total Outliers: 0	
lcsds14a.d	2-Fluorobiphenyl	71.0/100.0	71.0	10.0/115.0	SO
	Nitrobenzene-D5	62.5/100.0	62.5	18.5/120.0	
	Terphenyl-D14	88.4/100.0	88.4	10.3/137.0	
				Total Outliers: 0	
5351001.d	2-Fluorobiphenyl	79.8/100.0	79.8	10.0/116.0	WW
	Nitrobenzene-D5	64.3/100.0	64.3	10.0/114.0	
	Terphenyl-D14	99.3/100.0	99.3	10.0/141.0	
				Total Outliers: 0	
5351002.d	2-Fluorobiphenyl	88.6/100.0	88.6	10.0/116.0	WW
	Nitrobenzene-D5	72.7/100.0	72.7	10.0/114.0	
	Terphenyl-D14	106.3/100.0	106.3	10.0/141.0	
				Total Outliers: 0	
5351902.d	2-Fluorobiphenyl	83.3/100.0	83.3	10.0/116.0	WW
	Nitrobenzene-D5	68.4/100.0	68.4	10.0/114.0	
	Terphenyl-D14	98.6/100.0	98.6	10.0/141.0	
				Total Outliers: 0	
5351903.d	2-Fluorobiphenyl	86.6/100.0	86.6	10.0/116.0	WW
	Nitrobenzene-D5	71.0/100.0	71.0	10.0/114.0	
	Terphenyl-D14	100.2/100.0	100.2	10.0/141.0	
				Total Outliers: 0	
5351904.d	2-Fluorobiphenyl	88.8/100.0	88.8	10.0/116.0	WW
	Nitrobenzene-D5	71.9/100.0	71.9	10.0/114.0	
	Terphenyl-D14	100.5/100.0	100.5	10.0/141.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
5351905.d	2-Fluorobiphenyl	98.3/100.0	98.3	10.0/116.0	WW
	Nitrobenzene-D5	81.9/100.0	81.9	10.0/114.0	
	Terphenyl-D14	112.4/100.0	112.4	10.0/141.0	
				Total Outliers:	**0**
5351908.d	2-Fluorobiphenyl	88.0/100.0	88.0	10.0/116.0	WW
	Nitrobenzene-D5	73.0/100.0	73.0	10.0/114.0	
	Terphenyl-D14	99.0/100.0	99.0	10.0/141.0	
				Total Outliers:	**0**
5349801.d	2-Fluorobiphenyl	92.0/100.0	92.0	10.0/115.0	SO
	Nitrobenzene-D5	72.7/100.0	72.7	18.5/120.0	
	Terphenyl-D14	111.9/100.0	111.9	10.3/137.0	
				Total Outliers:	**0**
5349802.d	2-Fluorobiphenyl	83.4/100.0	83.4	10.0/115.0	SO
	Nitrobenzene-D5	75.1/100.0	75.1	18.5/120.0	
	Terphenyl-D14	96.5/100.0	96.5	10.3/137.0	
				Total Outliers:	**0**
5349805.d	2-Fluorobiphenyl	85.4/100.0	85.4	10.0/115.0	SO
	Nitrobenzene-D5	63.2/100.0	63.2	18.5/120.0	
	Terphenyl-D14	104.7/100.0	104.7	10.3/137.0	
				Total Outliers:	**0**
5349806.d	2-Fluorobiphenyl	84.0/100.0	84.0	10.0/115.0	SO
	Nitrobenzene-D5	64.2/100.0	64.2	18.5/120.0	
	Terphenyl-D14	104.4/100.0	104.4	10.3/137.0	
				Total Outliers:	**0**
5349807.d	2-Fluorobiphenyl	103.5/100.0	103.5	10.0/115.0	SO
	Nitrobenzene-D5	75.2/100.0	75.2	18.5/120.0	
	Terphenyl-D14	120.3/100.0	120.3	10.3/137.0	
				Total Outliers:	**0**
5349812.d	2-Fluorobiphenyl	94.9/100.0	94.9	10.0/115.0	SO
	Nitrobenzene-D5	70.2/100.0	70.2	18.5/120.0	
	Terphenyl-D14	107.3/100.0	107.3	10.3/137.0	
				Total Outliers:	**0**
5351906.d	2-Fluorobiphenyl	99.6/100.0	99.6	10.0/116.0	WW
	Nitrobenzene-D5	77.3/100.0	77.3	10.0/114.0	
	Terphenyl-D14	112.8/100.0	112.8	10.0/141.0	
				Total Outliers:	**0**
5351909.d	2-Fluorobiphenyl	79.2/100.0	79.2	10.0/116.0	WW
	Nitrobenzene-D5	55.8/100.0	55.8	10.0/114.0	
	Terphenyl-D14	90.0/100.0	90.0	10.0/141.0	
				Total Outliers:	**0**
5349813.d	2-Fluorobiphenyl	97.6/100.0	97.6	10.0/115.0	SO
	Nitrobenzene-D5	75.9/100.0	75.9	18.5/120.0	
	Terphenyl-D14	110.4/100.0	110.4	10.3/137.0	
				Total Outliers:	**0**
5349808.d	2-Fluorobiphenyl	92.1/100.0	92.1	10.0/115.0	SO
	Nitrobenzene-D5	75.6/100.0	75.6	18.5/120.0	
	Terphenyl-D14	108.1/100.0	108.1	10.3/137.0	
				Total Outliers:	**0**

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*SSD Compound*	*Concentration Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
5349803.d	2-Fluorobiphenyl	95.7/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	90.7/100.0	n/a	18.5/120.0	
	Terphenyl-D14	106.0/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5349811.d	2-Fluorobiphenyl	87.6/100.0	87.6	10.0/115.0	SO
	Nitrobenzene-D5	61.4/100.0	61.4	18.5/120.0	
	Terphenyl-D14	97.8/100.0	97.8	10.3/137.0	
				Total Outliers: 0	
5349804.d	2-Fluorobiphenyl	88.2/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	95.5/100.0	n/a	18.5/120.0	
	Terphenyl-D14	96.9/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5349809.d	2-Fluorobiphenyl	87.1/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	64.0/100.0	n/a	18.5/120.0	
	Terphenyl-D14	95.6/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	
5349810.d	2-Fluorobiphenyl	98.4/100.0	98.4	10.0/115.0	SO
	Nitrobenzene-D5	73.2/100.0	73.2	18.5/120.0	
	Terphenyl-D14	110.5/100.0	110.5	10.3/137.0	
				Total Outliers: 0	
5349601.d	2-Fluorobiphenyl	85.2/100.0	n/a	10.0/115.0	SO
	Nitrobenzene-D5	61.2/100.0	n/a	18.5/120.0	
	Terphenyl-D14	95.6/100.0	n/a	10.3/137.0	
				Total Outliers: n/a	

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	Dup/Samp Conc.	%RPD/UCL	Matrix
Dup File : lcsdw14a.d			
Dup ID : LCSD1			
Prep Batch: sp120813w01			
Prep Date : 08/13/12			
Parent File: lcsw14a.d			
naphthalene	39.51/ 43.30	9.2/25.0	WW
2-methylnaphthalene	41.91/ 45.51	8.2/25.0	
1-methylnaphthalene	39.23/ 42.36	7.7/25.0	
acenaphthylene	44.08/ 48.53	9.6/25.0	
acenaphthene **	41.58/ 46.91	12.0/25.0	
fluorene	45.09/ 49.15	8.6/25.0	
phenanthrene	40.76/ 44.71	9.2/25.0	
anthracene	43.01/ 46.56	7.9/25.0	
fluoranthene	45.06/ 49.05	8.5/25.0	
pyrene **	44.52/ 48.63	8.8/25.0	
benzo(a)anthracene	46.77/ 51.50	9.6/25.0	
chrysene	44.98/ 48.77	8.1/25.0	
benzo(b)fluoranthene	48.17/ 52.14	7.9/25.0	
benzo(k)fluoranthene	45.16/ 51.01	12.2/25.0	
benzo(a)pyrene	47.30/ 52.82	11.0/25.0	
indeno(1,2,3-cd)pyrene	45.46/ 50.76	11.0/25.0	
dibenzo(ah)anthracene	45.70/ 51.02	11.0/25.0	
benzo(ghi)perylene	44.69/ 50.09	11.4/25.0	
[end of compound list]			
		Total Outliers: 0	
Dup File : lcsds14a.d			
Dup ID : LCSD1			
Prep Batch: sp120813s01			
Prep Date : 08/13/12			
Parent File: lcss14a.d			
naphthalene	36.43/ 36.17	0.7/25.0	SO
2-methylnaphthalene	39.00/ 38.92	0.2/25.0	
1-methylnaphthalene	36.38/ 36.01	1.0/25.0	
acenaphthylene	41.84/ 42.10	0.6/25.0	
acenaphthene **	38.61/ 39.58	2.5/25.0	
fluorene	43.37/ 43.70	0.8/25.0	
phenanthrene	39.72/ 40.03	0.8/25.0	
anthracene	40.45/ 41.12	1.6/25.0	
fluoranthene	44.19/ 44.36	0.4/25.0	
pyrene **	43.37/ 43.70	0.8/25.0	
benzo(a)anthracene	45.41/ 45.93	1.1/25.0	
chrysene	44.02/ 44.57	1.2/25.0	
benzo(b)fluoranthene	48.35/ 47.57	1.6/25.0	
benzo(k)fluoranthene	43.89/ 44.81	2.1/25.0	
benzo(a)pyrene	44.18/ 44.75	1.3/25.0	
indeno(1,2,3-cd)pyrene	44.73/ 45.04	0.7/25.0	
dibenzo(ah)anthracene	44.77/ 45.22	1.0/25.0	
benzo(ghi)perylene	44.06/ 44.36	0.7/25.0	
[end of compound list]			
		Total Outliers: 0	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcsw14a.d						
Spike ID : LCS1						
Prep Batch: sp120813w01						
Prep Date : 08/13/12						
Parent File: blkw14a.d						
1-Methylnaphthalene	42.36/	0.00	50.00	84.7	10.0/120.0	WW
2-Methylnaphthalene	45.51/	0.00	50.00	91.0	35.6/120.0	
Acenaphthene	46.91/	0.00	50.00	93.8	23.4/114.1	
Acenaphthylene	48.53/	0.00	50.00	97.1	35.4/127.7	
Anthracene	46.56/	0.00	50.00	93.1	32.3/142.4	
Benzo(a)anthracene	51.50/	0.00	50.00	103.0	36.7/134.7	
Benzo(a)pyrene	52.82/	0.00	50.00	105.6	14.4/142.5	
Benzo(b)fluoranthene	52.14/	0.00	50.00	104.3	29.0/152.7	
Benzo(ghi)perylene	50.09/	0.00	50.00	100.2	45.2/130.7	
Benzo(k)fluoranthene	51.01/	0.00	50.00	102.0	29.8/136.0	
Chrysene	48.77/	0.00	50.00	97.5	38.7/137.1	
Dibenzo(ah)anthracene	51.02/	0.00	50.00	102.0	45.3/130.8	
Fluorene	49.15/	0.00	50.00	98.3	37.8/127.8	
Fluoranthene	49.05/	0.00	50.00	98.1	29.3/135.3	
Indeno(1,2,3-cd)pyrene	50.76/	0.00	50.00	101.5	39.2/137.4	
Naphthalene	43.30/	0.00	50.00	86.6	22.1/110.0	
Phenanthrene	44.71/	0.00	50.00	89.4	36.4/143.0	
Pyrene	48.63/	0.00	50.00	97.3	32.1/126.8	
					Total Outliers:	**0**
Spike File : lcsdw14a.d						
Spike ID : LCSD1						
Prep Batch: sp120813w01						
Prep Date : 08/13/12						
Parent File: blkw14a.d						
1-Methylnaphthalene	39.23/	0.00	50.00	78.5	10.0/120.0	WW
2-Methylnaphthalene	41.91/	0.00	50.00	83.8	35.6/120.0	
Acenaphthene	41.58/	0.00	50.00	83.2	23.4/114.1	
Acenaphthylene	44.08/	0.00	50.00	88.2	35.4/127.7	
Anthracene	43.01/	0.00	50.00	86.0	32.3/142.4	
Benzo(a)anthracene	46.77/	0.00	50.00	93.5	36.7/134.7	
Benzo(a)pyrene	47.30/	0.00	50.00	94.6	14.4/142.5	
Benzo(b)fluoranthene	48.17/	0.00	50.00	96.3	29.0/152.7	
Benzo(ghi)perylene	44.69/	0.00	50.00	89.4	45.2/130.7	
Benzo(k)fluoranthene	45.16/	0.00	50.00	90.3	29.8/136.0	
Chrysene	44.98/	0.00	50.00	90.0	38.7/137.1	
Dibenzo(ah)anthracene	45.70/	0.00	50.00	91.4	45.3/130.8	
Fluorene	45.09/	0.00	50.00	90.2	37.8/127.8	
Fluoranthene	45.06/	0.00	50.00	90.1	29.3/135.3	
Indeno(1,2,3-cd)pyrene	45.46/	0.00	50.00	90.9	39.2/137.4	
Naphthalene	39.51/	0.00	50.00	79.0	22.1/110.0	
Phenanthrene	40.76/	0.00	50.00	81.5	36.4/143.0	
Pyrene	44.52/	0.00	50.00	89.0	32.1/126.8	
					Total Outliers:	**0**

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
Spike File : lcss14a.d						
Spike ID : LCS1						
Prep Batch: sp120813s01						
Prep Date : 08/13/12						
Parent File: blks14a.d						
1-Methylnaphthalene	36.01/	0.00	50.00	72.0	10.0/120.0	SO
2-Methylnaphthalene	38.92/	0.00	50.00	77.8	35.6/120.0	
Acenaphthene	39.58/	0.00	50.00	79.2	10.0/121.0	
Acenaphthylene	42.10/	0.00	50.00	84.2	35.4/127.7	
Anthracene	41.12/	0.00	50.00	82.2	32.3/142.4	
Benzo(a)anthracene	45.93/	0.00	50.00	91.9	36.7/134.7	
Benzo(a)pyrene	44.75/	0.00	50.00	89.5	10.0/140.8	
Benzo(b)fluoranthene	47.57/	0.00	50.00	95.1	29.0/152.7	
Benzo(ghi)perylene	44.36/	0.00	50.00	88.7	45.2/130.7	
Benzo(k)fluoranthene	44.81/	0.00	50.00	89.6	29.8/136.0	
Chrysene	44.57/	0.00	50.00	89.1	38.7/137.1	
Dibenzo(ah)anthracene	45.22/	0.00	50.00	90.4	45.3/130.8	
Fluorene	43.70/	0.00	50.00	87.4	37.8/127.8	
Fluoranthene	44.36/	0.00	50.00	88.7	10.0/145.8	
Indeno(1,2,3-cd)pyrene	45.04/	0.00	50.00	90.1	39.2/137.4	
Naphthalene	36.17/	0.00	50.00	72.3	10.0/110.0	
Phenanthrene	40.03/	0.00	50.00	80.1	36.4/143.0	
Pyrene	43.70/	0.00	50.00	87.4	10.0/135.8	
					Total Outliers:	**0**
Spike File : lcsds14a.d						
Spike ID : LCSD1						
Prep Batch: sp120813s01						
Prep Date : 08/13/12						
Parent File: blks14a.d						
1-Methylnaphthalene	36.38/	0.00	50.00	72.8	10.0/120.0	SO
2-Methylnaphthalene	39.00/	0.00	50.00	78.0	35.6/120.0	
Acenaphthene	38.61/	0.00	50.00	77.2	10.0/121.0	
Acenaphthylene	41.84/	0.00	50.00	83.7	35.4/127.7	
Anthracene	40.45/	0.00	50.00	80.9	32.3/142.4	
Benzo(a)anthracene	45.41/	0.00	50.00	90.8	36.7/134.7	
Benzo(a)pyrene	44.18/	0.00	50.00	88.4	10.0/140.8	
Benzo(b)fluoranthene	48.35/	0.00	50.00	96.7	29.0/152.7	
Benzo(ghi)perylene	44.06/	0.00	50.00	88.1	45.2/130.7	
Benzo(k)fluoranthene	43.89/	0.00	50.00	87.8	29.8/136.0	
Chrysene	44.02/	0.00	50.00	88.0	38.7/137.1	
Dibenzo(ah)anthracene	44.77/	0.00	50.00	89.5	45.3/130.8	
Fluorene	43.37/	0.00	50.00	86.7	37.8/127.8	
Fluoranthene	44.19/	0.00	50.00	88.4	10.0/145.8	
Indeno(1,2,3-cd)pyrene	44.73/	0.00	50.00	89.5	39.2/137.4	
Naphthalene	36.43/	0.00	50.00	72.9	10.0/110.0	
Phenanthrene	39.72/	0.00	50.00	79.4	36.4/143.0	
Pyrene	43.37/	0.00	50.00	86.7	10.0/135.8	
					Total Outliers:	**0**

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

BLANK FILE : blkw14a.d (pna-w 1000ml/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120813w01
Prep Date : 08/13/12
Matrix : WW
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/l]	MDL [mg/l]	RL [mg/l]
Chrysene	Not detected		0.1	0.5
Benzo(k)fluoranthene	Not detected		0.1	0.5
Benzo(b)fluoranthene	Not detected		0.1	0.5
Indeno(1,2,3-cd)pyrene	Not detected		0.2	0.5
Benzo(a)anthracene	Not detected		0.1	0.5
Dibenzo(ah)anthracene	Not detected		0.5	0.5
Benzo(ghi)perylene	Not detected		0.4	0.5
Benzo(a)pyrene	Not detected		0.1	0.5
Acenaphthene **	Not detected		0.1	0.5
Pyrene **	Not detected		0.1	0.5
2-Methylnaphthalene	Not detected		0.2	0.5
Naphthalene	Not detected		0.2	0.5
1-Methylnaphthalene	Not detected		0.1	0.5
Fluorene	Not detected		0.1	0.5
Acenaphthylene	Not detected		0.1	0.5
Anthracene	Not detected		0.1	0.5
Phenanthrene	Not detected		0.1	0.5
Fluoranthene	Not detected		0.1	0.5

BLANK FILE : blks14a.d (pna-s 30g/1ml df:1)
Blank ID : BLANK1
Prep Batch: sp120813s01
Prep Date : 08/13/12
Matrix : SO
Dilution : 1.00

Target Compound	Raw Conc. [mg/l]	Sample Conc. [ug/kg]	MDL [mg/kg]	RL [mg/kg]
Benzo(b)fluoranthene	Not detected		0.4	20
Chrysene	Not detected		0.4	20
Benzo(k)fluoranthene	Not detected		0.3	20
Indeno(1,2,3-cd)pyrene	Not detected		0.4	20
Benzo(a)pyrene	Not detected		0.3	20
Naphthalene	Not detected		0.1	20
Dibenzo(ah)anthracene	Not detected		0.5	20
Benzo(a)anthracene	Not detected		0.4	20
Benzo(ghi)perylene	Not detected		0.5	20
Pyrene **	Not detected		0.4	20
1-Methylnaphthalene	Not detected		0.4	20
Fluoranthene	Not detected		0.4	20
Acenaphthylene	Not detected		0.3	20
2-Methylnaphthalene	Not detected		0.2	20
Acenaphthene **	Not detected		0.3	20
Anthracene	Not detected		0.3	20
Phenanthrene	Not detected		0.3	20
Fluorene	Not detected		0.3	20

KEY:
Raw Conc.: Concentration in sample extract/purge volume
Sample Conc.: Concentration in original sample weight/volume
MDL: MDL adjusted for sample weight/volume and dilution

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blks14a.d
Method Blank Prep Date: 08/13/12
Blank/LCS Preparation Batch: sp120813s01

LCS Data File: lcss14a.d
LCS Prep Date: 08/13/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53496.01	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.01	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.02	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.03	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.04	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.05	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.06	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.07	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.08	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.09	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.10	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.11	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.12	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS
S53498.13	H120814	SP120813S01	08/14/12	Polynuclear Aromatics	$PNA8270
	SP120813S01		08/13/12	Semi Volatile Extraction	PNAEXTS

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Level: LOW

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Method Blank Data File: blkw14a.d
Method Blank Prep Date: 08/13/12
Blank/LCS Preparation Batch: sp120813w01

LCS Data File: lcsw14a.d
LCS Prep Date: 08/13/12

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S53510.01	H120814	SP120813W01	08/14/12	Naphthalene	NAP8270W
	SP120813W01		08/13/12	Semi Volatile Extraction	PNAEXTW
S53510.02	H120814	SP120813W01	08/14/12	Naphthalene	NAP8270W
	SP120813W01		08/13/12	Semi Volatile Extraction	PNAEXTW
S53519.02	H120814	SP120813W01	08/14/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120813W01		08/13/12	Semi Volatile Extraction	PNAEXTW
S53519.03	H120814	SP120813W01	08/14/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120813W01		08/13/12	Semi Volatile Extraction	PNAEXTW
S53519.04	H120814	SP120813W01	08/14/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120813W01		08/13/12	Semi Volatile Extraction	PNAEXTW
S53519.05	H120814	SP120813W01	08/14/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120813W01		08/13/12	Semi Volatile Extraction	PNAEXTW
S53519.06	H120814	SP120813W01	08/14/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120813W01		08/13/12	Semi Volatile Extraction	PNAEXTW
S53519.08	H120814	SP120813W01	08/14/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120813W01		08/13/12	Semi Volatile Extraction	PNAEXTW
S53519.09	H120814	SP120813W01	08/14/12	Polynuclear Aromatic Hydrocarbon	$8270PNW
	SP120813W01		08/13/12	Semi Volatile Extraction	PNAEXTW

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d14c.d	08/14/12 13:38	51	198	30.0	80.0	35.3	33792	PASS
		68	69	0.0	2.0	2.0	722	PASS
		69	198	0.0	100.0	38.1	36416	PASS
		70	69	0.0	2.0	0.5	183	PASS
		127	198	25.0	75.0	46.0	43968	PASS
		197	198	0.0	1.0	0.7	701	PASS
		198	198	100.0	100.0	100.0	95624	PASS
		199	198	5.0	9.0	7.1	6812	PASS
		275	198	10.0	30.0	25.5	24360	PASS
		365	198	1.0	100.0	2.4	2330	PASS
		441	443	0.0	100.0	73.2	7802	PASS
		442	198	40.0	110.0	55.6	53160	PASS
		443	442	15.0	24.0	20.1	10662	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
spnn14a.d	08/14/12 13:57	1,4-Dichlorobenzene-D4	145498/ 4.60	72749- 290996	4.10- 5.10
		Naphthalene-D8	486777/ 5.55	243389- 973554	5.05- 6.05
		Acenaphthalene-D10	279283/ 6.89	139642- 558566	6.39- 7.39
		Phenanthrene-D10	538574/ 8.15	269287- 1077148	7.65- 8.65
		Chrysene-D12	641021/10.86	320511- 1282042	10.36-11.36
		Perylene-D12	641430/12.51	320715- 1282860	12.01-13.01
					Total Outliers: N/A
blkw14a.d	08/14/12 14:22	1,4-Dichlorobenzene-D4	165918/ 4.60	Ratio: 1.140	Diff.: 0.00
		Naphthalene-D8	578152/ 5.55	Ratio: 1.188	Diff.: 0.00
		Acenaphthalene-D10	318682/ 6.90	Ratio: 1.141	Diff.: 0.01
		Phenanthrene-D10	627896/ 8.15	Ratio: 1.166	Diff.: 0.00
		Chrysene-D12	743826/10.86	Ratio: 1.160	Diff.: 0.00
		Perylene-D12	723325/12.51	Ratio: 1.128	Diff.: 0.00
					Total Outliers: 0
blks14a.d	08/14/12 14:41	1,4-Dichlorobenzene-D4	145763/ 4.59	Ratio: 1.002	Diff.: -0.01
		Naphthalene-D8	518969/ 5.55	Ratio: 1.066	Diff.: 0.00
		Acenaphthalene-D10	286067/ 6.89	Ratio: 1.024	Diff.: 0.00
		Phenanthrene-D10	559997/ 8.15	Ratio: 1.040	Diff.: 0.00
		Chrysene-D12	652782/10.86	Ratio: 1.018	Diff.: 0.00
		Perylene-D12	640849/12.50	Ratio: 0.999	Diff.: -0.01
					Total Outliers: 0
lcsw14a.d	08/14/12 15:00	1,4-Dichlorobenzene-D4	150224/ 4.59	Ratio: 1.032	Diff.: -0.01
		Naphthalene-D8	527667/ 5.55	Ratio: 1.084	Diff.: 0.00
		Acenaphthalene-D10	296688/ 6.89	Ratio: 1.062	Diff.: 0.00
		Phenanthrene-D10	595354/ 8.15	Ratio: 1.105	Diff.: 0.00
		Chrysene-D12	692465/10.86	Ratio: 1.080	Diff.: 0.00
		Perylene-D12	686813/12.51	Ratio: 1.071	Diff.: 0.00
					Total Outliers: 0
lcsdw14a.d	08/14/12 15:19	1,4-Dichlorobenzene-D4	148702/ 4.59	Ratio: 1.022	Diff.: -0.01
		Naphthalene-D8	524952/ 5.55	Ratio: 1.078	Diff.: 0.00
		Acenaphthalene-D10	297889/ 6.89	Ratio: 1.067	Diff.: 0.00
		Phenanthrene-D10	588960/ 8.15	Ratio: 1.094	Diff.: 0.00
		Chrysene-D12	689883/10.86	Ratio: 1.076	Diff.: 0.00
		Perylene-D12	690151/12.51	Ratio: 1.076	Diff.: 0.00
					Total Outliers: 0
lcss14a.d	08/14/12 15:39	1,4-Dichlorobenzene-D4	151112/ 4.59	Ratio: 1.039	Diff.: -0.01
		Naphthalene-D8	531827/ 5.55	Ratio: 1.093	Diff.: 0.00
		Acenaphthalene-D10	297236/ 6.89	Ratio: 1.064	Diff.: 0.00
		Phenanthrene-D10	593123/ 8.15	Ratio: 1.101	Diff.: 0.00
		Chrysene-D12	695072/10.86	Ratio: 1.084	Diff.: 0.00
		Perylene-D12	692202/12.51	Ratio: 1.079	Diff.: 0.00
					Total Outliers: 0
lcsds14a.d	08/14/12 15:58	1,4-Dichlorobenzene-D4	144034/ 4.59	Ratio: 0.990	Diff.: -0.01
		Naphthalene-D8	508170/ 5.55	Ratio: 1.044	Diff.: 0.00
		Acenaphthalene-D10	287340/ 6.89	Ratio: 1.029	Diff.: 0.00
		Phenanthrene-D10	569684/ 8.15	Ratio: 1.058	Diff.: 0.00
		Chrysene-D12	664587/10.86	Ratio: 1.037	Diff.: 0.00
		Perylene-D12	658098/12.51	Ratio: 1.026	Diff.: 0.00
					Total Outliers: 0
5351001.d	08/14/12 16:17	1,4-Dichlorobenzene-D4	137611/ 4.60	Ratio: 0.946	Diff.: 0.00
		Naphthalene-D8	491096/ 5.55	Ratio: 1.009	Diff.: 0.00
		Acenaphthalene-D10	269423/ 6.89	Ratio: 0.965	Diff.: 0.00
		Phenanthrene-D10	529971/ 8.15	Ratio: 0.984	Diff.: 0.00
		Chrysene-D12	628441/10.86	Ratio: 0.980	Diff.: 0.00
		Perylene-D12	580599/12.50	Ratio: 0.905	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5351002.d	08/14/12 16:36	1,4-Dichlorobenzene-D4	123224/ 4.59	Ratio: 0.847	Diff.: -0.01
		Naphthalene-D8	444980/ 5.55	Ratio: 0.914	Diff.: 0.00
		Acenaphthalene-D10	244614/ 6.89	Ratio: 0.876	Diff.: 0.00
		Phenanthrene-D10	481161/ 8.15	Ratio: 0.893	Diff.: 0.00
		Chrysene-D12	563545/10.86	Ratio: 0.879	Diff.: 0.00
		Perylene-D12	519841/12.50	Ratio: 0.810	Diff.: -0.01
					Total Outliers: 0
5351902.d	08/14/12 16:55	1,4-Dichlorobenzene-D4	117914/ 4.60	Ratio: 0.810	Diff.: 0.00
		Naphthalene-D8	427302/ 5.55	Ratio: 0.878	Diff.: 0.00
		Acenaphthalene-D10	235903/ 6.89	Ratio: 0.845	Diff.: 0.00
		Phenanthrene-D10	461788/ 8.15	Ratio: 0.857	Diff.: 0.00
		Chrysene-D12	542024/10.85	Ratio: 0.846	Diff.: -0.01
		Perylene-D12	521533/12.50	Ratio: 0.813	Diff.: -0.01
					Total Outliers: 0
5351903.d	08/14/12 17:14	1,4-Dichlorobenzene-D4	120332/ 4.59	Ratio: 0.827	Diff.: -0.01
		Naphthalene-D8	437201/ 5.55	Ratio: 0.898	Diff.: 0.00
		Acenaphthalene-D10	243473/ 6.89	Ratio: 0.872	Diff.: 0.00
		Phenanthrene-D10	471624/ 8.15	Ratio: 0.876	Diff.: 0.00
		Chrysene-D12	542471/10.85	Ratio: 0.846	Diff.: -0.01
		Perylene-D12	527891/12.50	Ratio: 0.823	Diff.: -0.01
					Total Outliers: 0
5351904.d	08/14/12 17:33	1,4-Dichlorobenzene-D4	121856/ 4.60	Ratio: 0.838	Diff.: 0.00
		Naphthalene-D8	443967/ 5.55	Ratio: 0.912	Diff.: 0.00
		Acenaphthalene-D10	244161/ 6.89	Ratio: 0.874	Diff.: 0.00
		Phenanthrene-D10	478499/ 8.15	Ratio: 0.888	Diff.: 0.00
		Chrysene-D12	554549/10.85	Ratio: 0.865	Diff.: -0.01
		Perylene-D12	537105/12.50	Ratio: 0.837	Diff.: -0.01
					Total Outliers: 0
5351905.d	08/14/12 17:53	1,4-Dichlorobenzene-D4	123597/ 4.59	Ratio: 0.849	Diff.: -0.01
		Naphthalene-D8	444493/ 5.55	Ratio: 0.913	Diff.: 0.00
		Acenaphthalene-D10	242311/ 6.89	Ratio: 0.868	Diff.: 0.00
		Phenanthrene-D10	471683/ 8.15	Ratio: 0.876	Diff.: 0.00
		Chrysene-D12	557426/10.86	Ratio: 0.870	Diff.: 0.00
		Perylene-D12	524413/12.51	Ratio: 0.818	Diff.: 0.00
					Total Outliers: 0
5351908.d	08/14/12 18:12	1,4-Dichlorobenzene-D4	117888/ 4.60	Ratio: 0.810	Diff.: 0.00
		Naphthalene-D8	429147/ 5.55	Ratio: 0.882	Diff.: 0.00
		Acenaphthalene-D10	238229/ 6.89	Ratio: 0.853	Diff.: 0.00
		Phenanthrene-D10	464675/ 8.15	Ratio: 0.863	Diff.: 0.00
		Chrysene-D12	537556/10.85	Ratio: 0.839	Diff.: -0.01
		Perylene-D12	517624/12.50	Ratio: 0.807	Diff.: -0.01
					Total Outliers: 0
5349801.d	08/14/12 18:31	1,4-Dichlorobenzene-D4	133716/ 4.59	Ratio: 0.919	Diff.: -0.01
		Naphthalene-D8	482479/ 5.55	Ratio: 0.991	Diff.: 0.00
		Acenaphthalene-D10	266107/ 6.89	Ratio: 0.953	Diff.: 0.00
		Phenanthrene-D10	523512/ 8.15	Ratio: 0.972	Diff.: 0.00
		Chrysene-D12	607579/10.85	Ratio: 0.948	Diff.: -0.01
		Perylene-D12	585217/12.50	Ratio: 0.912	Diff.: -0.01
					Total Outliers: 0
5349802.d	08/14/12 18:50	1,4-Dichlorobenzene-D4	131895/ 4.60	Ratio: 0.907	Diff.: 0.00
		Naphthalene-D8	479110/ 5.55	Ratio: 0.984	Diff.: 0.00
		Acenaphthalene-D10	263937/ 6.89	Ratio: 0.945	Diff.: 0.00
		Phenanthrene-D10	514506/ 8.15	Ratio: 0.955	Diff.: 0.00
		Chrysene-D12	600794/10.85	Ratio: 0.937	Diff.: -0.01
		Perylene-D12	575303/12.50	Ratio: 0.897	Diff.: -0.01
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5349805.d	08/14/12 19:09	1,4-Dichlorobenzene-D4	134995/ 4.59	Ratio: 0.928	Diff.: -0.01
		Naphthalene-D8	484422/ 5.55	Ratio: 0.995	Diff.: 0.00
		Acenaphthalene-D10	265949/ 6.89	Ratio: 0.952	Diff.: 0.00
		Phenanthrene-D10	510679/ 8.15	Ratio: 0.948	Diff.: 0.00
		Chrysene-D12	606653/10.85	Ratio: 0.946	Diff.: -0.01
		Perylene-D12	581673/12.50	Ratio: 0.907	Diff.: -0.01
					Total Outliers: 0
5349806.d	08/14/12 19:28	1,4-Dichlorobenzene-D4	137026/ 4.60	Ratio: 0.942	Diff.: 0.00
		Naphthalene-D8	494638/ 5.55	Ratio: 1.016	Diff.: 0.00
		Acenaphthalene-D10	274358/ 6.89	Ratio: 0.982	Diff.: 0.00
		Phenanthrene-D10	540629/ 8.15	Ratio: 1.004	Diff.: 0.00
		Chrysene-D12	616834/10.85	Ratio: 0.962	Diff.: -0.01
		Perylene-D12	599970/12.50	Ratio: 0.935	Diff.: -0.01
					Total Outliers: 0
5349807.d	08/14/12 19:47	1,4-Dichlorobenzene-D4	132007/ 4.59	Ratio: 0.907	Diff.: -0.01
		Naphthalene-D8	474993/ 5.55	Ratio: 0.976	Diff.: 0.00
		Acenaphthalene-D10	264138/ 6.89	Ratio: 0.946	Diff.: 0.00
		Phenanthrene-D10	519732/ 8.15	Ratio: 0.965	Diff.: 0.00
		Chrysene-D12	597480/10.85	Ratio: 0.932	Diff.: -0.01
		Perylene-D12	576878/12.50	Ratio: 0.899	Diff.: -0.01
					Total Outliers: 0
5349812.d	08/14/12 20:07	1,4-Dichlorobenzene-D4	137620/ 4.60	Ratio: 0.946	Diff.: 0.00
		Naphthalene-D8	488928/ 5.55	Ratio: 1.004	Diff.: 0.00
		Acenaphthalene-D10	269571/ 6.89	Ratio: 0.965	Diff.: 0.00
		Phenanthrene-D10	532485/ 8.15	Ratio: 0.989	Diff.: 0.00
		Chrysene-D12	624730/10.85	Ratio: 0.975	Diff.: -0.01
		Perylene-D12	602531/12.50	Ratio: 0.939	Diff.: -0.01
					Total Outliers: 0
5351906.d	08/14/12 20:26	1,4-Dichlorobenzene-D4	133729/ 4.59	Ratio: 0.919	Diff.: -0.01
		Naphthalene-D8	486676/ 5.55	Ratio: 1.000	Diff.: 0.00
		Acenaphthalene-D10	264048/ 6.89	Ratio: 0.945	Diff.: 0.00
		Phenanthrene-D10	515056/ 8.15	Ratio: 0.956	Diff.: 0.00
		Chrysene-D12	608742/10.86	Ratio: 0.950	Diff.: 0.00
		Perylene-D12	585048/12.50	Ratio: 0.912	Diff.: -0.01
					Total Outliers: 0
5351909.d	08/14/12 20:45	1,4-Dichlorobenzene-D4	149589/ 4.60	Ratio: 1.028	Diff.: 0.00
		Naphthalene-D8	547836/ 5.55	Ratio: 1.125	Diff.: 0.00
		Acenaphthalene-D10	297387/ 6.90	Ratio: 1.065	Diff.: 0.01
		Phenanthrene-D10	593426/ 8.15	Ratio: 1.102	Diff.: 0.00
		Chrysene-D12	695942/10.86	Ratio: 1.086	Diff.: 0.00
		Perylene-D12	653117/12.51	Ratio: 1.018	Diff.: 0.00
					Total Outliers: 0
5349813.d	08/14/12 21:04	1,4-Dichlorobenzene-D4	137434/ 4.60	Ratio: 0.945	Diff.: 0.00
		Naphthalene-D8	485081/ 5.55	Ratio: 0.997	Diff.: 0.00
		Acenaphthalene-D10	267470/ 6.89	Ratio: 0.958	Diff.: 0.00
		Phenanthrene-D10	525252/ 8.15	Ratio: 0.975	Diff.: 0.00
		Chrysene-D12	622837/10.85	Ratio: 0.972	Diff.: -0.01
		Perylene-D12	587573/12.50	Ratio: 0.916	Diff.: -0.01
					Total Outliers: 0
5349808.d	08/14/12 21:23	1,4-Dichlorobenzene-D4	136101/ 4.59	Ratio: 0.935	Diff.: -0.01
		Naphthalene-D8	488769/ 5.55	Ratio: 1.004	Diff.: 0.00
		Acenaphthalene-D10	269004/ 6.89	Ratio: 0.963	Diff.: 0.00
		Phenanthrene-D10	522451/ 8.15	Ratio: 0.970	Diff.: 0.00
		Chrysene-D12	615872/10.86	Ratio: 0.961	Diff.: 0.00
		Perylene-D12	585885/12.51	Ratio: 0.913	Diff.: 0.00
					Total Outliers: 0

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
5349803.d	08/14/12 21:42	1,4-Dichlorobenzene-D4	136321/ 4.59	Ratio: 0.937	Diff.: -0.01
		Naphthalene-D8	493361/ 5.55	Ratio: 1.014	Diff.: 0.00
		Acenaphthalene-D10	274914/ 6.89	Ratio: 0.984	Diff.: 0.00
		Phenanthrene-D10	533984/ 8.15	Ratio: 0.991	Diff.: 0.00
		Chrysene-D12	617145/10.86	Ratio: 0.963	Diff.: 0.00
		Perylene-D12	564124/12.52	Ratio: 0.879	Diff.: 0.01
					Total Outliers: 0
5349811.d	08/14/12 22:01	1,4-Dichlorobenzene-D4	140443/ 4.59	Ratio: 0.965	Diff.: -0.01
		Naphthalene-D8	503420/ 5.55	Ratio: 1.034	Diff.: 0.00
		Acenaphthalene-D10	278471/ 6.89	Ratio: 0.997	Diff.: 0.00
		Phenanthrene-D10	544512/ 8.15	Ratio: 1.011	Diff.: 0.00
		Chrysene-D12	637256/10.86	Ratio: 0.994	Diff.: 0.00
		Perylene-D12	584770/12.50	Ratio: 0.912	Diff.: -0.01
					Total Outliers: 0
5349804.d	08/14/12 22:21	1,4-Dichlorobenzene-D4	164302/ 4.60	Ratio: 1.129	Diff.: 0.00
		Naphthalene-D8	575732/ 5.55	Ratio: 1.183	Diff.: 0.00
		Acenaphthalene-D10	319512/ 6.89	Ratio: 1.144	Diff.: 0.00
		Phenanthrene-D10	635448/ 8.15	Ratio: 1.180	Diff.: 0.00
		Chrysene-D12	736112/10.86	Ratio: 1.148	Diff.: 0.00
		Perylene-D12	695503/12.52	Ratio: 1.084	Diff.: 0.01
					Total Outliers: 0
5349809.d	08/14/12 22:40	1,4-Dichlorobenzene-D4	138031/ 4.59	Ratio: 0.949	Diff.: -0.01
		Naphthalene-D8	494499/ 5.55	Ratio: 1.016	Diff.: 0.00
		Acenaphthalene-D10	275048/ 6.89	Ratio: 0.985	Diff.: 0.00
		Phenanthrene-D10	553281/ 8.15	Ratio: 1.027	Diff.: 0.00
		Chrysene-D12	637433/10.86	Ratio: 0.994	Diff.: 0.00
		Perylene-D12	581884/12.51	Ratio: 0.907	Diff.: 0.00
					Total Outliers: 0
5349810.d	08/14/12 22:59	1,4-Dichlorobenzene-D4	140085/ 4.59	Ratio: 0.963	Diff.: -0.01
		Naphthalene-D8	499645/ 5.55	Ratio: 1.026	Diff.: 0.00
		Acenaphthalene-D10	277677/ 6.89	Ratio: 0.994	Diff.: 0.00
		Phenanthrene-D10	545719/ 8.15	Ratio: 1.013	Diff.: 0.00
		Chrysene-D12	620981/10.85	Ratio: 0.969	Diff.: -0.01
		Perylene-D12	499266/12.49	Ratio: 0.778	Diff.: -0.02
					Total Outliers: 0
5349601.d	08/14/12 23:18	1,4-Dichlorobenzene-D4	142635/ 4.59	Ratio: 0.980	Diff.: -0.01
		Naphthalene-D8	508369/ 5.55	Ratio: 1.044	Diff.: 0.00
		Acenaphthalene-D10	282802/ 6.89	Ratio: 1.013	Diff.: 0.00
		Phenanthrene-D10	558691/ 8.15	Ratio: 1.037	Diff.: 0.00
		Chrysene-D12	592381/10.85	Ratio: 0.924	Diff.: -0.01
		Perylene-D12	373923/12.50	Ratio: 0.583	Diff.: -0.01
					Total Outliers: 0

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120814.1

LIMS ID: S53519.02
Data File: 5351902.d
Date Received: 08/10/12

Tag: MW137 (08-09-2012) (1215)
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120813w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/14/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/13/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/14/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (83%)				08/14/12	
4165-60-0	Nitrobenzene-D5	Pass (68%)					
98904-43-9	Terphenyl-D14	Pass (99%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120814.1

LIMS ID: S53519.03
Data File: 5351903.d
Date Received: 08/10/12

Tag: MW135 (08-09-2012) (1320)
Notes: pna-w 1000ml/1ml df:2
w/1; id:sp120813w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/14/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/13/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/14/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (87%)				08/14/12	
4165-60-0	Nitrobenzene-D5	Pass (71%)					
98904-43-9	Terphenyl-D14	Pass (100%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120814.1

LIMS ID: S53519.04
Data File: 5351904.d
Date Received: 08/10/12

Tag: Dup-02 (08-09-2012)
Notes: pna-w 990ml/1ml df:2 w/1; id:sp120813w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/14/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/13/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/14/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (89%)				08/14/12	
4165-60-0	Nitrobenzene-D5	Pass (72%)					
98904-43-9	Terphenyl-D14	Pass (101%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120814.1

LIMS ID: S53519.05
Data File: 5351905.d
Date Received: 08/10/12

Tag: MW158 (08-09-2012) (1515)
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120813w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/14/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/13/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/14/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (98%)				08/14/12	
4165-60-0	Nitrobenzene-D5	Pass (82%)					
98904-43-9	Terphenyl-D14	Pass (112%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120814.1

LIMS ID: S53519.06
Data File: 5351906.d
Date Received: 08/10/12

Tag: MW124 (08-09-2012) (1630)
Notes: pna-w 990ml/1ml df:8
w/1; id:sp120813w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 8

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/14/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	4		ug/l		X
50-32-8	Benzo(a)pyrene	Not detected	4		ug/l		X
205-99-2	Benzo(b)fluoranthene	Not detected	4		ug/l		X
207-08-9	Benzo(k)fluoranthene	Not detected	4		ug/l		X
191-24-2	Benzo(ghi)perylene	Not detected	4		ug/l		X
218-01-9	Chrysene	Not detected	4		ug/l		X
53-70-3	Dibenzo(ah)anthracene	Not detected	4		ug/l		X
206-44-0	Fluoranthene	Not detected	4		ug/l		X
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	4		ug/l		X
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	4		ug/l		X
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/13/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/14/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (100%)				08/14/12	
4165-60-0	Nitrobenzene-D5	Pass (77%)					
98904-43-9	Terphenyl-D14	Pass (113%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120814.1

LIMS ID: S53519.08
Data File: 5351908.d
Date Received: 08/10/12

Tag: MW115 (08-10-2012) (0845)
Notes: pna-w 990ml/1ml df:2
w/1; id:sp120813w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 2

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	5		ug/l	08/14/12	
208-96-8	Acenaphthylene	Not detected	5		ug/l		
120-12-7	Anthracene	Not detected	5		ug/l		
56-55-3	Benzo(a)anthracene	Not detected	1		ug/l		
50-32-8	Benzo(a)pyrene	Not detected	1		ug/l		
205-99-2	Benzo(b)fluoranthene	Not detected	1		ug/l		
207-08-9	Benzo(k)fluoranthene	Not detected	1		ug/l		
191-24-2	Benzo(ghi)perylene	Not detected	1		ug/l		
218-01-9	Chrysene	Not detected	1		ug/l		
53-70-3	Dibenzo(ah)anthracene	Not detected	2		ug/l		
206-44-0	Fluoranthene	Not detected	1		ug/l		
86-73-7	Fluorene	Not detected	5		ug/l		
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	2		ug/l		
91-20-3	Naphthalene	Not detected	5		ug/l		
85-01-8	Phenanthrene	Not detected	2		ug/l		
129-00-0	Pyrene	Not detected	5		ug/l		
91-57-6	2-Methylnaphthalene	Not detected	5		ug/l		
90-12-0	1-Methylnaphthalene	Not detected	5		ug/l		
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/13/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/14/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (88%)				08/14/12	
4165-60-0	Nitrobenzene-D5	Pass (73%)					
98904-43-9	Terphenyl-D14	Pass (99%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120814.1

LIMS ID: S53519.09
Data File: 5351909.d
Date Received: 08/10/12

Tag: MW152 (08-10-2012) (1035)
Notes: pna-w 1000ml/1ml df:15
w/1; id:sp120813w01

Matrix: WW
Injection Volume: 2ul
Dilution Factor: 15

CAS #	Analyte	Result	RL	MDL	Units	Date	Flags
Polynuclear Aromatic Hydrocarbon							
83-32-9	Acenaphthene	Not detected	8		ug/l	08/14/12	X
208-96-8	Acenaphthylene	Not detected	8		ug/l		X
120-12-7	Anthracene	Not detected	8		ug/l		X
56-55-3	Benzo(a)anthracene	Not detected	8		ug/l		X
50-32-8	Benzo(a)pyrene	Not detected	8		ug/l		X
205-99-2	Benzo(b)fluoranthene	Not detected	8		ug/l		X
207-08-9	Benzo(k)fluoranthene	Not detected	8		ug/l		X
191-24-2	Benzo(ghi)perylene	Not detected	8		ug/l		X
218-01-9	Chrysene	Not detected	8		ug/l		X
53-70-3	Dibenzo(ah)anthracene	Not detected	8		ug/l		X
206-44-0	Fluoranthene	Not detected	8		ug/l		X
86-73-7	Fluorene	Not detected	8		ug/l		X
193-39-5	Indeno(1,2,3-cd)pyrene	Not detected	8		ug/l		X
91-20-3	Naphthalene	Not detected	8		ug/l		X
85-01-8	Phenanthrene	Not detected	8		ug/l		X
129-00-0	Pyrene	Not detected	8		ug/l		X
91-57-6	2-Methylnaphthalene	Not detected	8		ug/l		X
90-12-0	1-Methylnaphthalene	Not detected	8		ug/l		X
Semi Volatile Extraction							
N/A	PNA Extraction	Completed				08/13/12	
Internal Standard Criteria (see Form 8)							
3855-82-1	1,4-Dichlorobenzene-D4	Pass				08/14/12	
15067-26-2	Acenaphthalene-D10	Pass					
1719-03-5	Chrysene-D12	Pass					
1146-65-2	Naphthalene-D8	Pass					
1520-96-3	Perylene-D12	Pass					
1517-22-2	Phenanthrene-D10	Pass					
Surrogate Standard Recovery (see Form 2)							
321-60-8	2-Fluorobiphenyl	Pass (79%)				08/14/12	
4165-60-0	Nitrobenzene-D5	Pass (56%)					
98904-43-9	Terphenyl-D14	Pass (90%)					

KEY:
RL - Reporting limit
MDL - Method detection limit

Form 1: GC/MS Data Sheet - Semi-Volatile Organics

Instrument ID: svol.05.Hades
GC Column: DB-5/L:30m/D:0.25mm

Analytical Batch: h120814.1

Note/Qualifier Key

A:	TIC is a suspected aldol-condensation product
B:	Compound also found in associated method blank
C:	Analyte presence confirmed by GC/MS
D:	Identified in an analysis at a secondary dilution factor
E:	Concentration exceeds calibration range
J:	Estimated value less than reporting limit, but greater than MDL
N:	Presumptive evidence of TIC
P:	Pesticide/Aroclor 2-column RPD exceeds limit
U:	Analyte not detected above reporting limit
!:	Result is outside of stated limit criteria
F:	Analysis run outside of holding time
G:	Estimated result due to extraction run outside of holding time
H:	Sample submitted and run outside of holding time
I:	Matrix interference with internal standard
K:	Elevated reporting limit due to low total solids
L:	Elevated reporting limit due to low sample amount
M:	Result reported to MDL not RDL
O:	Analysis performed by outside laboratory. See attached report.
Q:	Reported result represents most abundant aroclor
R:	Preliminary result
S:	Surrogate recovery outside of control limits
T:	No correction for total solids
V:	Accurate value not available due to presence of multiple aroclors
W:	Surrogate result not applicable due to sample dilution
X:	Elevated reporting limit due to matrix interference
Y:	Elevated reporting limit due to high target concentration
Z:	Estimated result due to matrix interference
p:	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
*:	Custom Note (see Analytical Laboratory Report)

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351902.d Vial: 8
Acq On : 14 Aug 12 4:55 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

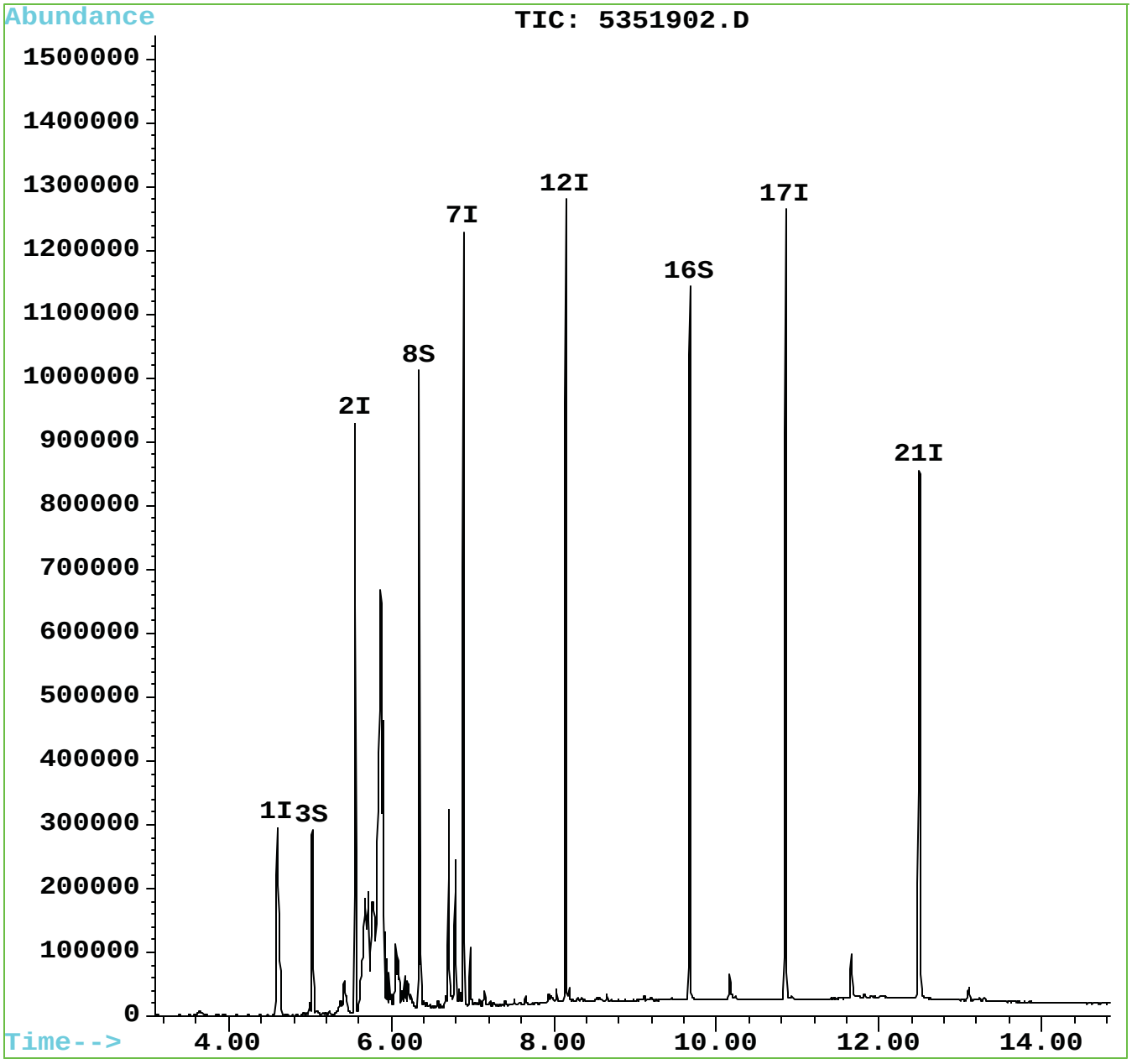
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	117914	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	427302	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	235903	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	461788	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	542024	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	521533	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	120920	205.08	ng/ul	205.0
8) 2-Fluorobiphenyl	6.34	172	296506	249.82	ng/ul	249.8
16) Terphenyl-D14	9.68	244	440008	295.89	ng/ul	295.8
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351902.d Vial: 8
Acq On : 14 Aug 12 4:55 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351903.d Vial: 9
Acq On : 14 Aug 12 5:14 pm Operator: PL
Sample : pna-w 1000ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

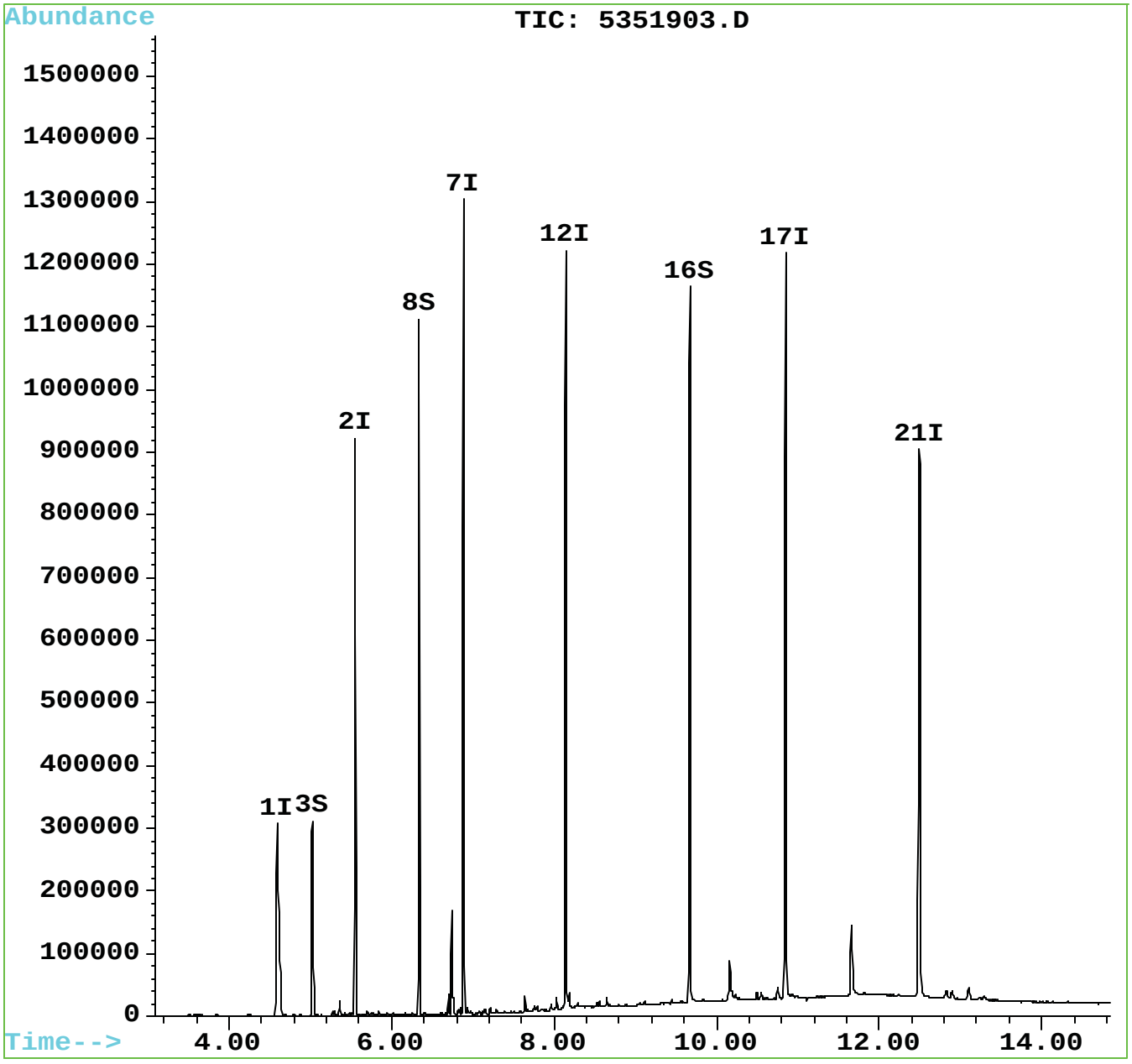
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	120332	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.55	136	437201	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	243473	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	471624	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	542471	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	527891	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	128509	213.02	ng/ul	213.0
8) 2-Fluorobiphenyl	6.34	172	318044	259.64	ng/ul	259.6
16) Terphenyl-D14	9.68	244	456497	300.58	ng/ul	300.5
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351903.d Vial: 9
Acq On : 14 Aug 12 5:14 pm Operator: PL
Sample : pna-w 1000ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351904.d Vial: 10
Acq On : 14 Aug 12 5:33 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

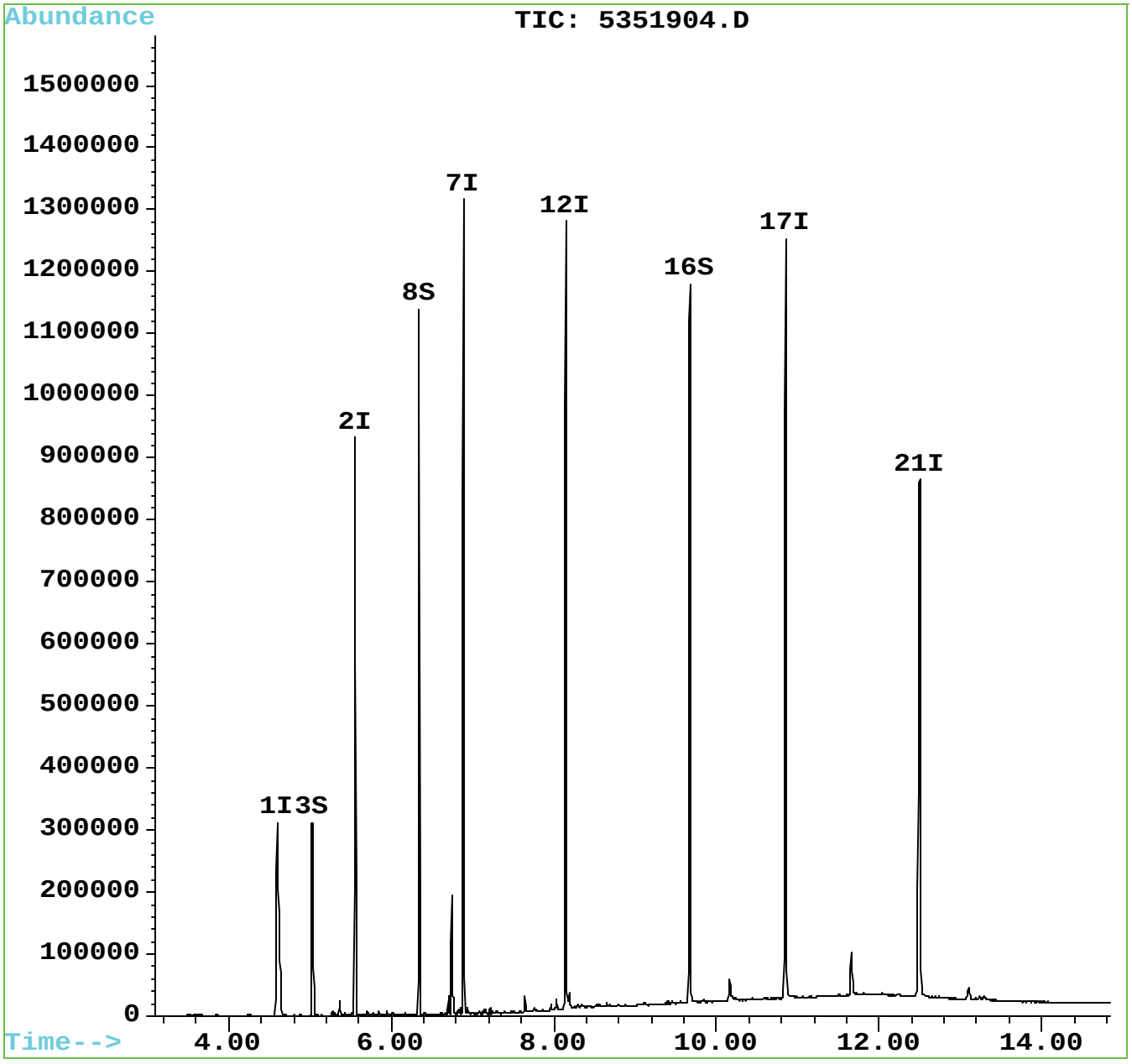
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	121856	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	443967	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	244161	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	478499	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	554549	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	537105	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.02	82	132159	215.73	ng/ul	215.7
8) 2-Fluorobiphenyl	6.34	172	327167	266.33	ng/ul	266.3
16) Terphenyl-D14	9.68	244	464759	301.62	ng/ul	301.6
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration
5351904.d P120711H.M Wed Aug 15 11:44:38 2012 Page 1

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351904.d Vial: 10
Acq On : 14 Aug 12 5:33 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351905.d Vial: 11
Acq On : 14 Aug 12 5:53 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

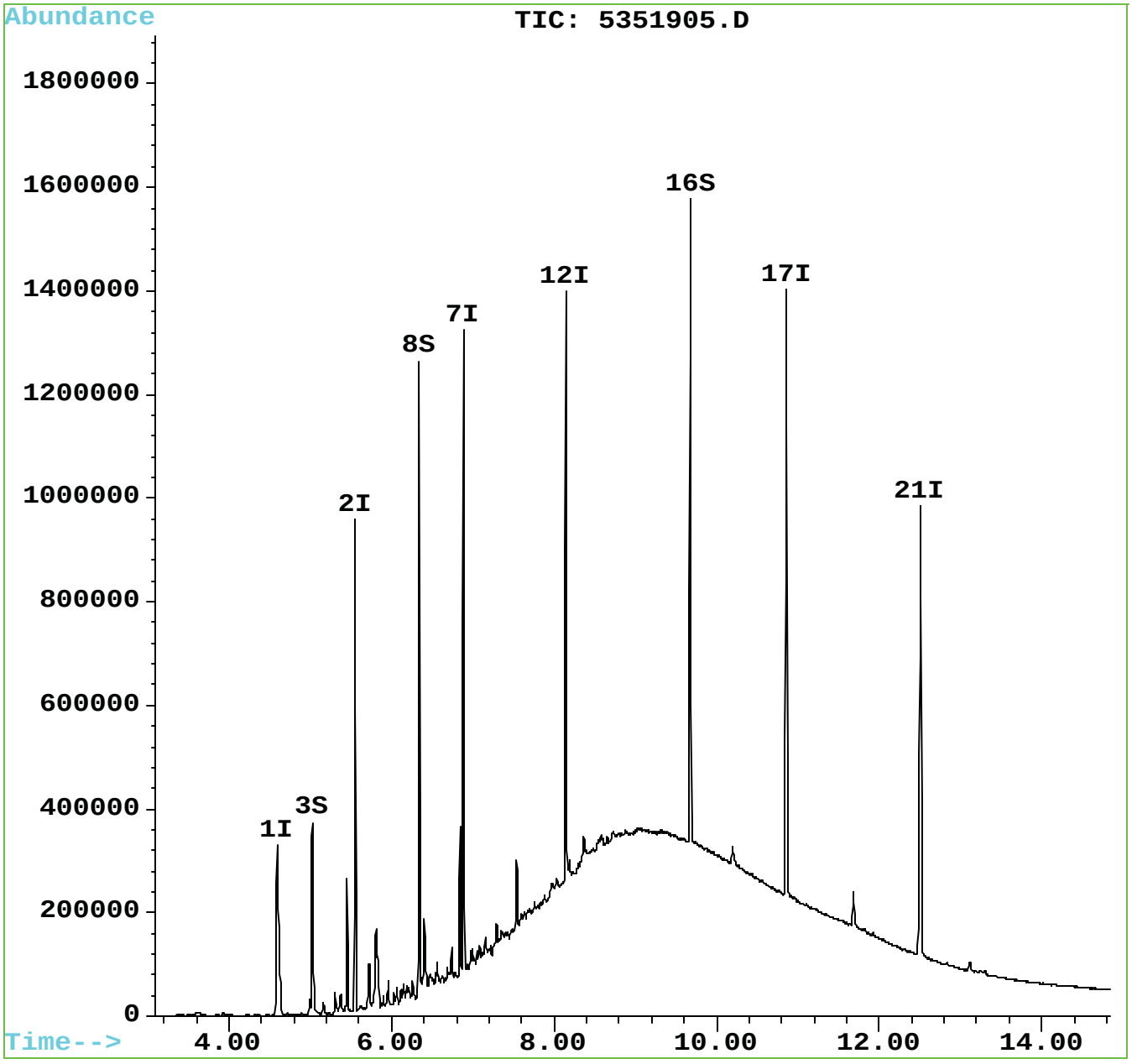
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	123597	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.55	136	444493	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	242311	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	471683	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.86	240	557426	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	524413	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	150643	245.61	ng/ul	245.6
8) 2-Fluorobiphenyl	6.34	172	359416	294.82	ng/ul	294.8
16) Terphenyl-D14	9.68	244	511999	337.08	ng/ul	337.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration
5351905.d P120711H.M Wed Aug 15 11:44:42 2012 Page 1

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351905.d Vial: 11
Acq On : 14 Aug 12 5:53 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:00 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351906.d Vial: 12
Acq On : 14 Aug 12 8:26 pm Operator: PL
Sample : pna-w 990ml/1ml df:8 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

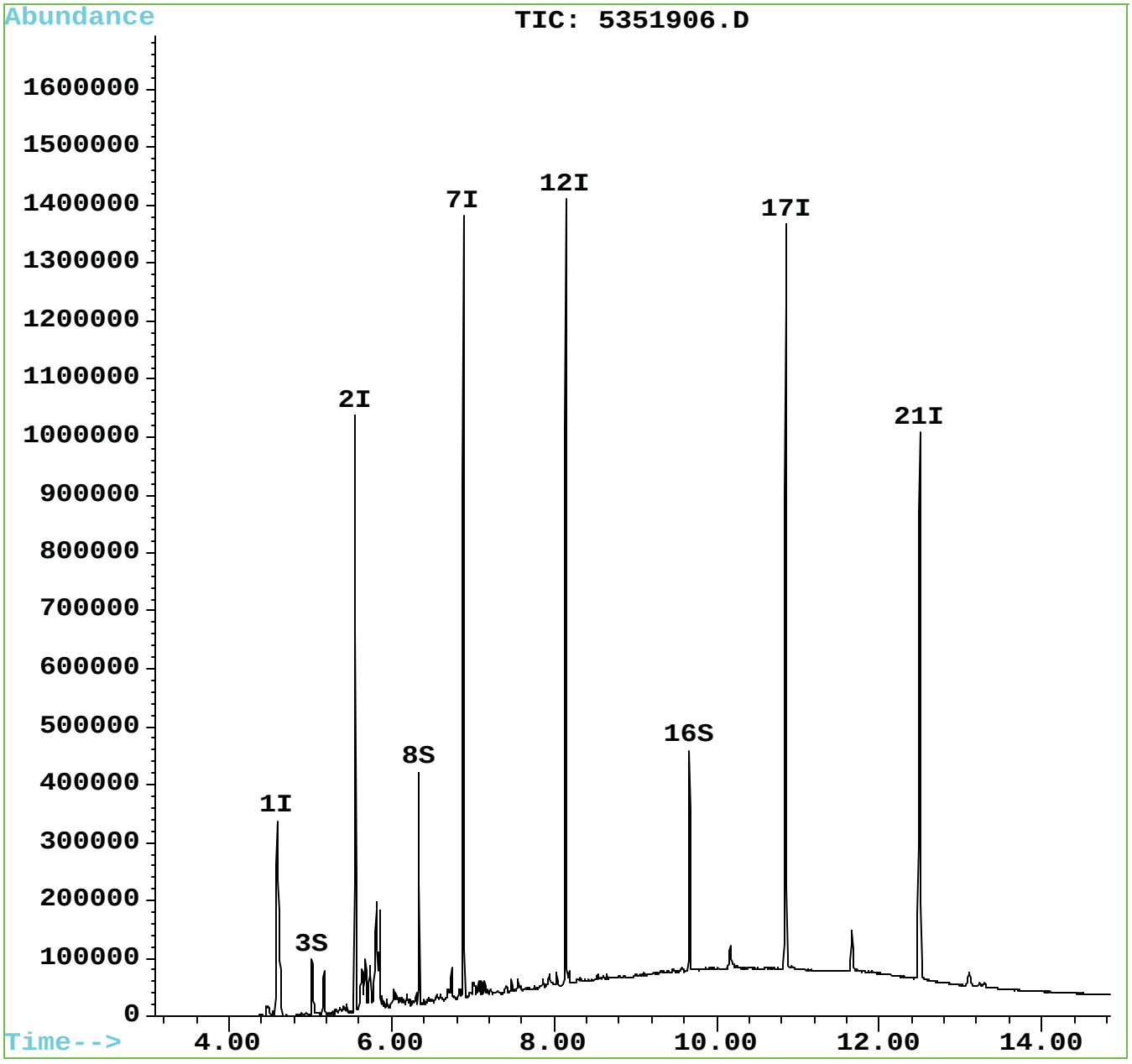
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	133729	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.55	136	486676	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	264048	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	515056	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.86	240	608742	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	585048	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.02	82	38920	57.96	ng/ul	57.9
8) 2-Fluorobiphenyl	6.34	172	99205	74.68	ng/ul	74.6
16) Terphenyl-D14	9.67	244	140276	84.58	ng/ul	84.5
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351906.d Vial: 12
Acq On : 14 Aug 12 8:26 pm Operator: PL
Sample : pna-w 990ml/1ml df:8 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351908.d Vial: 13
Acq On : 14 Aug 12 6:12 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

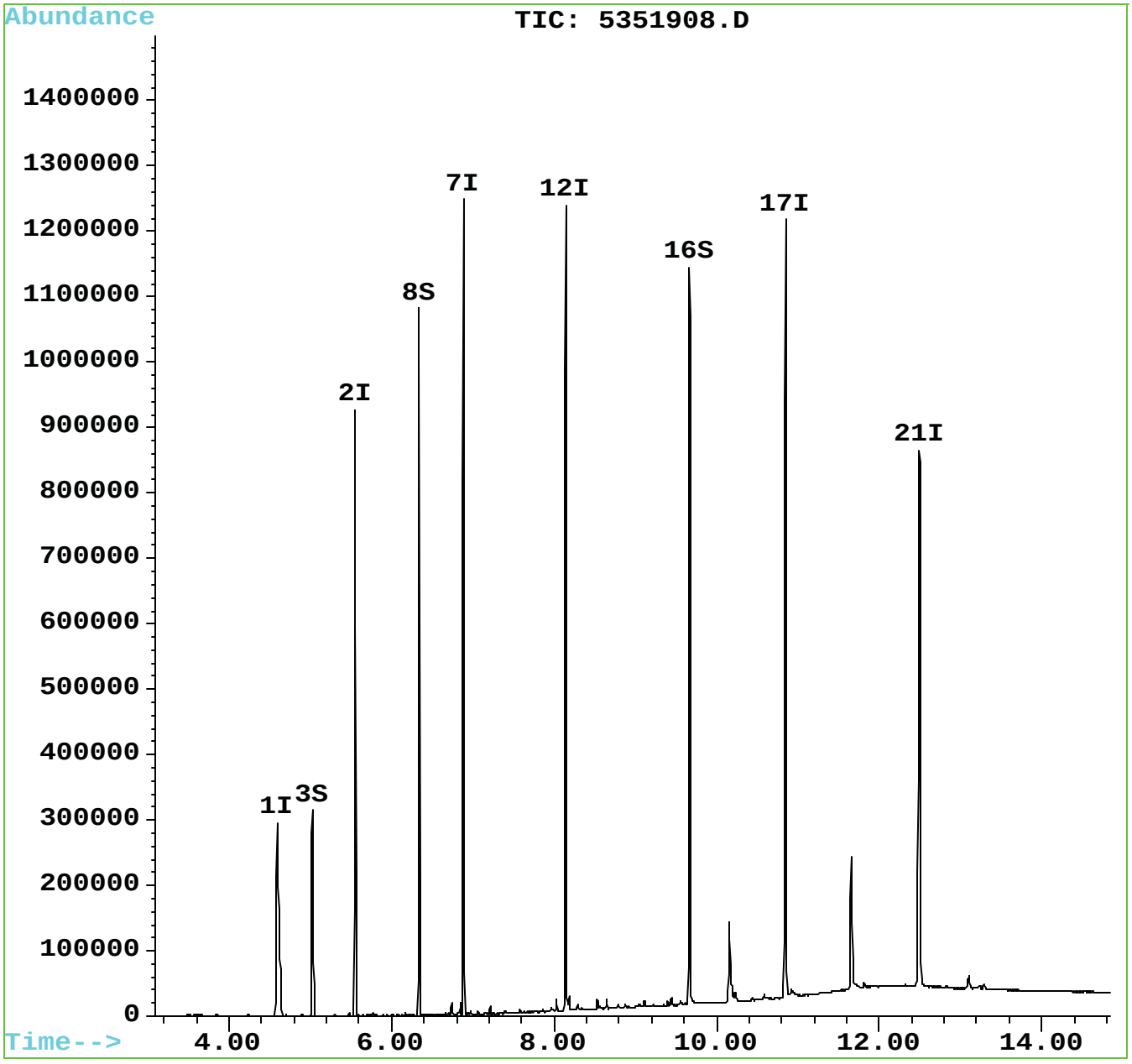
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	117888	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	429147	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	238229	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	464675	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.85	240	537556	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.50	264	517624	40.00	ng/ul	-0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	129704	219.03	ng/ul	219.0
8) 2-Fluorobiphenyl	6.34	172	316391	263.97	ng/ul	263.9
16) Terphenyl-D14	9.67	244	444518	297.07	ng/ul	297.0
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351908.d Vial: 13
Acq On : 14 Aug 12 6:12 pm Operator: PL
Sample : pna-w 990ml/1ml df:2 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351909.d Vial: 14
Acq On : 14 Aug 12 8:45 pm Operator: PL
Sample : pna-w 1000ml/1ml df:15 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

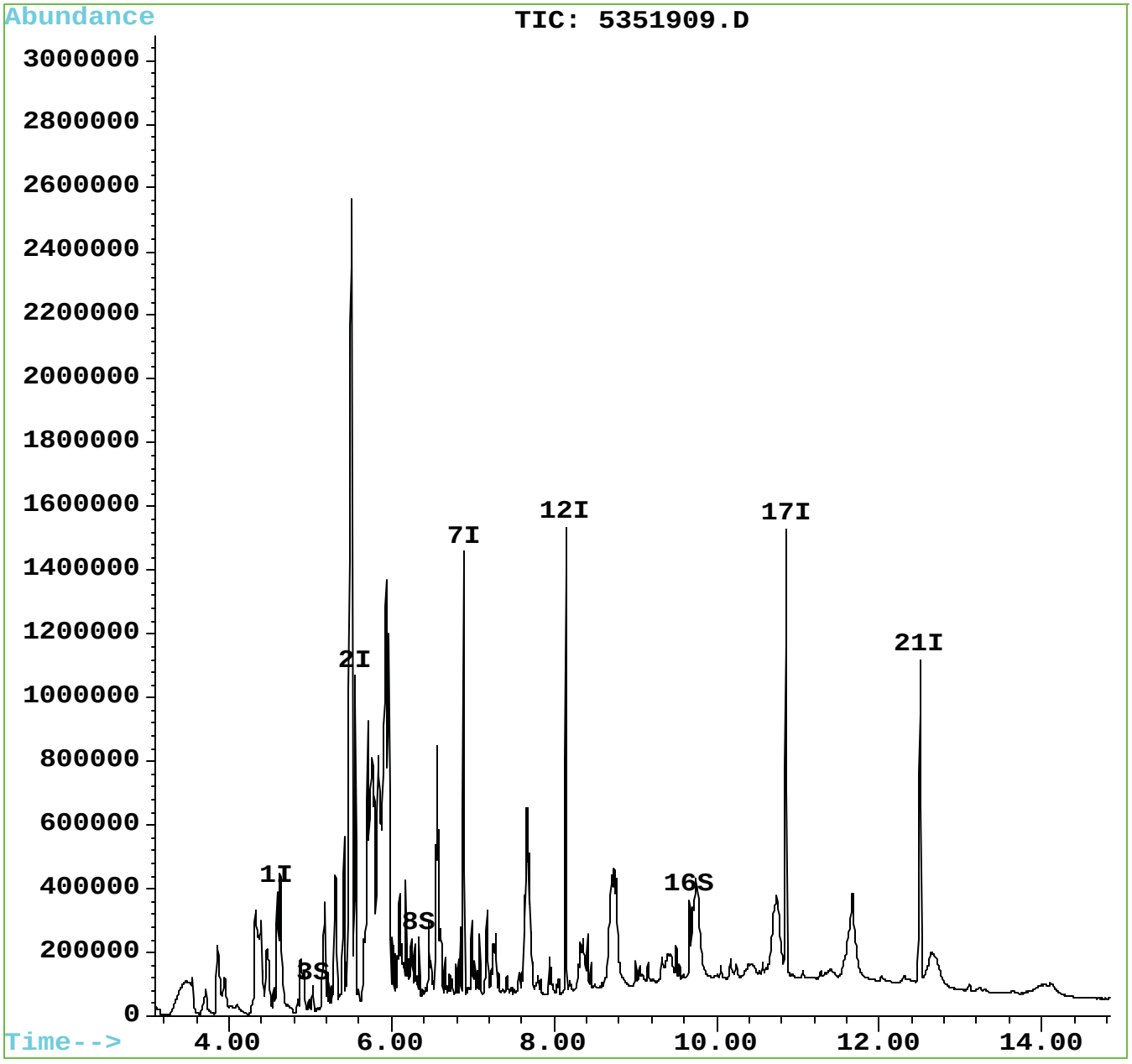
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	149589	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	547836	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.90	164	297387	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	593426	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	695942	40.00	ng/ul	-0.0
21) PERYLENE-D12	12.51	264	653117	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	16862	22.31	ng/ul	22.3
8) 2-Fluorobiphenyl	6.34	172	47419	31.69	ng/ul	31.6
16) Terphenyl-D14	9.67	244	68779	35.99	ng/ul	35.9
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\5351909.d Vial: 14
Acq On : 14 Aug 12 8:45 pm Operator: PL
Sample : pna-w 1000ml/1ml df:15 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 11:01 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
p120711h.m	1,4-DICHLOROBENZENE-D4	I			0.500	20.00	40.00	60.00	80.00	100.0				
	NAPHTHALENE-D8	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Nitrobenzene-d5	LO	0.308	15.60	0.212	0.312	0.325	0.339	0.335	0.327	1.00	0.00	0.331	0.00
	Naphthalene	A	0.916	14.44	1.118	1.006	0.929	0.876	0.818	0.751				
	2-Methylnaphthalene	A	0.510	12.37	0.575	0.576	0.532	0.495	0.462	0.419				
	1-Methylnaphthalene	A	0.586	14.31	0.687	0.668	0.605	0.563	0.517	0.474				
	ACENAPHTHALENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	2-Fluorobiphenyl	A	1.208	14.12	1.404	1.375	1.247	1.176	1.080	0.963				
	Acenaphthylene	A	1.640	11.82	1.730	1.907	1.722	1.628	1.494	1.357				
	Acenaphthene **	QO	0.967	15.55	1.144	1.118	1.003	0.926	0.849	0.762	1.00	0.00	1.177	-0.17
	Fluorene	A	1.191	12.73	1.323	1.367	1.244	1.166	1.076	0.968				
	PHENANTHRENE-D10	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Phenanthrene	QO	0.961	15.48	1.175	1.086	0.969	0.911	0.854	0.773	1.00	0.00	1.124	-0.14
	Anthracene	A	0.954	12.20	1.043	1.110	0.989	0.918	0.874	0.791				
	Fluoranthene	A	1.063	9.22	1.059	1.215	1.113	1.061	1.003	0.926				
	Terphenyl-D14	A	0.773	7.88	0.762	0.862	0.806	0.780	0.750	0.679				
	CHRYSENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Pyrene **	A	0.945	9.38	0.982	1.072	0.981	0.937	0.876	0.820				
	Benzo(a)anthracene	A	0.928	6.44	0.918	1.017	0.963	0.933	0.896	0.841				
	Chrysene	A	0.895	10.11	0.998	0.989	0.914	0.875	0.822	0.771				
	PERYLENE-D12	I			0.500	20.00	40.00	60.00	80.00	100.0				
	Benzo(b)fluoranthene	A	0.965	6.13	0.907	1.039	0.978	0.997	0.985	0.881				
	Benzo(k)fluoranthene	A	0.904	9.08	0.766	0.985	0.978	0.939	0.875	0.881				
	Benzo(a)pyrene	A	0.834	10.68	0.658	0.887	0.873	0.892	0.864	0.827				
	Indeno(1,2,3-cd)pyrene	A	1.031	11.22	0.798	1.065	1.073	1.106	1.091	1.055				
	Dibenzo(ah)anthracene	A	0.845	11.68	0.646	0.889	0.882	0.903	0.893	0.857				
	Benzo(ghi)perylene	A	0.847	9.66	0.684	0.856	0.871	0.905	0.894	0.873				

Calibration Date: 71/1h/20

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Curve Fits: A - average RF fit
Q - quadratic fit
QO - quadratic fit, forced origin
L - linear fit
LO - linear fit, forced origin

Calibration (1): p120711h.M (Mean %RSD: 11.43)

GC/MS Initial Calibration Injection Log

Calibration: f:\gcms.dat\hades.6\methods\p120711h.m\

Injection Time	Calibration Data File
07/11/12 15:02	d11a.d
07/11/12 15:25	pna0005.d
07/11/12 16:23	pna_020.d
07/11/12 16:42	pna_040.d
07/11/12 17:01	pna_050.d
07/11/12 17:20	pna_060.d
07/11/12 17:39	pna_080.d
07/11/12 17:58	pna_100.d
07/17/12 10:59	d17a.d
07/17/12 11:50	icv17a.d

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d11a.d Vial: 1
Acq On : 11 Jul 12 3:02 pm Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 11:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

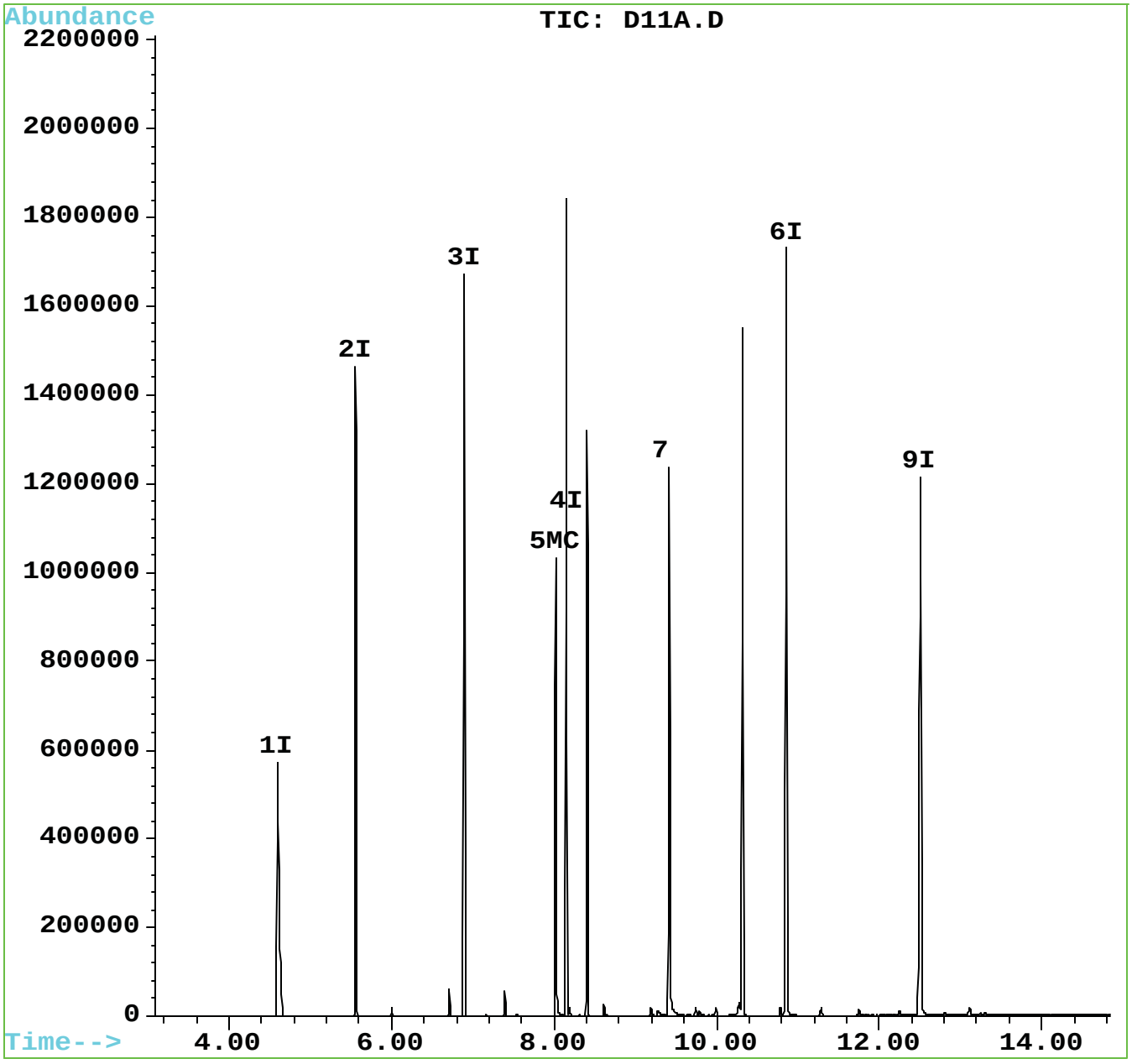
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	180364	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.56	136	646142	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	6.90	160	157761	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.16	188	665216	40.00	ng/ul	-0.0
6) CHRYSENE-D12	10.86	240	743367	40.00	ng/ul	-0.1
9) PERYLENE-D12	12.51	264	735374	40.00	ng/ul	-0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.02	266	108304	45.96	ng/ul	10
7) Benzidine	9.42	184	522196	66.26	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d11a.d Vial: 1
Acq On : 11 Jul 12 3:02 pm Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 11:03 19112

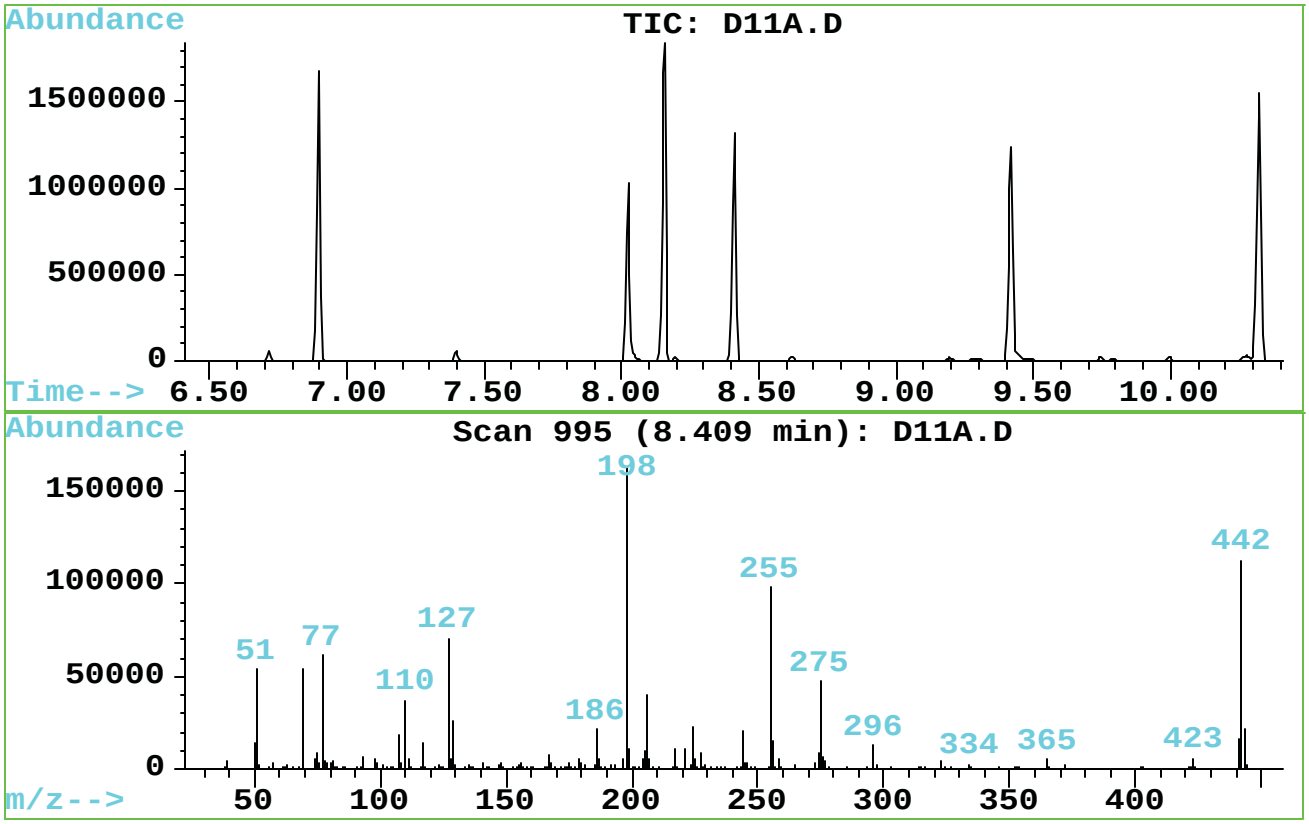
Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M\D11A.D Vial: 1
Acq On : 11 Jul 12 3:02 pm Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270



Peak Apex is scan: 995

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	32.8	53688	PASS
68	69	0	2	1.6	869	PASS
69	198	0	100	33.1	54144	PASS
70	69	0	2	0.5	284	PASS
127	198	25	75	43.0	70312	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	163584	PASS
199	198	5	9	6.9	11333	PASS
275	198	10	30	29.0	47488	PASS
365	198	1	100	3.2	5178	PASS
441	443	0	100	75.3	16632	PASS
442	198	40	110	68.8	112528	PASS
443	442	15	24	19.6	22096	PASS

D11A.D P120711H.M Fri Jul 20 12:21:55 2012

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna0005.d Vial: 2
Acq On : 11 Jul 12 3:25 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:29 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

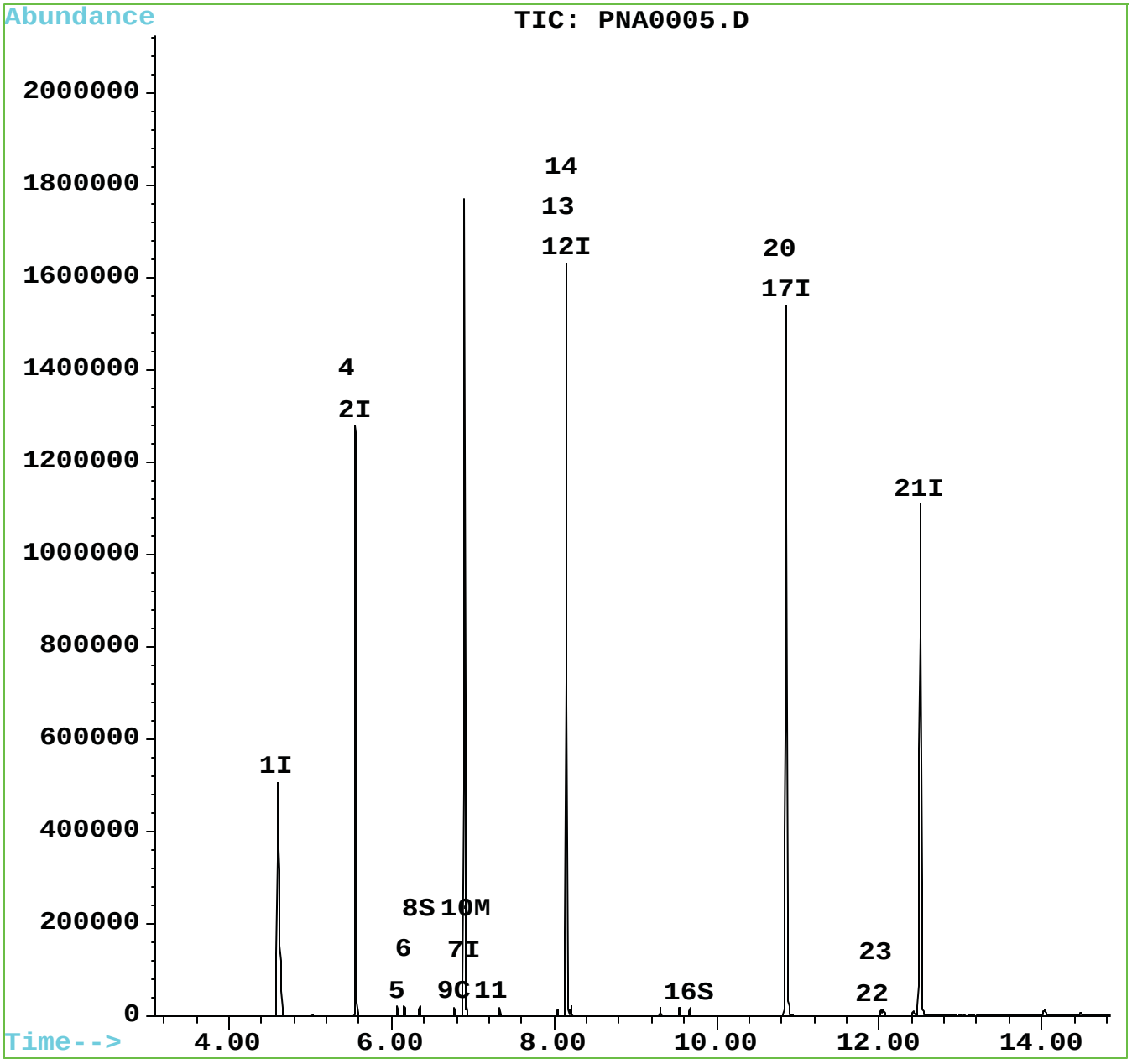
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	167893	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	585690	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	320029	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	584712	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	654856	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	640268	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	1551	1.38	ng/ul	1.3
8) 2-Fluorobiphenyl	6.35	172	5615	2.58	ng/ul	2.5
16) Terphenyl-D14	9.68	244	5566	2.85	ng/ul	2.8
Target Compounds						Qvalu
4) Naphthalene	5.57	128	8187	1.18	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	4211	0.56	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	5031	0.41	ng/ul	9
9) Acenaphthylene	6.78	152	6919	0.42	ng/ul	9
10) Acenaphthene **	6.92	154	4576	0.91	ng/ul	9
11) Fluorene	7.33	166	5292	0.53	ng/ul	9
13) Phenanthrene	8.17	178	8589	0.91	ng/ul	9
14) Anthracene	8.21	178	7623	0.83	ng/ul	9
20) Chrysene	10.89	228	8166	0.54	ng/ul	9
22) Benzo(b)fluoranthene	12.03	252	7262	0.64	ng/ul	9
23) Benzo(k)fluoranthene	12.06	252	6132	3.05	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna0005.d Vial: 2
Acq On : 11 Jul 12 3:25 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:29 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_020.d Vial: 5
Acq On : 11 Jul 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:30 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

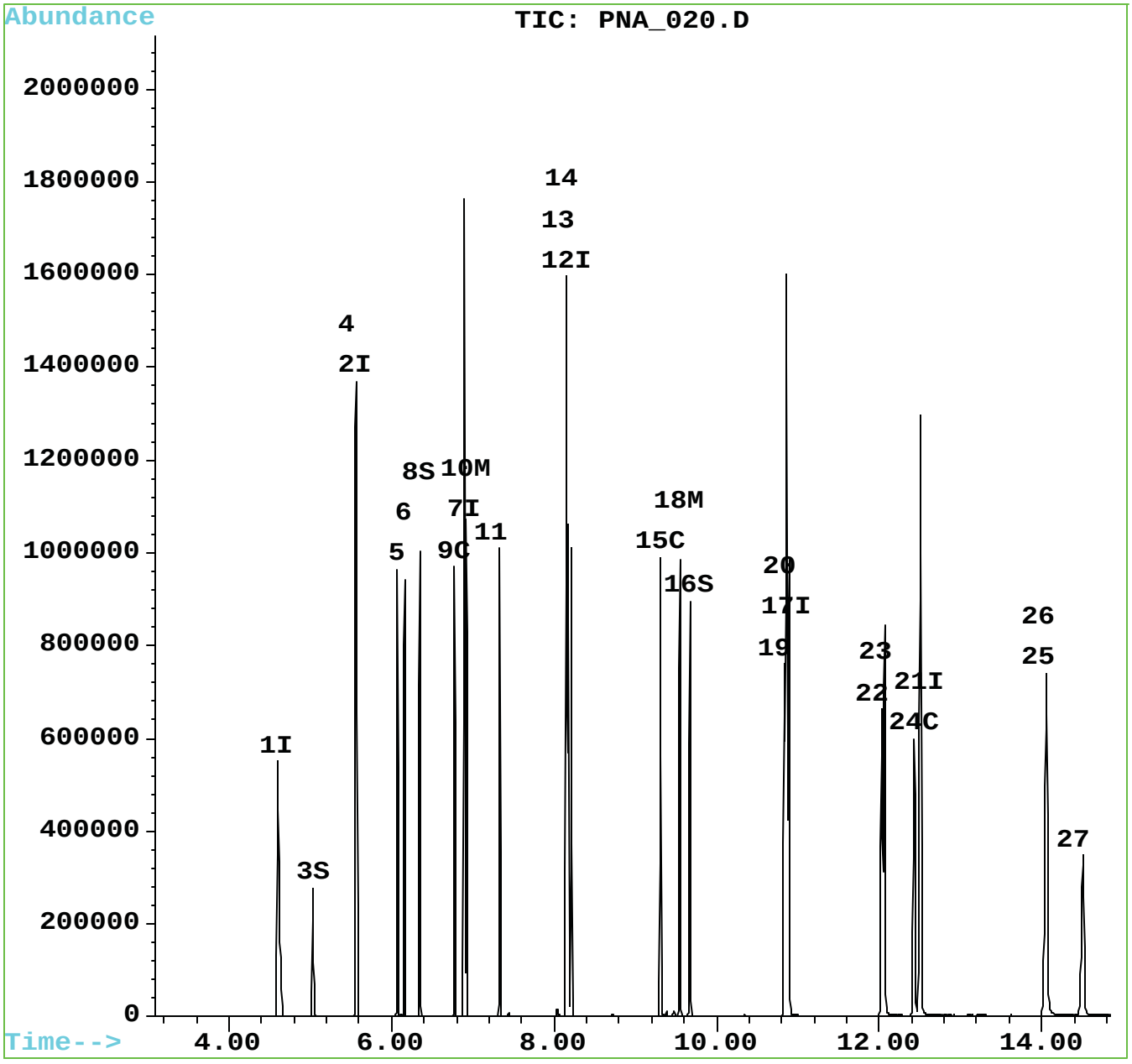
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	179514	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	625597	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	345525	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	637489	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	738717	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	737888	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	97591	87.45	ng/ul	87.4
8) 2-Fluorobiphenyl	6.35	172	237497	109.75	ng/ul	109.7
16) Terphenyl-D14	9.68	244	274634	143.06	ng/ul	143.0
Target Compounds						Qvalu
4) Naphthalene	5.57	128	314759	39.32	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	180085	24.29	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	209049	18.50	ng/ul	9
9) Acenaphthylene	6.78	152	329533	20.68	ng/ul	9
10) Acenaphthene **	6.92	154	193214	46.50	ng/ul	9
11) Fluorene	7.33	166	236167	24.11	ng/ul	9
13) Phenanthrene	8.17	178	346029	51.56	ng/ul	9
14) Anthracene	8.22	178	353676	41.12	ng/ul	9
15) Fluoranthene	9.31	202	387390	18.85	ng/ul	9
18) Pyrene **	9.55	202	396069	10.61	ng/ul	9
19) Benzo(a)anthracene	10.84	228	375636	9.76	ng/ul	10
20) Chrysene	10.89	228	365358	20.96	ng/ul	9
22) Benzo(b)fluoranthene	12.04	252	383440	27.37	ng/ul	9
23) Benzo(k)fluoranthene	12.07	252	363327	52.19	ng/ul	9
24) Benzo(a)pyrene	12.43	252	327129	16.10	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.06	276	392895	16.98	ng/ul	9
26) Dibenzo(ah)anthracene	14.06	278	327993	19.94	ng/ul	9
27) Benzo(ghi)perylene	14.51	276	315819	12.52	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_020.d Vial: 5
Acq On : 11 Jul 12 4:23 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:30 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_040.d Vial: 6
Acq On : 11 Jul 12 4:42 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:37 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

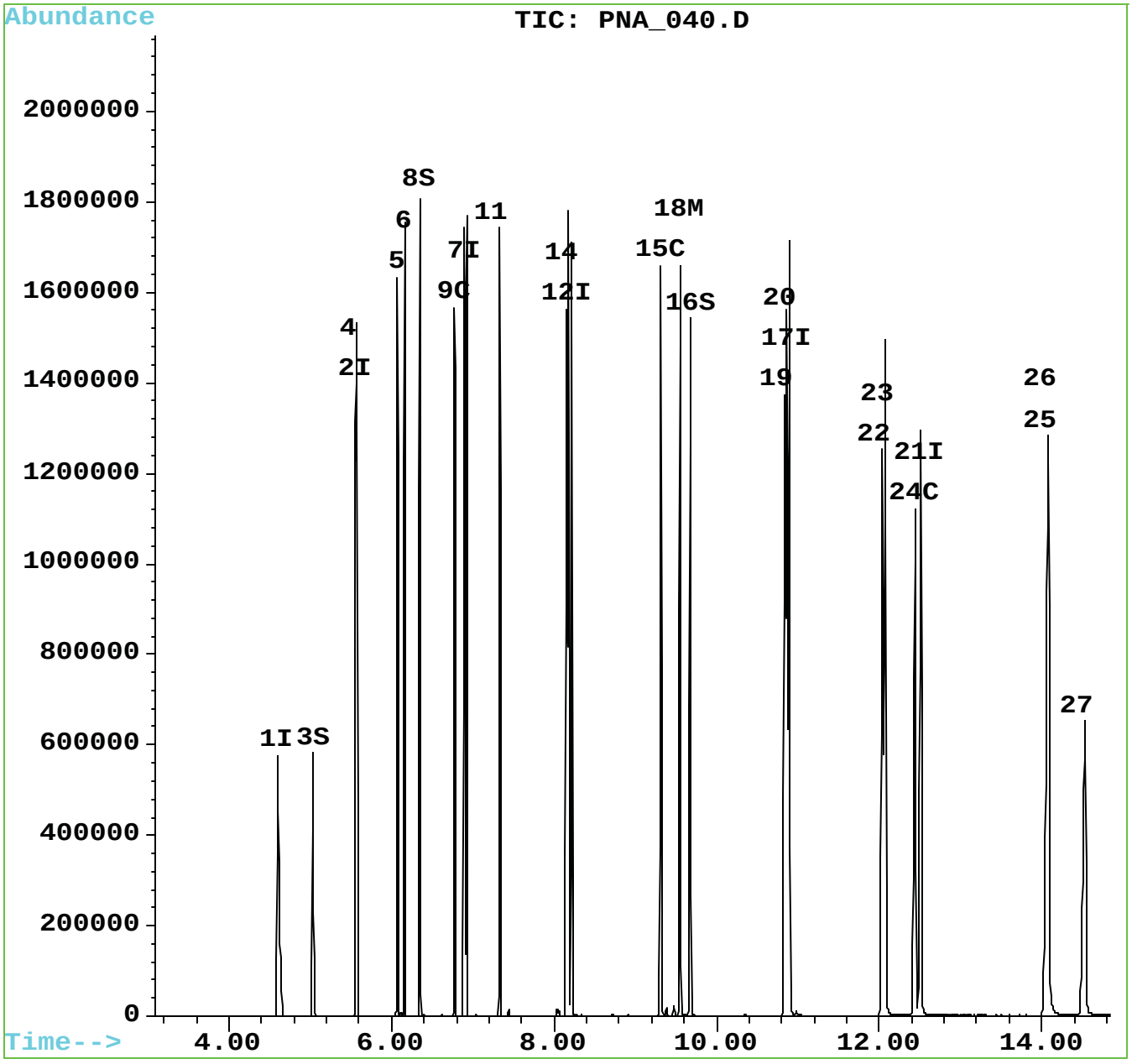
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	180899	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	625015	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	349682	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	653319	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	753262	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	753247	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	203308	200.34	ng/ul	200.3
8) 2-Fluorobiphenyl	6.35	172	435936	230.54	ng/ul	230.5
16) Terphenyl-D14	9.68	244	526429	281.30	ng/ul	281.3
Target Compounds						Qvalu
4) Naphthalene	5.57	128	580507	64.07	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	332731	47.27	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	378443	47.58	ng/ul	9
9) Acenaphthylene	6.78	152	602061	44.69	ng/ul	9
11) Fluorene	7.33	166	434962	45.64	ng/ul	9
14) Anthracene	8.22	178	646398	64.29	ng/ul	9
15) Fluoranthene	9.32	202	727431	42.37	ng/ul	9
18) Pyrene **	9.55	202	739135	20.09	ng/ul	9
19) Benzo(a)anthracene	10.84	228	725119	19.49	ng/ul	9
20) Chrysene	10.90	228	688281	37.16	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	736498	49.83	ng/ulm	9
23) Benzo(k)fluoranthene	12.08	252	736833	78.49	ng/ulm	9
24) Benzo(a)pyrene	12.44	252	657785	33.65	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.08	276	808345	35.60	ng/ul	9
26) Dibenzo(ah)anthracene	14.08	278	664101	40.75	ng/ul	9
27) Benzo(ghi)perylene	14.54	276	655777	26.67	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_040.d Vial: 6
Acq On : 11 Jul 12 4:42 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:37 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_050.d Vial: 7
Acq On : 11 Jul 12 5:01 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:42 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

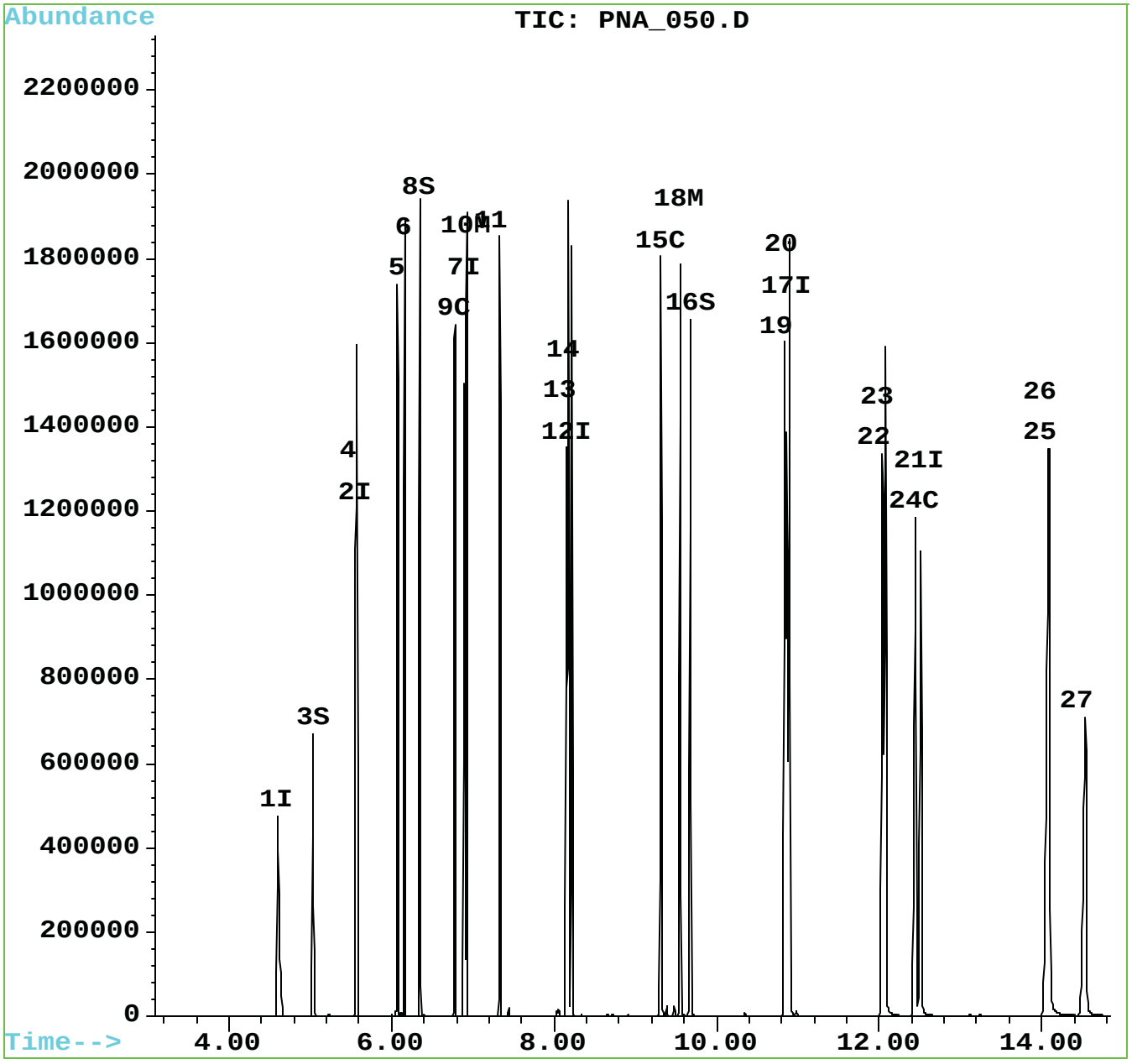
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	153619	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	539516	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	304280	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	557660	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	641613	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	638155	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	230895	310.15	ng/ul	310.1
8) 2-Fluorobiphenyl	6.35	172	476809	311.46	ng/ul	311.4
16) Terphenyl-D14	9.68	244	577490	321.58	ng/ul	321.5
Target Compounds						Qvalu
4) Naphthalene	5.58	128	641159	51.87	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	363951	52.93	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	415005	52.51	ng/ul	9
9) Acenaphthylene	6.78	152	665124	53.33	ng/ul	9
10) Acenaphthene **	6.93	154	380449	51.97	ng/ul	9
11) Fluorene	7.33	166	477240	52.69	ng/ul	9
13) Phenanthrene	8.18	178	697832	53.35	ng/ul	9
14) Anthracene	8.22	178	707428	53.18	ng/ul	9
15) Fluoranthene	9.32	202	797823	53.84	ng/ul	9
18) Pyrene **	9.55	202	812889	53.63	ng/ul	9
19) Benzo(a)anthracene	10.84	228	795381	53.43	ng/ul	9
20) Chrysene	10.90	228	757519	52.77	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	855353	55.59	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	781592	54.19	ng/ul	9
24) Benzo(a)pyrene	12.45	252	727335	54.68	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.09	276	908697	55.22	ng/ul	9
26) Dibenzo(ah)anthracene	14.09	278	742338	55.07	ng/ul	9
27) Benzo(ghi)perylene	14.54	276	739738	54.74	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_050.d Vial: 7
Acq On : 11 Jul 12 5:01 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:42 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_060.d Vial: 8
Acq On : 11 Jul 12 5:20 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:38 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

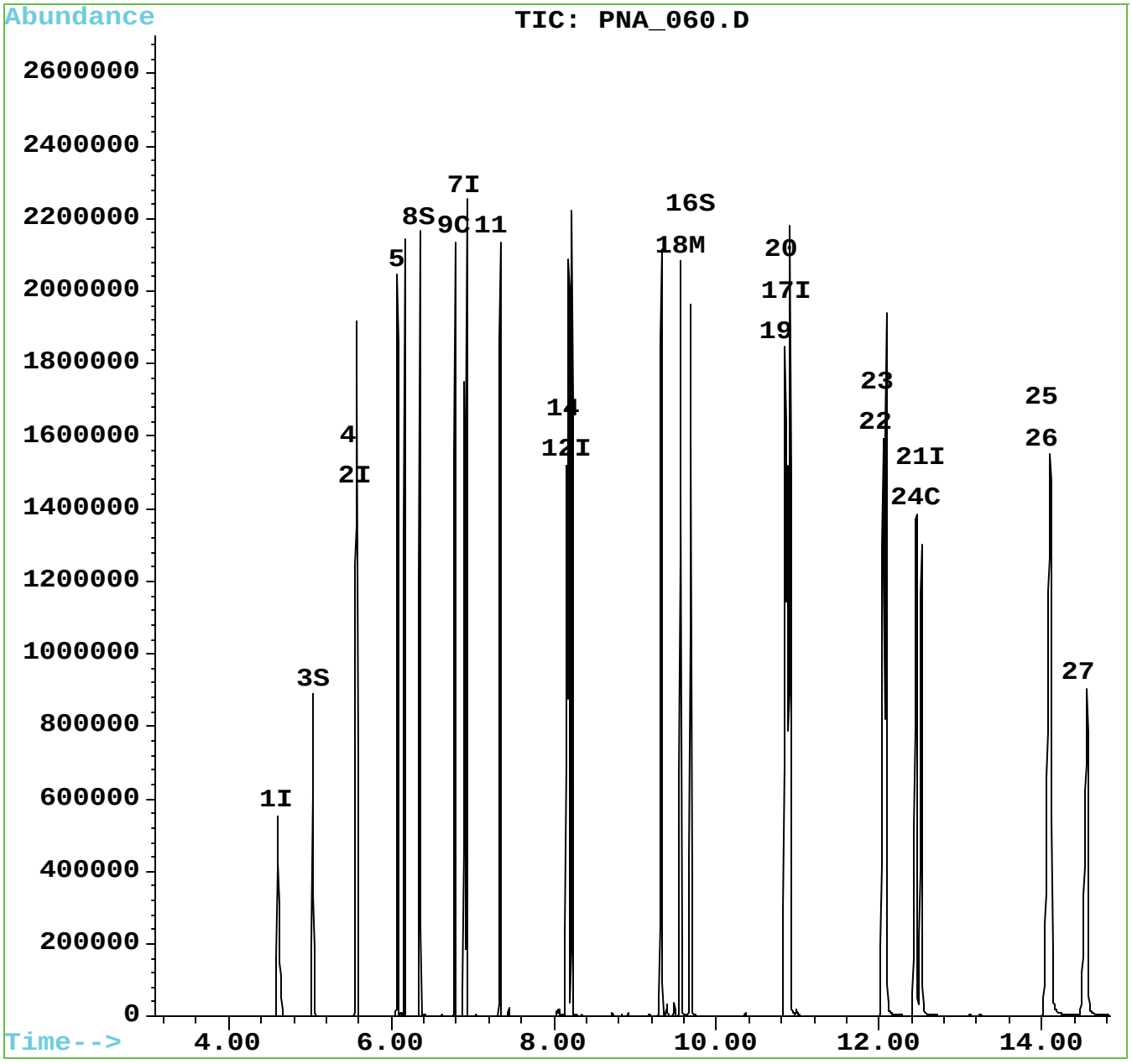
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	174561	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	606835	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	339373	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	628640	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	727886	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	721705	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	308560	341.22	ng/ul	341.2
8) 2-Fluorobiphenyl	6.35	172	598732	383.98	ng/ul	383.9
16) Terphenyl-D14	9.69	244	735082	407.94	ng/ul	407.9
Target Compounds						Qvalu
4) Naphthalene	5.58	128	797524	81.13	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	450356	66.16	ng/ul	9
9) Acenaphthylene	6.78	152	828622	80.10	ng/ul	9
11) Fluorene	7.34	166	593392	64.22	ng/ul	9
14) Anthracene	8.22	178	865350	81.60	ng/ul	9
18) Pyrene **	9.56	202	1023313	32.20	ng/ul	9
19) Benzo(a)anthracene	10.85	228	1018399	32.54	ng/ul	9
20) Chrysene	10.91	228	955801	53.46	ng/ul	9
22) Benzo(b)fluoranthene	12.06	252	1078836	73.32	ng/ulm	9
23) Benzo(k)fluoranthene	12.09	252	1016207	88.91	ng/ulm	9
24) Benzo(a)pyrene	12.46	252	966111	52.79	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.12	276	1197735	56.02	ng/ul	9
26) Dibenzo(ah)anthracene	14.11	278	977732	61.72	ng/ul	9
27) Benzo(ghi)perylene	14.57	276	979468	44.26	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_060.d Vial: 8
Acq On : 11 Jul 12 5:20 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:38 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_080.d Vial: 9
Acq On : 11 Jul 12 5:39 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:39 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

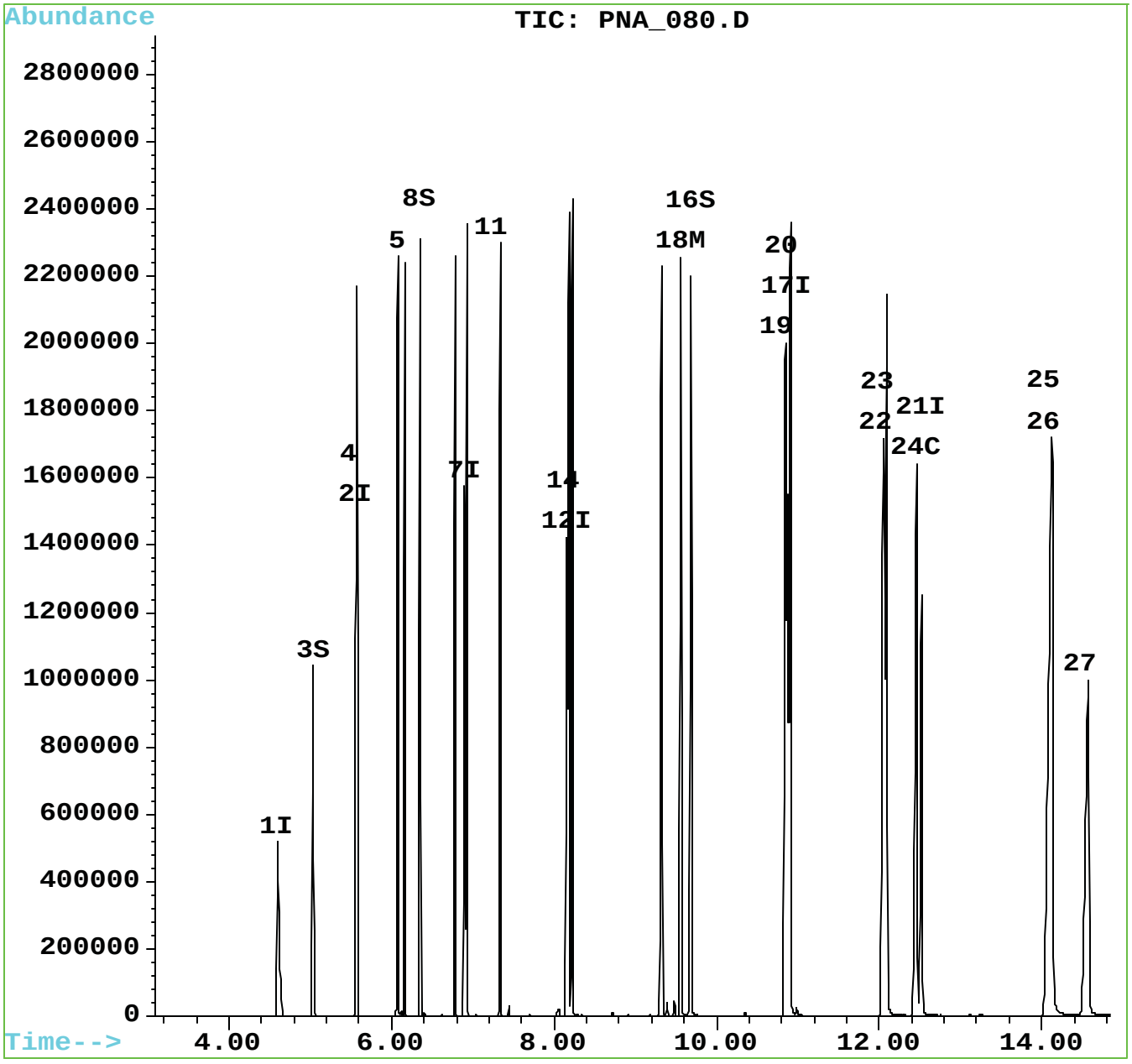
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	166585	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	574076	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	321323	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	586744	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	681358	40.00	ng/ul	0.0
21) PERYLENE-D12	12.52	264	676389	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	385154	499.78	ng/ul	499.7
8) 2-Fluorobiphenyl	6.35	172	694312	520.49	ng/ul	520.4
16) Terphenyl-D14	9.69	244	879821	513.59	ng/ul	513.5
Target Compounds						Qvalu
4) Naphthalene	5.58	128	939087	88.43	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	529937	79.64	ng/ul	9
11) Fluorene	7.34	166	691745	76.62	ng/ul	9
14) Anthracene	8.23	178	1025668	91.28	ng/ul	9
18) Pyrene **	9.56	202	1194405	49.96	ng/ul	9
19) Benzo(a)anthracene	10.85	228	1221410	53.48	ng/ul	9
20) Chrysene	10.91	228	1120434	68.08	ng/ul	9
22) Benzo(b)fluoranthene	12.06	252	1332116	91.08	ng/ul	9
23) Benzo(k)fluoranthene	12.09	252	1184191	84.63	ng/ulm	9
24) Benzo(a)pyrene	12.46	252	1168944	68.24	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.13	276	1475374	72.84	ng/ul	9
26) Dibenzo(ah)anthracene	14.12	278	1207681	77.27	ng/ul	9
27) Benzo(ghi)perylene	14.58	276	1209765	60.96	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_080.d Vial: 9
Acq On : 11 Jul 12 5:39 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:39 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_100.d Vial: 10
Acq On : 11 Jul 12 5:58 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:40 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

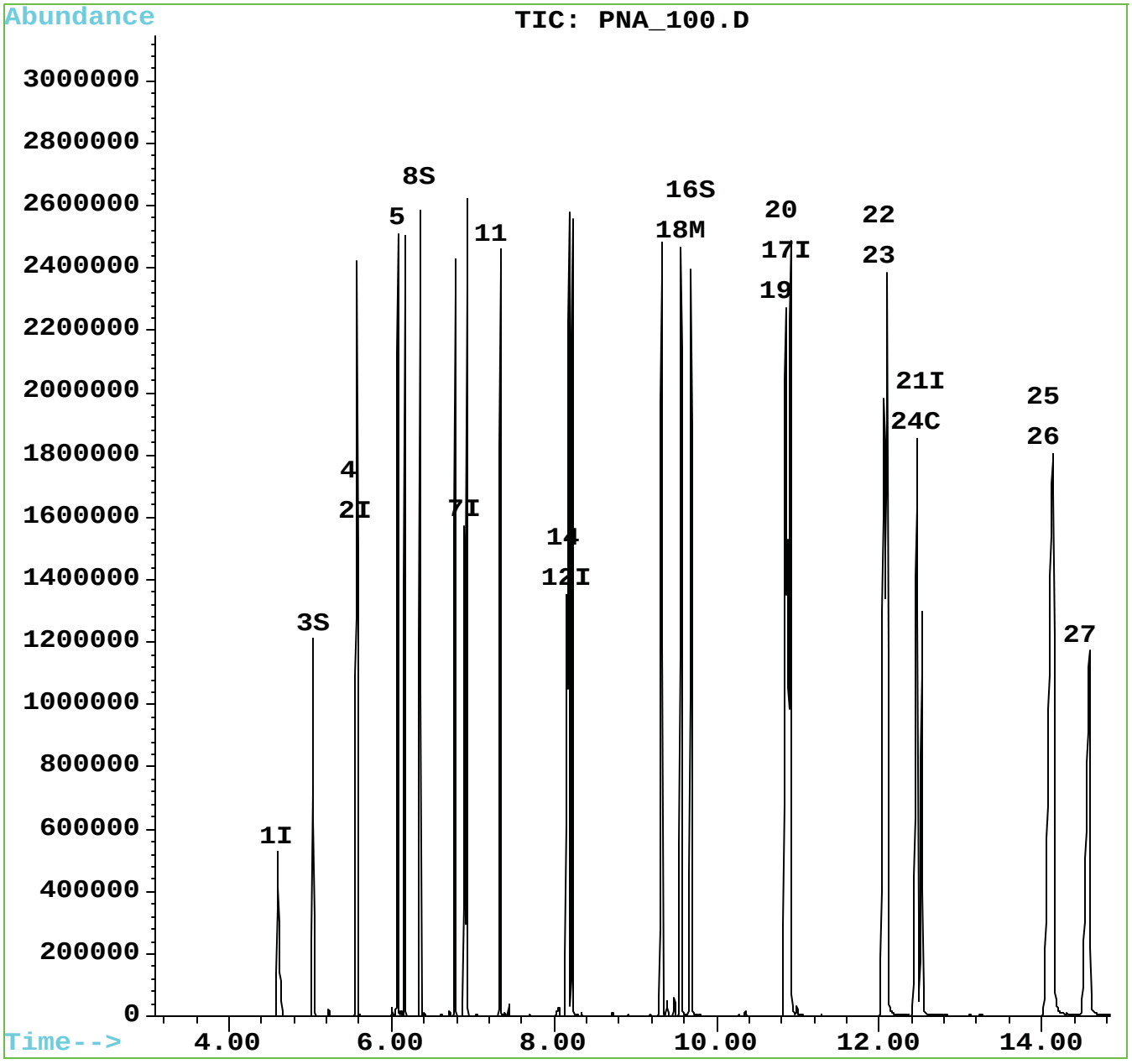
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	165660	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	571498	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.90	164	327462	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	607148	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.87	240	698098	40.00	ng/ul	0.0
21) PERYLENE-D12	12.53	264	695501	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.04	82	467663	631.36	ng/ul	631.3
8) 2-Fluorobiphenyl	6.35	172	788648	608.98	ng/ul	608.9
16) Terphenyl-D14	9.69	244	1030434	557.31	ng/ul	557.3
Target Compounds						Qvalu
4) Naphthalene	5.58	128	1073420	90.65	ng/ul	9
5) 2-Methylnaphthalene	6.08	141	598746	86.30	ng/ul	9
11) Fluorene	7.34	166	792591	82.85	ng/ul	9
14) Anthracene	8.23	178	1201048	91.31	ng/ul	9
18) Pyrene **	9.56	202	1431447	69.73	ng/ul	9
19) Benzo(a)anthracene	10.85	228	1468215	70.12	ng/ul	9
20) Chrysene	10.91	228	1345876	82.13	ng/ul	9
22) Benzo(b)fluoranthene	12.10	252	3064676	157.24	ng/ulm	9
23) Benzo(k)fluoranthene	12.10	252	3064612	160.01	ng/ulm	9
24) Benzo(a)pyrene	12.47	252	1438597	85.95	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.15	276	1835170	91.46	ng/ul	9
26) Dibenzo(ah)anthracene	14.14	278	1489641	93.47	ng/ul	9
27) Benzo(ghi)perylene	14.59	276	1517491	82.16	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\pna_100.d Vial: 10
Acq On : 11 Jul 12 5:58 pm Operator: PL
Sample : pna std (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 12 10:40 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d17a.d Vial: 1
Acq On : 17 Jul 12 10:59 am Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 11:43 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

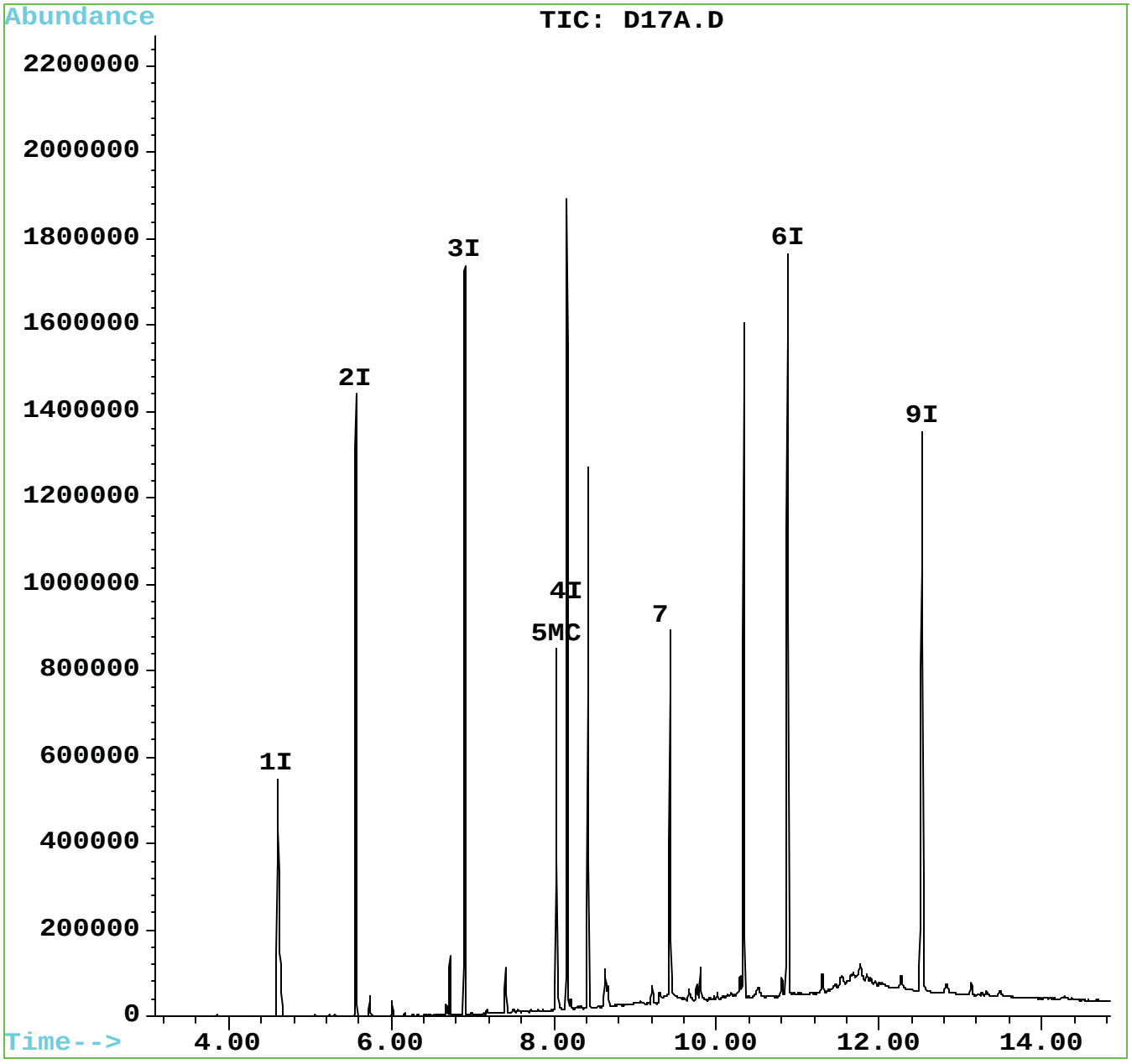
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	176282	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.56	136	651929	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	6.91	160	154362	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.16	188	655850	40.00	ng/ul	-0.0
6) CHRYSENE-D12	10.88	240	736544	40.00	ng/ul	-0.0
9) PERYLENE-D12	12.53	264	758943	40.00	ng/ul	-0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.03	266	92473	39.80	ng/ul	9
7) Benzidine	9.43	184	373860	47.88	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\d17a.d Vial: 1
Acq On : 17 Jul 12 10:59 am Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 11:43 19112

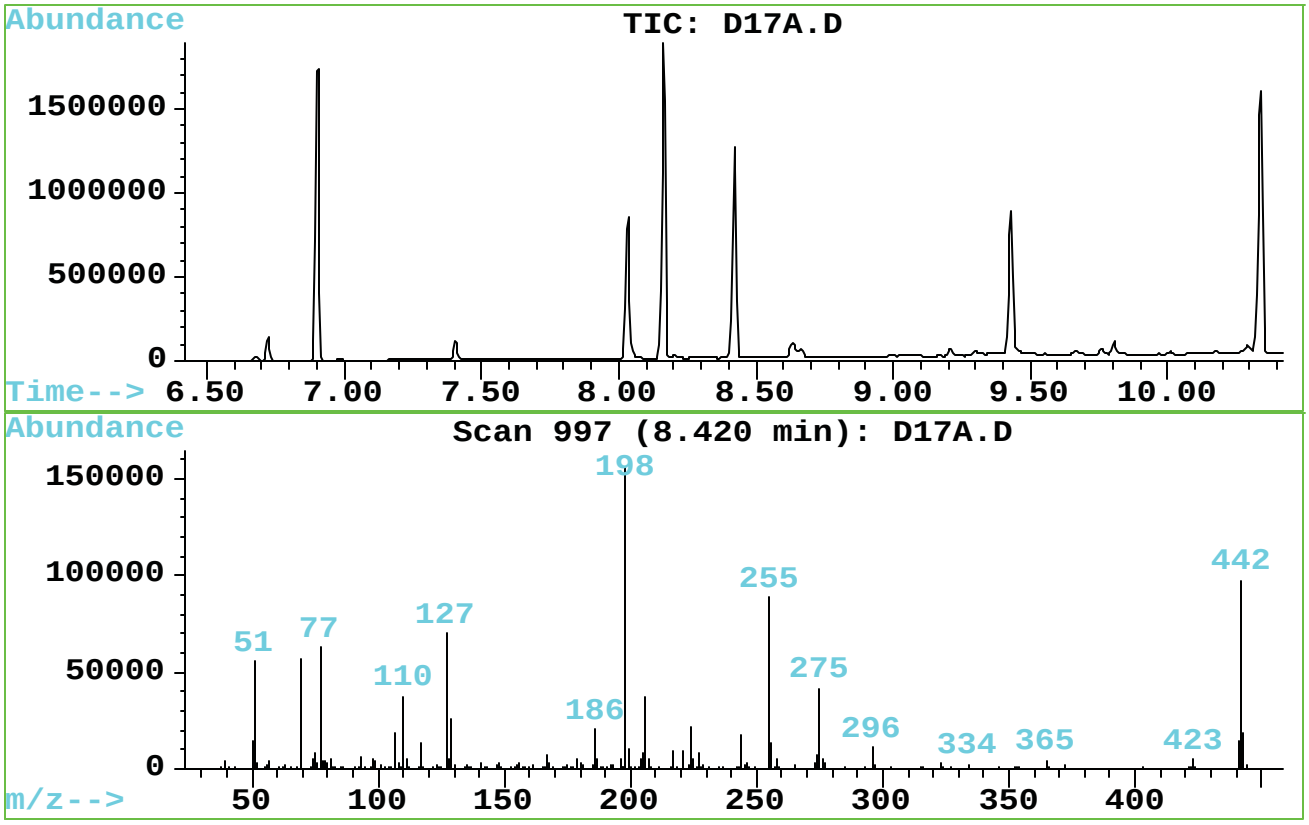
Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M\D17A.D Vial: 1
Acq On : 17 Jul 12 10:59 am Operator: PL
Sample : dftpp std (120621) Inst : Hades
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270



Peak Apex is scan: 997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	35.6	55840	PASS
68	69	0	2	1.8	1014	PASS
69	198	0	100	36.4	57096	PASS
70	69	0	2	0.7	411	PASS
127	198	25	75	44.9	70336	PASS
197	198	0	1	0.9	1403	PASS
198	198	100	100	100.0	156736	PASS
199	198	5	9	6.9	10793	PASS
275	198	10	30	26.5	41584	PASS
365	198	1	100	2.9	4510	PASS
441	443	0	100	75.0	14360	PASS
442	198	40	110	62.2	97480	PASS
443	442	15	24	19.6	19136	PASS

D17A.D P120711H.M Fri Jul 20 12:22:32 2012

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\icv17a.d Vial: 3
Acq On : 17 Jul 12 11:50 am Operator: PL
Sample : pna std 50 (PP120706) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 12:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

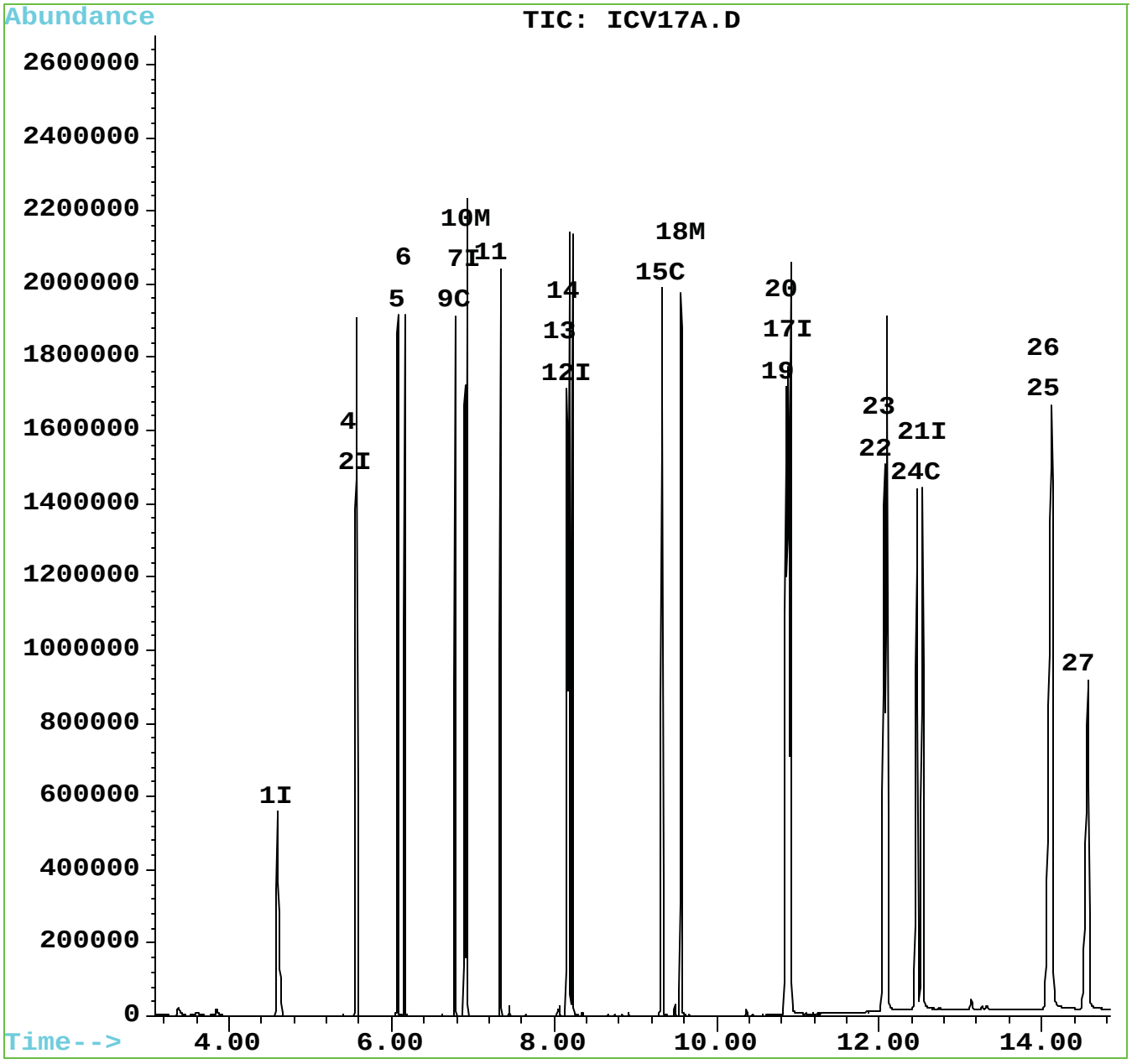
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	186116	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.56	136	681061	40.00	ng/ul	0.0
7) ACENAPHTHALENE-D10	6.91	164	370436	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.16	188	713547	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.89	240	805661	40.00	ng/ul	0.0
21) PERYLENE-D12	12.54	264	820048	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	0.00	82	0	0.00	ng/ul	0.0
8) 2-Fluorobiphenyl	0.00	172	0	0.00	ng/ul	0.0
16) Terphenyl-D14	9.69	244	266	0.12	ng/ul	0.1
Target Compounds						Qvalu
4) Naphthalene	5.57	128	752155	48.20	ng/ul	10
5) 2-Methylnaphthalene	6.08	141	421150	48.52	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	455716	45.68	ng/ul	9
9) Acenaphthylene	6.79	152	765302	50.40	ng/ul	10
10) Acenaphthene **	6.93	154	444334	49.28	ng/ul	10
11) Fluorene	7.34	166	549789	49.86	ng/ul	9
13) Phenanthrene	8.19	178	804813	46.97	ng/ul	10
14) Anthracene	8.23	178	815637	47.92	ng/ul	10
15) Fluoranthene	9.33	202	917489	48.38	ng/ul	10
18) Pyrene **	9.56	202	937842	49.28	ng/ul	9
19) Benzo(a)anthracene	10.86	228	962683	51.51	ng/ul	10
20) Chrysene	10.92	228	896556	49.74	ng/ul	10
22) Benzo(b)fluoranthene	12.07	252	1082261	54.73	ng/ul	9
23) Benzo(k)fluoranthene	12.10	252	874452	47.18	ng/ul	9
24) Benzo(a)pyrene	12.47	252	907883	53.12	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.13	276	1184013	55.99	ng/ul	9
26) Dibenzo(ah)anthracene	14.13	278	966931	55.82	ng/ul	9
27) Benzo(ghi)perylene	14.58	276	972163	55.99	ng/ul	10

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\methods\p120711h.m\icv17a.d Vial: 3
Acq On : 17 Jul 12 11:50 am Operator: PL
Sample : pna std 50 (PP120706) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Jul 17 12:03 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Initial Calibration Date: (see Form 6)

Analytical Batch: h120814.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spnn14a.d	08/14/12 13:57	Acenaphthylene	1.767	0.30
		Benzo(b)fluoranthene	1.087	0.30
		Naphthalene	0.934	0.30
		Phenanthrene	0.978	0.30

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.05.Hades
Initial Calibration Date: (see Form 6)

Analytical Batch: h120814.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spnn14a.d	08/14/12 13:57	1-methylnaphthalene	52.6/ 50.0	5.2/ 20.0
		2-Methylnaphthalene	53.5/ 50.0	7.0/ 20.0
		Acenaphthene	51.6/ 50.0	3.1/ 20.0
		Acenaphthylene	53.9/ 50.0	7.7/ 20.0
		Anthracene	52.3/ 50.0	4.5/ 20.0
		Benzo(a)anthracene	54.9/ 50.0	9.7/ 20.0
		Benzo(a)pyrene	55.2/ 50.0	10.3/ 20.0
		Benzo(b)fluoranthene	56.3/ 50.0	12.7/ 20.0
		Benzo(ghi)perylene	53.6/ 50.0	7.2/ 20.0
		Benzo(k)fluoranthene	53.6/ 50.0	7.1/ 20.0
		Chrysene	53.1/ 50.0	6.3/ 20.0
		Dibenzo(ah)anthracene	53.9/ 50.0	7.7/ 20.0
		Fluorene	53.9/ 50.0	7.9/ 20.0
		Fluoranthene	55.6/ 50.0	11.1/ 20.0
		Indeno(1,2,3-cd)pyrene	53.8/ 50.0	7.6/ 20.0
		Naphthalene	51.0/ 50.0	1.9/ 20.0
		Phenanthrene	51.8/ 50.0	3.6/ 20.0
		Pyrene	53.0/ 50.0	5.9/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\spnn14a.d Vial: 2
Acq On : 14 Aug 12 1:57 pm Operator: PL
Sample : pna std 50 (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Aug 14 14:11 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

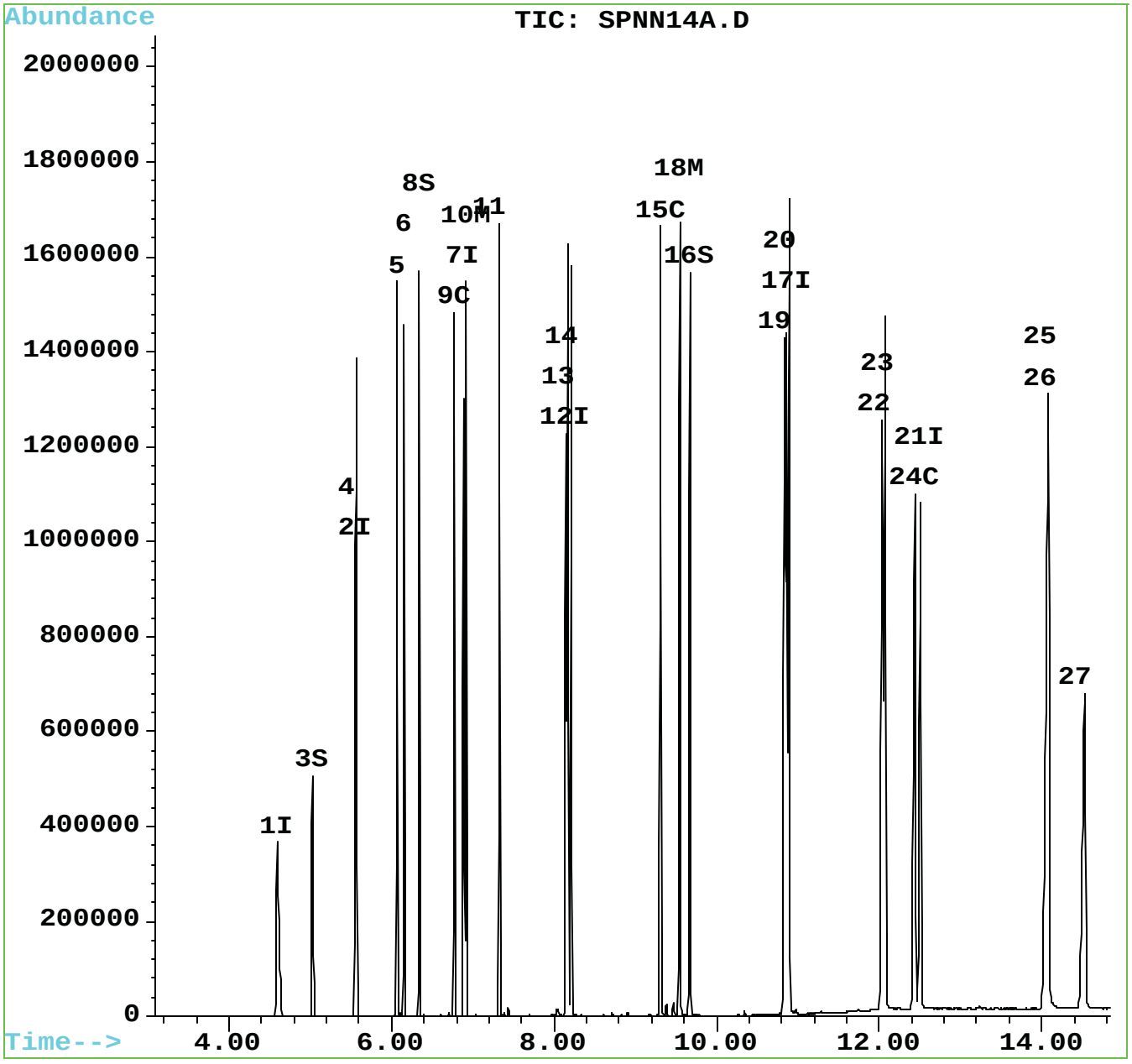
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	145498	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	486777	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	279283	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	538574	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.86	240	641021	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	641430	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	199515	297.03	ng/ul	297.0
8) 2-Fluorobiphenyl	6.34	172	450400	320.54	ng/ul	320.5
16) Terphenyl-D14	9.68	244	582728	336.00	ng/ul	336.0
Target Compounds						Qvalu
4) Naphthalene	5.57	128	568455	50.97	ng/ul	10
5) 2-Methylnaphthalene	6.07	141	331921	53.50	ng/ul	9
6) 1-Methylnaphthalene	6.16	142	374913	52.58	ng/ul	9
9) Acenaphthylene	6.77	152	616591	53.86	ng/ul	9
10) Acenaphthene **	6.92	154	347002	51.55	ng/ul	9
11) Fluorene	7.33	166	448384	53.94	ng/ul	10
13) Phenanthrene	8.17	178	657970	51.78	ng/ul	9
14) Anthracene	8.21	178	671583	52.27	ng/ul	9
15) Fluoranthene	9.31	202	795097	55.55	ng/ul	9
18) Pyrene **	9.55	202	802013	52.97	ng/ul	9
19) Benzo(a)anthracene	10.84	228	816025	54.87	ng/ul	9
20) Chrysene	10.90	228	761864	53.13	ng/ul	9
22) Benzo(b)fluoranthene	12.04	252	871406	56.34	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	776695	53.57	ng/ul	9
24) Benzo(a)pyrene	12.44	252	737268	55.15	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.09	276	890089	53.81	ng/ul	9
26) Dibenzo(ah)anthracene	14.08	278	729929	53.87	ng/ul	9
27) Benzo(ghi)perylene	14.53	276	728240	53.62	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\spnn14a.d Vial: 2
Acq On : 14 Aug 12 1:57 pm Operator: PL
Sample : pna std 50 (120314) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Aug 14 14:11 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\d14c.d Vial: 1
Acq On : 14 Aug 12 1:38 pm Operator: PL
Sample : dftpp std (120801) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Aug 15 11:35 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

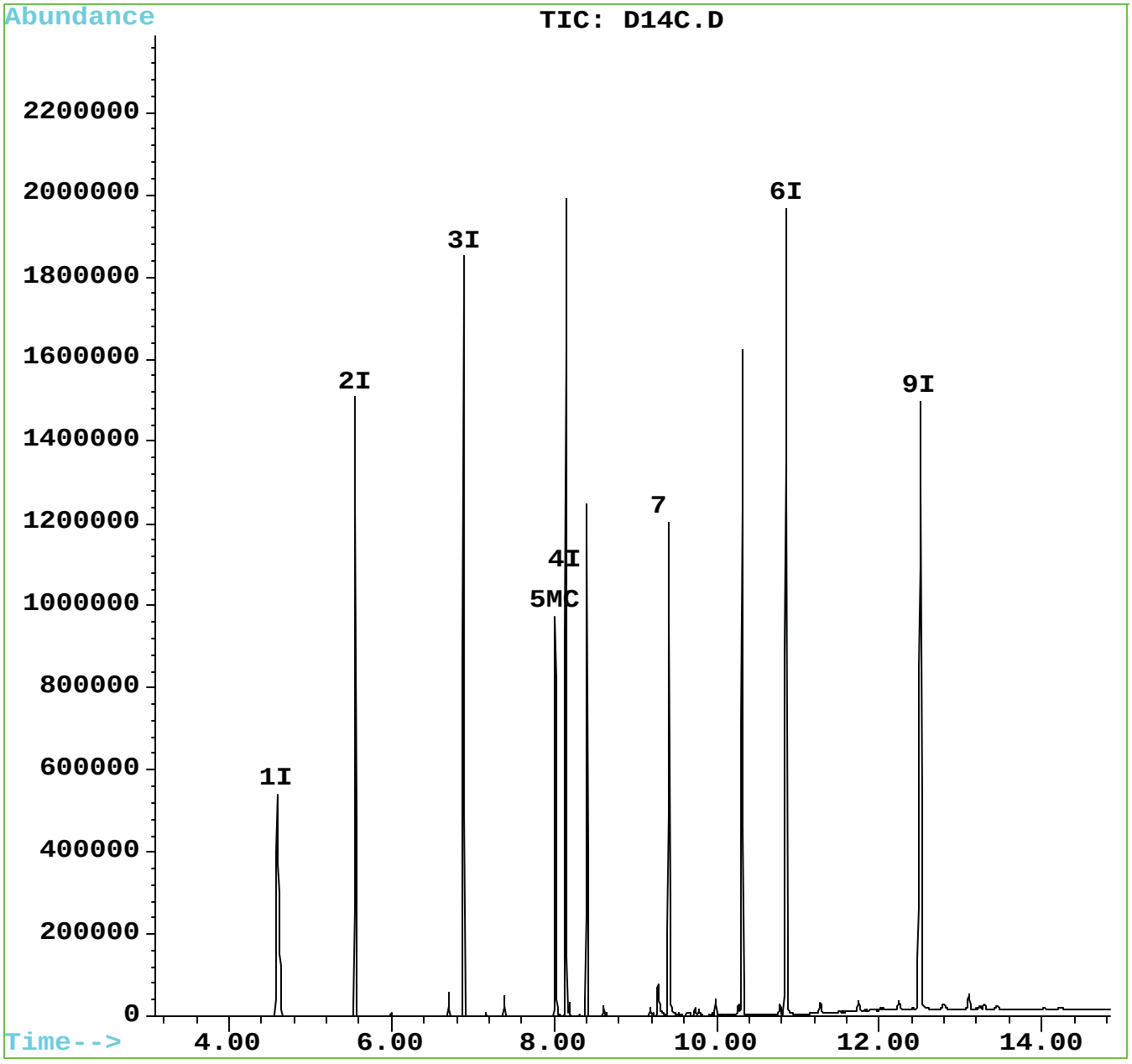
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	215818	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.55	136	743737	40.00	ng/ul	-0.0
3) ACENAPHTHALENE-D10	6.90	160	176991	40.00	ng/ul	-0.0
4) PHENANTHRENE-D10	8.15	188	823622	40.00	ng/ul	-0.0
6) CHRYSENE-D12	10.86	240	992396	40.00	ng/ul	-0.1
9) PERYLENE-D12	12.51	264	999852	40.00	ng/ul	-0.1
System Monitoring Compounds						%Recover
Target Compounds						Qvalu
5) Pentachlorophenol **	8.02	266	128952	44.19	ng/ul	9
7) Benzidine	9.41	184	591401	56.21	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\d14c.d Vial: 1
Acq On : 14 Aug 12 1:38 pm Operator: PL
Sample : dftpp std (120801) Inst : Hades
Misc : w/1 Multiplr: 6.00
Quant Time: Aug 15 11:35 19112

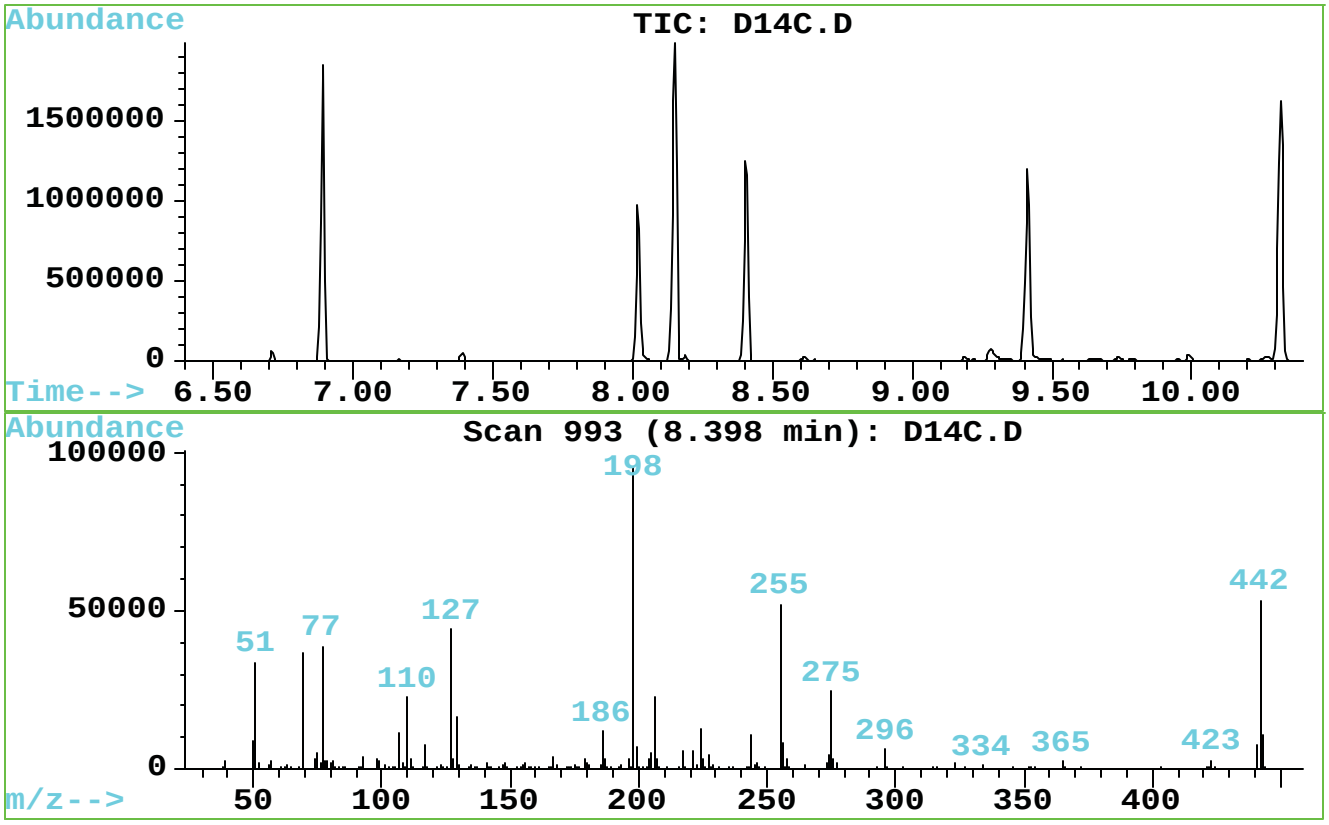
Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



DFTPP

Data File : F:\GCMS.DAT\HADES.6\DATA\H120814\D14C.D Vial: 1
Acq On : 14 Aug 12 1:38 pm Operator: PL
Sample : dftpp std (120801) Inst : Hades
Misc : w/1 Multiplr: 1.00

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270



Peak Apex is scan: 993

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	35.3	33792	PASS
68	69	0	2	2.0	722	PASS
69	198	0	100	38.1	36416	PASS
70	69	0	2	0.5	183	PASS
127	198	25	75	46.0	43968	PASS
197	198	0	1	0.7	701	PASS
198	198	100	100	100.0	95624	PASS
199	198	5	9	7.1	6812	PASS
275	198	10	30	25.5	24360	PASS
365	198	1	100	2.4	2330	PASS
441	443	0	100	73.2	7802	PASS
442	198	40	110	55.6	53160	PASS
443	442	15	24	20.1	10662	PASS

D14C.D P120711H.M Wed Aug 15 11:50:38 2012

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\blkw14a.d Vial: 3
Acq On : 14 Aug 12 2:22 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 10:55 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

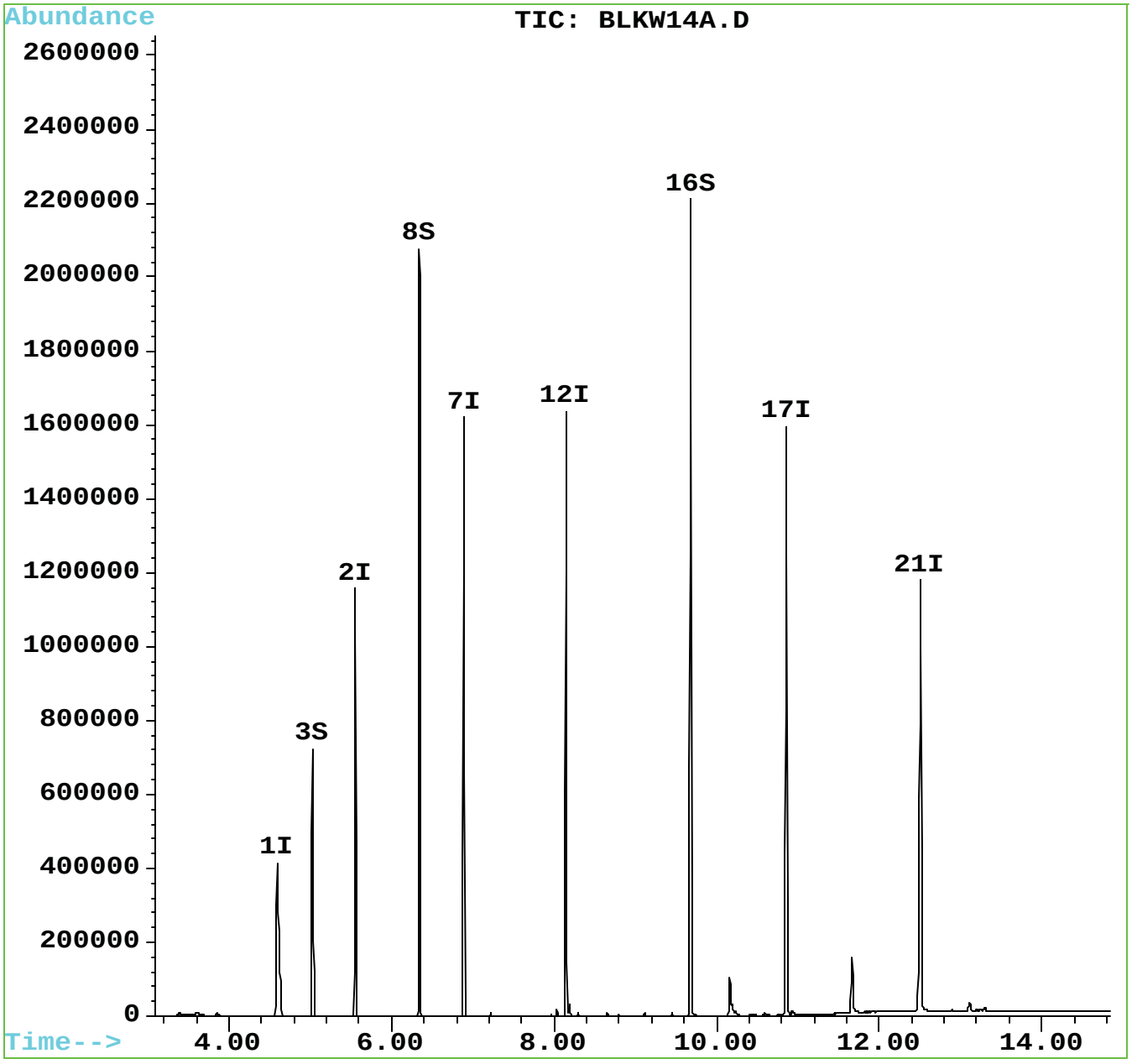
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.60	152	165918	40.00	ng/ul	0.0
2) NAPHTHALENE-D8	5.55	136	578152	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.90	164	318682	40.00	ng/ul	0.0
12) PHENANTHRENE-D10	8.15	188	627896	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	743826	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	723325	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	299688	375.65	ng/ul	375.6
8) 2-Fluorobiphenyl	6.35	172	653756	407.75	ng/ul	407.7
16) Terphenyl-D14	9.69	244	991076	490.16	ng/ul	490.1
Target Compounds						Qvalu

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\blkw14a.d Vial: 3
Acq On : 14 Aug 12 2:22 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 10:55 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\lcsw14a.d Vial: 4
Acq On : 14 Aug 12 3:00 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 10:56 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

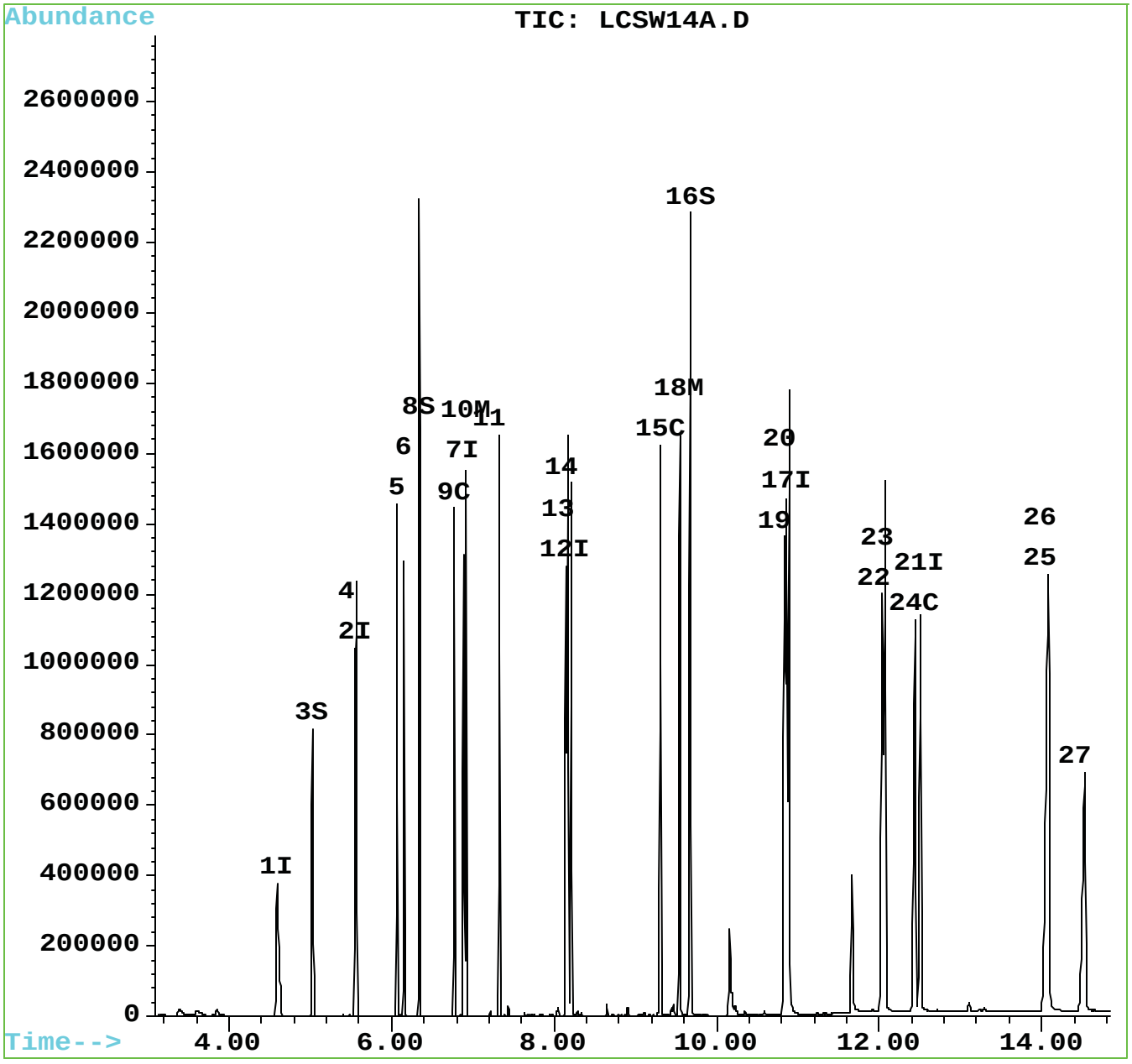
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	150224	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.55	136	527667	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	296688	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	595354	40.00	ng/ul	-0.0
17) CHRYSENE-D12	10.86	240	692465	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	686813	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	330839	454.38	ng/ul	454.3
8) 2-Fluorobiphenyl	6.34	172	704246	471.80	ng/ul	471.8
16) Terphenyl-D14	9.68	244	1068055	557.10	ng/ul	557.1
Target Compounds						Qvalu
4) Naphthalene	5.57	128	523494	43.30	ng/ul	10
5) 2-Methylnaphthalene	6.07	141	306021	45.51	ng/ul	9
6) 1-Methylnaphthalene	6.15	142	327396	42.36	ng/ul	9
9) Acenaphthylene	6.77	152	590165	48.53	ng/ul	9
10) Acenaphthene **	6.92	154	342175	46.91	ng/ul	9
11) Fluorene	7.33	166	434084	49.15	ng/ul	10
13) Phenanthrene	8.17	178	644447	44.71	ng/ul	9
14) Anthracene	8.22	178	661209	46.56	ng/ul	9
15) Fluoranthene	9.31	202	775987	49.05	ng/ul	9
18) Pyrene **	9.55	202	795405	48.63	ng/ul	9
19) Benzo(a)anthracene	10.84	228	827283	51.50	ng/ul	9
20) Chrysene	10.90	228	755578	48.77	ng/ul	9
22) Benzo(b)fluoranthene	12.05	252	863474	52.14	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	791914	51.01	ng/ul	9
24) Benzo(a)pyrene	12.44	252	756122	52.82	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.08	276	898917	50.76	ng/ul	9
26) Dibenzo(ah)anthracene	14.08	278	740206	51.02	ng/ul	9
27) Benzo(ghi)perylene	14.53	276	728522	50.09	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\lcsw14a.d Vial: 4
Acq On : 14 Aug 12 3:00 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 10:56 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\lcsdw14a.d Vial: 5
Acq On : 14 Aug 12 3:19 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 10:56 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration

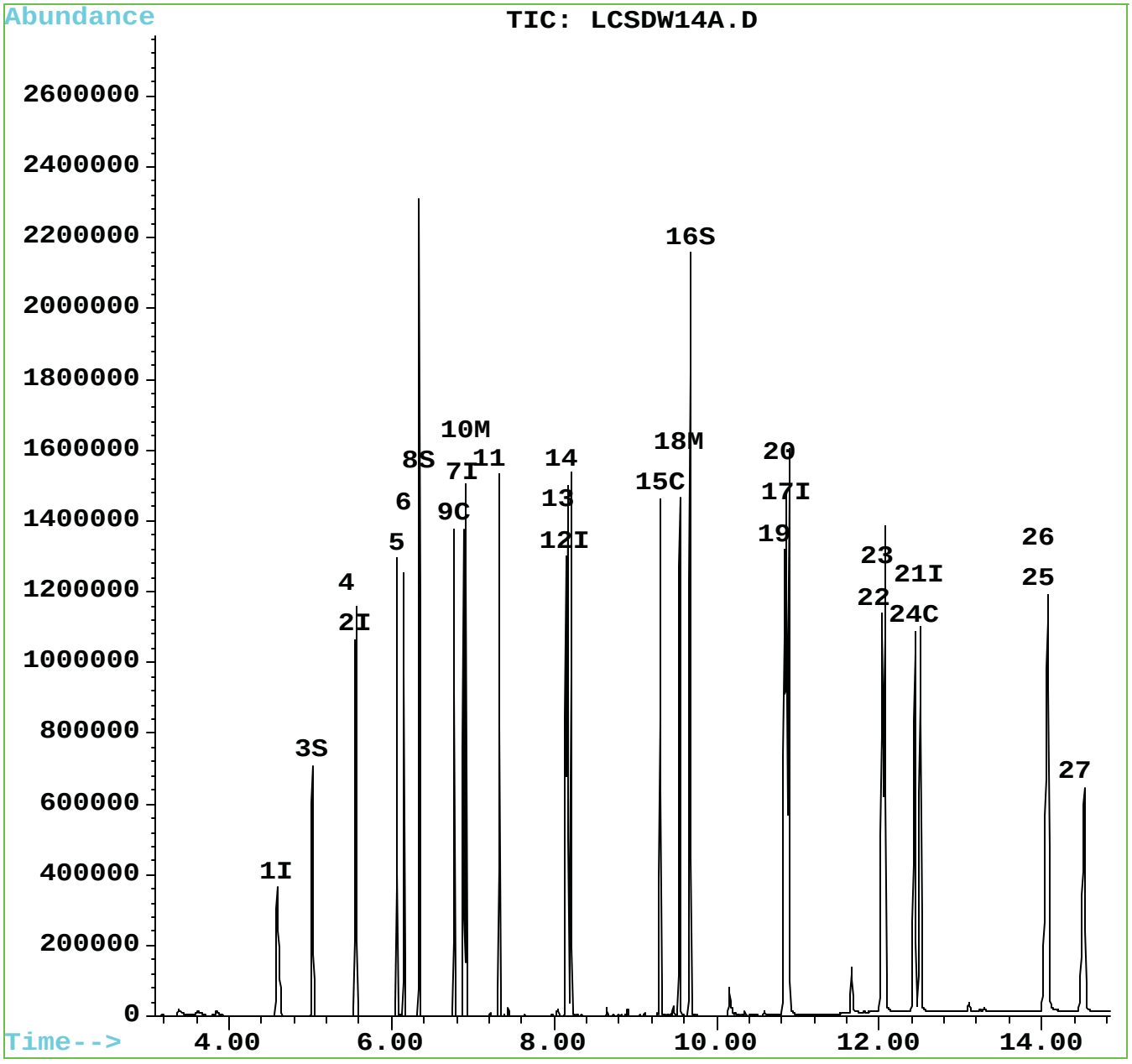
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Mi
1) 1,4-DICHLOROBENZENE-D4	4.59	152	148702	40.00	ng/ul	-0.0
2) NAPHTHALENE-D8	5.55	136	524952	40.00	ng/ul	-0.0
7) ACENAPHTHALENE-D10	6.89	164	297889	40.00	ng/ul	-0.0
12) PHENANTHRENE-D10	8.15	188	588960	40.00	ng/ul	0.0
17) CHRYSENE-D12	10.86	240	689883	40.00	ng/ul	0.0
21) PERYLENE-D12	12.51	264	690151	40.00	ng/ul	0.0
System Monitoring Compounds						%Recover
3) Nitrobenzene-d5	5.03	82	300131	414.34	ng/ul	414.3
8) 2-Fluorobiphenyl	6.34	172	659279	439.89	ng/ul	439.8
16) Terphenyl-D14	9.68	244	1000874	527.73	ng/ul	527.7
Target Compounds						Qvalu
4) Naphthalene	5.57	128	475199	39.51	ng/ul	9
5) 2-Methylnaphthalene	6.07	141	280398	41.91	ng/ul	9
6) 1-Methylnaphthalene	6.15	142	301633	39.23	ng/ul	9
9) Acenaphthylene	6.77	152	538223	44.08	ng/ul	9
10) Acenaphthene **	6.92	154	311386	41.58	ng/ul	9
11) Fluorene	7.33	166	399864	45.09	ng/ul	10
13) Phenanthrene	8.17	178	589390	40.76	ng/ul	9
14) Anthracene	8.21	178	604313	43.01	ng/ul	9
15) Fluoranthene	9.31	202	705217	45.06	ng/ul	9
18) Pyrene **	9.55	202	725451	44.52	ng/ul	9
19) Benzo(a)anthracene	10.84	228	748515	46.77	ng/ul	9
20) Chrysene	10.90	228	694272	44.98	ng/ul	9
22) Benzo(b)fluoranthene	12.04	252	801642	48.17	ng/ul	9
23) Benzo(k)fluoranthene	12.08	252	704403	45.16	ng/ul	9
24) Benzo(a)pyrene	12.44	252	680451	47.30	ng/ul	9
25) Indeno(1,2,3-cd)pyrene	14.08	276	808973	45.46	ng/ul	9
26) Dibenzo(ah)anthracene	14.08	278	666197	45.70	ng/ul	9
27) Benzo(ghi)perylene	14.53	276	653101	44.69	ng/ul	9

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : f:\gcms.dat\hades.6\data\h120814\lcsdw14a.d Vial: 5
Acq On : 14 Aug 12 3:19 pm Operator: PL
Sample : pna-w 1000ml/1ml df:1 Inst : Hades
Misc : w/1; id:sp120813w01 Multiplr: 6.00
Quant Time: Aug 15 10:56 19112

Method : F:\GCMS.DAT\HADES.6\METHODS\P120711H.M
Title : BNA 8270
Last Update : Thu Jul 12 10:43:14 2012
Response via : Multiple Level Calibration



Form 0: Sequence Log

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001SMPL.D#	Aug 16 2012 02:28 pm	Blank	Liquid	
002SMPL.D#	Aug 16 2012 02:31 pm	0.00	Liquid	
003SMPL.D#	Aug 16 2012 02:35 pm	0.0001	Liquid	
004SMPL.D#	Aug 16 2012 02:38 pm	0.0005	Liquid	
005SMPL.D#	Aug 16 2012 02:41 pm	0.001	Liquid	
006SMPL.D#	Aug 16 2012 02:44 pm	0.005	Liquid	
007SMPL.D#	Aug 16 2012 02:47 pm	0.02	Liquid	
008SMPL.D#	Aug 16 2012 02:51 pm	0.05	Liquid	
009SMPL.D#	Aug 16 2012 02:54 pm	0.20	Liquid	
010SMPL.D#	Aug 16 2012 02:57 pm	ICV-0.10	Liquid	ICV
011SMPL.D#	Aug 16 2012 03:00 pm	ERA-10/1	Liquid	ERA
012SMPL.D#	Aug 16 2012 03:03 pm	08/16 LCS-0.05	Liquid	LCS
013SMPL.D#	Aug 16 2012 03:07 pm	Rinse	Liquid	
014SMPL.D#	Aug 16 2012 03:10 pm	ICB	Liquid	ICB
015SMPL.D#	Aug 16 2012 03:13 pm	LRB	Liquid	LRB
016SMPL.D#	Aug 16 2012 03:16 pm	BS-0.0005	Liquid	BS
017SMPL.D#	Aug 16 2012 03:19 pm	BS-0.001	Liquid	BS
018SMPL.D#	Aug 16 2012 03:23 pm	53508.01 Dil	Liquid	DIL
019SMPL.D#	Aug 16 2012 03:26 pm	53508.01s tot	Liquid	S
020SMPL.D#	Aug 16 2012 03:29 pm	53508.01s dis	Liquid	S
021SMPL.D#	Aug 16 2012 03:32 pm	53508.06s tot	Liquid	S
022SMPL.D#	Aug 16 2012 03:39 pm	53508.06s dis	Liquid	S
023SMPL.D#	Aug 16 2012 03:42 pm	53508.08s	Liquid	S
024SMPL.D#	Aug 16 2012 03:45 pm	53508.09s tot	Liquid	S
025SMPL.D#	Aug 16 2012 03:48 pm	53508.09s dis	Liquid	S
026SMPL.D#	Aug 16 2012 03:51 pm	53508.01s-d dis	Liquid	S
027SMPL.D#	Aug 16 2012 03:54 pm	53508.03s tot	Liquid	S
028SMPL.D#	Aug 16 2012 03:58 pm	53508.04s tot MS-0.05	Liquid	MS
029SMPL.D#	Aug 16 2012 04:01 pm	53508.05s tot MSD	Liquid	MSD
030SMPL.D#	Aug 16 2012 04:04 pm	CCV1-0.10	Liquid	CCV
031SMPL.D#	Aug 16 2012 04:07 pm	Rinse	Liquid	
032SMPL.D#	Aug 16 2012 04:10 pm	CCB1	Liquid	CCB
033SMPL.D#	Aug 16 2012 04:14 pm	53508.10s tot	Liquid	S
034SMPL.D#	Aug 16 2012 04:17 pm	53508.10s dis	Liquid	S
035SMPL.D#	Aug 16 2012 04:20 pm	53519.02s	Liquid	S
036SMPL.D#	Aug 16 2012 04:23 pm	53519.03s tot	Liquid	S
037SMPL.D#	Aug 16 2012 04:26 pm	53519.03s dis	Liquid	S
038SMPL.D#	Aug 16 2012 04:29 pm	53519.04s tot	Liquid	S
039SMPL.D#	Aug 16 2012 04:33 pm	53519.04s dis	Liquid	S
040SMPL.D#	Aug 16 2012 04:36 pm	53519.05s tot	Liquid	S
041SMPL.D#	Aug 16 2012 04:39 pm	53519.05s dis	Liquid	S
042SMPL.D#	Aug 16 2012 04:42 pm	53508.03s dis	Liquid	S
043SMPL.D#	Aug 16 2012 04:45 pm	53508.04s dis MS-0.05	Liquid	MS
044SMPL.D#	Aug 16 2012 04:48 pm	53508.05s dis MSD	Liquid	MSD
045SMPL.D#	Aug 16 2012 04:52 pm	CCV2-0.10	Liquid	CCV
046SMPL.D#	Aug 16 2012 04:55 pm	Rinse	Liquid	
047SMPL.D#	Aug 16 2012 04:58 pm	CCB2	Liquid	CCB
048SMPL.D#	Aug 16 2012 05:01 pm	08/16 LCS-0.05	Liquid	LCS
049SMPL.D#	Aug 16 2012 05:04 pm	LRB	Liquid	LRB
050SMPL.D#	Aug 16 2012 05:08 pm	53519.06 Dil	Liquid	DIL
051SMPL.D#	Aug 16 2012 05:11 pm	53519.06s tot	Liquid	S
052SMPL.D#	Aug 16 2012 05:14 pm	53519.06s dis	Liquid	S
053SMPL.D#	Aug 16 2012 05:17 pm	53519.08s	Liquid	S

Form 0: Sequence Log

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054SMPL.D#	Aug 16 2012 05:20 pm	53519.09s	Liquid	S
055SMPL.D#	Aug 16 2012 05:23 pm	53560.01s	Liquid	S
056SMPL.D#	Aug 16 2012 05:27 pm	53560.02s	Liquid	S
057SMPL.D#	Aug 16 2012 05:30 pm	53560.03s	Liquid	S
058SMPL.D#	Aug 16 2012 05:33 pm	53560.04s	Liquid	S
059SMPL.D#	Aug 16 2012 05:36 pm	53560.04 MS-0.05	Liquid	MS
060SMPL.D#	Aug 16 2012 05:39 pm	53560.04 MSD	Liquid	MSD
061SMPL.D#	Aug 16 2012 05:42 pm	CCV3-0.10	Liquid	CCV
062SMPL.D#	Aug 16 2012 05:46 pm	Rinse	Liquid	
063SMPL.D#	Aug 16 2012 05:49 pm	CCB3	Liquid	CCB
064SMPL.D#	Aug 16 2012 05:52 pm	53574.01s	Liquid	S
065SMPL.D#	Aug 16 2012 05:55 pm	53575.01s	Liquid	S
066SMPL.D#	Aug 16 2012 05:58 pm	53572.01s	Liquid	S
067SMPL.D#	Aug 16 2012 06:02 pm	53572.02s	Liquid	S
068SMPL.D#	Aug 16 2012 06:05 pm	53572.03s	Liquid	S
069SMPL.D#	Aug 16 2012 06:08 pm	53572.04s	Liquid	S
070SMPL.D#	Aug 16 2012 06:11 pm	53572.04 MS-0.05	Liquid	MS
071SMPL.D#	Aug 16 2012 06:14 pm	53572.04 MSD	Liquid	MSD
072SMPL.D#	Aug 16 2012 06:17 pm	CCV4-0.10	Liquid	CCV
073SMPL.D#	Aug 16 2012 06:21 pm	Rinse	Liquid	
074SMPL.D#	Aug 16 2012 06:24 pm	CCB4	Liquid	CCB
075SMPL.D#	Aug 16 2012 06:27 pm	Soln-AA	Liquid	AA
076SMPL.D#	Aug 16 2012 06:30 pm	Soln-AB	Liquid	AB
107SMPL.D#	Aug 20 2012 12:37 pm	Blank	Liquid	
108SMPL.D#	Aug 20 2012 12:06 pm	0.00	Liquid	
109SMPL.D#	Aug 20 2012 12:09 pm	0.001	Liquid	
110SMPL.D#	Aug 20 2012 12:11 pm	0.005	Liquid	
111SMPL.D#	Aug 20 2012 12:13 pm	0.02	Liquid	
112SMPL.D#	Aug 20 2012 12:16 pm	0.05	Liquid	
113SMPL.D#	Aug 20 2012 12:18 pm	0.20	Liquid	
114SMPL.D#	Aug 20 2012 12:21 pm	ICV-0.10	Liquid	ICV
115SMPL.D#	Aug 20 2012 12:23 pm	ICB	Liquid	ICB
116SMPL.D#	Aug 20 2012 12:25 pm	BS-0.0005	Liquid	BS
117SMPL.D#	Aug 20 2012 12:28 pm	53508.03s-d tot	Liquid	S
118SMPL.D#	Aug 20 2012 12:30 pm	53508.03-d MS-0.10	Liquid	MS
119SMPL.D#	Aug 20 2012 12:32 pm	CCV3-0.10	Liquid	CCV
120SMPL.D#	Aug 20 2012 12:35 pm	CCB3	Liquid	CCB
121SMPL.D#	Aug 20 2012 12:39 pm	Soln-AA	Liquid	AA
122SMPL.D#	Aug 20 2012 12:42 pm	Soln-AB	Liquid	AB

Form 0: Sequence Log

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
077SMPL.D#	Aug 17 2012 12:20 pm	Blank	Liquid	
078SMPL.D#	Aug 17 2012 12:22 pm	0.00	Liquid	
079SMPL.D#	Aug 17 2012 12:24 pm	0.0001	Liquid	
080SMPL.D#	Aug 17 2012 12:26 pm	0.0005	Liquid	
081SMPL.D#	Aug 17 2012 12:28 pm	0.005	Liquid	
082SMPL.D#	Aug 17 2012 12:30 pm	0.02	Liquid	
083SMPL.D#	Aug 17 2012 12:33 pm	0.05	Liquid	
084SMPL.D#	Aug 17 2012 12:35 pm	0.20	Liquid	
085SMPL.D#	Aug 17 2012 12:38 pm	ICV-0.10	Liquid	ICV
086SMPL.D#	Aug 17 2012 12:40 pm	08/16 LCS-0.05	Liquid	LCS
087SMPL.D#	Aug 17 2012 12:42 pm	Rinse	Liquid	
088SMPL.D#	Aug 17 2012 12:44 pm	ICB	Liquid	ICB
089SMPL.D#	Aug 17 2012 12:46 pm	LRB	Liquid	LRB
090SMPL.D#	Aug 17 2012 12:48 pm	BS-0.0005	Liquid	BS
091SMPL.D#	Aug 17 2012 12:50 pm	53519.06 Dil	Liquid	DIL
092SMPL.D#	Aug 17 2012 12:52 pm	53519.06s tot	Liquid	S
093SMPL.D#	Aug 17 2012 12:54 pm	53519.06s dis	Liquid	S
094SMPL.D#	Aug 17 2012 12:56 pm	53519.08s	Liquid	S
095SMPL.D#	Aug 17 2012 12:58 pm	53519.09s	Liquid	S
096SMPL.D#	Aug 17 2012 01:00 pm	53560.01s	Liquid	S
097SMPL.D#	Aug 17 2012 01:23 pm	53560.02s	Liquid	S
098SMPL.D#	Aug 17 2012 01:04 pm	53560.03s	Liquid	S
099SMPL.D#	Aug 17 2012 01:06 pm	53560.04s	Liquid	S
100SMPL.D#	Aug 17 2012 01:08 pm	53560.04 MS-0.05	Liquid	MS
101SMPL.D#	Aug 17 2012 01:10 pm	53560.04 MSD	Liquid	MSD
102SMPL.D#	Aug 17 2012 01:13 pm	CCV3-0.10	Liquid	CCV
103SMPL.D#	Aug 17 2012 01:15 pm	Rinse	Liquid	
104SMPL.D#	Aug 17 2012 01:17 pm	CCB3	Liquid	CCB
105SMPL.D#	Aug 17 2012 01:21 pm	Soln-AA	Liquid	AA
106SMPL.D#	Aug 17 2012 01:25 pm	Soln-AB	Liquid	AB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53519.02
Sample Tag: MW137 (08-09-2012) (1215)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	Not detected	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.316	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	0.0006	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	0.035	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.005	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.028	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53519.03
Sample Tag: MW135 (08-09-2012) (1320)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.011	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.072	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.004	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	Not detected	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.009	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.067	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	0.003	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.016	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53519.04
Sample Tag: Dup-02 (08-09-2012)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.011	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.076	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.003	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	Not detected	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.009	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.066	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	0.003	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.016	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53519.05
Sample Tag: MW158 (08-09-2012) (1515)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.018	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.169	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	0.013	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.012	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.034	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.003	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.137	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.022	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53519.06
Sample Tag: MW124 (08-09-2012) (1630)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.071	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.238	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	0.008	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.006	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.024	0.005		mg/L	5	08/16/2012	
7440-38-2	Arsenic, Dissolved	0.007	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium, Dissolved	0.193	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium, Dissolved	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper, Dissolved	Not detected	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	5	08/16/2012	
7440-66-6	Zinc, Dissolved	0.026	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Lab Sample ID: S53519.06
Sample Tag: MW124 (08-09-2012) (1630)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/17/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	5	08/17/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53519.08
Sample Tag: MW115 (08-10-2012) (0845)
Date Collected: 08/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.004	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.172	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	0.005	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	0.004	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.013	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Lab Sample ID: S53519.08
Sample Tag: MW115 (08-10-2012) (0845)
Date Collected: 08/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/17/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Lab Sample ID: S53519.09
Sample Tag: MW152 (08-10-2012) (1035)
Date Collected: 08/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.027	0.002		mg/L	5	08/16/2012	
7440-39-3	Barium	0.138	0.005		mg/L	5	08/16/2012	
7440-43-9	Cadmium	Not detected	0.0005		mg/L	5	08/16/2012	
7440-47-3	Chromium	Not detected	0.005		mg/L	5	08/16/2012	
7440-50-8	Copper	0.016	0.004		mg/L	5	08/16/2012	
7439-92-1	Lead	Not detected	0.003		mg/L	5	08/16/2012	
7782-49-2	Selenium	0.007	0.005		mg/L	5	08/16/2012	
7440-66-6	Zinc	0.011	0.005		mg/L	5	08/16/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Lab Sample ID: S53519.09
Sample Tag: MW152 (08-10-2012) (1035)
Date Collected: 08/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	5	08/17/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
010SMPL.D# ICV-0.10	ICV	1.000	Cr	0.097	0.10	97	90/110	mg/L	Liquid
			Ni	0.102	0.10	102	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.102	0.10	102	90/110		
			As	0.101	0.10	101	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.1014	0.10	101	90/110		
			Cd	0.1019	0.10	102	90/110		
			Ba	0.101	0.10	101	90/110		
			Pb	0.101	0.10	101	90/110		
030SMPL.D# CCV1-0.10	CCV	1.000	Cr	0.096	0.10	96	90/110	mg/L	Liquid
			Ni	0.100	0.10	100	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.098	0.10	98	90/110		
			Se	0.097	0.10	97	90/110		
			Ag	0.0998	0.10	100	90/110		
			Cd	0.1002	0.10	100	90/110		
			Ba	0.101	0.10	101	90/110		
			Pb	0.101	0.10	101	90/110		
045SMPL.D# CCV2-0.10	CCV	1.000	Cr	0.098	0.10	98	90/110	mg/L	Liquid
			Ni	0.100	0.10	100	90/110		
			Cu	0.102	0.10	102	90/110		
			Zn	0.101	0.10	101	90/110		
			As	0.099	0.10	99	90/110		
			Se	0.100	0.10	100	90/110		
			Ag	0.0989	0.10	99	90/110		
			Cd	0.1002	0.10	100	90/110		
			Ba	0.103	0.10	103	90/110		
			Pb	0.104	0.10	104	90/110		
061SMPL.D# CCV3-0.10	CCV	1.000	Cr	0.096	0.10	96	90/110	mg/L	Liquid
			Ni	0.100	0.10	100	90/110		
			Cu	0.099	0.10	99	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.099	0.10	99	90/110		
			Se	0.101	0.10	101	90/110		
			Ag	0.0983	0.10	98	90/110		
			Cd	0.0998	0.10	100	90/110		
			Ba	0.103	0.10	103	90/110		
			Pb	0.101	0.10	101	90/110		
072SMPL.D# CCV4-0.10	CCV	1.000	Cr	0.095	0.10	95	90/110	mg/L	Liquid
			Ni	0.098	0.10	98	90/110		
			Cu	0.099	0.10	99	90/110		
			Zn	0.100	0.10	100	90/110		
			As	0.098	0.10	98	90/110		
			Se	0.098	0.10	98	90/110		
			Ag	0.0994	0.10	99	90/110		
			Cd	0.1003	0.10	100	90/110		
			Ba	0.103	0.10	103	90/110		
			Pb	0.101	0.10	101	90/110		
114SMPL.D# ICV-0.10	ICV	1.000	Se	0.100	0.10	100	90/110	mg/L	Liquid
119SMPL.D# CCV3-0.10	CCV	1.000	Se	0.094	0.10	94	90/110	mg/L	Liquid

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
085SMPL.D# ICV-0.10	ICV	1.000	Ag	0.1023	0.10	102	90/110	mg/L	Liquid
102SMPL.D# CCV3-0.10	CCV	1.000	Ag	0.1013	0.10	101	90/110	mg/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: W8121-04

Data Set ID: MT3-12-0816A

Instrument ID: HP ICP/MS 2

Analysis Date: 08/16/12

Analyst:

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
011SMPL.D# ERA-10/1	5.000	Cr	0.619	0.623	99	0.542	0.704	mg/L	Liquid
		Ni	2.12	2.04	104	1.84	2.27		
		Cu	0.854	0.835	102	0.751	0.918		
		Zn	0.419	0.412	102	0.352	0.476		
		As	0.901	0.877	103	0.738	1.03		
		Se	1.01	1.03	98	0.815	1.19		
		Ag	0.1830	0.186	98	0.159	0.213		
		Cd	0.1206	0.118	102	0.0998	0.135		
		Ba	0.729	0.716	102	0.621	0.807		
		Pb	1.80	1.76	102	1.55	1.97		

Form 3: Blanks

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
014SMPL.D# ICB	ICB	1.000	Cr	<0.001	0.000007378	mg/L	Liquid
			Ni	<0.001	0.000008734		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	0.00001071		
			Se	<0.001	0.00004141		
			Ag	<0.00004	0.00001034		
			Cd	<0.0001	0.00001582		
			Ba	<0.001	0.000007102		
			Pb	<0.0006	<0.000		
015SMPL.D# LRB	LRB	1.000	Cr	<0.001	0.000006561	mg/L	Liquid
			Ni	<0.001	<0.000		
			Cu	<0.0008	0.000002434		
			Zn	<0.001	<0.000		
			As	<0.0001	0.000003513		
			Se	<0.001	0.00001218		
			Ag	<0.00004	<0.000		
			Cd	<0.0001	0.000001943		
			Ba	<0.001	0.00001240		
			Pb	<0.0006	<0.000		
032SMPL.D# CCB1	CCB	1.000	Cr	<0.001	0.000008919	mg/L	Liquid
			Ni	<0.001	0.000004272		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	<0.000		
			Se	<0.001	0.00002219		
			Ag	<0.00004	0.000009551		
			Cd	<0.0001	0.00002938		
			Ba	<0.001	<0.000		
			Pb	<0.0006	0.000008676		
047SMPL.D# CCB2	CCB	1.000	Cr	<0.001	0.000005476	mg/L	Liquid
			Ni	<0.001	0.00001774		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	0.00001206		
			Se	<0.001	0.00003765		
			Ag	0.0001	0.0001164		
			Cd	<0.0001	<0.000		
			Ba	<0.001	<0.000		
			Pb	<0.0006	<0.000		
049SMPL.D# LRB	LRB	1.000	Cr	<0.001	0.000008955	mg/L	Liquid
			Ni	<0.001	0.000003622		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	0.000004722		
			Se	<0.001	0.0001215		
			Ag	0.00008	0.00007687		
			Cd	<0.0001	0.000004873		
			Ba	<0.001	0.00002781		
			Pb	<0.0006	<0.000		
063SMPL.D# CCB3	CCB	1.000	Cr	<0.001	0.000009685	mg/L	Liquid
			Ni	<0.001	0.00001487		
			Cu	<0.0008	<0.000		

Form 3: Blanks

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
063SMPL.D# CCB3	CCB	1.000	Zn	<0.001	<0.000	mg/L	Liquid
			As	<0.0001	<0.000		
			Se	<0.001	0.00001392		
			Ag	<0.00004	0.00003677		
			Cd	<0.0001	0.000004767		
			Ba	<0.001	<0.000		
			Pb	<0.0006	<0.000		
074SMPL.D# CCB4	CCB	1.000	Cr	<0.001	0.00001300	mg/L	Liquid
			Ni	<0.001	0.00001530		
			Cu	<0.0008	<0.000		
			Zn	<0.001	<0.000		
			As	<0.0001	0.00001303		
			Se	<0.001	0.00003306		
			Ag	<0.00004	0.00003794		
			Cd	<0.0001	<0.000		
			Ba	<0.001	<0.000		
			Pb	<0.0006	<0.000		
115SMPL.D# ICB	ICB	1.000	Se	<0.001	0.0003318	mg/L	Liquid
120SMPL.D# CCB3	CCB	1.000	Se	<0.001	0.0002594	mg/L	Liquid

Form 3: Blanks

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
088SMPL.D# ICB	ICB	1.000	Ag	<0.00004	0.00002465	mg/L	Liquid
089SMPL.D# LRB	LRB	1.000	Ag	<0.00004	0.00001231	mg/L	Liquid
104SMPL.D# CCB3	CCB	1.000	Ag	<0.00004	0.00001736	mg/L	Liquid

Form 4B: ICP Interference Check Sample

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
075SMPL.D# Soln-AA	AA	1.000	Cr	<0.01	0.0	N/A	N/A	mg/L	Liquid
			Ni	<0.01	0.0	N/A	N/A		
			Cu	<0.01	0.0	N/A	N/A		
			Zn	<0.01	0.0	N/A	N/A		
			As	<0.002	0.0	N/A	N/A		
			Se	<0.005	0.0	N/A	N/A		
			Ag	<0.002	0.0	N/A	N/A		
			Cd	<0.005	0.0	N/A	N/A		
			Ba	<0.01	0.0	N/A	N/A		
			Pb	<0.005	0.0	N/A	N/A		
076SMPL.D# Soln-AB	AB	1.000	Cr	0.024	0.025	96	70/135	mg/L	Liquid
			Ni	0.023	0.02	115	70/135		
			Cu	0.022	0.02	110	70/135		
			Zn	0.024	0.025	96	70/135		
			As	0.024	0.02	120	70/135		
			Ag	0.0198	0.020	99	70/135		
			Cd	0.0212	0.02	106	70/135		
121SMPL.D# Soln-AA	AA	1.000	Se	<0.005	0.0	N/A	N/A	mg/L	Liquid

Form 4B: ICP Interference Check Sample

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
105SMPL.D# Soln-AA	AA	1.000	Ag	<0.002	0.0	N/A	N/A	mg/L	Liquid
106SMPL.D# Soln-AB	AB	1.000	Ag	0.0199	0.020	100	70/135	mg/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
016SMPL.D#		1.000	Cr	0.0005	ND	0.0005	100	70/130	mg/L	Liquid
			Ni	0.0005	ND	0.0005	100	70/130		
			Cu	0.0005	ND	0.0005	100	70/130		
			Zn	0.0006	ND	0.0005	120	70/130		
			As	0.0005	ND	0.0005	100	70/130		
			Se	0.0004	ND	0.0005	80	70/130		
			Ag	0.0005	ND	0.0005	100	70/130		
			Cd	0.0005	ND	0.0005	100	70/130		
			Ba	0.0005	ND	0.0005	100	70/130		
			Pb	0.0005	ND	0.0005	100	70/130		
017SMPL.D# BS-0.001		1.000	Cr	0.0010	ND	0.001	100	70/130	mg/L	Liquid
			Ni	0.0011	ND	0.001	110	70/130		
			Cu	0.0011	ND	0.001	110	70/130		
			Zn	0.0013	ND	0.001	130	70/130		
			As	0.0010	ND	0.001	100	70/130		
			Se	0.0010	ND	0.001	100	70/130		
			Ag	0.0010	ND	0.001	100	70/130		
			Cd	0.0011	ND	0.001	110	70/130		
			Ba	0.0010	ND	0.001	100	70/130		
			Pb	0.0009	ND	0.001	90	70/130		
028SMPL.D#	**027SMPL.D#**	5.000	Cr	0.256	0.007	0.25	100	75/125	mg/L	Liquid
			Ni	0.284	0.027	0.25	103	75/125		
			Cu	0.300	0.048	0.25	101	75/125		
			Zn	0.296	0.044	0.25	101	75/125		
			As	0.257	0.015	0.25	97	75/125		
			Se	0.185	<0.005	0.25	74*	75/125		
			Ag	0.1985	<0.0002	0.25	79	75/125		
			Cd	0.2511	0.0014	0.25	100	75/125		
			Ba	0.383	0.129	0.25	102	75/125		
			Pb	0.265	0.029	0.25	94	75/125		
043SMPL.D#	**042SMPL.D#**	5.000	Cr	0.252	<0.005	0.25	101	75/125	mg/L	Liquid
			Ni	0.262	0.006	0.25	102	75/125		
			Cu	0.261	0.007	0.25	102	75/125		
			Zn	0.284	0.022	0.25	105	75/125		
			As	0.265	0.008	0.25	103	75/125		
			Se	0.242	<0.005	0.25	97	75/125		
			Ag	0.1991	<0.0002	0.25	80	75/125		
			Cd	0.2491	<0.0005	0.25	100	75/125		
			Ba	0.283	0.030	0.25	101	75/125		
			Pb	0.247	<0.003	0.25	99	75/125		
059SMPL.D# 53560.04	**058SMPL.D#**	5.000	Cr	0.260	<0.005	0.25	104	75/125	mg/L	Liquid
			Ni	0.263	<0.005	0.25	105	75/125		
			Cu	0.289	0.026	0.25	105	75/125		
			Zn	0.296	0.032	0.25	106	75/125		
			As	0.268	<0.002	0.25	107	75/125		
			Se	0.259	<0.005	0.25	104	75/125		
			Cd	0.2665	<0.0005	0.25	107	75/125		
			Ba	0.321	0.048	0.25	109	75/125		
			Pb	0.256	<0.003	0.25	102	75/125		
070SMPL.D# 53572.04	**069SMPL.D#**	5.000	Cr	0.248	<0.005	0.25	99	75/125	mg/L	Liquid
			Ni	0.252	<0.005	0.25	101	75/125		
			Cu	0.273	0.025	0.25	99	75/125		
			Zn	0.290	0.024	0.25	106	75/125		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
070SMPL.D# 53572.04	**069SMPL.D#**	5.000	As	0.251	<0.002	0.25	100	75/125	mg/L	Liquid
			Se	0.252	<0.005	0.25	101	75/125		
			Ag	0.2086	<0.0002	0.25	83	75/125		
			Cd	0.2564	<0.0005	0.25	103	75/125		
			Ba	0.308	0.046	0.25	105	75/125		
			Pb	0.248	<0.003	0.25	99	75/125		
116SMPL.D#		1.000	Se	0.0006	ND	0.0005	120	70/130	mg/L	Liquid
118SMPL.D#	**117SMPL.D#**	25.00	Se	2.41	<0.005	2.50	96	75/125	mg/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
090SMPL.D#		1.000	Ag	0.0005	ND	0.0005	100	70/130	mg/L	Liquid
100SMPL.D# 53560.04 099SMPL.D#		5.000	Ag	0.2313	<0.0002	0.25	93	75/125	mg/L	Liquid

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Duplicate Name	Sample Name	Dilute	Element	Dup Conc	Samp Conc	%RPD	LCL/UCL	Units	Matrix
029SMPL.D# 53508.05s	**028SMPL.D# 53508.04s**	5.000	Cr	0.257	0.256	0	0/20	mg/L	Liquid
			Ni	0.282	0.284	1	0/20		
			Cu	0.301	0.300	0	0/20		
			Zn	0.294	0.296	1	0/20		
			As	0.252	0.257	2	0/20		
			Se	0.184	0.185	1	0/20		
			Ag	0.1088	0.1985	58 *	0/20		
			Cd	0.2513	0.2511	0	0/20		
			Ba	0.392	0.383	2	0/20		
			Pb	0.270	0.265	2	0/20		
044SMPL.D# 53508.05s	**043SMPL.D# 53508.04s**	5.000	Cr	0.249	0.252	1	0/20	mg/L	Liquid
			Ni	0.258	0.262	2	0/20		
			Cu	0.259	0.261	1	0/20		
			Zn	0.281	0.284	1	0/20		
			As	0.262	0.265	1	0/20		
			Se	0.241	0.242	0	0/20		
			Ag	0.1829	0.1991	8	0/20		
			Cd	0.2516	0.2491	1	0/20		
			Ba	0.282	0.283	0	0/20		
			Pb	0.246	0.247	0	0/20		
060SMPL.D# 53560.04	**059SMPL.D# 53560.04**	5.000	Cr	0.256	0.260	2	0/20	mg/L	Liquid
			Ni	0.264	0.263	0	0/20		
			Cu	0.288	0.289	0	0/20		
			Zn	0.297	0.296	0	0/20		
			As	0.268	0.268	0	0/20		
			Se	0.258	0.259	0	0/20		
			Cd	0.2599	0.2665	3	0/20		
			Ba	0.323	0.321	1	0/20		
			Pb	0.252	0.256	2	0/20		
071SMPL.D# 53572.04	**070SMPL.D# 53572.04**	5.000	Cr	0.248	0.248	0	0/20	mg/L	Liquid
			Ni	0.252	0.252	0	0/20		
			Cu	0.276	0.273	1	0/20		
			Zn	0.278	0.290	4	0/20		
			As	0.259	0.251	3	0/20		
			Se	0.251	0.252	0	0/20		
			Ag	0.2273	0.2086	9	0/20		
			Cd	0.2573	0.2564	0	0/20		
			Ba	0.307	0.308	0	0/20		
			Pb	0.255	0.248	3	0/20		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
101SMPL.D# 53560.04	**100SMPL.D# 53560.04**	5.000	Ag	0.2241	0.2313	3	0/20	mg/L	Liquid

Form 7: Laboratory Control Sample

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
012SMPL.D# 08/16 LCS-0.05	1.000	Cr	0.048	0.05	96	85/115	mg/L	Liquid
		Ni	0.050	0.05	100	85/115		
		Cu	0.050	0.05	100	85/115		
		Zn	0.052	0.05	104	85/115		
		As	0.050	0.05	100	85/115		
		Se	0.049	0.05	98	85/115		
		Ag	0.0500	0.05	100	85/115		
		Cd	0.0500	0.05	100	85/115		
		Ba	0.050	0.05	100	85/115		
		Pb	0.052	0.05	104	85/115		
048SMPL.D# 08/16 LCS-0.05	1.000	Cr	0.049	0.05	98	85/115	mg/L	Liquid
		Ni	0.051	0.05	102	85/115		
		Cu	0.051	0.05	102	85/115		
		Zn	0.051	0.05	102	85/115		
		As	0.050	0.05	100	85/115		
		Se	0.051	0.05	102	85/115		
		Ag	0.0500	0.05	100	85/115		
		Cd	0.0504	0.05	101	85/115		
		Ba	0.051	0.05	102	85/115		
		Pb	0.051	0.05	102	85/115		

Form 7: Laboratory Control Sample

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
086SMPL.D# 08/16 LCS-0.05	1.000	Ag	0.0508	0.05	102	85/115	mg/L	Liquid

Form 8: Serial Dilutions

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
018SMPL.D# 53508.01	**019SMPL.D# 53508.01s**	25.00	Cr	<0.005	<0.005	NC	0/10	mg/L	Liquid
			Ni	0.023	0.024	4	0/10		
			Cu	<0.004	<0.004	NC	0/10		
			Zn	0.011	0.008	32*	0/10		
			As	0.004	0.004	0	0/10		
			Se	<0.005	<0.005	NC	0/10		
			Ag	0.0004	<0.0002	200*	0/10		
			Cd	0.0008	0.0005	46*	0/10		
			Ba	0.682	0.614	10	0/10		
			Pb	0.030	0.005	143*	0/10		
050SMPL.D# 53519.06	**051SMPL.D# 53519.06s**	25.00	Cr	<0.005	<0.005	NC	0/10	mg/L	Liquid
			Ni	0.024	0.025	4	0/10		
			Cu	0.008	0.008	0	0/10		
			Zn	0.026	0.024	8	0/10		
			As	0.069	0.071	3	0/10		
			Se	<0.005	<0.005	NC	0/10		
			Cd	<0.0005	<0.0005	NC	0/10		
			Ba	0.280	0.238	16*	0/10		
			Pb	0.006	0.006	0	0/10		

Form 8: Serial Dilutions

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
091SMPL.D# 53519.06	**092SMPL.D# 53519.06s**	25.00	Ag	0.0004	<0.0002	200*	0/10	mg/L	Liquid

Form 13: Analysis Run Log

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Filename	Run Time	Matrix	Analytes
001SMPL.D# Blank	Aug 16 2012 02:28 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
002SMPL.D# 0.00	Aug 16 2012 02:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
003SMPL.D# 0.0001	Aug 16 2012 02:35 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
004SMPL.D# 0.0005	Aug 16 2012 02:38 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
005SMPL.D# 0.001	Aug 16 2012 02:41 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
006SMPL.D# 0.005	Aug 16 2012 02:44 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
007SMPL.D# 0.02	Aug 16 2012 02:47 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
008SMPL.D# 0.05	Aug 16 2012 02:51 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
009SMPL.D# 0.20	Aug 16 2012 02:54 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
010SMPL.D# ICV-0.10	Aug 16 2012 02:57 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
011SMPL.D# ERA-10/1	Aug 16 2012 03:00 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
012SMPL.D# 08/16 LCS-0.05	Aug 16 2012 03:03 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
013SMPL.D# Rinse	Aug 16 2012 03:07 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
014SMPL.D# ICB	Aug 16 2012 03:10 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
015SMPL.D# LRB	Aug 16 2012 03:13 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
016SMPL.D# BS-0.0005	Aug 16 2012 03:16 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
017SMPL.D# BS-0.001	Aug 16 2012 03:19 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
018SMPL.D# 53508.01 Dil	Aug 16 2012 03:23 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
019SMPL.D# 53508.01s tot	Aug 16 2012 03:26 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
020SMPL.D# 53508.01s dis	Aug 16 2012 03:29 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Se,Zn
021SMPL.D# 53508.06s tot	Aug 16 2012 03:32 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
022SMPL.D# 53508.06s dis	Aug 16 2012 03:39 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
023SMPL.D# 53508.08s	Aug 16 2012 03:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
024SMPL.D# 53508.09s tot	Aug 16 2012 03:45 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
025SMPL.D# 53508.09s dis	Aug 16 2012 03:48 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
026SMPL.D# 53508.01s-d dis	Aug 16 2012 03:51 pm	Liquid	Pb
027SMPL.D# 53508.03s tot	Aug 16 2012 03:54 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
028SMPL.D# 53508.04s tot	Aug 16 2012 03:58 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
029SMPL.D# 53508.05s tot MSD	Aug 16 2012 04:01 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
030SMPL.D# CCV1-0.10	Aug 16 2012 04:04 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
031SMPL.D# Rinse	Aug 16 2012 04:07 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
032SMPL.D# CCB1	Aug 16 2012 04:10 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
033SMPL.D# 53508.10s tot	Aug 16 2012 04:14 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
034SMPL.D# 53508.10s dis	Aug 16 2012 04:17 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
035SMPL.D# 53519.02s	Aug 16 2012 04:20 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
036SMPL.D# 53519.03s tot	Aug 16 2012 04:23 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
037SMPL.D# 53519.03s dis	Aug 16 2012 04:26 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
038SMPL.D# 53519.04s tot	Aug 16 2012 04:29 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
039SMPL.D# 53519.04s dis	Aug 16 2012 04:33 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
040SMPL.D# 53519.05s tot	Aug 16 2012 04:36 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
041SMPL.D# 53519.05s dis	Aug 16 2012 04:39 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
042SMPL.D# 53508.03s dis	Aug 16 2012 04:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
043SMPL.D# 53508.04s dis	Aug 16 2012 04:45 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
044SMPL.D# 53508.05s dis MSD	Aug 16 2012 04:48 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
045SMPL.D# CCV2-0.10	Aug 16 2012 04:52 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
046SMPL.D# Rinse	Aug 16 2012 04:55 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
047SMPL.D# CCB2	Aug 16 2012 04:58 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
048SMPL.D# 08/16 LCS-0.05	Aug 16 2012 05:01 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
049SMPL.D# LRB	Aug 16 2012 05:04 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
050SMPL.D# 53519.06 Dil	Aug 16 2012 05:08 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
051SMPL.D# 53519.06s tot	Aug 16 2012 05:11 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
052SMPL.D# 53519.06s dis	Aug 16 2012 05:14 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
053SMPL.D# 53519.08s	Aug 16 2012 05:17 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn

Form 13: Analysis Run Log

Data Set ID: MT3-12-0816A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/16/12
Analyst:

Filename	*Run Time*	*Matrix*	*Analytes*
054SMPL.D# 53519.09s	Aug 16 2012 05:20 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
055SMPL.D# 53560.01s	Aug 16 2012 05:23 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
056SMPL.D# 53560.02s	Aug 16 2012 05:27 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
057SMPL.D# 53560.03s	Aug 16 2012 05:30 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
058SMPL.D# 53560.04s	Aug 16 2012 05:33 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
059SMPL.D# 53560.04 MS-0.05	Aug 16 2012 05:36 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
060SMPL.D# 53560.04 MSD	Aug 16 2012 05:39 pm	Liquid	As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
061SMPL.D# CCV3-0.10	Aug 16 2012 05:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
062SMPL.D# Rinse	Aug 16 2012 05:46 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
063SMPL.D# CCB3	Aug 16 2012 05:49 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
064SMPL.D# 53574.01s	Aug 16 2012 05:52 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
065SMPL.D# 53575.01s	Aug 16 2012 05:55 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
066SMPL.D# 53572.01s	Aug 16 2012 05:58 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
067SMPL.D# 53572.02s	Aug 16 2012 06:02 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
068SMPL.D# 53572.03s	Aug 16 2012 06:05 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
069SMPL.D# 53572.04s	Aug 16 2012 06:08 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
070SMPL.D# 53572.04 MS-0.05	Aug 16 2012 06:11 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
071SMPL.D# 53572.04 MSD	Aug 16 2012 06:14 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
072SMPL.D# CCV4-0.10	Aug 16 2012 06:17 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
073SMPL.D# Rinse	Aug 16 2012 06:21 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
074SMPL.D# CCB4	Aug 16 2012 06:24 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
075SMPL.D# Soln-AA	Aug 16 2012 06:27 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
076SMPL.D# Soln-AB	Aug 16 2012 06:30 pm	Liquid	Ag,As,Cd,Cr,Cu,Ni,Zn
107SMPL.D# Blank	Aug 20 2012 12:37 pm	Liquid	Se
108SMPL.D# 0.00	Aug 20 2012 12:06 pm	Liquid	Se
109SMPL.D# 0.001	Aug 20 2012 12:09 pm	Liquid	Se
110SMPL.D# 0.005	Aug 20 2012 12:11 pm	Liquid	Se
111SMPL.D# 0.02	Aug 20 2012 12:13 pm	Liquid	Se
112SMPL.D# 0.05	Aug 20 2012 12:16 pm	Liquid	Se
113SMPL.D# 0.20	Aug 20 2012 12:18 pm	Liquid	Se
114SMPL.D# ICV-0.10	Aug 20 2012 12:21 pm	Liquid	Se
115SMPL.D# ICB	Aug 20 2012 12:23 pm	Liquid	Se
116SMPL.D# BS-0.0005	Aug 20 2012 12:25 pm	Liquid	Se
117SMPL.D# 53508.03s-d tot	Aug 20 2012 12:28 pm	Liquid	
118SMPL.D# 53508.03-d MS-0.10	Aug 20 2012 12:30 pm	Liquid	Se
119SMPL.D# CCV3-0.10	Aug 20 2012 12:32 pm	Liquid	Se
120SMPL.D# CCB3	Aug 20 2012 12:35 pm	Liquid	Se
121SMPL.D# Soln-AA	Aug 20 2012 12:39 pm	Liquid	Se
122SMPL.D# Soln-AB	Aug 20 2012 12:42 pm	Liquid	

Form 13: Analysis Run Log

Data Set ID: MT3-12-0817A
Instrument ID: HP ICP/MS 2
Analysis Date: 08/17/12
Analyst:

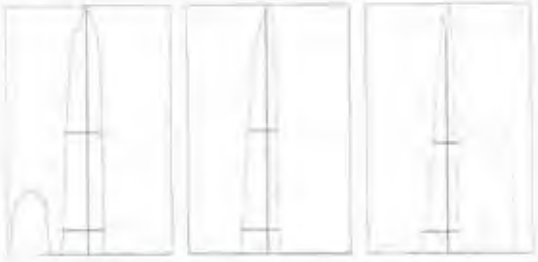
Filename	*Run Time*	*Matrix*	*Analytes*
077SMPL.D# Blank	Aug 17 2012 12:20 pm	Liquid	Ag
078SMPL.D# 0.00	Aug 17 2012 12:22 pm	Liquid	Ag
079SMPL.D# 0.0001	Aug 17 2012 12:24 pm	Liquid	Ag
080SMPL.D# 0.0005	Aug 17 2012 12:26 pm	Liquid	Ag
081SMPL.D# 0.005	Aug 17 2012 12:28 pm	Liquid	Ag
082SMPL.D# 0.02	Aug 17 2012 12:30 pm	Liquid	Ag
083SMPL.D# 0.05	Aug 17 2012 12:33 pm	Liquid	Ag
084SMPL.D# 0.20	Aug 17 2012 12:35 pm	Liquid	Ag
085SMPL.D# ICV-0.10	Aug 17 2012 12:38 pm	Liquid	Ag
086SMPL.D# 08/16 LCS-0.05	Aug 17 2012 12:40 pm	Liquid	Ag
087SMPL.D# Rinse	Aug 17 2012 12:42 pm	Liquid	Ag
088SMPL.D# ICB	Aug 17 2012 12:44 pm	Liquid	Ag
089SMPL.D# LRB	Aug 17 2012 12:46 pm	Liquid	Ag
090SMPL.D# BS-0.0005	Aug 17 2012 12:48 pm	Liquid	Ag
091SMPL.D# 53519.06 Dil	Aug 17 2012 12:50 pm	Liquid	Ag
092SMPL.D# 53519.06s tot	Aug 17 2012 12:52 pm	Liquid	Ag
093SMPL.D# 53519.06s dis	Aug 17 2012 12:54 pm	Liquid	Ag
094SMPL.D# 53519.08s	Aug 17 2012 12:56 pm	Liquid	Ag
095SMPL.D# 53519.09s	Aug 17 2012 12:58 pm	Liquid	Ag
096SMPL.D# 53560.01s	Aug 17 2012 01:00 pm	Liquid	Ag
097SMPL.D# 53560.02s	Aug 17 2012 01:23 pm	Liquid	Ag
098SMPL.D# 53560.03s	Aug 17 2012 01:04 pm	Liquid	Ag
099SMPL.D# 53560.04s	Aug 17 2012 01:06 pm	Liquid	Ag
100SMPL.D# 53560.04 MS-0.05	Aug 17 2012 01:08 pm	Liquid	Ag
101SMPL.D# 53560.04 MSD	Aug 17 2012 01:10 pm	Liquid	Ag
102SMPL.D# CCV3-0.10	Aug 17 2012 01:13 pm	Liquid	Ag
103SMPL.D# Rinse	Aug 17 2012 01:15 pm	Liquid	Ag
104SMPL.D# CCB3	Aug 17 2012 01:17 pm	Liquid	Ag
105SMPL.D# Soln-AA	Aug 17 2012 01:21 pm	Liquid	Ag
106SMPL.D# Soln-AB	Aug 17 2012 01:25 pm	Liquid	Ag

Tune Report

Tune File : nogas.u
Comment :

m/z	Range	Count	Mean	RSD%	Background
7	5,000	2019.0	2156.3	4.30	0.40
89	20,000	18764.0	18687.2	3.50	0.90
205	1,000	814.0	762.5	5.85	7.00

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec
n: 50
Oxide: 156/140 1.124%
Doubly Charged: 70/140 2.268%



m/z:	7	89	205
Height:	2,187	18,821	722
Axis:	7.00	89.00	205.00
W-50%:	0.70	0.55	0.45
W-10%:	0.7500	0.700	0.6500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec
Y axis : Linear

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power :	1450 W	Extract 1 :	-83.8 V	AMU Gain :	132
RF Matching :	1.75 V	Extract 2 :	-96.5 V	AMU Offset :	123
Smpl Depth :	9 mm	Omega Bias-ce :	-14 V	Axis Gain :	0.9992
Torch-H :	0 mm	Omega Lens-ce :	2 V	Axis Offset :	-0.04
Torch-V :	1 mm	Cell Entrance :	-30 V	QP Bias :	-3 V
Carrier Gas :	0.72 L/min	QP Focus :	3 V		
Makeup Gas :	0.27 L/min	Cell Exit :	-34 V	===Detector Parameters===	
Optional Gas :	0 %			Discriminator :	8 mV
Nebulizer Pump :	0.1 rps	===Octopole Parameters===		Analog HV :	1820 V
Sample Pump :	--- rps	OctP RF :	170 V	Pulse HV :	1360 V
S/C Temp :	2 degC	OctP Bias :	-6 V		

===Reaction Cell===
Reaction Mode : OFF
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : 0 %

Tune File : he.u
He Gas: 3.5 mL/min
Optional Gas: 0 %
QP Focus: -7 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -11.5 V

m/z	Count(Mean)	RSD%
51	75.4	13.81
59	5111.7	3.91
89	3115.7	3.66

Integration Time: 0.1000sec

Tune File : h2.u
H2 Gas: 4.7 mL/min
Optional Gas: 0 %
QP Focus: -8 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -15 V

m/z	Count(Mean)	RSD%
59	4791.3	3.66
78	2.1	69.80
89	21257.7	2.94

Integration Time: 0.1000sec

Generated : Aug 16, 2012 12:23:10
Printed : Aug 16, 2012 12:24:49

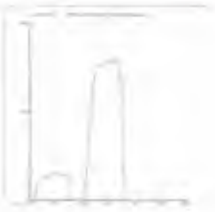
6020 and 200.8 Tune Check Sample

Data File: 0016TUN.D
Date Acquired: Aug 16 2012 12:32 pm
Operator:
Sample Name: 10ppb Li, Co, In, Tl
Misc Info: EPA tune solution
Vial Number: 4106
Current Method: TN_62_28.M

QC Tune Summary:
Pass

RSD%

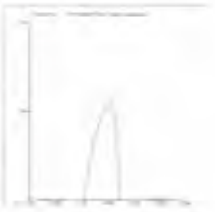
Element	Actual	Required	Flag
7 Li	2.09	5.00	
9 Be	3.50	5.00	
59 Co	1.29	5.00	
115 In	2.14	5.00	
205 Tl	4.03	5.00	
208 Pb	2.68	5.00	



7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:

9 Be
Mass Calib.
Actual: 9.00
Required 8.90 - 9.10
Flag:
Peak Width
Actual: 0.65
Required 0.75
Flag:

59 Co
Mass Calib.
Actual: 59.00
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.60
Required: 0.75
Flag:

205 Tl
Mass Calib.
Actual: 205.00
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:

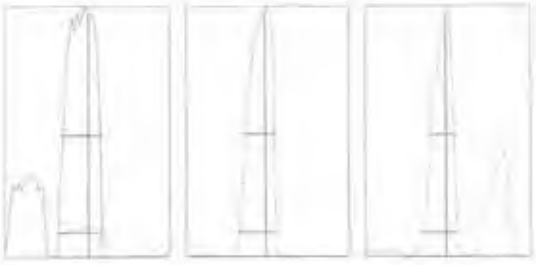
208 Pb
Mass Calib.
Actual: 208.00
Required: 207.90 - 208.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:

Tune Report

Tune File : nogas.u
Comment :

m/z	Range	Count	Mean	RSD%	Background
7	2,000	1342.0	1289.1	4.25	0.30
89	20,000	14482.0	13962.8	3.68	0.80
205	1,000	644.0	637.1	5.21	5.20

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec
n: 50
Oxide: 156/140 1.044%
Doubly Charged: 70/140 2.147%



m/z:	7	89	205
Height:	1,247	13,724	678
Axis:	7.05	89.00	205.00
W-50%:	0.75	0.60	0.45
W-10%:	0.800	0.700	0.6500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec
Y axis : Linear

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	:	1450 W	Extract 1	:	-83.8 V	AMU Gain	:	132
RF Matching	:	1.75 V	Extract 2	:	-96.5 V	AMU Offset	:	123
Smpl Depth	:	9 mm	Omega Bias-ce	:	-14 V	Axis Gain	:	0.9992
Torch-H	:	0 mm	Omega Lens-ce	:	2 V	Axis Offset	:	-0.04
Torch-V	:	1 mm	Cell Entrance	:	-30 V	QP Bias	:	-3 V
Carrier Gas	:	0.72 L/min	QP Focus	:	3 V			
Makeup Gas	:	0.27 L/min	Cell Exit	:	-34 V	===Detector Parameters===		
Optional Gas	:	0 %				Discriminator	:	8 mV
Nebulizer Pump	:	0.1 rps	===Octopole Parameters===			Analog HV	:	1820 V
Sample Pump	:	--- rps	OctP RF	:	170 V	Pulse HV	:	1360 V
S/C Temp	:	2 degC	OctP Bias	:	-6 V			

===Reaction Cell===
Reaction Mode : OFF
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : 0 %

Tune File : he.u
He Gas: 3.5 mL/min
Optional Gas: 0 %
QP Focus: -7 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -11.5 V

m/z	Count(Mean)	RSD%
51	45.8	18.78
59	3666.7	3.46
89	2220.7	3.83

Integration Time: 0.1000sec

Tune File : h2.u
H2 Gas: 4.7 mL/min
Optional Gas: 0 %
QP Focus: -8 V
Cell Exit: -40 V
OctP Bias: -18 V
QP Bias: -15 V

m/z	Count(Mean)	RSD%
59	3372.2	3.43
78	1.9	64.54
89	15719.8	3.09

Integration Time: 0.1000sec

Generated : Aug 17, 2012 12:00:02
Printed : Aug 17, 2012 12:01:41

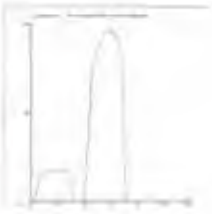
6020 and 200.8 Tune Check Sample

Data File: 0016TUN.D
Date Acquired: Aug 17 2012 12:11 pm
Operator:
Sample Name: 10ppb Li, Co, In, Tl
Misc Info: EPA tune solution
Vial Number: 4108
Current Method: TN_62_28.M

QC Tune Summary:
Pass

RSD%

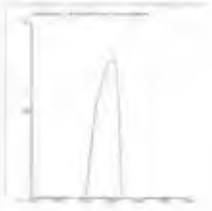
Element	Actual	Required	Flag
7 Li	3.33	5.00	0
9 Be	4.23	5.00	
59 Co	2.81	5.00	
115 In	3.31	5.00	
205 Tl	4.02	5.00	
208 Pb	3.06	5.00	



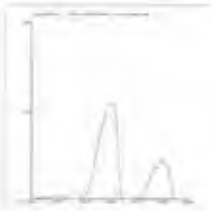
7 Li
Mass Calib.
Actual: 7.00
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.70
Required: 0.75
Flag:

9 Be
Mass Calib.
Actual: 9.00
Required 8.90 - 9.10
Flag:
Peak Width
Actual: 0.70
Required 0.75
Flag:

59 Co
Mass Calib.
Actual: 59.00
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.75
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.55
Required: 0.75
Flag:



205 Tl
Mass Calib.
Actual: 205.00
Required: 204.90 - 206.10
Flag:
Peak Width
Actual: 0.55
Required: 0.75
Flag:

208 Pb
Mass Calib.
Actual: 207.95
Required: 207.90 - 208.10
Flag:
Peak Width
Actual: 0.55
Required: 0.75
Flag:

Form 15: Internal Standards Summary

IS Check Reference Sample: 108SMPL.D# 0.00

Data Set ID: MT3-12-0816A

Instrument ID: HP ICP/MS 2

Analysis Date: 08/16/12

Analyst:

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh-1	206746	70-125	144722-258433	80-120	165397-248095	0

Seq ID	QC Type	Rh-1
107SMPL		106
108SMPL		100
109SMPL		100
110SMPL		94
111SMPL		107
112SMPL		109
113SMPL		112
114SMPL	ICV	110
115SMPL	ICB	96
116SMPL	BS	109
117SMPL	S	112
118SMPL	MS	112
119SMPL	CCV	113
120SMPL	CCB	105
121SMPL	AA	102
122SMPL	AB	74

Form 15: Internal Standards Summary

IS Check Reference Sample: 078SMPL.D# 0.00

Data Set ID: MT3-12-0817A

Instrument ID: HP ICP/MS 2

Analysis Date: 08/17/12

Analyst:

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh-3	462496	70-125	323747-578120	80-120	369997-554995	0

Seq ID	QC Type	Rh-3
077SMPL		99
078SMPL		100
079SMPL		101
080SMPL		99
081SMPL		99
082SMPL		102
083SMPL		103
084SMPL		103
085SMPL	ICV	105
086SMPL	LCS	104
087SMPL		102
088SMPL	ICB	101
089SMPL	LRB	103
090SMPL	BS	99
091SMPL	DIL	109
092SMPL	S	112
093SMPL	S	109
094SMPL	S	103
095SMPL	S	108
096SMPL	S	107
097SMPL	S	106
098SMPL	S	104
099SMPL	S	107
100SMPL	MS	103
101SMPL	MSD	104
102SMPL	CCV	92
103SMPL		100
104SMPL	CCB	101
105SMPL	AA	104
106SMPL	AB	93

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	Spike (ug/l)	MDL (ug/l)	Prep Batch
Al-27	4/9/2012	0.50	0.189	MTD-040212-1
Sb-121	3/20/2012	1.00	0.105	MTD-032012-3
As-75	3/20/2012	0.05	0.032	MTD-032012-2
Ba-137	3/20/2012	0.50	0.202	MTD-032012-2
Be-9	4/10/2012	0.10	0.079	MTD-041012-1
B-10	3/20/2012	1.00	0.589	MTD-032012-3
B-11	3/20/2012	1.00	0.277	MTD-032012-3
Cd-111	3/20/2012	0.05	0.038	MTD-032012-2
Cd-114	3/20/2012	0.10	0.030	MTD-032012-2
Cr-52	3/20/2012	0.10	0.023	MTD-032012-2
Cr-53	3/20/2012	0.10	0.054	MTD-032012-2
Co-59	3/20/2012	0.10	0.035	MTD-032012-2
Cu-65	3/20/2012	0.50	0.068	MTD-032012-2
Fe-56	4/9/2012	2.00	0.470	MTD-040912-1
Fe-57	4/9/2012	2.00	0.824	MTD-040912-1
Pb-208	3/20/2012	0.10	0.052	MTD-032012-2
Li-7	3/20/2012	1.00	0.166	MTD-032012-3
Mn-55	3/20/2012	0.10	0.187	MTD-032012-2
Mo-95	4/9/2012	0.50	0.442	MTD-040212-1
Ni-60	4/13/2012	0.10	0.035	MTD-041012-1
Se-78	3/20/2012	0.10	0.058	MTD-032012-2
Se-82	3/20/2012	0.50	0.475	MTD-032012-2
Ag-107	3/20/2012	0.10	0.025	MTD-032012-2
Sr-88	3/20/2012	0.10	0.016	MTD-032012-2
Tl-205	4/9/2012	0.50	0.089	MTD-040212-1
Sn-118	3/20/2012	0.10	0.079	MTD-032012-2
Ti-47	3/20/2012	0.50	0.124	MTD-032012-2
V-51	3/20/2012	0.05	0.018	MTD-032012-2
Zn-66	4/9/2012	2.00	0.366	MTD-040912-1

Element/Mass	Date	Spike (mg/l)	MDL (mg/l)	Prep Batch
Ca-43	4/16/2012	0.01	0.0101	MTD-041012-4
Ca-44	4/16/2012	0.01	0.0041	MTD-041012-4
Mg-24	4/16/2012	0.01	0.0006	MTD-041012-4
K-39	4/16/2012	0.01	0.0030	MTD-041012-4
Na-23	4/16/2012	0.10	0.0101	MTD-041012-4

Linear Range June 2012

		Prep Batch	Run Batch
Aluminum	5.0ppm	MTD-061912-5	MT3-12-0619C
Antimony	5.0ppm	MTD-061912-5	MT3-12-0619C
Arsenic	1.0ppm	MTD-061912-5	MT3-12-0619C
Barium	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-10	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-11	5.0ppm	MTD-061912-5	MT3-12-0619C
Beryllium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-111	5.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-114	5.0ppm	MTD-061912-5	MT3-12-0619C
Chromium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cobalt	2.0ppm	MTD-061912-5	MT3-12-0619C
Copper	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-56	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-57	2.0ppm	MTD-061912-5	MT3-12-0619C
Lead	5.0ppm	MTD-061912-5	MT3-12-0619C
Lithium	2.0ppm	MTD-061912-5	MT3-12-0619C
Manganese	1.0ppm	MTD-061912-5	MT3-12-0619C
Molybdenum	1.0ppm	MTD-061912-5	MT3-12-0619C
Nickel	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-78	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-82	5.0ppm	MTD-061912-5	MT3-12-0619C
Silver	1.0ppm	MTD-061912-5	MT3-12-0619C
Strontium-86	5.0ppm	MTD-061912-5	MT3-12-0619C
Thallium	5.0ppm	MTD-061912-5	MT3-12-0619C
Tin	1.0ppm	MTD-061912-5	MT3-12-0619C
Titanium	1.0ppm	MTD-061912-5	MT3-12-0619C
Vanadium	1.0ppm	MTD-061912-5	MT3-12-0619C
Zinc	2.0ppm	MTD-061912-5	MT3-12-0619C

Sodium-23	50ppm	MTD-061912-5	MT3-12-0619B
Magnesium-24	50ppm	MTD-061912-5	MT3-12-0619B
Potassium-39	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-43	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-44	50ppm	MTD-061912-5	MT3-12-0619B

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 001SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:28 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000178213	0.000006880	mg/L	106.51	2
Ni	60	103	.0000104215	0.00001742	mg/L	64.24	2
Cu	65	103	.0000587827	0.000009956	mg/L	316.39	2
Zn	66	103	.0000173916	0.000001862	mg/L	2,100	2
As	75	103	.0000007073	<0.000	mg/L	43.16	2
Se	78	89	.0000002673	0.000004271	mg/L	234.61	1
Ag	107	103	.0000046999	0.00001016	mg/L	53.69	2
Cd	111	103	.0000009117	0.000007045	mg/L	202.84	2
Ba	137	103	.0000013698	0.000008767	mg/L	185.47	2
Pb	208	185	.0000728293	0.00001643	mg/L	157.58	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 002SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:31 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000152885	.0000000000	mg/L	2.2E+9	2
Ni	60	103	.0000083307	.0000000000	mg/L	5.2E+8	2
Cu	65	103	.0000573845	.0000000000	mg/L	2.9E+8	2
Zn	66	103	.0000173063	<0.000	mg/L	3.4E+8	2
As	75	103	.0000014246	<0.000	mg/L	7.7E+8	2
Se	78	89	.0000002375	.0000000000	mg/L	1.1E+1	1
Ag	107	103	.0000027237	<0.000	mg/L	1.6E+9	2
Cd	111	103	.0000007159	.0000000000	mg/L	4.3E+8	2
Ba	137	103	.0000012226	<0.000	mg/L	2.1E+9	2
Pb	208	185	.0000650896	<0.000	mg/L	5.2E+8	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 003SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:35 pm
Sample Name: 0.0001
Sample Type: CalStd
Matrix: Liquid
Comments: Ag, As, Be, Cd, Tl
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000563454	0.0001115	mg/L	3.98	2
Ni	60	103	.0000348618	0.0002211	mg/L	14.10	2
Cu	65	103	.0002514336	0.001382	mg/L	6.94	2
Zn	66	103	.0000553002	0.0008294	mg/L	10.05	2
As	75	103	.0000045232	0.0001014	mg/L	20.14	2
Se	78	89	.0000008970	0.00009447	mg/L	40.40	1
Ag	107	103	.0000239871	0.0001093	mg/L	9.46	2
Cd	111	103	.0000031989	0.00008934	mg/L	25.60	2
Ba	137	103	.0000025833	0.00008104	mg/L	74.10	2
Pb	208	185	.0000969225	0.00006757	mg/L	103.85	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 004SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:38 pm
Sample Name: 0.0005
Sample Type: CalStd
Matrix: Liquid
Comments: Cu, Pb, V
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0001997038	0.0005009	mg/L	1.29	2
Ni	60	103	.0000780059	0.0005806	mg/L	4.70	2
Cu	65	103	.0001391274	0.0005821	mg/L	5.11	2
Zn	66	103	.0000461798	0.0006303	mg/L	3.33	2
As	75	103	.0000159806	0.0004763	mg/L	4.54	2
Se	78	89	.0000036603	0.0004903	mg/L	9.44	1
Ag	107	103	.0001004710	0.0005025	mg/L	1.04	2
Cd	111	103	.0000142577	0.0004872	mg/L	11.05	2
Ba	137	103	.0000089990	0.0004631	mg/L	16.09	2
Pb	208	185	.0003214945	0.0005442	mg/L	6.93	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 005SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:41 pm
Sample Name: 0.001
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003838333	0.001001	mg/L	2.39	2
Ni	60	103	.0001348363	0.001054	mg/L	4.45	2
Cu	65	103	.0002038420	0.001043	mg/L	3.59	2
Zn	66	103	.0000741457	0.001241	mg/L	0.54	2
As	75	103	.0000314702	0.0009832	mg/L	8.18	2
Se	78	89	.0000073818	0.001023	mg/L	6.02	1
Ag	107	103	.0001907184	0.0009665	mg/L	0.87	2
Cd	111	103	.0000304341	0.001069	mg/L	0.82	2
Ba	137	103	.0000163787	0.0009026	mg/L	3.83	2
Pb	208	185	.0005475088	0.001024	mg/L	2.35	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 006SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:44 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.001815373	0.004890	mg/L	1.33	2
Ni	60	103	.0006199682	0.005097	mg/L	2.82	2
Cu	65	103	.0007800090	0.005146	mg/L	2.03	2
Zn	66	103	.0002564590	0.005221	mg/L	1.45	2
As	75	103	.0001525904	0.004947	mg/L	3.25	2
Se	78	89	.0000351723	0.005004	mg/L	4.90	1
Ag	107	103	.0009873738	0.005062	mg/L	0.99	2
Cd	111	103	.0001349913	0.004831	mg/L	1.65	2
Ba	137	103	.0000814451	0.004778	mg/L	5.40	2
Pb	208	185	0.002327688	0.004802	mg/L	2.84	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 007SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:47 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.007138604	0.01935	mg/L	1.85	2
Ni	60	103	0.002438226	0.02025	mg/L	2.88	2
Cu	65	103	0.002918841	0.02038	mg/L	1.94	2
Zn	66	103	.0009431200	0.02021	mg/L	1.03	2
As	75	103	.0006204369	0.02026	mg/L	1.82	2
Se	78	89	.0001394866	0.01994	mg/L	3.42	1
Ag	107	103	0.003908786	0.02008	mg/L	0.39	2
Cd	111	103	.0005560132	0.01998	mg/L	1.99	2
Ba	137	103	.0003345169	0.01985	mg/L	3.55	2
Pb	208	185	0.009574104	0.02018	mg/L	5.68	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 008SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:51 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01775635	0.04819	mg/L	1.56	2
Ni	60	103	0.006045047	0.05031	mg/L	1.98	2
Cu	65	103	0.007207120	0.05091	mg/L	0.33	2
Zn	66	103	0.002363791	0.05123	mg/L	0.45	2
As	75	103	0.001535129	0.05019	mg/L	0.92	2
Se	78	89	.0003477492	0.04978	mg/L	3.75	1
Ag	107	103	0.009661258	0.04965	mg/L	1.53	2
Cd	111	103	0.001402925	0.05045	mg/L	1.80	2
Ba	137	103	.0008356123	0.04969	mg/L	1.45	2
Pb	208	185	0.02442557	0.05171	mg/L	3.88	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 009SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:54 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.07383474	0.2005	mg/L	2.11	2
Ni	60	103	0.02399559	0.1999	mg/L	0.78	2
Cu	65	103	0.02810596	0.1997	mg/L	0.90	2
Zn	66	103	0.009163270	0.1997	mg/L	1.24	2
As	75	103	0.006110678	0.1999	mg/L	0.96	2
Se	78	89	0.001396958	0.2001	mg/L	0.58	1
Ag	107	103	0.03891989	0.2001	mg/L	0.49	2
Cd	111	103	0.005556292	0.1999	mg/L	1.49	2
Ba	137	103	0.003361050	0.2001	mg/L	2.11	2
Pb	208	185	0.09408375	0.1996	mg/L	1.61	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 010SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 02:57 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03585713	0.09736	mg/L	1.60	2
Ni	60	103	0.01234423	0.1028	mg/L	1.00	2
Cu	65	103	0.01418654	0.1006	mg/L	0.92	2
Zn	66	103	0.004694842	0.1021	mg/L	1.43	2
As	75	103	0.003108114	0.1017	mg/L	1.76	2
Se	78	89	.0006986382	0.1000	mg/L	1.46	1
Ag	107	103	0.01972393	0.1014	mg/L	0.84	2
Cd	111	103	0.002833229	0.1019	mg/L	0.23	2
Ba	137	103	0.001703695	0.1014	mg/L	1.83	2
Pb	208	185	0.04807843	0.1019	mg/L	4.50	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 011SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:00 pm
Sample Name: ERA-10/1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.04565138	0.6198	mg/L	0.51	2
Ni	60	103	0.05109270	2.128	mg/L	1.82	2
Cu	65	103	0.02406848	0.8549	mg/L	0.57	2
Zn	66	103	0.003857809	0.4192	mg/L	0.68	2
As	75	103	0.005510749	0.9015	mg/L	1.96	2
Se	78	89	0.001422415	1.019	mg/L	0.53	1
Ag	107	103	0.007121063	0.1830	mg/L	0.31	2
Cd	111	103	.0006712632	0.1206	mg/L	0.76	2
Ba	137	103	0.002451803	0.7297	mg/L	2.53	2
Pb	208	185	0.1703767	1.807	mg/L	3.48	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 012SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:03 pm
Sample Name: 08/16 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01770159	0.04804	mg/L	1.11	2
Ni	60	103	0.006025441	0.05014	mg/L	2.53	2
Cu	65	103	0.007143651	0.05046	mg/L	1.45	2
Zn	66	103	0.002381146	0.05160	mg/L	0.93	2
As	75	103	0.001536591	0.05024	mg/L	2.27	2
Se	78	89	.0003426150	0.04904	mg/L	1.42	1
Ag	107	103	0.009726405	0.04999	mg/L	0.32	2
Cd	111	103	0.001390087	0.04999	mg/L	0.58	2
Ba	137	103	.0008485337	0.05046	mg/L	1.84	2
Pb	208	185	0.02438686	0.05162	mg/L	2.31	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 013SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:07 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000201702	0.00001326	mg/L	39.85	2
Ni	60	103	.0000098139	0.00001236	mg/L	78.44	2
Cu	65	103	.0000596031	0.00001580	mg/L	112.28	2
Zn	66	103	.0000155309	<0.000	mg/L	24.78	2
As	75	103	.0000025523	0.00003690	mg/L	35.37	2
Se	78	89	.0000011308	0.0001280	mg/L	37.75	1
Ag	107	103	.0000099821	0.00003732	mg/L	4.93	2
Cd	111	103	.0000009209	0.000007376	mg/L	140.18	2
Ba	137	103	.0000010752	<0.000	mg/L	291.73	2
Pb	208	185	.0000660301	0.000001996	mg/L	2,100	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 014SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:10 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000180049	0.000007378	mg/L	60.34	2
Ni	60	103	.0000093788	0.000008734	mg/L	78.35	2
Cu	65	103	.0000542234	<0.000	mg/L	92.31	2
Zn	66	103	.0000142349	<0.000	mg/L	37.57	2
As	75	103	.0000017520	0.00001071	mg/L	266.85	2
Se	78	89	.0000005266	0.00004141	mg/L	86.04	1
Ag	107	103	.0000047348	0.00001034	mg/L	36.73	2
Cd	111	103	.0000011557	0.00001582	mg/L	92.23	2
Ba	137	103	.0000013419	0.000007102	mg/L	349.48	2
Pb	208	185	.0000560167	<0.000	mg/L	184.94	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 015SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:13 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000177040	0.000006561	mg/L	74.67	2
Ni	60	103	.0000082876	<0.000	mg/L	2,900	2
Cu	65	103	.0000577263	0.000002434	mg/L	1,900	2
Zn	66	103	.0000133452	<0.000	mg/L	12.76	2
As	75	103	.0000015320	0.000003513	mg/L	234.42	2
Se	78	89	.0000003225	0.00001218	mg/L	44.06	1
Ag	107	103	.0000023051	<0.000	mg/L	107.48	2
Cd	111	103	.0000007699	0.000001943	mg/L	767.37	2
Ba	137	103	.0000014308	0.00001240	mg/L	37.65	2
Pb	208	185	.0000515297	<0.000	mg/L	55.32	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 016SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:16 pm
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0001961208	0.0004912	mg/L	6.90	2
Ni	60	103	.0000740460	0.0005476	mg/L	2.81	2
Cu	65	103	.0001299800	0.0005169	mg/L	2.73	2
Zn	66	103	.0000459757	0.0006259	mg/L	3.82	2
As	75	103	.0000166054	0.0004968	mg/L	3.44	2
Se	78	89	.0000032791	0.0004357	mg/L	23.43	1
Ag	107	103	.0001004807	0.0005026	mg/L	1.61	2
Cd	111	103	.0000139173	0.0004750	mg/L	4.98	2
Ba	137	103	.0000093909	0.0004865	mg/L	18.14	2
Pb	208	185	.0002811973	0.0004587	mg/L	12.51	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 017SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 03:19 pm
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003755087	0.0009785	mg/L	1.32	2
Ni	60	103	.0001376941	0.001078	mg/L	5.43	2
Cu	65	103	.0002075700	0.001069	mg/L	7.15	2
Zn	66	103	.0000777248	0.001319	mg/L	3.80	2
As	75	103	.0000311564	0.0009730	mg/L	6.06	2
Se	78	89	.0000073868	0.001024	mg/L	8.67	1
Ag	107	103	.0001918122	0.0009721	mg/L	4.52	2
Cd	111	103	.0000300172	0.001054	mg/L	9.89	2
Ba	137	103	.0000177728	0.0009857	mg/L	17.01	2
Pb	208	185	.0004833792	0.0008878	mg/L	11.39	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 030SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:04 pm
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03532968	0.09593	mg/L	1.97	2
Ni	60	103	0.01205277	0.1004	mg/L	0.86	2
Cu	65	103	0.01413539	0.1002	mg/L	1.27	2
Zn	66	103	0.004599414	0.1000	mg/L	0.99	2
As	75	103	0.003007864	0.09839	mg/L	0.16	2
Se	78	89	.0006749118	0.09664	mg/L	1.70	1
Ag	107	103	0.01941725	0.09981	mg/L	1.18	2
Cd	111	103	0.002784387	0.1002	mg/L	0.77	2
Ba	137	103	0.001698887	0.1011	mg/L	1.88	2
Pb	208	185	0.04785158	0.1014	mg/L	3.24	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 031SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:07 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000184134	0.000008488	mg/L	43.59	2
Ni	60	103	.0000109965	0.00002221	mg/L	46.42	2
Cu	65	103	.0000601286	0.00001954	mg/L	61.31	2
Zn	66	103	.0000130972	<0.000	mg/L	28.97	2
As	75	103	.0000024901	0.00003487	mg/L	47.18	2
Se	78	89	.0000014606	0.0001752	mg/L	37.16	1
Ag	107	103	.0000114207	0.00004471	mg/L	0.94	2
Cd	111	103	.0000009166	0.000007222	mg/L	374.83	2
Ba	137	103	.0000009517	<0.000	mg/L	101.80	2
Pb	208	185	.0001002412	0.00007461	mg/L	48.65	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 032SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:10 pm
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000185721	0.000008919	mg/L	101.40	2
Ni	60	103	.0000088434	0.000004272	mg/L	110.32	2
Cu	65	103	.0000560747	<0.000	mg/L	166.18	2
Zn	66	103	.0000146407	<0.000	mg/L	81.20	2
As	75	103	.0000011934	<0.000	mg/L	65.50	2
Se	78	89	.0000003924	0.00002219	mg/L	92.83	1
Ag	107	103	.0000045815	0.000009551	mg/L	37.20	2
Cd	111	103	.0000015324	0.00002938	mg/L	68.07	2
Ba	137	103	.0000010500	<0.000	mg/L	237.65	2
Pb	208	185	.0000691771	0.000008676	mg/L	652.49	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 035SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:20 pm
Sample Name: 53519.02s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000694445	0.0007355	mg/L	4.59	2
Ni	60	103	.0009628513	0.03977	mg/L	2.05	2
Cu	65	103	0.001039212	0.03496	mg/L	0.50	2
Zn	66	103	.0002692178	0.02750	mg/L	2.69	2
As	75	103	.0000047247	0.0005400	mg/L	31.24	2
Se	78	89	.0000004799	0.0001737	mg/L	44.22	1
Ag	107	103	.0000052021	0.00006371	mg/L	37.98	2
Cd	111	103	.0000040226	0.0005949	mg/L	27.84	2
Ba	137	103	0.001064695	0.3167	mg/L	2.80	2
Pb	208	185	.0004959286	0.004572	mg/L	4.85	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 036SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:23 pm
Sample Name: 53519.03s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000336412	0.0002493	mg/L	13.61	2
Ni	60	103	.0000713430	0.002626	mg/L	3.24	2
Cu	65	103	.0000603905	0.0001070	mg/L	201.12	2
Zn	66	103	.0000410461	0.002591	mg/L	18.75	2
As	75	103	.0000658025	0.01053	mg/L	3.52	2
Se	78	89	.0000005187	0.0002014	mg/L	15.39	1
Ag	107	103	.0000027858	0.000001597	mg/L	371.82	2
Cd	111	103	.0000005356	<0.000	mg/L	163.22	2
Ba	137	103	.0002417513	0.07162	mg/L	1.84	2
Pb	208	185	.0004336033	0.003911	mg/L	6.17	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 037SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:26 pm
Sample Name: 53519.03s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000335187	0.0002476	mg/L	19.40	2
Ni	60	103	.0000755813	0.002802	mg/L	3.17	2
Cu	65	103	.0000751784	0.0006335	mg/L	18.30	2
Zn	66	103	.0001668016	0.01632	mg/L	4.72	2
As	75	103	.0000582213	0.009293	mg/L	2.99	2
Se	78	89	.0000005919	0.0002539	mg/L	11.40	1
Ag	107	103	.0000021688	<0.000	mg/L	62.29	2
Cd	111	103	.0000007979	0.00001474	mg/L	660.58	2
Ba	137	103	.0002249182	0.06661	mg/L	2.42	2
Pb	208	185	.0003818506	0.003362	mg/L	9.74	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 038SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:29 pm
Sample Name: 53519.04s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000319968	0.0002269	mg/L	21.90	2
Ni	60	103	.0000759329	0.002817	mg/L	4.61	2
Cu	65	103	.0000606520	0.0001163	mg/L	67.92	2
Zn	66	103	.0000339448	0.001816	mg/L	1.80	2
As	75	103	.0000708552	0.01136	mg/L	1.07	2
Se	78	89	.0000003414	0.00007445	mg/L	85.96	1
Ag	107	103	.0000018451	<0.000	mg/L	26.11	2
Cd	111	103	.0000008682	0.00002739	mg/L	377.88	2
Ba	137	103	.0002578695	0.07642	mg/L	3.85	2
Pb	208	185	.0003487558	0.003010	mg/L	10.00	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 039SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:33 pm
Sample Name: 53519.04s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000340471	0.0002548	mg/L	13.51	2
Ni	60	103	.0000747257	0.002766	mg/L	3.19	2
Cu	65	103	.0000571965	<0.000	mg/L	2,100	2
Zn	66	103	.0001610190	0.01569	mg/L	0.60	2
As	75	103	.0000549283	0.008755	mg/L	2.66	2
Se	78	89	.0000005519	0.0002252	mg/L	67.27	1
Ag	107	103	.0000015004	<0.000	mg/L	17.91	2
Cd	111	103	.0000003872	<0.000	mg/L	25.40	2
Ba	137	103	.0002225312	0.06590	mg/L	3.69	2
Pb	208	185	.0003542400	0.003069	mg/L	12.65	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 040SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:36 pm
Sample Name: 53519.05s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0003009484	0.003880	mg/L	0.87	2
Ni	60	103	0.005165349	0.2149	mg/L	2.38	2
Cu	65	103	.0004101527	0.01256	mg/L	1.97	2
Zn	66	103	.0003245693	0.03354	mg/L	3.96	2
As	75	103	.0001106736	0.01788	mg/L	5.50	2
Se	78	89	.0000008876	0.0004656	mg/L	33.59	1
Ag	107	103	.0000018523	<0.000	mg/L	22.68	2
Cd	111	103	.0000019979	0.0002306	mg/L	8.43	2
Ba	137	103	.0005689368	0.1690	mg/L	1.80	2
Pb	208	185	0.001179689	0.01183	mg/L	2.00	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 041SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:39 pm
Sample Name: 53519.05s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000374832	0.0003014	mg/L	14.86	2
Ni	60	103	0.004892673	0.2035	mg/L	2.57	2
Cu	65	103	.0001412377	0.002986	mg/L	4.71	2
Zn	66	103	.0002189817	0.02201	mg/L	1.33	2
As	75	103	.0000209169	0.003189	mg/L	12.99	2
Se	78	89	.0000008634	0.0004483	mg/L	31.76	1
Ag	107	103	.0000013323	<0.000	mg/L	57.61	2
Cd	111	103	.0000009243	0.00003749	mg/L	359.30	2
Ba	137	103	.0004618599	0.1372	mg/L	3.27	2
Pb	208	185	.0002569489	0.002036	mg/L	7.96	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 045SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:52 pm
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03594474	0.09760	mg/L	3.40	2
Ni	60	103	0.01206820	0.1005	mg/L	3.06	2
Cu	65	103	0.01438193	0.1020	mg/L	1.55	2
Zn	66	103	0.004660289	0.1014	mg/L	1.38	2
As	75	103	0.003028037	0.09905	mg/L	3.53	2
Se	78	89	.0006952304	0.09955	mg/L	1.16	1
Ag	107	103	0.01924043	0.09890	mg/L	2.63	2
Cd	111	103	0.002785883	0.1002	mg/L	0.63	2
Ba	137	103	0.001738664	0.1035	mg/L	0.95	2
Pb	208	185	0.04904717	0.1040	mg/L	3.92	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 046SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:55 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000263670	0.00003009	mg/L	35.76	2
Ni	60	103	.0000103481	0.00001681	mg/L	69.36	2
Cu	65	103	.0000612958	0.00002785	mg/L	78.03	2
Zn	66	103	.0000161752	<0.000	mg/L	81.13	2
As	75	103	.0000027978	0.00004494	mg/L	29.95	2
Se	78	89	.0000024962	0.0003235	mg/L	44.51	1
Ag	107	103	.0000592385	0.0002905	mg/L	6.08	2
Cd	111	103	.0000010644	0.00001254	mg/L	65.37	2
Ba	137	103	.0000017274	0.00003006	mg/L	165.54	2
Pb	208	185	.0000929302	0.00005909	mg/L	50.52	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 047SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 04:58 pm
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000173046	0.000005476	mg/L	66.95	2
Ni	60	103	.0000104595	0.00001774	mg/L	37.50	2
Cu	65	103	.0000552199	<0.000	mg/L	124.66	2
Zn	66	103	.0000143643	<0.000	mg/L	21.32	2
As	75	103	.0000017931	0.00001206	mg/L	271.39	2
Se	78	89	.0000005004	0.00003765	mg/L	50.54	1
Ag	107	103	.0000253637	0.0001164	mg/L	12.23	2
Cd	111	103	.0000006735	<0.000	mg/L	704.26	2
Ba	137	103	.0000010132	<0.000	mg/L	185.96	2
Pb	208	185	.0000542912	<0.000	mg/L	125.31	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 048SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:01 pm
Sample Name: 08/16 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.01798519	0.04881	mg/L	0.99	2
Ni	60	103	0.006143950	0.05113	mg/L	1.33	2
Cu	65	103	0.007190588	0.05079	mg/L	0.63	2
Zn	66	103	0.002375783	0.05149	mg/L	2.09	2
As	75	103	0.001528972	0.04999	mg/L	0.72	2
Se	78	89	.0003532345	0.05056	mg/L	2.36	1
Ag	107	103	0.009736190	0.05004	mg/L	0.81	2
Cd	111	103	0.001402500	0.05044	mg/L	1.59	2
Ba	137	103	.0008532120	0.05074	mg/L	3.40	2
Pb	208	185	0.02411932	0.05106	mg/L	4.53	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 049SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:04 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000185852	0.000008955	mg/L	33.07	2
Ni	60	103	.0000087654	0.000003622	mg/L	296.80	2
Cu	65	103	.0000570046	<0.000	mg/L	282.51	2
Zn	66	103	.0000151983	<0.000	mg/L	120.76	2
As	75	103	.0000015689	0.000004722	mg/L	372.30	2
Se	78	89	.0000010858	0.0001215	mg/L	58.89	1
Ag	107	103	.0000176761	0.00007687	mg/L	4.85	2
Cd	111	103	.0000008514	0.000004873	mg/L	16.19	2
Ba	137	103	.0000016895	0.00002781	mg/L	184.43	2
Pb	208	185	.0000516249	<0.000	mg/L	225.27	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 050SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:08 pm
Sample Name: 53519.06 Dil
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 25.00

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000728470	0.003909	mg/L	6.49	2
Ni	60	103	.0001251853	0.02434	mg/L	2.51	2
Cu	65	103	.0000997598	0.007544	mg/L	10.04	2
Zn	66	103	.0000650905	0.02608	mg/L	10.38	2
As	75	103	.0000862580	0.06941	mg/L	1.74	2
Se	78	89	.0000006379	0.001434	mg/L	86.54	1
Cd	111	103	.0000004983	<0.000	mg/L	145.84	2
Ba	137	103	.0001893245	0.2801	mg/L	4.34	2
Pb	208	185	.0001688750	0.005507	mg/L	31.83	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 051SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:11 pm
Sample Name: 53519.06s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0002824470	0.003628	mg/L	2.90	2
Ni	60	103	.0005997350	0.02464	mg/L	2.58	2
Cu	65	103	.0002811907	0.007968	mg/L	5.86	2
Zn	66	103	.0002329098	0.02353	mg/L	2.57	2
As	75	103	.0004356635	0.07105	mg/L	1.59	2
Se	78	89	.0000011015	0.0006188	mg/L	33.95	1
Cd	111	103	.0000013246	0.0001095	mg/L	72.70	2
Ba	137	103	.0008026829	0.2386	mg/L	1.77	2
Pb	208	185	.0006508236	0.006216	mg/L	12.86	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 052SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:14 pm
Sample Name: 53519.06s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000480460	0.0004449	mg/L	7.30	2
Ni	60	103	.0005125386	0.02101	mg/L	5.41	2
Cu	65	103	.0000759295	0.0006603	mg/L	21.25	2
Zn	66	103	.0002595464	0.02644	mg/L	1.42	2
As	75	103	.0000435155	0.006887	mg/L	5.37	2
Se	78	89	.0000009518	0.0005116	mg/L	24.57	1
Cd	111	103	.0000005987	<0.000	mg/L	389.90	2
Ba	137	103	.0006496142	0.1931	mg/L	3.30	2
Pb	208	185	.0000882020	0.0002453	mg/L	93.27	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 053SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:17 pm
Sample Name: 53519.08s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0001154191	0.001360	mg/L	3.34	2
Ni	60	103	.0003915222	0.01597	mg/L	5.35	2
Cu	65	103	.0001989877	0.005042	mg/L	3.18	2
Zn	66	103	.0001365075	0.01301	mg/L	4.32	2
As	75	103	.0000275596	0.004276	mg/L	12.88	2
Se	78	89	.0000008960	0.0004716	mg/L	34.97	1
Cd	111	103	.0000011768	0.00008292	mg/L	79.10	2
Ba	137	103	.0005810510	0.1727	mg/L	3.17	2
Pb	208	185	.0004255603	0.003825	mg/L	18.90	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 054SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:20 pm
Sample Name: 53519.09s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000807797	0.0008895	mg/L	3.87	2
Ni	60	103	0.009380453	0.3905	mg/L	1.64	2
Cu	65	103	.0005152323	0.01630	mg/L	2.30	2
Zn	66	103	.0001145942	0.01062	mg/L	5.80	2
As	75	103	.0001667747	0.02705	mg/L	2.13	2
Se	78	89	.0000101229	0.007080	mg/L	8.97	1
Cd	111	103	.0000022373	0.0002737	mg/L	59.12	2
Ba	137	103	.0004647128	0.1380	mg/L	1.40	2
Pb	208	185	.0001318018	0.0007080	mg/L	7.96	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 061SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:42 pm
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03542247	0.09618	mg/L	1.00	2
Ni	60	103	0.01197628	0.09973	mg/L	0.39	2
Cu	65	103	0.01398643	0.09919	mg/L	0.21	2
Zn	66	103	0.004587909	0.09978	mg/L	1.22	2
As	75	103	0.003038868	0.09940	mg/L	1.06	2
Se	78	89	.0007056822	0.1010	mg/L	3.12	1
Ag	107	103	0.01912937	0.09833	mg/L	0.24	2
Cd	111	103	0.002773855	0.09978	mg/L	1.73	2
Ba	137	103	0.001730474	0.1030	mg/L	1.67	2
Pb	208	185	0.04764766	0.1010	mg/L	4.11	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 062SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:46 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000218157	0.00001773	mg/L	47.37	2
Ni	60	103	.0000099617	0.00001359	mg/L	27.10	2
Cu	65	103	.0000600931	0.00001929	mg/L	107.15	2
Zn	66	103	.0000139024	<0.000	mg/L	26.98	2
As	75	103	.0000021438	0.00002353	mg/L	45.69	2
Se	78	89	.0000017184	0.0002121	mg/L	20.14	1
Ag	107	103	.0000170227	0.00007351	mg/L	12.51	2
Cd	111	103	.0000006980	<0.000	mg/L	519.45	2
Ba	137	103	.0000010436	<0.000	mg/L	213.98	2
Pb	208	185	.0000794515	0.00003048	mg/L	61.38	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 063SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 05:49 pm
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000188538	0.000009685	mg/L	9.07	2
Ni	60	103	.0000101156	0.00001487	mg/L	101.88	2
Cu	65	103	.0000565737	<0.000	mg/L	356.49	2
Zn	66	103	.0000147473	<0.000	mg/L	46.40	2
As	75	103	.0000011500	<0.000	mg/L	176.92	2
Se	78	89	.0000003347	0.00001392	mg/L	97.49	1
Ag	107	103	.0000098759	0.00003677	mg/L	19.79	2
Cd	111	103	.0000008484	0.000004767	mg/L	168.07	2
Ba	137	103	.0000010923	<0.000	mg/L	342.35	2
Pb	208	185	.0000608751	<0.000	mg/L	227.39	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 072SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:17 pm
Sample Name: CCV4-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.03494230	0.09487	mg/L	2.56	2
Ni	60	103	0.01177791	0.09808	mg/L	1.22	2
Cu	65	103	0.01390442	0.09860	mg/L	2.63	2
Zn	66	103	0.004576845	0.09954	mg/L	0.47	2
As	75	103	0.002998847	0.09809	mg/L	0.99	2
Se	78	89	.0006817129	0.09761	mg/L	1.39	1
Ag	107	103	0.01934521	0.09944	mg/L	1.23	2
Cd	111	103	0.002788342	0.1003	mg/L	0.56	2
Ba	137	103	0.001732857	0.1031	mg/L	2.75	2
Pb	208	185	0.04801924	0.1018	mg/L	3.31	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 073SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:21 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000238909	0.00002337	mg/L	24.13	2
Ni	60	103	.0000101682	0.00001531	mg/L	68.52	2
Cu	65	103	.0000556191	<0.000	mg/L	310.26	2
Zn	66	103	.0000166019	<0.000	mg/L	114.25	2
As	75	103	.0000023912	0.00003163	mg/L	30.24	2
Se	78	89	.0000019028	0.0002385	mg/L	20.17	1
Ag	107	103	.0000167418	0.00007207	mg/L	8.23	2
Cd	111	103	.0000012472	0.00001912	mg/L	44.88	2
Ba	137	103	.0000013477	0.000007448	mg/L	221.54	2
Pb	208	185	.0000822248	0.00003637	mg/L	113.89	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 074SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:24 pm
Sample Name: CCB4
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000200753	0.00001300	mg/L	6.29	2
Ni	60	103	.0000101663	0.00001530	mg/L	57.90	2
Cu	65	103	.0000497990	<0.000	mg/L	43.40	2
Zn	66	103	.0000156747	<0.000	mg/L	113.00	2
As	75	103	.0000018228	0.00001303	mg/L	106.22	2
Se	78	89	.0000004683	0.00003306	mg/L	56.23	1
Ag	107	103	.0000101038	0.00003794	mg/L	24.73	2
Cd	111	103	.0000004129	<0.000	mg/L	26.94	2
Ba	137	103	.0000008785	<0.000	mg/L	67.64	2
Pb	208	185	.0000643948	<0.000	mg/L	3,600	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 075SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:27 pm
Sample Name: Soln-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	.0000358902	0.00005596	mg/L	12.80	2
Ni	60	103	.0000284571	0.0001677	mg/L	6.69	2
Cu	65	103	.0001164198	0.0004204	mg/L	11.73	2
Zn	66	103	.0002351144	0.004755	mg/L	1.83	2
As	75	103	.0000008942	<0.000	mg/L	27.18	2
Se	78	89	.0000003183	0.00001159	mg/L	118.98	1
Ag	107	103	.0000091900	0.00003324	mg/L	7.76	2
Cd	111	103	.0000005461	<0.000	mg/L	217.88	2
Ba	137	103	.0000026429	0.00008459	mg/L	61.26	2
Pb	208	185	.0000709478	0.00001243	mg/L	170.56	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 076SMPL.D#
Method: 01-Mi10.M
Acq Time: Aug 16 2012 06:30 pm
Sample Name: Soln-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Cr	52	103	0.008967207	0.02432	mg/L	2.56	2
Ni	60	103	0.002820279	0.02343	mg/L	1.13	2
Cu	65	103	0.003118473	0.02180	mg/L	2.79	2
Zn	66	103	0.001137286	0.02445	mg/L	2.11	2
As	75	103	.0007386603	0.02413	mg/L	2.56	2
Ag	107	103	0.003848032	0.01977	mg/L	0.55	2
Cd	111	103	.0005899689	0.02120	mg/L	0.39	2

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 107SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:37 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000070703	.0000000000	mg/L	1.1E+9	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 108SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:06 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000048407	<0.000	mg/L	26.07	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 109SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:09 pm
Sample Name: 0.001
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000369563	0.0009580	mg/L	6.47	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 110SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:11 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0001709770	0.005254	mg/L	1.79	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 111SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:13 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0006298821	0.01996	mg/L	1.90	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 112SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:16 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	0.001578133	0.05036	mg/L	0.41	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 113SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:18 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	0.006243148	0.1999	mg/L	1.13	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 114SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:21 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	0.003155114	0.1009	mg/L	0.77	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 115SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:23 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000151951	0.0003318	mg/L	5.39	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 116SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:25 pm
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000223579	0.0005613	mg/L	13.22	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 119SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:32 pm
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	0.002923967	0.09353	mg/L	1.15	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 120SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:35 pm
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000129355	0.0002594	mg/L	6.33	1

Data Set: MT3-12-0816A
Run Date: 08/16/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 121SMPL.D#
Method: 01-Se.M
Acq Time: Aug 20 2012 12:39 pm
Sample Name: Soln-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-1
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Se	78	103	.0000064172	<0.000	mg/L	36.48	1

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 077SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:20 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000014799	<0.000	mg/L	923.71	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 078SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:22 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000015612	.0000000000	mg/L	1.2E+9	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 079SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:24 pm
Sample Name: 0.0001
Sample Type: CalStd
Matrix: Liquid
Comments: Ag, As, Be, Cd, Tl
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000197555	0.00009475	mg/L	3.89	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 080SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:26 pm
Sample Name: 0.0005
Sample Type: CalStd
Matrix: Liquid
Comments: Cu, Pb, V
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000941018	0.0004819	mg/L	1.84	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 081SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:28 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0009709765	0.005049	mg/L	0.42	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 082SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:30 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.003892680	0.02026	mg/L	1.29	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 083SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:33 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.009652356	0.05026	mg/L	0.18	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 084SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:35 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.03838683	0.1999	mg/L	1.28	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 085SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:38 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.01964794	0.1023	mg/L	0.78	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 086SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:40 pm
Sample Name: 08/16 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.009749656	0.05077	mg/L	1.20	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 087SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:42 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000081909	0.00003453	mg/L	12.16	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 088SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:44 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000062941	0.00002465	mg/L	18.38	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 089SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:46 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000039248	0.00001231	mg/L	33.59	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 090SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:48 pm
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000985323	0.0005050	mg/L	5.71	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 091SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:50 pm
Sample Name: 53519.06 Dil
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 25.00

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000048263	0.0004251	mg/L	16.52	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 092SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:52 pm
Sample Name: 53519.06s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000048739	0.00008626	mg/L	14.89	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 093SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:54 pm
Sample Name: 53519.06s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000029932	0.00003729	mg/L	26.72	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 094SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:56 pm
Sample Name: 53519.08s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000056966	0.0001077	mg/L	19.03	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 095SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 12:58 pm
Sample Name: 53519.09s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000030949	0.00003994	mg/L	72.53	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 102SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 01:13 pm
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.01944736	0.1013	mg/L	1.19	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 103SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 01:15 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000096794	0.00004228	mg/L	22.60	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 104SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 01:17 pm
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000048946	0.00001736	mg/L	30.73	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 105SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 01:21 pm
Sample Name: Soln-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000089929	0.00003870	mg/L	9.88	3

Data Set: MT3-12-0817A
Run Date: 08/17/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 106SMPL.D#
Method: 01-Ag.M
Acq Time: Aug 17 2012 01:25 pm
Sample Name: Soln-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-081612-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.003821062	0.01989	mg/L	0.97	3

Metals Digestion

(3015A) \ 3050B

DATE 08/16/12

TIME START 9:30

ANALYST SLK

TIME FINISH 10:00

PREP BATCH MTD- 08162-1

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS- 1	----	50	50		—	1
LRB- 1	----	50	50		—	1
53508.01		10		total 5% DL=25		5
01				dissolved*		
03				total		
04MS						
05MSD						
03				dis		
04MS						
05MSD						
06				T		
06				dis		
08						
09				T		
09				dis		
10				T		
10				dis		
53519.02						
03						
03						
04						
04						
05						
05						
				* all dissolved lab filtered		

NOTES: 1) *Spike values (unless otherwise stated):*
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078+ D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 1125633

3) HNO_3 Lot # 51332-OmniTrace *4) Centrifuge Tube Lot #* 120201-060-1

5) Balance ID: M2 *Reviewed by* [signature] *On* 08/16/12

Metals Digestion

3015A / 3050B

DATE 08/16/12

TIME START 10:20

ANALYST Suk

TIME FINISH 10:50

PREP BATCH MTD- 08/16/12-2

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS- 2	----	50	50		—	1
LRB- 2	----	50	50		—	1
53519.06		10		Total 5/1 DL=25		5
06				dissolved*		
08						
09						
53560.01						
02						
03						
04						
04MS						
04MSD						
53572.01						
02						
03						
04						
04MS						
04MSD						
53574.d						
53575.01						
				* lab filtered		

NOTES: *1) Spike values (unless otherwise stated):*
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078 + D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 1125633

3) HNO_3 Lot # 51332-OmniTrace

4) Centrifuge Tube Lot # 120201-060-1

5) Balance ID: M2

Reviewed by PR *On* 08/16/12

Form 0: Sequence Log

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	8/15/2012 2:00:52 PM	Calibration Blank	Liquid	
002	8/15/2012 2:03:07 PM	Standard #1	Liquid	
003	8/15/2012 2:05:21 PM	Standard #2	Liquid	
004	8/15/2012 2:07:35 PM	Standard #3	Liquid	
005	8/15/2012 2:09:48 PM	Standard #4	Liquid	
006	8/15/2012 2:12:00 PM	Standard #5	Liquid	
007	8/15/2012 2:14:12 PM	Standard #6	Liquid	
008	8/15/2012 2:17:59 PM	Standard #7	Liquid	
009	8/15/2012 2:22:25 PM	CCV1-2.0 ppb	Liquid	CCV
010	8/15/2012 2:24:44 PM	CCB1	Liquid	CCB
011	8/15/2012 2:27:02 PM	ICV-5.0	Liquid	ICV
012	8/15/2012 2:31:07 PM	ICB	Liquid	ICB
013	8/15/2012 2:33:24 PM	ERA 8121-05 TV=15.9	Liquid	ERA
014	8/15/2012 2:37:41 PM	BS-0.10	Liquid	BS
015	8/15/2012 2:40:00 PM	08/15 LCS1-2.0 ppb	Liquid	LCS
016	8/15/2012 2:42:21 PM	08/15 LRB1	Liquid	LRB
017	8/15/2012 2:44:32 PM	53508.01s dis	Liquid	S
018	8/15/2012 2:46:43 PM	53508.06s dis	Liquid	S
019	8/15/2012 2:48:56 PM	53508.09s dis	Liquid	S
020	8/15/2012 2:51:08 PM	53508.10s dis	Liquid	S
021	8/15/2012 2:53:22 PM	53519.03s dis	Liquid	S
022	8/15/2012 2:55:36 PM	53519.04s dis	Liquid	S
023	8/15/2012 2:57:50 PM	53519.05s dis	Liquid	S
024	8/15/2012 3:00:02 PM	53519.06s dis	Liquid	S
025	8/15/2012 3:02:14 PM	53519.02s tot	Liquid	S
026	8/15/2012 3:04:27 PM	53508.03s dis	Liquid	S
027	8/15/2012 3:06:41 PM	53508.04s dis MS-2.0 ppb	Liquid	MS
028	8/15/2012 3:08:55 PM	53508.05s dis MSD	Liquid	MSD
029	8/15/2012 3:11:13 PM	CCV2-2.0 ppb	Liquid	CCV
030	8/15/2012 3:13:33 PM	CCB2	Liquid	CCB
031	8/15/2012 3:15:47 PM	53508.01s tot	Liquid	S
032	8/15/2012 3:18:02 PM	53508.06s tot	Liquid	S
033	8/15/2012 3:20:15 PM	53508.08s tot	Liquid	S
034	8/15/2012 3:22:28 PM	53508.09s tot	Liquid	S
035	8/15/2012 3:24:41 PM	53508.10s tot	Liquid	S
036	8/15/2012 3:26:55 PM	53519.03s tot	Liquid	S
037	8/15/2012 3:29:10 PM	53519.04s tot	Liquid	S
038	8/15/2012 3:31:25 PM	53519.05s tot	Liquid	S
039	8/15/2012 3:33:41 PM	53519.06s tot	Liquid	S
040	8/15/2012 3:35:55 PM	53508.03s tot	Liquid	S
041	8/15/2012 3:38:08 PM	53508.04s tot MS-2.0 ppb	Liquid	MS
042	8/15/2012 3:40:23 PM	53508.05s tot MSD	Liquid	MSD
043	8/15/2012 3:42:41 PM	CCV3-2.0 ppb	Liquid	CCV
044	8/15/2012 3:45:00 PM	CCB3	Liquid	CCB
045	8/15/2012 3:47:20 PM	08/15 LCS2-2.0 ppb	Liquid	LCS
046	8/15/2012 3:49:41 PM	08/15 LRB2	Liquid	LRB
047	8/15/2012 3:51:56 PM	53519.09s	Liquid	S
048	8/15/2012 3:54:11 PM	53519.08s	Liquid	S
049	8/15/2012 3:56:27 PM	53519.08 MS-2.0 ppb	Liquid	MS
050	8/15/2012 3:58:44 PM	53519.08 MSD	Liquid	MSD
051	8/15/2012 4:01:03 PM	CCV4-2.0 ppb	Liquid	CCV
052	8/15/2012 4:03:22 PM	CCB4	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53519.02
Sample Tag: MW137 (08-09-2012) (1215)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53519.03
Sample Tag: MW135 (08-09-2012) (1320)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53519.04
Sample Tag: Dup-02 (08-09-2012)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53519.05
Sample Tag: MW158 (08-09-2012) (1515)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53519.06
Sample Tag: MW124 (08-09-2012) (1630)
Date Collected: 08/09/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	
7439-97-6	Mercury, Dissolved	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53519.08
Sample Tag: MW115 (08-10-2012) (0845)
Date Collected: 08/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Lab Sample ID: S53519.09
Sample Tag: MW152 (08-10-2012) (1035)
Date Collected: 08/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7439-97-6	Mercury	Not detected	0.0002		mg/L	1	08/15/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009 CCV1-2.0 ppb	CCV	1.0	Hg	2.007	2.0	100	90/110	ug/L	Liquid
011 ICV-5.0	ICV	1.0	Hg	5.358	5.0	107	90/110	ug/L	Liquid
029 CCV2-2.0 ppb	CCV	1.0	Hg	1.991	2.0	100	90/110	ug/L	Liquid
043 CCV3-2.0 ppb	CCV	1.0	Hg	1.988	2.0	99	90/110	ug/L	Liquid
051 CCV4-2.0 ppb	CCV	1.0	Hg	1.999	2.0	100	90/110	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: 8121-05

Data Set ID: HG2-12-0815A

Instrument ID: HG QuickTrace

Analysis Date: 08/15/12

Analyst: JRT

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
013 ERA 8121-05 TV=15.9	2.0	Hg	16.40	15.9	103	9.76	21.5	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
010 CCB1	CCB	1.0	Hg	<0.03	-0.0162	ug/L	Liquid
012 ICB	ICB	1.0	Hg	<0.03	-0.0130	ug/L	Liquid
016 08/15 LRB1	LRB	1.0	Hg	<0.03	-0.0396	ug/L	Liquid
030 CCB2	CCB	1.0	Hg	<0.03	-0.0174	ug/L	Liquid
044 CCB3	CCB	1.0	Hg	<0.03	-0.0190	ug/L	Liquid
046 08/15 LRB2	LRB	1.0	Hg	<0.03	-0.0386	ug/L	Liquid
052 CCB4	CCB	1.0	Hg	<0.03	-0.0206	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
014 BS-0.10		1.0	Hg	0.092	ND	0.10	92	70/130	ug/L	Liquid
027 53508.04s dis	**040 53508.03s tot**	1.0	Hg	1.911	<0.2	2.0	96	80/120	ug/L	Liquid
041 53508.04s tot	**026 53508.03s dis**	1.0	Hg	1.949	<0.2	2.0	98	80/120	ug/L	Liquid
049 53519.08 MS-2.0	**048 53519.08s**	1.0	Hg	1.831	<0.2	2.0	92	80/120	ug/L	Liquid

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
028 53508.05s dis MSD	**027 53508.04s dis**	1.0	Hg	1.847	1.911	3	0/20	ug/L	Liquid
042 53508.05s tot MSD	**041 53508.04s tot**	1.0	Hg	1.934	1.949	1	0/20	ug/L	Liquid
050 53519.08 MSD	**049 53519.08 MS-2.0**	1.0	Hg	1.857	1.831	1	0/20	ug/L	Liquid

Form 7: Laboratory Control Sample

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
015 08/15 LCS1-2.0 ppb	1.0	Hg	1.841	2.0	92	85/115	ug/L	Liquid
045 08/15 LCS2-2.0 ppb	1.0	Hg	1.875	2.0	94	85/115	ug/L	Liquid

Form 13: Analysis Run Log

Data Set ID: HG2-12-0815A
Instrument ID: HG QuickTrace
Analysis Date: 08/15/12
Analyst: JRT

Filename	*Run Time*	*Matrix*	*Analytes*
001 Calibration Blank	8/15/2012 2:00:52 PM	Liquid	Hg
002 Standard #1	8/15/2012 2:03:07 PM	Liquid	Hg
003 Standard #2	8/15/2012 2:05:21 PM	Liquid	Hg
004 Standard #3	8/15/2012 2:07:35 PM	Liquid	Hg
005 Standard #4	8/15/2012 2:09:48 PM	Liquid	Hg
006 Standard #5	8/15/2012 2:12:00 PM	Liquid	Hg
007 Standard #6	8/15/2012 2:14:12 PM	Liquid	Hg
008 Standard #7	8/15/2012 2:17:59 PM	Liquid	Hg
009 CCV1-2.0 ppb	8/15/2012 2:22:25 PM	Liquid	Hg
010 CCB1	8/15/2012 2:24:44 PM	Liquid	Hg
011 ICV-5.0	8/15/2012 2:27:02 PM	Liquid	Hg
012 ICB	8/15/2012 2:31:07 PM	Liquid	Hg
013 ERA 8121-05 TV=15.9	8/15/2012 2:33:24 PM	Liquid	Hg
014 BS-0.10	8/15/2012 2:37:41 PM	Liquid	Hg
015 08/15 LCS1-2.0 ppb	8/15/2012 2:40:00 PM	Liquid	Hg
016 08/15 LRB1	8/15/2012 2:42:21 PM	Liquid	Hg
017 53508.01s dis	8/15/2012 2:44:32 PM	Liquid	Hg
018 53508.06s dis	8/15/2012 2:46:43 PM	Liquid	Hg
019 53508.09s dis	8/15/2012 2:48:56 PM	Liquid	Hg
020 53508.10s dis	8/15/2012 2:51:08 PM	Liquid	Hg
021 53519.03s dis	8/15/2012 2:53:22 PM	Liquid	Hg
022 53519.04s dis	8/15/2012 2:55:36 PM	Liquid	Hg
023 53519.05s dis	8/15/2012 2:57:50 PM	Liquid	Hg
024 53519.06s dis	8/15/2012 3:00:02 PM	Liquid	Hg
025 53519.02s tot	8/15/2012 3:02:14 PM	Liquid	Hg
026 53508.03s dis	8/15/2012 3:04:27 PM	Liquid	Hg
027 53508.04s dis MS-2.0 ppb	8/15/2012 3:06:41 PM	Liquid	Hg
028 53508.05s dis MSD	8/15/2012 3:08:55 PM	Liquid	Hg
029 CCV2-2.0 ppb	8/15/2012 3:11:13 PM	Liquid	Hg
030 CCB2	8/15/2012 3:13:33 PM	Liquid	Hg
031 53508.01s tot	8/15/2012 3:15:47 PM	Liquid	Hg
032 53508.06s tot	8/15/2012 3:18:02 PM	Liquid	Hg
033 53508.08s tot	8/15/2012 3:20:15 PM	Liquid	Hg
034 53508.09s tot	8/15/2012 3:22:28 PM	Liquid	Hg
035 53508.10s tot	8/15/2012 3:24:41 PM	Liquid	Hg
036 53519.03s tot	8/15/2012 3:26:55 PM	Liquid	Hg
037 53519.04s tot	8/15/2012 3:29:10 PM	Liquid	Hg
038 53519.05s tot	8/15/2012 3:31:25 PM	Liquid	Hg
039 53519.06s tot	8/15/2012 3:33:41 PM	Liquid	Hg
040 53508.03s tot	8/15/2012 3:35:55 PM	Liquid	Hg
041 53508.04s tot MS-2.0 ppb	8/15/2012 3:38:08 PM	Liquid	Hg
042 53508.05s tot MSD	8/15/2012 3:40:23 PM	Liquid	Hg
043 CCV3-2.0 ppb	8/15/2012 3:42:41 PM	Liquid	Hg
044 CCB3	8/15/2012 3:45:00 PM	Liquid	Hg
045 08/15 LCS2-2.0 ppb	8/15/2012 3:47:20 PM	Liquid	Hg
046 08/15 LRB2	8/15/2012 3:49:41 PM	Liquid	Hg
047 53519.09s	8/15/2012 3:51:56 PM	Liquid	Hg
048 53519.08s	8/15/2012 3:54:11 PM	Liquid	Hg
049 53519.08 MS-2.0 ppb	8/15/2012 3:56:27 PM	Liquid	Hg
050 53519.08 MSD	8/15/2012 3:58:44 PM	Liquid	Hg
051 CCV4-2.0 ppb	8/15/2012 4:01:03 PM	Liquid	Hg
052 CCB4	8/15/2012 4:03:22 PM	Liquid	Hg

Data Set: HG2-12-0815A
Run Date: 08/15/12

Mercury Summary Report

Analyst: JRT
Instrument: HG QuickTrace

Element	Seq #	Acquisition Time	Sample Name	Peak	Concentration	Units	Matrix	Dilution	Sample Wt.	Sample Vol.
Hg	001	8/15/2012 2:00:52 PM	Calibration Blank	1081.0000	0.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	002	8/15/2012 2:03:07 PM	Standard #1	2357.0000	0.1000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	003	8/15/2012 2:05:21 PM	Standard #2	3523.0000	0.2000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	004	8/15/2012 2:07:35 PM	Standard #3	7050.0000	0.5000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	005	8/15/2012 2:09:48 PM	Standard #4	13010.0000	1.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	006	8/15/2012 2:12:00 PM	Standard #5	24970.0000	2.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	007	8/15/2012 2:14:12 PM	Standard #6	71720.0000	6.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	008	8/15/2012 2:17:59 PM	Standard #7	118700.0000	10.0000	ug/L	Liquid	1.0	1.0000	1.0000
Hg	009	8/15/2012 2:22:25 PM	CCV1-2.0 ppb	24800.0000	2.0070	ug/L	Liquid	1.0	1.0000	1.0000
Hg	010	8/15/2012 2:24:44 PM	CCB1	1023.0000	-0.0162	ug/L	Liquid	1.0	1.0000	1.0000
Hg	011	8/15/2012 2:27:02 PM	ICV-5.0	64170.0000	5.3580	ug/L	Liquid	1.0	1.0000	1.0000
Hg	012	8/15/2012 2:31:07 PM	ICB	1061.0000	-0.0130	ug/L	Liquid	1.0	1.0000	1.0000
Hg	013	8/15/2012 2:33:24 PM	ERA 8121-05 TV=15.9	97610.0000	16.4060	ug/L	Liquid	2.0	1.0000	2.0000
Hg	014	8/15/2012 2:37:41 PM	BS-0.10	2292.0000	0.0917	ug/L	Liquid	1.0	1.0000	1.0000
Hg	015	8/15/2012 2:40:00 PM	08/15 LCS1-2.0 ppb	22850.0000	1.8410	ug/L	Liquid	1.0	1.0000	1.0000
Hg	016	8/15/2012 2:42:21 PM	08/15 LRB1	747.9000	-0.0396	ug/L	Liquid	1.0	1.0000	1.0000
Hg	021	8/15/2012 2:53:22 PM	53519.03s dis	666.5000	-0.0466	ug/L	Liquid	1.0	1.0000	1.0000
Hg	022	8/15/2012 2:55:36 PM	53519.04s dis	793.6000	-0.0357	ug/L	Liquid	1.0	1.0000	1.0000
Hg	023	8/15/2012 2:57:50 PM	53519.05s dis	289.4000	-0.0786	ug/L	Liquid	1.0	1.0000	1.0000
Hg	024	8/15/2012 3:00:02 PM	53519.06s dis	615.4000	-0.0509	ug/L	Liquid	1.0	1.0000	1.0000
Hg	025	8/15/2012 3:02:14 PM	53519.02s tot	453.5000	-0.0647	ug/L	Liquid	1.0	1.0000	1.0000
Hg	029	8/15/2012 3:11:13 PM	CCV2-2.0 ppb	24620.0000	1.9910	ug/L	Liquid	1.0	1.0000	1.0000
Hg	030	8/15/2012 3:13:33 PM	CCB2	1009.0000	-0.0174	ug/L	Liquid	1.0	1.0000	1.0000
Hg	036	8/15/2012 3:26:55 PM	53519.03s tot	712.0000	-0.0427	ug/L	Liquid	1.0	1.0000	1.0000
Hg	037	8/15/2012 3:29:10 PM	53519.04s tot	772.6000	-0.0375	ug/L	Liquid	1.0	1.0000	1.0000
Hg	038	8/15/2012 3:31:25 PM	53519.05s tot	363.1000	-0.0724	ug/L	Liquid	1.0	1.0000	1.0000
Hg	039	8/15/2012 3:33:41 PM	53519.06s tot	823.8000	-0.0332	ug/L	Liquid	1.0	1.0000	1.0000
Hg	043	8/15/2012 3:42:41 PM	CCV3-2.0 ppb	24580.0000	1.9880	ug/L	Liquid	1.0	1.0000	1.0000
Hg	044	8/15/2012 3:45:00 PM	CCB3	990.1000	-0.0190	ug/L	Liquid	1.0	1.0000	1.0000
Hg	045	8/15/2012 3:47:20 PM	08/15 LCS2-2.0 ppb	23250.0000	1.8750	ug/L	Liquid	1.0	1.0000	1.0000
Hg	046	8/15/2012 3:49:41 PM	08/15 LRB2	759.6000	-0.0386	ug/L	Liquid	1.0	1.0000	1.0000
Hg	047	8/15/2012 3:51:56 PM	53519.09s	964.6000	-0.0212	ug/L	Liquid	1.0	1.0000	1.0000
Hg	048	8/15/2012 3:54:11 PM	53519.08s	820.0000	-0.0335	ug/L	Liquid	1.0	1.0000	1.0000
Hg	049	8/15/2012 3:56:27 PM	53519.08 MS-2.0 ppb	22730.0000	1.8310	ug/L	Liquid	1.0	1.0000	1.0000
Hg	050	8/15/2012 3:58:44 PM	53519.08 MSD	23030.0000	1.8570	ug/L	Liquid	1.0	1.0000	1.0000
Hg	051	8/15/2012 4:01:03 PM	CCV4-2.0 ppb	24700.0000	1.9990	ug/L	Liquid	1.0	1.0000	1.0000
Hg	052	8/15/2012 4:03:22 PM	CCB4	971.9000	-0.0206	ug/L	Liquid	1.0	1.0000	1.0000

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 10:30 | Beginning | End | DATE 08/15/12
TIME FINISH: 12:30 | TEMP: block #1 95 °C | block #1 95 °C | ANALYST DPH
PREP BATCH: HGD-081512-1 | block #2 95 °C | block #2 95 °C | REVIEWED BY JMH
BALANCE ID: M1 | block #3 95 °C | block #3 95 °C | REVIEW DATE 08/23/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 1	------	25	--------	----------	1	25g	
LRB- 1	------		--------	----------		25g	
53508.01							tot.
01							dis.*
03							tot
04 MS							
05 MSD							
03							dis
04 MS							
05 MSD							
06							tot
06							dis
08							tot.
09							tot.
09							dis.
10							tot.
10							dis.
53519.02							tot.
03							tot.
03							dis.
04							tot.
04							dis.
05							tot.
05							dis.
06							tot.
06							dis.

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 113201 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)
Sand lot # TH121ZEMS

Effective Date 7/10/12

* dissolved are all lab filtered

Mercury Digestion
Method # 245.1, 7471A, 7470A (OHIO VAP)

TIME START: 1320
TIME FINISH: 15:20
PREP BATCH: HGD-081512-2
BALANCE ID: M1

Beginning TEMP: block #1 95 °C block #2 — °C block #3 — °C
End block #1 95 °C block #2 — °C block #3 — °C

DATE 08/15/12
ANALYST CPM
REVIEWED BY SLR
REVIEW DATE 08/23/12

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	%TOT. SOLIDS	DRY SAMPLE WT.	DILUTION FACTOR	FINAL VOLUME	REMARKS
LCS- 2	------	25	--------	----------	1	25g	
LRB- 2	------	"	--------	----------	"	25g	
53519 08		"			"	"	
08 MS		"			"	"	
08 MSD		"			"	"	
09		"			"	"	

NOTES: 1) Spike values (unless otherwise stated):
2.0 ppb for LCS: 0.50 ml of HPS solution (Lot# 113201 Exp 12/29/12)
2.0 ppb for liquid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
0.002 ppm for solid samples: 0.50 ml of HPS solution (Lot# 113201 Exp. 12/29/12)
Centrifuge Tube Lot # 120201-060-1 (Thomas Scientific)
Sand lot# TH1212EMS

Effective Date 7/10/12

Solvent Lot #: 52069
Na2SO4 Lot #: 0601C505
Acid #: 503288
SSD #: PR120810
MS/LCS #: PP120802

PNA/DRO Liquid Extraction Log
Method 3510 C

Analyst: emr
Date: 8-13-2012
Time Started: 8:00
Time Ended: 9:30
Batch ID#: SP120813W01

#	Merit #	Matrix	Sample Volume (ml)	Solvent	Solvent Vol (ml)	Final Vol (ml)	SSD Vol (ml)	MS Vol (ml)	Turbo VAP ID	pH	Notes
Initial Q.C.	BLANK	D.I.	1000 ml	CH2Cl2	140	1	1	---	evs	7	
	LCS	D.I.	1000 ml	↓	↓	↓	↓	1	↓	7	
	LCSD	D.I.	1000 ml	↓	↓	↓	↓	1	↓	7	☑
	MS							1			☐
	MSD							1			
1	53510.01	Liq	990	CH_2Cl_2	140	1ml	1ml		evs	7	
2	.02	↓	990	↓	↓	↓	↓		↓	7	
3	53519.02		990							7	
4	.03		1000							7	
5	.04		990							7	
6	.05		990							7	
7	.06		990							7	
8	.08		990							7	
9	.09	↓	1000	↓	↓	↓	↓		↓	7	
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Reviewed by: K On: 8/14

Prepared by: Merit Laboratories, Inc.

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

68128

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Susan Hoertt
COMPANY: Haley + Aldrich
ADDRESS: 8899 Gander Creek Drive
CITY: Miamisburg STATE: OH ZIP CODE: 45342
PHONE NO.: 937-530-1408 FAX NO.: 937-530-1458 P.O. NO.: 127270
E-MAIL ADDRESS: SHoertt@haleyaldrich.com QUOTE NO.:

INVOICE TO

CONTACT NAME: Bill to RACER ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 11950 Livonia Plant
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Megan Castles-Humphrey

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other Livonia MI

MERIT LAB NO. FOR LAB USE ONLY	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TCL VOCs	SVOC (PAHs)	MI 10 Metals	MI 10 Metals *	Special Instructions
53591.01	8/9/12	—	2306-080912-0002	WG	1	1							X				Trip blank
.02	8/9/12	12:15	MW137(08-09-2012)(1215)	GW	5	2	2	1					X	X	X		Normal
.03	8/9/12	13:20	MW135(08-09-2012)(1320)	GW	6	3	2	1					X	X	X	X	Normal
.04	8/9/12	—	DUP-02(08-09-12)	GW	6	3	2	1					X	X	X	X	Field Dup
.05	8/9/12	15:15	MW158(08-09-2012)(1515)	GW	6	3	2	1					X	X	X	X	Normal
.06	8/9/12	16:30	MW124(08-09-2012)(1630)	GW	6	3	2	1					X	X	X	X	Normal
.07	8/9/12	—	2306-080912-0003	WG	1	1							X				Trip blank
.08	8/10/12	08:45	MW115(08-10-2012)(0845)	GW	5	2	2	1					X	X	X		Normal
.09	8/10/12	10:35	MW152(08-10-2012)(1035)	GW	5	2	2	1					X	X	X		Normal

RELINQUISHED BY: Megan Castles SIGNATURE/ORGANIZATION	Sampler	Haley+Aldrich	DATE 8/10/12	TIME 12:45
RELINQUISHED BY: SIGNATURE/ORGANIZATION		Merit	DATE 8-10-12	TIME 1245
RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE 8-10-12	TIME 1430
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS		
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS		

NOTES: TEMP. ON ARRIVAL 4.2
* Need to be Filtered by the lab!

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S53519
Client: HALEYALDRICH (Haley & Aldrich)
Project: 11950 Livonia Plant
Submitted: 08/10/2012 14:30 Login User: PCS

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.2
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☒ Yes	☐ No	☐ N/A	Samples require laboratory filtration	
12.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Sample Set Receipt

Report to
Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Invoice to
Attention: Monica Wallingford
Address: Racer Trust
2930 Ecorse Road
Ypsilanti, MI 48198

Phone: 313-486-2928 FAX: 248-594-4829
Email: mwallingford@racertrust.org

Set ID: S53519 Location: HALEYALDRICH (Haley & Aldrich)
Project: 11950 Livonia Plant PO #: PO127270 Site: 1195
Submitted: 08/10/2012 14:30 Due Date: 08/24/2012 Collected by: M.CastlesHumphrey Login by: PCS

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S53519.01	2306-080912-0002	Water Quality	08/09/2012 00:01	68128
S53519.02	MW137 (08-09-2012) (1215)	Groundwater	08/09/2012 12:15	68128
S53519.03	MW135 (08-09-2012) (1320)	Groundwater	08/09/2012 13:20	68128
S53519.04	Dup-02 (08-09-2012)	Groundwater	08/09/2012 00:01	68128
S53519.05	MW158 (08-09-2012) (1515)	Groundwater	08/09/2012 15:15	68128
S53519.06	MW124 (08-09-2012) (1630)	Groundwater	08/09/2012 16:30	68128
S53519.07	2306-080912-0003	Water Quality	08/09/2012 00:01	68128
S53519.08	MW115 (08-10-2012) (0845)	Groundwater	08/10/2012 08:45	68128
S53519.09	MW152 (08-10-2012) (1035)	Groundwater	08/10/2012 10:35	68128

Samples: S53519.01, 07

Analysis Code	Analysis Title	Method	Units	Holding Date
$8260TCL	TCL Volatile Organics 8260	SW8260B	mg/L	08/23/2012

Samples: S53519.02, 08

Analysis Code	Analysis Title	Method	Units	Holding Date
$8260TCL	TCL Volatile Organics 8260	SW8260B	mg/L	08/23/2012
$8270PNW	Polynuclear Aromatic Hydrocarbon	SW8270C	mg/L	09/18/2012
2115WMS	Arsenic	E200.8	mg/L	02/05/2013
2120WMS	Barium	E200.8	mg/L	02/05/2013
2135WMS	Cadmium	E200.8	mg/L	02/05/2013
2145WMS	Chromium	E200.8	mg/L	02/05/2013
2155WMS	Copper	E200.8	mg/L	02/05/2013
2165WMS	Lead	E200.8	mg/L	02/05/2013
2185W	Mercury	E245.1	mg/L	09/06/2012
2205WMS	Selenium	E200.8	mg/L	02/05/2013
2215WMS	Silver	E200.8	mg/L	02/05/2013
2245WMS	Zinc	E200.8	mg/L	02/05/2013
1605W	Metal Digestion	3015A		02/05/2013
PNAEXTW	Semi Volatile Extraction	3510C		08/16/2012
1605HGW	Mercury Digestion	E245.1		09/06/2012

Samples: S53519.03-06

Analysis Code	Analysis Title	Method	Units	Holding Date
$8260TCL	TCL Volatile Organics 8260	SW8260B	mg/L	08/23/2012
$8270PNW	Polynuclear Aromatic Hydrocarbon	SW8270C	mg/L	09/18/2012
2115WMS	Arsenic	E200.8	mg/L	02/05/2013
2120WMS	Barium	E200.8	mg/L	02/05/2013
2135WMS	Cadmium	E200.8	mg/L	02/05/2013
2145WMS	Chromium	E200.8	mg/L	02/05/2013
2155WMS	Copper	E200.8	mg/L	02/05/2013
2165WMS	Lead	E200.8	mg/L	02/05/2013
2185W	Mercury	E245.1	mg/L	09/06/2012
2205WMS	Selenium	E200.8	mg/L	02/05/2013
2215WMS	Silver	E200.8	mg/L	02/05/2013
2245WMS	Zinc	E200.8	mg/L	02/05/2013
1605W	Metal Digestion	3015A		02/05/2013

Sample Set Receipt

Report to

Attention: Susan Hoertt

Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:

Email: SHoertt@haleyaldrich.com

Invoice to

Attention: Monica Wallingford

Address: Racer Trust
2930 Ecorse Road
Ypsilanti, MI 48198

Phone: 313-486-2928 FAX: 248-594-4829

Email: mwallingford@racertrust.org

Set ID: S53519 Location: HALEYALDRICH (Haley & Aldrich)

Project: 11950 Livonia Plant PO #: PO127270 Site: 1195

Submitted: 08/10/2012 14:30 Due Date: 08/24/2012 Collected by: M.CastlesHumphrey Login by: PCS

2115DIS	Arsenic, Dissolved	E200.8	mg/L	02/05/2013
2120DIS	Barium, Dissolved	E200.8	mg/L	02/05/2013
2135DIS	Cadmium, Dissolved	E200.8	mg/L	02/05/2013
2145DIS	Chromium, Dissolved	E200.8	mg/L	02/05/2013
2155DIS	Copper, Dissolved	E200.8	mg/L	02/05/2013
2165DIS	Lead, Dissolved	E200.8	mg/L	02/05/2013
2185DIS	Mercury, Dissolved	E245.1	mg/L	09/06/2012
2205DIS	Selenium, Dissolved	E200.8	mg/L	02/05/2013
2215DIS	Silver, Dissolved	E200.8	mg/L	02/05/2013
2245DIS	Zinc, Dissolved	E200.8	mg/L	02/05/2013
1605DIS	Metal Digestion, Dissolved Metals	3015A		02/05/2013
1605HGDIS	Mercury Digestion, Dissolved	E245.1		09/06/2012
PNAEXTW	Semi Volatile Extraction	3510C		08/16/2012
1605HGW	Mercury Digestion	E245.1		09/06/2012

Samples: S53519.09

Analysis Code	Analysis Title	Method	Units	Holding Date
$8260TCL	TCL Volatile Organics 8260	SW8260B	mg/L	08/24/2012
$8270PNW	Polynuclear Aromatic Hydrocarbon	SW8270C	mg/L	09/19/2012
2115WMS	Arsenic	E200.8	mg/L	02/06/2013
2120WMS	Barium	E200.8	mg/L	02/06/2013
2135WMS	Cadmium	E200.8	mg/L	02/06/2013
2145WMS	Chromium	E200.8	mg/L	02/06/2013
2155WMS	Copper	E200.8	mg/L	02/06/2013
2165WMS	Lead	E200.8	mg/L	02/06/2013
2185W	Mercury	E245.1	mg/L	09/07/2012
2205WMS	Selenium	E200.8	mg/L	02/06/2013
2215WMS	Silver	E200.8	mg/L	02/06/2013
2245WMS	Zinc	E200.8	mg/L	02/06/2013
1605W	Metal Digestion	3015A		02/06/2013
PNAEXTW	Semi Volatile Extraction	3510C		08/17/2012
1605HGW	Mercury Digestion	E245.1		09/07/2012
$8260TCL(01)	TCL Volatile Organics 8260	SW8260B	mg/L	08/24/2012

MERIT LABORATORIES, INC.
2680 EAST LANSING DRIVE EAST LANSING • MICHIGAN • 48823
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HALEY & ALDRICH, INC.

11950 LIVONIA PLANT

SDG Batch:

54932

Pages 1 - 129

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FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

HALEY & ALDRICH, INC.

PROJECT:
11950 LIVONIA PLANT

SDG Batch:
54932.01

Prepared by:
Merit Laboratories, Inc.

January 2, 2013

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S54932.01 - .12

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	1	☑	☐
3. **Analytical Summary Report**			2	30	☑	☐
4. **ICP/MS Metals Data**			31	125		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
5. **Shipping / Receiving Documents**			126	129		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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PHONE: 517-332-0167 FAX: 517-332-6333
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CASE NARRATIVE
CLIENT: HALEY & ALDRICH, INC.
PROJECT: 11950 LIVONIA PLANT
Merit IDs: S54932.01-S54932.12

Field Sampling: M.Castles-Humphrey performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

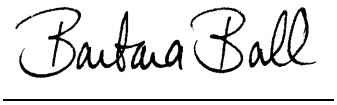
Sample Receiving: All samples were received by the laboratory on ice (12/13/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 200.8. The metal digestion was performed according to Method 3015A. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers:* None

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."



Barb Ball — 1/2/13
Barb Ball — Date
QA Officer

Analytical Laboratory Report

Report ID: S54932.01(01)
Generated on 12/19/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Andy Ball (andyball@meritlabs.com)
Tabitha Faust (tfaust@meritlabs.com)

Report Summary

Lab Sample ID(s): S54932.01-S54932.12
Project: 11950 Livonia Plant
Collected Date: 12/10/2012 - 12/12/2012
Submitted Date/Time: 12/13/2012 11:00
Sampled by: M.CastlesHumphrey
P.O. #: PO120706

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (12 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S54932.01	TW105(12-10-2012)(1415)	Groundwater	12/10/2012 14:15
S54932.02	TW105(12-10-2012)(1415) MS	Groundwater	12/10/2012 14:15
S54932.03	TW105(12-10-2012)(1415) MSD	Groundwater	12/10/2012 14:15
S54932.04	TW135(12-10-2012)(1600)	Groundwater	12/10/2012 16:00
S54932.05	TW129(12-11-2012)(1305)	Groundwater	12/11/2012 13:05
S54932.06	TW152(12-11-2012)(1410)	Groundwater	12/11/2012 14:10
S54932.07	TW158(12-11-2012)(1610)	Groundwater	12/11/2012 16:10
S54932.08	DUP-01(12-11-2012)	Groundwater	12/11/2012 00:01
S54932.09	TW101(12-12-2012)(1100)	Groundwater	12/12/2012 11:00
S54932.10	TW124(12-12-2012)(1340)	Groundwater	12/12/2012 13:40
S54932.11	TW137(12-12-2012)(1445)	Groundwater	12/12/2012 14:45
S54932.12	TW139(12-12-2012)(1650)	Groundwater	12/12/2012 16:50

Analytical Laboratory Report

Lab Sample ID: S54932.01
Sample Tag: TW105(12-10-2012)(1415)
Collected Date/Time: 12/10/2012 14:15
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	None	Yes	3.5	IR
2	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Arsenic, Dissolved	0.004	mg/L	0.002	E200.8	12/19/12 13:47	PER	7440-38-2	1
Arsenic	0.0072	mg/L	0.002	E200.8	12/19/12 13:23	PER	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	12/19/12 13:47	PER	7439-92-1	1
Lead	Not detected	mg/L	0.003	E200.8	12/19/12 13:23	PER	7439-92-1	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.02
Sample Tag: TW105(12-10-2012)(1415) MS
Collected Date/Time: 12/10/2012 14:15
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	None	Yes	3.5	IR
2	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Arsenic, Dissolved	0.107	mg/L	0.002	E200.8	12/19/12 13:48	PER	7440-38-2	1
Arsenic	0.109	mg/L	0.002	E200.8	12/19/12 13:25	PER	7440-38-2	
Lead, Dissolved	0.092	mg/L	0.003	E200.8	12/19/12 13:48	PER	7439-92-1	1
Lead	0.095	mg/L	0.003	E200.8	12/19/12 13:25	PER	7439-92-1	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.03
Sample Tag: TW105(12-10-2012)(1415) MSD
Collected Date/Time: 12/10/2012 14:15
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	None	Yes	3.5	IR
2	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Arsenic, Dissolved	0.111	mg/L	0.002	E200.8	12/19/12 13:49	PER	7440-38-2	1
Arsenic	0.110	mg/L	0.002	E200.8	12/19/12 13:26	PER	7440-38-2	
Lead, Dissolved	0.093	mg/L	0.003	E200.8	12/19/12 13:49	PER	7439-92-1	1
Lead	0.094	mg/L	0.003	E200.8	12/19/12 13:26	PER	7439-92-1	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.04
Sample Tag: TW135(12-10-2012)(1600)
Collected Date/Time: 12/10/2012 16:00
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	3.5	IR
1	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Arsenic, Dissolved	0.006	mg/L	0.002	E200.8	12/19/12 13:52	PER	7440-38-2	1
Arsenic	0.015	mg/L	0.002	E200.8	12/19/12 13:28	PER	7440-38-2	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.05
Sample Tag: TW129(12-11-2012)(1305)
Collected Date/Time: 12/11/2012 13:05
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	3.5	IR
1	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	12/19/12 13:53	PER	7439-92-1	1
Lead	Not detected	mg/L	0.003	E200.8	12/19/12 13:30	PER	7439-92-1	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.06
Sample Tag: TW152(12-11-2012)(1410)
Collected Date/Time: 12/11/2012 14:10
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	3.5	IR
1	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Arsenic, Dissolved	0.038	mg/L	0.002	E200.8	12/19/12 13:58	PER	7440-38-2	1
Arsenic	0.035	mg/L	0.002	E200.8	12/19/12 13:31	PER	7440-38-2	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.07
Sample Tag: TW158(12-11-2012)(1610)
Collected Date/Time: 12/11/2012 16:10
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	None	Yes	3.5	IR
2	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Arsenic, Dissolved	0.010	mg/L	0.002	E200.8	12/19/12 13:59	PER	7440-38-2	1
Arsenic	0.019	mg/L	0.002	E200.8	12/19/12 13:36	PER	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	12/19/12 13:59	PER	7439-92-1	1
Lead	Not detected	mg/L	0.003	E200.8	12/19/12 13:36	PER	7439-92-1	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.08
Sample Tag: DUP-01(12-11-2012)
Collected Date/Time: 12/11/2012 00:01
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	None	Yes	3.5	IR
2	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Arsenic, Dissolved	0.009	mg/L	0.002	E200.8	12/19/12 14:01	PER	7440-38-2	1
Arsenic	0.019	mg/L	0.002	E200.8	12/19/12 13:37	PER	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	12/19/12 14:01	PER	7439-92-1	1
Lead	Not detected	mg/L	0.003	E200.8	12/19/12 13:37	PER	7439-92-1	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.09
Sample Tag: TW101(12-12-2012)(1100)
Collected Date/Time: 12/12/2012 11:00
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	3.5	IR
1	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	12/19/12 14:02	PER	7439-92-1	1
Lead	Not detected	mg/L	0.003	E200.8	12/19/12 13:39	PER	7439-92-1	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.10
Sample Tag: TW124(12-12-2012)(1340)
Collected Date/Time: 12/12/2012 13:40
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	None	Yes	3.5	IR
2	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Arsenic, Dissolved	0.009	mg/L	0.002	E200.8	12/19/12 14:03	PER	7440-38-2	1
Arsenic	0.091	mg/L	0.002	E200.8	12/19/12 13:40	PER	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	12/19/12 14:03	PER	7439-92-1	1
Lead	Not detected	mg/L	0.003	E200.8	12/19/12 13:40	PER	7439-92-1	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.11
Sample Tag: TW137(12-12-2012)(1445)
Collected Date/Time: 12/12/2012 14:45
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	3.5	IR
1	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	12/19/12 14:05	PER	7439-92-1	1
Lead	Not detected	mg/L	0.003	E200.8	12/19/12 13:41	PER	7439-92-1	

1-* Filtered and preserved in lab

Analytical Laboratory Report

Lab Sample ID: S54932.12
Sample Tag: TW139(12-12-2012)(1650)
Collected Date/Time: 12/12/2012 16:50
Matrix: Groundwater
COC Reference: 82162

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	None	Yes	3.5	IR
1	125ml Plastic	HNO3	Yes	3.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metal Digestion	Completed			3015A	12/19/12 10:00	PER		
Metals								
Arsenic, Dissolved	0.008	mg/L	0.002	E200.8	12/19/12 14:06	PER	7440-38-2	1
Arsenic	0.036	mg/L	0.002	E200.8	12/19/12 13:43	PER	7440-38-2	

1-* Filtered and preserved in lab

Quality Control Cover Page

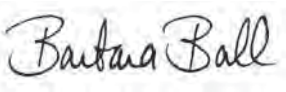
Report ID: S54932.01(01)
Report Date: 12/19/2012
Project: 11950 Livonia Plant
Lab Sample ID(s): S54932.01-S54932.12

Report to:

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S54932.01	TW105(12-10-2012)(1415)	12/10/2012 14:15	Groundwater	Extraction / Prep., Metals
S54932.02	TW105(12-10-2012)(1415) MS	12/10/2012 14:15	Groundwater	Extraction / Prep., Metals
S54932.03	TW105(12-10-2012)(1415) MSD	12/10/2012 14:15	Groundwater	Extraction / Prep., Metals
S54932.04	TW135(12-10-2012)(1600)	12/10/2012 16:00	Groundwater	Extraction / Prep., Metals
S54932.05	TW129(12-11-2012)(1305)	12/11/2012 13:05	Groundwater	Extraction / Prep., Metals
S54932.06	TW152(12-11-2012)(1410)	12/11/2012 14:10	Groundwater	Extraction / Prep., Metals
S54932.07	TW158(12-11-2012)(1610)	12/11/2012 16:10	Groundwater	Extraction / Prep., Metals
S54932.08	DUP-01(12-11-2012)	12/11/2012 00:01	Groundwater	Extraction / Prep., Metals
S54932.09	TW101(12-12-2012)(1100)	12/12/2012 11:00	Groundwater	Extraction / Prep., Metals
S54932.10	TW124(12-12-2012)(1340)	12/12/2012 13:40	Groundwater	Extraction / Prep., Metals
S54932.11	TW137(12-12-2012)(1445)	12/12/2012 14:45	Groundwater	Extraction / Prep., Metals
S54932.12	TW139(12-12-2012)(1650)	12/12/2012 16:50	Groundwater	Extraction / Prep., Metals

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.



Barbara Ball
Quality Assurance Manager

Quality Control Report

Report ID: QC-S54932.01(01)
Generated on 12/20/2012

Report to

Attention: Susan Hoertt
Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S54932.01-S54932.12
Project: 11950 Livonia Plant
Submitted Date/Time: 12/13/2012 11:00
Sampled by: M.CastlesHumphrey
P.O. #: PO120706

Report Sections

Cover Page (Page 1)
Analysis Summary (Pages 2-13)
Prep Batch Summary (Page 14)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814)
Some analytes reported may not be certified. Full certification lists are available upon request.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S54932.01
Sample Tag: TW105(12-10-2012)(1415)
Collected Date/Time: 12/10/2012 14:15
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	12/19/12 13:47	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	12/19/12 13:23	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	12/19/12 13:47	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead	E200.8	12/19/12 13:23	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.02
Sample Tag: TW105(12-10-2012)(1415) MS
Collected Date/Time: 12/10/2012 14:15
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	12/19/12 13:48	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	12/19/12 13:25	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	12/19/12 13:48	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead	E200.8	12/19/12 13:25	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.03
Sample Tag: TW105(12-10-2012)(1415) MSD
Collected Date/Time: 12/10/2012 14:15
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	12/19/12 13:49	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	12/19/12 13:26	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	12/19/12 13:49	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead	E200.8	12/19/12 13:26	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.04
Sample Tag: TW135(12-10-2012)(1600)
Collected Date/Time: 12/10/2012 16:00
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	12/19/12 13:52	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	12/19/12 13:28	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.05
Sample Tag: TW129(12-11-2012)(1305)
Collected Date/Time: 12/11/2012 13:05
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Lead, Dissolved	E200.8	12/19/12 13:53	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead	E200.8	12/19/12 13:30	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.06
Sample Tag: TW152(12-11-2012)(1410)
Collected Date/Time: 12/11/2012 14:10
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	12/19/12 13:58	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	12/19/12 13:31	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.07
Sample Tag: TW158(12-11-2012)(1610)
Collected Date/Time: 12/11/2012 16:10
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	12/19/12 13:59	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	12/19/12 13:36	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	12/19/12 13:59	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead	E200.8	12/19/12 13:36	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.08
Sample Tag: DUP-01(12-11-2012)
Collected Date/Time: 12/11/2012 00:01
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	12/19/12 14:01	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	12/19/12 13:37	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	12/19/12 14:01	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead	E200.8	12/19/12 13:37	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.09
Sample Tag: TW101(12-12-2012)(1100)
Collected Date/Time: 12/12/2012 11:00
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Lead, Dissolved	E200.8	12/19/12 14:02	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead	E200.8	12/19/12 13:39	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.10
Sample Tag: TW124(12-12-2012)(1340)
Collected Date/Time: 12/12/2012 13:40
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	12/19/12 14:03	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	12/19/12 13:40	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	12/19/12 14:03	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead	E200.8	12/19/12 13:40	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.11
Sample Tag: TW137(12-12-2012)(1445)
Collected Date/Time: 12/12/2012 14:45
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Lead, Dissolved	E200.8	12/19/12 14:05	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Lead	E200.8	12/19/12 13:41	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54932.12
Sample Tag: TW139(12-12-2012)(1650)
Collected Date/Time: 12/12/2012 16:50
Matrix: Groundwater
COC Reference: 82162

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	12/19/12 14:06	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	12/19/12 13:43	MT2-12-1219A	MTD-121912-2	No	LCS/BLK/MS/MSD

Metals, Prep Batch ID: MTD-121912-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S54932.01	Arsenic, Dissolved	E200.8	12/19/12 13:47	MT2-12-1219A
S54932.01	Arsenic	E200.8	12/19/12 13:23	MT2-12-1219A
S54932.01	Lead, Dissolved	E200.8	12/19/12 13:47	MT2-12-1219A
S54932.01	Lead	E200.8	12/19/12 13:23	MT2-12-1219A
S54932.02	Arsenic, Dissolved	E200.8	12/19/12 13:48	MT2-12-1219A
S54932.02	Arsenic	E200.8	12/19/12 13:25	MT2-12-1219A
S54932.02	Lead, Dissolved	E200.8	12/19/12 13:48	MT2-12-1219A
S54932.02	Lead	E200.8	12/19/12 13:25	MT2-12-1219A
S54932.03	Arsenic, Dissolved	E200.8	12/19/12 13:49	MT2-12-1219A
S54932.03	Arsenic	E200.8	12/19/12 13:26	MT2-12-1219A
S54932.03	Lead, Dissolved	E200.8	12/19/12 13:49	MT2-12-1219A
S54932.03	Lead	E200.8	12/19/12 13:26	MT2-12-1219A
S54932.04	Arsenic, Dissolved	E200.8	12/19/12 13:52	MT2-12-1219A
S54932.04	Arsenic	E200.8	12/19/12 13:28	MT2-12-1219A
S54932.05	Lead, Dissolved	E200.8	12/19/12 13:53	MT2-12-1219A
S54932.05	Lead	E200.8	12/19/12 13:30	MT2-12-1219A
S54932.06	Arsenic, Dissolved	E200.8	12/19/12 13:58	MT2-12-1219A
S54932.06	Arsenic	E200.8	12/19/12 13:31	MT2-12-1219A
S54932.07	Arsenic, Dissolved	E200.8	12/19/12 13:59	MT2-12-1219A
S54932.07	Arsenic	E200.8	12/19/12 13:36	MT2-12-1219A
S54932.07	Lead, Dissolved	E200.8	12/19/12 13:59	MT2-12-1219A
S54932.07	Lead	E200.8	12/19/12 13:36	MT2-12-1219A
S54932.08	Arsenic, Dissolved	E200.8	12/19/12 14:01	MT2-12-1219A
S54932.08	Arsenic	E200.8	12/19/12 13:37	MT2-12-1219A
S54932.08	Lead, Dissolved	E200.8	12/19/12 14:01	MT2-12-1219A
S54932.08	Lead	E200.8	12/19/12 13:37	MT2-12-1219A
S54932.09	Lead, Dissolved	E200.8	12/19/12 14:02	MT2-12-1219A
S54932.09	Lead	E200.8	12/19/12 13:39	MT2-12-1219A
S54932.10	Arsenic, Dissolved	E200.8	12/19/12 14:03	MT2-12-1219A
S54932.10	Arsenic	E200.8	12/19/12 13:40	MT2-12-1219A
S54932.10	Lead, Dissolved	E200.8	12/19/12 14:03	MT2-12-1219A
S54932.10	Lead	E200.8	12/19/12 13:40	MT2-12-1219A
S54932.11	Lead, Dissolved	E200.8	12/19/12 14:05	MT2-12-1219A
S54932.11	Lead	E200.8	12/19/12 13:41	MT2-12-1219A
S54932.12	Arsenic, Dissolved	E200.8	12/19/12 14:06	MT2-12-1219A
S54932.12	Arsenic	E200.8	12/19/12 13:43	MT2-12-1219A

Form 0: Sequence Log

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001	12:16:04 Wed 19-Dec-12	blank	Liquid	
002	12:17:20 Wed 19-Dec-12	std-0.00	Liquid	
003	12:18:36 Wed 19-Dec-12	std-0.0005	Liquid	
004	12:20:02 Wed 19-Dec-12	std-0.005	Liquid	
005	12:21:27 Wed 19-Dec-12	std-0.02	Liquid	
006	12:22:52 Wed 19-Dec-12	std-0.05	Liquid	
007	12:24:15 Wed 19-Dec-12	std-0.20	Liquid	
008	12:25:41 Wed 19-Dec-12	ICV-0.10	Liquid	ICV
009	12:27:11 Wed 19-Dec-12	ICB	Liquid	ICB
010	12:28:29 Wed 19-Dec-12	Solu-AB	Liquid	AB
011	12:30:57 Wed 19-Dec-12	Solu-AA	Liquid	AA
012	12:32:15 Wed 19-Dec-12	BS-0.0005	Liquid	BS
013	12:33:32 Wed 19-Dec-12	BS-0.001	Liquid	BS
014	12:34:51 Wed 19-Dec-12	ERA-8121-04	Liquid	ERA
015	12:36:08 Wed 19-Dec-12	CCV1-0.10	Liquid	CCV
016	12:39:44 Wed 19-Dec-12	CCB1	Liquid	CCB
017	12:55:41 Wed 19-Dec-12	1219_2 LCS-0.05	Liquid	LCS
018	12:57:20 Wed 19-Dec-12	LRB_2	Liquid	LRB
019	13:09:46 Wed 19-Dec-12	blank	Liquid	
020	13:10:57 Wed 19-Dec-12	std-0.00	Liquid	
021	13:12:09 Wed 19-Dec-12	std-0.0005	Liquid	
022	13:13:24 Wed 19-Dec-12	std-0.005	Liquid	
023	13:14:39 Wed 19-Dec-12	std-0.02	Liquid	
024	13:15:53 Wed 19-Dec-12	std-0.05	Liquid	
025	13:17:06 Wed 19-Dec-12	std-0.20	Liquid	
026	13:18:18 Wed 19-Dec-12	ICV-0.10	Liquid	ICV
027	13:20:03 Wed 19-Dec-12	BS-0.0005	Liquid	BS
028	13:21:19 Wed 19-Dec-12	ICB	Liquid	ICB
029	13:22:33 Wed 19-Dec-12	54932.01 dil	Liquid	DIL
030	13:23:49 Wed 19-Dec-12	54932.01s	Liquid	S
031	13:25:06 Wed 19-Dec-12	54932.02s MS-0.05	Liquid	MS
032	13:26:23 Wed 19-Dec-12	54932.03s MSD	Liquid	MSD
033	13:27:44 Wed 19-Dec-12	Rinse	Liquid	
034	13:28:58 Wed 19-Dec-12	54932.04s	Liquid	S
035	13:30:17 Wed 19-Dec-12	54932.05s	Liquid	S
036	13:31:36 Wed 19-Dec-12	54932.06s	Liquid	S
037	13:36:28 Wed 19-Dec-12	54932.07s	Liquid	S
038	13:37:46 Wed 19-Dec-12	54932.08s	Liquid	S
039	13:39:04 Wed 19-Dec-12	54932.09s	Liquid	S
040	13:40:22 Wed 19-Dec-12	54932.10s	Liquid	S
041	13:41:40 Wed 19-Dec-12	54932.11s	Liquid	S
042	13:43:00 Wed 19-Dec-12	54932.12s	Liquid	S
043	13:44:19 Wed 19-Dec-12	CCV2-0.10	Liquid	CCV
044	13:45:38 Wed 19-Dec-12	CCB2	Liquid	CCB
045	13:47:11 Wed 19-Dec-12	54932.01s dis	Liquid	S
046	13:48:29 Wed 19-Dec-12	54932.02s dis MS-0.05	Liquid	MS
047	13:49:47 Wed 19-Dec-12	54932.03s dis MSD	Liquid	MSD
048	13:51:07 Wed 19-Dec-12	Rinse	Liquid	
049	13:52:22 Wed 19-Dec-12	54932.04s dis	Liquid	S
050	13:53:41 Wed 19-Dec-12	54932.05s dis	Liquid	S
051	13:58:15 Wed 19-Dec-12	54932.06s dis	Liquid	S
052	13:59:54 Wed 19-Dec-12	54932.07s dis	Liquid	S
053	14:01:14 Wed 19-Dec-12	54932.08s dis	Liquid	S

Form 0: Sequence Log

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054	14:02:33 Wed 19-Dec-12	54932.09s dis	Liquid	S
055	14:03:52 Wed 19-Dec-12	54932.10s dis	Liquid	S
056	14:05:22 Wed 19-Dec-12	54932.11s dis	Liquid	S
057	14:06:54 Wed 19-Dec-12	54932.12s dis	Liquid	S
058	14:09:07 Wed 19-Dec-12	CCV3-0.10	Liquid	CCV
059	14:12:04 Wed 19-Dec-12	CCB3	Liquid	CCB
060	14:41:14 Wed 19-Dec-12	54932.05s	Liquid	
061	14:42:35 Wed 19-Dec-12	54932.05s dis	Liquid	
062	14:43:55 Wed 19-Dec-12	CCV3-0.10	Liquid	CCV
063	14:45:15 Wed 19-Dec-12	CCB3	Liquid	CCB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.01
Sample Tag: TW105(12-10-2012)(1415)
Date Collected: 12/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-92-1	Lead	Not detected	0.003	mg/L	2	12/19/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003	mg/L	2	12/19/2012	*
7440-38-2	Arsenic	0.0072	0.002	mg/L	2	12/19/2012	
7440-38-2	Arsenic, Dissolved	0.004	0.002	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.02
Sample Tag: TW105(12-10-2012)(1415) MS
Date Collected: 12/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-92-1	Lead	0.095	0.003	mg/L	2	12/19/2012	
7439-92-1	Lead, Dissolved	0.092	0.003	mg/L	2	12/19/2012	*
7440-38-2	Arsenic	0.109	0.002	mg/L	2	12/19/2012	
7440-38-2	Arsenic, Dissolved	0.107	0.002	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.03
Sample Tag: TW105(12-10-2012)(1415) MSD
Date Collected: 12/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-92-1	Lead	0.094	0.003	mg/L	2	12/19/2012	
7439-92-1	Lead, Dissolved	0.093	0.003	mg/L	2	12/19/2012	*
7440-38-2	Arsenic	0.110	0.002	mg/L	2	12/19/2012	
7440-38-2	Arsenic, Dissolved	0.111	0.002	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.04
Sample Tag: TW135(12-10-2012)(1600)
Date Collected: 12/10/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.015	0.002	mg/L	2	12/19/2012	
7440-38-2	Arsenic, Dissolved	0.006	0.002	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.05
Sample Tag: TW129(12-11-2012)(1305)
Date Collected: 12/11/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-92-1	Lead	Not detected	0.003	mg/L	2	12/19/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.06
Sample Tag: TW152(12-11-2012)(1410)
Date Collected: 12/11/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.035	0.002	mg/L	2	12/19/2012	
7440-38-2	Arsenic, Dissolved	0.038	0.002	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.07
Sample Tag: TW158(12-11-2012)(1610)
Date Collected: 12/11/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-92-1	Lead	Not detected	0.003	mg/L	2	12/19/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003	mg/L	2	12/19/2012	*
7440-38-2	Arsenic	0.019	0.002	mg/L	2	12/19/2012	
7440-38-2	Arsenic, Dissolved	0.010	0.002	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.08
Sample Tag: DUP-01(12-11-2012)
Date Collected: 12/11/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-92-1	Lead	Not detected	0.003	mg/L	2	12/19/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003	mg/L	2	12/19/2012	*
7440-38-2	Arsenic	0.019	0.002	mg/L	2	12/19/2012	
7440-38-2	Arsenic, Dissolved	0.009	0.002	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.09
Sample Tag: TW101(12-12-2012)(1100)
Date Collected: 12/12/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-92-1	Lead	Not detected	0.003	mg/L	2	12/19/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.10
Sample Tag: TW124(12-12-2012)(1340)
Date Collected: 12/12/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-92-1	Lead	Not detected	0.003	mg/L	2	12/19/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003	mg/L	2	12/19/2012	*
7440-38-2	Arsenic	0.091	0.002	mg/L	2	12/19/2012	
7440-38-2	Arsenic, Dissolved	0.009	0.002	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.11
Sample Tag: TW137(12-12-2012)(1445)
Date Collected: 12/12/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7439-92-1	Lead	Not detected	0.003	mg/L	2	12/19/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Lab Sample ID: S54932.12
Sample Tag: TW139(12-12-2012)(1650)
Date Collected: 12/12/2012
Matrix: Groundwater

CAS #	Analyte	Result	RDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.036	0.002	mg/L	2	12/19/2012	
7440-38-2	Arsenic, Dissolved	0.008	0.002	mg/L	2	12/19/2012	*

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
008 ICV-0.10	ICV	1	As	0.104	0.10	104	90/110	mg/L	Liquid
			Pb	0.102	0.10	102	90/110		
015 CCV1-0.10	CCV	1	As	0.0995	0.10	100	90/110	mg/L	Liquid
			Pb	0.101	0.10	101	90/110		
026 ICV-0.10	ICV	1	As	0.100	0.10	100	90/110	mg/L	Liquid
			Pb	0.101	0.10	101	90/110		
043 CCV2-0.10	CCV	1	As	0.100	0.10	100	90/110	mg/L	Liquid
			Pb	0.0987	0.10	99	90/110		
058 CCV3-0.10	CCV	1	As	0.102	0.10	102	90/110	mg/L	Liquid
			Pb	0.0982	0.10	98	90/110		
062 CCV3-0.10	CCV	1	As	0.102	0.10	102	90/110	mg/L	Liquid
			Pb	0.0974	0.10	97	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: ERA-8121

Data Set ID: MT2-12-1219A

Instrument ID: PE ELAN

Analysis Date: 12/19/12

Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
014 ERA-8121-04	5	As	0.888	0.877	101	0.738	1.030	mg/L	Liquid
		Pb	1.80	1.760	102	1.550	1.970		

Form 3: Blanks

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
009 ICB	ICB	1	As	<0.001	0.000167	mg/L	Liquid
			Pb	<0.001	0.000029		
016 CCB1	CCB	1	As	<0.001	0.000035	mg/L	Liquid
			Pb	<0.001	0.000015		
018 LRB_2	LRB	1	As	<0.001	0.000065	mg/L	Liquid
			Pb	<0.001	0.000019		
028 ICB	ICB	1	As	<0.001	0.000068	mg/L	Liquid
			Pb	<0.001	0.000008		
044 CCB2	CCB	1	As	<0.001	0.000027	mg/L	Liquid
			Pb	<0.001	0.000030		
059 CCB3	CCB	1	As	<0.001	0.000155	mg/L	Liquid
			Pb	<0.001	0.000040		
063 CCB3	CCB	1	As	<0.001	0.000062	mg/L	Liquid
			Pb	<0.001	0.000035		

Form 4B: ICP Interference Check Sample

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
010 Solu-AB	AB	1	As	0.0211	0.02	106	65/135	mg/L	Liquid
011 Solu-AA	AA	1	As	<0.001	0.0	N/A	N/A	mg/L	Liquid
			Pb	<0.003	0.0	N/A	N/A		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
012 BS-0.0005		1	As	0.00045	ND	0.0005	90	70/130	mg/L	Liquid
			Pb	0.00053	ND	0.0005	106	70/130		
013 BS-0.001		1	As	0.00099	ND	0.001	99	70/130	mg/L	Liquid
			Pb	0.00107	ND	0.001	107	70/130		
027 BS-0.0005		1	As	0.00056	ND	0.0005	112	70/130	mg/L	Liquid
			Pb	0.00054	ND	0.0005	108	70/130		
031 54932.02s	**045 54932.01s dis**	2	As	0.109	0.004	0.10	105	75/125	mg/L	Liquid
			Pb	0.0946	<0.003	0.10	95	75/125		
046 54932.02s dis	**045 54932.01s dis**	2	As	0.107	0.004	0.10	103	75/125	mg/L	Liquid
			Pb	0.0918	<0.003	0.10	92	75/125		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
032 54932.03s MSD	**031 54932.02s MS-0.05**	2	As	0.110	0.109	1	0/20	mg/L	Liquid
			Pb	0.0936	0.0946	1	0/20		
047 54932.03s dis MSD	**046 54932.02s dis**	2	As	0.111	0.107	4	0/20	mg/L	Liquid
			Pb	0.0934	0.0918	2	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
017 1219_2 LCS-0.05	1	As	0.0500	0.05	100	85/115	mg/L	Liquid
		Pb	0.0517	0.05	103	85/115		

Form 8: Serial Dilutions

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
029 54932.01 dil	**030 54932.01s**	10	As	0.0079	0.0072	9	0/10	mg/L	Liquid
			Pb	<0.003	<0.003	NC	0/10		

Form 13: Analysis Run Log

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
001 blank	12:16:04 Wed	Liquid	As,Pb
002 std-0.00	12:17:20 Wed	Liquid	As,Pb
003 std-0.0005	12:18:36 Wed	Liquid	As,Pb
004 std-0.005	12:20:02 Wed	Liquid	As,Pb
005 std-0.02	12:21:27 Wed	Liquid	As,Pb
006 std-0.05	12:22:52 Wed	Liquid	As,Pb
007 std-0.20	12:24:15 Wed	Liquid	As,Pb
008 ICV-0.10	12:25:41 Wed	Liquid	As,Pb
009 ICB	12:27:11 Wed	Liquid	As,Pb
010 Solu-AB	12:28:29 Wed	Liquid	As
011 Solu-AA	12:30:57 Wed	Liquid	As,Pb
012 BS-0.0005	12:32:15 Wed	Liquid	As,Pb
013 BS-0.001	12:33:32 Wed	Liquid	As,Pb
014 ERA-8121-04	12:34:51 Wed	Liquid	As,Pb
015 CCV1-0.10	12:36:08 Wed	Liquid	As,Pb
016 CCB1	12:39:44 Wed	Liquid	As,Pb
017 1219_2 LCS-0.05	12:55:41 Wed	Liquid	As,Pb
018 LRB_2	12:57:20 Wed	Liquid	As,Pb
019 blank	13:09:46 Wed	Liquid	As,Pb
020 std-0.00	13:10:57 Wed	Liquid	As,Pb
021 std-0.0005	13:12:09 Wed	Liquid	As,Pb
022 std-0.005	13:13:24 Wed	Liquid	As,Pb
023 std-0.02	13:14:39 Wed	Liquid	As,Pb
024 std-0.05	13:15:53 Wed	Liquid	As,Pb
025 std-0.20	13:17:06 Wed	Liquid	As,Pb
026 ICV-0.10	13:18:18 Wed	Liquid	As,Pb
027 BS-0.0005	13:20:03 Wed	Liquid	As,Pb
028 ICB	13:21:19 Wed	Liquid	As,Pb
029 54932.01 dil	13:22:33 Wed	Liquid	As,Pb
030 54932.01s	13:23:49 Wed	Liquid	As,Pb
031 54932.02s MS-0.05	13:25:06 Wed	Liquid	As,Pb
032 54932.03s MSD	13:26:23 Wed	Liquid	As,Pb
033 Rinse	13:27:44 Wed	Liquid	As,Pb
034 54932.04s	13:28:58 Wed	Liquid	As,Pb
035 54932.05s	13:30:17 Wed	Liquid	As,Pb
036 54932.06s	13:31:36 Wed	Liquid	As,Pb
037 54932.07s	13:36:28 Wed	Liquid	As,Pb
038 54932.08s	13:37:46 Wed	Liquid	As,Pb
039 54932.09s	13:39:04 Wed	Liquid	As,Pb
040 54932.10s	13:40:22 Wed	Liquid	As,Pb
041 54932.11s	13:41:40 Wed	Liquid	As,Pb
042 54932.12s	13:43:00 Wed	Liquid	As,Pb
043 CCV2-0.10	13:44:19 Wed	Liquid	As,Pb
044 CCB2	13:45:38 Wed	Liquid	As,Pb
045 54932.01s dis	13:47:11 Wed	Liquid	As,Pb
046 54932.02s dis MS-0.05	13:48:29 Wed	Liquid	As,Pb
047 54932.03s dis MSD	13:49:47 Wed	Liquid	As,Pb
048 Rinse	13:51:07 Wed	Liquid	As,Pb
049 54932.04s dis	13:52:22 Wed	Liquid	As,Pb
050 54932.05s dis	13:53:41 Wed	Liquid	As,Pb
051 54932.06s dis	13:58:15 Wed	Liquid	As,Pb
052 54932.07s dis	13:59:54 Wed	Liquid	As,Pb
053 54932.08s dis	14:01:14 Wed	Liquid	As,Pb

Form 13: Analysis Run Log

Data Set ID: MT2-12-1219A
Instrument ID: PE ELAN
Analysis Date: 12/19/12
Analyst: PER

Filename	*Run Time*	*Matrix*	*Analytes*
054 54932.09s dis	14:02:33 Wed	Liquid	As,Pb
055 54932.10s dis	14:03:52 Wed	Liquid	As,Pb
056 54932.11s dis	14:05:22 Wed	Liquid	As,Pb
057 54932.12s dis	14:06:54 Wed	Liquid	As,Pb
058 CCV3-0.10	14:09:07 Wed	Liquid	As,Pb
059 CCB3	14:12:04 Wed	Liquid	As,Pb
060 54932.05s	14:41:14 Wed	Liquid	As,Pb
061 54932.05s dis	14:42:35 Wed	Liquid	As,Pb
062 CCV3-0.10	14:43:55 Wed	Liquid	As,Pb
063 CCB3	14:45:15 Wed	Liquid	As,Pb

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, December 19, 2012 11:02:50
Sample Description:
Method File: C:\Elandata\Method\Daily-All.mth
Dataset File: C:\Elandata\DataSet\6020-200.8.tun\Daily Performance Check.2862
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Optimization File: C:\Elandata\Optimize\6020-200.8.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 55
Current Dead Time (ns): 55

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Li	7.0	19059.6	19059.592	432.289	2.3
	Be	9.0	5112.3	5112.312	50.617	1.0
	Mg	24.0	45432.9	45432.873	245.129	0.5
	Co	58.9	101370.0	101369.961	1077.785	1.1
	In	114.9	170561.6	170561.587	2163.315	1.3
	Tl	205.0	93191.6	93191.642	1049.784	1.1
	Pb	208.0	60813.5	60813.502	782.624	1.3
>	Ce	139.9	177002.7	177002.728	2022.391	1.1
	Ce++	70.0	1863.1	0.011	0.000	2.1
>	Ce-1	139.9	177002.7	177002.728	2022.391	1.1
	CeO	155.9	5691.4	0.032	0.001	1.8
	Bkgd	220.0	19.8	19.750	4.213	21.3

Current Optimization File Data

Current Value	Description
0.72	Nebulizer Gas Flow
9.00	Lens Voltage
1100.00	ICP RF Power
-2000.00	Analog Stage Voltage
1230.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-5.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	14.5	6350.2
Co	59	33	15.0	133264.7
In	115	33	15.0	202118.5

SmartTune Wizard - Summary

Optimization Summary

Wizard file: C:\Elandata\Wizard\SmartTune\12-1219A.swz

Start Time: 12/19/2012 10:55:28 AM
End Time: 12/19/2012 11:04:30 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
- Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.710)
- Target/Obtained mass (9.0122/8.929), Target/Obtained resolution (0.7/0.731)
- Target/Obtained mass (23.985/23.978), Target/Obtained resolution (0.7/0.693)
- Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.691)
- Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.714)
- Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.693)
- Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.688)

Daily Performance Check - [Passed] Optimum value(s): N/A
- Obtained Intensity (Be 9.0122): 5112
- Obtained Intensity (Bkgd 220): 20
- Obtained Intensity (Co 58.9332): 101370
- Obtained Intensity (In 114.904): 170562
- Obtained Intensity (Li 7.016): 19060
- Obtained Intensity (Mg 23.985): 45433
- Obtained Intensity (Pb 207.977): 60814
- Obtained Intensity (Tl 204.975): 93192
- Obtained Formula (CeO 155.9 / Ce 139.905): 0.032 (=5691 / 177003)
- Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=1863 / 177003)

SmartTune Wizard - Details

Optimization Details

Wizard file: C:\Elandata\Wizard\SmartTune\12-1219A.swz

Optimization Status

Start Time: 12/19/2012 10:55:28 AM

Mass Calibration and Resolution
Optimization Settings:
Method: C:\Elandata\Method\Tuning-All.mth.
Tuning File: C:\Elandata\Tuning\6020-200.8.tun
Iterations: 4
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 5
Optimization Results:
First Pass
Target/Obtained mass (7.016/7.128), Target/Obtained resolution (0.7/0.693) - <Target not achieved>
Target/Obtained mass (9.0122/9.029), Target/Obtained resolution (0.7/0.674)
Target/Obtained mass (23.985/23.978), Target/Obtained resolution (0.7/0.662)
Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.645)
Target/Obtained mass (114.904/114.929), Target/Obtained resolution (0.7/0.661)
Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.675)
Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.671)
[Failed]
Retry 1
Target/Obtained mass (7.016/6.978), Target/Obtained resolution (0.7/0.710)
Target/Obtained mass (9.0122/8.929), Target/Obtained resolution (0.7/0.731)
Target/Obtained mass (23.985/23.978), Target/Obtained resolution (0.7/0.693)
Target/Obtained mass (58.9332/58.929), Target/Obtained resolution (0.7/0.691)
Target/Obtained mass (114.904/114.879), Target/Obtained resolution (0.7/0.714)
Target/Obtained mass (204.975/204.979), Target/Obtained resolution (0.7/0.693)
Target/Obtained mass (207.977/207.979), Target/Obtained resolution (0.7/0.688)
[Passed] Optimum value(s): N/A

Daily Performance Check
Optimization Settings:
Method: C:\Elandata\Method\Daily-All.mth.
Intensity Criterion: Be 9.0122 > 1000
Intensity Criterion: Bkgd 220 <= 50
Intensity Criterion: Co 58.9332 > 10000
Intensity Criterion: In 114.904 > 40000
Intensity Criterion: Li 7.016 > 2500
Intensity Criterion: Mg 23.985 > 7000
Intensity Criterion: Pb 207.977 > 20000
Intensity Criterion: Tl 204.975 > 40000
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.05
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03
Optimization Results:
First Pass
Obtained Intensity (Be 9.0122): 5112
Obtained Intensity (Bkgd 220): 20
Obtained Intensity (Co 58.9332): 101370
Obtained Intensity (In 114.904): 170562

Obtained Intensity (Li 7.016): 19060
Obtained Intensity (Mg 23.985): 45433
Obtained Intensity (Pb 207.977): 60814
Obtained Intensity (Tl 204.975): 93192
Obtained Formula (CeO 155.9 / Ce 139.905): 0.032 (=5691 / 177003)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=1863 / 177003)
[Passed] Optimum value(s): N/A

End Time: 12/19/2012 11:04:30 AM

Form 15: Internal Standards Summary

IS Check Reference Sample: 019 blank

Data Set ID: MT2-12-1219A

Instrument ID: PE ELAN

Analysis Date: 12/19/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Y	387050	70-125	270935-483813	80-120	309640-464460	0
Rh	321677	70-125	225174-402096	80-120	257342-386012	0

Seq ID	QC Type	Y	Rh
019		100	100
020		99	100
021		101	101
022		107	106
023		105	104
024		103	103
025		102	100
026	ICV	106	104
027	BS	102	100
028	ICB	98	96
029	DIL	102	98
030	S	103	96
031	MS	100	93
032	MSD	101	94
033		103	101
034	S	101	93
035	S	103	81
036	S	115	97
037	S	108	98
038	S	109	99
039	S	106	99
040	S	106	97
041	S	108	96
042	S	108	99
043	CCV	111	108
044	CCB	105	103
045	S	107	99
046	MS	107	97
047	MSD	105	97
048		106	107
049	S	103	94
050	S	101	80
051	S	110	98
052	S	110	100
053	S	109	99
054	S	111	104
055	S	108	100

Form 15: Internal Standards Summary

IS Check Reference Sample: 019 blank

Data Set ID: MT2-12-1219A

Instrument ID: PE ELAN

Analysis Date: 12/19/12

Analyst: PER

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Y	387050	70-125	270935-483813	80-120	309640-464460	0
Rh	321677	70-125	225174-402096	80-120	257342-386012	0

Seq ID	QC Type	Y	Rh
056	S	111	98
057	S	113	104
058	CCV	116	113
059	CCB	113	110
060	S	111	94
061	S	112	96
062	CCV	118	115
063	CCB	112	110

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 001
Method: 02-As-Pb.mth
Acq Time: 12:16:04 Wed 19-Dec-12
Sample Name: blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	17.422	0	mg/L		3
Pb	208	43.333	0	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 002
Method: 02-As-Pb.mth
Acq Time: 12:17:20 Wed 19-Dec-12
Sample Name: std-0.00
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	28.620	0.000023	mg/L		3
Pb	208	56.667	0.000003	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 003
Method: 02-As-Pb.mth
Acq Time: 12:18:36 Wed 19-Dec-12
Sample Name: std-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	274.152	0.000543	mg/L		3
Pb	208	2243.610	0.000512	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 004
Method: 02-As-Pb.mth
Acq Time: 12:20:02 Wed 19-Dec-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	2410.493	0.004842	mg/L		3
Pb	208	22843.690	0.005029	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 005
Method: 02-As-Pb.mth
Acq Time: 12:21:27 Wed 19-Dec-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	10402.758	0.021475	mg/L		3
Pb	208	94875.849	0.021755	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 006
Method: 02-As-Pb.mth
Acq Time: 12:22:52 Wed 19-Dec-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	23709.185	0.049769	mg/L		3
Pb	208	221971.477	0.050144	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 007
Method: 02-As-Pb.mth
Acq Time: 12:24:15 Wed 19-Dec-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	91682.183	0.199301	mg/L		3
Pb	208	868848.843	0.199662	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 008
Method: 02-As-Pb.mth
Acq Time: 12:25:41 Wed 19-Dec-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 12/10/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	50508.404	0.104254	mg/L		3
Pb	208	463174.525	0.102657	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 009
Method: 02-As-Pb.mth
Acq Time: 12:27:11 Wed 19-Dec-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	91.735	0.000167	mg/L		3
Pb	208	165.835	0.000029	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 010
Method: 02-As-Pb.mth
Acq Time: 12:28:29 Wed 19-Dec-12
Sample Name: Solu-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	9960.687	0.021158	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 011
Method: 02-As-Pb.mth
Acq Time: 12:30:57 Wed 19-Dec-12
Sample Name: Solu-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	31.448	0.000025	mg/L		3
Pb	208	327.506	0.000057	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 012
Method: 02-As-Pb.mth
Acq Time: 12:32:15 Wed 19-Dec-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	235.331	0.000445	mg/L		3
Pb	208	2502.845	0.000529	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 013
Method: 02-As-Pb.mth
Acq Time: 12:33:32 Wed 19-Dec-12
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	515.834	0.000991	mg/L		3
Pb	208	5138.952	0.001072	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 014
Method: 02-As-Pb.mth
Acq Time: 12:34:51 Wed 19-Dec-12
Sample Name: ERA-8121-04
Sample Type: Sample
Matrix: Liquid
Comments: dil 5/1
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	87921.163	0.888489	mg/L		3
Pb	208	1707104.164	1.800143	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 015
Method: 02-As-Pb.mth
Acq Time: 12:36:08 Wed 19-Dec-12
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	48644.785	0.099598	mg/L		3
Pb	208	470992.887	0.101823	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 016
Method: 02-As-Pb.mth
Acq Time: 12:39:44 Wed 19-Dec-12
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib:
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	34.126	0.000035	mg/L		3
Pb	208	115.001	0.000015	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 017
Method: 02-As-Pb.mth
Acq Time: 12:55:41 Wed 19-Dec-12
Sample Name: 1219_2 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	23354.964	0.050055	mg/L		3
Pb	208	236970.550	0.051738	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 018
Method: 02-As-Pb.mth
Acq Time: 12:57:20 Wed 19-Dec-12
Sample Name: LRB_2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.002

Element	Mass		Concentration	Units	RSD %	Rep
As	75	50.153	0.000065	mg/L		3
Pb	208	135.834	0.000019	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 019
Method: 02-As-Pb.mth
Acq Time: 13:09:46 Wed 19-Dec-12
Sample Name: blank
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	43.832	0	mg/L		3
Pb	208	66.667	0	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 020
Method: 02-As-Pb.mth
Acq Time: 13:10:57 Wed 19-Dec-12
Sample Name: std-0.00
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	28.620	-0.000032	mg/L		3
Pb	208	70.834	0.000001	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 021
Method: 02-As-Pb.mth
Acq Time: 13:12:09 Wed 19-Dec-12
Sample Name: std-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	291.544	0.000513	mg/L		3
Pb	208	2542.856	0.000538	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 022
Method: 02-As-Pb.mth
Acq Time: 13:13:24 Wed 19-Dec-12
Sample Name: std-0.005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	2749.415	0.005340	mg/L		3
Pb	208	24669.262	0.005103	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 023
Method: 02-As-Pb.mth
Acq Time: 13:14:39 Wed 19-Dec-12
Sample Name: std-0.02
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	10853.773	0.021760	mg/L		3
Pb	208	103233.686	0.021795	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 024
Method: 02-As-Pb.mth
Acq Time: 13:15:53 Wed 19-Dec-12
Sample Name: std-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	25008.077	0.050995	mg/L		3
Pb	208	240906.264	0.050816	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 025
Method: 02-As-Pb.mth
Acq Time: 13:17:06 Wed 19-Dec-12
Sample Name: std-0.20
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	101237.384	0.200170	mg/L		3
Pb	208	946840.996	0.199739	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 026
Method: 02-As-Pb.mth
Acq Time: 13:18:18 Wed 19-Dec-12
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments: std made 12/10/12
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	52599.092	0.100737	mg/L		3
Pb	208	509580.352	0.101640	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 027
Method: 02-As-Pb.mth
Acq Time: 13:20:03 Wed 19-Dec-12
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	329.065	0.000564	mg/L		3
Pb	208	2657.889	0.000543	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 028
Method: 02-As-Pb.mth
Acq Time: 13:21:19 Wed 19-Dec-12
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	76.481	0.000068	mg/L		3
Pb	208	105.001	0.000008	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 029
Method: 02-As-Pb.mth
Acq Time: 13:22:33 Wed 19-Dec-12
Sample Name: 54932.01 dil
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 10

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	442.089	0.007880	mg/L		3
Pb	208	683.359	0.001262	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 030
Method: 02-As-Pb.mth
Acq Time: 13:23:49 Wed 19-Dec-12
Sample Name: 54932.01s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	1871.643	0.007186	mg/L		3
Pb	208	1555.967	0.000609	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 031
Method: 02-As-Pb.mth
Acq Time: 13:25:06 Wed 19-Dec-12
Sample Name: 54932.02s MS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	27120.151	0.109082	mg/L		3
Pb	208	221571.949	0.094614	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 032
Method: 02-As-Pb.mth
Acq Time: 13:26:23 Wed 19-Dec-12
Sample Name: 54932.03s MSD
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	27731.168	0.110588	mg/L		3
Pb	208	219715.181	0.093664	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 033
Method: 02-As-Pb.mth
Acq Time: 13:27:44 Wed 19-Dec-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	49.226	0.000009	mg/L		3
Pb	208	159.168	0.000020	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 034
Method: 02-As-Pb.mth
Acq Time: 13:28:58 Wed 19-Dec-12
Sample Name: 54932.04s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	3848.024	0.015279	mg/L		3
Pb	208	239.170	0.000074	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 035
Method: 02-As-Pb.mth
Acq Time: 13:30:17 Wed 19-Dec-12
Sample Name: 54932.05s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	3327.359	0.012951	mg/L		3
Pb	208	995.888	0.000618	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 036
Method: 02-As-Pb.mth
Acq Time: 13:31:36 Wed 19-Dec-12
Sample Name: 54932.06s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	10068.979	0.035184	mg/L		3
Pb	208	11467.230	0.005018	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 037
Method: 02-As-Pb.mth
Acq Time: 13:36:28 Wed 19-Dec-12
Sample Name: 54932.07s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	5118.787	0.019071	mg/L		3
Pb	208	410.009	0.000152	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 038
Method: 02-As-Pb.mth
Acq Time: 13:37:46 Wed 19-Dec-12
Sample Name: 54932.08s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	5214.246	0.019148	mg/L		3
Pb	208	476.679	0.000179	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 039
Method: 02-As-Pb.mth
Acq Time: 13:39:04 Wed 19-Dec-12
Sample Name: 54932.09s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	1235.008	0.004533	mg/L		3
Pb	208	262.504	0.000083	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 040
Method: 02-As-Pb.mth
Acq Time: 13:40:22 Wed 19-Dec-12
Sample Name: 54932.10s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	23895.585	0.090840	mg/L		3
Pb	208	1881.861	0.000789	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 041
Method: 02-As-Pb.mth
Acq Time: 13:41:40 Wed 19-Dec-12
Sample Name: 54932.11s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	437.229	0.001461	mg/L		3
Pb	208	1888.530	0.000827	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 042
Method: 02-As-Pb.mth
Acq Time: 13:43:00 Wed 19-Dec-12
Sample Name: 54932.12s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	9668.151	0.036177	mg/L		3
Pb	208	447.511	0.000162	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 043
Method: 02-As-Pb.mth
Acq Time: 13:44:19 Wed 19-Dec-12
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	55230.938	0.100598	mg/L		3
Pb	208	475131.258	0.098703	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 044
Method: 02-As-Pb.mth
Acq Time: 13:45:38 Wed 19-Dec-12
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	60.029	0.000027	mg/L		3
Pb	208	201.669	0.000030	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 045
Method: 02-As-Pb.mth
Acq Time: 13:47:11 Wed 19-Dec-12
Sample Name: 54932.01s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	1123.262	0.004068	mg/L		3
Pb	208	250.003	0.000079	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 046
Method: 02-As-Pb.mth
Acq Time: 13:48:29 Wed 19-Dec-12
Sample Name: 54932.02s dis MS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	28428.186	0.107669	mg/L		3
Pb	208	208762.370	0.091897	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 047
Method: 02-As-Pb.mth
Acq Time: 13:49:47 Wed 19-Dec-12
Sample Name: 54932.03s dis MSD
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	28896.390	0.111256	mg/L		3
Pb	208	206953.516	0.093432	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 048
Method: 02-As-Pb.mth
Acq Time: 13:51:07 Wed 19-Dec-12
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	66.970	0.000038	mg/L		3
Pb	208	188.335	0.000026	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 049
Method: 02-As-Pb.mth
Acq Time: 13:52:22 Wed 19-Dec-12
Sample Name: 54932.04s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	1481.590	0.005650	mg/L		3
Pb	208	260.004	0.000090	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 050
Method: 02-As-Pb.mth
Acq Time: 13:53:41 Wed 19-Dec-12
Sample Name: 54932.05s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	2402.569	0.009470	mg/L		3
Pb	208	232.503	0.000117	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 051
Method: 02-As-Pb.mth
Acq Time: 13:58:15 Wed 19-Dec-12
Sample Name: 54932.06s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	10411.597	0.038221	mg/L		3
Pb	208	1806.846	0.000781	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 052
Method: 02-As-Pb.mth
Acq Time: 13:59:54 Wed 19-Dec-12
Sample Name: 54932.07s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	2653.508	0.009598	mg/L		3
Pb	208	263.337	0.000087	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 053
Method: 02-As-Pb.mth
Acq Time: 14:01:14 Wed 19-Dec-12
Sample Name: 54932.08s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	2370.455	0.008632	mg/L		3
Pb	208	295.838	0.000103	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 054
Method: 02-As-Pb.mth
Acq Time: 14:02:33 Wed 19-Dec-12
Sample Name: 54932.09s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	1005.839	0.003490	mg/L		3
Pb	208	194.169	0.000054	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 055
Method: 02-As-Pb.mth
Acq Time: 14:03:52 Wed 19-Dec-12
Sample Name: 54932.10s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	2395.619	0.008815	mg/L		3
Pb	208	160.835	0.000041	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 056
Method: 02-As-Pb.mth
Acq Time: 14:05:22 Wed 19-Dec-12
Sample Name: 54932.11s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	433.058	0.001399	mg/L		3
Pb	208	1695.158	0.000770	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 057
Method: 02-As-Pb.mth
Acq Time: 14:06:54 Wed 19-Dec-12
Sample Name: 54932.12s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	2180.929	0.007634	mg/L		3
Pb	208	287.505	0.000097	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 058
Method: 02-As-Pb.mth
Acq Time: 14:09:07 Wed 19-Dec-12
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	58875.787	0.102981	mg/L		3
Pb	208	473565.868	0.098237	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 059
Method: 02-As-Pb.mth
Acq Time: 14:12:04 Wed 19-Dec-12
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	135.355	0.000155	mg/L		3
Pb	208	250.837	0.000040	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 060
Method: 02-as-pb.mth
Acq Time: 14:41:14 Wed 19-Dec-12
Sample Name: 54932.05s
Sample Type: Sample
Matrix: Liquid
Comments: dil Re not in compli
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	1253.421	0.011011	mg/L		3
Pb	208	412.509	0.000499	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 061
Method: 02-as-pb.mth
Acq Time: 14:42:35 Wed 19-Dec-12
Sample Name: 54932.05s dis
Sample Type: Sample
Matrix: Liquid
Comments: dil Re not in compli
Dilution: 5

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	1084.296	0.009360	mg/L		3
Pb	208	124.168	0.000094	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 062
Method: 02-as-pb.mth
Acq Time: 14:43:55 Wed 19-Dec-12
Sample Name: CCV3-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	60047.648	0.102656	mg/L		3
Pb	208	468953.450	0.097432	mg/L		3

Data Set: MT2-12-1219A
Run Date: 12/19/12

Metals Quantitation Summary Report

Analyst: PER
Instrument: PE ELAN

Sequence #: 063
Method: 02-as-pb.mth
Acq Time: 14:45:15 Wed 19-Dec-12
Sample Name: CCB3
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1

Operator:
Acq Mode: Data Acquisition
Cal Title: 12-1219A.cal
Cal Type: External Calibration
Last Calib: mtd-121912-2
Bkg File:
Int Correct:
Blank File: blank.027

Element	Mass		Concentration	Units	RSD %	Rep
As	75	83.382	0.000062	mg/L		3
Pb	208	226.670	0.000035	mg/L		3

Metals Digestion

(3015A) 3050B

DATE 12/19/12

TIME START 10:00

ANALYST AR

TIME FINISH 10:30

PREP BATCH MTD- 121912 - 2

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS - 2	----	50	50		—	1
LRB- 2	----	50	50		—	1
54932.01		25		TOT As-Pb		2
02 ms				TOT.		
03 msD						
04						
05						
06						
07						
08						
09						
10						
11						
12						
54932.01				Diss.		
02 ms						
03 msD						
04						
05						
06						
07						
08						
09						
10						
11						
12						

NOTES: *1) Spike values (unless otherwise stated):*
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078 + E2-SN02039

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 1225823

3) HNO_3 Lot # 51332 - OmniTrace

4) Centrifuge Tube Lot # 120726-060

5) Balance ID: m1

Reviewed by CAR *On* 01/02/13

Merit Laboratories Login Checklist

Lab Set ID: S54932
Client: HALEYALDRICH (Haley & Aldrich)
Project: 11950 Livonia Plant
Submitted: 12/13/2012 11:00 Login User: TSF

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	3.5C IR
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☒ Yes	☐ No	☐ N/A	Samples require laboratory filtration	Dissolved metals filtered and presereved in lab.
12.	☒ Yes	☐ No	☐ N/A	Completed pH checks on preserved samples? (no VOAs)	sample .06 pH adjusted see preservation sheet
13.	☒ Yes	☐ No	☐ N/A	Did any samples need to be preserved in the lab?	Dissolved metals filtered and presereved in lab.
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S54932 Initials: TF

Client: HALEYALDRICH (Haley & Aldrich)

Project: 11950 Livonia Plant

Submitted: 12/13/2012 11:00 Login User: TSF

Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Lab ID	125 ml Plastic HNO_3	125 ml Amber H_2SO_4	250 ml Plastic H_2SO_4	32 oz Glass HCl	125 ml Plastic NaOH	125 ml Amber NaOH	125 ml Amber $PbCO_3$ NaOH	pH					Notes
								<2	>12	other	ml add	new pH	
S54932.01	X							✓					
S54932.01	X							✓					
S54932.02	X							✓					
S54932.02	X							✓					
S54932.03	X							✓					
S54932.03	X							✓					
S54932.04	X							✓					
S54932.05	X							✓					
S54932.06	X									8	4	<2	
S54932.07	X							✓					
S54932.07	X							✓					
S54932.08	X							✓					
S54932.08	X							✓					
S54932.09	X							✓					
S54932.10	X							✓					
S54932.10	X							✓					
S54932.11	X							✓					
S54932.12	X							✓					

Sample Set Receipt

Report to
Attention: Susan Hoertt
Address: Haley & Aldrich, Inc.
8899 Gander Creek Dr.
Miamisburg, OH 45342

Phone: 937-530-1408 FAX:
Email: SHoertt@haleyaldrich.com

Invoice to
Attention: Monica Wallingford
Address: Racer Trust
2930 Ecorse Road
Ypsilanti, MI 48198

Phone: 313-486-2928 FAX: 248-594-4829
Email: mwallingford@racertrust.org

Set ID: S54932 Location: HALEYALDRICH (Haley & Aldrich)
Project: 11950 Livonia Plant PO #: PO120706 QC Level: 3
Submitted: 12/13/2012 Due Date: 12/27/2012 Collected by: M.CastlesHumphrey Login by: TSF
Approved by: Site: 1195 Work Order#: Task #2 Bill to Acct: Bill to Dept:

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S54932.01	TW105(12-10-2012)(1415)	Groundwater	12/10/2012 14:15	82162
S54932.02	TW105(12-10-2012)(1415) MS	Groundwater	12/10/2012 14:15	82162
S54932.03	TW105(12-10-2012)(1415) MSD	Groundwater	12/10/2012 14:15	82162
S54932.04	TW135(12-10-2012)(1600)	Groundwater	12/10/2012 16:00	82162
S54932.05	TW129(12-11-2012)(1305)	Groundwater	12/11/2012 13:05	82162
S54932.06	TW152(12-11-2012)(1410)	Groundwater	12/11/2012 14:10	82162
S54932.07	TW158(12-11-2012)(1610)	Groundwater	12/11/2012 16:10	82162
S54932.08	DUP-01(12-11-2012)	Groundwater	12/11/2012 00:01	82162
S54932.09	TW101(12-12-2012)(1100)	Groundwater	12/12/2012 11:00	82162
S54932.10	TW124(12-12-2012)(1340)	Groundwater	12/12/2012 13:40	82162
S54932.11	TW137(12-12-2012)(1445)	Groundwater	12/12/2012 14:45	82162
S54932.12	TW139(12-12-2012)(1650)	Groundwater	12/12/2012 16:50	82162

Samples: S54932.01-03, 07-08, 10

Analysis Code	Analysis Title	Method	Units	Holding Date
2165WMS	Lead	E200.8	mg/L	06/08/2013
2165DIS	Lead, Dissolved	E200.8	mg/L	06/08/2013
2115WMS	Arsenic	E200.8	mg/L	06/08/2013
2115DIS	Arsenic, Dissolved	E200.8	mg/L	06/08/2013
1605W	Metal Digestion	3015A		06/08/2013
1605DIS	Metal Digestion, Dissolved Metals	3015A		06/08/2013

Samples: S54932.04, 06, 12

Analysis Code	Analysis Title	Method	Units	Holding Date
2115WMS	Arsenic	E200.8	mg/L	06/08/2013
2115DIS	Arsenic, Dissolved	E200.8	mg/L	06/08/2013
1605W	Metal Digestion	3015A		06/08/2013
1605DIS	Metal Digestion, Dissolved Metals	3015A		06/08/2013

Samples: S54932.05, 09, 11

Analysis Code	Analysis Title	Method	Units	Holding Date
2165WMS	Lead	E200.8	mg/L	06/09/2013
2165DIS	Lead, Dissolved	E200.8	mg/L	06/09/2013
1605W	Metal Digestion	3015A		06/09/2013
1605DIS	Metal Digestion, Dissolved Metals	3015A		06/09/2013

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

82162

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Susan Hoertt
COMPANY: Haley + Aldrich, Inc.
ADDRESS: 8899 Gander Creek Drive
CITY: Dayton STATE: OH ZIP CODE: 45342
PHONE NO.: 937.530.1408 FAX NO.: 937.530.1458 P.O. NO.: 120706
E-MAIL ADDRESS: SHoertt@haleyaldrich.com/MSultaneK@haleyaldrich.com QUOTE NO.: 01

INVOICE TO

CONTACT NAME: Bill to Monica Wallingford ☐ SAME
COMPANY: RACER Trust
ADDRESS: 2930 Ecorse RD
CITY: Ypsilanti STATE: MI ZIP CODE: 48198
PHONE NO.: 313.486-2928 E-MAIL ADDRESS: mwallingford@racertrust.org

PROJECT NO./NAME: 11950 Livonia Plant
SAMPLER(S) - PLEASE PRINT/SIGN NAME: M. Castles-Humphrey

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☐ EDD ☒ OTHER EQuIS EDD

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other "*" filtered by lab

MERIT LAB NO. FOR LAB USE ONLY	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	Total Pb	Dissolved Pb *	Total As	Dissolved As *	Special Instructions
54932.01/04/05	12/10/12	14:15	TW105(12-10-2012)(1415)	WG	12	6	6	6					X	X	X	X	extra for MS/MSD
.04	12/10/12	16:00	TW135(12-10-2012)(1600)	WG	2	1		1							X	X	Normal
.05	12/11/12	13:05	TW129(12-11-2012)(1305)	WG	2	1		1					X	X			Normal
.06	12/11/12	14:10	TW152(12-11-2012)(1410)	WG	2	1		1							X	X	Normal
.07	12/11/12	16:10	TW158(12-11-2012)(1610)	WG	4	2		2					X	X	X	X	Normal
.08	12/11/12	—	DUP-01(12-11-2012)	WG	4	2		2					X	X	X	X	Normal
.09	12/12/12	11:00	TW101(12-12-2012)(1100)	WG	2	1		1					X	X			Normal
.10	12/12/12	13:40	TW124(12-12-2012)(1340)	WG	4	2		2					X	X	X	X	Normal
.11	12/12/12	14:45	TW137(12-12-2012)(1445)	WG	2	1		1					X	X			Normal
.12	12/13/12	16:50	TW134(12-12-2012)(1650)	WG	2	1		1							X	X	Normal

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Sampler / Haley+Aldrich	DATE 12/13/12	TIME 09:55
RECEIVED BY: SIGNATURE/ORGANIZATION	Isabel Wu	DATE 12/13/12	TIME 955
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Isabel Wu	DATE 12/13/12	TIME 1100
RECEIVED BY: SIGNATURE/ORGANIZATION	Talbolton Faust	DATE 12/13/12	TIME 1100
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

NOTES: TEMP. ON ARRIVAL 3.5

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

APPENDIX E

Videotape Recordings – Internal Inspections of Trenches/Process Lines (DVDs)